

Her ortamda
mükemmel konfor

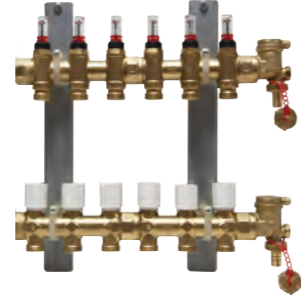


YERDEN ISITMA SİSTEMLERİ



R553F Debi Göstergeli Pirinç Kollektör
Brass Manifold With Dynamic Flow Balancing

Max. Çalışma Basıncı: 10 bar
Sıcaklık Aralığı: 5-110° C - Gidiş Kollektörü debimetrelili (0,5-5 l/dk) ve debi ayarlı
Dönüş Kollektörü: Aktüatör takmaya uygun manuel vanalı
Askı kelepçeleri dahil



R583FK Debi Göstergeli Pirinç Kollektör (Modüler)
Modular Brass Manifold With Flow Meters For HVAC Systems

Max. Çalışma Basıncı: 6 bar
Sıcaklık Aralığı: 5-70° C - Gidiş Kollektörü (R583M) debimetrelili (0,5-5 l / dk) ve debi ayarlı
Dönüş Kollektörü (R583V): aktüatör takmaya uygun manuel vanalı
Askı kelepçeleri dahil
Gidiş ve dönüş kolektörleri 2 ağızlı, 3 ağızlı ve 4 ağızlı parçaların birleşimi ile oluşturulur.



K376 Şap Katkı Maddesi
Fluidifying Additive For Screed

10 kg.



R500 Sıvı Altı Kollektör Dolabı
Flush-mounting Cabinet For Manifold

Ölçü / Size: Tip 1 - Type 1: 600*700*110 mm
Tip 1 - Type 2: 800*700*110 mm
Tip 3 - Type 3: 1.000*700*110 mm
Tip 4 - Type 4: 1.200*700*110 mm



R553FS Debi Göstergeli Paslanmaz Kollektör
Stainless Steel Manifold With Dynamic Flow Balancing

Max. Çalışma Basıncı: 6 bar
Sıcaklık Aralığı: 5-70° C - Gidiş Kollektörü debimetrelili (0-2-5 l/dk) ve debi ayarlı
Dönüş Kollektörü: Aktüatör takmaya uygun manuel vanalı
Askı kelepçeleri dahil



R996G PE-Xa Boru
PE-Xa Pipe

Multi Oksijen Bariyerli 16 x 2 mm, 600 m Kangal, Kırmızı



R259D Kelebek Kollu Rekorlu Küresel Kesme Vanası
Ball Valve, Female-tail Piece Male Connections

Basınç Sınıfı / Pressure Range: PN25
Gövde / Body: Pirinç/Brass
Ölçü / Size: 1"
Rekorlu



PM100P Kontrol Ünitesi
Control unit



R473M Aktüatör
Actuator

230 V



K494 Dijital Oda Termostatı
Digital Room Thermostat



R978 PE-RT Boru
PE-RT Pipe

Multi Oksijen Bariyerli 16 x 2 mm, 600 m Kangal, Kırmızı



Mavi/Kırmızı Kılıflı PE-Xa Boru
Blue/Red PE-Xa Pipe

16 x 2 mm, 600 m Kangali



R402 Motorlu Vana Gövdesi
Straight Valve

Basınç Sınıfı / Pressure Range: 16 bar
Maksimum Fark Basıncı / Max. Differential Pressure for thermostatic heads: 1,4 bar (3/8" - 1/2"); 0,7 bar (3/4"); 0,4 bar (1")
Gövde / Body: Pirinç/Brass
Ölçü / Size: 1"



R549P Kavis Dirsek
Bend Support

16-18 mm



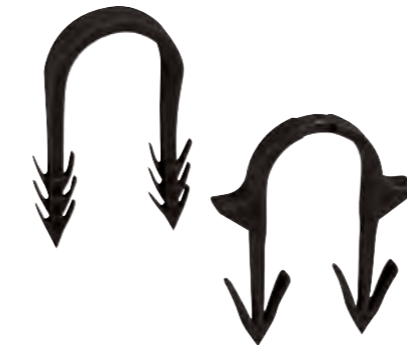
R979G İzolasyon Plakası
Insulation Panel

1200 X 600 x 40 mm



K369A Kenar İzolasyon Bandı
Wall Edging Strip

Ölçü / Size: 150 x 8 mm - 250 x 8 mm
Rulo Uzunluğu / Roll Length: 50 m



R983 Sabitleyici Çengel
Fixing Clip



R179E Boru Bağlantı Rakoru
Pipe Connection Union

16x2,0 mm - 3/4" İD / Nikel Kaplı

En Prestijli, Güncel Projelerin Tercihi Unival Oldu



HALKBANK KULESİ



ZİRAAT BANKASI KULELERİ



İŞ BANKASI BİNASI



MERKEZ BANKASI BİNASI



ÖZEL PROJE ALANI BİNALARI



SPK BİNALARI



VAKIFBANK KULELERİ

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HVAC ÜRÜNLER



R580 Piriç Küresel Vana
Brass Ball Valve

Basınç Sınıfı / Pressure Rating: PN25
Cövde / Body: Krom Kaplı Piriç / Chrome Plated Brass
Küre / Ball: Krom Kaplı Piriç / Chrome Plated Brass
Kol / Handlever: Çelik / Carbon Steel
Ölçü / Size: 1/2"-4"



R50T Piriç Küresel Vana
Brass Ball Valve

Basınç Sınıfı / Pressure Rating: PN25
Cövde / Body: Krom Kaplı Piriç / Chrome Plated Brass
Küre / Ball: Krom Kaplı Piriç / Chrome Plated Brass
Kol / Handlever: Çelik / Carbon Steel
Ölçü / Size: 1/2"



R51TH İzolasyon Boyunlu
Piriç Küresel Vana
Extendend Stem Brass Ball Valve

Basınç Sınıfı / Pressure Rating: PN25
Cövde / Body: Krom Kaplı Piriç / Chrome Plated Brass
Küre / Ball: Krom Kaplı Piriç / Chrome Plated Brass
Kol / Handlever: Kompozit / Composite
Ölçü / Size: 1/2"



R250DS Küresel Kosva Vana
Kosva Ball Valve

Basınç Sınıfı / Pressure Rating: PN25
Cövde / Body: Krom Kaplı Piriç / Chrome Plated Brass
Küre / Ball: Krom Kaplı Piriç / Chrome Plated Brass
Kol / Handlever: Çelik / Carbon Steel
Ölçü / Size: 1/2"



BAV-0104 Mini Küresel Vana
Brass Ball Valve

Basınç Sınıfı / Pressure Rating: PN16
Cövde / Body: Nikel Kaplı Piriç / Nickel Plated Brass
Küre / Ball: Krom Kaplı Piriç / Chrome Plated Brass
Kol / Handlever: Plastik / Plastic
İç Dişli X Diş Dişli Bağlantı / Female X Male
Ölçü / Size: 1/2" - 3/4"



STR-0101 Piriç Pislik Tutucu
Strainer

Basınç Sınıfı / Pressure Rating: PN16
Cövde / Body: Piriç / Brass
Filtre / Screen: Paslanmaz Çelik / Stainless Steel
Kapak / Cover: Piriç / Brass
Ölçü / Size: 1/2" - 1"



CHE-0102 Piriç Yaylı Çek Vana
Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Cövde / Body: Piriç / Brass
Ölçü / Size: 1/2" - 1"



CHE-0101 Piriç Çalpara Çekvalf
Clapper Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Cövde / Body: Piriç / Brass
Kılap / Disk: Piriç / Brass
Kapak / Cover: Piriç / Brass
Ölçü / Size: 1/2" - 1"

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Tel: +90 216 593 38 38 Faks: +90 216 593 24 11 E-posta: info@unites.com.tr Web: www.unival.com.tr





R55 Pirinç Şiber Vana
Brass Gate Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Klape / Disk: Pirinç / Brass
Ölçü / Size: 1/2"-2"



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R881 Otomatik Purjör
Automatic Air Vents Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Ölçü / Size: 1/2"-2"



Bav-0201 Tam Geçişli Küresel Vana
Full Port Ball Valve

Basınç Sınıfı / Pressure Rating: PN10 / PN16
Gövde / Body: Dökme Demir / Cast Iron
Küre / Ball : Paslanmaz Çelik / Stainless Steel
Conta / Gasket: PTFE
2 Parçalı Flanşlı / 2 Pcs Flanged
Ölçü / Size: DN15-DN300



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BAV-0202 Tam Geçişli Küresel Vana
Full Port Ball Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Dökme Demir / Cast Iron
Küre / Ball : Paslanmaz Çelik / Stainless Steel
Conta / Gasket: PTFE
3 Parçalı Flanşlı / 3 Pcs Flanged
Ölçü / Size: DN15-DN250



CHE-0301 Yaylı Çek Vana
Lift Type Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Sfero Döküm / Ductile Iron
Kapak / Bonnet: Sfero Döküm / Ductile Iron
Klape / Seat: Paslanmaz Çelik / Stainless Steel
Flanşlı / Flanged
Ölçü / Size: DN15-DN200

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Che-0601 Disk Tipi Çek Vana
Disc Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Sfero Döküm / Ductile Iron
Disk / Disc: Paslanmaz Çelik / Stainless Steel (DN40-DN100)
Disk / Disc: Sfero Döküm / Ductile Iron (DN125-DN200)
Ölçü / Size: DN40-DN200



REJ-0903 Kauçuk Kompansatör
Rubber Expansion Joint

Basınç Sınıfı / Pressure Rating: PN16
Malzeme / Material: Çelik Tel Takviyeli Epdm / Steel Wire + Epdm
Flanş / Flange: Sfero Döküm / Ductile Iron
Ölçü / Size: DN32-DN300



OR Koç Darbesi Önleme Vanası (Or)
Water Hammer Damper

Basınç Sınıfı / Pressure Rating: PN25
Gövde / Body: Pirinç / Brass
Ölçü / Size: 1/2"



R623 Geri Akış Önleyici
Dual-check Backflow Preventer

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Ölçü / Size: 3/4"-1"



R150 Otomatik Doldurma Vanası
Filling Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Ölçü / Size: 1/2"



BAV-0301 Flanşlı Küresel Doğalgaz Vanası
Gas Ball Valve

Basınç Sınıfı / Pressure Rating: MOPS / PN25
Gövde / Body: Sfero Döküm / Ductile Iron
Küre / Ball : Paslanmaz Çelik / Stainless Steel
Conta / Gasket: PTFE
3 Parçalı Flanşlı / 3 Pcs Flanged
Ölçü / Size: DN65-DN200



STR-0201 Pislik Tutucu
Strainer

Basınç Sınıfı / Pressure Rating: PN16 / PN25
Gövde-Kapak / Body-Bonnet: Pk Döküm / Cast Iron
Sfero Döküm / Ductile Iron - Boşaltma Tapalı / With Drain Plug
Filtre / Screen: Paslanmaz Çelik / Stainless Steel
Kapak / Cover: Boşaltma Tapalı / With Drain Plug
Conta / Gasket: EPDM
Flanşlı / Flanged
Ölçü / Size: DN15-DN600



CHE-1001 Disk Tipi Çek Vana
Disc Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Disk / Disc: Paslanmaz Çelik / Stainless Steel
Yay / Spring: Paslanmaz Çelik / Stainless Steel
Water Tip / Wafer Type
Ölçü / Size: DN15-DN100



Che-1010 Çalpara Çek Vana
Swing Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Çelik Döküm / Cast Steel
Disk / Disc: Paslanmaz Çelik / Stainless Steel
Ölçü / Size: DN50-DN300



Pirinç Basınç Düşürücü
Pressure Reducing Valves

Basınç Sınıfı / Pressure Rating: PN25
Gövde / Body: Pirinç / Brass
Ölçü / Size: 3/4"-4"



Giacomini Fark Basınç Kontrol Vanası
Differential Pressure Controller

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Membrane: Güçlendirilmiş Epdm
Epdm With Nylon Reinforcement
Fark Basınç Aralıkları/ Differential Pressure Range:
"L" Setting = 5+30 kPa; "H" Setting = 25+60 kPa
Ölçü / Size: 1/2"-2"



R140 Emniyet Ventili
Safety Valve

2,5 BAR-3 BAR-3,5 BAR- 4 BAR- 6 BAR

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Ölçü / Size: 1/2"-1 1/4"



R147 Fark Basınç Vanası
Differential Pressure Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Ölçü / Size: 3/4"



GAV-0301 Sürgülü Vana
Gate Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Sfero Döküm / Ductile Iron
Disk: Elastomer Kaplı Sfero Döküm / Elastomeroated Ductile Iron
Mil / Stem: Paslanmaz Çelik / Stainless Steel
Flanşlı / Flanged
Ölçü / Size: DN50-DN400



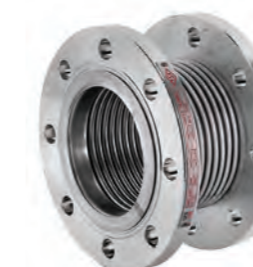
UGV-0301 Glob Vana
Globe Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Sfero Döküm / Ductile Iron
Kapak / Bonnet: Sfero Döküm / Ductile Iron
Klape / Seat: Paslanmaz Çelik / Stainless Steel
Salmastra / Packing: Grafit / Graphite
Flanşlı / Flanged
Ölçü / Size: DN15-DN250



CHE-1005 Çift Klapeli Disk Çek Vana
Dual Plate Check Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pk Döküm / Cast Iron
Disk / Disc: Paslanmaz Çelik / Stainless Steel
Yay / Spring: Paslanmaz Çelik / Stainless Steel
Water Tip / Wafer Type
Ölçü / Size: DN40-DN500



UEJ-0901 Döner Flanşlı Metal Kompansatör
Metal Expansion Joint

Basınç Sınıfı / Pressure Rating: PN16 / PN25
Körük / Bellow: Paslanmaz Çelik / Stainless Steel
Flanş / Flange: Karbon Çelik / Carbon Steel
Genleşme / Expansion: 30 mm / 60 mm Flange
Ölçü / Size: DN25-DN300



Flowcon Kombine Balans Vanası
Pressure Independent Control Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pirinç / Brass
Kartuş / Cartridge: Kompozit (Ayarlanabilir) / Composite (Adjustable)
Ölçü / Size: 1 1/4"



IFH-1001 İzoleli Fan Coil Hortumu
Örgülü / Örgüsüz
FLEXIBLE HOSE FOR FCU Braided-Unbraided

Basınç Sınıfı / Pressure Rating: PN2,5 / PN25
Hortum / Hose: Paslanmaz Çelik / Stainless Steel
Örgü / Braid: Paslanmaz Çelik / Stainless Steel
Başlıklar / Nipple: Karbon Çelik / Paslanmaz Çelik (Opsiyonel) / Carbon Steel / Stainless Steel (Optional) Rakor X Nipel (Diğer Bağlantılar (Opsiyonel) / Nipple X Union (Other Connections (Optional))
Ölçü / Size: 1/2"-3/4"-1"



Wafer Kelebek Vana
Wafer Butterfly Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Dökme Demir / Cast Iron
Klape / Disc: Nikel Kaplı Sfero Döküm / Nickel Plated Ductile Iron Paslanmaz Çelik / Stainless Steel
Conta / Gasket: EPDM
El kumandalı / Hand Lever: DN40-DN200
Dişli kutulu / Gear Box: DN250-DN300
Ölçü / Size: DN40-DN200



Lug Tipi Kelebek Vana
Lug Type Butterfly Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Dökme Demir / Cast Iron
Klape / Disc: Nikel Kaplı Sfero Döküm / Nickel Plated Ductile Iron Paslanmaz Çelik / Stainless Steel
Conta / Gasket: EPDM
El kumandalı / Hand Lever: DN40-DN200
Dişli kutulu / Gear Box: DN250-DN300
Ölçü / Size: DN40-DN200



DRV-0201 Statik Balans Vanası
Static Balance Valve

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Dökme Demir / Cast Iron
Klape / Disk: Paslanmaz Çelik-EPDM kaplı
Stainless Steel / EPDM Coated
Conta / Gasket: EPDM
Flanşlı / Flanged
Ölçü / Size: DN50-DN300



R206B Statik Balans Vanası
Static Balancing Valve

Basınç Sınıfı / Pressure Rating: PN25
Gövde / Body: Bronz / Bronze
Ölçü / Size: 1/2"-2"



UTY-0911 Flanşlı Limit Rodlu Titreşim Yutucu
Metal Vibration Absorber

Basınç Sınıfı / Pressure Rating: PN16 / PN25
Körük / Bellow: Paslanmaz Çelik / Stainless Steel
Flanş / Flange: Karbon Çelik / Carbon Steel
Genleşme / Expansion: 30 mm - Flanşlı
Limit Rodlar / Rods: Karbon Çelik / Carbon Steel
Ölçü / Size: DN25-DN250



UDJ-0901 Dilatasyon ve Sismik Kompansatörü (Kaynaklı)
Sismic Expansion Joint

Basınç Sınıfı / Pressure Rating: PN16
Körük / Bellow: Paslanmaz Çelik / Stainless Steel
Boru / Pipe: Karbon Çelik / Carbon Steel
Bağlantı / Connection: Flanşlı, Kaynaklı, Diği, Yivli / Flanged, Welded, Screwed, Grooved
Ölçü / Size: DN32-DN3250



1 / 2023



RACCORDERIE METALLICHE

raccorderiemetalliche.com



UNITES

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www.unites.com.tr



plumbing & heating division
tesisat ve ısıtma



marine systems division
deniz sistemleri

Anahtar / Key

Renk Kodu / Color Code



Ağırlık / Weight
Adet / Piece



Adetler / Pieces
Kutu / Box



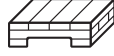
Metre başına ağırlık
Weight per meter



Adetler / Pieces
Torba / Bag



Ağırlık / Weight
Adet / Piece



Adetler / Pieces
Palet / Pallet

Pres bağlantı sistemleri

Press fitting systems

color
CODE

Atık sistemleri

Waste systems

color
CODE

Paslanmaz çelik kaynak ve dişli parçaları

Stainless steel welding and threaded fittings

color
CODE



“Özellikle presli bağlantı parçası kullanımına önem vererek kurulumcuların hızlı, güvenli ve uygun bir şekilde çalışmasına yardım ediyor, her gün yenilikçi ürün ve süreç çözümleri üzerinde çalışıp uygulamalar yapıyoruz.”

We constantly offer innovative solutions in terms of both product and process and take the use of press fitting systems into particular consideration; these solutions allow fitters to work rapidly, safely and suitably.”

Cav. Lav. Pier Luigi CECCARDI,
Raccorderie Metalliche'nin Kurucusu ve Başkanı
Founder and President of Raccorderie Metalliche



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- 3** Teklif sistemi • Offer system
- 4** Ticari yapı
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Raccorderie Metalliche

Onaylı Şirket

Certified Company


UNI-EN ISO 9001:2015

UNI-EN ISO 14001:2015

ISO 45001-2018-2021


Şirket profili

Raccorderie Metalliche 1970 yılından bu yana Avrupa'daki **inşaat ve endüstriyel tesisat ve ısıtma sektöründe** tesis mühendisliği malzemesi üreticileri arasında son derece önemli bir yere sahiptir. 2014 yılından bu yana **denizcilik sektöründe** presli bağlantı parçası sistemleri, çelik egzoz sistemleri, kaynaklı ve dişli bağlantı parçaları ve tespit sistemlerini aynı anda sunabilen tek operatör olarak faaliyet göstermektedir.

390 çalışandan oluşan şirket, her gün Raccorderie Metalliche misyonunu gerçekleştiriyor.

"Özellikle presli bağlantı parçası kullanımına önem vererek kurulumcuların hızlı, güvenli ve uygun bir şekilde çalışmasına yardım ediyor, her gün yenilikçi ürün ve süreç çözümleri üzerinde çalışıp uygulamalar yapıyoruz."

Pier Luigi CECCARDI,

Raccorderie Metalliche'nin Kurucusu ve Başkanı

Dünyadaki varlığımız

Raccorderie Metalliche İtalya'da toplam 93.000 metrekareden fazla iki üretim sahası ve 3 yabancı ticari şubesiyle [Almanya, Fransa ve İspanya] dünya genelinde 60 ülkede dağıtım garantisi sağlamaktadır.

- ▶ **InoxPRES S.A. [İspanya ve Portekiz]:** bölgesi genelinde boru ve bağlantı parçalarının pazarlanması.
- ▶ **RM Pressfitting GmbH [Almanya]:** bölgesindeki reklamcı ekibiyle ticari geliştirme ve koordinasyon.
- ▶ **RaccorderieMetalliche FRANCESARL [Fransa]:** Fransa'daki satış yapısıyla ticari geliştirme ve koordinasyon.

Önemli noktalar

Raccorderie Metalliche'nin başarısı birden fazla faktöre dayanır: bilgi, kalite, geniş ürün yelpazesi ve müşteriye verilen büyük önem.

- ▶ **Sürekli araştırmalar ve yenilikçi çözüm geliştirmeleri,** dünyada **ilk kez kaynaklı karbon çeliğinden presli bağlantı noktası T parçası** yapılabilmesini sağlamıştır.
- ▶ **Sürekli kalite kontrolleri ve geliştirmeleri,** yüksek kalite standardı sağlamıştır.
- ▶ **Yönetim sistemlerinin faaliyetleri,** çevre ve iş güvenliği açısından sertifikalandırılmıştır.
- ▶ Ürünler depolarımızda sürekli olarak **mevcut ve izlenebilir durumdadır.**
- ▶ Tasarımcıların çalışmalarını için **destek ve tavsiye** sağlayan teknisyenler.
- ▶ Ortaklarımızla aramızdaki **şeffaflık, dürüstlük ve karşılıklı saygı,** yüksek hizmet standartlarına ulaşmamıza olanak sağlar.
- ▶ **Sürekli eğitim ve güncelleme faaliyetleri,** kurulumcuların profesyonel anlamda gelişmesine yardımcı olur.
- ▶ Bizim de gelişmemizi sağlayan farkı yaratan şeyin insanlar olduğuna inanarak **sosyal konulara özellikle önem veriyoruz.**

İlgili veriler

Aralık 2021 itibariyle

- ▶ **RM Toplam alan** **93.000 m²**
- ▶ **RM Kapalı alan** **58.000 m²**
- ▶ **Çalışan sayısı** **390 kişi**
- ▶ **İtalya cirosu** **37%**
- ▶ **İthalat cirosu** **63%**
- ▶ **Varlık** **60'tan fazla ülkede**
- ▶ **Katalogdaki ürün sayısı** **5.862**
- ▶ **Patentler** **5**
- ▶ **Ürün sertifikaları** **100**

Company profile

Since 1970, Raccorderie Metalliche is a leading manufacturer in the European **civil & industrial plumbing sector** landscape. Since 2014 we are present in the **shipbuilding sector** and the only one in the market being in a position to offer press fitting systems, steel wastewater systems, welding fittings, threaded fittings and fastening systems, at the same time.

Every day, **390 employees** are committed to fulfil Raccorderie Metalliche's mission.

We constantly offer innovative solutions in terms of both product and process and take the use of press fitting systems into particular consideration; these solutions allow fitters to work rapidly, safely and suitably."

*Pier Luigi CECCARDI,
Founder and President of Raccorderie Metalliche*

Our Presence in the World

Raccorderie Metalliche has two production plants in Italy, extending over an area of more than 93.000 sq. m, as well as 3 branch offices in foreign Countries (Germany, France and Spain) ensuring the distribution of our products in more than 60 Countries of the world.

- **InoxPRES S.A. (Barcelona, Spain):**
marketing of pipes and fittings in the whole Spanish and portuguese territory.
- **RM Pressfitting GmbH (Munich, Germany):**
trade development and coordination of our team of promoters in Germany.
- **Raccorderie Metalliche FRANCE SARL (Lyon, France):**
trade development and coordination of our sales structure in France.

Key Points

Raccorderie Metalliche's success is the result of several factors: knowledge, quality, a wide range of products, particular ability to understand customer requirements.

- **Continuous research and development of innovative solutions** allowing us to be the first Company producing a seamless carbon steel **pressfitting Tee**.
- **Continuous quality control and improvement** resulting in a high quality level.
- **Certification of activities managing systems** in conformity with environment and workers' safety regulations.
- **Constant availability and traceability** of products in our warehouses.
- **Technicians collaborating with and giving advice** to the design engineers.
- **Fairness, transparency and mutual respect** between the partners to provide our customers with the best possible service.
- **Constant training and update** in order fitters to continue their professional development.
- **Particular attention to social issues**, because we think that people make the difference, which is the key ingredient for evolution.

Highlights

Updated on December 2021

➤ RM total area	93.000 sq.m
➤ RM covered area	58.000 sq.m
➤ Human resources	390 people
➤ Domestic sales	37%
➤ Export sales	63%
➤ Presence	in over 60 countries
➤ Item on catalog	5.862
➤ Patents	5
➤ Products certifications	100

Pres, Bağlantı, Yenilik!

İtalya'da üretilen Raccorderie Metalliche sistemleri aşağıdaki şekilde ayrılır:

Sistemi **Pressfitting**

inoxPRES®

Paslanmaz çelik AISI 316L

steelPRES®

Karbon çeliği E195

MARINE PRES®

Nikel bakırı 90/10

AES PRES®

Bakır Cu-DHP 99.9 / Bronz
CuSn5Zn5Pb2-C / CC449K

Raccorderie Metalliche Presli Bağlantı Parçası Sistemleri bağlantı parçalarından, borulardan* ve ekipmanlardan oluşur.

Çözümlerimiz genel olarak içme suyu, yangın önleme, iklimlendirme, basınçlı hava ve sıvı taşıma sistemleri için tasarlanmıştır.

**PN16'YA KADAR ÇALIŞMA BASINCI.
15 mm ila 162 mm ARASINDA ÇAPLAR MEVCUTTUR.**

Tüm ürünler, her bir parçanın her durumda tanımlanabilmesine olanak sağlayan bir izleme sürecine tabidir.

Drenaj Sistemleri

DRAIN beyaz, gri ve siyah atık suların taşınması için AISI 316L paslanmaz çelik borulardan ve bağlantı parçalarından oluşan tak-çalıştır bir sistemdir; hem yerçekimi hem de vakumlu drenaj ağlarının sağlanmasında ideal çözümdür.

Bağlantı sistemleri, kaynaklı/dişli bağlantı parçaları, flanşlar

Bağlantı sistemlerimiz, kaynaklı ve dişli bağlantı parçalarımız, flanşlarımız, her türden sistem için tüm ihtiyaçları tamamen karşılayan komple bir ürün gamını temsil eder.

*AesPRES® sistemi hariç

Raccorderie Metalliche Systems **produced in Italy** are divided as follows:

Pressfitting Systems

inoxPRES® Stainless steel AISI 316L

steelPRES® Carbon steel E195

MARINE PRES® Copper-nickel 90/10

AES PRES® Copper Cu-DHP 99.9 / Bronze CuSn5Zn5Pb2-C / CC449K

Press, Push, Innovate!

Raccorderie Metalliche Pressfitting Systems include fittings, piping* and tools. Raccorderie Metalliche Pressfitting Systems are designed for multiple application fields: distribution systems of drinking water, fire protection systems, air conditioning, compressed air, and fluid transport systems in general.

**WORKING PRESSURE UP TO PN16.
AVAILABLE FROM 15 mm TO 168 mm.**

All products follow a traceability process which allows each and every component to be identified.

Waste Systems

DRAIN is a push-fit system composed of pipes and fittings in AISI 316L stainless steel for the transport of white, grey and black wastewater; the ideal solution for the construction of gravity and vacuum drainage networks.

Fastening, welding / threaded fitting systems, flanges

Our fastening, welding/threaded fitting systems and flanges represent the correct completion of products to provide a full range which meets the 360° requirements for all installations.

* Except for AesPRES® system



Uygulama alanları

Raccorderie Metalliche, suyun temini ve drenajı ve çeşitli sıvıların taşınması için mümkün olan tüm çözümleri sunmaktadır. Raccorderie Metalliche Pres Montaj sistemleri basitlik, hız ve güvenlik anlamına gelir.

- Basitlik sistemin doğasında vardır: kes, yerleştir ve bastır, alev ve lisansa gerek yoktur.
- Kurulum hızı, geleneksel sistemlere kıyasla işçilik süresini %60'a kadar azaltmayı ve yüksek güvenlik seviyelerini mümkün kılar.
- Güvenlik, yangın risklerinin olmaması ve kısıtlı bir çalışma alanında bile temiz bir çalışma ortamının korunması ile sağlanır.

Fields of application

Raccorderie Metalliche offers all possible solutions for the supply and drainage of water and for the transport of diverse fluids.

Raccorderie Metalliche Pressfitting systems stand for **simplicity, speed and security**.

- Simplicity** is inherent in the system's characteristics: cut, insert and press, no flame, no licence needed.
- Speed of installation** makes it possible to reduce labour time by up to 60% and high safety levels compared to traditional systems.
- Security** is provided by the absence of fire risks and by maintaining a clean working environment, even in a restricted working space.

inoxPRES®

steelPRES®

AES PRES®

MARINE PRES®

DRAIN

Uygulamalar Applications	Paslanmaz Çelik Stainless Steel	Karbon Çelik Carbon Steel	Bakır/Bronz Copper / Bronze	Bakır-nikel Copper-nickel	Paslanmaz Çelik Stainless Steel
İçme Suyu Potable Water	✓		✓		
Doğalgaz/LPG Natural Gas / LPG	✓		✓		
Riscaldamento Isıtma Heating	✓	✓	✓	✓	
Soğutma Cooling	✓	✓	✓	✓	
Güneş Termal Solar Thermal	✓	✓	✓	✓	
Basınçlı Hava Compressed Air	✓	✓	✓	✓	
Yangından Korunma Sistemleri Fire Protection Systems	✓		✓	✓	
Proses Suyu Process Water	✓			✓	✓
Atıksu Wastewater				✓	✓
Nebülizasyon Nebulisation	✓				
Silikonsuz Silicone Free	✓				
Buhar Buharı Steam	✓				

Tüm uygulamalarımızı ve pres bağlantı sistemlerinin avantajlarını keşfedin

Discover all our applications
and the advantages of pressfitting systems



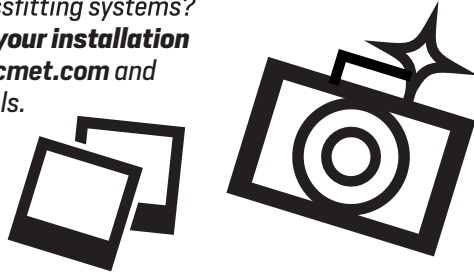


Kurulumunuzun fotoğraflarını paylaşın!

SHARE PHOTOS OF YOUR INSTALLATION!

Pres montaj sistemlerimizi kullanarak bir sistem mi kurdunuz?
Kurulumunuzun fotoğraflarını ve ayrıntılarını
marketing@racmet.com e-posta adresine gönderin,
biz de bunları web kanallarımızda yayınlayalım.

Did you build a system using our pressfitting systems?
Send us the photos and details of your installation
to the email address **marketing@racmet.com** and
we will post them on our web channels.



Raccorderie Metalliche AUTODESK® REVIT® İÇİN BIM PLUG-IN'İ

RACCORDERIE METALLICHE BIM PLUG-IN FOR AUTODESK® REVIT®

Tasarımı büyük bir doğrulukla gerçekleştirin ve ücretsiz olan Raccorderie Metalliche uygulaması ile birlik güncel, hafif ve kompakt tasarıma sahip olan BIM (Yapı Bilgi Modellemesi) içeriğiyle işlerinizi yapın!

Presleme sistemlerimizin halihazırdaki bütün BIM modelleri ve projeye ilgili tüm meta verilerini, tasarım sürecine katkıda bulunmak için, son derece basitleştirilmiş nesnelere sağlamaktayız.

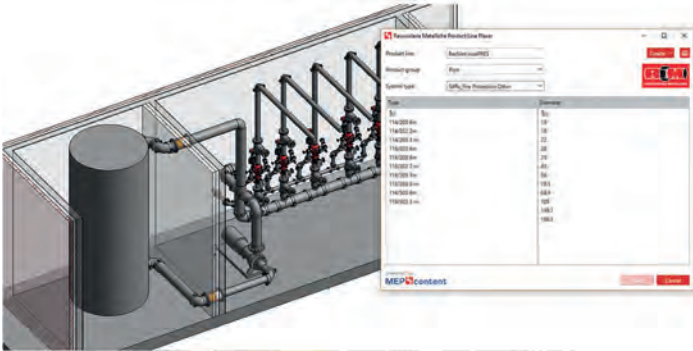
*Design with great accuracy and work with up-to-date, light and compact **BIM (Building Information Modeling)** content with the free App of Raccorderie Metalliche!*

To contribute to the design process, we provide all BIM models available of our pressing systems: highly simplified objects with all the metadata relevant to the project.

Design plants with our systems to press quickly and easily!



Librerie BIM per REVIT - BIM library for REVIT



İNTERNET SİTEMİZDEN ÜCRETSİZ UYGULAMAYI İNDİRİN

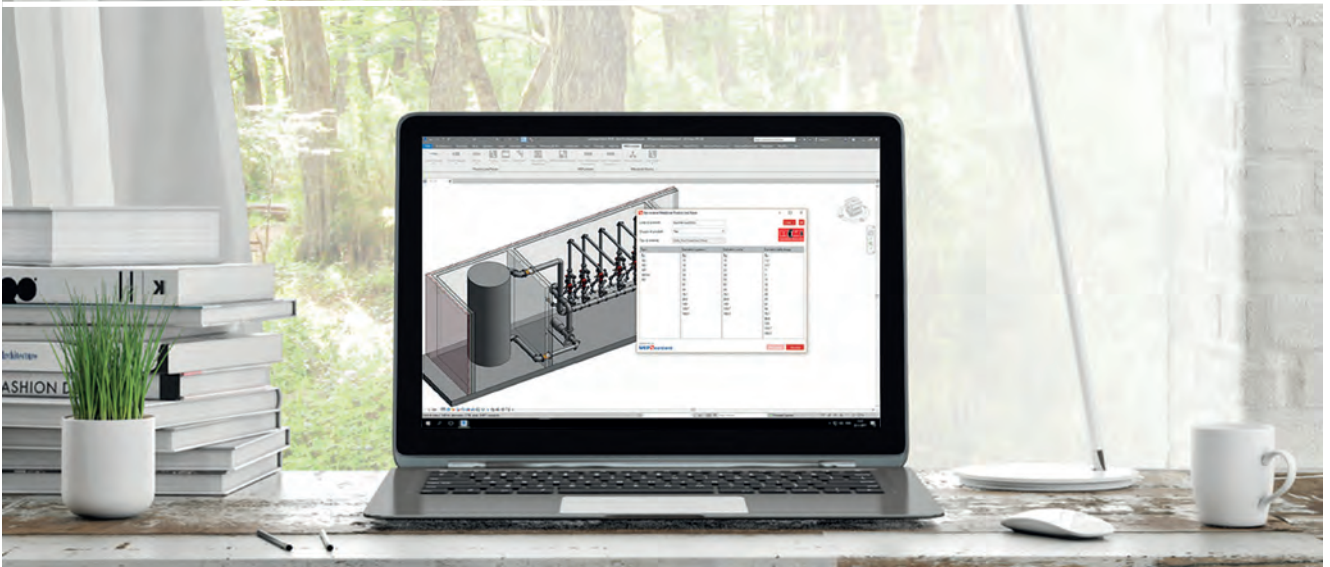
DOWNLOAD THE FREE
APP ON OUR WEBSITE



Pres sistemlerimizle hızlı ve kolay bir şekilde sistem tasarlayın!
Progetta gli impianti con i nostri sistemi a pressione in modo rapido e semplice!

Design piping systems easily and fast!

[Free Download](#)



Yeni **RacMet Akademisi'nin** açılışını yapıyoruz.

WE ARE OPENING THE NEW RACMET ACADEMY

Yeni **RacMet Academy**, profesyonel gelişime verilen önemin ve montajcılarının ve çalışanların eğitiminin bir sonucudur.

Toplantı ve kongreleri desteklemek için en gelişmiş ve modern teknolojilerle donatılmış geniş alanlardan oluşan yeni bir yapı, baskı bağlantılarına adanmış her uygulama için özel bir ortama sahip teknik bir laboratuvar, eğitime adanmış bir okul ve konukların kabulü ve dinlenmesi için bir salon alanı.

*The new **RacMet Academy** is the result of the importance given to professional growth and the training of installers and employees.*

A new structure consisting of large spaces equipped with the most advanced and modern technologies to support meetings and conventions, a technical laboratory with a specific setting for each application dedicated to pressfittings, a school dedicated to training and a lounge area for the reception of guests and relaxation.

MÜŞTERİLERİMİZE DAHA YAKIN BİR TEKNİK YAPI

A TECHNICAL STRUCTURE CLOSER TO OUR CUSTOMERS

 tecnico@racmet.com





Baskı bağlantı parçası sistemleri

PRESS FITTING SYSTEMS

II Presli bağlantı parçası sistemleri

RACCORDERIE METALLICHE ürünleri için "M" profil bağlantı tekniğini kullanır. Presleme esnasında 2 aşamalı bir deformasyon gerçekleşir. Birinci dayanıklılık seviyesi, bağlantı parçası ve borunun mekanik deformasyonundan sonra sağlanarak bunların mekanik dayanıklılığını garanti eden bozulmaz bir bağlantı sağlar.

Hidrolik sızdırmazlık, kesitinde deforme olan O halkası ile sağlanır: elastikliği sayesinde bağlantı parçasının kalıcı bir şekilde sıkı olmasını sağlar.

II Sızdırmazlık halkası profili [O Halkası]

Geleneksel presli bağlantı parçası sistemlerinde, uygunsuz işleme durumunda kolayca hasar görebilen daire kesitli sızdırmazlık halkaları [O Halkası] kullanılır. Raccorderie Metalliche halka şeklindeki hazneye mükemmel şekilde uyan patentli, merceksi bir profil contası kullanır. Bu da aşağıdaki avantajları sağlar:

- %20'den fazla sızdırmazlık yüzeyi
- Sızdırmazlık halkasının hasar görme olasılığının önemli ölçüde azaltılması
- Borunun takılmasının kolaylaşması



II Bağlantı parçaları ve boruların yapımında kullanılan malzeme

INOXPRES® gaminin bağlantı parçaları ve boruları AISI 316L paslanmaz çeliktir. Geleneksel AISI316 çelik sistemlerinin aksine, INOXPRES® ürünlerinin karbon içeriği düşüktür ve bu da çeliğin aşınmaya karşı daha dirençli olmasını sağlar.

Sızdırmazlık halkaları – Kullanım alanları ve teknik özellikler

TEKNİK ENDİKASYONLAR	RENKLER	ÇALIŞMA SICAKLIKLARI MİN./MAKS. CELCIUS DERECE	BAR CİNSİNDEN MAKS. ÇALIŞMA BASINCI	ESAS ONAY	KULLANIM ALANLARI	FABRİKAYA YERLEŞTİRİLDİ Mİ?
EPDM	■ Siyah	-20 / +120 °C	16	KTW W 270 DVGW W 534	İçme suyu, Isıtma-Soğutma devreleri, Arıtılmış su, Tuzu tamamen giderilmiş su, Yağmur suyu, Basınçlı hava (Sınıf 1 * 4)	Evet
NBR HNBR	■ Sarı	-20 / +70 °C	5	G 260HTB DVGW G 5614	Doğalgaz, Metan gazı, LPG [gaz hali]	Evet
FKM	■ Yeşil	-20 / +220 °C	16	-	Güneş, Basınçlı hava (Sınıf 5), Tuzlu su	Evet
STEAM	□ Beyaz	-20 / 165 °C	7 bara / 6 barg	-	Doymuş buhar	Evet
MVQ	■ Kırmızı	-20 / +180 °C	16	-	RM onayından sonra endüstriyel uygulamalar	Hayır

Referans standart EN 10217-7:2014

MALZEME NO.	C ≤ %	SI ≤ %	MN ≤ %	P ≤ %	S ≤ %	N ≤ %	CR %	MO %	NI %
AISI316 / W.1.4401	0,07	1	2	0,05	0,02	0,11	16,5	2	10
X5CrNiMo 17-12-2									
AISI316L / W. 1.4404	0,03	1	2	0,05	0,02	0,11	18,5	2,5	13
X2CrNiMo 17-12-2									

Pressfitting system

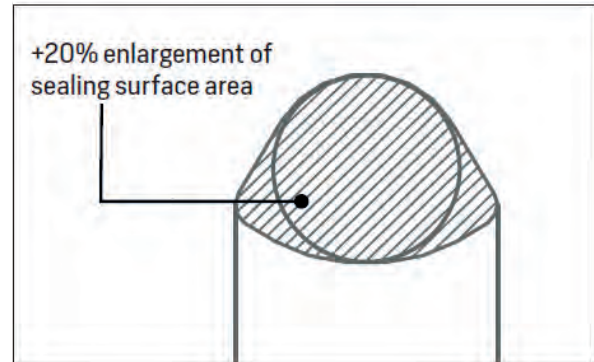
The junction connection of RACCORDERIE METALLICHE press fitting systems is with "M" contour. During the pressing process a deformation takes place on two planes. The first plane creates a permanent connection and provides

mechanical strength through the mechanical deformation of the press fitting and the pipe. On the second plane the seal ring is deformed in its cross section and through its elastic properties creates the permanently tight joint.

Sealing ring profile (O-Ring)

Traditional press fitting systems use round sealing rings, which can easily be damaged by careless fitting. RM on the other hand uses a patented sealing ring with a lenticular profile which fits the press crimp groove. This provides the following advantages:

- A 20% enlargement of the sealing surface area;
- Major reduction of the risk of the sealing ring being pressed out or damaged;
- It makes the pipes insertion easier.



Description of the material used to produce stainless steel pipes and fittings

Pipes and fittings of INOXPRES® are made in stainless steel AISI 316L. Unlike traditional systems made with AISI316, INOXPRES® products present a lower content of carbon that gives a higher resistance to corrosion.

Sealing rings - Fields of applications and technical data

TECHNICAL TERM	COLOUR	OPERATING TEMPERATURE MIN./MAX. DEGREES CENTIGRADE	OPERATING PRESSURE MAXIMUM IN BAR	APPROVALS AND CERTIFICATION BASIS	FIELDS OF APPLICATION	FACTORY FITTED
EPDM	■ black	-20 / +120 °C	16	KTW W 270 DVGW W 534	Potable water, Heating, Cooling and refrigeration circuits, Treated water, Desalinated water, Rain-water, Compressed air (Class 1÷4)	yes
NBR HNBR	■ yellow	-20 / +70 °C	5	G 260HTB DVGW G 5614	Natural gas, Methane gas, GPL (gaseous state)	yes
FKM	■ green	-20 / +220 °C	16	-	Solar, Compressed air (Class 5), Salt water	yes
STEAM	□ white	-20 / 165 °C	7 bara / 6 barg	-	Saturated Steam	yes
MVQ	■ red	-20 / +180 °C	16	-	Industrial applications following approval by RM	no

Reference norm EN 10217-7:2014

WERKSTOFF NR.	C ≤ %	SI ≤ %	MN ≤ %	P ≤ %	S ≤ %	N ≤ %	CR %	MO %	NI %
AISI316 / W.1.4401	0,07	1	2	0,05	0,02	0,11	16,5	2	10
X5CrNiMo 17-12-2									
AISI316L / W. 1.4404	0,03	1	2	0,05	0,02	0,11	18,5	2,5	13
X2CrNiMo 17-12-2									

Yükleme işlemi

Installation process



Boru kurulumu için aletler / Tools for the pipe set-up



Presleme makineleri ve aletleri / Pressing machines and tools



Borunun uzunluğa kadar kesilmesi / Cutting the pipe to length



Borunun çapağının alınması / Deburring the pipe



Sızdırmazlık halkasının kontrolü / Checking the sealing ring



Ekleme derinliğinin işaretlenmesi / Marking the insertion depth



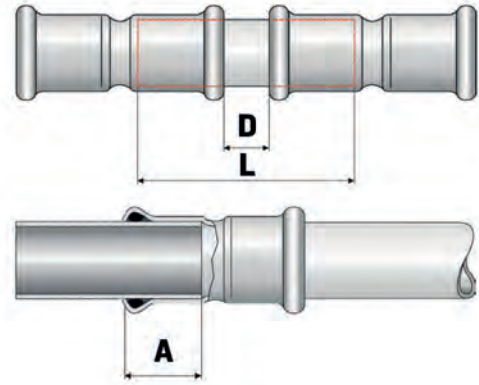
Pres makinesi hazırlığı / Press machine preparation



Basın bağlantısının yapılması / Making the press connection



Baskı bağlantısının kontrolü / Checking the press connection



Giriş derinliği ve minimum mesafeler

Ekleme derinliği ve minimum mesafeler
Insertion depth and minimum distances

VIDEO EĞİTİMİ / VIDEO TUTORIAL

Youtube kanalımızda baskı bağlantı sisteminin nasıl kurulacağını öğrenin!

Find out more on our YouTube channel, how to install Press-fitting system!

YouTube

RACCORDERIE METALLICHE

mm cinsinden boru dış çapı Pipe outside diameter in mm	A mm	D mm	L mm
12	18	20	56
15	20	20	60
18	20	20	60
22	21	20	62
28	23	20	66
35	26	20	72
42	30	40	100
54	35	40	110
76,1	55	60	170
88,9	60	60	180
108	75	60	210
139,7	95	100	290
168,3	113	100	326

ODAKLAN - FOCUS ON



OVERSIZE ARALIĞI ÇAPI 139-168 MM

THE OVERSIZE RANGE DIAMETER 139-168 mm

Oversize, 139 ve 168 mm çaplarda mevcut olan AISI 316L paslanmaz çelikten yapılmış yeni bir presle bağlama serisidir. 108 mm'ye kadar olan çaplardan farklı olarak, Oversize 139.7 ve 168,3 mm boyutlarının presleme aşamaları iki ayrı presleme aşamasında gerçekleştirilmelidir. Özel zinciri kullanarak aşağıda listelenen talimatları izleyin.

The Oversize is a new pressfitting range, made of AISI 316L stainless steel available in 139 and 168mm diameters.

Unlike diameters up to 108 mm, the pressing phases of the Oversize 139.7 and 168.3 mm dimensions must be carried out in two distinct pressing phases.

Using the dedicated chain, follow the instructions listed below.



1. BASKI AŞAMASI

- Zinciri açın ve bağlantı parçasının etrafına yerleştirin: zincirin yivi bağlantı parçasının toroidal bölümünün tam üzerine yerleştirilmelidir.
- Zinciri kapatın ve kilit düğmesine basın.
- Mandalı içeri doğru çevirin ve kilidi yerine oturtun.
- 1 numaralı presleme işlemini gerçekleştirin.
- Mandalı açın ve döndürün, zinciri açın ve bağlantı parçasından çıkarın.

1st PRESSING PHASE

- Open the chain and place it around the fitting: the groove of the chain must be positioned exactly above the toroidal chamber of the fitting.
- Close the chain and press the lock button.
- Rotate the latch inwards and engage the lock.
- Carry out pressing operation number 1.
- Unhook and rotate the latch, open the chain and remove it from the fitting.

Baskı montajı aşama 1 / Press assembly phase 1



VIDEO EĞİTİMİ / VIDEO TUTORIAL

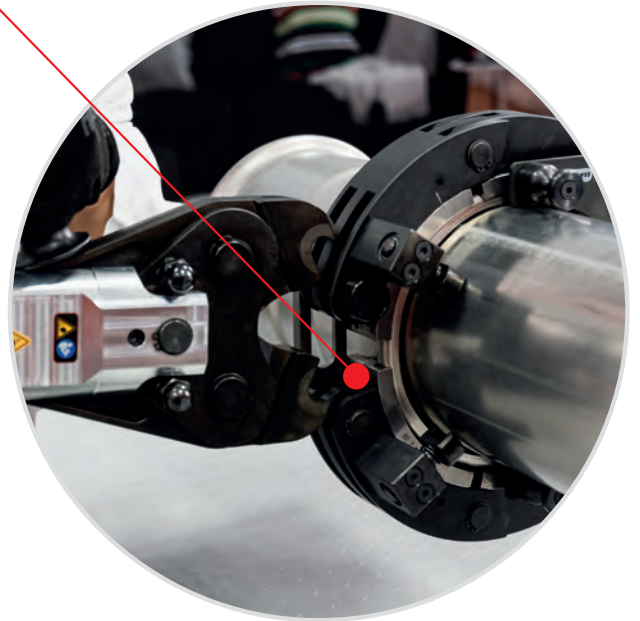
Yeni Oversize serisini nasıl kuracağınızı Youtube kanalımızda öğrenin!

YouTube

RACCORDERIE METALLICHE

Find out more on our Youtube channel, how to install the new Oversize range!

O halkası yivinin üzerindeki zincir yivi
Chain groove above the o-ring groove



2. BASKI AŞAMASI

- Zinciri, O halkasının muhafaza oluğunun üzerindeki uygun kılavuzlarla hizalayarak boru soketinin etrafına yerleştirin.
- Zinciri kapatın ve kilit düğmesine basın.
- Mandalı içeri doğru çevirin ve kilidi yerine oturtun.
- 2 numaralı presleme işlemi gerçekleştirin.
- Mandalı açın ve döndürün, zinciri açın ve bağlantı parçasından çıkarın.

Baskı montajı aşama 2 / Press assembly phase 2



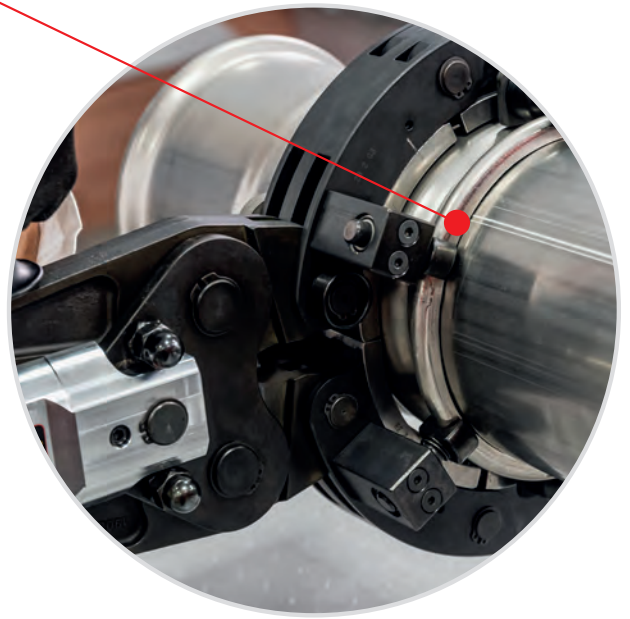
Oversize preslemenin görsel incelemesi
Visual inspection of oversize pressing

Tesisatçı ayrıca tüm bağlantıların yeterince basıldığından emin olmalıdır.
Presleme tamamlandıktan sonra, bağlantılar başka mekanik yüklerle maruz bırakılmamalıdır.
Bu nedenle, boru hattının hizalanması ve dişli bağlantıların sabitlenmesi, preslemeden önce yapılmalıdır.
Boruların hafif hareketine ve kaldırılmasına, örneğin boyama işleri için, izin verilir.

2nd PRESSING PHASE

- Position the chain around the pipe socket, aligning it with the appropriate guides above the containment groove of the o-ring.
- Close the chain and press the lock button.
- Rotate the latch inwards and engage the lock.
- Carry out pressing operation number 2.
- Unhook and rotate the latch, open the chain and remove it from the fitting.

O halkasının üzerindeki kılavuzlar
Guides over the o-ring groove



Bastıktan sonra, işin doğru yapıldığından ve yerleştirme derinliğinin doğru olduğundan emin olmak için bağlantı kontrol edilmelidir.

After pressing, the connection must be checked to ensure that the work has been carried out correctly and that the insertion depth is correct.

















*The fitter must also ensure that all connections have been adequately pressed.
Once pressing has been complete, the connections must not be subjected to further mechanical loads.
The alignment of the pipeline and the fixing of the threaded connections must therefore be carried out before pressing.
Slight movement and lifting of pipes, e.g. for painting work, is permitted.*

Sertifikalar / Certifications

ÖZEL SEKTÖR / CIVIL SECTOR

		PRODUKTE DER WASSERVERSORGUNG	DW-8511AU2084 (W 534)	Ø 15 – 168 mm
		EDELSTAHLROHR "INOXPRES" - 1.4404	DV-7301 BM3426 (GW 541)	Ø 15 – 108 mm
		EDELSTAHLROHR "INOXPRES" - 1.4521	DW-7301 BT0667 (GW 541)	Ø 15 – 54 mm
		ROHRSYSTEM EDELSTAHL "INOXPRES" PRES BAĞLANTI SİSTEMLERİ AUS EDELSTAHL DN 20 BIS DN 80 VERWENDUNG: IN ORTSFESTEN WASSERLOSCHANLAGEN	G 4060006 (VdS 2344 - VdS 2100)	Ø 22 – 88,9 mm
		TRINKWASSERHAUSINSTALLATIONSSYSTEM = INOXPRES®=	W 1.402 (W 402)	Ø 15 – 108 mm
		TRINKWASSERVERTEILSYSTEME	0007-4278 (ZW 132-GW514-W534)	Ø 15 – 108 mm
		INOXPRES PASLANMAZ ÇELİK BAĞLANTI PARÇALARI SERİSİ INOXPRES STAINLESS STEEL FITTINGS SERIES	1710345	Ø 15 – 108 mm
		SYSTÈMES DE CANALISATIONS DE DISTRIBUTION D'EAU - SYSTÈME INOXPRES	79-2217_V1	Ø 15 – 108 mm
		ATTESTATION DE CONFORMITE SANITAIRE - SYSTÈME INOXPRES	18 ACC LY 875	Ø 15 – 108 mm
		PRESFITTINGS TIL RUSTFRI STÅLRØR INOXPRES RUSTFRI STÅLRØR TIL BRUGSVANDSINSTALLATIONER I BYGNING OG JORD INOXPRES	VA 1.22/19224 VA 1.12/18410	Ø 15 – 108 mm
		INOXPRES BAĞLANTISI INOXPRES FITTINGS	02/00014 03/00127	Ø 15 – 108 mm
		PRESSKOPPLINGAR FÖR ROSTFRIA STÅLRØR	1174/99	Ø 15 – 108 mm
		PASLANMAZ ÇELİK PRES BAĞLANTI - INOXPRES® - [SU KAYNAĞI] PASLANMAZ ÇELİK BORU-INOXPRES® - [SU KAYNAĞI]	K40834 K40835	Ø 15 – 108 mm
		INOXPRES PRES BAĞLANTI SİSTEMİ 1 RUSTFRITT STÅL INOXPRES PRESS FITTINGS SYSTEM 1 RUSTFRITT STÅL	Nr. 1623	Ø 15 – 108 mm
		INOXPRES PRES BAĞLANTI SİSTEMİ INOXPRES PRESS FITTINGS SYSTEM	POCC IT. AM05.H05079	Ø 15 – 108 mm
		STAINLESS STEEL INOXPRES CRIMP BAĞLANTISI [SU KAYNAĞI] STAINLESS STEEL INOXPRES CRIMP FITTINGS [WATER SUPPLY]	TEST REPORT ZH 173	Ø 15 – 108 mm
		ROZSDAMENTES ACÉL CSÖVEK ÉS PRÉSIDOMOK INOXPRES	A-42/2017	Ø 15 – 108 mm
		INOXPRES ROZSDAMENTES ACÉL PRÉSKÖTÉSÚ CSÖRENDSZER	20-CPR-282-(C-22/2017)	Ø 15 – 108 mm
		LACZNIKI ZAPRASOWYWANE ZE STALI SYSTEMU INOXPRES I STEELPRES DO LACZENIA RUR ZE STALI	ITB-KOT-2019/1222 WYDANIE 1	Ø 15 – 108 mm
		RURY I ŁACZNIKI ZAPRASOWYWANE INOXPRES DN20 ÷ DN100 DO STAŁYCH URZĄDZEŃ GAŚNICZYCH WODNYCH	ITB-KOT-2020/1502 WYDANIE 2	Ø 22 – 108 mm
		ATEST HIGIENICZNY - INOXPRES	B-BK-60210-0051/20	Ø 15 – 108 mm
		INOXPRES PASLANMAZ ÇELİK BORULAR VE PASLANMAZ PRESLEME EK PARÇALARI SİSTEMİ	202/C5/2019/B-01337-19	Ø 15 – 108 mm
		RACCORDI A PRESSARE IN ACCIAIO INOSSIDABILE / PASLANMAZ ÇELİK PRES BAĞLANTILARI PRODOTTI E COMPONENTI UTILIZZATI A CONTATTO CON ACQUA POTABILE İÇME SUYU İLE TEMAS EDEN ÜRÜN VE ELEMANLAR	ICIM-CAP-009671-00	Ø 15 – 168,3 mm
		SU TEMİNİ - METALİK BAĞLANTI PARÇALARI VE UÇ BAĞLANTILARI; BASINÇLI UYGULAMALAR İÇİN PASLANMAZ ÇELİK BORULAR VE TÜPLER	WMK25928 WMK25929	Ø 15 – 108 mm

Sertifikalar / Certifications**TERSANECİLİK SEKTÖRÜ / SHIPYARD SECTOR**

		MEKANİK KAVRAMALAR SIKIŞTIRMALI BAĞLANTILAR PRES TİPİ MECHANICAL JOINTS COMPRESSION COUPLINGS PRESSTYPE	38058/BO BV	Ø 15 – 108 mm
		TÜP BAĞLANTILARI - INOXPRES TUBE FITTINGS - INOXPRES	TAP000017J	Ø 15 – 108 mm
		BORU, KANAL, GÖVDE - INOXPRES PIPE, DUCT, TRUNK - INOXPRES	MEDB00007F0	Ø 15 – 108 mm
		BORU SİSTEMLERİ İÇİN SIKIŞTIRMA TİPİ PRES BAĞLANTI SİSTEMİ SYSTEM OF COMPRESSION TYPE FOR PIPING SYSTEM	15/20055 (E1)	Ø 15 – 108 mm
		INOXPRES BORU SIZDIRMA [STANDART YANGIN TESTİ] 015-108 MM INOXPRES, PIPE PENETRATION [STANDARD FIRE TEST] 015-108 MM	MED D000027 V	Ø 15 – 108 mm
		BORULAR İÇİN MEKANİK BAĞLANTILAR - INOXPRES MECHANICAL JOINTS FOR PIPES - INOXPRES	MAC 216718CS/002 - 003	Ø 15 – 108 mm
		INOXPRES, BORU SİSTEMİ VE BAĞLANTI PARÇALARI STEELPRES, PIPING SYSTEM AND FITTING	19-GE1920310-PDA	Ø 15 – 108 mm
		INOXPRES, MEKANİK BAĞLANTILAR INOXPRES, MECHANICAL JOINTS	ML 20PTB00014	Ø 15 – 108 mm

Uygulama alanları / Fields of application

İçme suyu
Potable water



Isıtma
Heating



Soğutma
Cooling



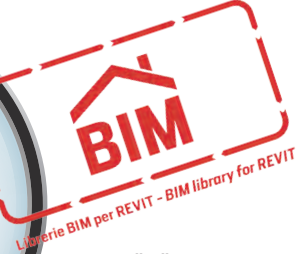
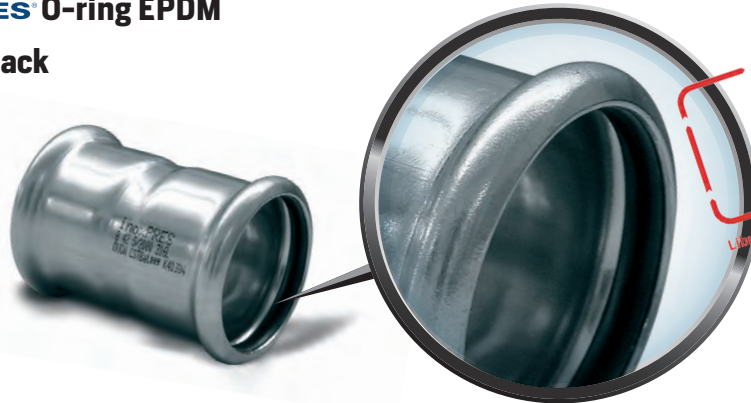
Su işleme
Process water



Basıncılı hava
Compressed air



Yangın koruma sistemleri
Fire protection systems

inoxPRES® O-ring EPDM**Siyah | Black**

ÜRÜN
YELPAZESİNİ
KEŞFEDİN
inoxPRES®
DISCOVER
THE RANGE



İçme suyu ile temas eden malzemeler için kaliteli bir marka

A QUALITY BRAND FOR MATERIALS COMING IN CONTACT WITH DRINKING WATER

ICIM, **Raccorderie Metalliche S.p.A.** tarafından üretilen ve/veya pazarlanan ürünleri onaylar: **Paslanmaz çelik borular ve pres bağlantıları (inoxPRES);**

- Bakır ve bronz borular ve pres bağlantı parçaları (aesPRES);
 - Cupronickel borular ve pres bağlantı parçaları (marinePRES);
 - Paslanmaz çelikten kaynak bağlantı parçaları;
- insan tüketimine yönelik içme suyu ile temas için uygundur.
[Konu: Bakanlık Kararnamesi No. 174 tarih 6 Nisan 2004]



ICIM certifies that the products manufactured and/or marketed by **Raccorderie Metalliche S.p.A.:**

- Stainless steel pipes and pressfittings (inoxPRES);
- Copper and bronze pipes and pressfittings (aesPRES);
- Cupronickel pipes and pressfittings (marinePRES);
- Welding fittings in stainless steel;

are suitable for contact with drinking water intended for human consumption.

[Re: Ministerial Decree No. 174 dated 6 April 2004]

inoxPRES®



**116/200 6 m**

≤54	B 30 31
76÷108	B 30 32

**PASLANMAZ
ÇELİK BORU**

• STAINLESS STEEL PIPE

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmamış - Not annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015200	15 x 1,0	13	6	0,351	0,133	60	1014	13,62
116018200	18 x 1,0	16	6	0,426	0,201	60	1014	15,49
116022200	22 x 1,2	19,6	6	0,625	0,302	60	762	21,59
116028200	28 x 1,2	25,6	6	0,805	0,514	30	546	27,25
116035200	35 x 1,5	32	6	1,258	0,804	30	546	41,16
116042200	42 x 1,5	39	6	1,521	1,194	30	366	49,17
116054200	54 x 1,5	51	6	1,972	2,042	30	366	63,17
116076200	76,1 x 2,0	72,1	6	3,711	4,080	6	114	113,43
116088200	88,9 x 2,0	84,9	6	4,352	5,660	6	114	131,30
116108200	108 x 2,0	104	6	5,308	8,490	6	114	161,51

**116/Oversize 6 m****B 30 36****PASLANMAZ ÇELİK BORU**

• STAINLESS STEEL PIPE

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmamış - Not annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116139200*	139,7 x 2,0	135,7	6	6,896	14,460	6	60	257,09
116168200*	168,3 x 2,0	164,3	6	8,328	21,200	6	60	282,10
116139260	139,7 x 2,6	134,5	6	8,926	14,208	6	60	456,72
116168260	168,3 x 2,6	163,1	6	10,788	20,893	6	60	532,83

(*) : onaylı değil DVGW - not certified DVGW

**116/203 3 m**≤54 B 30 31
76÷108 B 30 32**PASLANMAZ
ÇELİK BORU**

• STAINLESS STEEL PIPE

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=3 m
Tavlanmamış - Not annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	€/m
116015203	15 x 1,0	13	3	0,351	0,133	60	14,30
116018203	18 x 1,0	16	3	0,426	0,201	60	16,29
116022203	22 x 1,2	19,6	3	0,625	0,302	36	22,68
116028203	28 x 1,2	25,6	3	0,805	0,514	30	28,60
116035203	35 x 1,5	32	3	1,258	0,804	18	43,19
116042203	42 x 1,5	39	3	1,521	1,194	12	51,66
116054203	54 x 1,5	51	3	1,972	2,042	12	66,34
116076203	76,1 x 2,0	72,1	3	3,711	4,080	6	119,05
116088203	88,9 x 2,0	84,9	3	4,352	5,660	6	137,86
116108203	108 x 2,0	104	3	5,308	8,490	6	169,60

**116/300 6 m**≤54 B 30 31
76÷108 B 30 32**PASLANMAZ
ÇELİK BORU**

• STAINLESS STEEL PIPE

NORM: EN 10217-7 (DIN 17455) - EN 10312


Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmış - Annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015300	15 x 1,0	13	6	0,351	0,133	60	1014	20,78
116018300	18 x 1,0	16	6	0,426	0,201	60	1014	22,33
116022300	22 x 1,2	19,6	6	0,625	0,302	60	762	29,96
116028300	28 x 1,2	25,6	6	0,805	0,514	30	546	36,76
116035300	35 x 1,5	32	6	1,258	0,804	30	546	54,16
116042300	42 x 1,5	39	6	1,521	1,194	30	366	64,94
116054300	54 x 1,5	51	6	1,972	2,042	30	366	82,36
116076300	76,1 x 2,0	72,1	6	3,711	4,080	6	114	137,37
116088300	88,9 x 2,0	84,9	6	4,352	5,660	6	114	161,19
116108300	108 x 2,0	104	6	5,308	8,490	6	114	197,82

**116/030 6 m****B 30 33****PASLANMAZ ÇELİK BORU**

• STAINLESS STEEL PIPE

NORM: EN 10217-7 (DIN 17455) - EN 10312**Mat. Nr.: 1.4521 (AISI 444) L=6 m**
Tavlanmış - Annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	 kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015030	15 x 1,0	13	6	0,351	0,133	60	1014	9,31
116018030	18 x 1,0	16	6	0,426	0,201	60	1014	10,71
116022030	22 x 1,2	19,6	6	0,625	0,302	60	762	15,42
116028030	28 x 1,2	25,6	6	0,805	0,514	30	546	19,84
116035030	35 x 1,5	32	6	1,258	0,804	30	546	29,94
116042030	42 x 1,5	39	6	1,521	1,194	30	366	36,38
116054030	54 x 1,5	51	6	1,972	2,042	30	366	46,66

NOT / NOTEHer ülkenin boru sertifikasyonunun ayrıntıları için lütfen web sitemizi kontrol edin raccorderiemetalliche.comFor pipes certification's details of each country, please check our website raccorderiemetalliche.com



114/200 6 m

≤54	B 30 34
76÷108	B 30 35

PASLANMAZ
ÇELİK BORU

• STAINLESS STEEL PIPE

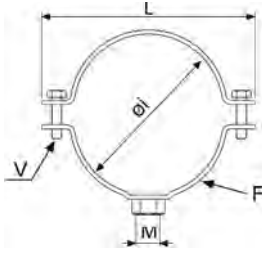
NORM: EN 10217-7 (DIN 17455) - EN 10312

NOT / NOTE: İtalya ülkesi- DM174'e göre içme suyu taşımacılığı için;
Italy country - according to DM 174 for drinking water transport;

Mat. Nr.: 1.4307 (AISI 304L) L=6 m
Tavlınmamış - Not annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
114015200	15 x 1,0	13	6	0,351	0,133	60	1014	9,16
114018200	18 x 1,0	16	6	0,426	0,201	60	1014	10,78
114022200	22 x 1,2	19,6	6	0,625	0,302	60	762	15,21
114028200	28 x 1,2	25,6	6	0,805	0,514	30	546	19,58
114035200	35 x 1,5	32	6	1,258	0,804	30	546	29,55
114042200	42 x 1,5	39	6	1,521	1,194	30	366	36,36
114054200	54 x 1,5	51	6	1,972	2,042	30	366	48,15
114076200	76,1 x 2,0	72,1	6	3,711	4,080	6	114	90,98
114088200	88,9 x 2,0	84,9	6	4,352	5,660	6	114	95,89
114108200	108 x 2,0	104	6	5,308	8,490	6	114	103,57

A 50 50



156

INOXPRES BORU İÇİN KELEPÇE

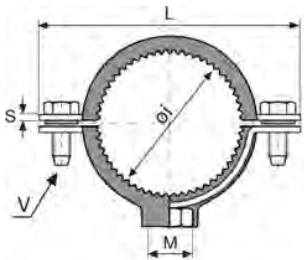
• CLAMP FOR INOXPRES PIPE

MALZEME / MATERIAL: AISI 304 - 1.4301

NOT / NOTE: kaynak somun spot welded nut

KOD / KOD	DN mm	M	F Lg x Sp mm	V mm	L mm	g	g	g	€
156015304	15	M 8	20 x 2,5	M 6 x 20	48	52	1	50*	4,45
156308304	18	M 8	20 x 2,5	M 6 x 20	53,5	58	1	50*	4,45
156102304	22	M 8	20 x 2,5	M 6 x 20	58	62	1	50*	4,28
156304304	28	M 8	20 x 2,5	M 6 x 20	63,5	68	1	50*	4,43
156100304	35	M 8	20 x 2,5	M 6 x 20	70	76	1	50*	4,97
156114304	42	M 8	20 x 2,5	M 6 x 20	79	88	1	50*	5,49
156054304	54	M 8	20 x 2,5	M 6 x 25	94	102	1	50*	6,46
156212304	76,1	M 10	30 x 2,5	M 6 x 25	115	200	1	20*	11,32
156300304	88,9	M 10	30 x 2,5	M 6 x 25	128	221	1	20*	12,34
156108304	108	M 10	30 x 2,5	M 6 x 25	149	252	1	20*	14,30

[*] minimum satış miktarı / minimum selling quantity



156/G

INOXPRES BORU İÇİN KAUKUKLU KELEPÇE

• CLAMP WITH RUBBER FOR INOXPRES PIPE

MALZEME / MATERIAL: AISI 304 - 1.4301

VULKANİZE KAUKUK

VULCANIZED RUBBER: EPDM [-20° C/+120° C]

durezza/hardness 55 Shore

NOT / NOTE: kaynak somun spot welded nut

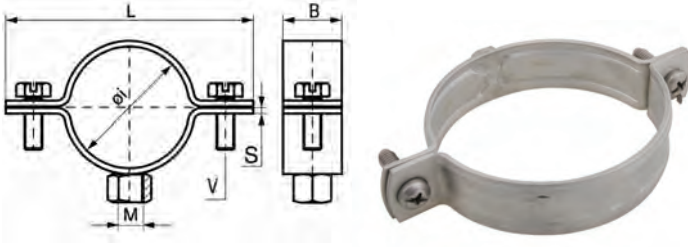
Uygundur
Conform to

DIN 4109

KOD / CODE	DN mm	M	V mm	B mm	S mm	L mm	g	g	g	€
156150304G	15	M 8	M 6 x 20	20	2,5	58	72	1	50*	9,05
156308304G	18	M 8	M 6 x 20	20	2,5	58	76	1	50*	9,05
156102304G	22	M 8	M 6 x 20	20	2,5	63,5	86	1	50*	9,22
156304304G	28	M 8	M 6 x 20	20	2,5	70	94	1	50*	9,59
156100304G	35	M 8	M 6 x 20	20	2,5	79	112	1	50*	10,16
156114304G	42	M 8	M 6 x 20	20	2,5	85	120	1	50*	11,84
156112304G	54	M 8	M 6 x 25	20	2,5	97	142	1	50*	12,91
156212304G	76,1	M 10	M 6 x 25	30	2,5	128	308	1	10*	19,60
156300304G	88,9	M 10	M 6 x 25	30	2,5	148	346	1	10*	21,24
156108316G **	108	M 8 / 10	M 6 x 25	20	2	168	200	1	10*	17,79

[*] minimum satış miktarı / minimum selling quantity

[**] Sökülebilir kauçuk - Detachable rubber AISI 316 / 1.4401 (famiglia / family A 50 51)

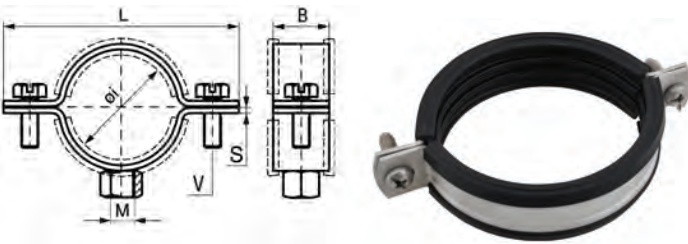
**156/316L****KELEPÇE-AĞIR SERİ**

• CLAMP - HEAVY SERIES

MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** kaynak somun spot welded nut

KOD / CODE	DN mm	M	V mm	B mm	S mm	L mm	g	Box	€
156500316	139,7	M 10	M 6 x 25	20	2,5	179	210	10*	19,61
156600316	168,3	M 10	M 6 x 25	20	2,5	203	240	10*	20,74

[*] minimum satış miktarı / minimum selling quantity

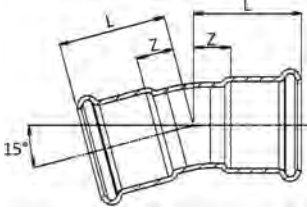
**156/316L G****KAUÇUK KELEPÇE - AĞIR SERİ**

• CLAMP WITH RUBBER - HEAVY SERIES

MALZEME / MATERIAL: AISI 316L - 1.4404**VULKANİZE KAUÇUK****VULCANIZED RUBBER:** EPDM [-20° C/+120° C]
durezza/hardness 55
Shore**NOT / NOTE:** kaynak somun spot welded nut

KOD / CODE	DN mm	M	V mm	B mm	S mm	L mm	g	Box	€
156500316G	139,7	M 10	M 6 x 25	20	2,5	179	250	10*	22,02
156600316G	168,3	M 10	M 8 x 35	25	2,5	233	470	10*	24,13

[*] minimum satış miktarı / minimum selling quantity



181/150

≤54 B 10 11

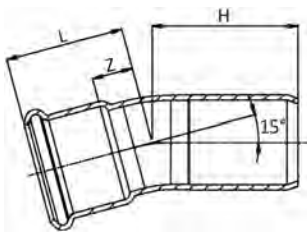
76÷108 B 10 12

15° DİRSEK FF

• 15° ELBOW FF

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm	g			€
181015150	15	30	10	50	20	300	14,15
181018150	18	32	12	52	20	300	15,65
181022150	22	33	12	82	20	100	18,16
181028150	28	36	13	112	10	100	21,88
181035150	35	37	11	123	10	60	28,02
181042150	42	42	12	175	4	40	40,44
181054150	54	49	12	268	2	20	51,94
181076150C	76,1	87,5	32,5	777	2	2	193,70
181088150C	88,9	100,5	40,5	1032	2	2	230,79
181108150C	108	109,5	34,5	1412	2	2	314,68



181/151

≤54 B 10 11

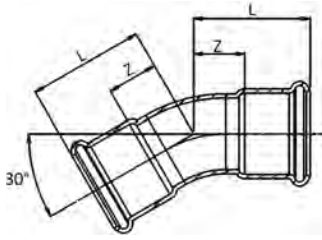
76÷108 B 10 12

15° DİRSEK MF

• 15° ELBOW MF

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah - black

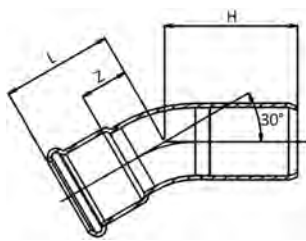
KOD / CODE	De mm	L mm	H mm	Z mm	g			€
181015151	15	30	40	10	50	20	300	14,15
181022151	22	33	41	12	82	20	100	17,14
181028151	28	36	43	13	112	10	100	20,40
181035151	35	37	41	11	133	10	60	26,10
181042151	42	42	55,5	12	165	4	40	38,95
181054151	54	49	55	13	293	2	20	49,94
181076151C	76,1	87,5	95,5	32,5	743	2	2	177,73
181088151C	88,9	100,5	108,5	40,5	988	2	2	212,16
181108151C	108	109,5	118	34,5	1332	2	2	289,73

**181/300**≤54 B 10 11
76÷108 B 10 12**30° DİRSEK FF**

• 30° ELBOW FF

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING : EPDM siyah - black

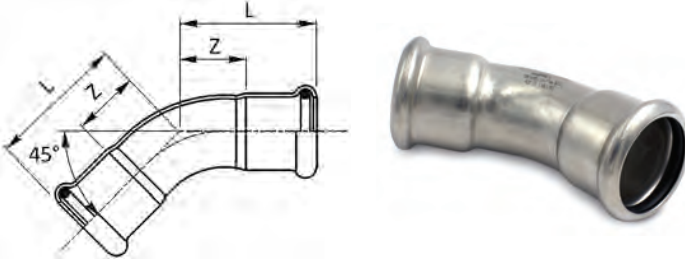
KOD / CODE	De mm	L mm	Z mm	g			€
181015300	15	33	13	50	20	300	14,15
181018300	18	32	12	52	20	300	15,65
181022300	22	37	16	82	20	100	18,16
181028300	28	41	18	112	10	100	21,88
181035300	35	37	11	123	10	60	28,02
181042300	42	44	14	175	4	40	40,44
181054300	54	52	17	268	2	20	51,94
181076300	76,1	100	55	900	2	2	193,70
181088300	88,9	115	64	1250	2	2	230,79
181108300	108	127	68	1700	2	2	314,68

**181/301**≤54 B 10 11
76÷108 B 10 12**30° DİRSEK MF**

• 30° ELBOW MF

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING : EPDM siyah - black

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
181015301	15	33	43	13	50	20	14,15
181022301	22	37	46	16	82	20	17,14
181028301	28	41	48	18	112	10	20,40
181035301	35	37	46	11	133	10	26,10
181042301	42	44	54	14	195	4	38,95
181054301	54	52	63	17	293	2	49,94
181076301	76,1	100	108	55	900	2	177,73
181088301	88,9	115	123	64	1250	2	212,16
181108301	108	127	136	68	1700	2	289,73



181/450

45° DİRSEK FF

• 45° ELBOW FF

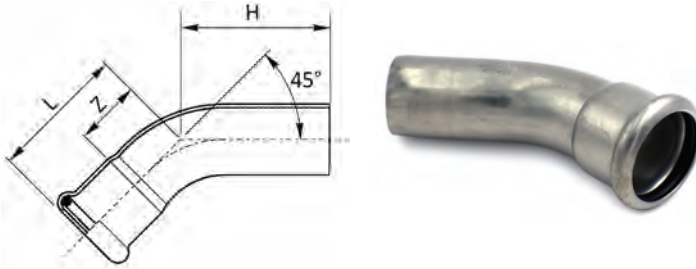
MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	Yarıçap Radius	L mm	Z mm	g			€
181015450C	15	1,2 De	27,5	7,5	39	20	400	12,46
181018450C	18	1,2 De	29,5	9,5	48	20	300	13,80
181022450C	22	1,2 De	32	11	63	20	200	16,00
181028450C	28	1,2 De	37	14	90	10	100	19,26
181035450	35	1,2 De	43	17	127	10	60	22,78
181042450	42	1,2 De	51	21	177	4	40	36,87
181054450	54	1,2 De	62	30	273	2	20	47,34
181076450	76,1	1,2 De	131,5	76,5	900	2	2	158,60
181088450	88,9	1,2 De	144	84	1250	2	2	188,98
181108450	108	1,2 De	169	94	1700	2	2	257,70
181139450	139,7	-	203	108	3052	1	1	562,44
181168450	168,3	-	252	139	4556	1	1	729,27



181/451

45° DİRSEK MF

• 45° ELBOW MF

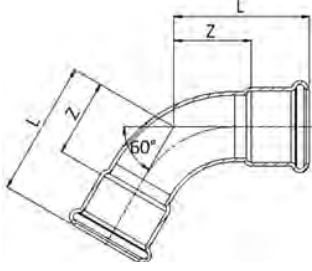
MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

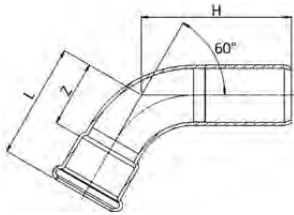
KOD / CODE	De mm	Yarıçap Radius	L mm	H mm	Z mm	g		€	
181015451C	15	1,2 De	27,5	36	7,5	38	20	400	12,46
181018451C	18	1,2 De	29,5	38	9,5	47	20	300	13,34
181022451C	22	1,2 De	32	42	11	63	20	200	15,10
181028451C	28	1,2 De	37	46	14	90	10	100	17,98
181035451	35	1,2 De	43	57,5	17	132	10	60	21,20
181042451	42	1,2 De	51	72	21	196	4	40	35,49
181054451	54	1,2 De	62	82	26	296	2	20	45,52
181076451	76,1	1,2 De	131,5	149	76,5	900	2	2	145,52
181088451	88,9	1,2 De	144	159	84	1250	2	2	173,72
181108451	108	1,2 De	169	199	94	1700	2	2	237,26
181139451	139,7	-	203	210	108	2947	1	1	562,44
181168451	168,3	-	252	261	139	4346	1	1	729,27


181/600
≤54 B 10 11
76÷108 B 10 12
60° DİRSEK FF

• 60° ELBOW FF

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

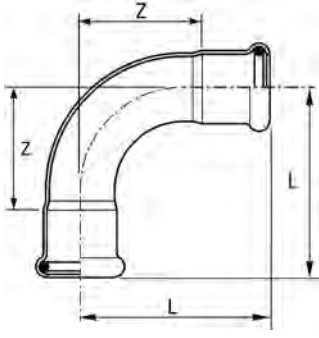
KOD / CODE	De mm	L mm	Z mm	g	g	g	€
181015600	15	30,5	10,5	41	20	300	14,15
181018600	18	32	12	50	20	300	15,65
181022600	22	36	15	68	20	100	18,16
181028600	28	42	19	98	10	100	21,88
181035600	35	50	24	141	10	60	28,02
181042600	42	59	29	204	4	40	40,44
181054600	54	72,5	37	313	2	20	51,94
181076600	76,1	146,5	91,5	1178	2	2	193,70
181088600	88,9	162	102	1517	2	2	230,79
181108600	108	190	115	2194	2	2	314,68


181/601
≤54 B 10 11
76÷108 B 10 12
CURVA 60° MF

• 60° ELBOW MF

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	H mm	Z mm	g	g	g	€
181015601	15	30,5	39	10,5	40	20	300	14,15
181018601	18	32	41	12	50	20	300	15,15
181022601	22	36	46	15	68	20	100	17,14
181028601	28	42	51	19	98	10	100	20,40
181035601	35	50	64	24	149	10	60	26,10
181042601	42	59	80	29	220	4	40	38,95
181054601	54	72,5	92,5	37	332	2	20	49,94
181076601	76,1	146,5	164	91,5	1179	2	2	177,73
181088601	88,9	162	177	102	1503	2	2	212,16
181108601	108	190	205	115	2148	2	2	289,73



181/900

90° DİRSEK FF

• 90° ELBOW FF

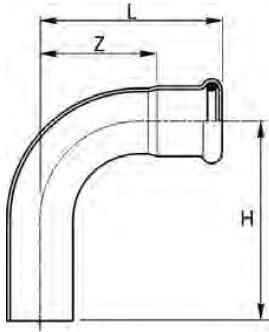
MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	Yarıçap Radius	L mm	Z mm	g			€
181015900C	15	1,2 De	38	18	46	20	400	9,50
181018900C	18	1,2 De	41,5	21,5	58	20	300	10,88
181022900C	22	1,2 De	47	26	78	10	150	13,15
181028900C	28	1,2 De	56	33	116	10	100	17,46
181035900	35	1,2 De	68	42	162	5	50	28,34
181042900	42	1,2 De	80	50	231	2	30	48,61
181054900	54	1,2 De	100	64	367	2	18	67,83
181076900	76,1	1,2 De	160	105	1150	2	2	161,35
181088900	88,9	1,2 De	182	122	1580	2	2	196,29
181108900	108	1,2 De	220	145	2250	2	2	267,73
181139900	139,7	-	314	219	4082	1	1	571,97
181168900	168,3	-	386	273	6059	1	1	738,79



181/901

90° DİRSEK MF-SHORT RADIUS

• 90° ELBOW MF - SHORT RADIUS

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	Yarıçap Radius	L mm	H mm	Z mm	g		€	
181015901C	15	1,2 De	38	48	18	46	20	400	9,98
181018901C	18	1,2 De	41,5	48,5	21,5	56	20	300	11,31
181022901C	22	1,2 De	47	57	26	79	10	150	13,58
181028901C	28	1,2 De	56	64	33	115	10	100	17,01
181035901	35	1,2 De	68	82	42	176	5	50	25,93
181042901	42	1,2 De	80	101	50	253	2	30	47,10
181054901	54	1,2 De	100	120	64	390	2	18	68,24
181076901	76,1	1,2 De	160	180	105	1150	2	2	165,99
181088901	88,9	1,2 De	182	197	122	1580	2	2	201,88
181108901	108	1,2 De	220	236	145	2250	2	2	275,39
181139901	139,7	-	314	322	219	3984	1	1	571,97
181168901	168,3	-	386	395	273	5991	1	1	738,79

BÜYÜK BOY

5"-6"

Ø 139,7

Ø 168,3

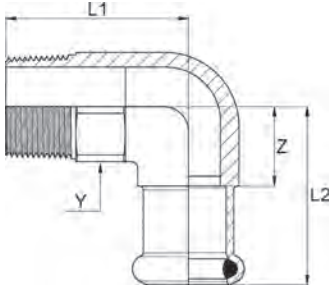
inoxPRES®

AISI 316L Stainless Steel


DVGW

inoxPRES
Ø 168.3
316-L
141800

B 10 11



197

ERKEK DIŞLI 90° DİRSEK ADAPTÖRÜ

• ELBOW ADAPTER 90° WITH MALE THREAD

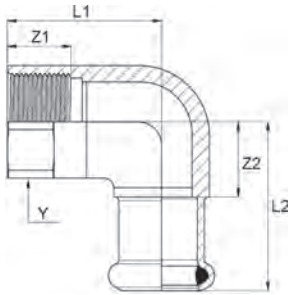
MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: EPDM siyah - black

DIŞLİ/ THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L1 mm	L2 mm	Z mm	Y mm	g	kg	Box	€
197102015	15 x 1/2"	37	36	16	22	87	10	200	20,13
197102018	18 x 1/2"	37	36	16	22	93	10	200	23,03
197102022	22 x 1/2"	41	37	16	22	106	10	100	26,35
197304022	22 x 3/4"	44	43	22	28	164	10	100	29,52
197304028	28 x 3/4"	44	45	22	28	195	5	50	39,37
197100028	28 x 1"	56	50	27	36	332	5	50	39,75
197114035	35 x 1 1/4"	63	76,5	50,5	46	476	5	40	50,50
197112042	42 x 1 1/2"	67,5	80	50	50	533	2	30	84,97
197200054	54 x 2"	78,5	91,5	56	65	899	2	20	107,95

B 10 11



198

DIŞI DIŞLI 90° DİRSEK ADAPTÖRÜ

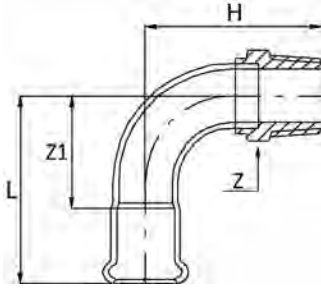
• ELBOW ADAPTER 90° WITH FEMALE THREAD

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: EPDM siyah - black




DIŞLİ/ THREAD: EN 10226-1 (ex ISO 7/1)

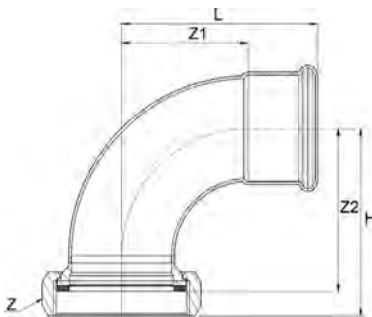
KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	Y mm	g	kg	Box	€
198102015	15 x 1/2"	33	36	15	16	24	92	10	100	21,24
198304015	15 x 3/4"	38	42	19	22	30	139	10	100	28,48
198102018	18 x 1/2"	33	36	15	16	24	99	10	100	24,40
198102022	22 x 1/2"	33	37	15	16	24	106	10	100	27,21
198304022	22 x 3/4"	38	43	19	22	30	154	10	100	29,78
198102028	28 x 1/2"	33	39	15	16	24	126	5	50	29,01
198100028	28 x 1"	48	50	21	27	38	309	5	50	38,87
198114035	35 x 1 1/4"	48	70,5	21	50,5	46	379	5	40	64,08
198112042	42 x 1 1/2"	51	80	21	50	50	390	2	20	70,36
198200054	54 x 2"	66	92	26	56	65	749	2	10	82,17

**186****90° DİRSEK ERKEK BSP**

• 90° ELBOW MALE BSP




MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

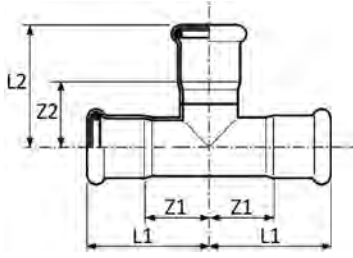
KOD / CODE	De x R mm x inch	Yarıçap Radius	L mm	Z mm	Z1 mm	H mm				€
186102015	15 x 1/2"	1,5 D	50	24	30	54	85	20	300	30,22
186102018	18 x 1/2"	1,5 D	54	24	34	59	98	20	200	31,67
186304022	22 x 3/4"	1,5 D	60	30	39	69	143	10	100	37,01
186100028	28 x 1"	1,5 D	73	36	50	80	218	10	50	43,88
186100035	35 x 1"	1,2 D	68	41	42	85	277	5	50	51,85
186114035	35 x 1"1/4	1,2 D	68	46	42	89	324	5	40	55,56
186114042	42 x 1"1/4	1,2 D	80	50	50	107	438	2	20	64,81
186112042	42 x 1"1/2	1,2 D	80	55	50	107	340	2	20	65,79
186200054	54 x 2"	1,2 D	100	65	65	141,5	515	2	12	77,78

**186/R****VANA BAĞLANTI ELEMANI İLE
90° DİRSEK**

• 90° ELBOW WITH VALVE CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**CONTA/GASGET:** (*): EPDM siyah - black**DİŞLİ / THREAD:** ISO 228/1 (ex DIN 259)

KOD / CODE	De x G mm x inch	L mm	H mm	Z mm	Z1 mm	Z2 mm	Conta / Gasget mm				€
186042134R	42 x 1"3/4	80	77,5	58	50	67,5	50,5x40 thk 2,5	345	1	16	110,21
186054238R	54 x 2"3/8	100	96	75	64,5	83,5	65,5x53,5 thk 3	589	1	10	128,88



182

EŞİT T (TEE)

• EQUAL TEE

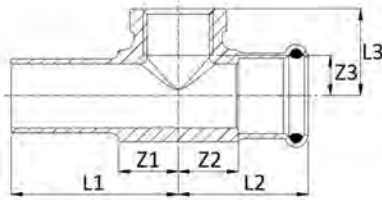
MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	g	€
182015000	15	34	39	14	19	67	20	200	17,39
182018000	18	37	41	16	21	80	20	100	20,02
182022000	22	39	45	18	24	106	10	100	21,04
182028000	28	44	50	21	27	145	10	50	25,28
182035000	35	51	57	25	31	201	4	32	31,54
182042000	42	59	65	28	35	260	4	20	44,59
182054000	54	70	77	34	42	404	2	12	53,19
182076000	76,1	108	118	53	63	1275	2	2	302,87
182088000	88,9	132	131	72	71	1535	2	2	331,63
182108000	108	155	159	74	84	2115	2	2	408,75
182139000	139,7	197	222	102	127	4129	1	1	843,12
182168000	168,3	257	268	144	155	6321	1	1	1059,94



189/MF

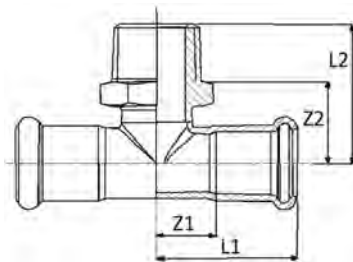
GEÇMELİ UÇLU DIŞİ BSP
ÇIKIŞLI KOL T (TEE)

• BRANCH TEE FEMALE BSP OUTLET WITH
PLUG-IN END

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
DİŞLİ: EN 10226-1 (ex ISO 7/1)

B 10 11

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	L3 mm	Z1 mm	Z2 mm	Z3 mm	g	g	g	€
189102022MF	22 x 1/2" x 22	50	39	26	18	18	12	161	5	50	16,50
189304028MF	28 x 3/4" x 28	58	44	30	21	21	14	227	5	50	20,86



189/M

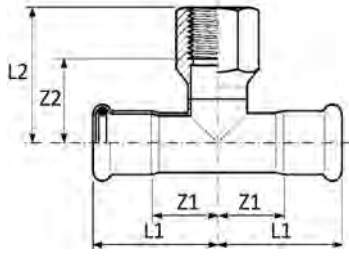
KOL T (TEE) ERKEK BSP ÇIKIŞI

• BRANCH TEE MALE BSP OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 10 11

KOD / CODE	De x R x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	g	€
189102015M	15 x 1/2" x 15	34,5	34	14,5	20	80	20	100	28,04



189

KOL TEE DİŞİ BSP
ÇIKIŞI

• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404




O-HALKA / O-RING : EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

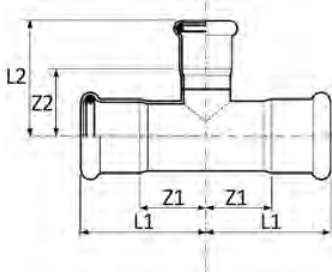
≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm				€
189102015*	15 x 1/2" x 15	36,5	22,5	16,5	8,5	117	20	100	19,23
189102018*	18 x 1/2" x 18	36	24	16	10	128	20	100	19,74
189304018*	18 x 3/4" x 18	38,5	26	18,5	11	147	20	100	24,04
189102022*	22 x 1/2" x 22	39	26	18	12	159	10	100	21,10
189304022*	22 x 3/4" x 22	41,5	30	20,5	14	184	10	100	24,07
189102028*	28 x 1/2" x 28	44	29	21	15	217	10	50	23,22
189304028*	28 x 3/4" x 28	44	30	21	14	221	10	50	27,59
189100028*	28 x 1" x 28	44	34	21	16	266	5	50	43,63
189102035	35 x 1/2" x 35	51	51	25	36	197	5	50	27,82
189304035	35 x 3/4" x 35	51	54	25	37	205	5	40	33,73
189100035	35 x 1" x 35	51	56	25	37	282	5	40	53,91
189102042	42 x 1/2" x 42	59	54	29	39	271	4	32	33,73
189304042	42 x 3/4" x 42	59	57	29	41	277	4	32	36,95
189100042	42 x 1" x 42	59	60	29	41	346	4	32	59,05
189102054	54 x 1/2" x 54	70	61	34	46	377	2	14	40,76
189304054	54 x 3/4" x 54	70	64	34	48	391	2	14	44,18
189200054	54 x 2" x 54	70	81	34	55	838	2	10	88,81
189304076	76,1 x 3/4" x 76,1	108	77	53	60	1040	2	2	265,08
189100076	76,1 x 1" x 76,1	108	79	53	60	1063	2	2	274,85
189200076	76,1 x 2" x 76,1	108	93	53	67	1495	2	2	289,89
189304088	88,9 x 3/4" x 88,9	132	84	72	67	1255	2	2	285,96
189200088	88,9 x 2" x 88,9	132	100	72	74	1720	2	2	301,01
189304108	108 x 3/4" x 108	155	94	74	77	1700	2	2	350,49
189200108	108 x 2" x 108	155	110	74	84	2160	2	2	371,56
189100139	139,7 x 1" x 139,7	197	107	102	88	3126	1	1	704,67
189200139	139,7 x 2" x 139,7	197	130	102	104	3623	1	1	726,64
189100168	168,3 x 1" x 168,3	257	120	144	101	4827	1	1	861,83
189200168	168,3 x 2" x 168,3	257	143	144	117	5325	1	1	878,73

[*] kesintisiz - seamless



192

AZALTICI T (TEE)

• REDUCING TEE

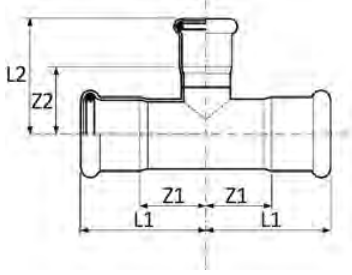
MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 **B 10 11**

76÷108 **B 10 12**

≥139 **B 10 17**

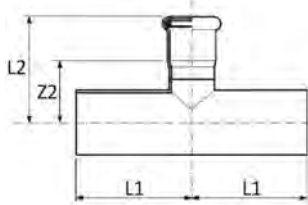
KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm				€
192018015	18 x 15 x 18	36,5	41	15,5	21	80	20	100	16,83
192022015	22 x 15 x 22	39	43	18	23	95	10	100	17,63
192022018	22 x 18 x 22	39	44	18	23	98	10	100	18,55
192028015	28 x 15 x 28	44	46	21	26	126	10	50	21,00
192028018	28 x 18 x 28	44	46	21	26	130	10	50	21,97
192028022	28 x 22 x 28	44	47	21	26	135	10	50	23,42
192035015	35 x 15 x 35	51	49	25	29	158	5	50	27,35
192035018	35 x 18 x 35	51	50	25	30	163	5	50	27,70
192035022	35 x 22 x 35	51	51	25	30	167	5	50	28,58
192035028	35 x 28 x 35	51	54	25	31	171	5	35	29,72
192042018	42 x 18 x 42	59	54	29	34	232	4	20	39,57
192042022	42 x 22 x 42	59	54	29	33	237	4	20	40,95
192042028	42 x 28 x 42	59	57	29	34	243	4	20	41,87
192042035	42 x 35 x 42	59	61	29	35	272	4	20	42,83
192054018	54 x 18 x 54	70	61	54	41	335	2	16	44,28
192054022	54 x 22 x 54	70	62	34	41	340	2	16	45,16
192054028	54 x 28 x 54	70	65	34	42	345	2	16	47,04
192054035	54 x 35 x 54	70	68	34	42	361	2	16	47,96
192054042	54 x 42 x 54	70	72	34	42	376	2	16	51,40
192076022	76,1 x 22 x 76,1	108	74	53	53	995	2	2	236,86
192076028	76,1 x 28 x 76,1	108	77	53	54	1015	2	2	256,08
192076035	76,1 x 35 x 76,1	108	80	53	54	1025	2	2	275,33
192076042	76,1 x 42 x 76,1	108	84	53	54	1045	2	2	297,04
192076054	76,1 x 54 x 76,1	108	90	53	55	1065	2	2	316,30
192088022	88,9 x 22 x 88,9	132	81	72	60	1220	2	2	251,28
192088028	88,9 x 28 x 88,9	132	84	72	61	1225	2	2	265,68
192088035	88,9 x 35 x 88,9	132	88	72	62	1245	2	2	289,58
192088042	88,9 x 42 x 88,9	132	91	72	61	1255	2	2	305,80
192088054	88,9 x 54 x 88,9	132	97	72	62	1280	2	2	323,77
192088076	88,9 x 76,1 x 88,9	132	125	72	70	1485	2	2	345,31
192108022	108 x 22 x 108	155	91	74	70	1665	2	2	269,97
192108028	108 x 28 x 108	155	94	74	71	1670	2	2	282,79
192108035	108 x 35 x 108	155	97	74	71	1775	2	2	313,26
192108042	108 x 42 x 108	155	101	74	71	1865	2	2	323,77
192108054	108 x 54 x 108	155	107	74	72	1925	2	2	352,44
192108076	108 x 76,1 x 108	155	135	74	80	1930	2	2	369,71
192108088	108 x 88,9 x 108	155	141	74	81	1965	2	2	427,06

**192****AZALTICI T (TEE)**

• REDUCING TEE

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
≤54 **B 10 11**76÷108 **B 10 12**≥139 **B 10 17**

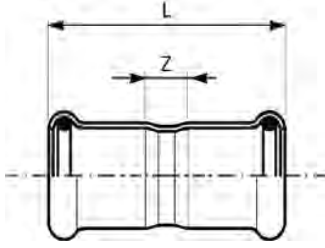
KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm				€
192139035	139,7 x 35 x 139,7	197	117	102	91	3083	1	1	704,67
192139076	139,7 x 76,1 x 139,7	197	155	102	100	3340	1	1	737,13
192139088	139,7 x 88,9 x 139,7	197	164	102	104	3435	1	1	756,40
192139108	139,7 x 108 x 139,7	197	180	102	105	3631	1	1	770,86
192168035	168,3 x 35 x 168,3	257	130	144	104	4784	1	1	861,83
192168076	168,3 x 76,1 x 168,3	257	169	144	114	5050	1	1	891,31
192168088	168,3 x 88,9 x 168,3	257	178	144	118	5146	1	1	915,40
192168108	168,3 x 108 x 168,3	257	194	144	119	5340	1	1	939,49
192168139	168,3 x 139,7 x 168,3	257	221	144	126	5681	1	1	1011,75

**188****AZALTICI T (TEE) MFM**

• REDUCING TEE MFM

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
B 10 11

KOD / CODE	De mm	L1 mm	L2 mm	Z2 mm				€
188028022	28 x 22 x 28	52,5	47	26	138	10	50	38,47
188035022	35 x 22 x 35	60	50,5	29,5	185	5	35	43,44
188035028	35 x 28 x 35	60	53,5	30,5	193	5	35	47,49
188042028	42 x 28 x 42	69	57	34	256	4	20	52,71
188054028	54 x 28 x 54	73,5	64,5	41,5	334	2	16	59,79



183/000

BAĞLAMA

• COUPLING

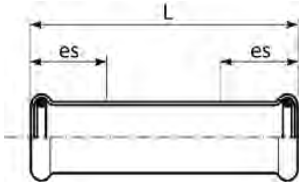
MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	L mm	Z mm	g			€
183015000	15	49	9	35	20	500	6,69
183018000	18	50	10	42	20	300	7,62
183022000	22	53	11	54	20	200	8,76
183028000	28	56	10	71	10	150	10,01
183035000	35	63	10	97	10	100	12,70
183042000	42	72	12	136	4	60	17,19
183054000	54	83	13	198	2	24	20,87
183076000	76,1	142	32	635	4	4	102,09
183088000	88,9	166	46	765	4	4	116,66
183108000	108	203	41	1170	2	2	148,45
183139000	139,7	250	60	2031	1	1	285,98
183168000	168,3	300	74	2936	1	1	357,50



183/001

KAYMALI BAĞLANTI

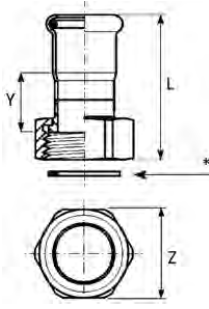
• SLIP COUPLING

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

KOD / CODE	De mm	L mm	es mm	g			€
183015001	15	69	25	56	20	200	13,24
183018001	18	73	25	65	20	200	13,84
183022001	22	79	25	85	20	100	16,05
183028001	28	88,5	30	118	10	100	18,79
183035001	35	102,5	30	141	10	50	24,15
183042001	42	117,5	40	234	4	40	28,11
183054001	54	139	40	321	2	20	38,77
183076001	76,1	230	60	940	2	2	278,65
183088001	88,9	260	70	1240	2	2	316,65
183108001	108	310	80	1835	2	2	391,69

**183/002**

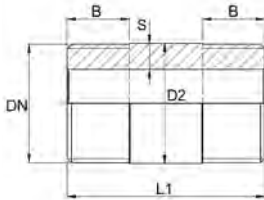
≤54 B 10 11
76÷108 B 10 12

VANA BAĞLANTISI

• VALVE CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
CONTA / GASGET: (*): EPDM siyah - black
DİŞLİ / THREAD: ISO 228/1 (ex DIN 259)

KOD / CODE	De x G mm x inch	L mm	Z mm	Y mm	Conta / Gasget mm	g			€
183015012	15 x 1/2"	48,5	27	23	18x10 thk 2,5	83	10	250	19,29
183015002	15 x 3/4"	50	30	23	24x14 thk 2,5	66	10	250	19,45
183018012	18 x 1/2"	49	27	23,5	18x10 thk 2,5	91	10	250	21,33
183018002	18 x 3/4"	50	30	23,5	24x14 thk 2,5	65	10	250	21,34
183022012	22 x 3/4"	50	30	19,5	24x14 thk 2,5	78	10	200	25,03
183022002	22 x 1"	52	36	23	30x20 thk 2,5	87	10	200	25,03
183028012	28 x 1"	52	36	19,5	30x20 thk 2,5	105	10	150	31,06
183028002	28 x 1"1/4	57	46	25	39x27 thk 2,5	136	10	150	31,06
183028022	28 x 1"1/2	59	52	22,5	44,5x27 thk 2,5	197	10	60	31,06
183035012	35 x 1"1/4	57,5	46	20,5	39x27 thk 2,5	163	4	60	35,24
183035002	35 x 1"1/2	63	52	26	44,5x34 thk 2,5	186	4	60	35,24
183042022	42 x 1"1/2	63,5	52	21	44,5x34 thk 2,5	217	2	30	47,59
183042012	42 x 1"3/4	68	58	27	50,5x40 thk 2,5	223	2	30	47,59
183042002	42 x 2"	68	64	27	56x42 thk 2,5	266	2	30	62,57
183054022	54 x 2"	72	64	23	56x42 thk 2,5	301	2	20	57,30
183054012	54 x 2"3/8	77	75	30	65,5x53,5 thk 3	375	2	20	64,01
183054002	54 x 2"1/2	77	81	30	71,5x53 thk 3	439	2	20	89,48

**530/1 Inoxpres**

B 10 11

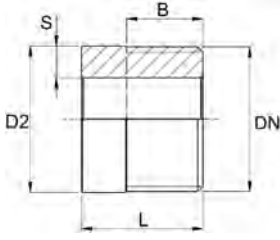
KONİK DİŞLİ NİPEL

• BARREL NIPPLE

MALZEME / MATERIALE: AISI 316 - 1.4401
DİŞLİ / THREAD: ISO 228/1 (ex DIN 259)

KOD / CODE	DN inch	L1 mm	S mm	B mm	D2 mm	g			€
530100070I	1"	70	7,9	22	33,8	347	1	10	51,60
530114070I	1"1/4	70	9,2	22	42,4	522	1	8	58,89
530112070I	1"1/2	70	8,7	22	48,3	586	1	8	76,17
530134070I	1"3/4	70	8	22	54	635	1	6	86,00
530238070I	2"3/8	70	10	22	70	1026	1	4	122,86

B 10 11



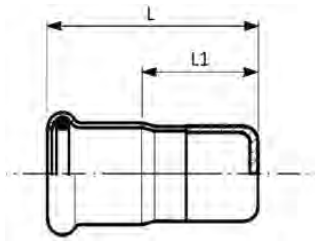
600/I Inoxpres

KAYNAK UÇLARI

• WELDING NIPPLE

MALZEME / MATERIAL: AISI 316 - 1.4401
DİŞLİ / THREAD: ISO 228/1 [ex DIN 259]

KOD / CODE	DN inch	L mm	S mm	B mm	D2 mm	g	kg	Box	€
600100035I	1"	35	7,9	22	33,8	174	1	30	28,25
600114035I	1 1/4"	35	9,2	22	42,4	261	1	20	36,85
600112035I	1 1/2"	35	8,7	22	48,3	293	1	10	42,99
600134035I	1 3/4"	35	8	22	54	318	1	10	46,69
600238035I	2 3/8"	35	10	22	70	513	1	10	61,42



183/003

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

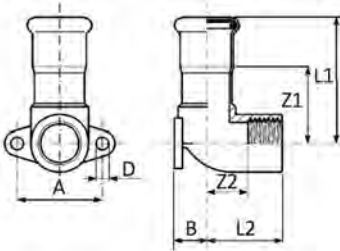
DUR UCU

• STOP END

MALZEME: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	L1 mm	g	kg	Box	€
183015003	15	44	24	32	20	500	9,43
183018003	18	44	24	38	20	300	9,82
183022003	22	45	24	51	10	200	11,39
183028003	28	48	25	68	10	150	15,73
183035003	35	52	26	95	5	100	17,93
183042003	42	56	26	126	4	80	27,53
183054003	54	62	27	185	4	40	32,12
183076003	76,1	93	38	540	2	10	60,67
183088003	88,9	99	39	630	2	10	75,13
183108003	108	117	42	935	2	2	92,42
183139003	139,7	162	67	1380	1	1	228,79
183168003	168,3	199	86	2038	1	1	262,15

B 10 11



185/000

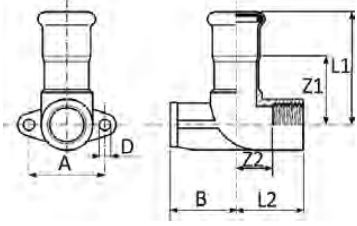
DUVAR LEVHASI DİRSEĞİ 90° FF

• WALL PLATE ELBOW 90° FF

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 [ex ISO 7/1]




KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm	g	kg	Box	€
185102015	15 x 1/2"	50	30	30	17	34	13	5	98	10	150	23,69
185102018	18 x 1/2"	51	30	31	17	34	13	5	109	10	150	24,59
185304022	22 x 3/4"	55	34	34	19	40	17	6	166	10	100	35,39

B 10 11

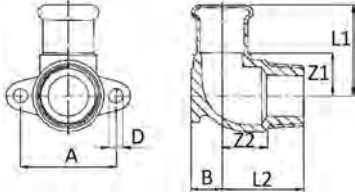
**185/001****UZATMA DUVAR LEVHASI DİRSEĞİ
90° FF**

• EXTENSION WALL PLATE ELBOW 90° FF

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)




KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm				€
185102115	15 x 1/2"	50	30	30	17	34	35	5	146	10	150	25,69
185102118	18 x 1/2"	51	30	31	17	34	35	5	142	10	150	26,98
185304122	22 x 3/4"	55	34	34	19	40	31	6	182	10	100	36,58

B 10 11

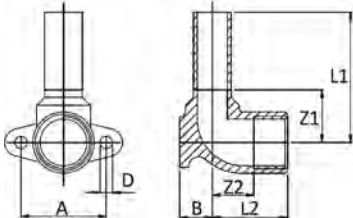
**185/002****DUVAR LEVHASI DİRSEĞİ 90° FM**

• WALL PLATE ELBOW 90° FM

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)




KOD / CODE	De x R mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm				€
185304218	18 x 3/4"	38	34	18	19	40	13	6	160	10	100	31,24

B 10 11

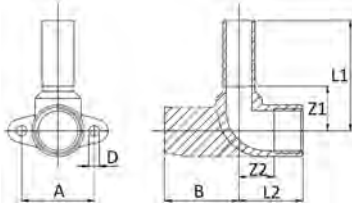
**185/000 M****DUVAR LEVHASI DİRSEĞİ 90° MF**

• WALL PLATE ELBOW 90° MF

MALZEME / MATERIAL: AISI 316L - 1.4404**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm				€
185102015M	15 x 1/2"	52	30	21	16,5	34	13	5	100	10	200	24,09
185102018M	18 x 1/2"	52	30,5	21	17	34	12,5	5	95	10	200	25,01
185304022M	22 x 3/4"	55	34	24	19	40	17	6	144	10	100	36,00

B1011



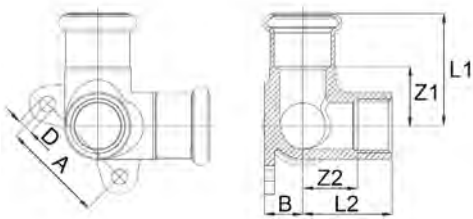
185/001 M

UZATMA DUVAR LEVHASI DİRSEĞİ 90° MF

- EXTENSION WALL PLATE ELBOW 90° MF
- MALZEME / MATERIAL:** AISI 316L - 1.4404
- DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm				€
185102115M	15 x 1/2"	52	30	21	16,5	34	35	5	135	10	150	25,69
185102118M	18 x 1/2"	52	30	21	16,5	34	35	5	130	10	150	26,98
185304122M	22 x 3/4"	55	34	24	19	40	31	6	166	10	100	36,58

B1011

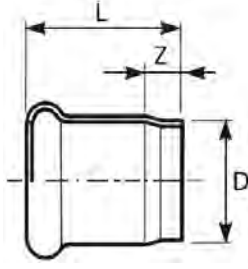


185/003

DUVAR FLANŞLI KÖŞE T (TEE)

- CORNER TEE WITH WALL FLANGE
- MALZEME / MATERIAL:** AISI 316L - 1.4404
- O-HALKA / O-RING:** EPDM siyah - black
- DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm				€
185102315	15 x 1/2" x 15	43	32	23	18,5	40	13	6	175	10	100	51,67
185102318	18 x 1/2" x 18	41	32	21	18,5	40	13	6	165	10	50	53,42
185102322	22 x 1/2" x 22	44	35	23	21,5	40	15	6	216	5	50	59,23

**187/R****YARIM KAYNAK
BAĞLANTISI**

• HALF WELDING COUPLING

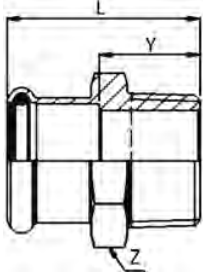
MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** assente - yok - Abwesend -
yok - ausente

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	D mm	L mm	Z mm	g			€
187015000R	15	17,2	29	9	20	20	400	6,51
187018000R	18	20	29,5	9,5	24	20	300	7,78
187022000R	22	24	30,5	9,5	30	20	200	8,78
187028000R	28	30	33,5	10,5	40	20	200	9,01
187035000R	35	37	37,5	11,5	52	10	100	11,05
187042000R	42	44	41	11	74	10	50	11,41
187054000R	54	56	48	12	104	10	50	11,93
187076000R	76,1	76,1	74,5	19,5	308	4	24	57,17
187088000R	88,9	88,9	84	24	404	2	20	73,48
187108000R	108	108	100	25	614	1	4	99,13
187139000R	139,7	139,7	127	32	986	1	1	142,99
187168000R	168,3	168,3	159	46	1449	1	1	178,74



187

≤54 B 10 11

76÷108 B 10 12




ERKEK ADAPTÖR

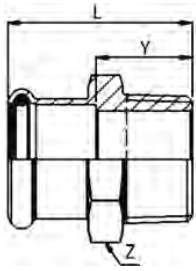
• MALE ADAPTER

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm				€
187308015	15 x 3/8"	38	24	18	46	20	400	13,77
187102015	15 x 1/2"	41	24	21	54	20	300	16,85
187304015	15 x 3/4"	43	30	23	101	20	200	17,10
187102018	18 x 1/2"	41	27	21	58	20	300	18,33
187304018	18 x 3/4"	44	30	24	94	20	200	19,13
187102022	22 x 1/2"	42	32	21	83	10	200	19,92
187304022	22 x 3/4"	44	32	23	89	10	200	20,64
187100022	22 x 1"	46	36	25	154	10	100	24,54
187102028	28 x 1/2"	46	38	23	121	10	100	28,00
187304028	28 x 3/4"	47	38	24	114	10	100	28,00
187100028	28 x 1"	48	38	25	123	10	100	32,11
187114028	28 x 1 1/4"	53	46	30	274	5	60	37,07
187100035	35 x 1"	52	45	25	173	5	100	33,82
187114035	35 x 1 1/4"	55	46	28	180	5	50	39,31
187112035	35 x 1 1/2"	55	50	28	278	4	60	46,35
187114042	42 x 1 1/4"	59	55	28	240	4	40	52,66
187112042	42 x 1 1/2"	59	54	28	236	4	40	57,11
187112054	54 x 1 1/2"	65	65	29	356	4	32	66,30
187200054	54 x 2"	71	65	35	362	4	32	71,00
187212076	76,1 x 2 1/2"	98	83	43	769	2	8	332,54
187300088	88,9 x 3"	111	98	51	1218	2	4	496,83
187400108	108 x 4"	132	118	57	1842	2	2	571,93



187 NPT

B 10 11




ERKEK ADAPTÖR NPT

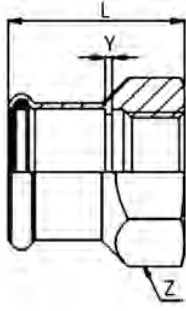
• MALE ADAPTER NPT

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: EPDM siyah - black

DİŞLİ / THREAD: NPT - ANSI B 1.20.1

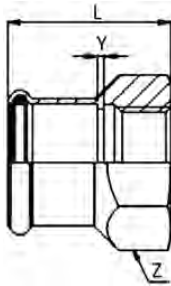
KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm				€
18710215NPT	15 x 1/2"	41	24	21	60	20	300	18,84
18710218NPT	18 x 1/2"	41	27	21	63	20	300	20,48
18730422NPT	22 x 3/4"	44	32	23	93	10	200	23,06
18710028NPT	28 x 1"	48	38	25	133	10	100	35,89
18711435NPT	35 x 1 1/4"	55	46	28	205	5	50	43,95
18711242NPT	42 x 1 1/2"	59	55	28	268	4	40	63,83
18720054NPT	54 x 2"	71	65	35	405	4	32	79,37

**190****DİŞİ ADAPTÖR**

• FEMAMALE ADAPTER

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
190102015	15 x 1/2"	38	27	2	64	20	300	18,14
190304015	15 x 3/4"	39	32	2	75	20	300	18,91
190102018	18 x 1/2"	38	27	2	89	20	300	19,14
190304018	18 x 3/4"	39	32	2	80	10	200	20,03
190102022	22 x 1/2"	39	32	2	99	20	200	20,33
190304022	22 x 3/4"	40	32	2	82	10	150	23,81
190100022	22 x 1"	43	41	2	148	10	100	28,13
190102028	28 x 1/2"	41	38	2	161	10	100	27,18
190304028	28 x 3/4"	42	38	2	130	10	100	27,18
190100028	28 x 1"	45	41	2	158	10	100	37,26
190114028	28 x 1"1/4	48	46	2	148	10	100	41,33
190100035	35 x 1"	49	46	2	216	5	100	35,80
190114035	35 x 1"1/4	52	46	2	170	5	50	40,64
190112035	35 x 1"1/2	52	55	2	284	4	40	46,46
190114042	42 x 1"1/4	56	55	2	259	4	40	45,94
190112042	42 x 1"1/2	56	55	2	243	4	40	63,36
190112054	54 x 1"1/2	60	65	1	420	4	32	68,99
190200054	54 x 2"	65	65	2	314	4	20	94,36

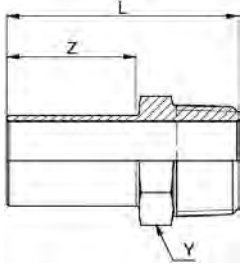
**190 NPT****DİŞİ ADAPTÖR NPT**

• FEMALE ADAPTER NPT

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**DİŞLİ / THREAD:** NPT - ANSI B1.20.1

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
19010215NPT	15 x 1/2"	38	27	18	68	20	300	20,29
19010218NPT	18 x 1/2"	38	27	18	71	20	300	21,39
19030422NPT	22 x 3/4"	40	32	19	92	10	150	26,60
19010028NPT	28 x 1"	50	41	27	185	10	100	41,64
19011435NPT	35 x 1"1/4	49	46	22	181	5	50	45,43
19011242NPT	42 x 1"1/2	56	55	25	276	4	40	70,84
19020054NPT	54 x 2"	65	65	29	388	4	20	105,48

B1011



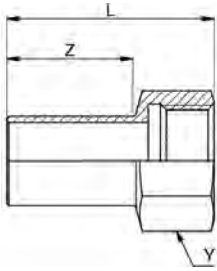
269/M

ERKEK AZALTMA SOKETİ

• MALE REDUCTION SOCKET

MALZEME / MATERIAL: AISI 316L - 1.4404
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g			€
269102115	15 x 1/2"	52	31	22	55	20	300	17,19
269102118	18 x 1/2"	52	31	22	50	20	300	18,80
269304118	18 x 3/4"	55	31	27	95	20	200	18,61
269102122	22 x 1/2"	55	32	27	69	10	200	20,19
269304122	22 x 3/4"	56	32	27	80	10	200	21,16
269304128	28 x 3/4"	61	37	30	97	10	150	26,58
269100128	28 x 1"	64	37	38	145	10	100	29,02
269114135	35 x 1 1/4"	72	41	45	238	4	40	31,21
269112142	42 x 1 1/2"	91	55	55	292	4	40	36,22
269200154	54 x 2"	127	83	65	463	4	20	60,60



269/F

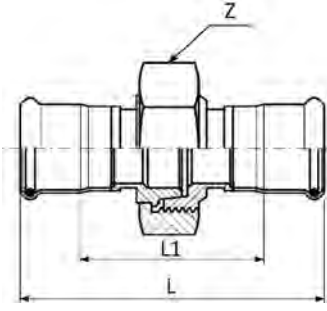
DİŞİ AZALTMA SOKETİ

• FEMALE REDUCTION SOCKET

MALZEME / MATERIAL: AISI 316L - 1.4404
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B1011

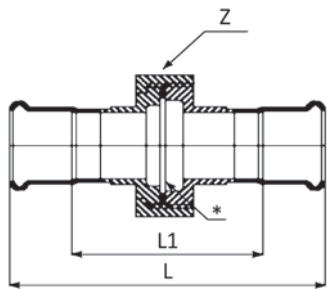
KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
269102015	15 x 1/2"	52	31	24	55	20	300	18,76
269102018	18 x 1/2"	52	31	24	56	20	200	19,73
269304018	18 x 3/4"	51	31	30	57	20	200	20,50
269102022	22 x 1/2"	52	32	24	65	10	200	20,82
269304022	22 x 3/4"	52	32	30	70	10	200	24,62
269304028	28 x 3/4"	57	37	30	76	10	150	26,58
269100028	28 x 1"	57	35	36	104	10	100	39,86
269114035	35 x 1 1/4"	70	45	46	182	5	50	55,89
269112042	42 x 1 1/2"	118	78	55	280	4	40	61,61
269200054	54 x 2"	135	83	70	340	2	10	84,46

**184/000****KONİK SOMUN**

• CONICAL UNION

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	L1 mm	Z mm	g			€
184015000	15	96	56	34	146	10	100	36,70
184018000	18	97	57	39	192	10	100	43,44
184022000	22	99	57	39	202	10	50	48,71
184028000	28	116	70	58	468	5	25	63,20
184035000	35	123	71	67	618	4	20	79,77
184042000	42	138	78	77	824	2	20	98,89
184054000	54	154	84	90	1178	2	10	186,88

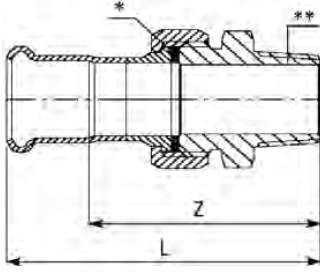
**184/001****DÜZ YÜZLÜ SOMUN**

• FLAT FACED UNION

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black
CONTA / GASGET: [*]: EPDM siyah - black

KOD / CODE	De mm	L mm	L1 mm	Z mm	Conta / Gasget mm	g		€	
184015001	15	96	56	34	24x14 thk 2,5	146	10	120	36,70
184018001	18	97	57	39	30x20 thk 2,5	187	10	100	43,44
184022001	22	100	58	39	30x20 thk 2,5	194	10	100	48,71
184028001	28	117	71	58	47,5x37 thk 2,5	450	5	30	63,20
184035001	35	127	75	67	56x42 thk 2,5	617	4	20	79,77
184042001	42	140	80	77	66x56 thk 2,5	797	2	20	98,89
184054001	54	152	82	90	79,5x69 thk 2,5	1176	2	10	186,88

B 10 11



184/002

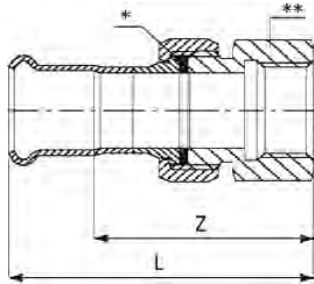
DÜZ ERKEK SOMUN BAĞLANTISI

• STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: AISI 316L – 1.4404
BAĞLANTI / FITTING: [**]: piring – brass
O-HALKA / O-RING: EPDM siyah – black
CONTA / GASGET: [*]: EPDM siyah – black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
184015002	15 x 1/2"	77	56	24x14 thk 2,5	142	2	160	32,74
184018002	18 x 1/2"	77	56	24x14 thk 2,5	144	2	160	37,29
184022122	22 x 1/2"	79	54	30x20 thk 2,5	199	2	100	38,39
184022002	22 x 3/4"	81	59	30x20 thk 2,5	202	2	100	38,39
184028342	28 x 3/4"	87	64	39x27 thk 2,5	370	2	40	65,49
184028002	28 x 1"	90	67	39x27 thk 2,5	364	2	40	65,49
184035002	35 x 1"1/4	101	74	44,5x34 thk 2,5	540	2	40	83,56
184042002	42 x 1"1/2	105	74	50,5x40 thk 2,5	563	2	30	95,96
184054002	54 x 2"	118	83	65,5x53,5 thk 3	823	2	20	164,80

184/002 - belgeli değil SVGW - not certified SVGW



184/003

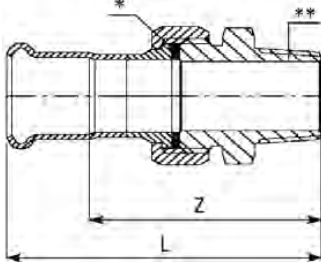
DÜZ DIŞİ SOMUN BAĞLANTISI

• STRAIGHT FEMALE UNION CONNECTOR

MALZEME / MATERIAL: AISI 316L – 1.4404
BAĞLANTI / FITTING: [**]: piring – brass
O-HALKA / O-RING: EPDM siyah – black
CONTA / GASGET: [*]: EPDM siyah – black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
184015003	15 x 1/2"	71	50	24x14 thk 2,5	140	2	160	32,74
184018003	18 x 1/2"	72	51	24x14 thk 2,5	145	2	140	39,47
184022123	22 x 1/2"	75	54	30x20 thk 2,5	253	2	100	42,91
184022003	22 x 3/4"	76	54	30x20 thk 2,5	213	2	100	42,91
184028343	28 x 3/4"	83	60	39x27 thk 2,5	483	2	40	56,48
184028003	28 x 1"	83	60	39x27 thk 2,5	404	2	40	56,48
184035003	35 x 1"1/4	93	66	44,5x30 thk 2,5	486	2	30	70,01
184042003	42 x 1"1/2	97	66	56x42 thk 2,5	536	2	30	86,98
184054003	54 x 2"	116	81	65,5x53,5 thk 3	1091	2	20	165,94

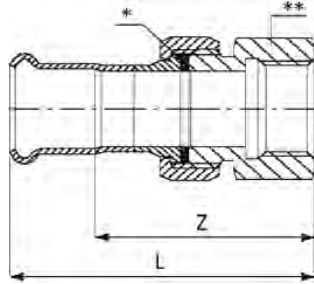
184/003 - belgeli değil SVGW - not certified SVGW

**184/002 INOX****DÜZ ERKEK SOMUN BAĞLANTISI**

• STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404**BAĞLANTI / FITTING:** [**]: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**CONTA / GASGET:** [*]: EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

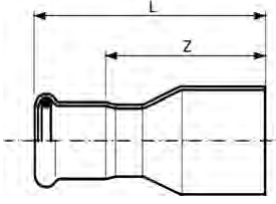
KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
184015002I	15 x 1/2"	77	56	24x14 thk 2,5	137	2	160	40,95
184015012I	15 x 3/4"	77	57	24x14 thk 2,5	178	2	160	42,31
184018002I	18 x 1/2"	77	56	24x14 thk 2,5	139	2	160	46,61
184018012I	18 x 3/4"	77	57	24x14 thk 2,5	178	2	160	47,75
184022012I	22 x 1/2"	79	58	30x20 thk 2,5	217	2	100	48,00
184022002I	22 x 3/4"	81	59	30x20 thk 2,5	194	2	100	49,17
184022022I	22 x 1"	81	60	30x20 thk 2,5	257	2	80	79,61
184028002I	28 x 1"	90	67	39x27 thk 2,5	350	2	40	81,86
184035002I	35 x 1 1/4"	101	74	44,5x34 thk 2,5	518	2	40	104,45
184042002I	42 x 1 1/2"	102	71,5	44,5x34 thk 2,5	543	2	30	110,36
184054002I	54 x 2"	111	77	56x42 thk 2,5	842	2	20	189,57

**184/003 INOX****DÜZ DIŞI SOMUN BAĞLANTISI**

• STRAIGHT FEMALE UNION CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404**BAĞLANTI / FITTING:** [**]: AISI 316L - 1.4404**O-HALKA / O-RING:** EPDM siyah - black**CONTA / GASGET:** [*]: EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
184015003I	15 x 1/2"	71	50	24x14 thk 2,5	135	2	160	40,95
184015013I	15 x 3/4"	74	54	24x14 thk 2,5	189	2	120	45,44
184018003I	18 x 1/2"	72	51	24x14 thk 2,5	140	2	140	49,34
184018013I	18 x 3/4"	75	55	24x14 thk 2,5	190	2	120	50,96
184022003I	22 x 3/4"	76	54	30x20 thk 2,5	206	2	100	54,44
184022013I	22 x 1"	79	58	30x20 thk 2,5	337	2	60	57,09
184028003I	28 x 1"	83	60	39x27 thk 2,5	387	2	40	70,56
184035003I	35 x 1 1/4"	93	66	44,5x34 thk 2,5	467	2	30	87,52
184042003I	42 x 1 1/2"	93	62,5	44,5x34 thk 2,5	488	2	30	100,02
184054003I	54 x 2"	111	77	56x42 thk 2,5	902	2	20	190,87



191

DARALTICI

• REDUCER

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

KOD / CODE	De mm	L mm	Z mm	g	g	g	€
191018015	18 x 15	57	37	35	20	500	7,74
191022015	22 x 15	64	44	43	20	400	8,48
191022018	22 x 18	60	40	47	20	300	8,75
191028015	28 x 15	76,5	56,5	50	20	200	10,96
191028018	28 x 18	68	48	63	20	200	10,25
191028022	28 x 22	65	44	66	20	200	10,20
191035015	35 x 15	87	67	89	10	100	37,56
191035018	35 x 18	81	61	87	10	100	38,01
191035022	35 x 22	70	49	90	10	100	12,76
191035028	35 x 28	71	48	98	10	100	15,82
191042015	42 x 15	91	71	111	4	100	38,84
191042018	42 x 18	92	72	114	4	80	38,96
191042022	42 x 22	97	76	120	4	80	40,35
191042028	42 x 28	93	70	130	4	80	41,25
191042035	42 x 35	81	55	138	4	40	22,13
191054015	54 x 15	103	83	158	4	40	43,10
191054018	54 x 18	103	83	162	4	40	43,14
191054022	54 x 22	104	83	169	4	40	45,44
191054028	54 x 28	108,5	85,5	180	4	40	47,30
191054035	54 x 35	108	82	193	4	40	58,90
191054042	54 x 42	97,5	67,5	210	4	32	28,62
191076042	76,1 x 42	149	119	471	4	4	86,30
191076054	76,1 x 54	159	124	529	4	4	88,21
191088054	88,9 x 54	179	144	683	4	4	95,95
191088076	88,9 x 76,1	186	131	813	4	4	130,36
191108054	108 x 54	185	150	831	2	2	103,41
191108076	108 x 76,1	209	154	1022	2	2	134,23
191108088	108 x 88,9	210	150	1107	2	2	149,51
191139076	139,7 x 76,1	356,5	301,5	2100	1	1	524,19
191139088	139,7 x 88,9	380	320	2319	1	1	500,47
191139108	139,7 x 108	345	270	2285	1	1	476,64
191168076	168,3 x 76,1	369	315	2515	1	1	604,12
191168088	168,3 x 88,9	380	320	2660	1	1	571,97
191168108	168,3 x 108	395	320	2945	1	1	548,14
191168139	168,3 x 139,7	422	327	3392	1	1	524,31



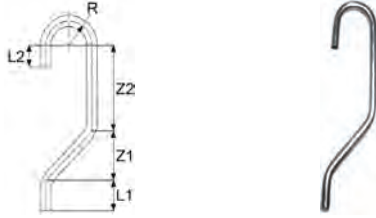
179

BORU KÖPRÜSÜ

• PIPE BRIDGE

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	De mm	L mm	A mm	B mm	g	g	g	€
179015000	15	57	158	30	54	10	150	16,25
179018000	18	60	166	31	74	10	100	16,92
179022000	22	65	179	33	116	10	100	18,94
179028000	28	73	206	36	192	10	50	22,98



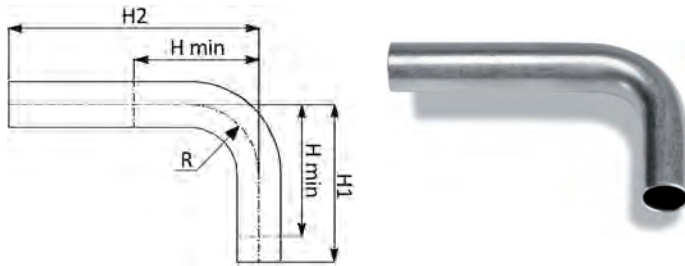
178

BASINÇLI HAVA İÇİN BORU

• PIPE FOR COMPRESSED AIR

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	R mm	g	g	g	€
178015316	15	30	30	96	114	35	143	1	20	40,59
178018316	18	50	35	108	112	39	195	1	20	43,47
178022316	22	50	35	110	110	41	359	1	20	51,34
178028316	28	60	40	139	113	51	550	1	15	71,90



194/900

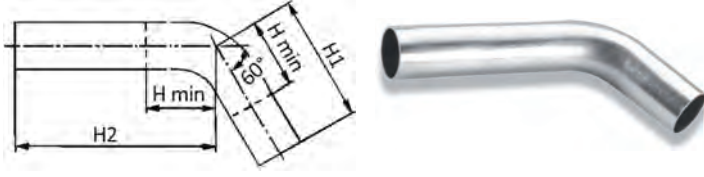
90° DİRSEK MM

• 90° ELBOW MM

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	R mm	g	g	g	€
194015900	15	70	48	120	35	89	20	160	16,57
194018900	18	70	53	120	38	108	20	120	17,22
194022900	22	70	61	120	40	133	10	100	18,52
194028900	28	97	80	125	45	202	10	50	19,80
194035900	35	120	90	200	42	380	4	20	40,21
194042900	42	160	115	250	50	592	2	10	49,77
194054900	54	300	140	305	65	1139	2	2	62,54

B 10 11



194/600

60° DİRSEK MM

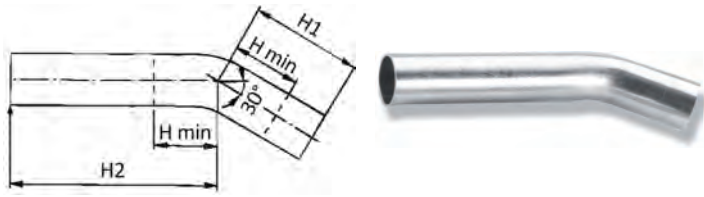
• 60° ELBOW MM

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	g	kg	box	€
194028600	28	71	64	116	182	10	50	33,08
194035600	35	101	71	226	406	4	24	53,17
194042600	42	124	80	251	563	2	10	78,49
194054600	54	162	97	308	914	2	2	101,20

≤54 B 10 11

76÷108 B 10 12



194/300

30° DİRSEK MM

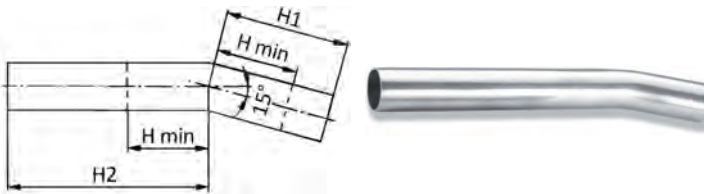
• 30° ELBOW MM

MALZEME: AISI 316L - 1.4404

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	g	kg	box	€
194018300	18	55	39	128	113	20	120	15,25
194022300	22	50	44	124	134	10	50	30,96
194028300	28	55	47	131	183	10	50	31,70
194035300	35	80	50	218	375	4	24	51,05
194042300	42	98	54	274	566	2	10	75,28
194054300	54	137	72	324	909	2	2	96,46
194076300	76,1	201	135	201	1489	1	1	115,61
194088300	88,9	241	161	241	2095	1	1	125,49
194108300	108	263	168	263	2787	1	1	154,61

≤54 B 10 11

76÷108 B 10 12



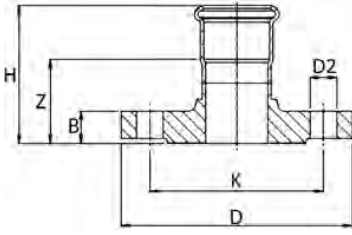
194/150

15° DİRSEK MM

• 15° ELBOW MM

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	g	kg	box	€
194018150	18	55	40	128	114	20	120	15,25
194028150	28	45	38	136	180	10	50	31,02
194035150	35	62	32	234	373	4	24	50,09
194042150	42	94	50	276	563	2	10	73,76
194054150	54	117	52	337	896	2	2	94,05
194076150	76,1	228	163	228	1694	1	1	115,61
194088150	88,9	240	160	240	2091	1	1	125,49
194108150	108	249	154	249	2646	1	1	154,61

**193/002**

≤54 B 10 11
76÷108 B 10 12

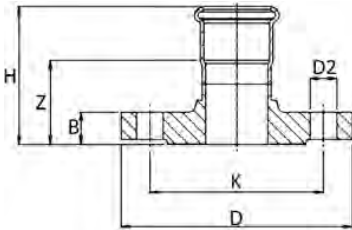
ADAPTÖR FLANŞI

• ADAPTÖR FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

PN 6

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g	kg	Box	€
193015002	15	15	53	33	12	80	11	4	55	405	2	20	65,13
193018002	18	15	53,5	33,5	12	80	11	4	55	405	2	20	66,96
193022002	22	20	56,5	35,5	14	90	11	4	65	610	2	14	79,21
193028002	28	25	59,5	36,5	14	100	11	4	75	755	2	10	96,86
193035002	35	32	63	37	14	120	14	4	90	1080	2	6	136,70
193042002	42	40	67	37	14	130	14	4	100	1186	2	6	160,39
193054002	54	50	74	38	14	140	14	4	110	1348	2	4	197,76
193076002	76,1	65	101	45,5	14	160	14	4	130	1870	2	2	331,96
193088002	88,9	80	112	52	16	190	18	4	150	2920	2	2	396,09
193108002	108	100	128	53	16	210	18	4	170	3525	2	2	471,50

**193/000**

≤54 B 10 11
76÷108 B 10 12
≥139 B 10 17

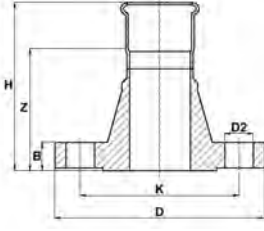
MANICOTTO FLANGIATO

• ADAPTÖR FLANŞI

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: EPDM siyah - black

PN 16

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g	kg	Box	€
193015000	15	15	55	35	14	95	14	4	65	660	2	20	73,85
193018000	18	15	55,5	35,5	14	95	14	4	65	660	2	20	75,89
193022000	22	20	58,5	37,5	16	105	14	4	75	945	2	14	89,80
193028000	28	25	61,5	38,5	16	115	14	4	85	1140	2	10	109,80
193035000	35	32	65,5	39,5	16	140	18	4	100	1640	2	6	155,00
193042000	42	40	69	39	16	150	18	4	110	1800	2	6	181,80
193054000	54	50	78	42	18	165	18	4	125	2450	2	4	224,21
193076000	76,1	65	105	50	18	185	18	4	145	3184	2	2	360,51
193088000	88,9	80	116	56	20	200	18	8	160	3950	2	2	430,15
193108000	108	100	132	57	20	220	18	8	180	4729	2	2	512,03
193139000	139,7	125	180	85	22	250	18	8	210	7095	1	1	726,63
193168000	168,3	150	212	91,5	22	285	22	8	240	8929	1	1	825,83



193/006

≤54 B 10 11

76÷108 B 10 12

ADAPTÖR FLANŞI

• ADAPTOR FLANGE

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

ANSI
150
lb

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g			€
193015006	15	15	79,7	59,7	14,1	89	15,8	4	60,3	641	2	18	75,93
193018006	18	15	77,1	57,1	11,2	89	15,8	4	60,3	501	2	18	78,05
193022006	22	20	82,9	61,9	12,8	98,5	15,8	4	69,8	749	2	12	92,38
193028006	28	25	89,1	66,1	14,3	108	15,8	4	79,3	1062	2	8	112,91
193035006	35	32	94,4	68,4	15,9	117,5	15,8	4	88,9	1420	2	6	159,36
193042006	42	40	102,9	72,9	17,5	127,1	15,8	4	98,4	1809	2	4	186,95
193054006	54	50	111,1	75,5	19,1	152,5	19	4	120,6	2714	2	2	230,53
193076006	76,1	65	122,5	67,5	22,3	177,9	19	4	139,7	4194	2	2	468,64
193088006	88,9	80	150,9	90,9	23,8	190,6	19	4	152,4	5338	2	2	559,19
193108006	108	100	172,2	97,2	23,8	228,7	19	8	190,5	7525	2	2	665,61

≤54 B 10 11

76÷108 B 10 12

≥139 B 10 17

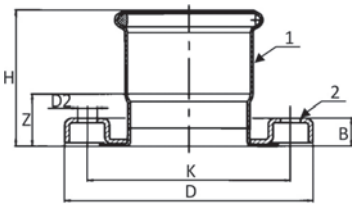
193/001

ADAPTÖR GEVŞEK FLANŞ

• ADAPTOR LOOSE FLANGE

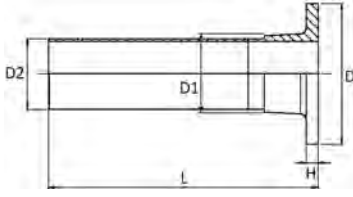
MALZEME / MATERIAL: 1 - AISI 316L – 1.4404
2 - AISI 304 – 1.4301

O-HALKA / O-RING: EPDM siyah – black



PN 10

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g			€
193054001	54	50	60	24	21	165	18	4	125	893	2	6	142,35
193076001	76,1	65	86,5	31,5	23	185	18	4	145	1623	2	2	184,46
193088001	88,9	80	96	36	23,5	200	18	8	160	1879	2	2	216,50
193108001	108	100	116	41	24	220	18	8	180	2283	2	2	238,95
193139001	139,7	125	143	48	25,5	250	18	8	210	3436	1	1	606,19
193168001	168,3	150	176	63	30	285	22	8	240	4668	1	1	692,79

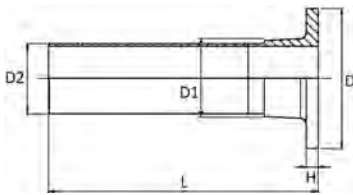
**193/004**≤54 B 10 11
76÷108 B 10 12**GEVŞEK FLANŞ İÇİN
HALKA**

• COLLAR FOR LOOSE FLANGE

MALZEME / MATERIALE: AISI 316L - 1.4404

PN 6

KOD / CODE	De mm	L mm	H mm	D mm	D1 mm	D2 mm	g	kg	Box	€
193022004	22	135	6	50	27	22	210	2	14	48,95
193028004	28	135	6	60	32	28	260	2	14	57,14
193035004	35	135	6	70	40	35	350	2	14	69,16
193042004	42	135	6	80	46	42	420	2	14	78,71
193054004	54	135	8	90	59	54	580	2	14	94,19
193076004	76,1	135	8	110	78	76,1	840	2	12	129,15
193088004	88,9	135	10	128	91	88,9	1150	2	6	157,33
193108004	108	135	10	148	110	108	1390	2	2	199,57

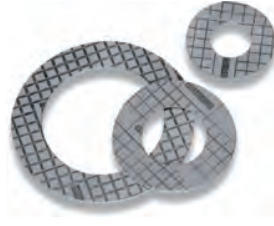
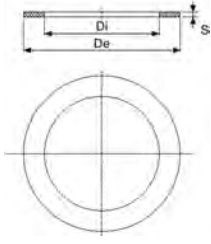
**193/003**≤54 B 10 11
76÷108 B 10 12**GEVŞEK FLANŞ İÇİN
HALKA**

• COLLAR FOR LOOSE FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404

PN 16

KOD / CODE	De mm	L mm	H mm	D mm	D1 mm	D2 mm	g	kg	Box	€
193022003	22	135	6	58	27	22	240	2	14	50,31
193028003	28	135	6	68	32	28	300	2	14	61,99
193035003	35	135	6	78	40	35	390	2	14	71,48
193042003	42	135	6	88	46	42	470	2	14	81,40
193054003	54	135	8	102	59	54	700	2	14	102,17
193076003	76,1	135	8	122	78	76,1	980	2	4	139,08
193088003	88,9	135	10	138	91	88,9	1310	2	4	166,03
193108003	108	135	10	158	110	108	1580	2	2	209,98



434/PN 6

R 30 30

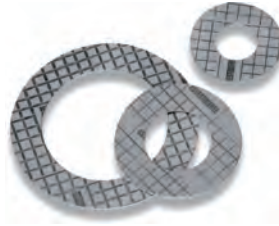
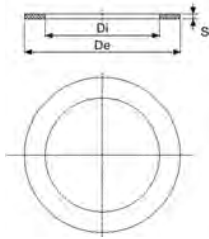
FLANŞ İÇİN CONTA

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1

PN 6

KOD / CODE	DN	De mm	Di mm	S mm			€
434015006	15 - [1/2"]	44	20	2	4	10	0,69
434020006	20 - [3/4"]	54	25	2	6	10	1,00
434025006	25 - [1"]	64	30	2	9	10	1,39
434032006	32 - [1 1/4"]	75	38	2	11	10	1,88
434040006	40 - [1 1/2"]	85	45	2	14	10	2,44
434050006	50 - [2"]	95	57	2	15	10	3,72
434065006	65 - [2 1/2"]	115	76	2	19	10	5,12
434080006	80 - [3"]	132	89	2	26	10	6,08
434100006	100 - [4"]	152	108	2	29	10	7,19



434/PN 10-16

R 30 30

FLANŞ İÇİN CONTA

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1

PN 10/16

KOD / CODE	DN	De mm	Di mm	S mm			€
434015000	15 - [1/2"]	50	20	2	6	10	0,69
434020000	20 - [3/4"]	60	25	2	8	10	0,98
434025000	25 - [1"]	70	30	2	10	10	1,38
434032000	32 - [1 1/4"]	82	38	2	14	10	1,88
434040000	40 - [1 1/2"]	92	45	2	17	10	2,44
434050000	50 - [2"]	108	57	2	22	10	3,69
434065000	65 - [2 1/2"]	127	76	2	27	10	5,09
434080000	80 - [3"]	142	89	2	30	10	6,02
434100000	100 - [4"]	162	108	2	38	10	6,90

Sesalit ECO: NBR/SBR asbest içermeyen organik ve sentetik lifler ile bağlanmış

KULLANIM ALANLARI: sıcak ve soğuk su, bitkisel ve hayvansal yağlar, hava, bazı yakıtlar (GAZ yok)

KILAVUZ SICAKLIK SINIRLARI

Kısa süreli maruz kalma için maksimum sıcaklık: 180°-200 °C

Sürekli agresif olmayan akışkanlar için maksimum çalışma sıcaklığı: 140 °C

Buhar ile sürekli çalışma için maksimum sıcaklık: 110 °C

ONAY: içme suyu WRAS n° 1605525

Sesalit ECO: organic and synthetic fibers bonded with NBR/SBR asbestos-free

USES: hot and cold water, vegetable and animal oils, air, some fuels (no GAS)

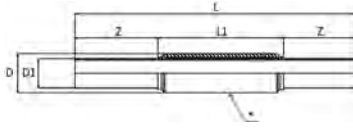
GUIDELINE TEMPERATURE LIMITS

Maximum temperature for short exposure: 180°-200° C

Maximum operating temperature for continuous non-aggressive fluids: 140 °C

Maximum temperature for continuous operation with steam: 110 °C

APPROVAL: potable water WRAS n° 1605525



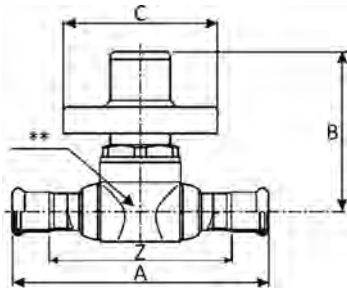
179/001

≤54 B 10 11
76÷108 B 10 12ÜST KISIM/BÖLME
BAŞI GİRİŞİ

• DECK / BULKHEAD PENETRATION

MALZEME / MATERIAL: AISI 316L - 1.4404
NOT / NOTE: [*]: S235JR [Fe 360]

KOD / CODE	De mm	L mm	L1 mm	Z mm	D mm	D1 mm	g	g	g	€
179015001	15	450	120	165	25	15	460	1	65	36,21
179018001	18	450	120	165	30	18	621	1	65	36,62
179022001	22	450	120	165	33	22	701	1	50	36,95
179028001	28	450	120	165	37	28	776	1	45	37,56
179035001	35	450	120	165	43,5	35	936	1	40	41,78
179042001	42	450	120	165	53	42	1291	1	30	49,62
179054001	54	450	120	165	69	54	1965	1	18	79,93
179076001	76,1	450	120	165	88,5	76,1	2840	1	8	93,73
179088001	88,9	450	120	165	107	88,9	4081	1	8	110,72
179108001	108	450	120	165	131,5	108	5682	1	6	147,95



195/000

B 10 11

PRES UÇLU DURDURMA VANASI

• STOPVALVE WITH PRESS ENDS

MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: EPDM siyah - black

NOT / NOTE: [**] Pirinç top - Ball out of brass

KOD / CODE	De mm	Z mm	A mm	B mm	C mm	g	g	g	€
195015000	15	42	101	74	70	330	1	10	136,96

171/P

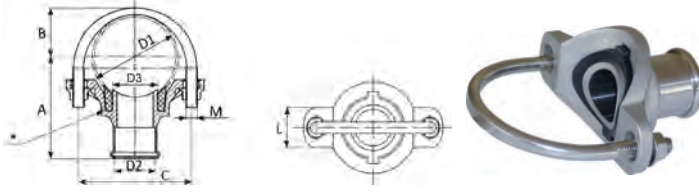
DİŞİ PRES BAĞLANTILI APARAT

• BRACKET WITH FEMALE PRESS CONNECTION

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: EPDM siyah - black

CONTA / GASGET: [*]: EPDM conta - gasket



KOD / CODE	D1 mm	D2 mm	D3 mm	A mm	B mm	C mm	L mm	M mm	g	g	g	€
171076035	76,1	35	40	79	44	100	35	M 10 x 35	700	1	20	58,14
171088042	88,9	42	47	99	50	115	40	M 10 x 35	740	1	10	101,12
171108054	108	54	59	116	60	135	45	M 10 x 35	1090	1	10	137,21

Bağlantı - Montage



Fig. 1

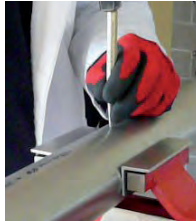


Fig. 2

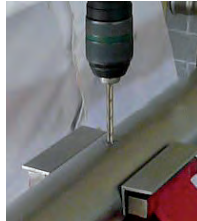


Fig. 3



Fig. 4

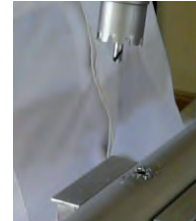


Fig. 5



Fig. 6



Fig. 7



Fig. 8



Fig. 9



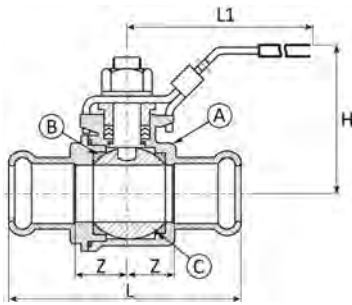
Fig. 10



Fig. 11



Fig. 12



195/005

TAM BAĞLANTI NOKTALI KÜRE VANA

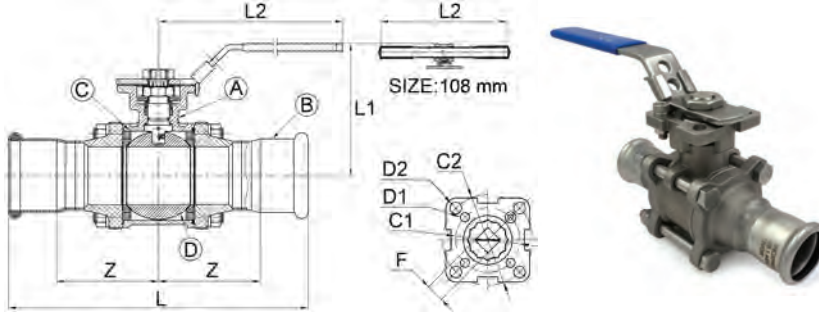
• BALL VALVE WITH FULL PORT

MALZEME / MATERIAL: A-C: AISI 316L – 1.4404

B: PTFE

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	L1 mm	H mm	Z mm	g	g	g	€
195015005	15	85	97,5	50	20	275	1	10	78,32
195018005	18	88	123	59	20	430	1	10	93,49
195022005	22	100	123	62,5	21	508	1	10	117,18
195028005	28	107	145	69,5	23	786	1	10	157,47


195/003
≤54 B 10 11
76÷108 B 10 12
**TAM BAĞLANTI
NOKTALI 3-PC KÜRE VANA**

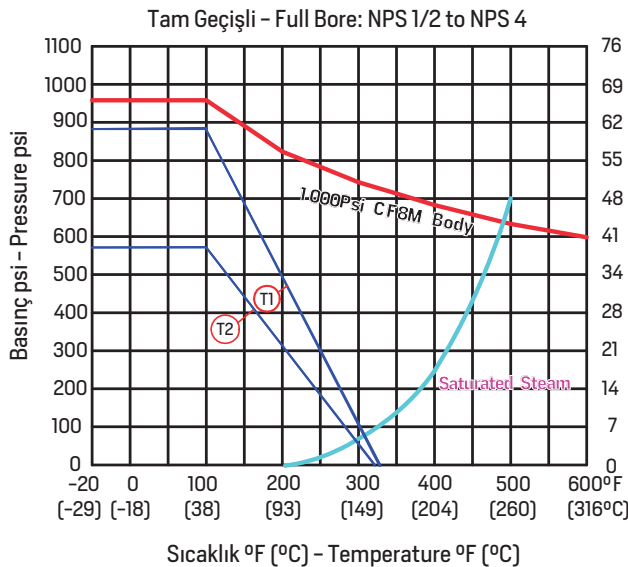
- TAM BAĞLANTI NOKTALI 3-PC KÜRE VANA
- BOISSEAU SPHERIQUE 3 PCS PASSAGE INTÉGRAL

MALZEME / MATERIAL: A-B-D: AISI 316L – 1.4404
 C: PTFE

O-HALKA / O-RING: EPDM siyah - black
NORM: aktüatör için flanş / flange for actuator
 ISO 5211

KOD / CODE	De mm	DN	DN inch	L mm	Z mm	L1 mm	L2 mm	C1 mm	C2 mm	D1 mm	D2 mm	F mm	g	kg	box	€
195015003	15	10	3/8"	128	44	72	151	36	42	6	6	9	698	1	10	120,63
195018003	18	15	1/2"	134	47	72	151	36	42	6	6	9	714	1	10	130,19
195022003	22	20	3/4"	151	54,5	80	151	36	50	6	7	9	992	1	10	139,42
195028003	28	25	1"	167	60,5	90	179	42	50	6	7	11	1476	1	5	197,09
195035003	35	32	1" 1/4	184	66	95	179	42	70	6	9	11	2280	1	5	280,31
195042003	42	40	1" 1/2	207	73,5	104	198	50	70	7	9	14	3122	1	5	356,68
195054003	54	50	2"	245	87,5	110	198	50	70	7	9	14	4600	1	2	441,96
195076003	76,1	65	2" 1/2	334	112	150	270	70	102	9	11	17	9500	1	2	948,47
195088003	88,9	80	3"	384	132	159	270	70	102	9	11	17	13800	1	1	1325,47
195108003*	108	100	4"	470	160	210	405	-	102	-	11	22	25000	1	1	2296,15

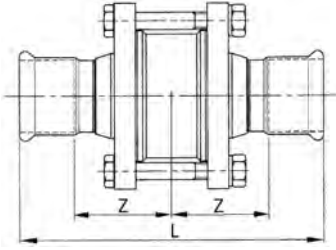
[*] İşaretli basınç koşulları VANA gövdesi ile ilgilidir. Pres bağlantı vanası için maksimum çalışma basıncı art. 195/003 = 16 barr
 The marked pressure's conditions are related to the body of the valve. Maximum working pressure for pressfitting valve art. 195/003 = 16 barr

Basınç-Sıcaklık Verisi
FLOATING BALL VALVES 1000 psi

 Oturma Maddeleri
 Seat Materials:

- (T1) PTFE DN 15 - 32
- (T2) PTFE DN 40 - 100

CV	KV
US gallon/min	m³ / h
N/A	N/A
18	15
36	31
48	41
93	80
165	141
207	177
450	386
780	668
1360	1165

1 Kv = 0,86 Cv



195/004

≤54 B 10 11

76÷108 B 10 12

GERİ DÖNÜŞSÜZ VANA

• NON-RETURN VALVE

MALZEME / MATERIAL: AISI 316L - 1.4404

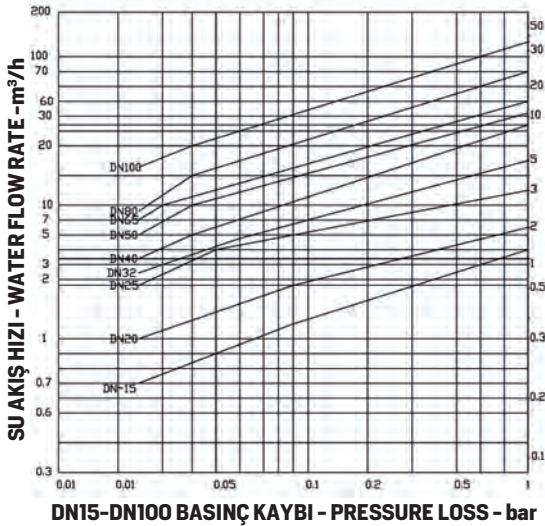
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	DN	L mm	Z mm	g			€
195015004	15	15	114	37	412	1	10	163,23
195018004	18	15	114	37	422	1	10	184,85
195022004	22	20	121	39,5	570	1	10	197,59
195028004	28	25	138	46	767	1	10	247,89
195035004	35	32	158	53	1238	1	10	281,84
195042004	42	40	180	60	1766	1	6	347,31
195054004	54	50	200	64,5	2418	1	2	478,17
195076004	76,1	65	271	80,5	5208	1	1	984,09
195088004	88,9	80	302	91	7108	1	1	1499,70
195108004	108	100	370	110	12366	1	1	1529,92

İşaretili basınç koşulları VANA gövdesi ile ilgilidir. Pres bağlantı vanası için maksimum çalışma basıncı art. 195/004= 16 barr

The marked pressure's conditions are related to the body of the valve. Maximum working pressure for pressfitting valve art. 195/004 = 16 bar

BASINÇ KAYBI DIYAGRAMI
PRESSURE LOSS DIAGRAM



CV/KV FORNON-GERİ DÖNÜŞ VANASI CV / KV FOR NON-RETURN VALVE				AKIŞ YÖNÜ FLOW DIRECTION		
DE	DN inch	CV US gallon/min	KV m³/h	↑	↓	→
				Basınç açma [mbar] Opening pressure [mbar]		
15	15 - 1/2"	4,1	3,5	25	21	23
18	15 - 1/2"	4,1	3,5	25	21	23
22	20 - 3/4"	5,1	4,4	25	21	23
28	25 - 1"	14	12	25	21	23
35	32 - 1"1/4	23,3	20	27	21	24
42	40 - 1"1/2	30,3	26	29	21	25
54	50 - 2"	37,3	32	29	21	25
76,1	65 - 2"1/2	70	60	31	21	25
88,9	80 - 3"	81,7	70	32	21	26
108	100 - 4"	140	120	33	21	27

NOT / NOTE

Cv = 1 psi diferansiyel basınç [basınç düşüşü] ile gpm [galon/dakika] cinsinden su akışı [60 ° F'de].

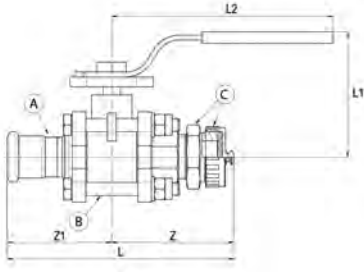
Kv = diferansiyel basınç [basınç düşüşü] ile m3 / s cinsinden su akışı [5 ° ve 40 ° arasında].

[1 Kv = 0,86 Cv]

Cv = flusso di acqua [a 60°F] in gpm [galloni al minuto] con una pressione differenziale [caduta di pressione] di 1 psi.

Kv = flusso di acqua [tra 5° e 40°] m3/h, con una pressione differenziale [caduta di pressione] di 1 bar.




[1 Kv = 0,86 Cv]

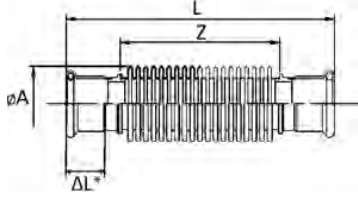
**195/008****HORTUM BAĞLANTILI KÜRE VANA**

• BALL VALVE WITH HOSE CONNECTION

MALZEME / MATERIAL: A-B: AISI 316L - 1.4404
C: piring - brass

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	L1 mm	L2 mm	Z mm	Z1 mm				€
195015008	15 x 3/4"	131,5	72	151	67,5	64	873	1	10	182,52
195022008	22 x 1"	148,5	80	151	73	75,5	1314	1	10	225,43



199

≤54 B 10 11

76÷108 B 10 12

**GENLEŞME
DENGELEYİCİSİ**

• EXPANSION COMPENSATOR

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Döngüler Cycles*	ΔL** mm	Z mm	A mm	g	kg	Box	€
199015000	15	139	800	16	71	22	80	1	100	146,65
199018000	18	143	800	18	74	27	108	1	80	161,29
199022000	22	139	800	20	68	34	130	1	80	179,63
199028000	28	150	800	22	73	41	155	1	40	230,99
199035000	35	177	800	26	90	51	251	1	24	285,95
199042000	42	202	800	32	107	61	440	1	16	340,95
199054000	54	221	800	36	113	71	550	1	12	421,60
199076000	76,1	278	500	30	180	87	1464	1	1	644,53
199088000	88,9	314	500	40	235	105	1871	1	1	796,63
199108000	108	388	500	50	255	131	2845	1	1	923,22

Maksimum eksenel vuruş aşağıda belirtilen nominal değeri aşmamalıdır. / The maximum axial stroke must not exceed the nominal value below indicated

Kod	DN	Cycles* MAX	ΔL** (mm)	Sıcaklık °C									
				20°	40°	60°	80°	100°	120°	140°	160°	180°	200°
199 / 15	15	800	16	16,0	14,7	13,6	12,6	11,8	11,4	10,9	10,6	10,2	9,9
199 / 18	18	800	18	18,0	16,6	15,3	14,2	13,3	12,8	12,3	11,9	11,5	11,2
199 / 22	22	800	20	20,0	18,4	17,0	15,8	14,8	14,2	13,7	13,2	12,8	12,4
199 / 28	28	800	22	22,0	20,2	18,7	17,4	16,3	15,6	15,0	14,5	14,1	13,6
199 / 35	35	800	26	26,0	23,9	22,1	20,5	19,2	18,5	17,8	17,2	16,6	16,1
199 / 42	42	800	32	32,0	29,4	27,2	25,3	23,7	22,7	21,9	21,1	20,5	19,8
199 / 54	54	800	36	36,0	33,1	30,6	28,4	26,6	25,6	24,6	23,8	23,0	22,3
199 / 76	76	500	30	30,0	27,6	25,5	23,7	22,2	21,3	20,5	19,8	19,2	18,6
199 / 88	89	500	40	40,0	36,8	34,0	31,6	29,6	28,4	27,3	26,4	25,6	24,8
199 / 108	108	500	50	50,0	46,0	42,5	39,5	37,0	35,5	34,2	33,0	32,0	31,0

(*) Maksimum sıkıştırma devir iş sayısı - Work cycles number at maximum compression

(**) Sıkıştırma eksenel strok - Compression axial stroke

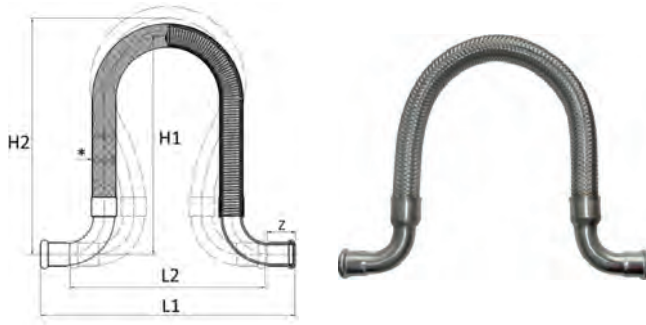
CS = Hizmetlerin eksenel stroku / services axial stroke (mm)

CA Max = Maksimum eksenel strok / maximum axial stroke (mm)

CS/CA %	100	90	80	70	60	50	40	30
Cicli (cycles)	800	1000	1700	2900	5500	12000	35000	160000
Cicli (cycles)	500	625	1050	1800	3400	7500	21800	100000

Maksimum basınç aşağıda belirtilen nominal basıncı aşmamalıdır. / The maximum pressure must not exceed the nominal pressure below indicated

°C	20°	40°	60°	80°	100°	120°	140°	160°	180°	200°
PN (bar)	16,0	14,5	13,5	12,5	12,0	11,5	11,0	10,5	10,0	9,5

**199/001****U-BÜKÜMLÜ ESNEK BORU**

• U-BEND FLEXIBLE PIPE

MALZEME / MATERIAL: AISI 316L – 1.4404[*]: kapak / covering
AISI 304L – 1.4307**O-HALKA / O-RING:** EPDM siyah - black

KOD / CODE	De mm	L1 mm	L2 mm	H1 mm	H2 mm	Z mm	g	€
199015001	15	275	165	165	200	20	245	186,08
199018001	18	350	170	170	215	20	290	193,61
199022001	22	380	195	195	236	21	450	205,50
199028001	28	410	230	230	260	23	615	216,95
199035001	35	460	255	255	300	26	1080	276,12
199042001	42	530	295	295	345	30	1455	388,67
199054001	54	625	370	370	410	35	2310	545,17

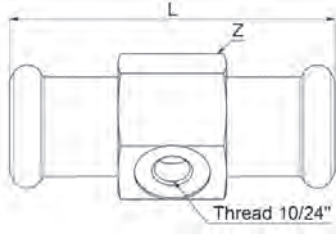
199/002**DÜZ ESNEK BORU**

• STRAIGHT FLEXIBLE PIPE

MALZEME / MATERIAL: AISI 316L – 1.4404[*]: kapak / covering
AISI 304L – 1.4307**O-HALKA / O-RING:** EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm	g	€
199015002	15	500	20	200	139,06
199018002	18	600	20	310	149,96
199022002	22	700	21	350	157,34
199028002	28	700	23	495	182,86
199035002	35	800	26	980	231,87
199042002	42	900	30	1280	310,46
199054002	54	1100	35	2060	468,41

B1011



195/007 U

NEBULİZÖR BAĞLANTISI

• NEBULIZER CONNECTION

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah – black

KOD / CODE	De mm	L mm	Z mm	Delikler Holes Nr.	g			€
195015017	15	60	24	1x10/24"	82	10	200	17,18
195015027	15	60	24	2x10/24"	80	10	200	19,45



195/N

NEBULİZÖR

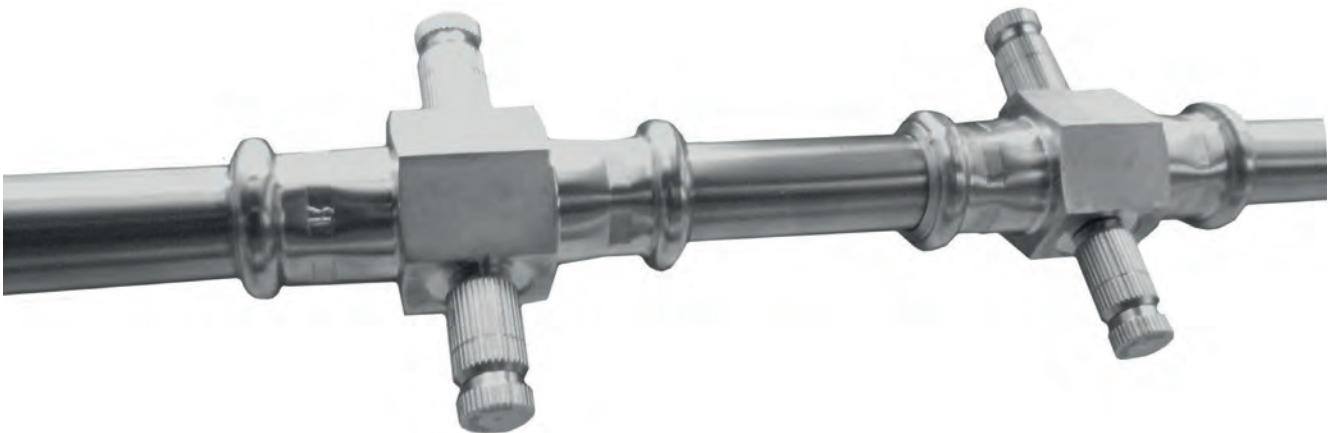
• NEBULIZER

MALZEME / MATERIAL: AISI 304 – 1.4301
O-HALKA / O-RING: NBR kahverengi – brown

B1011

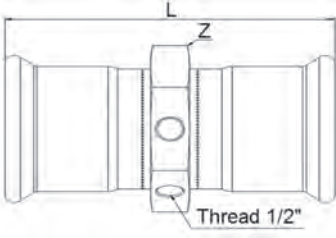
KOD / CODE	Delik µm	DN inch	L1 mm	D mm	L mm	g		€
195000015	15	10/24"	20	9,5	25	10	10	51,07
195000020	20	10/24"	20	9,5	25	10	10	40,14
195000030	30	10/24"	20	9,5	25	10	10	32,48
195000040	40	10/24"	20	9,5	25	10	10	32,48
195000050	50	10/24"	20	9,5	25	10	10	32,48

Art. 195/007 U uygulama örneği / Art. 195/007 U application example



195/007 U

15 borulu Ø atomizasyon sistemleri
Atomization systems with Ø 15 pipes

**195/007**

≤54 B 10 11

76÷108 B 10 12

MULTİMETRE BAĞLANTISI

• MULTIMETER CONNECTION

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm	Delikler Holes Nr.	g			€
195035007	35	128	60	3 x 1/2"	715	1	10	95,83
195042007	42	135	60	3 x 1/2"	645	1	10	109,40
195054007	54	135	74	3 x 1/2"	874	1	6	128,44
195076007	76,1	189	92	3 x 1/2"	1474	1	3	288,63
195088007	88,9	208	106	3 x 1/2"	1874	1	2	336,73
195108007	108	240	130	3 x 1/2"	2774	1	1	392,49

2 numaralı erkek kapaklarla ISO 228, 1/2'lik mevcut 3 darbeden en az 2'sini kapatmak için...
With number 2 male caps ISO 228 to close at least 2 of the 3 available attacks of 1/2.

Art. 195/007 uygulama örneği / Art. 195/007 application example

195/007

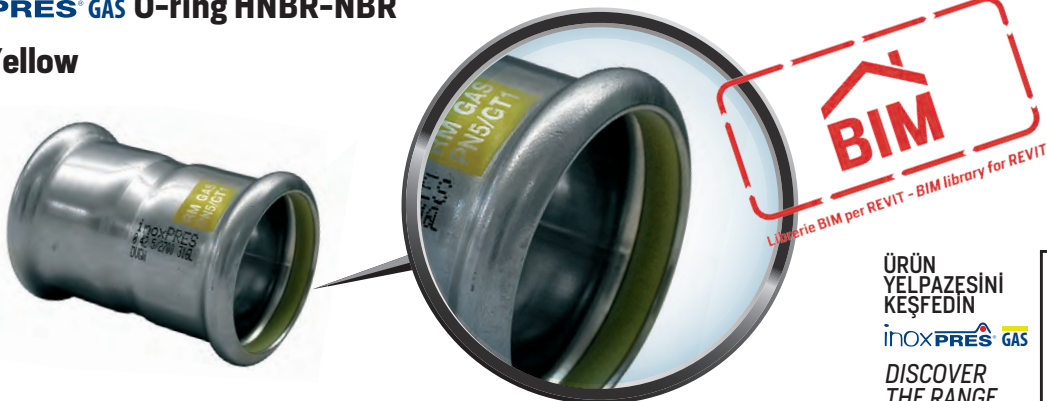
Çok amaçlı alet girişi (manometre, termometre, etc.)
Multiple purpose instrument inlet (manometers, thermometers, etc.)

Sertifikalar / Certifications

ø 15 ÷ 54 mm			EDELSTAHLROHR "INOXPRES" - 1.4404	DV-7301BM 3426 (GW 541)	ø 15 – 108 mm
			UNLÖSBARE ROHRVERBINDUNGEN FÜR METALLENE GASLEITUNGEN PRESSVERBINDER AUS EDELSTAHL FÜR EDELSTAHLROHRE = INOXPRES® GAS =	G 2.827 (QS-G 100, QS-G 314)	ø 15 – 108 mm
			UNLÖSBARE ROHRVERBINDUNGEN PRESSVERBINDUNGS-SYSTEM AUS EDELSTAHL INOXPRES GAS	05-088-6 (G 5614)	ø 15 – 54 mm
			GAZLAR İÇİN SIHHİ TESİSAT BAĞLANTI PARÇALARI PLUMBING FITTINGS FOR GASES	CA06-00231	ø 15 – 54 mm
			PASLANMAZ ÇELİK BORULAR İÇİN PASLANMAZ ÇELİK GAZ PRES BAĞLANTI PARÇALARI STAINLESS STEEL GAS PRESSFITTINGS FOR STAINLESS STEEL PIPES	C-16-3743-A	ø 15 – 54 mm
ø 76 ÷ 108 mm			EDELSTAHLROHR "INOXPRES" - 1.4404	DV-7301BM 3426 (GW 541)	ø 15 – 108 mm
			PRODUKTE DER GASVERSORGUNG	DG-8531CL0163 (G 5614)	ø 76 – 108 mm
			UNLÖSBARE ROHRVERBINDUNGEN FÜR METALLENE GASLEITUNGEN PRESSVERBINDER AUS EDELSTAHL FÜR EDELSTAHLROHRE = INOXPRES® GAS =	G 2.827 (QS-G 100, QS-G 314)	ø 15 – 108 mm
			INOXPRES GAZ ÇELİK BORU VE ÇELİK SIKIŞTIRMA BAĞLANTI SİSTEMLERİ SYSTEM OF STEEL PIPES AND STEEL COMPRESSION FITTINGS INOXPRES GAS	202/C5a/2019 B-01319-19	ø 15 – 108 mm

inoxPRES® GAS O-ring HNBR-NBR

Sarı | Yellow

ÜRÜN
YELPAZESİNİ
KEŞFEDİN

inoxPRES® GAS

DISCOVER
THE RANGE

**116/200**

≤54 B 30 31

76÷108 B 30 32

GAZ BORUSU

• PIPE FOR GAS

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmamış - Not annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015200	15 x 1,0	13	6	0,351	0,133	60	1014	13,62
116018200	18 x 1,0	16	6	0,426	0,201	60	1014	15,49
116022200	22 x 1,2	19,6	6	0,625	0,302	60	762	21,59
116028200	28 x 1,2	25,6	6	0,805	0,514	30	546	27,25
116035200	35 x 1,5	32	6	1,258	0,804	30	546	41,16
116042200	42 x 1,5	39	6	1,521	1,194	30	366	49,17
116054200	54 x 1,5	51	6	1,972	2,042	30	366	63,17
116076200 *	76,1 x 2,0	72,1	6	3,711	4,080	6	114	113,43
116088200 *	88,9 x 2,0	84,9	6	4,352	5,660	6	114	131,30
116108200 *	108 x 2,0	104	6	5,308	8,490	6	114	161,51

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

**116/300**

≤54 B 30 31

76÷108 B 30 32

GAZ BORUSU

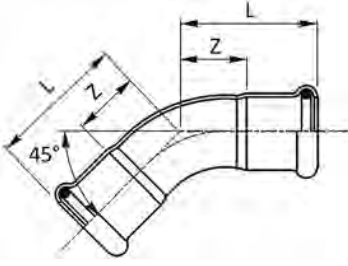
• PIPE FOR GAS

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmış - Annealed

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015300	15 x 1,0	13	6	0,351	0,133	60	1014	20,78
116018300	18 x 1,0	16	6	0,426	0,201	60	1014	22,33
116022300	22 x 1,2	19,6	6	0,625	0,302	60	762	29,96
116028300	28 x 1,2	25,6	6	0,805	0,514	30	546	36,76
116035300	35 x 1,5	32	6	1,258	0,804	30	546	54,16
116042300	42 x 1,5	39	6	1,521	1,194	30	366	64,94
116054300	54 x 1,5	51	6	1,972	2,042	30	366	82,36
116076300 *	76,1 x 2,0	72,1	6	3,711	4,080	6	114	137,37
116088300 *	88,9 x 2,0	84,9	6	4,352	5,660	6	114	161,19
116108300 *	108 x 2,0	104	6	5,308	8,490	6	114	197,82

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU



181/450 G

45° DİRSEK FF

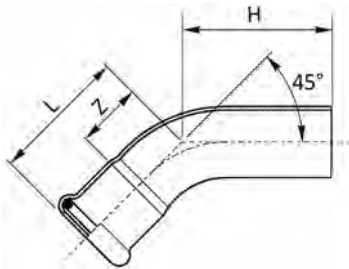
• 45° ELBOW FF

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: NBR-HNBR sarı – yellow

≤54 B 10 13
76÷108 B 10 14

KOD / CODE	De mm	Yarıçap / Radius	L mm	Z mm	g	g	€
181015450CG	15	1,2 De	27,5	7,5	39	4	14,32
181018450CG	18	1,2 De	29,5	9,5	48	4	15,84
181022450CG	22	1,2 De	32	11	63	4	18,41
181028450CG	28	1,2 De	37	14	90	4	22,14
181035450G	35	1,2 De	43	17	127	1	26,18
181042450G	42	1,2 De	51	21	177	1	42,40
181054450G	54	1,2 De	62	30	273	1	54,43
181076450G*	76,1	1,2 De	131,5	76,5	900	1	185,57
181088450G*	88,9	1,2 De	144	84	1250	1	221,13
181108450G*	108	1,2 De	169	94	1700	1	301,52

(*) DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU



181/451 G

45° DİRSEK MF

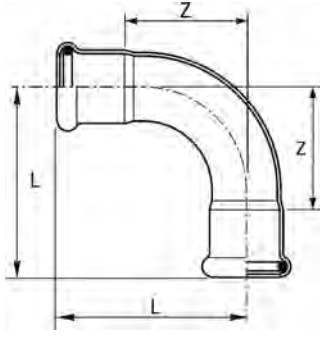
• 45° ELBOW MF

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: NBR-HNBR sarı – yellow

≤54 B 10 13
76÷108 B 10 14

KOD / CODE	De mm	Yarıçap / Radius	L mm	H mm	Z mm	g	g	€
181015451CG	15	1,2 De	27,5	36	7,5	38	4	14,32
181018451CG	18	1,2 De	29,5	38	9,5	47	4	15,33
181022451CG	22	1,2 De	32	42	11	63	4	17,38
181028451CG	28	1,2 De	37	46	14	90	4	20,67
181035451G	35	1,2 De	43	57,5	17	132	1	24,38
181042451G	42	1,2 De	51	72	21	196	1	40,86
181054451G	54	1,2 De	62	82	26	296	1	52,34
181076451G*	76,1	1,2 De	131,5	149	76,5	900	1	170,25
181088451G*	88,9	1,2 De	144	159	84	1250	1	203,23
181108451G*	108	1,2 De	169	199	94	1700	1	277,58

(*) DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

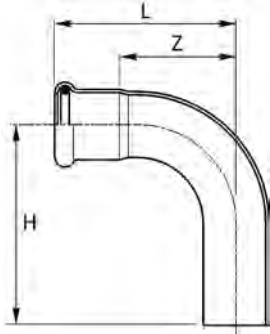
**181/900 G**≤54 B 10 13
76÷108 B 10 14**90° DİRSEK FF**

• 90° ELBOW FF

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: NBR-HNBR sarı - yellow

KOD / CODE	De mm	Yarıçap / Radius	L mm	Z mm	g	€	€
181015900CG	15	1,2 De	38	18	46	4	10,93
181018900CG	18	1,2 De	41,5	21,5	58	4	12,50
181022900CG	22	1,2 De	47	26	78	4	15,09
181028900CG	28	1,2 De	56	33	116	4	20,09
181035900G	35	1,2 De	68	42	162	1	32,56
181042900G	42	1,2 De	80	50	231	1	55,93
181054900G	54	1,2 De	100	64	367	1	78,03
181076900G*	76,1	1,2 De	160	105	1150	1	188,81
181088900G*	88,9	1,2 De	182	122	1580	1	229,65
181108900G*	108	1,2 De	220	145	2250	1	313,25

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

**181/901 G**≤54 B 10 13
76÷108 B 10 14**90° DİRSEK MF**

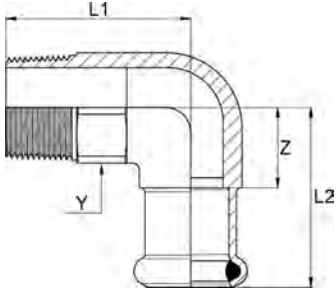
• 90° ELBOW MF

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: NBR-HNBR sarı - yellow

KOD / CODE	De mm	Yarıçap / Radius	L mm	H mm	Z mm	g	€	€
181015901CG	15	1,2 De	38	48	18	46	4	11,47
181018901CG	18	1,2 De	41,5	48,5	21,5	56	4	13,02
181022901CG	22	1,2 De	47	57	26	79	4	15,61
181028901CG	28	1,2 De	56	64	33	115	4	19,59
181035901G	35	1,2 De	68	82	42	176	1	29,82
181042901G	42	1,2 De	80	101	50	253	1	54,15
181054901G	54	1,2 De	100	120	64	390	1	78,47
181076901G*	76,1	1,2 De	160	180	105	1150	1	194,17
181088901G*	88,9	1,2 De	182	197	122	1580	1	236,22
181108901G*	108	1,2 De	220	236	145	2250	1	322,20

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

B 10 13



197 G

ERKEK DİŞLİ 90° DİRSEK ADAPTÖRÜ

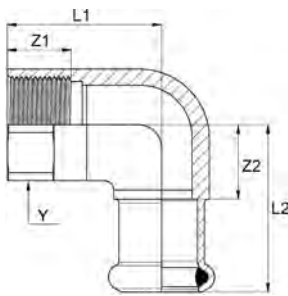
• ELBOW ADAPTER 90° WITH MALE THREAD

MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L1 mm	L2 mm	Z mm	Y mm	g		€
197102015G	15 x 1/2"	37	36	16	22	87	4	23,15
197102018G	18 x 1/2"	37	36	16	22	93	4	26,49
197304022G	22 x 3/4"	44	43	22	28	164	4	33,95
197304028G	28 x 3/4"	44	45	22	28	195	4	45,27
197100028G	28 x 1"	56	50	27	36	332	4	45,71
197114035G	35 x 1 1/4"	63	76,5	50,5	46	476	1	58,05
197112042G	42 x 1 1/2"	67,5	80	50	50	533	1	97,72
197200054G	54 x 2"	78,5	91,5	56	65	899	1	124,11



198 G

DİRSEK ADAPTÖRÜ 90° DİŞİ DİŞLİ

• ELBOW ADAPTER 90° WITH FEMALE THREAD

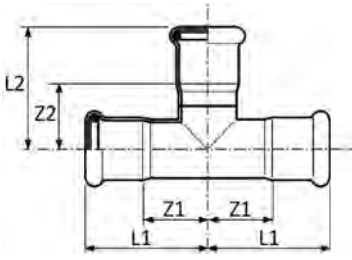
MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 10 13

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	Y mm	g		€
198102015G	15 x 1/2"	33	36	15	16	24	92	4	24,41
198102018G	18 x 1/2"	33	36	15	16	24	99	4	28,06
198304022G	22 x 3/4"	38	43	19	22	30	154	4	34,23
198102028G	28 x 1/2"	33	39	15	16	24	126	4	33,40
198100028G	28 x 1"	48	50	21	27	38	309	4	44,69
198114035G	35 x 1 1/4"	48	70,5	21	50,5	46	379	1	73,64
198112042G	42 x 1 1/2"	51	80	21	50	50	390	1	80,22
198200054G	54 x 2"	66	92	26	56	65	749	1	93,55

**182 G**

≤54 **B 1013**
76÷108 **B 1014**

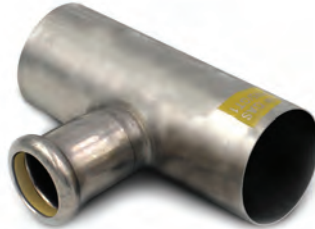
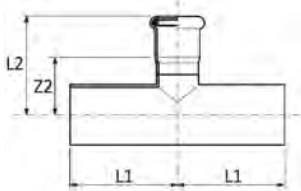
EŞİT T (TEE)

• EQUAL TEE

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: NBR-HNBR sarı - yellow

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	€
182015000G	15	34	39	14	19	67	4	20,01
182018000G	18	37	41	16	21	80	4	22,99
182022000G	22	39	45	18	24	106	4	24,19
182028000G	28	44	50	21	27	145	4	29,09
182035000G	35	51	57	25	31	201	1	36,25
182042000G	42	59	65	28	35	260	1	51,28
182054000G	54	70	77	34	42	404	1	61,13
182076000G*	76,1	108	118	53	63	1275	1	354,37
182088000G*	88,9	132	131	72	71	1535	1	388,00
182108000G*	108	155	159	74	84	2115	1	478,23

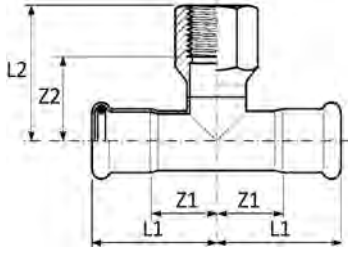
[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

**188 G****B 1013****AZALTICI T (TEE) MFM**

• REDUCING TEE MFM

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L1 mm	L2 mm	Z2 mm	g	kg	€
188028022G	28 x 22 x 28	52,5	47	26	138	4	44,25
188035022G	35 x 22 x 35	60	50,5	29,5	181	1	49,97
188035028G	35 x 28 x 35	60	53,5	30,5	193	1	54,62
188042028G	42 x 28 x 42	69	57	34	256	1	60,62
188054028G	54 x 28 x 28	73,5	64,5	41,5	334	1	68,76



189 G

≤54 B 10 13
76÷108 B 10 14

KOL T (TEE) DIŞI BSP ÇIKIŞI

• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404

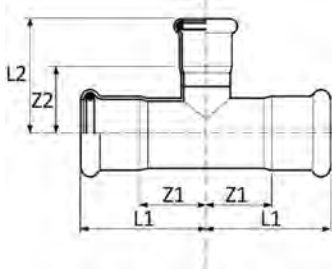
O-HALKA / O-RING: NBR-HNBR sarı - yellow

DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	€
189102015G **	15 x 1/2" x 15	36,5	22,5	16,5	8,5	117	4	22,11
189102018G **	18 x 1/2" x 18	36	24	16	10	128	4	22,68
189304018G **	18 x 3/4" x 18	38,5	26	18,5	11	147	4	27,64
189102022G **	22 x 1/2" x 22	39	26	18	12	159	4	24,26
189304022G **	22 x 3/4" x 22	41,5	30	20,5	14	184	4	27,69
189102028G **	28 x 1/2" x 28	44	29	21	15	217	4	26,69
189304028G **	28 x 3/4" x 28	44	30	21	14	221	4	31,71
189102035G	35 x 1/2" x 35	51	51	25	36	197	1	31,99
189304035G	35 x 3/4" x 35	51	54	25	37	205	1	38,78
189102042G	42 x 1/2" x 42	59	54	29	39	271	1	38,78
189304042G	42 x 3/4" x 42	59	57	29	41	277	1	42,50
189102054G	54 x 1/2" x 54	70	61	34	46	377	1	46,89
189304054G	54 x 3/4" x 54	70	64	34	48	391	1	50,82
189200054G	54 x 2" x 54	70	81	34	55	838	1	102,16
189304076G*	76,1 x 3/4" x 76,1	108	77	53	60	1040	1	310,15
189200076G*	76,1 x 2" x 76,1	108	93	53	67	1495	1	339,14
189304088G*	88,9 x 3/4" x 88,9	132	84	72	67	1255	1	334,58
189200088G*	88,9 x 2" x 88,9	132	100	72	74	1720	1	352,18
189304108G*	108 x 3/4" x 108	155	94	74	77	1700	1	410,07
189200108G*	108 x 2" x 108	155	110	74	84	2160	1	434,72

(*) DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

(**) lehimsiz - seamless



192 G

AZALTICI T (TEE)

• REDUCING TEE

MALZEME / MATERIAL: AISI 316L - 1.4404

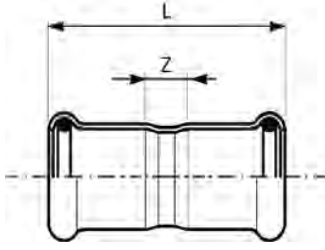
O-HALKA / O-RING: NBR-HNBR sarı - yellow

≤54 B 10 13

76÷108 B 10 14

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	€
192018015G	18 x 15 x 18	37	41	16	21	80	4	19,36
192022015G	22 x 15 x 22	39	43	18	23	95	4	20,26
192022018G	22 x 18 x 22	39	44	18	23	98	4	21,32
192028015G	28 x 15 x 28	44	46	21	26	126	4	24,10
192028018G	28 x 18 x 28	44	46	21	26	130	4	25,24
192028022G	28 x 22 x 28	44	47	21	26	135	4	26,91
192035015G	35 x 15 x 35	51	49	25	29	158	1	31,41
192035018G	35 x 18 x 35	51	50	25	30	163	1	31,88
192035022G	35 x 22 x 35	51	51	25	30	167	1	32,84
192035028G	35 x 28 x 35	51	54	25	31	171	1	34,18
192042022G	42 x 22 x 42	59	54	29	33	237	1	47,08
192042028G	42 x 28 x 42	59	57	29	34	243	1	48,17
192042035G	42 x 35 x 42	59	61	29	35	272	1	49,23
192054022G	54 x 22 x 54	70	62	34	41	340	1	51,94
192054028G	54 x 28 x 54	70	65	34	42	345	1	54,10
192054035G	54 x 35 x 54	70	68	34	42	361	1	55,17
192054042G	54 x 42 x 54	70	72	34	42	376	1	59,10
192076054G*	76,1 x 54 x 76,1	108	90	53	55	1065	1	370,09
192088028G*	88,9 x 28 x 88,9	132	84	72	61	1225	1	310,88
192088054G*	88,9 x 54 x 88,9	132	97	72	62	1280	1	378,82
192088076G*	88,9 x 76,1 x 88,9	132	125	72	70	1485	1	404,00
192108028G*	108 x 28 x 108	155	94	74	71	1670	1	330,87
192108076G*	108 x 76,1 x 108	155	135	74	80	1930	1	432,55
192108088G*	108 x 88,9 x 108	155	141	74	81	1965	1	499,68

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU



183/000 G

≤54 B 10 13
76÷108 B 10 14

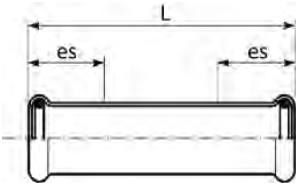
BAĞLANTI APARATI

• COUPLING

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: NBR-HNBR sarı - yellow

KOD / CODE	De mm	L mm	Z mm	g		€
183015000G	15	49	9	35	4	7,68
183018000G	18	50	10	42	4	8,76
183022000G	22	53	11	54	4	10,08
183028000G	28	56	10	71	4	11,54
183035000G	35	63	10	97	1	14,59
183042000G	42	72	12	136	1	19,78
183054000G	54	83	13	198	1	23,98
183076000G*	76,1	142	32	635	1	119,31
183088000G*	88,9	166	46	765	1	136,30
183108000G*	108	203	41	1170	1	173,32

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU



183/001 G

≤54 B 10 13
76÷108 B 10 14

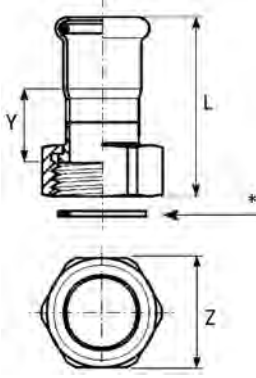
KAYMALI BAĞLANTI APARATI

• SLIP COUPLING

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: NBR-HNBR sarı - yellow

KOD / CODE	De mm	L mm	es mm	g		€
183015001G	15	69	25	56	4	15,23
183018001G	18	73	25	65	4	15,89
183022001G	22	79	25	85	4	18,44
183028001G	28	88,5	30	118	4	21,61
183035001G	35	102,5	30	141	1	27,77
183042001G	42	117,5	40	234	1	32,31
183054001G	54	139	40	321	1	41,34
183076001G*	76,1	230	60	940	1	334,39
183088001G*	88,9	260	70	1240	1	379,94
183108001G*	108	310	80	1835	1	470,01

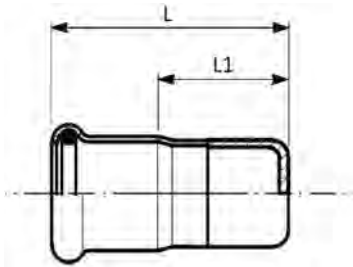
[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

**183/002 G****VANA BAĞLANTISI**

• VALVE CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** NBR sarı - yellow**CONTA / GASGET:** [*]: HNBR sarı - yellow**DİŞLİ / THREAD:** ISO 228/1 (ex DIN 259)

KOD / CODE	De x G mm x inch	L mm	Z mm	Y mm	Conta / Gasget mm	g	€
183015012G	15 x 1/2"	48,5	27	23	18x10 thk 2,5	83	22,87
183015002G	15 x 3/4"	50	30	26	24x14 thk 2,5	66	23,12
183018012G	18 x 1/2"	49	27	23,5	18x10 thk 2,5	91	25,30
183018002G	18 x 3/4"	50	30	23	24x14 thk 2,5	65	25,34
183022012G	22 x 3/4"	50	30	19,5	24x14 thk 2,5	78	29,72
183022002G	22 x 1"	52	36	23	30x20 thk 2,5	87	29,71
183028012G	28 x 1"	52	36	19,5	30x20 thk 2,5	105	36,87
183028002G	28 x 1 1/4"	57	46	25	39x27 thk 2,5	136	36,87
183035012G	35 x 1 1/4"	57,5	46	20,5	39x27 thk 2,5	163	41,86
183035002G	35 x 1 1/2"	63	52	26	44,5x34 thk 2,5	186	41,86
183042022G	42 x 1 1/2"	63,5	52	21	44,5x34 thk 2,5	217	56,47
183042012G	42 x 1 3/4"	68	58	27	50,5x40 thk 2,5	223	56,47
183042002G	42 x 2"	68	64	27	56x42 thk 2,5	266	74,28
183054022G	54 x 2"	72	67	23	56x42 thk 2,5	301	68,03
183054012G	54 x 2 3/8"	77	75	30	65,5x53,5 thk 3	375	75,97
183054002G	54 x 2 1/2"	77	81	30	71,5x53 thk 3	439	106,20

**183/003 G**

≤54 B 1013

76÷108 B 1014

DURDURMA UCU

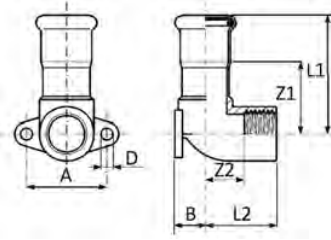
• STOP END

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** NBR-HNBR sarı - yellow

KOD / CODE	De mm	L mm	L1 mm	g	€
183015003G	15	44	24	32	10,86
183018003G	18	44	24	38	11,30
183022003G	22	45	24	51	13,13
183028003G	28	48	25	68	18,07
183035003G	35	52	26	95	20,61
183042003G	42	56	26	126	31,65
183054003G	54	62	27	185	37,33
183076003G*	76,1	93	38	540	79,68
183088003G*	88,9	99	39	630	96,86
183108003G*	108	117	42	935	119,10

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

B 10 13



185/000 G

DUVAR LEVHASI DİRSEĞİ 90° FF

• WALL PLATE ELBOW 90° FF

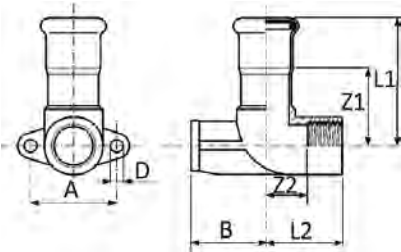
MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm	g	kg	€
185102015G	15 x 1/2"	50	30	30	17	34	13	5	98	4	27,26
185102018G	18 x 1/2"	51	30	31	17	34	13	5	109	4	28,28
185304022G	22 x 3/4"	55	34	34	19	40	17	6	166	4	40,64

B 10 13



185/001 G

UZATMA DUVAR LEVHASI DİRSEĞİ 90° FF

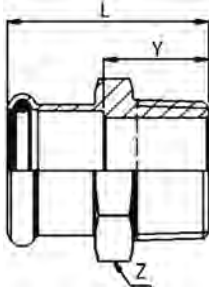
• EXTENSION WALL PLATE ELBOW 90° FF

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm	g	kg	€
185100122G	22 x 1"	59	35	38	15	50	30	6,5	252	4	45,16
185100128G	28 x 1"	62	35	39	15	50	30	6,5	264	4	45,16

**187 G**

≤54 B 1013
76÷108 B 1014

ERKEK ADAPTÖR

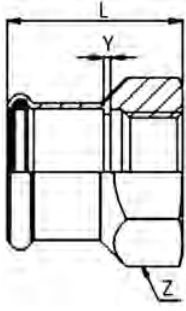
• MALE ADAPTER

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** NBR-HNBR sarı - yellow**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	D x R mm x inch	L mm	Z mm	Y mm	g	g	€
187308015G	15 x 3/8"	38	24	18	46	4	18,73
187102015G	15 x 1/2"	41	24	21	54	4	19,35
187304015G	15 x 3/4"	43	30	23	101	4	19,67
187102018G	18 x 1/2"	41	27	21	58	4	21,07
187304018G	18 x 3/4"	44	30	24	94	4	21,61
187102022G	22 x 1/2"	42	32	21	83	4	22,91
187304022G	22 x 3/4"	44	32	23	89	4	23,74
187100022G	22 x 1"	46	36	25	154	4	28,23
187304028G	28 x 3/4"	47	38	24	114	4	32,17
187100028G	28 x 1"	48	38	25	123	4	34,19
187114028G	28 x 1"1/4	53	46	30	274	4	41,82
187100035G	35 x 1"	52	45	25	173	1	38,89
187114035G	35 x 1"1/4	55	46	28	180	1	45,20
187112035G	35 x 1"1/2	55	50	28	278	1	53,30
187114042G	42 x 1"1/4	59	55	28	240	1	60,57
187112042G	42 x 1"1/2	59	55	28	236	1	65,69
187112054G	54 x 1"1/2	65	65	29	356	1	87,68
187200054G	54 x 2"	71	65	35	362	1	92,28
187212076G*	76,1 x 2"1/2	98	83	43	769	1	389,06
187300088G*	88,9 x 3"	111	98	51	1218	1	581,28
187400108G*	108 x 4"	132	118	57	1842	1	669,18

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU

B 10 13



190 G

DİŞİ ADAPTÖR

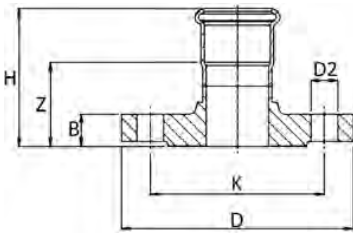
• FEMALE ADAPTER

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g	kg	€
190102015G	15 x 1/2"	38	27	2	64	4	20,84
190304015G	15 x 3/4"	39	32	2	75	4	21,75
190102018G	18 x 1/2"	38	27	2	89	4	21,99
190304018G	18 x 3/4"	39	32	2	80	4	23,01
190102022G	22 x 1/2"	39	32	2	99	4	23,35
190304022G	22 x 3/4"	40	32	2	82	4	27,39
190100022G	22 x 1"	43	41	2	148	4	32,36
190304028G	28 x 3/4"	42	38	2	130	4	31,27
190100028G	28 x 1"	45	41	2	158	4	42,83
190114028G	28 x 1 1/4"	48	46	2	148	4	47,58
190100035G	35 x 1"	49	46	2	216	1	41,21
190114035G	35 x 1 1/4"	52	46	2	170	1	46,72
190112035G	35 x 1 1/2"	52	55	2	284	1	53,44
190114042G	42 x 1 1/4"	56	55	2	259	1	52,87
190112042G	42 x 1 1/2"	56	55	2	243	1	72,85
190112054G	54 x 1 1/2"	60	65	1	420	1	79,34
190200054G	54 x 2"	65	65	2	314	1	108,46



193 G

ADAPTÖR FLANŞI

• ADAPTOR FLANGE

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: NBR-HNBR sarı - yellow

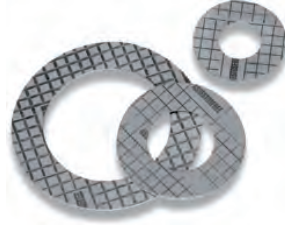
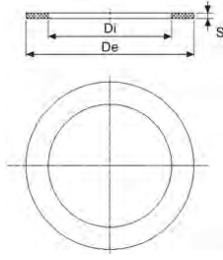
≤54 B 10 13

76÷108 B 10 14

PN 16

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g	kg	€
193015000G	15	15	55	35	14	95	14	4	65	660	1	86,39
193018000G	18	15	55,5	35,5	14	95	14	4	65	660	1	88,81
193022000G	22	20	58,5	37,5	16	105	14	4	75	945	1	103,28
193028000G	28	25	61,5	38,5	16	115	14	4	85	1140	1	126,28
193035000G	35	32	65,5	39,5	16	140	18	4	100	1640	1	178,21
193042000G	42	40	69	39	16	150	18	4	110	1800	1	209,11
193054000G	54	50	78	42	18	165	18	4	125	2450	1	257,85
193076000G*	76,1	65	105	50	18	185	18	4	145	3184	1	421,79
193088000G*	88,9	80	116	56	20	200	18	8	160	3950	1	503,25
193108000G*	108	100	132	57	20	220	18	8	180	4729	1	599,09

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU



434/PN10-16 GAS

FLANŞ İÇİN CONTA

• GASKET FOR FLANGE

MALZEME / MATERIAL: NA 1100 - asbestos free
NORM: EN 1092-1PN
10/16

KOD / CODE	DN	De mm	Di mm	S mm	g	g	€
434015000G	15 - [1/2"]	50	20	2	6	10	2,37
434020000G	20 - [3/4"]	60	25	2	8	10	2,97
434025000G	25 - [1"]	70	30	2	10	10	3,80
434032000G	32 - [1 1/4"]	82	38	2	14	10	4,63
434040000G	40 - [1 1/2"]	92	45	2	17	10	6,19
434050000G	50 - [2"]	108	57	2	22	10	7,62
434065000G	65 - [2 1/2"]	127	76	2	27	10	9,87
434080000G	80 - [3"]	142	89	2	30	10	11,82
434100000G	100 - [4"]	162	108	2	38	10	13,88

NA 1100 - asbest içermez: yüksek sıcaklıklar ve yüksek basınçlarla evrensel kullanıma uygun NBR kauçuk ile bağlanmış karbon fiberler ve grafit...

UYGULAMALAR: Petrol türevleri, su, doymuş buhar, solventler, gazlar ve genel olarak kimyasal ürünlerle sızdırmazlık için uygundur.

KILAVUZ KISITLARI

Standart 250 °C / 70 bar

Doymuş buhar 250 °C / 40 bar

Maksimum 450 °C / 130 bar

ONAYLAR: Gazlar için DVGW -DIN 3535 p. 6 - İçme suyu ile temas eden Contalar için KTW

NA 1100 - asbestos-free: carbon fibers and graphite bonded with NBR rubber suitable for universal use with high temperatures and high pressures.

APPLICATIONS: suitable for sealing with petroleum derivatives, water, saturated steam, solvents, gases and chemical products in general.

GUIDELINE LIMITS

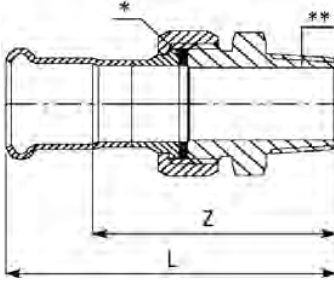
Standard 250 °C / 70 bar

Saturated steam 250 °C / 40 bar

Maximum 450 °C / 130 bar

APPROVALS: DVGW for gas -DIN 3535 p. 6 - KTW for gaskets in contact with drinking water

B 10 13



184/002 G

DÜZ ERKEK SOMUN BAĞLANTISI

• STRAIGHT MALE UNION CONNECTOR



MALZEME / MATERIAL: AISI 316L – 1.4404

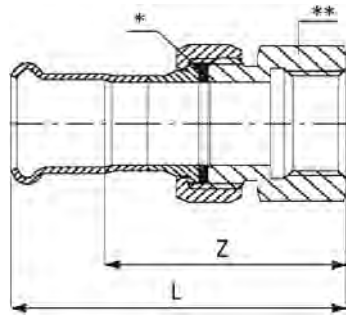
BAĞLANTI / FITTING: (**): pirinç - brass

O-HALKA / O-RING: NBR sarı - yellow

CONTA / GASGET: (*): HNBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm			€
184015002G	15 x 1/2"	77	56	24x14 thk 2,5	142	4	40,95
184018002G	18 x 1/2"	77	56	24x14 thk 2,5	144	4	46,61
184022122G	22 x 1/2"	79	54	30x20 thk 2,5	199	4	48,00
184022002G	22 x 3/4"	81	59	30x20 thk 2,5	202	4	48,00
184028342G	28 x 3/4"	87	64	39x27 thk 2,5	370	4	78,58
184028002G	28 x 1"	90	67	39x27 thk 2,5	364	1	78,58
184035002G	35 x 1 1/4"	101	74	44,5x34 thk 2,5	540	1	100,26
184042002G	42 x 1 1/2"	105	74	50,5x40 thk 2,5	563	1	115,13
184054002G	54 x 2"	118	83	65,5x53,5 thk 3	823	1	197,77



184/003 G

DÜZ DIŞİ SOMUN BAĞLANTISI

• STRAIGHT FEMALE UNION CONNECTOR

MALZEME / MATERIAL: AISI 316L – 1.4404



BAĞLANTI / FITTING: (**): pirinç - brass

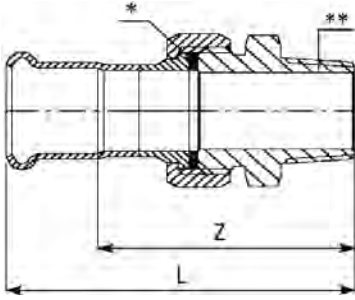
O-HALKA / O-RING: NBR sarı - yellow

CONTA / GASGET: (*): HNBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 10 13

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm			€
184015003G	15 x 1/2"	71	50	24x14 thk 2,5	140	4	40,95
184018003G	18 x 1/2"	72	51	24x14 thk 2,5	145	4	49,34
184022123G	22 x 1/2"	75	54	30x20 thk 2,5	253	4	53,61
184022003G	22 x 3/4"	76	54	30x20 thk 2,5	213	4	53,61
184028343G	28 x 3/4"	83	60	39x27 thk 2,5	483	4	67,76
184028003G	28 x 1"	83	60	39x27 thk 2,5	404	4	67,76
184035003G	35 x 1 1/4"	93	66	44,5x34 thk 2,5	486	1	83,99
184042003G	42 x 1 1/2"	97	66	50,5x40 thk 2,5	536	1	104,37
184054003G	54 x 2"	116	81	65,5x53,5 thk 3	1091	1	199,11

**184/002 INOX G****DÜZ ERKEK SOMUN BAĞLANTISI**

- STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404

BAĞLANTI / FITTING: [**]: AISI 316L - 1.4404

O-HALKA / O-RING: NBR sarı - yellow

CONTA / GASGET: [*]: HNBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm	g	€
184015002IG	15 x 1/2"	77	56	24x14 thk 2,5	137	4 51,17
184018002IG	18 x 1/2"	77	56	24x14 thk 2,5	139	4 58,26
184022002IG	22 x 3/4"	81	59	30x20 thk 2,5	194	4 59,99
184028002IG	28 x 1"	90	67	39x27 thk 2,5	350	4 98,22
184035002IG	35 x 1 1/4"	101	74	44,5x34 thk 2,5	518	1 125,34

184/003 INOX G**DÜZ DIŞI SOMUN BAĞLANTISI**

- STRAIGHT FEMALE UNION CONNECTOR

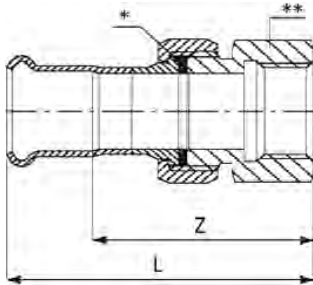
MALZEME / MATERIAL: AISI 316L - 1.4404

BAĞLANTI / FITTING: [**]: AISI 316L - 1.4404

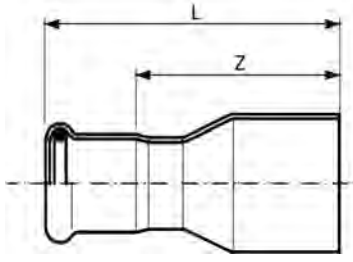
O-HALKA / O-RING: NBR sarı - yellow

CONTA / GASGET: [*]: HNBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)



KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm	g	€
184015003IG	15 x 1/2"	71	50	24x14 thk 2,5	135	4 51,17
184018003IG	18 x 1/2"	72	51	24x14 thk 2,5	140	4 61,68
184022003IG	22 x 3/4"	76	54	30x20 thk 2,5	206	4 67,08
184028003IG	28 x 1"	83	60	39x27 thk 2,5	387	4 84,69
184035003IG	35 x 1 1/4"	93	66	44,5x34 thk 2,5	467	1 105,02



191 G

AZALTICI

• REDUCER

MALZEME / MATERIAL: AISI 316L - 1.4404
O-HALKA / O-RING: NBR-HNBR sarı - yellow

≤54 B 10 13
76÷108 B 10 14

KOD / CODE	De mm	L mm	Z mm	g	g	€
191018015G	18 x 15	57	37	35	4	8,90
191022015G	22 x 15	64	44	43	4	9,73
191022018G	22 x 18	60	40	47	4	10,04
191028015G	28 x 15	76,5	56,5	50	4	12,62
191028018G	28 x 18	68	48	63	4	11,78
191028022G	28 x 22	65	44	66	4	11,72
191035015G	35 x 15	87	67	89	1	43,19
191035018G	35 x 18	81	61	87	1	43,72
191035022G	35 x 22	70	49	90	1	14,72
191035028G	35 x 28	71	48	98	1	18,17
191042015G	42 x 15	91	71	111	1	44,66
191042018G	42 x 18	92	72	114	1	44,80
191042022G	42 x 22	97	76	120	1	46,38
191042028G	42 x 28	93	70	130	1	47,43
191042035G	42 x 35	81	55	138	1	25,46
191054015G	54 x 15	103	83	158	1	49,54
191054018G	54 x 18	103	83	162	1	49,61
191054022G	54 x 22	104	83	169	1	52,26
191054028G	54 x 28	108,5	85,5	180	1	54,38
191054035G	54 x 35	108	82	193	1	67,73
191054042G	54 x 42	97,5	67,5	210	1	32,90
191076054G*	76,1 x 54	159	124	529	1	103,19
191088054G*	88,9 x 54	179	144	683	1	112,26
191088076G*	88,9 x 76,1	186	131	813	1	152,53
191108054G*	108 x 54	185	150	831	1	120,99
191108076G*	108 x 76,1	209	154	1022	1	157,04
191108088G*	108 x 88,9	210	150	1107	1	174,90

[*] DN 76,1-88-108 Sadece DVGW-ÖVGW-SZU - Only DVGW-ÖVGW-SZU



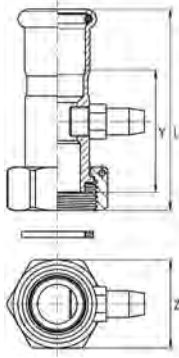
185/CON

GAZ SAYACI İÇİN DESTEK LEVHASI

• SUPPORT PLATE FOR GAS METER

B 10 13

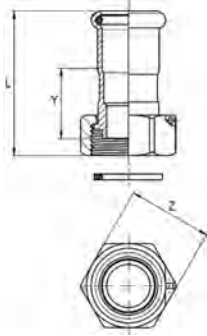
KOD / CODE	Boyutlar mm x mm	g	g	€
185000CONG	90 x 345	535	1	37,11

**183/GP G****2 PARÇALI VANA BAĞLANTISI BASINÇ ÇIKIŞI**

• 2 PCS VALVE CONNECTOR PRESSION OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** NBR sarı - yellow**CONTA / GASGET:** NBR sarı - yellow**DİŞLİ / THREAD:** ISO 228/1 (ex DIN 259)

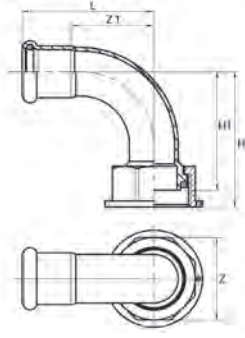
KOD / CODE	De x G mm x inch	L mm	Z mm	Y mm	g	kg	€
183015304GP	15 x 3/4"	70	29	44	112	4	38,79
183015708GP	15 x 7/8"	74	34	47	160	4	44,01
183018304GP	18 x 3/4"	70	29	44,5	114	4	39,53
183018708GP	18 x 7/8"	74,5	34	47,5	156	4	44,73
183022304GP	22 x 3/4"	69,5	29	43	120	4	40,77
183022708GP	22 x 7/8"	73,5	34	45,5	149	4	45,75

**183/GD G****2 PARÇALI VANA BAĞLANTISI**

• 2 PCS VALVE CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** NBR sarı - yellow**CONTA / GASGET:** NBR sarı - yellow**DİŞLİ / THREAD:** ISO 228/1 (ex DIN 259)

KOD / CODE	De x G mm x inch	L mm	Z mm	Y mm	g	kg	€
183015020GD	15 x M20	51	24	24	54	4	26,08
183015102GD	15 x 1/2"	49	24	24	53	4	25,47
183018102GD	18 x 1/2"	48	24	23,5	56	4	26,21
183018304GD	18 x 3/4"	52	29	27,5	74	4	29,28
183018708GD	18 x 7/8"	55	34	28	98	4	39,69
183022304GD	22 x 3/4"	51,5	29	26	79	4	30,53
183022708GDA	22 x 7/8"	56,5	34	28,5	108	4	33,62
183028708GDA	28 x 7/8"	57	34	27	116	4	35,23
183028100GD	28 x 1"	58	36	28	119	4	36,47
183035114GD	35 x 1 1/4"	62,5	45	28,5	180	1	42,91
183042112GD	42 x 1 1/2"	73	52	33	266	1	53,76
183054200GD	54 x 2"	81	64	34,5	417	1	69,21



183/GC G

B 10 13

2 PARÇALI VANA BAĞLANTISI 90°

• 2 PCS VALVE CONNECTOR 90°

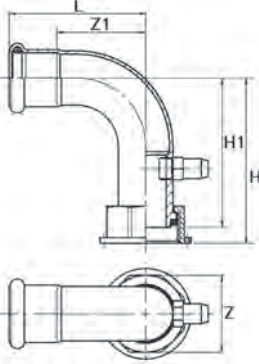
MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: NBR sarı - yellow

CONTA / GASGET: NBR sarı - yellow

DİŞLİ / THREAD: ISO 228/1 (ex DIN 259)

KOD / CODE	De x G mm x inch	L mm	Z mm	Z1 mm	H mm	H1 mm			€
183018708GC	18 x 7/8"	54	34	34	52,5	45,5	126	4	51,10
183022708GC	22 x 7/8"	60	34	39	59	52	149	4	49,67



183/GCP G

B 10 13

2 PARÇALI VANA BAĞLANTISI 90° BASINÇ ÇIKIŞI

• 2 PCS VALVE CONNECTOR 90° PRESSION OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: NBR sarı - yellow

CONTA / GASGET: NBR sarı - yellow

DİŞLİ / THREAD: ISO 228/1 (ex DIN 259)

KOD / CODE	De x G mm x inch	L mm	Z mm	Z1 mm	H mm	H1 mm			€
183018708GCP	18 x 7/8"	54	34	34	72	65	184	4	56,52
183022708GCP	22 x 7/8"	60	34	39	76	69	190	4	60,98

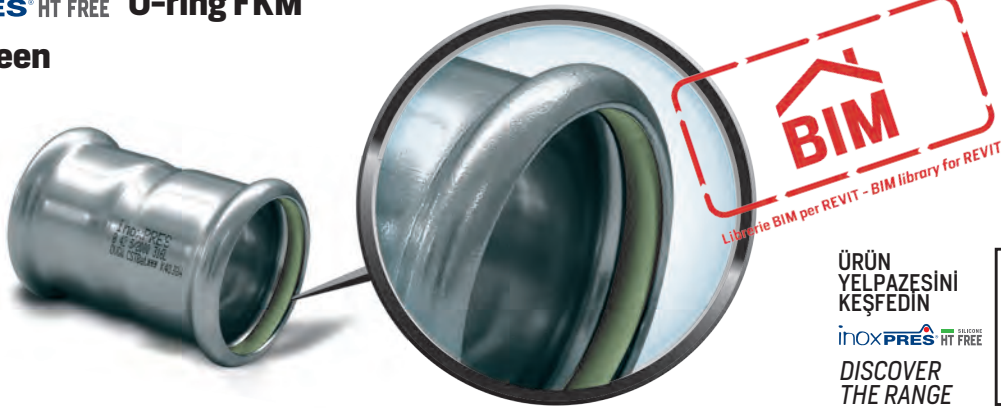


inoxPRES® GAS Conta NBR / Gasket NBR Sarı | Yellow

Gaz sayacı bağlantısının özel contası
Particular seal of gas meter fitting
art. 183/GP G - 183/GD G - 183/GC G - 183/GC G

Uygulama alanları / Fields of application

inoxPRES® HT FREE SILICONE

**Basıncılı hava**
Compressed air**Endüstriyel Oksijen O₂**
Industrial oxygen O₂**Ozon O₃**
Ozone O₃**Termal Güneş**
Thermal solar**Petrol/Dizel Yakıt**
Oil / diesel fuel**Oil**inoxPRES® HT FREE SILICONE **O-ring FKM**
Yeşil | Green**ÜRÜN**
YELPAZESİNİ
KEŞFEDİN
inoxPRES® HT FREE
DISCOVER
THE RANGE**Endüstriyel Uygulamalar**

- Basıncılı hava
- Endüstriyel Oksijen O₂ [yemek/hastane yok]
- Ozon O₃
- Termal güneş P maks 6 bar; T maks 220°C
- Petrol/dizel yakıt

Sadece "tavlanmış" borular kullanılabilir. Özel sıvıların diğer araçlarla taşınması RM teknik ofisi tarafından değerlendirilmelidir.**O-halka FKM Yeşil****Industrial applications**

- Compressed air
- Industrial Oxygen O₂ [no food/hospital]
- Ozone O₃
- Thermal solar P max 6 bar; T max 220°C
- Oil/diesel fuel

Only "annealed" pipes can be used. Any other vehiculation of special fluids, must be evaluated from RM technical office.**Green FKM O-Ring**

ODAKLAN - FOCUS ON **SİLİKONSUZ**

TR

- Inoxpres HT sisteminin bileşenleri yağdan arındırılmıştır:
- ASTM F331-05 standartlarına uygun olarak ölçülen uçucu maddelerin kalıntı seviyesine dayanarak E sınıfı;
 - ASTM G144-01 standartlarına uygun olarak ölçülen uçucu kalıntı seviyesi temelinde D sınıfı; [Test raporları İŞ KİMLİĞİ 147 - 09.03.2017]
- Pres montaj sisteminin FKM O halkaları:
- kızılötesi spektrofotometri [FT-IR] ile test edilmiştir: Silikon varlığını tespit etmemiştir [Test raporu RA160100 -15.04.2016]

EN

- The components of Inoxpres HT system are degreased:
- Class E on the basis of the level of residues of volatile substances measured in accordance with ASTM F331-05 standards;
 - Class D on the basis of the volatile residues level measured in accordance with ASTM G 144-01 standards; [Test reports JOB ID 147 - 09.03.2017]
- The FKM O-rings of press fitting system:
- are tested with infrared spectrophotometry (FT-IR): It has not detected the presence of silicon [Test report RA160100 - 15.04.2016]

Ürün yelpazesi / Product range
Talep üzerine / On demand

ø 15 ÷ 54 mm
ø 76,1 ÷ 108 mm

Diğer rakamlar, "talep üzerine" temin edilebilir
Other figures can be provided "on demand"



116/300 6 m


B 30 31

"SİLİKONSUZ" BAĞLANTI İÇİN BORU

• PIPE FOR "SILICONE FREE" INSTALLATION

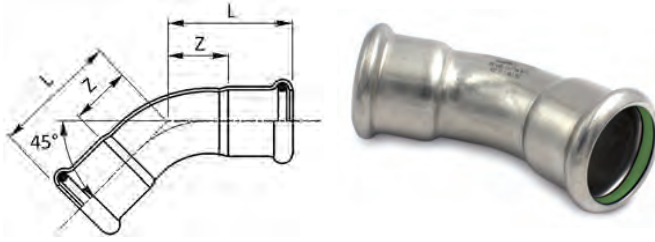
NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmış - Annealed

KOD / CODE	Boyutlar Dimensions mm x mm	ø int mm	L m	 kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015300	15 x 1,0	13	6	0,351	0,133	60	1014	20,78
116018300	18 x 1,0	16	6	0,426	0,201	60	1014	22,33
116022300	22 x 1,2	19,6	6	0,625	0,302	60	762	29,96
116028300	28 x 1,2	25,6	6	0,805	0,514	30	546	36,76
116035300	35 x 1,5	32	6	1,258	0,804	30	546	54,16
116042300	42 x 1,5	39	6	1,521	1,194	30	366	64,94
116054300	54 x 1,5	51	6	1,972	2,042	30	366	82,36

Silikonsuz sistem için sadece tavlanmış Inoxpres borular kullanılmalıdır.
For silicone free system, only the annealed Inoxpres pipes must be used.

B 10 16



181/450 HT

45° DİRSEK FF

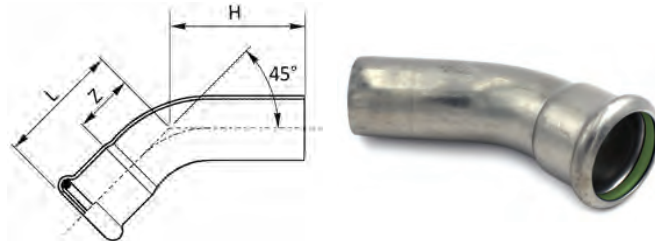
• 45° ELBOW FF

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: FKM yeşil – green

TİP / TYPE: silikonsuz – silicon free

KOD / CODE	De mm	Yarıçap Radius	L mm	Z mm	g		€
181015450CHT	15	1,2 De	27,5	7,5	39	1	14,55
181018450CHT	18	1,2 De	29,5	9,5	48	1	16,09
181022450CHT	22	1,2 De	32	11	63	1	18,70
181028450CHT	28	1,2 De	37	14	90	1	22,48
181035450HT	35	1,2 De	43	17	127	1	26,59
181042450HT	42	1,2 De	51	21	177	1	43,06
181054450HT	54	1,2 De	62	30	273	1	55,27



181/451 HT

45° DİRSEK MF

• 45° ELBOW MF

MALZEME / MATERIAL: AISI 316L – 1.4404

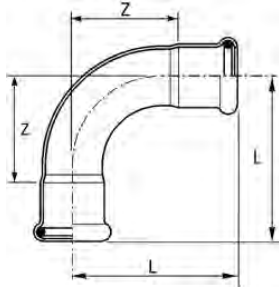
O-HALKA / O-RING: FKM yeşil – green

TİP / TYPE: silikonsuz – silicon free

B 10 16

KOD / CODE	De mm	Yarıçap Radius	L mm	H mm	Z mm	g		€
181015451CHT	15	1,2 De	27,5	36	7,5	38	1	14,55
181018451CHT	18	1,2 De	29,5	38	9,5	47	1	15,56
181022451CHT	22	1,2 De	32	42	11	63	1	17,65
181028451CHT	28	1,2 De	37	46	14	90	1	20,99
181035451HT	35	1,2 De	43	57,5	17	132	1	24,75
181042451HT	42	1,2 De	51	72	21	196	1	41,49
181054451HT	54	1,2 De	62	82	26	296	1	53,15

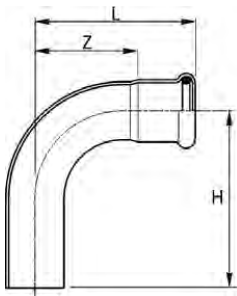
B1016

**181/900 HT****90° DİRSEK FF**

• 90° ELBOW FF

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** FKM yeşil - green**TİP / TYPE:** silikonsuz - silicon free

KOD / CODE	De mm	Yarıçap Radius	L mm	Z mm	g	g	€
181015900CHT	15	1,2 De	38	18	46	1	11,10
181018900CHT	18	1,2 De	41,5	21,5	58	1	12,69
181022900CHT	22	1,2 De	47	26	78	1	15,32
181028900CHT	28	1,2 De	56	33	116	1	20,40
181035900HT	35	1,2 De	68	42	162	1	33,06
181042900HT	42	1,2 De	80	50	231	1	56,80
181054900HT	54	1,2 De	100	64	367	1	79,24

**181/901 HT****90° DİRSEK MF**

• 90° ELBOW MF

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** FKM yeşil - green**TİP / TYPE:** silikonsuz - silicon free

B1016

KOD / CODE	De mm	Yarıçap Radius	L mm	H mm	Z mm	g	g	€
181015901CHT	15	1,2 De	38	48	18	46	1	11,64
181018901CHT	18	1,2 De	41,5	48,5	21,5	56	1	13,23
181022901CHT	22	1,2 De	47	57	26	79	1	15,86
181028901CHT	28	1,2 De	56	64	33	115	1	19,89
181035901HT	35	1,2 De	68	82	42	176	1	30,29
181042901HT	42	1,2 De	80	101	50	253	1	54,99
181054901HT	54	1,2 De	100	120	64	390	1	79,69

B 10 16

182 HT

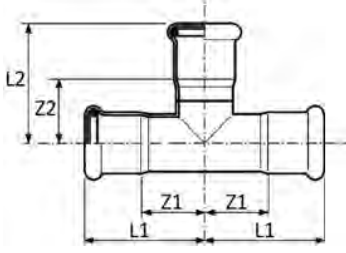
EŞİT T (TEE)

• EQUAL TEE

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: FKM yeşil – green

TİP / TYPE: silikonsuz – silicon free



KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g		€
182015000HT	15	34	39	14	19	67	1	20,30
182018000HT	18	37	41	16	21	80	1	23,35
182022000HT	22	39	45	18	24	106	1	24,57
182028000HT	28	44	50	21	27	145	1	29,54
182035000HT	35	51	57	25	31	201	1	36,82
182042000HT	42	59	65	28	35	260	1	52,08
182054000HT	54	70	77	34	42	404	1	62,07

B 10 16

189 HT

BRANŞ T (TEE) DIŞI BSP ÇIKIŞI

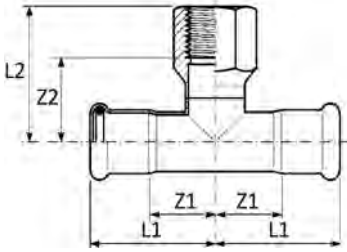
• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: FKM yeşil – green

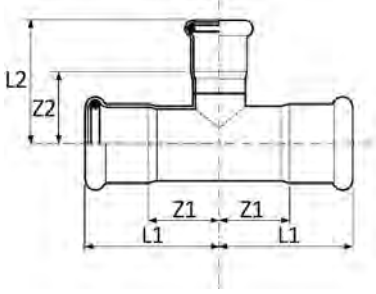
TİP / TYPE: silikonsuz – silicon free

DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)



KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g		€
189102015HT*	15 x 1/2" x 15	36,5	22,5	16,5	8,5	117	1	22,45
189102018HT*	18 x 1/2" x 18	36	24	16	10	128	1	23,04
189102022HT*	22 x 1/2" x 22	39	26	18	12	159	1	24,64
189304022HT*	22 x 3/4" x 22	41,5	30	20,5	14	184	1	28,12
189102028HT*	28 x 1/2" x 28	44	29	21	15	217	1	27,10
189304028HT*	28 x 3/4" x 28	44	30	21	14	221	1	32,21
189100035HT	35 x 1" x 35	51	47	22	28	250	1	62,94
189100042HT	42 x 1" x 42	59	60	29	41	346	1	68,96
189102054HT	54 x 1/2" x 54	70	61	34	46	337	1	47,62
189304054HT	54 x 3/4" x 54	70	64	34	48	391	1	51,60
189200054HT	54 x 2" x 54	70	81	34	55	838	1	103,74

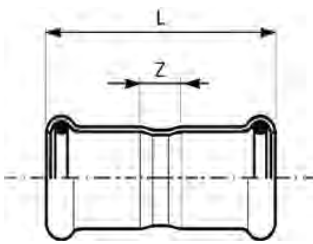
(*) sorunsuz – seamless

**192 HT****AZALTICI T (TEE)**

• REDUCING TEE

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** FKM yeşil - green**TİP / TYPE:** silikonsuz - silicon free

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	€
192018015HT	18 x 15 x 18	36,5	41	15,5	21	80	1	19,66
192022018HT	22 x 18 x 22	39	44	18	23	98	1	21,65
192028022HT	28 x 22 x 28	44	47	21	26	135	1	27,33
192035022HT	35 x 22 x 35	51	51	25	30	167	1	33,35
192035028HT	35 x 28 x 35	51	54	25	31	171	1	34,71
192042028HT	42 x 28 x 42	59	57	29	34	243	1	48,92
192042035HT	42 x 35 x 42	59	61	29	35	272	1	49,99
192054035HT	54 x 35 x 54	70	68	34	42	361	1	56,03
192054042HT	54 x 42 x 54	70	72	34	42	376	1	60,02

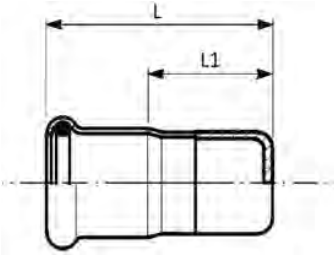
**183/000 HT****MANICOTTO**

• COUPLING

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** FKM yeşil - green**TİP / TYPE:** silikonsuz - silicon free

KOD / CODE	De mm	L mm	Z mm	g	kg	€
183015000HT	15	49	9	35	1	7,80
183018000HT	18	50	10	42	1	8,90
183022000HT	22	53	11	54	1	10,24
183028000HT	28	56	10	71	1	11,72
183035000HT	35	63	10	97	1	14,82
183042000HT	42	72	12	136	1	20,09
183054000HT	54	83	13	198	1	24,36

B 10 16



183/003 HT

DURDURMA UCU

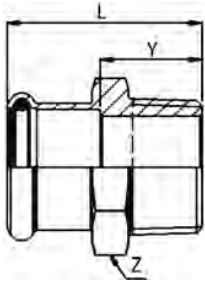
• STOP END

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: FKM yeşil – green

TİP / TYPE: silikonsuz – silicon free

KOD / CODE	De mm	L mm	L1 mm	g		€
183015003HT	15	44	24	32	1	11,02
183018003HT	18	44	24	38	1	11,48
183022003HT	22	45	24	51	1	13,33
183028003HT	28	48	25	68	1	18,35
183035003HT	35	52	26	95	1	20,93
183042003HT	42	56	26	126	1	32,14
183054003HT	54	62	27	185	1	37,91



187 HT

ERKEK ADAPTÖR

• MALE ADAPTER

MALZEME / MATERIAL: AISI 316L – 1.4404

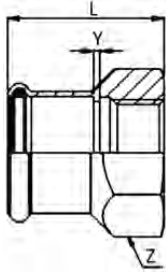
O-HALKA / O-RING: FKM yeşil – green

TİP / TYPE: silikonsuz – silicon free

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 10 16

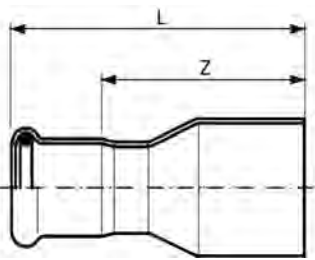
KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g		€
187102015HT	15 x 1/2"	41	24	21	54	1	19,65
187102018HT	18 x 1/2"	41	27	21	58	1	21,40
187102022HT	22 x 1/2"	42	32	21	83	1	23,27
187304022HT	22 x 3/4"	44	32	23	89	1	24,10
187100022HT	22 x 1"	46	36	25	154	1	28,66
187304028HT	28 x 3/4"	47	38	24	114	1	32,67
187100028HT	28 x 1"	48	38	25	123	1	34,72
187114035HT	35 x 1 1/4"	55	46	28	180	1	45,90
187112042HT	42 x 1 1/2"	59	55	28	236	1	66,71
187200054HT	54 x 2"	71	65	35	362	1	93,71

**190 HT****DİŞİ ADAPTÖR**

• FEMALE ADAPTER

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** FKM yeşil - green**TİP / TYPE:** silikonsuz - silicon free**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g	€
190102015HT	15 x 1/2"	38	27	2	64	21,16
190102018HT	18 x 1/2"	38	27	2	89	22,33
190304022HT	22 x 3/4"	40	32	2	82	27,81
190304028HT	28 x 3/4"	42	38	2	130	31,75
190100028HT	28 x 1"	45	41	2	158	43,49
190114035HT	35 x 1 1/4"	52	46	2	170	47,44
190112042HT	42 x 1 1/2"	56	55	2	243	73,98
190200054HT	54 x 2"	65	65	2	314	110,14

**191 HT****AZALTICI**

• REDUCER

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** FKM yeşil - green**TİP / TYPE:** silikonsuz - silicon free

KOD / CODE	De mm	L mm	Z mm	g	€
191018015HT	18 x 15	57	37	35	9,03
191022018HT	22 x 18	60	60	47	10,20
191028015HT	28 x 15	56,5	76,5	50	12,82
191028022HT	28 x 22	65	44	66	11,91
191035028HT	35 x 28	71	48	98	18,46
191042035HT	42 x 35	81	55	138	25,85
191054042HT	54 x 42	97,5	67,5	210	33,41

B 10 16

193/000 HT

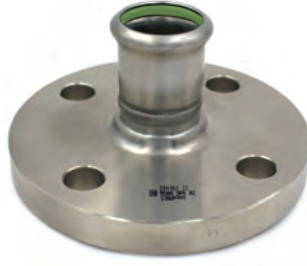
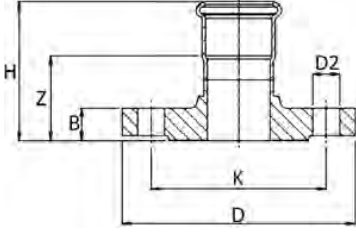
ADAPTÖR FLANŞI

• ADAPTOR FLANGE

MALZEME / MATERIAL: AISI 316L – 1.4404

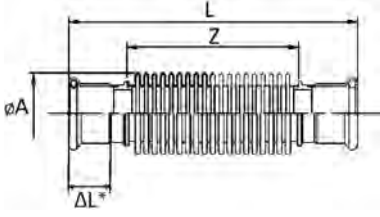
O-HALKA / O-RING: FKM yeşil – green

TİP / TYPE: silikonsuz – silicon free



PN 16

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g	kg	€
193015000HT	15	15	55	35	14	95	14	4	65	660	1	86,39
193018000HT	18	15	55,5	35,5	14	95	14	4	65	660	1	88,81
193022000HT	22	20	58,5	37,5	16	105	14	4	75	945	1	103,28
193028000HT	28	25	61,5	38,5	16	115	14	4	85	1140	1	126,28
193035000HT	35	32	65,5	39,5	16	140	18	4	100	1640	1	178,21
193042000HT	42	40	69	39	16	150	18	4	110	1800	1	209,11
193054000HT	54	50	78	42	18	165	18	4	125	2450	1	257,85



199 HT

GENLEŞME DENGELİYİCİSİ

• EXPANSION COMPENSATOR

MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: FKM yeşil - green

TİP / TYPE: silikonsuz - silicon free

KOD / CODE	De mm	L mm	Döngüler Cycles*	ΔL** mm	Z mm	A mm	g	kg	€
199015000HT	15	139	800	16	71	22	80	1	171,26
199018000HT	18	143	800	18	74	27	108	1	188,38
199022000HT	22	139	800	20	68	34	130	1	209,79
199028000HT	28	150	800	22	73	41	155	1	269,77
199035000HT	35	177	800	26	90	51	251	1	333,93
199042000HT	42	202	800	32	107	61	440	1	398,18
199054000HT	54	221	800	36	113	71	550	1	492,36

Maksimum aksel vuruş aşağıda belirtilen nominal değeri aşmamalıdır.
The maximum axial stroke must not exceed the nominal value below indicated.

Kod	DN	Devirler* MAX	ΔL** (mm)	Sıcaklık °C									
				20°	40°	60°	80°	100°	120°	140°	160°	180°	200°
199 / 15	15	800	16	16,0	14,7	13,6	12,6	11,8	11,4	10,9	10,6	10,2	9,9
199 / 18	18	800	18	18,0	16,6	15,3	14,2	13,3	12,8	12,3	11,9	11,5	11,2
199 / 22	22	800	20	20,0	18,4	17,0	15,8	14,8	14,2	13,7	13,2	12,8	12,4
199 / 28	28	800	22	22,0	20,2	18,7	17,4	16,3	15,6	15,0	14,5	14,1	13,6
199 / 35	35	800	26	26,0	23,9	22,1	20,5	19,2	18,5	17,8	17,2	16,6	16,1
199 / 42	42	800	32	32,0	29,4	27,2	25,3	23,7	22,7	21,9	21,1	20,5	19,8
199 / 54	54	800	36	36,0	33,1	30,6	28,4	26,6	25,6	24,6	23,8	23,0	22,3

[*] Maksimum sıkıştırma iş devir sayısı - Work cycles number at maximum compression

[**] Sıkıştırma aksel vuruşu - Compression axial stroke

CS = hizmetler aksel vuruş / services axial stroke (mm)

CA Max = maksimum aksel vuruş / maximum axial stroke (mm)

CS/CA %	100	90	80	70	60	50	40	30
Cicli (cycles)	800	1000	1700	2900	5500	12000	35000	160000
Cicli (cycles)	500	625	1050	1800	3400	7500	21800	100000

Maksimum basınç aşağıda belirtilen nominal basıncı aşmamalıdır.
The maximum pressure must not exceed the nominal pressure below indicated.

°C	20°	40°	60°	80°	100°	120°	140°	160°	180°	200°
PN (bar)	16,0	14,5	13,5	12,5	12,0	11,5	11,0	10,5	10,0	9,5

Uygulama Alanları / Fields of application

inoxPRES® STEAM



Doymuş Buhar
Maks 7 bar/165°C
Saturated steam
Max 7 bar / 165°C

inoxPRES® O-ring STEAM

Beyaz | White

ÜRÜN
YELPAZESİNİ
KEŞFEDİN
inoxPRES® STEAM
DISCOVER
THE RANGE

**Endüstriyel Uygulamalar****Beyaz BUHAR O-halka**

► Doymuş Buhar **7 bar kesin [6 bar nispi]; T maks 165°**

Diğer özel sıvıların taşınması RM teknik ofisi tarafından değerlendirilmelidir.

Industrial applications**White STEAM O - ring**

► Saturated steam **7 bar absolute (6 bar relative); T max 165°**

Any other vehiculation of specialfluids, must be evaluated from RM technical office.

Ürün yelpazesi / Product range**ø 15 ÷ 54 mm****Talep üzerine / On demand****ø 76,1 ÷ 108 mm**


Diğer rakamlar, "talep üzerine" temin edilebilir
Other figures can be provided "on demand"

**116/200 6 m****B 30 31****DOYMUŞ BUHAR BORUSU**

• PIPE FOR SATURATED STEAM

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmamış - Not annealed


KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	 kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015200	15 x 1,0	13	6	0,351	0,133	60	1014	13,62
116018200	18 x 1,0	16	6	0,426	0,201	60	1014	15,49
116022200	22 x 1,2	19,6	6	0,625	0,302	60	762	21,59
116028200	28 x 1,2	25,6	6	0,805	0,514	30	546	27,25
116035200	35 x 1,5	32	6	1,258	0,804	30	546	41,16
116042200	42 x 1,5	39	6	1,521	1,194	30	366	49,17
116054200	54 x 1,5	51	6	1,972	2,042	30	366	63,17

**116/300 6 m****B 30 31****DOYMUŞ BUHAR BORUSU**

• PIPE FOR SATURATED STEAM

NORM: EN 10217-7 (DIN 17455) - EN 10312

Mat. Nr.: 1.4404 (AISI 316L) L=6 m
Tavlanmış - Annealed

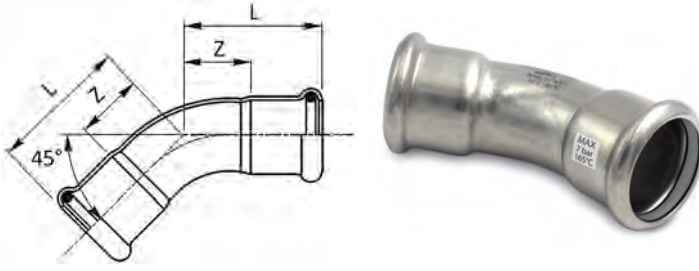
KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	 kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
116015300	15 x 1,0	13	6	0,351	0,133	60	1014	20,78
116018300	18 x 1,0	16	6	0,426	0,201	60	1014	22,33
116022300	22 x 1,2	19,6	6	0,625	0,302	60	762	29,96
116028300	28 x 1,2	25,6	6	0,805	0,514	30	546	36,76
116035300	35 x 1,5	32	6	1,258	0,804	30	546	54,16
116042300	42 x 1,5	39	6	1,521	1,194	30	366	64,94
116054300	54 x 1,5	51	6	1,972	2,042	30	366	82,36

**114/200 6 m****B 30 34****DOYMUŞ BUHAR BORUSU**

• PIPE FOR SATURATED STEAM

NORM: EN 10217-7 (DIN 17455) - EN 10312**Mat. Nr.: 1.4307 (AISI 304L) L=6 m**
Tavlanmamış - Not annealed

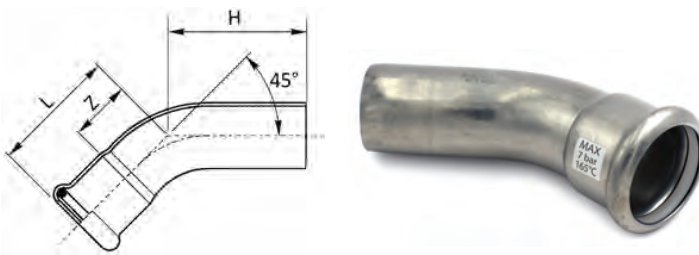
KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
114015200	15 x 1,0	13	6	0,351	0,133	60	1014	9,16
114018200	18 x 1,0	16	6	0,426	0,201	60	1014	10,78
114022200	22 x 1,2	19,6	6	0,625	0,302	60	762	15,21
114028200	28 x 1,2	25,6	6	0,805	0,514	30	546	19,58
114035200	35 x 1,5	32	6	1,258	0,804	30	546	29,55
114042200	42 x 1,5	39	6	1,521	1,194	30	366	36,36
114054200	54 x 1,5	51	6	1,972	2,042	30	366	48,15

**181/450 ST****45° DİRSEK FF**

• 45° ELBOW FF

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar - saturated steam
P max 7 bara [6 barg] - T max 165°C

KOD / CODE	De mm	Yarıçap Radius	L mm	Z mm	g	kg	€
181015450CST	15	1,2 De	27,5	7,5	39	1	15,98
181018450CST	18	1,2 De	29,5	9,5	48	1	17,70
181022450CST	22	1,2 De	32	11	63	1	20,57
181028450CST	28	1,2 De	37	14	90	1	24,74
181035450ST	35	1,2 De	43	17	127	1	29,23
181042450ST	42	1,2 De	51	21	177	1	47,37
181054450ST	54	1,2 De	62	30	273	1	60,83

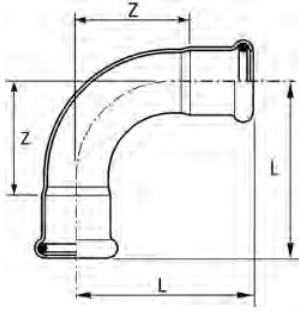
**181/451 ST****45° DİRSEK MF**

• 45° ELBOW MF

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar - saturated steam
P max 7 bara [6 barg] - T max 165°C

KOD / CODE	De mm	Yarıçap Radius	L mm	H mm	Z mm	g	kg	€
181015451CST	15	1,2 De	27,5	36	7,5	38	1	15,98
181018451CST	18	1,2 De	29,5	38	9,5	47	1	17,12
181022451CST	22	1,2 De	32	42	11	63	1	19,42
181028451CST	28	1,2 De	37	46	14	90	1	23,10
181035451ST	35	1,2 De	43	57,5	17	132	1	27,24
181042451ST	42	1,2 De	51	72	21	196	1	45,64
181054451ST	54	1,2 De	62	82	26	296	1	58,48

B 10 15



181/900 ST

90° DİRSEK FF

• 90° ELBOW FF

MALZEME / MATERIAL: AISI 316L - 1.4404

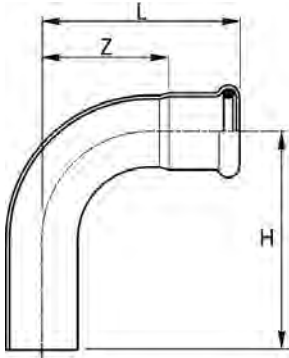
O-HALKA / O-RING: STEAM beyaz - white

TİP / TYPE: doymuş buhar - saturated steam

P max 7 bara (6 barg) - T max 165°C

KOD / CODE	De mm	Yarıçap Radius	L mm	Z mm	g	g	€
181015900CST	15	1,2 De	38	18	46	1	12,22
181018900CST	18	1,2 De	41,5	21,5	58	1	13,99
181022900CST	22	1,2 De	47	26	78	1	16,85
181028900CST	28	1,2 De	56	33	116	1	22,46
181035900ST	35	1,2 De	68	42	162	1	36,37
181042900ST	42	1,2 De	80	50	231	1	62,49
181054900ST	54	1,2 De	100	64	367	1	87,17

B 10 15



181/901 ST

90° DİRSEK MF

• 90° ELBOW MF

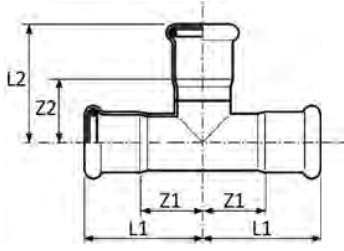
MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: STEAM beyaz - white

TİP / TYPE: doymuş buhar - saturated steam

P max 7 bara (6 barg) - T max 165°C

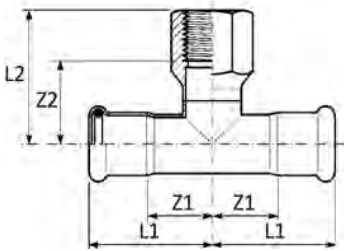
KOD / CODE	De mm	Yarıçap Radius	L mm	H mm	Z mm	g	g	€
181015901CST	15	1,2 De	38	48	18	46	1	12,81
181018901CST	18	1,2 De	41,5	48,5	21,5	56	1	14,56
181022901CST	22	1,2 De	47	57	26	79	1	17,45
181028901CST	28	1,2 De	56	64	33	115	1	21,87
181035901ST	35	1,2 De	68	82	42	176	1	33,32
181042901ST	42	1,2 De	80	101	50	253	1	60,49
181054901ST	54	1,2 De	100	120	64	390	1	87,68

**182 ST****EŞİT T (TEE)**

• EQUAL TEE

MALZEME / MATERIAL: AISI 316L – 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar - saturated steam
P max 7 bara [6 barg] - T max 165°C

KOD / CODE	De mm	Z1 mm	Z2 mm	L1 mm	L2 mm	g	g	€
182015000ST	15	14	19	34	39	67	1	22,32
182018000ST	18	16	21	37	41	80	1	25,70
182022000ST	22	18	24	39	45	106	1	27,03
182028000ST	28	21	27	44	50	145	1	32,51
182035000ST	35	25	31	51	57	201	1	40,48
182042000ST	42	28	35	59	65	260	1	57,28
182054000ST	54	34	42	70	77	404	1	68,30

**189 ST****KOL T (TEE) DIŞI BSP ÇIKIŞI**

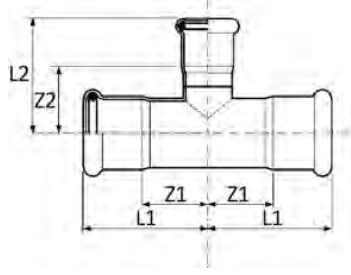
• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: AISI 316L – 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar - saturated steam
P max 7 bara [6 barg] - T max 165°C**DIŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	€
189102015ST*	15 x 1/2" x 15	36,5	22,5	16,5	8,5	117	1	24,70
189102018ST*	18 x 1/2" x 18	36	24	16	10	128	1	25,35
189102022ST*	22 x 1/2" x 22	39	26	18	12	159	1	27,10
189304022ST*	22 x 3/4" x 22	41,5	30	20,5	14	184	1	30,92
189102028ST*	28 x 1/2" x 28	44	29	21	15	217	1	29,81
189304028ST*	28 x 3/4" x 28	44	30	21	14	221	1	35,43
189100035ST	35 x 1" x 35	51	47	22	28	250	1	69,25
189100042ST	42 x 1" x 42	59	60	29	41	346	1	75,88
189200054ST	54 x 2" x 54	70	81	34	55	838	1	114,11

[*] sorunsuz - seamless

B 10 15



192 ST

AZALTICI T (TEE)

• REDUCING TEE

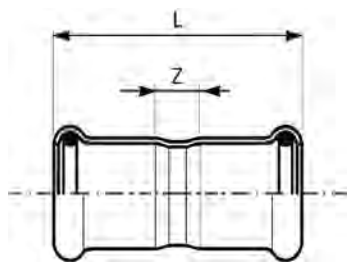
MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: STEAM beyaz - white

TİP / TYPE: doymuş buhar - saturated steam

P max 7 bara (6 barg) - T max 165°C

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	€
192018015ST	18 x 15 x 18	36,5	41	15,5	21	80	1	21,64
192022018ST	22 x 18 x 22	39	43	18	23	95	1	23,81
192028022ST	28 x 22 x 28	44	47	21	26	135	1	30,07
192035022ST	35 x 22 x 35	51	51	25	30	167	1	36,69
192035028ST	35 x 28 x 35	51	54	25	31	171	1	38,16
192042028ST	42 x 28 x 42	59	57	29	34	243	1	53,80
192042035ST	42 x 35 x 42	59	61	29	35	272	1	54,99
192054035ST	54 x 35 x 54	70	68	34	42	361	1	61,62
192054042ST	54 x 42 x 54	70	72	34	42	376	1	66,03



183/000 ST

BAĞLANTI APARATI

• COUPLING

MALZEME / MATERIAL: AISI 316L - 1.4404

O-HALKA / O-RING: STEAM beyaz - white

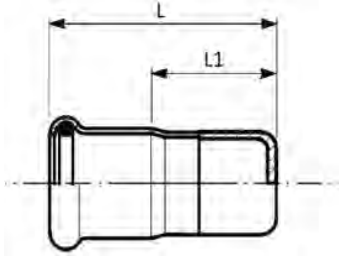
TİP / TYPE: doymuş buhar - saturated steam

P max 7 bara (6 barg) - T max 165°C

KOD / CODE	De mm	L mm	Z mm	g	kg	€
183015000ST	15	49	9	35	1	8,58
183018000ST	18	50	10	42	1	9,79
183022000ST	22	53	11	54	1	11,27
183028000ST	28	56	10	71	1	12,89
183035000ST	35	63	10	97	1	16,31
183042000ST	42	72	12	136	1	22,08
183054000ST	54	83	13	198	1	26,78

B 10 15

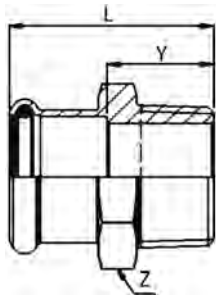
B 10 15

**183/003 ST****DURDURMA UCU**

• STOP END

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar - saturated steam
P max 7 bara [6 barg] - T max 165°C

KOD / CODE	De mm	L mm	L1 mm	g		€
183015003ST	15	44	24	32	1	12,13
183018003ST	18	44	24	38	1	12,63
183022003ST	22	45	24	51	1	14,67
183028003ST	28	48	25	68	1	20,18
183035003ST	35	52	26	95	1	23,01
183042003ST	42	56	26	126	1	35,36
183054003ST	54	62	27	185	1	41,70

**187 ST****ERKEK ADAPTÖR**

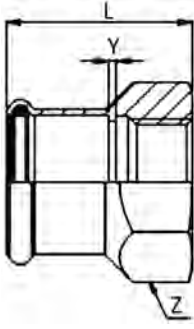
• MALE ADAPTER

MALZEME / MATERIAL: AISI 316L - 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar - saturated steam
P max 7 bara [6 barg] - T max 165°C**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

B 10 15

KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g		€
187102015ST	15 x 1/2"	41	24	21	54	1	21,62
187102018ST	18 x 1/2"	41	27	21	58	1	23,55
187102022ST	22 x 1/2"	42	32	21	83	1	25,60
187304022ST	22 x 3/4"	44	32	23	89	1	26,52
187100022ST	22 x 1"	46	36	25	154	1	31,54
187304028ST	28 x 3/4"	47	38	24	114	1	35,95
187100028ST	28 x 1"	48	38	25	123	1	38,18
187114035ST	35 x 1 1/4"	55	46	28	180	1	50,50
187112042ST	42 x 1 1/2"	59	55	28	236	1	73,36
187200054ST	54 x 2"	71	65	35	362	1	103,10

B 10 15



190 ST

DİŞİ ADAPTÖR

• FEMALE ADAPTER

MALZEME / MATERIAL: AISI 316L – 1.4404

O-HALKA / O-RING: STEAM beyaz - white

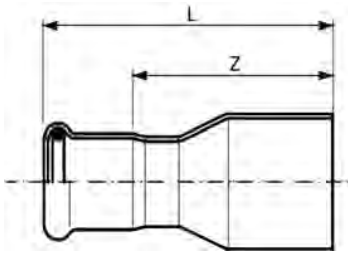
TİP / TYPE: doymuş buhar - saturated steam

P max 7 bara (6 barg) - T max 165°C

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g	kg	€
190102015ST	15 x 1/2"	38	27	2	64	1	23,28
190102018ST	18 x 1/2"	38	27	2	89	1	24,55
190304022ST	22 x 3/4"	40	32	2	82	1	30,59
190304028ST	28 x 3/4"	42	38	2	130	1	34,93
190100028ST	28 x 1"	45	41	2	158	1	47,85
190114035ST	35 x 1 1/4"	52	46	2	170	1	52,18
190112042ST	42 x 1 1/2"	56	55	2	243	1	81,38
190200054ST	54 x 2"	65	65	2	314	1	121,15

B 10 15



191 ST

AZALTICI

• REDUCER

MALZEME / MATERIAL: AISI 316L – 1.4404

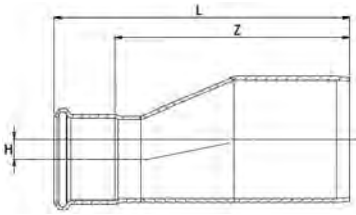
O-HALKA / O-RING: STEAM beyaz - white

TİP / TYPE: doymuş buhar - saturated steam

P max 7 bara (6 barg) - T max 165°C

KOD / CODE	De mm	L mm	Z mm	g	kg	€
191018015ST	18 x 15	57	37	35	1	9,95
191022018ST	22 x 18	60	40	47	1	11,23
191028022ST	28 x 22	65	44	66	1	13,09
191035028ST	35 x 28	71	48	98	1	20,30
191042028ST	42 x 28	93	70	130	1	52,97
191042035ST	42 x 35	81	55	138	1	28,44
191054042ST	54 x 42	97,5	67,5	210	1	36,75

B 10 15

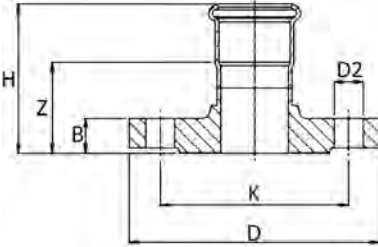
**191/E ST****AYRI EKSENLİ DARALTICI**

• ECCENTRIC REDUCER

MALZEME / MATERIAL: AISI 316L – 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar – saturated steam
P max 7 bara [6 barg] – T max 165°C

KOD / CODE	De mm	L mm	Z mm	H mm	g	kg	€
191042028EST	42 x 28	101,5	78,5	6	140	1	55,50
191054028EST	54 x 28	123,5	100,5	12	206	1	63,63
191054035EST	54 x 35	127	101,5	8,5	224	1	79,24

B 10 15

**193/000 ST****ADAPTÖR FLANŞI**

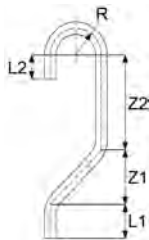
• ADAPTOR FLANGE

MALZEME / MATERIAL: AISI 316L – 1.4404**O-HALKA / O-RING:** STEAM beyaz - white**TİP / TYPE:** doymuş buhar – saturated steam
P max 7 bara [6 barg] – T max 165°C

PN 16

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm	g	kg	€
193015000ST	15	15	55	35	14	95	14	4	65	660	1	95,03
193018000ST	18	15	55,5	35,5	14	95	14	4	65	660	1	97,69
193022000ST	22	20	58,5	37,5	16	105	14	4	75	945	1	113,61
193028000ST	28	25	61,5	38,5	16	115	14	4	85	1140	1	138,90
193035000ST	35	32	65,5	39,5	16	140	18	4	100	1640	1	196,05
193042000ST	42	40	69	39	16	150	18	4	110	1800	1	230,01
193054000ST	54	50	78	42	18	165	18	4	125	2450	1	283,61

B 10 11







**178****DOYMUŞ BUHAR BAYPASI BORUSU**

• PIPE FOR SATURATED STEAM BYPASS

MALZEME / MATERIAL: AISI 316L – 1.4404

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	R mm	g	kg	Box	€
178015316	15	30	30	96	114	35	143	1	20	40,59
178018316	18	50	35	108	112	39	195	1	20	43,47
178022316	22	50	35	110	110	41	359	1	20	51,34
178028316	28	60	40	139	113	51	550	1	15	71,90

Sertifikalar/Certifications

		SYSTÈMES DE CANALISATIONS DE DISTRIBUTION D'EAU - SYSTÈME STEELPRES	79-1975-V2	Ø 15 - 108 mm
		TÜP BAĞLANTILARI-STEELPRES TUBE FITTINGS-STEELPRES	TAP000017J	Ø 15 - 108 mm
		STEELPRES PRES BAĞLANTI SİSTEMLERİ STEELPRES PRESSFITTING SYSTEM	POCC.IT.AM05.H05079	Ø 15 - 108 mm
		HORGANYZOTT ACÉL CSÖVEK ÉS PRÉSIDOMOK STEELPRES PVC BEVONATOS HORGANYZOTT ACÉL CSÖVEK	A-42/2017	Ø 15 - 108 mm
		LACZNIKI ZAPRASOWYWANE ZE STALI SYSTEMU INOXPRES I STEELPRES DO LACZENIA RUR ZE STALI	ITB-KOT-2019/1222 WYDANIE 1	Ø 15 - 108 mm
		RURY I ŁĄCZNIKI ZAPRASOWYWANE STEELPRES DN20 ÷ DN100 DO STAŁYCH URZĄDZEŃ GAŚNICZYCH WODNYCH	ITB-KOT-2020/1502 WYDANIE 2	Ø 22 - 108 mm
		ČELÍK BORU VE ČELÍK SIKIŠTIRMALÍ BAĞLANTI PARÇALARI SİSTEMİ STEELPRES SYSTEM OF STEEL PIPES AND STEEL COMPRESSION FITTINGS STEELPRES	STO-30-00114-17	Ø 15 - 108 mm
		SYSTÉM OCEL'OVYCH RÚR A OCEL'OVYCH LISOVACÍCH TVAROVIEK STEELPRES	0026/104/2011	Ø 15 - 108 mm
		STEELPRES, BORU SİSTEMİ VE BAĞLANTI PARÇALARI STEELPRES, PIPING SYSTEM AND FITTING	19-GE1920311-PDA	Ø 15 - 108 mm
		STEELPRES, MEKANİK BAĞLANTILAR STEELPRES, MECHANICAL JOINTS	ML 20PTB00014	Ø 15 - 108 mm

Uygulama Alanları / Fields of application

steelPRES®



Isıtma
Heating



Soğutma
Cooling

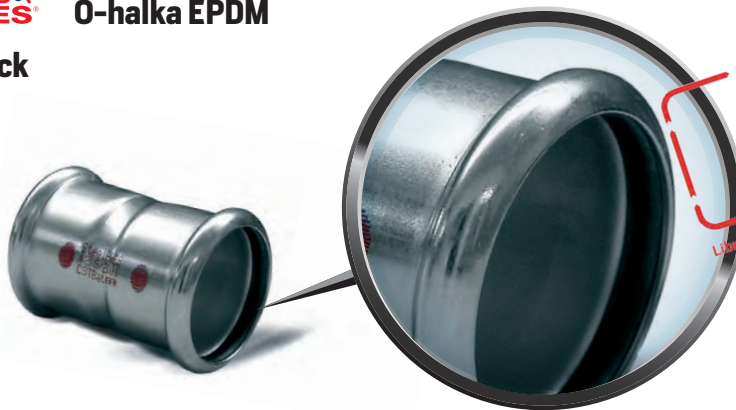


FKM O-Halka ile
güneş enerjisi
Solar thermal with
FKM O-Ring



Aria compressa
Compressed air

steelPRES® O-halka EPDM
Siyah | Black



ÜRÜN
YELPAZESİNİ
KEŞFEDİN
steelPRES®
DISCOVER
THE RANGE



**316/005**


≤54 B 40 41

76÷108 B 40 42

DIŞ GALVANİZLİ

• OUTSIDE GALVANIZED

NORM: EN 10305-3**Mat. Nr.: 1.0215 (E 220 CR2S4) L=6 m**

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	 kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
316012005	12 x 1,2	9,6	6	0,320	0,072	150	1014	4,10
316015005	15 x 1,2	12,6	6	0,408	0,125	120	1014	4,53
316018005	18 x 1,2	15,6	6	0,497	0,191	90	1014	4,94
316022005	22 x 1,5	19	6	0,824	0,284	60	762	7,58
316028005	28 x 1,5	25	6	1,052	0,491	60	546	9,92
316035005	35 x 1,5	32	6	1,320	0,804	30	546	12,68
316042005	42 x 1,5	39	6	1,620	1,194	30	366	14,86
316054005	54 x 1,5	51	6	2,089	2,042	30	366	20,67
316076005	76,1 x 2,0	72,1	6	3,652	4,080	12	114	44,49
316088005	88,9 x 2,0	84,9	6	4,290	5,660	12	114	55,26
316108005	108 x 2,0	104	6	5,230	8,490	6	114	67,84

Isıtma kurulumu için önerilir**Recommended for heating installation**



316/003

**PP KAPLAMALI DIŞ
GALVANİZLİ**

• OUTSIDE GALVANIZED WITH PP-COATING
NORM: EN 10305-3

≤54 B 40 44
76÷108 B 40 45

Mat. Nr.: 1.0215 (E 220 CR2S4) + PP L=6 m

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
316012003	12 x 1,2	9,6	6	0,358	0,072	150	900	6,91
316015003	15 x 1,2	12,6	6	0,454	0,125	120	960	7,81
316018003	18 x 1,2	15,6	6	0,552	0,191	90	990	8,63
316022003	22 x 1,5	19	6	0,890	0,284	60	720	12,05
316028003	28 x 1,5	25	6	1,136	0,491	60	540	15,24
316035003	35 x 1,5	32	6	1,424	0,804	30	540	19,60
316042003	42 x 1,5	39	6	1,744	1,194	30	360	22,81
316054003	54 x 1,5	51	6	2,257	2,042	30	360	30,96
316076003	76,1 x 2,0	72,1	6	3,875	4,080	12	108	61,96
316088003	88,9 x 2,0	84,9	6	4,550	5,660	12	108	74,98
316108003	108 x 2,0	104	6	5,545	8,490	6	114	91,25

Polipropilen kalınlığı: 1 mm
Polypropylene thickness: 1 mm

Soğutma kurulumu için önerilir
Recommended for cooling installation



316/002

≤54 B 40 43

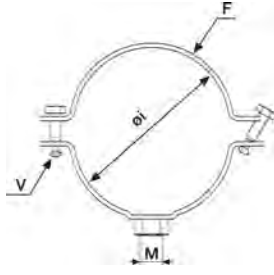
76÷108 B 40 46

İÇ VE DIŞ
GALVANİZLİ• INSIDE AND OUTSIDE GALVANIZED
NORM: EN 10305-3

Mat. Nr.: 1.0031 (E 190 CR2S4) L=6 m

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m	kg/m	Hacim Volume l/m	Minimum koli Minimum package m	Paket Bundle m	€/m
316022002	22 x 1,5	19	6	0,824	0,284	60	1770	8,78
316028002	28 x 1,5	25	6	1,052	0,491	60	1380	11,47
316035002	35 x 1,5	32	6	1,320	0,804	30	966	14,68
316042002	42 x 1,5	39	6	1,620	1,194	30	822	17,21
316054002	54 x 1,5	51	6	2,098	2,042	30	510	23,91
316076000	76,1 x 2,0	72,1	6	3,652	4,080	12	234	51,13
316088000	88,9 x 2,0	84,9	6	4,290	5,660	12	210	63,54
316108000	108 x 2,0	104	6	5,230	8,490	6	150	78,05

Sadece basınçlı hava ve asal gaz sistemleri için.
Only for compressed air and inert gases systems.






351

STEELPRES BORU İÇİN KELEPÇE

• CLAMP FOR STEELPRES PIPE

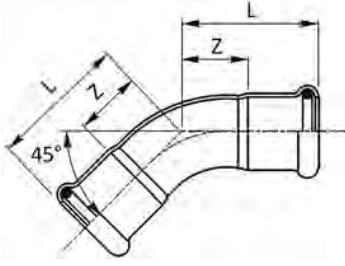
MALZEME / MATERIAL: St. W 24

NOT / NOTE: nokta kaynaklı somun
spot welded nut

KOD / CODE	DN mm	F lg x sp mm	V mm				€
351150001 **	15	20 x 2,5	M 6 x 20	60	2	50*	3,30
351308000	18	20 x 2,5	M 6 x 20	63	2	100*	1,08
351102000	22	20 x 2,5	M 6 x 20	65	2	100*	1,05
351304000	28	20 x 2,5	M 6 x 25	69	2	100*	1,08
351100000	35	20 x 2,5	M 6 x 25	78	2	100*	1,09
351114000	42	20 x 2,5	M 6 x 25	89	2	50*	1,24
351054000	54	20 x 2,5	M 6 x 25	100	2	50*	1,37
351212000	76,1	30 x 2,5	M 6 x 25	187	2	20*	2,86
351300000	88,9	30 x 2,5	M 6 x 25	215	2	20*	3,00
351108000	108	30 x 2,5	M 6 x 25	232	2	20*	3,42

(*) minimum satış miktarı / minimum selling quantity

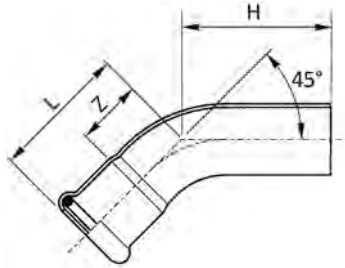
(**) Art. 351150001 Kauçuk conta - With rubber gasket (aile / family Y 20 25)

**381/450**≤54 B 20 21
76÷108 B 20 22**45° DİRSEK FF**

• 45° ELBOW FF

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

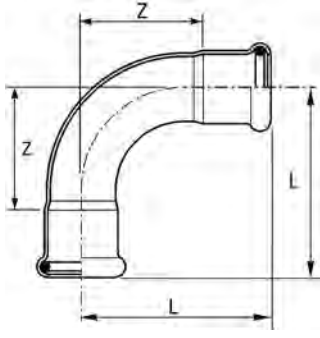
KOD / CODE	De mm	L mm	Z mm	g	g	g	€
381015450	15	27,5	7,5	37	20	400	4,54
381018450	18	29,5	9,5	45	20	300	4,90
381022450	22	32	11	59	20	200	5,08
381028450	28	37	14	87	10	100	6,90
381035450	35	43	17	124	10	60	13,10
381042450	42	51	21	175	4	40	16,60
381054450	54	62	30	282	2	20	19,43
381076450	76,1	131,5	76,5	910	2	2	59,16
381088450	88,9	144	84	1125	2	2	85,59
381108450	108	169	94	1620	2	2	105,66

**381/451**≤54 B 20 21
76÷108 B 20 22**45° DİRSEK MF**

• 45° ELBOW MF

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	H mm	Z mm	g	g	g	€
381015451	15	27,5	36	7,5	39	20	400	4,54
381018451	18	29,5	38	9,5	46	20	300	4,72
381022451	22	32	42	11	60	20	200	4,92
381028451	28	37	46	14	88	10	100	7,20
381035451	35	43	57	17	135	10	60	12,89
381042451	42	51	72	21	196	4	40	16,42
381054451	54	62	82	26	300	2	20	19,26
381076451	76,1	131,5	149	76,5	870	2	2	56,70
381088451	88,9	144	159	84	1365	2	2	83,02
381108451	108	169	199	94	1922	2	2	105,31



381/900

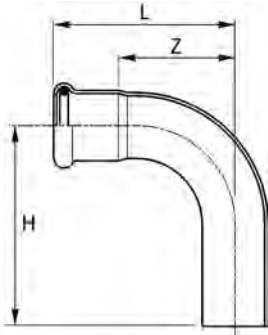
≤54 B 20 21
76÷108 B 20 22

90° DİRSEK FF

• 90° ELBOW FF

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm	g			€
381012900	12	42	24	42	20	400	4,30
381015900	15	38	18	44	20	400	3,90
381018900	18	41,5	21,5	55	20	300	4,21
381022900	22	47	26	73	10	150	4,83
381028900	28	56	33	109	10	100	6,60
381035900	35	68	42	156	5	50	14,30
381042900	42	80	50	231	2	30	23,64
381054900	54	100	64	369	2	18	28,13
381076900	76,1	160	105	1150	2	2	61,29
381088900	88,9	182	122	1560	2	2	84,51
381108900	108	220	145	2250	2	2	114,12



381/901

≤54 B 20 21
76÷108 B 20 22

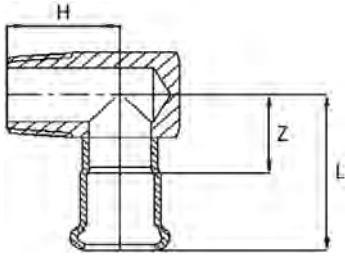
90° DİRSEK MF

• 90° ELBOW MF

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
381012901	12	42	48	24	46	20	4,70
381015901	15	38	48	18	44	20	4,26
381018901	18	41,5	48,5	21,5	56	20	4,58
381022901	22	47	57	26	77	10	5,27
381028901	28	56	64	33	113	10	6,55
381035901	35	68	82	42	174	5	14,30
381042901	42	80	101	50	235	2	24,26
381054901	54	100	120	64	385	2	28,88
381076901	76,1	160	180	105	1155	2	57,70
381088901	88,9	182	197	122	1585	2	91,14
381108901	108	220	236	145	2155	2	111,37

B 20 21



385

ERKEK DİŞLİ 90° DİRSEK ADAPTÖRÜ

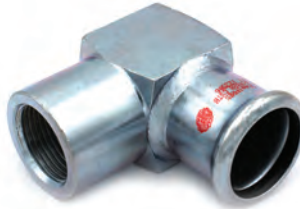
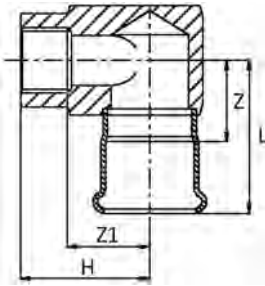
• ELBOW ADAPTER 90° WITH MALE THREAD

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	H mm	Z mm	g			€
385308015	15 x 3/8"	36	21	16	90	20	200	12,81
385102015	15 x 1/2"	37	26	17	94	20	200	13,28
385102018	18 x 1/2"	37	26	17	105	10	100	14,38
385304022	22 x 3/4"	41	29	20	149	10	100	17,22



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DİRSEK ADAPTER 90° WITH
FEMALE DİŞLİ

• ELBOW ADAPTER 90° WITH FEMALE THREAD

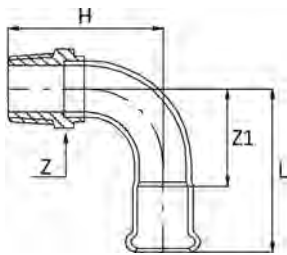
MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 20 21

KOD / CODE CODE	De x Rp mm x inch	L mm	H mm	Z mm	Z1 mm	g		€	
398304022	22 x 3/4"	46	44	25	27	270	10	50	25,13
398102028	28 x 1/2"	49	42	26	27	300	10	50	25,51
398304028	28 x 3/4"	49	47	26	30	330	10	50	25,51



397

90° DİRSEK ERKEK BSP

• 90° ELBOW MALE BSP

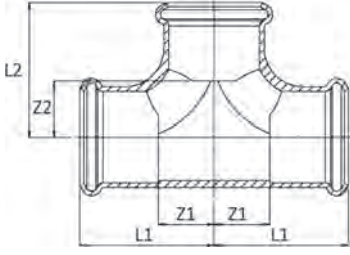
MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 20 21

KOD / CODE	De x R mm x inch	L mm	H mm	Z mm	Z1 mm	g		€	
397308012	12 x 3/8"	34,5	37	22	24	42	20	300	12,72
397308015	15 x 3/8"	50	47,5	21	30	65	20	300	11,68
397102015	15 x 1/2"	50	47	21	30	77	20	300	12,14
397102018	18 x 1/2"	54	52	24	34	92	20	200	13,18
397304022	22 x 3/4"	60	62	30	39	135	10	100	16,23
397100028	28 x 1"	73	74	36	50	208	10	50	20,31
397114035	35 x 1 1/4"	68	80	46	42	262	5	40	33,17
397112042	42 x 1 1/2"	80	98	60	50	413	2	20	51,04
397200054	54 x 2"	100	131,5	65	65	482	2	12	73,60



382

EŞİT T (TEE)

• EQUAL TEE

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

≤54 B 20 21

76÷108 B 20 22

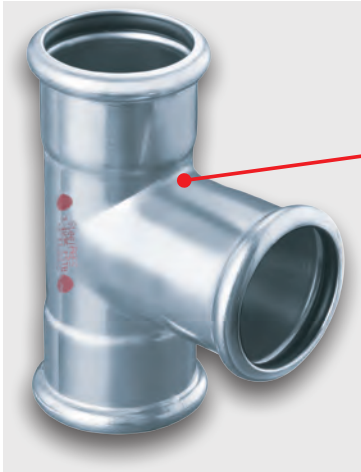
KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	Box	€
382012000	12	28	35	10	17	48	20	200	9,64
382015000*	15	32	32	10,5	10,5	72	20	200	9,06
382018000*	18	34	34	12,5	12,5	85	20	100	9,56
382022000*	22	37	37	14,5	14,5	116	20	100	9,98
382028000*	28	42	42	17,5	17,5	173	10	50	12,75
382035000*	35	50	50	22,5	22,5	240	4	32	20,25
382042000*	42	57	57	25,5	25,5	337	4	20	29,46
382054000*	54	69	69	32,5	32,5	473	2	12	35,30
382076000	76,1	108	118	52	63	1275	2	2	130,63
382088000	88,9	132	131	72	71	1535	2	2	150,04
382108000	108	155	159	74	84	2115	2	2	189,58

[*] hidroformlu - hydroformed

Karbon çeliği ve bakır nikelden

1. lehimsiz Pres Bağlantı T'si (Tee)

The 1st seamless Pressfitting Tee in carbon steel and copper nickel

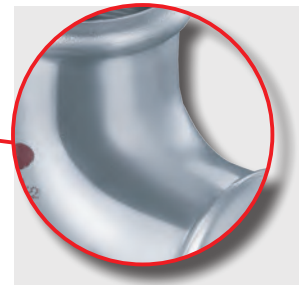
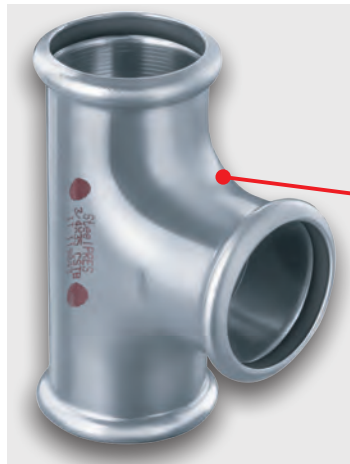


**Kaynaklı
Welded**

steelPRES®

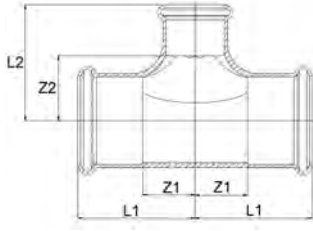
MARINE PRES®

ARTIK SIZINTI YOK
NO MORE LEAKS



**Lehimsiz
Seamless**

54 mm'ye kadar eşit /azaltılmış "T" için
or equal/reduced "T" up to 54 mm



392

≤54 B 20 21

76÷108 B 20 22

AZALTICI T (TEE)

• REDUCING TEE

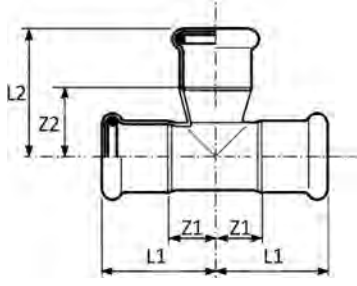
MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	g	€
392015012	15 x 12 x 15	37	33	16	15	64	20	100	11,09
392018012	18 x 12 x 18	40	34	19	16	72	20	100	11,19
392018015*	18 x 15 x 18	34	35	12,5	13,5	83	20	100	10,95
392022012	22 x 12 x 22	41	36	18	18	94	10	100	14,69
392022015*	22 x 15 x 22	37	38	14,5	16,5	110	10	100	11,64
392022018*	22 x 18 x 22	37	38	14,5	16	112	10	100	11,91
392028015*	28 x 15 x 28	42	40,5	17,5	19	146	10	50	15,06
392028018*	28 x 18 x 28	42	40,5	17,5	19	150	10	50	15,58
392028022*	28 x 22 x 28	42	41	17,5	20	155	10	50	16,40
392035015	35 x 15 x 35	50	44	24	24	205	5	50	21,15
392035018*	35 x 18 x 35	50	44	24	24	191	5	50	22,65
392035022*	35 x 22 x 35	50	44	22,5	23	207	5	50	23,10
392035028*	35 x 28 x 35	50	44	22,5	19,5	213	5	35	23,37
392042022*	42 x 22 x 42	57	53	25,5	30,5	285	4	20	28,95
392042028*	42 x 28 x 42	57	56	25,5	38	295	4	20	29,70
392042035*	42 x 35 x 42	57	61	25,5	33,5	311	4	20	30,87
392054022*	54 x 22 x 54	69	59	32,5	36,5	420	2	16	34,45
392054028*	54 x 28 x 54	69	64	32,5	39,5	432	2	16	35,18
392054035*	54 x 35 x 54	69	67	32,5	39,5	443	2	16	36,08
392054042*	54 x 42 x 54	69	70	32,5	38,5	461	2	16	38,24
392076022	76,1 x 22 x 76,1	108	74	52	53	995	2	2	120,22
392076028	76,1 x 28 x 76,1	108	77	52	54	1015	2	2	121,69
392076035	76,1 x 35 x 76,1	108	80	52	54	1025	2	2	124,29
392076042	76,1 x 42 x 76,1	108	84	52	54	1045	2	2	126,88
392076054	76,1 x 54 x 76,1	108	90	52	55	1065	2	2	128,26
392088028	88,9 x 28 x 88,9	132	84	72	61	1365	2	2	132,04
392088035	88,9 x 35 x 88,9	132	88	72	62	1395	2	2	134,67
392088042	88,9 x 42 x 88,9	132	91	72	61	1425	2	2	139,82
392088054	88,9 x 54 x 88,9	132	97	72	62	1455	2	2	145,01
392088076	88,9 x 76,1 x 88,9	132	125	72	70	1485	2	2	150,81
392108028	108 x 28 x 108	155	94	74	71	1815	2	2	161,86
392108035	108 x 35 x 108	155	97	74	71	1845	2	2	165,73
392108042	108 x 42 x 108	155	101	74	71	1875	2	2	168,31
392108054	108 x 54 x 108	155	107	74	72	1905	2	2	170,90
392108076	108 x 76 x 108	155	135	74	80	1935	2	2	176,08
392108088	108 x 88,9 x 108	155	141	74	81	1965	2	2	188,49

[*] hidroformlu - hydroformed

B 20 21



392/A

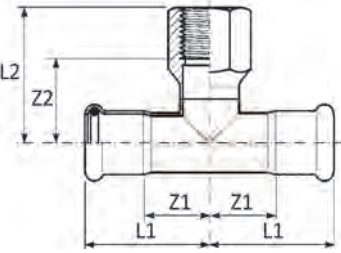
T (TEE) BÜYÜK BOY KOL

• TEE OVERSIZE BRANCH

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g			€
392012015	12 x 15 x 12	28	38	10	17	52	20	100	17,98
392015018	15 x 18 x 15	37	36	16	15	71	20	100	19,41
392015022	15 x 22 x 15	37	42	16	19	84	10	100	21,70
392018022	18 x 22 x 18	40	45	19	22	97	10	100	22,08
392022028	22 x 28 x 22	41	45	18	21	123	10	50	22,98



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KOL T (TEE) DIŞI BSP ÇIKIŞI

• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: E 195 - 1.0034

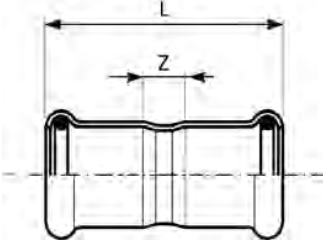
O-HALKA / O-RING: EPDM siyah - black

DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

≤54 B 20 21

76÷108 B 20 22

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g			€
389102015	15 x 1/2" x 15	34,5	36	14	21	72	20	100	12,50
389102018	18 x 1/2" x 18	36,5	38	16	23	91	20	100	12,50
389102022	22 x 1/2" x 22	39	39	18	24	128	10	100	13,26
389304022	22 x 3/4" x 22	39	44	18	28	133	10	100	16,84
389102028	28 x 1/2" x 28	44	42	21	27	158	10	50	15,69
389304028	28 x 3/4" x 28	44	47	21	30	161	10	50	17,21
389100028	28 x 1" x 28	44	52,5	21	34	246	5	50	22,21
389102035	35 x 1/2" x 35	51	45	25	30	200	5	50	19,64
389304035	35 x 3/4" x 35	51	50	25	34	191	5	40	25,92
389100035	35 x 1" x 35	51	56	25	37	250	5	40	27,75
389102042	42 x 1/2" x 42	59	49	28	34	255	4	32	29,44
389304042	42 x 3/4" x 42	59	54	28	37	255	4	32	34,42
389102054	54 x 1/2" x 54	70	56	34	41	300	2	14	34,06
389304054	54 x 3/4" x 54	70	61	34	45	353	2	14	36,19
389100054	54 x 1" x 54	70	56	34	41	441	2	14	53,76
389102076	76,1 x 1/2" x 76,1	108	68	52	53	1040	2	2	156,77
389304076	76,1 x 3/4" x 76,1	108	77	52	60	1040	2	2	161,29
389102088	88,9 x 1/2" x 88,9	132	76	72	61	1255	2	2	171,39
389304088	88,9 x 3/4" x 88,9	132	84	72	68	1255	2	2	175,95
389102108	108 x 1/2" x 108	155	85	74	70	1700	2	2	213,21
389304108	108 x 3/4" x 108	155	94	74	77	1700	2	2	219,91

**383/000**




≤54 B 20 21

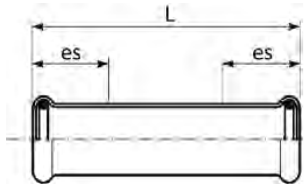
76÷108 B 20 22

BAĞLANTI APARATI

• COUPLING

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm				€
383012000	12	42	6	25	20	500	3,35
383015000	15	49	9	33	20	500	2,86
383018000	18	50	10	40	20	300	3,00
383022000	22	53	11	52	20	200	3,34
383028000	28	56	10	69	10	150	4,06
383035000	35	63	10	90	10	100	6,72
383042000	42	72	12	127	4	60	9,11
383054000	54	83	13	189	2	24	10,85
383076000	76,1	142	32	635	4	4	33,81
383088000	88,9	166	46	765	4	4	42,53
383108000	108	203	41	1170	2	2	56,69

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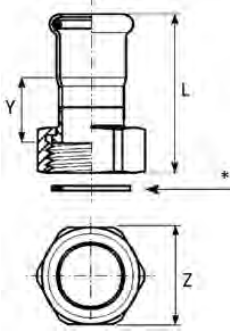
KAYMALI BAĞLANTI APARATI

• SLIP COUPLING

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	es mm				€
383012001	12	56	22	42	20	500	4,14
383015001	15	69	25	56	20	200	4,04
383018001	18	73	25	65	20	200	4,54
383022001	22	79	25	85	20	100	4,83
383028001	28	88,5	30	118	10	100	5,96
383035001	35	102,5	30	141	10	50	12,59
383042001	42	117,5	40	234	4	40	14,19
383054001	54	139	40	321	4	20	16,05
383076001	76,1	230	60	940	2	2	52,35
383088001	88,9	260	70	1240	2	2	70,00
383108001	108	310	80	1835	2	2	75,55

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VANA BAĞLANTISI

• VALVE CONNECTOR

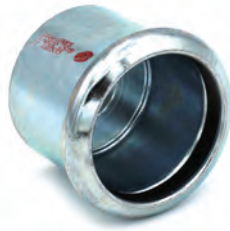
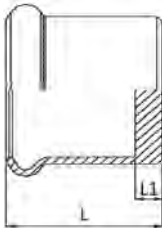
MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

CONTA / GASGET: [*]: EPDM siyah - black

DİŞLİ / THREAD: ISO 228/1 [ex DIN 259]

KOD / CODE	De x G mm x inch	L mm	Z mm	Y mm	Conta / Gasget mm	g			€
383015002	15 x 3/4"	37	30	10	24x14 thk 2,5	60	10	250	10,59
383018002	18 x 3/4"	37	30	10	24x14 thk 2,5	68	10	250	10,91
383022012	22 x 3/4"	54	30	25	24x14 thk 2,5	103	10	200	11,98
383022002	22 x 1"	40	36	10	30x20 thk 2,5	86	10	200	11,65
383022022	22 x 1 1/2"	42,5	55	14	44,5x30 thk 2,5	305	10	80	11,80
383028012	28 x 1"	58	36	27	30x20 thk 2,5	142	10	150	15,88
383028002	28 x 1 1/4"	47	46	14	39x27 thk 2,5	136	10	150	15,83
383028022	28 x 1 1/2"	48	55	14	44,5x30 thk 2,5	300	10	60	16,85
383035012	35 x 1 1/4"	67	46	32	39x27 thk 2,5	237	4	60	21,10
383035002	35 x 1 1/2"	52	55	14	44,5x30 thk 2,5	292	4	60	21,10
383042022	42 x 1 1/2"	77	55	35	44,5x30 thk 2,5	422	2	40	29,95
383042002	42 x 1 3/4"	55	60	14	50,5x38 thk 2,5	360	2	60	29,95
383042012	42 x 2"	56	65	14,5	56x42 thk 2,5	310	2	40	29,95
383054012	54 x 2"	83	65	36,5	56x42 thk 2,5	475	2	30	42,16
383054002	54 x 2 3/8"	60	75	15	65,5x45 thk 3	442	2	40	42,34
383054022	54 x 2 1/2"	65,5	81	16	71,5x53 thk 3	537	2	24	51,28



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DURDURMA UCU

• STOP END

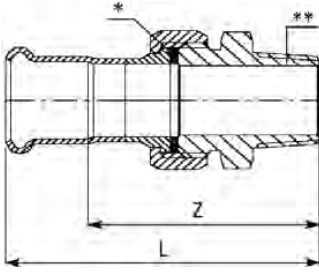
MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

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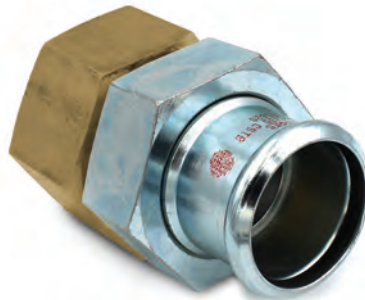
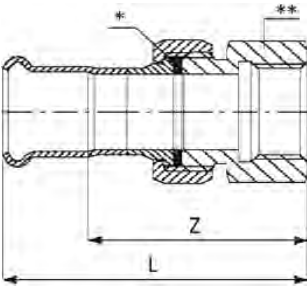
KOD / CODE	De mm	L mm	L1 mm	g			€
383012003	12	30	13	21	20	500	6,87
383015003	15	26	5	28	20	500	5,74
383018003	18	26	5	30	10	300	6,16
383022003	22	27	5	40	10	200	6,78
383028003	28	29	5	57	10	150	9,04
383035003	35	32	5	80	5	100	10,90
383042003	42	36	5	115	4	80	16,87
383054003	54	41	5	177	4	40	20,54
383076003	76,1	78	6	540	2	10	41,15
383088003	88,9	88	6	730	2	10	50,71
383108003	108	102	6	935	2	2	70,85

**384/000****DÜZ ERKEK SOMUN BAĞLANTISI**

- STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: E 195 - 1.0034
BAĞLANTI / FITTING: [**]: pirinç - brass
O-HALKA / O-RING: EPDM siyah - black
CONTA/GASGET: [*]: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

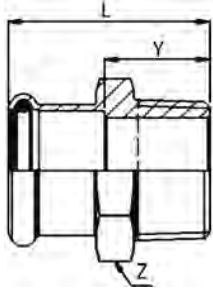
KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
384015000	15 x 1/2"	64	44	24x14 thk 2,5	146	2	120	21,04
384018000	18 x 1/2"	64	44	24x14 thk 2,5	176	2	120	24,37
384022000	22 x 3/4"	69	46	30x20 thk 2,5	202	2	100	28,15
384028000	28 x 1"	80	56	39x27 thk 2,5	468	2	60	31,92
384035000	35 x 1 1/4"	89	62	44,5x30 thk 2,5	618	2	40	44,07
384042000	42 x 1 1/2"	93	61	50,5x38 thk 2,5	824	2	30	67,34
384054000	54 x 2"	104	66	65,5x45 thk 3	1178	2	20	153,19

**384/001****DÜZ DIŞİ SOMUN BAĞLANTISI**

- STRAIGHT FEMALE UNION CONNECTOR

MALZEME / MATERIAL: E 195 - 1.0034
BAĞLANTI / FITTING: [**]: pirinç - brass
O-HALKA / O-RING: EPDM siyah - black
CONTA / GASGET: [*]: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
384015001	15 x 1/2"	59	38	24x14 thk 2,5	138	2	120	25,66
384018001	18 x 1/2"	59	38	24x14 thk 2,5	140	2	120	26,76
384022001	22 x 3/4"	64	41	30x20 thk 2,5	209	2	100	31,21
384028001	28 x 1"	73	49	39x27 thk 2,5	450	2	60	44,39
384035001	35 x 1 1/4"	81	54	44,5x30 thk 2,5	600	2	40	57,55
384042001	42 x 1 1/2"	85	53	50,5x38 thk 2,5	621	2	30	85,15
384054001	54 x 2"	102	66	65,5x45 thk 3	1189	2	20	107,96



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ERKEK ADAPTÖR

• MALE ADAPTER




MALZEME / MATERIAL: E 195 - 1.0034

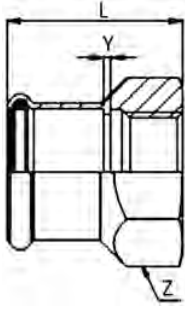
O-HALKA / O-RING: EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

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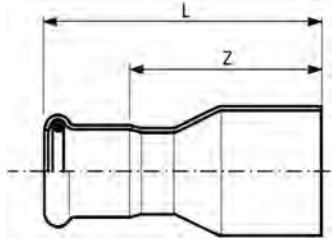
KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm				€
387308012	12 x 3/8"	38	19	21	41	20	300	8,08
387308015	15 x 3/8"	41	24	21	58	20	400	8,12
387102015	15 x 1/2"	44	24	24	65	20	300	8,12
387304015	15 x 3/4"	44	27	24	78	10	200	8,34
387102018	18 x 1/2"	44	27	24	72	20	300	8,37
387304018	18 x 3/4"	45	30	25	107	10	200	9,80
387102022	22 x 1/2"	42	32	21	60	10	200	9,36
387304022	22 x 3/4"	45	32	25	93	10	200	9,37
387100022	22 x 1"	46	36	25	154	10	100	10,53
387304028	28 x 3/4"	47	38	24	114	10	100	11,37
387100028	28 x 1"	48	38	25	116	10	100	11,71
387114028	28 x 1 1/4"	52	46	29	195	5	50	12,65
387100035	35 x 1"	52	46	25	169	5	50	14,80
387114035	35 x 1 1/4"	56	46	29	205	5	50	15,11
387112035	35 x 1 1/2"	55	50	28	220	5	50	16,03
387112042	42 x 1 1/2"	63	55	33	250	4	40	17,20
387200054	54 x 2"	72	65	36	356	4	32	27,23
387212076	76,1 x 2 1/2"	98	83	43	752	2	8	116,64
387300088	88,9 x 3"	111	98	51	1191	2	4	174,48
387400108	108 x 4"	132	118	57	1802	2	2	189,95

**390****DİŞİ ADAPTÖR**

• FEMALE ADAPTER

MALZEME / MATERIAL: E 195 - 1.0034**O-HALKA / O-RING:** EPDM siyah - black**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
390102012	12 x 1/2"	36	27	3	55	20	300	11,88
390308015	15 x 3/8"	35	24	2	48	20	300	8,13
390102015	15 x 1/2"	38	27	2	60	20	300	8,13
390304015	15 x 3/4"	39	32	2	78	10	200	8,36
390102018	18 x 1/2"	38	27	2	60	20	300	8,36
390304018	18 x 3/4"	39	32	2	78	10	200	10,02
390102022	22 x 1/2"	39	32	2	96	10	200	10,25
390304022	22 x 3/4"	40	32	2	81	10	150	10,40
390100022	22 x 1"	43	41	2	147	10	100	11,73
390102028	28 x 1/2"	41	38	2	155	10	100	10,96
390304028	28 x 3/4"	42	38	2	132	10	100	12,05
390100028	28 x 1"	45	41	2	147	10	100	12,05
390100035	35 x 1"	51	46	2	218	5	50	13,31
390114035	35 x 1"1/4	52	46	2	154	5	50	14,05
390112042	42 x 1"1/2	56	55	2	245	4	40	15,40
390200054	54 x 2"	65	65	2	329	4	32	25,77



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AZALTICI

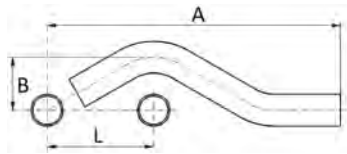
• REDUCER

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

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KOD / CODE	De mm	L mm	Z mm	g	g	Box	€
391015012	15 x 12	51	33	29	20	500	4,10
391018012	18 x 12	53	35	32	20	500	4,10
391018015	18 x 15	57	37	36	20	500	4,24
391022012	22 x 12	60	42	41	20	300	4,36
391022015	22 x 15	64	44	45	20	300	4,24
391022018	22 x 18	60	40	48	20	300	4,57
391028015	28 x 15	76,5	56,5	50	20	200	6,95
391028018	28 x 18	68	48	62	20	200	6,71
391028022	28 x 22	65	42,5	59	20	200	4,17
391035022	35 x 22	70	49	89	10	100	5,70
391035028	35 x 28	71	48	91	10	100	4,87
391042022	42 x 22	97	76	120	4	80	12,31
391042028	42 x 28	93	70	127	4	80	12,70
391042035	42 x 35	81	55	130	4	40	10,03
391054022	54 x 22	104	83	192	4	40	35,02
391054028	54 x 28	108,5	85,5	155	4	40	35,02
391054035	54 x 35	108	82	189	4	40	30,75
391054042	54 x 42	97,5	67,5	205	4	32	12,20
391076042	76,1 x 42	157	127	506	4	4	51,95
391076054	76,1 x 54	159	124	517	4	4	47,97
391088054	88,9 x 54	179	143	667	4	4	61,68
391088076	88,9 x 76,1	184	129	792	4	4	73,09
391108076	108 x 76,1	203	148	983	2	2	78,20
391108088	108 x 88,9	207	147	1079	2	2	93,65



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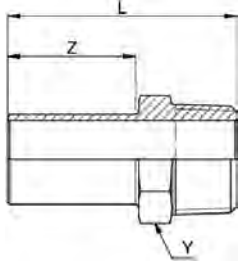
BORU KÖPRÜSÜ

• PIPE BRIDGE

MALZEME / MATERIAL: E 195 - 1.0034

B 20 21

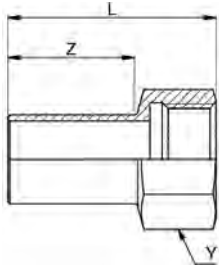
KOD / CODE	De mm	L mm	A mm	B mm	g	g	Box	€
379012000	12	55	154	35	10	10	150	5,70
379015000	15	57	158	30	14	10	150	6,13
379018000	18	60	166	31	17	10	100	6,83
379022000	22	65	179	33	29	10	100	8,20
379028000	28	73	206	36	44	10	50	9,72

**393/M****B 20 21****ERKEK AZALTMA SOKETİ**

• MALE REDUCTION SOCKET

MALZEME / MATERIAL: E 195 - 1.0034
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

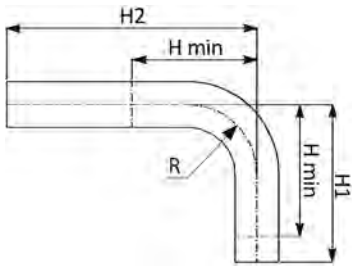
KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g			€
393102115	15 x 1/2"	52	31	22	56	20	300	5,59
393102118	18 x 1/2"	52	31	22	49	20	300	6,09
393304118	18 x 3/4"	55	31	27	93	20	200	6,46
393102122	22 x 1/2"	55	32	27	68	10	200	6,90
393304122	22 x 3/4"	56	32	27	78	10	200	8,36
393100128	28 x 1"	64	37	38	141	10	100	12,07

**393/F****B 20 21****DİŞİ AZALTMA SOKETİ**

• FEMALE REDUCTION SOCKET

MALZEME / MATERIAL: E 195 - 1.0034
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
393102015	15 x 1/2"	52	37	24	49	20	400	5,08
393102018	18 x 1/2"	52	37	24	50	20	400	5,49
393304018	18 x 3/4"	51	37	30	62	20	300	6,14
393102022	22 x 1/2"	52	37	24	51	20	300	6,82
393304022	22 x 3/4"	52	38	30	63	20	300	7,92

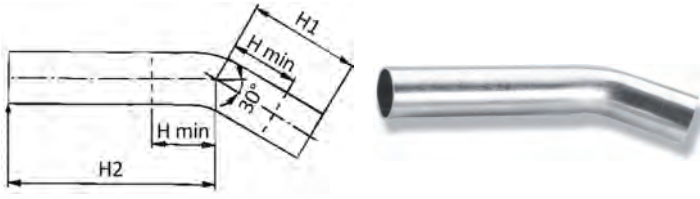
**394/900****B 20 21****90° DİRSEK MM**

• 90° ELBOW MM

MALZEME / MATERIAL: E 195 - 1.0034

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	R mm	g			€
394015900	15	70	48	120	35	87	20	160	5,20
394018900	18	70	53	120	38	105	20	120	5,80
394022900	22	70	61	120	40	130	10	100	5,89
394028900	28	97	80	125	45	197	10	50	6,72
394035900	35	120	90	200	42	372	4	20	15,38
394042900	42	160	115	250	50	578	2	10	23,74
394054900	54	300	140	305	65	1114	2	2	32,35

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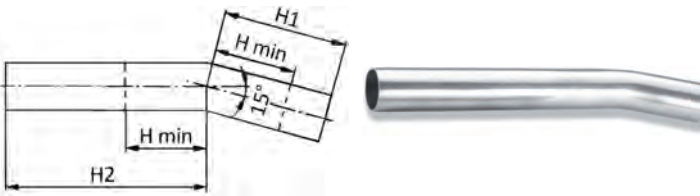
30° DİRSEK MM

• 30° ELBOW MM

MALZEME / MATERIAL: E 195 - 1.0034

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	g	kg	Box	€
394028300	28	54	47	130	179	10	50	11,00
394035300	35	80	50	218	366	4	24	20,74
394042300	42	98	54	274	553	2	10	30,59
394054300	54	137	72	324	888	2	2	40,07

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15° DİRSEK MM

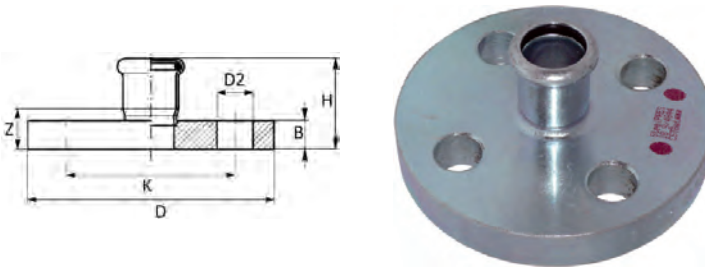
• 15° ELBOW MM

MALZEME / MATERIAL: E 195 - 1.0034

KOD / CODE	De mm	H1 mm	H min mm	H2 mm	g	kg	Box	€
394028150	28	45	38	136	176	10	50	11,00
394035150	35	62	32	234	364	4	24	20,74
394042150	42	94	50	276	551	2	10	30,59
394054150	54	117	52	337	876	2	2	40,07

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393/002

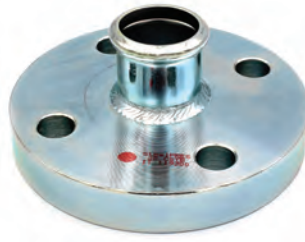
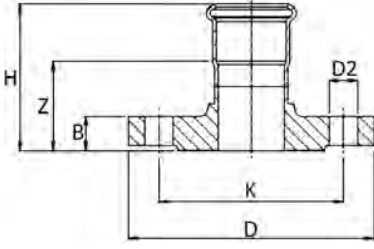
ADAPTÖR FLANŞI

• ADAPTOR FLANGE

MALZEME / MATERIAL: E 195 - 1.0034
O-HALKA / O-RING: EPDM siyah - black

PN 6

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr	K mm	g	kg	Box	€
393015002	15	15	39	19	12	80	11	4	55	434	2	20	38,09
393018002	18	15	39,5	19,5	12	80	11	4	55	431	2	20	40,14
393022002	22	20	42,5	21,5	14	90	11	4	65	636	2	14	43,25
393028002	28	25	45,5	22,5	14	100	11	4	75	784	2	10	50,98
393035002	35	32	51	25,5	16	120	14	4	90	1259	2	6	58,70
393042002	42	40	55	25	16	130	14	4	100	1472	2	6	64,88
393054002	54	50	62	26	16	140	14	4	110	1657	2	4	78,79
393076002	76,1	65	100,5	45,5	14	160	14	4	130	1849	2	2	139,01
393088002	88,9	80	112	52	16	190	18	4	150	2879	2	2	157,55
393108002	108	100	128	53	16	210	18	4	170	3488	2	2	231,70

**393/000**

≤54 B 20 21

76÷108 B 20 22

ADAPTÖR FLANŞI

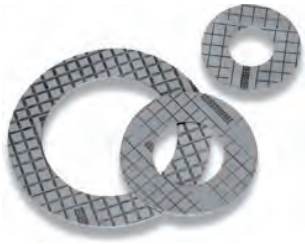
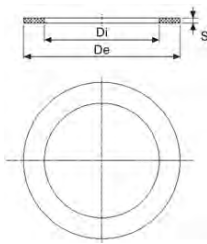
• ADAPTOR FLANGE

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

PN 16

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr	K mm	g	kg	Box	€
393015000	15	15	43	23	16	95	14	4	65	578	2	20	46,48
393018000	18	15	44	24	16	95	14	4	65	572	2	20	48,23
393022000	22	20	47	26	18	105	14	4	75	754	2	14	52,41
393028000	28	25	50	27	18	115	14	4	85	1094	2	10	58,03
393035000	35	32	53	27	18	140	18	4	100	1672	2	6	72,56
393042000	42	40	57	27	18	150	18	4	110	1988	2	6	82,26
393054000	54	50	64	28	18	165	18	4	125	2666	2	4	101,91
393076000	76,1	65	104,5	49,5	18	185	18	8	145	2994	2	2	161,28
393088000	88,9	80	116	56	20	200	18	8	160	3861	2	2	190,60
393108000	108	100	132	57	20	220	18	8	180	4623	2	2	263,95

**434/PN 6****R 30 30****FLANŞ CONTASI**

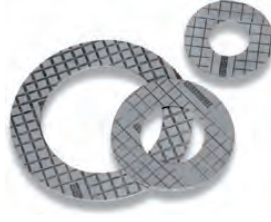
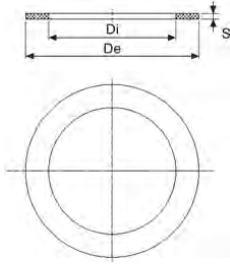
• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco

NORM: EN 1092-1

PN 6

KOD / CODE	DN	De mm	Di mm	S mm	g	kg	€
434015006	15 - [1/2"]	44	20	2	4	10	0,69
434020006	20 - [3/4"]	54	25	2	6	10	1,00
434025006	25 - [1"]	64	30	2	9	10	1,39
434032006	32 - [1 1/4"]	75	38	2	11	10	1,88
434040006	40 - [1 1/2"]	85	45	2	14	10	2,44
434050006	50 - [2"]	95	57	2	15	10	3,72
434065006	65 - [2 1/2"]	115	76	2	19	10	5,12
434080006	80 - [3"]	132	89	2	26	10	6,08
434100006	100 - [4"]	152	108	2	29	10	7,19



434/PN10-16

R 30 30

FLANŞ CONTASI

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1

PN
10/16

KOD / CODE	DN	De mm	Di mm	S mm	g	g	€
434015000	15 - (1/2")	50	20	2	6	10	0,69
434020000	20 - (3/4")	60	25	2	8	10	0,98
434025000	25 - (1")	70	30	2	10	10	1,38
434032000	32 - (1 1/4")	82	38	2	14	10	1,88
434040000	40 - (1 1/2")	92	45	2	17	10	2,44
434050000	50 - (2")	108	57	2	22	10	3,69
434065000	65 - (2 1/2")	127	76	2	27	10	5,09
434080000	80 - (3")	142	89	2	30	10	6,02
434100000	100 - (4")	162	108	2	38	10	6,90

Sesalit ECO: NBR/SBR asbest içermeyen organik ve sentetik lifler ile bağlanmış

KULLANIM ALANLARI: sıcak ve soğuk su, bitkisel ve hayvansal yağlar, hava, bazı yakıtlar (GAZ yok)

KILAVUZ SICAKLIK SINIRLARI

Kısa süreli maruz kalma için maksimum sıcaklık: 180-200 °C

Sürekli agresif olmayan yakıtlar için maksimum çalışma sıcaklığı: 140 °C

Buhar ile sürekli çalışma için maksimum sıcaklık: 110 °C

ONAY: içme suyu WRAS n° 1605525

Sesalit ECO: organic and synthetic fibers bonded with NBR/SBR asbestos-free

USES: hot and cold water, vegetable and animal oils, air, some fuels (no GAS)

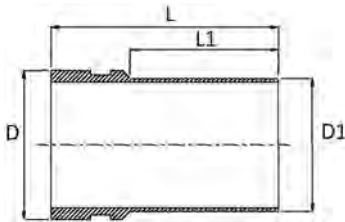
GUIDELINE TEMPERATURE LIMITS

Maximum temperature for short exposure: 180-200 °C

Maximum operating temperature for continuous non-aggressive fluids: 140 °C

Maximum temperature for continuous operation with steam: 110 °C

APPROVAL: potable water WRAS n° 1605525



322

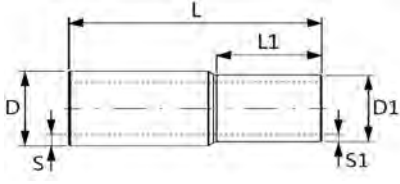
B 20 22

GEÇİŞ PARÇASI STEELPRES/BAĞLANTI PARÇASI

• TRANSITION PIECE STEELPRES/COUPLINGS

MALZEME / MATERIAL: E 275+N - 1.0225

KOD / CODE	D mm	D1 mm	L mm	L1 mm	g	g	g	€
322060042	60	42	120	69	410	1	25	50,30
322060054	60	54	120	80	410	1	20	44,56
322076054	76	54	130	76	585	1	15	65,13



375

≤54 B 20 21

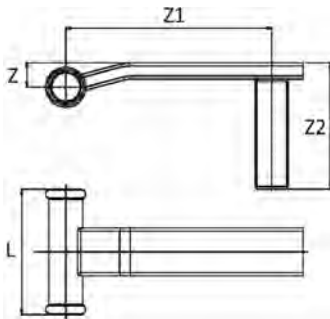
76÷108 B 20 22

BİRLEŞİK BORU KAYNAK UCU (GALVANİZLİ DEĞİL)

• COMBINATION PIPE WELDING END (NOT GALVANIZED)

MALZEME / MATERIAL: E 195 - 1.0034

KOD / CODE	D mm	D1 mm	S mm	S1 mm	L1 mm	L mm	g	kg	box	€
375308012	17,2	12	4,1	1,5	26	120	124	10	100	31,49
375308015	17,2	15	2,6	1,5	30	120	89	10	100	33,22
375102018	21,3	18	3,15	1,5	30	120	132	10	100	35,06
375304022	26,9	22	3,95	1,5	34	120	216	10	100	38,25
375100028	33,7	28	4,35	1,5	34	120	303	5	80	48,37
375114035	42,4	35	5,2	1,5	40	120	423	5	50	57,98
375112042	48,3	42	4,65	1,5	45	120	438	5	40	68,41
375200054	60,3	54	4,65	1,5	50	120	537	2	24	112,19
375212076	76,1	76,1	3,7	2	70	120	570	2	24	124,67
375300088	88,9	88,9	4,1	2	75	120	692	2	12	155,51
375400108	114,3	108	5,2	2	90	120	842	2	10	216,68



396/RAD

B 20 21

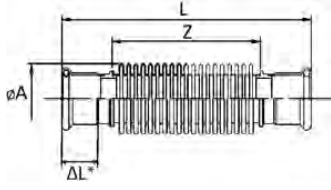
BOYALI RADYATÖR BAĞLANTISI

• PAINTED RADIATOR CONNECTOR

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah

KOD / CODE	De mm	L mm	Z mm	Z1 mm	Z2 mm	g	kg	box	€
396102015V	15 x 1/2"	80	16	131	81	224	1	50	42,13
396102018V	18 x 1/2"	80	16	131	81	236	1	50	43,51



199

≤54 B 10 11

76÷108 B 10 12

GENLEŞME DENGELİYİCİSİ

• EXPANSION COMPENSATOR

MALZEME / MATERIAL: AISI 316L – 1.4404
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Devirler Cycles*	ΔL** mm	Z mm	A mm	g	kg	Box	€
199015000	15	139	800	16	71	22	80	1	100	146,65
199018000	18	143	800	18	74	27	108	1	80	161,29
199022000	22	139	800	20	68	34	130	1	80	179,63
199028000	28	150	800	22	73	41	155	1	40	230,99
199035000	35	177	800	26	90	51	251	1	24	285,95
199042000	42	202	800	32	107	61	440	1	16	340,95
199054000	54	221	800	36	113	71	550	1	12	421,60
199076000	76,1	278	500	30	180	87	1464	1	1	644,53
199088000	88,9	314	500	40	235	105	1871	1	1	796,63
199108000	108	388	500	50	255	131	2845	1	1	923,22

Maksimum aksel vuruş aşağıda belirtilen nominal değeri aşmamalıdır.
The maximum axial stroke must not exceed the nominal value below indicated.

Kod / Code	DN	Devirler Cycles MAX	ΔL** (mm)	Sıcaklık / Temperature °C										
				20°	40°	60°	80°	100°	120°	140°	160°	180°	200°	
199 / 15	15	800	16	16,0	14,7	13,6	12,6	11,8	11,4	10,9	10,6	10,2	9,9	
199 / 18	18	800	18	18,0	16,6	15,3	14,2	13,3	12,8	12,3	11,9	11,5	11,2	
199 / 22	22	800	20	20,0	18,4	17,0	15,8	14,8	14,2	13,7	13,2	12,8	12,4	
199 / 28	28	800	22	22,0	20,2	18,7	17,4	16,3	15,6	15,0	14,5	14,1	13,6	
199 / 35	35	800	26	26,0	23,9	22,1	20,5	19,2	18,5	17,8	17,2	16,6	16,1	
199 / 42	42	800	32	32,0	29,4	27,2	25,3	23,7	22,7	21,9	21,1	20,5	19,8	
199 / 54	54	800	36	36,0	33,1	30,6	28,4	26,6	25,6	24,6	23,8	23,0	22,3	
199 / 76	76	500	30	30,0	27,6	25,5	23,7	22,2	21,3	20,5	19,8	19,2	18,6	
199 / 88	89	500	40	40,0	36,8	34,0	31,6	29,6	28,4	27,3	26,4	25,6	24,8	
199 / 108	108	500	50	50,0	46,0	42,5	39,5	37,0	35,5	34,2	33,0	32,0	31,0	

[*] Maksimum sıkırtmada iş devir sayısı - Work cycles number at maximum compression

[**] Sıkırtma aksel vuruşu - Compression axial stroke

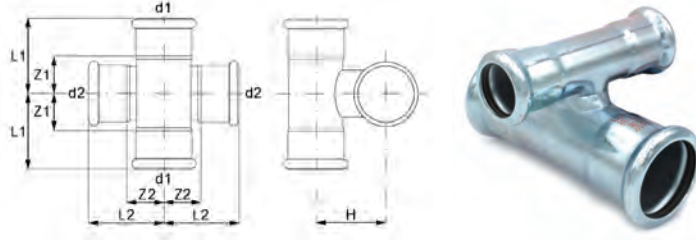
CS = hizmetler aksel vuruş / services axial stroke (mm)
CA Max = maksimum aksel vuruş / maximum axial stroke (mm)

CS/CA %	100	90	80	70	60	50	40	30
Cicli (cycles)	800	1000	1700	2900	5500	12000	35000	160000
Cicli (cycles)	500	625	1050	1800	3400	7500	21800	100000

Maksimum basınç aşağıda belirtilen nominal basıncı aşmamalıdır.
The maximum pressure must not exceed the nominal pressure below indicated.

°C	20°	40°	60°	80°	100°	120°	140°	160°	180°	200°
PN (bar)	16,0	14,5	13,5	12,5	12,0	11,5	11,0	10,5	10,0	9,5

Paslanmaz çelikten tekli bağlantılar karbon çelik tesisatların içinde teslim edilir.
Single joints in stainless steel are accepted inside a carbon steel installations.



399

ÇAPRAZ GEÇİŞ 90°

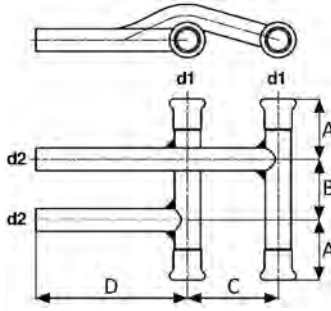
• CROSSOVER 90°

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	d1 - d2	L1 mm	L2 mm	Z1 mm	Z2 mm	H mm	g	kg	Box	€
399015015	15 x 15	34,5	34,5	14,5	14,5	20	92	10	100	36,29
399018015	18 x 15	36,5	34,5	16,5	14,5	21,5	102	10	100	39,81
399022015	22 x 15	39,5	34,5	18,5	14,5	24	121	10	80	41,72
399022018	22 x 18	39,5	36,5	18,5	16,5	25,5	131	10	80	42,30
399028015	28 x 15	44	34,5	21	14,5	26,5	150	10	50	44,00
399028018	28 x 18	44	36,5	21	16,5	28	160	10	50	44,59

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TEK GEÇİŞ

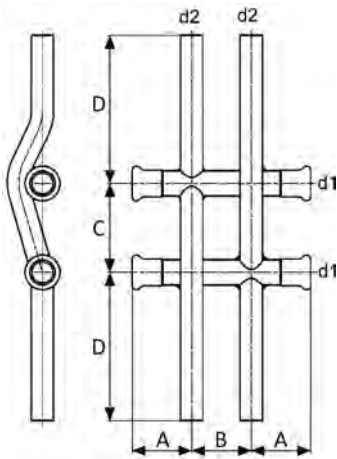
• SINGLE CROSSING

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	d1 - d2	A mm	B mm	C mm	D mm	g	kg	box	€
395012012	12 x 12	30	40	60	100	205	1	30	70,23
395015012	15 x 12	40	40	60	100	244	1	30	70,71
395015015	15 x 15	40	40	60	100	266	1	30	70,96
395018012	18 x 12	40	40	60	100	276	1	25	71,23
395018015	18 x 15	40	40	60	100	298	1	25	72,95
395022012	22 x 12	40	40	60	100	322	1	20	74,96
395022015	22 x 15	40	40	60	100	340	1	20	78,45
395028012	28 x 12	40	40	60	100	374	1	20	79,94
395028015	28 x 15	40	40	60	100	394	1	15	80,95

B 20 21



396

ÇİFT GEÇİŞ






• DOUBLE CROSSING

MALZEME / MATERIAL: E 195 - 1.0034

O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	d1 - d2	A mm	B mm	C mm	D mm	g	kg	box	€
396012012	12 x 12	30	40	60	100	280	1	20	90,42
396015012	15 x 12	40	40	60	100	318	1	20	98,43
396015015	15 x 15	40	40	60	100	376	1	20	99,94
396018012	18 x 12	40	40	60	100	355	1	20	104,46
396018015	18 x 15	40	40	60	100	410	1	15	106,20
396022012	22 x 12	40	40	60	100	380	1	15	107,67
396022015	22 x 15	40	40	60	100	436	1	15	108,42
396028012	28 x 12	40	40	60	100	452	1	10	112,43
396028015	28 x 15	40	40	60	100	494	1	10	115,93
396035015	35 x 15	40	40	60	100	556	1	10	128,41

Sertifikalar / Certifications

		PRODUKTE DER WASSERVERSORGUNG	DW-8511CLO331	Ø 15 – 54 mm
		AESPRES SIKIŞTIRMA BAĞLANTI PARÇALARI SERİSİ AESPRES RANGE OF COMPRESSION FITTINGS	1806312	Ø 15 – 54 mm
		PRES BAĞLANTI PARÇALARI, TÜR AESPRES PRESSFITTINGS, TYPE AESPRES	n°1988	Ø 15 – 54 mm
		PRES BAĞLANTI PARÇALARI AESPRES PRESS-FITTINGS AESPRES	K 83136	Ø 12 – 54 mm
		PRES BAĞLANTI PARÇALARI TIL KOBRRØR Ø15-54 MM PRESSFITTINGS TIL KOBRRØR Ø15-54 MM	VA 1.22/20514	Ø 15 – 54 mm
		AESPRES, PRESSKOPPLING Ø 15-54 MM	SC0265-16	Ø 15 – 54 mm
		İÇME SUYU İLE TEMAS EDEN ÜRÜN VE ELEMANLAR PRODUCT AND ELEMENTS IN CONTACT WITH DRINKING WATER	ICIM-CAP-009671-00	Ø 12 – 54 mm
		AESPRES PRES BAĞLANTI PARÇALARI AESPRES PRESSFITTING SYSTEM	POCC IT.AM05.H05079	Ø 15 – 108 mm

Uygulama alanları / Fields of application

AES PRES®

**İçme Suyu**
Potable water**Isıtma**
Heating**Soğutma**
Cooling**FKM O-Halka ile**
güneş enerjisi
Solar thermal
with FKM O-Ring**Basıncılı Hava**
Compressed Air**Yangın Koruma**
Sistemleri
Fire protection systems

AES PRES® O-halka EPDM

Siyah | Black

**BIM**
Librerie BIM per REVIT - BIM library for REVITÜRÜN
YELPAZESİNİ
KEŞFEDİN
AES PRES®
DISCOVER
THE RANGE

ODAKLANIN - FOCUS ON

AESPRES - AESPRES GAZ BAKIR BORU / AESPRES - AESPRES GAS COPPER PIPING

Bakır su ve gaz tesisatı boruları EN 1057:2010, "Bakır ve bakır alaşımları sağlık hizmetleri ve ısıtma uygulamalarında su ve gaz için kaynaklı bakırdan yuvarlak borular" standardına uygun olmalıdır.

Piping for copper water and gas installation should comply with the standard EN 1057:2010, "Copper and copper alloys - Round tubes in copper without welding for water and gas in health-care and heating applications".

TABELLA 4: CARATTERISTICHE DEI TUBI DI RAME - EN 1057

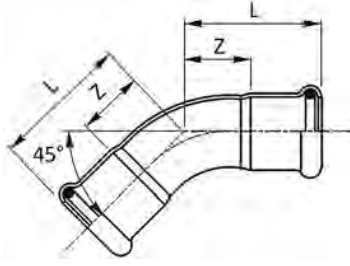
Direnç sınıfı Resistance class	Teslimat Şartı Delivery condition	Ø (mm)
R220	Ricotto - Rotoli Annealed - Roll	12 ÷ 22
R250	Semiduro - Barre Semi-hard - Bar	12 ÷ 28
R290	Duro - Barre Hard - Bar	12 ÷ 54
Direnç sınıfı Resistance class	Minimum fraksiyon direnci Rm [MPa] Minimum traction resistance Rm [MPa]	Minimum kırılma uzaması [%] Minimum breaking elongation [%]
R220	220	40
R250	250	20
R290	290	3

Aespres ve **Aespres Gaz** pres bağlantı parça ile kullanılacak boru ölçüleri ekteki tabloda yer almaktadır.
Tube sizes to be used with Aespres and Aespres Gas press fittings are included in the annexed table.

AESPRES BORU ÖLÇÜLERİ VE ÖZELLİKLERİ - EN 1057 / DVGW GW 392
AESPRES PIPES DIMENSIONS AND CHARACTERISTICS - EN 1057 / DVGW GW 392

Ø DIŞ dxTHK. EXTERNAL Ø x THK. mm	DN	Ø İÇ INTERNAL Ø mm	KÜTLE MASS kg/m	SU HACMİ WATER VOLUME l/m	TEDARİK KOŞULU SUPPLIED CONDITION
12x1	10	10	0,309	0,079	Rotolo / Roll 25/50 m (R220)
15x1	12	13	0,393	0,133	o / or
18x1	15	16	0,477	0,201	Barra / Bar 5 m (R250 - R290)
22x1	20	20	0,589	0,314	Barra / Bar 5 m (R250 - R290)
28x1,5	25	25	1,115	0,491	Barra / Bar 5 m (R250 - R290)
35x1,5	32	32	1,410	0,804	Barra / Bar 5 m (R290)
42x1,5	40	39	1,704	1,194	Barra / Bar 5 m (R290)
54x2	50	50	2,918	1,963	Barra / Bar 5 m (R290)

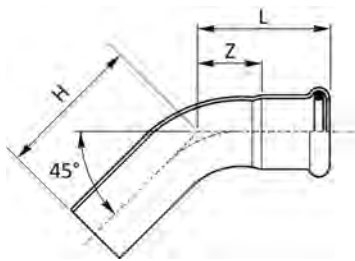
B7071

**681/450****45° DİRSEK FF**

• 45° ELBOW FF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm				€
681012450	12	32	14	38	20	400	4,81
681015450	15	27,5	7,5	36	20	400	4,81
681018450	18	29,5	9,5	53	20	300	5,07
681022450	22	32	11	71	20	100	6,22
681028450	28	37	14	101	10	100	19,02
681035450	35	43,5	17,5	138	10	60	27,15
681042450	42	51	21	200	4	40	44,13
681054450	54	62	26,5	306	2	20	61,78

**681/451****45° DİRSEK MF**

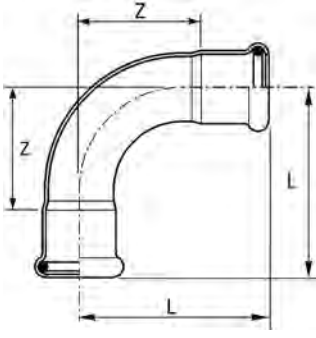
• 45° ELBOW MF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

B7071

KOD / CODE	De mm	L mm	H mm	Z mm				€
681012451	12	32	41	14	36	20	400	3,89
681015451	15	27,5	40	7,5	41	20	400	3,89
681018451	18	29,5	36	9,5	50	20	300	5,21
681022451	22	32	42	11	69	20	200	5,73
681028451	28	37	46	14	99	10	100	18,92
681035451	35	43,5	57,5	17,5	144	10	60	26,23
681042451	42	51	72	21	215	4	40	41,06
681054451	54	62	82	26,5	333	2	20	60,92

B 70 71



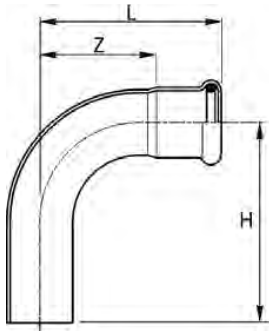
681/900

90° DİRSEK FF

• 90° ELBOW FF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm	g			€
681012900	12	42	24	28	20	400	4,33
681015900	15	38	18	51	20	400	4,33
681018900	18	41,5	21,5	62	20	300	5,73
681022900	22	47	26	88	10	150	7,21
681028900	28	56	33	128	10	100	14,57
681035900	35	68	42	180	5	50	28,89
681042900	42	80	50	265	2	30	55,02
681054900	54	100	64,5	419	2	18	74,29



681/901

90° DİRSEK MF

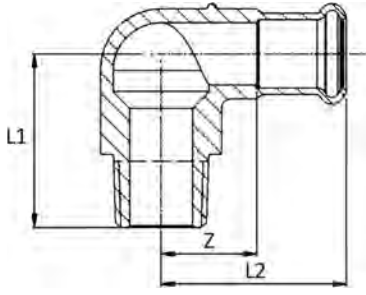
• 90° ELBOW MF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

B 70 71

KOD / CODE	De mm	L mm	H mm	Z mm	g			€
681012901	12	42	48	24	40	20	400	4,09
681015901	15	38	48	18	49	20	400	4,09
681018901	18	41,5	48,5	21,5	62	20	300	5,56
681022901	22	47	57	26	87	10	150	7,39
681028901	28	56	64	33	130	10	100	15,98
681035901	35	68	82	42	195	5	50	28,41
681042901	42	80	101	50	278	2	30	56,22
681054901	54	100	120	64,5	435	2	18	75,22

B7071



697

ERKEK DİŞLİ 90° DİRSEK ADAPTÖRÜ

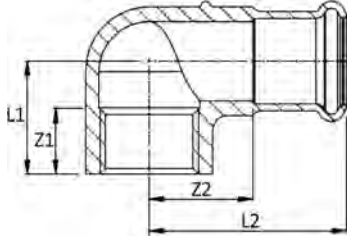
• ELBOW ADAPTER 90° WITH MALE THREAD

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC499K

O-HALKA / O-RING: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L1 mm	L2 mm	Z mm	g			€
697308012	12 x 3/8"	35	34	14	86	10	200	25,70
697102012	12 x 1/2"	40	34	14	113	10	150	25,84
697308015	15 x 3/8"	35	41,5	21,5	86	10	150	38,45
697102015	15 x 1/2"	38,5	41,5	21,5	131	10	120	25,84
697102018	18 x 1/2"	40	42	22	136	10	100	41,18
697304018	18 x 3/4"	44	42	22	177	10	100	40,15
697102022	22 x 1/2"	42	42	21	162	10	100	49,05
697304022	22 x 3/4"	47	42	21	193	10	80	41,71
697102028	28 x 1/2"	45	47	24	199	10	80	68,25
697100028	28 x 1"	53	45	24	318	5	50	62,60
697114035	35 x 1"1/4	68	55	29	471	5	40	83,06
697112042	42 x 1"1/2	75	65	35	660	2	24	113,48
697200054	54 x 2"	88	78	42	1078	2	20	160,54

B7071



698

DİŞİ DİŞLİ 90° DİRSEK ADAPTÖRÜ

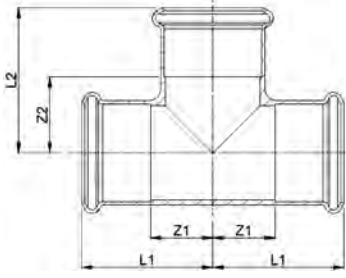
• ELBOW ADAPTER 90° WITH FEMALE THREAD

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC499K

O-HALKA / O-RING: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	g		€
698308012	12 x 3/8"	22,5	34	12	14	72	10	16,10
698102012	12 x 1/2"	24	34	16	14	87	10	16,10
698308015	15 x 3/8"	22,5	41,5	12	21,5	87	10	37,89
698102015	15 x 1/2"	22,5	41,5	16	21,5	102	10	16,10
698304015	15 x 3/4"	25	41,5	16	21,5	125	10	36,48
698102018	18 x 1/2"	24	42	16	22	112	10	35,56
698304018	18 x 3/4"	26	42	16	22	133	10	39,48
698102022	22 x 1/2"	26	42	15	21	129	10	42,39
698304022	22 x 3/4"	29	42	16	21	152	10	25,04
698100022	22 x 1"	32	45	19	24	203	10	39,79
698102028	28 x 1/2"	29	47	16	24	168	5	44,49
698100028	28 x 1"	35	48	19	25	240	5	45,63
698114035	35 x 1"1/4	45	55	23	29	403	5	75,21
698112042	42 x 1"1/2	52	65	23	35	541	2	96,93
698200054	54 x 2"	60	78	27	42	1085	2	153,96

B 70 71



682

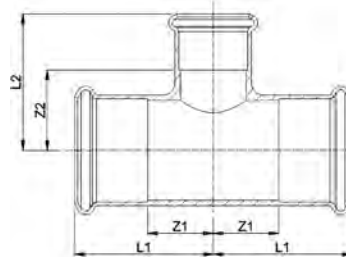
EŞİT T (TEE)

• EQUAL TEE

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	Ⓢ	📁	📦	€
682012000	12	31	31	11	11	54	20	200	6,65
682015000	15	32	32	13,5	12	75	20	200	6,65
682018000	18	34	34	13,5	14	96	20	100	9,05
682022000	22	37	37	16	16	125	10	100	11,54
682028000	28	42	42	19	19	174	10	50	20,02
682035000	35	50	50	24	24	245	4	32	33,86
682042000	42	57	63	27	33	345	4	20	65,64
682054000	54	69	78	33,5	42	559	2	12	81,20

B 70 71



692

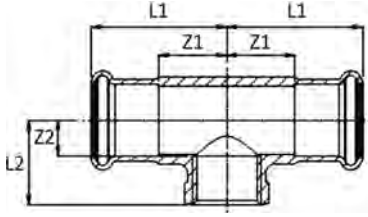
AZALTIICI T (TEE)

• REDUCING TEE

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	Ⓢ	📁	📦	€
692015012	15 x 12 x 15	32	32	12	12	69	20	100	7,66
692018012	18 x 12 x 18	34	35	14	15	84	20	100	8,49
692018015	18 x 15 x 18	34	35	14	15	93	20	100	8,14
692022012	22 x 12 x 22	37	35	16	15	106	10	100	10,26
692022015	22 x 15 x 22	37	38	16	18	122	10	100	9,79
692022018	22 x 18 x 22	37	38	16	18	128	10	100	12,57
692028015	28 x 15 x 28	42	40,5	19	20,5	167	10	50	22,96
692028018	28 x 18 x 28	42	40,5	19	20,5	168	10	50	31,74
692028022	28 x 22 x 28	42	41	19	20	173	10	50	22,88
692035015	35 x 15 x 35	50	44	24	24	250	5	50	33,86
692035018	35 x 18 x 35	50	44	24	24	241	5	50	35,82
692035022	35 x 22 x 35	50	44	24	23	237	5	50	31,03
692035028	35 x 28 x 35	50	44	24	21	231	5	35	32,67
692042015	42 x 15 x 42	57	47,5	27	27,5	338	4	20	61,84
692042018	42 x 18 x 42	57	47,5	27	27,5	338	4	20	60,92
692042022	42 x 22 x 42	57	53	27	32	330	4	20	59,34
692042028	42 x 28 x 42	57	56	27	33	323	4	20	60,18
692042035	42 x 35 x 42	57	61	27	35	338	4	20	62,41
692054022	54 x 22 x 54	69	59	33,5	38	469	2	16	93,13
692054028	54 x 28 x 54	69	64	33,5	41	465	2	16	96,00
692054035	54 x 35 x 54	69	67	33,5	41	502	2	16	99,67
692054042	54 x 42 x 54	69	70	33,5	40	489	2	16	74,59

B7071



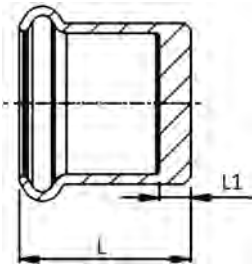
689

KOL T (TEE) DIŐI BSP ÇIKIŐI

• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC
499K**O-HALKA / O-RING:** EPDM nero - black - Schwarz
noir - negro**DIŐLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	box	€
689102012	12 x 1/2" x 12	34	24	14	10	104	10	100	25,40
689308015	15 x 3/8" x 15	41,5	22,5	21,5	10,5	118	10	100	43,39
689102015	15 x 1/2" x 15	41,5	22,5	21,5	8,5	128	10	100	24,71
689102018	18 x 1/2" x 18	42	24	22	10	145	10	100	42,95
689102022	22 x 1/2" x 22	42	26	21	12	170	10	100	34,69
689304022	22 x 3/4" x 22	42	30	21	14	183	10	100	49,74
689102028	28 x 1/2" x 28	44	29	21	15	211	5	50	43,39
689304028	28 x 3/4" x 28	44	30	21	14	216	5	50	56,35
689100028	28 x 1" x 28	44	34	21	16	265	5	50	58,15
689102035	35 x 1/2" x 35	50	34	24	19	308	5	50	59,48
689304035	35 x 3/4" x 35	50	34	24	18	305	5	40	60,36
689100035	35 x 1" x 35	50	35	24	17	329	5	40	63,04
689102042	42 x 1/2" x 42	57	38	27	23	419	4	32	72,09
689304042	42 x 3/4" x 42	57	38	27	22	415	4	32	78,24
689102054	54 x 1/2" x 54	69	44	33	30	638	2	14	85,86
689304054	54 x 3/4" x 54	69	44	33	28	639	2	14	93,90



683/003

DURDURMA UCU

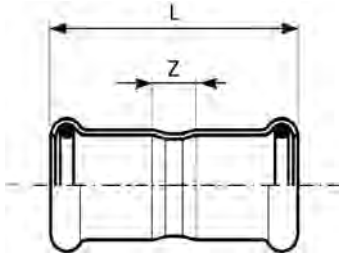
• STOP END

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A**O-HALKA / O-RING:** EPDM siyah

B7071

KOD / CODE	De mm	L mm	L1 mm	g	kg	box	€
683012003	12	20	3	14	20	500	5,07
683015003	15	22,5	2,5	20	20	500	8,62
683018003	18	23	3	25	20	300	11,34
683022003	22	24,5	2,5	34	10	200	14,96
683028003	28	26,5	3,5	49	10	150	23,08
683035003	35	28,5	2,5	65	5	100	25,13
683042003	42	32,5	2,5	93	4	80	38,87
683054003	54	37,5	2,5	147	4	40	47,44

B 70 71



683/000

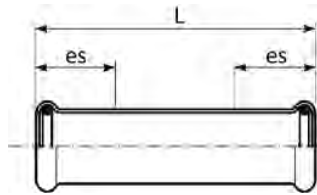
BAĞLANTI APARATI

• COUPLING

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm				€
683012000	12	42	6	38	20	400	4,17
683015000	15	49	9	39	20	400	4,17
683018000	18	50	10	47	20	300	5,27
683022000	22	53	11	62	20	200	6,22
683028000	28	56	10	84	10	150	11,34
683035000	35	63	10	108	10	100	14,14
683042000	42	72	12	156	4	60	26,60
683054000	54	83	13	225	2	24	33,41

B 70 71



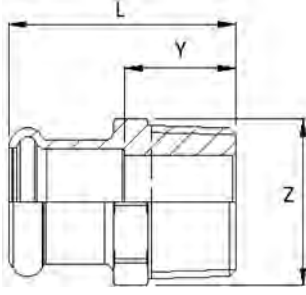
683/001

KAYMALI BAĞLANTI APARATI

• SLIP COUPLING

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

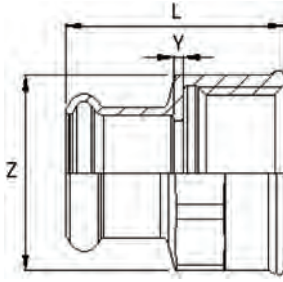
KOD / CODE	De mm	L mm	es mm				€
683012001	12	56	22	33	20	500	4,53
683015001	15	80	25	58	20	200	4,53
683018001	18	80	25	66	20	200	5,37
683022001	22	80	25	80	20	100	6,39
683028001	28	91	30	110	10	100	11,73
683035001	35	102	30	167	10	50	15,34
683042001	42	120	40	223	4	40	27,86
683054001	54	140	40	333	4	20	36,01

**687****ERKEK ADAPTÖR**

• MALE ADAPTER

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC499K**O-HALKA / O-RING:** EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g			€
687308012	12 x 3/8"	32	17	12	31	20	400	7,06
687102012	12 x 1/2"	36	22	16	48	20	400	10,26
687308015	15 x 3/8"	32	21	12	32	20	400	7,84
687102015	15 x 1/2"	36	22	16	53	20	300	7,84
687304015	15 x 3/4"	37,5	27	17,5	74	20	240	12,95
687102018	18 x 1/2"	37	22	17	47	20	300	8,66
687304018	18 x 3/4"	38	27	18	65	10	200	12,88
687102022	22 x 1/2"	36	27	17	58	10	200	11,38
687304022	22 x 3/4"	39	27	18	64	10	200	10,70
687100022	22 x 1"	42,5	34	21,5	111	10	100	17,53
687304028	28 x 3/4"	42	34	19	93	10	100	28,18
687100028	28 x 1"	44,5	34	21,5	105	10	100	17,19
687114028	28 x 1"1/4	48	43	25	192	10	100	35,46
687100035	35 x 1"	48	40	22	139	5	50	39,21
687114035	35 x 1"1/4	50	43	24	182	5	50	37,64
687112035	35 x 1"1/2	51	50	25	239	5	50	40,64
687114042	42 x 1"1/4	54	50	24	223	4	40	51,10
687112042	42 x 1"1/2	54	51	24	215	4	40	52,68
687112054	54 x 1"1/2	60	63	24	316	4	32	88,81
687200054	54 x 2"	63,5	63	33	341	4	32	101,61



690

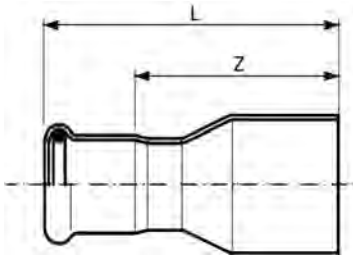
DİŞİ ADAPTÖR

• FEMALE ADAPTER

MALZEME / MATERIAL: CuSn5Zn5Pb2-C-CC499K

O-HALKA / O-RING: EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

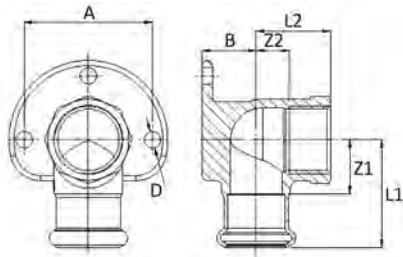
KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
690308012	12 x 3/8"	33,5	21	2	38	20	400	9,59
690102012	12 x 1/2"	36	26	2	58	20	300	12,29
690308015	15 x 3/8"	33,5	21	2	38	20	300	9,10
690102015	15 x 1/2"	36	26	2	58	20	300	11,95
690304015	15 x 3/4"	39	31	2	76	10	200	14,75
690102018	18 x 1/2"	37	26	2	61	20	300	12,29
690304018	18 x 3/4"	39	31	2	77	10	200	16,99
690102022	22 x 1/2"	36	27	1,5	64	20	200	11,73
690304022	22 x 3/4"	39	31	2,5	76	10	150	13,48
690100022	22 x 1"	42,5	38	2	112	10	100	22,33
690102028	28 x 1/2"	39	34	1	98	20	100	29,90
690304028	28 x 3/4"	41,5	34	2	98	10	100	33,04
690100028	28 x 1"	45	38	2,5	122	10	100	21,65
690114028	28 x 1"1/4	48	46	3	162	10	100	34,25
690100035	35 x 1"	45	40	2	132	5	100	41,78
690114035	35 x 1"1/4	50	46	2	164	5	100	41,26
690114042	42 x 1"1/4	54	50	2	198	4	40	58,34
690112042	42 x 1"1/2	54	53	2	217	4	40	59,86
690200054	54 x 2"	65	65	3	342	4	32	104,28

**691****AZALTICI**

• REDUCER

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: EPDM siyah - black

KOD / CODE	De mm	L mm	Z mm				€
691015012	15 x 12	51	31	20	20	500	3,69
691018012	18 x 12	53	33	36	20	500	3,89
691018015	18 x 15	57	37	42	20	500	3,69
691022015	22 x 15	64	44	53	20	400	4,44
691022018	22 x 18	59,5	39,5	52	20	300	4,60
691028015	28 x 15	54	34	48	20	200	10,91
691028018	28 x 18	53	33	54	20	200	11,19
691028022	28 x 22	65	44	72	20	200	11,46
691035022	35 x 22	59	38	68	10	100	13,58
691035028	35 x 28	71	48	98	10	100	14,79
691042022	42 x 22	66	45	97	4	80	23,27
691042028	42 x 28	65	42	99	4	80	22,64
691042035	42 x 35	80,5	54,5	137	4	40	21,62
691054022	54 x 22	74	53	154	4	40	55,38
691054028	54 x 28	70	47	148	4	40	46,62
691054035	54 x 35	76	50	159	4	40	30,28
691054042	54 x 42	97,5	67,5	204	4	32	29,01

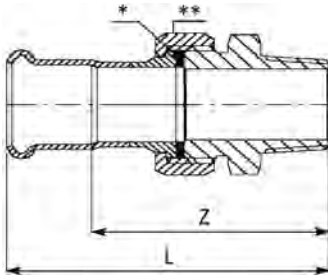
**685****DİŞİ DİŞLİ DUVAR LEVHASI
DİRSEĞİ 90°**

• WALL PLATE ELBOW 90° WITH FEMALE THREAD

MALZEME / MATERIAL: CuSn5Zn5Pb2-C -
CC499K**O-HALKA / O-RING:** EPDM siyah - black
DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm				€
685102012	12 x 1/2"	34	24	14	9	40	12	6,5	155	10	100	22,25
685102015	15 x 1/2"	41,5	22,5	21,5	7	40	14	6,5	172	10	100	22,01
685102018	18 x 1/2"	42	24	22	9	40	15	6,5	188	10	100	28,63
685304022	22 x 3/4"	42	29	21	13	50	21	6,5	249	10	50	46,74
685100022	22 x 1"	45	32	24	13	50	30	6,5	315	10	50	48,56
685100028	28 x 1"	48	35	25	16	50	30	6,5	366	5	50	64,86

B 70 71



684/002

DÜZ ERKEK SOMUN BAĞLANTISI

• STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: CuSn5Zn5Pb2-C-CC499K

BAĞLANTI / FITTING: (**): pirinç - brass

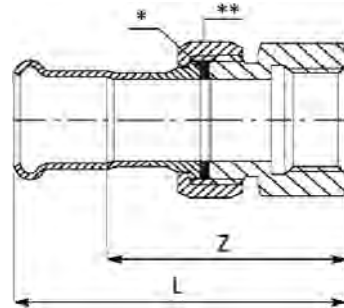
O-HALKA / O-RING: EPDM siyah - black

CONTA / GASGET: (*): EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 [ex ISO 7/1]

KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
684015002	15 x 1/2"	66	46	24x14 thk 2,5	164	2	100	53,10
684015012	15 x 3/4"	67	47	24x14 thk 2,5	195	2	80	54,75
684018002	18 x 1/2"	65,5	45,5	24x14 thk 2,5	160	2	80	62,21
684018012	18 x 3/4"	66,5	46,5	24x14 thk 2,5	191	2	80	63,91
684022002	22 x 3/4"	68,5	47,5	30x20 thk 2,5	252	2	60	83,09
684022012	22 x 1"	71,5	50,5	30x20 thk 2,5	242	2	60	83,88
684028002	28 x 1"	80	56	39x27 thk 2,5	432	2	40	127,51
684035002	35 x 1 1/4"	89	62	44,5x30 thk 2,5	684	2	20	159,55
684042002	42 x 1 1/2"	92,5	62,5	50,5x38 thk 2,5	716	2	20	192,43
684054002	54 x 2"	106	70	65,5x45 thk 3	1344	2	12	309,44

B 70 71



684/003

DÜZ ERKEK SOMUN BAĞLANTISI

• STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: CuSn5Zn5Pb2-C-CC499K

BAĞLANTI / FITTING: (**): pirinç - brass

O-HALKA / O-RING: EPDM siyah - black

CONTA / GASGET: (*): EPDM siyah - black

DİŞLİ / THREAD: EN 10226-1 [ex ISO 7/1]

KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
684012003	12 x 3/8"	59,5	39,5	18x10 thk 2,5	156	2	100	56,04
684012013	12 x 1/2"	59,5	39,5	18x10 thk 2,5	142	2	100	63,06
684015003	15 x 1/2"	60,5	40,5	24x14 thk 2,5	170	2	100	50,64
684015013	15 x 3/4"	62,5	42,5	24x14 thk 2,5	191	2	100	61,13
684018003	18 x 1/2"	62	42	24x14 thk 2,5	168	2	100	60,73
684018013	18 x 3/4"	62	42	24x14 thk 2,5	185	2	100	70,21
684022003	22 x 1/2"	62,5	41,5	30x20 thk 2,5	299	2	60	81,59
684022013	22 x 3/4"	63,5	42,5	30x20 thk 2,5	250	2	60	81,06
684022023	22 x 1"	67,5	46,5	30x20 thk 2,5	273	2	60	87,43
684028003	28 x 1"	73	49	39x27 thk 2,5	481	2	40	119,79
684035003	35 x 1 1/4"	81	54	44,5x30 thk 2,5	638	2	24	142,53
684042003	42 x 1 1/2"	84,5	54,5	50,5x38 thk 2,5	682	2	24	177,95
684054003	54 x 2"	104	68	65,5x45 thk 3	1355	2	12	303,50

Sertifikalar / Certifications

AESPRES GAZ - O HALKALI NBR İLE

C-16-3742-A

Ø15 - 54 mm

Uygulama alanları / Fields of application

AES PRES® GAS

Doğal Gaz / LPG
Natural gas / LPG

AES PRES® GAS O-halka NBR

Sarı | Yellow

ÜRÜN
YELPAZESİNİ
KEŞFEDİN
AES PRES® GAS
DISCOVER
THE RANGE

ODAKLANIN - FOCUS ON

AESPRES - AESPRES GAZ BAKIR BORU / AESPRES - AESPRES GAS COPPER PIPING

Bakır su ve gaz tesisatı boruları EN 1057:2010, "Bakır ve bakır alaşımları sağlık hizmetleri ve ısıtma uygulamalarında su ve gaz için kaynaklı bakırdan yuvarlak borular" standardına uygun olmalıdır.

Piping for copper water and gas installation should comply with the standard EN 1057:2010, "Copper and copper alloys - Round tubes in copper without welding for water and gas in health-care and heating applications".

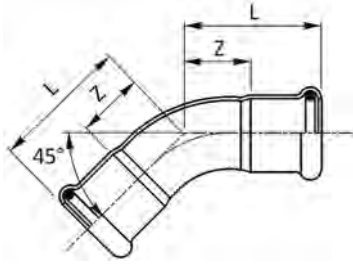
TABELLA 4: CARATTERISTICHE DEI TUBI DI RAME - EN 1057

Direnç sınıfı Resistance class	Teslimat Şartı Delivery condition	Ø (mm)
R220	Ricotto - Rotoli Annealed - Roll	12 ÷ 22
R250	Semiduro - Barre Semi-hard - Bar	12 ÷ 28
R290	Duro - Barre Hard - Bar	12 ÷ 54
Direnç sınıfı Resistance class	Minimum fraksiyon direnci Rm [MPa] Minimum traction resistance Rm [MPa]	Minimum kırılma uzaması [%] Minimum breaking elongation [%]
R220	220	40
R250	250	20
R290	290	3

Aespres ve **Aespres Gaz** pres bağlantı parça ile kullanılacak boru ölçüleri ekteki tabloda yer almaktadır.
Tube sizes to be used with Aespres and Aespres Gas press fittings are included in the annexed table.

AESPRES BORU ÖLÇÜLERİ VE ÖZELLİKLERİ - EN 1057 / DVGW GW 392
AESPRES PIPES DIMENSIONS AND CHARACTERISTICS - EN 1057 / DVGW GW 392

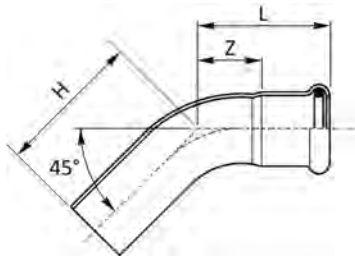
Ø DIŞ dxTHK. EXTERNAL Ø x THK. mm	DN	Ø İÇ INTERNAL Ø mm	KÜTLE MASS kg/m	SU HACMİ WATER VOLUME l/m	TEDARİK KOŞULU SUPPLIED CONDITION
12x1	10	10	0,309	0,079	Rotolo / Roll 25/50 m (R220) o / or
15x1	12	13	0,393	0,133	
18x1	15	16	0,477	0,201	
22x1	20	20	0,589	0,314	Barra / Bar 5 m (R250 - R290)
28x1,5	25	25	1,115	0,491	Barra / Bar 5 m (R250 - R290)
35x1,5	32	32	1,410	0,804	Barra / Bar 5 m (R290)
42x1,5	40	39	1,704	1,194	
54x2	50	50	2,918	1,963	

**681/450 G****45° DİRSEK FF**

• 45° ELBOW FF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	Z mm	g		€
681015450G	15	27,5	7,5	36	4	5,56
681018450G	18	29,5	9,5	53	4	5,91
681022450G	22	32	11	71	4	7,21
681028450G	28	37	14	101	4	21,89
681035450G	35	43,5	17,5	138	1	31,28
681042450G	42	51	21	200	1	50,76
681054450G	54	62	26,5	306	1	71,04

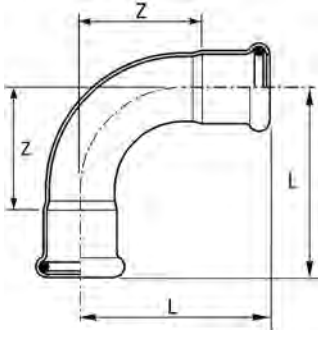
**681/451 G****45° DİRSEK MF**

• 45° ELBOW MF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
681015451G	15	27,5	40	7,5	41	4	4,53
681018451G	18	29,5	36	9,5	50	4	6,00
681022451G	22	32	42	11	69	4	6,65
681028451G	28	37	46	14	99	4	21,78
681035451G	35	43,5	57,5	17,5	144	1	30,21
681042451G	42	51	72	21	215	1	47,26
681054451G	54	62	82	26,5	333	1	70,07

B 70 72



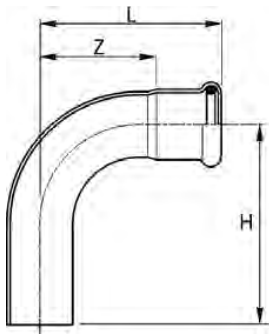
681/900 G

90° DİRSEK FF

• 90° ELBOW FF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	Z mm	g	kg	€
681015900G	15	38	18	51	4	5,07
681018900G	18	41,5	21,5	62	4	6,65
681022900G	22	47	26	88	4	8,32
681028900G	28	56	33	128	4	16,80
681035900G	35	68	42	180	1	33,23
681042900G	42	80	50	265	1	63,32
681054900G	54	100	64,5	419	1	85,47



681/901 G

90° DİRSEK MF

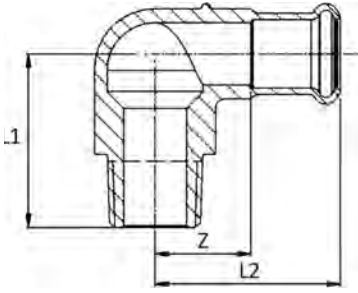
• 90° ELBOW MF

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

B 70 72

KOD / CODE	De mm	L mm	H mm	Z mm	g	kg	€
681015901G	15	38	48	18	49	4	4,75
681018901G	18	41,5	48,5	21,5	62	4	6,39
681022901G	22	47	57	26	87	4	8,49
681028901G	28	56	64	33	130	4	18,37
681035901G	35	68	82	42	195	1	32,77
681042901G	42	80	101	50	278	1	64,71
681054901G	54	100	120	64,5	435	1	86,57

B 7072

**697 G****DİRSEK ADAPTÖR 90° ERKEK DİŞLİ**

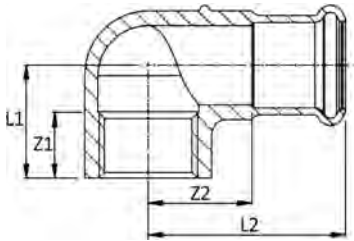
• ELBOW ADAPTER 90° WITH MALE THREAD

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC499K

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L1 mm	L2 mm	Z mm	g	g	€
697308015G	15 x 3/8"	35	41,5	21,5	86	4	44,28
697102015G	15 x 1/2"	38,5	41,5	21,5	131	4	29,74
697102018G	18 x 1/2"	40	42	22	136	4	47,36
697304018G	18 x 3/4"	44	42	22	177	4	46,18
697102022G	22 x 1/2"	42	42	21	162	4	56,46
697304022G	22 x 3/4"	47	42	21	193	4	47,95
697102028G	28 x 1/2"	45	47	24	199	4	78,50
697100028G	28 x 1"	53	45	24	318	4	72,00
697114035G	35 x 1 1/4"	68	55	29	471	1	95,56
697112042G	42 x 1 1/2"	75	65	35	660	1	130,59
697200054G	54 x 2"	88	78	42	1078	1	184,66

**698 G****DİRSEK ADAPTÖR 90° DİŞİ DİŞLİ**

• ELBOW ADAPTER 90° WITH FEMALE THREAD

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC499K

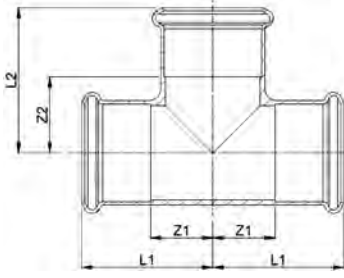
O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

B 7072

KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	€
698308015G	15 x 3/8"	22,5	41,5	12	21,5	87	4	43,61
698102015G	15 x 1/2"	22,5	41,5	16	21,5	102	4	18,58
698304015G	15 x 3/4"	25	41,5	16	21,5	125	4	41,91
698102018G	18 x 1/2"	24	42	16	22	112	4	40,91
698304018G	18 x 3/4"	26	42	16	22	133	4	45,40
698102022G	22 x 1/2"	26	42	15	21	129	4	48,75
698304022G	22 x 3/4"	29	42	16	21	152	4	28,85
698100022G	22 x 1"	32	45	19	24	203	4	45,84
698102028G	28 x 1/2"	29	47	16	24	168	4	51,19
698100028G	28 x 1"	35	48	19	25	240	4	52,54
698114035G	35 x 1 1/4"	45	55	23	29	403	1	86,48
698112042G	42 x 1 1/2"	52	65	23	35	541	1	111,54
698200054G	54 x 2"	60	78	27	42	1085	1	177,10

B 70 72



682 G

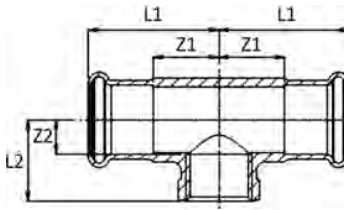
EŞİT T (TEE)

• EEQUAL TEE

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	€
682015000G	15	32	32	13,5	12	75	4	7,66
682018000G	18	34	34	13,5	14	96	4	10,43
682022000G	22	37	37	16	16	125	4	13,29
682028000G	28	42	42	19	19	174	4	23,08
682035000G	35	50	50	24	24	245	1	39,05
682042000G	42	57	63	27	33	345	1	75,49
682054000G	54	69	78	33,5	42	559	1	93,41

B 70 72



689 G

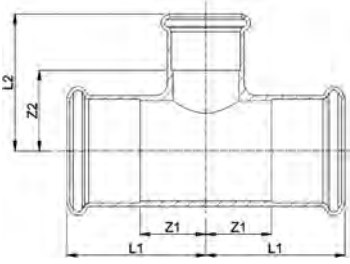
KOL T (TEE) DIŞI BSP ÇIKIŞI

• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: CuSn5Zn5Pb2-C -
CC499K

O-HALKA / O-RING: NBR sarı - yellow
DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

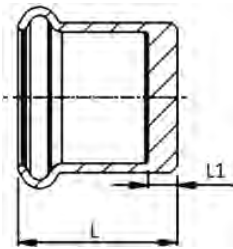
KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	g	€
689308015G	15 x 3/8" x 15	41,5	22,5	21,5	10,5	118	4	49,99
689102015G	15 x 1/2" x 15	41,5	22,5	21,5	8,5	128	4	28,50
689102018G	18 x 1/2" x 18	42	24	22	10	145	4	49,41
689102022G	22 x 1/2" x 22	42	26	21	12	170	4	39,90
689304022G	22 x 3/4" x 22	42	30	21	14	183	4	57,24
689102028G	28 x 1/2" x 28	44	29	21	15	211	4	49,99
689304028G	28 x 3/4" x 28	44	30	21	14	216	4	64,86
689100028G	28 x 1" x 28	44	34	21	16	265	4	66,85
689102035G	35 x 1/2" x 35	50	34	24	19	308	1	68,43
689304035G	35 x 3/4" x 35	50	34	24	18	305	1	69,40
689100035G	35 x 1" x 35	50	35	24	17	329	1	72,56
689102042G	42 x 1/2" x 42	57	38	27	23	419	1	82,95
689304042G	42 x 3/4" x 42	57	38	27	22	415	1	89,99
689102054G	54 x 1/2" x 54	69	44	33	30	638	1	98,84
689304054G	54 x 3/4" x 54	69	44	33	28	639	1	107,98

**692 G****AZALTICI T (TEE)**

• REDUCING TEE

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	€
692018015G	18 x 15 x 18	34	35	14	15	93	4	9,44
692022015G	22 x 15 x 22	37	38	16	18	122	4	11,26
692022018G	22 x 18 x 22	37	38	16	18	128	4	14,49
692028015G	28 x 15 x 28	42	40,5	19	20,5	167	4	26,48
692028018G	28 x 18 x 28	42	40,5	19	20,5	168	4	36,55
692028022G	28 x 22 x 28	42	41	19	20	173	4	26,40
692035015G	35 x 15 x 35	50	44	24	24	250	1	39,05
692035018G	35 x 18 x 35	50	44	24	24	241	1	41,27
692035022G	35 x 22 x 35	50	44	24	23	237	1	35,71
692035028G	35 x 28 x 35	50	44	24	21	231	1	37,67
692042015G	42 x 15 x 42	57	47,5	27	27,5	338	1	71,16
692042018G	42 x 18 x 42	57	47,5	27	27,5	338	1	70,07
692042022G	42 x 22 x 42	57	53	27	32	330	1	68,30
692042028G	42 x 28 x 42	57	56	27	33	323	1	69,21
692042035G	42 x 35 x 42	57	61	27	35	338	1	71,83
692054022G	54 x 22 x 54	69	59	33,5	38	469	1	107,15
692054028G	54 x 28 x 54	69	64	33,5	41	465	1	110,39
692054035G	54 x 35 x 54	69	67	33,5	41	502	1	114,63
692054042G	54 x 42 x 54	69	70	33,5	40	489	1	85,84

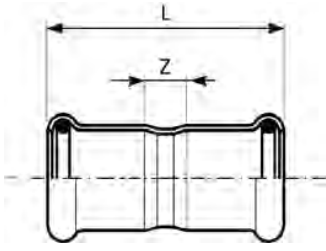
**683/003 G****DURDURMA UCU**

• STOP END

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	L1 mm	g	kg	€
683015003G	15	22,5	2,5	20	4	9,87
683018003G	18	23	3	25	4	13,14
683022003G	22	24,5	2,5	34	4	17,30
683028003G	28	26,5	3,5	49	4	26,60
683035003G	35	28,5	2,5	65	1	28,89
683042003G	42	32,5	2,5	93	1	44,79
683054003G	54	37,5	2,5	147	1	54,67

B 70 72



683/000 G

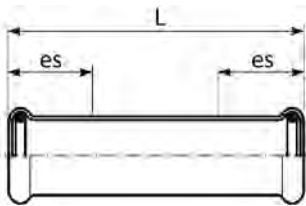
BAĞLANTI APARATI

• COUPLING

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	Z mm	g	kg	€
683015000G	15	49	9	39	4	4,81
683018000G	18	50	10	47	4	6,08
683022000G	22	53	11	62	4	7,21
683028000G	28	56	10	84	4	13,14
683035000G	35	63	10	108	1	16,26
683042000G	42	72	12	156	1	30,63
683054000G	54	83	13	225	1	38,50

B 70 72



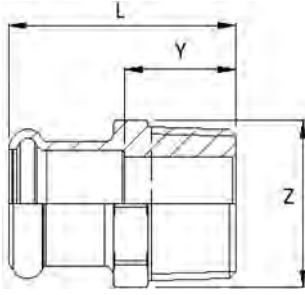
683/001 G

KAYMALI BAĞLANTI APARATI

• SLIP COUPLING

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	es mm	g	kg	€
683015001G	15	80	25	58	4	5,27
683018001G	18	80	25	66	4	6,22
683022001G	22	80	25	80	4	7,39
683028001G	28	91	30	110	4	13,58
683035001G	35	102	30	167	1	17,63
683042001G	42	120	40	223	1	32,11
683054001G	54	140	40	333	1	41,45

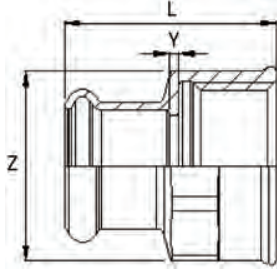
**687 G****ERKEK ADAPTÖR**

• MALE ADAPTER

MALZEME / MATERIAL: CuSn5Zn5Pb2-C - CC499K**O-HALKA / O-RING:** NBR sarı - yellow**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g	kg	€
687308015G	15 x 3/8"	32	21	12	32	4	9,04
687102015G	15 x 1/2"	36	22	16	53	4	8,99
687304015G	15 x 3/4"	37,5	27	17,5	74	4	14,93
687102018G	18 x 1/2"	37	22	17	47	4	9,96
687304018G	18 x 3/4"	38	27	17	65	4	14,83
687102022G	22 x 1/2"	36	27	18	58	4	13,09
687304022G	22 x 3/4"	39	27	18	64	4	12,29
687100022G	22 x 1"	42,5	34	21,5	111	4	20,14
687304028G	28 x 3/4"	42	34	19	93	4	32,40
687100028G	28 x 1"	44,5	34	21,5	105	4	19,83
687114028G	28 x 1"1/4	48	43	25	192	4	40,89
687100035G	35 x 1"	48	40	22	139	1	45,13
687114035G	35 x 1"1/4	50	43	24	182	1	43,29
687112035G	35 x 1"1/2	51	50	25	239	1	46,78
687114042G	42 x 1"1/4	54	50	24	223	1	58,85
687112042G	42 x 1"1/2	54	50	24	215	1	60,56
687112054G	54 x 1"1/2	60	63	24	316	1	102,25
687200054G	54 x 2"	63,5	63	27,5	341	1	116,89

B 70 72



690 G

DİŞİ ADAPTÖR

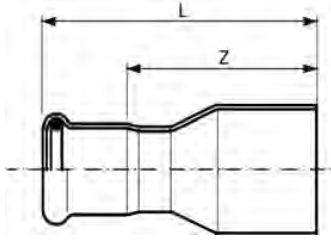
• FEMALE ADAPTER

MALZEME / MATERIAL: CuSn5Zn5Pb2-C-
CC499K

O-HALKA / O-RING: NBR sarı - yellow

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

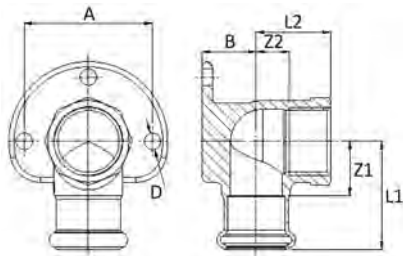
KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g	€
690308015G	15 x 3/8"	33,5	21	2	38	10,46
690102015G	15 x 1/2"	36	26	2	58	13,74
690304015G	15 x 3/4"	39	31	2	76	16,96
690102018G	18 x 1/2"	37	26	2	61	14,16
690304018G	18 x 3/4"	39	31	2	77	19,65
690102022G	22 x 1/2"	36	27	1,5	64	13,45
690304022G	22 x 3/4"	39	31	2,5	76	15,50
690100022G	22 x 1"	42,5	38	2	112	25,65
690102028G	28 x 1/2"	39	34	1	98	34,44
690304028G	28 x 3/4"	41,5	34	2	98	37,99
690100028G	28 x 1"	45	38	2,5	122	24,89
690114028G	28 x 1"1/4	48	46	3	162	39,45
690100035G	35 x 1"	45	40	2	132	48,08
690114035G	35 x 1"1/4	50	46	2	164	47,50
690114042G	42 x 1"1/4	54	50	2	198	67,20
690112042G	42 x 1"1/2	54	53	2	217	68,90
690200054G	54 x 2"	65	65	3	342	119,91

**691 G****AZALTICI**

• REDUCER

MALZEME / MATERIAL: Cu-DHP99,9 - CW024A
O-HALKA / O-RING: NBR sarı - yellow

KOD / CODE	De mm	L mm	Z mm	g	g	€
691018015G	18 x 15	57	37	42	4	4,26
691022015G	22 x 15	64	44	53	4	5,21
691022018G	22 x 18	59,5	39,5	52	4	5,37
691028015G	28 x 15	54	34	48	4	12,57
691028018G	28 x 18	53	33	54	4	12,94
691028022G	28 x 22	65	44	72	4	13,23
691035022G	35 x 22	59	38	68	1	15,70
691035028G	35 x 28	71	48	98	1	16,99
691042022G	42 x 22	66	45	97	1	26,76
691042028G	42 x 28	65	42	99	1	26,04
691042035G	42 x 35	80,5	54,5	137	1	24,92
691054022G	54 x 22	74	53	154	1	63,67
691054028G	54 x 28	70	47	148	1	53,62
691054035G	54 x 35	76	50	159	1	34,88
691054042G	54 x 42	97,5	67,5	204	1	33,41





















**685 G****Dişi Dişli DUVAR LEVHASI DİRSEK 90°**

• WALL PLATE ELBOW 90° WITH FEMALE THREAD

MALZEME / MATERIAL: CuSn5Zn5Pb2-C -
CC499K**O-HALKA / O-RING:** NBR sarı - yellow**Dişli / THREAD:** EN 10226-1 (ex ISO 7/1)








KOD / CODE	De x Rp mm x inch	L1 mm	L2 mm	Z1 mm	Z2 mm	A mm	B mm	D mm	g	g	€
685102015G	15 x 1/2"	41,5	22,5	21,5	7	40	14	6,5	172	4	25,24
685102018G	18 x 1/2"	42	24	22	9	40	15	6,5	188	4	32,98
685304022G	22 x 3/4"	42	29	21	13	50	21	6,5	247	4	53,76

Sertififikalar / Certifications

		BORULAR İÇİN MEKANİK BAĞLANTILAR - MARINEPRES MECHANICAL JOINTS FOR PIPES - MARINEPRES	MAC - 067019CS/001 - 002	Ø 15 - 108 mm
		İÇME SUYU İLE TEMAS EDEN ÜRÜN VE ELEMANLAR PRODUCT AND ELEMENTS IN CONTACT WITH DRINKING WATER	ICIM-CAP-009671-00	Ø 15 - 108 mm
		TÜP BAĞLANTILARI-MARINEPRES TUBE FITTINGS- MARINEPRES	TAP000007B	Ø 15 - 108 mm
		BORU, KANAL, GÖVDE - MARINEPRES PIPE, DUCT, TRUNK - MARINEPRES	MEDB00007F1	Ø 15 - 108 mm
		BORU SİSTEMLERİ İÇİN SIKIŞTIRMA TÜRÜ PRES BAĞLANTI SİSTEMİ PRES FITTING SYSTEM OF COMPRESSION TYPE FOR PIPING SYSTEMS	15/20055 (E1)	Ø 15 - 108 mm
		MARINEPRES BORU GEÇİŞİ [STANDART YANGIN TESTİ] 015-108 MM MARINEPRES PIPE PENETRATION (STANDARD FIRE TEST) 015-108 MM	MED D000027 V	Ø 15 - 108 mm
		O-HALKA CONTALI BORU BAĞLANTISI MARINEPRES SİSTEM PIPE COUPLING WITH O-RING SEAL MARINEPRES SYSTEM	38059/BO BV	Ø 15 - 108 mm
		MARINEPRES, BORU SİSTEMİ VE BAĞLANTI PARÇALARI MARINEPRES, PIPING SYSTEM AND FITTING	19-GE1920312-PDA	Ø 15 - 108 mm
		MARINEPRES, MEKANİK BAĞLANTILAR MARINEPRES MECHANICAL JOINTS	ML 20PTB00014	Ø 15 - 108 mm
		MARINEPRES PRES BAĞLANTI SİSTEMİ MARINEPRES PRESSFITTING SYSTEM	POCC.IT.AM05.H05079	Ø 15 - 108 mm

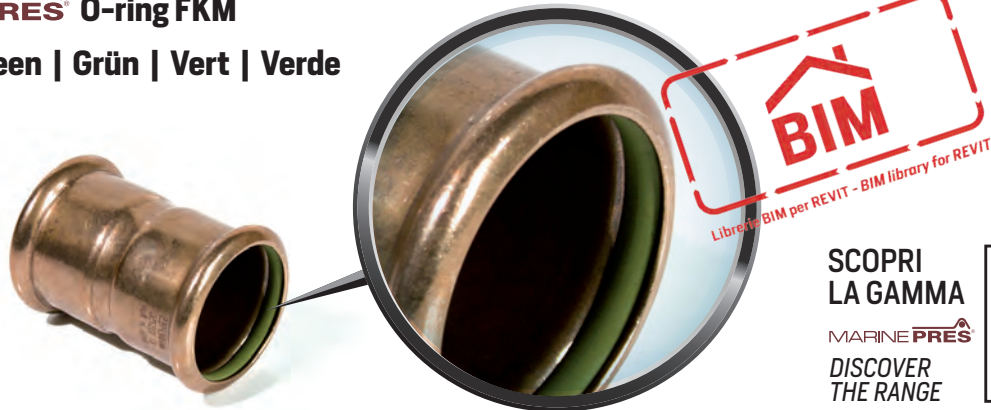
Uygulama alanları / Fields of application

MARINE PRES®

	Riscaldamento Heating		Raffrescamento Cooling		Solare termico Solar thermal
	Aria compressa Compressed air		Antincendio Fire protection systems		Acque di processo Process water
	Scarichi Waste water				

MARINE PRES® O-ring FKM

Verde | Green | Grün | Vert | Verde



SCOPRI
LA GAMMA

MARINE PRES®
DISCOVER
THE RANGE



**616/000 CN**

≤54 B 90 91


76÷108 B 90 92

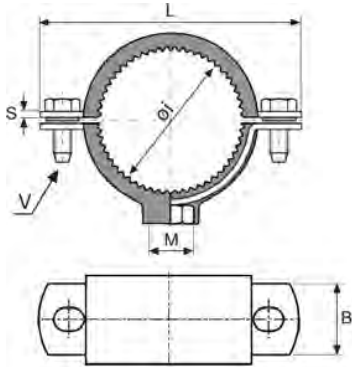
**TERSANE SEKTÖRÜ
İÇİN**

• FOR SHIPYARD SECTOR

NORM: DIN 86019

Mat. Nr.: CuNi10Fe1.6Mn L=6 m

KOD / CODE	Boyutlar Dimensions mm x mm	Ø int mm	L m		Hacim Volume l/m	Minimum koli Minimum package m	€/m
616015000CN	15 x 1,0	13	6	0,39	0,133	60	37,43
616018000CN	18 x 1,0	16	6	0,48	0,201	60	45,52
616022000CN	22 x 1,0	20	6	0,59	0,314	60	56,24
616028000CN	28 x 1,5	25	6	1,12	0,491	30	106,36
616035000CN	35 x 1,5	32	6	1,41	0,804	30	134,51
616042000CN	42 x 1,5	39	6	1,71	1,194	30	162,66
616054000CN	54 x 1,5	51	6	2,21	2,042	30	210,86
616076000CN	76,1 x 2,0	72,1	6	4,16	4,08	6	357,19
616088000CN	88,9 x 2,0	84,9	6	4,88	5,66	6	411,88
616108000CN	108 x 2,5	103	6	7,41	8,332	6	703,45

Uygundur
Conform to**DIN 4109****156/G****A 50 50****MARINEPRES BORU İÇİN KAUKUKLU
KELEPÇE**



• CLAMP WITH RUBBER FOR MARINEPRES PIPE

MALZEME / MATERIAL: AISI 304 - 1.4301

VULKANİZE KAUKUK: EPDM [-20° C/+120° C]

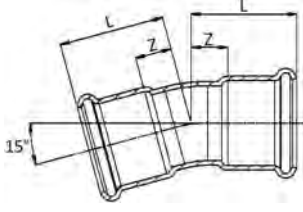
durezza/hardness 55 Shore

NOT / NOTE: nokta kaynaklı somun
spot welded nut

KOD / CODE	Øi mm	M	V mm	B mm	L mm	S mm			€
156150304G	15 - 18	M 8	M 6 x 20	20	58	2,5	72	50*	9,05
156308304G	16 - 18	M 8	M 6 x 20	20	58	2,5	76	50*	9,05
156102304G	20 - 24	M 8	M 6 x 20	20	63,5	2,5	86	50*	9,22
156304304G	25 - 28	M 8	M 6 x 20	20	70	2,5	94	50*	9,59
156100304G	31 - 35	M 8	M 6 x 20	20	79	2,5	112	50*	10,16
156114304G	39 - 43	M 8	M 6 x 20	20	85	2,5	120	50*	11,84
156112304G	47 - 54	M 8	M 6 x 25	20	97	2,5	142	50*	12,91
156212304G	73 - 76,5	M 10	M 6 x 25	30	128	2,5	308	10*	19,60
156300304G	86 - 89	M 10	M 6 x 25	30	148	2,5	346	10*	21,24
156108316G **	108	M 8 / 10	M 6 x 25	20	168	2	200	10*	17,79

[*] minimum satış miktarı / minimum selling quantity

[**] Sökülebilir kauçuk - Detachable rubber AISI 316 / 1.4401 (aile / family A 50 51)



681/150 CN

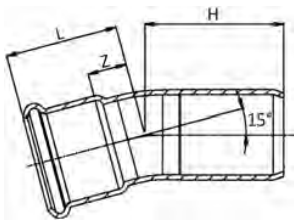
≤54 B 80 81
76÷108 B 80 82

15° DİRSEK FF

• 15° ELBOW FF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	Z mm	g			€
681015150CN	15	30	10	43	20	300	24,59
681022150CN	22	33	12	72	20	100	30,33
681028150CN	28	36	13	97	10	100	35,07
681035150CN	35	37	11	140	10	60	40,99
681042150CN	42	42	12	200	4	40	66,75
681054150CN	54	49	13	302	2	20	85,27
681076150CNC	76,1	87,5	32,5	863	2	2	308,76
681088150CNC	88,9	100,5	40,5	1147	2	2	368,91
681108150CNC	108	109,5	34,5	1567	2	2	507,12



681/151 CN

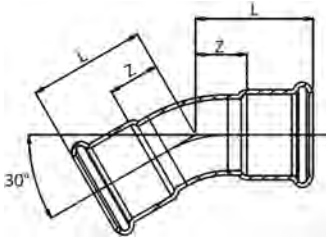
≤54 B 80 81
76÷108 B 80 82

15° DİRSEK MF

• 15° ELBOW MF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
681015151CN	15	30	40	10	42	20	23,46
681022151CN	22	33	41	12	71	20	28,61
681028151CN	28	36	43	13	101	10	34,76
681035151CN	35	37	41	11	148	10	40,56
681042151CN	42	42	55,5	12	183	4	63,65
681054151CN	54	49	55	13	339	2	80,39
681076151CNC	76,1	87,5	95,5	32,5	827	2	286,45
681088151CNC	88,9	100,5	108,5	40,5	1100	2	337,99
681108151CNC	108	109,5	118	34,5	1482	2	474,35

**681/300 CN**

≤54 B 80 81

76÷108 B 80 82

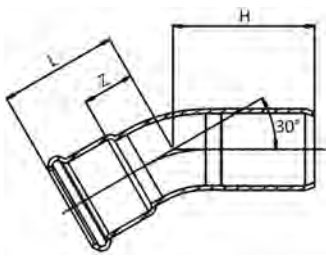
30° DİRSEK FF

• 30° ELBOW FF

MALZEME / MATERIAL: CuNi10Fe1.6Mn

O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	Z mm	g			€
681015300CN	15	33	13	43	20	300	24,59
681022300CN	22	37	16	72	20	100	30,33
681028300CN	28	41	18	97	10	100	35,07
681035300CN	35	37	11	140	10	60	40,99
681042300CN	42	44	14	200	4	40	66,75
681054300CN	54	52	17	302	2	20	85,27
681076300CN	76,1	100	55	1004	2	2	308,76
681088300CN	88,9	115	64	1394	2	2	368,91
681108300CN	108	127	68	1896	2	2	507,12

**681/301 CN**

≤54 B 80 81

76÷108 B 80 82

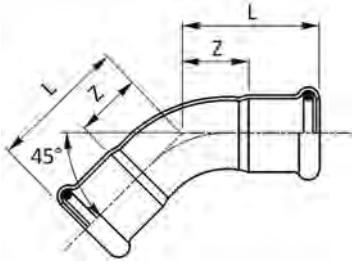
30° DİRSEK MF

• 30° ELBOW MF

MALZEME / MATERIAL: CuNi10Fe1.6Mn

O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
681015301CN	15	33	43	13	42	20	23,46
681022301CN	22	37	46	16	71	20	28,61
681028301CN	28	41	48	18	101	10	34,76
681035301CN	35	37	46	11	148	10	40,56
681042301CN	42	44	54	14	208	4	63,65
681054301CN	54	52	63	17	339	2	80,39
681076301CN	76,1	100	108	55	1004	2	286,45
681088301CN	88,9	115	123	64	1394	2	337,99
681108301CN	108	127	136	68	1896	2	474,35



681/450 CN

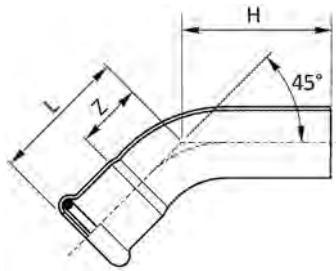
≤54 B 80 81
76÷108 B 80 82

45° DİRSEK FF

• 45° ELBOW FF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	Z mm	g			€
681015450CN	15	27,5	7,5	43	20	300	24,59
681018450CN	18	29,5	9,5	54	20	300	27,29
681022450CN	22	32	11	72	20	100	30,33
681028450CN	28	37	14	97	10	100	35,07
681035450CN	35	43,5	17,5	140	10	60	40,99
681042450CN	42	51	21	200	4	40	66,75
681054450CN	54	62	26,5	302	2	20	85,27
681076450CN	76,1	133	78	1004	2	2	308,76
681088450CN	88,9	144,5	84,5	1394	2	2	368,91
681108450CN	108	169	94	1896	2	2	507,12



681/451 CN

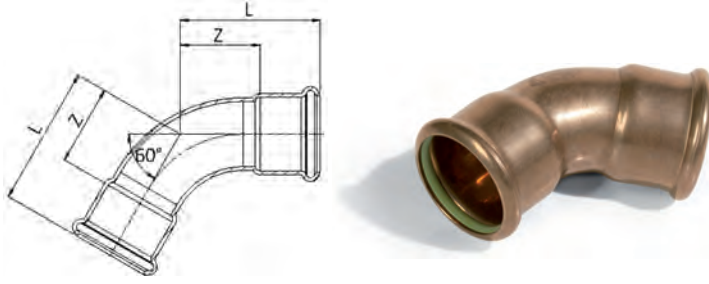
≤54 B 80 81
76÷108 B 80 82

45° DİRSEK MF

• 45° ELBOW MF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
681015451CN	15	27,5	39,5	7,5	42	20	23,46
681018451CN	18	29,5	36	9,5	54	20	25,26
681022451CN	22	32	42	11	71	20	28,61
681028451CN	28	37	46	14	101	10	34,76
681035451CN	35	43,5	57,5	17,5	148	10	40,56
681042451CN	42	51	72	21	208	4	63,65
681054451CN	54	62	82	26,5	339	2	80,39
681076451CN	76,1	133	149	78	1004	2	286,45
681088451CN	88,9	144,5	159,5	84,5	1394	2	337,99
681108451CN	108	169	184	94	1896	2	474,35

**681/600 CN**

≤54 B 80 81

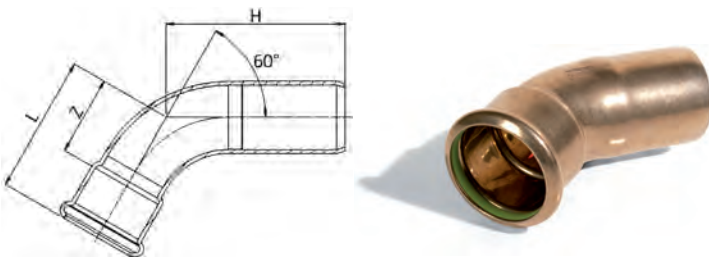
76÷108 B 80 82

60° DİRSEK FF

• 60° ELBOW FF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	Z mm	g			€
681028600CN	28	42	19	109	10	50	35,07
681035600CN	35	71	44	140	5	50	40,99
681042600CN	42	82	50	200	2	30	66,75
681054600CN	54	82	44	348	2	18	85,27
681076600CN	76,1	146,5	91,5	1311	2	2	308,76
681088600CN	88,9	162	102	1687	2	2	368,91
681108600CN	108	1190	115	2440	2	2	507,12

**681/601 CN**

≤54 B 80 81

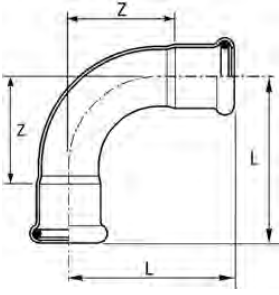
76÷108 B 80 82

60° DİRSEK MF

• 60° ELBOW MF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
681035601CN	35	71	74	50	148	5	40,56
681042601CN	42	82	86	50	208	2	63,65
681054601CN	54	82	89	45	339	2	80,39
681076601CN	76,1	146,5	164	91,5	1313	2	286,45
681088601CN	88,9	162	177	102	1674	2	337,99
681108601CN	108	190	205	115	2392	2	474,35



681/900 CN

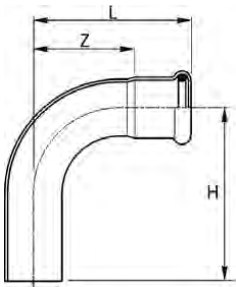
≤54 B 80 81
76÷108 B 80 82

90° DİRSEK FF

• 90° ELBOW FF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	Z mm	g			€
681015900CN	15	38	18	51	20	300	18,39
681018900CN	18	41,5	21,5	64	20	200	22,63
681022900CN	22	47	26	88	10	100	25,32
681028900CN	28	56	33	124	10	50	31,10
681035900CN	35	68	42	185	5	50	50,12
681042900CN	42	80	50	253	2	30	86,39
681054900CN	54	100	65	427	2	18	111,76
681076900CN	76,1	160	105	1283	2	2	265,90
681088900CN	88,9	182	122	1762	2	2	341,26
681108900CN	108	220	145	2509	2	2	443,66



681/901 CN

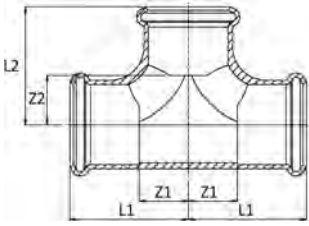
≤54 B 80 81
76÷108 B 80 82

90° DİRSEK MF

• 90° ELBOW MF

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L mm	H mm	Z mm	g		€
681015901CN	15	38	48	18	51	300	20,02
681018901CN	18	41,5	48,5	21,5	64	200	20,58
681022901CN	22	47	57	26	88	100	24,17
681028901CN	28	56	64	33	124	50	29,95
681035901CN	35	68	82	42	191	50	48,34
681042901CN	42	80	101	50	268	30	78,98
681054901CN	54	100	120	65	422	18	108,36
681076901CN	76,1	160	177	105	1283	2	262,97
681088901CN	88,9	182	197	122	1762	2	313,11
681108901CN	108	220	233	145	2509	2	435,61

**682 CN**

≤54 B 80 81

76÷108 B 80 82

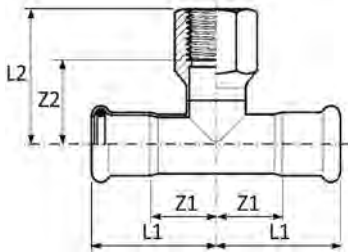
EŞİT T (TEE)

• EQUAL TEE

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	Box	€
682015000CN*	15	32	32	10,5	10,5	77	20	200	29,50
682018000CN*	18	34	34	12,5	12,5	95	20	100	32,62
682022000CN*	22	37	37	14,5	14,5	124	10	100	35,46
682028000CN*	28	42	42	17,5	17,5	175	10	50	41,80
682035000CN*	35	50	50	22,5	22,5	252	4	32	54,06
682042000CN*	42	57	57	25,5	25,5	343	4	20	74,64
682054000CN*	54	69	69	32,5	32,5	520	2	12	90,16
682076000CN	76,1	108	117,5	53	62,5	1422	2	2	578,15
682088000CN	88,9	131,5	134,5	71,5	71,5	1712	2	2	649,92
682108000CN	108	155	160	80	85	2359	2	2	811,63

[*] hidroformlu - hydroformed

**689 CN**

≤54 B 80 81

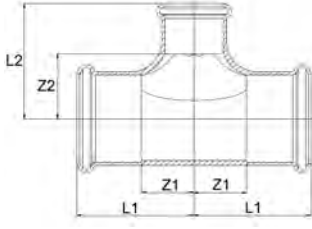
76÷108 B 80 82

**KOL T (TEE) DIŞI BSP
ÇIKIŞI**

• BRANCH TEE FEMALE BSP OUTLET

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green
DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x Rp x De mm x inch x mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g	kg	Box	€
689102015CN	15 x 1/2" x 15	34,5	40	13,5	25	100	20	100	37,43
689102018CN	18 x 1/2" x 18	36,5	41,5	16,5	26,5	121	20	100	40,45
689102022CN	22 x 1/2" x 22	39,5	44	18	29	154	10	100	44,18
689304022CN	22 x 3/4" x 22	39,5	47	18	30,5	159	10	100	46,82
689102028CN	28 x 1/2" x 28	44	46,5	21	31,5	188	10	50	48,24
689304028CN	28 x 3/4" x 28	44	49,5	21	33	206	10	50	54,97
689102035CN	35 x 1/2" x 35	51	50	25,5	35	220	5	50	54,21
689304035CN	35 x 3/4" x 35	51	53	25,5	36,5	229	5	40	66,68
689102042CN	42 x 1/2" x 42	58,5	54	28,5	39	302	4	32	68,37
689304042CN	42 x 3/4" x 42	58,5	56,5	28,5	40	309	4	32	72,88
689102054CN	54 x 1/2" x 54	69,5	61	34	46	420	2	14	78,45
689304054CN	54 x 3/4" x 54	69,5	64	34	47,5	436	2	14	82,53
689304076CN	76,1 x 3/4" x 76,1	108	76	53	59,5	1160	2	2	512,86
689304088CN	88,9 x 3/4" x 88,9	131,5	83,5	71,5	67	1400	2	2	570,07
689304108CN	108 x 3/4" x 108	155	93	80	76,5	1896	2	2	689,91



692 CN

AZALTICI T (TEE)

• REDUCING TEE

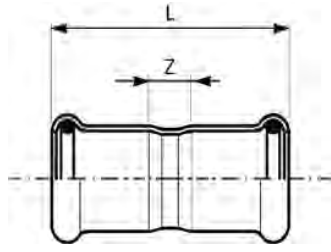
MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green

≤54 B 80 81

76÷108 B 80 82

KOD / CODE	De mm	L1 mm	L2 mm	Z1 mm	Z2 mm	g			€
692018015CN*	18 x 15 x 18	34	35	12,5	13,5	89	20	100	31,28
692022015CN*	22 x 15 x 22	37	38	16	18	118	10	100	33,73
692028015CN*	28 x 15 x 28	42	40,5	17,5	19	157	10	50	39,21
692028018CN*	28 x 18 x 28	42	40,5	17,5	19	162	10	50	40,91
692028022CN*	28 x 22 x 28	42	41	17,5	20	166	10	50	41,64
692035015CN	35 x 15 x 35	51	49	25	29	176	5	50	48,22
692035022CN	35 x 22 x 35	51	50,5	25	29,5	186	5	50	50,83
692035028CN	35 x 28 x 35	51	53,5	25	30,5	191	5	35	51,61
692042022CN	42 x 22 x 42	58,5	54	28	33	264	4	20	71,49
692042028CN	42 x 28 x 42	58,5	57	28	34	261	4	20	72,43
692042035CN	42 x 35 x 42	58,5	61	28	35	303	4	20	78,69
692054022CN	54 x 22 x 54	69,5	61,5	34	40,5	368	2	16	83,23
692054028CN	54 x 28 x 54	69,5	65,5	34	41,5	385	2	16	84,30
692054035CN	54 x 35 x 54	69,5	68,5	34	42,5	403	2	16	88,18
692054042CN	54 x 42 x 54	69,5	72	34	42	419	2	16	95,10
692076022CN	76,1 x 22 x 76,1	108	72,5	52	52,5	1110	2	2	437,80
692076028CN	76,1 x 28 x 76,1	108	77	52	54	1132	2	2	471,15
692076035CN	76,1 x 35 x 76,1	108	80	52	54	1143	2	2	502,94
692076042CN	76,1 x 42 x 76,1	108	84	52	54	1165	2	2	530,82
692076054CN	76,1 x 54 x 76,1	108	90	52	55	1188	2	2	569,90
692088022CN	88,9 x 22 x 88,9	132	81	72	60	1361	2	2	464,40
692088028CN	88,9 x 28 x 88,9	132	84	72	61	1366	2	2	493,40
692088035CN	88,9 x 35 x 88,9	132	88	72	62	1389	2	2	525,55
692088042CN	88,9 x 42 x 88,9	132	91	72	61	1400	2	2	570,02
692088054CN	88,9 x 54 x 88,9	132	97	72	62	1428	2	2	590,56
692088076CN	88,9 x 76 x 88,9	132	125	72	70	1656	2	2	638,27
692108022CN	108 x 22 x 108	155	91	74	70	1857	2	2	493,89
692108028CN	108 x 28 x 108	155	94	74	71	1863	2	2	517,90
692108035CN	108 x 35 x 108	155	97	74	71	1980	2	2	575,36
692108042CN	108 x 42 x 108	155	101	74	71	2080	2	2	600,07
692108054CN	108 x 54 x 108	155	107	74	72	2147	2	2	650,76
692108076CN	108 x 76,1 x 108	155	135	74	80	2153	2	2	678,93
692108088CN	108 x 88,9 x 108	155	141	74	81	2192	2	2	775,66

(*) hidroformlu - hydroformed

**683/000 CN**




≤54 B 80 81

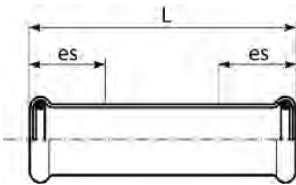
76÷108 B 80 82

BAĞLANTI APARATI

• COUPLING

MALZEME / MATERIAL: CuNi10Fe1.6Mn**O-HALKA / O-RING:** FKM yeşil - green

KOD / CODE	De mm	L mm	Z mm				€
683015000CN	15	49	9	39	20	500	12,87
683018000CN	18	50	10	47	20	300	13,67
683022000CN	22	52,5	10,5	60	20	200	15,29
683028000CN	28	56	10	79	10	150	17,67
683035000CN	35	62,5	10,5	108	10	100	23,42
683042000CN	42	72	12	152	4	60	29,72
683054000CN	54	83	12	221	2	24	35,90
683076000CN	76,1	142	32	708	4	4	210,26
683088000CN	88,9	165,5	45,5	853	4	4	240,23
683108000CN	108	203	53	1305	2	2	302,68

**683/001 CN**




≤54 B 80 81

76÷108 B 80 82

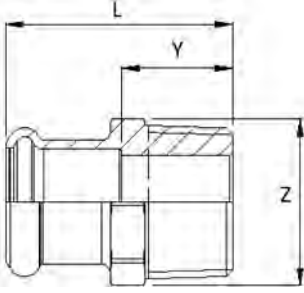
KAYMALI BAĞLANTI APARATI

• SLIP COUPLING

MALZEME / MATERIAL: CuNi10Fe1.6Mn**O-HALKA / O-RING:** FKM yeşil - green

KOD / CODE	De mm	L mm	es mm				€
683015001CN	15	67,5	25	54	20	200	20,82
683018001CN	18	71	25	66	20	200	24,10
683022001CN	22	77	25	86	10	100	27,63
683028001CN	28	88	30	123	10	50	31,44
683035001CN	35	101,5	30	171	4	40	34,32
683042001CN	42	117	40	243	2	40	41,22
683054001CN	54	138	40	358	2	20	49,72
683076001CN	76,1	225	60	1105	2	2	390,78
683088001CN	88,9	258	70	1468	2	2	438,97
683108001CN	108	305	80	2135	2	2	534,20

B 80 81



687 CN

ERKEK ADAPTÖR

• MALE ADAPTER

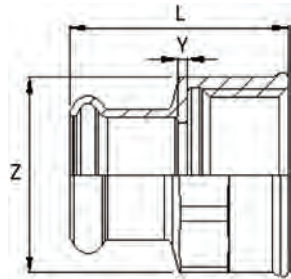
MALZEME / MATERIAL: CuNi10Fe1.6Mn

O-HALKA / O-RING: FKM yeşil - green

DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Y mm	g			€
687102015CN	15 x 1/2"	36	24	16	58	20	300	30,52
687102018CN	18 x 1/2"	37	27	17	58	20	300	33,39
687304018CN	18 x 3/4"	38	30	18	73	20	200	35,55
687102022CN	22 x 1/2"	38	32	17	72	10	200	40,98
687304022CN	22 x 3/4"	39	32	18	80	10	200	40,63
687100028CN	28 x 1"	44,5	38	21,5	121	10	100	54,04
687114035CN	35 x 1 1/4"	50	46	24	199	5	50	87,83
687112042CN	42 x 1 1/2"	54	54	24	244	4	40	137,36
687200054CN	54 x 2"	63,5	70	27,5	406	4	32	219,16

B 80 81



690 CN

DIŞİ ADAPTÖR

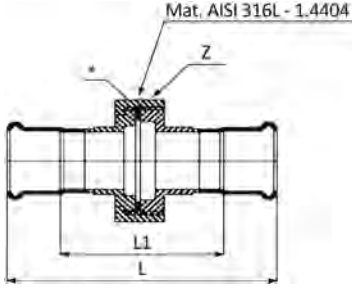
• FEMALE ADAPTER

MALZEME / MATERIAL: CuNi10Fe1.6Mn

O-HALKA / O-RING: FKM yeşil - green

DIŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

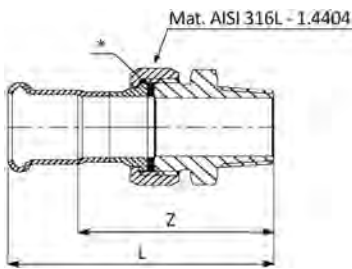
KOD / CODE	De x Rp mm x inch	L mm	Z mm	Y mm	g			€
690102015CN	15 x 1/2"	36	30	2	70	20	300	33,10
690102018CN	18 x 1/2"	37	30	2	74	20	300	34,08
690304018CN	18 x 3/4"	39	34	2	90	10	200	32,88
690102022CN	22 x 1/2"	36	32	1	80	20	200	57,20
690304022CN	22 x 3/4"	39	34	1,5	87	10	100	47,70
690102028CN	28 x 1/2"	39	38	1	115	10	100	54,14
690100028CN	28 x 1"	45	43	2,5	148	10	100	67,57
690114035CN	35 x 1 1/4"	50	50	2	192	5	50	103,89
690112042CN	42 x 1 1/2"	54	60	2	272	4	40	157,64
690200054CN	54 x 2"	65	70	3	399	4	20	247,70

**684/001 CN****DÜZ YÜZLÜ SOMUN**

• FLAT FACED UNION

MALZEME / MATERIAL: CuNi10Fe1.6Mn**O-HALKA / O-RING:** FKM verde - green**CONTA / GASGET:** [*]: FKM yeşil - green

KOD / CODE	De mm	L mm	L1 mm	Z mm	Conta / Gasget mm	g			€
684015001CN	15	97	57	34	24x14 thk 3	146	10	100	73,85
684018001CN	18	98	58	39	30x20 thk 3	187	10	100	87,09
684022001CN	22	100	58	39	30x20 thk 3	194	10	50	98,09
684028001CN	28	118	72	58	47,5x37 thk 3	450	5	25	142,88
684035001CN	35	128	76	67	56x42 thk 3	617	4	20	180,27
684042001CN	42	141	81	77	66x56 thk 3	797	2	20	223,64
684054001CN	54	157	86	90	79,5x69 thk 3	1176	2	10	376,67

**684/002 CN****DÜZ ERKEK SOMUN BAĞLANTISI**

• STRAIGHT MALE UNION CONNECTOR

MALZEME / MATERIAL: CuNi10Fe1.6Mn**O-HALKA / O-RING:** FKM yeşil - green**CONTA / GASGET:** [*]: FKM yeşil - green**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)

KOD / CODE	De x R mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
684015002CN	15 x 1/2"	76	56	24x14 thk 3	142	2	160	74,59
684018002CN	18 x 1/2"	76	56	24x14 thk 3	144	2	160	84,95
684022002CN	22 x 3/4"	80	59	30x20 thk 3	202	2	100	87,48
684028002CN	28 x 1"	90	67	39x27 thk 3	364	2	60	149,10
684035002CN	35 x 1 1/4"	100	74	44,5x34 thk 3	540	2	40	190,41
684042002CN	42 x 1 1/2"	104	74	50,5x40 thk 3	563	2	30	207,57
684054002CN	54 x 2"	118	83	65,5x53,5 thk 3	823	2	20	356,38

B 80 81

684/003 CN

DÜZ DIŞI SOMUN BAĞLANTISI

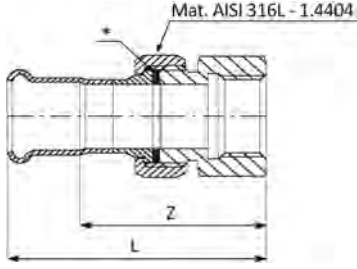
• STRAIGHT FEMALE UNION CONNECTOR

MALZEME / MATERIAL: CuNi10Fe1.6Mn

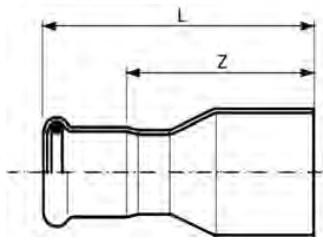
O-HALKA / O-RING: FKM yeşil - green

CONTA / GASGET: [*]: FKM yeşil - green

DIŞLI / THREAD: EN 10226-1 (ex ISO 7/1)



KOD / CODE	De x Rp mm x inch	L mm	Z mm	Conta / Gasget mm	g			€
684015003CN	15 x 1/2"	70	50	24x14 thk 3	140	2	160	70,78
684018003CN	18 x 1/2"	71	51	24x14 thk 3	145	2	140	85,38
684022003CN	22 x 3/4"	75	54	30x20 thk 3	213	2	100	97,78
684028003CN	28 x 1"	83	60	39x27 thk 3	404	2	60	128,69
684035003CN	35 x 1 1/4"	92	66	44,5x34 thk 3	486	2	30	159,33
684042003CN	42 x 1 1/2"	96	66	50,5x40 thk 3	536	2	30	188,14
684054003CN	54 x 2"	116	81	65,5x53,5 thk 3	1091	2	20	358,75



691 CN

AZALTICI

• REDUCER

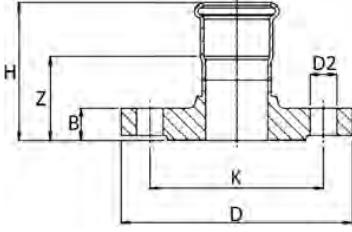
MALZEME / MATERIAL: CuNi10Fe1.6Mn

O-HALKA / O-RING: FKM yeşil - green

≤54 B 80 81

76÷108 B 80 82

KOD / CODE	De mm	L mm	Z mm	g			€
691018015CN	18 x 15	57	37	43	20	500	15,57
691022015CN	22 x 15	64	44	54	20	400	18,85
691022018CN	22 x 18	60	40	54	20	300	16,58
691028015CN	28 x 15	76,5	56,5	73	20	200	19,65
691028022CN	28 x 22	65	44	74	20	200	18,85
691035022CN	35 x 22	70	49	91	10	100	24,15
691035028CN	35 x 28	71	48	101	10	100	23,90
691042022CN	42 x 22	97	76	140	4	80	74,03
691042028CN	42 x 28	93	70	145	4	80	75,67
691042035CN	42 x 35	81	55	139	4	40	32,95
691054028CN	54 x 28	108,5	85,5	204	4	40	69,71
691054035CN	54 x 35	108	82	215	4	40	86,79
691054042CN	54 x 42	97,5	67,5	216	4	32	38,14
691076042CN	76,1 x 42	141	111	489	4	4	187,36
691076054CN	76,1 x 54	158	123	593	4	4	194,58
691088054CN	88,9 x 54	176	141	763	4	4	273,29
691088076CN	88,9 x 76,1	184	129	902	4	4	261,03
691108054CN	108 x 54	204	168	1067	2	2	299,97
691108076CN	108 x 76,1	206	151	1126	2	2	302,56
691108088CN	108 x 88,9	207	147	1229	2	2	296,65

**693/002 CN**

≤54 B 80 81

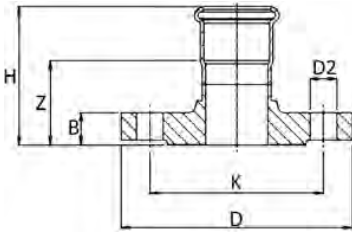
76÷108 B 80 82

ADAPTÖR FLANŞI

• ADAPTOR FLANGE

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green**PN 6**

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm				€
693015002CN	15	15	53	33	12	80	11	4	55	452	2	20	108,95
693018002CN	18	15	53,5	33,5	12	80	11	4	55	452	2	20	107,95
693022002CN	22	20	56,5	35,5	14	90	11	4	65	680	2	14	127,86
693028002CN	28	25	59,5	36,5	14	100	11	4	75	843	2	10	166,97
693035002CN	35	32	63	37	14	120	14	4	90	1206	2	6	186,94
693042002CN	42	40	67	37	14	130	14	4	100	1324	2	6	251,47
693054002CN	54	50	74	38	14	140	14	4	110	1505	2	4	284,83
693076002CN	76,1	65	101	45,5	14	160	14	4	130	2086	2	2	595,97
693088002CN	88,9	80	112	52	16	190	18	4	150	3253	2	2	795,89
693108002CN	108	100	128	53	16	210	18	4	170	3924	2	2	950,85

**693/000 CN**

≤54 B 80 81

76÷108 B 80 82

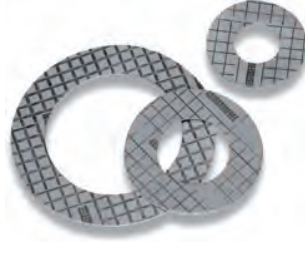
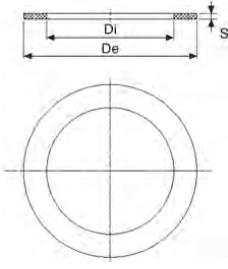
ADAPTÖR FLANŞI

• ADAPTOR FLANGE

MALZEME / MATERIAL: CuNi10Fe1.6Mn
O-HALKA / O-RING: FKM yeşil - green**PN 16**

KOD / CODE	De mm	DN flg	H mm	Z mm	B mm	D mm	D2 mm	Delikler Holes Nr.	K mm				€
693015000CN	15	15	55	35	14	95	14	4	65	735	2	20	143,81
693018000CN	18	15	55,5	35,5	14	95	14	4	65	735	2	20	152,41
693022000CN	22	20	58,5	37,5	16	105	14	4	75	1051	2	14	173,49
693028000CN	28	25	61,5	38,5	16	115	14	4	85	1267	2	10	213,26
693035000CN	35	32	65,5	39,5	16	140	18	4	100	1828	2	6	243,14
693042000CN	42	40	69	39	16	150	18	4	110	2007	2	6	255,50
693054000CN	54	50	78	42	18	165	18	4	125	2734	2	4	427,39
693076000CN	76,1	65	105	50	18	185	18	4	145	3538	2	2	660,66
693088000CN	88,9	80	116	56	20	200	18	8	160	4382	2	2	822,38
693108000CN	108	100	132	57	20	220	18	8	180	5230	2	2	980,60

R 30 30



434/PN6

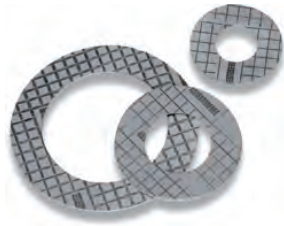
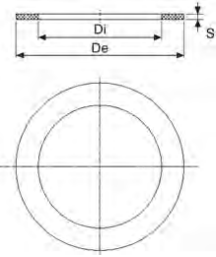
FLANŞ CONTASI

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1

PN 6

KOD / CODE	DN	De mm	Di mm	S mm	g	€
434015006	15 - [1/2"]	44	20	2	4	0,69
434020006	20 - [3/4"]	54	25	2	6	1,00
434025006	25 - [1"]	64	30	2	9	1,39
434032006	32 - [1 1/4"]	75	38	2	11	1,88
434040006	40 - [1 1/2"]	85	45	2	14	2,44
434050006	50 - [2"]	95	57	2	15	3,72
434065006	65 - [2 1/2"]	115	76	2	19	5,12
434080006	80 - [3"]	132	89	2	26	6,08
434100006	100 - [4"]	152	108	2	29	7,19



434/PN10-16

FLANŞ CONTASI

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1

PN 10/16

KOD / CODE	DN	De mm	Di mm	S mm	g	€
434015000	15 - [1/2"]	50	20	2	6	0,69
434020000	20 - [3/4"]	60	25	2	8	0,98
434025000	25 - [1"]	70	30	2	10	1,38
434032000	32 - [1 1/4"]	82	38	2	14	1,88
434040000	40 - [1 1/2"]	92	45	2	17	2,44
434050000	50 - [2"]	108	57	2	22	3,69
434065000	65 - [2 1/2"]	127	76	2	27	5,09
434080000	80 - [3"]	142	89	2	30	6,02
434100000	100 - [4"]	162	108	2	38	6,90

Sesalit ECO: NBR/SBR asbest içermeyen organik ve sentetik lifler ile bağlanmış

KULLANIM ALANLARI: sıcak ve soğuk su, bitkisel ve hayvansal yağlar, hava, bazı yakıtlar (GAZ yok)

KILAVUZ SICAKLIK SINIRLARI

Kısa süreli maruz kalma için maksimum sıcaklık: 180-200 °C

Sürekli agresif olmayan yakıtlar için maksimum çalışma sıcaklığı: 140 °C

Buhar ile sürekli çalışma için maksimum sıcaklık: 110 °C

ONAY: içme suyu WRAS n° 1605525

Sesalit ECO: organic and synthetic fibers bonded with NBR/SBR asbestos-free

USES: hot and cold water, vegetable and animal oils, air, some fuels (no GAS)

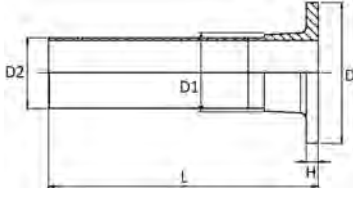
GUIDELINE TEMPERATURE LIMITS

Maximum temperature for short exposure: 180-200 °C

Maximum operating temperature for continuous non-aggressive fluids: 140 °C

Maximum temperature for continuous operation with steam: 110 °C

APPROVAL: potable water WRAS n° 1605525

**693/004 CN**

≤54 B 80 81
76÷108 B 80 82

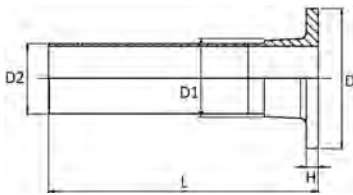
**GEVŞEK FLANŞLAR
İÇİN HALKA**

• COLLAR FOR LOOSE FLANGES

MALZEME / MATERIAL: CuNi10Fe1.6Mn

PN 6

KOD / CODE	De mm	L mm	D mm	D1 mm	D2 mm	H mm	g	kg	Box	€
693022004CN	22	135	50	27	22	5	160	1	14	72,70
693028004CN	28	135	60	32	28	5	260	1	14	84,97
693035004CN	35	135	70	40	35	5	340	1	14	105,99
693042004CN	42	135	80	46	42	6	450	1	14	125,08
693054004CN	54	135	90	59	54	6	560	1	14	213,99
693076004CN	76,1	135	110	78	76,1	6	850	1	12	296,17
693088004CN	88,9	135	128	91	88,9	7	1200	1	6	412,29
693108004CN	108	135	148	110	108	7	1540	1	2	516,85

**693/003 CN**

≤54 B 80 81
76÷108 B 80 82

**GEVŞEK FLANŞLAR
İÇİN HALKA**

• COLLAR FOR LOOSE FLANGES

MALZEME / MATERIAL: CuNi10Fe1.6Mn

PN 16

KOD / CODE	De mm	L mm	D mm	D1 mm	D2 mm	H mm	g	kg	Box	€
693022003CN	22	135	58	27	22	5	190	1	14	85,79
693028003CN	28	135	68	32	28	5	300	1	14	99,93
693035003CN	35	135	78	40	35	5	380	1	14	127,92
693042003CN	42	135	88	46	42	6	510	1	14	157,57
693054003CN	54	135	102	59	54	6	650	1	14	216,45
693076003CN	76,1	135	122	78	76,1	6	970	1	4	362,25
693088003CN	88,9	135	138	91	88,9	7	1240	1	4	455,42
693108003CN	108	135	158	110	108	7	1690	1	2	581,43

679/001 CN

≤54 B 80 81

76÷108 B 80 82

**GÖVDE/BÖLME
GEÇİŞİ**

• DECK / BULKHEAD PENETRATION

MALZEME / MATERIAL: CuNi10Fe1.6Mn

NOT / NOTE: (*): S235JR [Fe 360]



KOD / CODE	De mm	L mm	L1 mm	Z mm	D mm	D1 mm	g	kg	Box	€
679015001CN	15	450	120	165	25	15	513	1	65	52,31
679018001CN	18	450	120	165	30	18	693	1	65	52,59
679022001CN	22	450	120	165	33	22	782	1	50	56,35
679028001CN	28	450	120	165	37	28	865	1	45	60,61
679035001CN	35	450	120	165	43,5	35	1044	1	40	73,71
679042001CN	42	450	120	165	53	42	1440	1	30	88,23
679054001CN	54	450	120	165	69	54	2192	1	18	174,55
679076001CN	76,1	450	120	165	88,5	76,1	3167	1	8	198,13
679088001CN	88,9	450	120	165	107	88,9	4551	1	8	232,90
679108001CN	108	450	120	165	131,5	108	6337	1	6	287,27

695/008 CN

B 80 81

HORTUM BAĞLANTILI KÜRE VANA

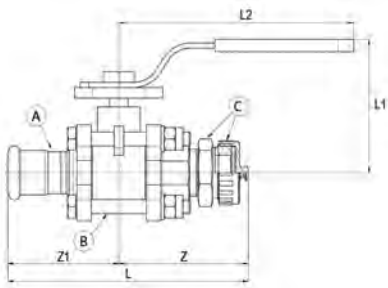
• BALL VALVE WITH HOSE CONNECTION

MALZEME / MATERIAL: A: CuNi10Fe1.6Mn

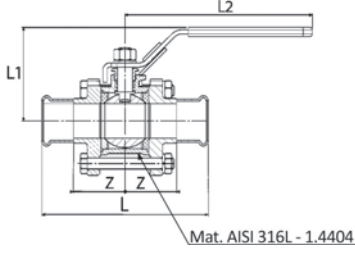
B: AISI 316L - 1.4404

C: piriç - brass

O-HALKA / O-RING: FKM yeşil - green



KOD / CODE	De mm	L mm	L1 mm	L2 mm	Z mm	Z1 mm	g	kg	Box	€
695022008CN	22 x 1"	136,5	80	151	73	63,5	1332	1	10	418,37



695/003 CN

≤54 B 80 81
76÷108 B 80 823-PC TAM BAĞLANTI
KÜRE VANA

• 3-PC BALL VALVE WITH FULL PORT

MALZEME / MATERIAL: A-D: AISI 316L/1.4404
B: CuNi10Fe1.6Mn
C: PTFE

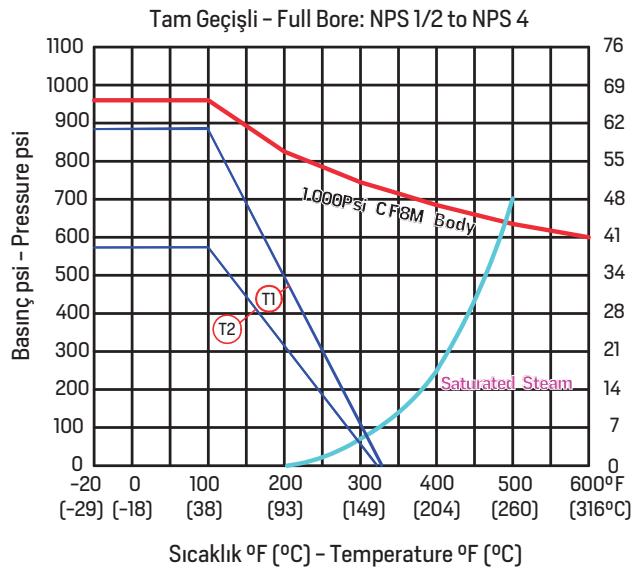
O-HALKA / O-RING: FKM yeşil - green

NORM: harekete geçirici için flanş / flange for
actuator ISO 5211

KOD / CODE	De mm	DN	DN inch	L mm	Z mm	L1 mm	L2 mm	C1 mm	C2 mm	D1 mm	D2 mm	F mm	g	kg	box	€
695015003CN	15	10	3/8"	122	41	72	151	36	42	6	6	9	726	1	10	245,39
695018003CN	18	15	1/2"	123	41,5	72	151	36	42	6	6	9	750	1	10	276,63
695022003CN	22	20	3/4"	127	42,5	80	151	36	50	6	7	9	1024	1	10	342,71
695028003CN	28	25	1"	145	49,5	90	179	42	50	6	7	11	1550	1	5	418,37
695035003CN	35	32	1" 1/4	170	59	95	179	42	70	6	9	11	2395	1	5	606,98
695042003CN	42	40	1" 1/2	197	68,5	104	198	50	70	7	9	14	3334	1	5	798,93
695054003CN	54	50	2"	220	75	110	198	50	70	7	9	14	4694	1	2	1085,20
695076003CN	76,1	65	2" 1/2	308	99	150	270	70	102	9	11	17	9648	1	1	1935,21
695088003CN	88,9	80	3"	362	121	159	270	70	102	9	11	17	13242	1	1	2978,78
695108003CN*	108	100	4"	422	136	210	405	-	102	-	11	22	26250	1	1	4774,31

[*] İşaretili basınç koşulları vananın gövdesi ile ilgilidir. Pres bağlantı vanası için maksimum çalışma basıncı art. 695/003 CN= 16 bar
The marked pressure's conditions are related to the body of the valve. Maximum working pressure for pressfitting valve art. 695/003 CN= 16 bar

Basınç - Sıcaklık Verisi - Pressure - Temperature Data YÜZER KÜRE VANALAR - FLOATING BALL VALVES 1000 psi

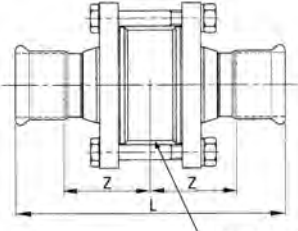


Oturma Maddeleri
Seat Materials:

- (T1) PTFE DN 15 - 32
(T2) PTFE DN 40 - 100

CV	KV
US gallon/min	m³ / h
N/A	N/A
18	15
36	31
48	41
93	80
165	141
207	177
450	386
780	668
1360	1165

1 Kv = 0,86 Cv



Mat. AISI 316L - 1.4404



695/004 CN

≤54 B 80 81
76÷108 B 80 82

**GERİ DÖNÜŞSÜZ
VANA**

• NON-RETURN VALVE

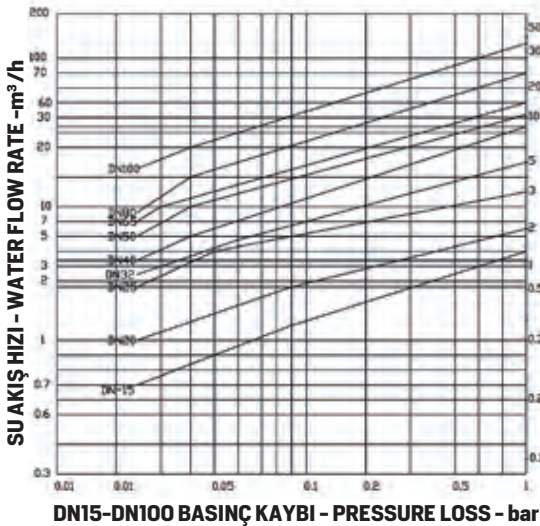
MALZEME / MATERIAL: CuNi10Fe1.6Mn (corpo/
body AISI 316L - 1.4404)

O-HALKA / O-RING: FKM yeşil - green

KOD / CODE	De mm	DN	L mm	Z mm	g			€
695015004CN	15	15	113	36,5	443	1	10	411,30
695018004CN	18	15	114	37	554	1	10	452,42
695022004CN	22	20	121	39,5	614	1	10	473,86
695028004CN	28	25	138	46	828	1	10	605,12
695035004CN	35	32	158	53	1324	1	10	836,42
695042004CN	42	40	180	60	1832	1	6	941,77
695054004CN	54	50	199	64,5	2676	1	2	1745,07
695076004CN	76,1	65	269	79,5	5442	1	1	2545,81
695088004CN	88,9	80	303	91,5	8466	1	1	2795,80
695108004CN	108	100	370	110	14640	1	1	3448,87

İşaretili basınç koşulları vananın gövdesi ile ilgilidir. Pres bağlantı vanası için maksimum çalışma basıncı art. 695/004 CN = 16 bar
The marked pressure's conditions are related to the body of the valve. Maximum working pressure for pressfitting valve art. 695/004 CN = 16 bar

**BASINÇ KAYBI DİYAGRAMI
PRESSURE LOSS DIAGRAM**



ÇEK VALF İÇİN CV/KV CV / KV FOR NON-RETURN VALVE				AKIŞ YÖNÜ FLOW DIRECTION		
DE	DN DN inch	CV US gallon/min	KV m³/h	↑	↓	→
				Pressione di apertura Opening pressure (mbar)		
15	15 - 1/2"	4,1	3,5	25	21	23
18	15 - 1/2"	4,1	3,5	25	21	23
22	20 - 3/4"	5,1	4,4	25	21	23
28	25 - 1"	14	12	25	21	23
35	32 - 1"1/4	23,3	20	27	21	24
42	40 - 1"1/2	30,3	26	29	21	25
54	50 - 2"	37,3	32	29	21	25
76,1	65 - 2"1/2	70	60	31	21	25
88,9	80 - 3"	81,7	70	32	21	26
108	100 - 4"	140	120	33	21	27

NOT / NOTE

Cv = 1 psi diferansiyel basınç [basınç düşüşü] ile gpm [galon/dakika] cinsinden su akışı [60 °F'de].
Kv = diferansiyel basınç [basınç düşüşü] ile m³ / s cinsinden su akışı [5° ve 40° arasında].
[1 Kv = 0.86 Cv]

Cv = flusso di acqua [a 60 °F] in gpm [galloni al minuto] con una pressione differenziale [caduta di pressione] di 1 psi.
Kv = flusso di acqua [tra 5° e 40°] m³/h, con una pressione differenziale [caduta di pressione] di 1 bar.
[1 Kv = 0,86 Cv]



Klauke MAP219 BT MINI (ø 12÷35 mm)

B 50 51

BATARYA, ŞARJ CİHAZI VE ÇANTASIYLA BERABER PRES MAKİNESİ

- PRESSING MACHINE WITH BATTERY, CHARGER AND CASE

NOT / NOTE: Yeni model (Bluetooth teknolojisi)
New model (Bluetooth technology)

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196001018	[*] 220-240 V 50-60 Hz	[*] Avrupa (CEE 7/16 şarj bataryası)	3,8	1	4039,36



Klauke UNP2 (ø 12÷54 mm)

B 50 51

KASALI ELEKTROHİDROLİK PRESLEME MAKİNESİ

- ELECTROHYDRAULIC PRESSING MACHINE WITH CASE

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196000000	220-240 V / 50-60 Hz	Avrupa (CEE 7/17)	11,8	1	3021,86



Klauke UAP332 BT (ø 12÷54 mm) i-press

B 50 51

BATARYA, ŞARJ CİHAZI VE ÇANTASIYLA BERABER PRES MAKİNESİ

- PRESSING MACHINE WITH BATTERY, CHARGER AND CASE

NOT / NOTE: Yeni model (Bluetooth teknoloji)
New model (Bluetooth technology)

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196001019	[*] 220-240 V 50-60 Hz	[*] Avrupa (CEE 7/16 şarj bataryası)	8,1	1	4821,06

B 50 51



Klauke UAP432 BT (\varnothing 12÷54 mm PN16 \varnothing 76÷108 mm PN10) i-press

**BATARYA, ŞARJ CİHAZI VE ÇANTASIYLA
BERABER PRES MAKİNESİ**

• PRESSING MACHINE WITH BATTERY, CHARGER
AND CASE

NOT / NOTE: Yeni model (Bluetooth teknolojisi)
New model (Bluetooth technology)

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg		€
196001020	[*] 220-240 V 50-60 Hz	[*] Avrupa (CEE 7/16 şarj bataryası) (CEE 7/17 main ADAPTÖR)	15	1	6790,33

B 50 51



Klauke UAP100120 BT (\varnothing 76÷108 mm King size) i-press

**PBATARYA, ŞARJ CİHAZI
VE ÇANTASIYLA BERABER
PRES MAKİNESİ**

• PRESSING MACHINE WITH BATTERY, CHARGER AND
CASE

NOT / NOTE: Yeni model (Bluetooth teknolojisi)
New model (Bluetooth technology)

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg		€
196001021	[*] 220-240 V 50-60 Hz	[*] Avrupa (CEE 7/16 şarj bataryası) (CEE 7/17 main ADAPTÖR)	23,6	1	12092,13
196001009V*	-	-	10	1	537,45

[*] Boş Çanta - Empty case

B 50 51



Klauke EHP2/SANB (\varnothing 76÷108 mm King size)

ELEKTRİKLİ HİDROLİK POMPA

• ELECTRIC HYDRAULIC PUMP

NOT / NOTE: Gerilim/Voltaj 220-240 V / 50-60 Hz
Tensione/voltage 220-240 V / 50-60
Hz

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg		€
1960000001	220-240 V / 50-60 Hz	CEE endüstriyel 2P+G	69	1	20675,43

**Klauke AHP700LS****B 50 51****BATARYA HİDROLİK POMPASI**

• BATTERY HYDRAULIC PUMP

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg		€
196001012	220-240 V 50-60 Hz	Avrupa (CEE 7/16 şarj bataryası)	9,8	1	8842,18

**Klauke PKUAP3 (ø 12÷54 mm)
per/for AHP700LS****B 50 51****BASKI BAŞLIĞI**

• PRESSING HEAD

KOD / CODE	kg		€
196001013	2,5	1	1748,22

**Klauke PKUAP4 (ø 12÷54 mm PN16)
(ø 76,1÷108 mm PN10) per/for AHP700LS****B 50 51****BASKI BAŞLIĞI**

• PRESSING HEAD

KOD / CODE	kg		€
196001017	2,6	1	3133,86

**Klauke PK100AHP (ø 76÷108 mm King size)
per/for AHP700LS****B 50 51****BASKI BAŞLIĞI**

• PRESSING HEAD

KOD / CODE	kg		€
196001014	10,4	1	7508,70

B 50 51



Klauke AHP70OLS

YÜKSEK BASINÇ HORTUMU L=4 M

• HIGH PRESSURE HOSE L=4 M

KOD / CODE	kg		€
196001015	2,3	1	1101,06



II 2GD c IIB T4 T120



Klauke HPU2EX (ø 12÷54 mm)

MANUEL HİDROLİK PRESLEME

• MANUAL HYDRAULIC PRESSING

B 50 51

KOD / CODE	kg		€
196001016	3,1	1	2645,04



Klauke MAP1 - MAP2L MINI

PENSE

• JAW

B 50 51

KOD / CODE	De mm	kg		€
196012001	12	1,28	1	284,01
196015001	15	1,28	1	284,01
196018001	18	1,28	1	284,01
196022001	22	1,34	1	300,41



Klauke MAP219

PENSE

• JAW

B 50 51

KOD / CODE	De mm	kg		€
196012002	12	1,3	1	359,18
196015002	15	1,3	1	359,18
196018002	18	1,3	1	359,18
196022002	22	1,4	1	382,20
196028002	28	1,4	1	382,20
196035002	35	1,6	1	382,20


**Klaue UNP2 - UAP2 - UAP3L/432
UAP4L/432 - PKUAP3L**

B 50 51

PENSE

• JAW

KOD / CODE	De mm	kg	Box	€
196012000	12	1,9	1	310,25
196015000	15	1,9	1	310,25
196018000	18	1,9	1	310,25
196022000	22	2	1	310,25
196028000	28	2,1	1	333,26
196035000	35	2,1	1	384,16


**Klaue UNP2 - UAP2
UAP3L/332 - UAP4L/432**

B 50 51

PENSE ÇANTASI Ø 15÷35

• CASE FOR JAWS Ø 15÷35

KOD / CODE	De mm	kg	Box	€
196015035K	15 - 35	13,2	1	1904,28
196015035KV*	15 - 35	6,29	1	317,79

[*] Boş Çanta - Empty case


**Klaue UNP2 - UAP2 - UAP3L/332
UAP4L/432 - PKUAP3**

B 50 51

PRESLEME BAŞLIĞI

• PRESSING COLLAR

KOD / CODE	De mm	kg	Box	€
196042004	42	1,9	1	1912,59
196054004	54	1,75	1	1912,59


Klaue ø 42÷54 mm

B 50 51

BAŞLIKLAR ADAPTÖRLER

• ADAPTER FOR COLLARS

KOD / CODE	De mm	kg	Box	€
196042054	42 - 54	1,7	1	415,31



Klauke UAP4L/432 (PN10)

B 50 51

PRESLEME BAŞLIĞI

- PRESSING COLLAR

KOD / CODE	De mm	kg		€
196076001	76,1	9,9	1	3176,95
196088001	88,9	9,7	1	3281,67
196108001	108	10,4	1	3916,73



Klauke UAP4L/432 \varnothing 76÷108 mm (PN10)

B 50 51

BAŞLIKLAR ADAPTÖRLER

- ADAPTER FOR COLLARS

KOD / CODE	De mm	kg		€
196076108	76,1 - 108	4,4	1	1462,64



Klauke UAP100 - UAP100L/100120 PK100AHP (\varnothing 76÷108 King size)

B 50 51

PRESLEME BAŞLIĞI

- PRESSING COLLAR

KOD / CODE	De mm	kg		€
196076000	76,1	13	1	4094,17
196088000	88,9	13	1	4199,25
196108000	108	15	1	5038,11



Klauke UNP2 - UAP3L/332 UAP4L/432 (\varnothing 42÷54 mm)

B 50 51

PRESLEME BAŞLIĞI ÇANTASI \varnothing 42÷54 + ADAPTÖR

- CASE FOR PRESSING COLLARS \varnothing 42÷54 + ADAPTER



KOD / CODE	De mm	kg		€
196042054KF	42 - 54	10,9	1	4233,70
196042054K*	42 - 54	3,9	1	305,36

(*) Boş Çanta - Empty case

B 50 51
RA5 (12 V / 3,0 Ah)
Klauke UAP2 - UAP100
BATARYA
 • BATTERY

KOD / CODE			€
196002000	0,7	1	451,46

B 50 51
RAM3 (9,6 V / 3,0 Ah)
Klauke MAP1 MINI
BATARYA
 • BATTERY

KOD / CODE			€
196005000	0,6	1	400,55

B 50 51



NG2 (18 V) Klauke UAP3L/332 - UAP4L/432 - UAP100L/100120

ANA TEDARİK DEVRESİ

- MAIN SUPPLY CIRCUIT

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg		€
196004001	220-240 V / 50-60 Hz	Europe (CEE 7/17)	0,9	1	909,48

B 50 51



RAL2 (18 V / 3,0 Ah) Klauke MAP2L/219 - UAP3L/332 UAP4L/432 - UAP100L/100120

BATARYA

- BATTERY

KOD / CODE	kg		€
196002001	0,7	1	742,02

B 50 51



LGL1 Klauke UAP3L/332 - UAP4L/432 - UAP100L/100120

HIZLI ŞARJ CİHAZI

- FAST CHARGER

KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg		€
196003001	220-240 V / 50-60 Hz	Europe (CEE 7/16)	1,3	1	523,68

B 50 51

Novopress ECO 203 (φ 12÷54 mm)**KASALI ELEKTROHİDROLİK PRESLEME MAKİNESİ**

• ELECTROHYDRAULIC PRESSING MACHINE WITH CASE



KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196000013	220-240 V / 50-60 Hz	Avrupa (CEE 7/17)	7,9	1	3029,94
196000015	110-120 V / 50-60 Hz	Büyük Britanya (BS 1363)	7,9	1	3029,94

B 50 51

Novopress ACO 203 BT (φ 12÷54 mm)**BATARYA, ŞARJ CİHAZI VE ÇANTASIYLA BERABER PRES MAKİNESİ**

• PRESSING MACHINE WITH BATTERY, CHARGER AND CASE

NOT / NOTE: Yeni model (Bluetooth teknolojisi) - New model (Bluetooth technology)



KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196000021	(* 220-240 V / 50-60 Hz	(* Avrupa (CEE 7/16)	8,0	1	3543,18
196000025	(* 110-120 V / 50-60 Hz	(* ABD / Kanada (NEMA 1-15)	8,1	1	3543,18

B 50 51

**Novopress ACO 203 XL BT
(φ 12÷54 mm PN16 / φ 76÷108 mm PN10)****PRESSATRICE CON 2 BATTERIE, CARICA BATTERIA E VALIGIA**• 2 BATARYA, ŞARJ CİHAZI VE ÇANTASI İLE PRESLEME MAKİNESİ
• SERTISSEUSE A BATTERIE (2) AVEC CHARGEUR ET COFFRET

NOT / NOTE: Yeni model (Bluetooth teknolojisi) - New model (Bluetooth technology)



KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196000024	(* 220-240 V / 50-60 Hz	(* Avrupa (CEE 7/16)	10	1	5079,52

B 50 51

Novopress ACO 403 BT (φ 76÷168 mm)**2 BATARYA, ŞARJ CİHAZI VE ÇANTASI İLE PRESLEME MAKİNESİ**

• PRESSING MACHINE WITH 2 BATTERIES, CHARGER AND CASE

NOT / NOTE: Yeni model (Bluetooth teknolojisi) - New model (Bluetooth technology)



KOD / CODE	Voltaj / Voltage	Fiş / Plug	kg	Box	€
196000023	(* 220-240 V / 50-60 Hz	(* Avrupa (CEE 7/16)	20,4	1	9898,49

B 50 51



Novopress EFP 2 - EFP/AFP 201 - EFP/AFP 202 ECO/ACO 202 - ECO/ACO 203 - ACO 203XL

PENSE

- JAW

KOD / CODE	De mm	kg		€
19601200N	12	1,9	1	438,32
19601500N	15	1,9	1	438,32
19601800N	18	1,9	1	438,32
19602200N	22	2	1	438,32
19602800N	28	2	1	438,32
19603500N	35	2	1	438,32

B 50 51



Novopress EFP 2 - EFP/AFP 201 - EFP/AFP 202 ECO/ACO 202 - ECO/ACO 203 - ACO 203XL

PENSE ÇANTASI Ø 15÷35

- CASE FOR JAWS Ø 15÷35

KOD / CODE	De mm	kg		€
196015035N	15 - 35	12,6	1	2341,26
196015035NV*	15 - 35	2,8	1	278,50

(*) Boş Çanta - Empty case

B 50 51



Novopress EFP 2 - EFP/AFP 201-202 ECO/ACO 202-203 - ACO 203XL - ECO301

PRESLEME BAŞLIĞI

- PRESSING COLLAR

KOD / CODE	De mm	kg		€
19604200N	42	1,6	1	2362,33
19605400N	54	2,6	1	2450,39

B 50 51



Novopress EFP 2 - EFP/AFP 201 - EFP/AFP 202 ECO/ACO 202 - ECO/ACO 203 - ACO 203XL

BAŞLIKLAR İÇİN ADAPTÖRLER ZB203

- ADAPTER FOR COLLARS ZB203

KOD / CODE	De mm	kg		€
196042054N	42 - 54	2,3	1	466,25



Novopress EFP 2 - EFP/AFP 201 - EFP/AFP 202 ECO/ACO 202 - ECO/ACO 203 - ACO 203XL

B 50 51

PRESLEME BAŞLIĞI ÇANTASI Ø 42÷54 + ADAPTÖR ZB203

• CASE FOR PRESSING COLLARS Ø 42÷54 + ADAPTER ZB203

CODE	De mm	kg	Box	€
196042054VN	42 - 54	8	1	5294,82
196042054V*	42 - 54	2,8	1	310,25

(*) Boş Çanta - Empty case



Novopress ACO 203 XL - ECO 301 (Ø 76÷108 mm PN10)

B 50 51

PRESLEME BAŞLIĞI

• PRESSING COLLAR

KOD / CODE	De mm	kg	Box	€
196076003	76,1	4,4	1	2590,10
196088003	88,9	4,8	1	2590,10
196108003	108	6	1	2984,62



Adattatore ZB 221 per catene Ø 76,1-88,9-108/1 ACO 203 XL (PN10)

B 50 51

BAŞLIKLAR İÇİN ADAPTÖRLER

• ADAPTER FOR COLLARS

KOD / CODE	De mm	kg	Box	€
196076108N*	76,1 - 88,9 - 108 (1°)	4,7	1	1726,59

(*) Çap 108 mm için ön presleme, DN 108 mm bağlantı 196000108N adaptör ile ikinci kez preslenmelidir.
Preliminary pressing for diameter 108 mm; DN 108 mm joint must be pressed a second time with adapter item 196000108N.



Adattatore ZB 222 per catena Ø 108/2 ACO 203 XL (PN10)

B 50 51

BAŞLIKLAR İÇİN ADAPTÖRLER

• ADAPTER FOR COLLARS

KOD / CODE	De mm	kg	Box	€
196000108N	108 (2°)	5,2	1	1726,59



Novopress ACO 203 XL (PN10) Novopress ZB 221 / ZB 222 per catene \varnothing 76-108

B 50 51

ADAPTÖR TAKIMI ZB221/ZB222

- ADAPTERS SET ZB221/ZB222

KOD / CODE	kg		€
196000019	13	1	3584,19
196000000VN*	3,1	1	278,50

[*] Boş Çanta - Empty case



Novopress ACO 401/403 (\varnothing 76÷108 King size)

B 50 51

PRESLEME BAŞLIĞI

- PRESSING COLLAR

KOD / CODE	De mm	kg		€
196076002	76,1	6	1	3011,18
196088002	88,9	8	1	3081,54
196108002	108	9	1	4901,73



Novopress ACO 401/403 (\varnothing 139÷168 Over size)

B 50 51

PRESLEME BAŞLIĞI

- PRESSING COLLAR

KOD / CODE	De mm	kg		€
196139002	139,7	14,4	1	9260,74
196168002	168,3	19,7	1	9913,99

B 50 51

Novopress ACO 202/203 - ACO 401

HIZLI ŞARJ CİHAZI

- FAST CHARGER



KOD / CODE	Voltaj / Voltage	Fiş / Plug			€
19600300N	220-240 V / 50-60 Hz	Avrupa (CEE 7/16)	0,97	1	469,02



B 50 51

Novopress - Akku

BATARYA

- BATTERY



KOD / CODE	Version			€
19600204N	18 V / 2,0 Ah Li • ACO 202/203/401/403	0,5	1	521,77
19600205N	18 V / 5,0 Ah Li • ACO 202/203/401/403	0,9	1	1115,01
19600200N	14,4 V / 2,4 Ah Ni-Cd • AFP 201	0,9	1	talep üzerine
19600201N	14,4 V / 2,0 Ah Ni-Cd • AFP 202	0,9	1	talep üzerine
19600202N	18 V / 3,0 Ah Li • AFP 202	0,8	1	talep üzerine

B 50 51



116/1

BORU KESİCİ

• PIPE CUTTER

KOD / CODE	De mm	kg		€
116000011	6 ÷ 60	0,350	1	387,43

B 50 51



116/2

KESME TEKERİ

• CUTTING WHEEL

KOD / CODE	Version	De mm	g		€
116000012	Boru kesici için kod For pipe cutter code / 116000011	6 ÷ 60	38	1	86,99

B 50 51



116/0 (ø 12÷54 mm)

BORU DELİCİ

• PIPE DEBURRER

KOD / CODE	De mm	g		€
116000000	10 ÷ 54	612	1	160,88

B 50 51



116/3 (ø 76÷108 mm)

BORU DELİCİ

• PIPE DEBURRER

KOD / CODE	De mm	g		€
116000003	63 ÷ 110	1942	1	607,39

**116/18****ELEKTRİKLİ BORU KESİCİ – CENTO**

• EEELECTRIC PIPE CUTTER – CENTO

NOT / NOTE: teker hariç - wheel excluded

B 50 51

KOD / CODE	De mm	kg		€
116000018	12 ÷ 108	19,070	1	3375,81

**116/28-78****ELEKTRİKLİ BORU KESİCİ – DUECENTO**

• ELECTRIC PIPE CUTTER – DUECENTO

NOT / NOTE: teker hariç - wheel excluded

B 50 51

KOD / CODE	De mm	kg		€
116000028	tubo/pipe Ø 100 ÷ 225 mm Ø 54 ÷ 225 aksesuar KOD / CODEu 116000078 Ø 54 ÷ 225 with accessory code 116000078	43,800	1	6852,10
116000078	Ø 40 ÷ 100	2,070	1	658,80

**116/38****KESME TEKERİ BORU KESİCİ CENTO-DUECENTO**

• KCUTTING WHEEL PIPE CUTTER CENTO-DUECENTO

B 50 51

KOD / CODE	g		€
116000038	300	1	296,94

**116/48****CENTO BORU KESİCİ İÇİN AYAKLIK**

• PEDESTAL FOR CENTO PIPE CUTTER

B 50 51

KOD / CODE	kg		€
116000048	9,550	1	543,60



116/58

BORULAR İÇİN SEHPA Ø 8÷108 MM

• EASEL FOR PIPES Ø 8÷108 MM

B 50 51

KOD / CODE	kg		€
116000058	7,000	1	817,67



116/6 (Ø 15÷54 mm)

SÖKME ALETİ

• DISMANTLING TOOL

B 50 51

KOD / CODE	De mm	g		€
116000006	15 - 22	236	1	154,19
116000016	18 - 28	320	1	154,19
116000026	35 - 42	703	1	172,49
116000036	54	477	1	241,60



116/7 (Ø 76÷108 mm)

SÖKME ALETİ

• DISMANTLING TOOL

B 50 51

KOD / CODE	De mm	kg		€
116076007	76,1	1,040	1	244,51
116088007	88,9	1,218	1	263,40
116108007	108	1,668	1	343,72



274/0 (Ø 15÷54 mm)

İŞARETLEYİCİ



• MARKER

B 50 51

KOD / CODE	De mm	g			€
274000000	15 ÷ 54	26	1	50	1,60




**274/1 (ø 76÷108 mm)****İŞARETLEYİCİ**

• MARKER

KOD / CODE	De mm			€
274000001	76,1 ÷ 108	190	1	20,41

**274/CAP****BORU KORUMA KAPAĞI**

• PIPE PROTECTION CAP

KOD / CODE	De mm				€
274015001	15	1	10	150	0,22
274018001	18	2	10	150	0,24
274022001	22	2	10	100	0,28
274028001	28	3	10	200	0,30
274035001	35	3	10	150	0,42
274042001	42	6	5	50	0,51
274054001	54	13	5	50	1,04
274076001	76,1	16	5	50	1,26
274088001	88,9	20	5	40	1,36
274108001	108	27	5	20	2,86

B 50 52



O-Ring EPDM

SİYAH

• BLACK

NOT / NOTE: Uygulama Alanı / Application field :
Sihhi Tesisat / Isıtma / Soğutma
Sanitary / Heating / Cooling

Malzeme: EPDM M profile - profil M

KOD / CODE	De mm	g	g	€
11501525N	15	1	20	0,26
11501825N	18	1	20	0,30
11502230N	22	1	20	0,40
11502830N	28	2	20	0,44
11503530N	35	2	20	0,55
11504240N	42	5	20	0,71
11505440N	54	6	20	0,77
11507770NM	76,1	14	10	2,91
11509070NM	88,9	17	10	3,18
11510909NM	108	33	10	3,66
115139100N	139,7	43	1	6,86
115168100N	168,3	95	1	7,24

B 50 52



O-Ring NBR-HNBR

SARI

• YELLOW

NOT / NOTE: Uygulama Alanı / Application field :
Gaz / Gas

Malzeme: NBR / HNBR M profile - profil M

KOD / CODE	De mm	g	g	€
11501526G	15	1	20	0,37
11501826G	18	1	20	0,43
11502231G	22	1	20	0,56
11502831G	28	2	20	0,58
11503532G	35	2	20	0,82
11504241G	42	5	20	1,41
11505441G	54	6	20	1,49
11507670GM*	76,1	14	10	6,48
11508870GM*	88,9	17	10	8,68
11510809GM*	108	33	10	12,16

(*) HNBR



B 50 52

**O-Ring FKM****YEŞİL**

• GREEN

NOT / NOTE: Uygulama Alanı / Application field:
Güneş / Solar
Pil / Battery

Malzeme: FKM
M profile - profil M

KOD / CODE	De mm			€
11501525V	15	1	20	0,57
11501825V	18	1	20	0,57
11502230V	22	1	20	0,83
11502830V	28	2	20	0,92
11503530V	35	2	20	1,29
11504240V	42	5	20	1,86
11505440V	54	6	20	2,24
11507770VM	76,1	14	10	8,54
11509070VM	88,9	17	10	11,22
11510909VM	108	33	10	17,68
115139100V	139,7	43	1	21,17
115168100V	168,3	95	1	22,63



B 50 52

**O-Ring MVQ****KIRMIZI**

• RED

NOT / NOTE: Uygulama Alanı / Application field:
Endüstriyel Uygulamalar – RM talep edin
Industrial applications – ask RM

Malzeme: MVQ
M profile - profil M

KOD / CODE	De mm			€
11501525R	15	1	20	0,33
11501825R	18	1	20	0,40
11502230R	22	1	20	0,50
11502830R	28	2	20	0,52
11503530R	35	2	20	0,58
11504240R	42	5	20	0,78
11505440R	54	6	20	1,11
11507770R	76,1	14	10	6,13
11509070R	88,9	17	10	8,07
11510990R	108	33	10	9,34

B 50 52





115/EPDM

EPDM CONTA

• EPDM GASKET

NOT / NOTE: Uygulama Alanı / Application field:
Sihhi Tesisat / Isıtma / Soğutma
Sanitary / Heating / Cooling

KOD / CODE	De mm	D1 mm	D2 mm	S mm			€
115683102E	15 - 18	18	10	2,5	1	20	1,87
115683304E	15 - 18 - 22	24	14	2,5	1	20	1,87
115683100E	18 - 22 - 28	30	20	2,5	1	20	1,87
115683114E	28 - 35	39	27	2,5	2	20	2,05
115683112E	35 - 42	44,5	34	2,5	3	20	2,20
115183134E	42	50,5	40	2,5	3	20	2,83
115683134E	42	50,5	38	2,5	4	20	2,83
115183200E	42	56	42	2,5	4	20	2,83
115183540E	54	65,5	53,5	3	4	20	3,61
115183154E	54	65,5	45	3	4	20	3,61
115183054E	54	71,5	53	3	5	20	3,61

B 50 52





115/HNBR

HNBR CONTA

• HNBR GASKET



NOT / NOTE: Uygulama Alanı / Application field:
Gaz / Gas

KOD / CODE	De mm	D1 mm	D2 mm	S mm			€
115683102H	15 - 18	18	10	2,5	1	20	2,32
115683304H	15 - 18	24	14	2,5	1	20	2,37
115683100H	22 - 28	30	20	2,5	1	20	2,78
115683114H	28 - 35	39	27	2,5	2	20	4,29
115183112H	35 - 42	44,5	34	2,5	3	20	4,89
115183200H	42 - 54	56	42	2,5	4	20	8,62

**115/FKM****FKM CONTA**

- FKM GASKET

NOT / NOTE: Uygulama Alanı / Application field:
Güneş / Solar

KOD / CODE	De mm	D1 mm	D2 mm	S mm			€
115683102F	15 - 18	18	10	3	1	20	2,37
115683304F	15 - 18 - 22	24	14	3	1	20	2,37
115683100F	18 - 22 - 28	30	20	3	1	20	2,78
115683114F	28 - 35	39	27	3	2	20	4,29
115183112F	35 - 42	44,5	34	3	3	20	4,89
115183051F	28	47,5	37	3	3	20	5,32
115183134F	42	50,5	40	3	4	20	5,32
115183200F	42 - 54	56	42	3	4	20	8,62
115183540F	54	65,5	53,5	3	4	20	8,62
115183242F	42	66	56	3	4	20	13,40
115183054F	54	71,5	53	3	5	20	13,40
115183254F	54	79,5	69	3	5	20	15,95

**850NS****STEELPRES BAĞLANTI PARÇALARI İÇİN BANDAJ KORUMASI**

- BANDAGE PROTECTION FOR STEELPRES FITTINGS

KOD / CODE	Lg x L cm x m			€
850NS000000	5 cm x 9,15 m	734	24	29,57

Soğutma kurulumu için önerilir
Recommended for cooling installation

ODAKLANIN - FOCUS ON

Nem ve yoğuşma: ne zaman ve neden oluşur?

Yoğuşma, su buharı bakımından zengin havanın soğuk yüzeylerle temas ettiğinde ortaya çıkan doğal bir olaydır. Sıcak hava ile soğuk yüzeyler arasındaki sıcaklık farkı, buharın su damlalarına dönüşmesine neden olur.

Yoğuşmanın çinko kaplı karbon çelik borular üzerindeki etkileri.

Uygun şekilde korunmamış çinko kaplamalı borulardan elde edilen soğutma sistemlerinde, oksijen varlığında boruların dış yüzeyinde oluşması muhtemel yoğuşma çinko oksit oluşumuna neden olur. Yüzeysel çinko tüketiminden sonra, çinko kaplama altındaki karbon çeliği yüzeyinde demir oksit oluşumu ile genel bir aşınma başlar.

Sorun nasıl çözülür?

Karbon çelik boruları korumak için, yüzeyini oksitlenmeyen ve boru ile atmosfer arasında fiziksel bariyer görevi gören koruyucu bir madde ile kaplamak gerekir.

RM'nin çözümü.

Montaj ve koruma aşamalarını kolaylaştırmak için çinko kaplamalı karbon çelik boru, PP ve bağlantı parçaları üzerine uygulanacak butil bantlar ile kaplanmıştır.

Boru hatlarının ve bağlantılarının dış aşınmaya karşı korunması.

Bütanol yapışkanlı bant yüksek gerilme ve yüksek yapışma mukavemetine sahiptir ve kendiliğinden akar. Yapışkan astar gerektirmez, yüzeylerin suyu mükemmel şekilde itmesini sağlar ve atmosferik etkilere ve serbest kimyasallara karşı yalıtım sağlar. Yüksek mukavemet, bantlara her türlü yüzey için, hatta dirsekler, T-parçası, manşonlar vb. gibi düzensiz yüzeyler için bile kapsamlı bir uygulanabilirlik sağlar. Uygulama için yüzeyin temiz olması ancak ıslak olmaması yeterlidir.

Bant duruma göre basınç altında tutulmalı ve temizlenmelidir. Orijinal uzunluğuna kıyasla %700'ün üzerinde genişler, uçtaki genişlik ise uzamaya bağlıdır.

Bandın, bant genişliğinin en az %10'u kadar üst üste bindirilmesi tavsiye edilir. Bantlar ve/veya vernik yardımıyla bir kaplama koruması her zaman sistemin bir deneme çalışmasından sonra gerçekleştirilmelidir.

Humidity and condensate: when and why it creates.

Condensate is a natural event appearing when the air rich in water vapour comes into contact with cold surfaces.

The difference in temperature between hot air and cold surfaces brings about the transformation of vapour in water drops.

Effects of condensate on zincplated carbon steel pipes.

In cooling systems obtained from not suitably protected zinc-plated pipes, possible condensate creation on pipes' outer surface in presence of oxygen causes the formation of zinc oxide. After superficial zinc consumption, on carbon steel surface under zinc coating a general corrosion starts with the formation of iron oxide.

How to solve the problem.

In order to protect carbon steel pipes, it is necessary to coat its surface by a protective material that does not oxidise and acts as physical barrier between pipe and atmosphere.



Tee, giunti a bicchiere etc. Per applicarlo è sufficiente che la superficie sia pulita e non umida. Il nastro va spellucolato esercitando la tensione necessaria a seconda delle situazioni. Esso si allunga infatti fino al 700% della sua lunghezza iniziale mentre lo spessore finale è in funzione della trazione esercitata. È consigliabile una sovrapposizione di almeno un 10% della larghezza del nastro.

La protezione attraverso il rivestimento con fasce e/o verniciatura, deve comunque avvenire sempre dopo la prova impianto.

RM's solution.

To ease the phases of installation and protection zinc-plated carbon steel pipe coated with PP and butyl tapes to be applied onto fittings.

Protection of pipelines and connections from external corrosion.

The butanol-adhesive tape has high tensile and high adhesive strength and is selffluxing. It requires no adherent primer, lets surfaces perfectly repel water and insulates against atmospheric influences and free chemicals.

The high tensibility provides the tapes with comprehensive applicability for all types of surfaces, even for irregular surfaces such as bends, T-piece, sleeves, etc.

For the application, it is sufficient that the surface is clean but not wet.

The tape must be under pressure and cleaned depending on the situation. It extends over 700% compared to its original length, while the width at the end depends on the extension.

It is recommended to overlap the tape with at least 10% of the tape width. A coating protection with the help of tapes and/or varnish must always occur after a trial run of the system.



Atık sistemleri

WASTE SYSTEMS

Raccorderie Metalliche Drain

RM DRENAJ, AISI 316L (1.4404) paslanmaz çelikten boru ve ek yerlerinden oluşan bir drenaj sistemidir. İnce duvarlı, organik veya kimyasal aşındırıcı maddelerle sıkça kirlenen atık suların yer çekimi veya vakum altında taşınması için uygundur. Geniş ürün yelpazesi DN 40 ila DN 150 (DN 200 çalışmaları devam etmektedir) olmak üzere yedi boyutta mevcuttur. Sürekli olarak donmaya karşı dayanıklı olduklarından (A sınıfı sertifikalı, birleştirilemez), deniz tesisatlarında (yolcu gemileri, askeri gemiler, yat, kıyı yapıları, vb.) olduğu gibi birçok kurulum gereksinimine uyum sağlarlar.

RM DRAIN is a draining system consisting of tubes and joints in AISI 316L (1.4404) stainless steel, thin wall, suitable to convey, with gravity or under vacuum, waste waters which are frequently contaminated with organic or chemical corrosive substances. The wide range of products is available in seven sizes, DN 40 to DN 150 (DN 200 work in progress). As they are consistently fire resistant, (certified class A, not combustible), they allow to comply with many installation requirements as for marine installations (cruise ships, military ships, yacht, offshore structures, etc.).



RM DRENAJ montaj prosedürü, özel veya pahalı bir alet kullanmadan basit ve hızlı manuel işlemler gerektiriyor.

The RM DRAIN assembling procedure asks for simple and rapid manual operations, with no specific or expensive tool.

**1**

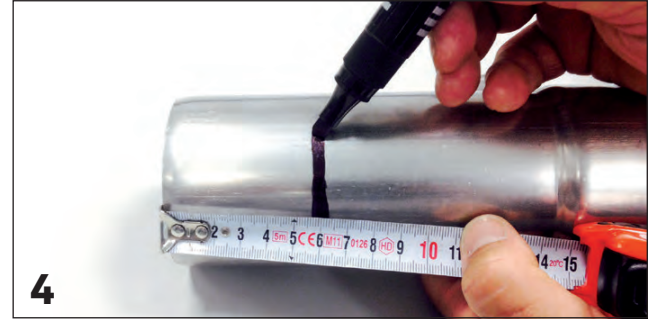
Bileşenlerin temizliğini doğrulayın / Verify the components' cleaning

**2**

Contayı soketin içine yerleştirin / Insert the gasket into socket

**3**

Contanın doğru konumda olduğunu doğrulayın / Verify the correct gasket's position

**4**

Yerleştirme derinliğinin işaretlenmesi / Marking the insertion's depth

**5**

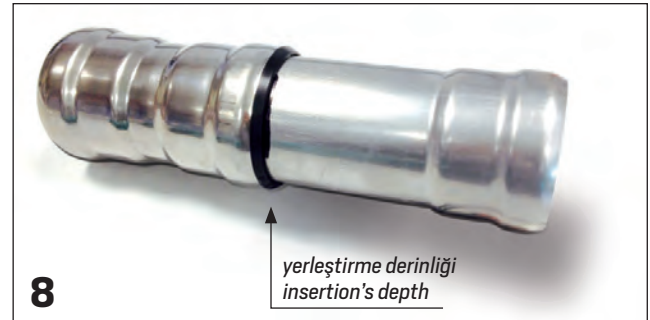
İç contanın yağlanması / Internal gasket lubrication

**6**

Borunun bağlantı parçasına yerleştirilmesi / Inserting of the pipe into the fitting













**7**

Gres kalıntısının temizlenmesi / Cleaning of the grease residual

**8**

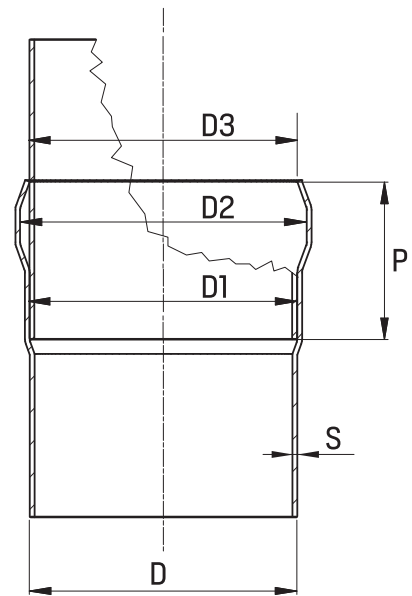
Borunun tamamının bağlantı parçasına yerleştirilmesinin kontrolü / Check of complete pipe's insertion into the fitting

Sertifikalar / Certifications

		VAKUM VE YER ÇEKİMLİ DRENAJ SİSTEMİ İÇİN BORULAR VE BAĞLANTI PARÇALARI - RM DRAIN PIPES AND FITTINGS FOR VACUUM AND GRAVITY DRAIN SYSTEM - RM DRAIN	LR2003327TA
		BORU GEÇİŞİ RM DRENAJ M1-M2-M3-M4 PIPE PENETRATION RM DRAIN M1-M2-M3-M4	MED D000027 V
		DRENAJ SİSTEMLERİ - YER ÇEKİMİ VE VAKUM RM DRAINING SYSTEMS - GRAVITY AND VACUUM	MAC - 412019CS / 001 - 002
		VAKUM VE YER ÇEKİMLİ DRENAJ SİSTEMİ İÇİN BORULAR VE BAĞLANTI PARÇALARI - RM DRAIN PIPES AND FITTINGS FOR VACUUM AND GRAVITY DRAIN SYSTEM - RM DRAIN	TAP000017F
		BORU, KANAL, GÖVDE - RM DRAIN PIPE, DUCT, TRUNK - RM DRAIN	MEDB00007F2
		DRENAJ SİSTEMİ DRAINING SYSTEM	POCC IT.AM05.H05079

ODAKLANIN - FOCUS ON**SOKET ÖLÇÜSÜ / SOCKET SIZE**

DN	D mm	S mm	D1 mm	D2 mm	D3 mm	P mm
DN 40	42	1	45	48	45	30
DN 50	53	1	56	60	56	38
DN 65	73	1,25	76	81	76	55
DN 80	88,9	1,25	92	99	92	60
DN 100	102	1,25	106	114	107	70
DN 125	133	1,5	138	147	140	75
DN 150	159	1,5	164	176	168	80

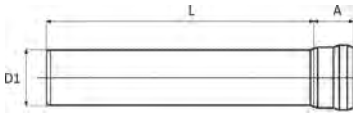


B 100 101
802
BİR SOKETLİ BORU

• PIPE WITH ONE SOCKET

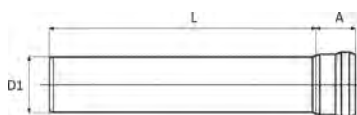
MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3


KOD / CODE	DN	D1 mm	L mm	A mm	kg		€
802040025	40	42	250	30	0,295	1	22,80
802040050		42	500	30	0,550	1	30,61
802040075		42	750	30	0,810	1	40,76
802040100		42	1000	30	1,065	1	47,42
802040150		42	1500	30	1,580	1	67,40
802040200		42	2000	30	2,100	1	84,94
802040250		42	2500	30	2,610	1	106,14
802040300		42	3000	30	3,120	1	123,79
802050025	50	53	250	38	0,385	1	24,20
802050050		53	500	38	0,710	1	34,84
802050075		53	750	38	1,040	1	48,73
802050100		53	1000	38	1,365	1	56,93
802050150		53	1500	38	2,020	1	81,04
802050200		53	2000	38	2,670	1	105,53
802050250		53	2500	38	3,320	1	125,94
802050300		53	3000	38	3,970	1	152,44
802065025	65	73	250	55	0,710	1	35,04
802065050		73	500	55	1,270	1	53,54
802065075		73	750	55	1,850	1	77,50
802065100		73	1000	55	2,400	1	88,92
802065150		73	1500	55	3,550	1	124,25
802065200		73	2000	55	4,650	1	163,06
802065250		73	2500	55	5,800	1	197,92
802065300		73	3000	55	6,900	1	237,96
802080025	80	88,9	250	60	0,875	1	44,73
802080050		88,9	500	60	1,600	1	71,57
802080075		88,9	750	60	2,250	1	94,51
802080100		88,9	1000	60	2,950	1	109,97
802080150		88,9	1500	60	4,320	1	156,04
802080200		88,9	2000	60	5,700	1	203,31
802080250		88,9	2500	60	7,700	1	247,28
802080300		88,9	3000	60	8,450	1	298,96
802100025	100	102	250	70	1,050	1	49,90
802100050		102	500	70	1,850	1	76,76
802100075		102	750	70	2,620	1	111,10
802100100		102	1000	70	3,400	1	124,98
802100150		102	1500	70	4,980	1	179,52
802100200		102	2000	70	6,550	1	232,53
802100250		102	2500	70	8,130	1	285,56
802100300		102	3000	70	9,700	1	346,91
802125025	125	133	250	75	1,650	1	89,43
802125050		133	500	75	2,885	1	156,18

B 100 101

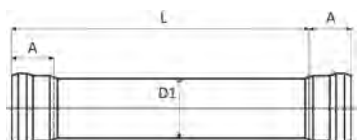
**802****BİR SOKETLİ BORU**

• PIPE WITH ONE SOCKET

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	kg	€
802125075	125	133	750	75	4,125	214,85
802125100		133	1000	75	5,360	290,67
802125150		133	1500	75	7,830	406,67
802125200		133	2000	75	10,300	542,18
802125250		133	2500	75	12,775	660,50
802125300		133	3000	75	15,250	790,33
802150025	150	159	250	80	2,000	110,95
802150050		159	500	80	3,500	183,70
802150075		159	750	80	5,000	270,68
802150100		159	1000	80	6,450	347,30
802150150		159	1500	80	9,400	515,38
802150200		159	2000	80	12,400	664,17
802150250		159	2500	80	15,350	809,09
802150300		159	3000	80	18,300	968,18

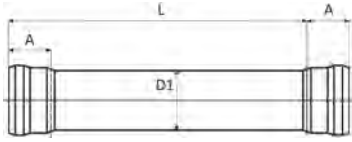
B 100 101

**803****İKİ SOKETLİ BORU**

• PIPE WITH TWO SOCKETS

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	kg	€
8030400250	40	42	250	30	0,330	36,01
8030400500		42	500	30	0,580	44,56
8030400750		42	750	30	0,860	55,34
8030401000		42	1000	30	1,100	59,80
8030401500		42	1500	30	1,600	78,08
8030402000		42	2000	30	2,150	95,28
8030402500		42	2500	30	2,650	116,13
8030403000		42	3000	30	3,150	130,64
8030500250	50	53	250	38	0,420	41,87
8030500500		53	500	38	0,755	48,47
8030500750		53	750	38	1,080	60,80
8030501000		53	1000	38	1,400	71,57
8030501500		53	1500	38	2,100	95,40
8030502000		53	2000	38	2,700	118,42
8030502500		53	2500	38	3,350	142,97
8030503000		53	3000	38	4,010	165,73

B 100 101


803

İKİ SOKETLİ BORU

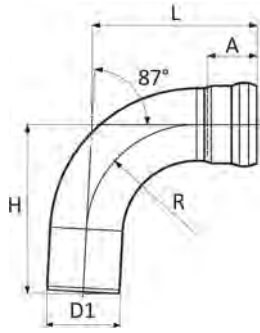
• PIPE WITH TWO SOCKETS

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)



NORM: EN 1124-3

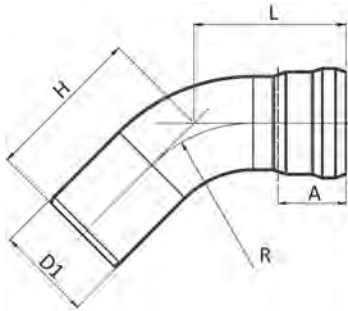
KOD / CODE	DN	D1 mm	L mm	A mm	kg	€
8030650250	65	73	250	55	0,760	47,40
8030650500		73	500	55	1,330	65,32
8030650750		73	750	55	1,880	85,32
8030651000		73	1000	55	2,450	103,29
8030651500		73	1500	55	3,560	141,34
8030652000		73	2000	55	4,700	177,08
8030652500		73	2500	55	5,820	213,29
8030653000		73	3000	55	6,950	252,03
8030800750	80	88,9	750	60	2,300	98,47
8030801000		88,9	1000	60	3,000	123,02
8030801500		88,9	1500	60	4,360	169,77
8030802000		88,9	2000	60	5,780	217,00
8030802500		88,9	2500	60	7,110	267,58
8030803000		88,9	3000	60	8,480	311,43
8031000750	100	102	750	70	2,670	112,90
8031001000		102	1000	70	3,500	142,83
8031001500		102	1500	70	5,050	198,22
8031002000		102	2000	70	6,600	249,69
8031002500		102	2500	70	8,180	311,74
8031003000		102	3000	70	9,750	359,06
8031250750	125	133	750	75	4,200	219,46
8031251000		133	1000	75	5,400	292,19
8031251500		133	1500	75	7,900	418,60
8031252000		133	2000	75	10,350	551,24
8031252500		133	2500	75	12,950	669,29
8031253000		133	3000	75	15,300	805,13
8031500750	150	159	750	80	5,000	274,34
8031501000		159	1000	80	6,500	365,70
8031501500		159	1500	80	9,500	526,86
8031502000		159	2000	80	12,450	696,32
8031502500		159	2500	80	15,400	831,34
8031503000		159	3000	80	18,350	1003,92

**804/87****B 100 102****DİRSEK 87°**

• ELBOW 87°



MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80)**NORM:** EN 1124-3

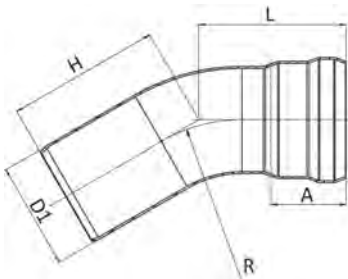
KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm			€
804040087	40	42	102	30	105	63	0,193	1	22,87
804050087	50	53	130	38	133	80	0,310	1	28,24
804065087	65	73	172	55	176	110	0,700	1	53,42
804080087	80	88,9	199	60	204	133	1,180	1	70,89

**804/45****B 100 102****DİRSEK 45°**

• ELBOW 45°



MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm			€
804040045	40	42	68	30	71	63	0,146	1	19,00
804050045	50	53	85	38	88	80	0,229	1	22,46
804065045	65	73	112	55	117	110	0,521	1	41,83
804080045	80	88,9	128	60	133	133	0,864	1	48,31

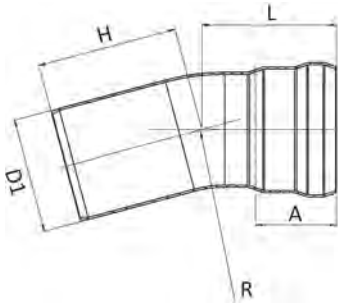
**804/30****B 100 102****DİRSEK 30°**

• ELBOW 30°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm			€
804040030	40	42	59	30	62	63	0,129	1	24,99
804050030	50	53	73	38	76	80	0,201	1	25,26
804065030	65	73	98	55	102	110	0,462	1	36,44
804080030	80	88,9	109	60	114	133	0,752	1	57,49

B 100 102



804/15

DİRSEK 15°

• ELBOW 15°

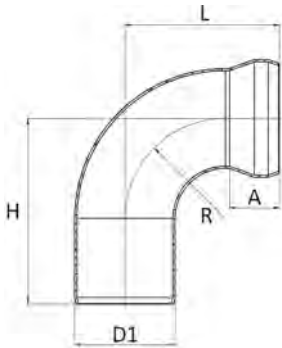
MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm	kg		€
804040015	40	42	51	30	54	63	0,114	1	29,06
804050015	50	53	62	38	65	80	0,173	1	34,81
804065015	65	73	82	55	86	110	0,393	1	36,50
804080015	80	88,9	90	60	95	133	0,632	1	61,38

B 100 102



805/T

TEKNİK DİRSEK 87°

• TECHNICAL ELBOW 87°

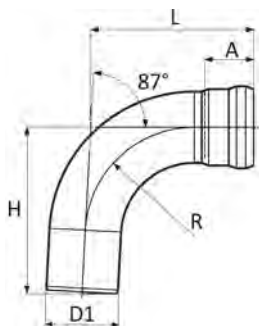
MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/G (Ø 40 ÷ 50)
cod. 826/GV (Ø 65)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm	kg		€
805040000	40	42	64	20	79	42	0,159	1	24,14
805050000	50	53	81,5	26	98,5	53	0,252	1	28,11
805065000	65	73	127	55	142	73	0,720	1	53,87

B 100 102



805/87

DİRSEK S.R 87°

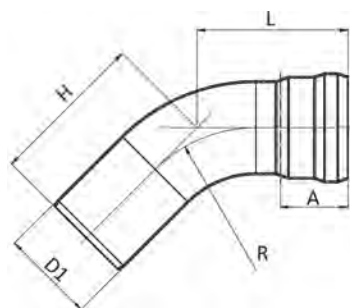
• ELBOW S.R. 87°

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)



NORM: EN 1124-3

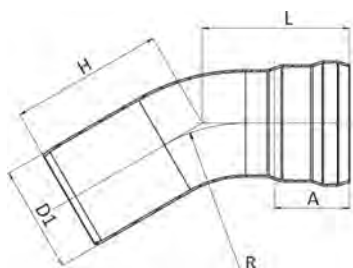
KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm	kg		€
805040087	40	42	85	30	88	42	0,199	1	40,24
805050087	50	53	103	38	106	53	0,302	1	37,81
805065087	65	73	138	55	142	73	0,693	1	78,26
805080087	80	88,9	157	60	162	88,9	0,955	1	91,31
805100087	100	102	180	70	186	102	1,258	1	132,12
805125087	125	133	216	75	222	133	1,959	1	306,01
805150087	150	159	235	80	240	159	2,510	1	381,22

**805/45****B 100 102****DİRSEK S.R 45°**

• ELBOW S.R. 45°



MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

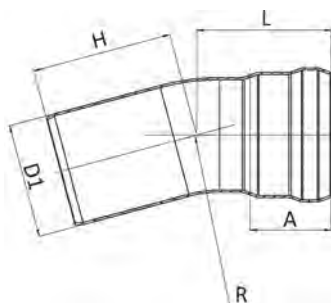
KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm			€
805040045	40	42	60	30	63	42	0,156	1	25,22
805050045	50	53	74	38	77	53	0,241	1	25,75
805065045	65	73	98	55	102	73	0,549	1	45,88
805080045	80	88,9	109	60	114	88,9	0,744	1	57,27
805100045	100	102	124	70	126	102	0,958	1	83,64
805125045	125	133	147	75	154	133	1,502	1	242,08
805150045	150	159	159	80	147	159	1,825	1	317,67

**805/30****B 100 102****DİRSEK S.R 30°**

• ELBOW S.R. 30°



MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 100 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm			€
805100030	100	102	110	70	115	102	0,877	1	108,21
805125030	125	133	125	75	131	133	1,298	1	247,68
805150030	150	159	136	80	124	159	1,580	1	328,28

**805/15****B 100 102****DİRSEK S.R 15°**

• ELBOW S.R. 15°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/G (Ø 100 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L mm	A mm	H mm	R mm			€
805100015	100	102	96	70	101	102	0,877	1	77,26
805125015	125	133	107	75	112	133	1,100	1	186,31
805150015	150	159	114	80	102	159	1,331	1	264,75

B 100 102

806

OFSET 75/130/200 MM

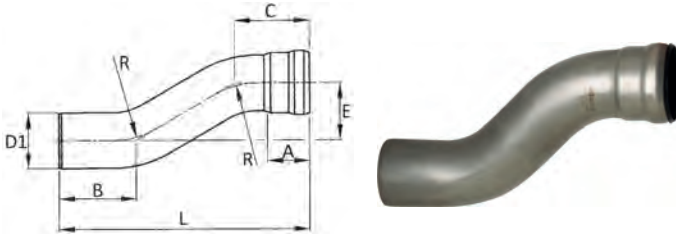
• OFFSET 75/130/200 MM

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 65)

EPDM cod. 826/G (Ø 80 ÷ 125)

NORM: EN 1124-3



KOD / CODE	DN	D1 mm	E mm	L mm	A mm	B mm	C mm	R mm	kg	€
806065075	65	73	75	329	55	101	98	110	0,950	136,58
806080075	80	88,9	75	352	60	114	109	133	1,000	156,28
806100075	100	102	75	321	70	126	120	102	1,200	215,58
806125075	125	133	75	375,5	75	154	146,5	133	1,996	640,56
806065130	65	73	130	359	55	117	113	110	0,880	120,84
806080130	80	88,9	130	390	60	133	127	133	1,350	156,79
806100130	100	102	130	376	70	126	120	102	1,520	239,38
806125130	125	133	130	430,5	75	154	146,5	133	2,381	667,32
806065200	65	73	200	430	55	117	113	110	1,120	122,79
806080200	80	88,9	200	460	60	133	127	133	1,550	168,33
806100200	100	102	200	446	70	126	120	102	1,780	287,47
806125200	125	133	200	500,5	75	154	146,5	133	2,870	782,88

B 100 102

807

AKIM HATTI DİRSEĞİ

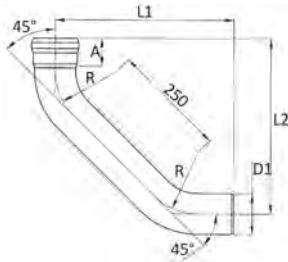
• STREAMLINE BEND

CONTA / GASGET: EPDM cod. 826/GV (Ø 50 ÷ 65)

EPDM cod. 826/G (Ø 80 ÷ 150)

MALZEME / MATERIAL: AISI 316L - 1.4404

NORM: EN 1124-3



Talep üzerine özel KOD.
Special code on demand.

KOD / CODE	DN	D1 mm	L1 mm	L2 mm	A mm	R mm	kg	€
807080000	80	88,9	388	383	60	133	1,850	165,13
807100000	100	102	362,5	356,5	70	102	2,100	278,10
807125000	125	133	414	407	75	133	3,292	756,73

B 100 102

807/R

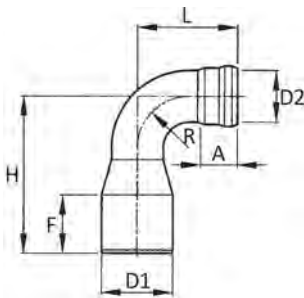
AZALTICI DİRSEK 87°

• REDUCED ELBOW 87°

MALZEME / MATERIAL: AISI 316L - 1.4404

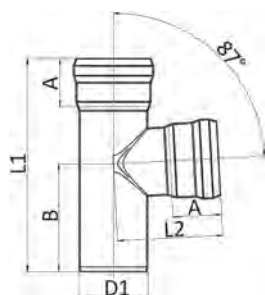
CONTA / GASGET: EPDM cod. 826/GV (Ø 50 ÷ 65)

NORM: EN 1124-3



Talep üzerine özel KOD.
Special code on demand.

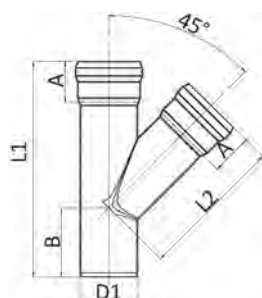
KOD / CODE	DN1	DN2	D1 mm	D2 mm	A mm	L mm	H mm	F mm	R mm	kg	€
807050040	50	40	53	42	30	85	124	62	42	0,290	89,92
807065050	65	50	73	53	38	103	161	60	53	0,390	104,98

**808/87****B 100 102****KOL 87°**

• BRANCH 87°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

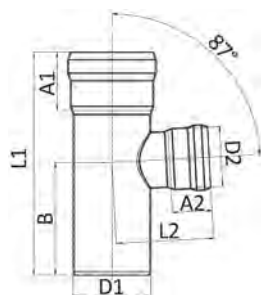
KOD / CODE	DN	D1 mm	A mm	L1 mm	L2 mm	B mm	kg	€	
808040087	40	42	30	137	67	69,5	0,193	1	61,95
808050087	50	53	38	165	81	83,5	0,291	1	64,97
808065087	65	73	55	209	109	106	0,639	1	76,46
808080087	80	88,9	60	235	123	119	0,863	1	82,89
808100087	100	102	70	291	138	147,5	1,196	1	115,56
808125087	125	133	75	360	159	182	2,219	1	180,99
808150087	150	159	80	403	178	204	2,932	1	241,71

**808/45****B 100 102****KOL 45°**

• BRANCH 45°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	A mm	L1 mm	L2 mm	B mm	kg	€	
808040045	40	42	30	155	100	55	0,233	1	72,80
808050045	50	53	38	198	132,5	64	0,382	1	75,63
808065045	65	73	55	255	170	85	0,864	1	94,54
808080045	80	88,9	60	295	210	95	1,200	1	114,09
808100045	100	102	70	335	225	110	1,517	1	129,06
808125045	125	133	75	415	285	130	2,936	1	218,58
808150045	150	159	80	460	320	140	3,856	1	280,40

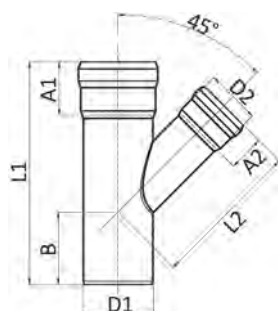
B 100 102

809
AZALTICI KOL 87°

• REDUCED BRANCH 87°

MALZEME / MATERIAL: AISI 316L - 1.4404
CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A1 mm	A2 mm	L1 mm	L2 mm	B mm	kg	€
809050040	50	40	53	42	38	30	165	73	83,5	0,269	65,94
809065040	65	40	73	42	55	30	209	83	106	0,528	69,38
809065050	65	50	73	53	55	38	209	91	106	0,547	71,13
809080050	80	50	88,9	53	60	38	235	99	119	0,726	73,22
809100040	100	40	102	42	70	30	216	97	110	0,749	88,78
809100050	100	50	102	53	70	38	226	105	115	0,800	96,35
809100065	100	65	102	73	70	55	291	123	147,5	1,092	118,51
809100080	100	80	102	88,9	70	60	291	128	147,5	1,136	127,40
809125050	125	50	133	53	75	38	294	121	149	1,551	127,66
809125065	125	65	133	73	75	55	294	139	149	1,633	147,31
809125100	125	100	133	102	75	70	294	153	149	1,723	148,29
809150065	150	65	159	73	80	55	343	152	174	2,221	174,03
809150100	150	100	159	102	80	70	343	166	174	2,308	189,52
809150125	150	125	159	133	80	75	403	172	204	2,832	224,29


810
AZALTICI KOL 45°

• REDUCED BRANCH 45°

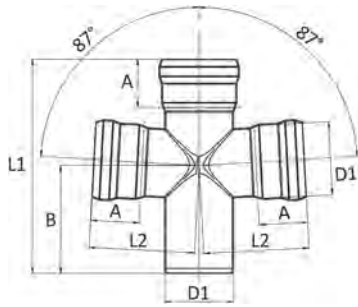
MALZEME / MATERIAL: AISI 316L - 1.4404
CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

B 100 102



KOD / CODE	DN1	DN2	D1 mm	D2 mm	A1 mm	A2 mm	L1 mm	L2 mm	B mm	kg	€
810050040	50	40	53	42	38	30	198	147	65	0,373	67,88
810065040	65	40	73	42	55	30	205	145	60	0,563	75,18
810065050	65	50	73	53	55	38	230	155	75	0,651	78,17
810080050	80	50	88,9	53	60	38	245	173	72	0,820	93,15
810080065	80	65	88,9	73	60	55	255	180	85	0,961	93,15
810100040	100	40	102	42	70	30	250	185	65	0,916	100,76
810100050	100	50	102	53	70	38	270	195	75	1,019	114,16
810100065	100	65	102	73	70	55	300	210	95	1,257	121,86
810100080	100	80	102	88,9	70	60	320	220	100	1,408	128,93
810125050	125	50	133	53	75	38	300	225	75	1,671	143,92
810125065	125	65	133	73	75	55	330	240	90	2,236	168,31
810125100	125	100	133	102	75	70	365	260	105	2,294	192,66
810150065	150	65	159	73	80	55	330	240	90	2,314	212,71
810150100	150	100	159	102	80	70	370	281	89	2,695	222,36
810150125	150	125	159	133	80	75	420	300	120	3,358	255,25

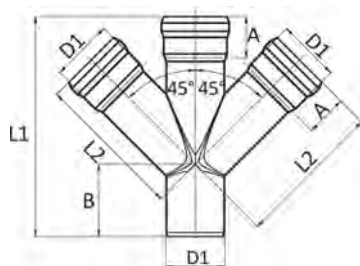
B 100 102

**811/87****ÇİFT KOL 87°**

• DOUBLE BRANCH 87°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 50 ÷ 65)
EPDM cod. 826/G (Ø 100 ÷ 150)**NORM:** EN 1124-3



KOD / CODE	DN	D1 mm	A mm	L1 mm	L2 mm	B mm			€
811050087	50	53	38	165	81	83,5	0,359	1	107,77
811065087	65	73	55	209	109	105,5	0,792	1	123,35
811100087	100	102	70	291	138	147,5	1,451	1	201,99
811125087	125	133	75	360	159	182	2,616	1	284,67
811150087	150	159	80	403	178	204	3,422	1	348,07

**811/45****ÇİFT KOL 45°**

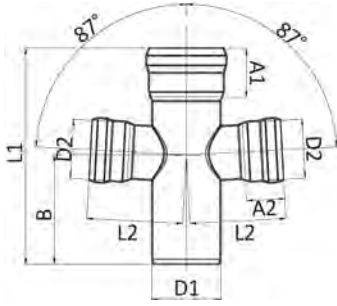
• DOUBLE BRANCH 45°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 50 ÷ 65)
EPDM cod. 826/G (Ø 100 ÷ 150)**NORM:** EN 1124-3

B 100 102

KOD / CODE	DN	D1 mm	A mm	L1 mm	L2 mm	B mm			€
811050045	50	53	38	198	132,5	65	0,497	1	122,37
811065045	65	73	55	255	170	85	1,078	1	153,26
811100045	100	102	70	335	225	110	1,953	1	219,06
811125045	125	133	75	415	285	130	3,780	1	328,89
811150045	150	159	80	460	320	140	4,938	1	415,76

B 100 102



812

AZALTICI ÇİFT KOL 87°

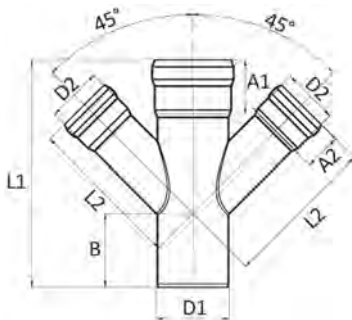
• REDUCED DOUBLE BRANCH 87°

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A1 mm	A2 mm	L1 mm	L2 mm	B mm	kg	€	
812050040	50	40	53	42	38	30	165	73	83,5	0,315	1	96,34
812065050	65	50	73	53	55	38	209	91	105,5	0,610	1	110,10
812080050	80	50	88,9	53	60	38	235	99	119	0,788	1	117,78
812100050	100	50	102	53	70	38	226	105	115	0,860	1	171,75
812100065	100	65	102	73	70	55	291	123	147,5	1,242	1	177,78
812100080	100	80	102	88,9	70	60	291	128	147,5	1,330	1	194,38
812125100	125	100	133	102	75	70	294	158	149	1,949	1	227,77
812150100	150	100	159	102	80	70	343	166	174	2,531	1	261,04
812150125	150	125	159	133	80	75	403	172	204	3,223	1	328,74



813

AZALTICI ÇİFT KOL 45°

• REDUCED DOUBLE BRANCH 45°

MALZEME / MATERIAL: AISI 316L - 1.4404

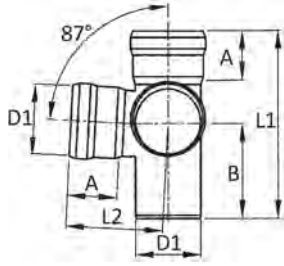
CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

B 100 102

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A1 mm	A2 mm	L1 mm	L2 mm	B mm	kg	€	
813050040	50	40	53	42	38	30	168	118	50	0,383	1	116,87
813065050	65	50	73	53	55	38	230	155	75	0,771	1	139,89
813080050	80	50	88,9	53	60	38	245	173	72	0,945	1	155,48
813100065	100	65	102	73	70	55	300	210	90	1,540	1	196,23
813100080	100	80	102	88,9	70	60	320	220	100	1,780	1	212,26
813125100	125	100	133	102	75	70	370	260	105	2,741	1	265,06
813150100	150	100	159	102	80	70	370	281	89	3,146	1	290,07
813150125	150	125	159	133	80	75	420	300	120	4,175	1	377,07

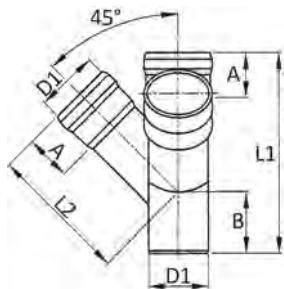
B 100 102

**814/87****KÖŞE KOL 87°**

• CORNER BRANCH 87°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 50 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	L1 mm	L2 mm	A mm	B mm	kg		€
814050087	50	53	164,5	81	38	83,5	0,350	1	150,82
814065087	65	73	209	109	55	106	0,930	1	209,20
814080087	80	88,9	235	122	60	119	1,230	1	245,82
814100087	100	102	290,5	138	70	147	1,810	1	253,09
814125087	125	133	359,5	159	75	182	2,602	1	354,03
814150087	150	159	402,5	77,5	80	204	3,394	1	425,41

Talep üzerine özel KOD.
Special code on demand.

B 100 102

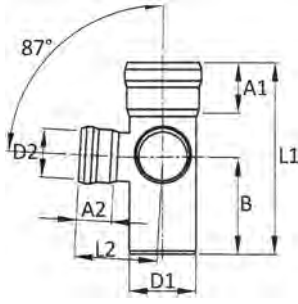
814/45**KÖŞE KOL 45°**

• CORNER BRANCH 45°

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 50 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	A mm	L1 mm	L2 mm	B mm	kg		€
814050045	50	53	38	188	123	65	0,450	1	122,97
814065045	65	73	55	255	170	85	1,000	1	156,22
814080045	80	88,9	60	295	210	95	1,450	1	190,79
814100045	100	102	70	335	225	110	2,400	1	222,91
814125045	125	133	75	415	285	130	3,757	1	350,71
814150045	150	159	80	460	320	140	4,902	1	444,75

B 100 102



815/87

AZALTICI KÖŞE KOL 87°

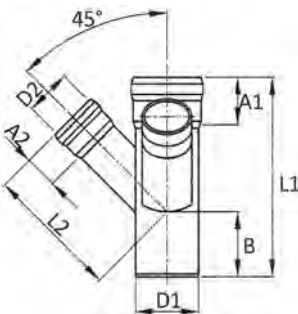
- REDUCED CORNER BRANCH 87°

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A1 mm	A2 mm	L1 mm	L2 mm	B mm	kg	€	
815050040	50	40	53	42	38	30	164,5	72,5	83,5	0,410	1	96,40
815065050	65	50	73	53	55	38	209	90,5	106	0,720	1	115,06
815080050	80	50	88,9	53	60	38	235	98,5	119	1,160	1	125,77
815100065	100	65	102	73	70	55	290,5	123	147	1,440	1	154,65
815100080	100	80	102	88,9	70	60	290,5	128	147	1,590	1	176,61
815125100	125	100	133	102	75	70	293,5	153	149	1,949	1	236,73
815150100	150	100	159	102	80	70	342,5	166	174	2,530	1	290,07
815150125	150	125	159	133	80	75	402,5	195	204	3,445	1	371,25



Talep üzerine özel KOD.
 Special code on demand.

816/45

AZALTICI KÖŞE KOL 45°

- REDUCED CORNER BRANCH 45°

MALZEME / MATERIAL: AISI 316L - 1.4404

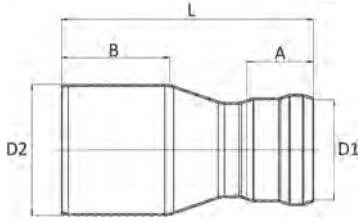
CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 100 ÷ 150)

NORM: EN 1124-3

B 100 102

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A1 mm	A2 mm	L1 mm	L2 mm	B mm	kg	€	
816050040	50	40	53	42	38	30	168	118	50	0,350	1	117,34
816065050	65	50	73	53	55	38	230	155	75	0,850	1	138,09
816100065	100	65	102	73	70	55	300	210	90	1,900	1	187,97
816125100	125	100	133	102	75	70	365	260	105	2,742	1	257,94
816150100	150	100	159	102	80	70	370	275	95	3,109	1	305,54
816150125	150	125	159	133	80	75	425	300	120	4,169	1	415,76

B 100 102

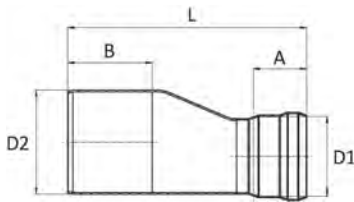
**817****EŞMERKEZLİ AZALTICI**

• CONCENTRIC REDUCER

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 125)**NORM:** EN 1124-3

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A mm	L mm	B mm	kg		€
817050040	40	50	42	53	30	120	62	0,150	1	58,06
817065040	40	65	42	73	30	121	60	0,234	1	56,14
817065050	50	65	53	73	38	140	60	0,230	1	63,43
817100050	50	100	53	102	38	165	87	0,500	1	110,57
817080065	65	80	73	88,9	55	195	80	0,475	1	68,95
817100065	65	100	73	102	55	184	85	0,545	1	73,47
817125065	65	125	73	133	55	197,5	95	0,818	1	145,52
817100080	80	100	88,9	102	60	190	85	0,583	1	75,20
817125100	100	125	102	133	70	249	85	0,833	1	83,00
817150100	100	150	102	159	70	247	101	1,222	1	87,67
817150125	125	150	133	159	75	230	95	1,308	1	107,15

B 100 102

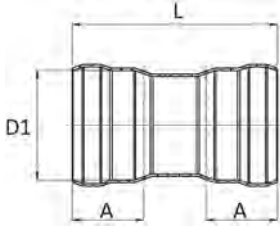
**818****DIŞ MERKEZLİ AZALTICI**

• ECCENTRIC REDUCER

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 125)**NORM:** EN 1124-3

KOD / CODE	DN1	DN2	D1 mm	D2 mm	A mm	L mm	B mm	kg		€
818050040	40	50	42	53	30	125	45	0,170	1	112,42
818065050	50	65	53	73	38	167	70	0,322	1	121,82
818100050	50	100	53	102	38	197	87	0,474	1	169,25
818080065	65	80	73	88,9	55	187	77	0,465	1	135,38
818100065	65	100	73	102	55	207	87	0,590	1	203,83
818100080	80	100	88,9	102	60	207	87	0,635	1	161,89
818125100	100	125	102	133	70	239	94	1,037	1	195,13
818150125	125	150	133	159	75	243	101	1,382	1	241,34

B 100 102



819/000

BAĞLANTI APARATI

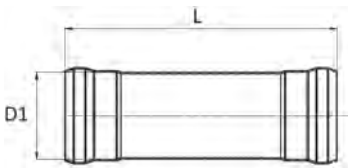
• COUPLING

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	A mm	L mm	kg		€
819040000	40	42	30	84	0,098	1	27,41
819050000	50	53	38	94	0,138	1	29,49
819065000	65	73	55	135	0,335	1	38,32
819080000	80	88,9	60	145	0,438	1	40,93
819100000	100	102	70	180	0,622	1	45,94
819125000	125	133	75	190	1,000	1	62,10
819150000	150	159	80	200	1,290	1	87,03



819/001

B 100 102

KAYMALI BAĞLANTI APARATI

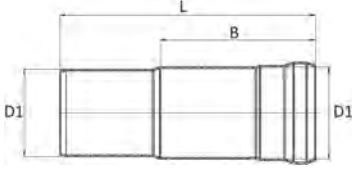
• SLIP COUPLING

MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/G (Ø 40 ÷ 150)

NORM: EN 1124-3

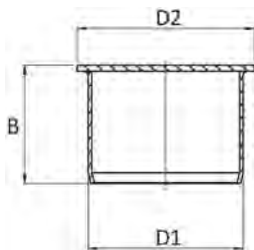
KOD / CODE	DN	D1 mm	L mm	kg		€
819040001	40	42	142	0,163	1	42,88
819050001	50	53	176	0,251	1	47,84
819065001	65	73	255	0,654	1	57,97
819080001	80	88,9	294	0,865	1	65,87
819100001	100	102	334	1,130	1	70,12
819125001	125	133	405	2,100	1	140,50
819150001	150	159	473	2,960	1	194,29

B 100 102**819/002****SÜRGÜLÜ BAĞLANTI APARATI**

• SLIDE COUPLING

MALZEME / MATERIAL: AISI 316L - 1.4404**CONTA / GASGET:** EPDM cod. 826/G (Ø 40 ÷ 150)**NORM:** EN 1124-3

KOD / CODE	DN	D1 mm	B mm	L mm	kg		€
819040002	40	42	69	120	0,132	1	37,63
819050002	50	53	94	155	0,214	1	44,93
819065002	65	73	139	205	0,486	1	56,10
819080002	80	88,9	134	210	0,605	1	59,05
819100002	100	102	148	240	0,794	1	63,50
819125002	125	133	158	260	1,300	1	105,53
819150002	150	159	168	285	1,758	1	137,04

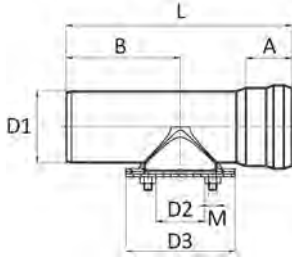
**819/003****DURDURMA UCU**

• STOP END

MALZEME / MATERIAL: AISI 316L - 1.4404**B 100 102**

KOD / CODE	DN	D1 mm	D2 mm	B mm	kg		€
819040003	40	42	50	32	0,068	1	32,82
819050003	50	53	60,5	40,5	0,106	1	37,81
819065003	65	73	80,5	57,5	0,230	1	44,29
819080003	80	88,9	98	62	0,317	1	56,04
819100003	100	102	112	72	0,420	1	69,22
819125003	125	133	145	77	0,634	1	101,48
819150003	150	159	174	82	0,854	1	112,16

B 100 102



819/004

TEMİZLEME BAĞLANTISI

- CLEANOUT PORT

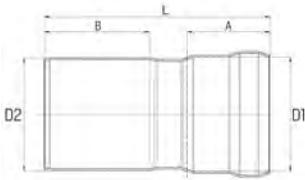
MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	D2 mm	D3 mm	A mm	L mm	M	Screw Nr.	B mm	kg	€	
819040004	40	42	42	70	30	142,5	M6	4	70	0,286	1	121,56
819050004	50	53	53	80	38	165	M6	4	84	0,380	1	125,74
819065004	65	73	73	105	55	225	M8	4	115	0,795	1	155,80
819080004	80	88,9	88,9	125	60	255	M8	4	130	1,070	1	172,05
819100004	100	102	88,9	125	70	291	M8	4	148	1,292	1	182,04
819125004	125	133	133	165	75	360	M8	8	182	2,647	1	306,40
819150004	150	159	133	165	80	403	M8	8	204	3,257	1	382,87

B 100 102



YENİ

827

ADAPTÖR ERKEK-DİŞİ

- ADAPTER FEMALE-MALE

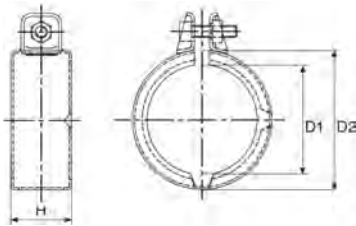
MALZEME / MATERIAL: AISI 316L - 1.4404

NORM: EN 1124-3

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)

KOD / CODE	DN	D1 mm	D2 mm	A mm	B mm	L mm	kg	€	
827042040	40	42	40	30	60	110	0,126	1	25,09
827053050	50	53	50	38	60	120	0,177	1	26,35
827073075	65	73	75	55	70	150	0,392	1	31,87

B 100 102



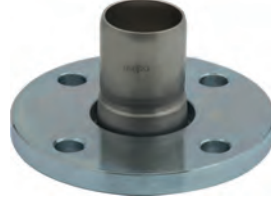
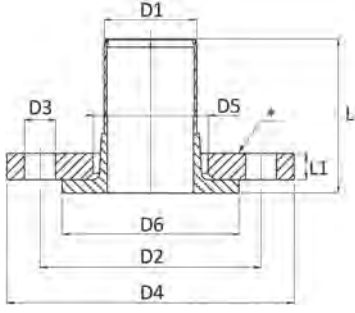
827/000

GÜVENLİK BAŞLIĞI

- SAFETY COLLAR

MALZEME / MATERIAL: AISI 316L - 1.4404

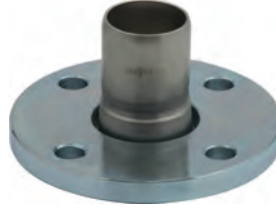
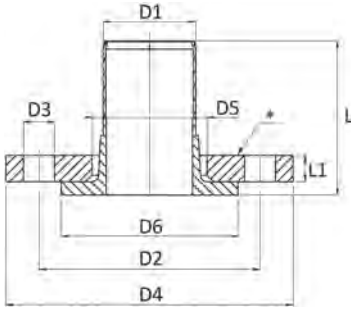
KOD / CODE	DN	D1 mm	D2 mm	H mm	kg	€	
827040000	40	42	56	27	0,120	1	46,88
827050000	50	53	68	31	0,150	1	47,94
827065000	65	73	92,5	40	0,300	1	56,79
827080000	80	88,9	110,5	44	0,380	1	62,67
827100000	100	102	124,5	53	0,500	1	69,15
827125000	125	133	162	58	0,687	1	83,05
827150000	150	159	191	63	0,860	1	98,16

**820/PN6****B 100 102****MANŞON / DÖNEN FLANŞ**

• SLEEVE / ROTARY FLANGE

MALZEME / MATERIAL: AISI 316L – 1.4404**NOT / NOTE:** [*] S235JR [Fe 360] zıncata - galvanizli - galvanized**PN 6**

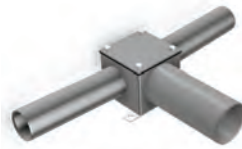
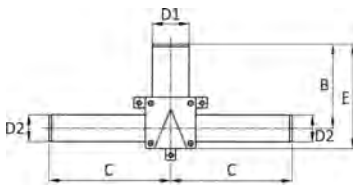
KOD / CODE	DN	D1 mm	L mm	L1 mm	D2 mm	D3 mm	D4 mm	D5 mm	D6 mm	Delikler Holes Nr.	kg		€
820040006	40	42	70	12	100	14	130	52	80	4	1,304	1	117,42
820050006	50	53	80	12	110	14	140	64	90	4	1,544	1	142,82
820065006	65	73	100	12	130	14	160	83	110	4	1,975	1	175,32
820080006	80	88,9	110	14	150	18	190	96	128	4	3,166	1	247,00
820100006	100	102	130	14	170	18	210	113	148	4	3,805	1	281,13
820125006	125	133	150	14	200	18	240	140	178	8	4,770	1	475,01
820150006	150	159	170	14	225	18	265	166	202	8	5,516	1	578,20

**820/PN16****B 100 102****MANŞON / DÖNEN FLANŞ**

• SLEEVE / ROTARY FLANGE

MALZEME / MATERIAL: AISI 316L – 1.4404**NOT / NOTE:** [*] S235JR [Fe 360] zıncata - galvanizli - galvanized**PN 16**

KOD / CODE	DN	D1 mm	L mm	L1 mm	D2 mm	D3 mm	D4 mm	D5 mm	D6 mm	Delikler Holes Nr.	kg		€
820040010	40	42	70	16	110	18	150	52	88	4	2,181	1	127,98
820050010	50	53	80	18	125	18	165	64	102	4	2,978	1	177,34
820065010	65	73	100	18	145	18	185	83	122	4	3,659	1	203,03
820080010	80	88,9	110	20	160	18	200	96	138	8	4,580	1	251,85
820100010	100	102	130	20	180	18	220	113	158	8	5,455	1	316,69
820125010	125	133	150	22	210	18	250	140	188	8	7,377	1	519,00
820150010	150	159	170	22	240	22	285	166	212	8	9,029	1	628,26

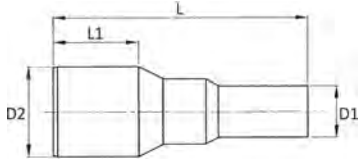
Talep üzerine özel KOD.
Special code on demand.**820/I****B 100 102****TEMİZLEME AMAÇLI AZALTIICI KOL**

• REDUCED BRANCH WITH CLEANOUT

MALZEME / MATERIAL: AISI 316L – 1.4404

KOD / CODE	DN1	DN2	D1 mm	D2 mm	B mm	C mm	E mm	kg		€
820205000	65	50	73	53	165	240	205	2,120	1	191,86
820260000	65	50	73	53	220	240	260	2,280	1	254,87

B 100 102



Talep üzerine özel KOD.
Special code on demand.

820/R

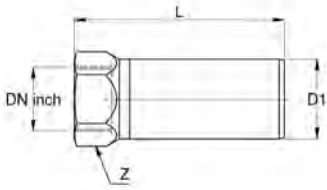
SOKETSİZ AZALTICI L=1000 MM

• REDUCER WITHOUT SOCKET L=1000 MM

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	D1 mm	D2 mm	L mm	L1 mm	kg		€
820065040	42	73	1000	70	1,336	1	124,56

B 100 102



820/F

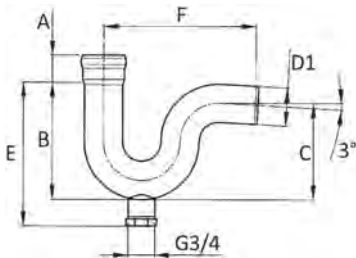
DIŞI DIŞLI BAĞLANTI

• FEMALE THREADED CONNECTOR

MALZEME / MATERIAL: AISI 316L - 1.4404

KOD / CODE	DN	D1 mm	DN inch	L mm	Z mm	kg		€
820040100	40	42	1"	140	46	0,290	1	124,73
820040114	40	42	1"1/4	140	46	0,270	1	62,75
820040112	40	42	1"1/2	140	55	0,390	1	66,14
820050114	50	53	1"1/4	140	55	0,440	1	144,60
820050112	50	53	1"1/2	140	55	0,370	1	149,95
820050200	50	53	2"	140	70	0,660	1	157,39

B 100 102



820/S

TIKAÇ

• TRAP

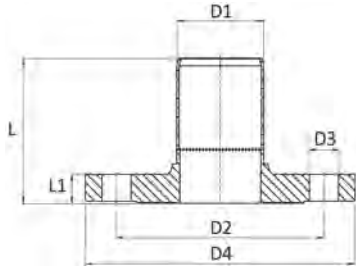
MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 50)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	A mm	B mm	C mm	E mm	F mm	kg		€
820040000	40	42	30	128	105	162	172	0,700	1	221,89
820050000	50	53	38	161	132,5	198	212	0,990	1	310,94

B 100 102

**821/PN6****BORU AĞIZLIKLIL FLANŞ PN6**

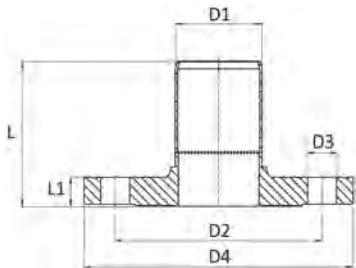
• FLANGE WITH SPIGOT PN6

MALZEME / MATERIAL: AISI 316L - 1.4404

PN 6

KOD / CODE	DN	D1 mm	L mm	L1 mm	D2 mm	D3 mm	D4 mm	Delikler Holes Nr.	kg	kg	€
821040006	40	42	70	14	100	14	130	4	1,301	1	103,74
821050006	50	53	78,5	14	110	14	140	4	1,475	1	126,17
821065006	65	73	97,5	14	130	14	160	4	1,897	1	154,89
821080006	80	88,9	105	16	150	18	190	4	2,979	1	218,21
821100006	100	102	115	16	170	18	210	4	3,497	1	248,37
821125006	125	133	116	10	200	18	240	8	2,792	1	419,62
821150006	150	159	122	10	225	18	265	8	3,245	1	498,74

B 100 102

**821/PN16****BORU AĞIZLIKLIL FLANŞ PN16**

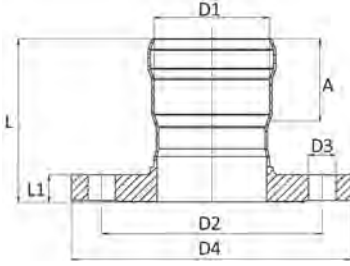
• FLANGE WITH SPIGOT PN16

MALZEME / MATERIAL: AISI 316L - 1.4404

PN 16

KOD / CODE	DN	D1 mm	L mm	L1 mm	D2 mm	D3 mm	D4 mm	Delikler Holes Nr.	kg	kg	€
821040010	40	42	72	16	110	18	150	4	1,968	1	129,21
821050010	50	53	82,5	18	125	18	165	4	2,650	1	164,14
821065010	65	73	101,5	18	145	18	185	4	3,270	1	187,89
821080010	80	88,9	109	20	160	18	200	8	3,995	1	222,49
821100010	100	102	119	20	180	18	220	8	4,670	1	279,78
821125010	125	133	118	12	210	18	250	8	3,625	1	426,61
821150010	150	159	125	12	240	22	285	8	4,482	1	512,83

B 100 102


822/PN6
SOKETLİ FLANŞ PN6

• FLANGE WITH SOCKET PN6

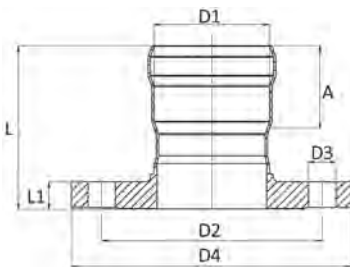
MALZEME / MATERIAL: AISI 316L - 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

PN 6

KOD / CODE	DN	D1 mm	A mm	L mm	L1 mm	D2 mm	D3 mm	D4 mm	Delikler Holes Nr.	kg		€
822040006	40	42	30	67	14	100	14	130	4	1,304	1	115,27
822050006	50	53	38	75	14	110	14	140	4	1,477	1	145,61
822065006	65	73	55	104	14	130	14	160	4	1,931	1	187,06
822080006	80	88,9	60	100	16	150	18	190	4	2,986	1	256,83
822100006	100	102	70	125	16	170	18	210	4	3,563	1	329,00
822125006	125	133	75	112	10	200	18	240	8	2,815	1	365,99
822150006	150	159	80	117,5	10	225	18	265	8	3,270	1	426,35


822/PN16
SOKETLİ FLANŞ PN16

• FLANGE WITH SOCKET PN16

MALZEME / MATERIAL: AISI 316L - 1.4404

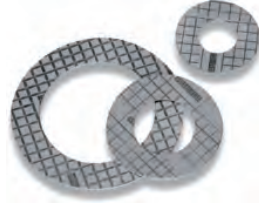
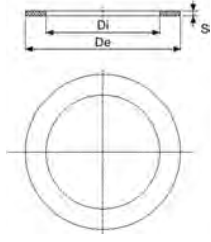
CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

PN 16

KOD / CODE	DN	D1 mm	A mm	L mm	L1 mm	D2 mm	D3 mm	D4 mm	Delikler Holes Nr.	kg		€
822040010	40	42	30	69	16	110	18	150	4	1,972	1	149,30
822050010	50	53	38	79	18	125	18	165	4	2,653	1	166,80
822065010	65	73	55	108	18	145	18	185	4	3,301	1	197,96
822080010	80	88,9	60	104	20	160	18	200	8	4,000	1	227,94
822100010	100	102	70	129	20	180	18	220	8	4,736	1	353,38
822125010	125	133	75	114	12	210	18	250	8	3,648	1	401,03
822150010	150	159	80	119,5	12	240	22	285	8	4,504	1	458,51

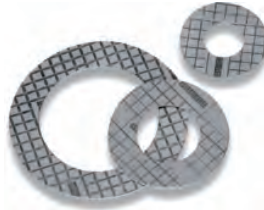
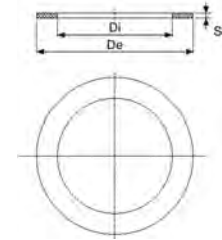
B 100 102

**434/PN 6****R 30 30****FLANŞ CONTASI**

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1**PN 6**

KOD / CODE	DN	De mm	Di mm	S mm	g	kg	€
434040006	40 - [1"1/2]	85	45	2	14	10	2,56
434050006	50 - [2"]	95	57	2	15	10	3,91
434065006	65 - [2"1/2]	115	76	2	19	10	5,38
434080006	80 - [3"]	132	89	2	26	10	6,38
434100006	100 - [4"]	152	108	2	29	10	7,55
434125006	125 - [5"]	182	133	2	41	10	10,48
434150006	150 - [6"]	207	160	2	38	10	11,94

**434/PN 10-16****R 30 30****FLANŞ CONTASI**

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco
NORM: EN 1092-1**PN 10/16**

KOD / CODE	DN	De mm	Di mm	S mm	g	kg	€
434040000	40 - [1"1/2]	92	45	2	17	10	2,56
434050000	50 - [2"]	108	57	2	22	10	3,87
434065000	65 - [2"1/2]	127	76	2	27	10	5,34
434080000	80 - [3"]	142	89	2	30	10	6,32
434100000	100 - [4"]	162	108	2	38	10	7,25
434125000	125 - [5"]	192	140	2	44	10	10,19
434150000	150 - [6"]	218	169	2	55	10	11,63

KULLANIM ALANLARI: sıcak ve soğuk su, bitkisel ve hayvansal yağlar, hava, bazı yakıtlar (GAZ yok)**KILAVUZ SICAKLIK SINIRLARI**

Kısa süreli maruz kalma için maksimum sıcaklık: 180-200 °C

Sürekli agresif olmayan yakıtlar için maksimum çalışma sıcaklığı: 140 °C

Buhar ile sürekli çalışma için maksimum sıcaklık: 110 °C

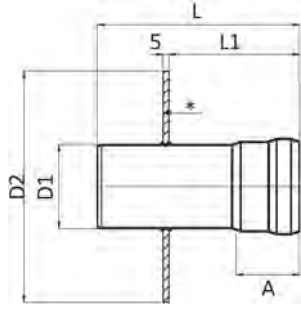
ONAY: içme suyu WRAS n° 1605525**Sesalit ECO:** organic and synthetic fibers bonded with NBR/SBR asbestos-free**USES:** hot and cold water, vegetable and animal oils, air, some fuels (no GAS)**GUIDELINE TEMPERATURE LIMITS**

Maximum temperature for short exposure: 180-200 °C

Maximum operating temperature for continuous non-aggressive fluids: 140 °C

Maximum temperature for continuous operation with steam: 110 °C

APPROVAL: potable water WRAS n° 1605525


823/F1
B 100 102
GÖVDE / BÖLME GEÇİŞİ F1

• DECK / BULKHEAD PENETRATION F1

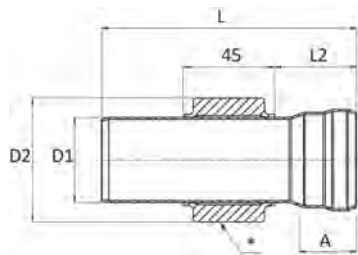
MALZEME / MATERIAL: AISI 316L - 1.4404

NOT / NOTE: (*) S235JR (Fe 360) verniciato - painted - bemalt - peint - pintado

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	L mm	L1 mm	D2 mm	A mm	kg		€
823040000	40	42	161	93	200	30	1,345	1	97,30
823050000	50	53	202	118	200	38	1,410	1	100,32
823065000	65	73	279	165	200	55	1,470	1	126,48
823080000	80	88,9	332	194	200	60	1,510	1	144,60
823100000	100	102	381	223	200	70	2,130	1	161,18
823125000	125	133	479	275	250	75	3,775	1	229,12
823150000	150	159	562	319	250	80	4,511	1	268,79


823/M1
B 100 102
GÖVDE / BÖLME GEÇİŞİ M1

• DECK / BULKHEAD PENETRATION M1

MALZEME / MATERIAL: AISI 316L - 1.4404

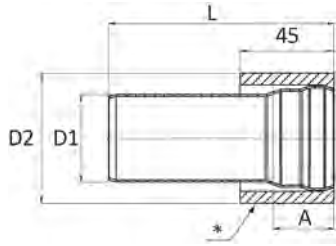
NOT / NOTE: (*) S235JR (Fe 360) boyalı - painted

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	L mm	L2 mm	D2 mm	A mm	kg		€
823040001	40	42	125	40	61	30	0,533	1	70,08
823050001	50	53	145	50	70	38	0,612	1	81,73
823065001	65	73	175	65	88,9	55	0,926	1	111,62
823080001	80	88,9	185	70	110	60	1,394	1	130,73
823100001	100	102	205	80	121	70	1,501	1	140,90
823125001	125	133	215	85	150	75	1,979	1	175,71
823150001	150	159	225	90	178	80	2,613	1	261,04

B 100 102

**823/M2****GÖVDE / BÖLME GEÇİŞİ M2**

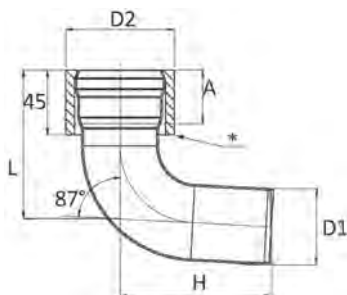
• DECK / BULKHEAD PENETRATION M2

MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** [*] S235JR [Fe 360] boyalı - painted**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)

EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	L mm	D2 mm	A mm	kg		€
823040002	40	42	108	62,5	30	0,485	1	56,37
823050002	50	53	125	75	38	0,645	1	58,41
823065002	65	73	155	101	55	1,180	1	81,82
823080002	80	88,9	178	113,5	60	1,200	1	101,09
823100002	100	102	198	133	70	1,760	1	126,63
823125002	125	133	245	168	75	2,773	1	159,66
823150002	150	159	284	193	80	3,116	1	222,36

**823/M3****GÖVDE / BÖLME GEÇİŞİ M3**

• DECK / BULKHEAD PENETRATION M3

MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** [*] S235JR [Fe 360] boyalı - painted**CONTA / GASGET:** EPDM cod. 826/GV (Ø 40 ÷ 65)

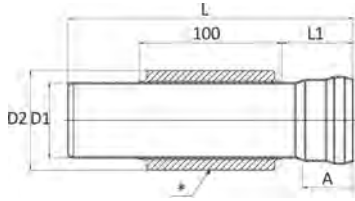
EPDM cod. 826/G (Ø 80 ÷ 100)

NORM: EN 1124-3

B 100 102

KOD / CODE	DN	D1 mm	L mm	D2 mm	H mm	A mm	kg		€
823040003	40	42	110,5	62,5	88	30	0,564	1	59,14
823050003	50	53	135	75	106	38	0,771	1	80,98
823065003	65	73	182	101	142	55	1,510	1	129,85
823080003	80	88,9	210	113,5	162	60	1,485	1	162,66
823100003	100	102	240	133	186	70	2,365	1	232,39

B 100 102



823/M4

GÖVDE / BÖLME GEÇİŞİ M4

• DECK / BULKHEAD PENETRATION M4

MALZEME / MATERIAL: AISI 316L – 1.4404

NOT / NOTE: [*] S235JR (Fe 360) boyalı - painted

CONTA / GASGET: EPDM cod. 826/GV (Ø 40 ÷ 65)
 EPDM cod. 826/G (Ø 80 ÷ 150)

NORM: EN 1124-3

KOD / CODE	DN	D1 mm	L mm	L1 mm	D2 mm	A mm	kg		€
823040004	40	42	180	40	61	30	1,195	1	94,48
823050004	50	53	200	50	70	38	1,320	1	133,54
823065004	65	73	230	65	88,9	55	1,820	1	143,90
823080004	80	88,9	240	70	110	60	2,835	1	164,06
823100004	100	102	260	80	121	70	2,895	1	193,35
823125004	125	133	270	85	150	75	3,462	1	241,63
823150004	150	159	280	90	178	80	4,675	1	334,54

B 100 102

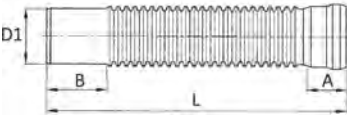
824/G

DRENAJLAR / YER ÇEKİMİ İÇİN ESNEK BORU

• FLEXIBLE PIPE FOR DRAINS / GRAVITY

MALZEME / MATERIAL: AISI 316L – 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 50)

NORM: EN 1124-3


KOD / CODE	DN	D1 mm	A mm	L mm	B mm	kg		€
8240500600	50	53	38	600	55	0,780	1	362,28
8240500750	50	53	38	750	55	0,960	1	398,77
8240501000	50	53	38	1000	55	1,260	1	445,59
8240501250	50	53	38	1250	55	1,550	1	493,14

B 100 102

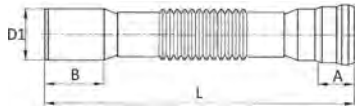
824/V

DRENAJLAR / VAKUM İÇİN ESNEK BORU

• FLEXIBLE PIPE FOR DRAINS / VACUUM

MALZEME / MATERIAL: AISI 316L – 1.4404

CONTA / GASGET: EPDM cod. 826/GV (Ø 50)

NORM: EN 1124-3


KOD / CODE	DN	D1 mm	A mm	L mm	B mm	kg		€
8240501100	50	53	38	1100	62	1,936	1	562,25
8240501500	50	53	38	1500	62	2,576	1	650,82
8240502000	50	53	38	2000	62	3,446	1	763,27
8240502500	50	53	38	2500	62	4,308	1	841,31

B 100 102

825/01**FLANŞLI / YATAY ÇIKIŞLI TUTUCU**

• SCUPPER WITH FLANGE / HORIZONTAL OUTLET

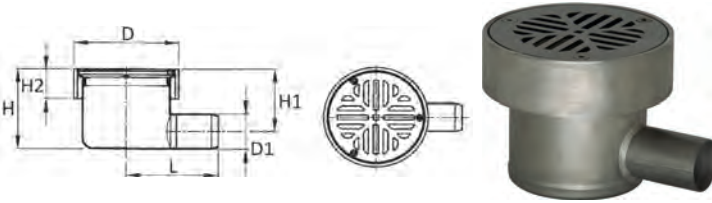
MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** Sifonsuz - Without siphon

KOD / CODE	DN	D1 mm	L mm	H mm	H1 mm	D mm	D2 mm	kg	€	
825040011	40	42	115	134,5	111,5	138	200	1,800	1	430,01
825050011	50	53	115	134,5	111,5	138	200	1,750	1	435,54
825065011	65	73	142,5	134,5	99	138	200	1,800	1	441,97

B 100 102

825/02**KAYNAK İÇİN TUTUCU / YATAY ÇIKIŞ**

• SCUPPER TO WELD / HORIZONTAL OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** Sifonsuz - Without siphon

KOD / CODE	DN	D1 mm	L mm	H mm	H1 mm	H2 mm	D mm	kg	€	
825040022	40	42	115	134,5	111,5	45	150	1,750	1	343,77
825050022	50	53	115	134,5	111,5	45	150	1,750	1	348,07
825065022	65	73	142,5	134,5	99	45	150	1,800	1	353,58
825100022	100	102	157,5	153,5	102,5	45	150	2,400	1	445,22

B 100 102

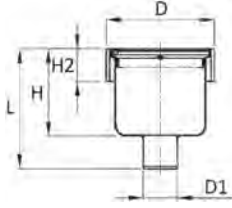
825/03**FLANŞLI / DİKEY ÇIKIŞLI TUTUCU**

• SCUPPER WITH FLANGE / VERTICAL OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** Sifonsuz - Without siphon

KOD / CODE	DN	D1 mm	L mm	H mm	D mm	D2 mm	kg	€	
825040033	40	42	189,5	134,5	138	200	1,800	1	430,01
825050033	50	53	189,5	134,5	138	200	1,750	1	435,54
825065033	65	73	208,5	134,5	138	200	1,800	1	441,97

B 100 102



825/04

KAYNAK İÇİN TUTUCU / DİKEY ÇIKIŞ

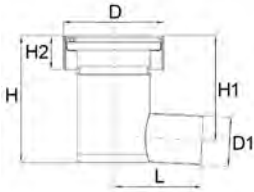
• SCUPPER TO WELD / VERTICAL OUTLET

MALZEME / MATERIAL: AISI 316L - 1.4404

NOT / NOTE: Sifonsuz - Without siphon

KOD / CODE	DN	D1 mm	L mm	H mm	H2 mm	D mm	kg		€
825040044	40	42	189,5	134,5	45	150	1,750	1	343,77
825050044	50	53	189,5	134,5	45	150	1,750	1	348,07
825065044	65	73	208,5	134,5	45	150	1,800	1	353,58
825100044	100	102	223,5	134,5	45	150	2,100	1	445,22

B 100 102



825/05

KAYNAK İÇİN TUTUCU / YATAY ÇIKIŞ / UZUN

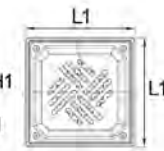
• SCUPPER TO WELD / HORIZONTAL OUTLET / LONG

MALZEME / MATERIAL: AISI 316L - 1.4404

NOT / NOTE: Sifonsuz - Without siphon

KOD / CODE	DN	D1 mm	L mm	H mm	H1 mm	H2 mm	D mm	kg		€
825040055	40	42	128,5	187	169,5	50	150	2,006	1	519,48
825050055	50	53	129	187	164	50	150	2,032	1	544,16
825065055	65	73	129,5	187	154	50	150	2,074	1	608,09
825100055	100	102	157	187	141	50	150	2,246	1	750,11

B 100 102



825/06 Q

KAYNAK İÇİN TUTUCU / YATAY ÇIKIŞ / TELESKOPİK / KARE

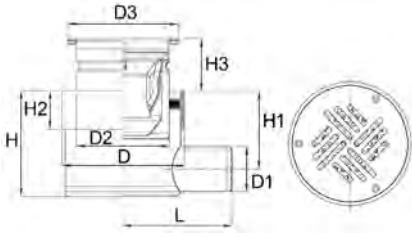
• SCUPPER TO WELD / HORIZONTAL OUTLET / TELESCOPIC / SQUARE

MALZEME / MATERIAL: AISI 316L - 1.4404

NOT / NOTE: Sifonlu - With siphon

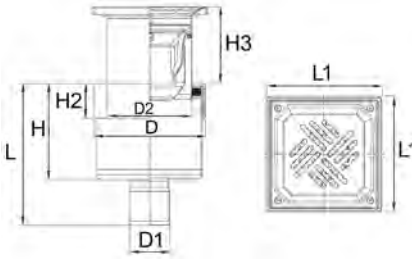
KOD / CODE	DN	D1 mm	L mm	L1 mm	H mm	H1 mm	H2 mm	H3 mm	D mm	D2 mm	kg		€
825040066Q	40	42	128,5	150	124,5	92	45	20-100	145	110	2,946	1	1150,68
825050066Q	50	53	128,5	150	124,5	92	45	20-100	145	110	2,942	1	1165,44
825065066Q	65	73	140	150	124,5	88	45	20-100	145	110	2,992	1	1209,77

B 100 102

825/06 C**KAYNAK İÇİN TUTUCU / YATAY ÇIKIŞ /
TELESKOPİK / DAİRE**• SCUPPER TO WELD / HORIZONTAL OUTLET /
TELESCOPIC / ROUND**MALZEME / MATERIAL:** AISI 316L - 1.4404
NOT / NOTE: Sifonlu - With siphon

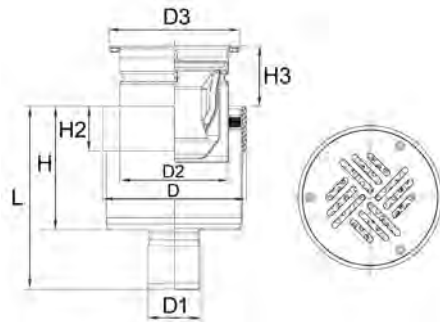
KOD / CODE	DN	D1 mm	L mm	H mm	H1 mm	H2 mm	H3 mm	D mm	D2 mm	D3 mm	kg	€
825040066C	40	42	128,5	124,5	92	45	25-90	145	110	132	2,782	1 1150,68
825050066C	50	53	128,5	124,5	92	45	25-90	145	110	132	2,838	1 1165,44
825065066C	65	73	140	124,5	88	45	25-90	145	110	132	2,865	1 1209,77

B 100 102

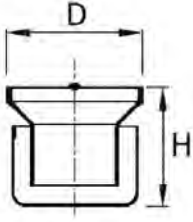
825/07 Q**KAYNAK İÇİN TUTUCU / DİKEY ÇIKIŞ /
TELESKOPİK / KARE**• SCUPPER TO WELD / VERTICAL OUTLET /
TELESCOPIC / SQUARE**MALZEME / MATERIAL:** AISI 316L - 1.4404
NOT / NOTE: Sifonlu - With siphon

KOD / CODE	DN	D1 mm	L mm	L1 mm	H mm	H2 mm	H3 mm	D mm	D2 mm	kg	€
825040077Q	40	42	184,5	150	124,5	45	20-100	145	110	2,904	1 1091,57
825050077Q	50	53	184,5	150	124,5	45	20-100	145	110	2,950	1 1110,03
825065077Q	65	73	198,5	150	124,5	45	20-100	145	110	2,980	1 1150,68

B 100 102

825/07 C**KAYNAK İÇİN TUTUCU / DİKEY ÇIKIŞ /
TELESKOPİK / DAİRE**• SCUPPER TO WELD / VERTICAL OUTLET /
TELESCOPIC / ROUND**MALZEME / MATERIAL:** AISI 316L - 1.4404
NOT / NOTE: Sifonlu - With siphon

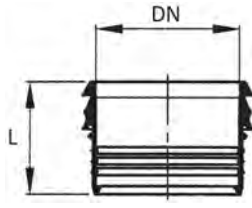
KOD / CODE	DN	D1 mm	L mm	H mm	H2 mm	H3 mm	D mm	D2 mm	D3 mm	kg	€
825040077C	40	42	184,5	124,5	45	25-90	145	110	132	2,817	1 1091,57
825050077C	50	53	184,5	124,5	45	25-90	145	110	132	2,798	1 1110,03
825065077C	65	73	198,5	124,5	45	25-90	145	110	132	2,848	1 1150,68

**820/P****B 100 102****DRENAJ TUTUCU İÇİN SİFON**

• SIPHON FOR SCUPPER DRAIN

MALZEME / MATERIAL: AISI 316L – 1.4404**NOT / NOTE:** dökme / for 825/01÷04

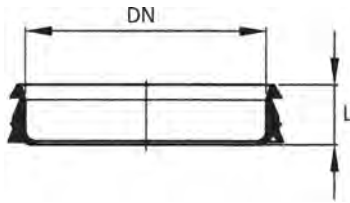
KOD / CODE	D mm	H mm	kg		€
82000000	106	96	0,365	1	116,02

**826/GV****B 100 102****CONTA / YERÇEKİMİ + VAKUM**

• SEAL / GRAVITY + VACUUM

MALZEME / MATERIAL: gomma / rubber EPDM

KOD / CODE	DN	L mm	kg		€
826040000	40	34,5	0,010	1	2,06
826050000	50	42,5	0,018	1	2,49
826065000	65	59,5	0,035	1	4,09

**826/G****B 100 102****CONTA / YERÇEKİMİ**

• SEAL / GRAVITY

MALZEME / MATERIAL: gomma / rubber EPDM

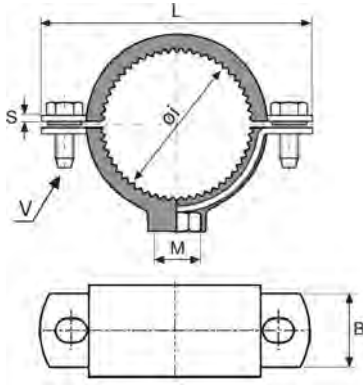
KOD / CODE	DN	L mm	kg		€
826040001	40	15	0,007	1	1,74
826050001	50	18	0,012	1	2,14
826065001	65	21	0,020	1	3,06
826080001	80	22,5	0,029	1	3,09
826100001	100	27	0,051	1	3,38
826125001	125	29,5	0,080	1	5,28
826150001	150	36	0,138	1	6,98

**826/L****B 100 102****YAĞLAMA MADDESİ 150 GR**

• LUBRICANT 150 GR

KOD / CODE	kg			€
826000002	0,150	1	24	5,38

A 50 50



156/G

KAUÇUK KELEPÇE

• CLAMP WITH RUBBER

MALZEME / MATERIAL: AISI 304 - 1.4301

VULKANİZE KAUÇUK

VULCANIZED RUBBER: EPDM [-20° C/+120° C]
durezza/hardness 55 Shore

NOT / NOTE: nokta kaynaklı somun - spot welded nut

Conforme a Entsprechend ile uyumludur

Correspondant Conforme a la

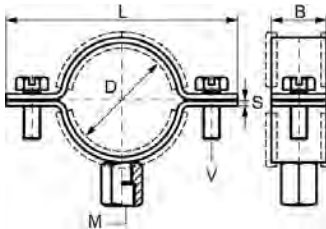
Uygun
Conform to

DIN 4109

KOD / CODE	Øi Drain mm	M	V mm	B mm	L mm	S mm	g			€
156114304G	42	M 8	M 6 x 20	20	85	2,5	120	1	50*	14,21
156112304G	53	M 8	M 6 x 25	20	97	2,5	142	1	50*	15,49
156212304G	73	M 10	M 6 x 25	30	128	2,5	308	1	10*	23,52
156300304G	88,9	M 10	M 6 x 25	30	148	2,5	346	1	10*	25,49

(*) minimum satış miktarı / minimum selling quantity

A 50 51



156/G

KAUÇUK KELEPÇE

• CLAMP WITH RUBBER

MALZEME / MATERIAL: AISI 316 - 1.4401

VULKANİZE KAUÇUK

VULCANIZED RUBBER: EPDM [-20° C/+120° C]

NOT / NOTE: nokta kaynaklı somun - spot welded nut

KOD / CODE	Øi Drain mm	DN inch	M	V mm	B mm	L mm	S mm	g		€
156312316G	102	3"1/2	M 8 / 10	M 6 x 20	20	165	2	189	10*	21,28
156500316G	** 133	5"	M 10	M 6 x 25	20	179	2,5	250	10*	26,42
156600316G	** 159	6"	M 10	M 8 x 35	25	233	2,5	470	10*	28,96

(*) minimum satış miktarı / minimum selling quantity





(**) AISI 316L / 1.4404



Paslanmaz çelik kaynak ve dişli bağlantı parçaları

STAINLESS STEEL WELDING AND THREADED FITTINGS

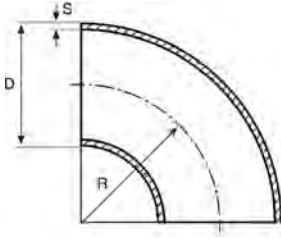
Sertifikalar / Certifications**ÖZEL SEKTÖR / CIVIL SECTOR**

		RACCORDI A PRESSARE IN ACCIAIO INOSSIDABILE / PASLANMAZ ÇELİK PRES BAĞLANTILARI PRODOTTI E COMPONENTI UTILIZZATI A CONTATTO CON ACQUA POTABILE İÇME SUYU İLE TEMAS EDEN ÜRÜN VE ELEMANLAR	ICIM-CAP-009671-00	Ø 15 – 168,3 mm
		INOXPRES PRES BAĞLANTI SİSTEMİ INOXPRES PRESS FITTINGS SYSTEM	POCC IT. AM05.H05079	Ø 15 – 108 mm

ODAKLANIN - FOCUS ON**PASLANMAZ ÇELİK / STAINLESS STEEL**

Kod / Code ASTM (USA)	T (C°)	
	N°	İsim / Name
AISI 304	1.4301	X5CrNi18-10
AISI 316	1.4401 1.4408	X5CrNiMo17-12-2 GX5CrNiMo19-11-2
AISI 304L	1.4307	X2CrNi18-9
AISI 316L	1.4404	X2CrNiMo17-12-2

A 10 11

**700/304L****KAYNAKLI DİRSEK 3D 90°**

• WELDED ELBOW 3D 90°

MALZEME / MATERIAL: AISI 304L - 1.4307

NORM: EN 10253-3 (DIN 2605)

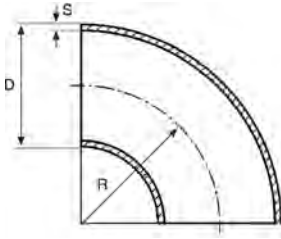
Kalınlık: 2 mm - Thickness: 2 mm

KOD / CODE	DN inch	DN	D mm	S mm	R mm	📦	📦	📦	€
700213304	1/2"	15	21,3	2	28	40	10	-	7,13
700269304	3/4"	20	26,9	2	29	60	10	-	7,27
700337304	1"	25	33,7	2	38	100	10	5400	8,26
700424304	1 1/4"	32	42,4	2	48	152	10	2880	10,50
700483304	1 1/2"	40	48,3	2	57	215	10	1800	12,05
700603304	2"	50	60,3	2	76	350	5	900	16,90
700761304	2 1/2"	65	76,1	2	95	560	5	385	26,00
700889304	3"	80	88,9	2	114	810	5	350	34,76
700101304	3 1/2"	90	101,6	2	133,5	954	4	216	52,01
700114304	4"	100	114,3	2	152	1300	4	152	52,44
700139304	5"	125	139,7	2	190	2100	1	84	110,09
700168304	6"	150	168,3	2	229	2840	1	60	139,38
700219304	8"	200	219,1	2	305	5150	1	24	257,02

Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ S = $-12,5\% \times S / +20\% \times S$ R = $\pm 2 \text{ mm}$

A 10 11

**700/316L****KAYNAKLI DİRSEK 3D 90°**

• WELDED ELBOW 3D 90°

MALZEME / MATERIAL: AISI 316L - 1.4404

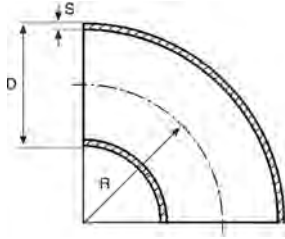
NORM: EN 10253-3 (DIN 2605)

Kalınlık: 2 mm - Thickness: 2 mm

KOD / CODE	DN inch	DN	D mm	S mm	R mm	📦	📦	📦	€
700213316	1/2"	15	21,3	2	28	40	10	-	8,50
700269316	3/4"	20	26,9	2	29	60	10	-	9,44
700337316	1"	25	33,7	2	38	100	10	5400	10,50
700424316	1 1/4"	32	42,4	2	48	152	10	2880	13,20
700483316	1 1/2"	40	48,3	2	57	215	10	1800	15,50
700603316	2"	50	60,3	2	76	350	5	900	22,90
700761316	2 1/2"	65	76,1	2	95	560	5	385	39,01
700889316	3"	80	88,9	2	114	810	5	350	47,76
700101316	3 1/2"	90	101,6	2	133,5	954	4	216	66,83
700114316	4"	100	114,3	2	152	1300	4	152	75,76
700139316	5"	125	139,7	2	190	2100	1	84	144,84
700168316	6"	150	168,3	2	229	2840	1	60	177,55
700219316	8"	200	219,1	2	305	5150	1	24	327,50




Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ S = $-12,5\% \times S / +20\% \times S$ R = $\pm 2 \text{ mm}$

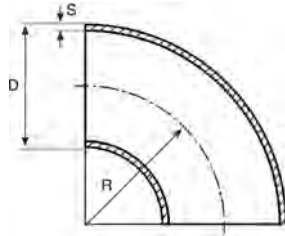
**701/304L****A 10 11****KAYNAKLI DİRSEK 3D 90°**

• WELDED ELBOW 3D 90°

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 10253-3 (DIN 2605)**Kalınlık: 3 mm - Thickness: 3 mm**




KOD / CODE	DN inch	DN	D mm	S mm	R mm				€
701337304	1"	25	33,7	3	38	140	10	5400	12,94
701424304	1 1/4"	32	42,4	3	48	210	10	2880	15,61
701483304	1 1/2"	40	48,3	3	57	318	10	1800	16,21
701603304	2"	50	60,3	3	76	500	5	900	23,14
701761304	2 1/2"	65	76,1	3	95	640	5	385	33,62
701889304	3"	80	88,9	3	114	1130	5	350	48,54
701101304	3 1/2"	90	101,6	3	133,5	1524	4	216	68,34
701114304	4"	100	114,3	3	152	1575	4	152	78,96
701139304	5"	125	139,7	3	190	3135	1	84	142,70
701168304	6"	150	168,3	3	229	4390	1	60	200,50
701219304	8"	200	219,1	3	305	7365	1	24	341,99

Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5$ mmS = $-12,5\% \times S / +20\% \times S$ R = ± 2 mm**701/316L****A 10 11****KAYNAKLI DİRSEK 3D 90°**

• WELDED ELBOW 3D 90°

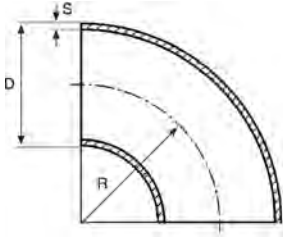
MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 10253-3 (DIN 2605)**Kalınlık: 3 mm - Thickness: 3 mm**

KOD / CODE	DN inch	DN	D mm	S mm	R mm				€
701337316	1"	25	33,7	3	38	140	10	5400	15,96
701424316	1 1/4"	32	42,4	3	48	210	10	2880	19,25
701483316	1 1/2"	40	48,3	3	57	318	10	1800	22,44
701603316	2"	50	60,3	3	76	500	5	900	29,89
701761316	2 1/2"	65	76,1	3	95	640	5	385	48,44
701889316	3"	80	88,9	3	114	1130	5	350	66,40
701101316	3 1/2"	90	101,6	3	133,5	1524	4	216	94,32
701114316	4"	100	114,3	3	152	1575	4	152	105,50
701139316	5"	125	139,7	3	190	3135	1	84	191,35
701168316	6"	150	168,3	3	229	4390	1	60	228,84
701219316	8"	200	219,1	3	305	7365	1	24	431,11

Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5$ mmS = $-12,5\% \times S / +20\% \times S$ R = ± 2 mm

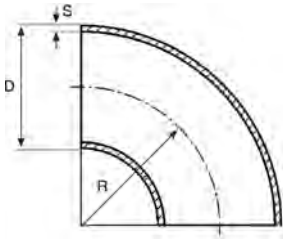
A 10 11

**706/304L****METRİK KAYNAKLI DİRSEK 90°**

• METRIC WELDED ELBOW 90°

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 10253-3 (DIN 2605)**Kalınlık: 1,5 mm - Thickness: 1,5 mm**

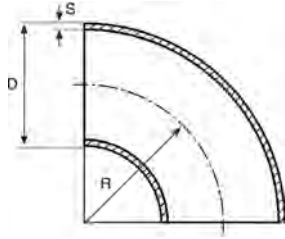
KOD / CODE	D mm	S mm	R mm	g	g	€
706180304	18	1,5	25	30	10	8,90
706200304	20	1,5	30	30	10	8,57
706250304	25	1,5	37	50	10	9,44
706280304	28	1,5	40	60	10	9,70
706300304	30	1,5	45	80	10	10,50
706330304	33	1,5	50	80	10	11,26
706350304	35	1,5	52,5	90	10	12,05
706380304	38	1,5	55	110	10	12,58
706400304	40	1,5	60	130	10	13,26
706508304	50,8	1,5	76	220	10	18,13
706700304	70	1,5	92	500	5	30,70

**706/316L****METRİK KAYNAKLI DİRSEK 90°**

• METRIC WELDED ELBOW 90°

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 10253-3 (DIN 2605)**Kalınlık: 1,5 mm - Thickness: 1,5 mm**

KOD / CODE	D mm	S mm	R mm	g	g	€
706180316	18	1,5	25	30	10	10,14
706200316	20	1,5	30	30	10	10,24
706250316	25	1,5	37	50	10	11,00
706280316	28	1,5	40	60	10	11,26
706300316	30	1,5	45	80	10	13,20
706330316	33	1,5	50	80	10	13,20
706350316	35	1,5	52,5	90	10	14,06
706380316	38	1,5	55	110	10	15,00
706400316	40	1,5	60	130	10	15,34
706508316	50,8	1,5	76	220	10	21,58
706700316	70	1,5	92	500	5	38,26



**707/304L**

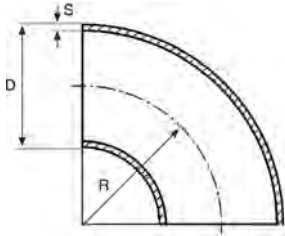
A 10 11

METRİK KAYNAKLI DİRSEK 90°

• METRIC WELDED ELBOW 90°

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 10253-3 (DIN 2605)**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	D mm	S mm	R mm			€
707200304	20	2	30	40	10	8,77
707250304	25	2	37	60	10	10,24
707300304	30	2	45	100	10	11,89
707380304	38	2	55	140	10	12,94
707400304	40	2	60	180	10	14,48
707445304	44,5	2	65	200	10	19,52
707500304	50	2	71	300	5	18,66
707540304	54	2	80	330	5	21,76
707570304	57	2	85,5	400	5	26,08
707700304	70	2	92	460	5	32,86
707840304	84	2	125	830	3	48,37
707104304	104	2	155	1190	3	65,96
707108304	108	2	142,5	1500	3	76,94
707129304	129	2	190	2000	2	141,65



**707/316L**

A 10 11

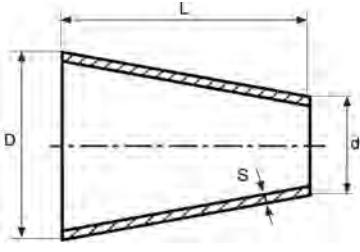
METRİK KAYNAKLI DİRSEK 90°

• METRIC WELDED ELBOW 90°

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 10253-3 (DIN 2605)**Kalınlık: 2 mm - Thickness: 2 mm**



KOD / CODE	D mm	S mm	R mm			€
707200316	20	2	30	40	10	11,18
707250316	25	2	37	60	10	12,48
707300316	30	2	45	100	10	15,28
707380316	38	2	55	140	10	18,31
707400316	40	2	60	180	10	19,58
707445316	44,5	2	65	200	10	23,59
707500316	50	2	71	300	5	25,49
707540316	54	2	80	330	5	29,30
707570316	57	2	85,5	400	5	49,51
707700316	70	2	92	460	5	43,19
707840316	84	2	125	830	3	66,25
707104316	104	2	155	1190	3	99,52
707108316	108	2	142,5	1500	3	110,28
707129316	129	2	190	2000	2	192,53

A 10 12

**174/304L****EŞMERKEZLİ AZALTICI**

• CONCENTRIC REDUCTION

MALZEME / MATERIAL: AISI 304L - 1.4307**NORM:** EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN1	DN2	D mm	d mm	S mm	L mm			€
174269172	20	10	26,9	17,2	2	38	40	10	19,93
174269213	20	15	26,9	21,3	2	38	45	10	14,28
174337172	25	10	33,7	17,2	2	51	65	10	23,95
174337213	25	15	33,7	21,3	2	51	67	10	18,58
174337269	25	20	33,7	26,9	2	51	70	10	10,92
174424213	32	15	42,4	21,3	2	51	75	10	31,19
174424269	32	20	42,4	26,9	2	51	130	10	23,59
174424337	32	25	42,4	33,7	2	51	100	10	12,34
174483213	40	15	48,3	21,3	2	64	110	10	43,19
174483269	40	20	48,3	26,9	2	64	120	10	28,21
174483337	40	25	48,3	33,7	2	64	160	10	22,26
174483424	40	32	48,3	42,4	2	64	110	10	13,99
174603213	50	15	60,3	21,3	2	76	195	5	66,36
174603269	50	20	60,3	26,9	2	76	350	5	53,12
174603337	50	25	60,3	33,7	2	76	330	5	29,87
174603424	50	32	60,3	42,4	2	76	260	5	25,22
174603483	50	40	60,3	48,3	2	76	210	5	16,76
174761269	65	20	76,1	26,9	2	89	225	1	87,29
174761337	65	25	76,1	33,7	2	89	240	1	62,45
174761424	65	32	76,1	42,4	2	89	500	1	40,54
174761483	65	40	76,1	48,3	2	89	450	1	34,33
174761603	65	50	76,1	60,3	2	89	340	1	21,54
174889337	80	25	88,9	33,7	2	89	300	1	112,30
174889424	80	32	88,9	42,4	2	89	700	1	87,34
174889483	80	40	88,9	48,3	2	89	750	1	53,93
174889603	80	50	88,9	60,3	2	89	590	1	48,68
174889761	80	65	88,9	76,1	2	89	390	1	26,08
174114337	100	25	114,3	33,7	2	102	423	1	160,03
174114424	100	32	114,3	42,4	2	102	420	1	118,87
174114483	100	40	114,3	48,3	2	102	450	1	81,16
174114603	100	50	114,3	60,3	2	102	1460	1	70,80
174114761	100	65	114,3	76,1	2	102	1170	1	56,14
174114889	100	80	114,3	88,9	2	102	920	1	48,02
174139603	125	50	139,7	60,3	2	127	660	1	148,67
174139761	125	65	139,7	76,1	2	127	650	1	124,78
174139889	125	80	139,7	88,9	2	127	2100	1	109,82
174139101	125	90	139,7	101,6	2	127	1730	1	99,55

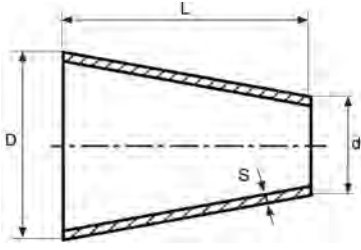
Boyut Toleransı / Dimensional tolerances

S = -12,5% x S / +20 % x S

D = arasında daha büyük / the bigger between ± 1% x D / ± 0,5 mm



L = +/- 2 mm ø 17,2÷219,1 mm [1/2"÷8"]

L = +/- 3 mm ø 273 mm [10"]

**174/304L****A 10 12****EŞMERKEZLİ AZALTICI**

• CONCENTRIC REDUCTION

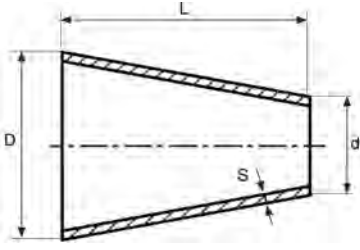
MALZEME / MATERIAL: AISI 304L - 1.4307**NORM:** EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN1	DN2	D mm	d mm	S mm	L mm			€
174139114	125	100	139,7	114,3	2	127	1190	1	99,55
174168603	150	50	168,3	60,3	2	140	900	1	187,15
174168761	150	65	168,3	76,1	2	140	910	1	162,26
174168889	150	80	168,3	88,9	2	140	3590	1	149,74
174168114	150	100	168,3	114,3	2	140	2630	1	127,37
174168139	150	125	168,3	139,7	2	140	1780	1	98,83
174219889	200	80	219,1	88,9	2	152	1350	1	290,24
174219114	200	100	219,1	114,3	2	152	1350	1	237,00
174219139	200	125	219,1	139,7	2	152	5320	1	149,74
174219168	200	150	219,1	168,3	2	152	4100	1	137,23
174273139	250	125	273	139,7	2	178	2000	1	405,44
174273168	250	150	273	168,3	2	178	2050	1	368,02
174273219	250	200	273	219,1	2	178	2200	1	282,34

Boyut Toleransı / Dimensional tolerances



S = -12,5% x S / +20 % x S

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ L = +/-2 mm $\emptyset 17,2 \div 219,1 \text{ mm}$ [1/2"÷8"]L = +/-3 mm $\emptyset 273 \text{ mm}$ [10"]

**176/316L****EŞMERKEZLİ AZALTICI**

• CONCENTRIC REDUCTION

MALZEME / MATERIAL: AISI 316L - 1.4404**NORM:** EN 10253-**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN1	DN2	D mm	d mm	S mm	L mm			€
176269172	20	10	26,9	17,2	2	38	40	10	25,66
176269213	20	15	26,9	21,3	2	38	45	10	17,63
176337172	25	10	33,7	17,2	2	51	65	10	29,62
176337213	25	15	33,7	21,3	2	51	67	10	23,62
176337269	25	20	33,7	26,9	2	51	70	10	13,58
176424213	32	15	42,4	21,3	2	51	75	10	39,08
176424269	32	20	42,4	26,9	2	51	130	10	29,02
176424337	32	25	42,4	33,7	2	51	100	10	15,12
176483213	40	15	48,3	21,3	2	64	110	10	53,88
176483269	40	20	48,3	26,9	2	64	120	10	35,05
176483337	40	25	48,3	33,7	2	64	160	10	28,42
176483424	40	32	48,3	42,4	2	64	110	10	16,70
176603213	50	15	60,3	21,3	2	76	195	5	85,62
176603269	50	20	60,3	26,9	2	76	350	5	66,01
176603337	50	25	60,3	33,7	2	76	330	5	38,09
176603424	50	32	60,3	42,4	2	76	260	5	32,56
176603483	50	40	60,3	48,3	2	76	210	5	22,15
176761269	65	20	76,1	26,9	2	89	225	1	113,16
176761337	65	25	76,1	33,7	2	89	240	1	80,78
176761424	65	32	76,1	42,4	2	89	500	1	54,07
176761483	65	40	76,1	48,3	2	89	450	1	45,86
176761603	65	50	76,1	60,3	2	89	340	1	29,82
176889337	80	25	88,9	33,7	2	89	300	1	145,49
176889424	80	32	88,9	42,4	2	89	700	1	113,17
176889483	80	40	88,9	48,3	2	89	750	1	70,08
176889603	80	50	88,9	60,3	2	89	590	1	63,36
176889761	80	65	88,9	76,1	2	89	390	1	35,76
176114337	100	25	114,3	33,7	2	102	423	1	210,19
176114424	100	32	114,3	42,4	2	102	420	1	153,59
176114483	100	40	114,3	48,3	2	102	450	1	105,11
176114603	100	50	114,3	60,3	2	102	1460	1	91,60
176114761	100	65	114,3	76,1	2	102	1170	1	74,87
176114889	100	80	114,3	88,9	2	102	920	1	57,58
176139603	125	50	139,7	60,3	2	127	660	1	193,78
176139761	125	65	139,7	76,1	2	127	650	1	161,66
176139889	125	80	139,7	88,9	2	127	2100	1	142,10
176139101	125	90	139,7	101,6	2	127	1730	1	142,10

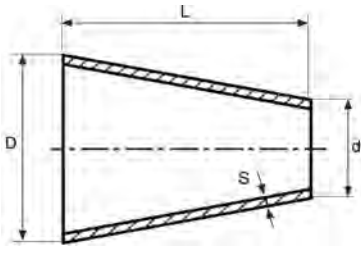
Boyut Toleransı / Dimensional tolerances

S = -12,5% x S / +20 % x S

D = arasında daha büyük / the bigger between ± 1% x D / ± 0,5 mm



L = +/- 2 mm Ø 17,2÷219,1 mm [1/2"÷8"]

L = +/- 3 mm Ø 273 mm [10"]

**176/316L****A 10 12****EŞMERKEZLİ AZALTICI**

• CONCENTRIC REDUCTION

MALZEME / MATERIAL: AISI 316L - 1.4404**NORM:** EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN1	DN2	D mm	d mm	S mm	L mm			€
176139114	125	100	139,7	114,3	2	127	1190	1	129,32
176168603	150	50	168,3	60,3	2	140	900	1	241,57
176168761	150	65	168,3	76,1	2	140	910	1	210,19
176168889	150	80	168,3	88,9	2	140	3590	1	193,78
176168114	150	100	168,3	114,3	2	140	2630	1	177,85
176168139	150	125	168,3	139,7	2	140	1780	1	125,62
176219889	200	80	219,1	88,9	2	152	1350	1	388,03
176219114	200	100	219,1	114,3	2	152	1350	1	307,21
176219139	200	125	219,1	139,7	2	152	5320	1	199,63
176219168	200	150	219,1	168,3	2	152	4100	1	186,34
176273139	250	125	273	139,7	2	178	2000	1	525,53
176273168	250	150	273	168,3	2	178	2050	1	476,92
176273219	250	200	273	219,1	2	178	2200	1	372,65

Boyut Toleransı / Dimensional tolerances

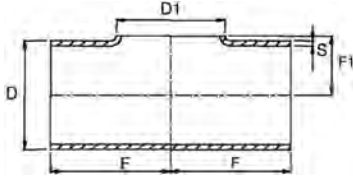
S = -12,5% x S / +20 % x S

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ L = +/-2 mm $\emptyset 17,2 \div 219,1 \text{ mm}$ [1/2"÷8"]L = +/-3 mm $\emptyset 273 \text{ mm}$ [10"]

A 10 13

200/304L - R**KISA T**

• SHORT TEE

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	D - D1 mm	S mm	F mm	F1 mm	g	kg	€
200213004	15 (1/2")	21,3	2	25	12	66	10	14,40
200269004	20 (3/4")	26,9	2	28	15	90	10	15,00
200337004	25 (1")	33,7	2	38	19	146	10	17,02
200424004	32 (1 1/4")	42,4	2	47	23	230	10	21,22
200483004	40 (1 1/2")	48,3	2	57	26	330	10	25,14
200603004	50 (2")	60,3	2	63	33	420	5	28,16
200761004	65 (2 1/2")	76,1	2	76	42	850	5	44,23
200889004	80 (3")	88,9	2	85	48	1050	5	48,77
200114004	100 (4")	114,3	2	105	62	1314	4	88,57

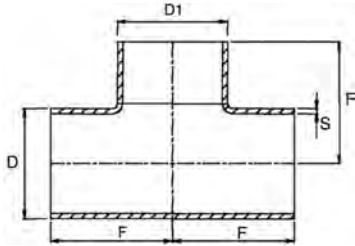
Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ F - F1 = $\pm 2 \text{ mm}$ S = $-12,5\% \times S / +20\% \times S$

A 10 13

200/304L - N**NORMAL T (TEE)**

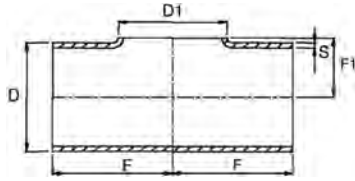
• NORMAL TEE

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	D - D1 mm	S mm	F mm	g	kg	€
200213304	15 (1/2")	21,3	2	25	150	10	19,21
200269304	20 (3/4")	26,9	2	28	170	10	19,90
200337304	25 (1")	33,7	2	38	250	10	22,87
200424304	32 (1 1/4")	42,4	2	47	340	10	28,21
200483304	40 (1 1/2")	48,3	2	57	460	5	33,49
200603304	50 (2")	60,3	2	63	550	5	37,61
200761304	65 (2 1/2")	76,1	2	76	990	5	59,04
200889304	80 (3")	88,9	2	85	1290	5	65,09
200114304	100 (4")	114,3	2	105	1850	4	118,09
200139304	125 (5")	139,7	2	124	2060	1	485,30
200168304	150 (6")	168,3	2	143	2980	1	682,99
200219304	200 (8")	219,1	2	178	4330	1	1172,68

Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ F = $\pm 2 \text{ mm}$ S = $-12,5\% \times S / +20\% \times S$

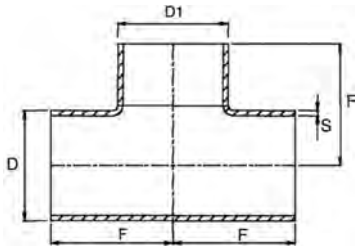
**200/316L - R****KISA T**

• SHORT TEE

MALZEME / MATERIAL: AISI 316L - 1.4404**NORM:** EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	D - D1 mm	S mm	F mm	F1 mm	g	kg	€
200213006	15 [1/2"]	21,3	2	25	12	66	10	15,38
200269006	20 [3/4"]	26,9	2	28	15	90	10	16,43
200337006	25 [1"]	33,7	2	38	19	146	10	18,36
200424006	32 [1 1/4"]	42,4	2	47	23	230	10	25,97
200483006	40 [1 1/2"]	48,3	2	57	26	330	10	30,70
200603006	50 [2"]	60,3	2	63	33	420	5	35,65
200761006	65 [2 1/2"]	76,1	2	76	42	850	5	55,54
200889006	80 [3"]	88,9	2	85	48	1050	5	65,30
200114006	100 [4"]	114,3	2	105	62	1314	4	123,54

Boyut Toleransı / Dimensional tolerances

D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ F - F1 = $\pm 2 \text{ mm}$ S = $-12,5\% \times S / +20\% \times S$ **200/316L - N****NORMAL T (TEE)**

• NORMAL TEE

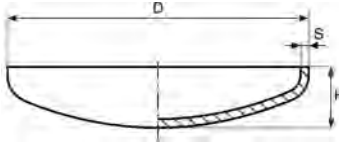
MALZEME / MATERIAL: AISI 316L - 1.4404**NORM:** EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	D - D1 mm	S mm	F mm	g	kg	€
200213316	15 [1/2"]	21,3	2	25	150	10	20,53
200269316	20 [3/4"]	26,9	2	38	170	10	21,32
200337316	25 [1"]	33,7	2	28	250	10	24,12
200424316	32 [1 1/4"]	42,4	2	47	340	10	34,55
200483316	40 [1 1/2"]	48,3	2	57	460	5	40,90
200603316	50 [2"]	60,3	2	63	550	5	47,57
200761316	65 [2 1/2"]	76,1	2	76	990	5	74,04
200889316	80 [3"]	88,9	2	85	1290	5	84,79
200114316	100 [4"]	114,3	2	105	1850	4	163,09
200139316	125 [5"]	139,7	2	124	2060	1	611,58
200168316	150 [6"]	168,3	2	143	2980	1	852,20
200219316	200 [8"]	219,1	2	178	4330	1	1468,58

Boyut Toleransı / Dimensional tolerances



D = arasında daha büyük / the bigger between $\pm 1\% \times D / \pm 0,5 \text{ mm}$ F = $\pm 2 \text{ mm}$ S = $-12,5\% \times S / +20\% \times S$

A 10 14

**800/316L****KAPAK**

• CAP

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 10253-3**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	DN inch	D mm	S mm	H mm			€
800213316	15	1/2"	21,3	2	15	20	10	7,50
800269316	20	3/4"	26,9	2	14	30	10	7,50
800337316	25	1"	33,7	2	17	50	10	8,86
800424316	32	1"1/4	42,4	2	19	70	10	9,77
800483316	40	1"1/2	48,3	2	20	90	10	10,78
800603316	50	2"	60,3	2	22	150	10	11,96
800761316	65	2"1/2	76,1	2	25	220	10	13,40
800889316	80	3"	88,9	2	28	290	5	19,90
800101316	90	3"1/2	101,6	2	25	225	5	26,14
800108316	-	-	108	2	30	248	5	29,75
800114316	100	4"	114,3	2	31	270	5	41,63
800139316	125	5"	139,7	2	35	650	2	51,56
800168316	150	6"	168,3	2	40	900	2	75,70
800219316	200	8"	219,1	2	50	1200	2	118,49
800273316	250	10"	273	2	60	1200	1	146,54
800324316	300	12"	323,9	2	72	2200	1	207,50

Boyut Toleransı / Dimensional tolerances

S = -12,5% x S / +20 % x S






D1 = ±1% x D1 minimo / minimum 0,5 mm

H = ±4 mm fino a / till ø 114,3 mm (4")

H = ±7 mm ø 139,7÷323,9 mm (5"÷12")

ODAKLANIN - FOCUS ON 

MAKSİMUM BASINÇ [bar] / MAXIMUM PRESSURE [bar]

DN mm	Sp/Thk mm					DN mm	Sp/Thk mm	
21,3	2	90	70	-	-	33,7	3	90
26,9	2	90	55	100	100	42,4	3	80
33,7	2	80	40	100	90	48,2	3	70
42,4	2	60	30	90	85	60,3	3	55
48,2	2	55	25	70	75	76,1	3	45
54	2	-	-	70	-	88,9	3	40
57	2	-	-	60	-	101,6	3	30
60,3	2	45	20	60	60	114,3	3	30
70	2	-	-	50	-	139,7	3	25
76,1	2	35	15	50	45	168,3	3	20
88,9	2	40	10	40	40	219,1	3	15
101,6	2	30	-	30	-	273	3	15
108	2	-	-	30	-	323,9	3	10
114,3	2	25	10	30	30			
133	2	-	-	30	-			
139,7	2	20	7	20	25			
159	2	-	-	20				
168,3	2	15	5	20	20			
193,7	2	-	-	20	-			
219,1	2	15	5	15	15			
244,5	2	-	-	15	-			
273	2	10	-	10	10			
323,9	2	10	-	10	-			

NOT - NOTE

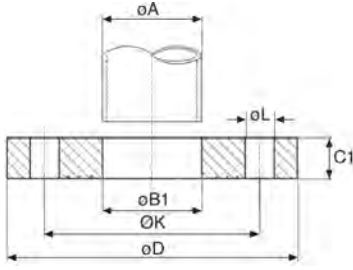
Paslanmaz çelik kaynak bağlantı parçaları için 20 °C'de gösterge niteliğindeki Pmax [bar] AISI 304L/316L
Indicative Pmax [bar] at 20 °C for welding fittings in stainless steel AISI 304L/316L

Yukarıdaki maksimum basınçlar gösterge niteliğindedir.

Planlayıcı gerçek çalışma koşullarına göre maddeleri seçmelidir.

The above maximum pressures are indicative. Planner must choose the materials in according to the real condition of work.

A 20 21



410/316L

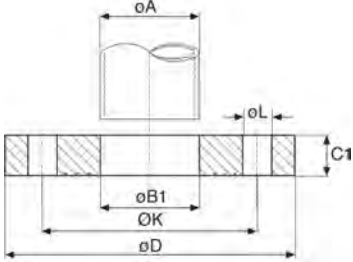
LEVHA FLANŞ

• PLATE FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 1092-1-01 tipo/tür "A"

PN 6

KOD / CODE	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	€	
	DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
410015316	15 - 1/2"	21,3	22	80	12	55	11	4	M 10	0,402	1	29,22
410020316	20 - 3/4"	26,9	27,5	90	14	65	11	4	M 10	0,592	1	43,01
410025316	25 - 1"	33,7	34,5	100	14	75	11	4	M 10	0,719	1	52,25
410032316	32 - 1 1/4"	42,4	43,5	120	16	90	14	4	M 12	1,16	1	84,20
410040316	40 - 1 1/2"	48,3	49,5	130	16	100	14	4	M 12	1,35	1	97,98
410050316	50 - 2"	60,3	61,5	140	16	110	14	4	M 12	1,48	1	107,38
410065316	65 - 2 1/2"	76,1	77,5	160	16	130	14	4	M 12	1,86	1	135,04
410080316	80 - 3"	88,9	90,5	190	18	150	18	4	M 16	2,95	1	203,16
410100316	100 - 4"	114,3	116	210	18	170	18	4	M 16	3,26	1	224,38



426/304L - 427/304L

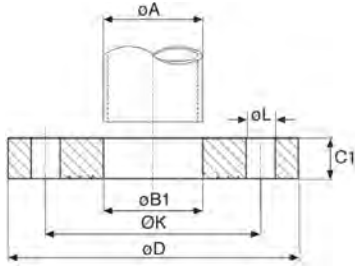
LEVHA FLANŞ

• PLATE FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 1092-1-01 tipo/tür "A"

PN 10

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	€	
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
427015304	PN10=16=25=40	15 - 1/2"	21,3	22	95	14	65	14	4	M 12	0,7	1	36,66
427020304		20 - 3/4"	26,9	27,5	105	16	75	14	4	M 12	1	1	51,53
427025304		25 - 1"	33,7	34,5	115	16	85	14	4	M 12	1,1	1	60,84
427032304		32 - 1 1/4"	42,4	43,5	140	18	100	18	4	M 16	1,8	1	99,74
427040304		40 - 1 1/2"	48,3	49,5	150	18	110	18	4	M 16	2,1	1	113,93
427050304	PN10=16	50 - 2"	60,3	61,5	165	20	125	18	4	M 16	2,6	1	149,54
427065304		65 - 2 1/2"	76,1	77,5	185	20	145	18	8	M 16	3,3	1	169,81
427080304		80 - 3"	88,9	90,5	200	20	160	18	8	M 16	3,6	1	193,48
427100304		100 - 4"	114,3	116	220	22	180	18	8	M 16	4,4	1	235,88
427125304		125 - 5"	139,7	141,5	250	22	210	18	8	M 16	5,4	1	290,80
427150304	PN10	150 - 6"	168,3	170,5	285	24	240	22	8	M 20	7,2	1	383,71
426200304		200 - 8"	219,1	221,5	340	24	295	22	8	M 20	9,3	1	517,28
426250304		250 - 10"	273	276,5	395	26	350	22	12	M 20	12	1	683,48
426300304		300 - 12"	323,9	327,5	445	26	400	22	12	M 20	13,8	1	814,09
426350304		350 - 14"	355,6	359,5	505	28	460	22	16	M 20	20,6	1	on demand
426400304	400 - 16"	406,4	411	565	32	515	26	16	M 24	28	1	on demand	
426500304	500 - 20"	508	513,5	670	38	620	26	20	M 24	41	1	on demand	



427/304L

LEVHA FLANŞ

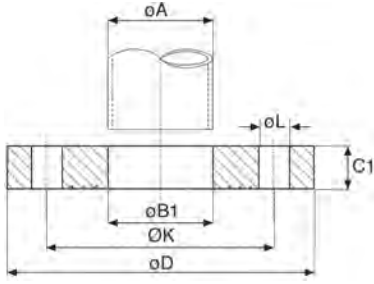
• PLATE FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307

NORM: EN 1092-1-01 tipo/tür "A"

PN 16

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	€	
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
427015304	PN10=16=25=40	15 - 1/2"	21,3	22	95	14	65	14	4	M 12	0,7	1	36,66
427020304		20 - 3/4"	26,9	27,5	105	16	75	14	4	M 12	1	1	51,53
427025304		25 - 1"	33,7	34,5	115	16	85	14	4	M 12	1,1	1	60,84
427032304		32 - 1 1/4"	42,4	43,5	140	18	100	18	4	M 16	1,8	1	99,74
427040304		40 - 1 1/2"	48,3	49,5	150	18	110	18	4	M 16	2,1	1	113,93
427050304	PN10=16	50 - 2"	60,3	61,5	165	20	125	18	4	M 16	2,6	1	149,54
427065304		65 - 2 1/2"	76,1	77,5	185	20	145	18	8	M 16	3,3	1	169,81
427080304		80 - 3"	88,9	90,5	200	20	160	18	8	M 16	3,6	1	193,48
427100304		100 - 4"	114,3	116	220	22	180	18	8	M 16	4,4	1	235,88
427125304		125 - 5"	139,7	141,5	250	22	210	18	8	M 16	5,4	1	290,80
427150304	PN16	150 - 6"	168,3	170,5	285	24	240	22	8	M 20	7,2	1	383,71
427200304		200 - 8"	219,1	221,5	340	26	295	22	12	M 20	9,8	1	542,94
427250304		250 - 10"	273	276,5	405	29	355	26	12	M 24	14,5	1	822,49
427300304		300 - 12"	323,9	327,5	460	32	410	26	12	M 24	19,3	1	1007,40
427350304		350 - 14"	355,6	359,5	520	35	470	26	16	M 24	28,5	1	on demand
427400304	400 - 16"	406,4	411	580	38	525	30	16	M 27	36,2	1	on demand	
427500304	500 - 20"	508	513,5	715	46	650	33	20	M 30	64	1	on demand	



426/316L - 427/316L

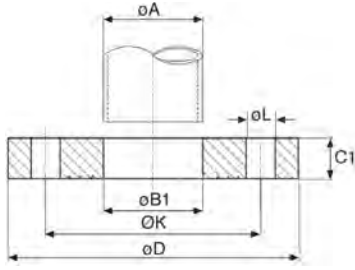
LEVHA FLANŞ

• PLATE FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 1092-1-01 tipo/tür "A"

PN 10

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	€	
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
427015316	PN10=16=25=40	15 - 1/2"	21,3	22	95	14	65	14	4	M 12	0,7	1	47,75
427020316		20 - 3/4"	26,9	27,5	105	16	75	14	4	M 12	1	1	64,62
427025316		25 - 1"	33,7	34,5	115	16	85	14	4	M 12	1,1	1	74,36
427032316		32 - 1 1/4"	42,4	43,5	140	18	100	18	4	M 16	1,8	1	129,53
427040316		40 - 1 1/2"	48,3	49,5	150	18	110	18	4	M 16	2,1	1	147,95
427050316	PN10=16	50 - 2"	60,3	61,5	165	20	125	18	4	M 16	2,6	1	194,21
427065316		65 - 2 1/2"	76,1	77,5	185	20	145	18	8	M 16	3,3	1	221,51
427080316		80 - 3"	88,9	90,5	200	20	160	18	8	M 16	3,6	1	252,42
427100316		100 - 4"	114,3	116	220	22	180	18	8	M 16	4,4	1	307,74
427125316		125 - 5"	139,7	141,5	250	22	210	18	8	M 16	5,4	1	356,88
427150316	PN10	150 - 6"	168,3	170,5	285	24	240	22	8	M 20	7,2	1	500,57
426200316		200 - 8"	219,1	221,5	340	24	295	22	8	M 20	9,3	1	674,94
426250316		250 - 10"	273	276,5	395	26	350	22	12	M 20	12	1	884,17
426300316		300 - 12"	323,9	327,5	445	26	400	22	12	M 20	13,8	1	924,44
426350316		350 - 14"	355,6	359,5	505	28	460	22	16	M 20	20,6	1	on demand
426400316	PN10	400 - 16"	406,4	411	565	32	515	26	16	M 24	28	1	on demand
426500316		500 - 20"	508	513,5	670	38	620	26	20	M 24	41	1	on demand



427/316L

LEVHA FLANŞ

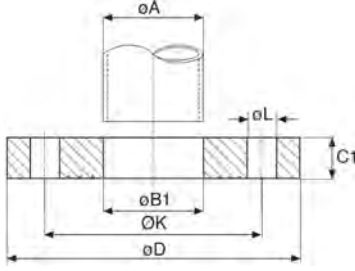
• PLATE FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404

NORM: EN 1092-1-01 tipo/tür "A"

PN 16

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	€	
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
427015316	PN10=16=25=40	15 - 1/2"	21,3	22	95	14	65	14	4	M12	0,7	1	47,75
427020316		20 - 3/4"	26,9	27,5	105	16	75	14	4	M12	1	1	64,62
427025316		25 - 1"	33,7	34,5	115	16	85	14	4	M12	1,1	1	74,36
427032316		32 - 1 1/4"	42,4	43,5	140	18	100	18	4	M16	1,8	1	129,53
427040316	PN10=16	40 - 1 1/2"	48,3	49,5	150	18	110	18	4	M16	2,1	1	147,95
427050316		50 - 2"	60,3	61,5	165	20	125	18	4	M16	2,6	1	194,21
427065316		65 - 2 1/2"	76,1	77,5	185	20	145	18	8	M16	3,3	1	221,51
427080316		80 - 3"	88,9	90,5	200	20	160	18	8	M16	3,6	1	252,42
427100316		100 - 4"	114,3	116	220	22	180	18	8	M16	4,4	1	307,74
427125316		125 - 5"	139,7	141,5	250	22	210	18	8	M16	5,4	1	356,88
427150316		150 - 6"	168,3	170,5	285	24	240	22	8	M20	7,2	1	500,57
427200316		200 - 8"	219,1	221,5	340	26	295	22	12	M20	9,8	1	700,74
427250316	PN16	250 - 10"	273	276,5	405	29	355	26	12	M24	14,5	1	1064,00
427300316		300 - 12"	323,9	327,5	460	32	410	26	12	M24	19,3	1	1198,51
427350316		350 - 14"	355,6	359,5	520	35	470	26	16	M24	28,5	1	on demand
427400316		400 - 16"	406,4	411	580	38	525	30	16	M27	36,2	1	on demand
427500316		500 - 20"	508	513,5	715	46	650	33	20	M30	64	1	on demand



427/304L - 428/304L

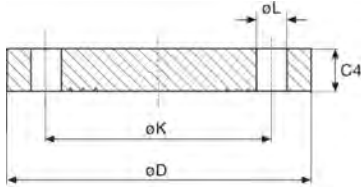
LEVHA FLANŞ

• PLATE FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 1092-1-01 tipo/tür "A"

PN 40

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	€	
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
427015304	PN10=16=25=40	15 - 1/2"	21,3	22	95	14	65	14	4	M 12	0,7	1	36,66
427020304		20 - 3/4"	26,9	27,5	105	16	75	14	4	M 12	1	1	51,53
427025304		25 - 1"	33,7	34,5	115	16	85	14	4	M 12	1,1	1	60,84
427032304		32 - 1 1/4"	42,4	43,5	140	18	100	18	4	M 16	1,8	1	99,74
427040304		40 - 1 1/2"	48,3	49,5	150	18	110	18	4	M 16	2,1	1	113,93
428050304	PN25=40	50 - 2"	60,3	61,5	165	20	125	18	4	M 16	2,73	1	155,95
428065304		65 - 2 1/2"	76,1	77,5	185	22	145	18	8	M 16	3,48	1	198,85
428080304		80 - 3"	88,9	90,5	200	24	160	18	8	M 16	4,32	1	246,72
428100304		100 - 4"	114,3	116	235	26	190	22	8	M 20	6,07	1	346,64
428125304		125 - 5"	139,7	141,5	270	28	220	26	8	M 24	8,19	1	467,88
428150304	PN40	150 - 6"	168,3	170,5	300	30	250	26	8	M 24	10,3	1	588,31
428200304		200 - 8"	219,1	221,5	375	36	320	30	12	M 27	17,9	1	1022,39
428250304		250 - 10"	273	276,5	450	42	385	33	12	M 30	29,3	1	1673,51
428300304		300 - 12"	323,9	327,5	515	52	450	33	16	M 30	45,1	1	2576,02



432/304L - 433/304L

A 2021

KÖR FLANŞ

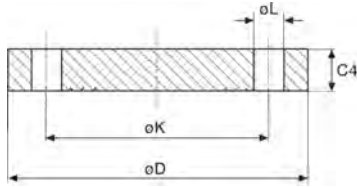
• BLIND FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307

NORM: EN 1092-1-05 tipo/tür "A"

PN 10

KOD / CODE	PN	DN	Flanş / Flange				Civatalar / Bolts		kg	Bag	€
			D mm	C4 mm	K mm	L mm	Nº	Thr.			
433015304	PN10=16=25=40	15 - 1/2"	95	16	65	14	4	M 12	0,8	1	55,68
433020304		20 - 3/4"	105	18	75	14	4	M 12	1,1	1	66,35
433025304		25 - 1"	115	18	85	14	4	M 12	1,4	1	80,22
433032304		32 - 1 1/4"	140	18	100	18	4	M 16	2	1	117,90
433040304	PN10=16	40 - 1 1/2"	150	18	110	18	4	M 16	2,4	1	136,55
433050304		50 - 2"	165	18	125	18	4	M 16	2,9	1	167,35
433065304		65 - 2 1/2"	185	18	145	18	8	M 16	3,7	1	196,76
433080304		80 - 3"	200	20	160	18	8	M 16	4,6	1	258,40
433100304		100 - 4"	220	20	180	18	8	M 16	5,7	1	316,69
433125304		125 - 5"	250	22	210	18	8	M 16	8,1	1	455,64
433150304	PN10	150 - 6"	285	22	240	22	8	M 20	10,5	1	588,34
432200304		200 - 8"	340	24	295	22	8	M 20	16,5	1	907,75
432250304		250 - 10"	395	26	350	22	12	M 20	24	1	1399,54
432300304		300 - 12"	445	26	400	22	12	M 20	31	1	1788,58



433/304L

A 2021

KÖR FLANŞ

• BLIND FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307

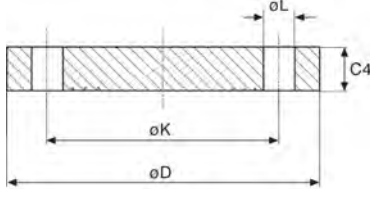
NORM: EN 1092-1-05 tipo/tür "A"

PN 16

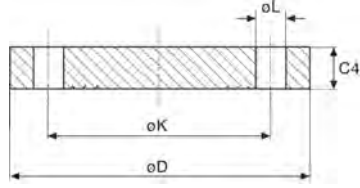
KOD / CODE	PN	DN	Flanş / Flange				Civatalar / Bolts		kg	Bag	€
			D mm	C4 mm	K mm	L mm	Nº	Thr.			
433015304	PN10=16=25=40	15 - 1/2"	95	16	65	14	4	M 12	0,8	1	55,68
433020304		20 - 3/4"	105	18	75	14	4	M 12	1,1	1	66,35
433025304		25 - 1"	115	18	85	14	4	M 12	1,4	1	80,22
433032304		32 - 1 1/4"	140	18	100	18	4	M 16	2	1	117,90
433040304	PN10=16	40 - 1 1/2"	150	18	110	18	4	M 16	2,4	1	136,55
433050304		50 - 2"	165	18	125	18	4	M 16	2,9	1	167,35
433065304		65 - 2 1/2"	185	18	145	18	8	M 16	3,7	1	196,76
433080304		80 - 3"	200	20	160	18	8	M 16	4,6	1	258,40
433100304		100 - 4"	220	20	180	18	8	M 16	5,7	1	316,69
433125304		125 - 5"	250	22	210	18	8	M 16	8,1	1	455,64
433150304	PN16	150 - 6"	285	22	240	22	8	M 20	10,5	1	588,34
433200304		200 - 8"	340	24	295	22	12	M 20	16,5	1	907,75
433250304		250 - 10"	405	26	355	26	12	M 24	25	1	1426,32
433300304		300 - 12"	460	28	410	26	12	M 24	35	1	2040,34

432/316L - 433/316L**KÖR FLANŞ**

• BLIND FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 1092-1-05 tipo/tür "A"**PN10**

KOD / CODE	PN	DN	Flanş / Flange				Civatalar / Bolts		kg	R	€
			D mm	C4 mm	K mm	L mm	Nº	Thr.			
433015316	PN10=16=25=40	15 - 1/2"	95	16	65	14	4	M 12	0,8	1	73,49
433020316		20 - 3/4"	105	18	75	14	4	M 12	1,1	1	88,09
433025316		25 - 1"	115	18	85	14	4	M 12	1,4	1	106,67
433032316		32 - 1 1/4"	140	18	100	18	4	M 16	2	1	156,79
433040316		40 - 1 1/2"	150	18	110	18	4	M 16	2,4	1	181,60
433050316	PN10=16	50 - 2"	165	18	125	18	4	M 16	2,9	1	222,54
433065316		65 - 2 1/2"	185	18	145	18	8	M 16	3,7	1	261,71
433080316		80 - 3"	200	20	160	18	8	M 16	4,6	1	343,63
433100316		100 - 4"	220	20	180	18	8	M 16	5,7	1	421,15
433125316		125 - 5"	250	22	210	18	8	M 16	8,1	1	606,00
433150316	PN10	150 - 6"	285	22	240	22	8	M 20	10,5	1	782,58
432200316		200 - 8"	340	24	295	22	8	M 20	16,5	1	1177,27
432250316		250 - 10"	395	26	350	22	12	M 20	24	1	1824,73
432300316		300 - 12"	445	26	400	22	12	M 20	31	1	2379,61
432350316		350 - 14"	505	26	460	22	16	M 20	40	1	on demand
432400316	400 - 16"	565	26	515	26	16	M 24	50	1	on demand	
432500316	500 - 20"	670	28	620	26	20	M 24	75	1	on demand	



433/316L

KÖR FLANŞ

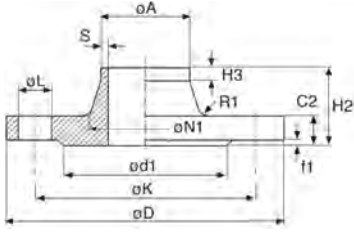
• BLIND FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404

NORM: EN 1092-1-05 tipo/tür "A"

PN 16

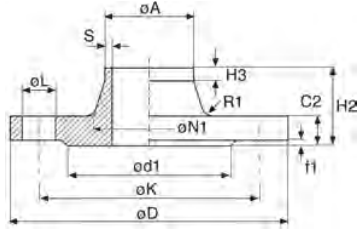
KOD / CODE	PN	DN	Flanş / Flange				Civatalar / Bolts		kg	€	
			D mm	C4 mm	K mm	L mm	Nº	Thr.			
433015316	PN10=16=25=40	15 - 1/2"	95	16	65	14	4	M12	0,8	1	73,49
433020316		20 - 3/4"	105	18	75	14	4	M12	1,1	1	88,09
433025316		25 - 1"	115	18	85	14	4	M12	1,4	1	106,67
433032316		32 - 1"1/4"	140	18	100	18	4	M16	2	1	156,79
433040316		40 - 1"1/2"	150	18	110	18	4	M16	2,4	1	181,60
433050316	PN10=16	50 - 2"	165	18	125	18	4	M16	2,9	1	222,54
433065316		65 - 2"1/2"	185	18	145	18	8	M16	3,7	1	261,71
433080316		80 - 3"	200	20	160	18	8	M16	4,6	1	343,63
433100316		100 - 4"	220	20	180	18	8	M16	5,7	1	421,15
433125316		125 - 5"	250	22	210	18	8	M16	8,1	1	606,00
433150316	PN16	150 - 6"	285	22	240	22	8	M20	10,5	1	782,58
433200316		200 - 8"	340	24	295	22	12	M20	16,5	1	1177,27
433250316		250 - 10"	405	26	355	26	12	M24	25	1	1942,48
433300316		300 - 12"	460	28	410	26	12	M24	35	1	2507,48
433350316		350 - 14"	520	30	470	26	16	M24	48	1	on demand
433400316		400 - 16"	580	32	525	30	16	M27	63,5	1	on demand
433500316		500 - 20"	715	44	650	33	20	M30	133	1	on demand

**429/304L****KAYNAK BOYUNLU FLANŞ**

• WELDING NECK FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307**NORM:** EN 1092-1-11 tipo/tür "B1"**PN 16**

KOD / CODE	PN	Boru / Pipe		Flanş / Flange										Civatalar / Bolts		kg	€			
		DN	A mm	D mm	C2 mm	H2 mm	N1 mm	S mm	R1 mm	H3 mm	d1 mm	K mm	f1 mm	L mm	Nº			Thr.		
429015304	PN10=16=25=40	15 - 1/2"	21,3	95	16	38	32	2	4	6	45	65	2	14	4	M 12	1	1	48,53	
429020304		20 - 3/4"	26,9	105	18	40	40	2,3	4	6	58	75	2	14	4	M 12	1	1	68,72	
429025304		25 - 1"	33,7	115	18	40	46	2,6	4	6	68	85	2	14	4	M 12	1	1	81,86	
429032304		32 - 1 1/4"	42,4	140	18	42	56	2,6	6	6	78	100	2	18	4	M 16	2	1	120,32	
429040304		40 - 1 1/2"	48,3	150	18	45	64	2,6	6	7	88	110	3	18	4	M 16	2	1	135,42	
429050304	PN10=16	50 - 2"	60,3	165	18	45	74	2,9	6	8	102	125	3	18	4	M 16	2,5	1	159,20	
429065304		65 - 2 1/2"	76,1	185	18	45	92	2,9	6	10	122	145	3	18	8	M 16	3	1	187,62	
429080304		80 - 3"	88,9	200	20	50	105	3,2	6	10	138	160	3	18	8	M 16	3,7	1	242,70	
429100304		100 - 4"	114,3	220	20	52	131	3,6	8	12	158	180	3	18	8	M 16	4,6	1	286,19	
429125304		125 - 5"	139,7	250	22	55	156	4	8	12	188	210	3	18	8	M 16	6,3	1	411,26	
429150304		150 - 6"	168,3	285	22	55	184	4,5	10	12	212	240	3	22	8	M 20	7,7	1	620,57	
429200304		200 - 8"	219,1	340	24	62	235	6,3	10	16	268	295	3	22	12	M 20	11	1	854,04	
429250304		250 - 10"	273	405	26	70	292	6,3	12	16	320	355	3	26	12	M 24	15,6	1	1283,09	
429300304		PN16	300 - 12"	323,9	460	28	78	344	7,1	12	16	378	410	4	26	12	M 24	22	1	1349,95
429350304			350 - 14"	355,6	520	30	82	390	8	12	16	438	470	4	26	16	M 24	32	1	on demand
429400304	400 - 16"		406,4	580	32	85	445	8	12	16	490	525	4	30	16	M 27	40	1	on demand	
429500304	500 - 20"		508	715	36	84	548	8	12	16	610	650	4	33	20	M 30	74	1	on demand	



429/316L

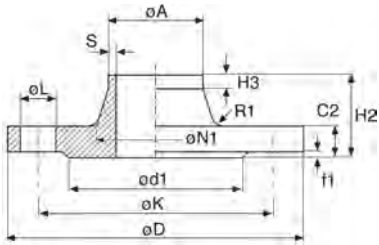
KAYNAK BOYUNLU FLANŞ

• WELDING NECK FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: EN 1092-1-11 tipo/tür "B1"

PN 16

KOD / CODE	PN	Boru / Pipe		Flanş / Flange										Civatalar / Bolts		kg	€		
		DN	A mm	D mm	C2 mm	H2 mm	N1 mm	S mm	R1 mm	H3 mm	d1 mm	K mm	f1 mm	L mm	Nº			Thr.	
429015316	PN10=16=25=40	15 - 1/2"	21,3	95	16	38	32	2	4	6	45	65	2	14	4	M12	1	1	59,00
429020316		20 - 3/4"	26,9	105	18	40	40	2,3	4	6	58	75	2	14	4	M12	1	1	83,54
429025316		25 - 1"	33,7	115	18	40	46	2,6	4	6	68	85	2	14	4	M12	1	1	99,17
429032316		32 - 1 1/4"	42,4	140	18	42	56	2,6	6	6	78	100	2	18	4	M16	2	1	132,54
429040316		40 - 1 1/2"	48,3	150	18	45	64	2,6	6	7	88	110	3	18	4	M16	2	1	149,54
429050316	PN10=16	50 - 2"	60,3	165	18	45	74	2,9	6	8	102	125	3	18	4	M16	2,5	1	182,88
429065316		65 - 2 1/2"	76,1	185	18	45	92	2,9	6	10	122	145	3	18	8	M16	3	1	214,07
429080316		80 - 3"	88,9	200	20	50	105	3,2	6	10	138	160	3	18	8	M16	3,7	1	270,78
429100316		100 - 4"	114,3	220	20	52	131	3,6	8	12	158	180	3	18	8	M16	4,6	1	305,04
429125316		125 - 5"	139,7	250	22	55	156	4	8	12	188	210	3	18	8	M16	6,3	1	446,58
429150316	PN16	150 - 6"	168,3	285	22	55	184	4,5	10	12	212	240	3	22	8	M20	7,7	1	742,70
429200316		200 - 8"	219,1	340	24	62	235	6,3	10	16	268	295	3	22	12	M20	11	1	1044,68
429250316		250 - 10"	273	405	26	70	292	6,3	12	16	320	355	3	26	12	M24	15,6	1	1498,38
429300316		300 - 12"	323,9	460	28	78	344	7,1	12	16	378	410	4	26	12	M24	22	1	2566,06
429350316		350 - 14"	355,6	520	30	82	390	8	12	16	438	470	4	26	16	M24	32	1	on demand
429400316	PN16	400 - 16"	406,4	580	32	85	445	8	12	16	490	525	4	30	16	M27	40	1	on demand
429500316		500 - 20"	508	715	36	84	548	8	12	16	610	650	4	33	20	M30	74	1	on demand



429/304L - 430/304L

KAYNAK BOYUNLU FLANŞ

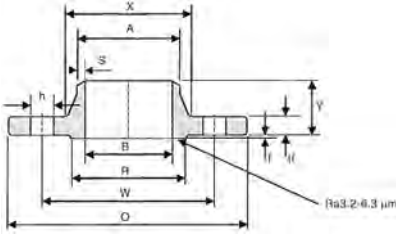
• WELDING NECK FLANGE

MALZEME / MATERIAL: AISI 304L - 1.4307
NORM: EN 1092-1-11 tipo/tür "B1"

PN 40

KOD / CODE	PN	Boru / Pipe		Flanş / Flange										Civatalar / Bolts		kg	€		
		DN	A mm	D mm	C2 mm	H2 mm	N1 mm	S mm	R1 mm	H3 mm	d1 mm	K mm	f1 mm	L mm	Nº			Thr.	
429015304	PN10=16=25=40	15 - 1/2"	21,3	95	16	38	32	2	4	6	45	65	2	14	4	M12	1	1	48,53
429020304		20 - 3/4"	26,9	105	18	40	40	2,3	4	6	58	75	2	14	4	M12	1	1	68,72
429025304		25 - 1"	33,7	115	18	40	46	2,6	4	6	68	85	2	14	4	M12	1	1	81,86
429032304		32 - 1 1/4"	42,4	140	18	42	56	2,6	6	6	78	100	2	18	4	M16	2	1	120,32
429040304		40 - 1 1/2"	48,3	150	18	45	64	2,6	6	7	88	110	3	18	4	M16	2	1	135,42
430050304	PN40	50 - 2"	60,3	165	20	48	75	2,9	6	8	102	125	3	18	4	M16	2,85	1	198,98
430065304		65 - 2 1/2"	76,1	185	22	52	90	2,9	6	10	122	145	3	18	8	M16	3,68	1	256,86
430080304		80 - 3"	88,9	200	24	58	105	3,2	8	12	138	160	3	18	8	M16	4,78	1	333,65
430100304		100 - 4"	114,3	235	24	65	134	3,6	8	12	162	190	3	22	8	M20	6,46	1	451,10
430125304		125 - 5"	139,7	270	26	68	162	4	8	12	188	220	3	26	8	M24	8,86	1	618,64
430150304	PN40	150 - 6"	168,3	300	28	75	192	4,5	10	12	218	250	3	26	8	M24	11,7	1	816,83
430200304		200 - 8"	219,1	375	34	88	244	6,3	10	16	285	320	3	30	12	M27	21	1	1521,37
430250304		250 - 10"	273	450	38	105	306	7,1	12	18	345	385	3	33	12	M30	34,2	1	2387,51
430300304		300 - 12"	323,9	515	42	115	362	8	12	18	410	450	4	33	16	M30	47,6	1	3322,96

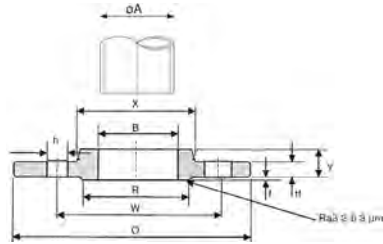
A 2024

**437/316L****FKAYNAK BOYUNLU FLANŞ**

• WELDING NECK FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: ANSI B16.5150 lb
SCH.
40S

KOD / CODE	Boru / Pipe		Flanş / Flange									Civatalar / Bolts		kg	kg	€
	DN	A mm	O mm	B mm	tf mm	X mm	Y mm	S mm	R mm	W mm	f mm	Nº	h mm			
437406015	15 - 1/2"	21,3	90	15,8	9,6	30	46	2,77	34,9	60,3	2	4	15,88	0,51	1	43,74
437406020	20 - 3/4"	26,7	100	21	11,2	38	51	2,87	42,9	69,9	2	4	15,88	0,75	1	51,05
437406025	25 - 1"	33,4	110	26,6	12,7	49	54	3,38	50,8	79,4	2	4	15,88	1,08	1	73,56
437406032	32 - 1 1/4"	42,2	115	35,1	14,3	59	56	3,56	63,5	88,9	2	4	15,88	1,33	1	87,46
437406040	40 - 1 1/2"	48,3	125	40,9	15,9	65	60	3,68	73	98,4	2	4	15,88	1,71	1	122,41
437406050	50 - 2"	60,3	150	52,5	17,5	78	62	3,91	92,1	120,7	2	4	19,05	2,58	1	184,94
437406065	65 - 2 1/2"	73	180	62,7	20,7	90	68	5,16	104,8	139,7	2	4	19,05	4,31	1	278,87
437406080	80 - 3"	88,9	190	77,9	22,3	108	68	5,49	127	152,4	2	4	19,05	5,04	1	349,19
437406100	100 - 4"	114,3	230	102,3	22,3	135	75	6,02	157,2	190,5	2	8	19,05	7,2	1	498,92
437406125	125 - 5"	141,3	255	128,2	22,3	164	87	6,55	185,7	215,9	2	8	22,23	9,01	1	582,96
437406150	150 - 6"	168,3	280	154,1	23,9	192	87	7,11	215,9	241,3	2	8	22,23	11,01	1	789,37
437406200	200 - 8"	219,1	345	202,7	27	246	100	8,18	269,9	298,5	2	8	22,23	18,36	1	1272,34

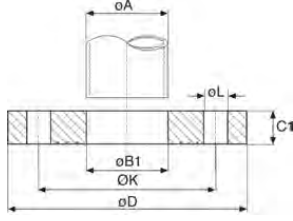
**438/316L****SLIP-ON FLANŞ**

• SLIP-ON FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404
NORM: ANSI B16.5150 lb
SCH.
40S

A 2024

KOD / CODE	Boru / Pipe		Flanş / Flange									Civatalar / Bolts		kg	kg	€
	DN	A mm	O mm	B mm	tf mm	X mm	Y mm	R mm	W mm	f mm	Nº	h mm				
438406015	15 - 1/2"	21,3	90	22,2	9,6	30	14	34,9	60,3	2	4	15,88	0,41	1	28,24	
438406020	20 - 3/4"	26,7	100	27,7	11,2	38	14	42,9	69,9	2	4	15,88	0,6	1	36,83	
438406025	25 - 1"	33,4	110	34,5	12,7	49	16	50,8	79,4	2	4	15,88	0,83	1	52,63	
438406032	32 - 1 1/4"	42,2	115	43,2	14,3	59	19	63,5	88,9	2	4	15,88	1	1	60,17	
438406040	40 - 1 1/2"	48,3	125	49,5	15,9	65	21	73	98,4	2	4	15,88	1,3	1	81,34	
438406050	50 - 2"	60,3	150	61,9	17,5	78	24	92,1	120,7	2	4	19,05	2,03	1	158,45	
438406065	65 - 2 1/2"	73	180	74,6	20,7	90	27	104,8	139,7	2	4	19,05	3,44	1	208,09	
438406080	80 - 3"	88,9	190	90,7	22,3	108	29	127	152,4	2	4	19,05	3,91	1	254,02	
438406100	100 - 4"	114,3	230	116,1	22,3	135	32	157,2	190,5	2	8	19,05	5,5	1	377,56	
438406125	125 - 5"	141,3	255	143,8	22,3	164	35	185,7	215,9	2	8	22,23	6,27	1	408,40	
438406150	150 - 6"	168,3	280	170,7	23,9	192	38	215,9	241,3	2	8	22,23	7,64	1	581,18	
438406200	200 - 8"	219,1	345	221,5	27	246	43	269,9	298,5	2	8	22,23	12,54	1	811,42	



440/304 - 441/304 MICROFUSE-CASTING

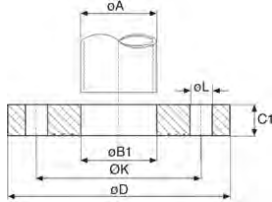
LEVHA FLANŞ

• PLATE FLANGE

MALZEME / MATERIAL: AISI 304 - 1.4301
NORM: UNI 2278

PN 10

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	kg	€
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
441015304	PN10=16	15 - 1/2"	21,3	22	95	12	65	14	4	M12	0,6	1	28,63
441020304		20 - 3/4"	26,9	27,5	105	14	75	14	4	M12	0,8	1	40,20
441025304		25 - 1"	33,7	34,5	115	14	85	14	4	M12	1,0	1	47,47
441032304		32 - 1 1/4"	42,4	43,5	140	16	100	18	4	M16	1,7	1	77,80
441040304		40 - 1 1/2"	48,3	49,5	150	16	110	18	4	M16	1,9	1	88,88
441050304		50 - 2"	60,3	61,5	165	18	125	18	4	M16	2,25	1	116,65
441065304		65 - 2 1/2"	76,1	77,5	185	18	145	18	4	M16	3,0	1	132,48
441080304		80 - 3"	88,9	90,5	200	20	160	18	8	M16	3,94	1	150,91
441100304		100 - 4"	114,3	116	220	22	180	18	8	M16	4,5	1	184,01
441125304		125 - 5"	139,7	141,5	250	22	210	18	8	M16	6,1	1	226,81
441150304	150 - 6"	168,3	170,5	285	24	240	22	8	M20	7,5	1	299,29	
440200304	PN10	200 - 8"	219,1	221,5	340	24	295	22	8	M20	10	1	403,46
440250304		250 - 10"	273	276,5	395	26	350	22	12	M20	13	1	533,11
440300304		300 - 12"	323,9	327,5	445	26	400	22	12	M20	15	1	634,96



441/304 MICROFUSE-CASTING

LEVHA FLANŞ

• PLATE FLANGE

MALZEME / MATERIAL: AISI 304 - 1.4301
NORM: UNI 2278

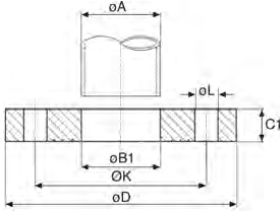
PN 16

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	kg	€
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
441015304	PN10=16	15 - 1/2"	21,3	22	95	12	65	14	4	M12	0,6	1	28,63
441020304		20 - 3/4"	26,9	27,5	105	14	75	14	4	M12	0,8	1	40,20
441025304		25 - 1"	33,7	34,5	115	14	85	14	4	M12	1,0	1	47,47
441032304		32 - 1 1/4"	42,4	43,5	140	16	100	18	4	M16	1,7	1	77,80
441040304		40 - 1 1/2"	48,3	49,5	150	16	110	18	4	M16	1,9	1	88,88
441050304		50 - 2"	60,3	61,5	165	18	125	18	4	M16	2,25	1	116,65
441065304		65 - 2 1/2"	76,1	77,5	185	18	145	18	4	M16	3,0	1	132,48
441080304		80 - 3"	88,9	90,5	200	20	160	18	8	M16	3,94	1	150,91
441100304		100 - 4"	114,3	116	220	22	180	18	8	M16	4,5	1	184,01
441125304		125 - 5"	139,7	141,5	250	22	210	18	8	M16	6,1	1	226,81
441150304	150 - 6"	168,3	170,5	285	24	240	22	8	M20	7,5	1	299,29	
441200304	PN16	200 - 8"	219,1	221,5	340	26	295	22	12	M20	10	1	423,50
441250304		250 - 10"	273	276,5	405	29	355	26	12	M24	16	1	641,57
441300304		300 - 12"	323,9	327,5	460	32	410	26	12	M24	19,5	1	785,76

A 20 23

**440/316 - 441/316
MICROFUSE-CASTING****LEVHA FLANŞ**

• PLATE FLANGE

MALZEME / MATERIAL: AISI 316 - 1.4401
NORM: UNI 2277

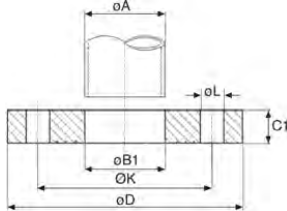
PN 10

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	kg	€
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
441015316	PN10=16	15 - 1/2"	21,3	22	95	12	65	14	4	M12	0,6	1	39,59
441020316		20 - 3/4"	26,9	27,5	105	14	75	14	4	M12	0,8	1	53,65
441025316		25 - 1"	33,7	34,5	115	14	85	14	4	M12	1,0	1	55,32
441032316		32 - 1 1/4"	42,4	43,5	140	16	100	18	4	M16	1,7	1	95,24
441040316		40 - 1 1/2"	48,3	49,5	150	16	110	18	4	M16	1,9	1	109,86
441050316		50 - 2"	60,3	61,5	165	18	125	18	4	M16	2,25	1	145,82
441065316		65 - 2 1/2"	76,1	77,5	185	18	145	18	4	M16	3,0	1	177,12
441080316		80 - 3"	88,9	90,5	200	20	160	18	8	M16	3,94	1	190,16
441100316		100 - 4"	114,3	116	220	22	180	18	8	M16	4,5	1	232,14
441125316		125 - 5"	139,7	141,5	250	22	210	18	8	M16	6,1	1	296,08
441150316	150 - 6"	168,3	170,5	285	24	240	22	8	M20	7,5	1	391,09	
440200316	PN10	200 - 8"	219,1	221,5	340	24	295	22	8	M20	10	1	509,40
440250316		250 - 10"	273	276,5	395	26	350	22	12	M20	13	1	645,26
440300316		300 - 12"	323,9	327,5	445	26	400	22	12	M20	15	1	699,35

A 20 23

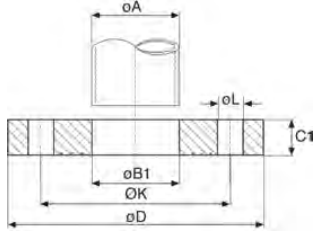
**441/316
MICROFUSE-CASTING****LEVHA FLANŞ**

• PLATE FLANGE

MALZEME / MATERIAL: AISI 316 - 1.4401
NORM: UNI 2277

PN 16

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	kg	€
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
441015316	PN10=16	15 - 1/2"	21,3	22	95	12	65	14	4	M12	0,6	1	39,59
441020316		20 - 3/4"	26,9	27,5	105	14	75	14	4	M12	0,8	1	53,65
441025316		25 - 1"	33,7	34,5	115	14	85	14	4	M12	1,0	1	55,32
441032316		32 - 1 1/4"	42,4	43,5	140	16	100	18	4	M16	1,7	1	95,24
441040316		40 - 1 1/2"	48,3	49,5	150	16	110	18	4	M16	1,9	1	109,86
441050316		50 - 2"	60,3	61,5	165	18	125	18	4	M16	2,25	1	145,82
441065316		65 - 2 1/2"	76,1	77,5	185	18	145	18	4	M16	3,0	1	177,12
441080316		80 - 3"	88,9	90,5	200	20	160	18	8	M16	3,94	1	190,16
441100316		100 - 4"	114,3	116	220	22	180	18	8	M16	4,5	1	232,14
441125316		125 - 5"	139,7	141,5	250	22	210	18	8	M16	6,1	1	296,08
441150316	150 - 6"	168,3	170,5	285	24	240	22	8	M20	7,5	1	391,09	
441200316	PN16	200 - 8"	219,1	221,5	340	26	295	22	12	M20	10	1	542,40
441250316		250 - 10"	273	276,5	405	29	355	26	12	M24	16	1	819,67
441300316		300 - 12"	323,9	327,5	460	32	410	26	12	M24	19,5	1	966,28



442/304 - 443/304 MICROFUSE RIDOTTE REDUCED CASTING

LEVHA FLANŞ AZALTICI KALINLIĞI

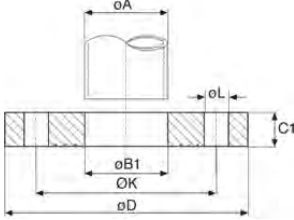
• PLATE FLANGE REDUCED THICKNESS

MALZEME / MATERIAL: AISI 304 - 1.4301

NORM: spessore ridotto / ince kalınlık

PN 10

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	kg	€
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
442040304	PN10=16	40 - 1 1/2	48,3	49	150	10	110	18	4	M 16	1,31	1	62,23
442050304		50 - 2"	60,3	61,5	165	10	125	18	4	M 16	1,39	1	81,67
442065304		65 - 2 1/2	76,1	77	185	12	145	18	4	M 16	2,2	1	92,68
442080304		80 - 3"	88,9	90	200	12	160	18	8	M 16	2,36	1	105,62
442100304		100 - 4"	114,3	115,5	220	12	180	18	8	M 16	2,46	1	128,80
442125304		125 - 5"	139,7	141	250	14	210	18	8	M 16	3,56	1	158,77
442150304	PN10	150 - 6"	168,3	170	285	14	240	22	8	M 20	4,38	1	209,50
443200304		200 - 8"	219,1	221	340	16	295	22	8	M 20	6,2	1	282,46
443250304		250 - 10"	273	275	395	18	350	22	12	M 20	8,3	1	373,15
443300304		300 - 12"	323,9	326	445	18	400	22	12	M 20	9,6	1	444,49



442/304 MICROFUSE RIDOTTE REDUCED CASTING

LEVHA FLANŞ AZALTICI KALINLIĞI

• PLATE FLANGE REDUCED THICKNESS

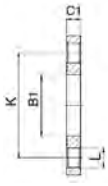
MALZEME / MATERIAL: AISI 304 - 1.4301

NORM: spessore ridotto / ince kalınlık

PN 16

KOD / CODE	PN	Boru / Pipe		Flanş / Flange					Civatalar / Bolts		kg	kg	€
		DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Nº	Thr.			
442040304	PN10=16	40 - 1 1/2	48,3	49	150	10	110	18	4	M 16	1,31	1	62,23
442050304		50 - 2"	60,3	61,5	165	10	125	18	4	M 16	1,39	1	81,67
442065304		65 - 2 1/2	76,1	77	185	12	145	18	4	M 16	2,2	1	92,68
442080304		80 - 3"	88,9	90	200	12	160	18	8	M 16	2,36	1	105,62
442100304		100 - 4"	114,3	115,5	220	12	180	18	8	M 16	2,46	1	128,80
442125304		125 - 5"	139,7	141	250	14	210	18	8	M 16	3,56	1	158,77
442150304	PN16	150 - 6"	168,3	170	285	14	240	22	8	M 20	4,38	1	209,50
442200304		200 - 8"	219,1	221	340	16	295	22	12	M 20	6	1	296,46
442250304		250 - 10"	273	275	405	18	355	26	12	M 24	9	1	449,12
442300304		300 - 12"	323,9	326	460	18	410	26	12	M 24	10,9	1	550,06

A 20 21

**193-005/316L****KARE FLANŞ**

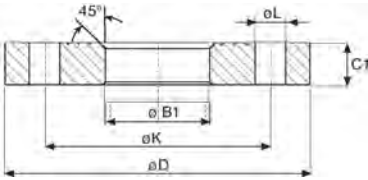
• SQUARE FLANGE

MALZEME / MATERIAL: AISI 316L - 1.4404

PN 10

KOD / CODE	DN	A mm	B1 mm	D mm	C1 mm	K mm	L mm	Delikler	Dişli	kg		€
193015005	15	72	22	90	10	65	14	4	M 12	0,32	1	46,28
193020005	20	72	27,5	90	10	65	14	4	M 12	0,303	1	46,28
193025005	25	78	34,5	95	10	70	14	4	M 12	0,339	1	52,82
193032005	32	82	43,5	100	10	75	14	4	M 12	0,344	1	54,46
193040005	40	85	49,5	110	10	85	14	4	M 12	0,362	1	55,08
193050005	50	95	61,5	120	10	95	14	4	M 12	0,413	1	71,64

A 20 21

**425/000****ALÜMİNYUM GEVŞEK FLANŞ**

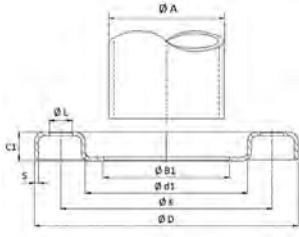
• ALUMINIUM LOOSE FLANGE

MALZEME / MATERIAL: aluminium / alüminyum
EN AB 47000 (UNI
7369/2)

NORM: UNI 6089 - DIN 2642 ISO R64

PN 10

KOD / CODE	Boru / Pipe		Flanş / Flange					Civatalar Bolts	kg		€
	DN	A mm	D mm	C1 mm	B1 mm	K mm	L mm				
425010010	10 - 3/8"	17,2	90	12	19	60	14	4	0,18	1	9,83
425015010	15 - 1/2"	21,3	95	12	24	65	14	4	0,19	1	10,03
425020010	20 - 3/4"	26,9	105	12	30	75	14	4	0,22	1	11,00
425025010	25 - 1"	33,7	115	12	36	85	14	4	0,27	1	11,89
425032010	32 - 1 1/4"	42,4	140	16	46	100	18	4	0,53	1	18,42
425040010	40 - 1 1/2"	48,3	150	16	54	110	18	4	0,59	1	19,92
425050010	50 - 2"	60,3	165	16	65	125	18	4	0,7	1	22,82
425065010	65 - 2 1/2"	76,1	185	16	81	145	18	4	0,87	1	26,98
425080010	80 - 3"	88,9	200	18	94	160	18	8	1,05	1	31,10
425100010	100 - 4"	114,3	220	18	119	180	18	8	1,16	1	33,00
425125010	125 - 5"	139,7	250	18	144	210	18	8	1,45	1	46,07
425150010	150 - 6"	168,3	285	18	173	240	22	8	1,7	1	48,26
425200010	200 - 8"	219,1	340	20	225	295	22	8	2,5	1	75,19
425250010	250 - 10"	273	395	22	279	350	22	12	3,25	1	99,84
425300010	300 - 12"	323,9	445	22	329	400	22	12	3,8	1	107,95



YENİ

423/304 ISO

GEVŞEK PRESLENMİŞ FLANŞ

• PRESSED LOOSE FLANGE

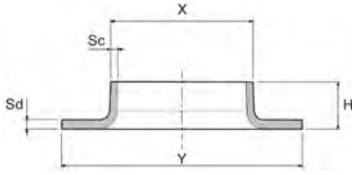
MALZEME / MATERIAL: AISI 304 - 1.4301

NORM: DIN 2642 - ISO

PN 10

KOD / CODE	DN	Boru Pipe mm	Flanş / Flange							Civatalar / Bolts		kg	kg	€
			B1 mm	D mm	C1 mm	S mm	d1 mm	K mm	L mm	Nº	Thr.			
423015304	15 - 1/2"	21,3	24	95	12	3	38	65	14	4	M 12	0,160	1	12,54
423020304	20 - 3/4"	26,9	30	105	12	3	48	75	14	4	M 12	0,220	1	14,23
423025304	25 - 1"	33,7	37	115	15	3	53	85	14	4	M 12	0,270	1	16,10
423032304	32 - 1 1/4"	42,4	45	140	15	3	68	100	18	4	M 16	0,380	1	20,12
423040304	40 - 1 1/2"	48,3	54	150	17,5	3	77	110	18	4	M 16	0,450	1	25,18
423050304	50 - 2"	60,3	65	165	19	3	91	125	18	4	M 16	0,550	1	31,08
423065304	65 - 2 1/2"	76,1	81	185	21	4	108	145	18	4	M 16	0,840	1	44,83
423080304	80 - 3"	88,9	94	200	21,5	4	123	160	18	8	M 16	0,970	1	54,48
423100304	100 - 4"	114,3	119	220	22	4	141	180	18	8	M 16	1,200	1	64,68
423125304	125 - 5"	139,7	145	250	23,5	5	168	210	18	8	M 16	2,100	1	101,56
423150304	150 - 6"	168,3	173	285	28	5	192	240	22	8	M 20	2,200	1	134,41
423200304	200 - 8"	219,1	225	340	29,5	6	245	295	22	8	M 20	3,500	1	230,06
423250304	250 - 10"	273	279	395	31	6	295	350	22	12	M 20	4,000	1	299,05

A 20 22

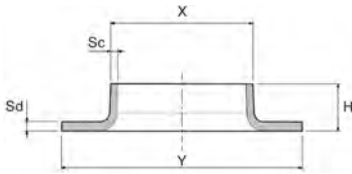
**177/304L****YAPIM EKLEMİ**

• LAP-JOINT

MALZEME / MATERIAL: AISI 304L - 1.4307**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	DN inch	Y mm	X mm	H mm	Sd mm	Sc mm			€
177172304	10	3/8"	40	17,2	6	2	2	20	10	4,81
177213304	15	1/2"	43	21,3	7	2	2	25	10	4,81
177269304	20	3/4"	58	26,9	8	2	2	38	10	4,81
177337304	25	1"	68	33,7	9	2	2	55	10	4,81
177424304	32	1"1/4	78	42,4	10	2	2	68	10	5,69
177483304	40	1"1/2	88	48,3	10	2	2	85	10	7,18
177603304	50	2"	102	60,3	12	2	2	115	10	8,90
177761304	65	2"1/2	122	76,1	12	2	2	150	10	11,89
177889304	80	3"	138	88,9	12	2	2	170	10	13,68
177114304	100	4"	158	114,3	16	2	2	200	10	17,33
177139304	125	5"	185	139,7	16	2	2	300	5	21,60
177168304	150	6"	212	168,3	17	2	2	350	5	24,67
177219304	200	8"	270	219,1	18	2	2	500	2	39,83

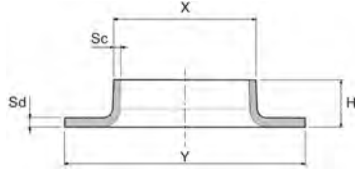
A 20 22

**177/316L****YAPIM EKLEMİ**

• LAP-JOINT

MALZEME / MATERIAL: AISI 316L - 1.4404**Kalınlık: 2 mm - Thickness: 2 mm**

KOD / CODE	DN	DN inch	Y mm	X mm	H mm	Sd mm	Sc mm			€
177172316	10	3/8"	40	17,2	6	2	2	20	10	5,95
177213316	15	1/2"	43	21,3	7	2	2	25	10	5,95
177269316	20	3/4"	58	26,9	8	2	2	38	10	5,95
177337316	25	1"	68	33,7	9	2	2	55	10	7,19
177424316	32	1"1/4	78	42,4	10	2	2	68	10	9,44
177483316	40	1"1/2	88	48,3	10	2	2	85	10	9,78
177603316	50	2"	102	60,3	12	2	2	115	10	13,49
177761316	65	2"1/2	122	76,1	12	2	2	150	10	17,81
177889316	80	3"	138	88,9	12	2	2	170	10	19,08
177114316	100	4"	158	114,3	16	2	2	200	10	24,46
177139316	125	5"	185	139,7	16	2	2	300	5	32,82
177168316	150	6"	212	168,3	17	2	2	350	5	37,42
177219316	200	8"	270	219,1	18	2	2	500	2	61,37



**477/304L**

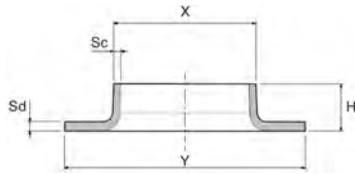
A 20 22

YAPIM EKLEMİ

• LAP-JOINT

MALZEME / MATERIAL: AISI 304L - 1.4307**Kalınlık: 3 mm - Thickness: 3 mm**

KOD / CODE	DN	DN inch	Y mm	X mm	H mm	Sd mm	Sc mm			€
477172304	10	3/8"	40	17,2	6	3	3	40	10	6,05
477213304	15	1/2"	43	21,3	7	3	3	50	10	6,05
477269304	20	3/4"	58	26,9	8	3	3	75	10	7,40
477337304	25	1"	68	33,7	9	3	3	80	10	8,22
477424304	32	1 1/4"	78	42,4	10	3	3	125	10	9,66
477483304	40	1 1/2"	88	48,3	10	3	3	130	10	11,89
477603304	50	2"	102	60,3	12	3	3	175	10	15,22
477761304	65	2 1/2"	122	76,1	12	3	3	225	10	20,57
477889304	80	3"	138	88,9	12	3	3	250	10	23,69
477114304	100	4"	158	114,3	16	3	3	316	10	28,09
477139304	125	5"	185	139,7	16	3	3	400	5	35,44
477168304	150	6"	212	168,3	17	3	3	475	5	42,24
477219304	200	8"	270	219,1	18	3	3	725	2	60,78



**477/316L**

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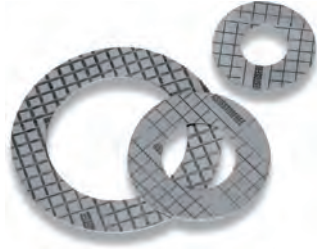
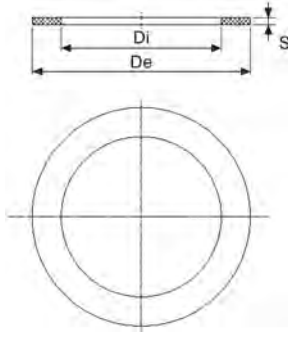
YAPIM EKLEMİ

• LAP-JOINT

MALZEME / MATERIAL: AISI 316L - 1.4404**Kalınlık: 3 mm - Thickness: 3 mm**



KOD / CODE	DN	DN inch	Y mm	X mm	H mm	Sd mm	Sc mm			€
477172316	10	3/8"	40	17,2	6	3	3	40	10	10,50
477213316	15	1/2"	43	21,3	7	3	3	50	10	10,50
477269316	20	3/4"	58	26,9	8	3	3	75	10	10,50
477337316	25	1"	68	33,7	9	3	3	80	10	11,60
477424316	32	1 1/4"	78	42,4	10	3	3	125	10	14,34
477483316	40	1 1/2"	88	48,3	10	3	3	130	10	16,57
477603316	50	2"	102	60,3	12	3	3	175	10	21,60
477761316	65	2 1/2"	122	76,1	12	3	3	225	10	29,46
477889316	80	3"	138	88,9	12	3	3	250	10	33,35
477114316	100	4"	158	114,3	16	3	3	316	10	39,25
477139316	125	5"	185	139,7	16	3	3	400	5	43,39
477168316	150	6"	212	168,3	17	3	3	475	5	61,01
477219316	200	8"	270	219,1	18	3	3	725	2	90,77

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**434/PN6****FLANŞ CONTASI**

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco**NORM:** EN 1092-1**PN 6**

KOD / CODE	DN	De mm	Di mm	S mm			€
434015006	15 - (1/2")	44	20	2	4	10	0,72
434020006	20 - (3/4")	54	25	2	6	10	1,05
434025006	25 - (1")	64	30	2	9	10	1,46
434032006	32 - (1 1/4")	75	38	2	11	10	1,97
434040006	40 - (1 1/2")	85	45	2	14	10	2,56
434050006	50 - (2")	95	57	2	15	10	3,91
434065006	65 - (2 1/2")	115	76	2	19	10	5,38
434080006	80 - (3")	132	89	2	26	10	6,38
434100006	100 - (4")	152	108	2	29	10	7,55
434125006	125 - (5")	182	133	2	41	10	10,48
434150006	150 - (6")	207	160	2	38	10	11,94
434200006	200 - (8")	262	218	2	58	10	18,62
434250006	250 - (10")	317	273	2	78	10	24,81
434300006	300 - (12")	373	318	2	113	10	26,80

Sesalit ECO: NBR/SBR asbest içermeyen organik ve sentetik lifler ile bağlanmış**KULLANIM ALANLARI:** sıcak ve soğuk su, bitkisel ve hayvansal yağlar, hava, bazı yakıtlar (GAZ yok)**KILAVUZ SICAKLIK SINIRLARI**

Kısa süreli maruz kalma için maksimum sıcaklık: 180-200 °C

Sürekli agresif olmayan yakıtlar için maksimum çalışma sıcaklığı: 140 °C

Buhar ile sürekli çalışma için maksimum sıcaklık: 110 °C

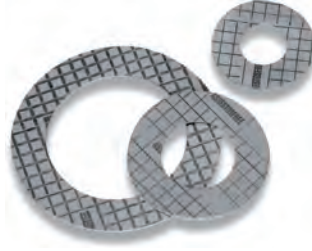
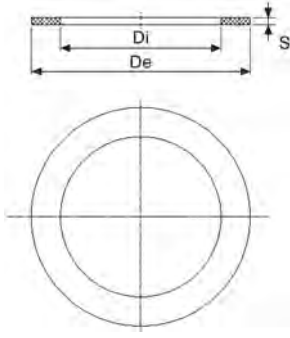
ONAY: içme suyu WRAS n° 1605525**Sesalit ECO:** organic and synthetic fibers bonded with NBR/SBR asbestos-free**USES:** hot and cold water, vegetable and animal oils, air, some fuels (no GAS)**GUIDELINE TEMPERATURE LIMITS**

Maximum temperature for short exposure: 180-200 °C

Maximum operating temperature for continuous non-aggressive fluids: 140 °C

Maximum temperature for continuous operation with steam: 110 °C

APPROVAL: potable water WRAS n° 1605525



434/PN10-16

FLANŞ CONTASI

• GASKET FOR FLANGE

MALZEME / MATERIAL: Sesalit Eco

NORM: EN 1092-1

PN
10/16

KOD / CODE	DN	De mm	Di mm	S mm	g	g	€
434015000	15 - [1/2"]	50	20	2	6	10	0,72
434020000	20 - [3/4"]	60	25	2	8	10	1,03
434025000	25 - [1"]	70	30	2	10	10	1,45
434032000	32 - [1"1/4"]	82	38	2	14	10	1,97
434040000	40 - [1"1/2"]	92	45	2	17	10	2,56
434050000	50 - [2"]	108	57	2	22	10	3,87
434065000	65 - [2"1/2"]	127	76	2	27	10	5,34
434080000	80 - [3"]	142	89	2	30	10	6,32
434100000	100 - [4"]	162	108	2	38	10	7,25
434125000	125 - [5"]	192	140	2	44	10	10,19
434150000	150 - [6"]	218	169	2	55	10	11,63
434200000	200 - [8"]	273	218	2	71	10	18,00
434250000	250 - [10"]	328	273	2	91	10	24,19
434300000	300 - [12"]	378	318	2	137	10	26,26
434350000	350 - [14"]	438	368	2	162	10	35,70
434400000	400 - [16"]	490	420	2	180	10	44,57

Sesalit ECO: NBR/SBR asbest içermeyen organik ve sentetik lifler ile bağlanmış

KULLANIM ALANLARI: sıcak ve soğuk su, bitkisel ve hayvansal yağlar, hava, bazı yakıtlar (GAZ yok)

KILAVUZ SICAKLIK SINIRLARI

Kısa süreli maruz kalma için maksimum sıcaklık: 180-200 °C

Sürekli agresif olmayan yakıtlar için maksimum çalışma sıcaklığı: 140 °C

Buhar ile sürekli çalışma için maksimum sıcaklık: 110 °C

ONAY: içme suyu WRAS n° 1605525

Sesalit ECO: organic and synthetic fibers bonded with NBR/SBR asbestos-free

USES: hot and cold water, vegetable and animal oils, air, some fuels (no GAS)

GUIDELINE TEMPERATURE LIMITS

Maximum temperature for short exposure: 180-200 °C

Maximum operating temperature for continuous non-aggressive fluids: 140 °C

Maximum temperature for continuous operation with steam: 110 °C

APPROVAL: potable water WRAS n° 1605525






435/001

FLANŞ İÇİN ALTİGEN CİVATA VE SOMUN

• HEXAGONAL BOLT AND NUT FOR FLANGE

MALZEME / MATERIAL: AISI 304 - 1.4301

KOD / CODE	Ölçü / Measure				€
435012001	M 12 x 50 + dado / nut M 12	70	4	80	5,44
435016001	M 16 x 65 + dado / nut M 16	154	4	40	11,80
435020001	M 20 x 80 + dado / nut M 20	300	4	24	23,32
435024001	M 24 x 100 + dado / nut M 24	610	4	24	43,92

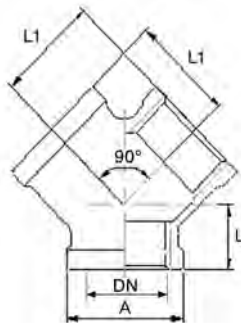
ODAKLANIN - FOCUS ON

FLANŞ İÇİN CİVATA VE SOMUN / BOLTS AND NUTS FOR FLANGES

DN	DN inch	PN6		PN10		PN16		PN25		PN40	
		viti	N° pezzi	viti	N° pezzi	viti	N° pezzi	viti	N° pezzi	viti	N° pezzi
15	1/2"	M10x45	4	M12x50	4	M12x50	4	M12x50	4	M12x50	4
20	3/4"	M10x45	4	M12x50	4	M12x50	4	M12x50	4	M12x50	4
25	1"	M10x45	4	M12x50	4	M12x50	4	M12x50	4	M12x50	4
32	1" 1/4	M12x50	4	M16x65	4	M16x65	4	M16x65	4	M16x65	4
40	1" 1/2	M12x50	4	M16x65	4	M16x65	4	M16x65	4	M16x65	4
50	2"	M12x50	4	M16x65	4	M16x65	4	M16x65	4	M16x65	4
65	2" 1/2	M12x50	4	M16x65	8	M16x65	8	M16x65	8	M16x65	8
80	3"	M16x65	4	M16x65	8	M16x65	8	M16x65	8	M16x65	8
100	4"	M16x65	4	M16x65	8	M16x65	8	M20x80	8	M20x80	8
125	5"	M16x65	8	M16x65	8	M16x65	8	M24x100	8	M24x100	8
150	6"	M16x65	8	M20x80	8	M20x80	8	M24x100	8	M24x100	8
200	8"	M16x65	8	M20x80	8	M20x80	12	M24x100	12	M27x100	12

NOT / NOTE

M10x45 - M27x100 - Ürün yelpazesinde yok / Non presenti in assortmento



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A 30 30

Y-T (TEE) BANTLI

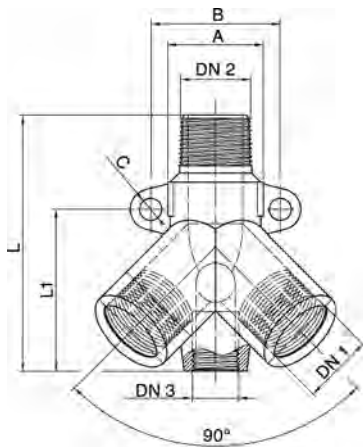
• Y-TEE BANDED

MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L mm	L1 mm	g	g	€
089108316	6	1/8"	17	10	17	40	10	6,48
089104316	8	1/4"	21	13	19	64	10	9,06
089308316	10	3/8"	25	14	23	100	10	12,41
089102316	15	1/2"	29	18	27	128	10	16,87
089304316	20	3/4"	35	20	32	193	10	22,70
089100316	25	1"	43	23	38	323	10	35,21
089114316	32	1 1/4"	52	28	46	485	5	57,59
089112316	40	1 1/2"	58	30	48	565	5	65,95
089200316	50	2"	71	34	57	890	1	98,66



89/P

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BASINÇLI HAVA SİSTEMLERİ İÇİN Y-T BANTLI

• Y-TEE BANDED FOR COMPRESSED AIR SYSTEMS

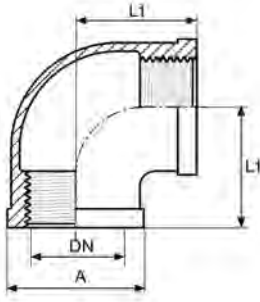
MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN1 inch	DN2 inch	DN3 inch	L mm	L1 mm	A mm	B mm	C mm	g	g	€
089102316P	1/2"	1/2"	1/4"	75	47,5	28	38	6,5	300	5	55,28

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90

DİRSEK 90° F/F

• ELBOW 90° F/F

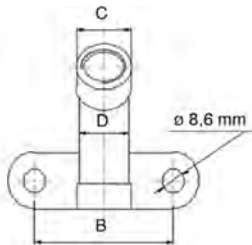
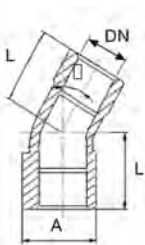
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L1 mm	g	g	g	€
090108316	6	1/8"	17	19	39	10	450	5,35
090104316	8	1/4"	21,3	21	61	10	300	4,84
090308316	10	3/8"	23,5	21,3	68	10	250	5,35
090102316	15	1/2"	29	27	102	10	100	5,94
090304316	20	3/4"	36	33	164	10	50	9,16
090100316	25	1"	43	38	264	10	70	13,66
090114316	32	1"1/4	52	45	413	5	45	20,09
090112316	40	1"1/2	58	50	521	5	30	25,40
090200316	50	2"	71,5	57	808	5	15	43,61
090212316	65	2"1/2	87	69,7	1183	4	8	94,56
090300316	80	3"	99,5	77	1504	1	8	129,56
090400316	100	4"	126	98,2	2714	1	2	223,06

A 30 30



91

DUVAR LEVHASI DİRSEK F/F

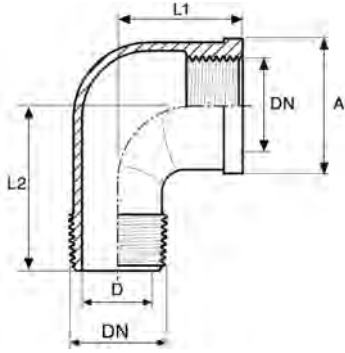
• WALL PLATE ELBOW F/F

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	Dereceler Degrees	L mm	A mm	B mm	C mm	D mm	g	g	€
091102045	15	1/2"	45°	22,8	28,5	55	27	25	146	5	16,36
091102090	15	1/2"	90°	27,7	28,5	55	27	25	162	5	16,99



92

DİRSEK 90° M/F

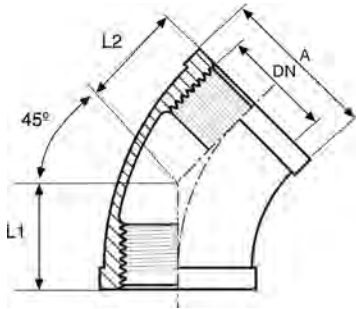
• ELBOW 90° M/F

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DIŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L1 mm	L2 mm	D mm	g	g	g	€
092108316	6	1/8"	17	19	25	5,5	26	10	600	6,47
092104316	8	1/4"	21	21	28,3	7,6	40	10	400	6,47
092308316	10	3/8"	25	25	32	10	73	10	200	6,68
092102316	15	1/2"	29	28	42	12,7	94	10	120	7,19
092304316	20	3/4"	35	33	50,5	17,7	167	10	60	10,62
092100316	25	1"	43	38	52	24,8	231	10	80	17,00
092114316	32	1 1/4"	52	45	60	33	390	5	45	27,08
092112316	40	1 1/2"	58,8	50	65	38	480	5	30	34,20
092200316	50	2"	71,7	58	74	48,7	780	5	15	44,98
092212316	65	2 1/2"	86,2	69	101	62	1286	4	8	106,70
092300316	80	3"	100	77	114,5	74,5	1925	1	6	166,57
092400316	100	4"	126,5	97	146,5	100	3100	1	3	275,93



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DİRSEK 45° F/F

• ELBOW 45° F/F

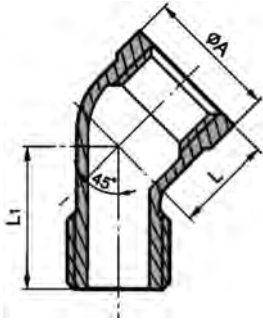
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DIŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L1 mm	L2 mm	g	g	g	€
121108316	6	1/8"	18	18	18	36	10	7,81	
121104316	8	1/4"	21	17	17	50	10	7,81	
121308316	10	3/8"	25	20	20	87	10	9,05	
121102316	15	1/2"	29,5	22	22	105	10	9,31	
121304316	20	3/4"	35,6	25	25	147	10	14,27	
121100316	25	1"	43	28	28	246	10	19,45	
121114316	32	1 1/4"	52,4	33	33	347	5	28,72	
121112316	40	1 1/2"	58	36	36	416	5	38,63	
121200316	50	2"	72	43	43	673	5	58,10	
121212316	65	2 1/2"	87	49	49	948	4	114,29	
121300316	80	3"	100	55	55	1232	1	155,56	
121400316	100	4"	125,5	64	64	3156	1	274,97	

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122

DİRSEK 45° M/F

• ELBOW 45° M/F

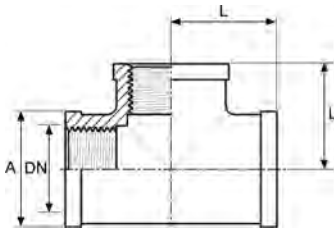
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L mm	L1 mm	g	kg	€
122108316	6	1/8"	17	16	21	24	10	4,01
122104316	8	1/4"	21	17	23	42	10	5,72
122308316	10	3/8"	25	19	27	63	10	7,96
122102316	15	1/2"	29	21	31	87	10	10,66
122304316	20	3/4"	35	25	36	135	10	14,93
122100316	25	1"	43	29	42	230	10	26,62
122114316	32	1 1/4"	52	34	49	360	5	38,12
122112316	40	1 1/2"	58	37	51	422	5	44,74
122200316	50	2"	71	42	59	710	5	68,80
122212316	65	2 1/2"	88	49	71	1210	4	133,46
122300316	80	3"	101	54	79	1670	2	181,54
122400316	100	4"	129	65	96	2860	1	299,64

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T (TEE)

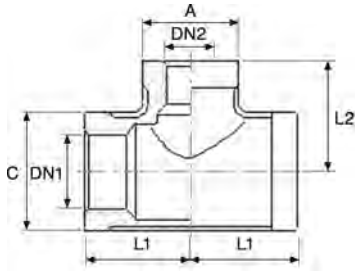
• TEE

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L mm	g	kg	box	€
131108316	6	1/8"	17	19	56	10	300	7,42
131104316	8	1/4"	21,3	21	82	10	200	7,42
131308316	10	3/8"	23,5	23,6	105	10	150	8,52
131102316	15	1/2"	30	28	156	10	70	9,16
131304316	20	3/4"	35	33	229	10	40	11,96
131100316	25	1"	43	38	369	10	50	18,29
131114316	32	1 1/4"	52	45	558	5	30	30,05
131112316	40	1 1/2"	58,5	50	702	5	20	37,84
131200316	50	2"	71,5	58	1082	5	15	59,06
131212316	65	2 1/2"	87	70	1517	2	8	133,91
131300316	80	3"	100	78,5	1856	2	4	192,10
131400316	100	4"	125	97	3170	1	2	292,99



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AZALTICI T (TEE)

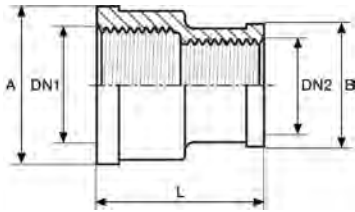
• REDUCING TEE

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN1 inch	DN2 inch	A mm	C mm	L1 mm	L2 mm	g	kg	€
132104108	1/4"	1/8"	17	21	18	19	66	10	11,47
132308104	3/8"	1/4"	21	23	20	22	70	10	13,06
132102308	1/2"	3/8"	23,5	29	26	25	116	10	14,18
132304102	3/4"	1/2"	30	37	30	32	230	10	18,43
132100102	1"	1/2"	30,5	44	32	33,4	307	10	28,24
132100304	1"	3/4"	35,8	44	35	35	324	10	28,24
132114102	1 1/4"	1/2"	28,8	51,4	34	38	330	5	48,36
132114304	1 1/4"	3/4"	35,8	51,4	38	40	376	5	48,36
132114100	1 1/4"	1"	43,3	51,4	40	42	426	5	48,36
132112102	1 1/2"	1/2"	28,8	57,9	35	42	420	5	60,48
132112304	1 1/2"	3/4"	35,8	57,9	38	43	467	5	60,48
132112100	1 1/2"	1"	43,3	57,9	41	45	517	5	60,48
132112114	1 1/2"	1 1/4"	51,4	57,9	45	48	579	5	60,48
132200102	2"	1/2"	28,8	71	38	48	593	5	94,50
132200304	2"	3/4"	35,8	71	41	49	662	5	94,50
132200100	2"	1"	43,3	71	44	51	740	5	94,50
132200114	2"	1 1/4"	51,4	71	48	54	785	5	94,50
132200112	2"	1 1/2"	57,9	71	52	55	872	5	94,50



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REDÜKTÖR SOKETİ

• REDUCTION SOCKET

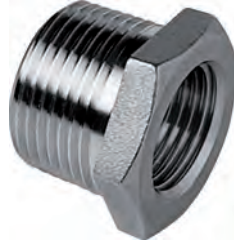
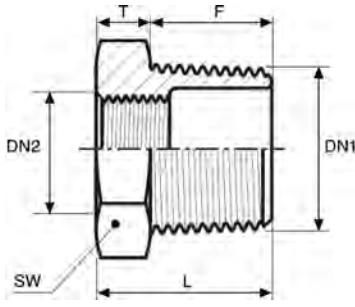
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN1 inch	DN2 inch	A mm	B mm	L mm	g	kg	€
140108104	1/4"	1/8"	21,5	19	26	31	10	5,40
140308104	3/8"	1/4"	26	21,5	29	53	10	6,12
140102308	1/2"	3/8"	29	22,4	34	70	10	7,14
140304102	3/4"	1/2"	37	28,1	37	116	10	9,42
140100102	1"	1/2"	43	29,4	42	154	10	14,93
140100304	1"	3/4"	43	32	42	148	10	14,93
140114102	1 1/4"	1/2"	52	29	48	230	10	23,40
140114304	1 1/4"	3/4"	52	35	48	234	5	23,40
140114100	1 1/4"	1"	52,5	39	52	230	5	23,40
140112100	1 1/2"	1"	59	43,5	53	292	5	28,51
140112114	1 1/2"	1 1/4"	59	50	53	298	5	28,51
140200100	2"	1"	72	43	56	456	5	39,30
140200114	2"	1 1/4"	72	52	56	430	5	39,30
140200112	2"	1 1/2"	72	56,7	57	452	5	39,30

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ALTIGEN BURÇ M/F

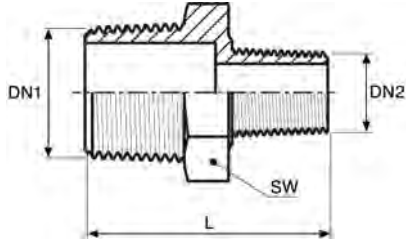
• HEXAGONAL BUSHING M/F

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN1 inch	DN2 inch	L mm	T mm	F mm	SW mm	g	kg	Box	€
141104108	1/4"	1/8"	15,2	4,4	10,8	16	10	10	1200	3,78
141308108	3/8"	1/8"	16,5	4,1	12,4	18	19	10	800	4,58
141308104	3/8"	1/4"	16,5	4,6	11,9	18	14	10	800	4,58
141102104	1/2"	1/4"	21	5,4	15,6	26	40	10	400	4,78
141102308	1/2"	3/8"	21	5,6	15,4	26	34	10	400	4,78
141304104	3/4"	1/4"	24	6,4	17,6	30	71	10	200	7,04
141304308	3/4"	3/8"	24	6,6	17,4	30	65	10	200	7,04
141304102	3/4"	1/2"	24	6,5	17,5	30	54	10	200	7,04
141100102	1"	1/2"	27	7,3	19,7	35	99	10	150	8,81
141100304	1"	3/4"	27	7,3	19,7	35	77	10	150	8,81
141114102	1 1/4"	1/2"	30	8,1	21,9	45	197	5	80	13,46
141114304	1 1/4"	3/4"	30	8,1	21,9	45	170	5	80	13,46
141114100	1 1/4"	1"	30	8,1	21,9	45	135	5	80	13,46
141112102	1 1/2"	1/2"	38	12,2	25,8	52	312	5	60	18,56
141112304	1 1/2"	3/4"	38	12,2	25,8	52	303	5	60	18,56
141112100	1 1/2"	1"	38	12,2	25,8	52	265	5	60	18,56
141112114	1 1/2"	1 1/4"	38	12,2	25,8	52	202	5	60	18,56
141200100	2"	1"	36	11,2	24,8	63	345	5	35	25,66
141200114	2"	1 1/4"	36	11,2	24,8	63	360	5	35	25,66
141200112	2"	1 1/2"	36	11,2	24,8	63	296	5	35	25,66
141212100	2 1/2"	1"	45	14,1	30,9	81	855	5	15	54,67
141212114	2 1/2"	1 1/4"	45	14,1	30,9	81	796	5	15	54,67
141212112	2 1/2"	1 1/2"	45	14,1	30,9	81	753	5	15	54,67
141212200	2 1/2"	2"	45	14,1	30,9	81	630	5	15	54,67
141300200	3"	2"	47	14	33	95	1041	2	12	78,97
141300212	3"	2 1/2"	47	14	33	95	767	2	12	78,97
141400200	4"	2"	52	12	40	120	1993	2	8	131,04
141400212	4"	2 1/2"	52	12	40	120	1631	2	8	131,04
141400300	4"	3"	52	12	40	120	1493	2	8	131,04



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ALTİGEN BORU UCU AZALTILMIŞ

• HEXAGONAL NIPPLE REDUCED

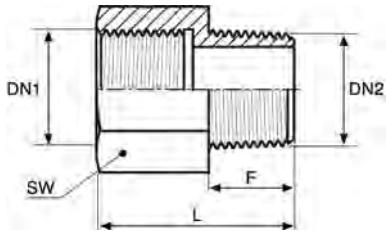
MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN1 inch	DN2 inch	L mm	SW mm	g			€
145104108	1/4"	1/8"	34	18	29	10	600	5,46
145308108	3/8"	1/8"	35	21	43	10	400	6,30
145308104	3/8"	1/4"	35,5	21	42	10	400	6,30
145102104	1/2"	1/4"	34	26	53	10	200	6,92
145102308	1/2"	3/8"	41	26	63	10	200	6,92
145304104	3/4"	1/4"	37	30	70	10	100	8,81
145304308	3/4"	3/8"	37	30	75	10	100	8,81
145304102	3/4"	1/2"	45	30	105	10	100	8,81
145100102	1"	1/2"	44,2	35	115	10	150	11,35
145100304	1"	3/4"	50	37	146	10	150	11,35
145114102	1 1/4"	1/2"	48	46	199	5	80	19,78
145114304	1 1/4"	3/4"	52	46	219	5	80	19,78
145114100	1 1/4"	1"	54	46	227	5	80	19,78
145112304	1 1/2"	3/4"	53	50	250	5	60	24,08
145112100	1 1/2"	1"	53	50	242	5	60	24,08
145112114	1 1/2"	1 1/4"	59	51,5	311	5	60	24,08
145200100	2"	1"	57	63	361	5	60	32,52
145200114	2"	1 1/4"	58	63	379	5	60	32,52
145200112	2"	1 1/2"	65,4	64	432	5	50	32,52
145212100	2 1/2"	1"	63	80	700	5	20	65,83
145212114	2 1/2"	1 1/4"	66	80	730	5	20	65,83
145212112	2 1/2"	1 1/2"	66	80	739	5	20	65,83
145212200	2 1/2"	2"	77	76,3	934	5	20	65,83
145300200	3"	2"	74	95	1069	2	12	95,16
145300212	3"	2 1/2"	84	92,5	1381	2	12	95,16
145400200	4"	2"	82	125	1754	2	4	148,62
145400212	4"	2 1/2"	82	125	1750	2	4	148,62
145400300	4"	3"	94	117,4	2200	2	4	148,62

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ALTİGEN NEG. BURÇ F/M

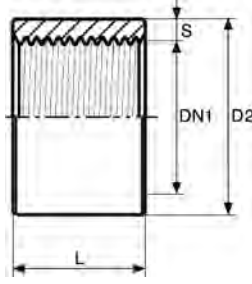
• HEX. NEG. BUSHUNG F/M

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

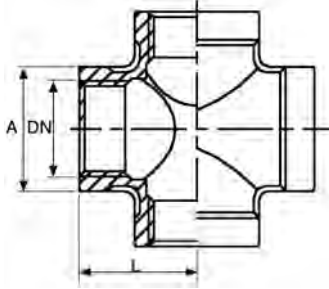
KOD / CODE	DN1 inch	DN2 inch	L mm	F mm	SW mm	g	€	
146104108	1/4"	1/8"	27	10,8	17	23	10	8,86
146104104	1/4"	1/4"	28,5	12	17	26	10	8,86
146308104	3/8"	1/4"	30,5	11,9	21	38	10	10,57
146308308	3/8"	3/8"	31	12,3	21	43	10	10,98
146102308	1/2"	3/8"	34,5	12,3	26	64	10	18,73
146102102	1/2"	1/2"	37,5	14,6	26	73	10	18,73
146304102	3/4"	1/2"	38,5	15,6	32	102	10	18,89
146304304	3/4"	3/4"	41	17,5	32	280	10	19,22
146100304	1"	3/4"	44	17,5	38	127	10	25,54
146100100	1"	1"	46	20,1	38	300	5	26,05
146114100	1"1/4	1"	47	20	50	240	5	31,67
146114114	1"1/4	1"1/4	49	22	50	389	5	32,24
146112114	1"1/2	1"1/4	50	22,3	54	263	5	43,70
146112112	1"1/2	1"1/2	51	23,5	54	400	5	44,54
146200112	2"	1"1/2	54	23,1	68	533	5	49,58
146200200	2"	2"	57	26,5	68	537	5	50,51

**168/316L****A 30 30****YARI SOKET**

• HALF SOCKET

**Lehimsiz borudan
From seamless pipe****MALZEME / MATERIAL:** AISI 316L - 1.4404**BOYUT / DIMENSION:** UNI/DIN EN 10241 (ex DIN 2986)**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)**DERECELENDİRME / DIMENSION:** 150 PSI - PN10

KOD / CODE	DN	DN1 inch	D2 mm	L mm	S mm	g	kg	€
168108316	6	1/8"	15	8	2,35	7	10	3,07
168104316	8	1/4"	18,5	11	2,40	12	10	3,07
168308316	10	3/8"	21,3	12	2,05	14	10	3,24
168102316	15	1/2"	26,6	15	2,65	26	10	4,70
168304316	20	3/4"	31,8	17	2,45	36	10	5,47
168100316	25	1"	39,5	20	2,90	64	10	9,17
168114316	32	1 1/4"	48,3	22	2,95	88	5	14,76
168112316	40	1 1/2"	54,5	22	3,10	105	5	17,14
168200316	50	2"	66,2	26	2,95	164	5	25,13
168212316	65	2 1/2"	82	30	2,95	245	1	50,39
168300316	80	3"	95	34	3,05	312	1	51,06
168400316	100	4"	121,4	40	3,55	630	1	80,69

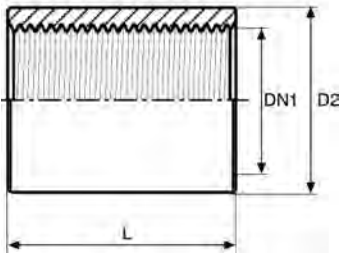
**180****A 30 30****ÇAPRAZ**

• CROSS

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)**DERECELENDİRME / DIMENSION:** 150 PSI - PN10

KOD / CODE	DN	DN inch	A mm	L mm	g	kg	€
180108316	6	1/8"	15,2	17	38	10	13,33
180104316	8	1/4"	19,7	18,5	72	10	13,33
180308316	10	3/8"	23,3	22,9	103	10	15,78
180102316	15	1/2"	28	26,8	144	10	17,50
180304316	20	3/4"	34,8	32	249	10	25,12
180100316	25	1"	43,6	37,5	435	10	33,23
180114316	32	1 1/4"	53	45,9	701	5	54,97
180112316	40	1 1/2"	58	47,6	754	5	64,74
180200316	50	2"	71	58	1258	2	104,14
180212316	65	2 1/2"	87	69	1770	2	198,22
180300316	80	3"	99	77	2031	1	278,46
180400316	100	4"	125	97	3490	1	428,27

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268/304L

SOKET

• SOKET

Lehimsiz borudan
From seamless pipe

MALZEME / MATERIAL: AISI 304L - 1.4307

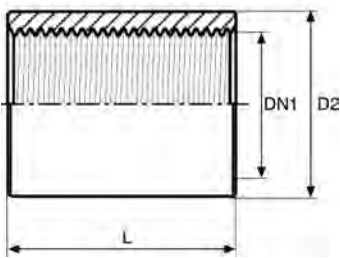
BOYUT / DIMENSION: UNI/DIN EN 10241 (ex DIN 2986)

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN1 inch	D2 mm	L mm	S mm	g	kg	box	€
268108304	6	1/8"	15	17	2,35	15	10	800	4,42
268104304	8	1/4"	18,5	25	2,40	30	10	500	4,42
268308304	10	3/8"	21,3	26	2,05	34	10	400	5,04
268102304	15	1/2"	26,6	34	2,65	68	10	240	6,04
268304304	20	3/4"	31,8	36	2,45	83	10	140	7,88
268100304	25	1"	39,5	43	2,90	137	10	150	11,94
268114304	32	1 1/4"	48,3	48	2,95	226	5	100	19,56
268112304	40	1 1/2"	54,5	48	3,10	266	5	70	22,08
268200304	50	2"	66,2	56	2,95	352	5	50	29,99
268212304	65	2 1/2"	82	65	2,95	530	1	24	68,54
268300304	80	3"	95	71	3,05	650	1	18	81,07
268400304	100	4"	121,4	83	3,55	1305	1	10	125,68

A 30 30



268/316L

SOKET

• SOKET

Lehimsiz borudan
From seamless pipe

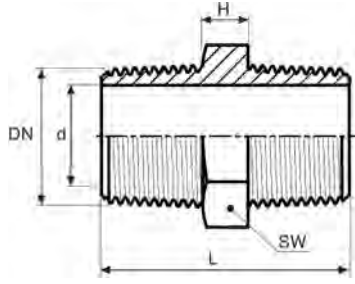
MALZEME / MATERIAL: AISI 316L - 1.4404

BOYUT / DIMENSION: UNI/DIN EN 10241 (ex DIN 2986)

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN1 inch	D2 mm	L mm	S mm	g	kg	box	€
268108316	6	1/8"	15	17	2,35	15	10	800	5,14
268104316	8	1/4"	18,5	25	2,40	30	10	500	5,14
268308316	10	3/8"	21,3	26	2,05	34	10	400	5,93
268102316	15	1/2"	26,6	34	2,65	68	10	240	7,27
268304316	20	3/4"	31,8	36	2,45	83	10	140	9,42
268100316	25	1"	39,5	43	2,90	137	10	150	14,15
268114316	32	1 1/4"	48,3	48	2,95	226	5	100	22,88
268112316	40	1 1/2"	54,5	48	3,10	266	5	70	26,11
268200316	50	2"	66,2	56	2,95	352	5	50	35,88
268212316	65	2 1/2"	82	65	2,95	530	1	24	79,79
268300316	80	3"	95	71	3,05	650	1	18	96,86
268400316	100	4"	121,4	83	3,55	1305	1	10	150,43



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A 30 30




ALTİGEN BORU UCU

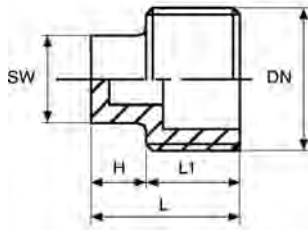
• HEXAGON NIPPLE

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	H mm	d mm	SW mm				€
280108316	6	1/8"	23,6	6	4,3	12	12	10	700	4,12
280104316	8	1/4"	27,8	6	7	16	22	10	600	4,12
280308316	10	3/8"	29	6	9,4	19	39	10	400	4,78
280102316	15	1/2"	35	6	13,7	22	50	10	200	5,00
280304316	20	3/4"	40	8	19	30	84	10	100	6,47
280100316	25	1"	46	7,5	25,5	36	120	10	130	8,81
280114316	32	1"1/4	52,5	10	32	46	230	5	80	15,34
280112316	40	1"1/2	54	11	38,5	50	255	5	60	20,39
280200316	50	2"	62	13,2	50,2	64,5	399	5	40	24,88
280212316	65	2"1/2	70	13	63,8	79,5	698	2	18	64,46
280300316	80	3"	78,4	15	77	90	898	2	12	84,55
280400316	100	4"	94	17,6	102	120	1192	1	4	133,96



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A 30 30



KARE FİŞ

• SQUARE PLUG

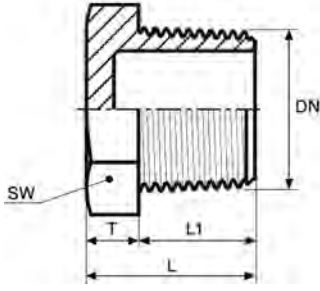
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	L1 mm	H mm	SW mm			€
291108316	6	1/8"	16,5	12,5	6,5	6 x 6	9	10	3,18
291104316	8	1/4"	20	12	8	9 x 9	17	10	3,18
291308316	10	3/8"	23	13	10	11 x 11	30	10	4,51
291102316	15	1/2"	25	15,5	9,5	13 x 13	37	10	5,08
291304316	20	3/4"	27	17	10	16 x 16	45	10	6,12
291100316	25	1"	32	20	12	20 x 20	95	10	8,75
291114316	32	1"1/4	35	22	13	24 x 24	137	5	15,04
291112316	40	1"1/2	36	22	14	25 x 25	151	5	19,26
291200316	50	2"	38	24	14	32 x 32	242	5	26,56
291212316	65	2"1/2	48	30	18	42 x 42	617	1	58,81
291300316	80	3"	52	34	18	46 x 46	913	1	90,46
291400316	100	4"	62	39,5	22,5	58 x 58	1588	1	173,17

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ALTİGEN FİŐ

• HEXAGONAL PLUG

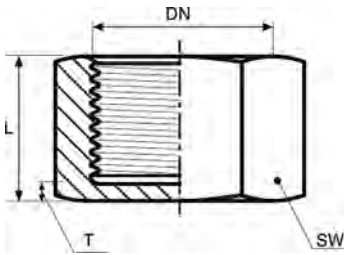
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	L1 mm	T mm	SW mm	g	kg	Box	€
292108316	6	1/8"	17	8,5	5	12	12	10	1000	3,60
292104316	8	1/4"	17,5	12,5	5,5	16	20	10	800	3,18
292308316	10	3/8"	18	12	6	20	36	10	600	3,68
292102316	15	1/2"	25	16,5	8,5	24	51	10	300	4,16
292304316	20	3/4"	26	17,5	8,5	30	76	10	200	7,01
292100316	25	1"	29	20,5	8,5	38	119	10	120	8,81
292114316	32	1 1/4"	35	26,5	8,5	46	215	5	75	16,50
292112316	40	1 1/2"	38	26,5	11,5	52	297	5	60	23,66
292200316	50	2"	39	27,5	11,5	65	410	5	30	32,86
292212316	65	2 1/2"	44	30,5	13,5	81	806	3	15	61,20
292300316	80	3"	54	40,5	13,5	94	1164	2	12	88,56
292400316	100	4"	55	40,5	14,5	119	1961	2	10	150,54

A 30 30



300

ALTİGEN KAPAK

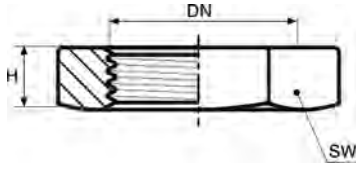
• HEXAGONAL CAP

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	T mm	SW mm	g	kg	€
300108316	6	1/8"	14	3	15	12	10	3,55
300104316	8	1/4"	18	3	18	21	10	3,55
300308316	10	3/8"	19	3	21	32	10	4,33
300102316	15	1/2"	21	3	27	58	10	5,42
300304316	20	3/4"	24	4	30	67	10	6,54
300100316	25	1"	25	4	38	116	10	9,77
300114316	32	1 1/4"	28	4,5	50	231	5	18,41
300112316	40	1 1/2"	28	4,5	55	254	5	20,83
300200316	50	2"	34	4	70	506	5	33,05
300212316	65	2 1/2"	40	6,5	92	1207	2	76,60
300300316	80	3"	45	6	109	1925	2	119,21
300400316	100	4"	50	6	132	2693	1	176,56



310

A 30 30

ARKA SOMUN

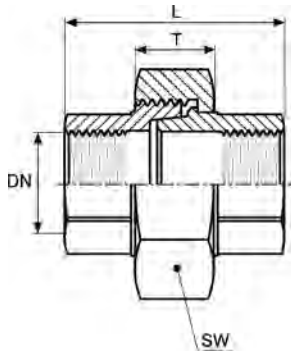
• BACK NUT

MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŞLİ / THREAD: ISO 228/1 [ex DIN 259]

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	H mm	SW mm			€
310108316	6	1/8"	6,2	14	18	10	3,24
310104316	8	1/4"	7	23	19	10	3,24
310308316	10	3/8"	8	26	22	10	3,54
310102316	15	1/2"	10	31	39	10	4,45
310304316	20	3/4"	11	37	56	10	5,17
310100316	25	1"	10	46	79	10	7,14
310114316	32	1 1/4"	11	55	110	5	10,55
310112316	40	1 1/2"	12	63	154	5	13,93
310200316	50	2"	13	76	227	5	20,26
310212316	65	2 1/2"	16	95	450	1	42,56
310300316	80	3"	19	105	575	1	52,46
310400316	100	4"	20	131	775	1	77,35



330

A 30 30

KONİK SOMUN F/F

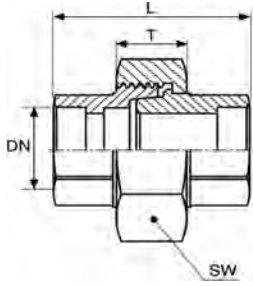
• UNION CONICAL F/F

MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŞLİ / THREAD: EN 10226-1 [ex ISO 7/1]



DERECELENDİRME / DIMENSION: 150 PSI - PN10

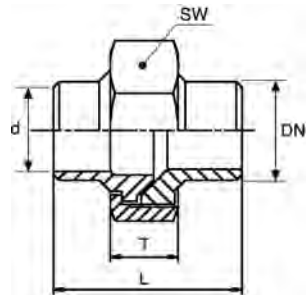
KOD / CODE	DN	DN inch	L mm	T mm	SW mm				€
330108316	6	1/8"	29	13,5	25	54	10	300	15,42
330104316	8	1/4"	37,5	13,5	30	101	10	150	15,42
330308316	10	3/8"	40,5	15	35	128	10	100	17,14
330102316	15	1/2"	44	17	42	198	10	70	17,14
330304316	20	3/4"	50	19	47	253	10	50	21,70
330100316	25	1"	48	20,5	53	285	10	60	29,56
330114316	32	1 1/4"	59	23	71	700	5	35	54,29
330112316	40	1 1/2"	65	25,5	77	815	5	35	66,55
330200316	50	2"	69	27,5	92	1205	5	15	88,93
330212316	65	2 1/2"	80	28,5	112	1879	2	10	169,09
330300316	80	3"	88	30	126	2591	1	8	243,02
330400316	100	4"	108	38	157	4340	1	4	396,35

**340****A 30 30****SOMUN KONİK SOKET KAYNAKLI**

• UNION CONICAL SOCKET WELDED



MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408
DERECELENDİRME / DIMENSION: 150 PSI - PN10

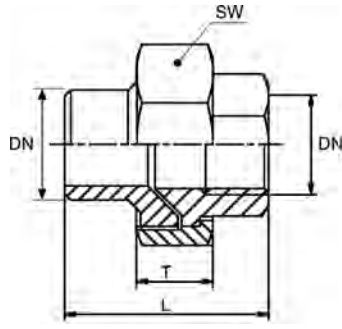
KOD / CODE	DN	DN inch/mm	L mm	T mm	SW mm			€
340108316	6	1/8" - 11	29	13,5	25	50	10	30,50
340104316	8	1/4" - 14,4	37,5	13,5	30	98	10	30,50
340308316	10	3/8" - 17,8	38	15,5	35	121	10	33,91
340102316	15	1/2" - 22	42	17	42	199	10	39,11
340304316	20	3/4" - 27,4	50,4	19	47	265	10	49,54
340100316	25	1" - 34,1	48	20,5	53	301	10	65,16
340114316	32	1 1/4" - 42,9	59	23	71	721	5	111,07
340112316	40	1 1/2" - 48,9	65	26	78	799	5	136,09
340200316	50	2" - 61,4	69	28,5	92	1200	1	182,00
340212316	65	2 1/2" - 74,1	80	28,5	112	1868	1	342,96
340300316	80	3" - 90,1	88	30	127	2561	1	492,61

**340/BW****A 30 30****SOMUN KONİK UÇ KAYNAĞI**

• UNION CONICAL BUTT WELDING

MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408
DERECELENDİRME / DIMENSION: 150 PSI - PN10

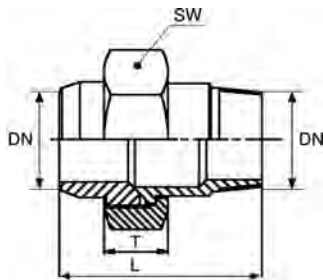
KOD / CODE	DN	DN inch	d mm	L mm	T mm	SW mm			€
3403080BW	10	3/8"	12,7	38	15,5	35	104	10	32,94
3401020BW	15	1/2"	16,7	42	17	42	173	10	41,44
3403040BW	20	3/4"	21,5	50,4	19	47	233	10	53,18
3401000BW	25	1"	26,5	48	20,5	53	329	10	68,88
3401140BW	32	1 1/4"	35,8	59	23	71	635	5	115,49
3401120BW	40	1 1/2"	42	64	26	78	668	5	143,86
3402000BW	50	2"	53,3	69	28,5	92	1039	1	180,97

**340/FBW****A 30 30****SOMUN KONİK DİŞİ UÇ KAYNAĞI**

• UNION CONICAL FEMALE BUTT WELDING

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)**DERECELENDİRME / DIMENSION:** 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	T mm	SW mm	g	kg	€
340308FBW	10	3/8"	38	15,5	35	109	10	33,91
340102FBW	15	1/2"	42	17	42	188	10	39,94
340304FBW	20	3/4"	50,4	19	47	270	10	52,66
340100FBW	25	1"	48	20,5	53	320	10	68,88
340114FBW	32	1"1/4	59	23	71	666	5	119,75
340112FBW	40	1"1/2	64	26	78	726	5	144,18
340200FBW	50	2"	69	28,5	92	1126	1	195,58

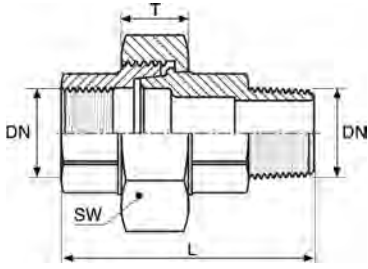
**340/MBW****A 30 30****SOMUN KONİK ERKEK UÇ KAYNAĞI**

• UNION CONICAL MALE BUTT WELDING

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408**DİŞLİ / THREAD:** EN 10226-1 (ex ISO 7/1)**DERECELENDİRME / DIMENSION:** 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	T mm	SW mm	g	kg	€
340308MBW	10	3/8"	50	15,5	35	129	10	39,11
340102MBW	15	1/2"	58,4	17	42	209	10	46,38
340304MBW	20	3/4"	66	19	47	308	10	61,97
340100MBW	25	1"	64,4	20,5	53	399	10	82,48
340114MBW	32	1"1/4	83	23	71	827	5	138,76
340112MBW	40	1"1/2	86,3	26	78	925	5	173,11
340200MBW	50	2"	94	28,5	92	1432	1	217,87

A 30 30



341

SOMUN KONİK M/F

• UNION CONICAL M/F

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	L mm	T mm	SW mm	g	kg	€
341108316	6	1/8"	40	13,5	25	59	10	16,88
341104316	8	1/4"	50	13,5	30	108	10	16,88
341308316	10	3/8"	50	15,5	35	133	10	18,85
341102316	15	1/2"	58	17	42	230	10	20,26
341304316	20	3/4"	67	19	47	332	10	28,34
341100316	25	1"	68,3	20,5	53	403	10	33,28
341114316	32	1"1/4"	83	23	71	865	5	66,28
341112316	40	1"1/2"	86,3	26	78	978	5	77,16
341200316	50	2"	94	28,5	92	1509	5	102,61
341212316	65	2"1/2"	113,3	28,5	112	2457	2	195,58
341300316	80	3"	127	30	126	3450	1	288,61
341400316	100	4"	154,5	38	157	5720	1	481,27

A 30 30

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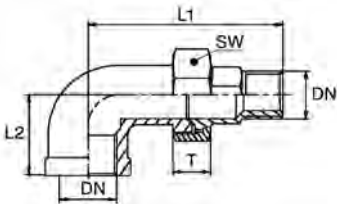
SOMUN KONİK DİRSEK M/F

• UNION CONICAL ELBOW M/F

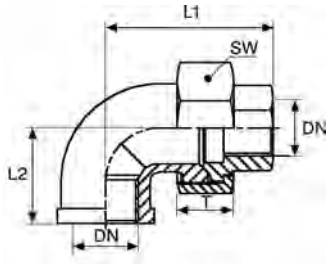
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10



KOD / CODE	DN	DN inch	L1 mm	L2 mm	T mm	SW mm	g	kg	€
342104316	8	1/4"	58,6	21	13,5	30	147	10	29,65
342308316	10	3/8"	61	25	15,5	35	187	10	32,10
342102316	15	1/2"	71	28	17	42	269	10	36,31
342304316	20	3/4"	78,7	33	19	47	409	10	46,50
342100316	25	1"	88,4	38	20,5	53	602	10	59,89
342114316	32	1"1/4"	102,9	45	23	71	1142	5	102,26
342112316	40	1"1/2"	110,3	50	26	77	1315	3	151,84
342200316	50	2"	119,4	58	28,5	92	1992	2	175,25



343

A 30 30

SOMUN KONİK DİRSEK F/F

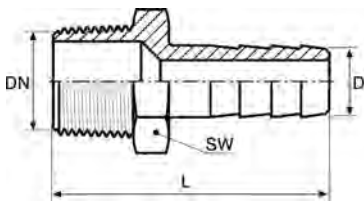
• UNION CONICAL ELBOW F/F

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	L1 mm	L2 mm	T mm	SW mm	g	kg	€
343104316	8	1/4"	46,2	21	13,5	30	139	10	29,46
343308316	10	3/8"	49	25	15,5	35	164	10	31,10
343102316	15	1/2"	56	28	17	42	266	10	35,47
343304316	20	3/4"	62,7	33	19	47	364	10	43,92
343100316	25	1"	68	38	20,5	53	598	10	56,81
343114316	32	1"1/4"	79,5	45	23	71	1009	5	93,16
343112316	40	1"1/2"	88	50	26	78	1181	5	110,99
343200316	50	2"	93,8	58	28,5	92	1847	2	156,44



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A 30 30

HORTUM BORU UCU

• HOSE NIPPLE

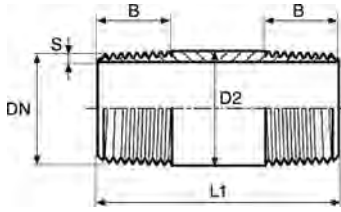
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSIONE: 150 PSI - PN10

KOD / CODE	DN	DN inch	D mm	L mm	SW mm	g	kg	€
344108316	6	1/8"	7	45	12,5	15	10	7,97
344104316	8	1/4"	9	47	16,5	31	10	7,38
344308316	10	3/8"	11	55	20	41	10	8,86
344102316	15	1/2"	13	64	23,5	71	10	11,10
344304316	20	3/4"	16	68	31	118	10	16,13
344100316	25	1"	25	71	38,5	235	5	19,94
344114316	32	1"1/4"	33	80	46	267	5	28,04
344112316	40	1"1/2"	39	95	52	428	5	35,47
344200316	50	2"	51	105	62	666	5	56,27

A 30 30



530/304L

NAMLU BORU UCU

• BARREL NIPPLE

MALZEME / MATERIAL: AISI 304L - 1.4307

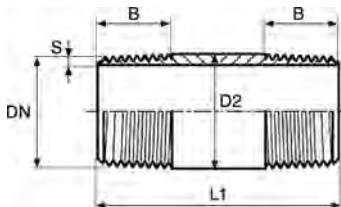
BOYUT / DIMENSION: UNI/DIN EN 10241 (ex DIN 2986)

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	D2 mm	S mm	L1 mm	B mm	g	kg	Box	€
530108304	6	1/8"	10,3	2	35	10	13	10	-	7,38
530104304	8	1/4"	13,7	2,3	40	10	20	10	400	7,76
530308304	10	3/8"	17,2	2,3	40	10	27	10	200	9,06
530102304	15	1/2"	21,3	2,6	60	13	61	10	200	10,21
530304304	20	3/4"	26,9	2,6	60	15	71	10	150	10,97
530100304	25	1"	33,7	3,2	60	17	110	10	100	15,13
530114304	32	1 1/4"	42,4	3,2	80	19	190	8	8	21,48
530112304	40	1 1/2"	48,3	3,2	80	19	220	8	8	22,82
530200304	50	2"	60,3	3,6	100	23	400	6	6	33,23
530212304	65	2 1/2"	76,1	3,6	100	27	490	6	6	52,76
530300304	80	3"	88,9	4	120	30	770	6	6	73,60
530400304	100	4"	114,3	4,5	120	36	900	6	6	135,08

A 30 30



530/316L

NAMLU BORU UCU

• BARREL NIPPLE

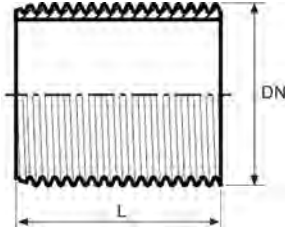
MALZEME / MATERIAL: AISI 316L - 1.4404

BOYUT / DIMENSION: UNI/DIN EN 10241 (ex DIN 2986)

DİŐLİ / THREAD: EN 10226-1 (ex ISO 7/1)

DERECELENDİRME / DIMENSION: 150 PSI - PN10

KOD / CODE	DN	DN inch	D2 mm	S mm	L1 mm	B mm	g	kg	Box	€
530108316	6	1/8"	10,3	2	35	10	13	10	-	8,71
530104316	8	1/4"	13,7	2,3	40	10	20	10	400	9,17
530308316	10	3/8"	17,2	2,3	40	10	27	10	200	10,66
530102316	15	1/2"	21,3	2,6	60	13	61	10	200	12,07
530304316	20	3/4"	26,9	2,6	60	15	71	10	150	12,43
530100316	25	1"	33,7	3,2	60	17	110	10	100	18,82
530114316	32	1 1/4"	42,4	3,2	80	19	190	8	8	28,03
530112316	40	1 1/2"	48,3	3,2	80	19	220	8	8	30,36
530200316	50	2"	60,3	3,6	100	23	400	6	6	46,38
530212316	65	2 1/2"	76,1	3,6	100	27	490	6	6	71,54
530300316	80	3"	88,9	4	120	30	770	6	6	102,85
530400316	100	4"	114,3	4,5	120	36	900	6	6	177,71



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PARALEL BORU UCU

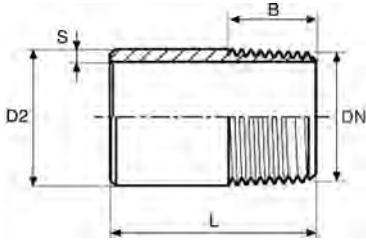
• PARALLEL NIPPLE

MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŐLİ / THREAD: ISO 228/1 [ex DIN 259]

DERECELENDİRME / DIMENSION: 150 PSI - PN10

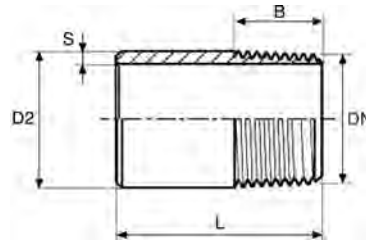
KOD / CODE	DN	DN inch	L mm	g		€
531104316	8	1/4"	18	7	10	14,50
531308316	10	3/8"	22	12	10	14,60
531102316	15	1/2"	25	17	10	15,68
531304316	20	3/4"	30	24	10	20,75
531100316	25	1"	35	49	10	23,08
531114316	32	1"1/4	38	70	10	28,82
531112316	40	1"1/2	38	95	10	37,22
531200316	50	2"	45	127	5	51,14

**600/304L****A 30 30****WELDING KAYNAKLI BORU UCU**

• WELDING NIPPLE

MALZEME / MATERIAL: AISI 304L - 1.4307**BOYUT / DIMENSION:** UNI/DIN EN 10241 [ex DIN 2986]**DİŞLİ / THREAD:** EN 10226-1 [ex ISO 7/1]**DERECELENDİRME / DIMENSION:** 150 PSI - PN10

KOD / CODE	DN	DN inch	D2 mm	S mm	L mm	B mm	g	kg	Box	€
600108304	6	1/8"	10,3	2	30	10	11	10	500	3,13
600104304	8	1/4"	13,7	2,3	30	10	15	10	600	3,13
600308304	10	3/8"	17,2	2,3	30	10	23	10	400	3,13
600102304	15	1/2"	21,3	2,6	35	13	33	10	400	4,12
600304304	20	3/4"	26,9	2,6	40	15	52	10	200	5,29
600100304	25	1"	33,7	3,2	40	17	77	10	200	5,64
600114304	32	1 1/4"	42,4	3,2	50	19	120	10	100	8,11
600112304	40	1 1/2"	48,3	3,2	50	19	150	5	100	8,72
600200304	50	2"	60,3	3,6	50	23	200	5	50	12,07
600212304	65	2 1/2"	76,1	3,6	60	27	310	6	36	38,76
600300304	80	3"	88,9	4	70	30	470	6	6	63,55
600400304	100	4"	114,3	4,5	80	36	760	6	6	113,58

**600/316L****A 30 30****KAYNAKLI BORU UCU**

• WELDING NIPPLE

MALZEME / MATERIAL: AISI 316L - 1.4404**BOYUT / DIMENSION:** UNI/DIN EN 10241 [ex DIN 2986]**DİŞLİ / THREAD:** EN 10226-1 [ex ISO 7/1]**DERECELENDİRME / DIMENSION:** 150 PSI - PN10

KOD / CODE	DN	DN inch	D2 mm	S mm	L mm	B mm	g	kg	Box	€
600108316	6	1/8"	10,3	2	30	10	11	10	500	4,19
600104316	8	1/4"	13,7	2,3	30	10	15	10	600	4,19
600308316	10	3/8"	17,2	2,3	30	10	23	10	400	4,19
600102316	15	1/2"	21,3	2,6	35	13	33	10	400	4,52
600304316	20	3/4"	26,9	2,6	40	15	52	10	200	5,75
600100316	25	1"	33,7	3,2	40	17	77	10	200	6,56
600114316	32	1 1/4"	42,4	3,2	50	19	120	10	100	15,53
600112316	40	1 1/2"	48,3	3,2	50	19	150	5	100	17,33
600200316	50	2"	60,3	3,6	50	23	200	5	50	22,46
600212316	65	2 1/2"	76,1	3,6	60	27	310	6	36	44,69
600300316	80	3"	88,9	4	70	30	470	6	6	73,06
600400316	100	4"	114,3	4,5	80	36	760	6	6	130,68

ODAKLANIN - FOCUS ON 

TEKNİK BİLGİ

Technical info

DiŐli bađlantı parçaları tipik tesislerde su, hava, gaz, yađ ve buhar taşımak için kullanılır.

Paslanmaz çelik bađlantı parçalarının "sınıf" ürünü 150 psi'dir.

Çalışma sıcaklığı aralığı -20 / + 200 °C iken, basınç aŐađıdaki tabloya göre sıcaklığa bađlıdır (ISO 4144 ve ANSI / MSS SP-114 standartlarından elde edilen veriler).

Threaded fittings are used for typical plants to transport water, air, gas, oil and steam.

The "class" product of stainless steel fittings is 150 psi.

The range of operating temperature is -20 / + 200 °C while the pressure depend from temperature in according to the following table [data obtained from the standards ISO 4144 and ANSI / MSS SP-114].

T (C°)		P (bar)
Min	MAX	
-20	40	20
40	100	16,5
100	120	15
120	150	12
150	200	10

DIŐLİ ÜZERİNDE CONTALI BAĐLANTI APARATI

EN 10226-1 (ex ISO 7/1) standart

Gaz DiŐli:

Konik erkek [tasarım R]

Silindirik diŐi [tasarım Rp]

COUPLING WITH SEAL ON THE THREAD

EN 10226-1 (ex ISO 7/1) standard

Gas thread:

conical male [designation R]

cylindrical female [designation Rp]

DÜZ CONTALI BAĐLANTI APARATI
(DIŐLİ TUTMAYAN)

ISO 228 standart

Gaz DiŐli:

silindirik erkek [tasarım G (A or B)

A or B = tolerance classes]

silindirik diŐi [tasarım G]

COUPLING WITH FLAT GASKET
(NOT HOLDING THE THREAD)

ISO 228 standard

Gas thread:

cylindrical male [designation G (A or B)

A or B = tolerance classes]

cylindrical female [designation G]



981

1-PC AZALTILMIŞ BAĞLANTI PARÇALI KÜRE VANA

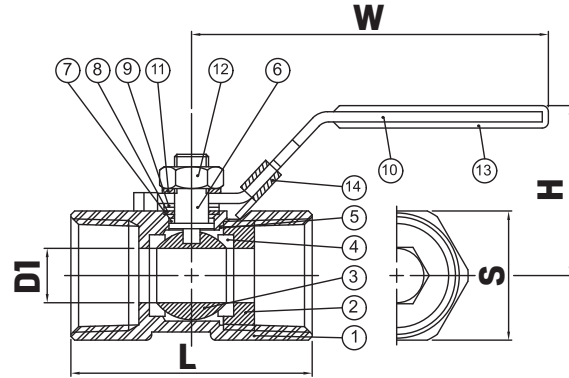
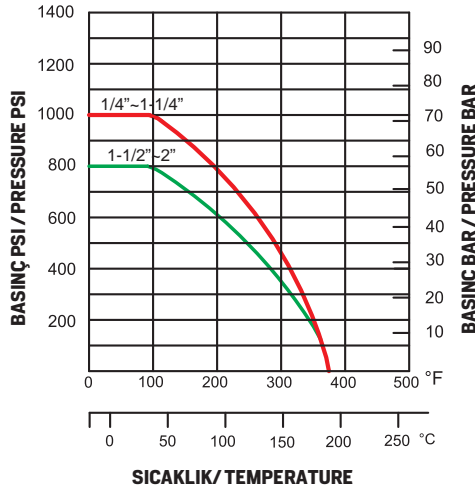
- 1-PC BALL VALVE WITH REDUCED PORT

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DIŞLI / THREAD: EN 10226-1 (ex ISO 7/1)

NOT / NOTE: "silikonsuz" - "silicone free"

KOD / CODE	DN	DN inch	D1 mm	L mm	H mm	W mm	S mm	g	g	€
981104000	8	1/4"	5	40	26	66,5	17	70	1	26,52
981308000	10	3/8"	7	44	27	76,5	20,5	130	1	28,67
981102000	15	1/2"	9,2	57	35	94	25	170	1	40,36
981304000	20	3/4"	12,5	59,5	38	94	32	250	1	44,41
981100000	25	1"	16	71	44	112	38	420	1	65,88
981114000	32	1 1/4"	20	78	48	112	48	680	1	100,67
981112000	40	1 1/2"	24,5	82,5	55	137	53	850	1	164,95
981200000	50	2"	32	99	61	137	64	1390	1	188,17

BASINÇ SICAKLIK DERECELENDİRME
PRESSURE TEMPERATURE RATING

POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.4408	8	Kök paketlenme - Stem packing	PTFE
2	Bağlantı Yuvası - Insert	AISI 316 - 1.4401	9	Kök rondelası - Stem washer	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.4408	10	Sap - Handle	AISI 304 - 1.4301
4	Yuvarlak oturma - Ball seat	PTFE	11	Yaylı rondela - Spring washer	AISI 304 - 1.4301
5	Bağlantı contası - Joint gasket	PTFE	12	Kök Somunu - Stem Nut	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	13	Plastik kapak - Plastic cover	PVC
7	Baskı Rondelası - Thrust washer	PTFE	14	Kilit cihazı - Lock device	AISI 304 - 1.4301



982

2-PC TAM BAĞLANTI NOKTALI KÜRE VANA

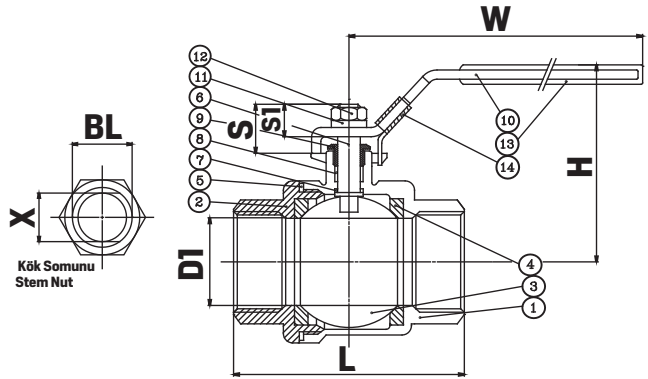
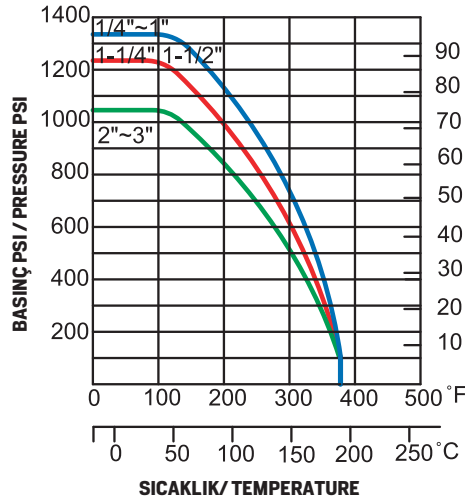
• 2-PC BALL VALVE WITH FULL PORT

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DİŞLİ / THREAD: EN 10226-1 (ex ISO 7/1)

NOT / NOTE: "silikonsuz" - "silicone free"

KOD / CODE	DN	DN inch	D1 mm	L mm	H mm	W mm	S mm	S1 mm	X mm	BL	g	kg	Box	€
982104000	8	1/4"	11,6	50	48	98	16,5	10,2	5	M8	200	1	80	34,69
982308000	10	3/8"	12,5	50	48	98	16,5	10,2	5	M8	210	1	80	34,69
982102000	15	1/2"	15	60	53	98	15,5	11	5	M8	290	1	60	33,31
982304000	20	3/4"	20	65	61	120	20	13,5	6	M8	440	1	40	46,64
982100000	25	1"	25	80	65	154	23,5	16	7	M10	620	1	24	67,44
982114000	32	1 1/4"	32	92	79	154	23,5	16	7	M10	1080	1	20	105,25
982112000	40	1 1/2"	38	105	83	184	25,5	17	8	M12	1490	1	10	157,93
982200000	50	2"	50	125	97	184	25,5	17	8	M12	2560	1	6	211,60
982212000	65	2 1/2"	65	156	129	245	41	29,5	12	M16	5040	1	4	511,90
982300000	80	3"	76	183	138	245	41	29,5	12	M16	8150	1	1	758,52

BASINÇ SICAKLIK DERECELENDİRME 1/4"-3"
PRESSURE TEMPERATURE RATING 1/4"-3"

POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.4408	8	Kök paketleme - Stem packing	PTFE
2	Kapak - Cap	AISI 316 - 1.4408	9	Salmastra somunu - Gland nut	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.4408	10	Sap - Handle	AISI 304 - 1.4301
4	Yuvarlak oturma - Ball seat	PTFE	11	Yaylı rondela - Spring washer	AISI 304 - 1.4301
5	Bağlantı contası - Joint gasket	PTFE	12	Kök somunu - Stem Nut	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	13	Plastik kapak - Plastic cover	PVC
7	Baskı rondelası - Thrust washer	PTFE	14	Kilit cihazı - Lock device	AISI 304 - 1.4301

A 40 40

982/L

2-PC TAM BAĞLANTI NOKTALI KÜRE VANA - İNCE SERİLER

• 2-PC BALL VALVE WITH FULL PORT - SLIM SERIES

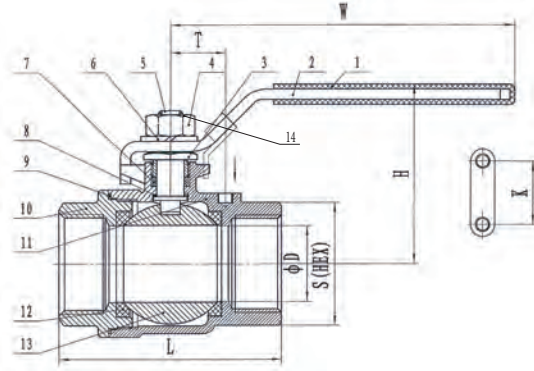
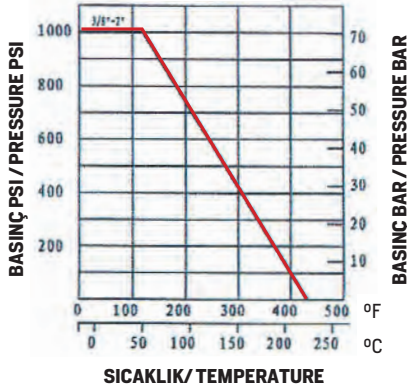
MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

DIŞLI / THREAD: EN 10226-1 (ex ISO 7/1)

NOT / NOTE: "silikonsuz" - "silicone free"



KOD / CODE	DN	DN inch	D mm	L mm	H mm	W mm	T mm	K mm	g	kg	€
982308001	10	3/8"	12,7	44,5	51	95	12,5	28,5	185	1	27,37
982102001	15	1/2"	15	57	53	95	13	28,5	270	1	30,40
982304001	20	3/4"	20	65	59,5	110	21	34,8	425	1	43,38
982100001	25	1"	25	76	73	135	22,5	34,8	625	1	59,41
982114001	32	1 1/4"	32	87,5	79	135	23,5	38,1	995	1	89,80
982112001	40	1 1/2"	38	102	90,5	165	23,5	38,1	1370	1	121,13
982200001	50	2"	50	123	98,5	165	23,5	38,1	2325	1	186,43

BASINÇ SICAKLIK DERECELENDİRME 3/8"-2"
PRESSURE TEMPERATURE RATING 3/8"-2"

POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Plastik kapak - Plastic cover	PVC	8	Baskı rondelası - Thrust washer	PTFE
2	Sap - Handle	AISI 304 - 1.4301	9	Bağlantı contası - Joint gasket	PTFE
3	Salmastra somunu - Gland nut	AISI 304 - 1.4301	10	Kapak - Cap	AISI 316 - 1.4408
4	Kök Somunu - Stem Nut	AISI 304 - 1.4301	11	Gövde - Body	AISI 316 - 1.4408
5	Kök - Stem	AISI 316 - 1.4401	12	Yuvarlak oturma - Ball seat	PTFE
6	Yaylı rondela - Spring washer	AISI 304 - 1.4301	13	Yuvarlak - Ball	AISI 316 - 1.4408
7	Kök paketleme - Stem packing	PTFE	14	Kilit cihazı - Lock device	AISI 304 - 1.4301



982/F

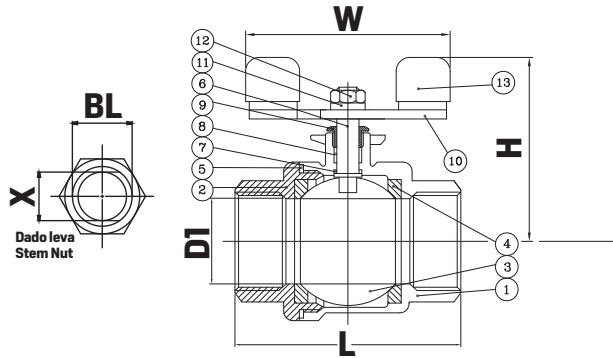
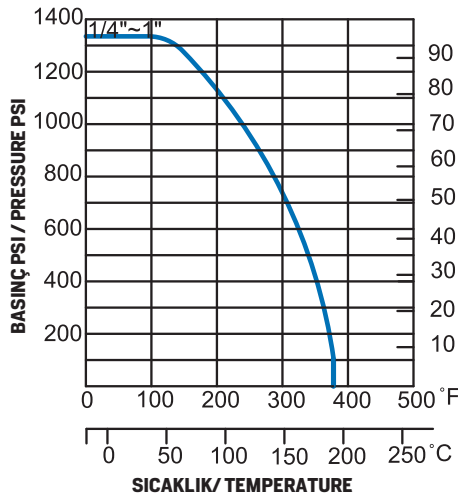
2-PC TAM BAĞLANTI NOKTALI KÜRE VANA VE KELEBEKSAP

• 2-PC BALL VALVE WITH FULL PORT AND BUTTERFLY HANDLE

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408
NOT / NOTE: "silikonsuz" - "silicone free"

KOD / CODE	DN	DN inch	Version	D1 mm	L mm	H mm	W mm	X mm	BL	g			€
982102000FR	15	1/2"	rosso red	15	60	46	51	5	M8	240	1	60	54,17
982102000FB	15	1/2"	blu blue	15	60	46	51	5	M8	240	1	60	54,17

BASINÇ SICAKLIK DERECELENDİRME 1/4"-1"
PRESSURE TEMPERATURE RATING 1/4"-1"



POS.	DETAJ - DETAIL	MALZEME - MATERIAL	POS.	DETAJ - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.440 8	8	Kök paketleme - Stem packing	PTFE
2	Kapak - Cap	AISI 316 - 1.440 8	9	Salmastra somunu - Gland nut	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.440 8	10	Sap - Handle	AISI 304 - 1.4301
4	Yuvarlak oturma - Ball seat	PTFE	11	Yaylı rondela - Spring washer	AISI 304 - 1.4301
5	Bağlantı contası - Joint gasket	PTFE	12	Kök somunu - Stem Nut	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	13	Plastik kapak - Plastic cover	PVC
7	Baskı rondelası - Thrust washer	PTFE			



983

3-PC TAM BAĞLANTI NOKTALI KÜRE VANA

• 3-PC BALL VALVE WITH FULL PORT

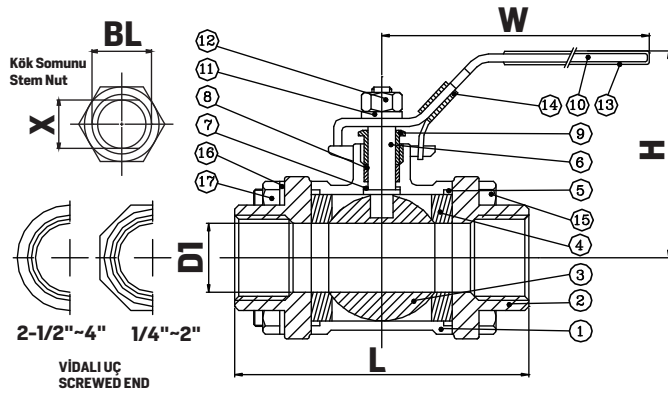
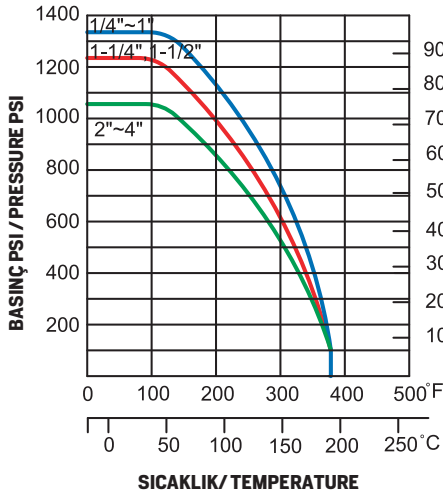
MALZEME / MATERIAL: AISI 316 - 1.4401/1.4408

DİŞLİ / THREAD: EN 10226-1 [ex ISO 7/1]

NOT / NOTE: "silikonsuz" - "silicone free"

NORM: harekete geçirici için flanş / flange for actuator
ISO 5211

KOD / CODE	DN	DN inch	DI mm	L mm	H mm	W mm	X mm	BL inch	Kv m ³ /h	Torque Kgf x cm	g	€
983104000	8	1/4"	11,6	58	56	98	5	5/16"	5,7	40	430	65,54
983308000	10	3/8"	12,8	58	56	98	5	5/16"	6,8	40	410	65,54
983102000	15	1/2"	15	62	56	98	5	5/16"	9,6	54	540	70,99
983304000	20	3/4"	20	76	70	118	6,5	3/8"	18,1	78	730	97,00
983100000	25	1"	25	85	76	143	8	7/16"	30,1	106	1130	129,30
983114000	32	1 1/4"	32	100	81	143	8	7/16"	49,0	150	1670	202,66
983112000	40	1 1/2"	38	115	92	173	9	1/2"	68,8	200	2430	283,16
983200000	50	2"	50	132	103	173	9	1/2"	129,0	280	3500	390,29
983212000	65	2 1/2"	65	165	130	223	12	3/4"	227,9	500	7400	810,82
983300000	80	3"	80	183	141	223	12	3/4"	356,9	770	12400	1284,73
983400000	100	4"	100	232	170	308	16	1"	670,8	1100	22000	2169,18

Kv = 5 °C ile 30 °C arasında bir sıcaklıkta, 1 bar basınç düşüşü ile m³/saat cinsinden su akış hızı.Kv = water flow rate in m³/h at a temperature between 5 °C and 30 °C, with a pressure drop of 1 bar.BASINÇ SICAKLIK DERECELENDİRME 1/4"-4"
PRESSURE TEMPERATURE RATING 1/4"-4"

POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.4408	10	Sap - Handle	AISI 304 - 1.4301
2	Kapak - Cap	AISI 316 - 1.4408	11	Kök rondela - Stem washer	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.4408	12	Kök somunu - Stem Nut	AISI 304 - 1.4301
4	Yuvarlak oturma - Ball seat	PTFE	13	Plastik kapak - Plastic cover	PVC
5	Bağlantı contası - Joint gasket	PTFE	14	Kilit cihazı - Lock device	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	15	Civata - Bolt	AISI 304 - 1.4301
7	Baski rondelası - Thrust washer	PTFE	16	Yaylı rondela - Spring washer	AISI 304 - 1.4301
8	Kök paketleme - Stem packing	PTFE	17	Altıgen somun - Hex nut	AISI 304 - 1.4301
9	Salmastra somunu - Gland nut	AISI 304 - 1.4301			



983/SW

3-PC TAM BAĞLANTI NOKTALI KÜRE VANA SOKET KAYNAKLI

• 3-PC BALL VALVE WITH FULL PORT SOCKET WELDING

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

NOT / NOTE "silikonsuz" - "silicone free"

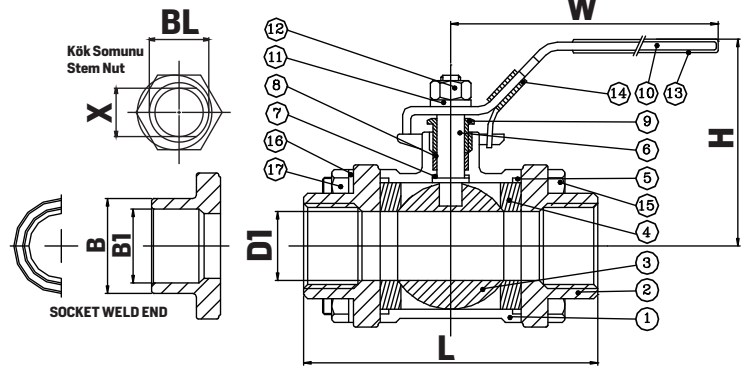
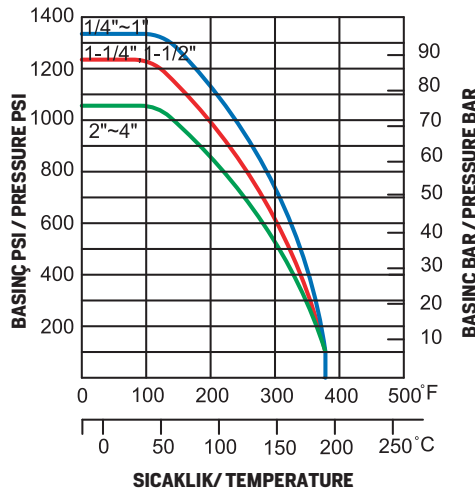
NORM: harekete geçirici için flanş / flange for actuator
ISO 5211

KOD / CODE	DN	DN inch	DI mm	L mm	H mm	W mm	B mm	B1 mm	X mm	BL inch	Torque Kgf x cm	Kv m ³ /h	g	€
983104001	8	1/4"	11,6	58	56	98	19	14,1	5	5/16"	40	5,7	430	1 67,40
983308001	10	3/8"	12,8	58	56	98	22,5	17,6	5	5/16"	40	6,8	410	1 67,40
983102001	15	1/2"	15	62	56	98	27	21,7	5	5/16"	54	9,6	540	1 73,02
983304001	20	3/4"	20	76	70	118	33	27,1	6,5	3/8"	78	18,1	730	1 99,77
983100001	25	1"	25	85	76	143	40	33,8	8	7/16"	106	30,1	1130	1 133,01
983114001	32	1 1/4"	32	100	81	143	48,8	42,6	8	7/16"	150	49,0	1670	1 208,44
983112001	40	1 1/2"	38	115	92	173	55	48,7	9	1/2"	200	68,8	2430	1 291,25
983200001	50	2"	50	132	103	173	67,2	61,1	9	1/2"	280	129,0	3500	1 408,89
983212001	65	2 1/2"	65	165	130	223	86,4	76,9	12	3/4"	500	227,9	7400	1 833,99
983300001	80	3"	80	183	141	223	103	89,5	12	3/4"	770	356,9	12400	1 1321,43
983400001	100	4"	100	232	170	308	130	115,5	16	1"	1100	670,8	22000	1 2231,14

Kv = 5 °C ile 30 °C arasında bir sıcaklıkta, 1 bar Basınç düşüşü ile m³/saat cinsinden su akış hızı.

Kv = water flow rate in m³/h at a temperature between 5 °C and 30 °C, with a pressure drop of 1 bar.

BASINÇ SICAKLIK DERECELENDİRME 1/4"-4"
PRESSURE TEMPERATURE RATING 1/4"-4"



POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.4408	10	Sap - Handle	AISI 304 - 1.4301
2	Kapak - Cap	AISI 316 - 1.4408	11	Kök rondela - Stem washer	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.4408	12	Kök somunu - Stem Nut	AISI 304 - 1.4301
4	Yuvarlak oturmat - Ball seat	PTFE	13	Plastik kapak - Plastic cover	PVC
5	Bağlantı contası - Joint gasket	PTFE	14	Kilit cihazı - Lock device	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	15	Civata - Bolt	AISI 304 - 1.4301
7	Baskı rondelası - Thrust washer	PTFE	16	Yaylı rondela - Spring washer	AISI 304 - 1.4301
8	Kök paketleme - Stem packing	PTFE	17	Altıgen Somun - Hex nut	AISI 304 - 1.4301
9	Salmastra somunu - Gland nut	AISI 304 - 1.4301			



983/BW

3-PC TAM BAĞLANTI NOKTALI KÜRE VANA UÇ KAYNAK

• 3-PC BALL VALVE WITH FULL PORT BUTT WELDING

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408

NOT / NOTE: "silikonsuz" - "silicone free"

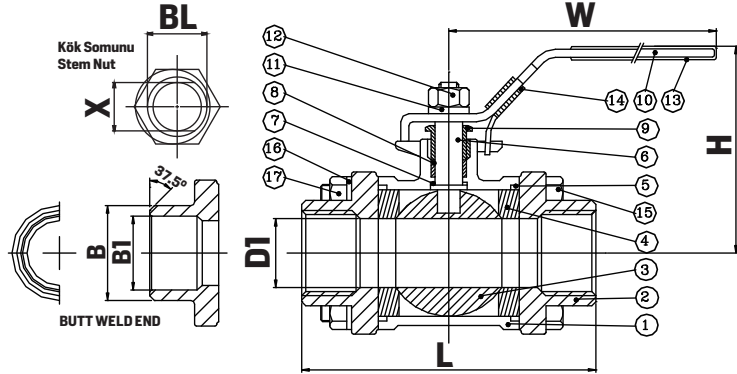
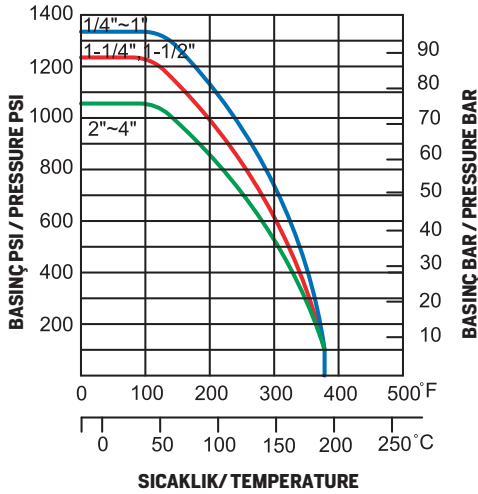
NORM: harekete geçirici için flanş/ flange for actuator
ISO 5211

KOD / CODE	DN	DN inch	DI mm	L mm	H mm	W mm	B1 mm	B mm	X mm	BL inch	Kv m ³ /h	Torque Kgf x cm	g	€	
983104002	8	1/4"	11,6	58	56	98	12	17,6	5	5/16"	5,7	40	430	1	67,40
983308002	10	3/8"	12,8	58	56	98	14	17,6	5	5/16"	6,8	40	410	1	67,40
983102002	15	1/2"	15	62	56	98	17,1	21,5	5	5/16"	9,6	54	540	1	73,02
983304002	20	3/4"	20	76	70	118	22,5	27,1	6,5	3/8"	18,1	78	730	1	99,77
983100002	25	1"	25	85	76	143	28	34	8	7/16"	30,1	106	1130	1	133,01
983114002	32	1 1/4"	32	100	81	143	35,5	42,5	8	7/16"	49,0	150	1670	1	208,44
983112002	40	1 1/2"	38	115	92	173	43	49	9	1/2"	68,8	200	2430	1	291,25
983200002	50	2"	50	132	103	173	53	60,8	9	1/2"	129,0	280	3500	1	401,45
983212002	65	2 1/2"	65	165	130	223	65	76,2	12	3/4"	227,9	500	7400	1	833,99
983300002	80	3"	80	183	141	223	80	92	12	3/4"	356,9	770	12400	1	1321,43
983400002	100	4"	100	232	170	308	100	116	16	1"	670,8	1100	22000	1	2231,14

Kv = 5 °C ile 30 °C arasında bir sıcaklıkta, 1 bar basınç düşüşü ile m³/saat cinsinden su akış hızı.

Kv = water flow rate in m³/h at a temperature between 5 °C and 30 °C, with a pressure drop of 1 bar.

BASINÇ SICAKLIK DERECELENDİRME 1/4"-4"
PRESSURE TEMPERATURE RATING 1/4"-4"



POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.4408	10	Sap - Handle	AISI 304 - 1.4301
2	Kapak - Cap	AISI 316 - 1.4408	11	Kök rondela - Stem washer	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.4408	12	Kök somunu - Stem Nut	AISI 304 - 1.4301
4	Yuvarlak oturma - Ball seat	PTFE	13	Plastik kapak - Plastic cover	PVC
5	Bağlantı contası - Joint gasket	PTFE	14	Kilit cihazı - Lock device	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	15	Civata - Bolt	AISI 304 - 1.4301
7	Baskı rondelası - Thrust washer	PTFE	16	Yaylı rondela - Spring washer	AISI 304 - 1.4301
8	Kök paketleme - Stem packing	PTFE	17	Altıgen somun - Hex nut	AISI 304 - 1.4301
9	Salmastra somunu - Gland nut	AISI 304 - 1.4301			



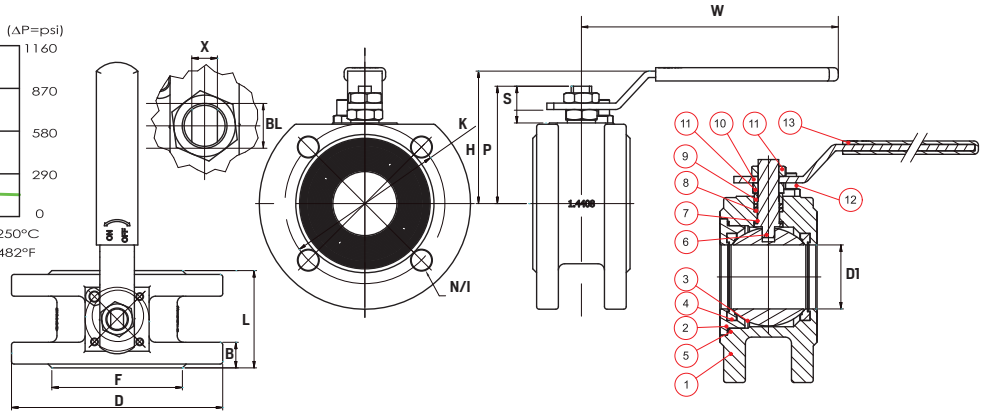
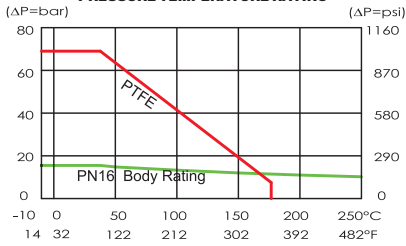
985

WAFER TÜRÜ YUVARLAK VANA TAM BAĞLANTI NOKTASI

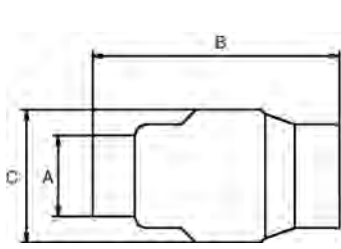
• WAFER TYPE BALL VALVE FULL PORT

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408**NOT / NOTE:** "silikonsuz" - "silicone free"**NORM:** harekete geçirici için flanş / flange for actuator ISO 5211

KOD / CODE	DN PN16	DI mm	N/I Delikler N/I Holes Nr.	B mm	F mm	P mm	L mm	D mm	K mm	H mm	W mm	S mm	X mm	BL	Tork Kgf x cm	g	€	
985102000	1/2" - 15	16	4 - M12 x 1,75	14	45	34,5	41	96	65	65	123	17	6,5	10	58	1470	1	285,10
985304000	3/4" - 20	20	4 - M12 x 1,75	16	58	36	44	105	75	69	123	17	6,5	10	80	2070	1	344,18
985100000	1" - 25	25	4 - M12 x 1,75	16	68	70	54	115	85	80	158	25	8,7	14	108	2980	1	386,35
985114000	1"1/4 - 32	32	4 - M16 x 2	16	78	75	58	135	100	87	158	24	8,7	14	150	3600	1	620,39
985112000	1"1/2 - 40	38	4 - M16 x 2	16	88	84	62	145	110	96	198	29	10	16	200	4000	1	734,60
985200000	2" - 50	50	4 - M16 x 2	18	102	92	72	155	125	104	198	29	10	16	300	5350	1	955,37
985212000	2"1/2 - 65	65	4 - M16 x 2	18	122	101	94	185	145	122	248	36	12	20	515	9200	1	1448,74
985300000	3" - 80	76	8 - M16 x 2	20	138	131	118	200	160	153	283	37	12	20	810	13500	1	2078,65
985400000	4" - 100	96	8 - M16 x 2	20	158	142	140	220	180	164	333	37	12	20	1130	19340	1	3008,82

BASINÇ SICAKLIK DERECELENDİRME
PRESSURE TEMPERATURE RATING

POS.	DETAY - DETAIL	MALZEME - MATERIAL	POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 - 1.4408	8	Kök paketleme - Stem packing	PTFE
2	Bağlantı yuvası - Insert	AISI 316 - 1.4401	9	Yüksek rondela - High washer	AISI 304 - 1.4301
3	Yuvarlak - Ball	AISI 316 - 1.4408	10	Sap - Handle	AISI 304 - 1.4301
4	Yuvarlak oturmat - Ball seat	PTFE	11	Kök Somunu - Stem Nuts	AISI 304 - 1.4301
5	Bağlantı contası - Joint gasket	PTFE	12	Blocco - Stop	AISI 304 - 1.4301
6	Kök - Stem	AISI 316 - 1.4401	13	Plastik Kapak - Plastic cover	POLİVİNİL - VINYL
7	Baskı rondelası - Thrust washer	PTFE			



986/304

VANA KONTROLÜ

• CHECK VALVE

MALZEME / MATERIAL: AISI 304 - 1.4301

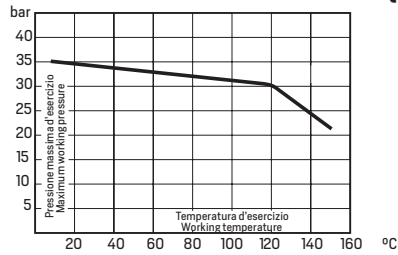
NOT / NOTE: impiego acqua [gaz yok]

KOD / CODE	DN	DN inch	A mm	B mm	C mm	g	kg	€
986104000	8	1/4"	18	55	32	94	1	110,66
986308000	10	3/8"	20	55	32	91	1	110,66
986102000	15	1/2"	25	55	32	93	1	102,52
986304000	20	3/4"	29	70	44	129	1	126,95
986100000	25	1"	36	84	53	191	1	149,22
986114000	32	1 1/4"	45	99	62	281	1	218,40
986112000	40	1 1/2"	51	119	78	388	1	273,26
986200000	50	2"	64	123	89	704	1	501,73

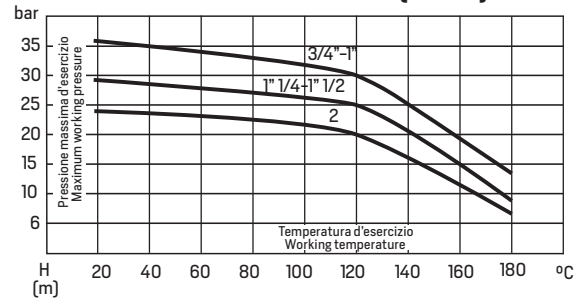
- Paslanmaz çelik dönüştürü kontrol vanası (Dim. 1/4" - 3/8" - 1/2")
- Paslanmaz çelik kalıplı kontrol vanası (Dim. 3/4" - 1" - 1 1/4" - 1 1/2" - 2")
- Gövde ve bağlantı parçaları paslanmaz çelik AISI 304; - Seal: FPM; - Dişli Dişi: ISO 228/1 (ex DIN 259) dişli silindirik;
- Açma Basıncı: 0,03 bar maks - min 0,025 bar; - çalıştırma basıncı: 16 bar; - çalıştırma sıcaklığı: -20 °C + 150 °C'ye kadar

- Stainless steel turned check valve (Dim. 1/4" - 3/8" - 1/2")
- Stainless steel molded check valve (Dim. 3/4" - 1" - 1 1/4" - 1 1/2" - 2")
- Body and fittings in stainless steel AISI 304; - Seal: FPM; - Threaded female: ISO 228/1 (ex DIN 259) female cylindrical;
- Opening pressure: 0,03 bar max - min 0,025 bar; - Working pressure: 16 bar; - Operating temperature: -20 °C to + 150 °C

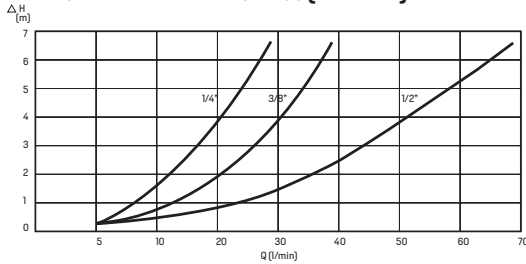
BASINÇ SICAKLIK DİYAGRAMI (1/4"÷1/2")
DIAGRAMMA PRESSIONE-TEMPERATURA (1/4"÷1/2")



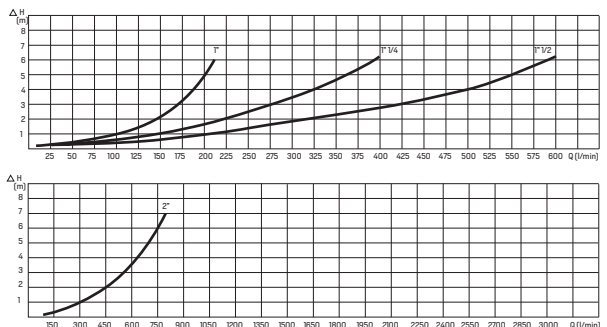
BASINÇ SICAKLIK DİYAGRAMI (3/4"÷2")
DIAGRAMMA PRESSIONE-TEMPERATURA (3/4"÷2")

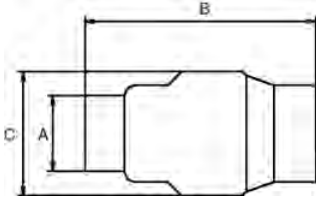


YÜK KAYBI DİYAGRAMI (1/4"÷1/2")
DIAGRAMMI PERDITE DI CARICO (1/4"÷1/2")



YÜK KAYBI DİYAGRAMI (3/4"÷2")
DIAGRAMMI PERDITE DI CARICO (3/4"÷2")







986/316

KONTROL VANASI

• CHECK VALVE

MALZEME / MATERIAL: AISI 316 - 1.4401

NOT / NOTE: impiego acqua (gaz yok)

KOD / CODE	DN	DN inch	A mm	B mm	C mm			€
986104316	8	1/4"	18	55	32	1	94	160,51
986308316	10	3/8"	20	55	32	1	91	160,51
986102316	15	1/2"	25	55	32	1	93	125,54
986304316	20	3/4"	29	70	44	1	129	156,49
986100316	25	1"	36	84	53	1	191	182,89
986114316	32	1 1/4"	45	99	62	1	281	278,38
986112316	40	1 1/2"	51	119	78	1	388	342,97
986200316	50	2"	64	123	89	1	704	639,48
986212316	65	2 1/2"	80	147	113	1	1425	968,65
986300316	80	3"	93	166	132	1	2085	1341,20
986400316	100	4"	120	193	167	1	3415	2235,24

- Paslanmaz çelik döndürlü kontrol vanası (Dim. 1/4" - 3/8" - 1/2")

- Paslanmaz çelik kalıplı kontrol vanası (Dim. 3/4" - 1" - 1 1/4" - 1 1/2" - 2" - 2 1/2" - 3" - 4")

- Gövde ve bağlantı parçaları paslanmaz çelik AISI 316; - Seal: FPM; - Dişli diş: ISO 228/1 (ex DIN 259) dişli silindirik;

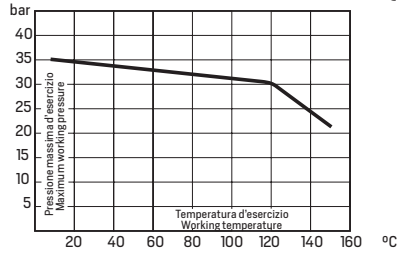
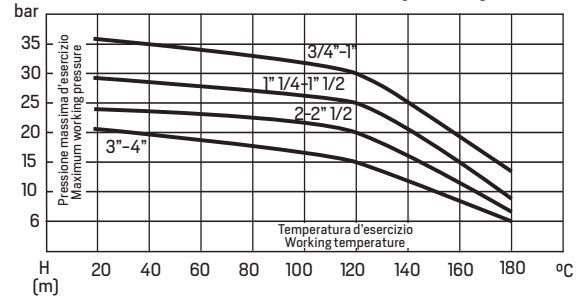
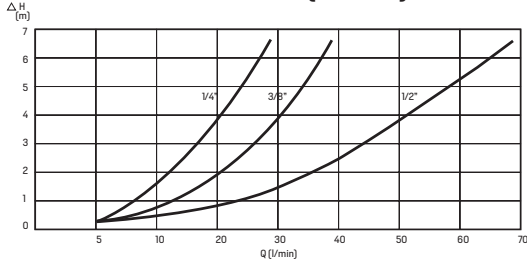
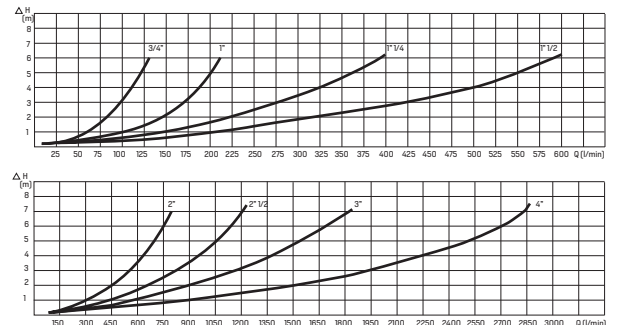
- Açma Basıncı: 0,03 bar max - min 0,025 bar; - Çalıştırma Basıncı: 16 bar; - Çalıştırma Sıcaklığı: -20 °C + 150 °C'ye kadar

- Stainless steel turned check valve (Dim. 1/4" - 3/8" - 1/2")

- Stainless steel molded check valve (Dim. 3/4" - 1" - 1 1/4" - 1 1/2" - 2" - 2 1/2" - 3" - 4")

- Body and fittings in stainless steel AISI 316; - Seal: FPM; - Threaded female: ISO 228/1 (ex DIN 259) female cylindrical;

- Opening pressure: 0,03 bar max - min 0,025 bar; - Working pressure: 16 bar; - Operating temperature: -20 °C to + 150 °C

BASINÇ SICAKLIK DİYAGRAMI (1/4"÷1/2")
DIAGRAMMA PRESSIONE-TEMPERATURA (1/4"÷1/2")BASINÇ SICAKLIK DİYAGRAMI (3/4"÷4")
DIAGRAMMA PRESSIONE-TEMPERATURA (3/4"÷4")YÜK KAYBI DİYAGRAMI (1/4"÷1/2")
DIAGRAMMI PERDITE DI CARICO (1/4"÷1/2")YÜK KAYBI DİYAGRAMI (3/4"÷2")
DIAGRAMMI PERDITE DI CARICO (3/4"÷2")





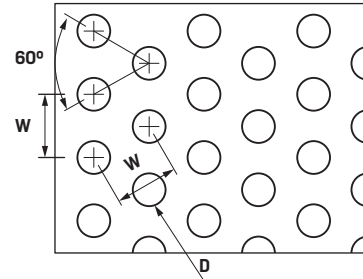
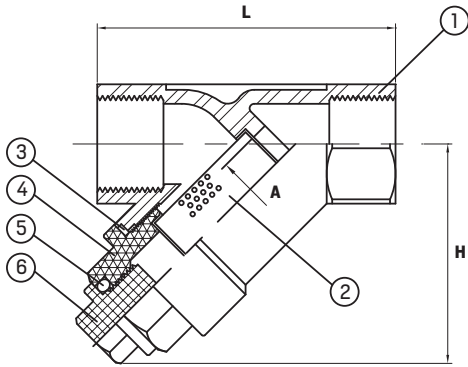
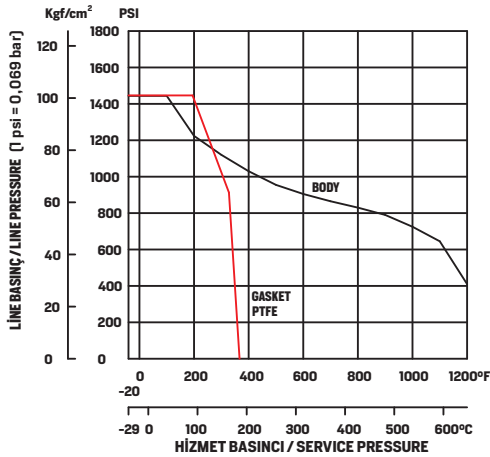
984

Y DIŞI SÜZGEÇ

• Y FEMALE STRAINER

MALZEME / MATERIAL: AISI 316 - 1.4401 / 1.4408
DIŞLI / THREAD: ISO 228/1 [ex DIN 259]

KOD / CODE	DN	DN inch	A mm	L mm	H mm	W mm	D mm			€
984102000	15	1/2"	15	65	51	2	1	250	1	60,25
984304000	20	3/4"	20	80	60	2	1	400	1	73,28
984100000	25	1"	25	90	72	2	1	700	1	103,19
984114000	32	1 1/4"	32	105	77	2	1	900	1	156,68
984112000	40	1 1/2"	40	120	87	2	1	1200	1	199,54
984200000	50	2"	50	140	103	2	1	1900	1	298,99

BASINÇ SICAKLIK DERECELENDİRME POMPASI Y SIKMA 800 PSI /
PRESSURE TEMPERATURE RATING Y STRAINER 800 PSIDIŞLI Y FİLTRELERİ İÇİN CV - KV DEĞERİ /
VALORE CV - KV PER FILTRI A Y FILETTATI

KOD CODE	DN	CV US gallon / min	KV m³ / h
984102000	1/2"	4,55	3,91
984304000	3/4"	10,64	9,15
984100000	1"	19,72	16,96
984114000	1" 1/4"	31,50	27,09
984112000	1" 1/2"	46,42	39,92
984200000	2"	86,77	74,62

NOT / NOTTE

Cv = 60 °F sıcaklıkta suyun dakika başına ABD galonu cinsinden akış hızı 1 psi 1itre basınç düşüşü ile.

Kv = 5 ile 40 °C arasındaki sıcaklıklarda su için m³/s cinsinden akış hızı litrede 1 bar basınç düşüşü

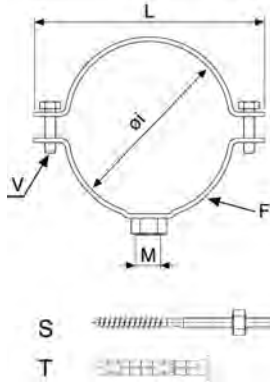
Kv = 0,86 x Cv Sıvılar için Valfler: Q (m³/s) = Kv* DP [bar]

Cv = portata in US galloni per minuto di acqua alla temperatura di 60 °F con una perdita di carico sul filtro di 1 psi.

Kv = portata in m³/h per acqua alla temperatura tra 5 e 40 °C con una perdita di carico sul filtro di 1 bar

Kv = 0,86 x Cv Valvole per liquidi: Q (m³/h) = Kv* DP [bar]

POS.	DETAY - DETAIL	MALZEME - MATERIAL
1	Gövde - Body	AISI 316 [CF8M] - 1.4408 [1.4401]
2	Ekran - Screen	AISI 316 - 1.4401
3	Conta - Gasket	PTFE
4	Bone - Bonnet	AISI 316 [CF8M] - 1.4408 [1.4401]
5	O-Halka - O-ring	FLUOROELASTOMERO FKM
6	Üfleme - Blow off	AISI 316 [CF8M] - 1.4408 [1.4401]



155

KAUÇUK KELEPÇE

• CLAMP WITH BOLT-WOOD SCREW AND PLUG

MALZEME / MATERIAL: AISI 304 - 1.4301

NOT / NOTE: nokta kaynaklı somun spot welded nut

KOD / CODE	DN inch	Øi mm	M	T mm	S mm	V mm	F Lg x Sp mm	L mm	g	g	g	€
155308304	3/8"	16 - 18	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	53,5	96	1	100*	5,82
155102304	1/2"	20 - 22	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	58	100	1	100*	5,82
155304304	3/4"	25 - 28	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	63,5	106	1	100*	6,32
155100304	1"	31 - 35	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	70	114	1	50*	7,03
155114304	1 1/4"	39 - 43	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	79	118	1	50*	7,57
155112304	1 1/2"	45 - 48,5	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	85	130	1	50*	8,12
155054304	54 mm	54	M 8	10 x 70	M 8 x 90	M 6 x 25	20 x 2,5	94	138	1	50*	8,84
155200304	2"	58 - 61	M 8	10 x 70	M 8 x 90	M 6 x 20	20 x 2,5	97	144	1	50*	8,84
155212304	2 1/2"	73 - 76,5	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	115	262	1	20*	14,95
155300304	3"	86 - 89	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	128	288	1	20*	16,67
155312304	3 1/2"	99 - 103	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	148	310	1	20*	19,24
155108304	108 mm	108	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	149	327	1	20*	21,37
155400304	4"	110 - 115	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	153,5	338	1	20*	21,37
155500304	5"	139 - 143	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	198	398	1	10*	27,82
155600304	6"	166 - 170	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	230	450	1	10*	31,10
155800304	8"	217 - 221	M 10	14 x 70	M 10 x 120	M 6 x 25	30 x 2,5	281	560	1	10*	38,82

[*] minimum satış miktarı / minimum selling quantity

158/KIT

KİT VIDA + TİPA + ARKA SOMUN

• KIT SCREW + PLUG + BACK NUT

MALZEME / MATERIAL: AISI 304 - 1.4301

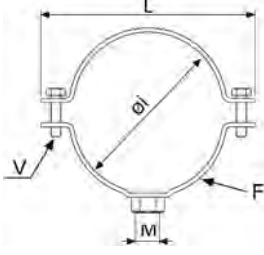


KOD / CODE	Plug	Screw	Back nut	g	g	g	€
158216008K	10 x 70	M 8 x 100	M 8	72	1 kit	200 kit	8,56
158216010K	14 x 70	M 10 x 120	M 10	140	1 kit	100 kit	11,84

Kit : n° 2 tipa, n° 2 vida, n° 2 arka somun

Kit : n° 2 plugs, n° 2 screws, n° 2 back nuts

A 50 50

**156/304****KELEPÇE**

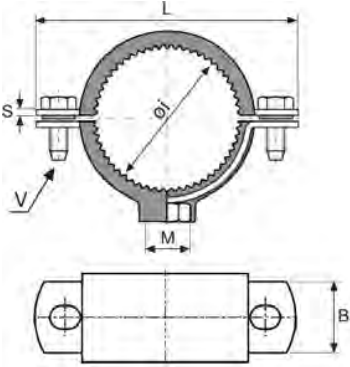
• CLAMP

MALZEME / MATERIAL: AISI 304 - 1.4301**NOT / NOTE:** nokta kaynaklı somun spot welded nut

KOD / CODE	DN inch	DN mm	Øi mm	M	V mm	F Lg x Sp mm	L mm	g	g	g	€
156015304	15 mm	15	15	M 8	M 6 x 20	20 x 2,5	48	52	1	50*	5,34
156308304	3/8"	18	16 - 18	M 8	M 6 x 20	20 x 2,5	53,5	58	1	50*	5,34
156102304	1/2"	22	20 - 22	M 8	M 6 x 20	20 x 2,5	58	62	1	50*	5,14
156304304	3/4"	28	25 - 28	M 8	M 6 x 20	20 x 2,5	63,5	68	1	50*	5,32
156100304	1"	35	31 - 35	M 8	M 6 x 20	20 x 2,5	70	76	1	50*	5,96
156114304	1 1/4"	42	39 - 43	M 8	M 6 x 20	20 x 2,5	79	88	1	50*	6,59
156112304	1 1/2"	-	45 - 48,5	M 8	M 6 x 20	20 x 2,5	85	92	1	50*	7,12
156054304	54 mm	54	54	M 8	M 6 x 25	20 x 2,5	94	102	1	50*	7,75
156200304	2"	-	58 - 61	M 8	M 6 x 20	20 x 2,5	97	104	1	50*	7,75
156212304	2 1/2"	76,1	73 - 76,5	M 10	M 6 x 25	30 x 2,5	115	200	1	20*	13,58
156300304	3"	88,9	86 - 89	M 10	M 6 x 25	30 x 2,5	128	221	1	20*	14,81
156312304	3 1/2"	-	99 - 103	M 10	M 6 x 25	30 x 2,5	148	238	1	20*	16,80
156108304	108 mm	108	108	M 10	M 6 x 25	30 x 2,5	149	252	1	20*	17,16
156400304	4"	-	110 - 115	M 10	M 6 x 25	30 x 2,5	153,5	266	1	20*	17,16
156500304	5"	139,7	139 - 143	M 10	M 6 x 25	30 x 2,5	198	326	1	10*	24,92
156600304	6"	168,3	166 - 170	M 10	M 6 x 25	30 x 2,5	230	406	1	10*	28,55
156800304	8"	-	217 - 221	M 10	M 6 x 25	30 x 2,5	281	510	1	10*	35,24

[*] minimum satış miktarı / minimum selling quantity

A 50 50

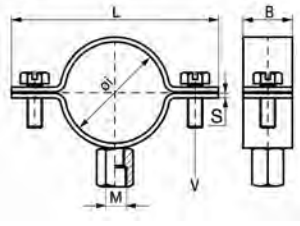
**156/304 G****KAUÇUK KELEPÇE**

• CLAMP WITH RUBBER

MALZEME / MATERIAL: AISI 304 - 1.4301**VULKANİZE KAUÇUK****VULCANIZED RUBBER:** EPDM [-20° C/+120° C]
durezza/hardness 55 Shore**NOT / NOTE:** nokta kaynaklı somun spot welded nutUygundur
Conform to**DIN 4109**



KOD / CODE	DN inch	DN mm	Øi mm	M	V mm	B mm	S mm	L mm	g	g	g	€
156150304G	-	15	15 - 18	M 8	M 6 x 20	20	2,5	58	72	1	50*	10,86
156308304G	3/8"	18	16 - 18	M 8	M 6 x 20	20	2,5	58	76	1	50*	10,86
156102304G	1/2"	22	20 - 24	M 8	M 6 x 20	20	2,5	63,5	86	1	50*	11,06
156304304G	3/4"	28	25 - 28	M 8	M 6 x 20	20	2,5	70	94	1	50*	11,51
156100304G	1"	35	31 - 35	M 8	M 6 x 20	20	2,5	79	112	1	50*	12,19
156114304G	1 1/4"	42	39 - 43	M 8	M 6 x 20	20	2,5	85	120	1	50*	14,21
156112304G	1 1/2"	54	47 - 54	M 8	M 6 x 25	20	2,5	97	142	1	50*	15,49
156200304G	2"	-	58 - 61	M 8	M 6 x 20	20	2,5	107	156	1	20*	16,82
156212304G	2 1/2"	76,1	73 - 76,5	M 10	M 6 x 25	30	2,5	128	308	1	10*	23,52
156300304G	3"	88,9	86 - 89	M 10	M 6 x 25	30	2,5	148	346	1	10*	25,49
156400304G	4"	-	110 - 115	M 10	M 6 x 25	30	2,5	166	382	1	10*	30,78

[*] minimum satış miktarı / minimum selling quantity

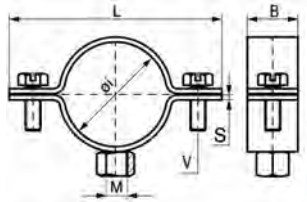
**156/316****KELEPÇE**

• CLAMP

MALZEME / MATERIAL: AISI 316 - 1.4401**NOT / NOTE:** nokta kaynaklı somun spot welded nut



KOD / CODE	DN inch	DN mm	Øi mm	M	V mm	B mm	S mm	L mm			€
156308316	3/8"	15 - 18	15 - 18	M 8 / 10	M 6 x 16	20	2	54	56	50*	8,23
156102316	1/2"	22	20 - 24	M 8 / 10	M 6 x 16	20	2	62	62	50*	8,81
156304316	3/4"	28	26 - 30	M 8 / 10	M 6 x 16	20	2	66	64	50*	9,25
156100316	1"	35	32 - 36	M 8 / 10	M 6 x 20	20	2	72	70	50*	9,60
156114316	1 1/4"	42	36 - 42	M 8 / 10	M 6 x 20	20	2	80	83	50*	10,36
156112316	1 1/2"	-	47 - 50	M 8 / 10	M 6 x 20	20	2	87	89	50*	11,05
156054316	54 mm	54	51 - 55	M 8 / 10	M 6 x 20	20	2	94	94	50*	11,48
156200316	2"	-	60 - 64	M 8 / 10	M 6 x 20	20	2	102	102	50*	12,25
156070316	70 mm	-	67 - 73	M 8 / 10	M 6 x 20	20	2	118	110	20*	13,70
156212316	2 1/2"	76,1	75 - 80	M 8 / 10	M 6 x 20	20	2	125	117	20*	13,92
156300316	3"	88,9	87 - 92	M 8 / 10	M 6 x 20	20	2	141	132	20*	15,28
156312316	3 1/2"	-	99 - 105	M 8 / 10	M 6 x 20	20	2	155	143	20*	16,63
156108316	108 mm	108	106 - 112	M 8 / 10	M 6 x 20	20	2	162	152	20*	17,57
156400316	4"	-	114 - 119	M 8 / 10	M 6 x 25	20	2	171	161	20*	19,12
156125316	125 mm	-	124 - 131	M 8 / 10	M 6 x 25	20	2	179	179	10*	20,32
156160316	160 mm	-	159 - 163	M 8 / 10	M 6 x 25	20	2	211	201	10*	23,56
1560200316	200 mm	-	199 - 204	M 8 / 10	M 6 x 25	20	2	253	256	10*	25,33

[*] minimum satış miktarı / minimum selling quantity

**156/316L****KELEPÇE - AĞIR SERİLER**

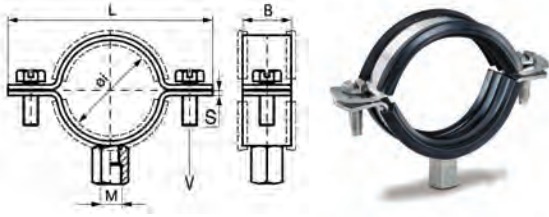
• CLAMP - HEAVY SERIES

MALZEME / MATERIAL: AISI 316L - 1.4404**NOT / NOTE:** nokta kaynaklı somun spot welded nut

KOD / CODE	DN inch	DN mm	Øi mm	M	V mm	B mm	S mm	L mm			€
156500316	5"	139,7	139 - 144	M 10	M 6 x 25	20	2,5	179	210	10*	23,53
156600316	6"	168,3	164 - 169	M 10	M 6 x 25	20	2,5	203	240	10*	24,89

[*] minimum satış miktarı / minimum selling quantity

A 50 51

**156/316 G****KAUÇUK KELEPÇE**

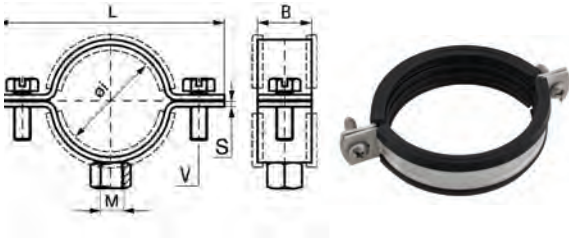
• CLAMP WITH RUBBER

MALZEME / MATERIAL: AISI 316 - 1.4401**VULKANİZE KAUÇUK****VULCANIZED RUBBER:** EPDM [-20° C/+120° C]**NOT / NOTE:** nokta kaynaklı somun spot welded nut

KOD / CODE	DN inch	DN mm	Øi mm	M	V mm	B mm	S mm	L mm	g	Box	€
156308316G	3/8"	15 - 18	15 - 18	M 8 / 10	M 6 x 16	20	2	65	71	50*	9,66
156102316G	1/2"	22	20 - 24	M 8 / 10	M 6 x 16	20	2	69	77	50*	10,20
156304316G	3/4"	28	26 - 30	M 8 / 10	M 6 x 16	20	2	74	83	50*	10,56
156100316G	1"	35	32 - 36	M 8 / 10	M 6 x 20	20	2	81	91	50*	11,36
156114316G	1 1/4"	42	38 - 42	M 8 / 10	M 6 x 20	20	2	89	100	50*	12,20
156112316G	1 1/2"	-	47 - 50	M 8 / 10	M 6 x 20	20	2	100	111	50*	13,16
156054316G	54 mm	54	51 - 55	M 8 / 10	M 6 x 20	20	2	102	120	50*	13,79
156200316G	2"	-	60 - 64	M 8 / 10	M 6 x 20	20	2	114	132	20*	15,13
156070316G	70 mm	-	67 - 73	M 8 / 10	M 6 x 20	20	2	124	147	10*	17,06
156212316G	2 1/2"	76,1	75 - 80	M 8 / 10	M 6 x 20	20	2	130	154	10*	17,65
156300316G	3"	88,9	87 - 92	M 8 / 10	M 6 x 20	20	2	141	170	10*	20,71
156312316G	3 1/2"	-	100 - 106	M 8 / 10	M 6 x 20	20	2	165	189	10*	21,28
156108316G	-	108	108	M 8 / 10	M 6 x 25	20	2	168	200	10*	21,35
156400316G	4"	-	114 - 119	M 8 / 10	M 6 x 25	20	2	180	210	10*	22,03
156125316G	125 mm	-	124 - 131	M 8 / 10	M 6 x 25	20	2	191	220	10*	23,35
156160316G	160 mm	-	159 - 165	M 8 / 10	M 6 x 25	20	2	217	261	10*	27,23

(*) minimum satış miktarı / minimum selling quantity

A 50 51

**156/316L G****KAUÇUK KELEPÇE - AĞIR SERİLER**

• CLAMP WITH RUBBER - HEAVY SERIES

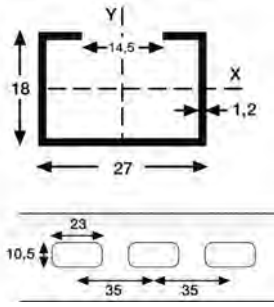
MALZEME / MATERIAL: AISI 316L - 1.4404**VULKANİZE KAUÇUK****VULCANIZED RUBBER:** EPDM [-20° C/+120° C]

sertlik/hardness 55 Shore

NOT / NOTE: nokta kaynaklı somun spot welded nut

KOD / CODE	DN inch	DN mm	Øi mm	B mm	M	V mm	S mm	L mm	g	Box	€
156500316G	5"	139,7	133 - 141	20	M 10	M 6 x 25	2,5	179	250	10*	26,42
156600316G	6"	168,3	159 - 168	25	M 10	M 8 x 35	2,5	233	470	10*	28,96

(*) minimum satış miktarı / minimum selling quantity

**157-P1****SABİTLEME RAYI 2 M**

• FIXING RAIL 2 M

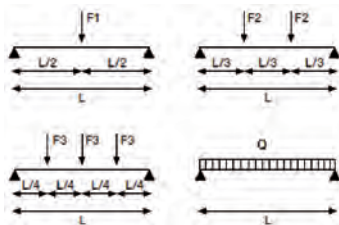
MALZEME / MATERIAL: AISI 304 - 1.4301**BOYUT / DIMENSION:** 27 x 18 x 1,2

KOD / CODE	Section cm ²	Jx cm ⁴	Jy cm ⁴	Wx cm ³	Wy cm ³			€
157027000	0,84	0,34	0,92	0,32	0,68	0,55	6 barre	165,80

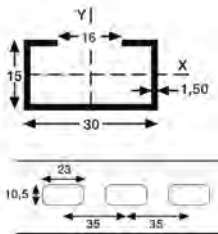
Referans eksen X-X

Jx-Jy atalet momenti ve Wx-Wy mukavemet modülü homojen kesite göre hesaplanır (delikler hariç).
F1 - F2 - F3 - Q = [daN] 1 daN ≈ 1 kgf Yük hesaplaması bir limit sapma = L/200 dikkate alınarak yapılır.

Reference axis X-X

Moment of inertia Jx-Jy and strength modulus Wx-Wy are calculated in correspondence with homogeneous section (holes excluded).
F1 - F2 - F3 - Q = [daN] 1 daN ≈ 1 kgf Loads calculation considering a limit deflection = L/200.

157027000 27x18x1,2	L (mm)			
	500	1000	1500	2000
F1	51	19	8	5
F2	38	11	5	3
F3	25	8	4	2
Q	101	30	14	8



YENİ

157-P3**SABİTLEME RAYI 2 M**

• FIXING RAIL 2 M

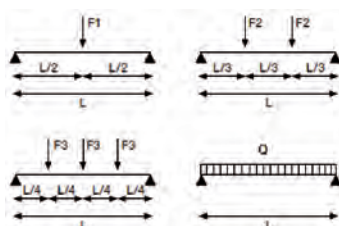
MALZEME / MATERIAL: AISI 304 - 1.4301**BOYUT / DIMENSION:** 30 x 15 x 1,5

KOD / CODE	Section cm ²	Jx cm ⁴	Jy cm ⁴	Wx cm ³	Wy cm ³			€
157030000	0,98	0,30	1,26	0,33	0,84	0,70	6 barre	176,82

Referans eksen X-X

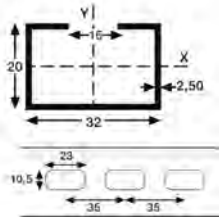
Jx-Jy atalet momenti ve Wx-Wy mukavemet modülü homojen kesite göre hesaplanır (delikler hariç).
F1 - F2 - F3 - Q = [daN] 1 daN ≈ 1 kgf Yük hesaplaması bir limit sapma = L/200 dikkate alınarak yapılır.

Reference axis X-X

Moment of inertia Jx-Jy and strength modulus Wx-Wy are calculated in correspondence with homogeneous section (holes excluded).
F1 - F2 - F3 - Q = [daN] 1 daN ≈ 1 kgf Loads calculation considering a limit deflection = L/200.

157030000 30x15x1,5	L (mm)			
	500	1000	1500	2000
F1	49	15	7	4
F2	39	9	4	2
F3	25	6	3	2
Q	98	25	11	6

A 50 50



YENİ

157-P4

SABİTLEME RAYI 2 M

• FIXING RAIL 2 M

MALZEME / MATERIAL: AISI 304 - 1.4301

BOYUT / DIMENSION: 32 x 20 x 2,5

KOD / CODE	Section cm ²	Jx cm ⁴	Jy cm ⁴	Wx cm ³	Wy cm ³	kg/m	Barre	€
157032000	1,87	0,94	2,70	0,80	1,68	1,30	6 barre	274,56

Referans eksen X-X

Jx-Jy atalet momenti ve Wx-Wy mukavemet modülü homojen kesite göre hesaplanır (delikler hariç).

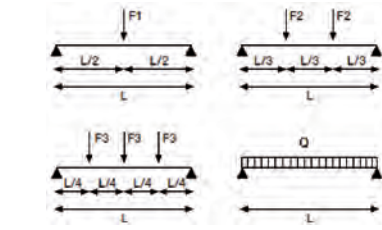
F1 - F2 - F3 - Q = (daN) 1 daN ≈ 1 kgf Yük hesaplaması bir limit sapma = L/200 dikkate alınarak yapılır.

Reference axis X-X

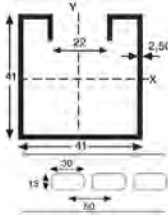
Moment of inertia Jx-Jy and strength modulus Wx-Wy are calculated in correspondence with homogeneous section (holes excluded).

F1 - F2 - F3 - Q = (daN) 1 daN ≈ 1 kgf Loads calculation considering a limit deflection = L/200.

	157032000 32x20x2,5	L (mm)			
		500	1000	1500	2000
F1	117	48	21	12	
F2	88	28	13	7	
F3	59	20	9	5	
Q	235	77	34	19	



A 50 50



157-P6

SABİTLEME RAYI 3 M

• FIXING RAIL 3 M

MALZEME / MATERIAL: AISI 304 - 1.4301

BOYUT / DIMENSION: 41 x 41 x 2,5

KOD / CODE	Section cm ²	Jx cm ⁴	Jy cm ⁴	Wx cm ³	Wy cm ³	kg/m	Barre	€
157041000	3,25	6,28	9,18	2,99	4,48	2,6	5 barre	447,55

Referans eksen X-X

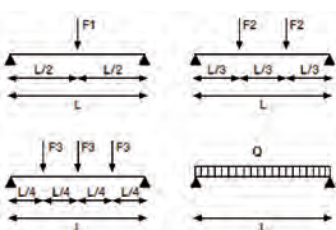
Jx-Jy atalet momenti ve Wx-Wy mukavemet modülü homojen kesite göre hesaplanır (delikler hariç).

F1 - F2 - F3 - Q = (daN) 1 daN ≈ 1 kgf Yük hesaplaması bir limit sapma = L/200 dikkate alınarak yapılır.

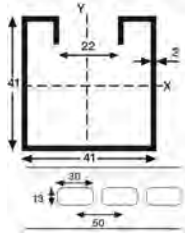
Reference axis X-X

Moment of inertia Jx-Jy and strength modulus Wx-Wy are calculated in correspondence with homogeneous section (holes excluded).

F1 - F2 - F3 - Q = (daN) 1 daN ≈ 1 kgf Loads calculation considering a limit deflection = L/200.



	157041000 41x41x2,5	L (mm)				
		500	1000	1500	2000	3000
F1	433	216	138	78	35	
F2	325	162	81	46	20	
F3	216	108	58	33	15	
Q	866	433	221	124	55	



YENİ

157-P6 L

SABİTLEME RAYI 3 M

• FIXING RAIL 3 M

MALZEME / MATERIAL: AISI 304 - 1.4301

BOYUT / DIMENSION: 41 x 41 x 2

A 50 50

KOD / CODE	Section cm ²	Jx cm ⁴	Jy cm ⁴	Wx cm ³	Wy cm ³	kg/m	5 barre	€
157041001	2,63	5,26	7,60	2,50	3,71	2,1	5 barre	389,40

Referans eksen X-X

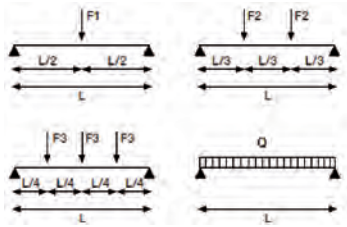
Jx-Jy atalet momenti ve Wx-Wy mukavemet modülü homojen kesite göre hesaplanır (delikler hariç).

F1 - F2 - F3 - Q = (daN) 1 daN ≈ 1 kgf Yük hesaplaması bir limit sapma = L/200 dikkate alınarak yapılır.

Reference axis X-X

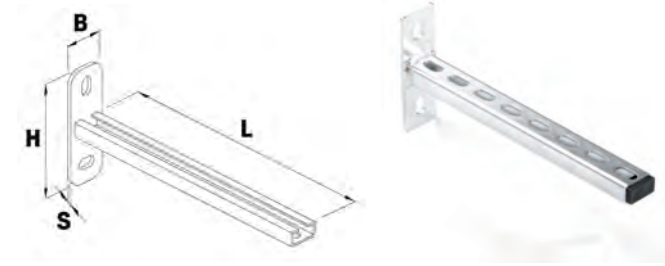
Moment of inertia Jx-Jy and strength modulus Wx-Wy are calculated in correspondence with homogeneous section (holes excluded).

F1 - F2 - F3 - Q = (daN) 1 daN ≈ 1 kgf Loads calculation considering a limit deflection = L/200.



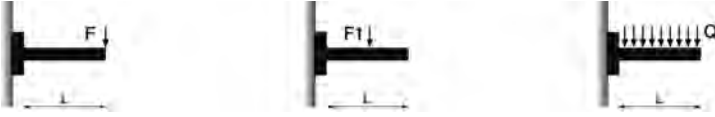
157041001 41x41x2	L (mm)				
	500	1000	1500	2000	3000
F1	362	181	116	65	29
F2	271	136	68	38	17
F3	181	90	49	27	12
Q	724	362	185	104	46



A 50 50

**231/32 I****DUVAR DESTEĞİ**

• WALL BRACKET

MALZEME / MATERIAL: AISI 304 - 1.4301



KOD / CODE	L mm	H mm	B mm	S mm	F DaN	F1 DaN	Q DaN			€
231280304	280	120	40	4	40	75	75	436	20	62,89

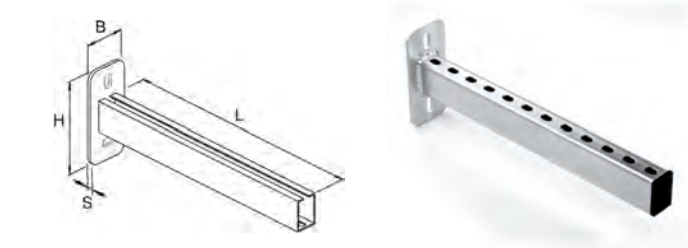
Başlık monte edilmiş versiyon.

Raccorderie Metalliche, yalnızca doğru bir duvar bağlantısı durumunda yükü garanti eder.
1 daN \approx 1 kgf

Version with mounted head cap.

Raccorderie Metalliche guarantees the load only in the case of a correct wall anchorage.
1 daN \approx 1 kgf



A 50 50

**231/40 I****DUVAR DESTEĞİ**

• WALL BRACKET

MALZEME / MATERIAL: AISI 304 - 1.4301



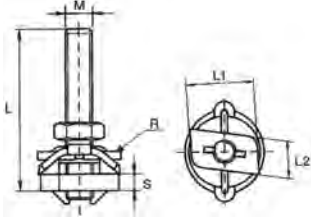
KOD / CODE	L mm	H mm	B mm	S mm	F DaN	F1 DaN	Q DaN			€
231600304	600	180	80	6	120	240	240	2230	1	251,52

Başlık monte edilmiş versiyon.

Raccorderie Metalliche, yalnızca doğru bir duvar bağlantısı durumunda yükü garanti eder.
1 daN \approx 1 kgf

Version with mounted head cap.

Raccorderie Metalliche guarantees the load only in the case of a correct wall anchorage.
1 daN \approx 1 kgf



YENİ

214 TM/Clip INOX

A 50 50

KELEPÇELİ, SOMUNLU VE RONDELALI ÇEKİÇ BAŞLI CİVATA

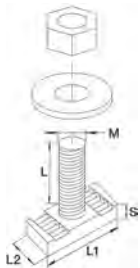
• HAMMER HEAD BOLT WITH CLIP, NUT AND WASHER

MALZEME / MATERIAL: AISI 316 - 1.4401

Sabitleme rayları için: 27/18-30/15-32/20 / For fixing rails: 27/18-30/15-32/20

KOD / CODE	M	L mm	L1 mm	L2 mm	S mm	R mm				€
214008040I	M 8	40	23	13,5	5	ø 25 thk 2,5	34	10*	100	10,68
214010040I	M 10	40	23	13,5	5	ø 25 thk 2,5	48	10*	100	14,14

[*] minimum satış miktarı / minimum selling quantity



YENİ

214 TMP INOX

A 50 50

SABİTLEME RAYI İÇİN ÇEKİÇ BAŞLI CİVATA

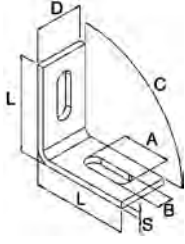
• HAMMER HEAD BOLT FOR FIXING RAIL

MALZEME / MATERIAL: AISI 304 - 1.4301

Sabitleme rayları için: 41/41 / For fixing rails: 41/41

KOD / CODE	Description	M	L mm	L1 mm	L2 mm	S mm				€
214008041I	con dado, rondella ø 10,5-40 sp. 3	M 8	30	34	21	5	62	20*	100	8,82
214010041I	with nut, washer ø 10,5-40 thk 3	M 10	30	34	21	5	78	10*	100	9,04

[*] minimum satış miktarı / minimum selling quantity

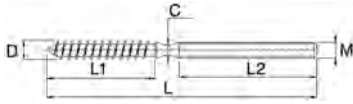
**158/212****A 50 50****BAĞLANTI LEVHASI**

• CONNECTION PLATE

MALZEME / MATERIAL: AISI 304 - 1.4301

Sabitleme rayları için: 27/18 / For fixing rails: 27/18

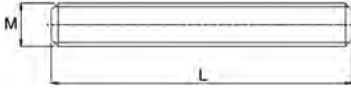
KOD / CODE	L mm	S mm	A mm	B mm	degrees	D mm	g	Box	€
158212045	50	5	25	10	135°	25	78	100	14,99
158212090	54	5	25	10	90°	25	78	100	14,99

A 50 50**158/216****CİVATA-AHŞAP VİDA**

• BOLT-WOOD SCREW

MALZEME / MATERIAL: AISI 304 - 1.4301

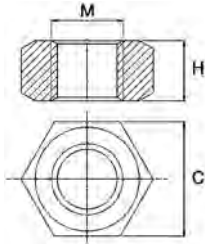
KOD / CODE	M	L mm	L1 mm	L2 mm	C mm	D mm	g	Box	€
158216008	M 8	100	63	23	5	8	27	100	2,35
158216010	M 10	120	60	45	7	10	54	100	3,48

A 50 50**158/219****DİŞLİ ÇUBUK**

• THREADED ROD

MALZEME / MATERIAL: AISI 304 - 1.4301

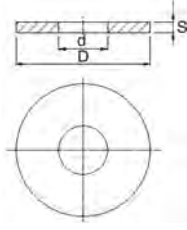
KOD / CODE	M	L mm	g	Box	€
158219008	M 8	30	10	100	6,74
158219010	M 10	30	14	100	8,94

A 50 50**158/215****ARKA SOMUN**

• BACK NUT

MALZEME / MATERIAL: AISI 304 - 1.4301



KOD / CODE	M	C mm	H mm	g	Box	€
158215008	M 8	13	6,5	4	100	0,76
158215010	M 10	17	8	10	100	0,92

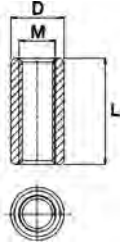
**158/218****A 50 50****RONDELA**

• WASHER

NORM: DIN 9021



MALZEME / MATERIAL: AISI 304 - 1.4301

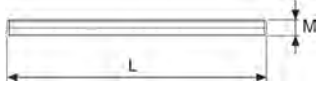
KOD / CODE	M	D mm	d mm	S mm			€
158218008	M 8	24	8,4	2	4	100	4,15
158218010	M 10	30	10,5	2,5	12	100	7,27

**158/220****A 50 50****SAPLAMA BAĞLANTISI**

• STUD CONNECTOR



MALZEME / MATERIAL: AISI 304 - 1.4301

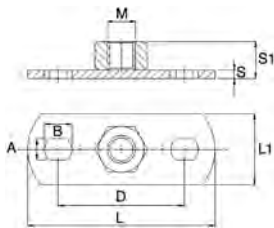
KOD / CODE	M	D mm	L mm			€
158220008	M 8	11	30	12	100	5,41
158220010	M 10	13	30	15	100	5,59

**158/264****A 50 50****DIŞLİ ÇUBUK**

• THREADED ROD



MALZEME / MATERIAL: AISI 304 - 1.4301

KOD / CODE	M	L mm			€
158264008	M 8	1000	312	50	24,71
158264010	M 10	1000	494	25	38,86

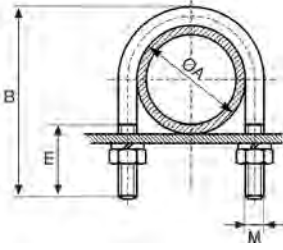
**158/263****A 50 50****SABİTLEME FLANŞI**

• FIXING FLANGE

MALZEME / MATERIAL: AISI 304 - 1.4301

KOD / CODE	M	L mm	L1 mm	S mm	S1 mm	D mm	A x B mm			€
158263008	M 8	70	20	2	8,5	53	6,5 x 8,5	26	100	6,58
158263010	M 10	70	20	2	10	53	6,5 x 8,5	30	100	7,67

A 50 50



159

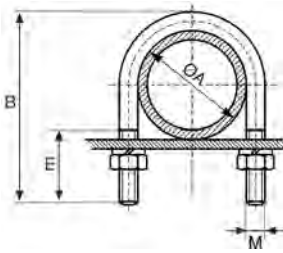
U-ÇİVATA KELEPÇE

• U-BOLT CLAMP

MALZEME / MATERIAL: AISI 304 - 1.4301

NOT / NOTE: arka somun/back nut DIN 9344

KOD / CODE	DN inch	M	A mm	B mm	E mm	g	Box	€
159308304	3/8"	M 6	18	50	35	25	100	3,90
159102304	1/2"	M 6	22	53	35	27	100	4,08
159304304	3/4"	M 6	28	59	35	31	100	4,49
159100304	1"	M 6	34	65	35	34	100	4,74
159114304	1"1/4	M 6	43	74	35	39	100	4,91
159112304	1"1/2	M 8	49	85	40	80	100	5,78
159200304	2"	M 8	61	99	40	94	50	9,66
159212304	2"1/2	M 8	77	113	40	109	50	11,30
159300304	3"	M 8	90	126	40	122	50	12,59
159400304	4"	M 10	115	155	40	235	25	19,01
159500304	5"	M 10	144	184	40	281	25	24,08
159600304	6"	M 10	170	210	40	323	25	27,52
159800304	8"	M 10	221	259	40	401	25	33,58
1591000304	10"	M 10	275	313	40	487	25	38,74



159/M

U-ÇİVATA KELEPÇE

• U-BOLT CLAMP

MALZEME / MATERIAL: AISI 304 - 1.4301

NOT / NOTE: darka somun/back nut DIN 9344

A 50 50

KOD / CODE	D mm	M	A mm	B mm	E mm	g	Box	€
1590038304	38	M 6	39	70	35	37	100	5,76
1590054304	54	M 8	55	97	40	91	50	10,06
1590065304	65	M 8	66	99	40	95	50	11,02
1590070304	70	M 8	71	102	40	98	50	11,35
1590084304	84	M 8	85	117	40	113	50	13,49
1590104304	104	M 10	105	149	40	224	25	22,28
1590129304	129	M 10	130	170	40	259	25	26,50
1590154304	154	M 10	155	194	40	297	25	29,80
1590204304	204	M 10	206	244	40	377	25	35,59
1590254304	254	M 10	256	294	40	456	25	42,54
1590304304	304	M 10	306	344	50	536	25	48,77
1590354304	354	M 10	356	407	50	627	25	58,48



Pilastro [Mantova]



RacMet Academy [Mantova]



**Merkez Ofis ve Üretim Tesisi
Head Office and Manufacturing Plant
Campitello [Mantova]**



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Pres Bağlantı Sistemleri Teknik El kitabı



UNITES
TESİSAT TEKNOLOJİLERİ

inoxPRES **inoxPRES** GAS **steelPRES**
AES PRES **AES PRES** GAS **MARINE PRES**



RACCORDERIE METALLICHE

	Ülke/ Bölge	Belgelendirme kuruluşu	Boyutlar	
inoxPRES			Ø 15-168,3 MM	
			Ø 15-108 MM	
			Ø 22-88,9 MM	
			Ø 15-54 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
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			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 22-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-168,3 MM	
		Ø 15-108 MM		
		Ø 15-108 MM		
		Ø 15-108 MM		
inoxPRES GAZI			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-54 MM	
			Ø 15-54 MM	
			Ø 15-54 MM	
			Ø 15-54 MM	
	steelPRES			Ø 15-108 MM
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 22-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
aesPRES				Ø 15-54 MM
				Ø 15-54 MM
				Ø 15-54 MM
				Ø 12-54 MM
			Ø 15-54 MM	
			Ø 15-54 MM	
			Ø 12-54 MM	
			Ø 15-108 MM	
	aesPRES GAZI			Ø 15-54MM
	marinePRES			Ø 15-108 MM
				Ø 15-108 MM
				Ø 15-108 MM
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	
			Ø 15-108 MM	

Teknik el kitabının bu versiyonu, önceki tüm versiyonların yerine geçer.

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1.0 Giriş

1.1 Raccorderie Metalliche S.p.A.

Raccorderie Metalliche S.p.A. [RM], 1970 yılında İtalya'nın Mantova eyaletinde bir aile şirketi olarak kurulmuştur ve aşağıdakilerin üretimi ve dağıtımını konusunda uzmanlaşmıştır:

- soketler;
- karbon çelik bağlantı parçaları;
- paslanmaz çelik bağlantı parçaları;
- radyatörler için tapalar ve aksesuarlar.

1999 yılında şirket, paslanmaz çelik pres bağlantı sistemi olan **inoxPRES**'i ve daha sonra karbon çelik pres bağlantı sistemini tanıttı.

2010 yılında Raccorderie Metalliche, pres bağlantı sistemlerinin üretimini bakır [**aesPRES**] ve bakır nikel malzemelerine [**marinePRES**] genişletti.

Binalara ve faaliyette olan çok modern makinelere yapılan kapsamlı yatırım, yaklaşık 12 milyon pres bağlantı elemanının mevcut yıllık kapasitesini garanti etmektedir. Avrupa'daki uzman sıhhi tesisat ve ısıtma stokçusu ticareti, seçilen Avrupa dışı pazarlarla birlikte, üç aşamalı dağıtım kurulumu çerçevesinde tedarik edilir; hem Almanya/Fransa hem de İspanya'da piyasa destek yan kuruluşları mevcuttur.

Şirket, UNI EN ISO 9001:2015'e uygun olarak sertifikalandırılmış ayırt edici bir kalite yönetim sistemine sahiptir.

Bu el kitabında tanımlanan **inoxPRES**, **steelPRES**, **aesPRES** ve **marinePRES** pres bağlantı sistemlerinin tanımlanan uygulamalar için uygunluğu, WRAS, Almanya'daki DVGW ve diğer uluslararası kuruluşların geniş bir yelpazesi tarafından gerektiği kadar test edilmiş ve onaylanmıştır.



Şekil 1 - Campitello merkez ofisi ve fabrika



Şekil 2 - EN ISO 9001:2015 RM Sertifikası

1.2 Su, ısıtma ve soğutma tesisatında pres bağlantı sistemleri

Çelik ve bakırdan yapılan bağlantı parçaları ellili yılların sonunda İsveç'te geliştirildi ve seksenli yılların başından beri Avrupa'da pazarda giderek daha büyük bir paya sahip oldu. Bağlantı tekniğinin hala yenilikçi olduğu düşünülmektedir, çünkü denenmiş ve güvenilen basit 'soğuk' montaj tekniği, özellikle evsel su, gaz ve ısıtma tesisatlarında tüp setin hızlı, sağlam ve kalıcı bağlanmasına izin verir. Bu arada, pres bağlantı parçaları şeklindeki bağlantı tekniği, sadece tüm metal, karbon çelik, paslanmaz çelik, bakır, kırmızı bronz vb. türleri değil, aynı zamanda plastik ve plastik kompozit boruları da içerecek şekilde yayılmıştır ve Avrupa'nın önde gelen bağlantı tekniğidir. Raccorderie Metalliche S.p.A. [RM] karbon çeliği, paslanmaz çelik ve günümüzde bakır/bakır-nikel pres bağlantı elemanı aralığını da geliştirmiştir. Ayrıca O-halka şeklimizin ve toroidal odamızın modifikasyonu ile sistem montajını açıkça basitleştirmiştir. Aynı zamanda, sızdırmazlık yüzeyi genişletilmiş ve bir güvenlik sızdırmazlık halkası oluşturularak kazara preslenmeme riski en aza indirilmiştir.

Ürün Aralığı	Malzeme	O-Halka	Çaplar	Not
inoxPRES	PASLANMAZ ÇELİK AISI 316L (1.4404)	■ EPDM	ø 15 ÷ 108 mm	--
inoxPRES GAS	PASLANMAZ ÇELİK AISI 316L (1.4404)	■ NBR - HNBR	ø 15 ÷ 108 mm	--
inoxPRES HT FREE	PASLANMAZ ÇELİK AISI 316L (1.4404)	■ FKM	ø 15 ÷ 54 mm	Silikonsuz
inoxPRES STEAM	PASLANMAZ ÇELİK AISI 316L (1.4404)	□ STEAM	ø 15 ÷ 54 mm	Özel teknik el kitabına bakın
inoxPRES OVERSIZE	PASLANMAZ ÇELİK AISI 316L (1.4404)	■ EPDM	ø 139,7 ÷ 168,3 mm	--
steelPRES	GALVANİZLİ KARBON ÇELİK	■ EPDM	ø 12 ÷ 108 mm	--
AES PRES	BAKIR-BRONZ	■ EPDM	ø 12 ÷ 54 mm	--
AES PRES GAS	BAKIR-BRONZ	■ NBR	ø 15 ÷ 54 mm	--
MARINE PRES	BAKIR-NİKEL	■ FKM	ø 15 ÷ 108 mm	--

Şekil 3 - Ürün yelpazesi

İçme suyu ve gaz tesisatları için paslanmaz çelikten **inoxPRES** pres bağlantı sistemi, kapalı sıcak su ısıtma sistemleri için çelik presler, içme suyu ve gaz tesisatları için **aesPRES**, denizcilik sektörü için **marinePRES** ile RM, boru sistemi, pres aletleri ve aksesuarları ile birlikte 12÷168,3 mm OD boyut aralığında kapsamlı bir şekilli bağlantı elemanı serisi sunmaktadır.

Montajcı uygulamalarını basitleştirmek için, bağlantı elemanlarının preslenmesi, pres aletleri ve pres çeneleri veya bilezikleri gibi önde gelen üreticilerin pres bağlantı sistemlerinden onaylanan tüm aletlerin de RM tarafından onaylanacağı şekilde oluşturulmuştur. İçme suyu ve ısıtma sistemlerinin planlanması ve kurulumu, çok sayıda endüstriyel standart ve teknik kılavuz bilgisinin yanı sıra kapsamlı uzman bilgisi gerektirir. DIN 1988 bölüm 100 -600, VDI kılavuzu 6023, DIN EN 806, DIN EN 1717, DIN EN 12329 ve 1 Ocak 2003 tarihinde yürürlüğe giren içme suyu mevzuatında [TrinkwV] yapılan değişiklik ile DVGW çalışma sayfaları W 534 ve GW 541 özellikle önemlidir. Bu teknik el kitabı, özellikle planlamacılara ve montajcılara, hem uygulama alanının boyutlandırılmasına hem de profesyonel kurulum yapılmasına yardımcı olacak temel bilgileri sağlamayı amaçlamaktadır.

Bu el kitabı çoğunlukla Almanya'da geçerli olan endüstriyel standartları ve düzenlemeleri ifade etmektedir. DIN 1988 bölüm 100-600, VDI kılavuzu 6023, DIN EN 806, DIN EN 1717, DIN EN 12329 ve 1 Ocak 2003 tarihinde yürürlüğe giren içme suyu mevzuatında [TrinkwV] yapılan değişiklik ile DVGW çalışma sayfaları W 534 ve GW 541 özellikle önemlidir.

Ek bilgi için lütfen Raccorderie Metalliche S.p.A.' daki uygun teknik departmana başvurun. İsimler, adresler ve daha fazla bilgi raccorderiemetalliche.com adresinde bulunabilir.

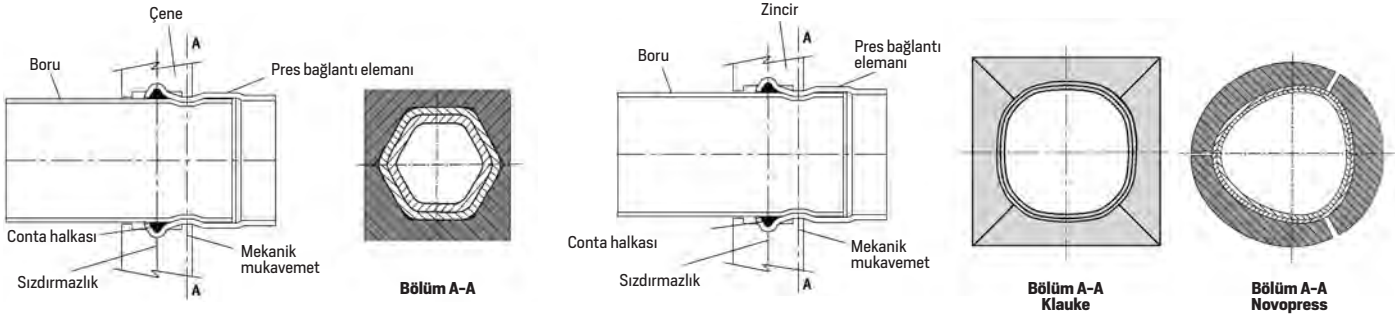
2.0 Pres bağlantı

2.1 Bağlantı tekniği M profili

Pres bağlantısı, borunun işaretli yerleştirme derinliğine kadar pres bağlantı elemanına sokulmasıyla yapılır. Bağlantı, onaylanmış bir pres aleti [bkz. madde 2.13 pres aletleri] kullanılarak preslenerek oluşturulur.

Ø 12 ÷ 35 mm ebatlarındaki pres bağlantı elemanları çenelerle, Ø 42 ÷ 168,3 mm ebatlarındaki pres bilezikleri/zincirlerle preslenmelidir.

Bağlantının uzunlmasına ve sıkıştırma kapama karakteri, şekil 4 ve 5'te açıkça gösterilmektedir. Presleme işlemi sırasında iki düzlemde bir deformasyon meydana gelir. İlk düzlem kalıcı bir bağlantı oluşturur ve pres tertibatının ve borunun mekanik deformasyonu yoluyla mekanik mukavemet sağlar. İkinci düzlemde sızdırmazlık halkası, enine kesitinde deforme olur ve elastik özellikleri sayesinde kalıcı olarak sıkı bir bağlantı oluşturur.



Şekil 4 - Çenesi hala yerinde olan bir **inoxPRES/steelPRES/aesPRES/marinePRES** bağlantısından kesit. Ø 12 ÷ 35 mm boyutları altıgen presleme profili üretir.

Şekil 5 - Halkası hala yerinde olan bir **inoxPRES/steelPRES/aesPRES/marinePRES** bağlantısından kesit. Ø 42 ÷ 168,3 mm boyutları tanımlı bir profil oluşturur.

Pres bağlantı sistemlerinin tamamı **inoxPRES, steelPRES, aesPRES** ve **marinePRES** ilgili "Ürün yelpazesi" kataloğunda açıklanmıştır.

2.2 inoxPRES pres bağlantı parçaları

inoxPRES pres parçaları, AISI 316L (1.4404) malzeme numarasına sahip yüksek alaşımlı östenitik paslanmaz Cr-Ni-Mo çelik kullanılarak üretilmektedir.

Pres bağlantı parçaları, üreticinin adını, çapını, DVGW test sembolünü ve dahili kodu bildiren lazerle silinmez bir şekilde işaretlenmiştir. Pres bağlantı elemanlarının oluşturulmuş uçları, içme suyu uygulamaları için standart olarak siyah bir EPDM sızdırmazlık halkası ile donatılmıştır.



Şekil 6 - **inoxPRES** pres bağlantı parçası

2.3 inoxpres GAZ pres bağlantı parçaları

inoxPRES GAZ pres bağlantı parçaları, AISI316L [1.4404] malzeme numarasına sahip yüksek alaşımlı ostenitik paslanmaz Cr-Ni-Mo çelik kullanılarak üretilmektedir.

Bu parçalar, fabrikada monte edilmiş olan sarı bir NBR/HNBR sızdırmazlık halkasına sahip olmaları ve ayrıca siyah renkte silinmez bir şekilde işaretlenmiş ve 'RM' ve 'PN5 /GTV 'basınç aralığı ile işaretlenmiş silinmez sarı renkli **inoxPRES** olmaları nedeniyle içme suyu tesisatları için **inoxPRES**'ten farklıdır. Gaz boruları takılıysa, karışık bir kurulumla [farklı üreticilerden bileşenler] izin verilmez.

Almanya'da, gaz sistemleri için TRGI'ye uygunluk sağlanacaktır.



Şekil 7 - **inoxPRES GAZ** pres bağlantı elemanı

Lütfen İngiltere'deki **GAZ** uygulamaları için **inoxPRES** gazının kullanımıyla ilgili yerel yasaları/düzenlemeleri doğrulayın.

2.4 inoxPRES boru sistemi

inoxPRES boruları, çeşitli uygulamalara göre çeşitli onaylar ile farklı malzemelerde mevcuttur. Boyuna kaynaklı borular ince duvarlıdır, DVGW uygulama kitapçığı GW 541, EN 10217 -7 [DIN17455] ve EN 10312 'ye göre üretilmiştir.

Farklı tipte borulama malzemeleri şunlardır:

- ❑ AISI 316L [1.4404] malzemeden ostenitik yüksek alaşımlı Cr-Ni-Mo çelik, DVGW sertifikalı;
- ❑ AISI 444 [1.4521] malzemesinin "nikel içermeyen" ferritik paslanmaz çeliği, DVGW sertifikalı;
- ❑ dVGW sertifikalı değil, AISI 304L [1.4307] malzemeden yüksek alaşımlı ostenitik Cr-Ni çelik.

Farklı malzemelere göre uygulamalar:

- ❑ dVGW sertifikalı içme suyu tesisatları, AISI 316L [1.4404] veya AISI 444 [1.4521] "nikel içermeyen" malzemeden yapılmış borular;
- ❑ gaz sistemi, malzeme AISI 316L [1.4404];
- ❑ dVGW sertifikasının gerekli olmadığı uygulamalar için, ısıtma, soğutma, basınçlı hava, DVGW sertifikasının gerekli olmadığı içme suyu sistemlerinde vb. gibi AISI 304L [1.4307] de kullanılabilir.

İç ve dış yüzeyler çıplak metaldir ve tavlama renkleri ve korozyona neden olan maddelerden arındırılmıştır. **inoxPRES** boruları malzeme sınıfı A'ya göre yanmaz borular olarak sınıflandırılır; malzemeye bağlı olarak 6 metre veya 3 metre uzunluklarında tedarik edilir ve uçlarında plastik tapalar/kapaklar ile kapatılır.

TABLO 1: inoxPRES BORU BOYUTLARI VE ÖZELLİKLERİ

Boru dış çapı x duvar kalınlığı mm	Nominal genişlik DN	Boru iç çapı mm	Kütle kg/m	Su hacmi l/m
15 x 1	12	13	0,351	0,133
18 x 1	15	16	0,426	0,201
22 x 1,2	20	19,6	0,625	0,302
28 x 1,2	25	25,6	0,805	0,514
35 x 1,5	32	32	1,258	0,804
42 x 1,5	40	39	1,521	1,194
54 x 1,5	50	51	1,972	2,042
76,1 x 2	65	72,1	3,711	4,080
88,9 x 2	80	84,9	4,352	5,660
108 x 2	100	104	5,308	8,490
139,7 x 2*	125	135,7	6,896	14,460
168,3 x 2*	150	164,3	8,328	21,200
139,7 x 2,6	125	134,5	8,926	14,208
168,3 x 2,6	150	163,1	10,788	20,893

* Sertifikalı olmayan DVGW

2.5 steelPRES pres bağlantı parçaları

steelPRES pres bağlantı elemanları, 108 mm dış çapa kadar E 195 malzeme numaralı (malzeme no. 1.0034) alaşımsız çelikten yapılmıştır. 6-12 µm kalınlığında galvanik çinko kaplama dış korozyona karşı koruma sağlar. **inoxPRES** pres bağlantı elemanlarının aksine, **SteelPRES** bağlantı elemanları üretici adı, çapı ve dahili kodu ile silinmez bir şekilde kırmızı renkle işaretlenmiştir. **inoxPRES** için kullanılan siyah EPDM sızdırmazlık halkası ayrıca pres bağlantı elemanlarının oluşturulmuş uçlarına da takılır.



Şekil 8 - steelPRES pres bağlantı elemanı

2.6 steelPRES boru sistemi

steelPRES boruları DIN EN 10305 -3 'e göre uzunlamasına kaynaklı ince duvarlı hassas çelik borulardır. Aşağıdaki materyaller mevcuttur:

➤ E 220 CR2S4 (malzeme n° 1.0215) boruları dıştan galvanizli, çinko kaplama 6 ÷ 12 µm'dir;

➤ E 190 CR2S4 (malzeme no 1.0031) boruları her iki tarafta sendzimir-galvanizlidir; çinko kaplama 10 ÷ 20 µm'dir.

Kaynak dikişi, uygun bir sızdırmazlık yüzeyi sağlamak için düzeltilir. 12 mm ila 108 mm dış çap (malzeme E 220 CR2S4 n° 1.0215) arasında değişen çaplarda mevcut PP - kaplama 1 mm kalınlığında **steelPRES** boruları, DIN 4102 -1 yapı malzemesi sınıfı B2 yanmayan damlacıklara göre sınıflandırılır.




pp kaplamalı **steelPRES** tüpü: 120 °C'lik maksimum çalışma sıcaklığı.

steelPRES boruları 6 metre uzunluğunda temin edilmektedir.

TABLO 2: ÇELİK BORULAR BOYUTLARI VE ÖZELLİKLERİ

Boru dış çapı x duvar kalınlığı mm	Nominal genişlik DN	Boru iç çapı mm	Kütle kg/m	Su hacmi l/m	Boru dış çapı mm
without PP-coating					with PP coating
12 x 1,2	10	9,6	0,320	0,072	14
15 x 1,2	12	12,6	0,408	0,125	17
18 x 1,2	15	15,6	0,497	0,191	20
22 x 1,5	20	19	0,824	0,284	24
28 x 1,5	25	25	1,052	0,491	30
35 x 1,5	32	32	1,320	0,804	37
42 x 1,5	40	39	1,620	1,194	44
54 x 1,5	50	51	2,098	2,042	56
76,1 x 2	65	72,1	3,652	4,080	78,1
88,9 x 2	80	84,9	4,290	5,660	90,9
108 x 2	100	104	5,230	8,490	110

TABLO 3: ÇELİK BORULARIN SEÇİMİ

316/005 dıştan galvanizli, içi siyah	316/003 dıştan galvanizli, içi siyah + PP kaplamalı	316/002 iç/dış galvanizli
Boyutlar: \varnothing 12 ÷ 108 mm	Boyutlar: \varnothing 12 ÷ 108 mm	Boyutlar: \varnothing 22 ÷ 108 mm
		
Isıtma-Solar Basıncılı Hava İnert Gazlar	Isıtma Soğutma	Basıncılı Hava İnert Gazlar

2.7 aesPRES pres bağlantı parçaları

aesPRES pres bağlantı elemanları, DHP Cu-DHP 99.9 (CW024A) bakır ve CuSn5Zn5Pb2 (CC499K) bronzdan \varnothing 12 ila \varnothing 54 mm dahil olarak yapılmıştır. **aesPRES** bağlantı elemanları, üretici adı, çapı ve DVGW kontrol markası ve dahili bir kod ile silinmez bir şekilde lazer sistemi ile işaretlenmiştir. Pres bağlantıların şişmiş uçlarına siyah bir EPDM O-halka takılmıştır.

Büyük Britanya'da aesPRES sistemi WRAS kalite markası ile \varnothing 15 ÷ 54 mm olarak sertifikalandırılmıştır.



Şekil 9 - aesPRES pres bağlantı elemanı

2.8 aesPRES GAZ pres bağlantı parçaları

aesPRES GAS pres bağlantı elemanları DHP Cu-DHP 99.9 [CW024A] bakırdan ve CuSn5Zn5Pb2 [CC499K] bronzdan yapılmıştır. Aşağıdaki özellikler yönünden **aesPRES** [içilebilir su sistemi sürümü]'nden farklıdır:

- ❑ Üretim sonunda takılan NBR sarı O-halka;
- ❑ **taesPRES** markasının yanındaki RM Gaz ve basınç alanı PN 5/GT1 ile sarı silinmez işaret.

Gaz boruları takılıysa, karışık bir kurulumla [farklı üreticilerden bileşenler] izin verilmez.

Almanya'da, gaz sistemleri için, oTRGI ile uyum sağlanacaktır.



Şekil 10 - aesPRES GAZ pres bağlantı elemanı

Lütfen Birleşik Krallık'taki gaz uygulamaları için **aesPRES** gazının kullanımına ilişkin yerel yasaları/düzenlemeleri doğrulayın.

2.9 aesPRES aesPRES GAZ bakır boru tesisatı

Bakır su ve gaz tesisatı için borular, EN 1057:2010, "Bakır ve bakır alaşımları sağlık ve ısıtma uygulamalarında su ve gaz kaynağı olmadan bakır borular" standardına uygun olmalıdır.

TABLO 4: BAKIR BORULAR İÇİN MEKANİK ÖZELLİKLER EN 1057

Direnç sınıfı	Teslimat şartı	ø (mm)
R220	Tavlınmış Rulolar	12 ÷ 22
R250	Yarı Sert Çubuklar	12 ÷ 28
R290	Sert Çubuklar	12 ÷ 54
Direnç sınıfı	Minimum çekiş direnci Rm (MPa)	Kırıkta minimum uzama (%)
R220	220	40
R250	250	20
R290	290	3

Ekli tabloda **aesPRES** ve **aesPRES GAZ** pres bağlantı elemanları ile kullanılacak tüp boyutları yer almaktadır.

TABLO 5: aesPRES BORU BOYUTLARI VE ÖZELLİKLERİ EN 1057/DVGW GW 392

Boru dış çapı x duvar kalınlığı mm	Nominal genişlik DN	Boru iç çapı mm	Kütle kg/m	Su hacmi l/m	Sağlanan şart
12 x 1	10	10	0,309	0,079	Rotolo 25/50 m (R 220)
15 x 1	12	13	0,393	0,133	o
18 x 1	15	16	0,477	0,201	Barra 5 m (R 250 - R 290)
22 x 1	20	20	0,589	0,314	
28 x 1,5	25	25	1,115	0,491	Barra 5 m (R 250 - R 290)
35 x 1,5	32	32	1,410	0,804	
42 x 1,5	40	39	1,704	1,194	Barra 5 m (R 290)
54 x 2	50	50	2,918	1,963	

2.10 marinePRES pres bağlantı parçaları

Ø 15 ila Ø 108 mm dahil CuNi10Fe1.6Mn (WL 2.1972) bakır-nikelden **marinePRES** pres bağlantı elemanları yapılmıştır. **marinePRES** bağlantı elemanları üretici adı, çapı ve dahili kodu ile silinmez bir şekilde bir lazer sistemi ile işaretlenmiştir. Pres bağlantı parçasının şişmiş uçlarına yeşil bir FKM O-halka takılmıştır.



Şekil 11 - marinePRES pres bağlantı parçası

2.11 marinePRES boru sistemi

İnce dikişsiz duvarlara sahip **marinePRES** boru sistemi CuNi10Fe1.6Mn bakır-nikeldir. Bakır-nikel tüpler DIN 86019 standardına uygun olarak yapılmıştır. İç ve dış yüzeyler çıplak metaldir ve tavlama renkleri ve korozyona neden olan maddeler içermez. **marinePRES** tüpleri, yangın reaksiyonu olarak A sınıfına ait, yanıcı olmayan olarak sınıflandırılır. 6 m uzunluğunda çubuklar halinde tedarik edilir.

TABLO 6: MARİNEPRES BORU BOYUTLARI VE ÖZELLİKLERİ

Boru dış çapı x duvar kalınlığı mm	Nominal genişlik DN	Boru iç çapı mm	Kütle kg/m	Su hacmi l/m
15 x 1	12	13	0,392	0,133
18 x 1	15	16	0,476	0,201
22 x 1	20	20	0,588	0,314
28 x 1,5	25	25	1,114	0,491
35 x 1,5	32	32	1,408	0,804
42 x 1,5	40	39	1,702	1,195
54 x 1,5	50	51	2,206	2,042
76,1 x 2	65	72,1	4,146	4,080
88,9 x 2	80	84,9	4,874	5,660
108 x 2,5	100	103	7,389	8,332

2.12 Sızdırmazlık elemanları

2.12.1 Sızdırmazlık halkası profili

Geleneksel pres bağlantı sistemleri, dikkatsiz bağlantı elemanlarından kolayca zarar görebilecek yuvarlak sızdırmazlık halkaları kullanır. Öte yandan RM, pres sıkıştırma oluşuna uyan merceksi bir profile sahip patentli bir sızdırmazlık halkası kullanır. Bu, aşağıdaki avantajları sağlar:

- ❑ sızdırmazlık yüzeyi alanının % 20 büyük olması;
- ❑ sızdırmazlık halkasının dışarı bastırılması veya hasar görme riskinin büyük ölçüde azaltılması;
- ❑ boruların takılmasının kolay olması.

Ø 15 ÷ 54 mm boyutlarındaki siyah EPDM sızdırmazlık halkası, basınç testleri sırasında yanlışlıkla sıkıştırılmamış bağlantılar durumunda sızıntıya yol açacak ek bir güvenlik özelliğiyle donatılmıştır.

- ❑ Borular kaplanmadan önce sızdırmazlık/basınç testleri yapılmalıdır (örneğin yalıtım amacıyla);
- ❑ Testler DVGW çalışma sayfası W534 ve ZVSHK "Basıncı hava, inert gaz veya su ile içme suyu tesisatları için Sızdırmazlık Testleri" veri sayfasına göre yapılmalıdır;
- ❑ Hava ile basınç testleri yaparken, "DVGW-TRGI" gaz tesisatları için teknik kurallara uyun;
- ❑ Presleme bağlantılarının doğru montajı montajcının/şirketin sorumluluğundadır. Preslenmemiş-gevşek olmayan, bir montaj hatasını (bu durumda bağlantı parçalarının preslenmemesi) tespit etmek için ek bir yardım olarak anlaşılmalıdır. Bunun bir ön koşulu, öngörülen sızdırmazlık ve basınç testlerinin düzgün bir şekilde uygulanmasıdır; bu, montajın düzgün bir şekilde yapıldığından emin olmak için montajcının görsel ve gürültü kontrollerini gerçekleştirme yükümlülüğünü ortadan kaldırmaz.

Bu görsel ve gürültü kontrolleri ilgili test sertifikasına usulüne uygun olarak kaydedilmelidir.

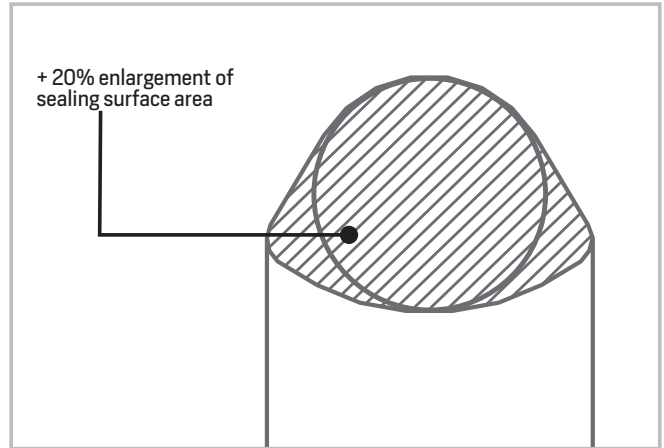
2.12.2 Malzemeler, özellikler, uygulamalar

Pres bağlantı sistemleri başlangıçta içme suyu ve ısıtma tesisatlarında kullanılmak üzere geliştirilmiştir ve bu uygulamalar için tek bir standart sızdırmazlık halkası ile donatılmıştır.

Paslanmaz çelik malzeme kullanılarak gaz, güneş ve buhar gibi ilave uygulama alanları eklenmiş, aynı zamanda bu uygulamalara uygun sızdırmazlık halkalarının geliştirilmesini de sağlamıştır. RM dört farklı sızdırmazlık halkası sağlar; özellikleri ve uygulama alanları tablo 7 'de gösterilmiştir.

Siyah EPDM standart sızdırmazlık halkası sadece **inoxPRES**, **steelPRES** ve **aesPRES** pres bağlantı parçalarında silikonize versiyon olarak fabrikada takılmıştır. Yeşil FKM sızdırmazlık halkası sadece fabrikada aşağıdakilere takılmıştır:

- ❑ **marinePRES** pres bağlantı parçaları;
- ❑ **inoxPRES HT** pres bağlantı parçaları silikon içermez.



Şekil 12 - Sızdırmazlık halkası profili



Şekil 13 - Güvenlik EPDM sızdırmazlık halkası (Ø 15 ÷ 54 mm).

TABLO 7: SIZDIRMAZLIK HALKALARI UYGULAMA ALANLARI VE TEKNİK VERİLER

Teknik terim	Renk	Çalışma sıcaklığı Min/ Maks. derece santigrat derece	Maksimum çalışma basıncı bar	Onaylar ve sertifikasyon esası	Uygulama alanları	Fabrikada takılmış
EPDM	siyah	-20* / +120 °C	16	KTW W 270 DVGW W 534	İçme suyu Isıtma Soğutma ve soğutma devreleri Arıtılmış su Tuzdan arındırılmış su Yağmur Suyu Basıncılı hava (1÷4 Sınıf)	EVET
NBR HNBR	sarı	-20 / +70 °C	5	G 260HTB DVGW G 5614	Doğalgaz Metan gazı GPL (gaz hali)	EVET
FKM**	yeşil	-20 / +220 °C	16	-	Solar Basıncılı hava (Sınıf 5) Naval	EVET MarinePRES ve inoxPRES HT için
MVQ	kırmızı	-20 / +180 °C	16	-	RM Onayı sonrası endüstriyel uygulamalar	HAYIR
STEAM***	beyaz	-20 / +165 °C	7 bara (6 barg)	-	Doymuş buhar Maks. P= 7 bara (6 barg) Maks. T= 165 °C	EVET (inoxPRES BUHAR)

(*) Ara sıra/sürekli olmayan çalışma dönemleri için -30°C'ye kadar

(**) Silikon içermez ancak **inoxPRES HT** Silikonsuz sistemle satılırsa

(***) Bireysel olarak mevcut değil

İçme suyu, ısıtma, güneş, basınçlı hava ve gaz hariç, yukarıdaki tabloda yer alan rakamlar sadece rehberlik amaçlıdır; bu nedenle her bir bireysel durumun RM tarafından incelenmesi ve onaylanması gerekmektedir.

2.13 Presleme aletleri

2.13.1 Temel Bilgiler

Pres takımları temel olarak pres makinesi [= tahrik cihazı] ve pres çeneleri veya bilezik/zincirlerden oluşur. Presleme çenelerinin/bileziklerinin çoğu genellikle bir üreticinin presleme makineleri ile kullanılabilir. Ek olarak, birçok presleme aleti üreticisi, diğer üreticilerin presleme çenelerinin kullanılabileceği şekilde çene eklentisini standartlaştırmıştır. Pres takımları, üretici spesifikasyonlarına göre resmi olarak yetkili servis tarafından kontrol edilmelidir [normalde yılda bir kez veya standart pres makinesi için 10.000 pres döngüsünden sonra, King boy pres makinesi için 1.500 pres döngüsünden sonra].

Ø 12 ÷ 35 mm ebatlarındaki pres bağlantı elemanları çenelerle, Ø 42 ÷ 168,3 mm ebatlarındaki pres bilezikleri/zincirlerle preslenmelidir.

Esas olarak, tüm metalik pres bağlantı elemanları sistemleri, pres çenelerinin/bileziklerinin profiline uyan pres bağlantı elemanları üzerinde bir pres konturuna sahiptir. Bu nedenle, kullanım için tasarlanan pres bağlantı parçalarının üreticisi tarafından takımın onaylanması gerekir. Ayrıca, pres aleti üreticisi tarafından verilen bakım ve servis talimatlarına tam olarak uyulması önemlidir.

Elektrikli presleme aletleri ile bağlantı elemanı montaj sıcaklığı: -20°C'den +40°C'ye kadar
Akü presleme aletleri ile montaj sıcaklığına basın: -10°C'den +40°C'ye kadar



Şekil 14 – Klauke UAP332BT



Şekil 15 – Klauke UAP100120BT



Şekil 16 – Novopress AC0203 BT



Şekil 17 – Novopress AC0403 BT

2.13.2 Onaylanmış pres aletleri

RM, aşağıdaki tablo 8 ve 9 'da listelenen Klauke ve Novopress tarafından üretilen araçları onaylar. Bunlar uygun presleme çeneleri veya bilezikleri/zincirleri olan presleme aletleridir.

TABLO 8: ÜRETİCİ KLAUKE

Tipi	Piston gücü	Ebat aralığı	Ağırlık	Çenelerle uyumludur Not	
MAP1 - MAP2L	15 KN	12 ÷ 22 mm	~ 1,7 Kg	--	
MAP2L_19 MAP2119BT	19 KN	12 ÷ 35 mm	~ 1,7 Kg	MAP2L_19 is certified for Gas only up to ø 22 mm.	
UAP2 - UAP3L UAP332BT	32 KN	12 ÷ 54 mm	~ 3,5 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1	
UNP2	32 KN	12 ÷ 54 mm	~ 3,5 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1	
UAP4 - UAP4L UAP432BT	32 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 mm PN10	~ 4,3 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1 12 ÷ 54 mm	
UAP100 - UAP100L UAP100120BT	120 KN	76,1 ÷ 108 mm	~ 12,7 Kg	--	
AH- P700LS	PKUAP3	32 KN	12 ÷ 54 mm	~ 12,3 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1 12 ÷ 54 mm
	PKUAP4	32 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 mm PN10	~ 12,6 Kg	
	PK100AHP	120 KN	76,1 ÷ 108 mm	~ 20,2 Kg	
EHP2/SANB	0,75 KW	76,1 ÷ 108 mm	~ 69 Kg	--	

Klauke presleme aleti UAP4/UAP4L/UAP432BT ile ilgili olarak, PN 10 'daki sınırlamaya 76,1 108 mm dış çapındaki kingsize boyutları için uyulmalıdır. 76,1 ÷ 108 mm boyutlarındaki **inoxPRES GAZ** bağlantı parçaları, bilezikler/zincirler ve UAP100/UAP100L/UAP100120BT pres makinesi ile preslenmelidir (yalnızca diğer pres makineleri onaylanmamıştır).

TABLO 9: ÜRETİCİ NOVOPRESS

Tipi	Piston gücü	Ebat aralığı	Ağırlık	Çenelerle uyumludur Not
ACO102 - ACO103	19 KN	12 ÷ 35 mm	~ 1,7 Kg	ACO102 - ACO103 are certified for Gas only up to ø 22 mm.
EFP2	32 KN	12 ÷ 54 mm	~ 6,1 Kg	EFP201 - AFP201 - ECO1 - ACO1
EFP201 - EFP202	32 KN	12 ÷ 54 mm	~ 4,4 Kg	EFP2 - ECO1 - ACO1
AFP201 - AFP202	32 KN	12 ÷ 54 mm	~ 4,3 Kg	EFP2 - ECO1 - ACO1
ECO202 - ACO202 ECO203 - ACO203/BT	32 KN	12 ÷ 54 mm	~ 3,3 Kg	ECO201 - ACO201 - ECO1 - ACO1
ACO202XL ACO203XL/BT	32 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 (*) mm PN10	~ 4,6 Kg	ECO202 - ACO202
ACO401 ACO403/BT	100 KN 120 KN	76,1 ÷ 168,3 mm	~ 13 kg	--
ACO3	36 KN	15 ÷ 54 mm 76,1 ÷ 108 mm PN10	~ 5,0 Kg	ECO3
ECO301	45 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 (*) mm PN10	~ 5,0 Kg	ACO3
HCP	190 KN	76,1 ÷ 108 mm	~ 70 Kg	--

(*) ø 108 - aşağıdaki adaptörlerle 2 kez preslenmelidir:

ACO202/203XL:
ECO301ZB221->1° presleme
ZB323->1° preslemeZB222->2° presleme
ZB324->2° presleme

Novopress pres aleti ACO202XL/ACO203XL/ECO301 ile, PN 10 'daki sınırlama, 76,1 ÷ 108 mm dış çap kral boyutu boyutları için gözlemlenmelidir. 76,1 ÷ 108 mm boyutlarındaki **inoxPRES GAZ** bağlantı parçaları, bilezikler/zincirler ve ACO401/ACO403/ACO403BT pres makinesi ile preslenmelidir (yalnızca diğer pres makineleri onaylanmamıştır).

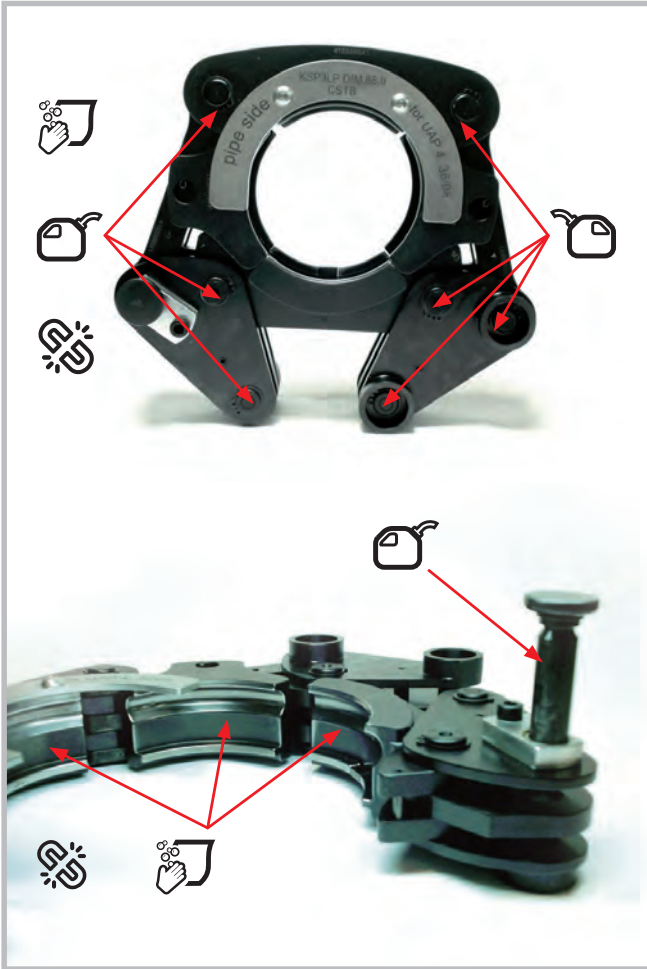
VdS ONAYLI PRES ALETLERİ

VdS sistemi için sertifikalı pres takımlarının listesi, VdS sertifikası N° G4060006 'da belirtilmiştir.

2.13.3 Periyodik ekipman servisi

Doğru bir bağlantı üretimi için çene ve zincir presleme ünitelerine bakım yapılmalıdır. Pres takımları, üretici spesifikasyonlarına göre resmi olarak yetkili bir tamirci tarafından kontrol edilmelidir [normalde yılda bir kez veya standart pres makinesi için 10.000 pres döngüsünden sonra, King boy pres makinesi için 1.500 pres döngüsünden sonra]. Ayrıca, hareketli herhangi bir parça [tahrik ruloları] ve çene ve zincir yüzeylerine [dahili profiller] preslenmesi günlük olarak servis edilecek, temizlenecek ve yağlanacaktır.

Herhangi bir olası oksidasyon, boya veya kir, genellikle pres sırasında ekipman kayma sorunlarına yol açan takım güvenilirliğini etkiler.



Şekil 18 - Klauke ekipmanı



Şekil 19 - Novopress ekipmanı



Zinciri temiz tutun



Pimleri yağlayın



Kırılabilirdir

3.0 Kullanım Alanları

TABLO 10a: PRES BAĞLANTI SİSTEMLERİ inoxPRES/STELPRES/ aesPRES UYGULAMA ALANI

Uygulama	Sistem	O-halka	Not	PN maks. (bar)	T °C
İçme suyu	inoxPRES (boru AISI 316L veya Tip 444)	EPDM siyah	-	16	0 / +120 °C
	aesPRES (bakır boru tablosu 4 -5)	EPDM siyah	-	16	0 / +120 °C
Isıtma	steelPRES (boru 316/005)	EPDM siyah	Sadece içten siyah borular kullanın, dıştan galvanizli.	16	0 / +120 °C
	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah	-	16	0 / +120 °C
	aesPRES (bakır boru tablosu 4 -5)	EPDM siyah	-	16	0 / +120 °C
Söndürme suyu ⁽¹⁾	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah	Boyutlar $\varnothing 15 \div 108$ mm	16	Oda sıcaklığı
	aesPRES (bakır boru tablosu 4 -5)	EPDM siyah	Boyutlar $\varnothing 15 \div 54$ mm	16	Oda sıcaklığı
Sprinkler sistem ⁽²⁾	inoxPRES (boru AISI 316L ⁽³⁾ / 304L / 444)	EPDM siyah	Boyutlar $\varnothing 22 \div 108$ mm ⁽³⁾	16	Oda sıcaklığı
	aesPRES ⁽⁴⁾ (bakır boru tablosu 4 -5)	EPDM siyah	Boyutlar $\varnothing 22 \div 54$ mm	16	Oda sıcaklığı
Soğutma	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah	-	16	-20 / +120 °C
	steelPRES (boru 316/003)	EPDM siyah	Sadece dahili siyah borular kullanın. PP kaplı Boru + astar (boya) / bandaj kullanarak korozyona karşı dış korumaya özellikle dikkat edin.	16	-20 / +120 °C
	aesPRES (bakır boru tablosu 4 -5)	EPDM siyah	-	16	-20 / +120 °C
Solar	inoxPRES (boru AISI 316L / 444 / 304L)	FKM yeşil	-	6	-20 / +220 °C
	steelPRES (boru 316/005)	FKM yeşil	Sadece dahili siyah borular kullanın. Uygun yalıtım kaplaması kullanarak korozyona karşı dış korumaya özellikle dikkat edin.	6	-20 / +220 °C
	aesPRES (bakır boru tablosu 4 -5)	FKM yeşil	-	6	-20 / +220 °C
Metan gazı Doğal gaz LPG (gaz hali)	inoxPRES GAS (tubo AISI 316L)	NBR / HNBR sarı	Boyutlar: $\varnothing 15 \div 108$ mm	5	-20 / +70 °C
	aesPRES GAS (bakır boru tablosu 4 -5)	NBR sarı	Boyutlar: $\varnothing 15 \div 54$ mm	5	-20 / +70 °C

⁽¹⁾ 54 mm'ye kadar olan derzler için, tahrik gücü ≥ 32 KN olan pres makineleri kullanın. King boy bağlantı parçaları ($\varnothing 76 \div 108$ mm) için, tahrik gücü ≥ 100 KN olan pres makineleri kullanın.
Her ülke için, söndürme sistemlerinde ve sprinkler tesisatlarında pres bağlantı elemanının kullanımıyla ilgili yerel yasa ve yönetmeliklerle kontrol edilmelidir.

⁽²⁾ 54 mm'ye kadar olan derzler için, tahrik gücü ≥ 32 KN olan pres makineleri kullanın. King boy bağlantı parçaları ($\varnothing 76 \div 108$ mm) için, tahrik gücü ≥ 100 KN olan pres makineleri kullanın.

⁽³⁾ CSertifikalı VdS PN12,5 $\varnothing 22$ ila 76,1 mm PN16 $\varnothing 88,9$ mm malzeme AISI 316L (1.4404) ıslak ve kuru. VdS sertifikası ve EN 12845 normu, sprinkler sistemleri için olası uygulama alanlarını tanımlar. Her ülke için, söndürme sistemlerinde ve sprinkler tesisatlarında pres bağlantı elemanının kullanımıyla ilgili yerel yasa ve yönetmeliklerle kontrol edilmelidir.

⁽⁴⁾ Sadece LH, OH1, OH2 ve OH3 ıslak tesisat tehlike sınıfları için.

TABLO 10a: PRES BAĞLANTI SİSTEMLERİ inoxPRES/STELPRES/ aesPRES UYGULAMA ALANI

Uygulama	Sistem	O-halka	Not	PN maks (bar)	T °C
Basıncılı hava	inoxPRES (boru AISI 316L / 444 / 304L)	⁽⁵⁾ EPDM siyah Sınıf 1÷4 (artık yağ < 5 mg/m ³) FKM yeşil Sınıf 5 (artık yağ > 5 mg/m ³)	Sistem silikonsuz değil (vernikleme sistemleri için uygun değil)	16	Oda sıcaklığı
	steelPRES	⁽⁵⁾ EPDM siyah Sınıf 1÷4 (artık yağ < 5 mg/m ³) FKM yeşil Sınıf 5 (artık yağ > 5 mg/m ³)	Toz oluşumu olmadan temiz hava gerektiren sistemler için silikonsuz olmayan sistem (vernikleme sistemleri için uygun değildir)- inoxPRES sisteminin kullanılması önerilir	16	Oda sıcaklığı
	aesPRES (bakır boru tablosu 4-5)	⁽⁵⁾ EPDM siyah Sınıf 1÷4 (artık yağ < 5 mg/m ³) FKM yeşil Sınıf 5 (artık yağ > 5 mg/m ³)	Sistem silikonsuz değil (vernikleme sistemleri için uygun değil)	16	Oda sıcaklığı
⁽⁵⁾ ISO 8573 -1/2010 standardına göre					
Gaz halindeki azot	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
	steelPRES	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
	aesPRES (bakır boru tablosu 4-5)	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
Gaz halinde argon	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
	steelPRES	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
	aesPRES (bakır boru tablosu 4-5)	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
Gaz halinde kuru karbondioksit	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
	steelPRES	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
	aesPRES (bakır boru tablosu 4-5)	EPDM siyah	Sadece endüstriyel kullanım için (ilaç hariç)	16	Oda sıcaklığı
Doymuş Buhar	inoxPRES (boru AISI 316L / 304L)	FKM yeşil	-	Maks 2 bara Maks 1 barg	Maks 120 °C
	inoxPRES STEAM ⁽⁷⁾ (boru AISI 316L / 304L)	STEAM beyaz	-	Maks 7 bara Maks 6 barg	Maks 165 °C
⁽⁷⁾ Özel teknik el kitabına bakın					
Vakum	inoxPRES (boru AISI 316L / 444 / 304L)	EPDM siyah FKM yeşil	-	0,8 bar (maks.-0,95 /-0,98 bara kadar)	Oda sıcaklığı
	steelPRES	EPDM siyah FKM yeşil	toz oluşumu olmadan temiz hava gerektiren sistemler için inoxPRES sisteminin kullanılması önerilir	0,8 bar (maks.-0,95 /-0,98 bara kadar)	Oda sıcaklığı
	aesPRES (bakır boru tablosu 4-5)	EPDM siyah FKM yeşil	-	0,8 bar (maks.-0,95 /-0,98 bara kadar)	Oda sıcaklığı
Yukarıda belirtilen bilgi/uyumluluk, planlama yöneticisini 2014/68/UE basınç sistemleri Direktifi hükümlerine uygun olarak ayrıntılı bir uygulama planlaması ve risk analizi oluşturma sorumluluğundan muaf tutmaz.					

TABLO 10b: PRES BAĞLANTI SİSTEMLERİ UYGULAMA ALANI inoxPRES 0139,7 -168,3 mm

Uygulama	Sistem	O-halka	Not	PN maks. (bar)	T °C
İçme suyu	InoxPRES (boru AISI 316L)	EPDM siyah	-	16	0 / +120 °C
Isıtma	InoxPRES (boru AISI 316L)	EPDM siyah	-	16	0 / +120 °C
Söndürücü su	InoxPRES (boru AISI 316L)	EPDM siyah	-	16	Oda sıcaklığı
Soğutma	InoxPRES (boru AISI 316L)	EPDM siyah	-	16	-20 / +120 °C
Basınçlı hava	InoxPRES (boru AISI 316L)	⁽¹⁾ EPDM siyah Sınıf 1÷4 [artık yağ < 5 mg/m ³] FKM yeşil Sınıf 5 [artık yağ > 5 mg/m ³]	System not silicone-free (not suitable for varnishing systems)	12,5*	Oda sıcaklığı
⁽¹⁾ ISO 8573 -1/2010 standardına göre					
Vakum	InoxPRES (boru AISI 316L)	EPDM siyah	-	0,8 bar (maksimum -0,95/- 0,98 bara kadar)	Oda sıcaklığı
Yukarıda belirtilen bilgi/uyumluluk, planlama yöneticisini 2014/68/UE basınç sistemleri Direktifi hükümlerine uygun olarak ayrıntılı bir uygulama planlaması ve risk analizi oluşturma sorumluluğundan muaf tutmaz.					

*Güvenlik faktörü = 2,5

3.1 Uygulamalar

3.1.1 İçme suyu, arıtılmış su, hidrant sistemleri

inoxPRES pres bağlantı sistemi, AISI 316L (1.4404) malzeme numarasına sahip yüksek alaşımli ostenitik Cr-Ni-Mo paslanmaz çelik kullanılarak üretilmiştir. Korozyona karşı yüksek direnci ve hijyen açısından uygunluğu sayesinde **inoxPRES**, Alman içme suyu mevzuatına (TrinkwV) uygun olarak tüm içme suyu uygulamaları için kullanılabilir. Bu malzeme suya herhangi bir ağır metal salmadığından, içme suyunun saflığı **inoxPRES** pres bağlantı sistemi tarafından değişmeden kalır. **AesPRES** pres bağlantı sistemi bakır ve bronz olarak mevcuttur ve bakteriyel-statik olduğu için her türlü içilebilir su için kullanılabilir, böylece bakteri çoğalmasını inhibe eder. Hidro-sihhi sistemler için bakır borular ve derzler kullanılıyorsa, DIN 50930 Teil 6 standardı tarafından belirlenen sınırlara uymalıdır:

- ❑ $pH \geq 7,4$ or
- ❑ $7,0 \leq pH \leq 7,4$ e $TOC \leq 1,5 \text{ g/m}^3$

TOC, Toplam Organik Karbon, suda bulunan toplam organik maddelerin konsantrasyon indeksidir.

Siyah EPDM sızdırmazlık halkası, KTW tavsiyelerinin standartlarını karşılar ve DVGW çalışma sayfası W 270 'e uygun olarak standartları karşılar.

siyah EPDM sızdırmazlık halkaları ile **inoxPRES** ve **aesPRES** aşağıdaki alanlarda kullanıma uygundur:

- ❑ Soğuk su, ılık su ve sirkülasyon borularındaki içme suyu;
- ❑ Arıtılmış su, örneğin yumuşatılmış, karbondan arındırılmış ve tuzdan arındırılmış su;
- ❑ Yangın musluğu sistemleri [referans UNI 10779/2021].

Antikorozyon veya antifriz katkı maddelerinin kullanımı RM'nin onayını gerektirir.

inoxPRES ve **aesPRES** örneğin farmasötik su veya en saf su türleri gibi, içme suyunun kalitesinden daha yüksek derecede su saflığı gerektiren uygulamalar için uygun değildir.



Şekil 20 - inoxPRES- İçilebilir su



Şekil 21 - inoxPRES - Endüstri

3.1.2 Isıtma

Siyah EPDM sızdırmazlık halkalarına sahip **inoxPRES**, **steelPRES** ve **aesPRES** pres bağlantı sistemleri, maksimum 120 °C'ye kadar akış sıcaklığına ve maksimum PN16 basıncına sahip DIN 4751 'e göre sıcak su ısıtma sistemleri için kullanılır: Kapalı ve açık versiyonlar [**inoxPRES** ve **aesPRES**], kapalı versiyon [**steelPRES**].

Hem duvar içi hem de duvar içi kurulum için uygundur [uygun korumalarla].

Zemin radyatörü bağlantıları durumunda, en yüksek standartlara göre yapılmış bir derz sızdırmazlığı ile tutarlı bir korozyon koruması sağlamak gerekir. Aksi takdirde, yıkama suyunun yalıtımı nemlendirme ve böylece korozyon riskini artırma riskini almak mümkündür.

Antikorozyon veya antifriz katkı maddelerinin kullanımı RM'nin onayını gerektirir. **SteelPRES** pres bağlantı sistemi için RM sadece dıştan galvanizli boruların kullanılmasını önerir.

Korozyon koruması hakkında daha fazla bilgi sayfa 38, bölüm 7.0 'da bulunabilir.

3.1.3 Soğutma ve soğutma devreleri

siyah EPDM sızdırmazlık halkalarına sahip **inoxPRES**, **steelPRES** ve **aesPRES**, kapalı ve açık versiyonlarda [**inoxPRES** ve **aesPRES**], kapalı versiyonda [**steelPRES**] -20/+120°C arasında çalışma sıcaklıklarına sahip soğutma ve soğutma devrelerini kullanmak için uygundur.

Korozyon önleyici veya antifriz katkı maddelerinin kullanımı, RM'nin onayını gerektirir [sayfa 25, tablo 12 'deki glikoller hariç]. **SteelPRES** pres bağlantı sistemi için, RM, karbon çeliğindeki tesislerin dış korumasına özellikle dikkat ederek sadece dışarıda galvanizlenmiş boruların kullanılmasını önerir [bkz. Bölüm 4.8].

Korozyon koruması ve yalıtım için AGIQ151 uygulama kitapçığındaki göstergeleri izleyin.

3.1.4 Basınçlı hava ve inert gaz

inoxPRES, **steelPRES** ve **aesPRES** pres bağlantı sistemi pnömatik hatlar ve inert gazlar için uygundur. Sınıf 1 ila 4 [ISO 8573 -1/2010 'a göre] artık yağ içeriğine sahip sistemler için siyah EPDM sızdırmazlık halkası kullanılabilir. Sınıf 5 artık yağ içeriğine sahip sistemler için [ISO 8573 -1/2010 'a göre] yeşil FKM sızdırmazlık halkası kullanılabilir. Gevşek bir şekilde tedarik edilir ve fabrika yüklemeli siyah EPDM sızdırmazlık halkası işlemci ile değiştirilmelidir.

Borular "silikon içermiyorsa ", **inoxpres HT** sistemi [fabrikada takılı FKM] kullanılmalıdır.

Basınçlı hava veya vakum hatlarının en iyi şekilde sızdırmazlığını sağlamak için, montajdan önce sızdırmazlık halkasının su ile nemlendirilmesi önerilir. Temiz hava gerekmesi durumunda, toz olmaması durumunda, **inoxPRES** sisteminin kullanılması önerilir.

3.1.5 Doğalgaz/LPG tesisatı

inoxPRES GAZ ve **aesPRES GAZ** presi bağlantı sistemi, aşağıdaki aboneliklerde doğal gaz ve LPG için uygundur:

- Fabrikada takılmış sarı NBR/HNBR sızdırmazlık halkalı **inoxPRES GAZI** \varnothing 15 ÷ 108 mm OD, doğal ve sıvı gazlar için onaylanmıştır.
- **aesPRES GAZ** \varnothing 15 ÷ 54 mm OD ile fabrikada takılmış sarı NBR sızdırmazlık halkası, doğal ve sıvı gazlar için onaylanmıştır..
- 42 ve 54 mm boyutlarındaki **inoxPRES GAZ** ve **aesPRES GAZ** bağlantı elemanları bileziklere/zincirlere basılarak preslenmelidir; çenelerle pres yapılmasına izin verilmez.

- 76 ÷ 108 mm ebatlarındaki bağlantı elemanları sadece presleme bilezikleri/zincirleri ve UAP100/UAP100L/UAP100120BT/ACO401/ACO403/ACO403BT presleme makinesi ile preslenmelidir (diğer presleme makineleri onaylanmamıştır).

Lütfen Birleşik Krallık'taki gaz uygulamaları için **inoxPRES GAZ/aesPRES GAZ** kullanımına ilişkin yerel yasaları/düzenlemeleri doğrulayın.

3.1.6 Güneş, vakum, buhar, yoğuşma

Sıcaklık ve yağ direncinin arttığı yeşil FKM sızdırmazlık halkalarına sahip **inoxPRES**, **steelPRES** ve **aesPRES** aşağıdaki uygulama alanlarında kullanılabilir:

- Güneş enerjisi boruları, sıcaklık aralığı -20 /+220 °C. Sıcaklık aralığına sadece su-glikol karışımı olan güneş sistemleri için izin verilir.
- 200 mbar'a kadar vakum boru tesisatı (0,8 bar göreceli, maksimum -0,95 /-0,98 bara kadar).

Basıncılı hava ve vakum borularının optimum sızdırmazlığını sağlamak için, montajdan önce sızdırmazlık halkasının su kullanılarak nemlendirilmesi önerilir.

Yeşil FKM sızdırmazlık halkaları gevşek olarak tedarik edilir ve montajcının bunları fabrikada takılmış siyah EPDM sızdırmazlık halkalarını değiştirmek için kullanması gerekir.

SteelPRES pres bağlantı sistemi için RM sadece dıştan galvanizli boruların kullanılmasını önerir.

Yeşil FKM sızdırmazlık halkalarına sahip **inoxPRES** aşağıdaki uygulama alanlarında kullanılabilir:

- buhar ve yoğuşma boruları, maksimum 2 mutlak bar (1 bağıl bar) buhar basıncında maksimum 120 °C sıcaklık.

165 °C'ye kadar sıcaklıklara ve 7 mutlak bara (6 bağıl bar) kadar basınca sahip buhar ve kondensat hatları için, **inoxPRES** BUHAR bağlantı parçaları fabrikada takılmış beyaz bir sızdırmazlık halkası ile tedarik edilebilir.



Şekil 22 - steelPRES - soğutma (kapalı devre)



Şekil 23 - steelPRES - Boru PP kaplı



Şekil 24 - steelPRES- bağlantı parçaları

3.1.7 Endüstriyel uygulamalar

Daha yüksek sıcaklık direnci nedeniyle, kırmızı MVQ sızdırmazlık halkalarına sahip **inoxPRES**, endüstriyel uygulamalarda çok sayıda ortam için özellikle uygundur. Bu durumda RM'den bireysel bir vaka onayı gereklidir.

3.1.8 Gemi İnşası

inoxPRES ve **marinePRES**, gemi yapımında farklı uygulamalar için sertifikalıdır.

Siyah EPDM standart sızdırmazlık halkası sadece **inoxPRES** pres bağlantı parçasındaki silikonize versiyona fabrikada takılmıştır.

Yeşil FKM sızdırmazlık halkası sadece **marinePRES** pres bağlantısına fabrikada takılmıştır.

Gerekirse ayrı bilgiler mevcuttur.

3.1.9 Söndürme sistemleri, sprinkler tesisatları

Yangın söndürme sistemlerinde siyah EPDM sızdırmazlık halkalı **inoxPRES** ve **aesPRES** sistemleri kullanılabilir (referans norm UNI 10779/2021). Ayrıca, pres bağlantı sistemleri ıslak ve kuru sprinkler tesisatları için uygundur (ref. EN 12845), çapları $\varnothing 22$ 'den 108 mm'ye kadar, aşağıdaki tabloya göre.

TABLO 11: SÖNDÜRME SİSTEMLERİ VE SPRINKLER TESİSATLARINDA PRES BAĞLANTI ELEMANI

UYGULAMA	INOXPRES	AESPRES
Söndürme sistemleri	✓	✓
Sprinkler sistemi [kuru montaj]	✓	✗
Sprinkler sistemi [ıslak montaj]	✓	✓

Söndürme sistemlerinde ve sprinkler tesisatlarında kullanılan pres bağlantı sistemleri sadece "yer üstü" konfigürasyonunda olmalıdır (yeraltı hariç). EN 12845 'e istinaden, LH, OH1, OH2 ve OH3 tehlike sınıflarına sahip ıslak sprinkler sistemleri (kuru olmayan) için bakır kullanılabilir.

inoxPRES VdS sertifikasına göre sprinkler kurulumlarında kullanılmak üzere sertifikalıdır:

- ✗ $\varnothing 22 \div 76,1$ mm PN12,5 bar $\varnothing 88,9$ PN16 Malzeme AISI 316L (1.4404) kuru ve ıslak sprinkler tesisatları için standart EPDM O-halkalı **inoxPRES**.

VdS sertifikası, Kral Boyu bağlantı parçaları ($\varnothing 76 \div 108$ mm) için sadece itici gücü ≥ 100 KN olan pres makineleri kullanırken (ayrıca, VdS onayındaki kanıtlara uyulmalıdır), ≥ 32 KN'ye kadar olan itici güce sahip pres makinelerinin kullanımını gerektirir.

Her ülke için, söndürme sistemlerinde ve sprinkler tesisatlarında pres bağlantı elemanının kullanımıyla ilgili yerel yasa ve yönetmeliklerle kontrol edilmelidir.

3.1.10 Kurulum için Glikoller

Aşağıdaki tabloda normalde ısıtma sistemleri, soğutma ve güneş sistemleri için kullanılan bazı glikoller listelenmiştir. Tabloda listelenmeyen glikoller kullanılırsa, lütfen Raccorderie Metalliche teknik ofisine başvurun.

TABLO 12: GLİKOLLERİN KİMYASAL UYUMLULUĞU

GLİKOL	Üretici	Kullanım Alanları
GLYKOSOL N	Pro Kühlsole GmbH	Isıtma Soğutma çevrimleri
PEKASOL L	Pro Kühlsole GmbH	Isıtma Soğutma çevrimleri
PEKASOLar 50	Pro Kühlsole GmbH	Solar
PEKASOLar 100	Pro Kühlsole GmbH	Solar
PEKASOLar F	BMS Energy	Solar
TYFOCOR	Tyforop Chemie GmbH	Isıtma Soğutma çevrimleri
TYFOCOR L	Tyforop Chemie GmbH	Isıtma Soğutma çevrimleri Solar
TYFOCOR LS	Tyforop Chemie GmbH	Solar
CosmoSOL	Tyforop Chemie GmbH	Isıtma Soğutma çevrimleri Solar
Antifrogen N	Clariant	Isıtma Soğutma çevrimleri
Antifrogen L	Clariant	Isıtma Soğutma çevrimleri
Antifrogen SOL-HT	Clariant	Solar
DOWNCAL 100	DOW	Heating Cooling cycles
DOWNCAL 200	DOW	Isıtma Soğutma çevrimleri
SOLARLIQUID L	STAUB & CO. – SILBERMANN GmbH	Solar
STAUBCO® COOL N	STAUB & CO. – SILBERMANN GmbH	Isıtma Soğutma çevrimleri
STAUBCO® COOL L	STAUB & CO. – SILBERMANN GmbH	Isıtma Soğutma çevrimleri
Glysofor N	WITTIG Umweltchemie GmbH	Isıtma Soğutma çevrimleri
Glysofor L	WITTIG Umweltchemie GmbH	Isıtma Soğutma çevrimleri

NOT: Lütfen üreticinin kullanım notlarına, EPDM sızdırmazlık O-halkasına maksimum % 40 glikol ve % 60 su ile uyun. **SteelPRES** için lütfen sadece dahili olarak siyah borular kullanın.

4.0 İşleme

4.1 Depolama ve taşıma

inoxPRES / steelPRES / aesPRES / marinePRES sistem bileşenleri taşıma ve depolama sırasında kir ve hasara karşı korunmalıdır. Boruların uçları, kirlenmeyi önlemek için fabrikada tapalar/kapaklarla donatılmıştır. Borular, diğer malzemelerle temas etmemeleri için koruyucu bir kaplama veya plastik alaşımlı bir cihazda saklanmalıdır. Ayrıca, boruların yanı sıra pres bağlantısı, yüzeyin korozyonunu ve/veya oksidasyonunu önlemek için nem etkilerine karşı korunmuş kapalı bir alanda saklanmalıdır (özellikle çelik pres bağlantı sistemleri alanında).

4.2 Boruların boyuna kesilmesi, çapak alma, bükülme

Borular, kullanılan malzemeye uygun profesyonel boru kesicileri kullanılarak boyuna kesilmelidir. Alternatif olarak, ince dişli demir testereleri veya uygun elektrikli testereler kullanılabilir. Bağlantı elemanı ve boru arasındaki mekanik direnç üzerinde olumsuz etkiyi önlemek için kesim dik olmalıdır.

Sadece işlenecek malzemeye uygun aletler kullanınız. Örneğin, kullanılan doğru testere bıçaklarının veya kesme tekerleklerinin seçimine özellikle dikkat edilmelidir.

Kesme ve çapak alma aletleri temiz olmalı, adersans veya talaş içermemelidir. Kesme/çapak alma işleminden sonra, kesme kenarları veya boru uçları temizlenmeli veya talaşlardan veya yabancı maddelerden arındırılmalıdır.

İzin verilmeyen aletler şunlardır:

- kesme işlemi sırasında kararmaya neden olan aletler;
- yağ soğutmalı testereler;
- alevle kesme veya açılı taşlama makineleri.

Boruyu pres tertibatına sokarken sızdırmazlık halkasına zarar vermemek için, boru uzunlamasına kesildikten sonra hem içeride hem de dışarıda dikkatli bir şekilde çaptan arındırılmalıdır. Bu, kullanılan malzeme için uygun olan manuel çapak alma aletleri kullanılarak

gerçekleştirilebilirken, daha büyük boyutlar için uygun elektrikli boru çapak alma aletleri veya eğeleri kullanılabilir. Borular, 22 mm dış çapa ($R \geq 3,5xD$) kadar geleneksel bükme aletleri ile bükülebilir.

EN 1057 'ye göre bakır borular aşağıdaki minimum bükülme yarıçapı ile bükülebilir:

DN 12 - R=45 mm	DN 15 - R=55 mm
DN 18 - R=70 mm	DN 22 - R=77 mm.

Tüpün sıcak bükülmesine izin verilmez





Şekil 25 - Borunun boyuna kesilmesi



Şekil 26 - Borunun çapaklanması

BÜKME MAKİNELERİ

DN	Radyal bükülmeye izin verilir	Eksenel bükülmeye izin verilmez
12 mm		
15 mm		
18 mm		
22 mm		

Bükme makinelerinin kullanım ve çalıştırma talimatlarına dikkatle uyulmalıdır.

4.3 Yerleştirme derinliğinin/sıyırma işleminin işaretlenmesi

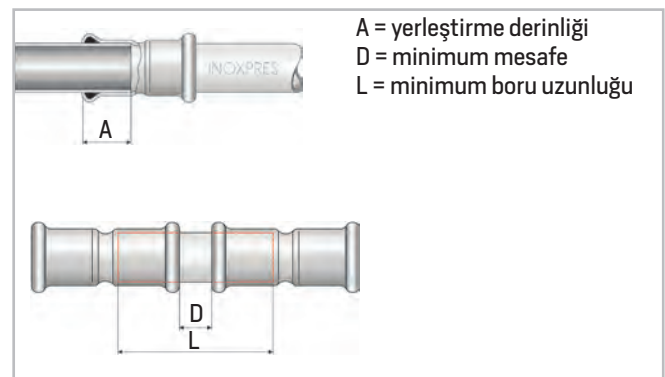
Pres bağlantı elemanının yeterli mekanik mukavemeti ancak tablo 13'te gösterilen yerleştirme derinliklerine uyulması halinde elde edilecektir. Bu yerleştirme derinlikleri, yerleştirme uçlarına sahip borular veya bağlantı elemanları için geçerlidir [yani presleme ucu olmayan bağlantı elemanları] ve uygun bir işaretleme aleti kullanılarak işaretlenmelidir. Boru üzerindeki yerleştirme derinliğinin işareti, presdan sonra doğrudan pres bağlantı elemanının oluşturulmuş ucunun yanında görünür

olmalıdır. Boru/bağlantı elemanı üzerindeki işaretin pres bağlantı elemanı oluşturulmuş ucundan olan mesafesi, gerekli yerleştirme derinliğinin %10'unu geçmemelidir, aksi takdirde bağlantının mekanik stabilitesi garanti edilemez. **SteelPRES PP** kaplı borular söz konusu olduğunda, yerleştirme derinliği, uygun bir sıyırma aleti kullanılarak plastik kaplamanın sıyırılması yoluyla tanımlanır. PP kılıflı tüpleri sıyırırken, ham yüzeye zarar vermeyen uygun aletler kullanın.

TABLO 13: YERLEŞTİRME DERİNLİĞİ VE MİNİMUM MESAFELER

Boru dış çapı mm	A[*] mm	D mm	L mm
12	18	20	56
15	20	20	60
18	20	20	60
22	21	20	62
28	23	20	66
35	26	20	72
42	30	40	100
54	35	40	110
76,1	55	60	170
88,9	60	60	180
108	75	60	210
139,7	95	100	290
168,3	113	100	326

[*] Tolerans: ± 2 mm



Şekil 27 - Yerleştirme derinliği ve minimum boyutlar



Şekil 28 - Yerleştirme derinliğinin işaretlenmesi



Şekil 29 - Sıyırma (steelPRES PP kaplı)

4.4 Presleme sızdırmazlık halkası kontrolü

Montajdan önce sızdırmazlık halkası, presleme olduğunda doğru şekilde yattığından ve temiz ve hasarsız olduğundan emin olmak için kontrol edilmelidir. Gerekli ise sızdırmazlık halkası değiştirilmelidir.



Şekil 30 - Sızdırmazlık halkasının kontrol edilmesi

Ek olarak, montajcı, halkanın özel uygulama için uygun olup olmadığını veya başka bir sızdırmazlık halkasının takılması gerekip gerekmediğini kontrol etmelidir.

4.5 Pres bağlantısının 0 12 -108 mm yapılması

Az bir basınç kullanarak ve aynı anda bir dönüş hareketi yaparak, boruyu işaretli yerleştirme derinliğine kadar pres makinesine bastırın. Toleranslar, boruyu pres tertibatına sokmak için ek kuvvet gerektirecek kadar darsa, yağlayıcı olarak su veya sabunlu su kullanılabilir.

Yağ ve gresin yağlayıcı olarak kullanılmasına izin verilmez.

Presleme, uygun elektromekanik/elektrohidrolik presleme aletleri ve boyut eşleştirme presleme çeneleri veya bilezikleri/zincirleri kullanılarak gerçekleştirilir. Test edilmiş ve onaylanmış pres aletleri veya pres çeneleri/bilezikleri/zincirleri tablo 8-9 'da, onaylanmış pres aletleri altında listelenmiştir.

Eşleşen pres çenesi, pres makinesine veya pres bağlantısının boyutlarına bağlı olarak bağlantı parçasına uygun bilezik/zincire monte edilir. Presleme çenesinin/bileziğinin yuvası, pres bağlantı elemanı oluşturulmuş ucunun tam üzerine yerleştirilmelidir.

Basıldıktan sonra, işin doğru yapıldığından ve yerleştirme derinliğinin doğru olduğundan emin olmak için tüm bağlantı kontrol edilmelidir. Montajcı ayrıca tüm bağlantılara gerçekten basıldığından emin olmalıdır. Uygun olmayan bir pres kalıbı durumunda hemen müdahale edin. Hatalı pres kalıpları veya profilleri olan tamamen preslenmiş sistemler şikayet kapsamında değerlendirilmez.



Şekil 31 - Pres bağlantı elemanına boru takılması

Pres tamamlandıktan sonra, pres noktaları daha fazla mekanik yüke maruz bırakılamaz. Bu nedenle, boruların konumlandırılması ve düzeltilmesi ve dişli bağlantıların sızdırmazlığı, presleme gerçekleştirilmeden önce gerçekleşmelidir. Örneğin boyama işleri için boruların hafif hareketine ve kaldırılmasına izin verilir.



Şekil 32 - Pres bağlantısının yapılması



Şekil 33 - Pres bağlantısının kontrol edilmesi

4.6 Büyük ebat aralığı 0 139 -168 mm

108 mm'ye kadar olan çapların aksine, Oversize 139,7 ve 168,3 mm boyutlarının presleme fazları iki ayrı presleme fazında gerçekleştirilmelidir.

1. PRESLEME AŞAMASI

- Zinciri açın ve bağlantı parçasının etrafına yerleştirin: zincirin oluğu, bağlantı parçasının toroidal odasının tam üzerine yerleştirilmelidir.
- Zinciri kapatın ve kilitleme düğmesine basın.
- Mandalı içeri doğru döndürün ve kilidi devreye sokun.
- 1 numaralı pres işlemini gerçekleştirin.
- Mandalın kancasını çıkarın ve döndürün, zinciri açın ve bağlantı parçasından çıkarın.



Şekil 34 - Pres montaj aşaması 1

O-halka oluğunun üzerindeki zincir oluğu



2. PRESLEME AŞAMASI

- Zinciri boru soketinin etrafına yerleştirin ve O-halkanın muhafaza oluğunun üzerindeki uygun kılavuzlarla hizalayın.
- Zinciri kapatın ve kilitleme düğmesine basın.
- Mandalı içeri doğru döndürün ve kilidi devreye sokun.
- 2 numaralı pres işlemini gerçekleştirin.
- Mandalın kancasını çıkarın ve döndürün, zinciri açın ve bağlantı parçasından çıkarın.



Şekil 35 - Pres montaj aşaması 2

Basıldıktan sonra, işin doğru yapıldığından ve yerleştirme derinliğinin doğru olduğundan emin olmak için bağlantı kontrol edilmelidir.

Montajcı ayrıca tüm bağlantılara yeterince basıldığından emin olmalıdır.

Presleme tamamlandıktan sonra, bağlantılar başka mekanik yüklerle maruz bırakılmamalıdır.

Boru hattının hizalanması ve dişli bağlantıların sabitlenmesi bu nedenle preslemeden önce yapılmalıdır.

Boruların hafif hareketine ve kaldırılmasına, örneğin boyama işleri için izin verilir.

O-halka oluğu üzerindeki
kılavuzlar



Şekil 36 - Büyük ebatlı preslemenin görsel kontrolü

4.7 Avustralya/Yeni Zelanda'daki ekipman kurulumları

Avustralya veya Yeni Zelanda'daki olası tüp ve derz kurulumları, AS/NZS 3500.1 yönetmeliğine ve aşağıdaki değişikliklere uygun olmalıdır.

4.8 Boru hatlarının ve bağlantıların dış korozyondan korunması genel

Sıcak veya soğuk sıvı içeren tüm borular, aşağıdakiler gibi istenmeyen olaylardan kaçınmak için uygun kaplamalarla harici olarak korunmalıdır:

- Yoğuşma,
- Dış korozyon ile yoğuşma,
- Dış etkilerden kaynaklanan korozyon,
- Termal dağılım.

Borular ve bağlantılar vernik, plastik kaplamalar, yapışkan bantlı preslenmiş lastikler ve ısı yalıtımı ile korunmalıdır [Kılavuzun Bölüm 5.4 'üne bakınız].



Şekil 37 - Bağlantıların ve boruların astar ile verniklenmesi.

Çelik pres sistemlerinin dış korozyonunu önlemek için, özellikle yoğuşma suyunun giderek daha fazla meydana gelebileceği yerlerde [örneğin, klima ve soğutma üniteleri] aşağıdakiler önerilir:

- alaşımsız çelikten tüpler kullanılıyorsa propilen kaplamalı tüplerin kullanımı,
- astarlı bir kaplama yardımı ile tüplerin/bağlantıların uygun şekilde korunması,
- yüksek yoğunluklu polietilenden [tüm kalınlık yaklaşık 0,8 mm] yapılmış bir filmle desteklenen bütanolastikten oluşan viskoelastik bant yardımı ile tüplerin/bağlantıların uygun şekilde korunması.

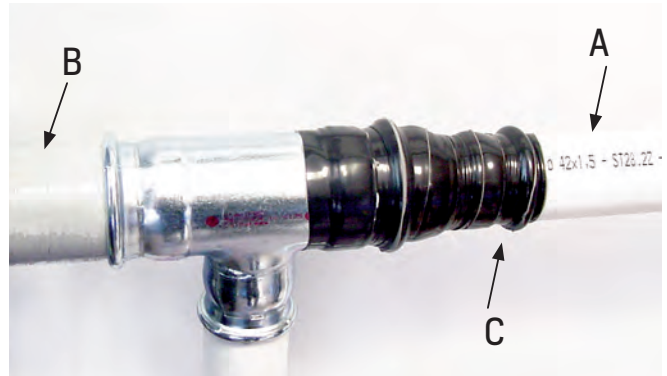
Bütanol yapıştırıcı bant [tip RM kodu 850NS000000] yüksek çekme ve yüksek yapıştırıcı mukavemetine sahiptir ve kendiliğinden akar. Yapışkan astar gerektirmez, yüzeylerin suyu mükemmel bir şekilde itmesini sağlar ve atmosferik etkilere ve serbest kimyasallara karşı yalıtım sağlar. Yüksek gerginlik, bantların dirsekler, T parçası, manşonlar vb. gibi düzensiz yüzeyler için bile her türlü yüzey için kapsamlı uygulanabilirlik sağlar. Uygulama için yüzeyin temiz olması ve ıslak olmaması yeterlidir. Bant basınç altında olmalı ve duruma göre temizlenmelidir. Orijinal uzunluğuna göre %700'ün üzerinde genişlerken, uçtaki genişlik uzantıya bağlıdır. Bant genişliğinin en az %10'u ile üst üste bindirilmesi tavsiye edilir.

Bantlar ve/veya vernik yardımı ile kaplama koruması her zaman sistemin deneme çalışmasından sonra yapılmalıdır.

Önemli: Dış korozyona karşı koruma türünün seçimi ve uygulanması planlayıcının ve uygulayıcının sorumluluğundadır.



Şekil 38 - Konektörlerin bütanol yapıştırıcı bant ile korunması



Şekil 39 - Harici aşındırıcı malzemelere karşı koruma:

- A. PP kaplamalı boru
- B. Astarlı vernik
- C. Bütanol yapıştırıcı bant ile koruma

4.9 Presleme için minimum mesafeler ve alan gereksinimi

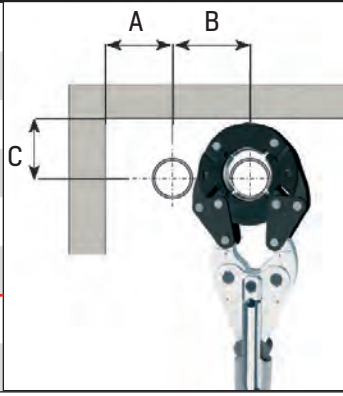
Doğru şekilde bastırmak için, tablo 14 ve 15'te gösterildiği gibi, boru ile bina arasında ve borudan boruya minimum mesafe olmalıdır.

TABLO 14: MİNİMUM MESAFELER VE ALAN GEREKSİNİMİ 12 -35 mm

Boru	Şekil 40			Şekil 41			Şekil 42				Şekil 43	
	Ø	A	D	A	D	D1	A	C	D	D1	D	E
12	56	30		75	30	35	85	155	30	35	40	60
15	56	30		75	30	35	85	155	30	35	40	60
18	60	30		75	30	40	85	165	30	40	40	60
22	75	40		80	40	40	85	165	40	40	40	61
28	82	40		90	40	45	90	180	40	45	40	63
35	85	40		90	40	45	90	180	40	45	40	66

TABLO 15: MİNİMUM MESAFELER 42 -168,3 mm

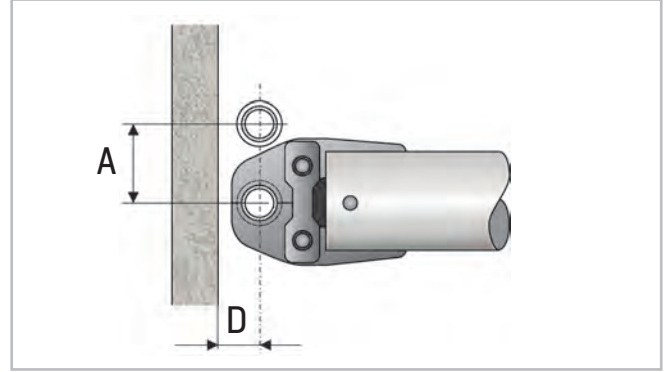
Boru Ø	A	B	C
42	150	150	110
54	150	150	110
76,1	170	210	170
88,9	190	260	190
108	200	320	280
139,7	250	350	250
168,3	260	350	260



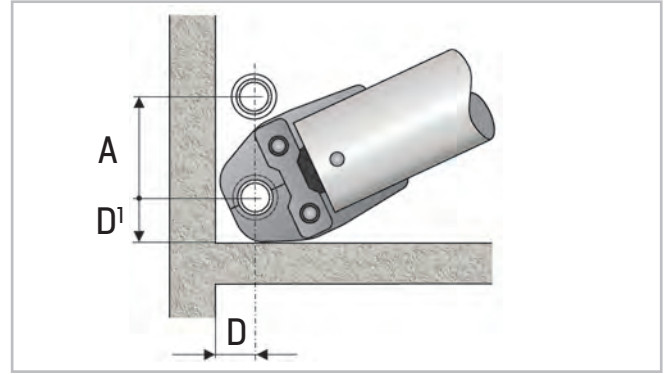
Şekil 44 - Zincirler/bilezikler için minimum mesafeler

4.10 Diş veya flanş bağlantıları

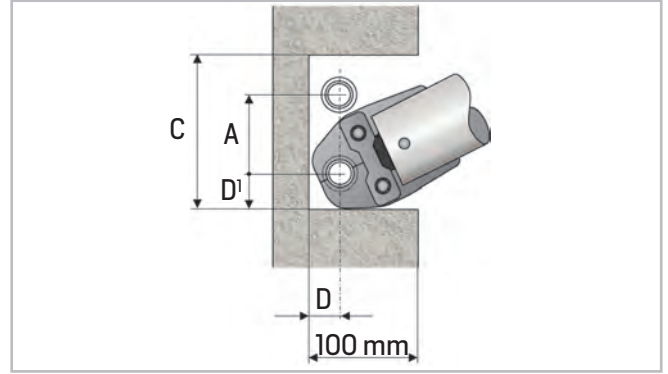
Pres bağlantı elemanları, ISO 7 -1 [diş standardı DIN 2999] veya ISO 228 [diş standardı DIN 259] uyarınca normal ticari dişli bağlantı elemanları kullanılarak veya paslanmaz çelik veya demir dışı metallerden yapılmış bağlantı elemanları ile bağlanabilir. Dişli bağlantıları sızdırmaz hale getirirken, klorür içeren hiçbir sızdırmazlık maddesi [örneğin teflon bantlar] kullanılamaz. **inoxPRES/steelPRES/marinePRES** serisinden temin edilebilen flanşlar basınç aşaması PN 6/10/16'da normal flanşlara bağlanabilir. Montaj sırasında, önce diş/flanş bağlantısı, ardından pres bağlantısı tamamlanmalıdır.



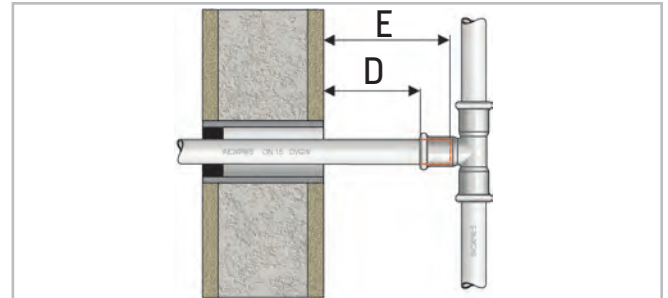
Şekil 40 - Minimum mesafeler ve alan gereksinimleri



Şekil 41 - Minimum mesafeler ve alan gereksinimleri



Şekil 42 - Minimum mesafeler ve alan gereksinimleri



Şekil 43 - Minimum mesafeler ve alan gereksinimleri

ÖNEMLİ

Güvenlik nedeniyle, Raccorderie Metalliche pres bağlantı sistemlerinden 'çok katmanlı boru sistemlerine' geçiş dişli bir bağlantı ile gerçekleştirilmelidir. Bu işlemler, presten sonra, bağlantı elemanlarının farklı üreticileri ve farklı malzemeleri (pirinç/çelik) eşleştirmesinden kaynaklanan tekli kayıp durumlarını önlemek içindir.

5.0 Planlama

5.1 Boru sabitleme, kelepçeler arasındaki mesafeler

Boru destekleri, boruyu tavana veya duvara sabitlemeyi sağlar ve sıcaklık değişikliklerinden kaynaklanan uzunluk değişikliklerini dikkate almalıdır. Sabit ve kayma noktalarının ayarlanmasıyla, borudaki uzunluk değişimleri istenen yönde yönlendirilir.

Boru destekleri bağlantı elemanlarına monte edilmemelidir. Kayar destekler, boruların hareket etmesini engellemeyecek şekilde konumlandırılmalıdır.

Boruları sabitlemek ve takmak için lütfen UNI EN 806-4 standartlarına ve ek ulusal DIN 1988-200 standardına uyun. Ayrıca sıvılar ve sıcaklık da çok önemlidir. Gaz/sprinkler tesisatları ve yangın söndürme suları için tablo 16'da belirtilen boyutlar geçerli değildir. **inoxPRES/steelPRES/aesPRES/marinePRES** boruları için izin verilen maksimum destek mesafeleri tablo 16'da gösterilmiştir.

TABLO 16: DESTEKLER ARASINDAKİ İZİN VERİLEN MAKSİMUM MESAFELER EN 806 -4

DN	Boru dış çapı (mm)	Metre cinsinden yatay boşluk (önerilir)	Metre cinsinden dikey boşluk (önerilir)
10	12	1,2	1,8
12	15	1,2	1,8
15	18	1,2	1,8
20	22	1,8	2,4
25	28	1,8	2,4
32	35	2,4	3,0
40	42	2,4	3,0
50	54	2,7	3,6
65	76,1	3,0	3,6
80	88,9	3,0	3,6
100	108	3,0	3,6
125	139,7	3,6	4,2
150	168,3	3,6	4,2

5.2 Genleşme telafisi

Metal malzemeler ısının etkisiyle farklı şekillerde genişler.

Borudaki çeşitli sıcaklık farkları altındaki boyuna değişim, **inoxPRES, steelPRES, aesPRES ve marinePRES** için tablo 17'de gösterilmiştir. Boyuna değişim, sabit ve kayar noktaların doğru ayarlanması, komparsatörlerin, s-dirseklerinin, u-dirseklerinin veya genleşme komparsatörlerinin kurulması ve yeterli genişleme alanlarının oluşturulması ile telafi edilebilir. Tipik kurulumlar şekil 45 a c'de gösterilmektedir.

TABLO 17: UZUNLUK DEĞİŞİMLERİ inoxPRES / steelPRES / aesPRES / marinePRES

L [m]	Δt [°K]										
	10	20	30	40	50	60	70	80	90	100	
inoxPRES	3	0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0
	4	0,7	1,3	2,0	2,6	3,3	4,0	4,6	5,3	5,9	6,6
	5	0,8	1,7	2,5	3,3	4,1	5,0	5,8	6,6	7,4	8,3
	6	1,0	2,0	3,0	4,0	5,0	5,9	6,9	7,9	8,9	9,9
	7	1,2	2,3	3,5	4,6	5,8	6,9	8,1	9,2	10,4	11,6
	8	1,3	2,6	4,0	5,3	6,6	7,9	9,2	10,6	11,9	13,2
	9	1,5	3,0	4,5	5,9	7,4	8,9	10,4	11,9	13,4	14,9
	10	1,7	3,3	5,0	6,6	8,3	9,9	11,6	13,2	14,9	16,5
	12	2,0	4,0	5,9	7,9	9,9	11,9	13,9	15,8	17,8	19,8
	14	2,3	4,6	6,9	9,2	11,6	13,9	16,2	18,5	20,8	23,1
	16	2,6	5,3	7,9	10,6	13,2	15,8	18,5	21,1	23,8	26,4
	18	3,0	5,9	8,9	11,9	14,9	17,8	20,8	23,8	26,7	29,7
20	3,3	6,6	9,9	13,2	16,5	19,8	23,1	26,4	29,7	33,0	
steelPRES	3	0,4	0,7	1,1	1,4	1,8	2,2	2,5	2,9	3,2	3,6
	4	0,5	1,0	1,4	1,9	2,4	2,9	3,4	3,8	4,3	4,8
	5	0,6	1,2	1,8	2,4	3,0	3,6	4,2	4,8	5,4	6,0
	6	0,7	1,4	2,2	2,9	3,6	4,3	5,0	5,8	6,5	7,2
	7	0,8	1,7	2,5	3,4	4,2	5,0	5,9	6,7	7,6	8,4
	8	1,0	1,9	2,8	3,8	4,8	5,8	6,7	7,7	8,6	9,6
	9	1,1	2,2	3,2	4,3	5,4	6,5	7,6	8,6	9,7	10,8
	10	1,2	2,4	3,6	4,8	6,0	7,2	8,4	9,6	10,8	12,0
	12	1,4	2,9	4,3	5,8	7,2	8,4	10,1	11,5	13,0	14,4
	14	1,6	3,4	5,1	6,7	8,4	10,1	11,8	13,4	15,1	16,8
	16	1,9	3,8	5,7	7,7	9,6	11,5	13,4	15,4	17,3	19,2
	18	2,2	4,3	6,4	8,6	10,8	13,0	15,1	17,3	19,4	21,6
20	2,4	4,8	7,2	9,6	12,0	14,4	16,8	19,2	21,6	24,0	
aesPRES / marinePRES	3	0,5	1,0	1,5	2,0	2,6	3,1	3,6	4,1	4,6	5,1
	4	0,7	1,4	2,0	2,7	3,4	4,1	4,8	5,4	6,1	6,8
	5	0,9	1,7	2,6	3,4	4,3	5,1	6,0	6,8	7,7	8,5
	6	1,0	2,0	3,1	4,1	5,1	6,1	7,1	8,2	9,2	10,2
	7	1,2	2,4	3,6	4,8	6,0	7,1	8,3	9,5	10,7	11,9
	8	1,4	2,7	4,1	5,4	6,8	8,2	9,5	10,9	12,2	13,6
	9	1,5	3,1	4,6	6,1	7,7	9,2	10,7	12,2	13,8	15,3
	10	1,7	3,4	5,1	6,8	8,5	10,2	11,9	13,6	15,3	17,0
	12	2,0	4,1	6,1	8,2	10,2	12,2	14,3	16,3	18,4	20,4
	14	2,4	4,8	7,1	9,5	11,9	14,3	16,7	19,0	21,4	23,8
	16	2,7	5,4	8,2	10,9	13,6	16,3	19,0	21,8	24,5	27,2
	18	3,1	6,1	9,2	12,2	15,3	18,4	21,4	24,5	27,5	30,6
20	3,4	6,8	10,2	13,6	17,0	20,4	23,8	27,2	30,6	34,0	

Genel olarak doğrusal genişleme

$$\Delta L = L \times \alpha \times \Delta t$$

ΔL = mm cinsinden doğrusal genişleme

L = m cinsinden boru uzunluğu

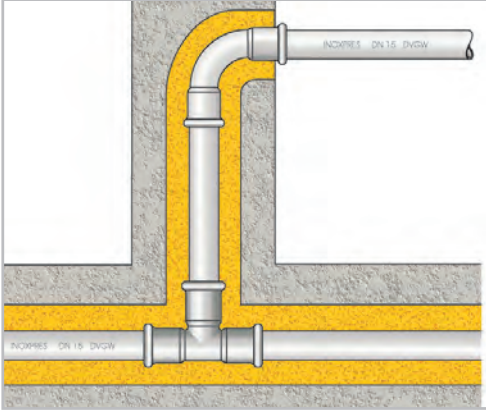
α = doğrusal genişleme katsayısı

inoxPRES α = 0,0165 mm / (m x °K)

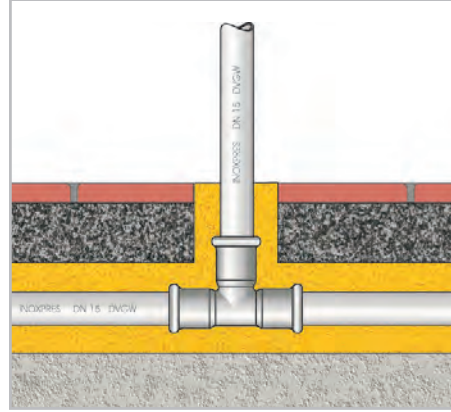
steelPRES α = 0,0120 mm / (m x °K)

aesPRES / marinePRES α = 0,017 mm / (m x °K)

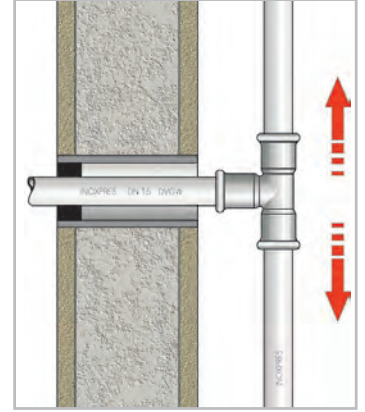
Δt = °K cinsinden sıcaklık farkı



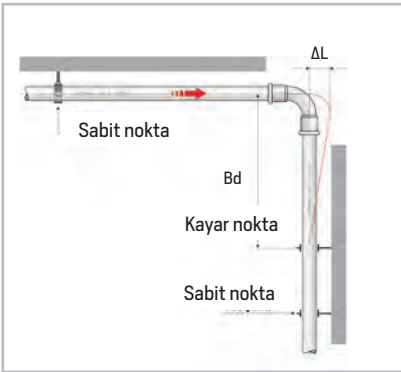
Şekil 45a - Genleşme alanlarının oluşturulması



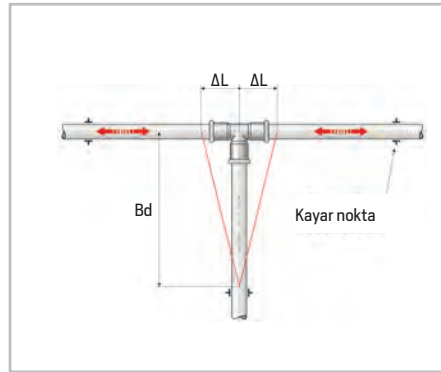
Şekil 45b - Genişleme alanlarının oluşturulması



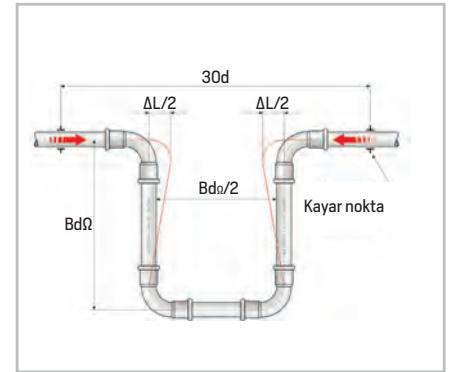
Şekil 45c - Genleşme alanlarının oluşturulması



Şekil 46 - Ortogonal şekilli genişleme erişimi



Şekil 47 - Genleşme dengeleme kolu

Şekil 48 - U-bükme $Bd\Omega = Bd / 1,8$

Hesaplama formülü Ortogonal bükülme ve T birleşimi (şekil 46 ve 47)

$$Bd = k \times \sqrt{(da \times \Delta L)} \text{ [mm]}$$

k = sabit malzeme

inoXPRES = 60 for σ [sigma] 190 N/mm²

steelPRES = 57 for σ [sigma] 190 N/mm²

aesPRES = 51 for σ [sigma] 140 N/mm²

marinePRES = 63 for σ [sigma] 105 N/mm²

da = mm cinsinden dış çap borusu

ΔL = mm cinsinden doğrusal genişleme

Hesaplama formülü U bükümü (şekil 48)

$$Bd\Omega = k \times \sqrt{(da \times \Delta L)} \text{ [mm]} \text{ or}$$

$$Bd\Omega = Bd / 1,8$$

k = sabit malzeme

inoXPRES = 34 for σ [sigma] 190 N/mm²

steelPRES = 32 for σ [sigma] 190 N/mm²

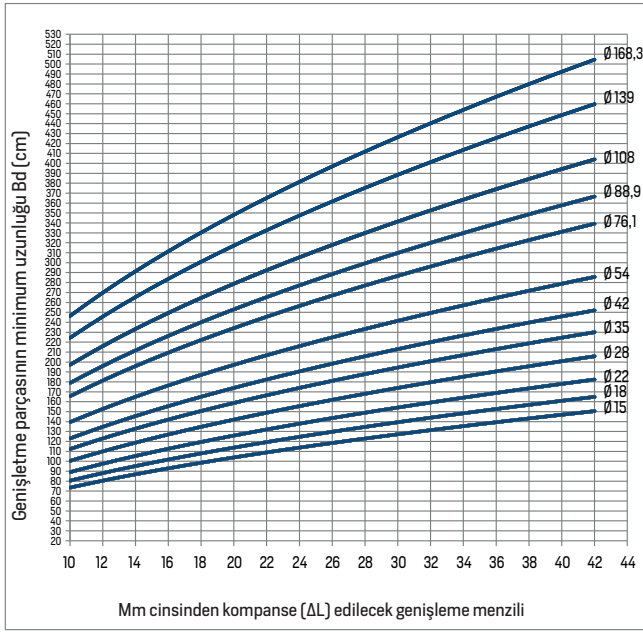
aesPRES = 28 for σ [sigma] 140 N/mm²

marinePRES = 35 for σ [sigma] 105 N/mm²

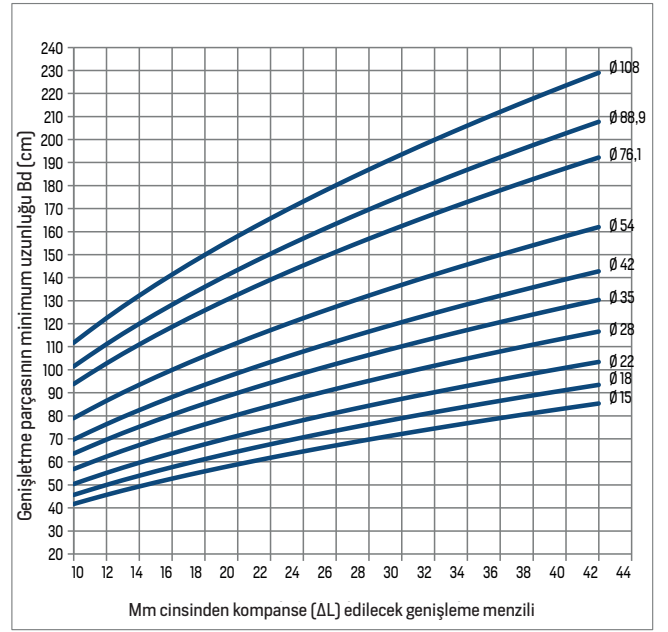
da = mm cinsinden dış çap borusu

ΔL = mm cinsinden doğrusal genişleme

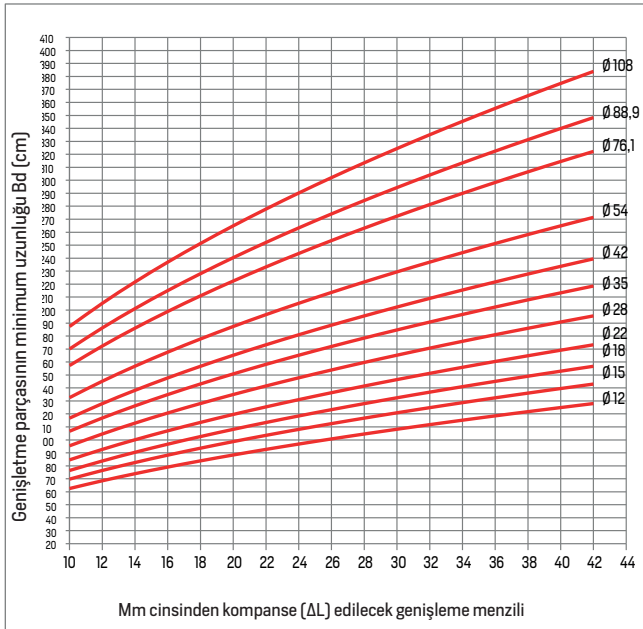
TABLO 18A: GENLEŞME MESAFESİNİN HESAPLANMASI
 $\varnothing 15 \div 168,3$ mm (Bd) inoxPRES



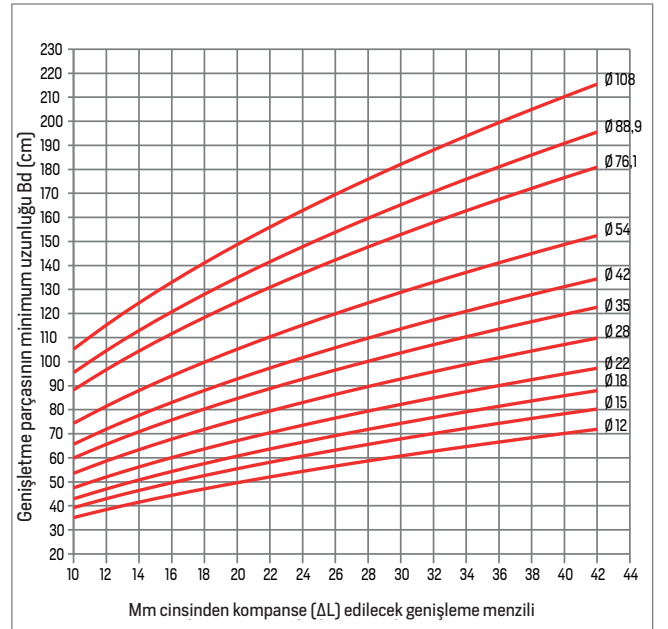
TABLO 18b: U-bükümü İÇİN GENLEŞME PARÇASI
 $\varnothing 15 \div 108$ mm (Bd Ω) inoxPRES



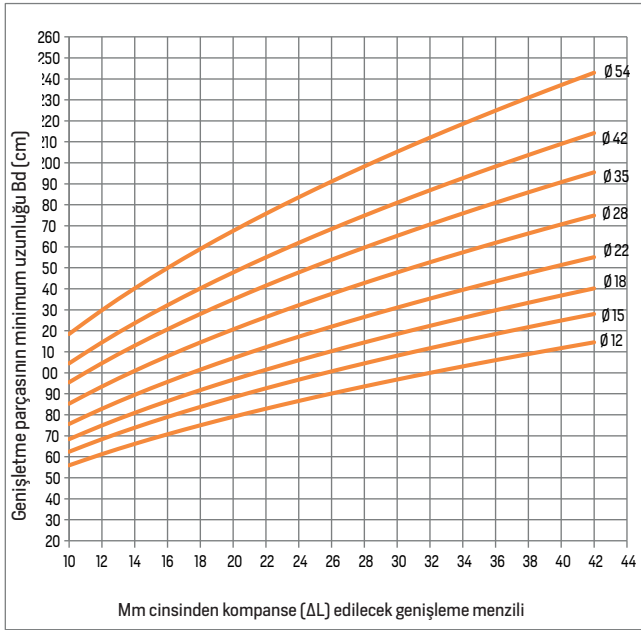
TABLO 19a: GENLEŞME MESAFESİNİN HESAPLANMASI
 $\varnothing 12 \div 108$ mm (Bd) çelik presler



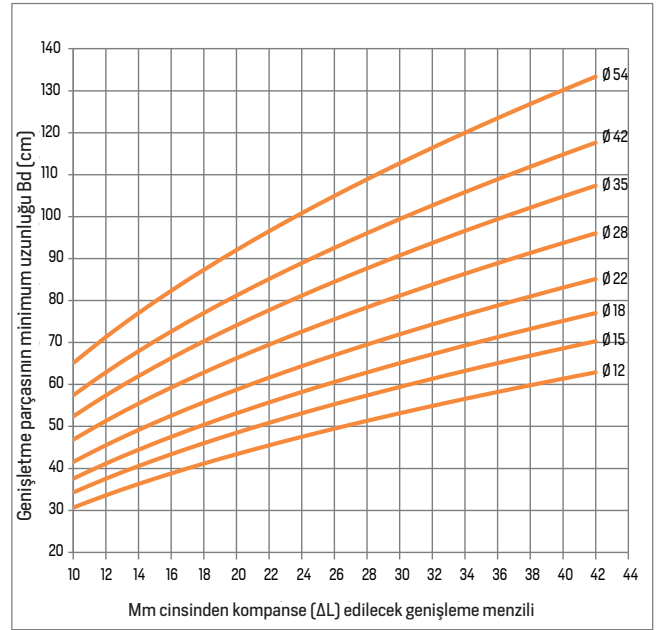
TABLO 19b: U-BÜKÜLME İÇİN GENLEŞME PARÇASI
 $\varnothing 12 \div 108$ mm (Bd Ω) çelik presler



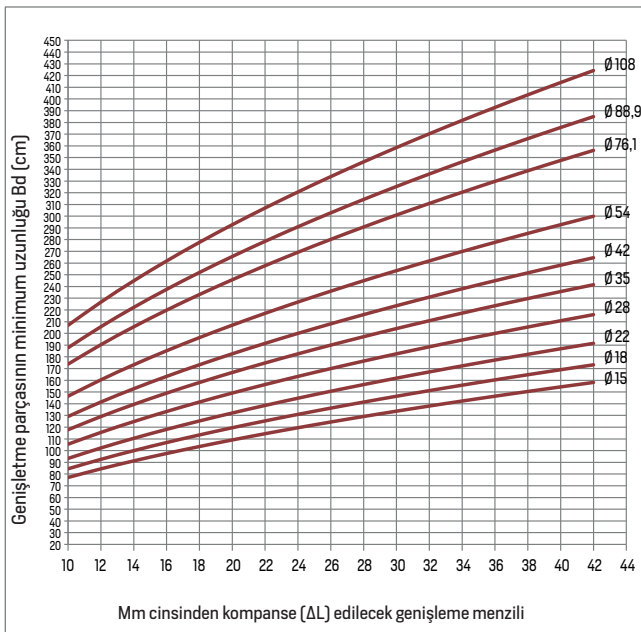
TABLO 20A: GENLEŞME MESAFESİNİN HESAPLANMASI
Ø 12 ÷ 54 mm (Bd) aesPRES



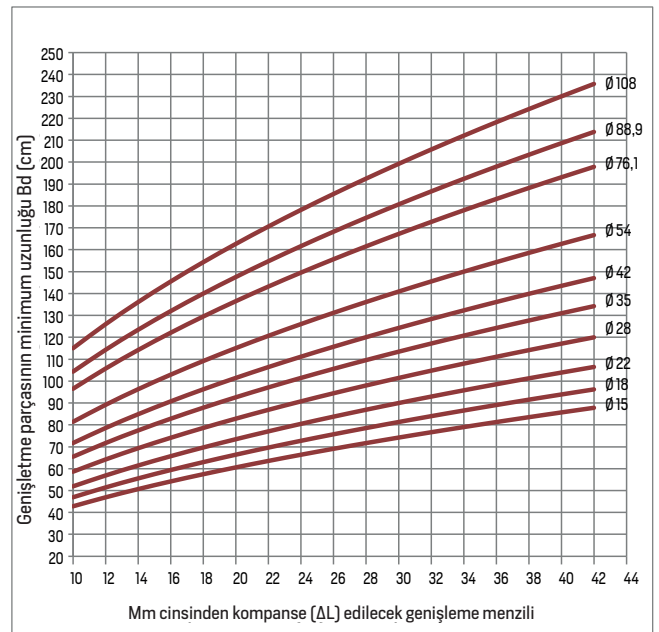
TABLO 20b: U-bükümü İÇİN GENLEŞME PARÇASI
Ø 12 ÷ 54 mm (BdΩ) aesPRES



TABLO 21A: GENLEŞME MESAFESİNİN HESAPLANMASI
Ø 15 ÷ 108 mm (Bd) marinePRES



TABLO 21b: U-bükümü İÇİN GENLEŞME PARÇASI
Ø 15 ÷ 108 mm (BdΩ) marinePRES



5.3 Termal emisyon

Sıcaklık farkına bağlı olarak, sıcak boru sistemi ısıyı ortama salar.

inoxPRES/steelPRES borularından kaynaklanan termal emisyon tablo 22 ve 23'te görülebilir.

TABLO 22: Açılan inoxPRES/çelik BORULARDAN KAYNAKLANAN TERMAL EMİSYON (W/m)

d x s (mm)		SICAKLIK FARKI (°K)									
I	S	10	20	30	40	50	60	70	80	90	100
-	12 x 1,2	3,7	7,5	11,2	14,9	18,6	22,4	26,1	29,8	33,5	37,3
15 x 1	15 x 1,2	4,7	9,3	14,0	18,6	23,3	28,0	32,6	37,3	41,9	46,6
18 x 1	18 x 1,2	5,6	11,2	16,8	22,4	28,0	33,6	39,2	44,8	50,4	55,9
22 x 1,2	22 x 1,5	6,8	13,7	20,5	27,4	34,2	41,0	47,9	54,7	61,5	68,4
28 x 1,2	28 x 1,5	8,7	17,4	26,1	34,8	43,5	52,2	60,9	69,6	78,3	87,1
	35 x 1,5	10,9	21,8	32,7	43,5	54,4	65,3	76,2	87,1	98,0	108,8
	42 x 1,5	13,1	26,1	39,2	52,3	65,3	78,4	91,4	104,5	117,6	130,6
	54 x 1,5	16,8	33,6	50,4	67,2	84,0	100,8	117,6	134,4	151,2	168,0
	76,1 x 2	23,7	47,3	71,0	94,7	118,4	142,0	165,7	189,4	213,1	236,7
	88,9 x 2	27,7	55,3	83,0	110,6	138,3	165,9	193,6	221,2	248,9	276,6
	108 x 2	33,6	67,2	100,8	134,4	168,0	201,6	235,2	268,8	302,4	336,0
139,7 x 2 • 139,7 x 2,6		43,4	86,8	130,3	173,7	217,1	260,5	304,0	347,4	390,8	434,2
168,3 x 2 • 168,3 x 2,6		52,3	104,6	156,9	209,3	261,6	313,9	366,2	418,5	470,8	523,2

Harici giriş katsayısı $\alpha_e = 10 \text{ W}/(\text{m}^2 \times \text{°K})$

TABLO 23: PP (W/m) KAPLI ÇELİK BORULARDAN TERMAL EMİSYON

S dxs(mm)	SICAKLIK FARKI (°K)									
	10	20	30	40	50	60	70	80	90	100
12 x 1,2	3,7	7,5	11,2	15,0	18,7	22,5	26,2	30,0	33,7	37,5
15 x 1,2	4,6	9,1	13,7	18,2	22,8	27,3	31,9	36,5	41,0	45,6
18 x 1,2	5,4	10,7	16,1	21,5	26,8	32,2	37,6	42,9	48,3	53,7
22 x 1,5	6,4	12,9	19,3	25,8	32,2	38,7	45,1	51,5	58,0	64,4
28 x 1,5	8,1	16,1	24,2	32,2	40,3	48,4	56,4	64,5	72,5	80,6
35 x 1,5	9,9	19,9	29,8	39,8	49,7	59,7	69,6	79,6	89,5	99,5
42 x 1,5	11,8	23,7	35,5	47,3	59,2	71,0	82,8	94,7	106,5	118,3
54 x 1,5	15,1	30,1	45,2	60,3	75,3	90,4	105,5	120,5	135,6	150,7
76,1 x 2	21,0	42,0	63,1	84,1	105,1	126,1	147,1	168,1	189,2	210,2
88,9 x 2	24,5	48,9	73,4	97,9	122,3	146,8	171,3	195,7	220,2	244,7
108 x 2	29,6	59,2	88,8	118,5	148,1	177,7	207,3	236,9	266,5	296,1

Harici giriş katsayısı $\alpha_e = 9 \text{ W}/(\text{m}^2 \times \text{°K})$

aesPRES ve marinePRES borularının termal emisyonu aşağıdaki tabloda gösterilmektedir.

TABLO 24: Açılan aesPRES VE marinePRES (W/m)'DEN KAYNAKLANAN TERMAL EMİSYON

A - M d x s (mm)	SICAKLIK FARKI (°K)									
	10	20	30	40	50	60	70	80	90	100
15 x 1	5,1	10,2	15,4	20,5	25,6	30,7	35,9	41,0	46,1	51,2
18 x 1	6,1	12,3	18,4	24,6	30,7	36,9	43,0	49,2	55,3	61,5
22 x 1	7,5	15,0	22,6	30,1	37,6	45,1	52,6	60,1	67,7	75,2
28 x 1,5	9,6	19,1	28,7	38,3	47,8	57,4	67,0	76,5	86,1	95,7
35 x 1,5	12,0	23,9	35,9	47,8	59,8	71,8	83,7	95,7	107,6	119,6
42 x 1,5	14,4	28,7	43,1	57,4	71,8	86,1	100,5	114,8	129,2	143,5
54x1,5•54x2	18,5	36,9	55,4	73,8	92,3	110,8	129,2	147,7	166,1	184,6
76,1 x 2	26,0	52,0	78,0	104,0	130,1	156,1	182,1	208,1	234,1	260,1
88,9 x 2	30,4	60,8	91,2	121,6	151,9	182,3	212,7	243,1	273,5	303,9
108 x 2,5	36,9	73,8	110,7	147,6	184,6	221,5	258,4	295,3	332,2	369,1

Harici giriş katsayısı $ae = 11 \text{ W}/(\text{m}^2 \times \text{K})$

5.4 Yalıtım

Boru tesisatından kaynaklanan istenmeyen termal emisyonu en aza indirmek için minimum yalıtım kalınlıkları korunmalıdır.

Aşağıdaki kurallara uyulmalıdır:

- ❑ DIN 4108 Binalarda ısı yalıtımı,
- ❑ Enerji Tasarruf Yönetmeliği (EnEV),
- ❑ Termal Yalıtım Yönetmeliği (WSchutzV).

Ayrıca, ulusal düzenlemelere gerektiği gibi uyulmalıdır.

Ayrıca, boru tesisatının yalıtılması suyun yoğuşmasını, dış korozyonu, taşınan ortamın istenmeyen ısınmasını ve istenmeyen gürültü oluşumu ve iletimini önleyebilir. İçme suyu kalitesinin ısınmadan etkilenmemesi için soğuk su boruları yalıtılmalıdır.

Montajcı, doğru ve profesyonel yalıtım uygulamasından sorumludur.

Herhangi bir durumda nemin nüfuz etmesini önlemek için tesisatın geçişlerinin, derzlerinin ve bağlantı elemanlarının sızdırmazlığının /yapıştırıcılığının sağlanması son derece önemlidir.

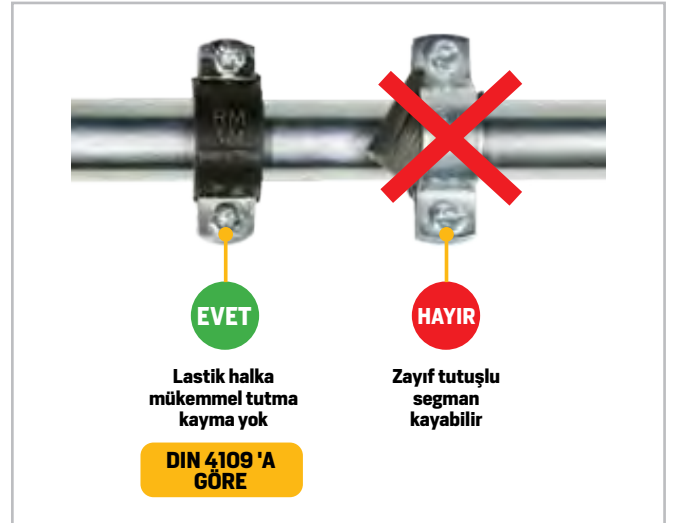
inoxPRES borularının yalıtımı için yalnızca %0,05'ten az suda çözünür klorür iyonları içeren yalıtım malzemeleri kullanılabilir. AGI-Q135'e uygun AS kalitesinde yalıtım malzemeleri bu değer için çok altındadır ve bu nedenle **inoxPRES** ile kullanıma uygundur. Minimum yalıtım malzemesi kalınlığı için kılavuz değerler tablo 25'te gösterilmektedir.

TABLO 25: BORU SİSTEMİ İÇİN MİNİMUM YALITIM MALZEMESİ KALINLIĞI

Boru tesisatı soğuk su		Sıcak su boruları	
Kurulum tipi	Mm cinsinden yalıtım malzemesi kalınlığı = $0,040 W / (m \times ^\circ K)$	Mm cinsinden OD	Mm cinsinden yalıtım malzemesi kalınlığı = $0,040 W / (m \times ^\circ K)$
Boru açık, ısıtılmamış (örn. mahzen)	4	12	20
Sıcak su hatları olmayan borular	9	15	20
Kanalda boru tesisatı, sıcak su hattı yok	4	18	20
Sıcak su ile birlikte kanalda boru tesisatı	13	22	20
Duvardaki boru yarığı, yükselticiler	4	28	30
Sıcak su ile birlikte duvar boşluğunda boru tesisatı	13	35	40
Beton zeminde boru tesisatı	4	42	40
		54	50
		76,1	65
		88,9	80
		108	100
		139,7	100
		168,3	100

5.5 Ses yalıtımı (DIN 4109)

İçme suyu ve ısıtma tesisatlarındaki gürültü esas olarak musluk bağlantı elemanları ve sıhhi tesisatlarda üretilmektedir. Boru daha sonra bu sesi yapıya aktarabilir ve daha sonra rahatsız edici olan havadan gelen sesi üretebilir. Ses yalıtımlı tutucular kullanılarak ve boru tesisatının ses yalıtımı ile ses aktarımı büyük ölçüde azaltılabilir.



Şekil 49 - DIN 4109 'a uygun kauçuk halka PRATİKO (Birim RM Serisi 355/G 351/G 555/G 156/G)

5.6 Yangından korunma

inoxPRES / steelPRES / aesPRES / marinePRES boruları DIN 4102-1'e uygun olarak yapı malzemesi A sınıfında yanmaz malzeme olarak, PP kaplamalı çelik pres borular ise DIN 4102-1'e uygun olarak B2 sınıfı yapı malzemesi sınıfında yanmaz damlama malzemesi olarak sınıflandırılmaktadır. Yangın önleme açısından diğer ulusal gereksinimler, yangın geciktirici sızdırmazlık tekniklerinin kullanılmasıyla en etkili şekilde yerine getirilir.

5.7 Potansiyel eşitleme

DIN VDE 0100 'e göre, elektriği iletebilen metalik su ve gaz borularının tüm parçaları bir binanın ana potansiyel eşitlemesine dahil edilmelidir.

inoxPRES, steelPRES, aesPRES ve marinePRES iletken sistemlerdir ve bu nedenle potansiyel eşitlemeye dahil edilmelidir.

Bu işin sorumluluğu elektrik sistemini kuran kişilere aittir.

5.8 Boyutlandırma

Boru sistemi hesaplamasının amacı, ekonomik boru çapları ile sistemin kusursuz çalışmasını sağlamaktır. Aşağıdaki düzenlemelere özellikle uyulmalıdır:

İçme suyu tesisatları:

- ✘ DIN 1988 bölüm 300
- ✘ EN 806 2008:2012
- ✘ DVGW W531-553
- ✘ VDI klavuzu 6023

CEN/TR16355: 2012 standartlarına uymalıdır [İçme suyu tüketimi için su taşıyan binaların içindeki tesisatlarda Lejyonella büyümesinin önlenmesi için öneriler].

Isıtma tesisatları:

- ✘ UNI EN 12828:2014
- ✘ DIN 4751

Gaz tesisatları:

- ✘ TRGI / TRF

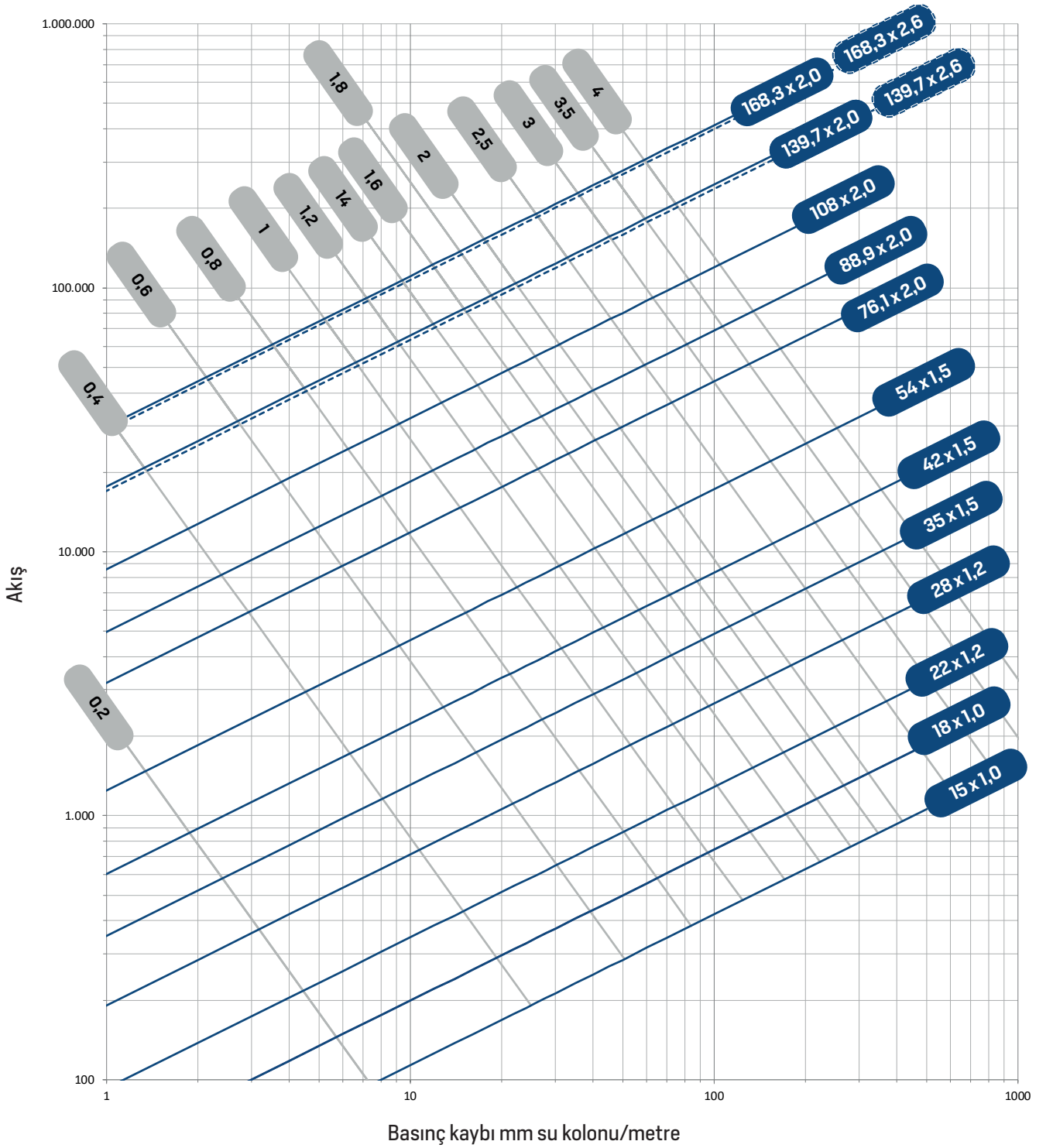
inoxPRES/steelPRES/aesPRES/marinePRES boruları için boru sürtünme basıncı düşüşü tablo 26 a-d'de gösterilmektedir.

5.9 Yüzey ısıtma

Yüzey ısıtma kullanıldığında, duvar içindeki borunun sıcaklığı 60°C'yi geçmemelidir.

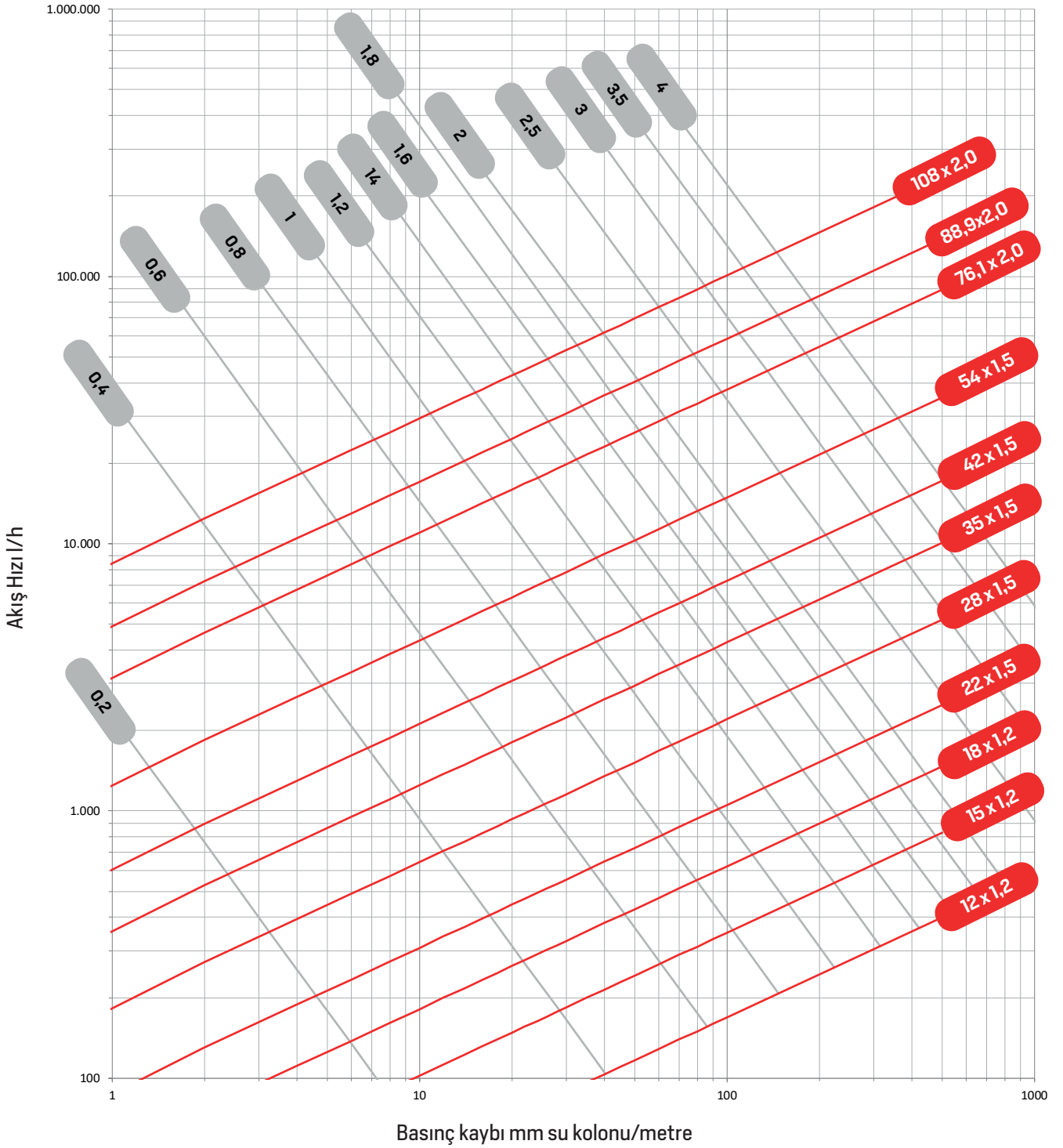
Termal dezenfeksiyon amacıyla 70°C'ye [günde 1 saat] geçici sıcaklık artışına izin verilir. Drenaj valfleri veya geri akış önleme valfleri ile donatılmış borular, ısınmadan kaynaklanan aşırı basınç artışına karşı korunmalıdır. Yüzey ısıtma üreticileri tarafından verilen montaj talimatlarına tam olarak uyulmalıdır.

TABLO 26A: BORU SÜRTÜNME BASINCI DÜŞÜŞÜ



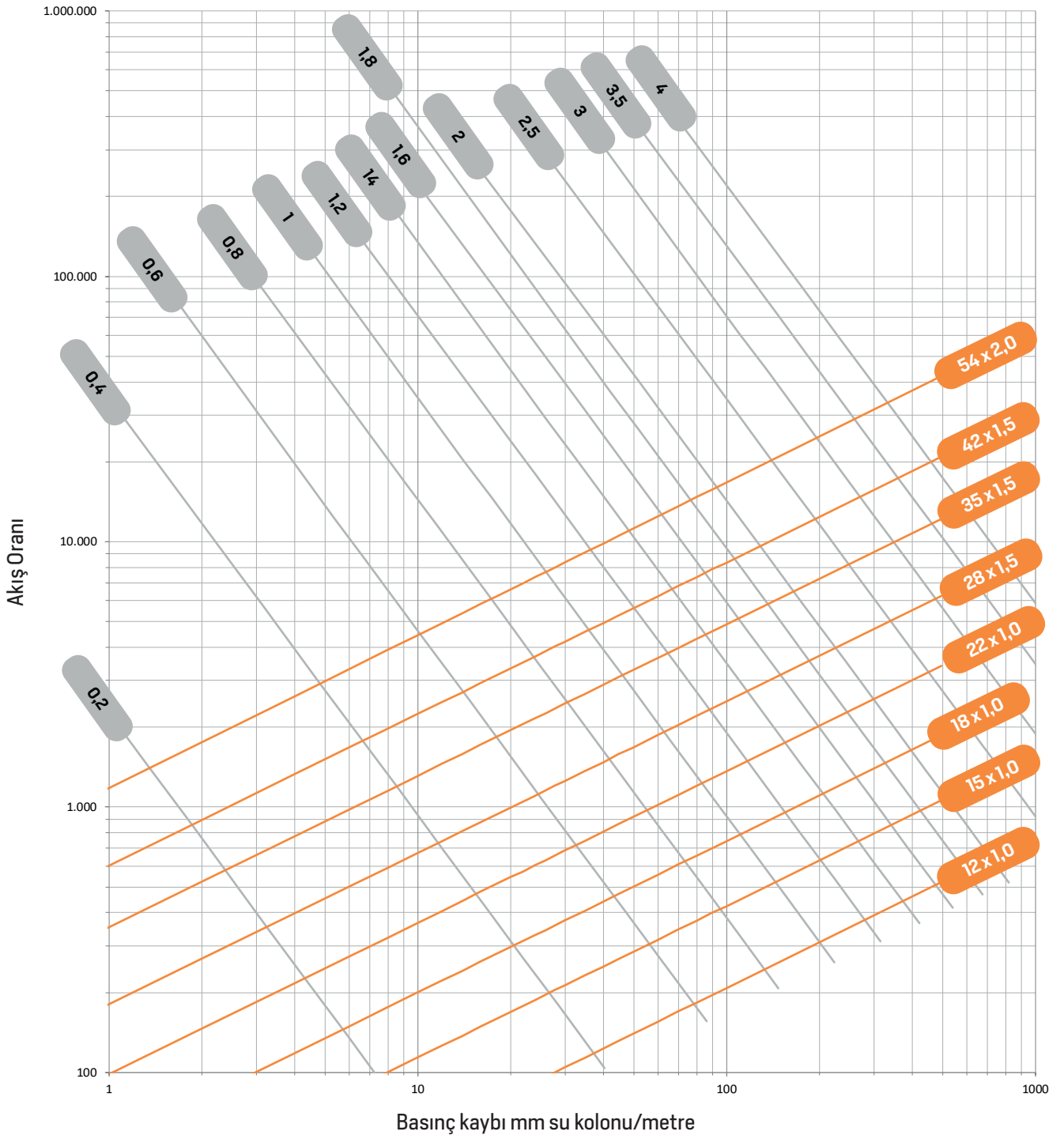
Hız m/s

TABLO 26b: BORU SÜRTÜNME BASINCI DÜŞÜŞ ÇELİKLERİ

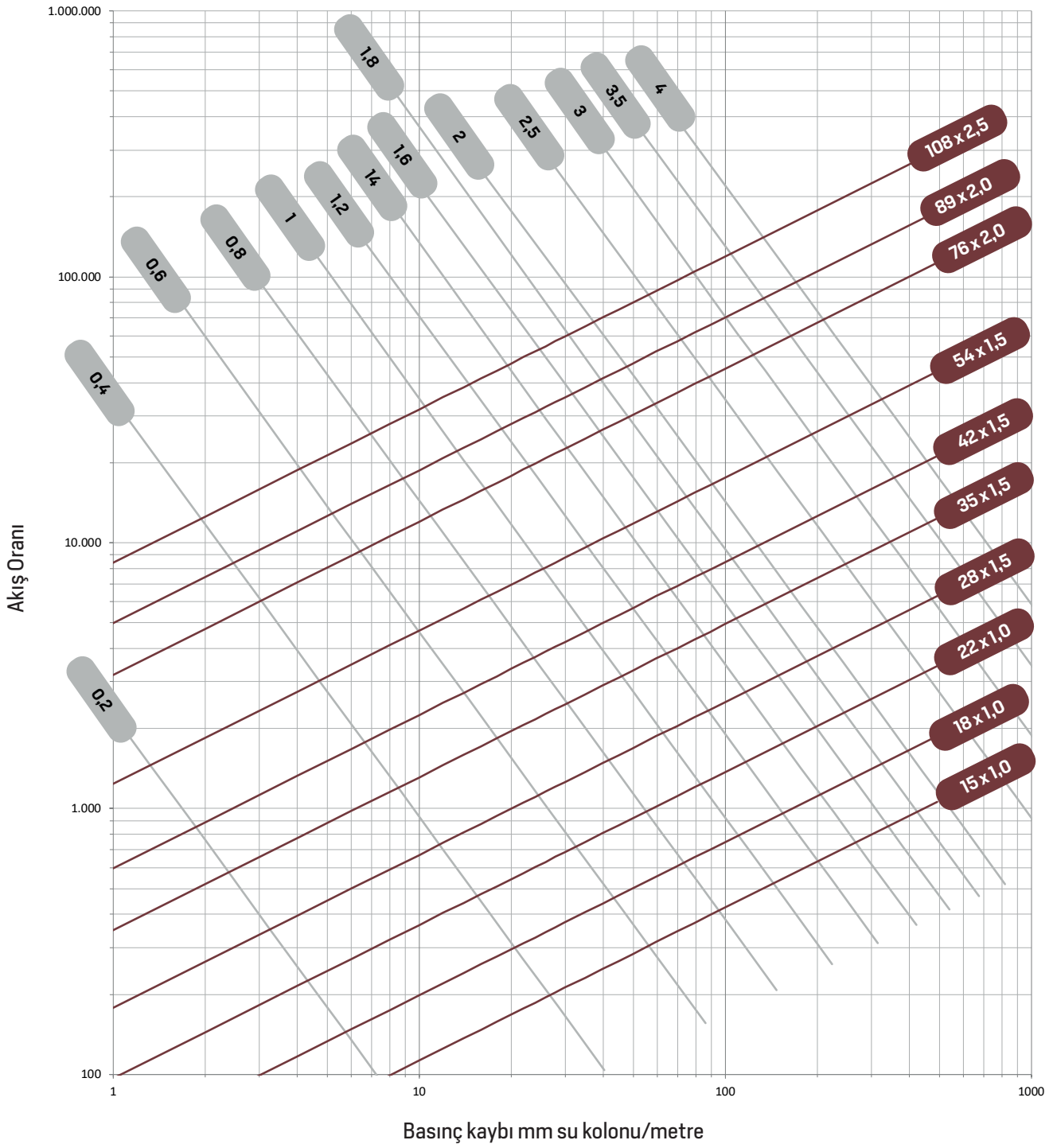


Hız m/s

TABLO 26C : BORU SÜRTÜNME BASINCI DÜŞÜŞÜ



— Hız m/s

TABLO 26d: BORU SÜRTÜNME BASINCI DAMLASI
marinePRES

6.0 Başlatma

Başlatma ve basınç testi yapılırken Almanya'da aşağıdaki yönergeler dikkate alınmalıdır:

İçme suyu sistemleri:

DIN 1988 bölüm 100

ZVSHK çalışma sayfası "İçme Suyu Boru Sisteminin Basıncılı Hava, Asal Gaz veya Su ile Sızdırmazlık Testi" (Dichtheitsprüfung von Trinkwasser-Installationen with Druckluft, Inertgas oder Wasser)

BTGA kuralı 5.001

VDI 6023

Isıtma sistemleri

DIN-VOB 18380

Gaz sistemleri:

DVGW G 600

TRGI (gaz tesisatı için teknik düzenlemeler)

TRF (sıvı gaz için teknik düzenlemeler)

6.1 Basınç testi

İçme suyu için boru tesisatı durumunda, basınç testi (bkz sayfa 55) DIN EN 806, DIN 1988 bölüm 100 ve uygulama kitapçığı GW534'e göre filtrelenmiş içme suyu kullanılarak yapılmalıdır. İçme suyu sistemi işletmeye alınana kadar tamamen dolu kalmalıdır. Boru tesisatında kalan su miktarlarının varlığı, metal boru tesisatında korozyon tehlikesini büyük ölçüde artırır (üç fazlı korozyon). Bu etki, sistemin devreye alma işlevine kadar tamamen suyla dolu tutulmasından kaçınılır, aksi takdirde sistemde kalan artık su nedeniyle korozyon riski büyük ölçüde artar (hem suya hem de havaya maruz kalan metal durumunda). Basınç testinden kısa bir süre sonra içme suyu sistemi kullanılmazsa, basınç testi basınçlı hava veya inert gazlar kullanılarak yapılmalıdır.

- ❑ Borular kaplanmadan önce sızdırmazlık/basınç testleri yapılmalıdır (örneğin yalıtım amacıyla),
- ❑ Testler DVGW çalışma sayfası W534 ve ZVSHK "Basıncılı hava, inert gaz veya su ile içme suyu tesisatları için Sızdırmazlık Testleri" veri sayfasına göre yapılmalıdır.
- ❑ Hava ile basınç testleri yaparken, "DVGW-TRGI" gaz tesisatları için teknik kurallara uyun,
- ❑ Presleme bağlantılarının doğru montajı montajcının/şirketin sorumluluğundadır. Basılmamış gece, bir montaj hatasını tanımlamak için ek bir yardım olarak anlaşılmalıdır – bu durumda, bağlantı parçalarının bastırılmaması. Bunun bir ön koşulu, öngörülen sızdırmazlık ve basınç testlerinin düzgün bir şekilde uygulanmasıdır; bu husus, montajın düzgün bir şekilde yapıldığından emin olmak için montajcının görsel ve gürültü kontrollerini gerçekleştirme yükümlülüğünü ortadan kaldırmaz. Bu görsel ve gürültü kontrolleri ilgili test sertifikasına usulüne uygun olarak kaydedilmelidir.

6.2 Sistemin yıkanması ve çalıştırılması

DIN 1988 Bölüm 100, EN 1717 ve VDI 6023'e göre içme suyu borularındaki korozyonu önlemek için su-hava karışımı ile durulama gereklidir. Korozyon açısından bakıldığında, **inoxPRES** içme suyu tesisatları sadece filtrelenmiş içme suyu ile basit yıkama gerektirir, çünkü özel bağlantı tekniği sayesinde kesme yağı ve sıvılar gibi ek maddeler gerekmez. Ev besleme borusundan gelen durgun su, içme suyu tesisatına erişmemelidir.

Hijyenik nedenlerden dolayı yüksek standartlı bir sistem yıkama prosedürü gerekebilir (örneğin, hastane, bakım merkezi). Bu durumda ZVSHK/BTGA veri sayfaları uygulanmalıdır. Sistemin basınç testi, yıkanması ve çalıştırılması belgelenmelidir. Sistem operatörü doğru çalışma uygulamaları konusunda bilgilendirilmelidir.

6.3 Düzenli kontroller

İçme suyu kalitesinin bakımı sadece sistemin düzenli olarak izlenmesi ile sağlanabilir; bu nedenle operatöre bir bakım sözleşmesi sunulmalıdır.



7.0 Korozyon

7.1 inoxPRES

inoxPRES pres bağlantı sisteminin korozyon davranışları, kullanılan malzeme tarafından belirlenir. **inoxPRES** pres bağlantı sistemlerinin korozyon davranışı, malzeme AISI 316L [1.4404] ve Cr-Mo AISI 444 [1.4521] ile Cr-Ni-Mo çeliği tarafından belirlenir. Özellikler:

- ▶ Alman içme suyu yönetmeliklerine uygun olarak tüm içme suyu için uygundur.
- ▶ Üstün hijyene sahiptir.
- ▶ Karma kurulumlar için uygundur.
- ▶ Arıtılmış, yumuşatılmış ve tuzdan arındırılmış su için uygundur.

7.1.1 Bimetal korozyon (karma montaj) DIN 1988 bölüm 200

inoxPRES, akış kuralları dikkate alınmadan tüm demir dışı metallerle [bakır, pirinç, kırmızı pirinç] tek bir karışık kurulumda birleştirilebilir.

Bimetal korozyon, çinko kaplı bileşenlerde yalnızca **inoxPRES** bileşenleri ile doğrudan temas halinde olduğunda görülebilir. Bimetal korozyon, > 80 mm demir dışı malzemedен yapılmış bir boşluk bölümü takılarak önenebilir [örneğin bir kapatma valfi].

7.1.2 Kırılma, çukurlaşma korozyonu (üç fazlı korozyon)

İçme suyu ve yapı malzemelerinde kabul edilemez derecede yüksek klorür içeriği paslanmaz çeliklerde korozyon izlerine yol açabilir. Klorür içeriği içme suyu mevzuatının [maks. 250 mg/l] seviyelerinin üzerinde olan suda kroşe veya çukurlaşma korozyonu meydana gelebilir. İçme suyunun klorür içeriği yerel su firmasından temin edilebilir. İçme suyu için klorür limiti 250 mg/l'ye eşit olmasına rağmen, laboratuvar ve saha deneyimlerine dayanarak, 100 mg/l'yi aşmamanız önerilmektedir. Sistemdeki sirkülasyon sıvısı ve ölü kısımların durgunluk durumları, suyun kalitesi ve korozyon fenomenleri oluşturabilecek kurulum ortamının tüm koşulları ile ilgili parametreler dikkate alınarak, kurulum planlanırken ve yönetilirken uygun şekilde değerlendirilmelidir. İçme suyu sistemlerine göre, ölü kısımlardan ve durgunluk koşullarından kaçınarak sürekli bir akış sağlamak önemlidir [EN 806 -1]. Bu uygulama ve kullanım koşulları, **inoxPRES** aralığındaki malzemelerin zaman içinde korunmasına yardımcı olarak dayanıklılıklarına yardımcı olur.

inoxPRES bileşenleri aşağıdaki durumlarda çatlak veya çukur korozyon tehlikesi altındadır:

- ▶ Basınç testinden sonra sistem boşaltılır ve atmosfere açık olan borularda bir miktar su kalırsa. Kalan suyun yavaş buharlaşması, klorür içeriği seviyesinde kabul edilemez bir artışa neden olabilir ve böylece 'su-malzeme' arayüzünde çukurlaşma [üç fazlı korozyon] başlatabilir. Sistem su ile basınç testinden kısa bir süre sonra çalıştırılmazsa, basınç testi hava kullanılarak yapılmalıdır. Daha fazla ayrıntı için bkz. bölüm 6.1 Basınç testi.
- ▶ Su sıcaklığındaki bir artış, boru duvarı aracılığıyla dışarıdan kaynaklanır [örneğin, elektrikli yüzey ısıtma]. Bu tür bir çalışma sırasında iç boru duvarında oluşan birikintilerde klorür iyonlarında artış olabilir. Daha fazla bilgi için bkz. bölüm 5.9 Yüzey ısıtması.
- ▶ Onaylı olmayan sızdırmazlık maddeleri veya klorür içeren plastik bantlar kullanılır. Klorür iyonlarının sızdırmazlık malzemelerinden içme suyuna aktarılması, klorürde lokal artışa ve dolayısıyla çatlak korozyonuna yol açabilir. Daha fazla bilgi için bkz. bölüm 4.10 Diş veya flanş bağlantıları.
- ▶ Malzeme yanlı ısıtma ile hassaslaştırılmışsa. Malzemenin kararmaya yol açan herhangi bir ısıtması, malzemenin mikro yapısını değiştirir ve kristaller arası korozyona yol açabilir. Taşlama makinesi kullanarak boruların sıcak bükülmesine veya kesilmesine izin verilmez.

7.1.3 Dış korozyon

inoxPRES bileşenleri aşağıdaki durumlarda dış korozyon tehlikesi altındadır:

- Onaylı olmayan yalıtım malzemeleri veya gecikme kullanılırsa. Sadece AGI Q135 'e uygun AS kalitesinde, suda çözünür klorür iyonlarında maksimum % 0,05 yüzdelinek ağırlığa sahip yalıtım malzemeleri ve gecikme onaylanmıştır.
- **inoxPRES** klorür içeren gazlar veya dumanlarla temas maruz kalır [örneğin, galvanizleme alanları, yüzme havuzları].
- **inoxPRES** nem ile birlikte klorür içeren yapı malzemeleri ile temas etmesi.
- Sıcak borularda [yüzme havuzu atmosferi] su buharlaşması yoluyla bir klorür konsantrasyonu gelişir.

inoxPRES bileşenleri, aşağıdakiler vasıtasıyla dış korozyona karşı korunabilir:

- Kapalı hücre yalıtım malzemesi veya gecikmesi.
- Kaplama.
- Boyama.
- Korozyon riskinin daha yüksek olduğu alanlarda kurulumdan kaçınmak [örneğin, altta mahzen alanı olmayan zemin].

Planlayıcı veya Montajcı, korozyon koruma önlemlerinin seçiminden ve kurulumundan sorumludur.

7.2 inoxPRES GAZ

inoxPRES GAZ pres bağlantı sistemlerinin korozyon davranışı kullanılan malzeme AISI316L [1.4404] malzeme ile Cr-Ni-Mo çelik ile tanımlanır.

inoxPRES GAZ bileşenleri durumunda, aşındırıcı maddelerden özel bir korumanın gerekli olduğu durumlar dışında, normalde başka bir korozyon koruması gerekli değildir.

7.2.1 Dış korozyon

inoxPRES GAZ bileşenleri aşağıdaki durumlarda dış korozyon tehlikesi altındadır:

- Onaylı olmayan yalıtım malzemeleri veya gecikme kullanılırsa. Sadece AGIQ135 'e uygun AS kalitesinde, suda çözünür klorür iyonlarında maksimum %0,05 yüzdelinek ağırlığa sahip yalıtım malzemeleri ve gecikme onaylanmıştır.
- **inoxPRES GAZ** klorür içeren gazlar veya dumanlarla temas ederse [örneğin, galvaniz alanları, yüzme havuzları].
- **inoxPRES GAZ** nem etkisi altında klorür içeren yapı malzemeleri ile temas ederse.
- vDE'ye göre [Alman Elektrik, Elektronik ve Bilgi Teknolojileri Derneği], inoxPRES GAZ ana eşpotansiyel bağlamaya yerleştirilmelidir [bağlantı yetenekli personel tarafından gerçekleştirilecektir].

inoxPRES GAZ bileşenleri, aşağıdakiler vasıtasıyla dış korozyona karşı korunabilir:

- Kapalı hücre yalıtım malzemelerinin takılması.
- Kaplama.
- Boyama.
- Korozyon riskinin daha yüksek olduğu alanlarda kurulumdan kaçınmak [örneğin, altta mahzen alanı olmayan zemin].

Planlayıcı veya Montajcı, korozyon koruma önlemlerinin seçiminden ve kurulumundan sorumludur.

7.3 SteelPRES

SteelPRES pres bağlantı elemanı sisteminin korozyon davranışı, kullanılan alaşımsız karbon çeliği ile tanımlanır ve aşağıdakiler için uygundur:

- Kapalı ısıtma sistemleri.
- Kapalı soğutma ve soğutma devreleri.
- Basıncılı hava sistemi.
- Kapalı güneş döngüleri.

7.3.1 İç korozyon

Kapalı ısıtma/soğutma sistemlerinde genellikle hava yoktur ve bu nedenle korozyon tehlikesi yoktur. Doldurulurken sisteme giren az miktarda oksijen, sistemin tüm iç metalik yüzeyi ile reaksiyona girdiği ve işlem sırasında azaldığı için herhangi bir sorun yaratmaz.

Buna ek olarak, ısıtma suyu ısıtıldığında oksijen serbest bırakılır ve sisteme takılan valfler aracılığıyla serbest bırakılır.

Sistemler VDI 2035'e uygun olarak doldurulmalıdır. Oksijen bağlayıcı malzemelerin kullanılmasıyla oksijen artışı da önlenir. Ancak, bunlar önceden RM tarafından onaylanmalıdır. Sistemler doldurulurken pH değeri 7,2'nin [içme suyu] altına düşmemelidir.

7.3.2 Bimetal korozyon

SteelPRES ile gerçekleştirilen ısıtma/soğutma tesisatlarının kapalı devresinde, inoxPRES bileşenleri de dahil olmak üzere farklı hammaddelerden yapılan tekli bağlantı elemanlarının herhangi bir sırayla yerleştirilmesi mümkündür.

Tamamen **SteelPRES** [borular ve bağlantı elemanları] ile yürütülen kapalı devre ağlar, korozyona karşı koruma için kapatma valfleri veya bronz nipeller [> 80 mm] kullanılarak **inoxPRES** [borular ve bağlantı elemanları] ile yapılan germelerden ayrılmalıdır.

7.3.3 Dış korozyon

SteelPRES boruları ve bağlantı elemanları dıştan galvanizlidir, ancak bu galvaniz korozyona karşı sürekli koruma sağlamamaktadır.

PP kaplamalı çelik pres boruların kullanımı ($\varnothing 12 \div 108$ mm), korozyona karşı iyi bir korumayı temsil ederken, bağlantı elemanları ayrı ayrı korunmalıdır.

Çelik pres parçalarına uzun süre etki eden nem, karbon çelik boruların ve bağlantı elemanlarının sadece kalıcı olarak kuru ortamlarda uygun olmasının nedeni olan dış korozyona yol açabilir.

steelPRES sistemi tercihen yüksek nem seviyelerine maruz kalan alanların dışına kurulmalıdır. Özellikle tesisatı dış etkilerden, özellikle de nemin istenmeyen etkilerinden korumak veya kurulum sırasında veya sonrasında yapı malzemeleri ile temastan kaçınmak için boru ve bağlantı elemanlarına, özellikle de zeminin altındaki/altındaki/şap altındaki tesisatlarda ek korozyon koruması uygulanmalıdır. Yapı malzemeleri ile temas korozyona yol açabilir.

steelPRES bileşenleri, aşağıdakiler yoluyla dış korozyona karşı korunabilir:

- Korozyona karşı koruma bağlantısı.
- Kapalı hücre yalıtımı veya gecikmesi.
- Kaplama.
- Boyama.
- Korozyon riskinin daha yüksek olduğu alanlarda kurulumdan kaçınmak [örneğin, altta mahzen alanı olmayan zemin].

steelPRES bileşenleri kalıcı neme maruz bırakılmamalıdır. Bu nedenle, su tuttıkları için keçe gecikmesi veya kaplamalar onaylanmamıştır.

Planlayıcı veya Montajcı, korozyon koruma önlemlerinin seçiminden ve kurulumundan sorumludur.

7.4 aesPRES/marinePRES

aesPRES/MarinePRES sistemlerinin korozyon davranışı, preslenecek iki sistemin alaşımlarından oluşan ana malzeme bakır kalitesine bağlıdır.

aesPRES sistemi aşağıdaki özellikleri ile öne çıkmaktadır:

- ❑ İçilebilir sular için uygun olması.
- ❑ Bakır ve alaşımları yüzeylerinde bakterilerin çoğalmasını önlediğinden hijyenik olarak güvenlidir [bakteriyel-statik etki].
- ❑ Karma kurulumlar için uygun.
- ❑ Arıtılmış, yumuşatılmış ve tuzdan arındırılmış su için uygundur.

marinePRES sistemi esas olarak tuzlu su taşımacılığında olduğu gibi klorürlerin bulunduğu uygulamalar için önerilmektedir.

7.4.1 Bimetal korozyon (karma montaj)

aesPRES ve **marinePRES** sistemleri, demirli veya demirli olmayan farklı malzemelerle eşleştirilebilir. Korozyona elverişli koşullara yol açmamak için katot ve anot alanları arasındaki orana dikkat etmek önemlidir. Bakır aslında genel olarak katot koşulları altındadır ve bileşen korozyonuna yol açabilir.

Açık çevrimli kurulumlarda, karışık kurulumlarda korozyonu önlemek için aşağıdaki genel kurallara uymak önemlidir:

- ❑ Su akışını göz önünde bulundurun, demir malzemeler ile yapılan tesisatların akış aşağısına bakır ve bakır alaşımları kurun.
- ❑ Farklı malzemelerin iki bölümü arasına > 80 mm [örn. çek valfler, bronz veya pirinç derzler] demir içermeyen ayırıcılar ekleyin.

7.4.2 Korozyonun delinmesi

Noktalı korozyon [iğne başlı boru yuvası], son yıllarda artan su kirliliğine ve büyük oranda sanayileşme ile bağlantılıdır. Bu tür bir sorun, karbon kalıntısı olmayan bakır tüplerin piyasaya sürülmesiyle tamamen çözülmüştür.

7.4.3 Dış korozyon

Bakır ve bakır alaşımları dış korozyon riskini taşır ve koruma seviyesinde hiçbir şey yapılmazken, sülfür, nitrit ve amonyak varlığında tüpler korunmalıdır. **aesPRES/marinePRES** ayrıntılarını dış korozyona karşı aşağıdaki şekilde korumak gerekir:

- ❑ Kapalı hücre izolatörleri.
- ❑ Kaplama.
- ❑ Boyama.
- ❑ Korozyon riskinin daha yüksek olduğu alanlarda kurulumdan kaçınmak [örneğin, altta mahzen alanı olmayan zemin]. Planlayıcı veya Montajcı, korozyon koruma önlemlerinin seçiminden ve kurulumundan sorumludur.

7.5 aesPRES GAZ

aesPRES GAZ bağlantısının dış korozyona karşı yüksek direnci, aşındırıcı maddelerden özel bir korumanın gerekli olduğu durumlar dışında, herhangi bir ek korozyon önleyici standart koruma gerektirmez.

VDE'ye [Alman Elektrik, Elektronik ve Bilgi Teknolojileri Derneği] göre, **aesPRES GAZI** ana eşpotansiyel bağlamaya [bağlantı yetenekli personel tarafından gerçekleştirilecektir] yerleştirilmelidir.

aesPRES GAS bileşenleri, aşağıdakiler vasıtasıyla dış korozyona karşı korunabilir:

- kapalı hücre yalıtım malzemelerinin takılması veya geciktirilmesi;
- kaplama;
- boyama;
- korozyon riskinin daha yüksek olduğu alanlarda kurulumdan kaçınmak [örneğin, aşağıda mahzen alanı olmayan zemin].

Planlayıcı veya Montajcı, korozyon koruma önlemlerinin seçiminden ve kurulumundan sorumludur.

7.6 Malzeme uyumluluğu iki metalli eşleştirme

Açık ve kapalı devre sistemlerde farklı malzemeler arasındaki kaplinlerin özet tablosu aşağıda gösterilmiştir.

TABLO 27: MATERYAL UYUMLULUĞU İKİ METALLİ EŞLEŞTİRME

PRES BAĞLANTI		BORULARI			
Sistemler		Paslanmaz Çelik	Karbon Çelik	Bakır	Nikel Bakır
inoxPRES	açık devre				
	kapalı devre		2)		
steelPRES	açık devre				
	kapalı devre	1)		1)	1)
aesPRES	açık devre				
	kapalı devre		2)		
marinePRES	açık devre				
	kapalı devre		2)		

■ Kabul edilen eşleşme

■ Ekteki notlara dikkat edin

■ Yasak eşleştirme

NOTLAR:

- 1) Her tür paslanmaz çelik/bakır/kupro boru tesisatının hatları, demir içermeyen bir geçiş ara parçası [örn. valf, bronz/pirinç derzler] ile karbondan ayrılmalıdır.
Paslanmaz çelik/bakır/bakır-nikel tek derz aralıkları, karbon tesisatlarında kabul edilir.
- 2) Herhangi bir karbon çelik boru tesisatının gerilmesi, bir tür demir içermeyen geçiş ara parçası ile inokstan ayrılmalıdır [örn. valf, bronz/pirinç bağlantılar].
Paslanmaz çelik/bakır/kapro sistemdeki tek karbon bağlantı parçalarına izin verilmez.

8.0 Dezenfeksiyon

İçme suyu sistemlerinin dezenfeksiyonu aşağıdaki durumlarda gerekli olabilir:

- ❑ Mikroplar tespit edilmesi halinde.
- ❑ Hijyenik gereksinimlerin artırılması halinde.

inoxPRES pres bağlantı sistemi, su besleme sistemlerinin DVGW çalışma sayfası W 291 dezenfeksiyonuna uygun olarak hidrojen peroksit [H₂O₂] kullanılarak dezenfekte edilmelidir.

Dezenfeksiyon klor kullanılarak gerçekleştirilirse, aşağıdaki genel bakışta gösterilen öngörülen konsantrasyonlara ve dezenfeksiyon sürelerine kesinlikle uyulmalıdır.

Klor içeriği [serbest klor]	50 mg/l	100 mg/l
Dezenfeksiyon süresi	maks. 24 h	maks. 16 h

Dezenfektan maddenin çalışma sıcaklığı asla tesisin herhangi bir noktasında 25°C'yi geçmemelidir.

Klor ile dezenfeksiyondan sonra sistem, tüm içme suyu sisteminde < 1 mg/l kalıntı içermeyen klor değerine ulaşılan kadar içme suyu ile iyice yıkanmalıdır.

Klor kullanarak yanlış dezenfeksiyon önlemleri yoluyla korozyon tehlikesi nedeniyle, hidrojen peroksit kullanarak veya termal dezenfeksiyonu öneriyoruz.

Dezenfeksiyon önlemleri her zaman sadece deneyimli, eğitimli profesyonel personel tarafından gerçekleştirilmelidir.

Dezenfeksiyon işlemi, genişletilmiş veya onarılmışlarsa mevcut hatlara da genişletilmelidir. ZVSHK yaprak "İçme suyu tesisatlarının yıkanması, dezenfeksiyonu ve devreye alınması" kullanılmalı ve gözlemlenmelidir.

9.0 Hijyen

Yeni içme suyu düzenlemelerinin [TrinkwV] uygulanması, içme suyu sistemlerinin hijyenik olarak planlanması, gerçekleştirilmesi ve işletilmesine büyük önem vermektedir. Tesis seviyesi, sanitizasyon ve bakım hususlarına özellikle atıfta bulunarak, kurulumun yapıldığı her ülkedeki geçerli düzenlemelere özellikle dikkat etmek gerekir.

Aşağıdaki önlemler, hem gerekli içme suyu kalitesinin güvence altına alınması hem de mikrop tehlikesinin en aza indirilmesi için uygundur:

- ❑ DIN 50930-6'ya uygun malzeme seçimi.
- ❑ Boru ağını hesaplarken, mümkün olan en küçük genişlikleri seçin.
- ❑ Hijyene duyarlı sistem düzeni [döngüsel sistemler]; "ölü kısımlardan" ve hijyen açısından tek yönlü kritik gibi görünen kısımlardan kaçınin;
- ❑ Durgun boru sistemi yoktur [drenaj boruları, toplu güvenlik cihazları].
- ❑ Tek güvenlik cihazları tercih edilir.
- ❑ İçme suyu şebekesinden ayrı söndürücü sistemleri.
- ❑ Tüm içme suyu ısıtıcısında hedef sıcaklığa ulaşılmasını sağlayın;
- ❑ w 553'e uygun boyutlara sahip sirkülasyon borularını monte edin.
- ❑ sistemi durdurmadan kapsamlı bir yıkama yapmak ve böylece dezenfeksiyon işleminin etkinliğini artırmak için karmaşık hatlarda ana hatta baypas özelliklerini yerleştirme olasılığını doğrulayın.
- ❑ Soğuk su borularının ısıtmaya karşı.
- ❑ Malzemelerin hijyen-bilinçli kullanımı.
- ❑ Boru sistemini belgeleyin.
- ❑ Sistemin düzenli olarak bakımını yapın [bakım sözleşmesi].

10.0 Form Uyumluluk Talebi

BAŞVURU SAHİBİNİN VERİLERİ

Başvuran/Şirket _____
Adı _____
Adres _____
İrtibat Kişileri _____
Tarih _____

PROJE VERİLERİ

Açıklama _____
Sistemin Kurulumu _____
Boru Çapı _____
Tasarım Müdürü _____
Spesifikasyon _____

UYUMU İSTENEN SİSTEM

inoxPRES	<input type="checkbox"/>	steelPRES	<input type="checkbox"/>	inoxPRES GAZ	<input type="checkbox"/>	aesPRES	<input type="checkbox"/>
Boru AISI 316L	<input type="checkbox"/>	Gal./dahili siyah boru [316/005]	<input type="checkbox"/>	Tüp AISI 316L	<input type="checkbox"/>	Bakır boru	<input type="checkbox"/>
Boru AISI 444	<input type="checkbox"/>	Gal. Borusu/dahili gal. [316/002]	<input type="checkbox"/>	aesPRES GAZ	<input type="checkbox"/>	marinePRES	<input type="checkbox"/>
Boru AISI 304L	<input type="checkbox"/>	Gal./içten siyah boru + PP kaplama [316/003]	<input type="checkbox"/>	Bakır boru	<input type="checkbox"/>	Bakır-nikel boru	<input type="checkbox"/>

UYUMLULUĞU GÖZDEN GEÇİRİLMESİ GEREKEN ORTAM

Ekler	Teknik veri sayfası	<input type="checkbox"/>
	Güvenlik sayfası	<input type="checkbox"/>
	Kimyasal analiz	<input type="checkbox"/>
Sistemlerin işlenmesi [örn. temizlik, korozyon önleyici, folyo, vb.]		

SİSTEM

Açıklama/çalışma ortamı _____

İŞLETME KOŞULLARI

Sıcaklık	dak ____ °C	maks ____ °C
Basınç	dak ____ bar	maks ____ bar
PH	dak	maks
Orta oran	% dak	% maks

DIĞER MADDELER

Dersin türü	Açık	<input type="checkbox"/>	Kapalı	<input type="checkbox"/>
Kurulum	Kapalı alanların dışında	<input type="checkbox"/>	Kapalı alanların içinde	<input type="checkbox"/>

11.0 Basınç test protokolü

11.1 "Islak koşullarda" içme suyu sistemleri için basınç test protokolü

inoxPRES/aesPRES pres bağlantı sistemleri için

Proje/Yapı _____

Yüklenici/Temsilci _____

Müşteri/Temsilci _____

Malzemeler _____

İçme suyu sıcaklığı _____ °C Oda sıcaklığı _____ °C

EN 806-4, VDI6023 ve ZVSHK broşürüne göre basınç testlerinin yapılması, basınçlı hava, inert gaz veya su ile içme suyu tesisatlarının sızıntı testlerinin yapılması.

- ❑ Sistem filtrelenmiş ve havası alınmış su ile doldurulmalıdır
- ❑ Sadece pres sistemi kontrol edilecektir [Tanklar, valfler, vs ayrılmalıdır]

Sızıntı testi

- ❑ İlk dolumdan sonra en az 30 dakikalık bir bekleme süresi sıcaklık dengelemesi için gözlemlenecektir
- ❑ Sızıntı testi sırasında maksimum test basıncı **6 bardır**
- ❑ Sızıntı testi sırasında basınç düşüşü
- ❑ Basınç göstergesinin test doğruluğu **0,1 bardır**
- ❑ Düzgün bir uygulama için tüm boru bağlantılarının görsel kontrolü gerçekleştirilmiştir

Sistem basınç testi

- ❑ Test basıncı en az **12 bar**
- ❑ Seçilen test basınç _____ çubuğu
- ❑ Test saatinin başlangıcı _____ test süresi [45 dakika min.] _____ saat
- ❑ Basınç testi sırasında basınç düşüşü

Yorumlar

Uygun bir değerlendirme yapıldı!

Düzgün bir şekilde gerçekleştirilen bir test için her iki imza da gereklidir!

Yer _____

Tarih _____

Müşteri imzası

Yüklenici imzası

11.2 Sıcak su ısıtma sistemleri için basınç test protokolü

inoxPRES/SteelPRES/aesPRES pres bağlantı sistemleri için

Proje/Yapı _____

Yüklenici/Temsilci _____

Müşteri/Temsilci _____

Malzemeler _____

Orta içme suyu sıcaklığı _____ °C Oda sıcaklığı _____ °C

- Sistem DIN EN 12828'e göre filtrelenmiş ve havadan arındırılmış su ile doldurulmalıdır.
- Sadece pres sistemi kontrol edilecektir [Tanklar, valfler vs ayrılmalıdır].

Test basıncı

Güvenlik valfinin basıncına göre VOB bölüm C, DIN 18380 'e test basıncı

- Seçilen test basınç çubuğu _____
- Test saatinin başlangıcı _____ test süresi [45 dakika min.] _____ saat

Sızıntı testi

- İlk dolumdan sonra sıcaklık dengelemesi için en az 30 dakikalık bir bekleme süresi gözlemlenecektir
- Kaçak testi sırasında basınç düşüşü
- Basınç göstergesinin test doğruluğu **0,1 bar**
- Düzgün bir uygulama için tüm boru bağlantılarının görsel kontrolü gerçekleştirilmiştir

Yorumlar

Uygun bir değerlendirme yapıldı!

Düzgün bir şekilde gerçekleştirilen bir test için her iki imza da gereklidir!

Yer _____

Tarih _____

Müşteri imzası

Yüklenici imzası

11.3 Basınçlı hava ile içme suyu için basınç test protokolü

inoxPRES/aesPRES pres bağlantı sistemleri için

Proje/Yapı _____
Yüklenici/Temsilci _____
Müşteri/Temsilci _____
Malzemeler _____
Test sıvısı sıcaklığı _____
Test sıcaklığı _____ °C Oda sıcaklığı _____ °C

EN 806-4, VDI6023 ve ZVSHK broşürüne göre basınç testlerinin yapılması, basınçlı hava, inert gaz veya su ile içme suyu tesisatlarının kaçak testlerinin yapılması.

- ☑ Konteynerler, bağlantı parçaları veya basınçlı kaplar vb. hattan ayrılmalı, açıklıklar metal tapalarla kapatılmalıdır.
- ☑ Düzgün uygulama için tüm bağlantıların/sıkıştırılmaların görsel muayenesi gerçekleştirilmiştir.

Ön test/sızıntı testi

- ☑ Test basıncı **150 mbar**
- ☑ Min. **120 dakika** 100 litre boru hattı hacmine kadar test süresi
- ☑ Test süresi her ilave 100 litre için 20 dakika artırılmalıdır
- ☑ Litre cinsinden boru hattı hacmi _____ Dakika cinsinden test süresi _____
- ☑ Sıcaklık dengelemesi gerçekleştirildi, sadece test test süresi başladıktan sonra
- ☑ **Imbar/lhPa** basınç göstergesinin test doğruluğu
- ☑ Düzgün bir uygulama için tüm boru bağlantılarının görsel kontrolü
- ☑ Sızıntı testi sırasında/sonrasında basınç düşüşü tespit edilmedi

Sızıntı testi

- ☑ FNominal boyutlar için \leq DN50 maksimum 3 bar; Nominal boyutlar için $>$ DN50 maksimum
- ☑ Test süresi **10 dakika**
- ☑ Basınç göstergesinin test doğruluğu **100 mbar/100 hPa**
- ☑ Sıcaklık dengelemesi gerçekleştirildi, sadece test test süresi başladıktan sonra
- ☑ Seçilen test basınç çubuğu _____
- ☑ Testi başlat
- ☑ Düzgün bir uygulama için tüm boru bağlantılarının görsel kontrolü gerçekleştirilmiştir
- ☑ Sızıntı testinden sonra basınç düşüşü tespit edilmedi
- ☑ Sistem/boru hatları sıkı

Yorumlar:

Uygun bir değerlendirme yapıldı!

Düzgün bir şekilde gerçekleştirilen bir test için her iki imza da gereklidir!

Yer _____

Tarih _____

Müşteri imzası

Yüklenici imzası

12.0 Garanti

RM tarafından üretilen ve dağıtılan **inoxPRES**, **steelPRES**, **aesPRES** ve **marinePRES** pres bağlantı sistemleri garanti kapsamındadır.

Operasyonel koşullarla ilgili tüm detaylar için lütfen satış departmanımızla iletişime geçiniz.

Yetkililerimizin ve iş ortaklarımızın tüm referansları web sitemizde mevcuttur.
raccorderiemetalliche.com

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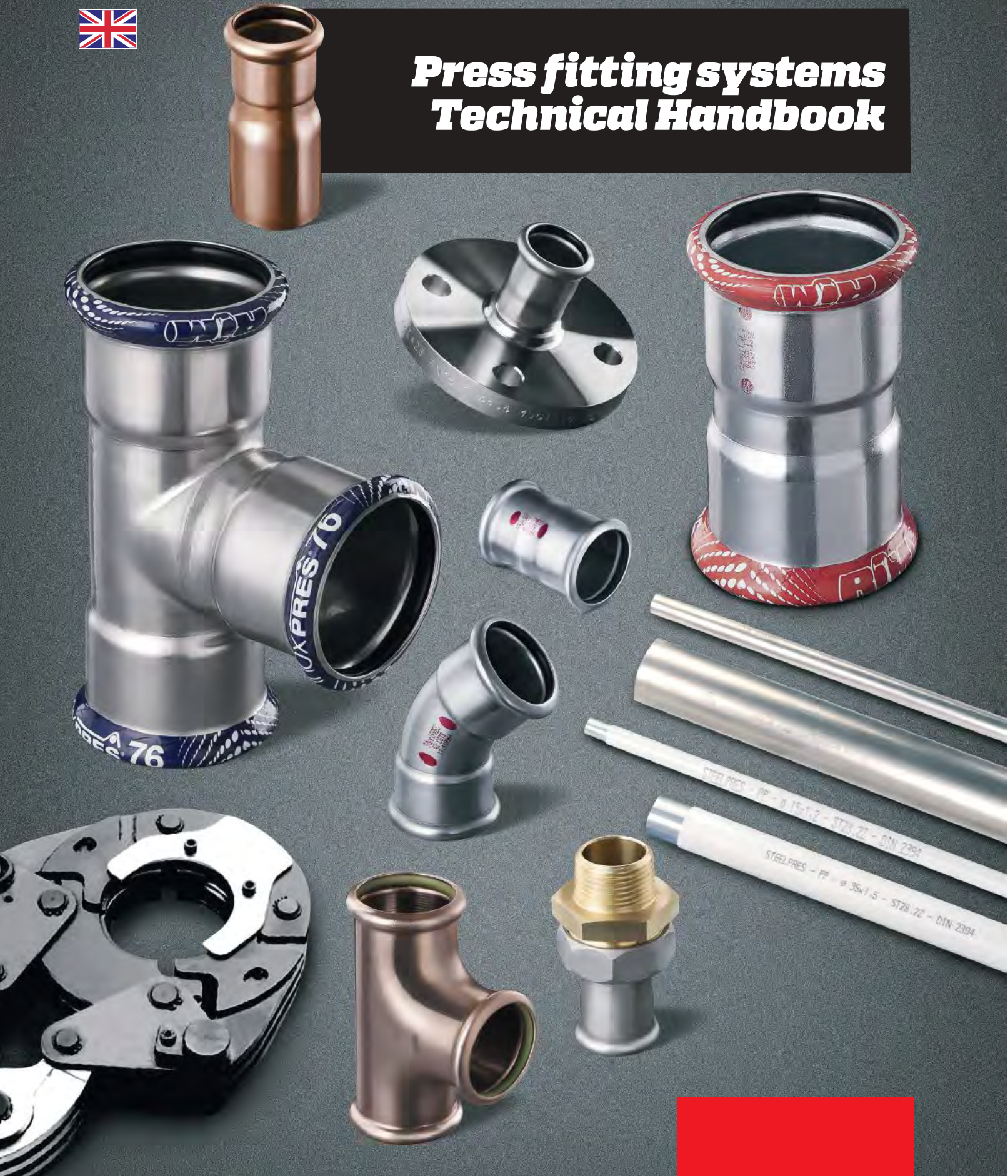


RACCORDERIE METALLICHE





Press fitting systems Technical Handbook



inoxPRES® inoxPRES® GAS steelPRES®
AES PRES® AES PRES® GAS MARINE PRES®

ROM
RACCORDERIE METALLICHE

	Ülke/ Bölge	Certification body	Dimensions		Country/ Region	Certification body	Dimensions		Country/ Region	Certification body	Dimen- sions	
inoxPRES			Ø 15-168,3 MM	inoxPRES GAS			Ø 15-108 MM	aesPRES GAS			Ø 15-54 MM	
			Ø 15-108 MM				Ø 15-108 MM					
			Ø 22-88,9 MM				Ø 15-54 MM					
			Ø 15-54 MM				Ø 15-54 MM					
			Ø 15-108 MM				Ø 15-54 MM					
			Ø 15-108 MM				Ø 15-54 MM					
			Ø 15-108 MM									
			Ø 15-108 MM	steelPRES			Ø 15-108 MM	marinePRES			Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 22-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM				Ø 15-108 MM				Ø 15-108 MM	
			Ø 15-108 MM									
			Ø 15-108 MM		aesPRES				Ø 15-54 MM			Ø 15-168,3 MM
			Ø 15-108 MM						Ø 15-54 MM			Ø 15-108 MM
			Ø 15-108 MM						Ø 15-54 MM			Ø 15-108 MM
			Ø 15-108 MM						Ø 12-54 MM			Ø 15-108 MM
			Ø 15-108 MM						Ø 15-54 MM			Ø 15-108 MM
			Ø 22-108 MM				Ø 15-54 MM					
			Ø 15-108 MM				Ø 12-54 MM					
			Ø 15-108 MM				Ø 15-108 MM					
			Ø 15-108 MM									
			Ø 15-168,3 MM									

This version of the technical handbook replaces all previous editions.

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1.0 Introduction

1.1 Raccorderie Metalliche S.p.A

Raccorderie Metalliche S.p.A. (RM) was founded as a family company in the Mantova province of Italy in 1970 and is specialised in the production and distribution of:

- > sockets;
- > carbon steel fittings;
- > stainless steel fittings;
- > plugs and accessories for radiators.

In 1999 the company introduced **inoxPRES**, the press fitting system in stainless steel, and later **steelPRES**, the carbon steel press fitting system.

In 2010 Raccorderie Metalliche extended the production of press fitting systems to copper (**aesPRES**) and copper-nickel materials (**marinePRES**)

Extensive investment in buildings and very modern machinery in operation ensure the current annual capacity of approximately 12 million press fittings. The specialist sanitary and heating stockist trade within Europe, together with selected non-European markets, are supplied within the framework of the three-stage distribution set-up; market support subsidiary companies exist in both Germany / France and Spain.

The company has a distinctive quality management system which has been certified in accordance with UNI EN ISO 9001:2015.

The suitability of the **inoxPRES**, **steelPRES**, **aesPRES** and **marinePRES** press fitting systems described in this handbook for the applications defined has been- as far as required- tested and certified by WRAS, the DVGW in Germany and a wide range of other international organisations.



Figure 1 - Campitello head office and factory



Figure 2 - EN ISO 9001:2015 RM Certification

1.2 Press fitting systems in water, heating and cooling installation

Press fittings made of steel and copper were developed in Sweden at the end of the fifties and have enjoyed an increasingly large share of the market since the beginning of the eighties, in Europe. The connection technique is still considered to be innovative, since the tried-and-trusted simple 'cold' mounting technique allows fast, solid and permanent connection of tubing, especially in domestic water, gas and heating installations. In the meantime, the connection technique in the form of press fittings has spread to include not only all types of metal, carbon steel, stainless steel, copper, red bronze, etc., also plastic and plastic composite tubing, and is in Europe the leading connection technique.

Raccorderie Metalliche S.p.A. (RM) has furtherly developed carbon steel, stainless steel and nowadays copper/copper-nickel press fitting range as well. Besides It has clearly simplified the system assembly through the modification of our o-ring shape and toroidal chamber. At the same time, the sealing surface has been enlarged and the risk of accidental non-pressing has been minimised by the creation of a security seal ring.

Product Range	Material	O-Ring	Diameters	Note
inoxPRES	STAINLESS STEEL AISI 316L (1.4404)	■ EPDM	∅ 15 ÷ 108 mm	--
inoxPRES GAS	STAINLESS STEEL AISI 316L (1.4404)	■ NBR - HNBR	∅ 15 ÷ 108 mm	--
inoxPRES HT FREE	STAINLESS STEEL AISI 316L (1.4404)	■ FKM	∅ 15 ÷ 54 mm	Silicone Free
inoxPRES STEAM	STAINLESS STEEL AISI 316L (1.4404)	□ STEAM	∅ 15 ÷ 54 mm	See the dedicated technical handbook
inoxPRES OVERSIZE	STAINLESS STEEL AISI 316L (1.4404)	■ EPDM	∅ 139,7 ÷ 168,3 mm	--
steelPRES	GALVANISED CARBON STEEL	■ EPDM	∅ 12 ÷ 108 mm	--
aesPRES	COPPER-BRONZE	■ EPDM	∅ 12 ÷ 54 mm	--
aesPRES GAS	COPPER-BRONZE	■ NBR	∅ 15 ÷ 54 mm	--
MARINE PRES	COPPER-NICKEL	■ FKM	∅ 15 ÷ 108 mm	--

Figure 3 - Product range

With the **inoxPRES** press fitting system of stainless steel for potable water and gas installations, **steelPRES** for closed hot water heating systems, **aesPRES** for potable water and gas installations, **marinePRES** for naval sector, RM offers a comprehensive shaped fitting series in the dimension range from 12 ÷ 168,3 mm OD, together with piping, pressing tools and accessories.

To simplify applications for the fitter, the pressing of the fittings has been so constructed that all the tools approved from the press fitting systems leading manufacturers, i.e. pressing tools and pressing jaws or collars, are also approved by RM. The planning and installation of potable water and heating systems demands comprehensive expert knowledge, together with knowledge of a multitude of industrial standards and technical guidelines. Of particular importance are DIN 1988 part 100-600, the VDI guideline 6023, DIN EN 806, DIN EN 1717, DIN EN 12329 and the amendment to the potable water legislation (TrinkwV) which came into effect on the 1st January 2003 as well as DVGW work sheets W 534 and GW 541. This technical handbook is intended to provide especially planners and fitters with essential information to help both size up the field of application and to carry out professional installation.

This handbook mostly refers to industrial standards and regulations which are valid in Germany. Of particular importance are DIN 1988 part 100-600, the VDI guideline 6023, DIN EN 806, DIN EN 1717, DIN EN 12329 and the amendment to the potable water legislation (TrinkwV) which came into effect on the 1st January 2003 as well as DVGW work sheets W 534 and GW 541.

For supplementary information, please contact the appropriate technical department at Raccorderie Metalliche S.p.A. Names, addresses and further details can be found at raccorderiemetalliche.com.

2.0 Press fitting systems

2.1 Connection technique - M profil

The press connection is made by inserting the pipe into the press fitting as far as the marked insertion depth. The connection is created by pressing, using an approved pressing tool (see point 2.13 Pressing tools).

Press fittings in dimensions $\varnothing 12 \div 35$ mm must be pressed with jaws, $\varnothing 42 \div 168,3$ mm must be pressed with pressing collars/chains.

The longitudinal and compression closing character of the connection is clearly illustrated in figures 4 and 5. During the pressing process a deformation takes place on two planes. The first plane creates a permanent connection and provides mechanical strength through the mechanical deformation of the press fitting and the pipe. On the second plane the seal ring is deformed in its cross section and through its elastic properties creates the permanently tight joint.

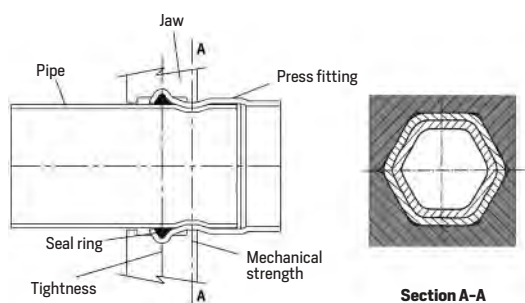


Figure 4 - Section through an **inoxPRES/steelPRES/aesPRES/marinePRES** connection with jaw still in position. Dimensions of $\varnothing 12 \div 35$ mm produce a hexagonal pressing profile.

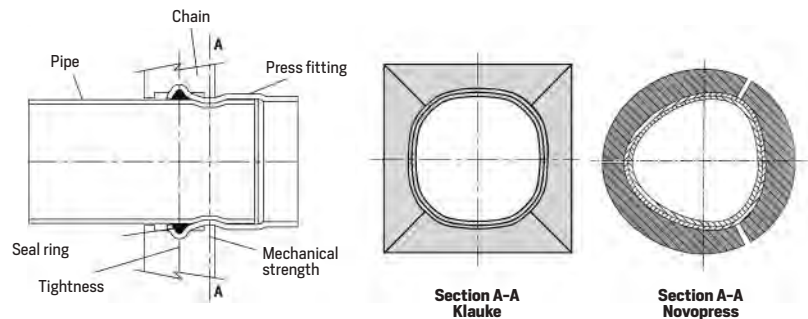


Figure 5 - Section through an **inoxPRES/steelPRES/aesPRES/marinePRES** connection with collar still in position. Dimensions of $\varnothing 42 \div 168,3$ mm produce a defined profile.

The complete range of the press fitting systems **inoxPRES**, **steelPRES**, **aesPRES** and **marinePRES** is described in the relevant "Product range" catalogue.

2.2 inoxPRES press fittings

inoxPRES press fittings are manufactured using high-alloyed austenitic stainless Cr-Ni-Mo steel with the material number AISI 316L (1.4404).

The press fittings are indelibly marked with laser reporting the manufacturer name, diameter, DVGW test symbol and internal code. The formed ends of the press fittings are fitted with a black EPDM seal ring as standard for potable water applications.



Figure 6 - **inoxPRES** press fitting

2.3 inoxPRES GAS press fittings

inoxPRES GAS press fittings are manufactured using high-alloyed austenitic stainless Cr-Ni-Mo steel with the material number AISI 316L (1.4404).

They differ from **inoxPRES** for potable water installations in that they have a factory-fitted yellow NBR/HNBR seal ring and are also indelibly marked **inoxPRES** in black and indelibly yellow marked with 'RM' and the pressure range 'PN 5 /GT 1'.

A mixed installation (components from different manufacturers) is not permitted if gas pipes are installed.

In Germany, for gas systems, compliance is to be provided to TRGI.



Figure 7 - inoxPRES GAS press fitting

Please verify the local laws/regulations regarding the use of **inoxPRES GAS** for gas applications in UK.

2.4 inoxPRES piping

inoxPRES pipes are available in different materials, with various approvals according to the various applications. The longitudinally welded pipes are thin-walled, manufactured according to DVGW worksheet GW 541, EN 10217-7 (DIN17455) and EN 10312.

The different types of piping materials are:

- austenitic high-alloy Cr-Ni-Mo steel in AISI 316L (1.4404) material, DVGW certified;
- "nickel-free" ferritic stainless steel of AISI 444 (1.4521) material, DVGW certified;
- high-alloy austenitic Cr-Ni steel of AISI 304L (1.4307) material, not DVGW certified.

The applications according to the different materials are:

- drinking water installations with DVGW certification, pipes made in AISI 316L (1.4404) or AISI 444 (1.4521) "nickel-free" material;
- gas system, material AISI 316L (1.4404);
- for applications where DVGW certification is not required, AISI 304L (1.4307) can also be used, such as in heating, cooling, compressed air, drinking water systems where DVGW certification is not required, etc.

Inner and outer surfaces are bare metal and free of annealing colours and corrosion-promoting substances.

inoxPRES pipes are classified as non-combustible pipes according to material class A; they are supplied in lengths of 6 meters or 3 meters depending on the material and are closed with plastic plugs/caps at the ends.

TABLE 1: INOXPRES PIPES - DIMENSIONS AND CHARACTERISTICS

Pipe outside diameter x wall thickness mm	Nominal width DN	Pipe inside diameter mm	Mass kg/m	Water volume l/m
15 x 1	12	13	0,351	0,133
18 x 1	15	16	0,426	0,201
22 x 1,2	20	19,6	0,625	0,302
28 x 1,2	25	25,6	0,805	0,514
35 x 1,5	32	32	1,258	0,804
42 x 1,5	40	39	1,521	1,194
54 x 1,5	50	51	1,972	2,042
76,1 x 2	65	72,1	3,711	4,080
88,9 x 2	80	84,9	4,352	5,660
108 x 2	100	104	5,308	8,490
139,7 x 2*	125	135,7	6,896	14,460
168,3 x 2*	150	164,3	8,328	21,200
139,7 x 2,6	125	134,5	8,926	14,208
168,3 x 2,6	150	163,1	10,788	20,893

* Not certified DVGW

2.5 steelPRES press fittings

steelPRES press fittings are made of unalloyed steel with material number E 195 (material n° 1.0034) up to 108 mm outer diameter. A galvanic zinc coating with a thickness of $6 \div 12 \mu\text{m}$ protects against external corrosion. Unlike the **inoxPRES** press fittings, **steelPRES** fittings are indelibly marked in red with the manufacturer name, diameter and internal code. The black EPDM sealing ring used for **inoxPRES** is also fitted into the formed ends of the press fittings.



Figure 8 - steelPRES press fitting

2.6 steelPRES piping

steelPRES pipes are longitudinally welded thin-walled precision steel tubes according to DIN EN 10305-3. The following materials are available:

- ▶ E 220 CR2S4 (material n° 1.0215) pipes galvanised on the outside, the zinc coating is $6 \div 12 \mu\text{m}$;
- ▶ E 190 CR2S4 (material n° 1.0031) pipes are sendzimir-galvanised on both sides; the zinc coating is $10 \div 20 \mu\text{m}$.

The weld seam is smoothed in order to ensure a proper sealing surface. **steelPRES** pipes with PP – coat 1 mm thick, available in diameters ranging from 12 mm to 108 mm outer diameter (material E 220 CR2S4 – n° 1.0215), are classified in accordance with DIN 4102-1 building material class B2 – non-burning droplets.



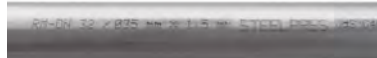
steelPRES tube with PP-coating: maximum operating temperature of 120 °C.

steelPRES pipes are supplied in lengths of 6 meters.

TABLE 2: STEELPRES PIPES - DIMENSIONS AND CHARACTERISTICS

Pipe outside diameter x wall thickness mm	Nominal width DN	Pipe inside diameter mm	Mass kg/m	Water volume l/m	Pipe Outside diameter mm
without PP-coating				with PP coating	
12 x 1,2	10	9,6	0,320	0,072	14
15 x 1,2	12	12,6	0,408	0,125	17
18 x 1,2	15	15,6	0,497	0,191	20
22 x 1,5	20	19	0,824	0,284	24
28 x 1,5	25	25	1,052	0,491	30
35 x 1,5	32	32	1,320	0,804	37
42 x 1,5	40	39	1,620	1,194	44
54 x 1,5	50	51	2,098	2,042	56
76,1 x 2	65	72,1	3,652	4,080	78,1
88,9 x 2	80	84,9	4,290	5,660	90,9
108 x 2	100	104	5,230	8,490	110

TABLE 3: CHOICE OF STEELPRES - TUBES

316/005 galvanised on the outside, black inside	316/003 galvanised on the outside, black inside + PP - coating	316/002 galvanised inside/outside
Dimensions: \varnothing 12 ÷ 108 mm	Dimensions: \varnothing 12 ÷ 108 mm	Dimensions: \varnothing 22 ÷ 108 mm
		
Heating - Solar Compressed air - Inert gases	Heating Cooling	Compressed air Inert gases

2.7 aesPRES press fittings

aesPRES press fittings are made in DHP Cu-DHP 99.9 (CW024A) copper and in CuSn5Zn5Pb2 (CC499K) bronze from \varnothing 12 to \varnothing 54 mm included. **aesPRES** fittings are indelibly marked with a laser system with the manufacturer name, the diameter and the DVGW control brand and with an internal code. At the press fitting swollen ends, a black EPDM o-ring is fitted.

In Great Britain the aesPRES system is certified with the WRAS quality brand from \varnothing 15 ÷ 54 mm.



Figure 9 - aesPRES press fitting

2.8 aesPRES GAS press fittings

aesPRES GAS press fittings are made in DHP Cu-DHP 99.9 (CW024A) copper and in CuSn5Zn5Pb2 (CC499K) bronze. They are different from da **aesPRES** (drinkable water system version) for the following features:

- NBR yellow o-ring, fitted at the end of production;
- the yellow indelible marking with RM Gas and pressure field PN 5/GT1, next to the **aesPRES** brand.

A mixed installation (components from different manufacturers) is not permitted if gas pipes are installed.

In Germany, for gas systems, compliance is to be provided to TRGI.



Figure 10 - aesPRES GAS press fitting

Please verify the local laws/regulations regarding the use of **aesPRES GAS** for gas applications in UK.

2.9 aesPRES - aesPRES GAS copper piping

Piping for copper water and gas installation should comply with the standard EN 1057:2010, "Copper and copper alloys - Round tubes in copper without welding for water and gas in health-care and heating applications".

TABLE 4: MECHANICAL FEATURES FOR COPPER TUBES - EN 1057

Resistance class	Delivery condition	Ø (mm)
R220	Annealed - Rolls	12 ÷ 22
R250	Semi-hard - Bars	12 ÷ 28
R290	Hard - Bars	12 ÷ 54
Resistance class	Minimum traction resistance Rm (MPa)	Minimum elongation at fracture (%)
R220	220	40
R250	250	20
R290	290	3

Tube sizes to be used with **aesPRES** and **aesPRES GAS** press fittings are included in the annexed table.

TABLE 5: AESPRES PIPES - DIMENSIONS AND CHARACTERISTICS - EN 1057 / DVGW GW 392

Pipe outside diameter x wall thickness mm	Nominal width DN	Pipe inside diameter mm	Mass kg/m	Water volume l/m	Supplied condition
12 x 1	10	10	0,309	0,079	Rotolo 25/50 m (R 220)
15 x 1	12	13	0,393	0,133	o
18 x 1	15	16	0,477	0,201	Barra 5 m (R 250 - R 290)
22 x 1	20	20	0,589	0,314	
28 x 1,5	25	25	1,115	0,491	Barra 5 m (R 250 - R 290)
35 x 1,5	32	32	1,410	0,804	
42 x 1,5	40	39	1,704	1,194	Barra 5 m (R 290)
54 x 2	50	50	2,918	1,963	

2.10 marinePRES press fittings

marinePRES press fitting are made in CuNi10Fe1.6Mn (WL 2.1972) copper-nickel from \varnothing 15 to \varnothing 108 mm included. **marinePRES** fittings are indelibly marked with a laser system with the manufacturer name, the diameter and with an internal code. At the press fitting swollen ends a green FKM o-ring is fitted.



Figure 11 - marinePRES press fitting

2.11 marinePRES piping

marinePRES piping, with thin seamless walls, are in CuNi10Fe1.6Mn copper-nickel. Tubes in copper-nickel are made in compliance with the standard DIN 86019. Inner and outer surfaces are bare metal and free of annealing colours and corrosion-promoting substances. **marinePRES** tubes are classified as non combustible, belonging to class A as fire reaction. They are supplied in 6 m long bars.

TABLE 6: MARINEPRES PIPES - DIMENSIONS AND CHARACTERISTICS

Pipe outside diameter x wall thickness mm	Nominal width DN	Pipe inside diameter mm	Mass kg/m	Water volume l/m
15 x 1	12	13	0,392	0,133
18 x 1	15	16	0,476	0,201
22 x 1	20	20	0,588	0,314
28 x 1,5	25	25	1,114	0,491
35 x 1,5	32	32	1,408	0,804
42 x 1,5	40	39	1,702	1,195
54 x 1,5	50	51	2,206	2,042
76,1 x 2	65	72,1	4,146	4,080
88,9 x 2	80	84,9	4,874	5,660
108 x 2,5	100	103	7,389	8,332

2.12 Sealing elements

2.12.1 Sealing ring profile

Traditional press fitting systems use round sealing rings, which can easily be damaged by careless fitting. RM on the other hand uses a patented sealing ring with a lenticular profile which fits the press crimp groove. This provides the following advantages:

- a 20% enlargement of the sealing surface area;
- major reduction of the risk of the sealing ring being pressed out or damaged;
- fit makes the pipes insertion easier.

The black EPDM sealing ring from $\varnothing 15 \div 54$ mm is supplied with an additional safety feature that during pressure tests will lead to leakage in the case of accidentally unpressed connections.

- Tightness / pressure tests are to be carried out before the pipes are covered (e.g. for insulation purposes);
- Tests are to be carried out in accordance with DVGW worksheet W534 and the ZVSHK data sheet "Tightness Tests for drinking water installations with compressed air, inert gas or water";
- When conducting pressure tests with air, follow the technical rules for gas installations "DVGW-TRGI";
- The correct assembly of the press-fit connections is the responsibility of the installer / company. Un-pressed-untight is to be understood as an additional help in order to identify an assembly error – in this case, the non-pressing of fittings. A precondition for that is the proper implementation of the prescribed tightness and pressure tests; it does not absolve the installer from his obligation to carry out visual and noise controls to make sure that the assembly has been done properly.

These visual and noise controls are to be duly recorded on the respective test certificate.

2.12.2 Materials, characteristics, applications

Press fitting systems were originally developed for use in potable water and heating installations and were fitted with a single standardised sealing ring for these applications.

Additional fields of application, such as gas, solar and steam, have been added through the use of stainless steel material, at the same time motivating the development of sealing rings suitable for these applications. RM supplies four different sealing rings; their characteristics and fields of application are shown in table 7.

The black EPDM standard sealing ring only is factory-fitted in the siliconised version in **inoxPRES**, **steelPRES** and **aesPRES** press fittings. The green FKM sealing ring only is factory-fitted in:

- **marinePRES** press fittings;
- **inoxPRES HT** press fittings Silicone Free.

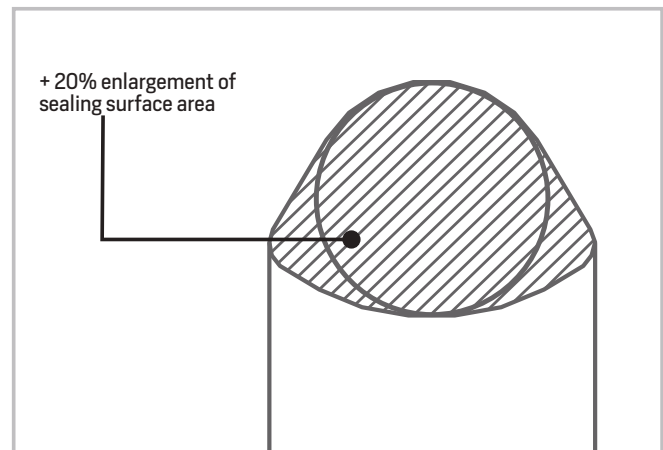







Figure 12 – Sealing ring profile



Figure 13 – Security EPDM sealing ring ($\varnothing 15 \div 54$ mm).

TABLE 7: SEALING RINGS - FIELDS OF APPLICATION AND TECHNICAL DATA

Technical term	Colour	Operating temperature Min / Max degrees centigrade	Operating pressure maximum in bar	Approvals and certification basis	Fields of application	Factory- fitted
EPDM	black 	-20* / +120 °C	16	KTW W 270 DVGW W 534	Potable water Heating Cooling and refrigeration circuits Treated water Desalinated water Rainwater Compressed air (Classe 1÷4)	YES
NBR HNBR	yellow 	-20 / +70 °C	5	G 260HTB DVGW G 5614	Natural gas Methane gas GPL (gaseous state)	YES
FKM**	green 	-20 / +220 °C	16	-	Solar Compressed air (Class 5) Naval	YES (for marinePRES and inoxPRES HT)
MVQ	red 	-20 / +180 °C	16	-	Industrial applications following approval by RM	NO
STEAM***	white 	-20 / +165 °C	7 bara (6 barg)	-	Saturated steam Max. P= 7 bara (6 barg) Max. T= 165 °C	YES (inoxPRES STEAM)

[*] Up to -30°C for occasional / non-continuous work periods

[**] *Silicone free* only if sold with the **inoxPRES HT** Silicone Free system

[***] Not available individually

With the exception of potable water, heating, solar, compressed air and gas, the figures in the table above are only for guidance; examination and approval by RM of each individual situation is therefore required.

2.13 Pressing tools

2.13.1 Basics

Pressing tools basically consist of the pressing machine (= drive machine) and pressing jaws or collars/chains. Many of the pressing jaws/collars can generally be used with the pressing machines from one manufacturer. Additionally, many manufacturers of pressing tools have so standardised the jaw attachment that pressing jaws from other manufacturers can also be used. The pressing tools must be checked by an officially authorized repairer according to the manufacturer specifications (normally once a year or after 10.000 pressing cycles for standard pressing machine, after 1.500 pressing cycles for King size pressing machine).

Press fittings in dimensions $\varnothing 12 \div 35$ mm must be pressed with jaws, $\varnothing 42 \div 168,3$ mm must be pressed with pressing collars/chains.

Principally, all metallic press fitting systems have a pressing contour on the press fittings which matches the profile of the pressing jaws/collars. For this reason it is necessary to have the approval of the tooling by the manufacturer of the press fittings intended for use. In addition, it is important to follow exactly the maintenance and servicing instructions issued by the pressing tool manufacturer.

Press fitting installation temperature with electrical pressing tools: from -20°C up to $+40^{\circ}\text{C}$

Press fitting installation temperature with battery pressing tools: from -10°C up to $+40^{\circ}\text{C}$



Figura 14 - Klauke UAP332BT



Figura 15 - Klauke UAP100120BT



Figura 16 - Novopress AC0203 BT



Figura 17 - Novopress AC0403 BT

2.13.2 Approved pressing tools

RM approves the tools produced by Klauke and Novopress listed in the tables 8 and 9 below. These are pressing tools with the appropriate pressing jaws or collars/chains.

TABLE 8: MANUFACTURER KLAUKE

Type	Piston strength	Dimension range	Weight	Compatible with jaws from / Note	
MAPI - MAP2L	15 KN	12 ÷ 22 mm	~ 1,7 Kg	--	
MAP2L_19 MAP2119BT	19 KN	12 ÷ 35 mm	~ 1,7 Kg	MAP2L_19 is certified for Gas only up to ø 22 mm.	
UAP2 - UAP3L UAP332BT	32 KN	12 ÷ 54 mm	~ 3,5 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1	
UNP2	32 KN	12 ÷ 54 mm	~ 3,5 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1	
UAP4 - UAP4L UAP432BT	32 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 mm PN10	~ 4,3 Kg	Novopress EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1 12 ÷ 54 mm	
UAP100 - UAP100L UAP100120BT	120 KN	76,1 ÷ 108 mm	~ 12,7 Kg	--	
AH- P700LS	PKUAP3	32 KN	12 ÷ 54 mm	~ 12,3 Kg	Novopress
	PKUAP4	32 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 mm PN10	~ 12,6 Kg	EFP2 - EFP201 - AFP201 - EFP202 - AFP202 - ECO1 - ACO1 12 ÷ 54 mm
	PK100AHP	120 KN	76,1 ÷ 108 mm	~ 20,2 Kg	--
EHP2/SANB	0,75 KW	76,1 ÷ 108 mm	~ 69 Kg	--	

With regard to the Klauke pressing tool UAP4 / UAP4L / UAP432BT, the limitation on PN 10 is to be observed for the kingsize dimensions 76,1 ÷ 108 mm outer diameter. **inoxPRES GAS** fittings in sizes 76,1 ÷ 108 mm must be pressed with pressing collars/chains and UAP100 / UAP100L / UAP100120BT pressing machine only (others pressing machines are not approved).

TABLE 9: MANUFACTURER NOVOPRESS

Type	Piston strength	Dimension range	Weight	Compatible with jaws from / Note
ACO102 - ACO103	19 KN	12 ÷ 35 mm	~ 1,7 Kg	ACO102 - ACO103 are certified for Gas only up to ø 22 mm.
EFP2	32 KN	12 ÷ 54 mm	~ 6,1 Kg	EFP201 - AFP201 - ECO1 - ACO1
EFP201 - EFP202	32 KN	12 ÷ 54 mm	~ 4,4 Kg	EFP2 - ECO1 - ACO1
AFP201 - AFP202	32 KN	12 ÷ 54 mm	~ 4,3 Kg	EFP2 - ECO1 - ACO1
ECO202 - ACO202 ECO203 - ACO203/BT	32 KN	12 ÷ 54 mm	~ 3,3 Kg	ECO201 - ACO201 - ECO1 - ACO1
ACO202XL ACO203XL/BT	32 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 (*) mm PN10	~ 4,6 Kg	ECO202 - ACO202
ACO401 ACO403/BT	100 KN 120 KN	76,1 ÷ 168,3 mm	~ 13 kg	--
ACO3	36 KN	15 ÷ 54 mm 76,1 ÷ 108 mm PN10	~ 5,0 Kg	ECO3
ECO301	45 KN	12 ÷ 54 mm PN16 76,1 ÷ 108 (*) mm PN10	~ 5,0 Kg	ACO3
HCP	190 KN	76,1 ÷ 108 mm	~ 70 Kg	--

(*) ø 108 - it must be pressed 2 times with the following adapters: ACO202 / 203XL: ZB221 -> 1° pressing ZB222 -> 2° pressing
ECO301: ZB323 -> 1° pressing ZB324 -> 2° pressing

With Novopress pressing tool ACO202XL / ACO203XL / ECO301, the limitation on PN 10 is to be observed for the king size dimensions 76,1 ÷ 108 mm outer diameter. **inoxPRES GAS** fittings in sizes 76,1 ÷ 108 mm must be pressed with pressing collars/chains and ACO401 / ACO403 / ACO403BT pressing machine only (others pressing machines are not approved).

VdS APPROVED PRESSING TOOLS

The list of certified pressing tools for VdS system, is indicated on the VdS certificate N° G4060006.

2.13.3 Periodical equipment service

Jaw and chain pressing units are to be serviced for a correct joint production. The pressing tools must be checked by an officially authorized repairer according to the manufacturer specifications (normally once a year or after 10.000 pressing cycles for standard pressing machine, after 1.500 pressing cycles for King size pressing machine). What is more any moving part (drive rolls) and pressing jaw and chain surfaces (internal profiles) are to be daily serviced, cleaned and lubricated.

Any possible oxidation, paint or dirt in generally affect the tool reliability leading to equipment sliding problems on joints during pressing.

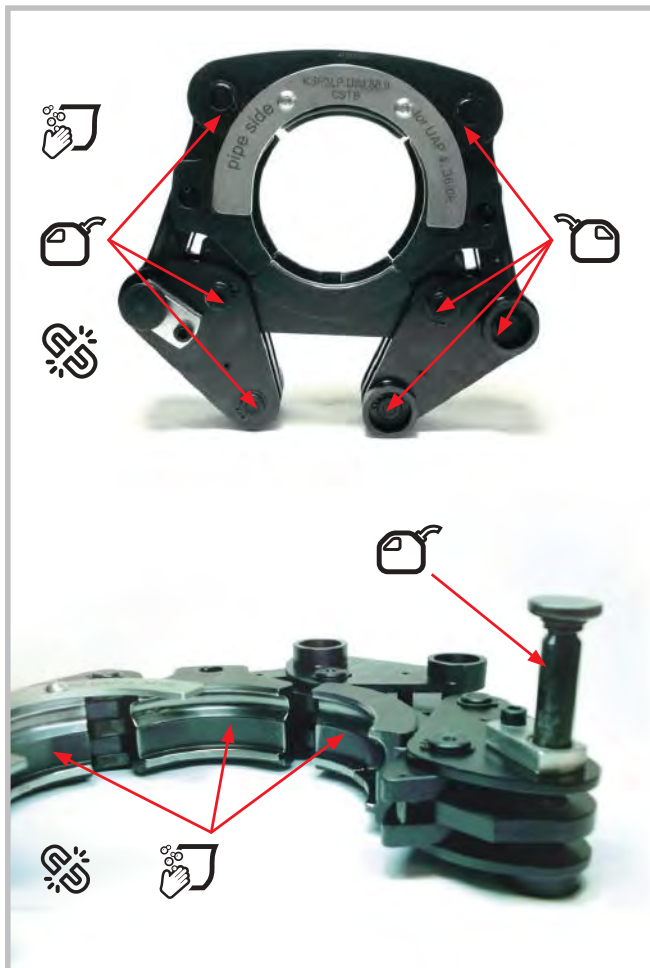


Figure 18 - Klauke equipment



Figure 19 - Novopress equipment



Keep the chain clean



Keep the pins lubricated with oil



Attention it can be broken

3.0 Areas of use

TABLE 10a: FIELD OF APPLICATION FOR PRESS FITTING SYSTEMS INOXPRES / STEELPRES / AESPRES

Application	System	O-ring	Notes	PN max. (bar)	T °C
Drinking water	InoxPRES (pipe AISI 316L or Type 444)	EPDM black	-	16	0 / +120 °C
	aesPRES (copper pipe table 4-5)	EPDM black	-	16	0 / +120 °C
Heating	steelPRES (pipe 316/005)	EPDM black	Only use internally black pipes, galvanised on the outside.	16	0 / +120 °C
	InoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black	-	16	0 / +120 °C
	aesPRES (copper pipe table 4-5)	EPDM black	-	16	0 / +120 °C
Extinguishing water ⁽¹⁾	InoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black	Dimensions $\varnothing 15 \div 108$ mm	16	Room temperature
	aesPRES (copper pipe table 4-5)	EPDM black	Dimensions $\varnothing 15 \div 54$ mm	16	Room temperature
Sprinkler system ⁽²⁾	InoxPRES (pipe AISI 316L ⁽³⁾ / 304L / 444)	EPDM black	Dimensions $\varnothing 22 \div 108$ mm ⁽³⁾	16	Room temperature
	aesPRES ⁽⁴⁾ (copper pipe table 4-5)	EPDM black	Dimensions $\varnothing 22 \div 54$ mm	16	Room temperature
Cooling	InoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black	-	16	-20 / +120 °C
	steelPRES (pipe 316/003)	EPDM black	Only use internally black pipes. Paying particularly attention to the external protection against corrosion by using a PP covered Pipe + primer (paint) / bandage.	16	-20 / +120 °C
	aesPRES (copper pipe table 4-5)	EPDM black	-	16	-20 / +120 °C
Solar	InoxPRES (pipe AISI 316L / 444 / 304L)	FKM green	-	6	-20 / +220 °C
	steelPRES (pipe 316/005)	FKM green	Only use internally black pipes. Paying particularly attention to the external protection against corrosion by using appropriate insulation-coating.	6	-20 / +220 °C
	aesPRES (copper pipe table 4-5)	FKM green	-	6	-20 / +220 °C
Methane gas Natural gas LPG (gaseous state)	InoxPRES GAS (tubo AISI 316L)	NBR / HNBR yellow	Dimensions: $\varnothing 15 \div 108$ mm	5	-20 / +70 °C
	aesPRES GAS (copper pipe table 4-5)	NBR yellow	Dimensions: $\varnothing 15 \div 54$ mm	5	-20 / +70 °C

⁽¹⁾ For joints till $\varnothing 54$ mm use press machines whose driving force accounts for ≥ 32 KN. For king size fittings ($\varnothing 76 \div 108$ mm), use press machines whose driving force accounts for ≥ 100 KN.

For each country, must be checked with local laws and regulations concerning the use of the press fitting in extinguishing systems and sprinkler installations.

⁽²⁾ For joints till $\varnothing 54$ mm use press machines whose driving force accounts for ≥ 32 KN. For king size fittings ($\varnothing 76 \div 108$ mm), use press machines whose driving force accounts for ≥ 100 KN.

⁽³⁾ Certified VdS PN12,5 $\varnothing 22$ up to 76,1 mm - PN16 $\varnothing 88,9$ mm material AISI 316L [1.4404] - wet and dry.

VdS certification and EN 12845 norm define the possible areas of application for sprinkler systems.

For each country, must be checked with local laws and regulations concerning the use of the press fitting in extinguishing systems and sprinkler installations.

⁽⁴⁾ Only for wet plant installation hazard classes LH, OH1, OH2 and OH3.

TABLE 10a: FIELD OF APPLICATION FOR PRESS FITTING SYSTEMS INOXPRES / STEELPRES / AESPRES

Application	System	O-ring	Notes	PN max (bar)	T °C
Compressed air	inoxPRES (pipe AISI 316L / 444 / 304L)	⁽⁵⁾ EPDM black Class 1÷4 (residual oil < 5 mg/m ³) FKM green Class 5 (residual oil > 5 mg/m ³)	System not silicone-free (not suitable for varnishing systems)	16	Room temperature
	steelPRES	⁽⁵⁾ EPDM black Class 1÷4 (residual oil < 5 mg/m ³) FKM green Class 5 (residual oil > 5 mg/m ³)	System not silicone-free (not suitable for varnishing systems) for systems requiring clean air - without dust formation - the use of the inoxPRES system is recommended	16	Room temperature
	aesPRES (copper pipe table 4-5)	⁽⁵⁾ EPDM black Class 1÷4 (residual oil < 5 mg/m ³) FKM green Class 5 (residual oil > 5 mg/m ³)	System not silicone-free (not suitable for varnishing systems)	16	Room temperature

⁽⁵⁾ According to ISO 8573-1/2010 standard

Nitrogen in gaseous state	inoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
	steelPRES	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
	aesPRES (copper pipe table 4-5)	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
Argon in gaseous state	inoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
	steelPRES	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
	aesPRES (copper pipe table 4-5)	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
Dry carbon dioxide in gaseous state	inoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
	steelPRES	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
	aesPRES (copper pipe table 4-5)	EPDM black	Only for industrial use (medicine excluded)	16	Room temperature
Saturated Steam	inoxPRES (pipe AISI 316L / 304L)	FKM green	-	Max 2 bara Max 1 barg	Max 120 °C
	inoxPRES STEAM ⁽⁷⁾ (pipe AISI 316L / 304L)	STEAM white	-	Max 7 bara Max 6 barg	Max 165 °C

⁽⁷⁾ See the dedicated technical handbook

Vacuum	inoxPRES (pipe AISI 316L / 444 / 304L)	EPDM black FKM green	-	- 0,8 bar (up to a max. of -0,95/-0,98 bar)	Room temperature
	steelPRES	EPDM black FKM green	for systems requiring clean air - without dust formation - the use of the inoxPRES system is recommended	- 0,8 bar (up to a max. of -0,95/-0,98 bar)	Room temperature
	aesPRES (copper pipe table 4-5)	EPDM black FKM green	-	- 0,8 bar (up to a max. of -0,95/-0,98 bar)	Room temperature

The above mentioned information/compatibility does not exempt the planning manager of the responsibility to create a detailed implementation planning and a risk analysis in accordance with the provisions of Directive 2014/68/UE pressure systems.

**TABLE 10b: FIELD OF APPLICATION FOR PRESS FITTING SYSTEMS
INOXPRES \varnothing 139,7 - 168,3 mm**

Application	System	O-ring	Notes	PN max. (bar)	T °C
Drinking water	InoxPRES (pipe AISI 316L)	EPDM black	-	16	0 / +120 °C
Heating	InoxPRES (pipe AISI 316L)	EPDM black	-	16	0 / +120 °C
Extinguishing water	InoxPRES (pipe AISI 316L)	EPDM black	-	16	Room temperature
Cooling	InoxPRES (pipe AISI 316L)	EPDM black	-	16	-20 / +120 °C
Compressed air	InoxPRES (pipe AISI 316L)	⁽¹⁾ EPDM black Class 1÷4 (residual oil < 5 mg/m ³) FKM green Class 5 (residual oil > 5 mg/m ³)	System not silicone-free (not suitable for varnishing systems)	12,5*	Room temperature
⁽¹⁾ According to ISO 8573-1/2010 standard					
Vacuum	InoxPRES (pipe AISI 316L)	EPDM black	-	- 0,8 bar (up to a max of -0,95/-0,98 bar)	Room temperature
The above mentioned information/compatibility does not exempt the planning manager of the responsibility to create a detailed implementation planning and a risk analysis in accordance with the provisions of Directive 2014/68/UE pressure systems.					

*Safety factor = 2,5

3.1 Applications

3.1.1 Potable water, treated water, hydrant systems

The **inoxPRES** press fitting system is manufactured using high alloy austenitic Cr-Ni-Mo stainless steel with the material number AISI 316L (1.4404). Thanks to its high resistance to corrosion and suitability in terms of hygiene, **inoxPRES** can be used for all drinking water applications in accordance with German potable water legislation (TrinkwV). Since this material does not release any heavy metals into the water, the purity of the potable water remains unchanged by the **inoxPRES** press fitting system.

The **aesPRES** press fitting system is available in copper and bronze and it can be used for any drinkable water as it is bacterial-static, thus it inhibits the bacteria proliferation. Should copper tubes and joints used for hydro-sanitary systems, they should comply with limits imposed by the standard DIN 50930 Teil 6:

- pH $\geq 7,4$ or
- $7,0 \leq \text{pH} \leq 7,4$ e $\text{TOC} \leq 1,5 \text{ g/m}^3$

The TOC, Total Organic Carbon, is the concentration index of the total organic substances present in the water.

The black EPDM sealing ring fulfils the standards of the KTW recommendations and meets the standards in accordance with DVGW worksheet W 270.

inoxPRES and **aesPRES** with black EPDM sealing rings are suitable for use in the fields of:

- potable water in cold water, warm water and circulation piping;
- treated water, such as softened, decarbonated and desalinated water.
- fire hydrant systems (reference UNI 10779/2021).

The use of anticorrosion or antifreeze additives requires the approval of RM.

inoxPRES and **aesPRES** are not suitable for applications which require a higher degree of water purity than for the quality of potable water, such as for example for pharmaceutical water or purest types of water.



Figure 20 - inoxPRES- Drinkable water



Figure 21 - inoxPRES - Industry

3.1.2 Heating

The **inoxPRES**, **steelPRES** and **aesPRES** press fitting systems with black EPDM sealing rings is used for hot water heating systems in accordance with DIN 4751 which have a flow temperature up to max. 120 °C and maximum pressure PN16: closed and open versions (**inoxPRES** and **aesPRES**), closed version (**steelPRES**).

They are suitable for both on-wall and in-wall installation (with appropriate protections).

In case of floor radiator connections, it is necessary to provide for a consistent corrosion protection, with a joint sealing, made according to the highest standards. Otherwise it is possible to run the risk of washing water penetration hydrating the insulation and thus increasing the risk of corrosion.

The use of anticorrosion or antifreeze additives requires the approval of RM. For **steelPRES** press fitting system RM recommends the use of pipes only galvanised on the outside.

Further information on corrosion protection can be found on page 38, chapter 7.0.

3.1.3 Cooling and refrigeration circuits

inoxPRES, **steelPRES** and **aesPRES** with black EPDM sealing rings are suitable for use cooling and refrigeration circuits in closed and open versions (**inoxPRES** and **aesPRES**), in closed version (**steelPRES**) with operating temperatures between -20 / +120 °C.

The use of anti-corrosion or antifreeze additives requires the approval of RM (excluding glycols on page 25, table 12). For **steelPRES** press fitting system, RM recommends the use of pipes only galvanised on the outside with particular attention to the external protection of the plants in carbon steel (see chapter 4.8).

For corrosion protection and insulation follow the indications in the worksheet AGI Q151.

3.1.4 Compressed air and inert gas

The **inoxPRES**, **steelPRES** and **aesPRES** press fitting system are suitable for pneumatic lines and inert gases. For systems with a residual oil content of class 1 to 4 (according to ISO 8573-1/2010) the black EPDM sealing ring can be used. For systems with a residual oil content of class 5 (according to ISO 8573-1/2010) the green FKM sealing ring can be used. It is loosely supplied and the factory-loaded black EPDM sealing ring is to be replaced by the processor.

If the piping must be "silicone Free", the **inoxpres HT** system (oring FKM fitted in the factory) must be used.

To ensure optimal sealing of compressed air or vacuum lines, it is recommended to humidify the sealing ring with water prior to assembly. In case of necessity of clean air, in absence of dust, the use of **inoxPRES** system is recommended.

3.1.5 Natural Gas / LPG installation

The **inoxPRES GAS** and **aesPRES GAS** press fitting system are suitable for natural gas and LPG following the here below subscriptions:

- ▶ **inoxPRES GAS** ø 15 ÷ 108 mm OD with factory-fitted yellow NBR/HNBR sealing ring is approved for natural and liquid gases.
- ▶ **aesPRES GAS** ø 15 ÷ 54 mm OD with factory-fitted yellow NBR sealing ring is approved for natural and liquid gases.
- ▶ **inoxPRES GAS** and **aesPRES GAS** fittings in dimensions 42 and 54 mm must be pressed with pressing collars/chains; pressing with jaws is not permitted.

- ▶ fittings in sizes 76 ÷ 108 mm must be pressed with pressing collars/chains and UAP100 / UAP100L / UAP100120BT / ACO401 / ACO403 / ACO403BT pressing machine only (others pressing machines are not approved).

Please verify the local laws/regulations regarding the use of **inoxPRES GAS / aesPRES GAS** for gas applications in UK.

3.1.6 Solar, vacuum, steam, condensation

inoxPRES, **steelPRES** and **aesPRES** with green FKM sealing rings with increased temperature and oil resistance can be used in the following fields of application:

- ▶ solar piping, temperature range $-20 / +220$ °C.
The temperature range is only permitted for solar systems with water-glycol mixture.
- ▶ vacuum piping up to 200 mbar absolute ($-0,8$ bar relative, up to a maximum of $-0,95 / -0,98$ bar).

In order to achieve optimum sealing of compressed air and vacuum piping, it is recommended that the sealing ring be moistened using water before assembly.

Green FKM sealing rings are supplied loose and the fitter has to use them to replace the factory-fitted black EPDM sealing rings.

For **steelPRES** press fitting system RM recommends the use of pipes only galvanised on the outside.

inoxPRES with green FKM sealing rings can be used in the following fields of application:

- ▶ steam and condensation piping, temperature of maximum 120 °C at steam pressure of max. 2 absolute bar (1 relative bar).

For steam and condensate lines with temperatures up to 165 °C and a pressure up to 7 absolute bar (6 relative bar), **inoxPRES STEAM** fittings can be supplied with a white sealing ring factory-fitted.



Figure 22 - steelPRES - refrigeration (closed circuit)



Figure 23 - steelPRES - Pipe PP coated



Figure 24 - steelPRES- Press fittings

3.1.7 Industrial applications

Due to its higher temperature resistance, **inoxPRES** with red MVQ sealing rings is especially suitable for a multitude of media in industrial applications. An individual case approval from RM is required in this situation.

3.1.8 Shipbuilding

inoxPRES and **marinePRES** are certified for different applications in shipbuilding.

The black EPDM standard sealing ring only is factory-fitted in the siliconised version in **inoxPRES** press fitting.

The green FKM sealing ring only is factory-fitted in **marinePRES** press fitting.

Separate information is available if required.

3.1.9 Extinguishing systems, sprinkler installations

inoxPRES and **aesPRES** systems with black EPDM sealing ring can be used in extinguishing systems (reference norm UNI 10779/2021). In addition, the press fitting systems are suitable for wet and dry sprinkler installations (ref. EN 12845), with diameters from \varnothing 22 up to 108 mm, according to the below table.

TABLE 11: PRESS FITTING IN EXTINGUISHING SYSTEMS AND SPRINKLER INSTALLATIONS

APPLICATION	INOXPRES	AESPRES
Extinguishing systems	✓	✓
Sprinkler system (dry installation)	✓	✗
Sprinkler system (wet installation)	✓	✓

The press fitting systems used in extinguishing systems and sprinkler installations must be only in the configuration "above ground" (underground is excluded). With reference to EN 12845, copper can be used for wet sprinkler systems (no dry) with hazard classes LH, OH1, OH2 and OH3.

inoxPRES is certified to be used with sprinkler installations according to the VdS certification:

- ✦ \varnothing 22 ÷ 76,1 mm PN12,5 bar - \varnothing 88,9 mm PN16 - Material AISI 316L [1.4404] - **inoxPRES** with standard EPDM o-ring for dry and wet sprinkler installations.

VdS certification requires the use of press machines with driving force accounting for \geq 32 KN up to \varnothing 54 mm while for King Size fittings (\varnothing 76 ÷ 108 mm), only use press machines whose driving force accounts for \geq 100 KN [furthermore, the evidence in the VdS approval must be observed].

For each country, must be checked with local laws and regulations concerning the use of the press fitting in extinguishing systems and sprinkler installations.

3.1.10 Glycols for installation

The following table lists some glycols normally used for heating systems, cooling and solar systems. Should glycols be used, which are not listed in the table, please contact the technical office of Raccorderie Metalliche.

TABLE 12: CHEMICAL COMPATIBILITY OF GLYCOLS

GLICOLE	Manufacturer	Areas of use
GLYKOSOL N	Pro Kühlsole GmbH	Heating Cooling cycles
PEKASOL L	Pro Kühlsole GmbH	Heating Cooling cycles
PEKASOLar 50	Pro Kühlsole GmbH	Solar
PEKASOLar 100	Pro Kühlsole GmbH	Solar
PEKASOLar F	BMS Energy	Solar
TYFOCOR	Tyforop Chemie GmbH	Heating Cooling cycles
TYFOCOR L	Tyforop Chemie GmbH	Heating Cooling cycles Solar
TYFOCOR LS	Tyforop Chemie GmbH	Solar
CosmoSOL	Tyforop Chemie GmbH	Heating Cooling cycles Solar
Antifrogen N	Clariant	Heating Cooling cycles
Antifrogen L	Clariant	Heating Cooling cycles
Antifrogen SOL-HT	Clariant	Solar
DOWNCAL 100	DOW	Heating Cooling cycles
DOWNCAL 200	DOW	Heating Cooling cycles
SOLARLIQUID L	STAUB & CO. – SILBERMANN GmbH	Solar
STAUBCO® COOL N	STAUB & CO. – SILBERMANN GmbH	Heating Cooling cycles
STAUBCO® COOL L	STAUB & CO. – SILBERMANN GmbH	Heating Cooling cycles
Glysofor N	WITTIG Umweltchemie GmbH	Heating Cooling cycles
Glysofor L	WITTIG Umweltchemie GmbH	Heating Cooling cycles

NOTE: please follow the manufacturer's utilization notes, EPDM sealing o-ring with maximum 40% glycol and 60% water. For **steelPRES**, please only use internally black pipes.

4.0 Processing

4.1 Storage and transport

inoxPRES / steelPRES / aesPRES / marinePRES system components have to be protected against dirt and damage during transport and storage. The ends of the pipes are factory-fitted with plugs/caps to prevent dirt.

The pipes must be stored in a device with a protective coating or plastic alloy, so that they do not come in contact with other materials. Moreover, pipes as well as press fitting must be stored in a covered area protected against effects of humidity in order to prevent corrosion and/or oxidation of the surface to avoid (particularly in the area of the **steelPRES** press fitting systems).

4.2 Pipes - cutting to length, deburring, bending

The pipes should be cut to length using professional pipe cutters which are suitable for the material in use. Alternatively, fine-tooth hacksaws or suitable electric saws may be used. The cut has to be perpendicular to avoid negative impact on the mechanical resistance between fitting and pipe.

Only use suitable tools that are suitable for the material to be processed. Particular attention must be paid, for example, to the choice of the right saw blades or cutting wheels that are used.

The cutting and deburring tools must be clean, free from adherence or chips. After cutting / deburring, the cutting edges or pipe ends must be cleaned or freed from chips or impurities.

Not permitted are:

- tools which cause tarnishing during the cutting operation;
- oil-cooled saws;
- flame cutting or angle grinders.

To avoid damaging the sealing ring when inserting the pipe into the press fitting, the pipe must be carefully deburred, both inside and outside, following cutting to length. This can be carried out using manual deburring tools which are

suitable for the material in use, whilst for larger dimensions suitable electrical pipe deburring tools or files can be used. The pipes can be bent by means of conventional bending tools up to 22 mm outer diameter ($R \geq 3,5xD$).

Copper pipes according to EN 1057 can be bended with the following minimum bending radius:

DN 12 - R=45 mm	DN 15 - R=55 mm
DN 18 - R=70 mm	DN 22 - R=77 mm.



No tube hot bending allowed.



Figure 25 - Cutting the pipe to length



Figure 26 - Deburring the pipe

BENDING MACHINES		
DN	Radial bending Allowed	Axial bending Not Allowed
12 mm		
15 mm		
18 mm		
22 mm		

The instructions of use and operation of the bending machines have to be carefully observed.

4.3 Marking the insertion depth / stripping

Sufficient mechanical strength of the press fitting connection will only be achieved if the insertion depths shown in table 13 are adhered to. These insertion depths are valid for pipes or fittings with insertion ends (i.e. fittings without pressfit end) and must be marked using a suitable marking tool.

The marking of the insertion depth on the pipe must be visible directly next to the press fitting formed end following pressing. The distance of the marking on the pipe/

fitting from the press fitting formed end may not exceed 10% of the required insertion depth, since otherwise the mechanical stability of the connection cannot be guaranteed. In the case of **steelPRES** PP-coated pipes, the insertion depth is defined through the stripping of the plastic coating using a suitable stripping tool.

When stripping the PP-sheathed tubes, use suitable tools which do not damage the raw surface.

TABLE 13:
INSERTION DEPTH AND MINIMUM DISTANCES

Pipe outside diameter mm	A [*] mm	D mm	L mm
12	18	20	56
15	20	20	60
18	20	20	60
22	21	20	62
28	23	20	66
35	26	20	72
42	30	40	100
54	35	40	110
76,1	55	60	170
88,9	60	60	180
108	75	60	210
139,7	95	100	290
168,3	113	100	326

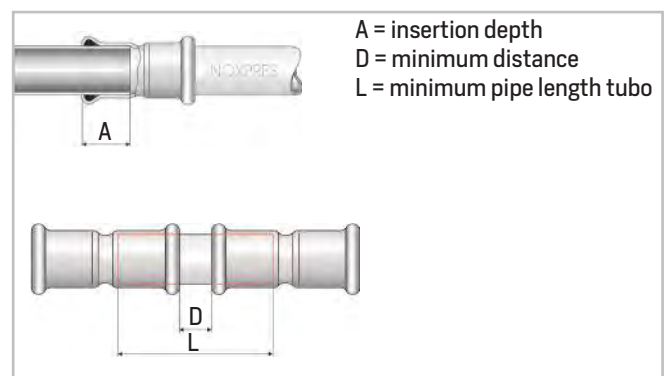


Figure 27 - Insertion depth and minimum dimensions

[*] Tolerance: ± 2 mm



Figure 28 - Marking the insertion depth



Figure 29 - Stripping (steelPRES PP coated)

4.4 Press fitting seal ring check

Before assembly the sealing ring must be checked to ensure that it is lying in the pressing groove correctly and that it is clean and undamaged.

If necessary, the sealing ring should be replaced.

Additionally, the fitter should check whether the ring in position is suitable for the special application, or whether another sealing ring needs fitting.



Figure 30 - Checking the sealing ring

4.5 Making the press connection \varnothing 12 - 108 mm

Using light pressure and making a turning movement at the same time, press the pipe into the press fitting up to the marked insertion depth. If the tolerances are so narrow that additional force is required to insert the pipe into the press fitting, then water or soapy water may be used as a lubricant.

Oil and grease are not permitted for use as lubricants.

Pressing is carried out using suitable electromechanical/ electrohydraulic pressing tools and dimension-matching pressing jaws or collars/chains. Tested and approved pressing tools or pressing jaws/collars/chains are listed under table 8 - 9, approved pressing tools.

The matching pressing jaw is mounted in the pressing machine, or the appropriate collar/chain mounted on the fitting, depending on the dimensions of the press fitting. The slot of the pressing jaw/collar must be positioned exactly over the press fitting formed end.

Following pressing, the complete connection should then be checked to ensure that the work has been carried out correctly and that the insertion depth is correct.

The fitter should also ensure that all connections have actually been pressed.

React immediately in the event of an unusual press pattern.

Completely pressed systems with faulty press patterns or profiles cannot be fully recognized as a complaint.



Figure 31 - Inserting pipe into the press fitting

Following completed pressing, the pressing points may not be subjected to further mechanical loading. The positioning and straightening of the pipes and the sealing of threaded connections must therefore take place before the pressing is carried out. Slight movement and lifting of pipes, for example for painting work, is permitted.



Figure 32 - Making the press connection



Figure 33 - Checking the press connection

4.6 The Oversize range \varnothing 139-168 mm

Unlike diameters up to 108 mm, the pressing phases of the Oversize 139,7 and 168,3 mm dimensions must be carried out in two distinct pressing phases.

1st PRESSING PHASE

- | | |
|---|---|
| <ul style="list-style-type: none"> a) Open the chain and place it around the fitting: the groove of the chain must be positioned exactly above the toroidal chamber of the fitting. b) Close the chain and press the lock button. | <ul style="list-style-type: none"> c) Rotate the latch inwards and engage the lock. d) Carry out pressing operation n° 1. e) Unhook and rotate the latch, open the chain and remove it from the fitting. |
|---|---|



Figure 34 - Press assembly phase 1

Chain groove above
the o-ring groove



2nd PRESSING PHASE

- | | |
|--|---|
| <ul style="list-style-type: none"> a) Position the chain around the pipe socket, aligning it with the appropriate guides above the containment groove of the o-ring. b) Close the chain and press the lock button. | <ul style="list-style-type: none"> c) Rotate the latch inwards and engage the lock. d) Carry out pressing operation n° 2. e) Unhook and rotate the latch, open the chain and remove it from the fitting. |
|--|---|



Figure 35 - Press assembly phase 2

After pressing, the connection must be checked to ensure that the work has been carried out correctly and that the insertion depth is correct.

The fitter must also ensure that all connections have been adequately pressed.

Once pressing has been complete, the connections must not be subjected to further mechanical loads.

The alignment of the pipeline and the fixing of the threaded connections must therefore be carried out before pressing. Slight movement and lifting of pipes, e.g. for painting work, is permitted.

Guides over the o-ring groove



Figure 36 - Visual inspection of oversize pressing

4.7 Equipment installations in Australia/New Zealand

Possibly tube and joint installations in Australia or New Zealand should comply with regulation AS/NZS 3500.1 and following amendments.

4.8 Protection of pipelines and connections from external corrosion - general

All pipes with hot or cold liquids must be protected externally by appropriate coatings so as to avoid any unwanted incidents, such as:

- > condensation;
- > condensation with external corrosion;
- > corrosion by external influences;
- > thermal dispersion.

Pipes and connections must be protected with varnish, plastic coatings, press-on tyres with adhesive tapes and thermal insulation (see Chapter 5.4 of the Manual).



Figure 37 - Varnish of the connections and pipes with primer.

To prevent external corrosion of **steelPRES** systems – especially where condensation water could increasingly occur (e.g. air conditioning and cooling units) – the following is recommended:

- use tubes with a propylene coating if tubes of non-alloy steel are used;
- proper protection of tubes/connections with the help of a coating with primer;
- proper protection of tubes/connections with the help of viscoelastic tape, consisting of butanol-mastic, supported by a film made of high-density polyethylene (entire thickness approx. 0,8 mm).

The butanol-adhesive tape (type RM code 850NS000000) has high tensile and high adhesive strength and is self-fluxing. It requires no adherent primer, lets surfaces perfectly repel water and insulates against atmospheric influences and free chemicals. The high tensibility provides the tapes with comprehensive applicability for all types of surfaces, even for irregular surfaces such as bends, T-piece, sleeves, etc.

For the application, it is sufficient that the surface is clean but not wet. The tape must be under pressure and cleaned depending on the situation. It extends over 700% compared to its original length, while the width at the end depends on the extension. It is recommended to overlap the tape with at least 10% of the tape width.

A coating protection with the help of tapes and/or varnish must always occur after a trial run of the system.

Important: the choice and the implementation of the type of protection against external corrosion is responsibility of the planner and installer.



Figure 38 – Protection of the connectors with butanol adhesive tape



Figure 39 – Protection against external corrosive materials:

- A. Pipe with PP-coating
- B. Varnish with primer
- C. Protection with butanol adhesive tape

4.9 Minimum distances and space requirement for pressing

To carry out pressing correctly, there must be a minimum distance between the pipe and the building, and from pipe to pipe, as shown in tables 14 and 15.

TABLE 14: MINIMUM DISTANCES AND SPACE REQUIREMENT 12 - 35 mm

Pipe \varnothing	Figure 40		Figure 41			Figure 42				Figure 43	
	A	D	A	D	D1	A	C	D	D1	D	E
12	56	30	75	30	35	85	155	30	35	40	60
15	56	30	75	30	35	85	155	30	35	40	60
18	60	30	75	30	40	85	165	30	40	40	60
22	75	40	80	40	40	85	165	40	40	40	61
28	82	40	90	40	45	90	180	40	45	40	63
35	85	40	90	40	45	90	180	40	45	40	66

TABLE 15: MINIMUM DISTANCES 42 - 168,3 mm

Pipe \varnothing	A	B	C
42	150	150	110
54	150	150	110
76,1	170	210	170
88,9	190	260	190
108	200	320	280
139,7	250	350	250
168,3	260	350	260

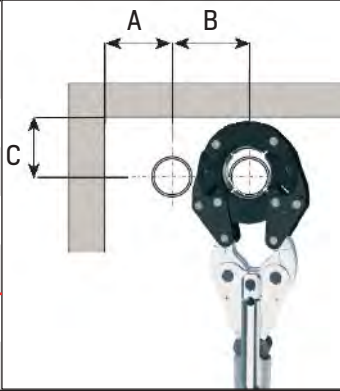


Figure 44 - Minimum distances for chains / collars

4.10 Thread or flange connections

Press fittings can be connected using normal trade threaded fittings in accordance with ISO 7-1 (thread standard DIN 2999) or ISO 228 (thread standard DIN 259) or with fittings made of stainless steel or non-ferrous metals. When sealing threaded connections, no sealant containing chloride (for example teflon tapes) may be used. The flanges available from the **inoxPRES** / **steelPRES** / **marinePRES** range can be connected to normal flanges at pressure stage PN 6 / 10 / 16. During installation, first the thread/flange connection must be completed, then the press connection.

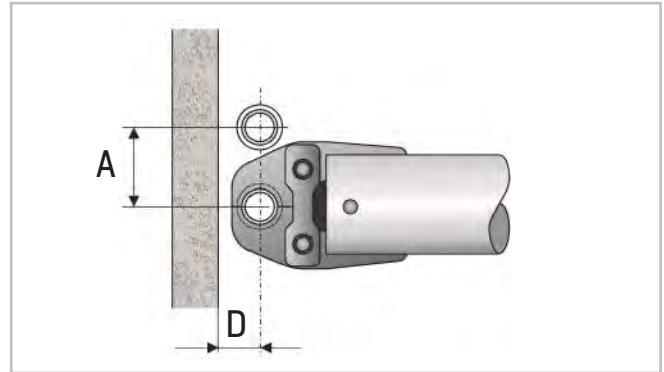


Figure 40 - Minimum distances and space requirements

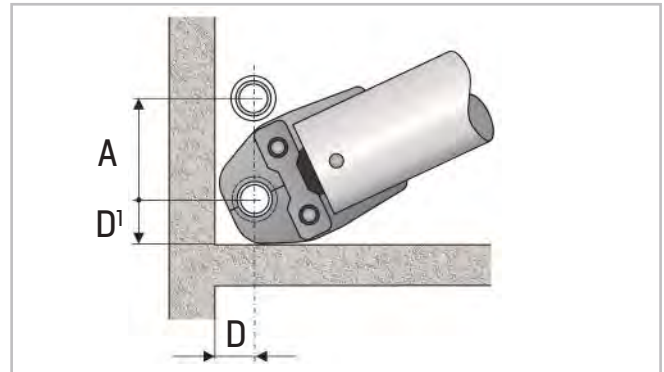


Figure 41 - Minimum distances and space requirements

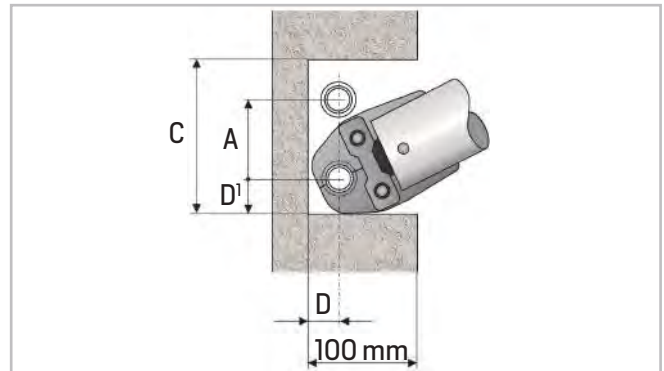


Figure 42 - Minimum distances and space requirements

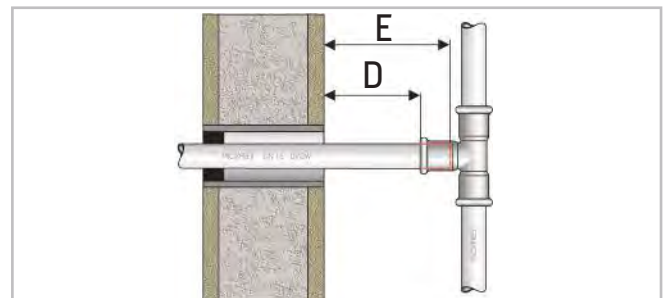


Figure 43 - Minimum distances and space requirements

IMPORTANT

For security reasons, the transition from Raccorderie Metalliche press fitting systems' to the multilayer pipe systems' should be realized through a threaded connection. All that, in order to avoid single cases of losses after pressing, caused by fittings' matching of different manufacturers and of different materials (brass / steel).

5.0 Planning

5.1 Pipe fixing, distances between clamps

Pipe supports serve to fix the pipe to the ceiling or wall and should take up changes in length which result from temperature variations. Through the setting of fixed and sliding points the length variations in the pipe are steered in the required direction.

Pipe supports may not be mounted on fittings. Sliding supports must be so positioned that they do not prevent the piping from moving.

For fixing and installing the pipes, please follow the UNI EN 806-4 standards and the supplementary national standard DIN 1988-200. Crucial are also the fluids and the temperature. For gas / sprinkler installations and firefighting waters, the dimensions mentioned in table 16 are not valid.

The maximum permitted support distances for **inoxPRES** / **steelPRES** / **aesPRES** / **marinePRES** pipes are shown in table 16.

TABLE 16: MAXIMUM PERMITTED DISTANCES BETWEEN SUPPORTS - EN 806-4

DN	Pipe outside diameter (mm)	Horizontal spacing in meters (recommended)	Vertical spacing in meters (recommended)
10	12	1,2	1,8
12	15	1,2	1,8
15	18	1,2	1,8
20	22	1,8	2,4
25	28	1,8	2,4
32	35	2,4	3,0
40	42	2,4	3,0
50	54	2,7	3,6
65	76,1	3,0	3,6
80	88,9	3,0	3,6
100	108	3,0	3,6
125	139,7	3,6	4,2
150	168,3	3,6	4,2

5.2 Expansion compensation

Metal materials expand in different ways under the influence of heat.

The longitudinal change under various temperature differences in the pipe is shown for **inoxPRES**, **steelPRES**, **aesPRES** and **marinePRES** in table 17. The longitudinal change can be compensated for through the correct setting of fixed and sliding points, the installation of compensators, s-bends, u-bends or expansion compensators and by the creation of sufficient expansion spaces. Typical installations are shown in figures 45 a - c.

TABLE 17: LENGTH VARIATIONS INOXPRES / STEELPRES / AESPRES / MARINEPRES

	L [m]	Δt [°K]									
		10	20	30	40	50	60	70	80	90	100
inoxPRES	3	0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0
	4	0,7	1,3	2,0	2,6	3,3	4,0	4,6	5,3	5,9	6,6
	5	0,8	1,7	2,5	3,3	4,1	5,0	5,8	6,6	7,4	8,3
	6	1,0	2,0	3,0	4,0	5,0	5,9	6,9	7,9	8,9	9,9
	7	1,2	2,3	3,5	4,6	5,8	6,9	8,1	9,2	10,4	11,6
	8	1,3	2,6	4,0	5,3	6,6	7,9	9,2	10,6	11,9	13,2
	9	1,5	3,0	4,5	5,9	7,4	8,9	10,4	11,9	13,4	14,9
	10	1,7	3,3	5,0	6,6	8,3	9,9	11,6	13,2	14,9	16,5
	12	2,0	4,0	5,9	7,9	9,9	11,9	13,9	15,8	17,8	19,8
	14	2,3	4,6	6,9	9,2	11,6	13,9	16,2	18,5	20,8	23,1
	16	2,6	5,3	7,9	10,6	13,2	15,8	18,5	21,1	23,8	26,4
	18	3,0	5,9	8,9	11,9	14,9	17,8	20,8	23,8	26,7	29,7
20	3,3	6,6	9,9	13,2	16,5	19,8	23,1	26,4	29,7	33,0	
steelPRES	3	0,4	0,7	1,1	1,4	1,8	2,2	2,5	2,9	3,2	3,6
	4	0,5	1,0	1,4	1,9	2,4	2,9	3,4	3,8	4,3	4,8
	5	0,6	1,2	1,8	2,4	3,0	3,6	4,2	4,8	5,4	6,0
	6	0,7	1,4	2,2	2,9	3,6	4,3	5,0	5,8	6,5	7,2
	7	0,8	1,7	2,5	3,4	4,2	5,0	5,9	6,7	7,6	8,4
	8	1,0	1,9	2,8	3,8	4,8	5,8	6,7	7,7	8,6	9,6
	9	1,1	2,2	3,2	4,3	5,4	6,5	7,6	8,6	9,7	10,8
	10	1,2	2,4	3,6	4,8	6,0	7,2	8,4	9,6	10,8	12,0
	12	1,4	2,9	4,3	5,8	7,2	8,4	10,1	11,5	13,0	14,4
	14	1,6	3,4	5,1	6,7	8,4	10,1	11,8	13,4	15,1	16,8
	16	1,9	3,8	5,7	7,7	9,6	11,5	13,4	15,4	17,3	19,2
	18	2,2	4,3	6,4	8,6	10,8	13,0	15,1	17,3	19,4	21,6
20	2,4	4,8	7,2	9,6	12,0	14,4	16,8	19,2	21,6	24,0	
aesPRES / marinePRES	3	0,5	1,0	1,5	2,0	2,6	3,1	3,6	4,1	4,6	5,1
	4	0,7	1,4	2,0	2,7	3,4	4,1	4,8	5,4	6,1	6,8
	5	0,9	1,7	2,6	3,4	4,3	5,1	6,0	6,8	7,7	8,5
	6	1,0	2,0	3,1	4,1	5,1	6,1	7,1	8,2	9,2	10,2
	7	1,2	2,4	3,6	4,8	6,0	7,1	8,3	9,5	10,7	11,9
	8	1,4	2,7	4,1	5,4	6,8	8,2	9,5	10,9	12,2	13,6
	9	1,5	3,1	4,6	6,1	7,7	9,2	10,7	12,2	13,8	15,3
	10	1,7	3,4	5,1	6,8	8,5	10,2	11,9	13,6	15,3	17,0
	12	2,0	4,1	6,1	8,2	10,2	12,2	14,3	16,3	18,4	20,4
	14	2,4	4,8	7,1	9,5	11,9	14,3	16,7	19,0	21,4	23,8
	16	2,7	5,4	8,2	10,9	13,6	16,3	19,0	21,8	24,5	27,2
	18	3,1	6,1	9,2	12,2	15,3	18,4	21,4	24,5	27,5	30,6
20	3,4	6,8	10,2	13,6	17,0	20,4	23,8	27,2	30,6	34,0	

Linear expansion in general

$$\Delta L = L \times \alpha \times \Delta t$$

ΔL = linear expansion in mm

L = pipe length in m

α = linear expansion coefficient

inoxPRES α = 0,0165 mm / (m x °K)

steelPRES α = 0,0120 mm / (m x °K)

aesPRES / marinePRES α = 0,017 mm / (m x °K)

Δt = temperature difference in °K

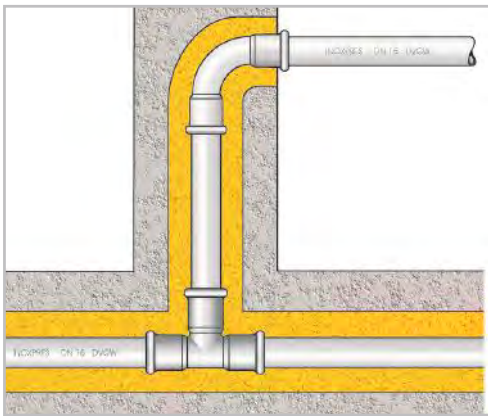


Figure 45a - Creation of expansion spaces

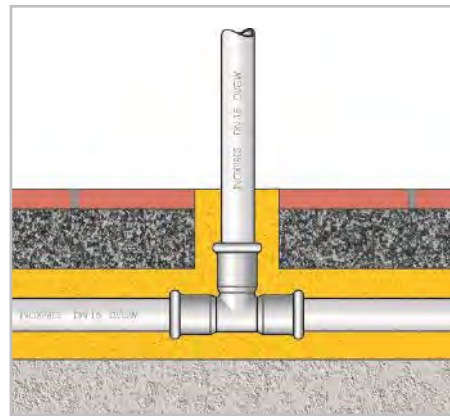


Figure 45b - Creation of expansion spaces

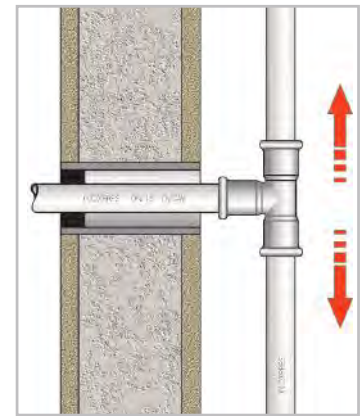


Figure 45c - Creation of expansion spaces

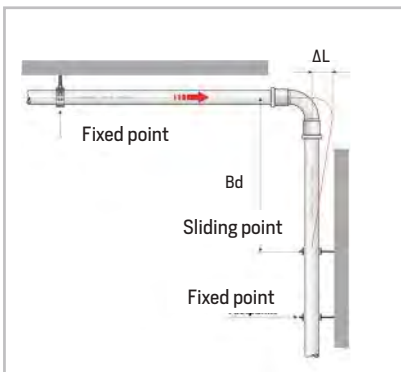


Figure 46 - Orthogonal-shaped expansion reach

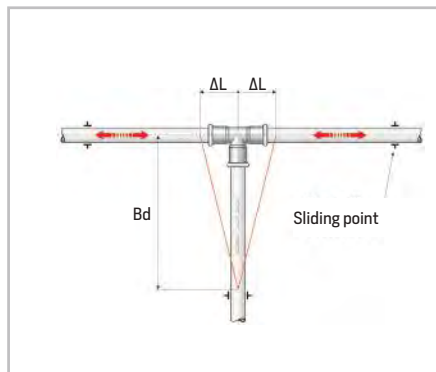


Figure 47 - Expansion compensation branch

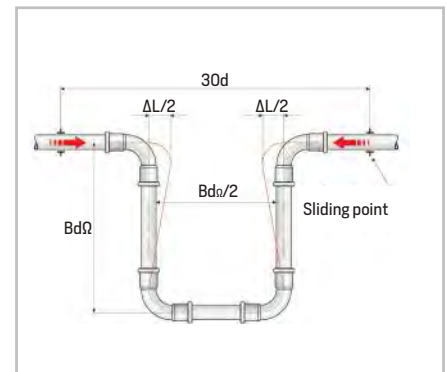


Figure 48- U-bend $Bd\Omega = Bd / 1,8$

**Calculation formula Orthogonal - bend and T - junction
(figure 46 e 47)**

$$Bd = k \times \sqrt{(da \times \Delta L)} \text{ [mm]}$$

k = constant material

inoxPRES = 60 for σ [sigma] 190 N/mm²

steelPRES = 57 for σ [sigma] 190 N/mm²

aesPRES = 51 for σ [sigma] 140 N/mm²

marinePRES = 63 for σ [sigma] 105 N/mm²

da = outer diameter pipe in mm

ΔL = linear expansion in mm

**Calculation formula U bend
(figure 48)**

$$Bd\Omega = k \times \sqrt{(da \times \Delta L)} \text{ [mm]} \text{ or } Bd\Omega = Bd / 1,8$$

k = constant material

inoxPRES = 34 for σ [sigma] 190 N/mm²

steelPRES = 32 for σ [sigma] 190 N/mm²

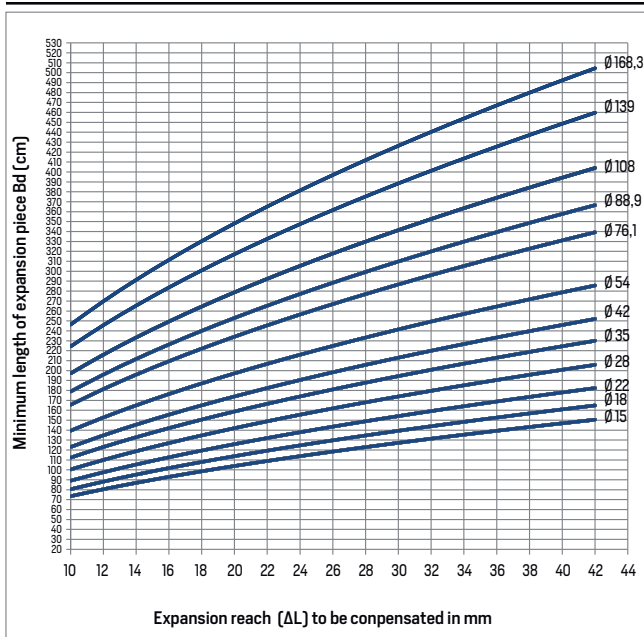
aesPRES = 28 for σ [sigma] 140 N/mm²

marinePRES = 35 for σ [sigma] 105 N/mm²

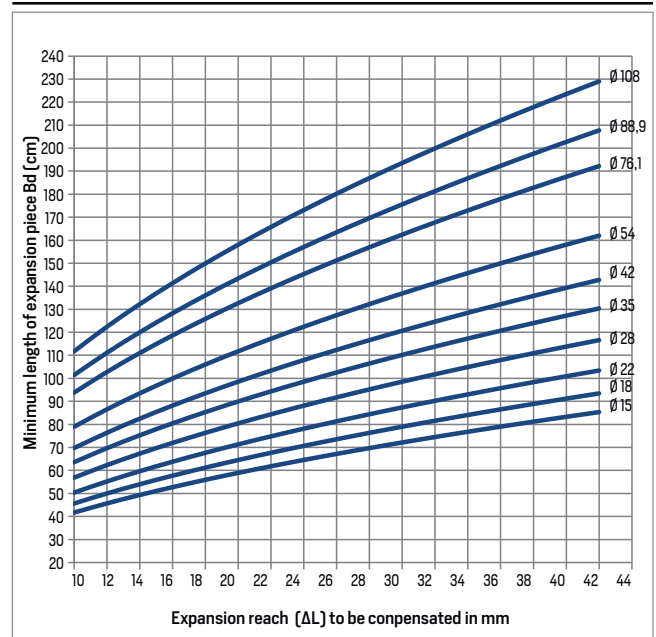
da = outer diameter pipe in mm

ΔL = linear expansion in mm

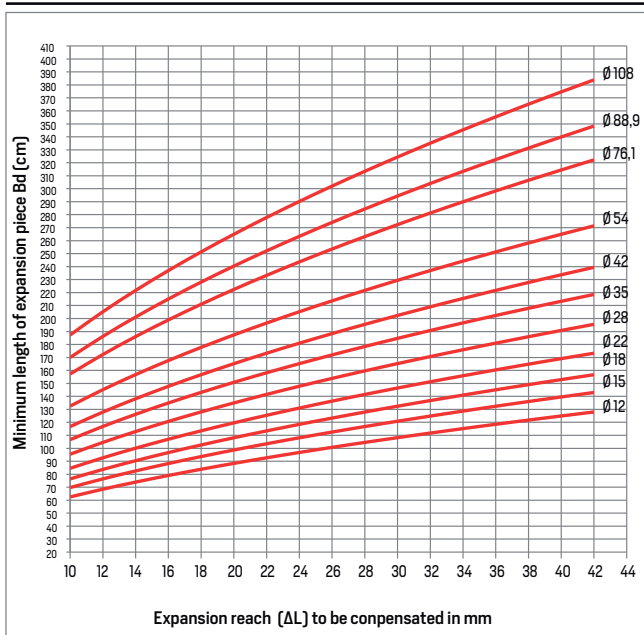
**TABLE 18a: CALCULATION OF THE EXPANSION REACH
 ϕ 15 ÷ 168,3 mm (Bd) INOXPRES**



**TABLE 18b: EXPANSION PIECE FOR U-BEND
 ϕ 15 ÷ 108 mm (BdΩ) INOXPRES**



**TABLE 19a: CALCULATION OF THE EXPANSION REACH
 ϕ 12 ÷ 108 mm (Bd) STEELPRES**



**TABLE 19b: EXPANSION PIECE FOR U-BEND
 ϕ 12 ÷ 108 mm (BdΩ) STEELPRES**

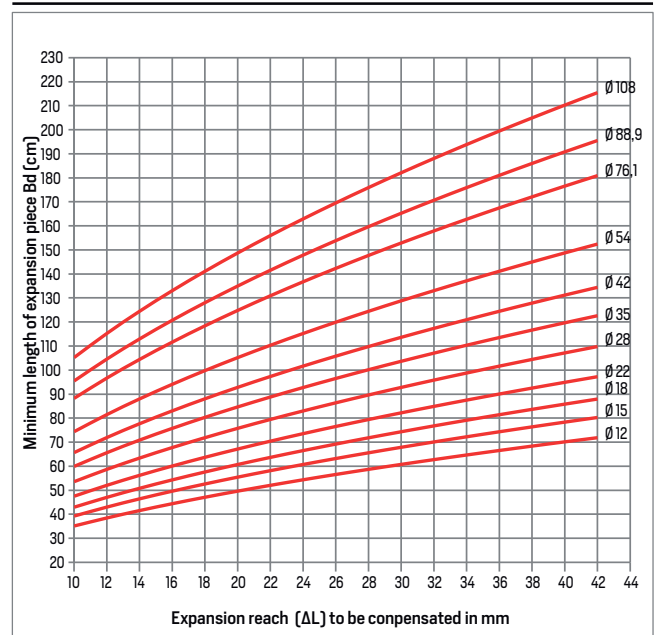


TABLE 20a: CALCULATION OF THE EXPANSION REACH
 $\varnothing 12 \div 54$ mm (Bd) AESPRES

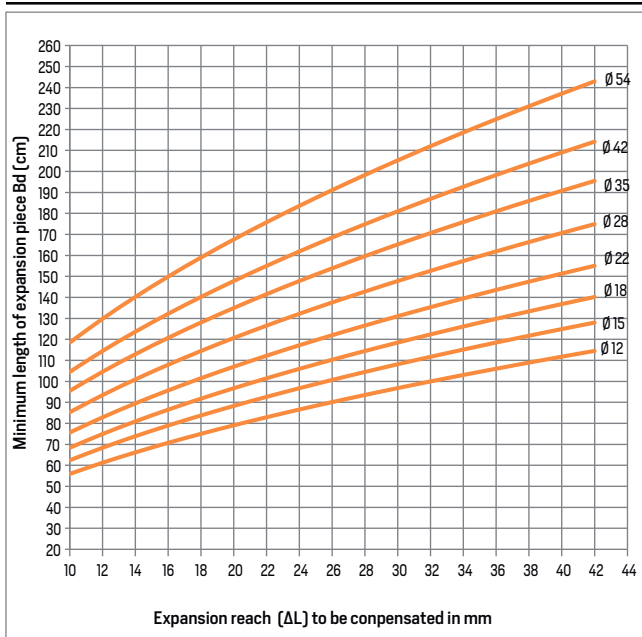


TABLE 20b: EXPANSION PIECE FOR U-BEND
 $\varnothing 12 \div 54$ mm (BdΩ) AESPRES

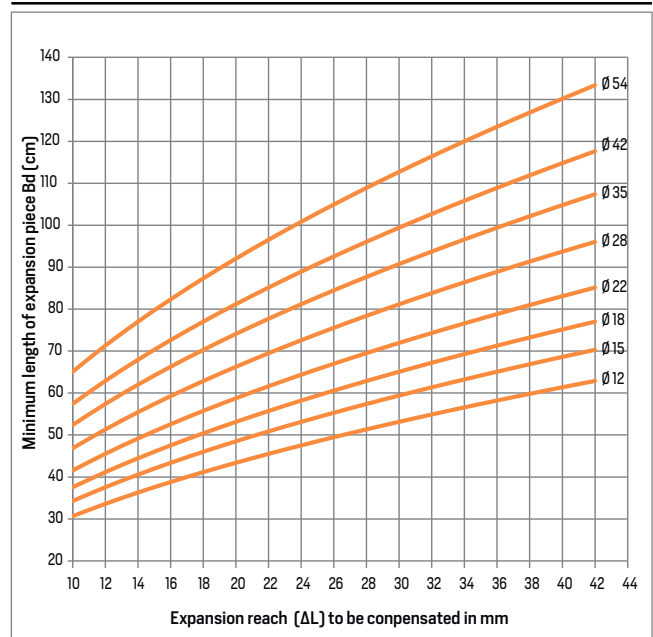


TABLE 21a: CALCULATION OF THE EXPANSION REACH
 $\varnothing 15 \div 108$ mm (Bd) MARINEPRES

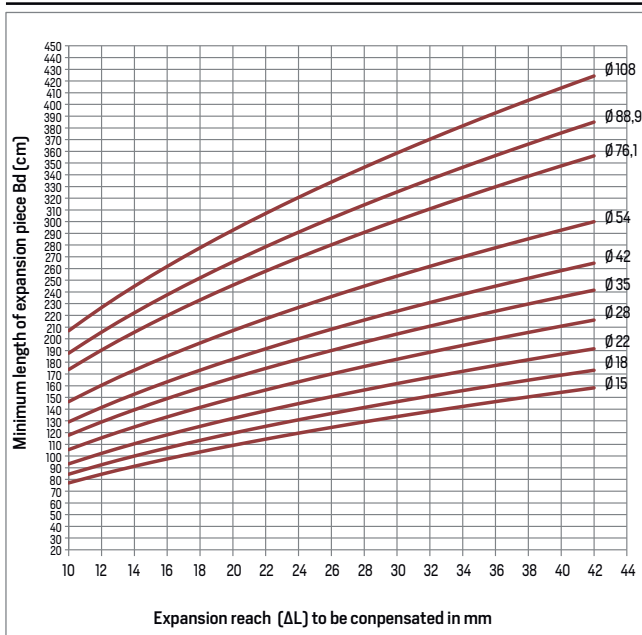
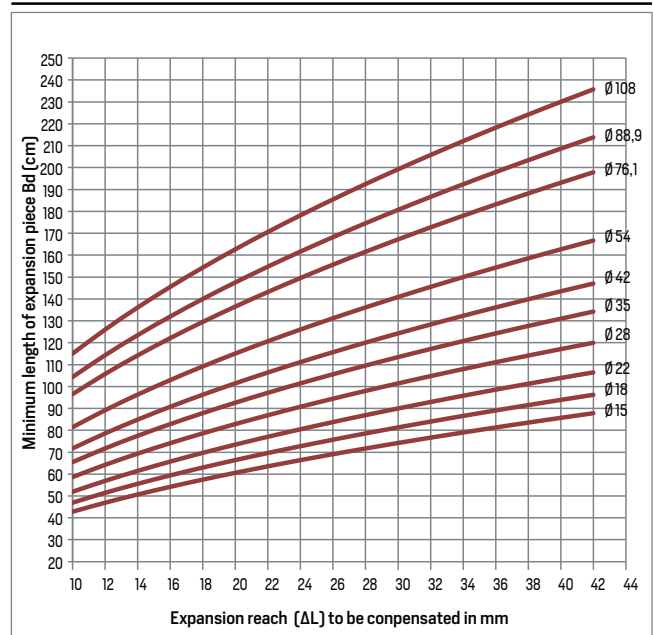


TABLE 21b: EXPANSION PIECE FOR U-BEND
 $\varnothing 15 \div 108$ mm (BdΩ) MARINEPRES



5.3 Thermal emission

Depending on temperature difference, warm piping releases heat into the environment.
The thermal emission from **inoxPRES** / **steelPRES** pipes can be seen in tables 22 and 23.

TABLE 22: THERMAL EMISSION FROM INOXPRES / STEELPRES PIPE (W/m) UNCOVERED

d x s (mm)		ΔT TEMPERATURE DIFFERENCE (°K)									
I	S	10	20	30	40	50	60	70	80	90	100
-	12 x 1,2	3,7	7,5	11,2	14,9	18,6	22,4	26,1	29,8	33,5	37,3
15 x 1	15 x 1,2	4,7	9,3	14,0	18,6	23,3	28,0	32,6	37,3	41,9	46,6
18 x 1	18 x 1,2	5,6	11,2	16,8	22,4	28,0	33,6	39,2	44,8	50,4	55,9
22 x 1,2	22 x 1,5	6,8	13,7	20,5	27,4	34,2	41,0	47,9	54,7	61,5	68,4
28 x 1,2	28 x 1,5	8,7	17,4	26,1	34,8	43,5	52,2	60,9	69,6	78,3	87,1
	35 x 1,5	10,9	21,8	32,7	43,5	54,4	65,3	76,2	87,1	98,0	108,8
	42 x 1,5	13,1	26,1	39,2	52,3	65,3	78,4	91,4	104,5	117,6	130,6
	54 x 1,5	16,8	33,6	50,4	67,2	84,0	100,8	117,6	134,4	151,2	168,0
	76,1 x 2	23,7	47,3	71,0	94,7	118,4	142,0	165,7	189,4	213,1	236,7
	88,9 x 2	27,7	55,3	83,0	110,6	138,3	165,9	193,6	221,2	248,9	276,6
	108 x 2	33,6	67,2	100,8	134,4	168,0	201,6	235,2	268,8	302,4	336,0
139,7 x 2 • 139,7 x 2,6		43,4	86,8	130,3	173,7	217,1	260,5	304,0	347,4	390,8	434,2
168,3 x 2 • 168,3 x 2,6		52,3	104,6	156,9	209,3	261,6	313,9	366,2	418,5	470,8	523,2

External inlet-coefficient $\alpha_e = 10 \text{ W}/(\text{m}^2 \times ^\circ\text{K})$

TABLE 23: THERMAL EMISSION FROM STEELPRES PIPE IN PP (W/m) COVERED

S dxs(mm)	ΔT TEMPERATURE DIFFERENCE (°K)									
	10	20	30	40	50	60	70	80	90	100
12 x 1,2	3,7	7,5	11,2	15,0	18,7	22,5	26,2	30,0	33,7	37,5
15 x 1,2	4,6	9,1	13,7	18,2	22,8	27,3	31,9	36,5	41,0	45,6
18 x 1,2	5,4	10,7	16,1	21,5	26,8	32,2	37,6	42,9	48,3	53,7
22 x 1,5	6,4	12,9	19,3	25,8	32,2	38,7	45,1	51,5	58,0	64,4
28 x 1,5	8,1	16,1	24,2	32,2	40,3	48,4	56,4	64,5	72,5	80,6
35 x 1,5	9,9	19,9	29,8	39,8	49,7	59,7	69,6	79,6	89,5	99,5
42 x 1,5	11,8	23,7	35,5	47,3	59,2	71,0	82,8	94,7	106,5	118,3
54 x 1,5	15,1	30,1	45,2	60,3	75,3	90,4	105,5	120,5	135,6	150,7
76,1 x 2	21,0	42,0	63,1	84,1	105,1	126,1	147,1	168,1	189,2	210,2
88,9 x 2	24,5	48,9	73,4	97,9	122,3	146,8	171,3	195,7	220,2	244,7
108 x 2	29,6	59,2	88,8	118,5	148,1	177,7	207,3	236,9	266,5	296,1

External inlet-coefficient $\alpha_e = 9 \text{ W}/(\text{m}^2 \times ^\circ\text{K})$

The thermal emission of **aesPRES** and **marinePRES** pipes are shown in the following table.

TABLE 24: THERMAL EMISSION FROM AESPRES AND MARINEPRES (W/m) UNCOVERED

A - M d x s (mm)	ΔT TEMPERATURE DIFFERENCE (°K)									
	10	20	30	40	50	60	70	80	90	100
15 x 1	5,1	10,2	15,4	20,5	25,6	30,7	35,9	41,0	46,1	51,2
18 x 1	6,1	12,3	18,4	24,6	30,7	36,9	43,0	49,2	55,3	61,5
22 x 1	7,5	15,0	22,6	30,1	37,6	45,1	52,6	60,1	67,7	75,2
28 x 1,5	9,6	19,1	28,7	38,3	47,8	57,4	67,0	76,5	86,1	95,7
35 x 1,5	12,0	23,9	35,9	47,8	59,8	71,8	83,7	95,7	107,6	119,6
42 x 1,5	14,4	28,7	43,1	57,4	71,8	86,1	100,5	114,8	129,2	143,5
54 x 1,5 • 54 x 2	18,5	36,9	55,4	73,8	92,3	110,8	129,2	147,7	166,1	184,6
76,1 x 2	26,0	52,0	78,0	104,0	130,1	156,1	182,1	208,1	234,1	260,1
88,9 x 2	30,4	60,8	91,2	121,6	151,9	182,3	212,7	243,1	273,5	303,9
108 x 2,5	36,9	73,8	110,7	147,6	184,6	221,5	258,4	295,3	332,2	369,1

External inlet-coefficient $\alpha_e = 11 \text{ W}/(\text{m}^2 \times \text{°K})$

5.4 Insulation

To minimise the unwanted thermal emission from piping, the minimum insulation thicknesses should be maintained.

The following rules must be observed:

- DIN 4108 Thermal insulation in buildings;
- energy Saving Ordinance (EnEV);
- thermal Insulation Ordinance (WSchutzV).

Furthermore, national regulations should be observed as necessary.

In addition, insulating the piping can prevent water condensing, outside corrosion, unwanted warming of the medium being transported and unwanted noise production and transmission. Cold water pipes must be insulated so that the potable water quality is not affected through warming.

The installer is responsible for the correct and professional insulation execution.

It is extremely important to ensure that the transitions, joints and fittings of the installation are sealed / glued to prevent humidity from penetrating in any condition.

For the insulation of **inoxPRES** pipes only insulation materials which contain less than 0,05% water soluble chloride ions may be used. Insulation materials of AS quality in accordance with AGI-Q135 are well below this value and thus suitable for use with **inoxPRES**.

Guideline values for minimum insulation material thickness are shown in table 25.

TABLE 25: MINIMUM INSULATION MATERIAL THICKNESS FOR PIPING

Piping cold water		Piping hot water	
Type of installation	Insulation material thickness in mm $\lambda = 0,040 \text{ W/ (m x } ^\circ\text{K)}$	OD in mm	Insulation material thickness in mm $\lambda = 0,040 \text{ W/ (m x } ^\circ\text{K)}$
Piping uncovered, not heated (i.e. cellar)	4	12	20
Piping uncovered without hot water lines	9	15	20
Piping in channel, no hot water lines	4	18	20
Piping in channel, along with hot water	13	22	20
Piping in wall slit, risers	4	28	30
Piping in wall gap, along with hot water	13	35	40
Piping on concrete floor	4	42	40
		54	50
		76,1	65
		88,9	80
		108	100
		139,7	100
		168,3	100

5.5 Soundproofing (DIN 4109)

Noise in potable water and heating installations is produced mainly in tap fittings and sanitary items. The piping can then transfer this sound to the building itself, subsequently producing the irritating airborne sound.

By using soundproofed holders, and by soundproofing the piping, the sound transfer can be greatly reduced.

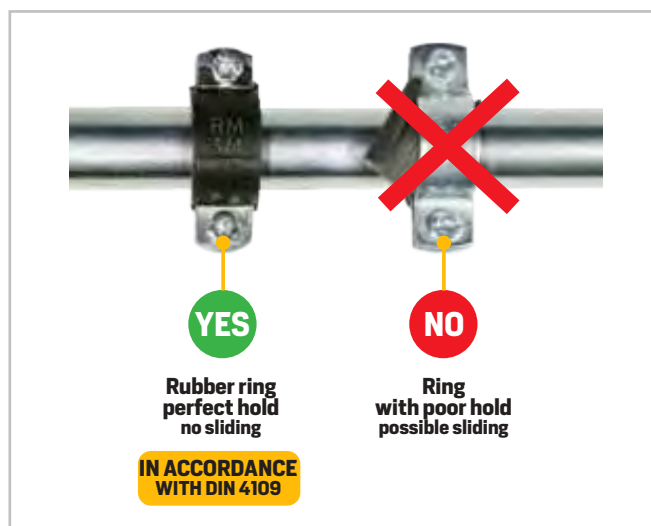


Figure 49 – Rubber ring PRATIKO in conformity with DIN 4109 (Unit RM Series 355/G – 351/G – 555/G – 156/G)

5.6 Fire prevention

inoxPRES / steelPRES / aesPRES / marinePRES pipes are classed as a non-flammable material in building material class A in accordance with DIN 4102-1. steelPRES pipes with PP coating are classed as a non-flammable dripping material in building material class B2 in accordance with DIN 4102-1. Further national requirements in terms of fire prevention are most effectively fulfilled by use of fire-retarding sealing techniques.

5.7 Potential equalisation

According to DIN VDE 0100, all parts of metallic water and gas piping which can conduct electricity have to be included in the main potential equalisation of a building.

inoxPRES, **steelPRES**, **aesPRES** and **marinePRES** are conductive systems and must therefore be included in the potential equalisation.

The responsibility for this work lies with the persons installing the electrical system.

5.8 Dimensioning

The objective of pipe system calculation is to achieve perfect functioning of the system with economical pipe diameters. The following regulations should particularly be observed:

Potable water installations:

- > DIN 1988 part 300
- > EN 806 2008:2012
- > DVGW W531-553
- > VDI guideline 6023

It is also important to respect the CEN / TR 16355: 2012 standard (Recommendations for prevention of Legionella growth in installations inside buildings conveying water for human consumption).

Heating installations:

- > UNI EN 12828:2014
- > DIN 4751

Gas installations:

- > TRGI / TRF

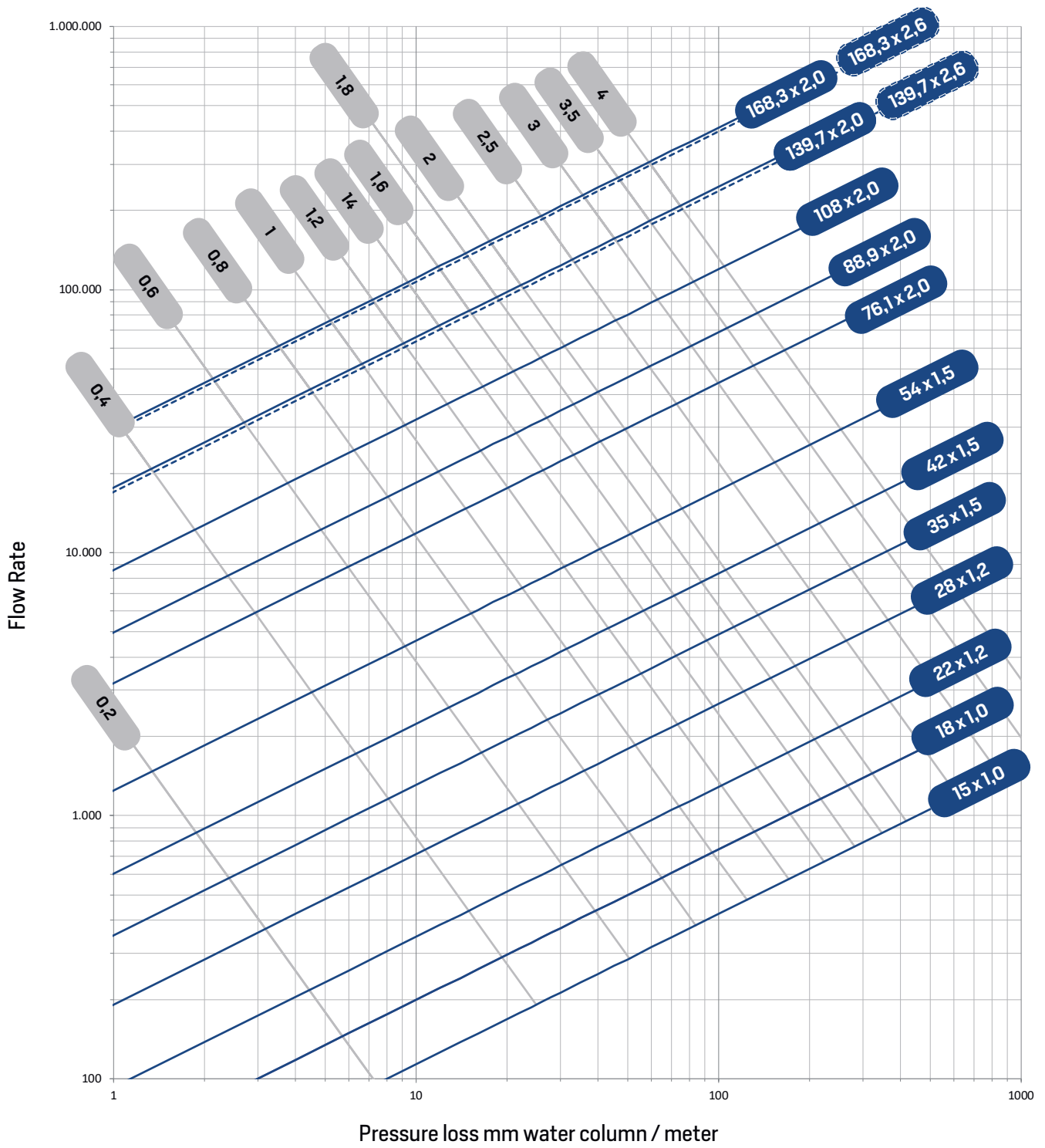
The pipe friction pressure drop for **inoxPRES** / **steelPRES** / **aesPRES** / **marinePRES** piping is shown in table 26 a - d.

5.9 Trace heating

When trace heating is used, the temperature of the pipe inside wall may not exceed 60 °C.

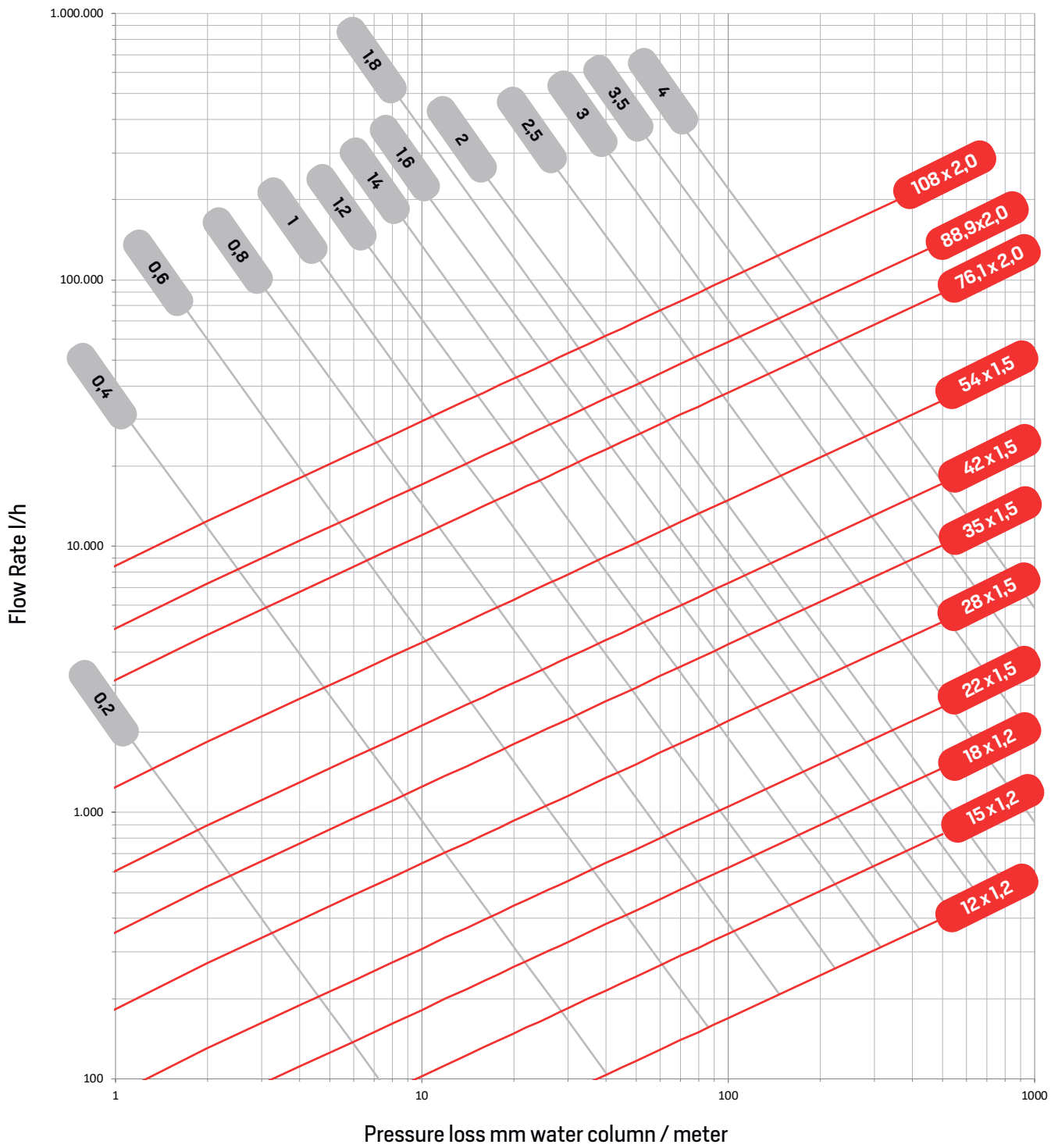
For thermal disinfection purposes a temporary temperature increase to 70 °C (1 hour per day) is permitted. Pipes which are fitted with drainage valves or back-flow prevention valves must be protected against excessive pressure increase resulting from warming. The fitting instructions issued by trace heating manufacturers are to be followed exactly.

TABLE 26a : PIPE FRICTION PRESSURE DROP
INOXPRES



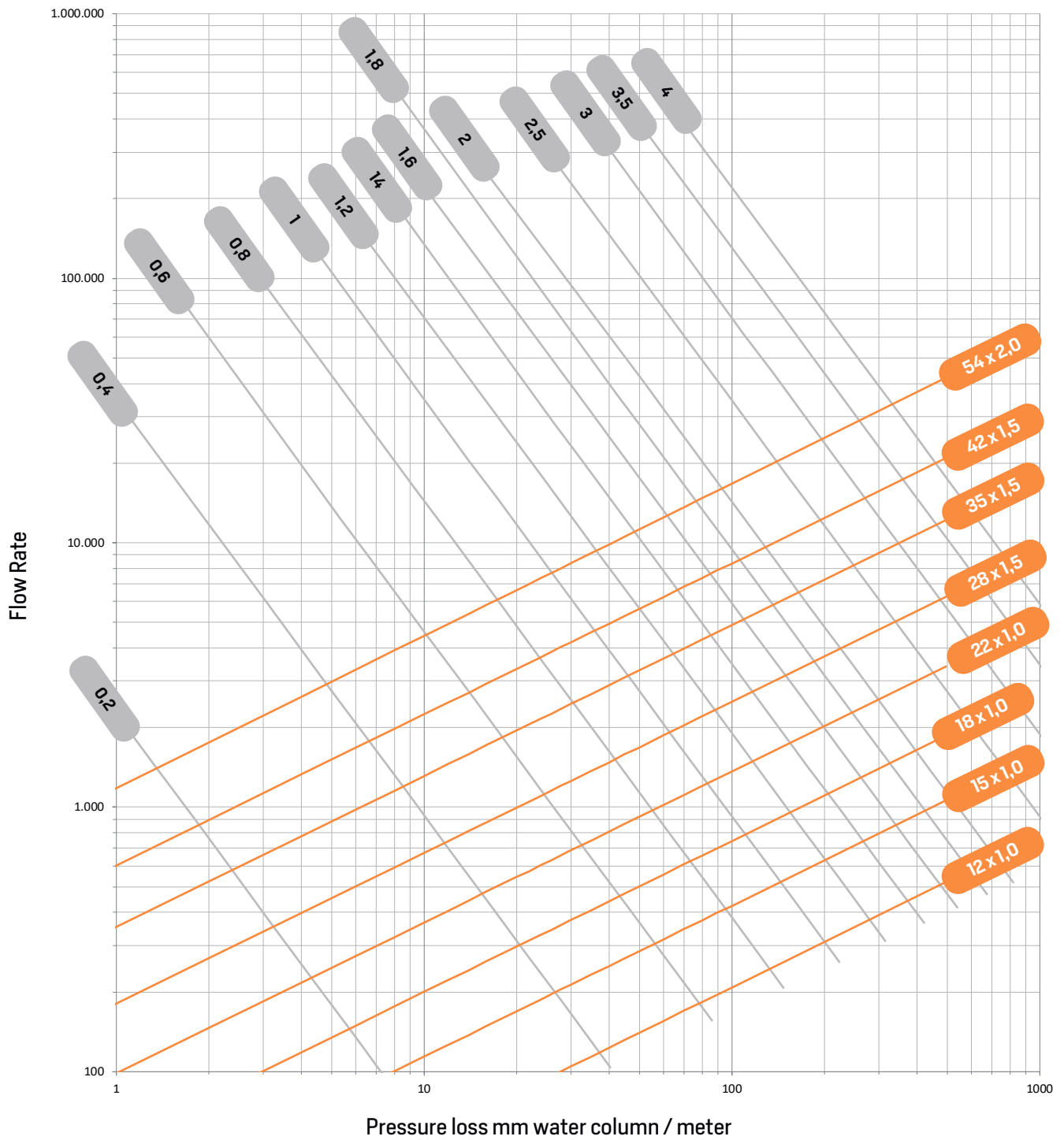
Velocity m/s

**TABLE 26b : PIPE FRICTION PRESSURE DROP
STEELPRES**



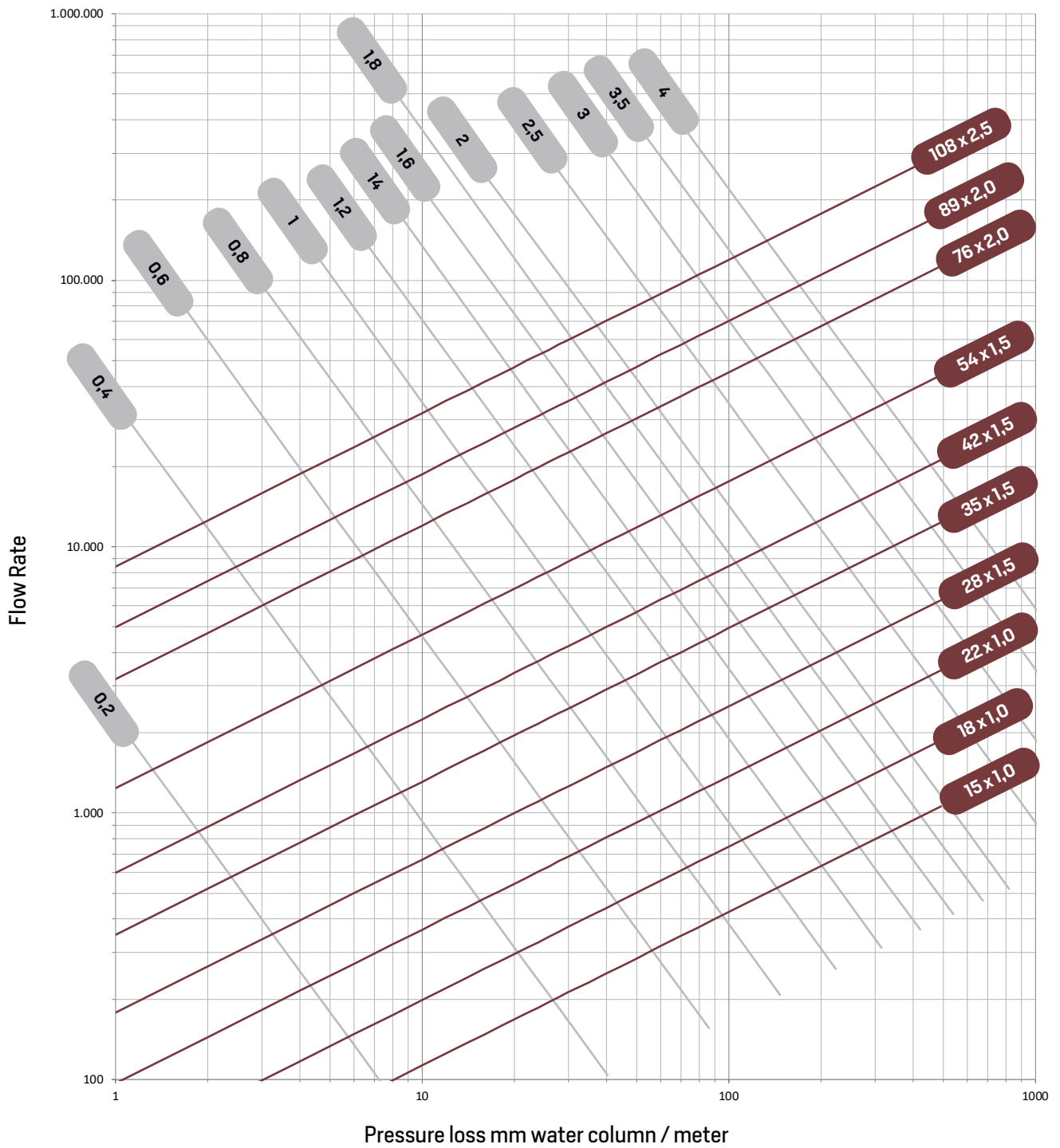
Velocity m/s

TABLE 26c : PIPE FRICTION PRESSURE DROP
AESPRES



Velocity m/ s

**TABLE 26d : PIPE FRICTION PRESSURE DROP
MARINEPRES**



Velocity m/s

6.0 Start-up

The following guidelines have to be taken into account in Germany when carrying out the start-up and pressure testing:

Potable water systems:	DIN 1988 part 100 ZVSHK worksheet "Tightness Testing of Potable Water Piping with Compressed Air, Inert Gas or Water" (Dichtheitsprüfung von Trinkwasser-Installationen mit Druckluft, Inertgas oder Wasser) BTGA rule 5.001 VDI 6023
Heating systems	DIN-VOB 18380
Gas systems:	DVGW G 600 TRGI (technical regulations for gas installation) TRF (technical regulations for liquid gas)

6.1 Pressure testing

In the case of piping for potable water, the pressure testing (see page 55) has to be carried out in accordance with DIN EN 806, DIN 1988 part 100 and worksheet GW534, using filtered potable water. The potable water system must stay completely filled until taken into operation. The presence of remaining quantities of water in the piping greatly increases the danger of corrosion in metal piping (three phase corrosion). This effect is avoided keeping the system completely filled with water up to commissioning function otherwise the risk of corrosion would greatly increase due to the residual water remaining in the system (in the case of metal exposed to both water and air). If a potable water system is not used soon after the pressure testing, then the pressure testing should be carried out using compressed air or inert gases.

- Tightness / pressure tests are to be carried out before the pipes are covered (e.g. for insulation purposes);
- Tests are to be carried out in accordance with DVGW worksheet W534 and the ZVSHK data sheet "Tightness Tests for drinking water installations with compressed air, inert gas or water"
- When conducting pressure tests with air, follow the technical rules for gas installations "DVGW-TRGI";
- The correct assembly of the press-fit connections is the responsibility of the installer / company. Unpressed-untight is to be understood as an additional help in order to identify an assembly error – in this case, the non-pressing of fittings. A precondition for that is the proper implementation of the prescribed tightness and pressure tests; it does not absolve the installer from his obligation to carry out visual and noise controls to make sure that the assembly has been done properly. These visual and noise controls are to be duly recorded on the respective test certificate.

6.2 Flushing the system and starting up

According to DIN 1988 Part 100, EN 1717 and VDI 6023 is to prevent corrosion in potable water pipes, rinsing with a water-air mixture is required. From a corrosion point of view, **inoxPRES** potable water installations, however, only require simple flushing with filtered potable water, since thanks to the special connection technique no additional substances such as cutting oil and fluids are required. Stagnant water from the house supply piping must not access the potable water installation.

For hygienic reasons a high standard system flushing procedure may be required (for example, hospital, care centre). In this situation the ZVSHK / BTGA data sheets should be applied. The pressure testing, flushing and start-up of the system have to be documented. The system operator has to be instructed with regard to correct working practices.

6.3 Regular checks

Maintenance of the potable water quality can only be assured by regular monitoring of the system; for this reason the operator should be offered a maintenance contract.

7.0 Corrosion

7.1 inoxPRES

The corrosion behaviours of the **inoxPRES** press fitting system is dictated by the material used. The corrosion behaviour of **inoxPRES** press fitting systems is determined by the Cr-Ni -Mo steel with material AISI 316L (1.4404) and Cr-Mo AISI 444 (1.4521). The following properties result from it:

- suitability for all potable water in accordance with German drinking water regulations;
- absolutely hygienic;
- suitable for mixed installations;
- suitable for treated, softened and desalinated water.

7.1.1 Bimetal corrosion (mixed installation) - DIN 1988 part 200

inoxPRES can be combined with all non-ferrous metals (copper, brass, red brass) in one mixed installation without taking flow rules into account.

Bimetal corrosion can only appear on zinc-coated components if they are in direct contact with **inoxPRES** components. Bimetal corrosion can be prevented by installing a spacing section made of non-ferrous material > 80 mm (for example a shut-off valve).

7.1.2 Crevice, pitting corrosion (three phase corrosion)

Unacceptably high chloride content in potable water and building materials can lead to corrosion traces on stainless steels. Crevice or pitting corrosion can occur in water with a chloride content which is above the levels of the potable water legislation (max. 250 mg/l). The chloride content of the potable water can be obtained from the local water company. It must be considered that, although the chloride limit for drinking water is equal to 250 mg/l, on the basis of laboratory and construction site experiences, it is recommended not to exceed 100 mg/l. Situations of stagnation of the circulating fluid and dead branches in the system must be properly evaluated when planning and when managing the installation, taking into consideration the parameters about the quality of the water and all the conditions of the installation environment, which may generate corrosion phenomena. As per drinking water systems, it is important to grant a continuous flow, avoiding dead branches and stagnation conditions (EN 806-1). These conditions of application and use, help to preserve the materials of Innoxpres range during the time, helping their durability.

inoxPRES components are in danger of crevice or pitting corrosion if:

- following pressure testing the system is emptied and some water remains in the piping which is open to the atmosphere. The slow evaporation of the remaining water may lead to an unacceptable increase in the chloride content level and thus initiate pitting (three phase corrosion) at the 'water-material- air' interface. If the system cannot be put into operation shortly after pressure testing with water, then the pressure testing should be carried out using air. See section 6.1 Pressure testing for more details;
- an increase in the water temperature is caused from the outside via the pipe wall (for example electrical trace heating). There may be an increase in chloride ions in the deposits which form on the inside pipe wall during this type of operation. See section 5.9 Trace heating for more information;
- non-approved sealants or plastic tapes containing chloride are used. The transfer of chloride ions from sealant materials to the potable water can lead to local increase in chloride and thus to crevice corrosion. See section 4.10 Thread or flange connections for more information;
- if the material is sensitised through incorrect heating. Any heating of the material which leads to tarnishing changes the microstructure of the material and can lead to intercrystalline corrosion. Hot bending or cutting the pipes using a grinder is not permitted.

7.1.3 Outside corrosion

inoxPRES components are in danger of outside corrosion if:

- non-approved insulation materials or lagging are used. Only those insulation materials and lagging are approved which are of AS quality in accordance with AGI Q 135, having a percentage weight of max. 0,05% in water soluble chloride ions;
- **inoxPRES** is subjected to contact with gases or fumes containing chloride (e.g., galvanising shops, swimming pools);
- **inoxPRES** comes into contact with building materials which contain chloride, together with dampness;
- a concentration of chloride develops through water evaporation on warm piping (swimming pool atmosphere).

inoxPRES components can be protected against outside corrosion by means of:

- closed cell insulation material or lagging;
- coating;
- painting;
- avoiding installation in areas where the risk of corrosion is higher (e.g., floor without cellar space underneath).

The planner or the fitter carries the responsibility for the selection and installation of the corrosion protection measures.

7.2 inoxPRES GAS

The corrosion behaviour of **inoxPRES GAS** press fitting systems is defined by the material used; Cr-Ni-Mo steel with the material AISI 316L [1.4404].

In the case of **inoxPRES GAS** components no further corrosion protection is normally required, except where special protection from corrosive agents is required.

7.2.1 Outside corrosion

inoxPRES GAS components are in danger from outside corrosion if:

- non-approved insulation materials or lagging are used. Only those insulation materials and lagging are approved which are of AS quality in accordance with AGI Q 135, having a percentage weight of max. 0,05% in water soluble chloride ions;
- **inoxPRES GAS** comes into contact with gases or fumes containing chloride (e.g., galvanising shops, swimming pools);
- **inoxPRES GAS** comes into contact with building materials which contain chlorides, under the influence of dampness;
- according to VDE (German Association for electrical, Electronic & Information Technologies), **inoxPRES GAS** must be inserted in the main equipotential bonding (connection to be carried out by skilled personnel).

inoxPRES GAS components can be protected against outside corrosion by means of:

- installing closed cell insulation materials or lagging;
- coating;
- painting;
- avoiding installation in areas where the risk of corrosion is higher (e.g., floor without cellar space underneath).

The planner or the fitter carries the responsibility for the selection and installation of the corrosion protection measures.

7.3 steelPRES

The corrosion behaviour of the **steelPRES** press fitting system is defined by the unalloyed carbon steel used and is suitable for:

- closed heating systems;
- closed cooling and refrigeration circuits;
- compressed air system;
- closed solar cycles.

7.3.1 Inside corrosion

In closed heating/cooling systems there is generally no air and thus no danger of corrosion. The small quantity of oxygen which enters the system when it is being filled poses no problems since it reacts with the entire inside metallic surface of the system and is reduced in the process.

In addition, oxygen is released when heating water is heated, and is released through valves installed in the system.

The systems must be filled in accordance with VDI 2035. Oxygen increase can also be prevented by the use of oxygen binding materials. However, these must be approved by RM beforehand. When filling the systems, the pH value must not fall below 7,2 (drinking water).

7.3.2 Bimetal corrosion

In closed circuit of heating/cooling installations executed with **steelPRES**, it is possible to insert single fittings made from different raw materials, including **inoxPRES** components, in any order.

Closed circuit networks entirely executed with **steelPRES** (pipes and fittings) must be separated from stretches made with **inoxPRES** (pipes and fittings) through the use of shut-off valves or bronze nipples (> 80 mm) for protection against corrosion.

7.3.3 Outside corrosion

SteelPRES pipes and fittings are externally galvanized, but this galvanization does not provide permanent protection against corrosion.

The use of **steelPRES** pipes with PP coating ($\varnothing 12 \div 108$ mm), represents a good protection against corrosion, while the fittings must be protected individually.

The humidity acting on **steelPRES** parts over a long period of time can lead to external corrosion, which is the reason why carbon steel pipes and fittings are only suitable in permanently dry environments.

steelPRES system should preferably installed outside of areas exposed to high levels of humidity. Additional corrosion protection should be applied to the pipe and fittings, especially in case of installations on the line of / under the floor / under screed, in order to protect the installation from external influences, especially unintentional effects of moisture or e.g. avoiding contact with building materials during, but also after the installation.

Contact with building materials can lead to corrosion.

steelPRES components can be protected against outside corrosion by means of:

- corrosion protection binding;
- closed cell insulation or lagging;
- coating;
- painting;
- avoiding installation in areas where the risk of corrosion is higher (e.g., floor without cellar space underneath).

steelPRES components should not be subjected to permanent dampness. For this reason felt lagging or coverings are not approved, since they retain water.

The planner or the fitter carries the responsibility for the selection and installation of the corrosion protection measures.

7.4 aesPRES / marinePRES

Corrosion behaviour of the **aesPRES** / **marinePRES** systems depends on the main material quality – copper – consisting of alloys of the two systems to be pressed.

The **aesPRES** system stands out for the following features:

- suitable for drinkable waters;
- hygienically safe as copper and its alloys prevent bacteria proliferation on their surfaces (bacterial-static action);
- suitable for mixed installations;
- suitable for treated, softened and desalinated water.

The **marinePRES** system is mainly suggested for application where chlorides are present, as in the case of saline water transportation.

7.4.1 Bimetal corrosion (mixed installation)

aesPRES and **marinePRES** systems can be matched with different materials, ferrous and not. It is important to pay attention to the ratio between cathode and anode areas as not to lead to conditions favourable to corrosion. Copper in fact in general is under cathode conditions and can lead to the component corrosion.

In the case of open loop installations, as to avoid corrosion in mixed installations, it is important to comply with the following general rules:

- consider the water flow, install copper and copper alloys downstream the installations made with ferrous materials;
- add non ferrous separators > 80 mm (ex. check valves, bronze or brass joints) between the two sections of different materials.

7.4.2 Perforating corrosion

The dotted corrosion (pin-head tube holing), depends on the growing water pollution in the last decades strictly linked to industrialization. Such an issued was totally solved with the introduction of copper tubes with no carbon residues.

7.4.3 Outside corrosion

Copper and copper alloys stand the outside corrosion risk and nothing is to be done at the protection level, while in the presence of sulphurs, nitrites and ammonia, tubes are to be protected. It is necessary to protect **aesPRES** / **marinePRES** details against external corrosion as follows:

- closed cell insulators;
- coating;
- painting;
- avoiding installation in areas where the risk of corrosion is higher (e.g., floor without cellar space underneath).

The planner or the fitter carries the responsibility for the selection and installation of the corrosion protection measures.

7.5 aesPRES GAS

The high resistance of **aesPRES GAS** joint to outside corrosion does not require any additional anti-corrosion standard protection, except where special protection from corrosive agents is required.

According to VDE (German Association for electrical, Electronic & Information Technologies), **aesPRES GAS** must be inserted in the main equipotential bonding (connection to be carried out by skilled personnel).

aesPRES GAS components can be protected against outside corrosion by means of:

- > installing closed cell insulation materials or lagging;
- > coating;
- > painting;
- > avoiding installation in areas where the risk of corrosion is higher (e.g., floor without cellar space below).

The planner or the fitter carries the responsibility for the selection and installation of the corrosion protection measures.

7.6 Material compatibility - two-metal matching

The summary table of the couplings between different materials in open and closed circuit systems is shown below.

TABLE 27: MATERIAL COMPATIBILITY - TWO-METAL MATCHING

PRESSFITTING		PIPES			
Systems		Stainless Steel	Carbon Steel	Copper	Cupronickel
inoxPRES	open circuit				
	close circuit		2)		
steelPRES	open circuit				
	close circuit	1)		1)	1)
aesPRES	open circuit				
	close circuit		2)		
marinePRES	open circuit				
	close circuit		2)		

Accepted matching
 Attention to the enclosed notes
 Forbidden matching

NOTES:

- 1) any kind of stainless steel / copper / cupro piping's lines must be separated from the carbon with a non-ferrous transition's spacer (ex. valve, bronze/brass joints).
Single jointsparts in stainless steel/copper/copper-nickel are accepted, in a carbon installations.
- 2) any kind of carbon steel piping's stretch must be separated from inox with a kind of non-ferrous transition's spacer (ex. valve, bronze/brass joints).
Single carbon fittings in a stainless steel / copper / cupro system are not allowed.

Compatibilities in the table refer to the water transportation under standard conditions (PN 16 bar, T 20 °C).

The table is not binding: as for corrosion, simply assess surfaces of the different components and the real operating conditions.

8.0 Disinfection

The disinfection of potable water systems may be required in case:

- germs are detected;
- of increased hygienic requirements.

The **inoxPRES** press fitting system must be disinfected using hydrogen peroxide (H₂O₂) in accordance with DVGW worksheet W 291 – disinfection of water supply systems.

If disinfection is carried out using chlorine, then the prescribed concentrations and disinfection periods shown in the overview below must be strictly adhered to.

Chlorine content (free chlorine)	50 mg/l	100 mg/l
Disinfection period	max. 24 h	max. 16 h

The working temperature of the disinfectant substance must never exceed 25 °C in any point of the plant. Following disinfection with chlorine the system must be flushed thoroughly with potable water until a residue-free chlorine value of < 1 mg/l in the entire potable water system is reached.

Due to the danger of corrosion through incorrect disinfection measures using chlorine, we do recommend either disinfection using hydrogen peroxide or thermal disinfection. Disinfection measures should always be carried out by experienced, trained professional staff only.

The disinfection treatment must also be extended to existing lines if they be expanded or repaired. The ZVSHK leaflet "Flushing, disinfecting and commissioning of drinking water installations" must be used and observed.

9.0 Hygiene

The implementation of the new potable water regulations (TrinkwV) places great emphasis on the hygiene-conscious planning, realisation and operation of potable water systems. It is necessary to put particular attention to the applicable regulations in each country where the installation is done, with particular reference to aspects of plant level, sanitizing and maintenance.

The following measures are suitable both for the assurance of the required potable water quality and the minimising of the danger of germs occurring:

- material choice in accordance with DIN 50930-6;
- when calculating the pipe network, select the smallest possible widths;
- hygiene-conscious system layout (looped systems); Are to avoid "dead branches" and branches that appear to be unidirectional critical from the point of view of hygiene;
- no stagnation piping (drainage pipes, collective safety devices);
- single safety devices are preferable;
- separate extinguisher systems from potable water network;
- ensure target temperature is reached in entire potable water heater;
- install circulation piping with dimensions are in accordance with W 553;
- verify the possibility of inserting traits bypass on the main line in cases of complex lines, so that it is possible to make a thorough washing without stopping the system thus increasing the effectiveness of the disinfection treatment;
- protect cold water piping against heating;
- hygiene-conscious handling of materials;
- document the piping system;
- maintain the system regularly (maintenance contract).

10.0 Form Request of compatibility

DATA OF THE APPLICANT

Applicant / Company _____

Name _____

Address _____

Contact person _____

Date _____

DATA OF THE PROJECT

Descrizione _____

Set-up of the system _____

Pipe diameter _____

Design manager _____

Specification _____

SYSTEM FOR WHICH COMPATIBILITY IS REQUESTED

inoxPRES	<input type="checkbox"/>	steelPRES	<input type="checkbox"/>	inoxPRES GAS	<input type="checkbox"/>	aesPRES	<input type="checkbox"/>
Pipe AISI 316L	<input type="checkbox"/>	Pipe of gal./internally black (316/005)	<input type="checkbox"/>	Tube AISI 316L	<input type="checkbox"/>	Copper pipe	<input type="checkbox"/>
Pipe AISI 444	<input type="checkbox"/>	Pipe of gal./internally gal. (316/002)	<input type="checkbox"/>	aesPRES GAS	<input type="checkbox"/>	marinePRES	<input type="checkbox"/>
Pipe AISI 304L	<input type="checkbox"/>	Pipe of gal./internally black + PP coating (316/003)	<input type="checkbox"/>	Copper pipe	<input type="checkbox"/>	Copper-nickel pipe	<input type="checkbox"/>

MEDIUM WHOSE COMPATIBILITY NEEDS TO BE REVIEWED

Attachments	Technical data sheet	<input type="checkbox"/>
	Safety sheet	<input type="checkbox"/>
	Chemical analysis	<input type="checkbox"/>
Treatment of systems (e.g. cleaning, anti-corrosion, foil, etc.)		

SYSTEM

Description/working environment _____

OPERATING CONDITIONS

Temperature	min ____ °C	max ____ °C
Pressure	min ____ bar	max ____ bar
PH	min	max
Medium proportion	% min	% max

OTHERS SUBSTANCES

Type of cycle	Open	<input type="checkbox"/>	Closed	<input type="checkbox"/>
Installation	Outside closed spaces	<input type="checkbox"/>	Inside closed spaces	<input type="checkbox"/>

11.2 Pressure test protocol for hot water heating systems

For **inoxPRES** / **steelPRES** / **aesPRES** press fitting systems

Project / Construction _____
Contractor / Representative _____
Client / Representative _____
Materials _____
 Medium Potable water temperature _____ °C Room temperature _____ °C

- > The system must be filled with filtered and deaerated water according to DIN EN 12828.
- > Only the press system will be checked (Tanks, valves, etc. must be separated).

Test pressure

Test pressure to VOB part C, DIN 18380, according to the pressure of the safety valve

- > Selected test pressure _____ bar
- > Start of test _____ Clock test period (45 minutes min.) _____ hours

Leakage test

- > After the initial filling a waiting period of at least 30 minutes for temperature equilibration will be observed
- > Pressure drop during the leakage test
- > Test accuracy of the pressure gauge **0,1 bar**
- > A visual inspection of all pipe connections for a proper execution was carried out

Comments

A proper assessment has been done!
Both signatures are required for a properly conducted test!

Place _____

Date _____

 Client signature

 Contractor signature



11.3 Pressure test protocol for potable water with compressed air

For **inoxPRES / aesPRES** press fitting systems

Project / Construction _____

Contractor / Representative _____

Client / Representative _____

Materials _____

Test fluid temperature _____

Test temperature _____ °C Room temperature _____ °C

Carrying out the pressure tests according to EN 806-4, VDI 6023 and the ZVSHK leaflet, leak tests of drinking water installations with compressed air, inert gas or water..

- ▶ Containers, fittings or pressure vessels etc. must be separated from the line, openings have to be closed with metal plugs.
- ▶ A visual inspection of all connections / crimps for proper execution was carried out.

Preliminary test / leakage test

- ▶ Test pressure **150 mbar**
- ▶ Test time up to 100 liters of pipe line volume min. **120 minutes**
- ▶ The test time must be increased by 20 minutes for every additional 100 liters
- ▶ Pipe line volume in liters _____ Test duration in minutes _____
- ▶ Temperature compensation was expeted, only then started the test testing time
- ▶ Test accuracy of the pressure gauge **1 mbar / 1hPa**
- ▶ A visual inspection of all pipe connections for a proper execution was carried out
- ▶ No pressure drop detected during / after the leak test

Leakage test

- ▶ For nominal sizes ≤ DN50 maximum 3 bar; For nominal sizes > DN50 maximum 1 bar;
- ▶ Test period **10 minutes**
- ▶ Test accuracy of the pressure gauge **100 mbar/100 hPa**
- ▶ Temperature compensation was expeted, only then started the test testing time
- ▶ Selected test pressure _____ bar
- ▶ Start test
- ▶ A visual inspection of all pipe connections for a proper execution was carried out
- ▶ No pressure drop detected after the leak test
- ▶ The system / pipelines are tight

Comments:

A proper assessment has been made!

Both signatures are required for a properly conducted test!

Place _____

Date _____

Client signature

Contractor signature

12.0 Guarantee

The **inoxPRES**, **steelPRES**, **aesPRES** and **marinePRES** press fitting systems produced and distributed by RM are covered by a guarantee.

For all the details related to the operative conditions, please contact our sales department.

The full references of our officials and business partners are available on our website.
raccorderiemetalliche.com



RACCORDERIE METALLICHE

RACCORDERIE METALLICHE S.P.A.

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Tel. +39 0376 96001

Fax +39 0376 96422

info@racmet.com

raccorderiemetalliche.com

CODE 012 R10 0522 GBR



Global Safety İzlenebilir Kelebek Vana
Butterfly Valve With Supervisory Switch

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron Wafer Type
Ölçü / Size: DN65-DN300

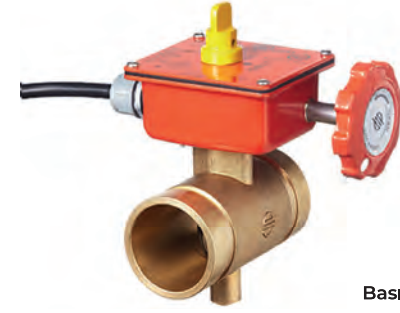


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Global Safety İzlenebilir Kelebek Vana
Butterfly Valve With Supervisory Switch

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron Yivli / Grooved Type
Ölçü / Size: DN50-DN250



Global Safety İzlenebilir Kelebek Vana
Butterfly Valve With Supervisory Switch

Basınç Sınıfı / Pressure Rating: 175 psi
Gövde / Body: Bronz / Bronze
Klape / Disc: EPDM Kaplı Bronz / EPDM Coated Bronze Dişli / Threaded
Ölçü / Size: 1"-2"

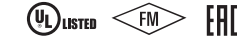


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Weflo Akış Anahtarı
Waterflow Detector

Basınç Sınıfı / Pressure Rating: 450 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: Alüminyum Alaşım / Aluminium Alloy Geciktirme Özelliği / Retard Feature
Ölçü / Size: DN50-DN200



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Global Safety Çek Vana
Check Valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron Yivli / Grooved Type
Ölçü / Size: DN50-DN150



Rapidrop Çift Klape Çek Vana
Dual Plate Check Valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: Paslanmaz Çelik / Stainless Steel Wafer Type
Ölçü / Size: DN50-DN250



Giacomini Köşe Hortum Vanası
Angle hose valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Pirinç / Brass
Volan / Handwheel: Alüminyum Alaşım / Aluminium Alloy
Ölçü / Size: 1 1/2" - 2 1/2"



Giacomini (Dişli) Test Ve Drenaj Vanası
Test And Drain Valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Pirinç / Brass
Kol / Lever: Karbon Çelik / Carbon Steel
Orifiz / Orifice: 1/2" 3/8" - 7/16" - 17/32" - 5/8" - 3/4" - 15/16" - 19/64"
Ölçü / Size: 1 1/4"-2"



Weflo OS&Y Sürgülü Vana
OS&Y Gate Valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron Flanşlı / Flanged
Ölçü / Size: DN65-DN300



Weflo NRS Sürgülü Vana
NRS Gate Valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron Flanşlı / Flanged
Ölçü / Size: DN65-DN300



Giacomini İtfaiye Bağlantı Ağızı,
Düz / Tek Klape
Exposed Fire Dept. inlet connection

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Pirinç / Brass
Ölçü / Size: 4" x 2 1/2"



Giacomini Flatörlü Vana
Float Valve

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Disc: EPDM
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN50-DN200



Unival Yer Üstü Yangın Hidrantı
Fire Hydrant

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Pük Döküm / Cast Iron
Mil / Stem: Karbon Çelik / Carbon Steel
Ölçü / Size: DN100
Boy / Length: 1700 mm



Weflo Dikey Post Indicator
Vertical Indicator Posts

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Pük Döküm / Cast Iron



uni
vağ

GIACOMINI UNİVAL TESİSAT ARMATÜRLERİ SANAYİ VE TİCARET LTD. ŞTİ.

Merkez Ofis: Cevizli Mah. Tugay Yolu Caddesi, Ofisim İstanbul Sitesi A Blok No:20A İç Kapı No: 17 Maltepe - İstanbul / TÜRKİYE

Fabrika: Kocaeli KOBİ OSB Köseler Mahallesi, 10. Sokak, No: 4/2 Dilovası - Kocaeli / TÜRKİYE

UNİTES TESİSAT TEKNOLOJİSİ SANAYİ VE TİCARET LTD. ŞTİ.

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YANGINDAN KORUNUM SİSTEMLERİ





UV310 Dik Tip Sprinkler
Standart Tepkili, Pirinç
Upright, Standart Response, Brass
K5.6 - 1/2" - 68C, 79C, 93C, 141C



UV311 Dik Tip Sprinkler
Hızlı Tepkili, Pirinç
Upright, Quick Response, Brass
K5.6 - 1/2" - 68C, 79C, 93C, 141C



UV420 Sarkık Tip Sprinkler
Hızlı Tepkili, Beyaz
Pendant, Quick Response, White
K8.0 - 3/4" - 68C, 79C, 93C, 141C



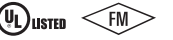
UV421 Sarkık Tip Sprinkler
Hızlı Tepkili, Beyaz
Pendant, Quick Response, White
K8.0 - 3/4" - 68C, 79C, 93C, 141C



Unival Islak Alarm Vanası
Wet Alarm Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: Bronz / Bronze
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN100-DN200



Unival Kuru Alarm Vanası
Dry Alarm Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: Bronz / Bronze
1.2 bar Basıncılı Hava Gereksinimi / 1.2 Bar Air Pressure Requirement
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN100-DN200



UV320 Sarkık Tip Sprinkler
Hızlı Tepkili, Beyaz
Pendant, Quick Response, White
K5.6 - 1/2" - 68C, 79C, 93C, 141C



UV321 Sarkık Tip Sprinkler
Hızlı Tepkili, Beyaz
Pendant, Quick Response, White
K5.6 - 1/2" - 68C, 79C, 93C, 141C



UV821 Gizli Tavan Tip Sprinkler
Hızlı Tepkili
Concealed Type Quick Response
K5.6 - 1/2"



Gizli Tip Sprinkler Kapağı, Beyaz
Cover For Concealed Type Sprinkler Head, White
1/2" - 68C 3/4"-68C



Unival Baskın Alarm Vanası
Deluge Alarm Valve
Basınç Sınıfı / Pressure Rating: 175 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: Bronz / Bronze - Elektrik Aktivasyonu / Electric Activated
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN100-DN150



Unival Ön Tepkimeli Alarm Vanası
Pre-Action Alarm Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: Bronz / Bronze
Elektrik-Pnömatik Aktivasyonlu Çift Kilitlemeli /
Double Interlock Electric-Pneumatic Activated
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN50-DN200



UV340 Duvar Tipi Sprinkler
Beyaz Standart Tepkili
Horizontal Sidewall
White Standart Response
K5.6 - 1/2" - 68C, 79C, 93C, 141C



UV341 Duvar Tipi Sprinkler
Beyaz Standart Tepkili
Horizontal Sidewall
White Standart Response
K5.6 - 1/2" - 68C, 79C, 93C, 141C



2 PARÇA ROZET
Recessed Escutcheons
1/2"



Sprinkler Kafesi
1/2"



Giacomini Basınç Düşürücü Vana
Pressure Reducer Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Disc: EPDM
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN50-DN200



Giacomini Relief Vana
Relief Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Disc: EPDM
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN50-DN200



UV410 Dik Tip Sprinkler
Standart Tepkili, Pirinç
Upright, Standart Response, Brass
K8.0 - 3/4" - 68C, 79C, 93C, 141C



UV411 Dik Tip Sprinkler
Standart Tepkili, Pirinç
Upright, Standart Response, Brass
K8.0 - 3/4" - 68C, 79C, 93C, 141C



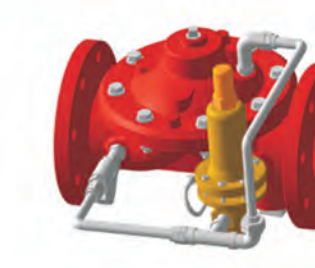
SPH-0702 Sprinkler
Bağlantı Hortumu
Sprinkler Flexible Hose
Basınç Sınıfı / Pressure Rating: PN25
Hortum / Hose: Paslanmaz Çelik / Stainless Steel
Örgü / Braid: Paslanmaz Çelik / Stainless Steel
Başlıklar / Nipple: Karbon Çelik / Carbon Steel
Paslanmaz Çelik (Opsiyonel) / Stainless Steel (Optional) Somun X Nipel
(Diğer Bağlantılar (Opsiyonel) / Nut X Nipple (Other Connections Optional))
Ölçü / Size: 1"x1/2"-1"x3/4"



Global Vision Akış Ölçer
Flow Meter
Gövde / Body: Karbon Çelik / Carbon Steel
Venturi Tip / Venturi Type
Skala / Meters: 4" 12.5-10.000 gpm Ölçüm Aralığı
Yivli / Grooved
Ölçü / Size: DN80-DN250



Weflo Relief Vana
Relief Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Disc: EPDM
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN100-DN150-DN200



Weflo Basınç Düşürücü Vana
Pressure Reducing Valve
Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Disc: EPDM
Flanşlı-Yivli / Flanged-Grooved
Ölçü / Size: DN100-DN150-DN200




uni
vaj



**YANGINDAN
KORUNMA ÜRÜNLERİ**
FIRE PROTECTION
PRODUCTS

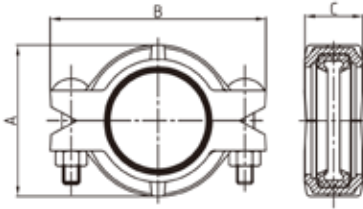
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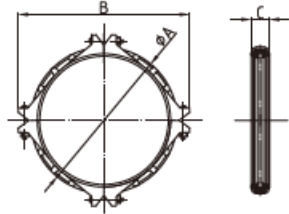
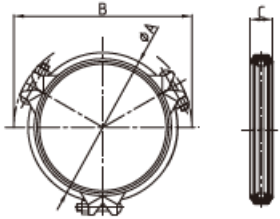
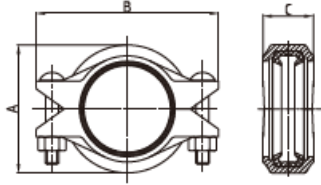
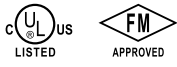
KAPLİNLER VE BAĞLANTI PARÇALARI COUPLINGS AND FITTINGS

**Yüksek Basınçlı
Esnek Kaplin**
Heavy-duty
Flexible Coupling



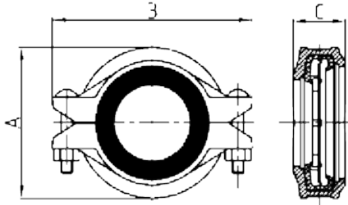
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Boru Ucu Ayrırma Pipe End Separation mm/in	Ölçüler/Dimensions			Cıvata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
50 2	60.3 2.375	750 5.17	14.8/3320	0-3.2 0-0.13	90 3.54	134 5.28	45 1.77	2-1/2X75 2-M12X76	UL FM
65 2½	73.0 2.875	750 5.17	21.6/4860	0-3.2 0-0.13	100 3.94	150 5.91	45 1.77	2-1/2X75 2-M12X76	UL FM
65 2½	76.1 3.000	750 5.17	23.5/5280	0-3.2 0-0.13	102 4.02	154 6.06	45 1.77	2-1/2X75 2-M12X76	UL FM
80 3	88.9 3.500	750 5.17	32.1/7210	0-3.2 0-0.13	121 4.76	172 6.78	45 1.77	2-1/2X75 2-M12X76	UL FM
100 4	114.3 4.500	750 5.17	53.0/11900	0-3.2 0-0.13	151 5.95	214 8.43	50 1.97	2-5/8X85 2-M16X85	UL FM
125 5	139.7 5.500	750 5.17	79.2/17810	0-3.2 0-0.13	178 7.01	247 9.61	52 2.05	2-3/4X115 2-M20X115	UL
125 5	141.3 5.563	750 5.17	81.0/18200	0-3.2 0-0.13	180 7.09	248 9.76	51 2.00	2-3/4X115 2-M20X115	UL FM
150 6	165.1 6.500	750 5.17	110.6/24800	0-3.2 0-0.13	205 8.07	278 10.95	51 2.00	2-3/4X115 2-M20X115	UL FM
150 6	168.3 6.625	750 5.17	115.0/25800	0-3.2 0-0.13	208 8.20	284 11.18	51 2.00	2-3/4X115 2-M20X115	UL FM
200 8	219.1 8.625	750 5.17	194.8/43800	0-3.2 0-0.13	268 10.56	354 13.94	61 2.40	2-7/8X140 2-M22X140	UL FM
300 12	323.9 12.750	500 3.45	284.1/63868	0-3.2 0-0.13	385.2 15.165	477 18.780	66 2.598	2-7/8X140 2-M22X140	UL

Standart
Esnek Kaplin
Standard
Flexible Coupling



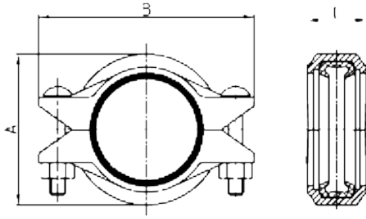
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Boru Ucu Ayrırma Pipe End Separation mm/in	Ölçüler/Dimensions			Cıvata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
25 1	33.7 1.327	500 3.45	3.0/680	0-1.6 0-0.06	55 2.16	92 3.62	42 1.65	2-3/8x55 2-M10x57	UL FM
32 1¼	42.4 1.669	500 3.45	4.8/1080	0-1.6 0-0.06	65 2.56	104 4.14	44 1.74	2-3/8x55 2-M10x57	UL FM
40 1½	48.3 1.900	500 3.45	6.3/1420	0-3.2 0-0.13	70 2.75	110 4.33	44 1.74	2-3/8x55 2-M10x57	UL FM
50 2	60.3 2.375	500 3.45	9.8/2210	0-3.2 0-0.13	83 3.27	125 4.92	44 1.74	2-3/8x55 2-M10x57	UL FM
65 2½	73.0 2.875	500 3.45	14.4/3240	0-3.2 0-0.13	96 3.78	143 5.63	45 1.78	2-3/8x55 2-M10x57	UL FM
65 2½	76.1 3.000	500 3.45	15.7/3520	0-3.2 0-0.13	100 3.94	145 5.71	45 1.78	2-3/8x55 2-M10x57	UL FM
80 3	88.9 3.500	500 3.45	21.4/4810	0-3.2 0-0.13	115 4.53	160 6.30	45 1.78	2-1/2x70 2-M12x70	UL FM
100 4	108.0 4.250	500 3.45	31.5/7100	0-3.2 0-0.13	138 5.43	190 7.48	50 1.97	2-1/2x70 2-M12x70	UL FM
100 4	114.3 4.500	500 3.45	35.4/7960	0-3.2 0-0.13	145 5.71	198 7.80	50 1.97	2-1/2x70 2-M12x70	UL FM
125 5	133 5.250	300 2.07	28.7/6460	0-3.2 0-0.13	162 6.38	225 8.86	51.0 2.01	2-5/8x80 2-M16x85	UL FM
125 5	139.7 5.500	500 3.45	52.9/11800	0-3.2 0-0.13	169 6.65	230 9.06	52 2.05	2-5/8x80 2-M16x85	UL FM
125 5	141.3 5.563	500 3.45	54.1/12100	0-3.2 0-0.13	170 6.69	232 9.13	51 2.01	2-5/8x80 2-M16x85	UL FM
150 6	159.0 6.250	300 2.07	41.0/9240	0-3.2 0-0.13	190 7.48	256 10.08	52 2.05	2-5/8x85 2-M16x85	UL FM
150 6	165.1 6.500	500 3.45	73.8/16610	0-3.2 0-0.13	196 7.72	260 10.24	52 2.05	2-5/8x85 2-M16x85	UL FM
150 6	168.3 6.625	500 3.45	76.7/17260	0-3.2 0-0.13	200 7.87	265 10.43	52 2.05	2-5/8x85 2-M16x85	UL FM
200 8	216.3 8.516	300 2.07	76.0/17100	0-3.2 0-0.13	254 10.00	320 12.60	59 2.32	2-5/8x85 2-M16x85	FM
200 8	219.1 8.625	500 3.45	116.9/26280	0-3.2 0-0.13	258 10.24	342 13.46	60 2.37	2-3/4x115 2-M20x115	UL FM
250 10	267.4 10.528	300 2.07	116.2/26140	0-3.2 0-0.13	308.5 12.15	403 15.87	64 2.52	2-3/4x115 2-M20x115	FM
250 10	273.0 10.750	500 3.45	121.0/27210	0-3.2 0-0.13	337 13.27	406 16.00	65 2.56	2-7/8x140 2-M22x140	UL FM
300 12	318.5 12.539	300 2.07	164.8/37090	0-3.2 0-0.13	363 14.29	460 18.11	63 2.48	2-7/8x140 2-M22x140	FM
300 12	323.9 12.750	500 3.45	170.3/38280	0-3.2 0-0.13	378 14.96	465 18.31	65 2.56	2-7/8x140 2-M22x140	UL FM
350 14	355.6 14.000	300 2.07	205.5/46220	0-3.2 0-0.13	402 15.83	493 19.41	72 2.83	3-7/8x140 3-M22x140	UL
350 14	377.0 14.843	225 1.6	178.5/40160	0-3.2 0-0.13	428 16.85	520 20.45	72 2.85	3-7/8x140 3-M22x140	UL
400 16	406.4 16.000	300 2.07	268.4/60370	0-3.2 0-0.13	458 18.03	547 21.54	72 2.85	3-7/8x140 3-M22x140	UL
400 16	426.0 16.772	225 1.6	227.9/51270	0-3.2 0-0.13	476 18.74	566 22.28	73 2.87	3-7/8x140 3-M22x140	UL
450 18	457.2 18.000	300 2.07	262.5/59060	0-3.2 0-0.13	505 19.88	598 23.54	78 3.07	3-7/8x140 3-M22x140	UL
450 18	480.0 18.9	300 2.07	373.8/84110	0-3.2 0-0.13	533 20.98	628 24.72	78 3.07	3-7/8x140 3-M22x140	UL
500 20	508.0 20.000	300 2.07	324.1/72910	0-3.2 0-0.13	550 21.65	648 25.51	78 3.07	4-7/8x140 4-M22x140	UL
600 24	609.6 24.000	300 2.07	466.7/104990	0-3.2 0-0.13	662 26.06	774 30.47	78 3.07	4-1x140	UL

Standart
Redüksiyon Kaplin
Standard Reducing
Flexible Coupling



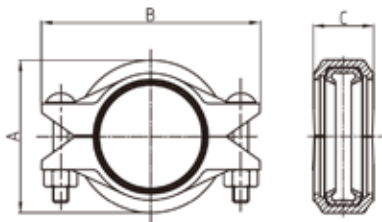
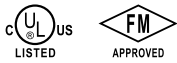
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Boru Ucu Ayrırma Pipe End Separation mm/in	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
50×25 2×1	60.3×33.7 2.375×1.315	360 2.48	5.9/1330	0-3.2 0-0.13	89 3.00	125.2 4.929	44 1.73	2-3/8×55 2-M10×57	UL
50×40 2×1½	60.3×48.3 2.375×1.900	360 2.48	5.9/1330	0-3.2 0-0.13	86 3.39	125 4.93	44 1.74	2-3/8×55 2-M10×57	UL FM
65×25 2½×1	73.0×33.7 2.875×1.327	300 2.07	8.7/1950	0-3.2 0-0.13	100 3.94	138 5.44	45 1.78	2-3/8×55 2-M10×57	UL FM
65×50 2½×2	73.0×60.3 2.875×2.375	360 2.48	8.7/1950	0-3.2 0-0.13	100 3.94	138 5.43	45 1.78	2-3/8×55 2-M10×57	UL FM
65×25 2½×1	76.1×33.7 3.000×1.327	300 2.07	9.4/2120	0-3.2 0-0.13	102 4.02	140 5.51	45 1.78	2-3/8×55 2-M10×57	UL FM
65×40 2½×1½	76.1×48.3 3.000×1.900	300 2.07	9.4/2120	0-3.2 0-0.13	102 4.02	140 5.51	45 1.78	2-3/8×55 2-M10×57	UL FM
65×50 2½×2	76.1×60.3 3.000×2.375	300 2.07	9.4/2120	0-3.2 0-0.13	102 4.02	144 5.67	45 1.78	2-3/8×55 2-M10×57	UL FM
65X65 2½X2½	76.1X73.0 3.000X2.875	300 2.07	9.4/2120	0-3.2 0-0.13	102.5 4.04	145 5.71	45 1.78	2-3/8X55 2-M10X57	-
80×25 3×1	88.9×33.7 3.500×1.327	300 2.07	12.8/2885	0-3.2 0-0.13	115 4.53	168 6.61	46 1.81	2-1/2×70 2-M12×70	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	360 2.48	12.8/2885	0-3.2 0-0.13	115 4.53	168 6.61	46 1.81	2-1/2×70 2-M12×70	UL FM
80×65 3×2½	88.9×73.0 3.500×2.875	360 2.48	12.8/2885	0-3.2 0-0.13	115 4.53	168 6.61	46 1.81	2-1/2×70 2-M12×70	UL FM
80×65 3×2½	88.9×76.1 3.500×3.000	300 2.07	12.8/2885	0-3.2 0-0.13	115 4.53	172 6.77	46 1.81	2-1/2×70 2-M12×70	UL FM
100×25 4×1	114.3×33.7 4.500×1.327	300 2.07	21.2/4770	0-3.2 0-0.13	144 5.67	198 7.80	50 1.97	2-1/2×70 2-M12×70	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	360 2.48	21.2/4770	0-3.2 0-0.13	144 5.67	198 7.80	50 1.97	2-1/2×70 2-M12×70	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	360 2.48	21.2/4770	0-3.2 0-0.13	144 5.67	198 7.80	50 1.97	2-1/2×70 2-M12×70	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	21.2/4770	0-3.2 0-0.13	144 5.67	202 7.95	50 1.97	2-1/2×70 2-M12×70	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	360 2.48	21.2/4770	0-3.2 0-0.13	148 5.83	198 7.80	50 1.97	2-1/2×70 2-M12×70	UL FM
150 X 80 6×3	165.1×88.9 6.500×3.500	300 2.07	44.3/9960	0-3.2 0-0.13	200 7.87	260 10.24	51 2.01	2-3/4×115 2-M20×115	UL FM
150×100 6×4	165.1×114.3 6.500×4.500	360 2.48	44.3/9960	0-3.2 0-0.13	197 7.75	260 10.24	51 2.01	2-5/8×85 2-M16×85	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	46.0/10340	0-3.2 0-0.13	200 7.87	268 10.55	51 2.01	2-5/8×85 2-M16×85	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	360 2.48	46.0/10340	0-3.2 0-0.13	202.5 7.97	268 10.55	52.5 2.07	2-5/8×85 2-M16×85	UL FM
150×125 6×5	168.3×141.3 6.625×5.563	360 2.48	46.0/10340	0-3.2 0-0.13	210.25 8.278	274.83 10.820	51.9 2.043	2-3/4×115 2-M20×115	UL
150×150 6×6	168.3×165.1 6.625×6.500	300 2.07	46.0/10340	0-3.2 0-0.13	204 8.031	268 10.551	52.5 2.066	2-5/8×85 2-M16×85	UL FM
200×150 8×6	219.1×165.1 8.625×6.500	300 2.07	77.8/17500	0-3.2 0-0.13	257 10.12	335 13.19	60 2.36	2-3/4×115 2-M20×115	UL FM
200×150 8×6	219.1×168.3 8.625×6.625	360 2.48	77.8/17500	0-3.2 0-0.13	260 10.24	338 13.31	60 2.36	2-3/4×115 2-M20×115	UL FM

Esnek Kaplin Flexible Coupling



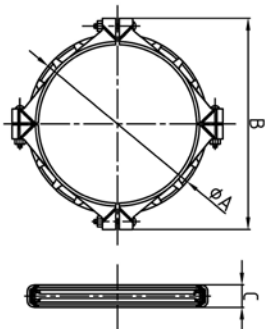
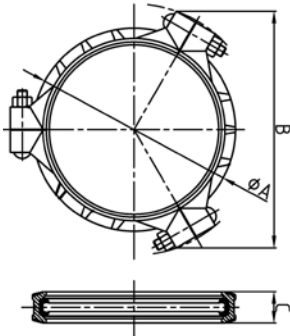
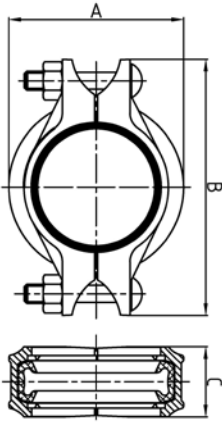
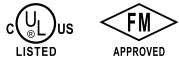
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Boru Ucu Ayrırma Pipe End Separation mm/in	Ölçüler/Dimensions			Cıvata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
50 2	60.3 2.37	300 2.07	5.9/1329	0-3.2 0-0.13	81.2 3.20	125 4.92	44.5 1.75	2-3/8X55 2-M10X57	-
65 2 1/2	76.1 3.00	300 2.07	9.4/2117	0-3.2 0-0.13	96.5 3.79	138 5.43	44.5 1.75	2-3/8X55 2-M10X57	-
80 3	88.9 3.500	300 2.07	12.8/2877	0-3.2 0-0.13	112.2 4.417	159 6.260	45.5 1.791	2-3/8X55 2-M10X57	UL
100 4	114.3 4.500	300 2.07	21.2/4770	0-3.2 0-0.13	139 5.47	182 7.16	50 1.97	2-3/8X55 2-M10X57	UL
125 5	139.7 5.500	450 3.10	47.5/10680	0-3.2 0-0.13	168 6.61	228 8.98	51 2.01	2-5/8X80 2-M16X85	UL
150 6	165.1 6.500	300 2.07	44.3/9960	0-3.2 0-0.13	192 7.56	244 9.61	51 2.01	2-1/2X75 2-M12X76	UL
150 6	168.3 6.625	300 2.07	46.0/10340	0-3.2 0-0.13	200 7.87	266 10.47	52 2.05	2-5/8X85 2-M16X85	UL
250 10	273.0 10.750	300 2.07	121.0/27210	0-3.2 0-0.13	320 12.60	398.0 15.67	64 2.52	2-3/4X120 2-M20X115	UL

Esnek Kaplin Flexible Coupling



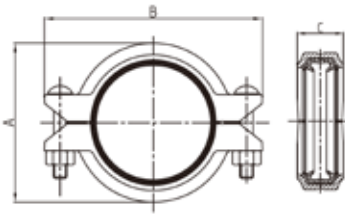
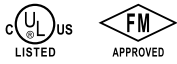
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Cıvata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
			A mm/in	B mm/in	C mm/in		
50 2	60.3 2.37	300 2.07	82.2 3.24	125 4.92	44.5 1.75	2-3/8X55 2-M10X57	-
65 2½	73.0 2½	363 2.5	94.5 3.720	136 5.354	44.5 1.752	2-3/8X55 2-M10X57	UL
65 2½	76.1 3.000	363 2.5	97.5 3.839	138 5.433	44.5 1.752	2-3/8X55 2-M10X57	-
80 3	88.9 3.500	363 2.5	110.4 4.346	152 5.984	45.5 1.791	2-3/8X55 2-M10X57	-
100 4	114.3 4.500	363 2.5	139 5.472	183 7.205	48 1.890	2-3/8X55 2-M10X57	-
125 5	139.7 5.5	363 2.5	165.4 6.50	220 8.86	49.5 1.95	2-1/2X70 2-M12X70	-
150 6	165.1 6.500	363 2.5	194.1 7.642	249 9.803	50 1.969	2-1/2X70 2-M12X70	-
150 6	168.3 6.625	300 2.07	197 7.76	255 10.04	49.5 1.95	2-1/2X70 2-M12X70	UL
200 8	219.1 8.625	300 2.07	250 9.84	323 12.72	58.5 2.30	2-5/8X85 2-M16X85	UL
250 10	273.0 10.750	300 2.07	310 12.20	390 15.35	60 2.36	2-3/4X115 2-M20X115	UL FM

Standart Sabit Kaplin
Standard Rigid Coupling



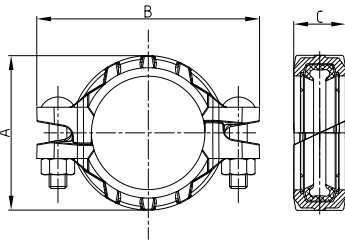
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Boru Ucu Ayrırma Pipe End Separation mm/in	Ölçüler/Dimensions			Cıvata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
25 1	33.7 1.327	500 3.45	3.0/680	0-1.6 0-0.06	59 2.33	100 3.94	44 1.74	2-3/8X55 2-M10X57	UL FM
32 1¼	42.4 1.669	500 3.45	4.8/1080	0-1.6 0-0.06	66 2.60	109.5 4.31	45 1.78	2-3/8X55 2-M10X57	UL FM
40 1½	48.3 1.900	500 3.45	6.3/1420	0-3.2 0-0.13	72 2.84	115 4.53	45 1.78	2-3/8X55 2-M10X57	UL FM
50 2	60.3 2.375	500 3.45	9.8/2210	0-3.2 0-0.13	85 3.35	131 5.16	45 1.78	2-3/8X55 2-M10X57	UL FM
65 2½	73.0 2.875	500 3.45	14.4/3240	0-3.2 0-0.13	98 3.86	145 5.71	45 1.78	2-3/8X55 2-M10X57	UL FM
65 2½	76.1 3.000	500 3.45	15.7/3520	0-3.2 0-0.13	101 3.98	147 5.78	45 1.77	2-3/8X55 2-M10X57	UL FM
80 3	88.9 3.500	500 3.45	21.4/4810	0-3.2 0-0.13	115.0 4.53	170 6.69	46 1.82	2-1/2X70 2-M12X70	UL FM
100 4	108.0 4.250	500 3.45	31.5/7100	0-3.2 0-0.13	140 5.51	197 7.76	52 2.05	2-1/2X70 2-M12X70	UL FM
100 4	114.3 4.500	500 3.45	35.4/7960	0-3.2 0-0.13	146 5.75	200 7.88	52 2.05	2-1/2X70 2-M12X70	UL FM
125 5	133 5.250	300 2.07	28.7/6460	0-3.2 0-0.13	165 6.50	232 9.13	52 2.05	2-5/8X85 2-M16X85	UL FM
125 5	139.7 5.500	500 3.45	52.9/11800	0-3.2 0-0.13	170 6.69	238 9.37	52 2.05	2-5/8X85 2-M16X85	UL FM
125 5	141.3 5.563	500 3.45	54.1/12100	0-3.2 0-0.13	172 6.77	236.5 9.31	52 2.05	2-5/8X85 2-M16X85	UL FM
150 6	159.0 6.250	300 2.07	41.0/9240	0-3.2 0-0.13	190 7.48	258 10.16	52 2.05	2-5/8X85 2-M16X85	UL FM
150 6	165.1 6.500	500 3.45	73.8/16610	0-3.2 0-0.13	198 7.80	266 10.47	52 2.05	2-5/8X85 2-M16X85	UL FM
150 6	168.3 6.625	500 3.45	76.7/17260	0-3.2 0-0.13	202.0 7.95	270 10.63	52 2.05	2-5/8X85 2-M16X85	UL FM
200 8	219.1 8.625	500 3.45	116.9/26280	0-3.2 0-0.13	260.0 10.24	366 13.625	62 2.44	2-3/4X115 2-M20X115	UL FM
250A 10	267.4 10.528	300 2.07	116/26130	0-3.2 0-0.13	318 12.52	396 15.60	63 2.48	2-3/4X120 2-M20X115	UL FM
250 10	273.0 10.750	500 3.45	163.8/36800	0-3.2 0-0.13	327 12.88	420 16.54	63 2.48	2-7/8X125 2-M22X125	UL FM
300A 12	318.5 12.539	300 2.07	164.8/37080	0-3.2 0-0.13	364 14.33	456 17.95	63 2.48	2-7/8X140 2-M22X140	UL FM
300 12	323.9 12.750	500 3.45	230.6/51880	0-3.2 0-0.13	378 14.88	466 18.35	63 2.48	2-7/8X140 2-M22X140	UL FM
350 14	355.6 14.000	300 2.07	205.5/46220	0-3.2 0-0.13	415 16.34	510 20.08	72 2.84	3-7/8X140 3-M22X140	UL FM
350 14	377.0 14.842	225 1.6	178.5/40160	0-3.2 0-0.13	435 17.13	535 21.05	72 2.84	3-7/8x140 3-M22x140	UL FM
400 16	406.4 16.000	300 2.07	268.4/60370	0-3.2 0-0.13	468 18.43	575 22.64	72 2.84	3-7/8X140 3-M22X140	UL FM
450 18	457.2 18.000	225 1.6	262.5/59060	0-3.2 0-0.13	508 20	608 23.94	78 3.07	3-7/8X140 3-M22X140	UL
500 20	508.0 20.0	225 1.6	324.1/72910	0-3.2 0-0.13	563 22.17	660 25.98	78 3.07	4-7/8X140 4-M22X140	UL
600 24	609.6 24.000	225 1.6	466.7/104990	0-3.2 0-0.13	668 26.30	772 30.40	78 3.07	4-1X140	UL
600 24	630 24.80	225 1.6	498.5/112140	0-3.2 0-0.13	692 27.24	796 31.33	78 3.07	4-1x140	UL
700 28	711.2 28	225 1.6	635/142900	8-12 0.31-0.47	798 31.42	960 37.80	133 5.24	6-11/2X53/4	-
800 32	812.8 32	225 1.6	830/186700	8-12 0.31-0.47	900 35.43	1058 41.65	133 5.24	6-11/2X53/4	-

Sabit Kaplin Rigid Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Pipe End Separation mm/in	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
80 3	88.9 3.500	350 2.41	15.0/3360	0-3.2 0-0.13	114 4.50	160 6.30	45 1.78	2-3/8X55 2-M10X57	UL FM
100 4	108.0 4.250	300 2.07	18.9/4260	0-3.2 0-0.13	135 5.30	185 7.28	50 1.97	2-1/2X70 2-M12X70	UL FM
100 4	114.3 4.500	350 2.41	24.7/5560	0-3.2 0-0.13	140 5.51	192 7.56	46.5 1.83	2-1/2X70 2-M12X70	UL FM
125 5	139.7 5.500	350 2.41	36.9/8300	0-3.2 0-0.13	168 6.62	225 8.86	50 1.97	2-1/2X75 2-M12X76	UL FM
125 5	141.3 5.563	350 2.41	37.8/8490	0-3.2 0-0.13	170 6.69	225 8.86	50 1.97	2-1/2X75 2-M12X76	UL FM
150 6	159.0 6.250	300 2.07	41.0/9240	0-3.2 0-0.13	190 7.48	252 9.92	50 1.97	2-5/8X80 2-M16X85	UL FM
150 6	165.1 6.500	350 2.41	51.6/11600	0-3.2 0-0.13	195 7.68	250 9.84	50 1.97	2-1/2X75 2-M12X76	UL FM
150 6	168.3 6.625	350 2.41	53.6/12000	0-3.2 0-0.13	200 7.87	255 10.04	50 1.97	2-1/2X75 2-M12X76	UL FM
200A 8	216.3 8.516	300 2.07	76.0/17100	0-3.2 0-0.13	255 10.04	320 12.60	58 2.28	2-5/8X85 2-M16X85	UL FM
200 8	219.1 8.625	350 2.41	90.8/20430	0-3.2 0-0.13	255 10.05	324 12.76	58 2.28	2-5/8X85 2-M16X85	UL FM
250 10	273.0 10.750	300 2.07	121.0/27210	0-3.2 0-0.13	318 12.52	410 16.14	63 2.48	2-3/4X120 2-M20X115	UL FM

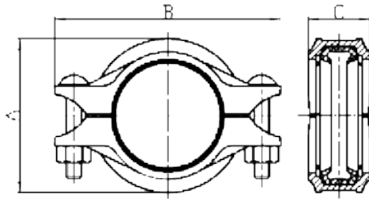
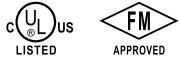
Yüksek Basıncılı Sabit Kaplin Heavy duty Rigid Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
			A mm/in	B mm/in	C mm/in		
50 2	60.3 2.375	750 5.17	88 3.46	136 5.35	45.5 1.79	2-1/2X75	UL
65 2½	73.0 2.875	750 5.17	101 3.98	150 5.91	45.5 1.79	2-1/2X75	UL
65 2½	76.1 3.000	750 5.17	104 4.09	155 6.10	45.5 1.79	2-1/2X75	UL
80 3	88.9 4.500	750 5.17	120.5 4.74	174 6.85	46.5 1.83	2-1/2X75	UL
100 4	114.3 4.500	750 5.17	150.5 5.93	217 8.54	50.5 1.99	2-5/8X80	UL
125 5	139.7 5.500	750 5.17	179 7.05	249 9.80	52 2.05	2-3/4X115	UL
125 5	141.3 5.563	750 5.17	180.5 7.11	250 9.84	51.5 2.03	2-3/4X115	UL
150 6	165.1 6.500	750 5.17	208 8.19	281 11.06	51.5 2.03	2-3/4X115	UL
150 6	168.3 6.625	750 5.17	211.5 8.33	285 11.22	52 2.05	2-3/4X115	UL
200 8	219.1 8.625	750 5.17	269 10.59	358 14.09	61 2.40	2-7/8X125	UL
250 10	273.0 10.750	750 5.17	326.5 12.85	420.7 16.56	63.5 2.50	2-7/8X125	UL
300 12	323.9 12.750	750 5.17	385 15.16	481 18.94	66 2.60	2-7/8X140	UL

UV18

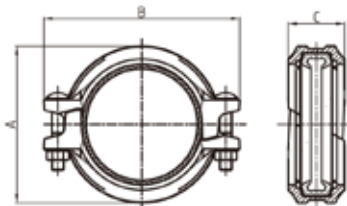
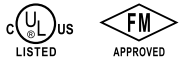
Standart Sabit Kaplin Standard Rigid Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
			A mm/in	B mm/in	C mm/in		
32 1 1/4	42.4 1.669	300 2.07	65 2.56	103.5 4.07	44.5 1.75	2-3/8X55 2-M10X57	UL FM
40 1 1/2	48.3 1.900	300 2.07	70.8 2.79	108 4.25	44.5 1.75	2-3/8X55 2-M10X57	UL FM
50 2	60.3 2.375	300 2.07	82.5 3.25	129 5.08	44.5 1.75	2-3/8X55 2-M10X57	UL
65 2 1/2	73.0 2.875	363 2.5	94.5 3.720	136 5.354	44 1.732	2-3/8X55 2-M10X57	UL
65 2 1/2	76.1 3.000	300 2.07	98 3.86	138 5.43	44 1.73	2-3/8X55 2-M10X57	UL FM
80 3	88.9 3.500	300 2.07	110 4.33	152 5.98	45 1.77	2-3/8X55 2-M10X57	UL FM
100 4	108.0 4.250	300 2.07	130 5.12	174 6.85	47 1.85	2-3/8X55 2-M10X57	UL FM
100 4	114.3 4.500	300 2.07	140 5.51	183 7.20	47 1.85	2-3/8X55 2-M10X57	UL FM
125 5	133 5.250	300 2.07	160 6.30	212 8.35	49 1.93	2-1/2X70 2-M12X70	UL FM
125 5	139.7 5.500	300 2.07	165 6.50	217 8.54	49 1.93	2-1/2X70 2-M12X70	UL FM
150 6	159.0 6.250	300 2.07	186 7.32	238 9.37	50 1.97	2-1/2X70 2-M12X70	UL FM
150 6	165.1 6.500	300 2.07	195 7.68	247 9.72	50 1.97	2-1/2X70 2-M12X70	UL FM
200 8	219.1 8.625	300 2.07	251 9.88	316 12.44	58 2.28	2-5/8X80 2-M16X85	UL FM
250 10	273.0 10.750	300 2.07	311 12.24	384 15.12	57.5 2.26	2-3/4X115 2-M20X115	UL FM

UV19

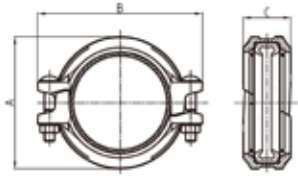
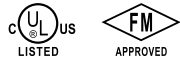
Çapraz Pedli Sabit Kaplin Angle Pad Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Pipe End Separation mm/in	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
					A mm/in	B mm/in	C mm/in		
32 1 1/4	42.4 1.669	500 3.45	4.8/1080	0-1.6 0-0.06	64 2.52	99 3.90	46.5 1.83	2-M10X57	UL FM
40 1 1/2	48.3 1.900	500 3.45	6.3/1420	0-3.2 0-0.13	70 2.76	105 4.13	46.5 1.83	2-M10X57	UL FM
50 2	60.3 2.375	500 3.45	9.8/2210	0-3.2 0-0.13	85 3.35	121 4.76	46.5 1.83	2-M10X57	UL FM
65 2 1/2	73.0 2.875	500 3.45	14.5/3250	0-3.2 0-0.13	99 3.90	134 5.28	47.5 1.87	2-M10X63	UL FM
65 2 1/2	76.1 3.000	500 3.45	15.7/3520	0-3.2 0-0.13	102 4.02	137 5.39	47.5 1.87	2-M10X63	UL FM
80 3	88.9 3.500	500 3.45	21.4/4810	0-3.2 0-0.13	115 4.53	150 5.91	47.5 1.87	2-M10X63	UL FM
100 4	114.3 4.500	500 3.45	35.4/7950	0-3.2 0-0.13	142 5.59	180 7.09	50 1.97	2-M10X70	UL FM
125 5	139.7 5.500	300 2.07	31.7/7130	0-3.2 0-0.13	171 6.73	214 8.43	52.5 2.07	2-M12X76	UL FM
150 6	165.1 6.500	300 2.07	44.3/9950	0-3.2 0-0.13	198 7.80	242 9.53	52.5 2.07	2-M12X76	UL FM
150 6	168.3 6.625	500 3.45	76.7/17230	0-3.2 0-0.13	201 7.91	245 9.65	52.5 2.07	2-M12X76	UL FM
200 8	219.1 8.625	500 3.45	129.7/29160	0-3.2 0-0.13	258 10.16	331 13.03	63.5 2.50	2-M20X115	UL FM
250 10	273.0 10.750	500 3.45	201.7/45350	0-3.2 0-0.13	321 12.64	406 15.98	64.5 2.54	2-M22X140	UL FM

UV09

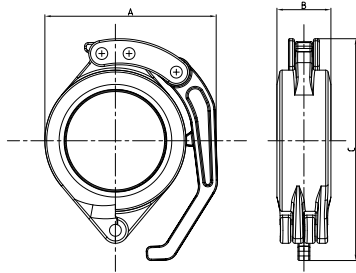
Sabit Kaplin Angle Pad Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size No.-Size mm/in	Sertifika Certificate
			A mm/in	B mm/in	C mm/in		
100 4	114.3 4.500	300 2.07	140.5 5.53	177.5 6.99	46.5 1.83	2-3/8X60 2-M10X63	UL
150 6	165.1 6.500	300 2.07	195 7.68	240 9.45	49.5 1.95	2-1/2X70 2-M12X70	UL
200 8	219.1 8.625	300 2.07	252 9.92	319 12.56	58 2.28	2-5/8X85 2-M16X85	UL FM

UV78

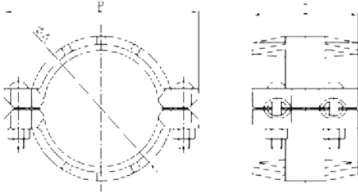
Civatasız Hızlı Kaplin Standard Wrench Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Pipe End Separation mm/in	Ölçüler/Dimensions		
					A mm/in	B mm/in	C mm/in
80 3	88.9 3.500	365 2.5	15.5/3490	0-3.2 0-0.13	143 5.63	45.5 1.79	180 7.09

UV305

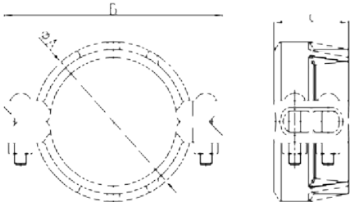
HDPE Kaplin HDPE Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size
		A mm/in	B mm/in	C mm/in	No.-Size mm/in
50 2	60.3 2.375	86.5 3.406	133 5.24	116 4.567	4-1/2X70
80 3	88.9 3.5	118 4.65	165 6.5	116 4.567	4-1/2X75
100 4	114.3 4.5	148 5.827	202 7.953	146 5.75	4-1/2X75
150 6	168.3 6.625	203 7.99	273 10.75	149 5.87	4-5/8X85
200 8	219.1 8.625	263 10.35	333 13.11	152 5.98	4-5/8X85
250 10	273.0 10.75	321 12.65	399 15.709	165 6.496	4-3/4X120
300 12	323.9 12.75	372 14.656	452 17.795	185 7.28	4-3/4X120

UV307

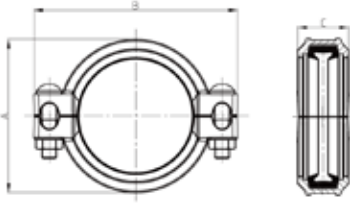
HDPE Geçiş Kaplini HDPE Transition Coupling



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size
		A mm/in	B mm/in	C mm/in	No.-Size mm/in
50 2	60.3 2.375	86.5 3.406	147 5.787	79 3.11	4-1/2X70
80 3	88.9 3.5	116 4.567	176 6.929	79 3.11	4-1/2X75
100 4	114.3 4.5	148 5.827	209 8.228	95 3.75	4-1/2X75
150 6	168.3 6.625	202 7.95	280 11.02	95 3.74	4-5/8X85
200 8	219.1 8.625	264 10.39	342 13.46	107.5 4.23	4-5/8X85
250 10	273.0 10.75	321 12.65	424 16.693	127 5	4-3/4X120
300 12	323.9 12.75	372 14.656	483 19.016	127 5	4-3/4X120

Ring Kaplin

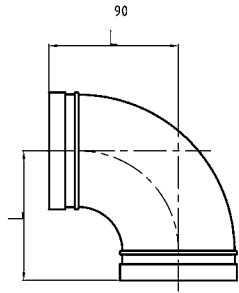
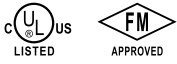
Shoulder Welded Ring Pipe Clamp



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Taşıyabileceği Maksimum Yük Max. End Load kN/Lbs	Pipe End Separation mm/in	Ölçüler/Dimensions			Civata Ölçüsü Bolt Size
					A mm/in	B mm/in	C mm/in	No.-Size mm/in
50 2	60.3 2.375	580 4.00	11.4/2569	0-3 0-0.118	94 3.70	139.5 5.49	44.5 1.75	2-M12X70
80 3	88.9 3.500	580 4.00	24.8/5584	0-3 0-0.118	124 4.88	169 6.65	47 1.85	2-M12X70
100 4	114.3 4.500	580 4.00	42.0/9230	0-3 0-0.118	154 6.06	205 8.07	50.5 1.99	2-M12X70
150 6	165.1 6.500	435 3.00	64.2/14443	0-3 0-0.118	207 8.15	274 10.79	51.5 2.03	2-M16X85
200 8	219.1 8.625	435 3.00	113.1/25437	0-3 0-0.118	273 10.75	340 13.39	61 2.40	2-M16X95

Kaynaklı Ringler Nominal Boyut Weld Rings Nominal Size mm/in	Ölçüler/Dimensions		
	E mm/in	F mm/in	G mm/in
50 2	16 0.63	67 2.64	60.3 2.37
80 3	16 0.63	97 3.82	88.9 3.50
100 4	17.5 0.69	122 4.80	114.3 4.50
150 6	17.5 0.69	175 6.89	165.1 6.50
200 8	20.5 0.81	232 9.13	219.1 8.63

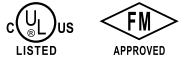
90° Dirsek 90° Elbow



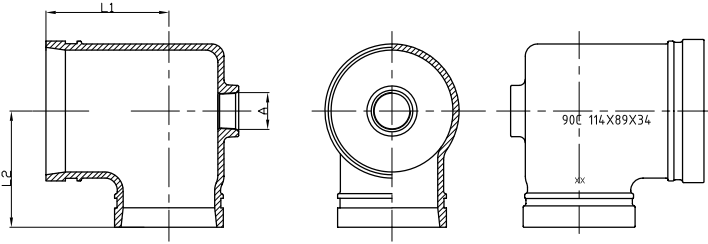
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
25 1	33.7 1.315	500 3.45	57 2.24	UL FM
32 1¼	42.4 1.660	500 3.45	70 2.75	UL FM
40 1½	48.3 1.900	500 3.45	70 2.75	UL FM
50 2	60.3 2.375	500 3.45	82.5 3.25	UL FM
65 2½	73.0 2.875	500 3.45	95 3.74	UL FM
65 2½	76.1 3.000	500 3.45	95 3.74	UL FM
80 3	88.9 3.500	500 3.45	108 4.25	UL FM
100 4	108.0 4.250	500 3.45	127 5.00	-
100 4	114.3 4.500	500 3.45	127 5.00	UL FM
125 5	133.0 5.250	500 3.45	122 4.80	UL FM
125 5	139.7 5.500	500 3.45	140 5.50	UL FM
125 5	141.3 5.563	500 3.45	140 5.50	UL FM
150 6	159.0 6.250	500 3.45	165 6.50	-
150 6	165.1 6.500	500 3.45	165 6.50	UL FM
150 6	168.3 6.625	500 3.45	165 6.50	UL FM
200 8	219.1 8.625	500 3.45	197 7.75	UL FM
250 10	267.4 10.528	300 2.07	229 9.00	UL FM
250 10	273.0 10.750	300 2.07	229 9.00	UL FM
300 12	318.5 12.539	300 2.07	254 10.00	UL FM
300 12	323.9 12.750	300 2.07	254 10.00	UL FM
350 14	355.6 14.000	300 2.07	280 11.02	-
350 14	377.0 14.84	300 2.07	279 10.98	-
400 16	406.4 16.000	300 2.07	305 12.00	-
400 16	426.0 16.77	300 2.07	305 12.00	-
450 18	457.2 18.000	300 2.07	394 15.50	-
450 18	480.0 18.90	300 2.07	335 13.19	-
500 20	508.0 20.000	300 2.07	438 17.25	-
600 24	609.6 24.000	300 2.07	508 20.00	-

UV90C

90° Hidrant Dirsek 90° Hydrant Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Sertifika Certificate
			A	L 1 mm/in	L 2 mm/in	
100X80X25 4X3X1	114.3X88.9X33.7 4.500X3.500X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	102 4.016	95 3.74	UL FM
150x80X25 6X3X1	165.1X88.9X33.7 6.500X3.500X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	130 5.118	130 5.118	UL FM

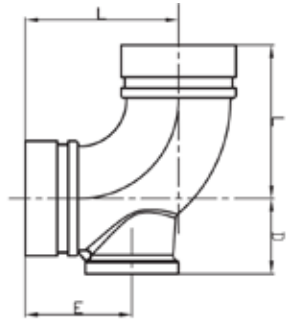


UV90C

90° Tahliye Dirseği 90° Drain Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Sertifika Certificate
			L mm/in	D mm/in	E mm/in	
50 2	60.3 2.375	300 2.07	82.5 3.248	57 2.244	40 1.575	-
65 2 1/2	73 2.875	300 2.07	95 3.74	70 2.756	43 1.693	-
80 3	88.9 3.500	300 2.07	108 4.25	70 2.756	53 2.087	-
100 4	114.3 4.5	300 2.07	127 5	70 2.756	66 2.598	-
150 6	168.3 6.625	300 2.07	165 6.496	70 2.756	93 3.661	-
200 8	219.1 8.625	300 2.07	197 7.756	70 2.756	126 4.961	-

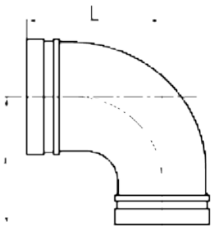


UV21

90° Redüksiyon Dirseği 90° Reducing Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
80X65 3X2 1/2	88.9X76.1 3.500X3.000	500 3.45	108 4.25	UL FM
100X65 4X2 1/2	114.3X76.1 4.500X3.000	500 3.45	127 5.00	UL FM
100X80 4X3	114.3X88.9 4.500X3.500	500 3.45	127 5.00	UL FM
150X100 6X4	165.1X114.3 6.500X4.500	500 3.45	165 6.50	UL FM
150X100 6X4	168.3X114.3 6.625X4.500	500 3.45	165 6.50	UL FM

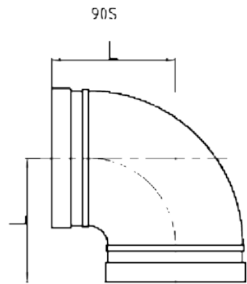


UV22

90° Dirsek 90° Elbow

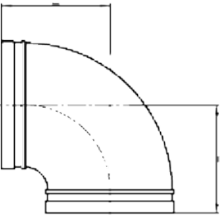
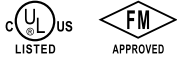


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
50 2	57.0 2.244	300 2.07	70 2.75	-
50 2	60.3 2.375	300 2.07	70 2.75	UL FM
65 2 1/2	73.0 2.875	300 2.07	76 3.00	UL FM
65 2 1/2	76.1 3.000	300 2.07	76 3.00	UL FM
80 3	88.9 3.500	300 2.07	85.5 3.37	UL FM
100 4	108.0 4.500	500 3.45	101 3.98	UL FM
100 4	114.3 4.500	365 2.52	101 3.98	UL FM
125 5	139.7 5.500	300 2.07	124 4.88	UL FM
150 6	159.0 6.500	300 2.07	140 5.50	UL FM
150 6	165.1 6.500	365 2.52	140 5.50	UL FM
150 6	168.3 6.625	300 2.07	140 5.50	UL FM
200 8	216.3 8.625	300 2.07	175 6.89	UL FM
200 8	219.1 8.625	300 2.07	165 6.50	UL FM



UV23

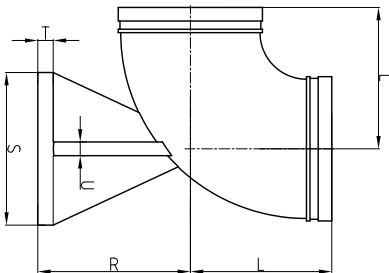
90° Dirsek 90° Elbow



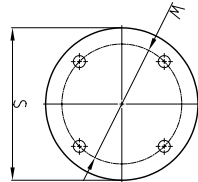
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions		Sertifika Certificate
			L mm/in	R mm/in	
80 3	88.9 3.5	300 2.07	80.5 3.17		UL FM
100 4	108.0 4.250	300 2.07	92 3.62		UL FM
100 4	114.3 4.500	300 2.07	96 3.78		UL FM
125 5	133.0 5.250	300 2.07	109 4.29		UL FM
125 5	139.7 5.500	300 2.07	116 4.57		UL FM
125 5	141.3 5.563	300 2.07	116 4.57		-
150 6	159.0 6.250	300 2.07	121.5 4.78		UL FM
150 6	165.1 6.500	300 2.07	130 5.12		UL FM
150 6	168.3 6.625	300 2.07	130 5.12		UL FM
250 10	273.0 10.750	300 2.07	204 8.03		UL FM
300 12	323.9 12.750	300 2.07	220 8.66		UL FM

UV23CZ

Zemin dirseği Base Elbow

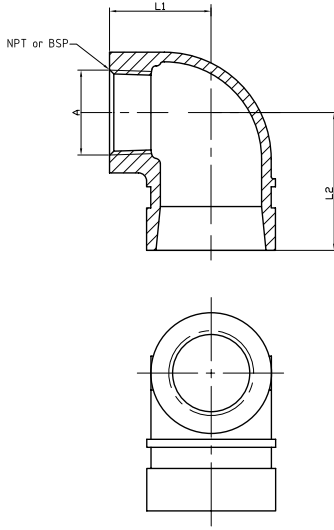


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					
			L mm/in	R mm/in	U mm/in	T mm/in	S mm/in	W mm/in
80 3	88.9 3.500	300 2.07	108 4.25	124 4.88	13 0.5	14 0.56	127 5	99 3.88
100 4	114.3 4.500	300 2.07	127 5.00	140 5.5	13 0.5	16 0.62	152 6	121 4.75
150 6	168.3 6.625	300 2.07	165 6.50	178 7	16 0.62	18 0.69	178 7	140 5.5
200 8	219.1 8.625	300 2.07	197 7.75	213 8.38	22 0.88	24 0.94	229 9	191 7.5
250 10	273.0 10.750	300 2.07	229 9.00	248 9.75	22 0.88	24 0.94	229 9	191 7.5
300 12	323.9 12.750	300 2.07	254 10.00	286 11.25	25 1	25 1	279 11	241 9.5



UV24

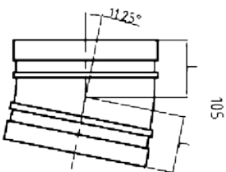
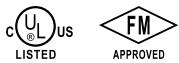
90° END-ALL Dirsek 90° END-ALL Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			Sertifika Certificate
			A (NPT/BSP)	L1 mm/in	L2 mm/in	
32X15 11/4X1/2	42.4X21.3 1.660X0.825	500 3.45	1/2	35.1 1.382	44.5 1.752	UL FM
32X20 11/4X3/4	42.4X26.9 1.660X1.050	500 3.45	3/4	34.9 1.374	47.6 1.874	UL FM
32X25 11/4X1	42.4X33.7 1.660X1.315	500 3.45	1	38.1 1.5	51.6 2.031	UL FM
40X15 11/2X1/2	48.3X21.3 1.900X0.825	500 3.45	1/2	34.9 1.374	44.5 1.752	UL FM
40X20 11/2X3/4	48.3X26.9 1.900X1.050	500 3.45	3/4	34.9 1.374	47.6 1.874	UL FM
40X25 11/2X1	48.3X33.7 1.900X1.315	500 3.45	1	38.1 1.5	51.6 2.031	UL FM
50X15 2X1/2	60.3X21.3 2.375X0.825	500 3.45	1/2	41.4 1.63	44.5 1.752	UL FM
50X20 2X3/4	60.3X26.9 2.375X1.050	500 3.45	3/4	41.3 1.626	47.6 1.874	UL FM
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	1	44.5 1.752	51.6 2.031	UL FM
65X15 21/2X1/2	73.0X21.3 2.875X0.825	500 3.45	1/2	46 1.811	44.5 1.752	UL FM
65X20 21/2X3/4	73.0X26.9 2.875X1.050	500 3.45	3/4	46 1.811	47.6 1.874	UL FM
65X25 21/2X1	73.0X33.7 2.875X1.315	500 3.45	1	49.2 1.937	51.6 2.031	UL FM
65X25 21/2X1	76.1X33.7 2.996X1.327	500 3.45	1	49.2 1.94	51.6 2.03	-
80X20 3X3/4	88.9X26.9 3.500X1.050	500 3.45	3/4	60.3 2.374	52.4 2.063	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	1	63.5 2.5	52.4 2.063	UL FM

UV25

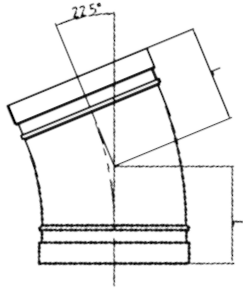
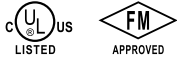
11.25° Dirsek 11.25° Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
32 1 1/4	42.4 1.660	500 3.45	35 1.38	UL FM
40 1 1/2	48.3 1.900	500 3.45	35 1.38	UL FM
50 2	60.3 2.375	500 3.45	35 1.38	UL FM
65 2 1/2	73.0 2.875	500 3.45	38 1.506	UL FM
65 2 1/2	76.1 3.000	500 3.45	38 1.506	UL FM
80 3	88.9 3.500	500 3.45	38 1.50	UL FM
100 4	108.0 4.250	500 3.45	44 1.73	UL FM
100 4	114.3 4.500	500 3.45	44 1.73	UL FM
125 5	139.7 5.500	500 3.45	51 2.00	UL FM
150 6	159.0 6.250	500 3.45	51 2.00	UL FM
150 6	165.1 6.500	500 3.45	51 2.00	UL FM
150 6	168.3 6.625	500 3.45	51 2.00	UL FM
200 8	219.1 8.625	500 3.45	51 2.00	UL FM

UV26

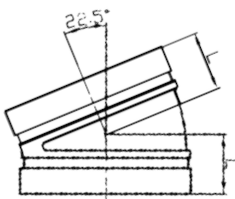
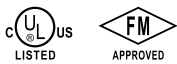
22.5° Dirsek 22.5° Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
32 1¼	42.4 1.660	500 3.45	45 1.77	UL FM
40 1½	48.3 1.900	500 3.45	45 1.77	UL FM
50 2	60.3 2.375	500 3.45	48 1.89	UL FM
65 2½	73.0 2.875	500 3.45	51 2.00	UL FM
65 2½	76.1 3.000	500 3.45	51 2.00	UL FM
80 3	88.9 3.500	500 3.45	57 2.24	UL FM
100 4	108.0 4.250	500 3.45	73 2.87	UL FM
100 4	114.3 4.500	500 3.45	73 2.87	UL FM
125 5	139.7 5.500	500 3.45	73 2.87	UL FM
150 6	159.0 6.250	500 3.45	79 3.11	UL FM
150 6	165.1 6.500	500 3.45	79 3.11	UL FM
150 6	168.3 6.625	500 3.45	79 3.11	UL FM
200 8	219.1 8.625	500 3.45	98 3.86	UL FM

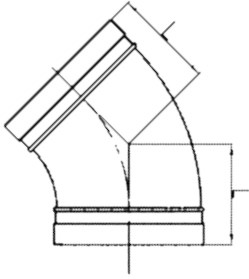
UV27

22.5° Dirsek 22.5° Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
100 4	114.3 4.500	300 2.07	40 1.57	UL FM
150 6	159.0 6.250	300 2.07	45 1.77	UL FM
150 6	165.1 6.500	300 2.07	45 1.77	UL FM

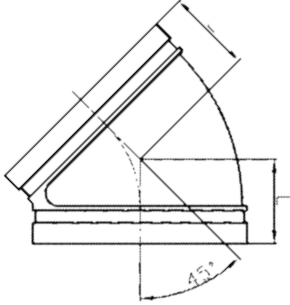
45° Dirsek 45° Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
25 1	33.7 1.315	500 3.45	44.5 1.75	UL FM
32 1¼	42.4 1.660	500 3.45	44.5 1.75	UL FM
40 1½	48.3 1.900	500 3.45	44.5 1.75	UL FM
50 2	60.3 2.375	500 3.45	51 2.00	UL FM
65 2½	73.0 2.875	500 3.45	57 2.24	UL FM
65 2½	76.1 3.000	500 3.45	57 2.24	UL FM
80 3	88.9 3.500	500 3.45	63.5 2.50	UL FM
100 4	108.0 4.250	500 3.45	76 3.00	UL FM
100 4	114.3 4.500	500 3.45	76 3.00	UL FM
125 5	133.0 5.250	500 3.45	82.5 3.25	UL FM
125 5	139.7 5.500	500 3.45	82.5 3.25	UL FM
125 5	141.3 5.563	500 3.45	82.5 3.25	UL FM
150 6	159.0 6.250	500 3.45	89 3.50	UL FM
150 6	165.1 6.500	500 3.45	89 3.50	UL FM
150 6	168.3 6.625	500 3.45	89 3.50	UL FM
200 8	216.3 8.516	500 3.45	108 4.25	UL FM
200 8	219.1 8.625	500 3.45	108 4.25	UL FM
250 10	267.4 10.528	300 2.07	120.5 4.75	UL FM
250 10	273.0 10.750	500 3.45	120.5 4.75	UL FM
300 12	318.5 12.750	300 2.07	133 5.25	UL FM
300 12	323.9 12.750	500 3.45	133 5.25	UL FM
350 14	377 14.843	300 2.07	122 4.80	-
350 14	355.6 14.000	300 2.07	152 6.00	-
400 16	406.4 16.000	300 2.07	184 7.25	-
450 18	457.2 18.000	300 2.07	203 8.00	-
500 20	508.0 20.000	300 2.07	229 9.00	-
600 24	609.6 24.000	300 2.07	280 11.00	-

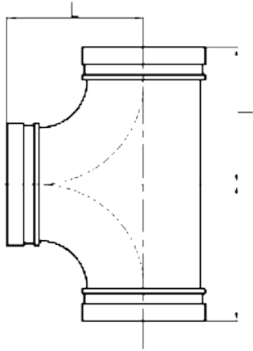
45° Dirsek

45° Elbow



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
80 3	88.9 3.500	300 2.07	51 2.01	UL FM
100 4	108.0 4.250	300 2.07	52 2.05	UL FM
100 4	114.3 4.500	300 2.07	54 2.13	UL FM
125 5	139.7 5.500	300 2.07	60 2.36	UL FM
125 5	141.3 5.563	300 2.07	60 2.36	-
150 6	159.0 6.250	300 2.07	63 2.48	UL FM
150 6	165.1 6.500	300 2.07	65 2.56	UL FM
150 6	168.3 6.625	300 2.07	65 2.56	UL FM
200 8	219.1 8.625	300 2.07	80 3.15	UL FM
250 10	273.0 10.750	300 2.07	95 3.74	UL FM

Te
Tee



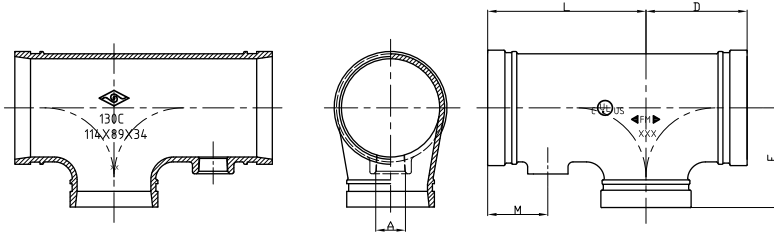
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
25 1	33.7 1.315	500 3.45	57 2.24	UL FM
32 1¼	42.4 1.660	500 3.45	70 2.75	UL FM
40 1½	48.3 1.900	500 3.45	70 2.75	UL FM
50 2	60.3 2.375	500 3.45	82.5 3.25	UL FM
65 2½	73.0 2.875	500 3.45	95 3.74	UL FM
65 2½	76.1 3.000	500 3.45	95 3.74	UL FM
80 3	88.9 3.500	500 3.45	108 4.25	UL FM
100 4	108.0 4.250	500 3.45	127 5.00	-
100 4	114.3 4.500	500 3.45	127 5.00	UL FM
125 5	133.0 5.250	500 3.45	122 4.80	UL FM
125 5	139.7 5.500	500 3.45	140 5.50	UL FM
125 5	141.3 5.563	500 3.45	140 5.50	UL FM
150 6	159.0 6.250	500 3.45	165 6.50	-
150 6	165.1 6.500	500 3.45	165 6.50	UL FM
150 6	168.3 6.625	500 3.45	165 6.50	UL FM
200 8	219.1 8.625	500 3.45	197 7.75	UL FM
250 10	267.4 10.528	500 3.45	229 9.00	UL FM
250 10	273.0 10.750	500 3.45	229 9.00	UL FM
300 12	318.5 12.539	500 3.45	254 10.00	-
300 12	323.9 12.750	500 3.45	254 10.00	UL FM
350 14	355.6 14.000	300 2.07	280 11.02	-
350 14	377.0 14.84	300 2.07	279 10.98	-
400 16	406.4 16.000	300 2.07	305 12.00	-
400 16	426.0 16.77	300 2.07	285 11.22	-
450 18	457.2 18.000	300 2.07	342 13.46	-
450 18	480.0 18.90	300 2.07	335 13.19	-
500 20	508.0 20.000	300 2.07	381 15.00	-
600 24	609.6 24.000	300 2.07	432 17.01	-

Redüksiyon Te

Reducing Tee



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Sertifika Certificate
			A	L mm/in	D mm/in	E mm/in	M mm/in	
100X80X25 4X3X1	114.3X88.9X33.7 4.5X3.5X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	160 w6.3	102 4.02	102 4.02	60 2.36	UL FM
150X80X25 6X3X1	165.1X88.9X33.7 6.5X3.5X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	165 6.5	130 5.12	130 5.12	60 2.36	UL FM

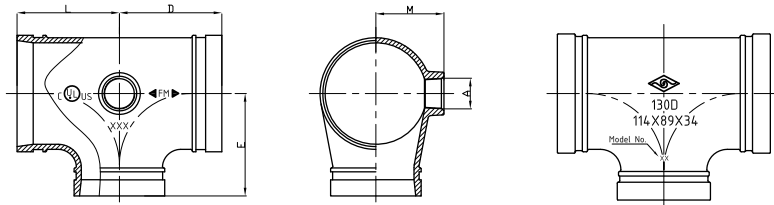


Redüksiyon Te

Reducing Tee

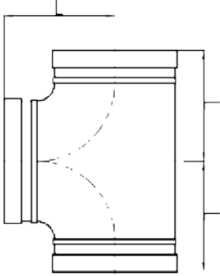


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Sertifika Certificate
			A	L mm/in	D mm/in	E mm/in	M mm/in	
100X80X25 4X3X1	114.3X88.9X33.7 4.5X3.5X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	102 4.02	102 4.02	102 4.02	67 2.638	UL FM
150X80X25 6X3X1	165.1X88.9X33.7 6.5X3.5X1.327	300 2.07	1-11.5NPT Rp1-ISO7/1	130 5.12	130 5.12	130 5.12	91 3.58	UL FM



UV33

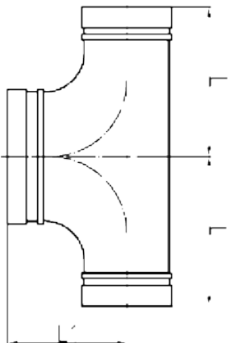
Te Tee



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
50 2	57.0 2.244	300 2.07	70 2.75	-
50 2	60.3 2.375	300 2.07	70 2.75	UL FM
65 2½	73.0 2.875	300 2.07	76 3.00	UL FM
65 2½	76.1 3.000	300 2.07	76 3.00	UL FM
80 3	88.9 3.500	300 2.07	85.5 3.37	UL FM
100 4	108.0 4.500	500 3.45	101 3.98	UL FM
100 4	114.3 4.500	300 2.07	101 3.98	UL FM
125 5	139.7 5.500	300 2.07	124 4.88	UL FM
150 6	159.0 6.500	300 2.07	140 5.50	UL FM
150 6	165.1 6.500	300 2.07	140 5.50	UL FM
150 6	168.3 6.625	300 2.07	140 5.50	UL FM
200 8	216.3 8.625	300 2.07	175 6.89	UL FM
200 8	219.1 8.625	300 2.07	175 6.89	UL FM

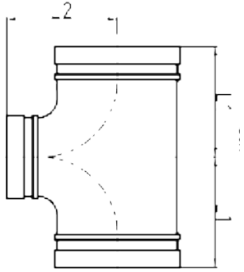
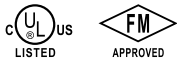
UV34

Redüksiyon Te Reducing Tee



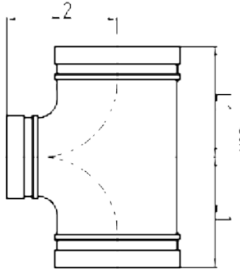
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
65×65×80 2½×2½×3	76.1×76.1×88.9 3.000×3.000×3.500	500 3.45	108 4.25	95 3.74	-
65×65×100 2½×2½×4	76.1×76.1×114.3 3.000×3.000×4.500	500 3.45	127 5.00	102 4.02	-
80×80×100 3×3×4	88.9×88.9×114 3.500×3.500×4.500	500 3.45	127 5.00	102 4.02	-

Redüksiyon Te Reducing Tee



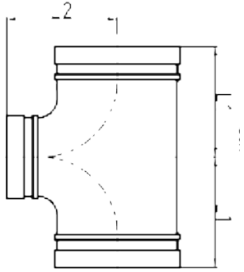
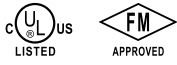
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
50×25 2×1	60.3×33.7 2.375×1.315	500 3.45	70 2.75	70 2.75	UL FM
50×40 2×1½	60.3×48.3 2.375×1.900	500 3.45	70 2.75	70 2.75	UL FM
65×40 2½×1½	73.0×48.3 2.875×1.900	500 3.45	76 3.00	76 3.00	UL FM
65×50 2½×2	73.0×60.3 2.875×2.375	500 3.45	69 2.72	76 3.00	UL FM
65×32 2½×1¼	76.1×42.4 3.000×1.660	500 3.45	76 3.00	76 3.00	UL FM
65×40 2½×1½	76.1×48.3 3.000×1.900	500 3.45	76 3.00	76 3.00	UL FM
65×50 2½×2	76.1×60.3 3.000×2.375	500 3.45	69 2.72	76 3.00	UL FM
80×32 3×1	88.9×33.7 3.500×1.315	500 3.45	108 4.25	108 4.25	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×40 3×1½	88.9×48.3 3.500×1.900	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×65 3×2½	88.9×73.0 3.500×2.875	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×65 3×2½	88.9×76.1 3.500×3.000	500 3.45	85.5 3.37	85.5 3.37	UL FM
100×50 4×2	108.0×60.3 4.250×2.375	500 3.45	101 3.98	101 3.98	UL FM
100×80 4×3	108.0×88.9 4.250×3.500	500 3.45	101 3.98	101 3.98	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	500 3.45	101 3.98	101 3.98	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	500 3.45	101 3.98	101 3.98	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	500 3.45	101 3.98	101 3.98	UL FM
100×65 4×2½	108.0×73.0 4.250×2.875	500 3.45	101 3.98	101 3.98	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	500 3.45	101 3.98	101 3.98	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	500 3.45	101 3.98	101 3.98	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	500 3.45	101 3.98	101 3.98	UL FM
125×50 5×2	133.0×60.3 5.250×2.375	500 3.45	124 4.88	124 4.88	UL FM
125×65 5×2½	133.0×76.1 5.250×3.000	500 3.45	124 4.88	124 4.88	UL FM
125×100 5×4	133.0×108.0 5.250×4.250	500 3.45	124 4.88	124 4.88	UL FM
125×100 5×4	133.0×114.3 5.250×4.500	500 3.45	124 4.88	124 4.88	UL FM
125×40 5×1½	139.7×48.3 5.500×1.900	500 3.45	124 4.88	124 4.88	UL FM
125×50 5×2	139.7×60.3 5.500×2.375	500 3.45	124 4.88	124 4.88	UL FM
125×65 5×2½	139.7×76.1 5.500×3.000	500 3.45	124 4.88	124 4.88	UL FM
125×80 5×3	139.7×88.9 5.500×3.500	500 3.45	124 4.88	124 4.88	UL FM
125×100 5×4	139.7×114.3 5.500×4.500	500 3.45	124 4.88	124 4.88	UL FM
125×50 5×2	141.3×60.3 5.563×2.375	500 3.45	124 4.88	124 4.88	UL FM
125×80 5×3	141.3×88.9 5.563×3.500	500 3.45	124 4.88	124 4.88	UL FM
125×100 5×4	141.3×114.3 5.563×4.500	500 3.45	124 4.88	124 4.88	UL FM
150×60 6×2	159.0×60.3 6.250×2.375	500 3.45	140 5.50	140 5.50	UL FM
150×65 6×2½	159.0×76.1 6.250×3.000	500 3.45	140 5.50	140 5.50	UL FM
150×80 6×3	159.0×88.9 6.250×3.500	500 3.45	140 5.50	140 5.50	UL FM
150×100 6×4	159.0×108.0 6.250×4.250	500 3.45	140 5.50	140 5.50	UL
150×100 6×4	159.0×114.3 6.250×4.500	500 3.45	140 5.50	140 5.50	UL FM
150×125 6×5	159.0×133.0 6.250×5.250	500 3.45	140 5.50	140 5.50	UL FM

Redüksiyon Te Reducing Tee



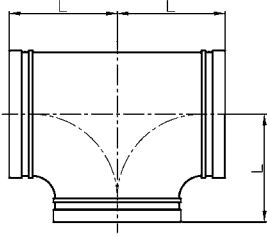
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	140 5.50	140 5.50	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	140 5.50	140 5.50	UL FM
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	140 5.50	140 5.50	UL FM
150×100 6×4	165.1×114.3 6.500×4.500	300 2.07	140 5.50	140 5.50	UL FM
150×125 6×5	165.1×139.7 6.500×5.500	300 2.07	140 5.50	140 5.50	UL FM
165×133	165.1×133.0 6.500×5.250	300	140 5.50	140 5.50	FM
150×50 6×2	168.3×60.3 6.625×2.375	500 3.45	140 5.50	140 5.50	UL FM
150×65 6×2½	168.3×73.0 6.625×2.875	500 3.45	140 5.50	140 5.50	UL FM
150×65 6×2½	168.3×76.1 6.625×3.000	500 3.45	140 5.50	140 5.50	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	500 3.45	140 5.50	140 5.50	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	500 3.45	140 5.50	140 5.50	UL FM
150×125 6×5	168.3×139.7 6.625×5.500	300 2.07	140 5.50	140 5.50	UL FM
150×125 6×5	168.3×141.3 6.625×5.563	300 2.07	140 5.50	140 5.50	UL FM
200×100 8×4	216.3×114.3 8.516×4.500	300 2.07	175 6.89	175 6.89	FM
200×150 8×6	216.3×165.1 8.516×6.500	300 2.07	175 6.89	175 6.89	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	500 3.45	175 6.89	175 6.89	UL FM
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	175 6.89	175 6.89	UL FM
200×80 8×3	219.1×88.9 8.625×3.500	500 3.45	175 6.89	175 6.89	UL FM
200×100 8×4	219.1×108.0 8.625×4.250	500 3.45	175 6.89	175 6.89	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	500 3.45	175 6.89	175 6.89	UL FM
200×125 8×5	219.1×133.0 8.625×5.250	300 2.07	175 6.89	175 6.89	UL FM
200×125 8×5	219.1×139.7 8.625×5.500	300 2.07	175 6.89	175 6.89	UL FM
200×150 8×6	219.1×159.0 8.625×6.250	300 2.07	175 6.89	175 6.89	UL FM
200×150 8×6	219.1×165.1 8.625×6.500	300 2.07	175 6.89	175 6.89	UL FM
200×150 8×6	219.1×168.3 8.625×6.625	500 3.45	175 6.89	175 6.89	UL FM
219×65 8×2½	219.1×73.0 8.625×2.875	300 2.07	175 6.89	175 6.89	UL FM
250×100 10×4	273.0×114.3 10.750×4.500	500 3.45	228.6 9.00	228.6 9.00	UL FM
250×150 10×6	273.0×159.0 10.750×6.250	500 3.45	229 9.00	229 9.00	-
250×150 10×6	273.0×165.1 10.750×6.500	300 2.07	229 9.00	229 9.00	FM
250×150 10×6	273.0×168.3 10.750×6.625	300 2.07	229 9.00	229 9.00	FM
250×200 10×8	273.0×219.1 10.750×8.625	300 2.07	229 9.00	229 9.00	FM
300×65 12×2½	323.9×73.0 12.750×2.875	300 2.07	254 10	254 10	-
300×80 12×3	323.9×88.9 12.750×3.500	300 2.07	254 10	254 10	-
300×150 12×6	323.9×165.1 12.750×6.500	300 2.07	254 10	254 10	FM
300×150 12×6	323.9×168.3 12.750×6.625	300 2.07	254 10	254 10	FM
300×200 12×8	323.9×219.1 12.750×8.625	300 2.07	254 10	254 10	FM
300×250 12×10	323.9×273.0 12.750×10.750	300 2.07	254 10	254 10	FM
450×300 18×12	480.0×323.9 18.897×12.750	300 2.07	335 13.188	335 13.188	-
450×350 18×14	480.0×377.0 18.897×14.840	300 2.07	335 13.188	335 13.188	-
350×150 14×6	355.6×168.3 14.000×6.625	300 2.07	279 10.98	238 9.37	-

Redüksiyon Te Reducing Tee



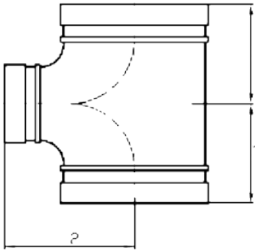
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Ölçüler/Dimensions L 1 mm/in	Sertifika Certificate
350×200 14×8	355.6×219.1 14.00×8.625	300 2.07	280 11.02	280 11.02	-
350×250 14×10	355.6×273.0 14.000×10.750	300 2.07	279 10.98	257 10.12	-
350×300 14×12	355.6×323.9 14.000×12.750	300 2.07	279 10.98	270 10.63	-
350×125 14×5	377.0×133.0 14.840×5.250	300 2.07	240 9.45	265 10.43	-
350×150 14×6	377.0×159.0 14.840×6.250	300 2.07	240 9.45	265 10.43	-
350×200 14×8	377.0×219.1 14.840×8.625	300 2.07	240 9.45	265 10.43	-
350×250 14×10	377.0×273.0 14.840×10.750	300 2.07	240 9.45	265 10.43	-
350×300 14×12	377.0×323.9 14.840×12.750	300 2.07	240 9.45	265 10.43	-
400×150 16×6	406.4×168.3 16.000×6.625	300 2.07	305 12.01	264 10.39	-
400×200 16×8	406.4×219.1 16.000×8.625	300 2.07	305 12.01	273 10.75	-
400×250 16×10	406.4×273.0 16.000×10.750	300 2.07	305 12.01	283 11.14	-
400×300 16×12	406.4×323.9 16.000×12.750	300 2.07	305 12.01	295 11.61	-
400×350 16×14	406.4×355.6 16.000×14.000	300 2.07	305 12.01	305 12.01	-
400×125 16×5	426.0×133.0 16.772×5.250	300 2.07	260 10.24	285 11.22	-
400×150 16×6	426.0×159.0 16.772×6.250	300 2.07	260 10.24	285 11.22	-
400×200 16×8	426.0×219.1 16.772×8.625	300 2.07	260 10.24	285 11.22	-
400×250 16×10	426.0×273.0 16.772×10.750	300 2.07	260 10.24	285 11.22	-
400×300 16×12	426.0×323.9 16.772×12.750	300 2.07	260 10.24	285 11.22	-
450×150 18×6	457.2×168.3 18.000×6.625	300 2.07	343 13.50	298 11.73	-
450×200 18×8	457.2×219.1 18.000×8.625	300 2.07	343 13.50	298 11.73	-
450×250 18×10	457.2×273.0 18.000×10.750	300 2.07	343 13.50	308 12.13	-
450×300 18×12	457.2×323.9 18.000×12.750	300 2.07	343 13.50	321 12.64	-
450×350 18×14	457.2×355.6 18.000×14.000	300 2.07	343 13.50	330 12.99	-
450×400 18×16	457.2×406.4 18.000×16.000	300 2.07	343 13.50	330 12.99	-
500×150 20×6	508.0×168.3 20.000×6.625	300 2.07	381 15.00	324 12.76	-
500×200 20×8	508.0×219.1 20.000×8.625	300 2.07	381 15.00	324 12.76	-
500×250 20×10	508.0×273.0 20.000×10.750	300 2.07	381 15.00	333 13.11	-
500×300 20×12	508.0×323.9 20.000×12.750	300 2.07	381 15.00	346 13.62	-
500×350 20×14	508.0×355.6 20.000×14.000	300 2.07	381 15.00	356 14.02	-
500×400 20×16	508.0×406.4 20.000×16.000	300 2.07	381 15.00	356 14.02	-
500×450 20×18	508.0×457.2 20.000×18.000	300 2.07	381 15.00	368 14.49	-
600×150 24×6	609.6×168.3 24.000×6.625	300 2.07	432 17.01	384 15.12	-
600×200 24×8	609.6×219.1 24.000×8.625	300 2.07	432 17.01	384 15.12	-
600×250 24×10	609.6×273.0 24.000×10.750	300 2.07	432 17.01	384 15.12	-
600×300 24×12	609.6×323.9 24.000×12.750	300 2.07	432 17.01	397 15.63	-
600×350 24×14	609.6×355.6 24.000×14.000	300 2.07	432 17.01	406 15.98	-
600×400 24×16	609.6×406.4 24.000×16.000	300 2.07	432 17.01	406 15.98	-
600×450 24×18	609.6×457.2 24.000×18.000	300 2.07	432 17.01	419 16.50	-
600×500 24×20	609.6×508.0 24.000×20.000	300 2.07	432 17.01	432 17.01	-

Te
Tee



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
80 3	88.9 3.5	300 2.07	80.5 3.17	UL FM
100 4	108.0 4.25	300 2.07	92 3.62	UL FM
100 4	114.3 4.5	300 2.07	96 3.78	UL FM
125 5	133.0 5.250	300 2.07	109 4.29	UL FM
125 5	139.7 5.500	300 2.07	116 4.57	UL FM
125 5	141.3 5.563	300 2.07	116 4.57	-
150 6	159.0 6.500	300 2.07	121.5 4.78	UL FM
150 6	165.1 6.500	300 2.07	130 5.12	UL FM
150 6	168.3 6.625	300 2.07	130 5.12	UL FM
200 8	219.1 8.625	300 2.07	164 6.45	UL FM
250 10	273.0 10.750	300 2.07	204 8.03	UL FM
300 12	323.9 12.750	300 2.07	230 9.05	UL FM

Redüksiyon Te Reducing Tee

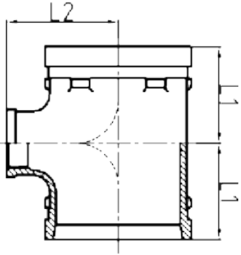


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
80×65 3×2½	88.9×73.0 3.500×2.875	300 2.07	75.5 2.97	84.5 3.33	UL FM
80×65 3×2½	88.9×76.1 3.500×3.000	300 2.07	75.5 2.97	84.5 3.33	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	71 2.80	98 3.86	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	300 2.07	77.5 3.05	98 3.86	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	77.5 3.05	98 3.86	-
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	86.5 3.41	98 3.86	UL FM
125×100 5×4	139.7×114.3 5.500×4.500	300 2.07	100 3.94	116 4.57	UL FM
125×100 5×4	141.3×114.3 5.563×4.500	300 2.07	100 3.94	116 4.57	UL FM
150×80 6×3	159.0×88.9 6.250×3.500	300 2.07	86.5 3.41	120 4.72	UL FM
150×100 6×4	159.0×108.0 6.250×4.250	300 2.07	96 3.78	121.5 4.78	UL FM
150×100 6×4	159.0×114.3 6.250×4.500	300 2.07	100 3.94	121.5 4.78	UL FM
150×125 6×5	159.0×133.0 6.250×5.250	300 2.07	109 4.29	121.5 4.78	UL FM
150X125 6X5	159.0X133.0 6.250X5.250	300 2.07	109 4.29	121.5 4.78	UL FM
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	71 2.80	126 4.96	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	77.5 3.05	128 5.04	UL FM
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	86.5 3.41	128 5.04	UL FM
150×100 6×4	165.1×114.3 6.500×4.500	300 2.07	100 3.94	120 4.72	UL FM
150×125 6×5	165.1×139.7 6.500×5.500	300 2.07	116 4.57	130 5.12	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	71 2.80	126 4.96	UL FM
150×65 6×2½	168.3×73.0 6.625×2.875	300 2.07	77.5 3.05	128 5.04	UL FM
150×65 6×2½	168.3×76.1 6.625×3.000	300 2.07	77.5 3.05	128 5.04	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	86.5 3.41	128 5.04	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	100 3.94	130 5.12	UL FM
150×125 6×5	168.3×139.7 6.625×5.500	300 2.07	116 4.57	130 5.12	UL FM
150×125 6×5	168.3×141.3 6.625×5.563	300 2.07	116 4.57	130 5.12	UL FM
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	82 3.23	154 6.06	UL FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	91 3.58	154 6.06	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	105 4.13	151 5.94	UL FM
200×125 8×5	219.1×133.0 8.625×5.250	300 2.07	118 4.65	158 6.22	-
200×125 8×5	219.1×139.7 8.625×5.500	300 2.07	120 4.72	158 6.22	UL FM
200×150 8×6	219.1×159.0 8.625×6.250	300 2.07	125.5 4.94	160 6.30	UL FM
200×150 8×6	219.1×165.1 8.625×6.500	300 2.07	134 5.28	160 6.30	UL FM
200×150 8×6	219.1×168.3 8.625×6.625	300 2.07	134 5.28	160 6.30	UL FM
250×150 10×6	273.0×159.0 10.750×6.250	300 2.07	136 5.35	187 7.36	UL FM
250×150 10×6	273.0×165.1 10.750×6.500	300 2.07	136 5.35	187 7.36	UL FM
250×150 10×6	273.0×168.3 10.750×6.625	300 2.07	136 5.35	187 7.36	UL FM
250×200 10×8	273.0×219.1 10.750×8.625	300 2.07	166 6.54	191 7.52	UL FM
300×100 12×4	323.9×114.3 12.750×4.500	300 2.07	136 5.35	214 8.43	UL FM
300×150 12×6	323.9×159.0 12.750×6.250	300 2.07	136 5.35	214 8.43	UL FM
300×150 12×6	323.9×165.1 12.750×6.500	300 2.07	136 5.35	213 8.39	UL FM
300×200 12×8	323.9×219.1 12.750×8.625	300 2.07	166 6.54	217 8.54	UL FM
300×250 12×10	323.9×273.0 12.750×10.750	300 2.07	194 7.64	218 8.58	UL FM

Dişli Redüksiyon Te

Reducing Tee

with Female Thread

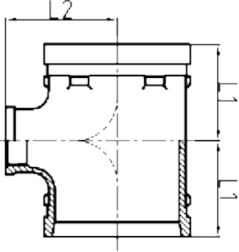


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
50×25 2×1	60.3×33.7 2.375×1.315	500 3.45	70 2.75	70 2.75	UL FM
50×32 2×1½	60.3×42.4 2.375×1.660	500 3.45	70 2.75	70 2.75	UL FM
50×40 2×1½	60.3×48.3 2.375×1.900	500 3.45	70 2.75	70 2.75	UL FM
50×50×65 2×2×2½	60.3×60.3×76.1 2.375×2.375×3.000	300 2.07	66 2.59	76 2.99	-
50×50×80 2×2×3	60.3×60.3×88.9 2.375×2.375×3.500	300 2.07	70 2.755	80 3.149	-
65×25 2½×1	73.0×33.7 2.875×1.315	500 3.45	76 3.00	76 3.00	UL FM
65×40 2½×1½	73.0×48.3 2.875×1.900	300 2.07	76 3.00	76 3.00	UL FM
65×32 2½×1¼	73.0×42.4 2.875×1.660	500 3.45	76 3.00	76 3.00	UL FM
65×25 2½×1	76.1×33.7 3.000×1.315	500 3.45	76 3.00	76 3.00	UL FM
65×32 2½×1¼	76.1×42.4 3.000×1.660	500 3.45	76 3.00	76 3.00	UL FM
65×40 2½×1½	76.1×48.3 3.000×1.900	500 3.45	76 3.00	76 3.00	UL FM
65×50 2½×2	76.1×60.3 3.000×2.375	500 3.45	76 3.00	76 3.00	UL FM
80×25 3×1	88.9×33.7 3.500×1.315	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×40 3×1½	88.9×48.3 3.500×1.900	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	500 3.45	85.5 3.37	85.5 3.37	UL FM
80×65 3×2½	88.9×76.1 3.500×3.000	500 3.45	85.5 3.37	85.5 3.37	UL FM
100×65 4×2½	108.0×76.1 4.250×3.000	300 2.07	100 3.94	96 3.78	UL FM
100×80 4×3	108.0×88.9 4.250×3.500	300 2.07	100 3.94	96 3.78	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	100 3.94	96 3.78	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	100 3.94	96 3.78	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	175 6.89	175 6.89	FM
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	175 6.89	175 6.89	FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	175 6.89	175 6.89	FM

Dişli Redüksiyon Te

Reducing Tee

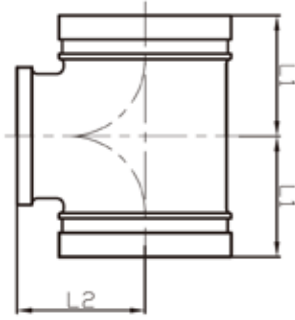
with Female Thread



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
65x50 2½x2	73.0x60.3 2.875x2.375	500 3.45	76 3.00	76 3.00	UL FM
100x25 4x1	114.3x33.7 4.500x1.315	300 2.07	76 2.99	88 3.47	UL FM
100x32 4x1½	114.3x42.4 4.500x1.660	300 2.07	76 2.99	88 3.47	UL FM
100x40 4x1½	114.3x48.3 4.500x1.900	300 2.07	85 3.35	91 3.58	UL FM
100x50 4x2	108.0x60.3 4.250x2.375	300 2.07	85 3.35	91 3.58	UL FM
100x50 4x2	114.3x60.3 4.500x2.375	300 2.07	85 3.35	91 3.58	UL FM
125x50 5x2	133.0x60.3 5.250x2.375	300 2.07	86 3.39	106 4.17	UL FM
125x65 5x2½	133.0x76.1 5.250x3.000	300 2.07	102 4.02	111 4.37	UL FM
125x80 5x3	133.0x88.9 5.250x3.500	300 2.07	102 4.02	111 4.37	UL FM
125x25 5x1	139.7x33.7 5.500x1.315	300 2.07	78 3.07	103 4.06	UL FM
125x32 5x1½	139.7x42.4 5.500x1.660	300 2.07	78 3.07	103 4.06	UL FM
125x40 5x1½	139.7x48.3 5.500x1.900	300 2.07	86 3.39	106 4.17	UL FM
125x50 5x2	139.7x60.3 5.500x2.375	300 2.07	86 3.39	106 4.17	UL FM
125x65 5x2½	139.7x76.1 5.500x3.000	300 2.07	102 4.02	111 4.37	UL FM
125x80 5x3	139.7x88.9 5.500x3.500	300 2.07	102 4.02	111 4.37	UL FM
150x60 6x2	159.0x60.3 6.250x2.375	300 2.07	92 3.62	124 4.88	UL FM
150x65 6x2½	159.0x76.1 6.250x3.000	300 2.07	107 4.21	129 5.08	UL FM
150x80 6x3	159.0x88.9 6.25x03.500	300 2.07	107 4.21	129 5.08	UL FM
150x25 6x1	165.1x33.7 6.500x1.315	300 2.07	83 3.27	121 4.76	UL FM
150x32 6x1½	165.1x42.4 6.500x1.660	300 2.07	83 3.27	121 4.76	UL FM
150x40 6x1½	165.1x48.3 6.500x1.900	300 2.07	92 3.62	124 4.88	UL FM
150x50 6x2	165.1x60.3 6.500x2.375	300 2.07	92 3.62	124 4.88	UL FM
150x65 6x2½	165.1x76.1 6.500x3.000	300 2.07	107 4.21	129 5.08	UL FM
150x80 6x3	165.1x88.9 6.500x3.500	300 2.07	107 4.21	129 5.08	UL FM
150x50 6x2	168.3x60.3 6.625x2.375	300 2.07	92 3.62	124 4.88	UL FM
150x65 6x2½	168.3x76.1 6.625x3.000	300 2.07	107 4.21	129 5.08	UL FM
150x80 6x3	168.3x88.9 6.625x3.500	300 2.07	107 4.21	129 5.08	FM
200x100 8x4	219.1x114.3 8.625x4.500	300 2.07	175 6.89	175 6.89	UL FM

Dişli Redüksiyon Te

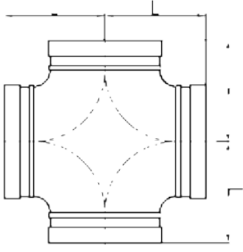
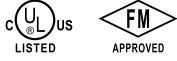
Slim Type Reducing Tee with Female Thread



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L mm/in	Ölçüler Dimensions L 1 mm/in	Sertifika Certificate
50×25 2×1	60.3×33.7 2.375×1.315	300 2.07	58 2.28	55 2.17	UL FM
50×40 2×1½	60.3×48.3 2.375×1.900	300 2.07	63.5 2.50	53 2.09	UL FM
65×40 2½×1½	73.1×48.3 2.878×1.900	300 2.07	65.5 2.58	64.5 2.54	UL FM
65×50 2½×2	73.1×60 2.878×2.375	300 2.07	72.5 2.85	66 2.60	UL FM
65×40 2½×1½	73.0×48.3 2.875×1.900	300 2.07	65.5 2.58	64.5 2.54	UL FM
65×40 2½×1½	76.1×48.3 3.000×1.900	300 2.07	65.5 2.58	64.5 2.54	UL FM
65×50 2½×2	73.0×60.3 2.875×2.375	300 2.07	72.5 2.85	66 2.60	UL FM
65×50 2½×2	76.1×60 3.000×2.375	300 2.07	72.5 2.85	66 2.60	UL FM
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	58 2.28	68 2.68	UL FM
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	65 2.56	72 2.83	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	72.5 2.86	72.5 2.86	UL FM
100×65 4×2½	108.0×76.1 4.250×3.000	300 2.07	83 3.27	88 3.46	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	76 2.99	85 3.35	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	80 3.15	85 3.35	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	90.5 3.56	93 3.66	UL FM
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	75 2.95	105 4.13	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	86 3.39	121 4.76	UL FM
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	93 3.66	123 4.84	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	93 3.66	123 4.84	UL FM
150×100 6×4	165.1×114.3 6.500×4.500	300 2.07	103.5 4.07	118 4.65	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	75 2.95	105 4.13	UL FM
150×65 6×2½	168.3×76.1 6.625×3.000	300 2.07	86 3.39	121 4.76	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	93 3.66	123 4.84	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	103.5 4.07	118 4.65	UL FM
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	88 3.46	137 5.39	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	111 4.37	145 5.71	UL FM

UV40

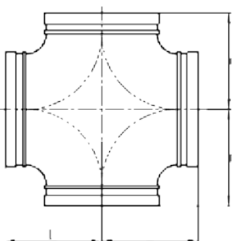
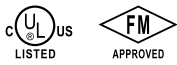
Kruva Cross



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
32 1¼	42.4 1.660	500 3.45	70 2.75	UL FM
40 1½	48.3 1.900	500 3.45	70 2.75	UL FM
50 2	60.3 2.375	500 3.45	70 2.75	UL FM
65 2½	73.0 2.875	500 3.45	76 3.00	UL FM
65 2½	76.1 3.000	500 3.45	76 3.00	UL FM
80 3	88.9 3.500	500 3.45	85.5 3.37	UL FM
100 4	108.0 4.250	500 3.45	101 3.98	UL FM
100 4	114.3 4.500	500 3.45	101 3.98	UL FM
125 5	139.7 5.500	500 3.45	124 4.88	UL FM
125 5	141.3 5.563	500 3.45	124 4.88	UL FM
150 6	159.0 6.250	500 3.45	140 5.50	UL FM
150 6	165.1 6.500	500 3.45	140 5.50	UL FM
150 6	168.3 6.625	500 3.45	140 5.50	UL FM
200 8	219.1 8.625	500 3.45	175 6.89	UL FM
250 10	273.0 10.750	500 3.45	229 9.00	UL FM
300 12	323.9 12.750	500 3.45	254 10.00	UL FM
350 14	355.6 14.000	300 2.07	279 10.98	-
350 14	377.0 14.84	300 2.07	279 10.98	-
400 16	406.4 16.000	300 2.07	305 12.01	-
450 18	457.2 18.000	300 2.07	343 13.5	-
500 20	508.0 20.000	300 2.07	381 15.00	-
600 24	609.6 24.000	300 2.07	432 17.01	-

UV41

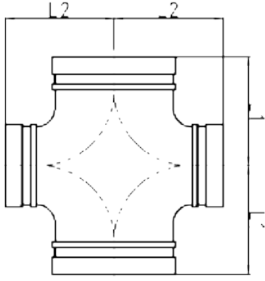
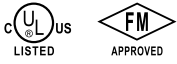
Kruva Cross



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
150 6	159.0 6.250	300 2.07	121.5 4.78	UL FM
150 6	165.1 6.500	300 2.07	130 5.12	UL FM
150 6	168.3 6.625	300 2.07	130 5.12	UL FM
200 8	219.1 8.625	300 2.07	164 6.45	UL FM

UV42

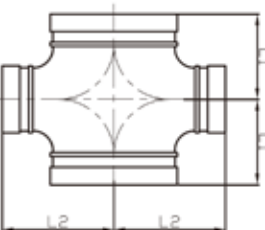
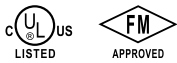
Redüksiyon Kruva Reducing Cross



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L 1 mm/in	Ölçüler Dimensions L 2 mm/in	Sertifika Certificate
65×50 2½×2	76.1×60.3 3.000×2.375	500 3.45	76 3.00	76 3.00	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	500 3.45	85.5 3.37	85.5 3.37	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	500 3.45	101 3.98	101 3.98	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	500 3.45	101 3.98	101 3.98	UL FM
125×100 5×4	139.7×114.3 5.500×4.500	500 3.45	124 4.88	124 4.88	UL FM
159×108	159.0×108.0 6.250×4.250	500 3.45	124 4.88	124 5.50	UL FM
150×50 6×2	165.1×60.3 6.500×2.375	500 3.45	140 5.50	140 5.50	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	500 3.45	140 5.50	140 5.50	UL FM
150×80 6×3	165.1×88.9 6.500×3.500	500 3.45	140 5.50	140 5.50	UL FM
150×100 6×4	165.1×114.3 6.500×4.500	500 3.45	140 5.50	140 5.50	UL FM
150×50 6×2	168×60.3 6.625×2.375	500 3.45	140 5.50	140 5.50	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	500 3.45	197 7.75	197 7.75	UL FM
200×100 8×4	219.1×108.0 8.625×4.250	500 3.45	175 6.89	175 6.89	-
200×100 8×4	219.1×114.3 8.625×4.500	500 3.45	175 6.89	175 6.89	UL FM
200×125 8×5	219.1×139.7 8.625×5.500	300 2.07	175 6.89	175 6.89	UL FM
200×150 8×6	219.1×159.0 8.625×6.250	300 2.07	175 6.89	175 6.89	UL FM
200×150 8×6	219.1×165.1 8.625×6.500	300 2.07	175 6.89	175 6.89	UL FM

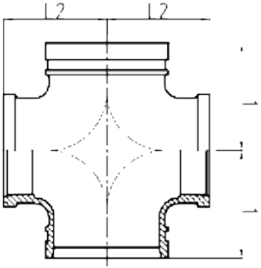
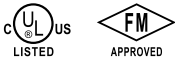
UV43

Redüksiyon Kruva Reducing Cross



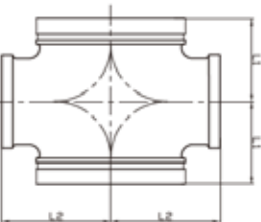
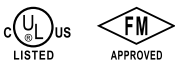
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L 1 mm/in	Ölçüler Dimensions L 2 mm/in	Sertifika Certificate
150×100 6×4	165.1×114.3 6.500×4.500	300 2.07	100 3.94	130 5.12	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	100 3.94	130 5.12	UL FM
200×150 8×6	219.1×159.0 8.625×6.250	300 2.07	125.5 4.94	160 6.30	-
200×150 8×6	219.1×165.1 8.625×6.500	300 2.07	134 5.27	160 6.30	UL FM
200×150 8×6	219.1×168.3 8.625×6.625	300 2.07	134 5.27	160 6.30	UL FM

Yivli X İç Dişli
Redüksiyon Kruva
Reducing Cross
with Female Thread



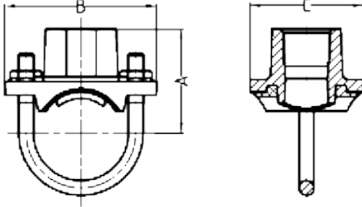
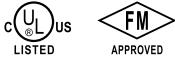
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L 1 mm/in	Ölçüler Dimensions L 2 mm/in	Sertifika Certificate
65×50 2½×2	76.1×60.3 3.000×2.375	300 2.07	76 3.00	76 3.00	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	108 4.25	108 4.25	-
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	85.5 3.37	85.5 3.37	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	85.5 3.37	85.5 3.37	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	76 2.99	88 3.47	UL FM
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	76 2.99	88 3.47	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	85 3.35	91 3.58	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	85 3.35	91 3.58	UL FM
100×65 4×2½	114.3×76.1 4.500×3.000	300 2.07	101 3.98	96 3.78	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	101 3.98	96 3.78	UL FM
150×32 6×1¼	165.1×42.4 6.500×1.660	300 2.07	92 3.62	124 4.88	-
150×40 6×1½	165.1×48.3 6.500×1.900	300 2.07	92 3.62	124 4.88	UL FM
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	92 3.62	124 4.88	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	140 5.50	140 5.50	-
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	140 5.50	140 5.50	-
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	175 6.89	175 6.89	-

Yivli X İç Dişli
Redüksiyon Kruva
Slim Type Reducing Cross
with Female Thread



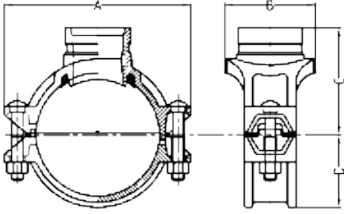
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler Dimensions L 1 mm/in	Ölçüler Dimensions L 2 mm/in	Sertifika Certificate
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	93 3.66	123 4.84	UL FM
150X80 6X3	168.3X88.9 6.625X3.500	300 2.07	93 3.66	123 4.84	-

U Boltlu Mekanik Te U-Bolt Mechanical Tee



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Delik Çapı Hole Dia mm/in +1.60/+0.063,0	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions			U Cıvata Ölçüsü U Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in		
32X15 1¼X1/2	42.4X21.3 1.660X0.825	30 1.18	300 2.07	54.4 2.14	88.9 3.50	57.2 2.25	3/8X73 M10X73	UL FM
32X20 1¼X3/4	42.4X26.9 1.660X1.050	30 1.18	300 2.07	54.4 2.14	88.9 3.50	57.2 2.25	3/8X73 M10X73	UL FM
32X25 1¼X1	42.4X33.7 1.660X1.315	30 1.18	300 2.07	57.7 2.27	88.9 3.50	57.2 2.25	3/8X73 M10X73	UL FM
40X15 1½X1/2	48.3X21.3 1.900X0.825	30 1.18	300 2.07	57.7 2.27	88.9 3.50	57.2 2.25	3/8X73 M10X73	UL FM
40X20 1½X3/4	48.3X26.9 1.900X1.050	30 1.18	300 2.07	57.7 2.27	88.9 3.50	57.2 2.25	3/8X73 M10X73	UL FM
40X25 1½X1	48.3X33.7 1.900X1.315	30 1.18	300 2.07	60.8 2.39	88.9 3.50	57.2 2.25	3/8X73 M10X73	UL FM
50X15 2X1/2	60.3X21.3 2.375X0.825	30 1.18	300 2.07	63.3 2.49	95.3 3.75	57.2 2.25	3/8X90 M10X90	UL FM
50X20 2X3/4	60.3X26.9 2.375X1.050	30 1.18	300 2.07	63.3 2.49	95.3 3.75	57.2 2.25	3/8X90 M10X90	UL FM
50X25 2X1	60.3X33.7 2.375X1.315	30 1.18	300 2.07	66.6 2.62	96.3 3.75	57.2 2.25	3/8X90 M10X90	UL FM
50X32 2X1¼	60.3X42.4 2.375X1.660	45 1.75	300 2.07	66.6 2.62	120 4.72	76 3.00	1/2X52	-
65X15 2½X1/2	73.0X21.3 2.875X0.825	30 1.18	300 2.07	66.9 2.75	108.0 4.25	57.2 2.25	3/8X105 M10X105	UL FM
65X20 2½X3/4	73.0X26.9 2.875X1.050	30 1.18	300 2.07	66.9 2.75	108.0 4.25	57.2 2.25	3/8X105 M10X105	UL FM
65X25 2½X1	73.0X33.7 2.875X1.315	30 1.18	300 2.07	73.2 2.88	108.0 4.25	57.2 2.25	3/8X105 M10X105	UL FM
65X15 76.1X1/2	76.1X21.3 3.000X0.825	30 1.18	300 2.07	66.9 2.75	108.0 4.25	57.2 2.25	3/8X105 M10X105	UL FM
65X20 76.1X3/4	76.1X26.9 3.000X1.050	30 1.18	300 2.07	66.9 2.75	108.0 4.25	57.2 2.25	3/8X105 M10X105	UL FM
65X25 76.1X1	76.1X33.7 3.000X1.315	30 1.18	300 2.07	73.2 2.88	108.0 4.25	57.2 2.25	3/8X105 M10X105	UL FM
80X25 88.9X1	88.9X33.7 3.500X1.315	38 1.5	300 2.07	79 3.11	145 5.70	73 2.87	1/2X58	UL FM
100X25 4X1	114.3X33.7 4.500X1.315	30 1.18	300 2.07	89 3.50	185 7.28	72 2.83	1/2X70	FM
100X32 4X1¼	114.3X42.4 4.500X1.660	51 2	300 2.07	95 3.74	185 7.28	85 3.35	1/2X70	FM
100X40 4X1½	114.3X48.3 4.500X1.900	51 2	300 2.07	95 3.74	185 7.28	85 3.35	1/2X70	FM
150X25 6X1	168.3X33.7 6.500X1.315	38 1.5	300 2.07	124 4.88	254 10.0	75 2.95	5/8X102	FM
150X32 6X1	168.3X42.4 6.500X1.660	51 2	300 2.07	120 4.72	254 10.0	88 3.46	5/8X102	FM
150X40 6X1	168.3X48.3 6.500X1.900	57 2.24	300 2.07	120 4.72	254 10.0	88 3.46	5/8X102 M16X102	FM

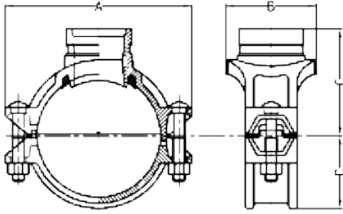
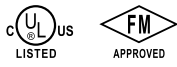
Yivli Mekanik Te Mechanical Tee Grooved Outlet



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Cıvata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
50×32 2×1¼	60.3×42.4 2.375×1.660	400 2.76	45 1.75	116 4.57	76 2.99	69.5 2.74	39 1.54	3/8×55 M10X57	UL FM
50×40 2×1½	60.3×48.3 2.375×1.900	400 2.76	45 1.75	116 4.57	76 2.99	69.5 2.74	39 1.54	3/8×55 M10X57	UL FM
65×25 2½×1	73.0×33.7 2.875×1.315	300 2.07	38 1.50	137 5.39	71 2.80	78 3.07	49 1.93	1/2×70 M12X70	UL
65×32 2½×1¼	73.0×42.4 2.875×1.660	400 2.76	51 2.00	137 5.39	84.5 3.33	78 3.07	49 1.93	1/2×70 M12X70	UL FM
65×40 2½×1½	73.0×48.3 2.875×1.900	400 2.76	51 2.00	137 5.39	84.5 3.33	78 3.07	49 1.93	1/2×70 M12X70	UL FM
65×25 76.1×1	76.1×33.7 3.000×1.315	300 2.07	38 1.50	137 5.39	71 2.80	78 3.07	49.5 1.95	1/2×70 M12X70	UL FM
65×32 76.1×1¼	76.1×42.4 3.000×1.660	300 2.07	51 2.00	137 5.39	84.5 3.33	78 3.07	49.5 1.95	1/2×70 M12X70	UL FM
65×40 76.1×1½	76.1×48.3 3.000×1.900	300 2.07	51 2.00	137 5.39	84.5 3.33	78 3.07	49.5 1.95	1/2×70 M12X70	UL FM
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	38 1.50	152 5.98	72.5 2.85	84.5 3.33	56.5 2.22	1/2×75 M12X76	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	400 2.76	51 2.00	152 5.98	85.5 3.37	84.5 3.33	56.5 2.22	1/2×75 M12X76	UL FM
80×40 3×1½	88.9×48.3 3.500×1.900	400 2.76	51 2.00	152 5.98	85.5 3.37	84.5 3.33	56.5 2.22	1/2×75 M12X76	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	64 2.50	152 5.98	98 3.86	84.5 3.33	56.5 2.22	1/2×75 M12X76	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	38 1.50	188 7.40	78.4 3.09	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×32 4×1¼	114.3×42.4 4.500×1.660	400 2.76	51 2.00	188 7.40	89 3.50	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	400 2.76	51 2.00	188 7.40	89 3.50	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.5	188 7.40	104.5 4.11	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	400 2.76	70 2.75	188 7.40	104.5 4.11	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×65 4×76.1	114.3×76.1 4.500×3.000	300 2.07	70 2.75	188 7.40	104.5 4.11	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	400 2.76	89 3.50	188 7.40	128 5.03	102 4.02	70 2.76	1/2×75 M12X76	UL FM
125×32 139.7×1¼	139.7×42.4 5.500×1.660	300 2.07	51 2.00	221.5 8.72	95 3.74	118 4.65	84 3.31	5/8×85 M16X85	UL FM
125×40 139.7×1½	139.7×48.3 5.500×1.900	300 2.07	51 2.00	221.5 8.72	95 3.74	118 4.65	84 3.31	5/8×85 M16X85	UL FM
125×50 139.7×2	139.7×60.3 5.500×2.375	300 2.07	64 2.5	221.5 8.72	112.5 4.43	118 4.65	84 3.31	5/8×85 M16X85	UL FM
125×65 139.7×76.1	139.7×76.1 5.500×3.000	300 2.07	70 2.75	221.5 8.72	112.5 4.43	118 4.65	84 3.31	5/8×85 M16X85	-
125×80 139.7×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	221.5 8.720	132 5.20	118 4.65	84 3.31	5/8×85 M16X85	UL FM
125×100 139.7×4	139.7×114.3 5.500×4.500	300 2.07	114 4.50	221.5 8.720	160 6.30	125 4.92	84 3.31	5/8×85 M16X85	UL FM
150×50 159.0×2	159.1×60.3 6.250×2.375	300 2.07	64 2.5	244 9.60	112.5 4.43	125 4.92	94 3.70	5/8×105 M16X108	UL FM
150×100 159.0×108.0	159.1×108.0 6.250×4.250	300 2.07	114 4.50	244 9.60	154 6.06	133 5.24	94 3.70	5/8×105 M16X108	UL FM
150×100 159.0×4	159.1×114.3 6.250×4.500	300 2.07	114 4.50	244 9.60	159 6.26	125 4.92	94 3.70	5/8×105 M16X108	UL FM
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.5	244 9.60	112.5 4.43	127 5.00	97.5 3.84	5/8×105 M16X108	UL FM
150×65 165.1×76.1	165.1×76.1 6.500×3.000	300 2.07	70 2.75	244 9.60	112.5 4.43	130 5.12	97.5 3.84	5/8×105 M16X108	-
150×80 6½O.D×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	244 9.60	132 5.20	130 5.12	97.5 3.84	5/8×105 M16X108	UL FM
150×100 6½O.D×4	165.1×114.3 6.500×4.500	300 2.07	114 4.50	244 9.60	154 6.06	135 5.32	97.5 3.84	5/8×105 M16X108	UL FM
150×40 6×1½	168.3×48.3 6.500×1.900	400 2.76	51 2.00	247 9.72	95 3.74	128 5.04	98.5 3.88	5/8×105 M16X108	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.5	247 9.72	114 4.49	134 5.28	98.5 3.88	5/8×105 M16X108	UL FM

UV51

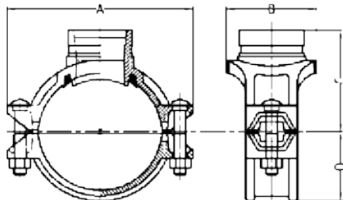
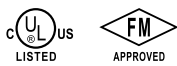
Yivli Mekanik Te Mechanical Tee Grooved Outlet



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
150×65 6×2½	168.3×73.0 6.625×2.875	400 2.76	70 2.75	247 9.72	112.5 4.43	135 5.32	98.5 3.88	5/8×105 M16X108	UL FM
150×65 6×2½	168.3×76.1 6.625×3.000	300 2.07	70 2.75	247 9.72	112.5 4.43	135 5.32	98.5 3.88	5/8×105 M16X108	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	400 2.76	89 3.50	247 9.72	132 5.20	136.5 5.37	98.5 3.88	5/8×105 M16X108	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	400 2.76	114 4.50	247 9.72	160 6.30	138 5.43	98.5 3.88	5/8×105 M16X108	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	400 2.76	64 2.5	320 12.60	118 4.65	158 6.22	125 4.92	3/4×115 M20X115	UL FM
200×65 8×76.1	216.3×76.1 8.516×3.000	300 2.07	70 2.75	315 12.40	117 4.61	157 6.18	122 4.80	3/4×115 M20X115	-
200×65 8×21/2	219.1×73.0 8.625×2.875	400 2.76	70 2.75	320 12.60	118 4.65	158 6.22	125 4.92	3/4×115 M20X115	UL FM
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	320 12.60	118 4.65	158 6.22	125 4.92	3/4×115 M20X115	UL FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	320 12.60	136.5 5.37	161 6.34	125 4.92	3/4×115 M20X115	UL FM
200×100 8×4	219.1×108.0 8.625×4.250	300 2.07	114 4.50	320 12.60	162 6.38	161 6.34	125 4.92	3/4×115 M20X115	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.50	320 12.60	162 6.38	161 6.34	125 4.92	3/4×115 M20X115	UL FM
250×65 10×2½	273.0×76.1 10.75×3.000	300 2.07	70 2.75	376 14.80	118 4.65	189 7.44	155 6.10	3/4×120 M20X115	UL FM
250×80 10×3	273.0×88.9 10.75×3.500	300 2.07	89 3.50	376 14.80	136.5 5.37	189 7.44	155 6.10	3/4×120 M20X115	UL FM
250×100 10×4	273.0×108 10.75×4.250	300 2.07	114 4.50	376 14.80	164 6.46	189 7.44	155 6.10	3/4×120 M20X115	UL FM
250×100 10×4	273.0×114.3 10.75×4.500	300 2.07	114 4.50	376 14.80	164 6.46	189 7.44	155 6.10	3/4×120 M20X115	UL FM

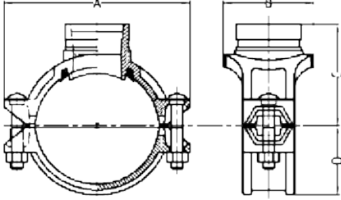
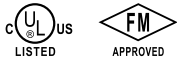
UV52

Yivli Mekanik Te Mechanical Tee Grooved Outlet



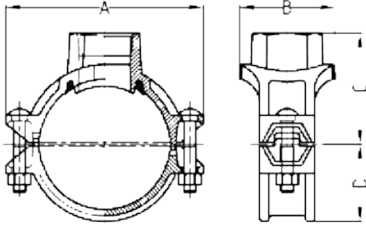
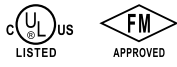
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
80×25 3×1	88.9×33.7 3.500×1.315	365 2.52	38 1.50	150 5.91	71.0 2.80	84 3.31	55.5 2.19	1/2×75 M12X76	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	365 2.52	51 2.00	150 5.91	84.5 3.33	84 3.31	55.5 2.19	1/2×75 M12X76	UL FM
80×40 3×1½	88.9×48.3 3.500×1.900	365 2.52	51 2.00	150 5.91	84.5 3.33	84 3.31	55.5 2.19	1/2×75 M12X76	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	365 2.52	64 2.50	150 5.91	98 3.86	84 3.31	55.5 2.19	1/2×75 M12X76	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	38 1.50	178 7.01	77.5 3.05	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	51 2.00	178 7.01	88 3.46	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.50	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×65 4×76.1	114.3×76.1 4.500×3.000	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	89 3.50	178 7.01	124 4.88	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
125×50 5×2	141.3×60.3 5.563×2.375	300 2.07	64 2.50	210 8.27	110 4.33	113 4.45	82 3.23	5/8×85	-

Yivli Mekanik Te Mechanical Tee Grooved Outlet



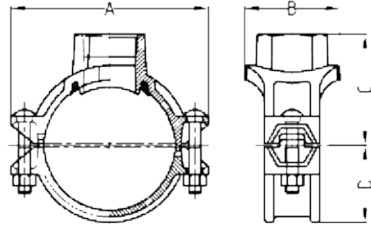
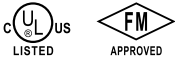
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
125×80 133.0×3	133.0×88.9 5.250×3.500	300 2.07	89 3.50	203 7.99	132 5.12	110 4.33	77.5 3.05	5/8×85 M16X85	UL FM
125×32 139.7×11/4	139.7×42.4 5.500×1.660	300 2.07	51 2.00	210 8.27	91 3.58	113 4.45	82 3.23	5/8×85 M16X85	UL FM
125×40 139.7×11/2	139.7×48.3 5.500×1.900	300 2.07	51 2.00	210 8.27	91 3.58	113 4.45	82 3.23	5/8×85 M16X85	UL FM
125×50 139.7×2	139.7×60.3 5.500×2.375	300 2.07	64 2.50	210 8.27	110 4.33	113 4.45	82 3.23	5/8×85 M16X85	UL FM
125×65 139.7×76.1	139.7×76.1 5.500×3.000	300 2.07	70 2.75	210 8.27	110 4.33	113 4.45	82 3.23	5/8×85 M16X85	UL FM
125×80 139.7×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	210 8.27	130 5.12	113 4.45	82 3.23	5/8×85 M16X85	UL FM
125×6 139.7×4	139.7×114.3 5.500×4.500	175 1.21	114 4.50	210 8.27	153 6.02	115 4.52	82 3.23	5/8×85 M16X85	UL FM
125×50 5×2	141.3×60.3 5.563×2.375	300 2.07	64 2.50	210 8.27	110 4.33	113 4.45	82 3.23	5/8X85	UL
125×65 5×2 1/2	141.3×73.0 5.563×2.875	300 2.07	70 2.75	209 8.23	109.5 4.31	113 4.45	82 3.23	5/8X85	UL
125×80 5×3	141.3×88.9 5.563×3.500	300 2.07	89 3.50	209 8.23	129 5.08	113 4.45	82 3.23	5/8X85	UL
150×65 159.0×76.1	159.1×76.1 6.250×3.000	300 2.07	70 2.75	227 8.94	110 4.33	122.5 4.83	91 3.58	5/8×105 M16X108	-
150×80 159.0×88.9	159.1×88.9 6.250×3.500	300 2.07	89 3.50	227 8.94	130 5.11	122.5 4.83	91 3.58	5/8×105 M16X108	UL FM
150×100 159.0×108.0	159.1×108.0 6.250×4.250	300 2.07	114 4.50	227 8.94	155 6.10	122.5 4.83	91 3.58	5/8×105 M16X108	UL FM
150×100 159.0×4	159.1×114.3 6.250×4.500	300 2.07	114 4.50	227 8.94	155 6.10	122.5 4.83	91 3.58	5/8×105 M16X108	UL FM
150×32 165.1×11/4	165.1×42.4 6.500×1.900	300 2.07	51 2.00	235 9.25	92.5 3.64	124.5 4.90	94.5 3.72	5/8×105 M16X108	UL FM
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.50	235 9.25	110 4.33	124.5 4.90	94.5 3.72	5/8×105 M16X108	UL FM
150×65 165.1×76.1	165.1×76.1 6.500×3.000	300 2.07	70 2.75	235 9.25	110 4.33	124.5 4.90	94.5 3.72	5/8×105 M16X108	UL FM
150×80 165.1×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	235 9.25	130 5.12	124.5 4.90	94.5 3.72	5/8×105 M16X108	UL FM
150×100 165.1×4	165.1×108 6.500×4.250	300 2.07	114 4.50	235 9.25	155 6.10	126 4.96	94.5 3.72	5/8×105 M16X108	UL FM
150×100 165.1×4	165.1×114.3 6.500×4.500	300 2.07	114 4.50	235 9.25	155 6.10	126 4.96	94.5 3.72	5/8×105 M16X108	UL FM
150×32 6×1 1/4	168.3×42.4 6.500×1.660	300 2.07	51 2.00	240 9.45	92.5 3.64	126 4.96	96.5 3.80	5/8×105 M16X108	UL FM
150×40 6×1 1/2	168.3×48.3 6.500×1.900	300 2.07	51 2.00	240 9.45	92.5 3.64	126 4.96	96.5 3.80	5/8×105 M16X108	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.50	240 9.45	110 4.33	126 4.96	96.5 3.80	5/8×105 M16X108	UL FM
150×65 6×2 1/2	168.3×73.0 6.625×2.875	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	96.5 3.80	5/8×105 M16X108	UL FM
150×65 6×76.1	168.3×76.1 6.625×3	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	96.5 3.80	5/8×105 M16X108	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	240 9.45	130 5.12	126 4.96	96.5 3.80	5/8×105 M16X108	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	114 4.50	240 9.45	155 6.10	128 5.04	96.5 3.80	5/8×105 M16X108	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.50	300 11.81	117 4.60	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×65 8×2 1/2	219.1×73 8.625×2.875	300 2.07	70 2.75	300 11.81	117 4.60	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	300 11.81	117 4.60	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	300 11.81	135.5 5.33	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.50	300 11.81	164 6.46	160 6.30	123 4.84	5/8×105 M16X108	UL FM

Dişli Mekanik Te
Mechanical Tee
Threaded Outlet



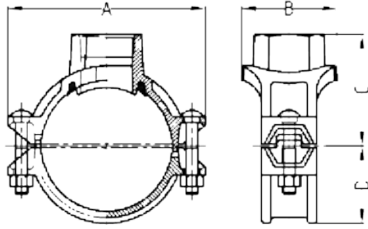
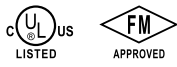
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
25X10 1X3/8	33.7X17.2 1.315X0.677	300 2.07	23.5 0.92	86 3.38	46 1.81	26 1.02	24.5 0.96	M8X30	-
25X15 1X1/2	33.7X21.3 1.315X0.825	300 2.07	23.5 0.92	86 3.38	46 1.81	26 1.02	24.5 0.96	M8X30	UL FM
25X20 1X3/4	33.7X26.9 1.315X1.050	300 2.07	23.5 0.92	86 3.38	52 2.05	41 1.61	24.5 0.96	M8X30	-
25X25 1X1	33.7X33.7 1.315X1.315	300 2.07	23.5 0.92	86 3.38	57 2.24	45 1.77	24.5 0.96	M8X30	-
32X10 11/4X3/8	42.4X17.2 1.660X0.677	300 2.07	30 1.18	95.5 3.76	53 2.09	32 1.26	29 1.14	M10X35	UL FM
32X15 11/4X1/2	42.4X21.3 1.660X0.825	300 2.07	30 1.18	95.5 3.76	57 2.24	32 1.26	29 1.14	M10X35	UL FM
32X20 11/4X3/4	42.4X26.9 1.660X1.050	300 2.07	30 1.18	95.5 3.76	57 2.24	44 1.73	29 1.14	M10X35	UL FM
32X25 11/4X1	42.4X33.7 1.660X1.315	300 2.07	30 1.18	95.5 3.76	57 2.24	53 2.09	29 1.14	M10X35	UL
40X10 11/2X3/8	48.3X17.2 1.900X0.677	300 2.07	30 1.18	101.5 3.99	53 2.09	34 1.34	32.5 1.28	M10X35	UL
40X15 11/2X1/2	48.3X21.3 1.900X0.825	300 2.07	30 1.18	101.5 3.99	57 2.24	35.5 1.40	32.5 1.28	M10X35	UL FM
40X20 11/2X3/4	48.3X26.9 1.900X1.050	300 2.07	30 1.18	101.5 3.99	57 2.24	47.5 1.87	32.5 1.28	M10X35	UL FM
40X25 11/2X1	48.3X33.7 1.900X1.315	300 2.07	30 1.18	101.5 3.99	57 2.24	56 2.20	32.5 1.28	M10X35	-
50x10 2x3/8	60.3x17.2 2.375x0.677	300 2.07	38 1.50	116 4.57	68 2.68	44 1.73	39 1.54	3/8x55 M10X57	UL
50x15 2x1/2	60.3x21.3 2.375x0.825	400 2.76	38 1.50	116 4.57	68 2.68	60 2.36	39 1.54	3/8x55 M10X57	UL FM
50x20 2x3/4	60.3x26.9 2.375x1.050	400 2.76	38 1.50	116 4.57	68 2.68	60 2.36	39 1.54	3/8x55 M10X57	UL FM
50x25 2x1	60.3x33.7 2.375x1.315	400 2.76	38 1.50	116 4.57	68 2.68	60 2.36	39 1.54	3/8x55 M10X57	UL FM
50x32 2x1 1/4	60.3x42.4 2.375x1.660	400 2.76	45 1.75	116 4.57	76 2.99	65 2.56	39 1.54	3/8x55 M10X57	UL FM
50x40 2x1 1/2	60.3x48.3 2.375x1.900	400 2.76	45 1.75	116 4.57	76 2.99	65 2.56	39 1.54	3/8x55 M10X57	UL FM
65x15 2 1/2 x 1/2	73.0x21.3 2.875x0.825	400 2.76	38 1.50	137 5.39	71 2.76	68 2.67	49 1.93	1/2x70 M12X70	UL FM
65x20 2 1/2 x 3/4	73.0x26.9 2.875x1.050	400 2.76	38 1.50	137 5.39	71 2.76	68 2.67	49 1.93	1/2x70 M12X70	UL FM
65x25 2 1/2 x 1	73.0x33.7 2.875x1.315	400 2.76	38 1.50	137 5.39	71 2.76	70 2.75	49 1.93	1/2x70 M12X70	UL FM
65x32 2 1/2 x 1 1/4	73.0x42.4 2.875x1.660	400 2.76	51 2.00	137 5.397	84.5 3.33	73 2.87	49 1.93	1/2x70 M12X70	UL FM
65x40 2 1/2 x 1 1/2	73.0x48.3 2.875x1.900	400 2.76	51 2.00	137 5.39	84.5 3.33	73 2.87	49 1.93	1/2x70 M12X70	UL FM
65x15 76.1x1/2	76.1x21.3 3.000x0.825	300 2.07	38 1.50	137 5.39	71 2.80	61.5 2.42	49.5 1.95	1/2x70 M12X70	UL FM
65x20 76.1x3/4	76.1x26.9 3.000x1.050	300 2.07	38 1.50	137 5.39	71 2.80	68 2.67	49.5 1.95	1/2x70 M12X70	UL FM
65x25 76.1x1	76.1x33.7 3.000x1.315	300 2.07	38 1.50	137 5.39	71 2.80	75 3.05	49.5 1.95	1/2x70 M12X70	UL FM
65x32 76.1x1 1/4	76.1x42.4 3.000x1.660	300 2.07	51 2.00	137 5.39	84.5 3.33	75 3.05	49.5 1.95	1/2x70 M12X70	UL FM
65x40 76.1x1 1/2	76.1x48.3 3.000x1.900	300 2.07	51 2.00	137 5.39	84.5 3.33	75 3.05	49.5 1.95	1/2x70 M12X70	UL FM
80x15 3x1/2	88.9x21.3 3.500x0.825	400 2.76	38 1.50	152 5.98	72.5 2.85	71.5 2.81	56.5 2.22	1/2x75 M12X76	UL FM
80x20 3x3/4	88.9x26.9 3.500x1.050	400 2.76	38 1.50	152 5.98	72.5 2.85	71.5 2.81	56.5 2.22	1/2x75 M12X76	UL FM
80x25 3x1	88.9x33.7 3.500x1.315	400 2.76	38 1.50	152 5.98	72.5 2.85	80 3.15	56.5 2.22	1/2x75 M12X76	UL FM
80x32 3x1 1/4	88.9x42.4 3.500x1.660	400 2.76	51 2.00	152 5.98	85.5 3.37	80 3.15	56.5 2.22	1/2x75 M12X76	UL FM
80x40 3x1 1/2	88.9x48.3 3.500x1.900	400 2.76	51 2.00	152 5.98	85.5 3.37	80 3.15	56.5 2.22	1/2x75 M12X76	UL FM
80x50 3x2	88.9x60.3 3.500x2.375	300 2.07	64 2.50	152 5.98	98 3.86	80 3.15	56.5 2.22	1/2x75 M12X76	UL FM

Dişli Mekanik Te Mechanical Tee Threaded Outlet



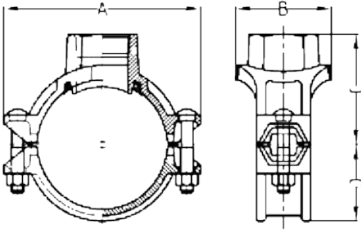
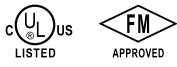
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
100×15 108.0×1/2	108.1×21.3 4.250×0.825	300 2.07	38 1.50	172 6.77	78.5 3.09	87 3.43	64.5 2.54	1/2×75 M12X76	UL FM
100×20 108.0×3/4	108.1×26.9 4.250×1.050	300 2.07	38 1.50	172 6.77	78.5 3.09	87 3.43	64.5 2.54	1/2×75 M12X76	UL FM
100×25 108.0×1	108.1×33.7 4.250×1.315	300 2.07	38 1.50	172 6.77	78.5 3.09	87 3.43	64.5 2.54	1/2×75 M12X76	UL FM
100×32 108.0×1¼	108.1×42.4 4.250×1.660	300 2.07	51 2.00	172 6.77	89 3.50	87 3.43	64.5 2.54	1/2×75 M12X76	UL FM
100×40 108.0×1½	108.0×48.3 4.250×1.900	300 2.07	51 2.00	172 6.77	89 3.50	87 3.43	64.5 2.54	1/2×75 M12X76	UL FM
100×50 108.0×2	108.0×60.3 4.250×2.375	300 2.07	64 2.50	172 6.77	106.5 4.19	92 3.62	64.5 2.54	1/2×75 M12X76	UL FM
100×65 108.0×76.1	108.0×76.1 4.250×3.000	300 2.07	70 2.75	172 6.77	106.5 4.19	100 3.94	64.5 2.54	1/2×75 M12X76	UL FM
100×15 4×½	114.3×21.3 4.500×0.825	400 2.76	38 1.50	188 7.40	78.5 3.09	90 3.54	70 2.76	1/2×75 M12X76	UL FM
100×20 4×¾	114.3×26.9 4.500×1.050	400 2.76	38 1.50	188 7.40	78.5 3.09	90 3.54	70 2.76	1/2×75 M12X76	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	400 2.76	38 1.50	188 7.40	78.5 3.09	93 3.66	70 2.76	1/2×75 M12X76	UL FM
100×32 4×1¼	114.3×42.4 4.500×1.660	400 2.76	51 2.00	188 7.40	89 3.50	95 3.74	70 2.76	1/2×75 M12X76	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	400 2.76	51 2.00	188 7.40	89 3.50	97 3.82	70 2.76	1/2×75 M12X76	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.50	188 7.40	104.5 4.11	100 3.94	70 2.76	1/2×75 M12X76	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	400 2.76	70 2.75	188 7.40	104.5 4.11	102 4.02	70 2.76	1/2×75 M12X76	UL FM
100×65 4×76.1	114.3×76.1 4.500×3.000	300 2.07	70 2.75	188 7.40	104.5 4.11	102 4.02	70 2.76	1/2×75 M12X76	-
100×80 4×3	114.3×88.9 4.500×3.500	400 2.76	89 3.50	188 7.40	128 5.039	102 4.02	70 2.76	1/2×75 M12X76	UL FM
125×32 133.0×1.25	133.0×42.4 5.250×1.660	300 2.07	51 2.00	209 8.23	93 3.66	105 4.13	77 3.03	5/8×85 M16X85	UL FM
125×40 133.0×1½	133.0×48.3 5.250×1.900	300 2.07	51 2.00	209 8.23	93 3.66	105 4.13	77 3.03	5/8×85 M16X85	UL FM
125×50 133.0×2	133.0×60.3 5.250×2.375	300 2.07	64 2.50	209 8.23	112.5 4.43	110 4.33	77 3.03	5/8×85 M16X85	UL FM
125×15 139.7×1/2	139.7×21.3 5.500×0.825	300 2.07	38 1.50	221.5 8.72	78 3.07	110 4.33	84 3.31	5/8×85 M16X85	UL FM
125×20 139.7×3/4	139.7×26.9 5.500×1.050	300 2.07	38 1.50	221.5 8.72	78 3.07	110 4.33	84 3.31	5/8×85 M16X85	UL FM
125×25 139.7×1	139.7×33.7 5.500×1.315	300 2.07	38 1.50	221.5 8.72	78 3.07	110 4.33	84 3.31	5/8×85 M16X85	UL FM
125×32 139.7×1¼	139.7×42.4 5.500×1.660	300 2.07	51 2.00	221.5 8.72	95 3.74	112 4.41	84 3.31	5/8×85 M16X85	UL FM
125×40 139.7×1½	139.7×48.3 5.500×1.900	300 2.07	51 2.00	221.5 8.72	95 3.74	112 4.41	84 3.31	5/8×85 M16X85	UL FM
125×50 139.7×2	139.7×60.3 5.500×2.375	300 2.07	64 2.50	221.5 8.72	112.5 4.43	115 4.53	84 3.31	5/8×85 M16X85	UL FM
125×65 139.7×76.1	139.7×76.1 5.500×3.000	300 2.07	70 2.75	221.5 8.72	112.5 4.43	115 4.53	84 3.31	5/8×85 M16X85	-
125×80 139.7×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	221.5 8.72	132 5.20	120 4.72	84 3.31	5/8×85 M16X85	-
125×100 139.7×4	139.7×114.3 5.500×4.500	300 2.07	114 4.50	221.5 8.72	156 6.30	125 4.92	84 3.31	5/8×85 M16X85	UL FM
150×15 159.0×1/2	159.0×21.3 6.250×0.825	300 2.07	38 1.50	244 9.60	78 3.07	116 4.57	94 3.70	5/8×105 M16X108	UL FM
150×25 159.0×1	159.0×33.7 6.250×1.315	300 2.07	38 1.50	244 9.60	78 3.07	116 4.57	94 3.70	5/8×105 M16X108	UL FM
150×32 159.0×1¼	159.0×42.4 6.250×1.660	300 2.07	51 2.00	244 9.60	93 3.66	118 4.65	94 3.70	5/8×105 M16X108	UL FM
150×40 159.0×1½	159.0×48.3 6.250×1.900	300 2.07	51 2.00	244 9.60	93 3.66	118 4.65	94 3.70	5/8×105 M16X108	UL FM

Dişli Mekanik Te
Mechanical Tee
Threaded Outlet



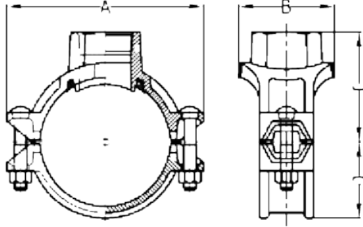
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
150×50 159.0×2	159.0×60.3 6.250×2.375	300 2.07	64 2.50	244 9.60	112.5 4.43	125 4.92	94 3.70	5/8×105 M16X108	UL FM
150×65 159.0×76.1	159.0×76.1 6.250×3.000	300 2.07	70 2.75	244 9.60	112.5 4.43	125 4.92	94 3.70	5/8×105 M16X108	UL FM
150×80 159.0×3	159.0×88.9 6.250×3.500	300 2.07	89 3.50	244 9.60	133 5.20	125 4.92	94 3.70	5/8×105 M16X108	UL
150×100 159.0×4	159.1×114.3 6.250×4.500	175 1.20	114 4.50	244 9.60	156.5 6.16	130 5.12	94 3.70	5/8×105 M16X108	UL
150×15 165.1×½	165.1×21.3 6.500×0.825	300 2.07	38 1.50	244 9.60	78 3.07	110 4.33	97.5 3.84	5/8×105 M16X108	UL
125×20 165.1×¾	165.1×26.9 6.500×1.050	300 2.07	38 1.50	244 9.60	78 3.07	110 4.33	97.5 3.84	5/8×105 M16X108	UL
150×25 165.1×1	165.1×33.7 6.500×1.315	300 2.07	38 1.50	244 9.60	78 3.07	118 4.65	97.5 3.84	5/8×105 M16X108	UL FM
150×32 165.1×1¼	165.1×42.4 6.500×1.660	300 2.07	51 2.00	244 9.60	93 3.66	118 4.65	97.5 3.84	5/8×105 M16X108	UL FM
150×40 165.1×1½	165.1×48.3 6.500×1.900	300 2.07	51 2.00	244 9.60	93 3.66	118 4.65	97.5 3.84	5/8×105 M16X108	UL FM
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.50	244 9.60	112.5 4.43	128.5 5.43	97.5 3.84	5/8×105 M16X108	UL FM
150×65 165.1×2½	165.1×76.1 6.500×3.000	300 2.07	70 2.75	244 9.60	112.5 4.43	128.5 5.43	97.5 3.84	5/8×105 M16X108	UL
150×80 165.1×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	244 9.60	132 5.20	128.5 5.06	97.5 3.84	5/8×105 M16X108	UL FM
150×100 165.1×4	165.1×114.3 6.500×4.500	225 1.6	114 4.50	244 9.60	154 6.18	135 5.32	97.5 3.84	5/8×105 M16X108	-
150×32 6×1¼	168.3×42.4 6.500×1.660	300 2.07	51 2.00	247 9.72	95 3.74	122 4.80	98.5 3.88	5/8×105 M16X108	UL FM
150×40 6×1½	168.3×48.3 6.500×1.900	400 2.76	51 2.00	247 9.72	95 3.74	122 4.80	98.5 3.88	5/8×105 M16X108	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.50	247 9.72	112.5 4.43	132 5.20	98.5 3.88	5/8×105 M16X108	UL FM
150×65 6×2½	168.3×73.0 6.625×2.875	400 2.76	70 2.75	247 9.72	112.5 4.43	132 5.20	98.5 3.88	5/8×105 M16X108	UL FM
150×65 6×76.1	168.3×76.1 6.625×3.000	300 2.07	70 2.75	247 9.72	112.5 4.43	132 5.20	98.5 3.88	5/8×105 M16X108	UL
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	247 9.72	132 5.20	140 5.51	98.5 3.88	5/8×105 M16X108	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	400 2.76	114 4.50	247 9.72	160 6.30	140 5.51	98.5 3.88	5/8×105 M16X108	UL FM
200×25 8×1	219.1×33.7 8.625×1.315	300 2.07	38 1.50	320 12.60	79.5 3.13	150 5.91	125 4.92	3/4×115 M20X115	UL FM
200×32 8×1¼	219.1×42.4 8.625×1.660	300 2.07	51 2.00	320 12.60	96.5 3.80	150 5.91	125 4.92	3/4×115 M20X115	UL FM
200×40 8×1½	219.1×48.3 8.625×1.900	300 2.07	51 2.00	320 12.60	96.5 3.80	150 5.91	125 4.92	3/4×115 M20X115	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	400 2.76	64 2.50	320 12.60	117 4.61	160 6.30	125 4.92	3/4×115 M20X115	UL FM
200×65 8×2½	219.1×73.0 8.625×2.875	300 2.07	70 2.75	320 12.60	118 4.65	160 6.30	125 4.92	3/4×115 M20X115	UL FM
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	320 12.60	118 4.65	160 6.30	125 4.92	3/4×115 M20X115	UL FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	320 12.60	136.5 5.37	160 6.30	125 4.92	3/4×115 M20X115	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.50	320 12.60	164 6.46	160 6.30	125 4.92	3/4×115 M20X115	UL FM
250×40 10×1½	273.0×48.3 10.750×1.900	300 2.07	51 2.00	376 14.80	95.5 3.76	180 7.09	155 6.10	3/4×120 M20X115	UL FM
250×50 10×2	273.0×60.3 10.750×2.375	300 2.07	64 2.50	376 14.80	118 4.65	185 7.28	155 6.10	3/4×120 M20X115	UL FM
250×65 10×76.1	273.0×76.1 10.750×3.000	300 2.07	70 2.75	376 14.80	118 4.65	190 7.48	155 6.10	3/4×120 M20X115	UL FM
250×80 10×3	273.0×88.9 10.750×3.500	300 2.07	89 3.50	376 14.80	136.5 5.37	190 7.48	155 6.10	3/4×120 M20X115	UL FM
250×100 10×4	273.0×114.3 10.750×4.500	300 2.07	114 4.50	376 14.80	164 6.46	190 7.48	155 6.10	3/4×120 M20X115	UL FM

Dişli Mekanik Te Mechanical Tee Threaded Outlet



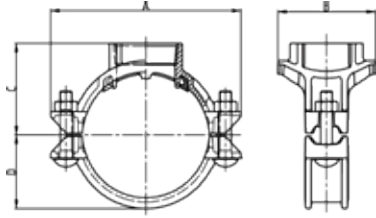
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6.0/+0.063.0	Ölçüler/Dimensions				Cıvata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
80×15 3×½	88.9×21.3 3.500×0.825	300 2.07	38 1.50	150 5.91	71.0 2.80	68 2.68	55.5 2.19	1/2×75 M12X76	UL FM
80×20 3×¾	88.9×26.9 3.500×1.050	300 2.07	38 1.50	150 5.91	71.0 2.80	68 2.68	55.5 2.19	1/2×75 M12X76	UL FM
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	38 1.50	150 5.91	71.0 2.80	71.0 2.80	55.5 2.19	1/2×75 M12X76	UL FM
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	51 2.00	150 5.91	84.5 3.33	74 2.91	55.5 2.19	1/2×75 M12X76	UL FM
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	51 2.00	150 5.91	84.5 3.33	74 2.91	55.5 2.19	1/2×75 M12X76	UL FM
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	64 2.50	150 5.91	98 3.86	77 3.03	55.5 2.19	1/2×75 M12X76	UL FM
100×15 108.0×½	108.1×21.3 4.250×0.825	300 2.07	38 1.50	172 6.77	77.5 3.05	85 3.35	64.5 2.54	1/2×75 M12X76	UL FM
100×25 108.0×1	108.1×33.7 4.250×1.315	300 2.07	38 1.50	172 6.77	77.5 3.05	85 3.35	64.5 2.54	1/2×75 M12X76	UL FM
100×32 108.0×1¼	108.1×42.4 4.250×1.660	300 2.07	51 2.00	172 6.77	88 3.46	85 3.35	64.5 2.54	1/2×75 M12X76	UL FM
100×40 108.0×1½	108.0×48.3 4.250×1.900	300 2.07	51 2.00	172 6.77	88 3.46	85 3.35	64.5 2.54	1/2×75 M12X76	UL FM
100×50 108.0×2	108.0×60.3 4.250×2.375	300 2.07	64 2.50	172 6.77	103.5 4.19	90.5 3.56	64.5 2.54	1/2×75 M12X76	UL FM
100×65 108.0×76.1	108.0×76.1 4.250×3.000	300 2.07	70 2.75	172 6.77	103.5 4.07	97.5 3.84	64.5 2.54	1/2×75 M12X76	UL FM
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	38 1.50	178 7.01	77.5 3.05	89.5 3.52	67.5 2.66	1/2×75 M12X76	UL FM
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	51 2.00	178 7.01	88 3.46	89.5 3.53	67.5 2.66	1/2×75 M12X76	UL FM
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	51 2.00	178 7.01	88 3.46	89.5 3.53	67.5 2.66	1/2×75 M12X76	UL FM
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.50	178 7.01	103.5 4.07	92 3.62	67.5 2.66	1/2×75 M12X76	UL FM
100×65 4×2½	114.3×73.0 4.500×2.875	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×65 4×76.1	114.3×76.1 4.500×3.000	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	89 3.50	178 7.01	124 4.88	98 3.86	67.5 2.66	1/2×75 M12X76	UL FM
125×25 133.0×1	133.0×33.7 5.250×1.315	300 2.07	38 1.50	203 7.99	77 3.03	98 3.86	77.5 3.05	5/8×85	UL FM
125×32 133.0×1.25	133.0×42.4 5.250×1.660	300 2.07	51 2.00	203 7.99	91 3.58	102 4.01	77.5 3.05	5/8×85	UL FM
125×40 133.0×1½	133.0×48.3 5.250×1.900	300 2.07	51 2.00	203 7.99	91 3.58	102 4.01	77.5 3.05	5/8×85	UL FM
125×50 133.0×2	133.0×60.3 5.250×2.375	300 2.07	64 2.50	203 7.99	110 4.33	105 4.13	77.5 3.05	5/8×85	UL FM
125×65 133.0×76.1	133.0×76.1 5.250×3.000	300 2.07	70 2.75	203 7.99	110 4.33	113 4.45	77.5 3.05	5/8×85	UL FM
125×80 133.0×3	133.0×88.9 5.250×3.500	300 2.07	89 3.50	203 7.99	132 5.12	110 4.33	77.5 3.05	5/8×85	UL FM
125×25 139.7×1	139.7×33.7 5.500×1.315	300 2.07	38 1.50	210 8.27	77 3.03	100 3.94	82 3.23	5/8×85 M16X85	UL FM
125×32 139.7×1¼	139.7×42.4 5.500×1.660	300 2.07	51 2.00	210 8.27	91 3.58	105 4.13	82 3.23	5/8×85 M16X85	UL FM
125×40 139.7×1½	139.7×48.3 5.500×1.900	300 2.07	51 2.00	210 8.27	91 3.58	105 4.13	82 3.23	5/8×85 M16X85	UL FM
125×50 139.7×2	139.7×60.3 5.500×2.375	300 2.07	64 2.50	210 8.27	110 4.33	108 4.25	82 3.23	5/8×85 M16X85	UL FM
125×65 139.7×76.1	139.7×76.1 5.500×3.000	300 2.07	70 2.75	210 8.27	110 4.33	115 4.53	82 3.23	5/8×85 M16X85	UL FM
125×80 139.7×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	210 8.27	130 5.12	115 4.53	82 3.23	5/8×85 M16X85	UL FM
125×100 139.7×4	139.7×114.3 5.500×4.500	300 2.07	114 4.50	210 8.27	153 6.02	118 4.65	82 3.23	5/8×85 M16X85	UL FM
125×32 5×1¼	141.3×42.4 5.563×1.660	300 2.07	51 2.00	210 8.27	91 3.58	105 4.13	82 3.23	5/8×85 M16X85	-
125×40 5×1½	141.3×48.3 5.563×1.900	400 2.76	51 2.00	210 8.27	91 3.58	105 4.13	82 3.23	5/8×85 M16X85	UL
125×50 5×2	141.3×60.3 5.563×2.375	300 2.07	64 2.50	210 8.27	110 4.33	108 4.25	82 3.23	5/8×85 M16X85	UL

Dişli Mekanik Te Mechanical Tee Threaded Outlet



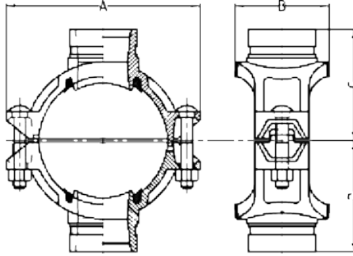
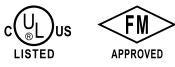
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
150×25 159.0×1	159.0×33.7 6.250×1.315	300 2.07	38 1.50	227 8.94	77 3.03	110 4.33	91 3.58	5/8×85 M16X85	UL FM
150×32 159.0×1¼	159.0×42.4 6.250×1.660	300 2.07	51 2.00	227 8.94	92.5 3.64	112 4.41	91 3.58	5/8×105 M16X108	UL FM
150×40 159.0×1½	159.0×48.3 6.250×1.900	300 2.07	51 2.00	227 8.94	92.5 3.64	112 4.41	91 3.58	5/8×105 M16X108	UL FM
150×50 159.0×2	159.0×60.3 6.250×2.375	300 2.07	64 2.50	227 8.94	110 4.33	116.5 4.59	91 3.58	5/8×105 M16X108	UL FM
150×65 159.0×76.1	159.0×76.1 6.250×3.000	300 2.07	70 2.75	227 8.94	110 4.33	121.5 4.78	91 3.58	5/8×105 M16X108	UL FM
150×80 159.0×3	159.0×88.9 6.250×3.500	300 2.07	89 3.50	227 8.94	130 5.12	123.5 4.86	91 3.58	5/8×105 M16X108	UL FM
150×100 159.0×4	159.1×114.3 6.250×4.500	300 2.07	114 4.50	227 8.94	155 6.10	127 5.00	91 3.58	5/8×105 M16X108	UL FM
150×15 165.1×½	165.1×21.3 6.500×0.825	300 2.07	38 1.50	235 9.25	77 3.03	115 4.53	94.5 3.72	5/8×105 M16X108	UL FM
125×20 165.1×¾	165.1×26.9 6.500×1.050	300 2.07	38 1.50	235 9.25	77 3.03	115 4.53	94.5 3.72	5/8×105 M16X108	UL FM
150×25 165.1×1	165.1×33.7 6.500×1.315	300 2.07	38 1.50	235 9.25	77 3.03	115 4.53	94.5 3.72	5/8×105 M16X108	UL FM
150×32 165.1×1¼	165.1×42.4 6.500×1.660	300 2.07	51 2.00	235 9.25	92.5 3.64	115 4.53	94.5 3.72	5/8×105 M16X108	UL FM
150×40 165.1×1½	165.1×48.3 6.500×1.900	300 2.07	51 2.00	235 9.25	92.5 3.64	115 4.53	94.5 3.72	5/8×105 M16X108	UL FM
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.50	235 9.25	110 4.33	120 4.72	94.5 3.72	5/8×105 M16X108	UL FM
150×65 165.1×76.1	165.1×76.1 6.500×3.000	300 2.07	70 2.75	235 9.25	110 4.33	125 4.92	94.5 3.72	5/8×105 M16X108	UL FM
150×80 165.1×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	235 9.25	130 5.12	125 4.92	94.5 3.72	5/8×105 M16X108	UL FM
150×100 165.1×4	165.1×114.3 6.500×4.500	300 2.07	114 4.50	240 9.45	155 6.10	130 5.12	94.5 3.72	5/8×105 M16X108	UL FM
150×25 6×1	168.3×33.7 6.500×1.315	300 2.07	38 1.50	240 9.45	77 3.03	115 4.53	96.5 3.80	5/8×105 M16X108	UL FM
150×32 6×1¼	168.3×42.4 6.500×1.660	300 2.07	51 2.00	240 9.45	92.5 3.64	115 4.53	96.5 3.80	5/8×105 M16X108	UL FM
150×40 6×1½	168.3×48.3 6.500×1.900	300 2.07	51 2.00	240 9.45	92.5 3.64	115 4.53	96.5 3.80	5/8×105 M16X108	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.50	240 9.45	110 4.33	121 4.76	96.5 3.80	5/8×105 M16X108	UL FM
150×65 6×2½	168.3×73.0 6.625×2.875	300 2.07	70 2.75	240 9.45	110 4.33	127 5.00	96.5 3.80	5/8×105 M16X108	UL FM
150×65 6×2½	168.3×76.0 6.625×3.000	300 2.07	70 2.75	240 9.45	110 4.33	127 5.00	96.5 3.80	5/8×105 M16X108	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	240 9.45	130 5.12	127 5.00	96.5 3.80	5/8×105 M16X108	UL FM
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	114 4.50	240 9.45	155 6.10	130 5.12	96.5 3.80	5/8×105 M16X108	UL FM
200×25 8×1	219.0×33.7 8.625×1.315	300 2.07	38 1.50	300 11.81	78 3.07	140 5.51	123 4.84	5/8×105 M16X108	UL FM
200×32 8×1¼	219.1×42.4 8.625×1.660	300 2.07	51 2.00	300 11.81	96.5 3.80	140 5.51	123 4.84	5/8×105 M16X108	UL FM
200×40 8×1½	219.1×48.3 8.625×1.900	300 2.07	51 2.00	300 11.81	96.5 3.80	143 5.63	123 4.84	5/8×105 M16X108	UL FM
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.50	300 11.81	117 4.61	149 5.87	123 4.84	5/8×105 M16X108	UL FM
200×65 8×2½	219.1×73.0 8.625×2.875	300 2.07	70 2.75	300 11.81	117 4.61	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	300 11.81	117 4.61	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	300 11.81	133.5 5.25	155 6.10	123 4.84	5/8×105 M16X108	UL FM
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.50	300 11.81	164 6.45	160 6.30	123 4.84	5/8×105 M16X108	UL FM

Dişli Mekanik Te Mechanical Tee Threaded Outlet



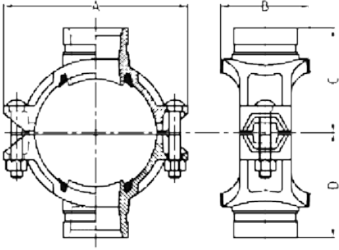
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
65×25 2½×1	73.0×33.7 2.875×1.315	300 2.07	38 1.50	130 5.12	68.5 2.70	60 2.36	44 1.73	3/8×60	UL
65×40 2½×1½	73.0×48.3 2.875×1.900	300 2.07	51 2.00	130 5.12	81 3.19	63 2.48	44 1.73	3/8×60	UL
65×25 76.1×1	76.1×33.7 3.000×1.315	300 2.07	38 1.50	132.5 5.22	68.5 2.70	60 2.36	46 1.81	3/8×60	UL
65×32 76.1×1¼	76.1×42.4 3.000×1.660	300 2.07	51 2.00	132.5 5.22	81 3.19	63 2.48	46 1.81	3/8×60	UL
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	38 1.50	144 5.67	69.5 2.74	66.5 2.62	52.5 2.07	3/8×60	UL
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	51 2.00	144 5.67	82 3.23	66.5 2.62	52.5 2.07	3/8×60	UL
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	51 2.00	144 5.67	82 3.23	70 2.76	52.5 2.07	3/8×60	UL
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	64 2.50	144 5.67	96 3.78	72 2.83	52.5 2.07	3/8×60	UL
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	38 1.50	175 6.89	72 2.83	82.5 3.25	67 2.64	1/2×75	UL
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	51 2.00	175 6.89	84 3.31	82.5 3.25	67 2.64	1/2×75	UL
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	51 2.00	175 6.89	84 3.31	84.5 3.33	67 2.64	1/2×75	UL
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.50	175 6.89	97.5 3.84	84.5 3.33	67 2.64	1/2×75	UL
100×65 4×76.1	114.3×76.1 4.500×3.000	300 2.07	70 2.75	175 6.89	104.5 4.11	98 3.86	67 2.64	1/2×75	UL
150×25 6×1	165.1×33.7 6.500×1.32	300 2.07	38 1.5	233 9.17	73 2.87	106 4.17	96.3 3.79	M14×82	-
150×32 6×1¼	165.1×42.4 6.500×1.669	300 2.07	51 2	235 9.25	109 4.29	125 4.92	96.3 3.79	M14×82	-
150×40 6×1½	165.1×48.3 6.500×1.900	300 2.07	51 2	233 9.17	86 3.39	106 4.17	96.3 3.79	M14×82	-
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	64 2.5	235 9.25	102 4.02	108 4.25	96.3 3.79	M14×82	-
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	70 2.75	233 9.17	86 3.39	106 4.17	96.3 3.79	M14×82	-

Yivli Kruva Mekanik Te
Mechanical Cross
Grooved Outlet



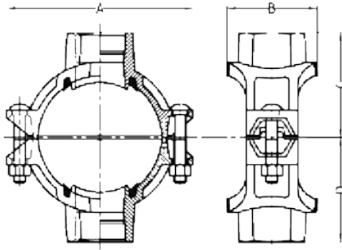
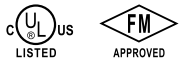
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Çıvata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
50X32 2X11/4	60.3X42.4 2.375X1.660	300 2.07	45 1.75	116 4.57	76 2.99	69.5 2.74	69.5 2.74	3/8x55 M10X57	UL FM
50X40 2X11/2	60.3X48.3 2.375X1.900	300 2.07	45 1.75	116 4.57	76 2.99	69.5 2.74	69.5 2.74	3/8x55 M10X57	UL FM
65X32 2½X1¼	73.0X42.4 2.875X1.669	300 2.07	51 2	144 5.67	84.5 3.33	75 2.95	75 2.95	1/2x70 M12X70	UL FM
65X25 2½X1	76.1X33.7 3.000X1.327	300 2.07	38 1.5	137 5.39	71 2.8	78 3.07	78 3.07	1/2x70 M12X70	UL FM
65X32 2½X1¼	76.1X42.4 3.000X1.669	300 2.07	51 2	137 5.39	84.5 3.33	78 3.07	78 3.07	1/2x70 M12X70	UL FM
80X25 3X1	88.9X33.7 3.500X1.327	300 2.07	38 1.5	152 5.98	72.5 2.85	84.5 3.33	84.5 3.33	1/2X75 M12X76	-
80X32 3X1¼	88.9X42.4 3.500X1.669	300 2.07	51 2	152 5.98	85.5 3.37	84.5 3.33	84.5 3.33	1/2x75 M12X76	UL FM
80X40 3X1½	88.9X48.3 3.500X1.900	300 2.07	51 2	152 5.98	85.5 3.37	84.5 3.33	84.5 3.33	1/2x75 M12X76	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	300 2.07	64 2.50	152 5.98	98 3.86	84.5 3.33	84.5 3.33	1/2x75 M12X76	UL FM
100X25 4X1	114.3X33.7 4.500X1.327	300 2.07	38 1.5	188 7.4	78.4 3.09	102 4.02	102 4.02	1/2x75 M12X76	-
100X32 4X1¼	114.3X42.4 4.500X1.669	300 2.07	51 2.00	188 7.40	89 3.50	102 4.02	102 4.02	1/2x75 M12X76	UL FM
100X40 4X1½	114.3X48.3 4.500X1.900	300 2.07	51 2	188 7.4	89 3.5	102 4.02	102 4.02	1/2x75 M12X76	UL FM
100X50 4X2	114.3X60.3 4.500X2.375	300 2.07	64 2.5	188 7.4	104.5 4.11	102 4.02	102 4.02	1/2x75 M12X76	UL FM
100X65 4X7/16	114.3X76.1 4.500X3.000	300 2.07	70 2.75	188 7.40	104.5 4.11	102 4.02	102 4.02	1/2x75 M12X76	UL FM
100X80 4X3	114.3X88.9 4.500X3.500	300 2.07	89 3.50	188 7.40	128 5.03	102 4.02	102 4.02	1/2X75 M12X76	UL FM
125X50 5X2	139.7X60.3 5.500X2.375	300 2.07	64 2.5	221.5 8.72	112.5 4.43	118 4.65	118 4.65	5/8-85 M16X85	UL FM
125X65 5X2½	139.7X76.1 5.500X3.000	300 2.07	70 2.75	221.5 8.72	112.5 4.43	118 4.65	118 4.65	5/8-85 M16X85	-
125X80 5X3	139.7X88.9 5.500X3.500	300 2.07	89 3.50	221.5 8.72	132 5.20	118 4.65	118 4.65	5/8-85 M16X85	UL FM
139.7X3 125X100 139.7X4	139.7X114.3 5.500X4.500	300 2.07	114 4.50	221.5 8.72	160 6.30	125 4.92	125 4.92	5/8-85 M16X85	-
150X50 6X2	165.1X60.3 6.500X2.375	300 2.07	64 2.5	244 9.6	112.5 4.43	127 5	127 5	5/8X105	UL FM
150X65 6X2½	165.1X76.1 6.500X3.000	300 2.07	70 2.75	244 9.6	112.5 4.43	127 5	127 5	5/8x105 M16X108	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	300 2.07	89 3.5	244 9.6	132 5.2	141 5.55	141 5.55	5/8x105 M16X108	UL FM
150X40 6X1½	168.3X48.3 6.625X1.900	300 2.07	51 2	247 9.72	95 3.74	128 5.04	128 5.04	5/8x105 M16X108	UL FM
150X50 6X2	168.3X60.3 6.625X2.375	300 2.07	64 2.5	247 9.72	114 4.49	134 5.28	134 5.28	5/8x105 M16X108	UL FM
150X65 6X2½	168.3X73.0 6.625X2.875	300 2.07	70 2.75	247 9.72	115 4.53	134 5.28	134 5.28	5/8x105 M16X108	UL FM
150X80 6X3	168.3X88.9 6.625x3.500	300 2.07	89 3.5	247 9.72	132 5.2	141 5.55	141 5.55	5/8x105 M16X108	UL FM
150X100 159.0X108.0	159.1X108.0 6.250X4.250	300 2.07	114 4.50	244 9.60	154 6.06	133 5.24	133 5.24	5/8x105 M16X108	-
150X100 159.0X4	159.1X114.3 6.250X4.500	300 2.07	114 4.50	244 9.60	159 6.26	125 4.92	125 4.92	5/8x105 M16X108	-
150X40 61/20DX11/2	165.1X48.3 6.500X1.900	300 2.07	51 2.00	244 9.60	93 3.66	128.5 5.06	128.5 5.06	5/8x105 M16X108	-
150X100 61/20D X4	165.1X114.3 6.500X4.500	300 2.07	114 4.50	244 9.60	154 6.06	135 5.32	135 5.32	5/8x105 M16X108	-
150X65 6X7/16	168.3X76.1 6.625X3.000	300 2.07	70 2.75	247 9.72	112.5 4.43	135 5.32	135 5.32	5/8x105 M16X108	-
150X100 6X4	168.3X114.3 6.625X4.500	300 2.07	114 4.50	247 9.72	160 6.30	138 5.43	138 5.43	5/8x105 M16X108	UL FM
200X50 8X2	219.1X60.3 8.625X2.375	300 2.07	64 2.5	320 12.6	118 4.65	158 6.22	158 6.22	3/4x115 M20X115	-
200X65 8X2½	219.1X76.1 8.625X3.000	300 2.07	70 2.75	320 12.6	118 4.65	158 6.22	158 6.22	3/4x115 M20X115	-
200X80 8X3	219.1X88.9 8.625X3.500	300 2.07	89 3.5	320 12.6	136.5 5.37	161 6.34	161 6.34	3/4x115 M20X115	-
200X100 8X4	219.1X108.0 8.625X4.500	300 2.07	114 4.50	320 12.60	162 6.38	161 6.34	161 6.34	3/4x115 M20X115	-
200X100 8X4	219.1X114.3 8.625X4.500	300 2.07	114 4.5	320 12.6	162 6.38	161 6.34	161 6.34	3/4x115 M20X115	-
250X65 10X2½	273.0X76.1 10.750X3.000	300 2.07	70 2.75	376 14.8	118 4.65	189 7.44	189 7.44	3/4x120 M20X115	-
250X80 10X3	273.0X88.9 10.750X3.500	300 2.07	89 3.5	376 14.8	136.5 5.37	189 7.44	189 7.44	3/4x120 M20X115	-
250X100 10X4	273.0X108.0 10.75X4.250	300 2.07	114 4.50	376 14.80	164 6.46	189 7.44	189 7.44	3/4x115 M20X115	-
250X100 10X4	273.0X114.3 10.750X4.500	300 2.07	114 4.5	376 14.8	164 6.46	189 7.44	189 7.44	3/4x120 M20X115	UL FM

Yivli Kruva Mekanik Te Mechanical Cross Grooved Outlet



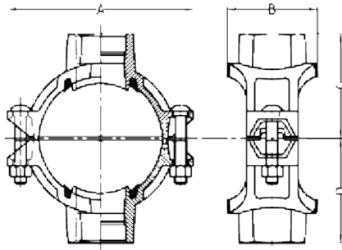
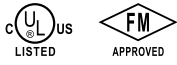
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Cıvata Ölçüsü Bolt Size mm/in
				A mm/in	B mm/in	C mm/in	D mm/in	
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	38 1.50	150 5.91	71.0 2.80	84 3.31	84 3.31	1/2×70 M12X76
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	51 2.00	150 5.91	84.5 3.33	84 3.31	84 3.31	1/2×70 M12X76
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	51 2.00	150 5.91	84.5 3.33	84 3.31	84 3.31	1/2×70 M12X76
80×50 3×2	88.9×60.3 3.500×2.375	300 2.07	64 2.50	150 5.91	98 3.86	84 2.19	84 2.19	1/2×75 M12X76
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	38 1.50	178 7.01	77.5 3.05	98 3.86	98 3.86	1/2×70 M12X76
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	51 2.00	178 7.01	88 3.46	98 3.86	98 3.86	1/2×70 M12X76
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.50	178 7.01	103.5 4.07	98 3.86	98 3.86	1/2×70 M12X76
100×65 4×2½	114.3×73.0 4.500×2.875	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	98 3.86	1/2×75 M12X76
100×65 4×76.1	114.3×76.1 4.500×3.000	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	98 3.86	1/2×75 M12X76
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	89 3.50	178 7.01	124 4.88	98 3.86	98 3.86	1/2×75 M12X76
125×50 139.7×2	139.7×60.3 5.500×2.375	300 2.07	64 2.50	210 8.27	110 4.33	113 4.45	113 4.45	5/8×85 M16X85
125×65 139.7×76.1	139.7×76.1 5.500×3.000	300 2.07	70 2.75	210 8.27	110 4.33	113 4.45	113 4.45	5/8×85 M16X85
125×80 139.7×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	210 8.27	130 5.12	113 4.45	113 4.45	5/8×85 M16X85
125×100 139.7×4	139.7×114.3 5.500×4.500	300 2.07	114 4.50	210 8.27	153 6.02	115 4.52	115 4.52	5/8×85 M16X85
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.50	235 9.25	110 4.33	124.5 4.90	124.5 4.90	5/8×105 M16X108
150×65 165.1×76.1	165.1×76.1 6.500×3.000	300 2.07	70 2.75	235 9.25	110 4.33	124.5 4.90	124.5 4.90	5/8×105 M16X108
150×80 165.1×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	235 9.25	130 5.12	124.5 4.90	124.5 4.90	5/8×105 M16X108
150×32 6×1¼	168.3×42.4 6.500×1.660	300 2.07	51 2.00	240 9.45	92.5 3.64	126 4.96	126 4.96	5/8×105 M16X108
150×40 6×1½	168.3×48.3 6.500×1.900	300 2.07	51 2.00	240 9.45	92.5 3.64	126 4.96	126 4.96	5/8×105 M16X108
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.50	240 9.45	110 4.33	126 4.96	126 4.96	5/8×105 M16X108
150×65 159.0×76.1	159.1×76.1 6.250×3.000	300 2.07	70 2.75	227 8.94	110 4.33	122.5 4.83	122.5 4.83	5/8×85 M16X108
150×65 6×2½	168.3×73.0 6.625×2.875	300 2.07	70 2.75	240 9.45	110 4.33	126 4.96	126 4.96	5/8×105 M16X108
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	240 9.45	130 5.12	126 4.96	126 4.96	5/8×105 M16X108
150×80 159.0×88.9	159.1×88.9 6.250×3.500	300 2.07	89 3.50	227 8.94	130 5.11	122.5 4.83	122.5 4.83	5/8×85 M16X108
150×100 159.0×108.0	159.1×108.0 6.250×4.250	300 2.07	114 4.50	227 8.94	155 6.10	122.5 4.83	122.5 4.83	5/8×85 M16X108
150×100 159.0×4	159.1×114.3 6.250×4.500	300 2.07	114 4.50	227 8.94	155 4.83	122.5 4.83	122.5 4.83	5/8×85 M16X108
150×32 165.1×1¼	165.1×42.4 6.500×1.900	300 2.07	51 2.00	235 9.25	92.5 3.64	124.5 4.90	124.5 4.90	5/8×105 M16X108
150×100 165.1×4	165.1×114.3 6.500×4.500	300 2.07	114 4.50	235 9.25	155 6.10	126 4.96	126 4.96	5/8×105 M16X108
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	114 4.50	240 9.45	155 6.10	128 5.04	128 5.04	5/8×105 M16X108
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.50	300 11.81	115 4.53	155 6.10	155 6.10	5/8×105 M16X108
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	300 11.81	115 4.53	155 6.10	155 6.10	5/8×105 M16X108
200×65 8×2½	219.1×73.0 8.625×2.875	300 2.07	70 2.75	300 11.81	117 4.60	155 6.10	155 6.10	5/8×105 M16X108
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	300 11.81	133.5 5.25	155 6.10	155 6.10	5/8×105 M16X108
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.50	300 11.81	159.5 6.29	160 6.30	160 6.30	5/8×105 M16X108

Dişli Kruva Mekanik Te
Mechanical Cross
Threaded Outlet



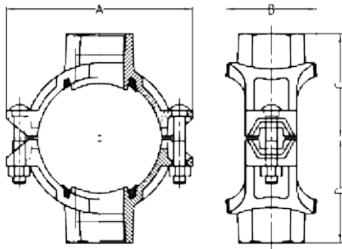
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
50x25 2x1	60.3x33.7 2.375x1.315	300 2.07	38 1.50	116 4.57	68 2.68	60 2.36	60 2.36	3/8x55 M10X57	UL FM
50x32 2x11/4	60.3x42.4 2.375x1.660	300 2.07	45 1.75	116 4.57	76 2.99	65 2.56	65 2.56	3/8x55 M10X57	UL FM
50x40 2x11/2	60.3x48.3 2.375x1.900	300 2.07	45 1.75	116 4.57	76 2.99	65 2.56	65 2.56	3/8x55 M10X57	UL FM
65x20 2½x¾	73.0x26.9 2.875x1.050	300 2.07	38 1.50	137 5.39	71 2.80	68 2.68	68 2.68	1/2x70 M12X70	-
65x25 2½x1	73.0x33.7 2.875x1.315	300 2.07	38 1.50	137 5.39	71 2.80	70 2.76	70 2.76	1/2x70 M12X70	UL FM
65x32 2½x1¼	73.0x42.4 2.875x1.660	300 2.07	51 2.00	137 5.39	84.5 3.33	73 2.87	73 2.87	1/2x70 M12X70	UL FM
65x15 2½x½	76.1x21.3 3.000x0.825	300 2.07	38 1.5	137 5.39	71 2.8	61.5 2.42	61.5 2.42	1/2x70 M12X70	UL FM
65x20 2½x¾	76.1x26.9 3.000x1.059	300 2.07	38 1.5	137 5.39	71 2.8	75 3.05	75 3.05	1/2x70 M12X70	-
65x25 2½x1	76.1x33.7 3.000x1.327	300 2.07	38 1.5	137 5.39	71 2.8	75 3.05	75 3.05	1/2x70 M12X70	UL FM
65x32 2½x1¼	76.1x42.4 3.000x1.669	300 2.07	51 2.00	137 5.39	84.5 3.33	75 3.05	75 3.05	1/2x70 M12X70	UL FM
65x40 21/2x11/2	73.0x48.3 2.875x1.900	300 2.07	51 2.00	137 5.39	84.5 3.33	73 2.87	73 2.87	1/2x70 M12X70	UL FM
65x40 21/2x11/2	76.1x48.3 3.000x1.900	300 2.07	51 2.00	137 5.39	84.5 3.33	75 2.95	75 2.95	1/2x70 M12X70	UL FM
80x15 3x½	88.9x21.3 3.500x0.825	300 2.07	38 1.5	152 5.98	72.5 2.85	71.5 2.81	71.5 2.81	1/2x75 M12X76	UL FM
80x20 3x¾	88.9x26.9 3.500x1.059	300 2.07	38 1.5	152 5.98	72.5 2.85	71.5 2.81	71.5 2.81	1/2x75 M12X76	-
80x25 3x1	88.9x33.7 3.500x1.327	300 2.07	38 1.5	152 5.98	72.5 2.85	80 3.15	80 3.15	1/2x75 M12X76	UL FM
80x32 3x1¼	88.9x42.4 3.500x1.669	300 2.07	51 2.00	152 5.98	85.5 3.37	80 3.15	80 3.15	1/2x75 M12X76	UL FM
80x40 3x1½	88.9x48.3 3.500x1.900	300 2.07	51 2.00	152 5.98	85.5 3.37	80 3.15	80 3.15	1/2x75 M12X76	UL FM
80x50 3x2	88.9x60.3 3.500x2.375	300 2.07	64 2.50	152 5.98	98 3.86	80 3.15	80 3.15	1/2x75 M12X76	UL FM
100x25 108.0x1	108.0x33.7 4.250x1.315	300 2.07	38 1.50	172 6.77	78.5 3.09	87 3.43	87 3.43	1/2x75 M12X76	-
100x32 108.0x1¼	108.0x42.4 4.250x1.660	300 2.07	51 2.00	172 6.77	89 3.50	87 3.43	87 3.43	1/2x75 M12X76	UL FM
100x40 108.0x1½	108.0x48.3 4.250x1.900	300 2.07	51 2.00	172 6.77	89 3.50	87 3.43	87 3.43	1/2x75 M12X76	-
100x50 108.0x2	108.0x60.3 4.250x2.375	300 2.07	64 2.50	172 6.77	106.5 4.19	92 3.62	92 3.62	1/2x75 M12X76	-
100x15 4x½	114.3x21.3 4.500x0.825	300 2.07	38 1.5	188 7.4	78.5 3.09	90 3.54	90 3.54	1/2x75 M12X76	-
100x20 4x¾	114.3x26.9 4.500x1.059	300 2.07	38 1.5	188 7.4	78.5 3.09	90 3.54	90 3.54	1/2x75 M12X76	-
100x25 4x1	114.3x33.7 4.500x1.327	300 2.07	38 1.5	188 7.4	78.5 3.09	93 3.66	93 3.66	1/2x75 M12X76	UL FM
100x32 4x1¼	114.3x42.4 4.500x1.669	300 2.07	51 2.00	188 7.4	89 3.5	95 3.74	95 3.74	1/2x75 M12X76	UL FM
100x40 4x1½	114.3x48.3 4.500x1.900	300 2.07	51 2.00	188 7.4	89 3.5	97 3.82	97 3.82	1/2x75 M12X76	UL FM
100x50 4x2	114.3x60.3 4.500x2.375	300 2.07	64 2.5	188 7.4	104.5 4.11	100 3.94	100 3.94	1/2x75 M12X76	UL FM
100x65 108.0x21/2	108.0x76.1 4.250x3.000	300 2.07	70 2.75	172 6.77	106.5 4.19	100 3.94	100 3.94	1/2x75 M12X76	-
100x65 4x21/2	114.3x76.1 4.500x3.000	300 2.07	70 2.75	188 7.40	104.5 4.11	102 4.02	102 4.02	1/2x75 M12X76	-
100x80 4x3	114.3x88.9 4.500x3.500	300 2.07	89 3.50	188 7.40	128 5.039	102 4.02	102 4.02	1/2x75 M12X76	UL FM
125x32 133.0x11/4	133.0x42.4 5.250x1.660	300 2.07	51 2.00	209 8.23	93 3.66	105 4.13	105 4.13	5/8x85 M16X85	-
125x40 133.0x11/2	133.0x48.3 5.250x1.900	300 2.07	51 2.00	209 8.23	93 3.66	105 4.13	105 4.13	5/8x85 M16X85	-
125x50 133.0x2	133.0x60.3 5.250x2.375	300 2.07	64 2.50	209 8.23	112.5 4.43	110 4.33	110 4.33	5/8x85 M16X85	-
125x25 5x1	139.7x33.7 5.500x1.327	300 2.07	38 1.5	221.5 8.72	78 3.07	110 4.33	110 4.33	5/8x85 M16X85	UL FM

Dişli Kruva Mekanik Te Mechanical Cross Threaded Outlet



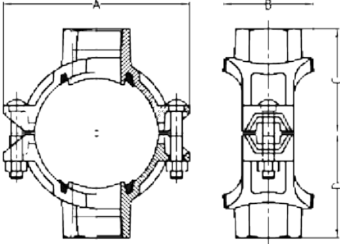
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Cıvata Ölçüsü Bolt Size mm/in	Sertifika Certificate
				A mm/in	B mm/in	C mm/in	D mm/in		
125×32 5×1¼	139.7×42.4 5.500×1.669	300 2.07	51 2.00	221.5 8.72	95 3.74	112 4.41	112 4.41	5/8×85 M16X85	UL FM
125×40 5×1½	139.7×48.3 5.500×1.900	300 2.07	51 2.00	221.5 8.72	95 3.74	112 4.41	112 4.41	5/8×85 M16X85	UL FM
125×50 5×2	139.7×60.3 5.500×2.375	300 2.07	64 2.50	221.5 8.72	112.5 4.43	115 4.53	115 4.53	5/8×85 M16X85	UL FM
125×65 5×2½	139.7×76.1 5.500×3.000	300 2.07	70 2.75	221.5 8.72	112.5 4.43	115 4.53	115 4.53	5/8×85 M16X85	-
125×80 5×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	221.5 8.72	132 5.20	120 4.72	120 4.72	5/8×85 M16X85	UL FM
150×32 159.0×1¼	159.0×42.4 6.250×1.660	300 2.07	51 2.00	244 9.60	93 3.66	118 4.65	118 4.65	5/8×105 M16X108	-
150×40 159.0×1½	159.0×48.3 6.250×1.900	300 2.07	51 2.00	244 9.60	93 3.66	118 4.65	118 4.65	5/8×105 M16X108	-
150×50 159.0×2	159.0×60.3 6.250×2.375	300 2.07	64 2.50	244 9.60	112.5 4.43	125 4.92	125 4.92	5/8×105 M16X108	-
150×65 159.0×2½	159.0×76.1 6.250×3.000	300 2.07	70 2.75	244 9.60	112.5 4.43	125 4.92	125 4.92	5/8×105 M16X108	-
150×15 6×½	165.1×21.3 6.500×0.825	300 2.07	38 1.50	244 9.6	78 3.07	110 4.33	110 4.33	5/8×105 M16X108	UL FM
150×20 6×¾	165.1×26.9 6.500×1.059	300 2.07	38 1.50	244 9.6	78 3.07	110 4.33	110 4.33	5/8×105 M16X108	-
150×25 6×1	165.1×33.7 6.500×1.327	300 2.07	38 1.50	244 9.6	78 3.07	118 4.65	118 4.65	5/8×105 M16X108	UL FM
150×32 6×1¼	165.1×42.4 6.500×1.669	300 2.07	51 2.00	244 9.6	93 3.66	118 4.65	118 4.65	5/8×105 M16X108	UL FM
150×40 6×1½	165.1×48.3 6.500×1.900	300 2.07	51 2.00	244 9.6	93 3.66	118 4.65	118 4.65	5/8×105 M16X108	UL FM
150×50 6×2	165.1×60.3 6.500×2.375	300 2.07	64 2.50	244 9.6	112.5 4.43	128.5 5.43	128.5 5.43	5/8×105 M16X108	UL FM
150×65 6×2½	165.1×76.1 6.500×3.000	300 2.07	70 2.75	244 9.6	112.5 4.43	128.5 5.43	128.5 5.43	5/8×105 M16X108	-
150×80 6×3	165.1×88.9 6.500×3.500	300 2.07	89 3.5	244 9.6	132 5.2	128.5 5.06	128.5 5.06	5/8×105 M16X108	UL FM
150×32 6×1¼	168.3×42.4 6.500×1.669	300 2.07	51 2.00	247 9.72	95 3.74	130 5.12	130 5.12	5/8×105 M16X108	UL FM
150×40 6×1½	168.3×48.3 6.500×1.900	300 2.07	51 2.00	247 9.72	95 3.74	122 4.8	122 4.8	5/8×105 M16X108	UL FM
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.5	247 9.72	112.5 4.43	132 5.2	132 5.2	5/8×105 M16X108	UL FM
150×65 6×2½	168.3×73.0 6.625×2.875	300 2.07	70 2.75	247 9.72	112.5 4.43	132 5.2	132 5.2	5/8×105 M16X108	UL FM
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.5	247 9.72	132 5.2	140 5.51	140 5.51	5/8×105 M16X108	UL FM
200×25 8×1	219.0×33.7 8.625×1.327	300 2.07	38 1.5	320 12.60	79.5 3.13	150 5.91	150 5.91	3/4×115 M20X115	UL FM
200×32 8×1¼	219.1×42.4 8.625×1.669	300 2.07	51 2.00	320 12.60	96.5 3.8	150 5.91	150 5.91	3/4×115 M20X115	-
200×40 8×1½	219.1×48.3 8.625×1.900	300 2.07	51 2.00	320 12.60	96.5 3.8	150 5.91	150 5.91	3/4×115 M20X115	-
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.5	320 12.60	117 4.61	160 6.3	160 6.3	3/4×115 M20X115	-
200×65 8×2½	219.1×76.1 8.625×3.000	300 2.07	70 2.75	320 12.60	118 4.65	158.5 6.24	158.5 6.24	3/4×115 M20X115	-
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.5	320 12.60	136.5 5.37	160 6.3	160 6.3	3/4×115 M20X115	-
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.5	320 12.60	164 6.46	160 6.3	160 6.3	3/4×115 M20X115	-
250×40 10×1½	273.0×48.3 10.750×1.900	300 2.07	51 2.00	376 14.8	95.5 3.76	180 7.09	180 7.09	3/4×120 M20X115	-
250×50 10×2	273.0×60.3 10.750×2.375	300 2.07	64 2.5	376 14.8	118 4.65	185 7.28	185 7.28	3/4×120 M20X115	-
250×65 10×2½	273.0×76.1 10.750×3.000	300 2.07	70 2.75	376 14.8	118 4.65	190 7.48	190 7.48	3/4×120 M20X115	-
250×80 10×3	273.0×88.9 10.750×3.500	300 2.07	89 3.5	376 14.8	136.5 5.37	190 7.48	190 7.48	3/4×120 M20X115	-
250×100 10×4	273.0×114.3 10.750×4.500	300 2.07	114 4.5	376 14.8	164 6.46	190 7.48	190 7.48	3/4×120 M20X115	-

Dişli Kruva Mekanik Te Mechanical Cross Threaded Outlet



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6.0/+0.063.0	Ölçüler/Dimensions				Civata Ölçüsü Bolt Size mm/in
				A mm/in	B mm/in	C mm/in	D mm/in	
80×15 3×½	88.9×21.3 3.500×0.825	300 2.07	38 1.50	150 5.91	71.0 2.80	68 2.68	68 2.68	1/2×75 M12X76
80×20 3×¾	88.9×26.9 3.500×1.050	300 2.07	38 1.50	150 5.91	71.0 2.80	68 2.68	68 2.68	1/2×75 M12X76
80×25 3×1	88.9×33.7 3.500×1.315	300 2.07	38 1.50	150 5.91	71.0 2.80	71.0 2.80	71.0 2.80	1/2×75 M12X76
80×32 3×1¼	88.9×42.4 3.500×1.660	300 2.07	51 2.00	150 5.91	84.5 3.33	74 2.91	74 2.91	1/2×75 M12X76
80×40 3×1½	88.9×48.3 3.500×1.900	300 2.07	51 2.00	150 5.91	84.5 3.33	74 2.91	74 2.91	1/2×75 M12X76
100×25 108.0×1	108.1×33.7 4.250×1.315	300 2.07	38 1.50	172 6.77	77.5 3.05	85 3.35	85 3.35	1/2×75 M12X76
100×32 108.0×1¼	108.1×42.4 4.250×1.660	300 2.07	51 2.00	172 6.77	88 3.46	85 3.35	85 3.35	1/2×75 M12X76
100×40 108.0×1½	108.0×48.3 4.250×1.900	300 2.07	51 2.00	172 6.77	88 3.46	85 3.35	85 3.35	1/2×75 M12X76
100×50 108.0×2	108.0×60.3 4.250×2.375	300 2.07	64 2.50	172 6.77	103.5 4.19	89 3.50	89 3.50	1/2×75 M12X76
100×15 4×½	114.3×21.3 4.500×0.825	300 2.07	38 1.50	178 7.01	77.5 3.05	82 3.23	82 3.23	1/2×75 M12X76
100×20 4×¾	114.3×26.9 4.500×1.050	300 2.07	38 1.50	178 7.01	77.5 3.05	82 3.23	82 3.23	1/2×75 M12X76
100×25 4×1	114.3×33.7 4.500×1.315	300 2.07	38 1.50	178 7.01	77.5 3.05	82 3.23	82 3.23	1/2×75 M12X76
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	51 2.00	178 7.01	88 3.46	89.5 3.53	89.5 3.53	1/2×75 M12X76
100×40 4×1½	114.3×48.3 4.500×1.900	300 2.07	51 2.00	178 7.01	88 3.46	89.5 3.53	89.5 3.53	1/2×75 M12X76
100×50 4×2	114.3×60.3 4.500×2.375	300 2.07	64 2.50	178 7.01	103.5 4.07	92 3.62	92 3.62	1/2×75 M12X76
100×65 4×2½	108.0×76.1 4.500×3.000	300 2.07	70 2.75	172 6.77	103.5 4.07	97.5 3.84	97.5 3.84	1/2×75 M12X76
100×32 4×1¼	114.3×42.4 4.500×1.660	300 2.07	51 2.00	178 7.01	88 3.46	89.5 3.53	89.5 3.53	1/2×75 M12X76
100×65 4X2½	114.3×76.1 4.500×3.000	300 2.07	70 2.75	178 7.01	103.5 4.07	98 3.86	98 3.86	1/2×75 M12X76
100×80 4×3	114.3×88.9 4.500×3.500	300 2.07	89 3.50	178 7.01	124 4.88	98 3.86	98 3.86	1/2×75 M12X76
125×25 133.0×1	133.0×33.7 5.250×1.315	300 2.07	38 1.50	203 7.99	77 3.03	98 3.86	98 3.86	5/8×85 M16X85
125×32 133.0×1.25	133.0×42.4 5.250×1.660	300 2.07	51 2.00	203 7.99	91 3.58	102 4.01	102 4.01	5/8×85 M16X85
125×40 133.0×1½	133.0×48.3 5.250×1.900	300 2.07	51 2.00	203 7.99	91 3.58	102 4.01	102 4.01	5/8×85 M16X85
125×50 133.0×2	133.0×60.3 5.250×2.375	300 2.07	64 2.50	203 7.99	110 4.33	105 4.13	105 4.13	5/8×85 M16X85
125×65 133.0×76.1	133.0×76.1 5.250×3.000	300 2.07	70 2.75	203 7.99	110 4.33	110 4.33	110 4.33	5/8×85 M16X85
125×25 139.7×1	139.7×33.7 5.500×1.315	300 2.07	38 1.50	210 8.27	77 3.03	100 3.94	100 3.94	5/8×85 M16X85
125×32 139.7×1¼	139.7×42.4 5.500×1.660	300 2.07	51 2.00	210 8.27	91 3.58	105 4.13	105 4.13	5/8×85 M16X85
125×40 139.7×1½	139.7×48.3 5.500×1.900	300 2.07	51 2.00	210 8.27	91 3.58	105 4.13	105 4.13	5/8×85 M16X85
125×50 139.7×2	139.7×60.3 5.500×2.375	300 2.07	64 2.50	210 8.27	110 4.33	108 4.25	108 4.25	5/8×85 M16X85
125×65 139.7×76.1	139.7×76.1 5.500×3.000	300 2.07	70 2.75	210 8.27	110 4.33	115 4.53	115 4.53	5/8×85 M16X85
125×80 133.0×3	133.0×88.9 5.250×3.500	300 2.07	89 3.50	203 7.99	132 5.20	110 4.33	110 4.33	5/8X85 M16X85
125×80 139.7×3	139.7×88.9 5.500×3.500	300 2.07	89 3.50	210 8.27	130 5.12	115 4.53	115 4.53	5/8X85 M16X85
125×100 139.7×4	139.7×114.3 5.500×4.500	300 2.07	114 4.50	210 8.27	153 6.02	118 4.65	118 4.65	5/8X85 M16X85

Dişli Kruva Mekanik Te Mechanical Cross Threaded Outlet



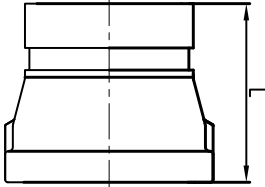
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Delik Çapı Hole Dia mm/in +1.6,0/+0.063,0	Ölçüler/Dimensions				Cıvata Ölçüsü Bolt Size mm/in
				A mm/in	B mm/in	C mm/in	D mm/in	
150×25 159.0×1	159.0×33.7 6.250×1.315	300 2.07	38 1.50	227 8.94	77 3.03	110 4.33	110 4.33	5/8×85 M16X85
150×32 159.0×1¼	159.0×42.4 6.250×1.660	300 2.07	51 2.00	227 8.94	92.5 3.64	112 4.41	112 4.41	5/8×85 M16X85
150×40 159.0×1½	159.0×48.3 6.250×1.900	300 2.07	51 2.00	227 8.94	92.5 3.64	112 4.41	112 4.41	5/8×105 M16X108
150×50 159.0×2	159.0×60.3 6.250×2.375	300 2.07	64 2.50	227 8.94	110 4.33	116.5 4.59	116.5 4.59	5/8×105 M16X108
150×65 159.0×76.1	159.0×76.1 6.250×3.000	300 2.07	70 2.75	227 8.94	110 4.33	121.5 4.78	121.5 4.78	5/8×105 M16X108
150×80 159.0×3	159.0×88.9 6.250×3.500	300 2.07	89 3.50	227 8.94	130 5.12	123.5 4.86	123.5 4.86	5/8×105 M16X108
150×15 165.1×½	165.1×21.3 6.500×0.825	300 2.07	38 1.50	235 9.25	77 3.03	115 4.53	115 4.53	5/8×105 M16X108
125×20 165.1×¾	165.1×26.9 6.500×1.050	300 2.07	38 1.50	235 9.25	77 3.03	115 4.53	115 4.53	5/8×105 M16X108
150×25 165.1×1	165.1×33.7 6.500×1.315	300 2.07	38 1.50	235 9.25	77 3.03	115 4.53	115 4.53	5/8×105 M16X108
150×32 165.1×1¼	165.1×42.4 6.500×1.660	300 2.07	51 2.00	235 9.25	92.5 3.64	115 4.53	115 4.53	5/8×105 M16X108
150×40 165.1×1½	165.1×48.3 6.500×1.900	300 2.07	51 2.00	235 9.25	92.5 3.64	115 4.53	115 4.53	5/8×105 M16X108
150×50 165.1×2	165.1×60.3 6.500×2.375	300 2.07	64 2.50	235 9.25	110 4.33	120 4.72	120 4.72	5/8×105 M16X108
150×65 165.1×76.1	165.1×76.1 6.500×3.000	300 2.07	70 2.75	235 9.25	110 4.33	125 4.92	125 4.92	5/8×105 M16X108
150×80 165.1×3	165.1×88.9 6.500×3.500	300 2.07	89 3.50	235 9.25	130 5.12	125 4.92	125 4.92	5/8×105 M16X108
150×25 6×1	168.3×33.7 6.500×1.315	300 2.07	38 1.50	240 9.45	77 3.03	115 4.53	115 4.53	5/8×105 M16X108
150×32 6×1¼	168.3×42.4 6.500×1.660	300 2.07	51 2.00	240 9.45	92.5 3.64	115 4.53	115 4.53	5/8×105 M16X108
150×40 6×1½	168.3×48.3 6.500×1.900	300 2.07	51 2.00	240 9.45	92.5 3.64	115 4.53	115 4.53	5/8×105 M16X108
150×50 6×2	168.3×60.3 6.625×2.375	300 2.07	64 2.50	240 9.45	110 4.33	121 4.76	121 4.76	5/8×105 M16X108
150×65 6×2½	168.3×73.0 6.625×2.875	300 2.07	70 2.75	240 9.45	110 4.33	127 5.00	127 5.00	5/8×105 M16X108
150×80 6×3	168.3×88.9 6.625×3.500	300 2.07	89 3.50	240 9.45	130 5.12	127 5.00	127 5.00	5/8×105 M16X108
150×100 159.0×4	159.0×114.3 6.250×4.500	300 2.07	114 4.50	227 8.94	155 6.10	127 5.00	127 5.00	5/8×105 M16X108
150×100 165.1×4	165.1×114.3 6.500×4.500	300 2.07	114 4.50	235 9.25	155 6.10	130 5.12	130 5.12	5/8×105 M16X108
150×65 6×76.1	168.3×76.1 6.625×3.000	300 2.07	70 2.75	240 9.45	110.5 4.35	127 5.00	127 5.00	5/8×105 M16X108
150×100 6×4	168.3×114.3 6.625×4.500	300 2.07	114 4.50	240 9.45	155 6.10	130 5.12	130 5.12	5/8×105 M16X108
200×25 8×1	219.0×33.7 8.625×1.315	300 2.07	38 1.50	300 11.81	78 3.07	140 5.51	140 5.51	5/8×105 M16X108
200×32 8×1¼	219.1×42.4 8.625×1.660	300 2.07	51 2.00	300 11.81	93 3.66	140 5.51	140 5.51	5/8×105 M16X108
200×40 8×1½	219.1×48.3 8.625×1.900	300 2.07	51 2.00	300 11.81	93 3.66	143 5.63	143 5.63	5/8×105 M16X108
200×50 8×2	219.1×60.3 8.625×2.375	300 2.07	64 2.50	300 11.81	115 4.53	149 5.87	149 5.87	5/8×105 M16X108
200×65 8×76.1	219.1×76.1 8.625×3.000	300 2.07	70 2.75	300 11.81	115 4.53	155 6.10	155 6.10	5/8×105 M16X108
200×80 8×3	219.1×88.9 8.625×3.500	300 2.07	89 3.50	300 11.81	133.5 5.25	155 6.10	155 6.10	5/8×105 M16X108
200×100 8×4	219.1×114.3 8.625×4.500	300 2.07	114 4.50	300 11.81	159.5 6.29	160 6.30	160 6.30	5/8×105 M16X108

Yivli X Dişli Geçiş Parçası

Grooved Concentric
with Female Thread

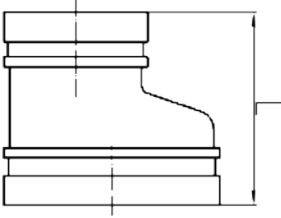


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
50 2	60.3 2.375	500 3.45	64 2.50	UL FM
65 2½	73.0 2.875	500 3.45	70 2.75	UL FM
80 3	88.9 3.500	500 3.45	70 2.75	UL FM
100 4	114.3 4.500	500 3.45	83 3.27	UL FM



Yivli Eksantrik Redüksiyon

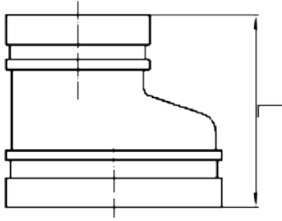
Grooved Eccentric Reducer



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
40X32 1½X1¼	48.3X42.4 1.900X1.660	500 3.45	89 3.50	-
50X40 2X1½	60.3X48.3 2.375X1.900	500 3.45	89 3.50	-
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	89 3.50	UL FM
100X65 4X2½	108.0X76.1 4.250X3.000	500 3.45	102 4.00	UL FM
100X80 4X3	108.0X88.9 4.250X3.500	500 3.45	102 4.00	UL FM
100X50 4X2	114.3X60.3 4.500X2.000	500 3.45	102 4.00	UL FM
100X65 4X2½	114.3X76.1 4.500X3.000	300 2.07	102 4.00	UL FM
100X80 4X3	114.3X88.9 4.500X3.500	500 3.45	102 4.00	UL FM
125X100 5X4	139.7X114.3 5.500X4.500	300 2.07	127 5.00	UL FM
150X100 6X4	159.0X108.0 6.250X4.250	300 2.07	140 5.50	UL FM
150X100 6X4	159.0X114.3 6.250X4.500	300 2.07	140 5.50	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	300 2.07	140 5.50	UL FM
150X100 6X4	165.1X114.3 6.500X4.500	300 2.07	140 5.50	UL FM
150X125 6X5	165.1X139.7 6.500X5.500	300 2.07	140 5.50	UL FM
150X80 6X3	168.3X88.9 6.625X3.500	300 2.07	140 5.50	UL FM
150X100 6X4	168.3X114.3 6.625X4.500	300 2.07	140 5.50	UL FM
150X125 6X5	168.3X139.7 6.625X5.500	300 2.07	140 5.50	UL FM
200X100 8X4	219.1X114.3 8.625X4.500	300 2.07	215 8.50	UL FM
200X150 8X6	219.1X159.0 8.625X6.250	300 2.07	215 8.50	UL FM
200X150 8X6	219.1X165.1 8.625X6.500	300 2.07	215 8.50	UL FM
200X150 8X6	219.1X168.3 8.625X6.625	300 2.07	215 8.50	UL FM
250X200 10X8	273.0X219.1 10.750X8.625	300 2.07	215 8.50	UL FM
350X150 14X6	355.6X168.3 14.000X6.625	300 2.07	330 12.99	-
350X200 14X8	355.6X219.1 14.000X8.625	300 2.07	330 12.99	-
350X250 14X10	355.6X273.0 14.000X10.750	300 2.07	330 12.99	-
350X300 14X12	355.6X323.9 14.000X12.750	300 2.07	330 12.99	-
400X200 16X8	406.4X219.1 16.000X8.625	300 2.07	356 14.02	-
400X250 16X10	406.4X273.0 16.000X10.750	300 2.07	356 14.02	-
400X300 16X12	406.4X323.9 16.000X12.750	300 2.07	356 14.02	-
400X350 16X14	406.4X355.6 16.000X14.000	300 2.07	356 14.02	-
450X150 18X6	457.2X168.3 18.000X6.625	300 2.07	381 15.00	-
450X250 18X10	457.2X273.0 18.000X10.750	300 2.07	381 15.00	-
450X300 18X12	457.2X323.9 18.000X12.750	300 2.07	381 15.00	-
450X350 18X14	457.2X355.6 18.000X14.000	300 2.07	381 15.00	-
450X400 18X16	457.2X406.4 18.000X16.000	300 2.07	381 15.00	-

UV61

Yivli Eksantrik Redüksiyon Grooved Eccentric Reducer

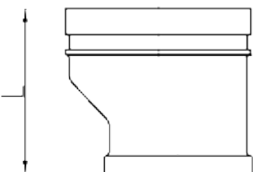


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
500X300 20X12	508.0X323.9 20.000X12.750	300 2.07	508 20.00	-
500X350 20X14	508.0X355.6 20.000X14.000	300 2.07	508 20.00	-
500X400 20X16	508.0X406.4 20.000X16.000	300 2.07	508 20.00	-
500X450 20X18	508.0X457.2 20.000X18.000	300 2.07	508 20.00	-
600X400 24X16	609.6X406.4 24.000X16.000	300 2.07	508 20.00	-
600X450 24X18	609.6X457.2 24.000X18.000	300 2.07	508 20.00	-
600X500 24X20	609.6X508.0 24.000X20.000	300 2.07	508 20.00	-

Segment boyutları karbon çeliği borudan yapılır veya dövme karbon çeliğinden imal edilir. Ayrıntılar için üreticiyle iletişime geçin.
Segmental sizes are made of carbon steel pipe or fabricated from wrought carbon steel. Contact manufacturer for details.

UV62

Yivli X Dişli Eksantrik Redüksiyon Grooved Eccentric Reducer with Female Thread

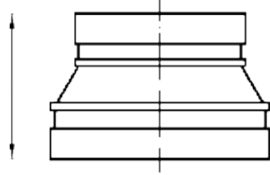


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
100X65 4X2 1/2	114.3X76.1 4.500X3.000	300 2.07	102 4.00	UL FM
125X80 5X3	139.7X88.9 5.500X3.500	300 2.07	127 5.00	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	300 2.07	140 5.50	UL FM



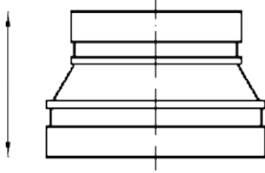
Yivli Konsantrik Redüksiyon

Grooved Concentric Reducer



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
32X25 1 1/4X1	42.4X33.7 1.660X1.315	500 3.45	64 2.50	UL FM
40X25 1 1/2X1	48.3X33.7 1.900X1.315	500 3.45	64 2.50	UL FM
40X32 1 1/2X1 1/4	48.3X42.4 1.900X1.660	500 3.45	64 2.50	UL FM
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	64 2.50	UL FM
50X32 2X1 1/4	60.3X42.4 2.375X1.660	500 3.45	64 2.50	UL FM
50X40 2X1 1/2	60.3X48.3 2.375X1.900	500 3.45	64 2.50	UL FM
65X25 2 1/2X1	73.0X33.7 2.875X1.315	500 3.45	64 2.50	UL FM
65X32 2 1/2X1 1/4	73.0X42.4 2.875X1.660	500 3.45	64 2.50	UL FM
65X40 2 1/2X1 1/2	73.0X48.3 2.875X1.900	500 3.45	64 2.50	UL FM
65X50 2 1/2X2	73.0X60.3 2.875X2.375	500 3.45	64 2.50	UL FM
65X25 2 1/2X1	76.1 X33.7 3.000X1.315	500 3.45	64 2.50	UL FM
65X32 2 1/2X1 1/4	76.1X42.4 3.000X1.660	500 3.45	64 2.50	UL FM
65X40 2 1/2X1 1/2	76.1X48.3 3.000X1.900	500 3.45	64 2.50	UL FM
65X50 2 1/2X2	76.1X60.3 3.000X2.375	500 3.45	64 2.50	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	64 2.50	UL FM
80X32 3X1 1/4	88.9X42.4 3.500X1.660	500 3.45	64 2.50	UL FM
80X40 3X1 1/2	88.9X48.3 3.500X1.900	500 3.45	64 2.50	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	64 2.50	UL FM
80X65 3X2 1/2	88.9X73.0 3.500X2.875	500 3.45	64 2.50	UL FM
80X65 3X2 1/2	88.9X76.1 3.500X3.000	500 3.45	64 2.50	UL FM
100X50 4X2	108.0X60.3 4.250X2.375	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	108.0X73.0 4.250X2.875	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	108.0X76.1 4.250X3.000	500 3.45	76 3.00	UL FM
100X80 4X3	108.0X88.9 4.250X3.500	500 3.45	76 3.00	UL FM
100X32 4X1 1/4	114.3X42.4 4.500X1.660	500 3.45	76 3.00	UL FM
100X40 4X1 1/2	114.3X48.3 4.500X1.900	500 3.45	76 3.00	UL FM
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	114.3X73.0 4.500X2.875	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	114.3X76.1 4.500X3.000	500 3.45	76 3.00	UL FM
100X80 4X3	114.3X88.9 4.500X3.500	500 3.45	76 3.00	UL FM
125X100 5X4	133.0X108.0 5.250X4.250	500 3.45	89 3.50	UL FM
125X100 15X4	133.0X114.3 5.250X4.500	500 3.45	89 3.50	UL FM
125X50 5X2	139.7X60.3 5.500X2.375	500 3.45	89 3.50	UL FM
125X65 5X2 1/2	139.7X76.1 5.500X3.000	500 3.45	89 3.50	UL FM
125X80 5X3	139.7X88.9 5.500X3.500	500 3.45	89 3.50	UL FM

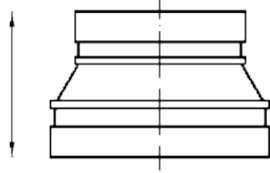
**Yivli Konsantrik
Redüksiyon**
Grooved Concentric
Reducer



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D. mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
125X100 5X4	139.7X114.3 5.500X4.500	500 3.45	89 3.50	UL FM
125X65 5X2½	141.3X73.0 5.563X2.875	500 3.45	89 3.50	UL FM
125X80 5X3	141.3X88.9 5.563X3.500	500 3.45	89 3.50	UL FM
125X100 5X4	141.3X114.3 5.563X4.500	500 3.45	89 3.50	UL FM
150X50 6X2	159.0X60.3 6.250X2.375	500 3.45	102 4.00	UL FM
150X65 159.0X2½	159.0X76.1 6.250X3.000	500 3.45	102 4.00	UL FM
150X80 6X3	159.0X88.9 6.250X3.500	500 3.45	102 4.00	UL FM
150X100 6X4	159.0X108 6.250X4.250	500 3.45	102 4.00	UL FM
150X100 6X4	159.0X114.3 6.250X4.500	500 3.45	102 4.00	UL FM
150X125 6X5	159.0X133.0 6.250X5.250	500 3.45	102 4.00	UL FM
150X50 6X2	165.1X60.3 6.500X2.375	500 3.45	102 4.00	FM
150X65 6X2½	165.1X76.1 6.500X3.000	500 3.45	102 4.00	FM
150X80 6X3	165.1X88.9 6.500X3.500	500 3.45	102 4.00	FM
150X100 6X4	165.1X108.0 6.500X4.250	500 3.45	102 4.00	UL FM
150X100 6X4	165.1X114.3 6.500X4.500	500 3.45	102 4.00	FM
150X125 6X5	165.1X139.7 6.500X5.500	500 3.45	102 4.00	FM
150X125 6X5	165.1X141.3 6.500X5.563	500 3.45	102 4.00	-
150X50 6X2	168.3X60.3 6.625X2.375	500 3.45	102 4.00	UL FM
150X65 6X2½	168.3X73.0 6.625X2.875	500 3.45	102 4.00	UL FM
150X65 6X2½	168.3X76.1 6.625X3.000	500 3.45	102 4.00	FM
150X80 6X3	168.3X88.9 6.625X3.500	500 3.45	102 4.00	UL FM
150X100 6X4	168.3X114.3 6.625X4.500	500 3.45	102 4.00	UL FM
150X125 6X5	168.3X139.7 6.625X5.500	500 3.45	102 4.00	FM
150X125 6X5	168.3X141.3 6.625X5.563	500 3.45	102 4.00	UL FM
200X100 8X4	216.3X114.3 8.516X4.500	500 3.45	127 5.00	FM
200X150 8X6	216.3X165.1 8.516X6.500	500 3.45	127 5.00	FM
200X65 8X2½	219.1X73.0 8.625X2.875	500 3.45	127 5.00	UL FM
200X80 8X3	219.1X88.9 8.625X3.500	500 3.45	127 5.00	UL FM
200X100 8X4	219.1X108.0 8.625X4.250	500 3.45	127 5.00	UL FM
200X100 8X4	219.1X114.3 8.625X4.500	500 3.45	127 5.00	UL FM
200X125 8X5	219.1X139.7 8.625X5.500	500 3.45	127 5.00	FM
200X125 8X5	219.1X141.3 8.625X5.563	500 3.45	127 5.00	UL FM
200X150 8X6	219.1X159.0 8.625X6.250	500 3.45	127 5.00	FM
200X150 8X6	219.1X165.1 8.625X6.500	500 3.45	127 5.00	FM
200X150 8X6	219.1X168.3 8.625X6.625	500 3.45	127 5.00	UL FM

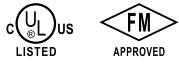
Yivli Konsantrik Redüksiyon

Grooved Concentric Reducer



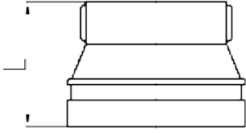
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
250X150 10X6	273.0X159.0 10.750X6.250	500 3.45	152 6.00	FM
250X150 10X6	273.0X165.1 10.750X6.500	500 3.45	152 6.00	FM
250X150 10X6	273.0X168.3 10.750X6.625	500 3.45	152 6.00	FM
250X200 10X8	273.0X219.1 10.750X8.625	500 3.45	152 6.00	FM
300X150 12X6	323.9X168.3 12.750X6.625	500 3.45	178 7.01	UL FM
300X200 12X8	323.9X219.1 12.750X8.625	500 3.45	178 7.00	FM
300X250 12X10	323.9X273.0 12.750X10.750	500 3.45	178 7.00	FM
350X125 14X5	377.0X133.0 14.850X5.250	300 2.07	127 5.00	-
350X150 14X6	377.0X159.0 14.850X6.250	300 2.07	127 5.00	-
350X150 14X6	355.6X168.3 14.000X6.625	300 2.07	330 12.99	-
350X200 14X8	355.6X219.1 14.000X8.625	300 2.07	203 7.99	-
350X250 14X10	355.6X273.0 14.000X10.750	300 2.07	203 7.99	-
350X300 14X12	355.6X323.9 14.000X12.750	300 2.07	203 7.99	-
400X200 16X8	406.4X219.1 16.000X8.625	300 2.07	229 9.00	-
400X250 16X10	406.4X273.0 16.000X10.750	300 2.07	229 9.00	-
400X300 16X12	406.4X323.9 16.000X12.750	300 2.07	229 9.00	-
400X350 16X14	406.4X355.6 16.000X14.000	300 2.07	229 9.00	-
450X150 18X6	457.2X168.3 18.000X6.625	300 2.07	381 15.00	-
450X250 18X10	457.2X273.0 18.000X10.750	300 2.07	381 15.00	-
450X300 18X12	457.2X323.9 18.000X12.750	300 2.07	241 9.50	-
450X350 18X14	457.2X355.6 18.000X14.000	300 2.07	241 9.50	-
450X400 18X16	457.2X406.4 18.000X16.000	300 2.07	241 9.50	-
500X200 20X8	530.0X219.1 20.866X8.625	300 2.07	135 5.31	-
500X300 20X12	508.0X323.9 20.000X12.750	300 2.07	254 10.00	-
500X350 20X14	508.0X355.6 20.000X14.000	300 2.07	254 10.00	-
500X400 20X16	508.0X406.4 20.000X16.000	300 2.07	254 10.00	-
500X450 20X18	508.0X457.2 20.000X18.000	300 2.07	254 10.00	-
600X400 24X16	609.6X406.4 24.000X16.000	300 2.07	305 12.00	-
600X450 24X18	609.6X457.2 24.000X18.000	300 2.07	305 12.00	-
600X500 24X20	609.6X508.0 24.000X20.000	300 2.07	305 12.00	-

**Yivli Konsantrik
Redüksiyon**
Grooved Concentric
Reducer



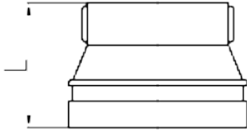
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
100X65 4X2½	114.3X76.1 4.500X3.000	300 2.07	57 2.25	UL FM
100X80 4X3	114.3X88.9 4.500X3.500	300 2.07	57 2.25	UL FM
125X100 5X4	139.7X114.3 5.500X4.500	300 2.07	60 2.36	UL FM
125X100 5X4	141.3X114.3 5.563X4.500	300 2.07	60 2.36	-
150X100 6X4	159.0X108 6.250X4.250	300 2.07	61 2.40	UL FM
150X100 6X4	159.0X114.3 6.250X4.500	300 2.07	61 2.40	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	300 2.07	61 2.40	UL FM
150X100 6X4	165.1X114.3 6.500X4.500	300 2.07	64 2.50	UL FM
150X125 6X5	165.1X139.7 6.500X5.500	300 2.07	58 2.25	UL FM
150X80 6X3	168.3X88.9 6.625X3.500	300 2.07	61 2.40	-
150X100 6X4	168.3X114.3 6.625X4.500	300 2.07	61 2.40	UL FM
150X125 6X5	168.3X139.7 6.625X5.500	300 2.07	58 2.25	UL FM
150X125 6X5	168.3X141.3 6.625X5.563	300 2.07	58 2.25	-
200X100 8X4	219.1X114.3 8.625X4.500	300 2.07	66 2.60	UL FM
200X125 8X5	219.1X133.0 8.625X5.250	300 2.07	80 3.15	UL FM
200X150 8X6	219.1X165.1 8.625X6.500	300 2.07	66 2.60	UL FM
250X100 10X4	273.0X114.3 10.750X4.500	300 2.07	93 3.66	UL FM
250X200 10X8	273.0X219.1 10.750X8.625	300 2.07	77 3.03	UL FM
300X100 12X4	323.9X114.3 12.750X4.500	300 2.07	98 3.86	UL FM
300X150 12X6	323.9X159.0 12.750X6.250	300 2.07	98 3.86	UL FM
300X150 12X6	323.9X165.1 12.750X6.500	300 2.07	98 3.86	UL FM

Yivli x Dişli Konsantrik Redüksiyon
Grooved Concentric Reducer with Female Thread



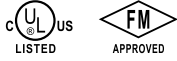
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
42X25 1 1/4X1	42.4X33.7 1.660X1.315	500 3.45	64 2.50	-
48X25 1 1/2X1	48.3X33.7 1.900X1.315	500 3.45	64 2.50	-
50X15 2X1/2	60.3X21.3 2.375X0.825	500 3.45	64 2.50	UL FM
50X20 2X3/4	60.3X26.9 2.375X1.05	500 3.45	64 2.50	UL FM
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	64 2.50	UL FM
50X32 2X1 1/4	60.3X42.4 2.375X1.660	500 3.45	64 2.50	UL FM
50X40 2X1 1/2	60.3X48.3 2.375X1.900	500 3.45	64 2.50	UL FM
65X25 2 1/2X1	73.0X33.7 2.875X1.315	500 3.45	64 2.50	UL FM
65X25 2 1/2X1 1/4	73.0X42.4 2.875X1.660	500 3.45	64 2.50	UL FM
65X40 2 1/2X1 1/2	73.0X48.3 2.875X1.900	500 3.45	64 2.50	UL FM
65X50 2 1/2X2	73.0X60.3 2.875X2.375	500 3.45	64 2.50	UL FM
65X15 2 1/2X1/2	76.1X21.3 3.000X0.825	500 3.45	64 2.50	UL FM
65X20 2 1/2X3/4	76.1X26.9 3.000X1.05	500 3.45	64 2.50	UL FM
65X25 2 1/2X1	76.1X33.7 3.000X1.315	500 3.45	64 2.50	UL FM
65X32 2 1/2X1 1/4	76.1X42.4 3.000X1.660	500 3.45	64 2.50	UL FM
65X40 2 1/2X1 1/2	76.1X48.3 3.000X1.900	500 3.45	64 2.50	UL FM
65X50 2 1/2X2	76.1X60.3 3.000X2.375	500 3.45	64 2.50	UL FM
80X15 3X1/2	88.9X21.3 3.500X0.825	500 3.45	64 2.50	UL FM
80X20 3X3/4	88.9X26.9 3.500X1.05	500 3.45	64 2.50	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	64 2.50	UL FM
80X32 3X1 1/4	88.9X42.4 3.500X1.660	500 3.45	64 2.50	UL FM
80X40 3X1 1/2	88.9X48.3 3.500X1.900	500 3.45	64 2.50	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	64 2.50	UL FM
80X65 3X2 1/2	88.9X73.0 3.500X2.875	500 3.45	64 2.50	UL FM
80X65 3X2 1/2	88.9X76.1 3.500X3.000	500 3.45	64 2.50	UL FM
100X25 4X1	108.0X33.7 4.250X1.315	500 3.45	76 3.00	UL FM
100X32 4X1 1/4	108.0X42.4 4.250X1.660	500 3.45	76 3.00	UL FM
100X40 4X1 1/2	108.0X48.3 4.250X1.900	500 3.45	76 3.00	UL FM
100X50 4X2	108.0X60.3 4.250X2.375	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	108.0X76.1 4.250X3.000	500 3.45	76 3.00	UL FM
100X80 4X3	108.0X88.9 4.250X3.500	500 3.45	76 3.00	UL FM
100X15 4X1/2	114.3X21.3 4.500X0.825	500 3.45	76 3.00	UL FM
100X20 4X3/4	114.3X26.9 4.500X1.05	500 3.45	76 3.00	UL FM
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	76 3.00	UL FM
100X32 4X1 1/4	114.3X42.4 4.500X1.660	500 3.45	76 3.00	UL FM
100X40 4X1 1/2	114.3X48.3 4.500X1.900	500 3.45	76 3.00	UL FM
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	114.3X73.0 4.500X2.875	500 3.45	76 3.00	UL FM
100X65 4X2 1/2	114.3X76.1 4.500X3.000	500 3.45	76 3.00	UL FM

Yivli x Dişli Konsantrik Redüksiyon
Grooved Concentric Reducer with Female Thread



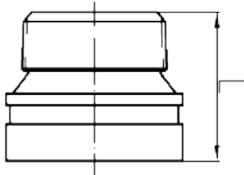
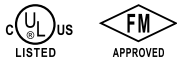
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
100X80 4X3	114.3X88.9 4.500X3.500	500 3.45	76 3.00	UL FM
125X20 5X3/4	139.7X26.9 5.500X1.05	500 3.45	89	UL FM
125X40 5X1½	133.0X48.3 5.250X1.900	500 3.45	89 3.50	UL FM
125X40 5X2	133.0X60.3 5.250X2.375	500 3.45	89 3.50	FM
125X65 5X2½	133.0X76.1 5.250X3.000	500 3.45	89 3.50	UL FM
125X65 5X3	133.0X88.9 5.250X3.500	500 3.45	89 3.50	FM
125X25 5X1	139.7X33.7 5.500X1.315	500 3.45	89 3.50	UL FM
125X32 5X1¼	139.7X42.4 5.500X1.660	500 3.45	89 3.50	UL FM
125X40 5X1½	139.7X48.3 5.500X1.900	500 3.45	89 3.50	UL FM
125X50 5X2	139.7X60.3 5.500X2.375	500 3.45	89 3.50	UL FM
125X65 5X2½	139.7X76.1 5.500X3.000	500 3.45	89 3.50	UL FM
125X80 5X3	139.7X88.9 5.500X3.500	500 3.45	89 3.50	UL FM
125X100 5X4	139.7X114.3 5.500X4.500	500 3.45	89 3.50	UL FM
125X100 5X4	141.3X114.3 5.563X4.500	500 3.45	89 3.50	UL FM
150X20 6X3/4	159.0X26.9 6.250X1.05	500 3.45	102 4.00	UL FM
150X25 6X1	159.0X33.7 6.250X1.315	500 3.45	102 4.00	UL FM
150X32 6X1¼	159.0X42.4 6.250X1.660	500 3.45	102 4.00	UL FM
150X40 6X1½	159.0X48.3 6.250X1.900	500 3.45	102 4.00	UL FM
150X50 6X2	159.0X60.3 6.250X2.375	500 3.45	102 4.00	UL FM
150X65 6X2½	159.0X76.1 6.250X3.000	500 3.45	102 4.00	UL FM
150X80 6X3	159.0X88.9 6.250X3.500	500 3.45	102 4.00	UL FM
150X100 6X4	159.0X114.3 6.250X4.500	500 3.45	102 4.00	UL FM
150X15 6X1/2	165.1X21.3 6.500X0.825	500 3.45	102 4.00	UL FM
150X20 6X3/4	165.1X26.9 6.500X1.05	500 3.45	102 4.00	UL FM
150X25 6X1	165.1X33.7 6.500X1.315	500 3.45	102 4.00	UL FM
150X32 6X1¼	165.1X42.4 6.500X1.660	500 3.45	102 4.00	UL FM
150X40 6X1½	165.1X48.3 6.500X1.900	500 3.45	102 4.00	UL FM
150X50 6X2	165.1X60.3 6.500X2.375	500 3.45	102 4.00	UL FM
150X65 6X2½	165.1X76.1 6.500X3.000	500 3.45	102 4.00	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	500 3.45	102 4.00	UL FM
150X100 6X4	165.1X114.3 6.500X4.500	500 3.45	102 4.00	UL FM
150X25 6X1	168.3X33.7 6.625X1.315	500 3.45	102 4.00	UL
150X50 6X2	168.3X60.3 6.625X2.375	500 3.45	102 4.00	UL FM
200X40 8X1½	219.1X48.3 8.625X1.900	500 3.45	127 5.00	UL FM
200X50 8X2	219.1X60.3 8.625X2.375	500 3.45	127 5.00	UL FM
200X65 8X2½	219.1X76.1 8.625X3.000	500 3.45	127 5.00	UL FM
200X80 8X3	219.1X88.9 8.625X3.500	500 3.45	127 5.00	UL FM
200X100 8X4	219.1X114.3 8.625X4.500	500 3.45	127 5.00	UL FM

Yivli x Dişli Konsantrik Redüksiyon
Grooved Concentric Reducer with Female Thread



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
65X50 2½X2	76.1X60.3 3.000X2.375	300 2.07	47.5 1.87	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	300 2.07	47.5 1.87	UL FM
80X65 3X2½	88.9X76.1 3.500X3.000	300 2.07	53 2.09	UL FM
100X65 4X2½	108.0X76.1 4.250X3.000	300 2.07	54 2.13	UL FM
100X80 4X3	108.0X88.9 4.250X3.500	300 2.07	56 2.20	UL FM
100X40 4X1½	114.3X48.3 4.500X1.900	300 2.07	48 1.89	UL FM
100X50 4X2	114.3X60.3 4.500X2.375	300 2.07	49 1.93	UL FM
100X65 4X2½	114.3X76.1 4.500X3.000	300 2.07	54 2.13	UL FM
100X80 4X3	114.3X88.9 4.500X3.500	300 2.07	56 2.20	UL FM
150X80 6X3	159.0X88.9 6.250X3.500	300 2.07	56 2.20	FM
150X100 6X4	159.0X114.3 6.250X4.500	300 2.07	57 2.24	FM
150X50 6X2	165.1X60.3 6.500X2.375	300 2.07	51 2.01	UL FM
150X65 6X2½	165.1X76.1 6.500X3.000	300 2.07	54 2.13	UL FM
150X80 6X3	165.1X88.9 6.500X3.500	300 2.07	56 2.20	UL FM
150X100 6X4	165.1X114.3 6.500X4.500	300 2.07	57 2.24	UL FM
200X25 8X1	219.1X33.7 8.625X1.315	300 2.07	80 3.15	UL FM

Yivli X (Diş) Dişli Konsantrik Redüksiyon
Grooved Concentric Reducer with Male Thread



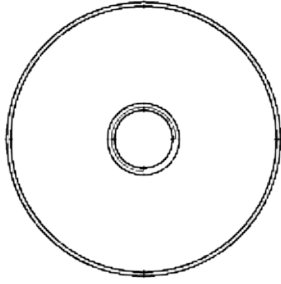
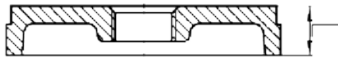
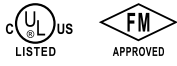
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	64 2.50	UL
50X32 2X1¼	60.3X42.4 2.375X1.660	500 3.45	64 2.50	UL
50X40 2X1½	60.3X48.3 2.375X1.900	500 3.45	64 2.50	UL
65X25 2½X1	73.0X33.7 2.875X1.315	500 3.45	64 2.50	UL
65X32 2½X1¼	73.0X42.4 2.875X1.660	500 3.45	64 2.50	UL
65X40 2½X1½	73.0X48.3 2.875X1.900	500 3.45	64 2.50	UL
65X50 2½X2	73.0X60.3 2.875X2.375	500 3.45	64 2.50	UL FM
65X50 2½X2	76.1X60.3 3.000X2.375	500 3.45	64 2.50	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	64 2.50	UL FM
80X40 3X1½	88.9X48.3 3.500X1.900	500 3.45	64 2.50	UL
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	64 2.50	UL
80X65 3X2½	88.9X73.0 3.500X2.875	500 3.45	64 2.50	UL
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	76.1 3.000	UL
100X40 4X1½	114.3X48.3 4.500X1.900	500 3.45	76.1 3.000	UL
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	76 3.00	UL FM
100X65 4X2½	114.3X73.0 4.500X2.875	500 3.45	76.1 3.000	UL
100X80 4X3	114.3X88.9 4.500X3.500	500 3.45	76.1 3.000	UL

Kap Cap



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
25 1	33.7 1.315	500 3.45	22.1 0.87	UL
32 1¼	42.4 1.660	500 3.45	23.5 0.93	UL FM
40 1½	48.3 1.900	500 3.45	23.5 0.93	UL FM
50 2	60.3 2.375	500 3.45	23.5 0.93	UL FM
65 2½	73.0 2.875	500 3.45	23.5 0.93	UL FM
65 2½	76.1 3.000	500 3.45	24.5 0.96	UL FM
80 3	88.9 3.500	500 3.45	24 0.94	UL FM
100 4	108.0 4.250	500 3.45	27 1.06	UL
100 4	114.3 4.500	500 3.45	27 1.06	UL FM
25 5	133.0 5.250	500 3.45	25.5 1.00	UL
125 5	139.7 5.500	500 3.45	25.5 1.00	UL FM
125 5	141.3 5.563	500 3.45	25.5 1.00	UL FM
150 6	159.0 6.250	500 3.45	27 1.06	UL
150 6	165.1 6.500	500 3.45	27 1.06	UL FM
150 6	168.3 6.625	500 3.45	24.5 0.97	UL FM
200 8	216.3 8.516	500 3.45	30 1.18	UL
200 8	219.1 8.625	500 3.45	30 1.18	UL FM
250 10	273.0 10.750	500 3.45	32 1.26	UL FM
300 12	318.5 12.539	500 3.45	32 1.26	-
300 12	323.9 12.750	500 3.45	32 1.26	UL FM
350 14	355.6 14.000	300 2.07	165 6.50	-
400 16	406.4 16.000	300 2.07	178 7.00	-
450 18	457.2 18.000	300 2.07	203 8.00	-
500 20	508.0 20.000	300 2.07	229 9.00	-
600 24	609.6 24.000	300 2.07	267 10.50	-

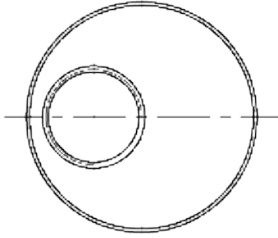
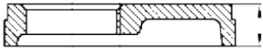
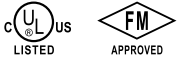
Konsantrik Delikli Kap Cap with Concentric Hole



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
50X25 2X1	60.3X33.7 2.375X1.315	500 3.45	23.5 0.93	-
65X25 2½X1	76.1X33.7 3.000X1.315	500 3.45	24.5 0.96	-
65X40 2½X1½	76.1X48.3 3.000X1.900	500 3.45	23.5 0.925	UL
65X50 2½X2	76.1X60.3 3.000X2.375	500 3.45	24 0.94	-
80X15 3X1/2	88.9X21.3 3.500X0.825	500 3.45	25.4 1.00	UL FM
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	24 0.94	UL FM
80X40 3X1½	88.9X48.3 3.500X1.900	500 3.45	23.5 0.925	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	23.5 0.925	UL
100X15 4X1/2	114.3X21.3 4.500X0.825	500 3.45	27.0 1.06	UL
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	27.0 1.06	UL
100X40 4X1½	114.3X48.3 4.500X1.900	500 3.45	25.4 1.00	UL
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	25.4 1.00	UL
125X50 5X2	139.7X60.3 5.500X2.375	500 3.45	27 1.06	UL
150X15 6X1/2	165.1X21.3 6.500X0.825	500 3.45	27 1.06	UL
150X15 6X1/2	168.3X21.3 6.625X0.825	500 3.45	25.4 1.00	UL FM
150X25 6X1	159.0X33.7 6.250X1.315	500 3.45	27 1.06	-
150X25 6X1	165.1X33.7 6.500X1.315	500 3.45	27 1.06	UL
150X25 6X1	168.3X33.7 6.625X1.315	500 3.45	25.4 1.00	-
150X50 6X2	165.1X60.3 6.500X2.375	500 3.45	27 1.06	UL
150X40 6X1½	168.3X48.3 6.625X1.900	500 3.45	27 1.06	UL
150X50 6X2	168.3X60.3 6.625X2.375	500 3.45	27 1.06	UL FM
200X25 8X1	219.1X33.7 8.625X1.315	500 3.45	30 1.18	UL FM

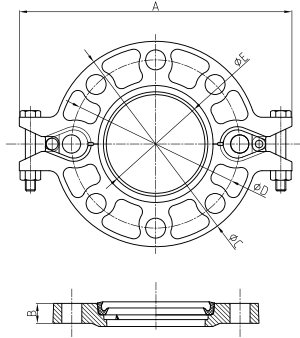
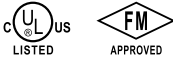
Eksantrik Delikli Kap

Cap with Eccentric Hole



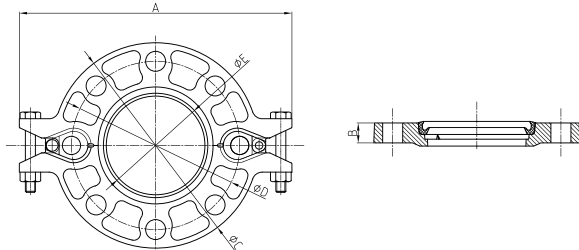
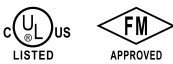
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions L mm/in	Sertifika Certificate
65X25 21/2X1	76.1X33.7 3000X1.315	500 3.45	23.5 0.925	UL FM
65X40 21/2X1 1/2	76.1X48.3 3.000X1.900	500 3.45	23.5 0.925	-
80X25 3X1	88.9X33.7 3.500X1.315	500 3.45	23.5 0.925	-
80X40 3X1 1/2	88.9X48.3 3.500X1.900	500 3.45	23.5 0.925	UL FM
80X50 3X2	88.9X60.3 3.500X2.375	500 3.45	23.5 0.925	UL FM
100X25 4X1	114.3X33.7 4.500X1.315	500 3.45	27 1.06	UL FM
100X40 4X1 1/2	114.3X48.3 4.500X1.900	500 3.45	25.4 1.00	UL FM
100X50 4X2	114.3X60.3 4.500X2.375	500 3.45	25.4 1.00	UL FM
125X25 5X1	139.7X33.7 5.500X1.315	500 3.45	27.3	-
125X40 5X1 1/2	139.7X48.3 5.500X1.900	500 3.45	25.4 1.00	UL FM
125X50 5X2	139.7X60.3 5.500X2.375	500 3.45	25.4 1.00	UL FM
150X40 6X1 1/2	165.1X48.3 6.500X1.900	500 3.45	25.4 1.00	UL FM
150X40 6X1 1/2	168.3X48.3 6.625X1.900	500 3.45	25.4 1.00	UL FM
150X50 6X2	168.3X60.3 6.625X2.375	500 3.45	25.4 1.00	UL FM
200X40 8X1 1/2	219.1X48.3 8.625X1.900	500 3.45	30.2 1.19	UL FM
200X50 8X2	219.1X60.3 8.625X2.375	500 3.45	30.2 1.19	UL FM
250X40 10X1 1/2	273.0X48.3 10.750X1.900	500 3.45	33.1	-
300X40 12X1 1/2	323.9X48.3 12.750X1.900	500 3.45	31.2	-

PN16 Yivli Flanş Adaptörü Grooved Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Civata Somunu Bolt/Nut		Sertifika Certificate
			A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Ölçü No.-SIZE mm/in		
40 1½	48.3 1.900	300 2.07	195 7.68	18.5 0.73	150 5.90	110 4.33	45.4 1.78	2-M10X50	4-M16	UL FM
50 2	60.3 2.375	300 2.07	220 8.66	18.5 0.73	165 6.50	125 4.92	57.5 2.26	2-M10X50	4-M16	UL FM
65 76.1	76.1 3.000	300 2.07	235 9.25	18.5 0.73	185 7.28	145 5.71	72.7 2.86	2-M10X50	4-M16	UL FM
80 3	88.9 3.500	300 2.07	255 10.04	18.5 0.73	195 7.68	160 6.30	85.5 3.37	2-M10X50	8-M16	UL FM
100 108.0	108.0 4.250	300 2.07	279 10.98	18.5 0.73	220 8.66	180 7.09	104.5 4.11	2-M10X50	8-M16	UL FM
100 4	114.3 4.500	300 2.07	279 10.98	18.5 0.73	224 8.82	180 7.09	110.5 4.35	2-M10X50	8-M16	UL FM
125 5	133.0 5.250	300 2.07	312 12.28	21.5 0.85	250 9.84	210 8.27	129.2 5.08	2-M12X65	8-M16	UL FM
125 5	139.7 5.500	300 2.07	320 12.60	23 0.91	250 9.84	210 8.27	135.5 5.33	2-M12X65	8-M16	UL FM
150 6	159.0 6.25	300 2.07	346 13.62	21.5 0.85	280 11.00	240 9.45	154.8 6.10	2-M12X65	8-M20	UL FM
150 6	165.1 6.500	300 2.07	346 13.62	21.5 0.85	280 11.00	240 9.45	160.8 6.33	2-M12X65	8-M20	UL FM
150 6	168.3 6.625	300 2.07	346 13.62	24 0.94	280 11.00	240 9.45	164.3 6.47	2-M12X65	8-M20	UL FM
200 8	219.1 8.625	300 2.07	414.3 16.31	30 1.18	340 13.39	295 11.61	214.9 8.46	2-3/8X70 2-M10X70	12-M20	UL FM
250 10	273.0 10.750	300 2.07	480 18.90	25.5 1.00	405 15.94	355 13.98	268.9 10.59	2-3/8X70 2-M10X70	12-M24	UL FM
300 12	323.9 12.750	300 2.07	530.5 20.88	25.5 1.00	460 18.11	410 16.14	318.9 12.56	2-3/8X70 2-M10X70	12-M24	UL FM
350 14	355.6 14.000	300 2.07	580 22.83	30 1.18	520 20.47	470 18.50	350.6 13.80	-	16-M24	UL
400 16	406.4 16.000	300 2.07	630 24.80	32 1.26	580 22.83	525 20.67	401.5 15.81	-	16-M27	-
450 18	457.2 18.000	300 2.07	693 27.28	36 1.42	640 25.20	585 23.03	452.2 17.80	-	20-M27	-
500 20	508.0 20.000	300 2.07	770 30.31	36 1.42	715 28.15	650 25.59	503 19.80	-	20-M30	-
600 24	609.6 24.000	300 2.07	895 35.24	40 1.57	840 33.07	770 30.31	601.6 23.69	-	20-M33	-

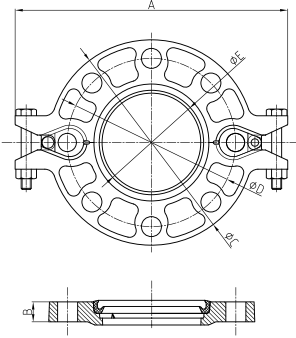
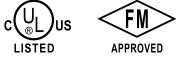
PN25 Yivli Flanş Adaptörü Grooved Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Civata Somunu Bolt/Nut		Sertifika Certificate
			A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Ölçü No.-SIZE mm/in		
100 108.0	108.0 4.250	362 2.5	290 11.41	21.5 0.85	230 9.06	190 7.48	104.5 4.11	2-M10X50	8-M20	—
150 165.1	165.1 6.500	362 2.5	365 14.37	21.5 0.85	300 11.80	250 9.84	160.8 6.33	2-M12X65	8-M24	UL

UV82

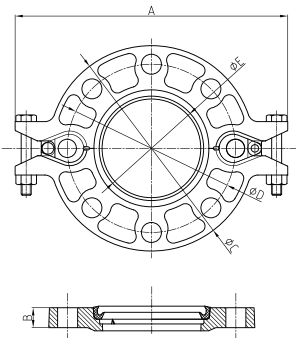
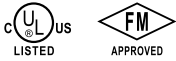
Yivli Flanş Adaptörü Grooved Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Civata Somunu Bolt/Nut		Sertifika Certificate
			A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Ölçü No.-SIZE mm/in		
50 2	60.3 2.375	300 2.07	211 8.31	18.5 0.73	150 5.91	114 4.49	57.5 2.26	2-M10X50	4-M16	UL FM
80 3	88.9 3.500	300 2.07	241 9.49	18.5 0.73	185 7.28	146 5.75	85.5 3.37	2-M10X50	4-M16	UL FM
100 4	114.3 4.500	300 2.07	270 10.63	18.5 0.73	216 8.50	178 7.00	110.5 4.35	2-M10X50	8-M16	UL FM
150 6	165.1 6.500	300 2.07	346 13.62	21.5 0.85	280 11.02	235 9.25	160.8 6.33	2-M12X65	8-M20	UL FM
200 8	219.1 8.625	300 2.07	408 16.06	24 0.94	335 13.19	292 11.50	214.9 8.46	2-3/8X70	8-M20	UL FM
250 10	273.0 10.750	200 1.4	480 18.90	25.5 1.00	406 16.00	356 14.00	268.9 10.59	-	12-3/4	-
300 12	323.9 12.750	200 1.4	530.5 20.88	25.5 1.00	457 18.00	406 16.00	318.9 12.56	-	12-7/8	-
350 14	355.6 14.000	200 1.4	580 22.83	32 1.26	527 20.75	470 18.50	350.6 13.80	-	12-7/8	-
400 16	406.4 16.000	200 1.4	630 24.80	32 1.26	578 22.76	521 20.51	401.5 15.81	-	12-7/8	-
450 18	457.2 18.000	200 1.4	693 27.28	36 1.42	641 25.24	584 23.00	452.2 17.80	-	16-7/8	-
500 20	508.0 20.000	200 1.4	770 30.31	38 1.50	705 27.76	641 25.24	503 19.80	-	16-7/8	-
600 24	609.6 24.000	200 1.4	880 34.65	42 1.65	826 32.52	756 29.76	601.6 23.69	-	16-11/8	-

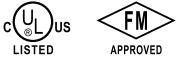
UV91

ANSI 125/150 Yivli Flanş Adaptörü Grooved Flange

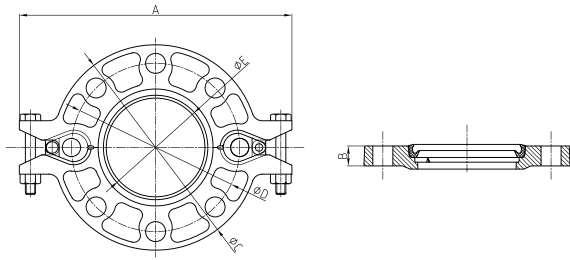


Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Civata Somunu Bolt/Nut		Sertifika Certificate
			A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Ölçü No.-SIZE mm/in		
50 2	60.3 2.375	300 2.07	206 8.11	19 0.75	152 5.98	121 4.76	57.5 2.26	2-M10X50	4-5/8	UL
65 2½	73.0 2.875	300 2.07	230 9.05	19 0.75	178 7.00	140 5.51	69.8 2.74	2-M10X50	4-5/8	UL
65 2½	76.1 3.000	300 2.07	230 9.05	19 0.75	178 7.00	140 5.51	72.7 2.86	2-M10X50	4-5/8	---
80 3	88.9 3.500	300 2.07	246 9.68	19 0.75	191 7.52	152 5.98	85.5 3.37	2-M10X50	4-5/8	UL
100 4	114.3 4.500	300 2.07	280 11.02	19 0.75	229 9.00	191 7.52	110.5 4.35	2-M12X55	8-5/8	UL
125 5	141.3 5.563	250 1.71	320 12.60	22 0.87	254 10.00	216 8.50	137.4 5.41	2-M12X65	8-3/4	UL
150 6	168.3 6.625	300 2.07	346 13.62	24 0.94	280 11.00	241.3 9.50	164.3 6.47	2-M12X65	8-3/4	---
200 8	219.1 8.625	250 1.71	414.3 16.31	30 1.18	341.4 13.44	298.5 11.75	214.9 8.46	2-3/8X70 2-M10X70	8-3/4	UL
250 10	273.0 10.750	250 1.71	481.2 18.94	30.3 1.19	405.6 15.97	361.95 14.25	268.9 10.59	2-3/8X70 2-M10X70	12-7/8	UL
300 12	323.9 12.750	250 1.71	553.3 21.78	30.4 1.20	482.6 19.00	431.8 17.00	318.9 12.56	2-3/8X70 2-M10X70	12-7/8	UL
350 14	355.6 14.000	300 2.0	590 23.22	37 1.44	535 21.00	476.3 18.75	350.6 13.80	---	12-1	UL
400 16	406.4 16.000	300 2.0	650 25.59	37 1.44	595 23.50	539.8 21.25	401.5 15.81	---	16-1	---
450 18	457.2 18.000	300 2.0	690 27.17	40 1.56	635 25.80	577.8 22.75	452.2 17.80	---	16-11/8	---
500 20	508.0 20.000	300 2.0	765 30.12	43 1.69	700 27.50	635 25.00	503 19.80	---	20-11/8	---
600 24	609.6 24.000	300 2.0	875 34.45	49 1.94	815 32.00	749.3 29.50	601.6 23.69	---	20-11/4	---

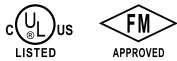
ANSI 300
Yivli Flanş Adaptörü
Grooved Flange



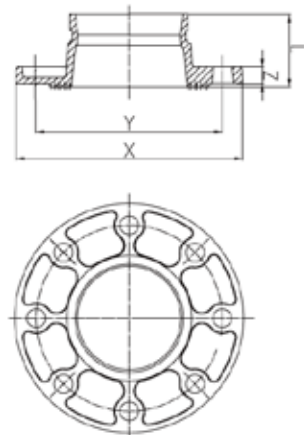
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions					Civata Somunu Bolt/Nut		Sertifika Certificate
			A mm/in	B mm/in	C mm/in	D mm/in	E mm/in	Ölçü No.-SIZE mm/in		
65 2½	73.0 2.875	500 3.45	244 9.61	24.6 0.97	190 7.48	149.2 5.87	69.1 2.72	2-M12X65	8-3/4	—
80 3	88.9 3.500	500 3.45	274 10.79	28 1.10	210 8.27	168.3 6.625	84.9 3.34	2-M12X65	8-3/4	UL
100 4	114.3 4.500	500 3.45	310 12.2	31.5 1.24	255 10.04	200 7.87	110.1 4.33	2-M12X65	8-3/4	UL
150 6	168.3 6.625	500 3.45	388 15.28	35.5 1.40	320 12.6	269.9 10.626	163.9 6.45	2-M12X65	12-3/4	UL
200 8	219.1 8.625	500 3.45	470.4 18.52	41 1.61	380 14.96	330.2 13	214.9 8.46	2-1/2X75	12-7/8	UL



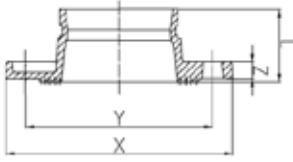
PN16
Flanş Adaptörü
Adaptor Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
25 1	33.7 1.327	300 2.0	60.5 2.382	115 4.53	85 3.35	16 0.63	4-M12	UL FM
32 1¼	42.4 1.669	300 2.0	60.5 2.382	140 5.51	100 3.94	16 0.63	4-M16	UL FM
40 1½	48.3 1.902	300 2.0	60.5 2.382	150 5.91	110 4.33	16 0.63	4-M16	UL FM
50 2	57.0 2.244	300 2.07	65 2.559	165 6.50	125 4.92	16 0.63	4-M16	-
50 2	60.3 2.375	500 3.45	65 2.559	165 6.50	125 4.92	16 0.63	4-M16	UL FM
65 2½	76.1 3.000	500 3.45	65 2.559	185 7.28	145 5.70	16 0.63	4-M16	UL FM
80 3	88.9 3.500	500 3.45	65 2.559	200 7.87	160 6.30	16 0.63	8-M16	UL FM
100 4	108.0 4.250	300 2.0	70 2.756	220 8.66	180 7.09	16 0.63	8-M16	UL FM
100 4	114.3 4.500	300 2.0	70 2.756	220 8.66	180 7.09	16 0.63	8-M16	UL FM
125 5	133 5.250	300 2.0	70 2.756	250 9.84	210 8.27	18 0.71	8-M16	UL FM
125 5	139.7 5.500	300 2.0	70 2.756	250 9.84	210 8.27	18 0.71	8-M16	UL FM
150 6	159.0 6.250	500 3.45	70 2.756	285 11.22	240 9.45	18 0.71	8-M20	UL FM
150 6	165.1 6.500	500 3.45	70 2.756	285 11.22	240 9.45	18 0.71	8-M20	UL FM
150 6	168.3 6.625	500 3.45	70 2.756	285 11.22	240 9.45	18 0.71	8-M20	UL FM
200 8	219.1 8.625	300 2.0	80 3.150	340 13.39	295 11.61	19 0.75	12-M20	UL FM
250 10	273.0 10.750	300 2.0	85 3.346	405 15.94	355 13.98	21 0.83	12-M24	UL FM
300 12	323.9 12.750	225 1.6	90 3.543	460 18.11	410 16.14	24 0.94	12-M24	UL FM
350 14	377.0 14.843	225 1.6	100 3.937	520 20.47	470 18.50	25 1.00	16-M24	-
400 16	426.0 16.772	225 1.6	110 4.331	580 22.83	525 20.67	27 1.06	16-M27	-
450 18	480 18.897	225 1.6	115 4.528	640 25.196	585 23.03	20 0.787	20-M27	-

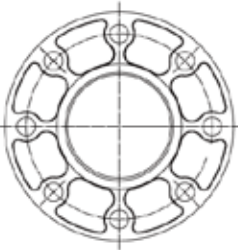
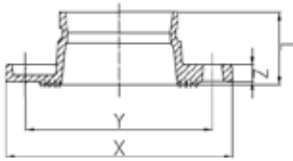


PN25 Flanş Adaptörü Adaptor Flange



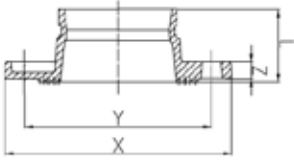
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
65 76.1	76.1 3.000	362 2.5	65 2.559	185 7.28	145 5.71	16 0.63	8-M16	---
80 3	88.9 3.500	362 2.5	65 2.559	200 7.87	160 6.30	16 0.63	8-M16	---
100 108.0	108.0 4.250	362 2.5	70 2.756	230 9.05	190 7.48	18 0.71	8-M20	UL FM
100 4	114.3 4.500	362 2.5	70 2.756	235 9.25	190 7.48	16 0.63	8-M20	UL FM
125 139.7	139.7 5.500	362 2.5	70 2.756	270 10.63	220 8.66	16 0.63	8-M24	---
150 159.0	159.0 6.250	362 2.5	70 2.756	300 11.80	250 9.85	20 0.79	8-M24	UL FM
150 165.1	165.1 6.500	362 2.5	70 2.756	300 11.80	250 9.84	18 0.71	8-M24	UL FM
200 8	219.1 8.625	362 2.5	80 3.150	360 14.17	310 12.20	19 0.75	12-M24	UL FM
250 10	273.0 10.75	362 2.5	85 3.346	425 16.73	370 14.57	22 0.87	12-M27	---
300 12	323.9 12.750	362 2.5	88 3.46	485 19.09	430 16.93	23.5 0.93	16-M27	---
350 14	355.6 14.000	362 2.5	100 3.94	555 21.85	490 19.29	26 1.02	16-M30	---
400 16	406.4 16.000	362 2.5	110 4.33	620 24.41	550 21.65	28 1.10	16-M33	---

ANSI 125/150 Flanş Adaptörü Adaptor Flange



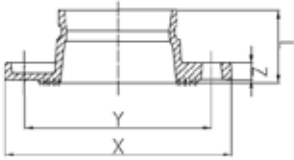
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
50 2	60.3 2.375	300 2.07	65 2.559	152 6.0	120.5 4.74	16 0.63	4-5/8	UL FM
65 2½	73.0 2.875	300 2.07	65 2.559	185 7.28	139.7 5.50	16 0.63	4-5/8	---
80 3	88.9 3.500	300 2.07	65 2.559	200 7.87	152.4 6.00	16 0.63	8-5/8	---
100 4	114.3 4.500	300 2.07	70 2.756	229 9.01	190.5 7.50	16 0.63	8-5/8	UL FM
150 6	168.3 6.625	300 2.07	70 2.756	282 11.10	241.3 9.50	18 0.71	8-3/4	---
200 8	219.1 8.625	300 2.07	75 2.953	340 13.39	298.5 11.75	19 0.75	8-3/4	UL FM
250 10	273.0 10.75	300 2.07	85 3.35	406 15.98	362 14.25	21 0.826	12-7/8	UL FM
350 14	355.6 12.750	300 2.0	127 5.00	535 21.00	476.3 18.75	37 1.44	12-1	---
400 16	406.4 16.000	300 2.0	127 5.00	595 23.50	539.8 21.25	37 1.44	16-1	---
450 18	457.2 18.000	300 2.0	140 5.50	642 25.28	577.8 22.75	40 1.56	16-11/8	---
500 20	508.0 20.000	300 2.0	152 6.00	700 27.50	635 25.00	43 1.69	20-11/8	---
600 24	609.6 24.000	300 2.0	152 6.00	815 32.00	749.3 29.50	49 1.94	20-11/4	---

PN10 Flaş Adaptörü Adaptor Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
200 8	219.1 8.625	145 1.0	75 2.95	340 13.39	295 11.61	19 0.75	8-M20	FM
250 10	273.0 10.750	145 1.0	85 3.346	405 15.94	350 13.78	21 0.83	12-M20	FM
300 12	323.9 12.750	145 1.0	90 3.543	460 18.11	400 15.75	24 0.94	12-M20	FM

BS.TABLE "E" Flaş Adaptörü Adaptor Flange



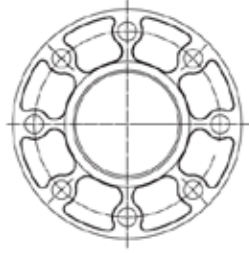
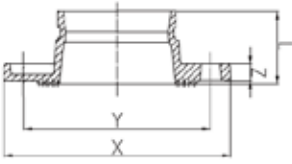
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
50 2	60.3 2.375	225 1.6	65 2.56	152 5.98	114 4.49	16 0.63	4-M16	---
65 76.1	76.1 3.000	225 1.6	70 2.756	165 6.50	127 5.00	16 0.63	4-M16	---
80 3	88.9 3.500	225 1.6	70 2.756	184 7.24	146 5.75	16 0.63	4-M16	---
100 4	114.3 4.500	225 1.6	70 2.756	216 8.50	178 7.00	16 0.63	8-M16	---
150 165.1	165.1 6.500	225 1.6	70 2.756	280 11.02	235 9.25	21 0.71	8-M20	---
200 8	219.1 8.625	225 1.6	102 4.02	337 13.27	292 11.50	19 0.75	8-M20	---
250 10	273.0 10.75	225 1.6	85 3.35	405 15.94	356 14.02	25 0.98	12-M20	---
300 12	323.9 10.750	200 1.4	102 4.02	457 18.00	406 16.00	25.5 1.00	12-7/8	---
350 14	355.6 12.750	200 1.4	127 5.00	527 20.75	470 18.50	32 1.26	12-7/8	---
400 16	406.4 16.000	200 1.4	127 5.00	578 22.76	521 20.51	32 1.26	12-7/8	---
450 18	457.2 18.000	200 1.4	140 5.50	641 25.24	584 23.00	36 1.42	16-7/8	---

UV321GJ

JIS 10K Flaş Adaptörü Adaptor Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
65 2½	76.3 3.00	145 1.0	65 2.559	175 6.89	140 5.51	18 0.71	4-M16	---
80 3	89.1 3.50	145 1.0	65 2.559	185 7.28	150 5.91	18 0.71	8-M16	---
100 4	114.3 4.50	145 1.0	70 2.756	210 8.27	175 6.89	18 0.71	8-M16	---
125 5	139.8 5.50	145 1.0	70 2.756	250 9.84	210 8.27	20 0.79	8-M20	---
150 6	165.2 6.50	145 1.0	70 2.756	280 11.02	240 9.45	20 0.79	8-M20	---

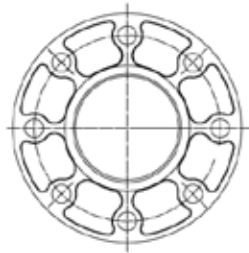
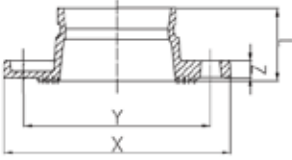


UV321GJ

JIS 16K Flaş Adaptörü Adaptor Flange



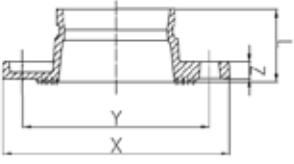
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
80 3	88.9 3.500	225 1.6	65 2.559	200 7.87	160 6.30	17 0.67	8-M20	---
100 4	114.3 4.500	225 1.6	70 2.756	225 8.86	185 7.28	19 0.75	8-M20	---
150 165.1	165.1 6.500	225 1.6	70 2.756	305 12.00	260 10.236	21 0.827	12-M22	---



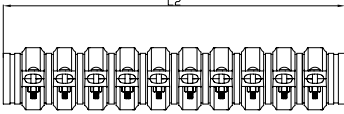
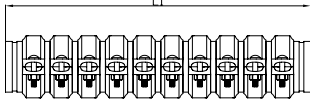
JIS 20K
Flanş Adaptörü
Adaptor Flange



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Ölçüler/Dimensions				Civata Somunu Bolt/Nut Ölçü No.-SIZE mm/in	Sertifika Certificate
			L mm/in	X mm/in	Y mm/in	Z mm/in		
100 4	114.3 4.500	300 2.0	70 2.756	225 8.86	185 7.28	19 0.75	8-M20	---
150 165.1	165.1 6.500	300 2.0	70 2.756	305 12.00	260 10.236	21 0.827	12-M22	---

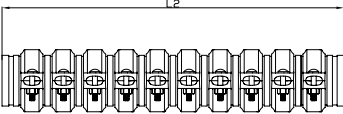
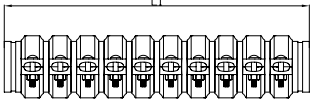


Kompansatör Expansion Joint



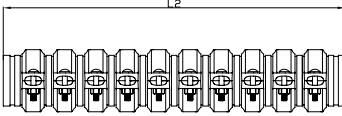
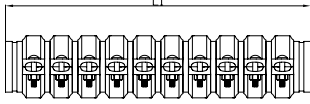
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Hareket Movement mm/in	L1 mm/in	L2 mm/in
25	33.4	300	2.6	170	172.6
1	1.315	2.07	0.1	6.69	6.79
25	33.4	300	5.2	226.50	231.7
1	1.315	2.07	0.2	8.92	9.12
25	33.4	300	7.8	284	291.8
1	1.315	2.07	0.31	11.18	11.49
25	33.4	300	10.4	340.5	350.9
1	1.315	2.07	0.41	13.41	13.82
25	33.4	300	13	397	410
1	1.315	2.07	0.51	15.63	16.14
25	33.4	300	15.6	453.5	469.1
1	1.315	2.07	0.61	17.85	18.46
25	33.4	300	18.2	510	528.2
1	1.315	2.07	0.72	20.08	20.8
25	33.4	300	20.8	567.5	588.3
1	1.315	2.07	0.82	22.34	23.16
25	33.4	300	23.4	624	647.4
1	1.315	2.07	0.92	24.57	25.49
25	33.4	300	26	680.5	706.5
1	1.315	2.07	1.02	26.79	27.81
25	33.4	300	28.6	737	765.6
1	1.315	2.07	1.13	29.01	30.14
25	33.4	300	31.2	793.5	824.7
1	1.315	2.07	1.23	31.24	32.47
32	42.4	300	3.5	170.75	174.25
11/4	1.669	2.07	0.14	6.72	6.86
32	42.4	300	7	227.5	234.5
11/4	1.669	2.07	0.28	8.96	9.24
32	42.4	300	10.5	285.25	295.75
11/4	1.669	2.07	0.41	11.2	11.61
32	42.4	300	14	342	356
11/4	1.669	2.07	0.55	13.47	14.02
32	42.4	300	17.5	398.75	416.25
11/4	1.669	2.07	0.69	15.7	16.39
32	42.4	300	21	455.5	476.5
11/4	1.669	2.07	0.83	17.93	18.76
32	42.4	300	24.5	512.25	536.75
11/4	1.669	2.07	0.96	20.17	21.13
32	42.4	300	28	570	598
11/4	1.669	2.07	1.1	22.44	23.54
32	42.4	300	31.5	625.75	657.25
11/4	1.669	2.07	1.24	24.64	25.88
32	42.4	300	35	683.5	718.5
11/4	1.669	2.07	1.38	26.91	28.29
32	42.4	300	38.5	740.25	778.75
11/4	1.669	2.07	1.52	29.15	30.67
32	42.4	300	42	797	839
11/4	1.669	2.07	1.65	31.38	33.03
40	48.3	300	3.8	170.5	174.3
11/2	1.902	2.07	0.15	6.71	6.86
40	48.3	300	7.6	227.00	234.6
11/2	1.902	2.07	0.3	8.94	9.24
40	48.3	300	11.4	283.5	294.9
11/2	1.902	2.07	0.45	11.16	11.61
40	48.3	300	15.2	340.00	355.2
11/2	1.902	2.07	0.6	13.39	13.99
40	48.3	300	19	396.50	415.5
11/2	1.902	2.07	0.75	15.61	16.36
40	48.3	300	22.8	453.00	475.8
11/2	1.902	2.07	0.9	17.84	18.74
40	48.3	300	26.6	509.50	536.1
11/2	1.902	2.07	1.05	20.06	21.11
40	48.3	300	30.4	566.00	596.4
11/2	1.902	2.07	1.2	22.28	23.48
40	48.3	300	34.2	623.50	657.7
11/2	1.902	2.07	1.35	24.55	25.9
40	48.3	300	38	679.00	717
11/2	1.902	2.07	1.5	26.73	28.23
40	48.3	300	41.8	735.50	777.3
11/2	1.902	2.07	1.65	28.96	30.61
40	48.3	300	45.6	792.00	837.6
11/2	1.902	2.07	1.8	31.18	32.98
50	60.3	300	3.5	170.5	174
2	2.374	2.07	0.14	6.71	6.85
50	60.3	300	7	227.00	234
2	2.374	2.07	0.28	8.94	9.22
50	60.3	300	10.5	283.5	294
2	2.374	2.07	0.41	11.16	11.57

Kompansatör
Expansion Joint



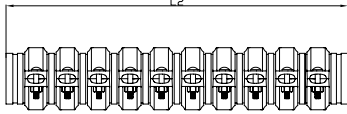
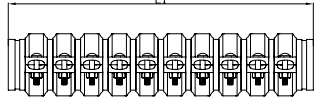
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Hareket Movement mm/in	L1 mm/in	L2 mm/in
50	60.3	300	14	340.00	354
2	2.374	2.07	0.55	13.39	13.94
50	60.3	300	17.5	396.50	414
2	2.374	2.07	0.69	15.61	16.3
50	60.3	300	21	453.00	474
2	2.374	2.07	0.83	17.84	18.67
50	60.3	300	24.5	509.50	534
2	2.374	2.07	0.96	20.06	21.02
50	60.3	300	28	566.00	594
2	2.374	2.07	1.1	22.28	23.38
50	60.3	300	31.5	623.50	655
2	2.374	2.07	1.24	24.55	25.79
50	60.3	300	35	679.00	714
2	2.374	2.07	1.38	26.73	28.11
50	60.3	300	38.5	735.50	774
2	2.374	2.07	1.52	28.96	30.48
50	60.3	300	42	792.00	834
2	2.374	2.07	1.65	31.18	32.83
65	76.1	300	4	171	175
21/2	2.996	2.07	0.16	6.73	6.89
65	76.1	300	8	227.5	235.5
21/2	2.996	2.07	0.31	8.96	9.27
65	76.1	300	12	284.5	296.5
21/2	2.996	2.07	0.47	11.20	11.67
65	76.1	300	16	341	357
21/2	2.996	2.07	0.63	13.43	14.06
65	76.1	300	20	398	418
21/2	2.996	2.07	0.79	15.67	16.46
65	76.1	300	24	454.5	478.5
21/2	2.996	2.07	0.94	17.89	18.83
65	76.1	300	28	511.5	539.5
21/2	2.996	2.07	1.1	20.14	21.24
65	76.1	300	32	568	600
21/2	2.996	2.07	1.26	22.36	23.62
65	76.1	300	36	626	662
21/2	2.996	2.07	1.42	24.65	26.07
65	76.1	300	40	681.5	721.5
21/2	2.996	2.07	1.57	26.83	28.4
65	76.1	300	44	738.5	782.5
21/2	2.996	2.07	1.73	29.08	30.81
65	76.1	300	48	795	843
21/2	2.996	2.07	1.89	31.3	33.19
80	88.9	300	3.7	170.5	174.2
3	3.5	2.07	0.15	6.71	6.86
80	88.9	300	7.4	227.00	234.4
3	3.5	2.07	0.29	8.94	9.23
80	88.9	300	11.1	283.5	294.6
3	3.5	2.07	0.44	11.16	11.6
80	88.9	300	14.8	340.00	354.8
3	3.5	2.07	0.58	13.39	13.97
80	88.9	300	18.5	396.50	415
3	3.5	2.07	0.73	15.61	16.34
80	88.9	300	22.2	453.00	475.2
3	3.5	2.07	0.87	17.84	18.71
80	88.9	300	25.9	509.50	535.4
3	3.5	2.07	1.02	20.06	21.08
80	88.9	300	29.6	566.00	595.6
3	3.5	2.07	1.17	22.28	23.45
80	88.9	300	33.3	623.50	656.8
3	3.5	2.07	1.31	24.55	25.86
80	88.9	300	37	679.00	716
3	3.5	2.07	1.46	26.73	28.19
80	88.9	300	40.7	735.50	776.2
3	3.5	2.07	1.6	28.96	30.56
80	88.9	300	44.4	792.00	836.4
3	3.5	2.07	1.75	31.18	32.93
100	114.3	300	6.4	193.75	200.15
4	4.5	2.07	0.25	7.63	7.88
100	114.3	300	12.8	258.00	270.8
4	4.5	2.07	0.5	10.16	10.66
100	114.3	300	19.2	322.25	341.45
4	4.5	2.07	0.76	12.69	13.45
100	114.3	300	25.6	386.50	412.1
4	4.5	2.07	1.01	15.22	16.23
100	114.3	300	32	450.75	482.75
4	4.5	2.07	1.26	17.75	19.01
100	114.3	300	38.4	515.00	553.4
4	4.5	2.07	1.51	20.28	21.79

Kompansatör Expansion Joint



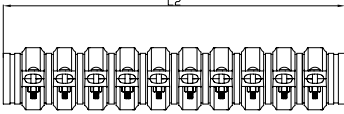
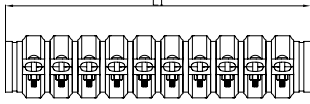
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Hareket Movement mm/in	L1 mm/in	L2 mm/in
100 4	114.3 4.5	300 2.07	44.8 1.76	579.25 22.81	624.05 24.57
100 4	114.3 4.5	300 2.07	51.2 2.02	643.50 25.34	694.7 27.36
100 4	114.3 4.5	300 2.07	57.6 2.27	707.75 27.86	765.35 30.13
100 4	114.3 4.5	300 2.07	64 2.52	772.00 30.39	836 32.91
100 4	114.3 4.5	300 2.07	70.4 2.77	836.25 32.92	906.65 35.69
100 4	114.3 4.5	300 2.07	76.8 3.02	900.50 35.45	977.3 38.47
125 5	139.7 5.5	300 2.07	5.7 0.22	193.75 7.63	199.45 7.85
125 5	139.7 5.5	300 2.07	11.4 0.45	258.00 10.16	269.4 10.61
125 5	139.7 5.5	300 2.07	17.1 0.67	322.25 12.69	339.35 13.36
125 5	139.7 5.5	300 2.07	22.8 0.9	386.50 15.22	409.3 16.12
125 5	139.7 5.5	300 2.07	28.5 1.12	450.75 17.75	479.25 18.87
125 5	139.7 5.5	300 2.07	34.2 1.35	514.00 20.24	548.2 21.59
125 5	139.7 5.5	300 2.07	39.9 1.57	579.25 22.81	619.15 24.38
125 5	139.7 5.5	300 2.07	45.6 1.8	643.50 25.34	689.1 27.14
125 5	139.7 5.5	300 2.07	51.3 2.02	707.75 27.86	759.05 29.88
125 5	139.7 5.5	300 2.07	57 2.24	772.00 30.39	829 32.63
125 5	139.7 5.5	300 2.07	62.7 2.47	836.25 32.92	898.95 35.39
125 5	139.7 5.5	300 2.07	68.4 2.69	900.50 35.45	968.9 38.14
150 6	165.1 4.5	300 2.07	6 0.24	193.75 7.63	199.75 7.87
150 6	165.1 4.5	300 2.07	12 0.47	258.00 10.16	270 10.63
150 6	165.1 4.5	300 2.07	18 0.71	322.25 12.69	340.25 13.4
150 6	165.1 4.5	300 2.07	24 0.94	386.50 15.22	410.5 16.16
150 6	165.1 4.5	300 2.07	30 1.18	450.75 17.75	480.75 18.93
150 6	165.1 4.5	300 2.07	36 1.42	514.00 20.24	550 21.66
150 6	165.1 4.5	300 2.07	42 1.65	579.25 22.81	621.25 24.46
150 6	165.1 4.5	300 2.07	48 1.89	643.50 25.34	691.5 27.23
150 6	165.1 4.5	300 2.07	54 2.13	707.75 27.86	761.75 29.99
150 6	165.1 4.5	300 2.07	60 2.36	772.00 30.39	832 32.75
150 6	165.1 4.5	300 2.07	66 2.6	836.25 32.92	902.25 35.52
150 6	165.1 4.5	300 2.07	72 2.83	900.50 35.45	972.5 38.28
150 6	168.3 6.626	300 2.07	6.2 0.24	226.75 8.93	232.95 9.17
150 6	168.3 6.626	300 2.07	12.4 0.49	302 11.89	314.4 12.38
150 6	168.3 6.626	300 2.07	18.6 0.73	377.25 14.85	395.85 15.58
150 6	168.3 6.626	300 2.07	24.8 0.98	452.5 17.82	477.3 18.8
150 6	168.3 6.626	300 2.07	31 1.22	527.75 20.78	558.75 22
150 6	168.3 6.626	300 2.07	37.2 1.46	602.5 23.72	639.7 25.18
150 6	168.3 6.626	300 2.07	43.4 1.71	678.25 26.7	721.65 28.41
150 6	168.3 6.626	300 2.07	49.6 1.95	753.5 29.67	803.1 31.62
150 6	168.3 6.626	300 2.07	55.8 2.2	828.75 32.63	884.55 34.83

Kompansatör
Expansion Joint



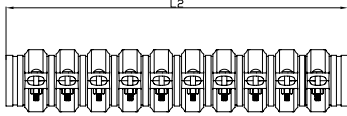
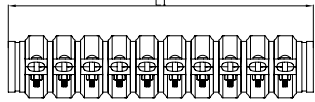
Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Hareket Movement mm/in	L1 mm/in	L2 mm/in
150 6	168.3 6.626	300 2.07	62 2.44	904 35.59	966 38.03
150 6	168.3 6.626	300 2.07	68.2 2.69	979.25 38.55	1047.45 41.24
150 6	168.3 6.626	300 2.07	74.4 2.93	1054.5 41.52	1128.9 44.45
200 8	219.1 8.626	300 2.07	6.3 0.25	226.75 8.93	233.05 9.18
200 8	219.1 8.626	300 2.07	12.6 0.5	302 11.89	314.6 12.39
200 8	219.1 8.626	300 2.07	18.9 0.74	377.25 14.85	396.15 15.59
200 8	219.1 8.626	300 2.07	25.2 0.99	452.5 17.82	477.7 18.81
200 8	219.1 8.626	300 2.07	31.5 1.24	527.75 20.78	559.25 22.02
200 8	219.1 8.626	300 2.07	37.8 1.49	603 23.74	640.8 25.23
200 8	219.1 8.626	300 2.07	44.1 1.74	678.25 26.7	722.35 28.44
200 8	219.1 8.626	300 2.07	50.4 1.98	753.5 29.67	803.9 31.65
200 8	219.1 8.626	300 2.07	56.7 2.23	828.75 32.63	885.45 34.86
200 8	219.1 8.626	300 2.07	63 2.48	904 35.59	967 38.07
200 8	219.1 8.626	300 2.07	69.3 2.73	979.25 38.55	1048.55 41.28
200 8	219.1 8.626	300 2.07	75.6 2.98	1054.5 41.52	1130.1 44.5
250 10	273 10.748	300 2.07	6.3 0.25	226.5 8.92	232.8 9.17
250 10	273 10.748	300 2.07	12.6 0.5	301.5 11.87	314.1 12.37
250 10	273 10.748	300 2.07	18.9 0.74	376.5 14.82	395.4 15.56
250 10	273 10.748	300 2.07	25.2 0.99	451.5 17.78	476.7 18.77
250 10	273 10.748	300 2.07	31.5 1.24	526.5 20.73	558 21.97
250 10	273 10.748	300 2.07	37.8 1.49	601.5 23.68	639.3 25.17
250 10	273 10.748	300 2.07	44.1 1.74	676.5 26.63	720.6 28.37
250 10	273 10.748	300 2.07	50.4 1.98	751.5 29.59	801.9 31.57
250 10	273 10.748	300 2.07	56.7 2.23	826.5 32.54	883.2 34.77
250 10	273 10.748	300 2.07	63 2.48	901.5 35.49	964.5 37.97
250 10	273 10.748	300 2.07	69.3 2.73	976.5 38.44	1045.8 41.17
250 10	273 10.748	300 2.07	75.6 2.98	1051.5 41.4	1127.1 44.38
300 12	323.9 12.752	300 2.07	6.7 0.26	227.5 8.96	234.2 9.22
300 12	323.9 12.752	300 2.07	13.4 0.53	303. 11.93	316.4 12.46
300 12	323.9 12.752	300 2.07	20.1 0.79	378.5 14.9	398.6 15.69
300 12	323.9 12.752	300 2.07	26.8 1.06	454 17.87	480.8 18.93
300 12	323.9 12.752	300 2.07	33.5 1.32	529.5 20.85	563 22.17
300 12	323.9 12.752	300 2.07	40.2 1.58	603.5 23.76	643.7 25.34
300 12	323.9 12.752	300 2.07	46.9 1.85	680.5 26.79	727.4 28.64
300 12	323.9 12.752	300 2.07	53.6 2.11	756 29.76	809.6 31.87
300 12	323.9 12.752	300 2.07	60.3 2.37	831.5 32.74	891.8 35.11
300 12	323.9 12.752	300 2.07	67 2.64	907 35.71	974 38.35
300 12	323.9 12.752	300 2.07	73.7 2.9	982.5 38.68	1056.2 41.58
300 12	323.9 12.752	300 2.07	80.4 3.17	1058 41.65	1138.4 44.82

Kompansatör Expansion Joint



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Hareket Movement mm/in	L1 mm/in	L2 mm/in
100 4	114.3 4.5	300 2.07	5.7 0.22	193.25 7.61	198.95 7.83
100 4	114.3 4.5	300 2.07	11.4 0.45	257.00 10.12	268.4 10.57
100 4	114.3 4.5	300 2.07	17.1 0.67	321.25 12.65	338.35 13.32
100 4	114.3 4.5	300 2.07	22.8 0.9	385.00 15.16	407.8 16.06
100 4	114.3 4.5	300 2.07	28.5 1.12	449.25 17.69	477.75 18.81
100 4	114.3 4.5	300 2.07	34.2 1.35	513.50 20.22	547.7 21.57
100 4	114.3 4.5	300 2.07	39.9 1.57	577.25 22.73	617.15 24.3
100 4	114.3 4.5	300 2.07	45.6 1.8	641.00 25.24	686.6 27.04
100 4	114.3 4.5	300 2.07	51.3 2.02	705.25 27.77	756.55 29.79
100 4	114.3 4.5	300 2.07	57 2.24	769.00 30.28	826 32.52
100 4	114.3 4.5	300 2.07	62.7 2.47	833.25 32.80	895.95 35.27
100 4	114.3 4.5	300 2.07	68.4 2.69	897.00 35.32	965.4 38.01
125 5	139.7 5.5	300 2.07	5.7 0.22	193.25 7.61	198.95 7.83
125 5	139.7 5.5	300 2.07	11.4 0.45	257.00 10.12	268.4 10.57
125 5	139.7 5.5	300 2.07	17.1 0.67	321.25 12.65	338.35 13.32
125 5	139.7 5.5	300 2.07	22.8 0.9	385.00 15.16	407.8 16.06
125 5	139.7 5.5	300 2.07	28.5 1.12	449.25 17.69	477.75 18.81
125 5	139.7 5.5	300 2.07	34.2 1.35	513.50 20.22	547.7 21.57
125 5	139.7 5.5	300 2.07	39.9 1.57	577.25 22.73	617.15 24.3
125 5	139.7 5.5	300 2.07	45.6 1.8	641.00 25.24	686.6 27.04
125 5	139.7 5.5	300 2.07	51.3 2.02	705.25 27.77	756.55 29.79
125 5	139.7 5.5	300 2.07	57 2.24	769.00 30.28	826 32.52
125 5	139.7 5.5	300 2.07	62.7 2.47	833.25 32.80	895.95 35.27
125 5	139.7 5.5	300 2.07	68.4 2.69	897.00 35.32	965.4 38.01
150 6	165.1 4.5	300 2.07	5.7 0.22	193.25 7.61	198.95 7.83
150 6	165.1 4.5	300 2.07	11.4 0.45	257.00 10.12	268.4 10.57
150 6	165.1 4.5	300 2.07	17.1 0.67	321.25 12.65	338.35 13.32
150 6	165.1 4.5	300 2.07	22.8 0.9	385.00 15.16	407.8 16.06
150 6	165.1 4.5	300 2.07	28.5 1.12	449.25 17.69	477.75 18.81
150 6	165.1 4.5	300 2.07	34.2 1.35	513.50 20.22	547.7 21.57

Kompansatör Expansion Joint



Ölçü Nominal Size mm/in	Boru Dış Çapı Pipe O.D mm/in	Maks. Çalışma Basıncı Max. Working Pressure PSI/MPa	Hareket Movement mm/in	L1 mm/in	L2 mm/in
150 6	165.1 4.5	300 2.07	39.9 1.57	577.25 22.73	617.15 24.3
150 6	165.1 4.5	300 2.07	45.6 1.8	641.00 25.24	686.6 27.04
150 6	165.1 4.5	300 2.07	51.3 2.02	705.25 27.77	756.55 29.79
150 6	165.1 4.5	300 2.07	57 2.24	769.00 30.28	826 32.52
150 6	165.1 4.5	300 2.07	62.7 2.47	833.25 32.80	895.95 35.27
150 6	165.1 4.5	300 2.07	68.4 2.69	897.00 35.32	965.4 38.01
150 6	168.3 6.626	300 2.07	5.7 0.22	226.25 8.91	231.95 9.13
150 6	168.3 6.626	300 2.07	11.4 0.45	301.00 11.85	312.4 12.3
150 6	168.3 6.626	300 2.07	17.1 0.67	376.25 14.81	393.35 15.48
150 6	168.3 6.626	300 2.07	22.8 0.9	451.00 17.76	473.8 18.66
150 6	168.3 6.626	300 2.07	28.5 1.12	526.25 20.72	554.75 21.84
150 6	168.3 6.626	300 2.07	34.2 1.35	601.00 23.66	635.2 25.01
150 6	168.3 6.626	300 2.07	39.9 1.57	676.25 26.62	716.15 28.19
150 6	168.3 6.626	300 2.07	45.6 1.8	751.00 29.57	796.6 31.37
150 6	168.3 6.626	300 2.07	51.3 2.02	826.25 32.53	877.55 34.55
150 6	168.3 6.626	300 2.07	57 2.24	901.00 35.47	958 37.71
150 6	168.3 6.626	300 2.07	62.7 2.47	976.25 38.44	1038.95 40.91
150 6	168.3 6.626	300 2.07	68.4 2.69	1051.00 41.38	1119.4 44.07
250 10	273 10.748	300 2.07	6.7 0.26	227.00 8.94	233.7 9.2
250 10	273 10.748	300 2.07	13.4 0.53	302.00 11.89	315.4 12.42
250 10	273 10.748	300 2.07	20.1 0.79	377.50 14.86	397.6 15.65
250 10	273 10.748	300 2.07	26.8 1.06	452.50 17.81	479.3 18.87
250 10	273 10.748	300 2.07	33.5 1.32	528.00 20.79	561.5 22.11
250 10	273 10.748	300 2.07	40.2 1.58	603.00 23.74	643.2 25.32
250 10	273 10.748	300 2.07	46.9 1.85	678.50 26.71	725.4 28.56
250 10	273 10.748	300 2.07	53.6 2.11	753.5 29.67	807.1 31.78
250 10	273 10.748	300 2.07	60.3 2.37	829.00 32.64	889.3 35.01
250 10	273 10.748	300 2.07	67 2.64	904.00 35.59	971 38.23
250 10	273 10.748	300 2.07	73.7 2.9	979.5 38.56	1053.2 41.46
250 10	273 10.748	300 2.07	80.4 3.17	1054.5 41.51	1134.9 44.68

Kauçuk Conta Seçimi için Kılavuz

Guide for Selection of Rubber Gaskets



Conta Gasket	İsim Name	Ortam Sıcaklık Aralığı Environment Temperature Range	Genel Servis Önerileri General Service Recommendations	Renk İşareti Color Mark
E	EPDM	-34 ~ +110°C (-30 ~ +230°F)	Belirtilen sıcaklık aralığında soğuk su servisi ve ayrıca çeşitli seyreltik asitler (baz), yağsız hava ve birçok kimyasal servis (hidrokarbonlar hariç) için önerilir. ANSI/NSF 61 veya soğuk +86 °F (+30 °C) ve sıcak +180 °F (+82°C) içme suyu servisine uygun olarak UL sınıflandırılmıştır. PETROL SERVİSLERİ, BUHAR SERVİSLERİ VEYA SÜREKLİ SICAK SU SERVİSLERİ İLE KULLANIM İÇİN UYUMLU DEĞİLDİR. <i>Recommended for cold water service within the specified temperature range plus a variety of dilute acids (base), oil-free air and many chemical services (excluding hydrocarbons). UL classified in accordance with ANSI/NSF 61 or cold+86°F (+30°C) and hot +180°F (+82°C) potable water service. NOT COMPATIBLE FOR USE WITH PETROLEUM SERVICES, STEAM SERVICES OR CONTINUOUS HOT WATER SERVICES.</i>	Yeşil Şeritli Siyah Black with Green Strip
S	Silikon Silicone	-40 ~ +177°C (-40 ~ +350°F)	Yüksek sıcaklıktaki kuru hava ve bazı yüksek sıcaklıktaki kimyasal ürünler, içme suyu vb. için önerilir. <i>Recommended for high temperature dry air and some high temperature chemical products, drinking water etc.</i>	Beyaz White
D	NBR	-29 ~ +82°C (-20 ~ +180°F)	Belirtilen sıcaklık aralığında petrol ürünleri, bitkisel ve mineral yağlar için önerilir. SICAK SU HİZMETLERİ VEYA BUHAR HİZMETLERİ İÇİN ÖNERİLMEZ. <i>Recommended for petroleum products, vegetable and mineral oils within the specified temperature range. NOT RECOMMENDED FOR HOT WATER SERVICES OR STEAM SERVICES.</i>	Turuncu Şeritli Siyah Black with Orange Strip
F	Florlu Kauçuk Fluororubber	-7 ~ +149°C (+20 ~ +300°F)	Birçok oksitleyici asit, petrol yağları, halojenli hidrokarbonlar, yağlayıcılar, hidrolik sıvılar, organik sıvılar ve hidrokarbonlu hava için önerilir. SICAK SU HİZMETLERİ VEYA BUHAR HİZMETLERİ İLE KULLANIM İÇİN UYUMLU DEĞİLDİR. <i>Recommended for many oxidizing acids, petroleum oils, halogenated hydrocarbons, lubricants, hydraulic fluids, organic liquids and air with hydrocarbons. NOT COMPATIBLE FOR USE WITH HOT WATER SERVICES OR STEAM SERVICES.</i>	Mavi Şeritli Siyah Black with Blue Strip
LD	Neopren Neoprene	-34 ~ +82°C (-30 ~ +180°F)	Sıcak yağlayıcılar, deniz suyu ve bazı kimyasallar için önerilir. İyi ozon direnci. Yanması zordur. <i>Recommended for hot lubricants, sea water and certain chemicals. Good ozone resistance. Hard for combustion.</i>	Sarı Şeritli Siyah Black with Yellow Strip

• Farklı çalışma koşullarına ve akışkan ortamına göre seçiminiz için farklı kauçuk contalar vardır; kauçuk contalar sıcak su sisteminde kullanılıyorsa, lütfen üretici Meide Group'a bilgi verin, sıcak su sisteminde kullanılabilecek ürünleri tedarik edeceğiz.

• There are different rubber gaskets for your choice according to different working conditions and fluid medium; If the rubber gaskets are used in hot water system, please inform to the manufacturer Meide Group, we will supply the products which can be used in hot water system.

Boru Baęlantı Yaęlayıcısı Pipe Joint Lubricant



- Boru Baęlantı Yaęlayıcısı, sızdırmazlık contasının yüzeyini yağlamak, montajını kolaylaştırmak ve sızdırmazlık contasının ekstrüzyon veya diğer parazit koşulları nedeniyle hasar görmesini önlemek için kullanılır ve aynı zamanda sızdırmazlık contası yüzeyini koruyabilir ve hizmet ömrünü uzatabilir.
- Yaęlayıcı RoHs sertifikası, REACH sertifikası, NSF H1 sertifikası, yeşil ve çevre koruma ile uyumludur ve su kalitesi üzerinde herhangi bir olumsuz etkiye neden olmaz.
- *Lubricant is used to lubricate the surface of the sealing gasket, making it easy to install, and preventing the sealing gasket from being damaged due to extrusion or other interference conditions, and at the same time, it can protect the sealing gasket surface and prolong its service life.*
- *Pipe Joint Lubricant complies with RoHs certification, REACH certification, NSF H1 certification, green and environmental protection, and will not cause any adverse effects on water quality.*

Boyut / Size	Kapasite / Capacity ml	Uygulanabilir Sıcaklık Applicable Temperature	Uygulanabilir Malzeme Applicable Material
1000	1000	-20~+130°C -4~+266°F	EPDM
5000	5000		NBR
15000	15000		Fluorine Rubber / <i>Flor Kauçuk</i> Neoprene / <i>Neopren</i>

Not:

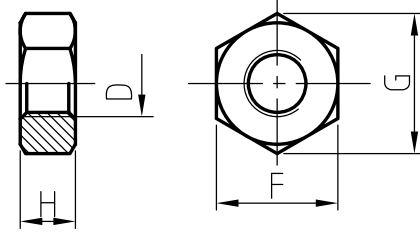
1. Bu ürün silikon kauçuk için uygun değildir, diğer malzemelere uygulanırsa lütfen tedarikçi ile iletişime geçin.
2. Özel geliştirme veya diğer ambalajlama ihtiyaçları için lütfen tedarikçiyle iletişime geçin.
3. Ürünün kimyasal özellikleri, ayrıntılı parametreleri ve güvenlik önlemleri için lütfen bu ürünün MSDS veri belgesine bakın.

Note:

1. *This product is not suitable for silicone rubber, if it is applied to other materials, please contact the supplier.*
2. *For custom development or other packaging needs, please contact the supplier.*
3. *For the chemical characteristics, detailed parameters and safety precautions of the product, please refer to the MSDS data document of this product.*

Metrik Ağır Altıgen Somun

Metric Heavy Hex Nut



Malzeme: ISO 898-2:1992 \ GB/T3098.2-2000 Sınıf 8.

Yiv: ISO 261, M10 ve M12 için tolerans 6h, M16 ve üzeri için 7h.

Yüzey İşlemi: Çinko Elektrokaplama ve ardından ISO 2081 FE/ZN5, ISO4520 CLASS 1A uyarınca sarı kromat daldırma.

Material: ISO 898-2:1992 \ GB/T3098.2-2000 Class 8.

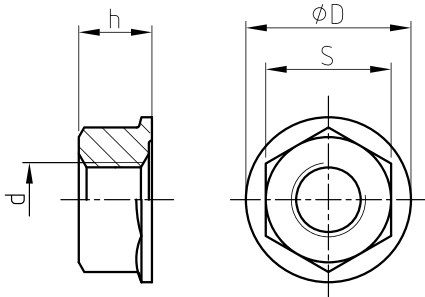
Thread: ISO 261, tolerance 6h for M10& M12, 7h for M16 and above.

Surface Treatment: Zinc Electroplated followed by a yellow chromate dip per ISO 2081 FE/ZN5, ISO4520 CLASS 1A.

d	F		G	H	
	Min	Max	Min	Min	Max
M10	15.73	16.0	17.7	8.0	8.4
M12	21.16	22.0	23.9	9.34	10.0
M16	23.16	24.0	26.17	14.1	15.9
M20	29.16	30.0	32.95	16.9	19.0
M22	33.0	34.0	37.29	18.1	20.2

Altıgen Flaş Somunu

Hexagon Flange Nut



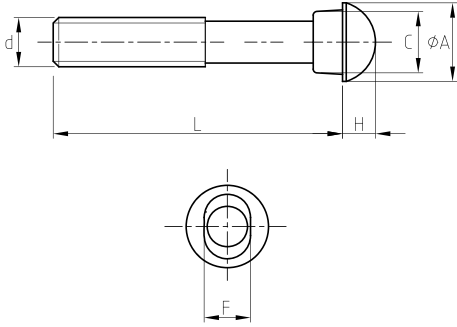
DIN6923'e göre boyut.

Dimension according to DIN6923.

d	S		D	h	
	Min	Max	Max	Min	Max
M8	12.3	13	17.9	7.6	8
M10	14.73	15.0	21.8	9.64	10
M12	17.73	18.0	26.0	11.57	12.0

Metrik Oval Boyunlu Civata

Metric Oval Neck Track Bolt



Malzeme: ISO 898-1:1992 \ GB/T3098.1-2000 Sınıf 8.8.

Yiv: ISO 261 uyarınca ISO metrik diş, tolerans 6h.

Yüzey İşlemi: ISO 2081 FE/ZN5, ISO4520 CLASS 1A uyarınca sarı kromat elektrolizle kaplanmıştır.

Material: ISO 898-1:1992 \ GB/T3098.1-2000 Class 8.8.

Thread: ISO metric thread per ISO 261, tolerance 6h.

Surface Treatment: Yellow chromate electroplated per ISO 2081 FE/ZN5, ISO4520 CLASS 1A.

d	A	C	F	H	L
M10	18.5	13.5	9.5	5	50/57/63/70/89
M12	23.5	17.5	12.3	8	70/76/82/89/108
M16	29.5	20.5	15.7	10	85/89/95/108
M20	38	27	18.3	12.5	110/115
M22	42.2	31	21.4	14	125/140/150

Civata Torku

Bolt Torque

Aşağıda yaygın civata boyutları için önerilen civata torku verilmiştir. Montaj için lütfen fabrika tarafından sağlanan civata ve somunları kullanın.

As below is the recommended bolt torque for common sizes of bolts. Please use factory provided bolts and nuts for the installation.

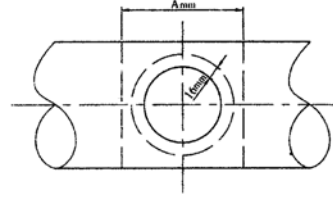
ANSI Nominal Civata Torku / ANSI Rated Bolt Torque		
Civata Boyutu Bolt Size	Nominal Civata Torku* Rated Bolt Torque*	
Inch	Lb-Ft	(N.m)
3/8	30-45	40-60
1/2	80-100	110-135
5/8	100-130	135-175
3/4	130-180	175-245
7/8	180-240	245-325

Metrik Anma Civata Torku / Metric Rated Bolt Torque		
Civata Boyutu Bolt Size	Nominal Civata Torku* Rated Bolt Torque*	
Inch	Lb-Ft	(N.m)
M10	30-45	40-60
M12	80-100	110-135
M16	100-130	135-175
M20	130-180	175-245
M22	180-240	245-325

Delik Boru Çapı Hole Diameter of Pipe



Delik Açma Makinesi
Hole-cutting Machine



Nominal Çalıştırma Run Nominal Size mm/in	Çıkış Nominal Boyut Outlet Nominal Size mm/in	Delik Çapı. Hole Dia. +3.2,0+0.13,0 mm/in	Çalışma Nominal Boyut Run Nominal Size mm/in	Çıkış Nominal Boyut Outlet Nominal Size mm/in	Delik Çapı. Hole Dia. +3.2,0+0.13,0 mm/in	Çalışma Nominal Boyut Run Nominal Size mm/in	Çıkış Nominal Boyut Outlet Nominal Size mm/in	Delik Çapı. Hole Dia. +3.2,0+0.13,0 mm/in			
25 1"/33.7	10 3/8	23.5 0.925 A89	80 3"/88.9	15 1/2	38 1.50 A89	150 159.0 165.1 6"/168.3	15 1/2	38 1.50 A89			
	15 1/2			20 3/4			20 3/4				
	20 3/4			25 1			25 1				
	25 1			32 1 1/4			32 1 1/4				
32 1 1/4"/42.4	10 3/8	30 1.18 A89		100 108.0 4"/114.3	40 1 1/2		51 2.00 A102	200 8"/219.1 250 10"/273.0	40 1 1/2	51 2.00 A102	
	15 1/2				50 2				50 2		
	20 3/4				15 1/2				65 2 1/2/76		65 2 1/2/76
	25 1				20 3/4				80 3		80 3
40 1 1/2"/48.3	10 3/8	30 1.18 A89	125 133.0 139.7 5"/141.3	25 1	38 1.50 A89	70 2.75 A120	100 108.0/4	70 2.75 A120			
	15 1/2			32 1 1/4			32 1 1/4				
	20 3/4			40 1 1/2			40 1 1/2				
	25 1			50 2			50 2				
50 2"/60.3	15 1/2	38 1.50 A89		65 2 1/2/76	89 3.50 A140		50 2	70 2.75 A120			
	20 3/4			80 3			65 2 1/2/76		65 2 1/2/76		
	25 1			15 1/2			80 3		80 3		
	32 1 1/4	20 3/4		100 108.0/4	100 108.0/4						
	40 1 1/2	25 1									
65 2 1/2"/73.0 76.1	15 1/2	38 1.50 A89		32 1 1/4	51 2.00 A102						
	20 3/4			40 1 1/2			40 1 1/2				
	25 1			50 2			50 2				
	32 1 1/4	65 2 1/2/76		65 2 1/2/76							
	40 1 1/2	80 3		80 3							

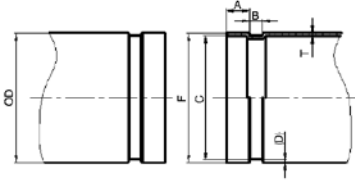
Borunun delikten itibaren 16 mm içindeki dış yüzeyi temiz ve pürüzsüz olmalıdır.
The outside surface of the pipe within 16mm from the hole must be clean and smooth.

Yiv Ölçüleri

Groove Dimensions



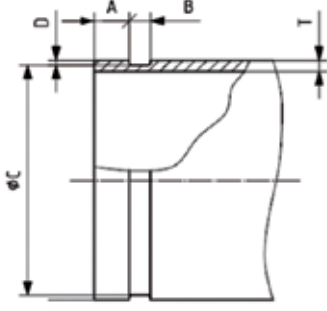
Yiv Açma Makinesi
Grooving Machine



Nominal Boyut Nominal Size mm/in	Boru Dış Çapı / Pipe OD		Conta Yuvası A Gasket Seat A ±0.76/±0.03 mm/in	Yiv Geniřliđi B Groove Width B ±0.76/±0.03 mm/in	Yiv Çapı C / Groove Dia C		Yiv Derinliđi Groove Depth D(ref) mm/in	Max İzin Verilen Çap Max Allow Flare Dia F mm/in	Min. İzin Verilen Duvar Kalınlıđı Min. Allow Wall Thickness T mm/in	
	Temel Basic mm/in	Tolerans Tolerance mm/in			Temel Basic mm/in	Tolerans Tolerance mm/in				
25 1	33.7 1.327	+0.41 +0.016	-0.68 -0.026	15.88 0.625	7.14 0.281	30.23 1.190	-0.38 -0.015	1.60 0.063	34.5 1.358	1.8 0.071
32 1 1/4	42.4 1.669	+0.50 0.020	-0.60 -0.023	15.88 0.625	7.14 0.281	38.99 1.535	-0.38 -0.015	1.60 0.063	43.3 1.705	1.8 0.071
40 1 1/2	48.3 1.900	+0.44 0.017	-0.52 -0.020	15.88 0.625	7.14 0.281	45.09 1.775	-0.38 -0.015	1.60 0.063	49.4 1.945	1.8 0.071
50 2	60.3 2.375	+0.61 +0.024	-0.61 -0.024	15.88 0.625	8.74 0.344	57.15 2.250	-0.38 -0.015	1.60 0.063	62.2 2.449	1.8 0.071
65 2 1/2	73.0 2.875	+0.74 +0.029	-0.74 -0.029	15.88 0.625	8.74 0.344	69.09 2.720	-0.46 -0.018	1.98 0.078	75.2 2.961	2.3 0.091
65 2 1/2	76.1 3.000	+0.76 +0.030	-0.76 -0.030	15.88 0.625	8.74 0.344	72.26 2.845	-0.46 -0.018	1.99 0.078	77.7 3.059	2.3 0.091
80 3	88.9 3.500	+0.89 +0.035	-0.79 -0.031	15.88 0.625	8.74 0.344	84.94 3.344	-0.46 -0.018	1.98 0.078	90.6 3.567	2.3 0.091
100 4	108.0 4.250	+1.07 +0.042	-0.79 -0.031	15.88 0.625	8.74 0.344	103.73 4.084	-0.51 -0.020	2.11 0.083	109.7 4.319	2.3 0.091
100 4	114.3 4.500	+1.14 +0.045	-0.79 -0.031	15.88 0.625	8.74 0.344	110.08 4.334	-0.51 -0.020	2.11 0.083	116.2 4.575	2.3 0.091
125 5	133.0 5.250	+1.32 +0.052	-0.79 -0.031	15.88 0.625	8.74 0.344	129.13 5.084	-0.51 -0.020	2.11 0.083	134.9 5.311	2.9 0.114
125 5	139.7 5.500	+1.40 +0.055	-0.79 -0.031	15.88 0.625	8.74 0.344	135.48 5.334	-0.51 -0.020	2.11 0.083	141.7 5.579	2.9 0.114
125 5	141.3 5.563	+1.42 +0.056	-0.79 -0.031	15.88 0.625	8.74 0.344	137.03 5.395	-0.56 -0.022	2.13 0.084	143.5 5.650	2.9 0.114
150 6	159.0 6.250	+1.60 +0.063	-0.79 -0.031	15.88 0.625	8.74 0.344	154.50 6.083	-0.56 -0.022	2.16 0.085	161.0 6.339	2.9 0.114
150 6	165.1 6.500	+1.60 +0.063	-0.79 -0.031	15.88 0.625	8.74 0.344	160.8 6.330	-0.56 -0.022	2.16 0.085	167.1 6.579	2.9 0.114
150 6	168.3 6.625	+1.60 +0.063	-0.79 -0.031	15.88 0.625	8.74 0.344	163.96 6.455	-0.56 -0.022	2.16 0.085	170.7 6.720	2.9 0.114
200A 8	216.3 8.516	+1.60 +0.063	-0.79 -0.031	19.05 0.750	11.91 0.469	211.60 8.331	-0.64 -0.025	2.35 0.093	219.8 8.653	2.9 0.114
200 8	219.1 8.625	+1.60 +0.063	-0.79 -0.031	19.05 0.750	11.91 0.469	214.40 8.441	-0.64 -0.025	2.34 0.092	221.5 8.720	2.9 0.114
250A 10	267.4 10.528	+1.60 +0.063	-0.79 -0.031	19.05 0.750	11.91 0.469	262.60 10.339	-0.69 -0.027	2.40 0.095	270.9 10.665	3.6 0.142
250 10	273.0 10.750	+1.60 +0.063	-0.79 -0.031	19.05 0.750	11.91 0.469	268.28 10.562	-0.69 -0.027	2.39 0.094	275.4 10.842	3.6 0.142
300A 12	318.5 12.539	+1.60 +0.063	-0.79 -0.031	19.05 0.750	11.91 0.469	312.90 12.319	-0.76 -0.030	2.77 0.109	322.0 12.677	4.0 0.158
300 12	323.9 12.750	+1.60 +0.063	-0.79 -0.031	19.05 0.750	11.91 0.469	318.29 12.531	-0.76 -0.030	2.77 0.109	326.2 12.842	4.0 0.158
350 14	355.6 14.000	+1.60 +0.063	-0.79 -0.031	23.83 0.938	11.91 0.469	350.04 13.781	-0.76 -0.030	2.77 0.109	359.7 14.16	4.0 0.158
350 14	377.0 14.842	+1.60 +0.063	-0.79 -0.031	23.83 0.938	11.91 0.469	371.44 14.623	-0.76 -0.030	2.77 0.109	379.5 14.941	4.5 0.177
400 16	406.4 16.000	+1.60 +0.063	-0.79 -0.031	23.83 0.938	11.91 0.469	400.84 15.781	-0.76 -0.030	2.77 0.109	410.5 16.16	4.2 0.165
400 16	426.0 16.772	+1.60 +0.063	-0.79 -0.031	23.83 0.938	11.91 0.469	420.46 16.553	-0.76 -0.030	2.77 0.109	428.5 16.870	4.5 0.177
450 18	457.2 18.000	+1.60 +0.063	-0.79 -0.031	25.40 1.000	11.91 0.469	451.64 17.781	-0.76 -0.030	2.77 0.109	461.3 18.16	4.2 0.165
450 18	480 18.897	+1.60 +0.063	-0.79 -0.031	25.40 1.000	11.91 0.469	469 18.465	-0.76 -0.030	5.50 0.216	484.1 19.06	4.2 0.165
500 20	508.0 20.000	+1.60 +0.063	-0.79 -0.031	25.40 1.000	11.91 0.469	502.44 19.781	-0.76 -0.030	2.77 0.109	512.1 20.16	4.8 0.188
500 20	530 20.866	+1.60 +0.063	-0.79 -0.031	25.40 1.000	11.91 0.469	522 20.55	-0.76 -0.030	4.0 0.157	535.1 21.067	5.0 0.197
600 24	609.6 24.000	+1.60 +0.063	-0.79 -0.031	25.40 1.000	12.7 0.500	600.9 23.656	0.76 -0.030	4.35 0.172	614.7 24.20	4.8 0.188
600 24	630 24.803	+1.60 +0.063	-0.79 -0.031	25.40 1.000	12.7 0.500	620.9 24.445	0.76 -0.030	4.55 0.179	635.1 25.00	4.8 0.188

Yiv Ölçüleri (Talaşlı İmalat)

Cut Groove



Nominal Boyut Nominal Size mm/in	Boru Dış Çapı / Pipe OD			Conta Yuvası A Gasket Seat A ±0.76/±0.03 mm/in	Yiv Geniliği B Groove Width B ±0.76/±0.03 mm/in	Yiv Çapı C / Groove Dia C		Yiv Derinliği Groove Depth D(ref) mm/in	Min. İzin Verilen Duvar Kalınlığı Min. Allow Wall Thickness T mm/in
	Temel Basic mm/in	Tolerans Tolerance mm/in				Temel Basic mm/in	Tolerans Tolerance mm/in		
25 1	33.7 1.327	0.41 0.016	-0.68 -0.026	15.88 0.625	7.93 0.312	30.23 1.19	-0.38 -0.015	1.7 0.069	3.3 0.129
32 1 1/4	42.4 1.669	0.5 0.02	-0.6 -0.023	15.88 0.625	7.93 0.312	38.99 1.535	-0.38 -0.015	1.7 0.069	3.5 0.138
40 1 1/2	48.3 1.9	0.44 0.017	-0.52 -0.02	15.88 0.625	7.93 0.312	45.09 1.775	-0.38 -0.015	1.6 0.063	3.68 0.145
50 2	60.3 2.375	0.61 0.024	-0.61 -0.024	15.88 0.625	7.93 0.312	57.15 2.25	-0.38 -0.015	1.6 0.063	3.91 0.154
65 2 1/2	73 2.875	0.74 0.029	-0.74 -0.029	15.88 0.625	7.93 0.312	69.09 2.72	-0.46 -0.018	1.98 0.078	4.78 0.188
65 2 1/2	76.1 3	0.76 0.03	-0.76 -0.03	15.88 0.625	7.93 0.312	72.26 2.845	-0.46 -0.018	1.99 0.078	4.78 0.188
80 3	88.9 3.5	0.89 0.035	-0.79 -0.031	15.88 0.625	7.93 0.312	84.94 3.344	-0.46 -0.018	1.98 0.078	4.78 0.188
100 4	108 4.25	1.07 0.042	-0.79 -0.031	15.88 0.625	9.53 0.375	103.73 4.084	-0.51 -0.02	2.11 0.083	5.16 0.203
100 4	114.3 4.5	1.14 0.045	-0.79 -0.031	15.88 0.625	9.53 0.375	110.08 4.334	-0.51 -0.02	2.11 0.083	5.16 0.203
125 5	133 5.25	1.32 0.052	-0.79 -0.031	15.88 0.625	9.53 0.375	129.13 5.084	-0.51 -0.02	2.11 0.083	5.16 0.203
125 5	139.7 5.5	1.4 0.055	-0.79 -0.031	15.88 0.625	9.53 0.375	135.48 5.334	-0.51 -0.02	2.11 0.083	5.16 0.203
125 5	141.3 5.563	1.42 0.056	-0.79 -0.031	15.88 0.625	9.53 0.375	137.03 5.395	-0.56 -0.022	2.13 0.084	5.16 0.203
150 6	159 6.25	1.6 0.063	-0.79 -0.031	15.88 0.625	9.53 0.375	154.5 6.083	-0.56 -0.022	2.16 0.085	5.56 0.219
150 6	165.1 6.5	1.6 0.063	-0.79 -0.031	15.88 0.625	9.53 0.375	160.8 6.33	-0.56 -0.022	2.16 0.085	5.56 0.219
150 6	168.3 6.625	1.6 0.063	-0.79 -0.031	15.88 0.625	9.53 0.375	163.96 6.455	-0.56 -0.022	2.16 0.085	5.56 0.219
200A 8	216.3 8.516	1.6 0.063	-0.79 -0.031	19.05 0.75	11.11 0.438	211.6 8.331	-0.64 -0.025	2.35 0.093	6.05 0.238
200 8	219.1 8.625	1.6 0.063	-0.79 -0.031	19.05 0.75	11.11 0.438	214.4 8.441	-0.64 -0.025	2.34 0.092	6.05 0.238
250A 10	267.4 10.528	1.6 0.063	-0.79 -0.031	19.05 0.75	12.7 0.5	262.6 10.339	-0.69 -0.027	2.4 0.095	6.35 0.25
250 10	273 10.75	1.6 0.063	-0.79 -0.031	19.05 0.75	12.7 0.5	268.28 10.562	-0.69 -0.027	2.39 0.094	6.35 0.25
300A 12	318.5 12.539	1.6 0.063	-0.79 -0.031	19.05 0.75	12.7 0.5	312.9 12.319	-0.76 -0.03	2.77 0.109	7.09 0.279
300 12	323.9 12.75	1.6 0.063	-0.79 -0.031	19.05 0.75	12.7 0.5	318.29 12.531	-0.76 -0.03	2.77 0.109	7.09 0.279
350 14	355.6 14	1.6 0.063	-0.79 -0.031	23.83 0.938	12.7 0.5	350.04 13.781	-0.76 -0.03	2.77 0.109	7.14 0.281
350 14	377 14.842	1.6 0.063	-0.79 -0.031	23.83 0.938	12.7 0.5	371.44 14.623	-0.76 -0.03	2.77 0.109	7.14 0.281
400 16	406.4 16	1.6 0.063	-0.79 -0.031	23.83 0.938	12.7 0.5	400.84 15.781	-0.76 -0.03	2.77 0.109	7.92 0.312
400 16	426 16.772	1.6 0.063	-0.79 -0.031	23.83 0.938	12.7 0.5	420.46 16.553	-0.76 -0.03	2.77 0.109	7.92 0.312
450 18	457.2 18	1.6 0.063	-0.79 -0.031	25.4 1	12.7 0.5	451.64 17.781	-0.76 -0.03	2.77 0.109	7.92 0.312
450 18	480 18.897	1.6 0.063	-0.79 -0.031	25.4 1	12.7 0.5	469 18.465	-0.76 -0.03	5.5 0.216	7.92 0.312
500 20	508 20	1.6 0.063	-0.79 -0.031	25.4 1	12.7 0.5	502.44 19.781	-0.76 -0.03	2.77 0.109	7.92 0.312
500 20	530 20.866	1.6 0.063	-0.79 -0.031	25.4 1	12.7 0.5	522 20.55	-0.76 -0.03	4 0.157	7.92 0.312
600 24	609.6 24	1.6 0.063	-0.79 -0.031	25.4 1	14.3 0.563	600.9 23.656	0.76 -0.03	4.35 0.172	9.5 0.375
600 24	630 24.803	1.6 0.063	-0.79 -0.031	25.4 1	14.3 0.563	620.9 24.445	0.76 -0.03	4.55 0.179	9.5 0.375

Çelik Boru Üzerindeki Mekanik Kaplinler için Basınç Değerleri ve Taşıma Yükleri

Pressure Ratings and End Loads for
Couplings on Steel Pipe



UV15
Sabit / Rigid



UV16
Sabit / Rigid



UV11
Redüksiyon / Reducing



UV19
Sabit / Rigid

Nom. Boyut Nom. Size	Boru Pipe O.D	Boru Pipe Sched	Et Kalınlığı Wall Thick.	UV15		UV16		UV11		UV19	
				Yivli / Grooved		Yivli / Grooved		Yivli / Grooved		Yivli / Grooved	
				Max. Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load	Max. Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load	Max. Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load	Max. Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load
DN/in	mm	(Sch)	mm	Bar/Psi	kN/Lbs	Bar/Psi	kN/Lbs	Bar/Psi	kN/Lbs	Bar/Psi	kN/Lbs
25	33.7	40	3.38	35/500	3.0/680	-	-	20/300	1.8/410	-	-
		10	2.77	35/500	3.0/680	-	-	20/300	1.8/410	-	-
32	42.4	40	3.56	35/500	4.8/1080	-	-	20/300	2.9/650	35/500	4.8/1080
		10	2.77	35/500	4.8/1080	-	-	20/300	2.9/650	35/500	4.8/1080
40	48.3	40	3.68	35/500	6.3/1420	-	-	20/300	3.8/850	35/500	6.3/1420
		10	2.77	35/500	6.3/1420	-	-	20/300	3.8/850	35/500	6.3/1420
50	60.3	40	3.91	35/500	9.8/2210	-	-	20/300	5.9/1330	35/500	9.8/2210
		10	2.77	35/500	9.8/2210	-	-	20/300	5.9/1330	35/500	9.8/2210
65	73	40	5.16	35/500	14.4/3240	-	-	20/300	8.7/1950	35/500	14.5/3250
		10	3.05	35/500	14.4/3240	-	-	20/300	8.7/1950	35/500	14.5/3250
65	76.1	-	6.35	-	-	-	-	-	-	-	-
		-	5.08	35/500	15.7/3520	-	-	20/300	9.4/2120	35/500	15.7/3520
		-	3.81	35/500	15.7/3520	-	-	20/300	9.4/2120	35/500	15.7/3520
80	88.9	40	5.49	35/500	21.4/4810	24/350	15.0/3360	20/300	12.8/2885	35/500	21.4/4810
		10	3.05	35/500	21.4/4810	24/350	15.0/3360	20/300	12.8/2885	35/500	21.4/4810
100	114.3	40	6.02	35/500	35.4/7960	24/350	24.7/5560	20/300	21.2/4770	35/500	35.4/7950
		10	3.05	35/500	35.4/7960	24/350	24.7/5560	20/300	21.2/4770	35/500	35.4/7950
125	139.7	-	3.6	-	-	-	-	-	-	20/300	31.7/7130
125	141.3	40	6.55	35/500	54.1/12100	24/350	37.8/8490	20/300	32.4/7290	-	-
		10	3.4	35/500	54.1/12100	24/350	37.8/8490	20/300	32.4/7290	-	-
150	165.1	-	6.35	35/500	73.8/16610	24/350	51.6/11600	20/300	44.3/9960	20/300	44.3/9960
		-	5.08	35/500	73.8/16610	24/350	51.6/11600	20/300	44.3/9960	20/300	44.3/9960
150	168.3	40	7.11	35/500	76.7/17260	24/350	53.6/12000	20/300	46.0/10340	35/500	76.7/17230
		10	3.4	35/500	76.7/17260	24/350	53.6/12000	20/300	46.0/10340	35/500	76.7/17230
200	219.1	40	8.18	31/450	116.9/26280	24/350	90.8/20430	-	-	35/500	129.7/29160
		30	7.04	31/450	116.9/26280	24/350	90.8/20430	-	-	-	-
		10	4.77	20/300	77.8/17500	24/350	90.8/20430	-	-	20/300	77.8/17500
250	273	40	9.27	28/400	163.8/36800	-	-	-	-	35/500	201.7/45350
		30	7.8	20/300	121.0/27210	-	-	-	-	-	-
		10	4.77	20/300	121.0/27210	-	-	-	-	20/300	121.0/27210
300	323.9	40	10.31	28/400	230.6/51880	-	-	-	-	-	-
		STD	9.53	20/300	170.3/38280	-	-	-	-	-	-
		30	6.35	20/300	170.3/38280	-	-	-	-	-	-
		10	4.77	20/300	170.3/38280	-	-	-	-	-	-



UV11
Esnek / Flexible



UV10
Ağır Tip Esnek / Heavy Duty Flexible



UV80
Flanş Adaptörü / Flange

Nom. Boyut Nom. Size	Boru Pipe O.D	Boru Pipe Sched	Et Kalınlığı Wall Thick.	UV11		UV10		UV80	
				Yivli / Grooved		Yivli / Grooved		Yivli / Grooved	
				Max.Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load	Max.Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load	Max.Çalışma Basıncı Max. Work Press	Maks. Taşıma Yüğü Max. End Load
DN/in	mm	(Sch)	mm	Bar/Psi	kN/Lbs	Bar/Psi	kN/Lbs	Bar/Psi	kN/Lbs
25	33.7	40	3.38	35/500	3.0/680	-	-	-	-
		10	2.77	35/500	3.0/680	-	-	-	-
32	42.4	40	3.56	35/500	4.8/1080	-	-	-	-
		10	2.77	35/500	4.8/1080	-	-	-	-
40	48.3	40	3.56	35/500	6.3/1420	-	-	16/225	3.2/710
		10	2.77	35/500	6.3/1420	-	-	16/225	3.2/710
50	60.3	40	3.91	35/500	9.8/2210	52/750	14.8/3320	16/225	4.4/1000
		10	2.77	35/500	9.8/2210	35/500	9.8/2210	16/225	4.4/1000
65	73	40	5.16	35/500	14.4/3240	52/750	21.6/4860	20/300	5.9/1330
		10	3.05	35/500	14.4/3240	35/500	14.4/3240	20/300	5.9/1330
65	76.1	-	6.35	-	-	-	-	-	-
		-	5.08	35/500	15.7/3520	52/750	23.5/5280	16/225	7.1/1590
		-	3.81	35/500	15.7/3520	35/500	15.7/3530	16/225	7.1/1590
80	88.9	40	5.49	35/500	21.4/4810	52/750	32.1/7210	16/225	9.6/2165
		10	3.05	35/500	21.4/4810	35/500	21.4/4800	16/225	9.6/2165
100	114.3	40	6.02	35/500	35.4/7960	52/750	53.0/11900	16/225	15.9/3580
		10	3.05	35/500	35.4/7960	35/500	35.4/7950	16/225	15.9/3580
125	141.3	40	6.55	35/500	54.1/12100	52/750	81.0/18200	20/300	31.3/7035
		10	3.4	35/500	54.1/12100	31/450	48.6/10930	20/300	31.3/7035
150	165.1	-	6.35	35/500	73.8/16610	52/750	110.6/24800	16/225	33.2/7460
		-	5.08	35/500	73.8/16610	31/450	66.4/14930	16/225	33.2/7460
150	168.3	40	7.11	35/500	76.7/17260	52/750	115.0/25800	16/225	34.5/7750
		10	3.4	35/500	76.7/17260	31/450	68.9/15500	16/225	34.5/7750
200	219.1	40	8.18	31/450	116.9/26280	52/750	194.8/43800	16/225	58.4/13140
		30	7.04	31/450	116.9/26280	35/500	130.0/29250	16/225	58.4/13140
		10	3.76	20/300	77.8/17500	20/300	77.8/17500	16/225	58.4/13140
250	273	40	9.27	20/300	121.0/27210	-	-	16/225	90.8/20410
		30	6.35	20/300	121.0/27210	-	-	16/225	90.8/20410
		10	4.19	20/300	121.0/27210	-	-	16/225	90.8/20410
300	323.9	40	10.31	20/300	170.3/38280	-	-	16/225	127.7/28710
		STD	9.53	20/300	170.3/38280	-	-	16/225	127.7/28710
		20	6.35	20/300	170.3/38280	-	-	16/225	127.7/28710
		10	4.57	20/300	170.3/38280	-	-	16/225	127.7/28710

Sabit ve Esnek Kaplin İçin Montaj Talimatı

Installation Instruction for Rigid & Flexible Coupling



1. Boru hazırlığı
Pipe preparation

Boru ucunu uygun yiv boyutları açısından kontrol edin ve boru ucunda sızdırmazlığı engelleyecek girinti ve çıkıntılar olmadığından emin olun.

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Contayı yağlayın
Lubricate gasket

Amaçlanan hizmete uygun olduğundan emin olmak için contayı kontrol edin. Contanın dış yüzeyine ve sızdırmazlık dudaklarına ince Boru Bağlantı Yağlayıcısı sürün.

Check gasket to be sure it's compatible for the intended service. Apply thin Pipe Joint Lubricant to the outside and sealing lips of the gasket.



3. Conta montajı
Gasket installation

Conta dudacağının boru ucundan sarkmadığından emin olarak contayı bir borunun üzerine kaydırın.

Slip the gasket over one pipe, making sure the gasket lip does not over-hang the pipe end.



4. Hizalama
Alignment

İki boru ucunu birbirine hizaladıktan sonra, contayı her bir borudaki yivler arasında ortalararak yerine çekin. Conta her iki borudaki oluğun içine uzanmamalıdır.

After aligning two pipe ends together, pull the gasket into position, centering between the grooves on each pipe. The gasket should not extend into the groove on either pipe.



5. Kaplin gövdesi kurulumu
Housing installation

Bir cıvata ve somunu sıkın ve diğer somunu gevşetin. Bir muhafazayı contanın üzerine yerleştirin ve muhafaza anahtarlarının boru kanallarına oturduğundan emin olun. Diğer muhafazayı contanın üzerinden ve her iki borudaki olukların içine doğru döndürün. Cıvatayı yeniden takın ve iki muhafazayı bağlayın.

Remove one bolt&nut and loosen the other nut. Place one housing over the gasket, making sure the housing keys fit into the pipe grooves. Swing the other housing over the gasket and into the grooves on both pipes. Re-insert the bolt and connect two housings.



6. Somunları sıkın
Tighten nuts

İlk olarak somunları elle sıkın ve oval boyun cıvatasının cıvata deliğine tamamen oturduğundan emin olun. Daha sonra somunları, anahtar kullanarak belirtilen cıvata torkuna eşit şekilde ve dönüşümlü olarak sıkın.

Firstly hand tighten nuts and make sure oval neck bolt completely fits into bolt hole. Then securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



7a. Montaj tamamlandı - Sabit Kaplin
Assembly completed - Rigid Coupling

Sabit Kaplin için, cıvata pedlerindeki boşlukları eşit aralıklı tutun. Contalar gözle görülemez.

For Rigid Coupling, keep the gaps at bolt pads evenly spaced. Gaskets can't be seen visually.



7b. Montaj tamamlandı - Esnek Kaplin
Assembly completed - Flexible Coupling

Esnek Kaplin için, iki gövde demirden demire bağlanmalıdır. Contalar gözle görülemez.

For Flexible Coupling, two housings should be iron to iron connected. Gaskets can't be seen visually.



7c. Montaj tamamlandı - Açılı Yatak Kaplini
Assembly completed - Angle Pad Coupling

Açılı Tampon Kaplin için, iki gövde demirden demire bağlanmalıdır. Contalar gözle görülemez.

For Angle Pad Coupling, two housings should be iron to iron connected. Gaskets can't be seen visually.

DİKKAT / CAUTION

Belirtilen performansı elde etmek için cıvataların uygun şekilde torklanması gerekir.

- Cıvataların aşırı torklanması cıvata ve/veya dökümde hasara yol açarak boru bağlantısının ayrılmasına neden olabilir.
- Cıvataların yetersiz torklanması daha düşük basınç tutma kapasitesine, daha düşük bükülme yükü kapasitesine, bağlantı sızıtmasına ve boru bağlantısının ayrılmasına neden olabilir. Boru bağlantılarının ayrılması önemli maddi hasara ve ciddi yaralanmalara yol açabilir.

Proper torquing of bolts is required to obtain specified performance.

- Over torquing the bolts may result in damage to the bolt and / or casting which could result in pipe joint separation.
- Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

Belirtilen Cıvata Torku / Specified Bolt Torque

ANSI CİVATALAR / ANSI BOLTS		
Cıvata Boyutu / Bolt Size	Belirtilen Cıvata Torku / Specified Bolt Torque	
Inch	Lbs-Ft.	N.m
3/8	30-45	40-60
1/2	80-100	110-135
5/8	100-130	135-175
3/4	130-180	175-245
7/8	180-240	245-325

Dişli ve Yivli Mekanik Te İçin Montaj Talimatı

Installation Instruction for Threaded & Grooved Mechanical Tee



1. Boru hazırlığı Pipe preparation

Conta sızdırmazlık yüzeyini delikten itibaren 16 mm içinde temizleyin ve sızdırmazlık yüzeyini contanın düzgün sızdırmazlığını engelleyebilecek kusurlar açısından görsel olarak inceleyin. Kaynak hattı üzerinde delik açmayın.

Clean the gasket sealing surface within 16mm of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Don't drill the hole on weld line.



2. Çapakları temizleyin Remove burrs

Boru deliğinde herhangi bir çapak varsa, contayı korumak ve sızıntıyı önlemek için lütfen montajdan önce giderin.

If any burrs or slug exists at the pipe hole, please remove them before assembly, to protect the gasket and avoid leakage.



3. Conta montajı Gasket installation

Contadaki tırnağın muhafazadaki tırnak girintileriyle hizalandığından emin olarak contayı çıkış muhafazasına yerleştirin. Yerleştirme bileziğinin boru deliğinde olduğundan emin olarak çıkış muhafazasını boru deliğinin üzerine hizalayın.

Insert the gasket into outlet housing making sure the tab in the gasket line up with the tab recesses in the housing. Align outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.



4. Hizalama Alignment

Kayış borunun etrafına hizalayın, civataları takın ve somunları parmak sıkılığında sıkın.

Align the strap around the pipe, insert the bolts and tighten the nuts finger tight.



5. Somunları sıkın Tighten nuts

Alternatif olarak somunları belirtilen civata torkuna göre eşit şekilde sıkın.

Alternatively and evenly tighten the nuts to the specified bolt torque.



6. Montaj tamamlandı Assembly completed

Üst ve alt muhafazalar arasında iki tarafta eşit boşluklar olmalıdır.

There should be even gaps on two sides between upper and lower housings.

DİKKAT / CAUTION

Belirtilen performansı elde etmek için civataların uygun şekilde torklanması gerekir.

- Civataların aşırı torklanması civata ve/veya dökümda hasara yol açarak boru bağlantısının ayrılmasına neden olabilir.
- Civataların yetersiz torklanması daha düşük basınç tutma kapasitesine, daha düşük bükülme yükü kapasitesine, bağlantı sızıntısına ve boru bağlantısının ayrılmasına neden olabilir. Boru bağlantılarının ayrılması önemli maddi hasara ve ciddi yaralanmalara yol açabilir.

Proper torquing of bolts is required to obtain specified performance.

- Over torquing the bolts may result in damage to the bolt and / or casting which could result in pipe joint separation.
- Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

Belirtilen Civata Torku / Specified Bolt Torque

Belirtilen Civata Torku / Specified Bolt Torque		
ANSI CIVATALAR / ANSI BOLTS		
Civata Boyutu / Bolt Size	Belirtilen Civata Torku / Specified Bolt Torque	
Inch	Lbs-Ft.	N.m
3/8	30-45	40-60
1/2	80-100	110-135
5/8	100-130	135-175
3/4	-	-
7/8	-	-

U-Bolt Mekanik Te için Montaj Talimatı

Installation Instruction for U-Bolt Mechanical Tee



1. Boru hazırlığı
Pipe preparation

Conta sızdırmazlık yüzeyini delikten itibaren 16 mm içinde temizleyin ve sızdırmazlık yüzeyini contanın düzgün sızdırmazlığını engelleyebilecek kusurlar açısından görsel olarak inceleyin. Kaynak hattı üzerinde delik açmayın.

Clean the gasket sealing surface within 16mm of the hole and visually inspect the sealing surface for defects that may prevent proper sealing of the gasket. Don't drill the hole on weld line.



2. Çapakları temizleyin
Remove burrs

Boru deliğinde herhangi bir çapak veya sümüklü böcek varsa, contayı korumak ve sızıntıyı önlemek için lütfen montajdan önce bunları çıkarın.

If any burrs or slug exists at the pipe hole, please remove them before assembly, to protect the gasket and avoid leakage.



3. Conta montajı
Gasket installation

Contayı çıkış muhafazasına düzgün bir şekilde yerleştirin. Yerleştirme bileziğinin boru deliğinde olduğundan emin olarak çıkış muhafazasını boru deliğinin üzerine hizalayın.

Insert the gasket into outlet housing properly. Align outlet housing over the pipe hole making sure that the locating collar is in the pipe hole.



4. Hizalama
Alignment

U civatayı diğer taraftan takın ve somunları parmak sıklığında sıkın.

Attach the U-bolt from the other side and tighten the nuts finger tight.



5. Somunları sıkın
Tighten nuts

Alternatif olarak somunları belirtilen civata torkuna göre eşit şekilde sıkın.

Alternatively and evenly tighten the nuts to the specified bolt torque.



6. Montaj tamamlandı
Assembly completed

Montaj tamamlandı.

Assembly completed.

DİKKAT / CAUTION

Belirtilen performansı elde etmek için civataların uygun şekilde torklanması gerekir.

- Civataların aşırı torklanması civata ve/veya dökümde hasara yol açarak boru bağlantısının ayrılmasına neden olabilir.
- Civataların yetersiz torklanması daha düşük basınç tutma kapasitesine, daha düşük bükülme yükü kapasitesine, bağlantı sızıntısına ve boru bağlantısının ayrılmasına neden olabilir. Boru bağlantılarının ayrılması önemli maddi hasara ve ciddi yaralanmalara yol açabilir.

Proper torquing of bolts is required to obtain specified performance.

- Over torquing the bolts may result in damage to the bolt and / or casting which could result in pipe joint separation.
- Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

Belirtilen Civata Torku / Specified Bolt Torque

ANSI CIVATALAR / ANSI BOLTS		
Civata Boyutu / Bolt Size	Belirtilen Civata Torku / Specified Bolt Torque	
Inch	Lbs-Ft.	N.m
3/8	20-30	30-40
1/2	80-100	110-135
5/8	100-130	135-175
3/4	-	-
7/8	-	-

Flanş Adaptörü İçin Montaj Talimatı

Installation Instruction for Grooved Flange



1. Boru hazırlığı
Pipe preparation

Boru ucunu uygun yiv boyutları açısından kontrol edin ve boru ucunda düzgün sızdırmazlığı engelleyecek girinti ve çıkıntılar olmadığından emin olun.

Check pipe end for proper groove dimensions and to assure that pipe end is free of indentations and projections that would prevent proper sealing.



2. Contayı yağlayın
Lubricate gasket

Amaçlanan hizmete uygun olduğundan emin olmak için contayı kontrol edin. Contanın dış yüzeyine ve sızdırmazlık dudaklarına ince Boru Bağlantı Yağlayıcısı sürün.

Check gasket to be sure it's compatible for the intended service. Apply thin Pipe Joint Lubricant to the outside and sealing lips of the gasket.



3. Conta montajı
Gasket installation

Contayı, conta açıklığı "A" yönünde olacak şekilde boru ucunun üzerine kaydırın. Conta sızdırmazlık dudacağının boru ucuyla eşit olduğundan emin olun.

Slip the gasket over pipe end, with the gasket opening side towards "A". Make sure the gasket sealing lip is even with pipe end.



4. Muhafaza kurulumu
Housing installation

Cıvataları ve somunları çıkarın, iki muhafazayı contanın üzerine yerleştirin ve muhafaza anahtarlarının boru kanallarına oturduğundan emin olun. Cıvataları yeniden takın ve somunları elle sıkın.

Remove bolts and nuts, place two housings over the gasket, making sure the housing keys fit into the pipe grooves. Re-insert the bolts and hand tighten the nuts tight.



5. Somunları sıkın
Tighten nuts

Somunları somun anahtarları kullanarak belirtilen cıvata torkuna eşit şekilde ve dönüşümlü olarak sıkın.

Securely tighten nuts alternatively and equally to the specified bolt torque by using spanner.



6. Eşleşen flanşı bağlayın
Connect mating flange

Flanş cıvata deliklerini eşleşen flanş (veya valf) cıvata delikleriyle hizalayın. Cıvata deliğinden standart bir flanş cıvatası geçirin ve bir somunu elle sıkın. İlk cıvatanın karşısına başka bir cıvata yerleştirin ve bir somunu elle sıkın. Tüm cıvata delikleri takılana kadar bu işleme devam edin. Somunları, flanş yüzeyleri paralel kalacak şekilde belirtilen cıvata torkuna eşit olarak sıkın. Montaj tamamlandı.

Align flange bolt holes with mating flange (or valve) bolt holes. Insert a standard flange bolt through bolt hole and hand tighten a nut. Insert another bolt opposite the first and hand tighten a nut. Continue this until all bolt holes are fitted. Tighten nuts evenly to specified bolt torque, so flange faces remain parallel. Assembly completed.

DİKKAT / CAUTION

Belirtilen performansı elde etmek için cıvataların uygun şekilde torklanması gerekir.

- Cıvataların aşırı torklanması cıvata ve/veya dökümden hasara yol açarak boru bağlantısının ayrılmasına neden olabilir.
- Cıvataların yetersiz torklanması daha düşük basınç tutma kapasitesine, daha düşük bükülme yükü kapasitesine, bağlantı sızdırmazlığına ve boru bağlantısının ayrılmasına neden olabilir. Boru bağlantılarının ayrılması önemli maddi hasara ve ciddi yaralanmalara yol açabilir.

Proper torquing of bolts is required to obtain specified performance.

- Over torquing the bolts may result in damage to the bolt and / or casting which could result in pipe joint separation.
- Under torquing the bolts may result in lower pressure retention capabilities, lower bend load capabilities, joint leakage and pipe joint separation. Pipe joint separation may result in significant property damage and serious injury.

Belirtilen Cıvata Torku / Specified Bolt Torque

ANSI CİVATALAR / ANSI BOLTS

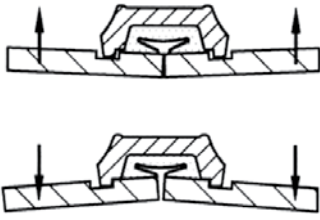
Cıvata Boyutu / Bolt Size	Belirtilen Cıvata Torku / Specified Bolt Torque	
	Lbs.-Ft.	N.m
Inch		
M10	30-45	40-60
M12	80-100	110-135
M16	-	-
M20	-	-
M22	-	-
M24	-	-

Esnek Kaplin

Flexible Coupling

1. Esnek bir kaplin, aşağıdaki gibi boru sapmasını ve / veya hizalanmamasını barındırır: Nominal çap <DN200 ise, sapma açısı $\geq 1^\circ$ 'dir; Nominal çap \geq DN200 ise, sapma açısı $\geq 0,5^\circ$ ancak $< 1^\circ$ 'dir.

A flexible coupling accommodates pipe deflection and or non-alignment as below: If nominal diameter <DN200, deflection angle is $\geq 1^\circ$; If nominal diameter \geq DN200, deflection angle is $\geq 0.5^\circ$ but $< 1^\circ$.

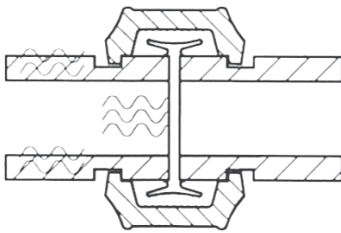


2. C şeklindeki kauçuk conta, hem düşük hem de yüksek basınçlı hizmetlerde ve belirli vakum koşullarında mükemmel kendinden sızdırmazlık özellikleri sağlar.

The C-shaped rubber gasket provides excellent self-sealing capabilities in both low and high pressure service as well as under certain vacuum conditions.

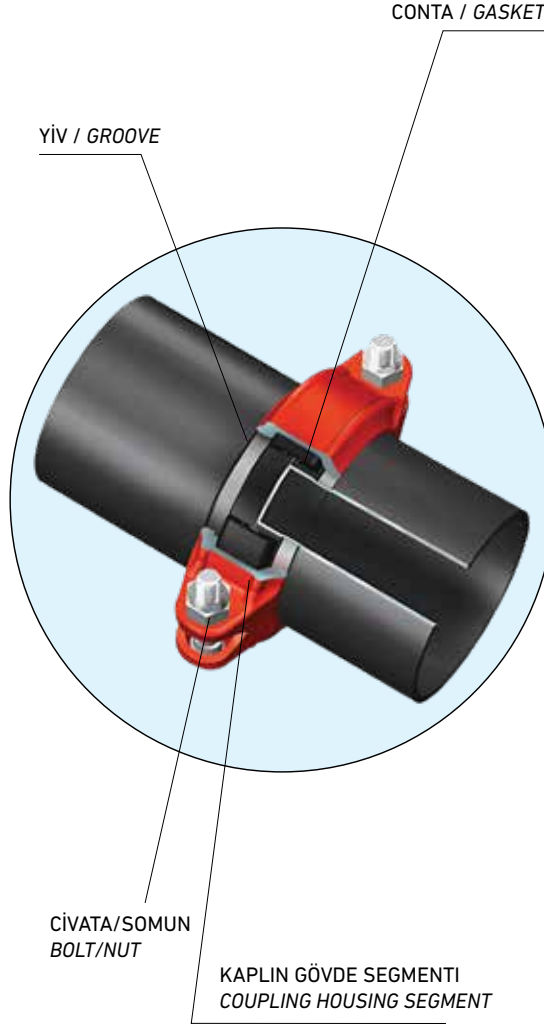
3. Elastomerik contalı kaplinin tasarımı ve yapısı, sismik stresin yanı sıra önemli ölçüde gürültü ve titreşim emilimi sağlayabilir.

The design and construction of the coupling with elastomeric gaskets can provide significant noise and vibration absorption as well as seismic stress.



YİV / GROOVE

CONTA / GASKET

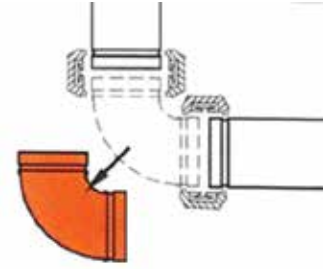


CİVATA/SOMUN
BOLT/NUT

KAPLIN GÖVDE SEGMENTİ
COUPLING HOUSING SEGMENT

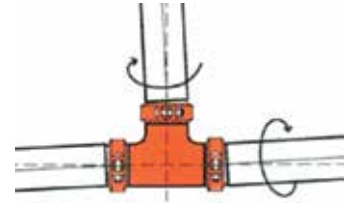
4. Sadece birkaç cıvatanın çıkarılmasıyla temizlik, bakım, değişiklik veya sistem genişletme için sisteme kolayca erişebilirsiniz.

With the removal of just a few bolts you can easily access the system for cleaning, maintenance, changes or system expansion.



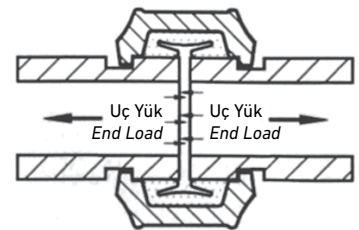
5. Kaplinler yönsüzdür ve boru montaj sırasında 360° döndürülebilir.

Coupling are non-directive and pipe can be rotated 360° during installation.



6. Kaplin anahtarları yivlerin tüm çevresini kavrar ve iç ve dış kuvvetlerden kaynaklanan boru hareketine karşı önemli basınç ve uç yük kısıtlaması sağlar.

Coupling keys engage the full circumference of the grooves and provide significant pressure and end load restraint against pipe movement from internal and external forces.



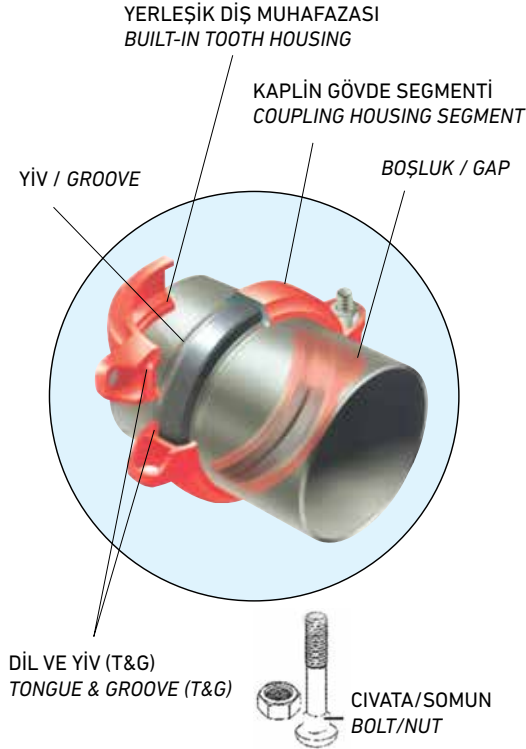
Sabit Kaplin Rigid Coupling

1. Hafifçe kısaltılmış anahtar çapı ile birlikte T&G mekanizması, istenmeyen açısal hareketi azaltan sabit bir bağlantı ile sonuçlanan mekanik ve sürtümlü bir kilitleme sağlar.

The T&G mechanism in combination with a slightly shortened key diameter provides a mechanical and frictional interlock resulting in a rigid joint which reduces undesired angular movement.

2. Kaplin üzerindeki yerleşik dişler oluk omzunu kavrar ve doğrusal hareketi azaltmaya yarar.

The built-in teeth on the coupling grip the groove shoulder and serve to reduce linear movement.



3. T&G mekanizması, contayı maruz kalmaktan korumaya yarayan kaplin yarılarının dibinde hafif bir ofsete sahiptir.

The T&G mechanism features a slight offset at the foot of the coupling halves which serve to protect the gasket from exposure.

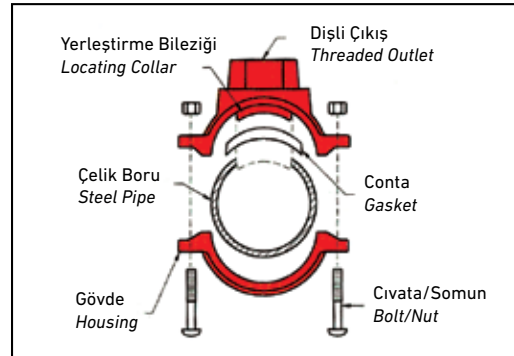
4. T&G tarzı kaplin ile civata pedlerinin metallere arasında teması gerekmez. Takıldığında normalde kalın pedler arasında 1/16"- 1/8" (1,6 mm ila 3,2 mm) boşluk göreceksiniz.

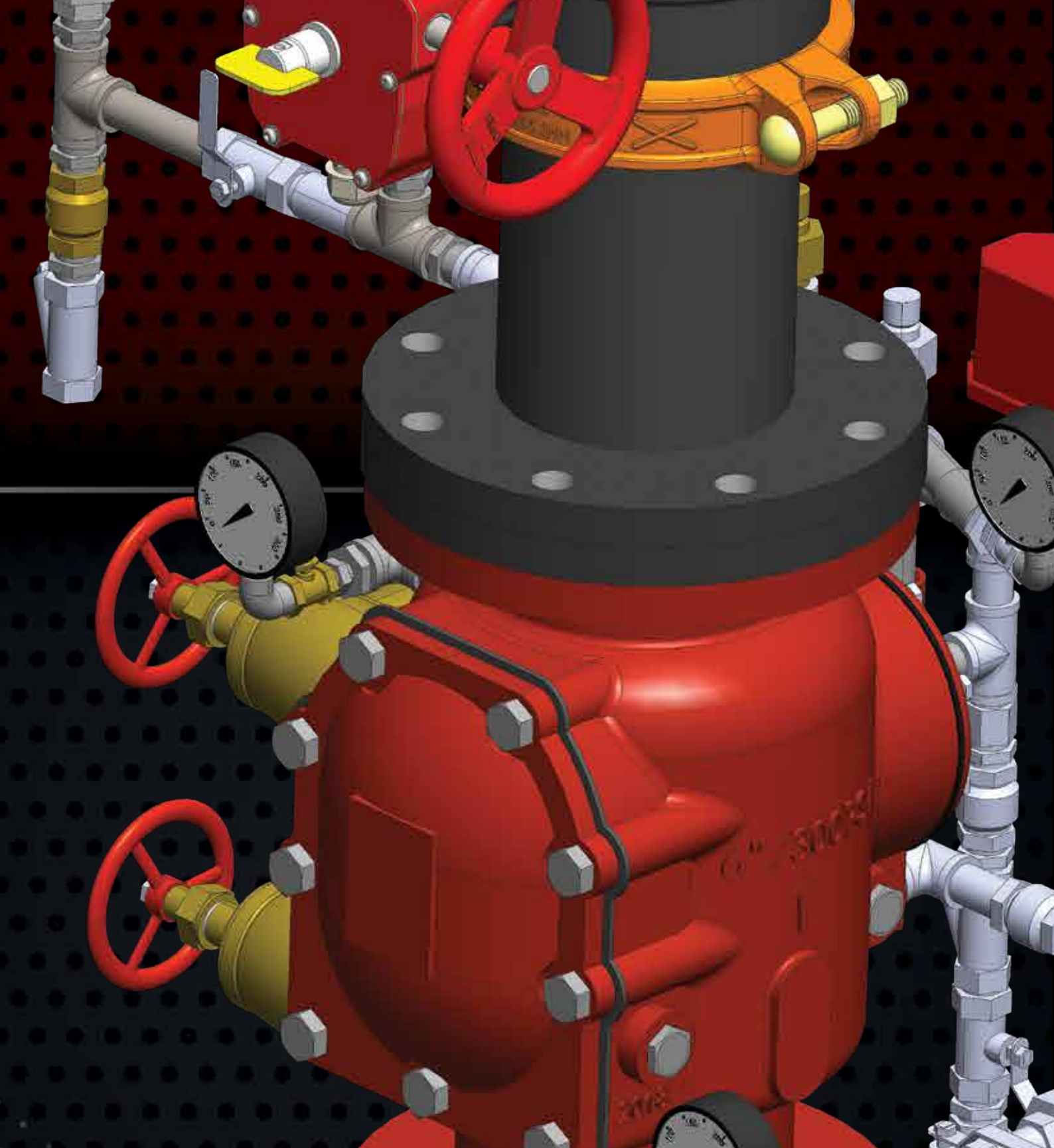
With the T&G style coupling no metal-to-metal contact of the bolt pads is required. You will normally see a 1/16"-1/8"(1.6mm to 3.2mm) gap between the bolt pads when installed.

Mekanik Te Bağlantısı Mechanical Tee Connection

Mekanik Te (UV53, UV51, UV50) hızlı ve kolay bir yivli veya dişli bransman çıkışı sağlar ve kaynak veya redüksiyon Te ve kaplin kullanımı ihtiyacını ortadan kaldırır. Beklenen yerde belirtilen boyutta bir delik açın ve mekanik Te'yi sağlanan somun ve civatalarla boruya sabitleyin. Gövde civataları sıkıldıkça, basınca duyarlı conta sızdırmaz bir sızdırmazlık oluşturur.

The Mechanical Tee (UV53, UV51, UV50) provide for a fast and easy grooved or threaded branch outlet and eliminate the need for welding or the use of a reducing tee and couplings. Simply cut a hole to the specified size at the expected location and fasten the mechanical tee to the pipe with the nuts and bolts provided. As the housing bolts are tightened, the pressure responsive gasket forms a leak-tight seal.





ALARM VANALARI

ALARM VALVES

Baskın Alarm Vanası / Deluge Alarm Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

- Basınç Sınıfı / Pressure Rating:** 175 psi
- Gövde / Body:** Sfero Döküm / Ductile Iron
- Diyafram / Disc:** Klape / Clapper
- Elektrik Aktivasyonlu / Electric Activated / V:** 24 Volt
- Bağlantı / Connection:** Flaşlı / Flange - Yivli / Grooved
- Ölçü / Size:** DN100 - DN150
- Flaş Bağlantısı / Flange Connection:** ANSI B16.1 FF Class 150
- Fabrika Hidrostatik Test Basıncı / Hydrostatic Test Pressure:** 25 bar (350 psi)
- Yaklaşık Net Ağırlık / Net Weight:** 100A - 59 kg (trim dahil / trim included) 150A - 79 kg (trim dahil / trim included)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

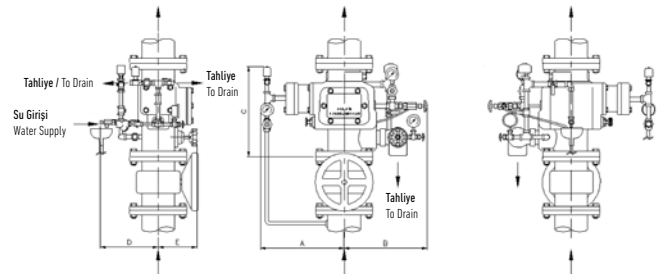
Harici resetleme fonksiyonlu baskın alarm vanası, yangından korunma sistemi için tasarlanmış diferansiyel mandallı tip bir vanadır. UVPPD valfinin harici resetleme özelliği, klape ve mandal mekanizmasının manuel olarak yeniden konumlandırılması için vana ön kapağını açmadan sistemin kolay resetlenmesini sağlar. Elektrik tahliye sisteminin çalıştırılması, suyun sprinkler boru sistemine akmasına ve açık olan sprinklerden boşalmasına izin vererek UVPPD valfini otomatik olarak serbest bırakarak devreye alır.

Deluge alarm valve with external reset function is a differential latch type valve designed for fire protection system. The external reset feature of the UVPPD valve allows easy system reset without opening the valve front cover for manual repositioning of the flap and latch mechanism. Activating the electrical discharge system automatically releases the UVPPD valve, allowing water to flow into the sprinkler piping system and discharge from the open sprinkler, activating it.

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Gövde / Body	Sfero Döküm / Ductile Iron
Kapak / Cover	Sfero Döküm / Ductile Iron
Klape / Clapper	Sfero Döküm / Ductile Iron
Sit Ringi / Seat Ring	Bronz / Bronze
Diyafram / Diaphragm	EPDM
Klape Siti / Clapper Seat	VITON
Gövde Siti / Body Seat	Bronz / Bronze

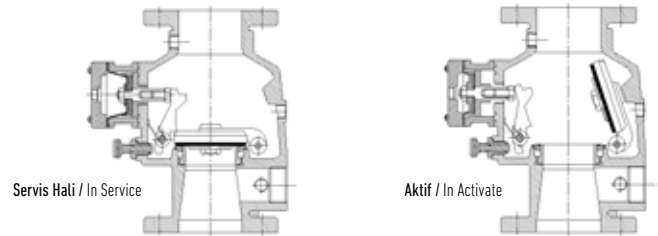
TEKNİK RESİM / TECHNICAL DRAWING



ÖLÇÜ TABLOSU / DIMENSIONS

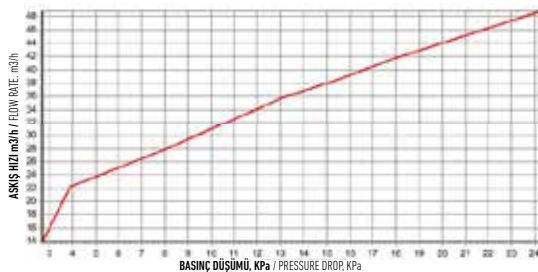
ÖLÇÜ SIZE	A	B	C	D	E
UVPPD 100	243	260	367	270	150
UVPPD 150	259	285	372	290	150

ÇALIŞMA MEKANİZMASI / WORKING MECHANISM

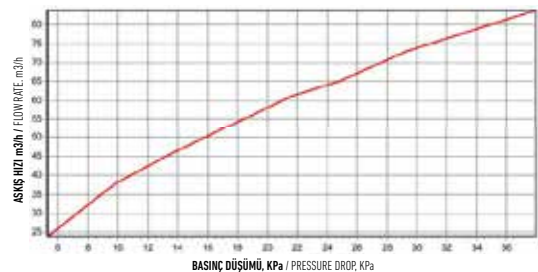


AKIŞ KARAKTERİSTİĞİ / FLOW CHARACTERISTICS

2" PERFORMANS TABLOSU / 2" PERFORMANCE CHART



2 1/2" PERFORMANS TABLOSU / 2 1/2" PERFORMANCE CHART



Islak Alarm Vanası / Wet Alarm Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

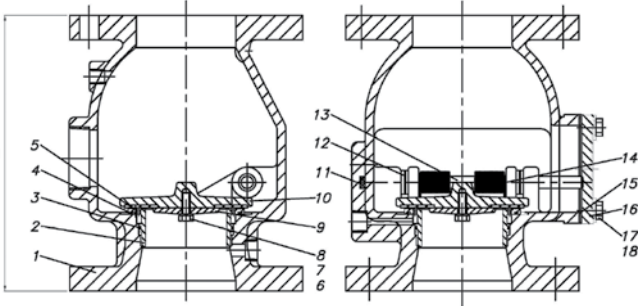
Basınç Sınıfı / Pressure Rating: 300 psi (20 bar)
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Clapper: Sfero Döküm / Ductile Iron
Diyafram / Diaphragm: Bronz / Bronze
Bağlantı / Connection: Flanşlı / Flange - Yivli / Grooved
Ölçü / Size: DN100-DN200

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Islak alarm vanası, yangın söndürme sistemine suyun girmesine müsaade eden ve belirlenen basınç ve debi altında alarmı çalıştıran tek yönlü bir vanadır. Kısa bir süre için, maksimum 10 m/sec akış hızına izin verir. Yüksek akışkan hızları kavitezyon ve ses meydana getirebilirler. Alarm çek vanası yüksek mukavemetli, düşük ağırlıklı, sfero döküm gövde ve iç parçalara kolay ulaşım sağlar. Bütün iç parçalar, vanayı tesisattan sökmeden değiştirilebilir. Klape üzerindeki conta, klapeyi vanadan sökmeden kolaylıkla değiştirilebilir.

A one-way valve that allows only water to flow into a wet fire extinguishing system and drives the alarm of supporting parts under specified pressure and flow. WEFLO Alarm Check Valve allow max 10 m/sec Flow Velocity but without long run time. Typically high fluid velocities can create cavitation and noise. The alarm check valve is made from high strength, low weight ductile iron, and offers easy access to all internal parts. All internal parts are replaceable without having to remove the valve from the installed position. The rubber clapper seal is easily replaced without removing the clapper from the valve.

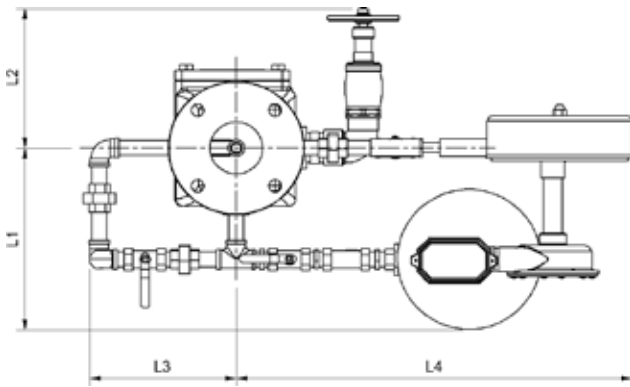
TEKNİK RESİM / TECHNICAL DRAWING



MALZEME LİSTESİ / MATERIAL LIST

No	Parça Adı / Part Name	Malzeme / Material	ASTM Şartname / Specification	EN Şartname / Specification
1	Gövde / Body	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 64-45-12	EN 1563 EN-GJS-450-10
2	Gövde Siti / Body Seat	Bronz / Bronze	B62 C83600	EN 1982 CuSn5Zn5Pb5
3	O-Halka / O-Ring	Kauçuk / Rubber, NBR	D2000	EN 681
4	O-Halka / O-Ring	Kauçuk / Rubber, NBR	D2000	EN 681
5	Klape Siti / Disc Seat	Kauçuk / Rubber, EPDM	D2000	EN 681
6	Civata / Bolt	Paslanmaz Çelik / Stainless Steel	F593 Seviye / Grade 304	A2-70
7	Burç / Washer	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304	EN10088 X5CrNi18-10
8	Yay Burcu / Spring Washer	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304	EN10088 X5CrNi18-10
9	Sit Tutucu / Seat Retainer	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 64-45-12	EN 1563 EN-GJS-450-10
10	Klape / Disc	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 64-45-12	EN 1563 EN-GJS-450-10
11	Tapa / Plug	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304	EN10088 X5CrNi18-10
12	Kol / Sleeve	Pirinç / Brass	B124 C37700	EN 12165 CuZn39Pb3
13	Mil / Stem	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304	EN10088 X5CrNi18-10
14	Yay / Spring	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304	EN10088 X5CrNi18-10
15	Kapak Contası / Cover Gasget	Kauçuk / Rubber, EPDM	D2000	EN 681
16	Kapak / Cover	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 64-45-12	EN 1563 EN-GJS-450-10
17	Civata / Bolt	Paslanmaz Çelik / Stainless Steel	F593 Seviye / Grade 304	A2-70
18	Burç / Washer	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304	EN10088 X5CrNi18-10

ÖLÇÜ TABLOSU / DIMENSIONS

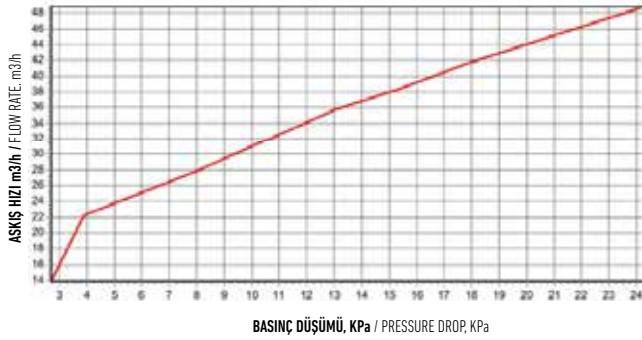


Alarm Çekvalf, Dikey Trim / Alarm Check Valve, Vertical Trim

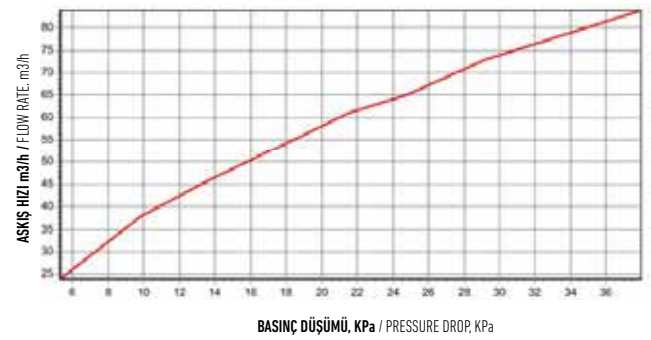
Ölçü Size	Çek Valf Ağırlık (Kg)	Montaj Ağırlığı (Kg)	Boyut / Dimension (cm)				
			L1	L2	L3	L4	Yükseklik Height
DN80	18,2	36	30	26	25	60	85
DN100	27,1	45,9	30	26	25	60	85
DN150	49,9	69,1	30	26	25	60	85
DN200	80	99,8	35	26	25	60	85

AKIŞ KARAKTERİSTİĞİ / FLOW CHARACTERISTICS

2" PERFORMANS TABLOSU / 2" PERFORMANCE CHART



2 1/2" PERFORMANS TABLOSU / 2 1/2" PERFORMANCE CHART



Kuru Alarm Vanası / Dry Alarm Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300psi (2067 kPa)

Bağlantı / Connection: Flanşlı / Flange - Yivli / Grooved

Üretici Testi / Manufacturer Test:

Hidrostatik Test / Hydrostatic Test: 600psi (4134 kPa)

Su Sızdırmazlığı / Water Seat: 600psi (4134 kPa)

Hava Sızdırmazlığı / Air Seat: 100psi (690 kPa)

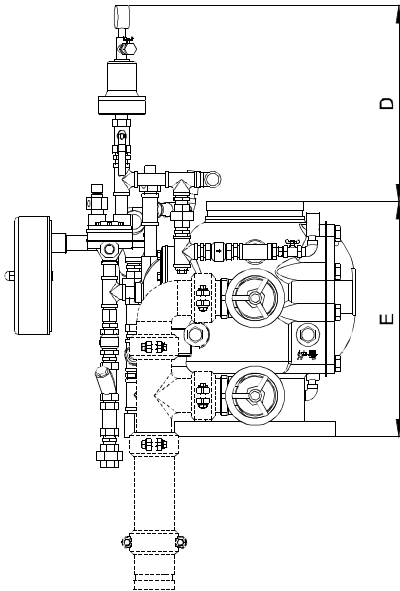
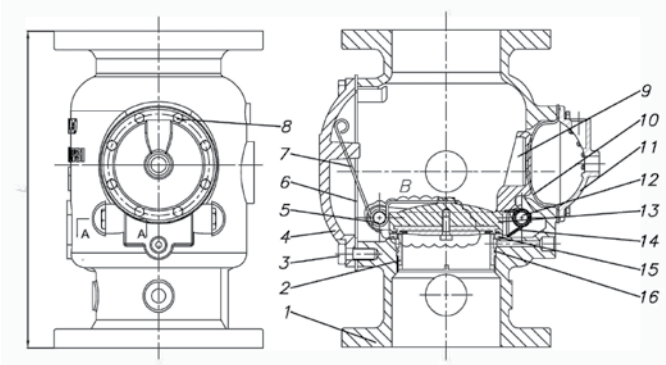
Ölçü / Size: DN80 - DN100 - DN150 - DN200

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Kuru alarm vanası, bir kuru alarm vanası kuru sprinkler sistemlerinde su akış kontrolü / alarm ekipmanı olarak dizayn edilen ana ekipmandır.

The dry pipe valve is a water flow control/alarm device designed for installation in the main supply to a dry pipe sprinkler system.

TEKNİK RESİM / TECHNICAL DRAWING



MALZEME LİSTESİ / MATERIAL LIST

No.	Parça Adı / Part Name	Malzeme / Material	ASTM Şartname ASTM Specification
1	Gövde / Body	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 64-45-12
2	Gövde Siti / Body Seat	Bronz / Bronze	B63 C83600
3	Kapak Civatası / Bonnet Bolt	Karbon Çelik / Carbon Steel	A307 Seviye / Grade B
4	Kapak / Bonnet	Sfero Döküm/Ductile Iron	A536 Seviye / Grade 64-45-12
5	Mil / Stem	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304
6	Kapak Contası / Bonnet Gasget	Kauçuk / Rubber EPDM	D2000
7	Yay / Spring	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304
8	Civata / Bolt	Karbon Çelik / Carbon Steel	A307 Seviye / Grade B
9	Mandal / Latch	Bronz/Bronze	B148 C95200
10	Diyafram / Diaphragm	Kauçuk / Rubber EPDM	D2000
11	Diyafram Kapağı / Diaphragm Cover	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 64-45-12
12	Mandal Mili / Latch Stem	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304
13	Klape / Disc	Bronz / Bronze	B148 C95200
14	Mandal Yayı / Latch Spring	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304
15	O-Halka / O-Ring	Kauçuk / Rubber EPDM	D2000
16	O-Halka / O-Ring	Kauçuk / Rubber EPDM	D2000
17	Kol / Sleeve	Pirinç / Brass	B124 C37700
18	O-Halka / O-Ring	Kauçuk / Rubber EPDM	D2000
19	Tutucu / Retainer	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304
20	Conta / Gasget	Kauçuk / Rubber EPDM	D2000
21	Civata / Bolt	Paslanmaz Çelik / Stainless Steel	F593 Seviye / Grade 304

ÖLÇÜ TABLOSU / DIMENSIONS

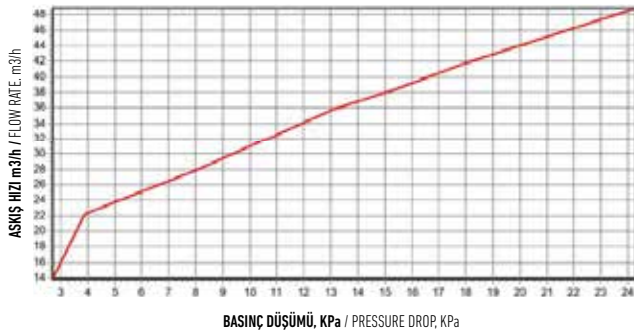
ÖLÇÜ SIZE	A	B	C	D	E			F	G
					FXF	FXG	GXG		
DN80	150	300	210	375	325	310	310	265	120
DN100	180	350	210	375	355	343	343	265	135
DN150	210	375	250	345	431	405	405	290	175
DN200	240	415	275	325	460	445	445	310	190

HAVA BASINCI AYARLARI / AIR PRESSURE SETTINGS

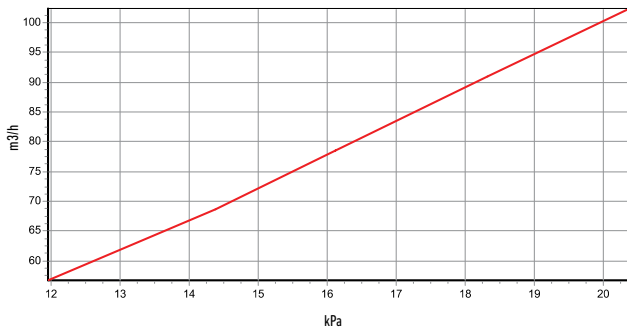
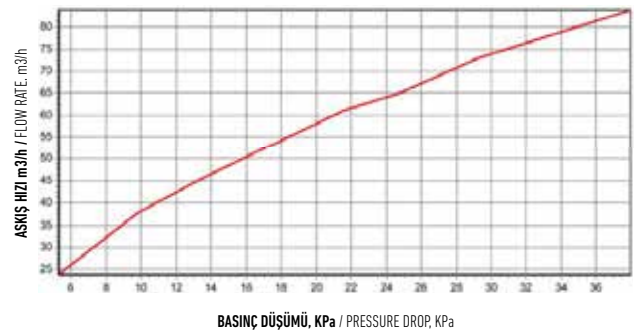
Su Basıncı / Water Pressure		Önerilen Basınç / Recommended Pressure	
psi	kPa	psi	kPa
30-140	21-966	15	103
141-250	21-966	21	145
251-300	1726-2070	24	166

AKIŞ KARAKTERİSTİĞİ / FLOW CHARACTERISTICS

2" PERFORMANS TABLOSU / 2" PERFORMANCE CHART



2 1/2" PERFORMANS TABLOSU / 2 1/2" PERFORMANCE CHART



Ön Tepkimeli Alarm Vanası / Pre-Action Alarm Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS



Elektirik-Pnömatik Aktivasyonlu Çift Kilitlemeli
Double Interlock Electric-Pneumatic Activated

Basınç Sınıfı / Pressure Rating: 300 psi

Gövde / Body: Sfero Döküm / Ductile Iron

Klape / Disc: Bronz / Bronze

Bağlantı / Connection: Flaşlı/Flange - Yivli/Grooved

Üretici Testi / Manufacturer Test:

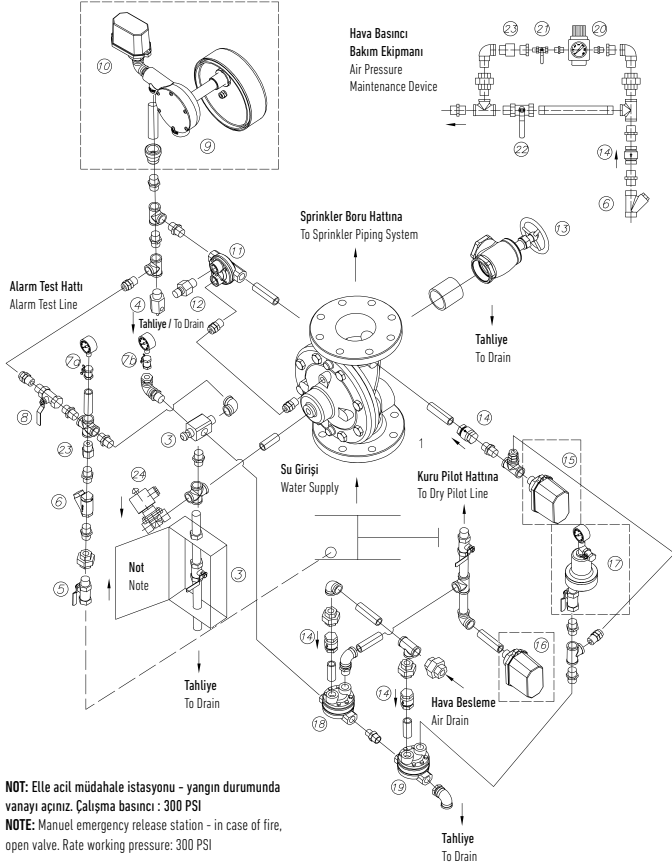
Hidrostatik Test / Hydrostatic Test: 600psi (4134 kPa)

Su Sızdırmazlığı / Water Seat: 600psi (4134 kPa)

Hava Sızdırmazlığı / Air Seat: 100psi (690 kPa)

Ölçü / Size: DN50-DN200

MALZEME LİSTESİ / MATERIAL LIST



NOT: Elle acil müdahale istasyonu - yangın durumunda vanayı açınız. Çalışma basıncı: 300 PSI
NOTE: Manuel emergency release station - in case of fire, open valve. Rate working pressure: 300 PSI

1. Otomatik Su Kontrol Vanası
Automatic Water Control Valve
2. Acil Elle Müdahale İstasyonu
Emergency Manual Release Station (Normal Closed)
3. Su Rölesi / Water Relay
4. Otomatik Tahliye Vanası / Automatic Drain Valve
5. Trim Vanası (Normalde Açık) / Trim Valve (Normal Open)
6. Y Filtre / Y-Strainer
- 7a. Giriş basınç Göstergesi (Normalde Açık)
Supply Pressure Gauge (Normal Open)
- 7b. Sistem Basınç Göstergesi (Normalde Açık)
System Pressure Gauge (Normal Open)
8. Alarm Test Vanası (Normalde Kapalı)
Alarm Test Valve (Normal Closed)
9. Su Motor Gonku (İsteğe bağlı) / Water Motor Alarm (Optional)
10. Basınç İzleme Anahtarı / Pressure Supervisory Switch
11. Hidrolik Aktüatör / Hydraulic Actuator
12. Düşük Basınç Tahliye Vanası / Low-Pressure Drain Valve
13. Tahliye Vanası (Normalde Kapalı) / Drain Valve (Normal Closed)
14. Çek Vana / Check Valve
15. Sprinkler Hattı Hava Basınç İzleme Anahtarı (İsteğe Bağlı)
Sprinkler Piping Air Pressure Supervisory Switch (Optional)
16. Pilot Hattı Hava Basınç İzleme Anahtarı (İsteğe Bağlı)
Pilot Line Air Pressure Supervisory Switch (Optional)
17. Hızlandırıcı (İsteğe Bağlı) / Accelerator (Optional)
18. Kuru Pilot Pnömatik Aktüatörü / Dry Pilot Pneumatic Actuator
19. Sprinkler Hattı Pnömatik Aktüatörü
Sprinkler Piping Pneumatic Actuator
20. Hava Düzenleyici / Air Regulator
21. Yavaş Doldurma Vanası (Normalde Açık)
Slow Fill Valve (Normal Open)
22. Hızlı Doldurma Vanası (Normal Kapalı)
Fast Fill Valve (Normal Closed)
23. Sınırlayıcı / Restrictor
24. Pilot Hattı Vanası (Normalde Açık)
Pilot Line Valve (Normal Open)
25. Hızlandırıcı Giriş Vanası (Normalde Açık)
Accelerator Inlet Valve (Normal Open)
26. Hızlandırıcı Çıkış Vanası (Normalde Açık)
Accelerator Outlet Valve (Normal Closed)
27. Selenoid Vana (İsteğe Bağlı) / Solenoid Valve (Optional)
28. Su Motor Gonku Kapama Vanası (Normalde Açık)
Water Motor Alarm Shutoff Valve (Normal Open)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Ön tepkimeli vana, çift kilitlemeli, elektrik pnömatik ve pnömatik pnömatik aktivasyonlu. Vananın kontrolü vana içinde tutulan basıncın pnömatik serbest bırakılma sistemi ve sprinkler borusundaki basınçla sağlanır.

5311 Pre-Action Valve, Double Interlocked, Electric-pneumatic actuation & Pneumatic-pneumatic actuation. The Model 5311 is controlled by pressure maintained in the pneumatic release system and supervisory pressure maintained in the sprinkler piping system.

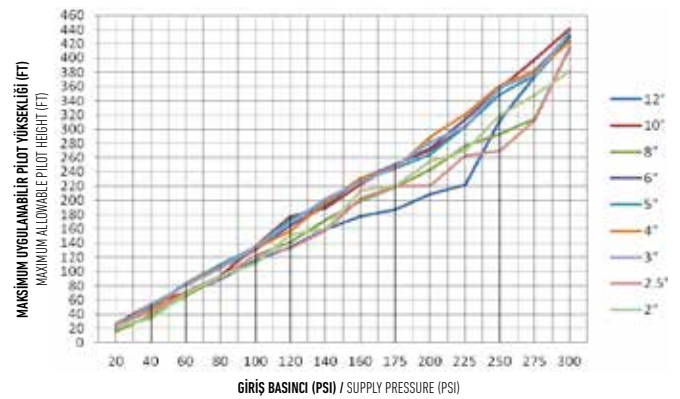
HAVA BASINCI AYARLARI / AIR PRESSURE SETTINGS

Su Basıncı / Water Pressure		MN	
psi	kPa	psi	kPa
20-60	138-414	9,5	65
61-100	415-690	12	83
101-140	691-966	15	103
141-175	967-1207	18	125
176-250	1208-1725	21	145
251-300	1726-2070	24	166

MAKSİMUM UYGULANABİLİR PİLOT YÜKSEKLİĞİ (ft) MAXIMUM ALLOWABLE PILOT HEIGHT (ft)

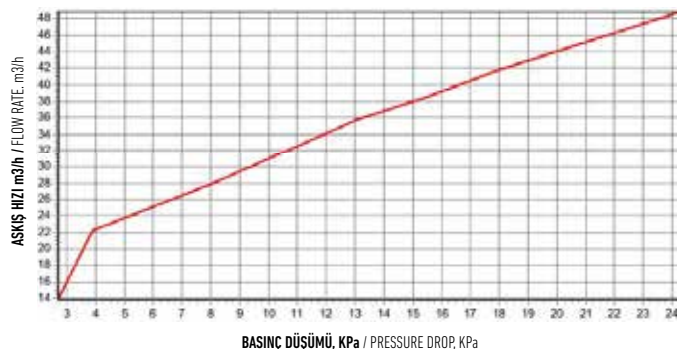
Giriş Basıncı / Supply Pressure (psi)	Maksimum Uygulanabilir Pilot Yüksekliği (ft) Maximum Allowable Pilot Height (ft)								
	12"	10"	8"	6"	5"	4"	3"	2.5"	2"
20	18.4	20.7	8.1	19.3	20.9	17.9	13.1	20.1	18.8
40	32.7	43.8	24.2	33.3	38.3	34.1	43.8	30.8	17.3
60	52	53.6	47.9	69.3	68.5	67.1	64.6	54.4	52.1
80	65.6	72.4	69.7	86.9	91	87.2	84.7	67.5	71.8
100	88.6	111.5	96.5	106.1	111	107.4	111.8	96.8	82.2
120	100.8	154.1	108.4	137.5	149.2	128.5	141.3	97.8	122.7
140	122	156.8	137.2	160.8	167.4	166.5	174.4	119.3	122
160	134.3	188.3	158.7	198.6	195.1	198.9	191.5	164.4	177.5
175	137.5	214.7	175.9	214.1	207.1	207.9	210.9	177.3	177.6
200	151.6	227.2	193.5	229.9	219.1	249.2	240.8	166.5	206.3
225	155.3	253.7	221.8	266.6	254.2	274.8	254.8	205.1	262.1
250	253.2	308.2	228.7	308.2	296.9	312.3	309	201.3	262.1
275	316.4	343.4	244.3	326.1	316.9	324.7	318.8	241.6	283.6
300	369.9	383.9	352.9	372.8	369.6	362.3	379.8	352.6	312.5

GİRİŞ BASINCI SUPPLY PRESSURE

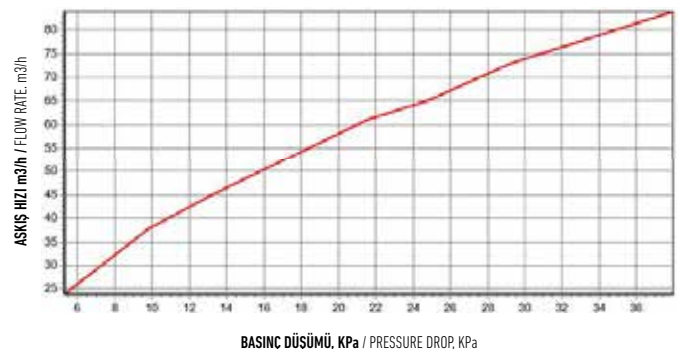


AKIŞ KARAKTERİSTİĞİ / FLOW CHARACTERISTICS

2" PERFORMANS TABLOSU / 2" PERFORMANCE CHART



2 1/2" PERFORMANS TABLOSU / 2 1/2" PERFORMANCE CHART





YANGIN KORUNUM VANALARI FIRE PROTECTION VALVES

Basınç Düşürücü Vana

Pressure Reducing Control Valve



CE

TEKNİK ÖZELLİKLER

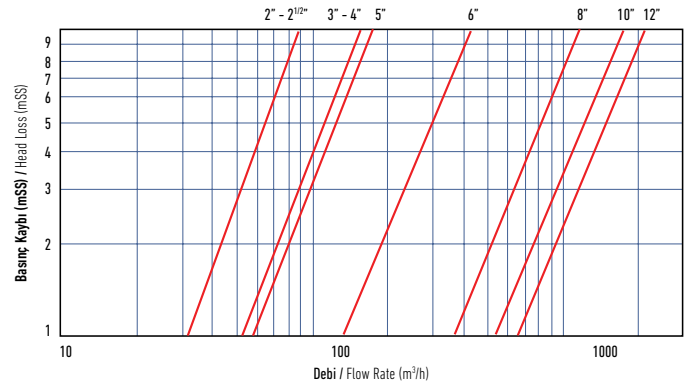
TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating	: PN16 / PN25
Gövde / Body	: Sfero Döküm / Ductile Iron
Diyafram / Diaphragm	: EPDM
Bağlantı / Connection	: Flaşlı/ Flanged Yivli / Grooved
Maksimum Çalışma Sıcaklığı / Maximum Working Temp.	: 90 °C

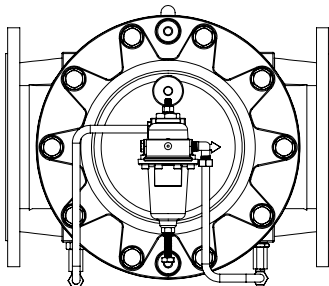
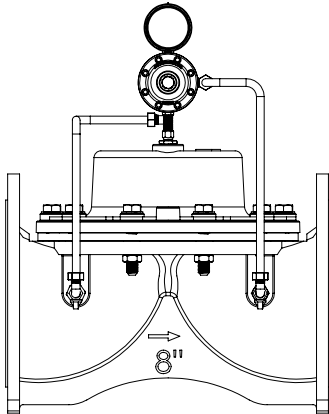
MALZEME LİSTESİ / MATERIAL LIST

Gövde / Body	: Sfero Döküm / Ductile ilron (GGG40.3)
Kapak / Bonnet	: Sfero Döküm / Ductile Iron
Klape / Sit	: Paslanmaz Çelik / Stainless Steel
Trim / Trims	: Paslanmaz Çelik / Stainless Steel

BASINÇ GRAFİĞİ / PRESSURE GRAPH



TEKNİK RESİM / TECHNICAL DRAWING



ÖLÇÜ TABLOSU / DIMENSIONS

ÜRÜN KODU PRODUCT CODE	DN	D	L	H	Kv
UPRV-0301X050	50	165	220	150	88
UPRV-0301X065	65	185	220	155	88
UPRV-0301X080	80	200	283	172	174
UPRV-0301X100	100	220	335	180	187
UPRV-0301X125	125	250	372	200	187
UPRV-0301X150	150	285	395	305	419
UPRV-0301X200	200	340	460	383	1139

URLV-0301



Relief Vana / Relief Valve



TEKNİK ÖZELLİKLER

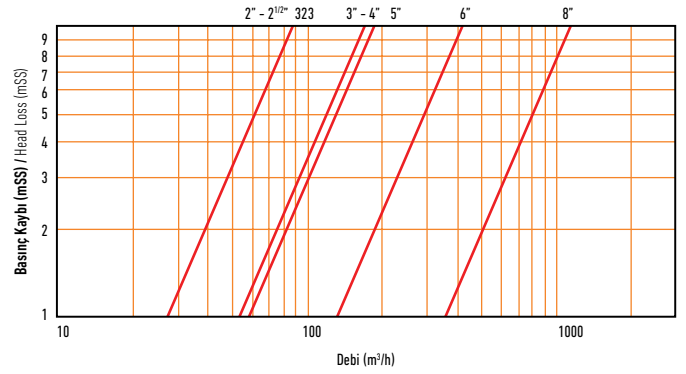
TECHNICAL SPECIFICATIONS

- Basınç Sınıfı / Pressure Rating : PN16 / PN25
Gövde / Body : Sfero Döküm / Ductile Iron
Diyafram / Diaphragm : EPDM
Bağlantı / Connection : Flanşlı / Flange
Yivli / Grooved
Maksimum Çalışma Sıcaklığı
Maximum Working Temp. : 90°C

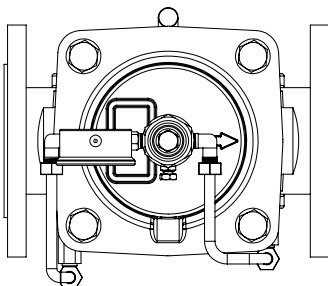
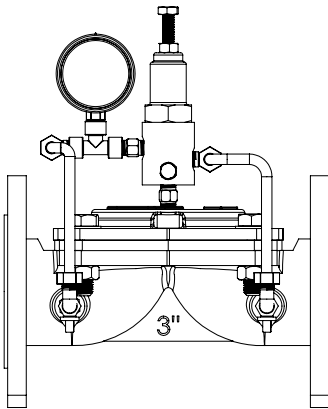
MALZEME LİSTESİ / MATERIAL LIST

- Gövde / Body : Sfero Döküm / Ductile Iron (GGG40.3)
Kapak / Bonnet : Sfero Döküm / Ductile Iron
Klape / Sit : Paslanmaz Çelik / Stainless Steel
Trim / Trims : Paslanmaz Çelik / Stainless Steel

BASINÇ GRAFİĞİ / PRESSURE GRAPH



TEKNİK RESİM / TECHNICAL DRAWING



ÖLÇÜ TABLOSU / DIMENSIONS

ÜRÜN KODU PRODUCT CODE	DN	D	L	H	Kv
URLV-0301X050	50	163	212	149	102
URLV-0301X065	65	184	220	154	102
URLV-0301X080	80	204	286	173	201
URLV-0301X100	100	210	330	173	216
URLV-0301X125	125	262	368	212	216
URLV-0301X150	150	288	394	325	484
URLV-0301X200	200	350	462	392	1316

UFKV-0301

uni
vaj

Flatörlü Vana / Float Valve



CE

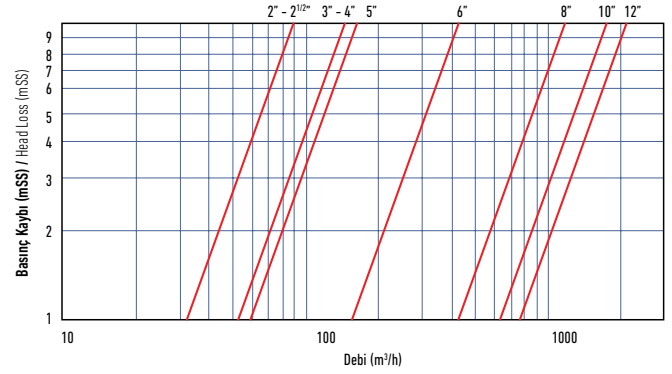
TEKNİK ÖZELLİKLER TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating : PN16 / PN25
Gövde / Body : Sfero Döküm / Ductile Iron
Trim / Trims : Paslanmaz Çelik
Stainless Steel
Bağlantı / Connection : Flaşlı / Flange
Yivli / Grooved
Maksimum Çalışma Sıcaklığı
Maximum Working Temp. : 10°C ... + 80°C

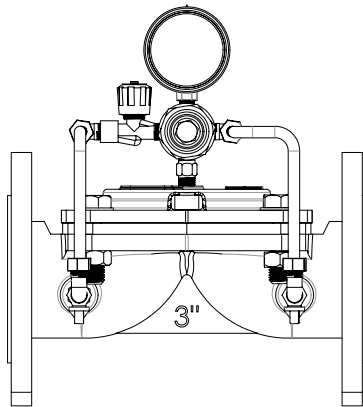
MALZEME LİSTESİ / MATERIAL LIST

Gövde / Body : Sfero Döküm / Ductile Iron
Kapak / Bonnet : Sfero Döküm / Ductile Iron
Diyafram / Diaphragm : EPDM

BASINÇ GRAFİĞİ / PRESSURE GRAPH



TEKNİK RESİM / TECHNICAL DRAWING



ÖLÇÜ TABLOSU / DIMENSIONS

ÜRÜN KODU PRODUCT CODE	DN	D	L	H	Kv
UFKV-0301X050	50	163	212	149	102
UFKV-0301X065	65	184	220	154	102
UFKV-0301X080	80	204	286	173	201
UFKV-0301X100	100	210	330	173	216
UFKV-0301X125	125	262	368	212	216
UFKV-0301X150	150	288	394	325	484
UFKV-0301X200	200	350	462	392	1316
UFKV-0301X250	250	405	545	485	1961
UFKV-0301X300	300	460	582	500	2629

Basınç Düşürücü Vana / Pressure Reducing Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300 psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Diaphragm: EPDM
Bağlantı / Connection: Flanşlı / Flange - Yivli / Grooved
Ölçü / Size: DN100 - DN150 - DN200

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Basınç düşürücü vana daha yüksek giriş basıncını daha düşük ve sabit basınca çevirmek için kullanılır.

Ana Kontrol Vanası

Metal üzerinde elastomer bir conta ile kapanan, hidrolik olarak çalıştırılan, diyaframla çalıştırılan bir küresel vana.

Basınç Düşürücü Pilot

2 yollu normalde açık pilot vanası, kendi diyaframının altındaki çıkış basıncını hisseder ve ayarlanabilir yaya karşı dengeler. Çıkış basıncındaki bir artış, pilotu kapama yönünde etkiler.

Sınırlayıcı

Çıkış ağzında sabit orifisli, basit yüzlüklü bağlantı.

Y Filtre

Filtre, pilot sistemini akışkan içindeki pisliklerden korur.

Reducing a higher upstream pressure into a lower, constant downstream pressure.

Basic Control Valve

A hydraulically-operated, diaphragm-actuated globe valve which closes with an elastomer-on-metal seal.

Pressure-Reducing Pilot

A two-way, normally-open pilot valve which senses downstream pressure under its diaphragm and balances it against an adjustable spring load. An increase in downstream pressure tends to make the pilot close.

Restriction

A simple ferrule fitting connection with a fixed orifice in its upstream port.

Y-Strainer

The Strainer protects the pilot system from solid contaminants in the line fluid.

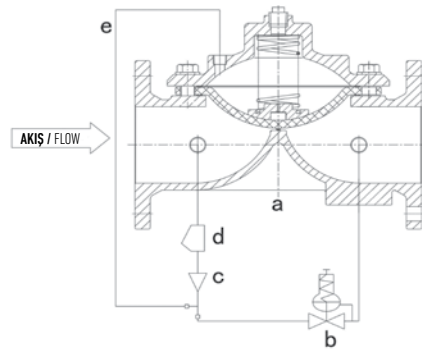
MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material	ASTM Şartname ASTM Specification
Gövde / Body	Eğilebilir Demir / Ductile Iron	A536 Seviye/Grade 64-45-12
Kapak / Bonnet	Eğilebilir Demir / Ductile Iron	A536 Seviye/Grade 64-45-12
Diyafram / Diaphragm	Kord Bezi Takviyeli Kauçuk / Nylon Reinforced Natural Rubber	
Yay Tutucu / Spring Retainer	Eğilebilir Demir / Ductile Iron	A536 Seviye/Grade 64-45-12
Yay / Spring	Paslanmaz Çelik / Stainless Steel	A276 Tip/Type 304
Galvanizli Civata / Galvanized Bolt	Karbon Çelik / Carbon Steel	A307 Seviye/Grade B

NO	Bileşenler / Components	Malzeme / Material
a	Ana Vana / Main Valve	
b	Basınç Düşürücü Pilot / Pressure Reducing Pilot	Bronz / Bronze
c	Sınırlayıcı / Restriction Orifice	Paslanmaz Çelik / Stainless Steel 304
d	Y-Filtre / Y-Strainer	Paslanmaz Çelik / Stainless Steel 304
e	Boru Hattı / Pipeline	Paslanmaz Çelik / Stainless Steel 304

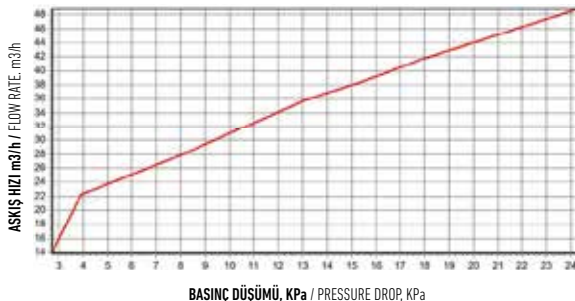
ÖLÇÜ TABLOSU / DIMENSIONS

ÖLÇÜ SIZE	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300
	2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
L1	260	310	310	356	370	436	530	636	835
L2	233	290	310	356	370	436	530	636	835
W	450	485	500	520	550	590	640	700	950
H	210	220	220	270	280	290	360	380	430



AKIŞ GRAFİĞİ / FLOW CHARACTERISTICS

2" PERFORMANS TABLOSU / 2" PERFORMANCE CHART



2 1/2" PERFORMANS TABLOSU / 2 1/2" PERFORMANCE CHART



Relief Vana / Relief Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300psi
Gövde / Body: Sfero Döküm / Ductile Iron
Trim / Pilot: Paslanmaz Çelik / Stainless Steel
Diyafram / Diaphragm: EPDM
Bağlantı / Connection: Flanşlı / Flange - Yivli / Grooved
Ölçü / Size: DN100 - DN150 - DN200

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Relief vana, boru hattındaki aşırı basıncı tahliye ederek, basıncı sınırlamak için tasarlanmıştır.

Basınç Sabitleme: Boru hattındaki basıncın, maksimum değerden daha fazla artmasını önler.

Relief vana hidrolik olarak çalışan diyaframlı bir vana'dır. Kord bezi bağlı sentetik kauçuk diyafram, vananın üst tarafındaki odacıkta hat basıncı ile işletme basıncını ayırma işlevi görür. Diyaframın üzerine basınç etki ettiğinde elastomer kaplı klape, site doğru hareket ederek ayar yapar ve gerektiğinde kapatarak sızdırmazlık sağlar.

Pressure Relief Valve is designed to Limits pipe line pressure by release excess pressure.

Pressure Sustaining: Prevents pipe line pressure from rising to a maximum value.

The basic control valve is a hydraulically-operated, diaphragmactuated valve. The diaphragm is nylon-fabric bonded with synthetic rubber and forms a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. An elastomeric seat disc forms a tight seal with the valve seat when pressure is applied above the diaphragm.

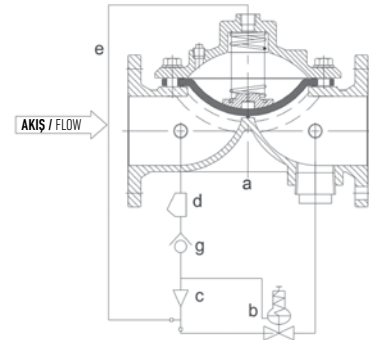
MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material	ASTM Şartname ASTM Specification
Gövde / Body	Eğilebilir Demir / Ductile Iron	A536 Seviye/Grade 64-45-12
Kapak / Bonnet	Eğilebilir Demir / Ductile Iron	A536 Seviye/Grade 64-45-12
Diyafram / Diaphragm	Kord Bezi Takviyeli Kauçuk / Nylon Reinforced Natural Rubber	
Yay Tutucu / Spring Retainer	Eğilebilir Demir / Ductile Iron	A536 Seviye/Grade 64-45-12
Yay / Spring	Paslanmaz Çelik / Stainless Steel	A276 Tip/Type 304

ÖLÇÜ TABLOSU / DIMENSIONS

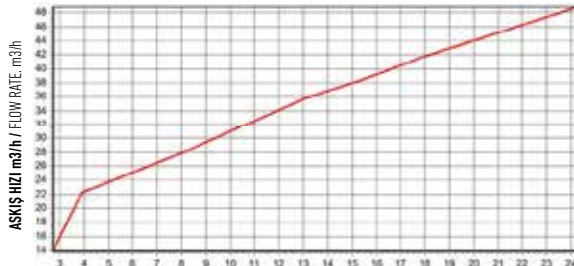
Ölçü Size	2	2.5	3	4	5	6	8	10	12
L	233 9.2	290 11.5	310 12.2	356 14.0	370 14.5	436 17.2	530 20.8	636 25	835 32.8

NO	Bileşenler / Components	Malzeme / Material
a	Ana Vana / Main Valve	
b	Basınç Düşürücü Pilot / Pressure Reducing Pilot	Bronz / Bronze
c	Sınırlayıcı / Restriction Orifice	Paslanmaz Çelik / Stainless Steel 304
d	Y-Filtre / Y-Strainer	Paslanmaz Çelik / Stainless Steel 304
e	Boru Hattı / Pipeline	Paslanmaz Çelik / Stainless Steel 304
g	Çek Vana/ Check Valve	Paslanmaz Çelik / Stainless Steel 304

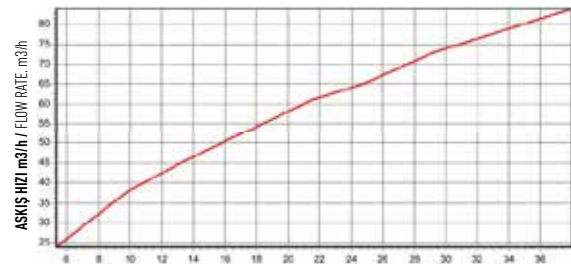


AKIŞ GRAFİĞİ / FLOW CHARACTERISTICS

2" PERFORMANS TABLOSU / 2" PERFORMANCE CHART



2 1/2" PERFORMANS TABLOSU / 2 1/2" PERFORMANCE CHART



İzlenebilir Kelebek Vana / Butterfly Valve With Supervisory Switch



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

- Basınç Sınıfı / Pressure Rating:** 300psi
- Gövde / Body:** Sfero Döküm / Ductile Iron
- Klape/Disc:** EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron
- Bağlantı / Connection:** Wafer
- Ölçü / Size:** DN65 - DN300

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

- Çalışma Basıncı:** 300 psi (21 bar)
- Maksimum Test Basıncı:** 600 psi (42 bar)
- Sıcaklık:** ~250°F (~120°C)
- Dişli kutulu

IP 65, sfero döküm gövde içinde bronz sonsuz vida, dual switch. İç mekan ve dış mekan kullanımları için, fabrikada monte edilmiş UL onaylı normalde kapalı Temper Switch, volanlı.

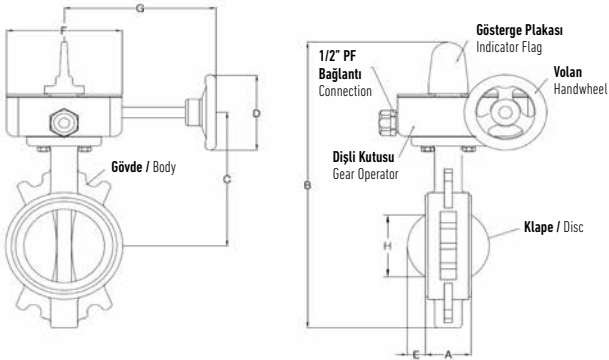
- Working Pressure:** 300 psi (21 bar)
- Max. Test Pressure:** 600 psi (42 bar)
- Temperature Range:** ~250°F (~120°C)
- Gearbox

IP 65, bronze traveling nut gearbox with internal dual switch in ductile iron housing. Factory installed UL approved Tempered Switch for indoor and outdoor use.

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Gövde / Body	ASTM A536 Naylon / Nylon-11 Kaplı / Coated
Klape / Disc	ASTM A536 EPDM Kaplı / Encapsulated
Mil / Stem	AISI 410
Dişli Kutusu / Hand Wheel	ASTM A536
O ring / O-ring	ASTM A536
Conta / Gasket	EPDM

ÖLÇÜ TABLOSU / DIMENSIONS



Nominal Vana Ölçüsü Nominal Valve Size Inches (DN)	Nominal Boyutlar / Nominal Dimensions Inches (mm)								Ağırlık Weight Lbs. (kg)
	A	B	C	D	E	F	G	H	
2 (DN50)	1.50 (38)	10.63 (270)	2.85 (72.5)	4.90 (124.5)	4.92 (125)	4.28 (108.6)	1.99 (50.5)	1.4 (35.5)	11.46 (5.2)
2-1/2 (DN65)	1.81 (46)	11.67 (296.5)	3.35 (85)	5.45 (138.5)	4.92 (125)	4.28 (108.6)	1.99 (50.5)	1.65 (41.9)	13.4 (6.1)
3 (DN80)	1.81 (46)	12.27 (311.7)	3.58 (91)	5.81 (147.7)	4.92 (125)	4.28 (108.6)	1.99 (50.5)	2.34 (59.5)	14.77 (6.7)
4 (DN100)	2.16 (55)	13.92 (353.5)	4.29 (109)	6.75 (171.5)	4.92 (125)	4.28 (108.6)	1.99 (50.5)	3.25 (82.6)	15.65 (7.1)
5 (DN125)	2.4 (61)	16 (406.6)	5.16 (131)	7.93 (201.5)	5.91 (150)	5.79 (147)	2.32 (58.9)	4 (101.6)	26.68 (12.1)
6 (DN150)	2.4 (61)	17.07 (433.6)	5.71 (145)	8.44 (214.5)	5.91 (150)	5.79 (147)	2.32 (58.9)	5.22 (132.6)	25.35 (11.5)
8 (DN200)	3.03 (77)	19.02 (483.1)	6.69 (170)	9.43 (239.5)	8.86 (225.0)	5.79 (147)	2.32 (58.9)	7.3 (185.4)	31.53 (14.3)
10 (DN250) UVB-W300 (175 PSI)	3.03 (77)	23.01 (584.5)	11.1 (282)	8.86 (225)	3.39 (86)	5.51 (140)	8.19 (208)	9.13 (231.8)	64.6 (29.3)
12 (DN300) UVB-W300 (175 PSI)	3.03 (77)	25.16 (639)	12.2 (310)	8.86 (225)	4.49 (114)	5.51 (140)	8.19 (208)	11.53 (292.8)	86.42 (39.2)

İzlenebilir Kelebek Vana / Butterfly Valve with Supervisory Switch



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm
 EPDM Coated Ductile Iron
Bağlantı / Connection: Yivli / Grooved
Ölçü / Size: DN50 - DN200

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Çalışma Basıncı: 300 psi (21 bar)
Maksimum Test Basıncı: 600 psi (42 bar)
Sıcaklık Sınıfı: ~250°F (~120°C)

İç mekan ve dış mekan kullanımları için, fabrikada monte edilmiş UL onaylı normalde kapalı Temper Switch, volanlı.

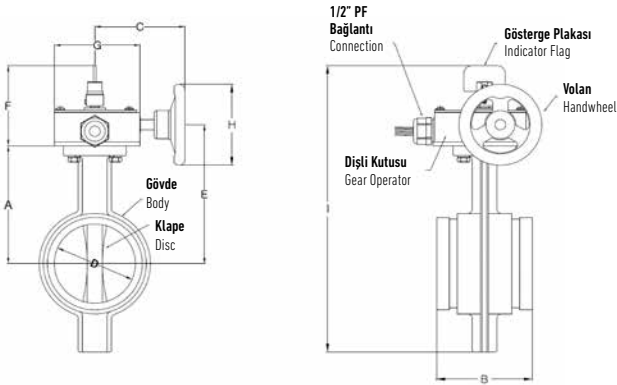
Working Pressure: 300 psi (21 bar)
Max. Test Pressure: 600 psi (42 bar)
Temperature Range: ~250°F (~120°C)

Factory Installed UL Approved Tempered Switch for Indoor and Outdoor Use Normal Closed type Hand Wheel Black Color

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Gövde / Body	ASTM A536 Naylon / Nylon-11 Kaplı / Coated
Disk / Disc	ASTM A536 EPDM Kaplı / Encapsulated
Mil / Stem	AISI 410
Dişli Kutusu / Signal Gearbox	ASTM A536
Dişli Kutusu / Hand Wheel	ASTM A536
O ring / O-ring	EPDM

ÖLÇÜ TABLOSU / DIMENSIONS



Nominal Vana Ölçüsü Nominal Valve Size Inches (DN)	Boru Dış Çapı Pipe OD Inches (mm)	Nominal Boyutlar / Nominal Dimensions Inches (mm)									Ağırlık Weight Lbs. (kg)
		A	B	C	D	E	F	G	H	I	
2 (DN 50)	2.37 (60.3)	3.86 (98.0)	3.8 (96.4)	4.24 (107.8)	2.37 (60.3)	4.90 (124.5)	3.90 (99.0)	4.13 (105.0)	3.94 (100.0)	10.63 (270)	10.80 (4.9)
2-1/2 (DN 65)	2.88 (73.0)	4.48 (113.8)	3.8 (96.4)	4.24 (107.8)	2.88 (73.0)	5.50 (139.8)	3.90 (99.0)	4.13 (105.0)	3.94 (100.0)	11.72 (297.8)	11.2 (5.1)
76.1 (DN 65)	3 (76.1)	4.48 (113.8)	3.8 (96.4)	4.24 (107.8)	3 (76.1)	5.50 (139.8)	3.90 (99.0)	4.13 (105.0)	3.94 (100.0)	11.72 (297.8)	11.2 (5.1)
3 (DN 80)	3.5 (88.9)	4.73 (120.3)	3.8 (96.4)	4.24 (107.8)	3.50 (88.9)	5.76 (146.3)	3.90 (99.0)	4.13 (105.0)	3.94 (100.0)	12.22 (310.3)	12.6 (5.7)
4 (DN 100)	4.5 (114.3)	5.73 (145.5)	4.54 (115.4)	4.24 (107.8)	4.50 (114.3)	6.75 (171.5)	3.90 (99.0)	4.13 (105.0)	3.94 (100.0)	13.92 (353.5)	15.6 (7.1)
139.7 (DN 125)	5.5 (139.7)	6.54 (166.0)	5.21 (132.4)	5.79 (147.0)	5.5 (139.7)	7.93 (201.5)	4.29 (109.1)	4.88 (123.9)	5.90 (150.0)	16.01 (406.6)	26.24 (11.9)
5 (DN 125)	5.56 (141.3)	6.54 (166.0)	5.21 (132.4)	5.79 (147.0)	5.56 (141.3)	7.93 (201.5)	4.29 (109.1)	4.88 (123.9)	5.90 (150.0)	16.01 (406.6)	26.24 (11.9)
DN 150	6.5 (165.1)	7.07 (179.5)	5.21 (132.4)	5.79 (147.0)	6.5 (165.1)	8.45 (214.5)	4.29 (109.1)	4.88 (123.9)	5.90 (150.0)	17.07 (433.6)	28.7 (13.0)
6 (DN 150)	6.63 (168.3)	7.07 (179.5)	5.21 (132.4)	5.79 (147.0)	6.63 (168.3)	8.45 (214.5)	4.29 (109.1)	4.88 (123.9)	5.90 (150.0)	17.07 (433.6)	28.7 (13.0)
8 (DN 200)	8.63 (219.1)	8.03 (204.0)	5.80 (147.4)	5.79 (147.0)	8.63 (219.1)	16.10 (409)	4.29 (109.1)	4.88 (123.9)	8.86 (225.0)	19.02 (483.1)	36.37 (16.5)

UVSC-G310



Çek Vana / Check Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape/Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron
Bağlantı / Connection: Yivli / Grooved
Ölçü / Size: DN50 - DN150

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Çalışma Basıncı: 300 psi (21 bar)
Maksimum Test Basıncı: 600 psi (42 bar)
Sıcaklık Sınıfı: 250°F (120 °C)

Working Pressure: 300 psi (21 bar)
Max. Test Pressure: 600 psi (42 bar)
Temperature Range: 250°F (120 °C)

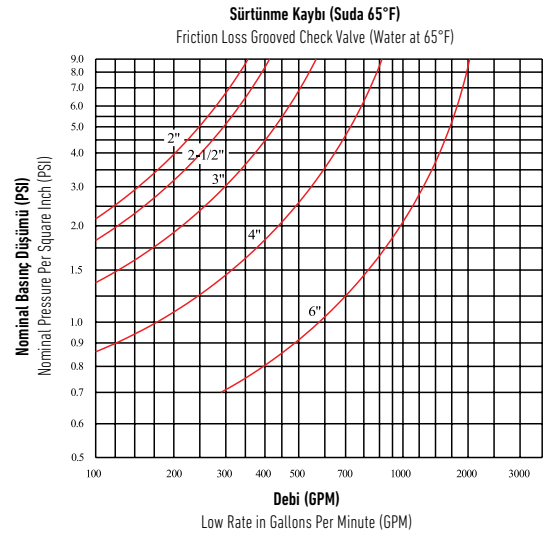
Hem yatay hem dikey pozisyonda monte edilebilir.

Install in Both Horizontal or Vertical Position

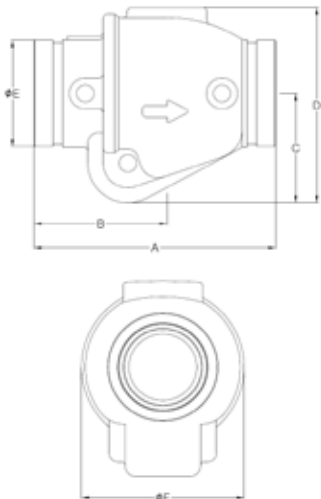
MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Gövde / Body	ASTM A536
Sit Ringi / Seat Ring	Prinç / Brass (ASTM C37700)
Klape / Clapper	ASTM A240
Kauçuk Ringi / Rubber Ring	EPDM
Yay / Spring	ASTM A240
Kama Pimi / Hinge Pin	ASTM A240

AKIŞ GRAFİĞİ / FLOW CHARACTERISTICS



ÖLÇÜ TABLOSU / DIMENSIONS



Nominal Vana Ölçüsü Nominal Valve Size Inches (DN)	Boru Dış Çapı Pipe OD Inches (mm)	Nominal Boyutlar / Nominal Dimensions Inches (mm)						Ağırlık Weight Lbs. (kg)
		A	B	C	D	E	F	
2 (DN50)	2.37 (60.3)	3.54 (90.0)	3.54 (90.0)	2.80 (71.0)	5.02 (127.5)	2.37 (60.3)	4.21 (107.0)	6.24 (2.83)
2-1/2 (DN65)	2.88 (73.0)	3.91 (99.4)	3.91 (99.4)	3.19 (81.0)	5.71 (145.1)	2.87 (73.0)	4.74 (120.3)	8.80 (4.00)
3 (DN75)	3 (76.1)	7.06 (179.4)	3.91 (99.4)	3.19 (81.0)	5.71 (145.1)	2.87 (73.0)	4.74 (120.3)	8.80 (4.00)
4 (DN100)	3.5 (88.9)	7.80 (198.0)	4.29 (109.0)	3.61 (91.6)	6.44 (163.6)	3.5 (88.9)	5.24 (133.0)	13.23 (6.00)
4 (DN100)	4.5 (114.3)	8.62 (218.9)	4.06 (103.1)	4.25 (108.0)	7.71 (195.9)	4.50 (114.3)	6.49 (164.8)	19.84 (9.00)
DN150	6.5 (165.1)	6.63 (168.3)	5.12 (130.0)	5.43 (137.9)	9.56 (242.9)	6.63 (168.3)	8.00 (203.2)	37.48 (17.00)
6 (DN150)	6.63 (168.3)	6.63 (168.3)	5.12 (130.0)	5.43 (137.9)	9.56 (242.9)	6.63 (168.3)	8.00 (203.2)	37.48 (17.00)

OS&Y Sürgülü Vana / OS&Y Gate Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300psi
Gövde / Body: Sfero Döküm / Ductile Iron
Sürgü / Wedge: EPDM Kaplı Sfero Döküm
 EPDM Coated Ductile Iron
Bağlantı / Connection: Flanşlı / Flanged
Ölçü / Size: DN65 - DN300

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

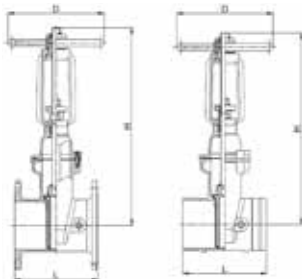
- Ayarlanabilir sızdırmazlık.
- Sfero Döküm, Sürgü, EPDM Kaplı.
- ANSI / ASME B16.10, EN558, Seri 3'e göre yüz yüze boyutlar.
- Flanş Delikleri Standart DIN PN16, ANSI B16.1, Class 125, ASME B16.42. Opsiyonel.
- AWWA C606 standartlarına göre yivli bağlantılar (Opsiyonel).
- UL/ULC Listeli / FM Approved onaylı. Basınç 300 PSI.
- Adjustable packing.
- Ductile-Iron Wedge, EPDM Encapsulated.
- Face to Face Dimensions to ANSI / ASME B16.10, EN558, Series 3.
- Flange Drilling to ANSI B16.1, Class 125, ASME B16.42, Class 150. Optional.
- Grooved Ends to AWWA C606 standard.
- UL / ULC Listed / FM Approved 300 PSI rating.

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material	ASTM Şartname / ASTM Specification
Gövde / Body	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Kapak / Cover	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Kama / Wedge	EPDM Kaplı Sfero Döküm / EPDM Fully Encapsulated Ductile Iron	
Kama Somunu / Wedge Nut	Paslanmaz Çelik / Stainless Steel	A351 Seviye/Grade CF8
Kapak / Bonnet	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Yoke	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Mil / Stem	Paslanmaz Çelik / Stainless Steel	A276 Tip 304 / Type 304
Mil Somunu / Stem Nut	Paslanmaz Çelik / Stainless Steel	B148 C95200
Gövde-Kapak Contası / Body-Bonnet Gasket	Bronz / Bronze	D2000 EPDM
Paketleme / Packing	Grafit / Graphite	Asbest İçermeyen / Non-Asbestos
Salmastra / Gland	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Salmastra Baskısı / Gland Nut	Paslanmaz Çelik / Stainless Steel	F593 Seviye/Grade B
Kapak Civataları / Bonnet Fasteners	Karbon Çelik / Carbon Steel	A307 Seviye/Grade B
Tapa / Plug	Dövülebilir Demir / Malleable Iron	A47 Seviye/Grade 22010
El Çark / Handwheel	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12

ÖLÇÜ TABLOSU / DIMENSIONS

Ölçü Tablosu / Main Dimensions (mm/inch)									
Ölçü / Size	2	2.5	3	4	5	6	8	10	12
L	178	191	203	229	254	267	292	330	356
	7.0	7.5	8.0	9.0	10.0	10.5	11.5	13.0	14.0
H (Open)	385	415	518	561	715	782	981	1244	1376
	15.2	16.3	20.4	22.1	28.1	30.8	38.6	49.0	54.2
D	183	183	253	253	355	355	355	445	445
	7.2	7.2	10.0	10.0	14.0	14.0	14.0	17.5	17.5



AKIŞ HIZI / FLOW VELOCITY

FM/UL Sürgülü Vana / Basınç Düşüm Eğrisi / Pressure Drop Chart of FM/UL Gate Valve								
Akış Hızı Flow Velocity (m/s)	Basınç Düşümü / Pressure Drop (Bar)							
	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003
1.5	0.008	0.008	0.007	0.007	0.007	0.007	0.007	0.007
2	0.014	0.015	0.014	0.014	0.014	0.014	0.014	0.014
2.5	0.022	0.023	0.019	0.019	0.019	0.019	0.019	0.019
3	0.032	0.034	0.028	0.028	0.027	0.028	0.028	0.028
3.5	0.042	0.046	0.037	0.037	0.037	0.037	0.037	0.037
4	0.055	0.06	0.049	0.049	0.049	0.049	0.049	0.049
4.5	0.07	0.076	0.062	0.062	0.062	0.062	0.062	0.062

NRS Sürgülü Vana / NRS Gate Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300psi
Gövde / Body: Sfero Döküm / Ductile Iron
Klape / Disc: EPDM Kaplı Sfero Döküm / EPDM Coated Ductile Iron
Bağlantı / Connection: Flanşlı / Flanged
Ölçü / Size: DN65 - DN300

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

- Üçlü O-ring mil sızdırmazlığı
- EN1092-2 (PN16)'ya uygun flanşlar, diğer flanş tipleri isteğe göre sağlanabilir.
- UL Listeli, 300 PSI
- FM onaylı, 300 PSI
- NSF/ ANSI 61 & 372'e göre sertifikalı

Çalışma Basıncı: 300PSI, 200PSI ve 250PSI'ler istek üzerine sağlanabilir.

Çalışma Sıcaklığı: 42°F - 180°F

Korozyondan Koruma: AWWA C550 standardına göre iç ve dış kaplama füzyon bağlı epoksi.

Montaj: Vanalar, yatay boru hatlarına, vana milleri dikey pozisyonda olacak şekilde monte edilir. Vanalar, dikey boru hatlarına milleri yatay pozisyonda olacak şekilde monte edilmelidir.

- Triple O- rings stem seal
- Flanges to ANSI B16. 1 Class125. Other flange types available upon request
- UL Listed, 300 PSI
- FM Approved 300 PSI
- Certified to NSF/ ANSI 61 & 372

Working Pressure: 300PSI, 200PSI and 250PSI available on request

Working Temperature: 42°F - 180°F

Corrosion Protection: Fusion Bonded Epoxy Coated Interior and exterior to AWWA C550 Standard

Installation: Valves installed in horizontal piping systems should have the stems oriented vertically. Valves installed in vertical piping systems should have the stems oriented horizontally.

MALZEME LİSTESİ / MATERIAL LIST

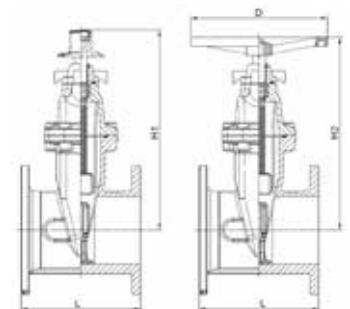
Parça Adı / Part Name	Malzeme / Material	ASTM Şartname ASTM Specification
Gövde / Body	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Sürgü / Wedge	Sfero Döküm / Ductile Iron	EPDM
Sürgü Somunu / Wedge Nut	Bronz / Bronze	B62 C83600
Mil / Stem	Paslanmaz Çelik / Stainless Steel	AISI 420
Kapak / Bonnet	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Conta / Gasket	Kauçuk / Rubber	EPDM
Salmastra Baskısı / Gland	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Emniyet Yakası / Thrust Collar	Bronz / Bronze	B62 C83600
O ring / O-ring	Kauçuk / Rubber	EPDM
İşletme Somunu / Volan Operating Nut	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Salmastra Cıvatası / Gland Bolt	Paslanmaz Çelik / Stainless Steel	AISI 304
Kapak Cıvatası / Bonnet Bolt	Paslanmaz Çelik / Stainless Steel	AISI 304

AKIŞ HIZI / FLOW VELOCITY

FM/UL Sürgülü Vana / Basınç Düşüm Eğrisi / Pressure Drop Chart of FM/UL Gate Valve								
Akış Hızı Flow Velocity (m/s)	Basınç Düşümü / Pressure Drop (Bar)							
	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300
0.5	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
1	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003
1.5	0.008	0.008	0.007	0.007	0.007	0.007	0.007	0.007
2	0.014	0.015	0.014	0.014	0.014	0.014	0.014	0.014
2.5	0.022	0.023	0.019	0.019	0.019	0.019	0.019	0.019
3	0.032	0.034	0.028	0.028	0.027	0.028	0.028	0.028
3.5	0.042	0.046	0.037	0.037	0.037	0.037	0.037	0.037
4	0.055	0.06	0.049	0.049	0.049	0.049	0.049	0.049
4.5	0.07	0.076	0.062	0.062	0.062	0.062	0.062	0.062

ÖLÇÜ TABLOSU / DIMENSIONS

Ölçüler / Dimensions (mm/inch)																
Ölçü Size	2.5"		3"		4"		5"		6"		8"		10"		12"	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
L	190.5	7-1/2	203	8	229	9	254	10	267	10-1/2	292	11-1/2	330	13	356	14
H1	270	10-5/8	296	11-5/8	350	13-3/4	410	16-1/8	455	17-15/16	545	21-7/16	645	25-3/8	730	28-3/4
H2	255	10	302	11-7/8	327	12-7/8	417	15-7/16	436	17-3/16	532	20-15/16	619	24-3/8	716	28-3/16
D	175	6-7/8	255	10	255	10	305	12	305	12	355	14	405	16	405	16
Ağırlık Weight (Lbs)	31		41		49		64		88		146		220		324	



Dikey Post Indicator/ Vertical Indicator Posts



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

- OPEN ve SHUT işaretlerini ayarlamak için kafayı sökün.
Remove the post head to adjust OPEN and SHUT signs as required.
- Teleskopik rot ve boruyu istenen boyutta ayarlayın.
Adjust telescoping rod and pipe to desired length.
- Post indikatörü vananın post indikatör flanşına bağlayın.
Re-attach the post to the post flange on the valve.

Korozyon Koruması / Corrosion Protection:

- İç ve Dış Kaplama AWWA C550 Standardına Göre Sprey Boyama.
Spray Painted Interior and Exterior to AWWA C550 Standard.
- Ayak: Siyah Bitümen Kaplı.
Stand Barrel: Black Bitumen Coated.

Opsiyonlar / Options:

- İç ve Dış Füzyon Bağlı Kaplama.
Fusion Bonded Coating Interior and Exterior.
- Tamper İzleme Anahtarı.
Tapped Supervisory Tamper Switch.
- Cıvata ve Somunlar Paslanmaz Çelik: A2-70 veya A4-70.
Stainless Steel Fasteners: A2-70 or A4-70.

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

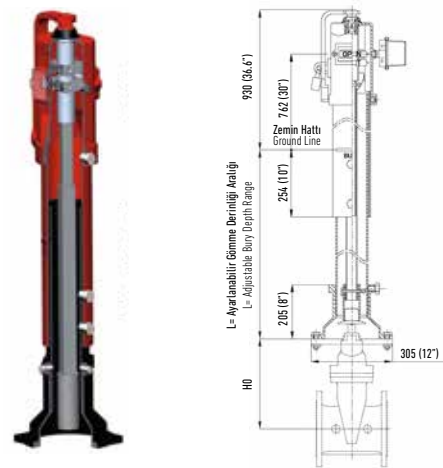
- NFPA 24 standardının gerekliliklerini karşılar.
- Vana'nın OPEN veya SHUT pozisyonunu gösterir.
- Emniyet kilitli L şekilli anahtar kol.
(Kullanıcı tarafından sağlanır)
- Koruma penceresi.
- Teleskopik kumanda mili.
- Kolay ayarlanabilir göstergesi (OPEN ve SHUT).
- UL/ULC 789 Listeli ve FM1110 Approved onaylı.
- GOST Sertifikalı.

- Meet or Exceed the Requirements of NFPA 24 Standard.
- Indicates the State of the Valve OPEN or SHUT Position.
- "L" Shaped Wrench Handle fitted with a Secure Padlock
(provided by user).
- Protected Windows.
- Telescoping Operating Rod.
- Easily Adjustable Indicator OPEN and SHUT Targets.
- UL/ULC 789 Listed and FM1110 Approved.
- GOST Certification.

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material	ASTM Şartname ASTM Specification
Ana Boru / Post Head	Gri Dökme Demir / Gray Cast Iron	A126 Sınıf / Class B
İşletme anahtarı / Operating Wrench	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Tutma Halkası / Retaining Ring	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Hava Kapağı / Weather Cap	Polietilen / Polyethylene	Commercial
Dişli Kol / Threaded Sleeve	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Boru Tapası / Pipe Plug	Dövülebilir Demir / Malleable Iron	A47 Seviye/Grade 2201 0
Hava Kapağı / Target Plate	Alüminyum Alaşım / Aluminum Alloy	ASTM B26
Vida / Screw	Karbon Çelik / Carbon Steel	A105
OPEN/SHUT Plakaları / Target Plate	Alüminyum Alaşım / Aluminum Alloy	ASTM B26
Pencere / Windows	Plastik Cam / Plexiglass	Standart / Commercial
Conta / Gasket	Kauçuk / Rubber	D2000 NBR
Üst Namlu / Upper Barrel	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B
Alt Namlu / Lower Barrel	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B
Üst Mil / Upper Rod	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B
Alt Mil / Lower Rod	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B
Taban Flanşı / Base Flange	Dökme Demir / Cast Iron	A126 Sınıf / Class B
Kilitleme Cıvataları / Locking Bolts	Karbon Çelik / Carbon Steel	A307 Seviye/Grade B
Kilitleme Somunları / Locking Nuts	Karbon Çelik / Carbon Steel	A105
Kama Pimi / Cotter Pin	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Viç Kaplini / Crane Coupling	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B

ÖLÇÜ TABLOSU / DIMENSIONS



Ölçü Tablosu / Main Dimensions (mm/inch)						
Ölçü / Size	4	6	8	10	12	14
Turns to Open	13	20	26	33	39	45
H0	252/9.92	355/13.97	444/17.48	535/21.06	617/24.29	727/28.62

L=Gömülebilir Ayak Derinliği / L=Adjustable Bury Depth Range

L	A	B	C	D	E	F	G
Min.	459/18.25	915/36	1448/57	1981/78	2515/99	3048/120	3772/148.5
Max.	1003/39.5	1537/60.5	2070/81.5	2604/102.5	3173/123.5	3670/144.5	4267/168

Duvar Tipi Post İndikatörü / Adjustable Wall Indicator Post



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Korozyon Koruması / Corrosion Protection

- İç ve Dış Kaplama AWWA C550 Standardına Göre Sprey Boyama
Spray Painted Interior and Exterior meet or exceed ali applic able of
- AWWA C550 Standardı
AWWA C550 Standard.
- Ayak : Siyah Bitümen Kaplı.
Stand Barrel: Black Bitumen Coated.

Seçenekler / Options

- İç ve Dış Füzyon Bağlı Kaplama
Fusion Bonded Coating Interior and Exterior.
- Civata ve Somunlar Paslanmaz Çelik: A2-70 veya A4-70
Stainless Steel Fasteners: A2-70 or A4-70.
- Muhafaza Borusu
Sleeve Pipe

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

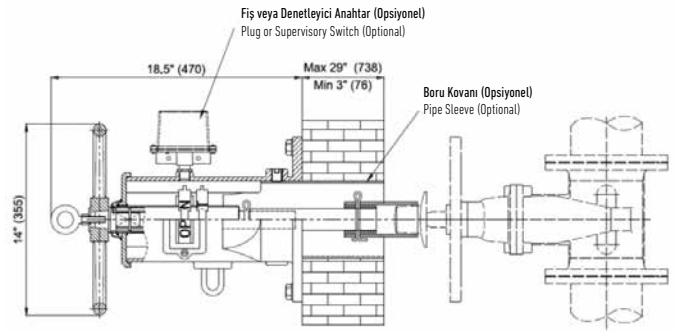
- 13 ila 45 dönüşe izin verilir.
- Kurumalı pencere.
- Teleskopik çalıştırma çubuğu.
- OPEN ve SHUT hedefleri kolayca ayarlanabilir gösterge.
- UL/ULC 789 listeli.
- GOST Sertifikalı.
- Vananın açık veya kapalı durumunu gösterir.
- NFPA 24 standardı gerekliliklerini karşılar.

- Target nut to allow 13 to 45 Turns.
- Protected Windows.
- Telescoping operating rod.
- Easily Adjustable Indicator OPEN and SHUT targets.
- UL/ULC 789 listed.
- GOST Certification
- Indicates the state of the valve OPEN or SHUT position.
- Meet or exceed the requirements of NFPA 24 standard.

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material	ASTM Şartname ASTM Specification
Ana Boru / Post Head	Gri Dökme Demir / Gray Cast Iron	A126 Sınıf / Class B
İşletme anahtarı / Operating Wrench	Sfero Döküm / Ductile Iron	A536 Seviye/Grade 64-45-12
Tutma Halkası / Retaining Ring	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Hava Kapağı / Weather Cap	Polietilen / Polyethylene	Standart / Commercial
Dişli Kol / Threaded Sleeve	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Boru Tapası / Pipe Plug	Dövülebilir Demir / Malleable Iron	A47 Seviye/Grade 2201 0
Hava Kapağı / Target Plate	Alüminyum Alaşım / Aluminum Alloy	B26
Vida / Screw	Karbon Çelik / Carbon Steel	A105
Pencere / Windows	Plastik Cam / Plexiglass	Standart / Commercial
Conta / Gasket	Kauçuk / Rubber	D2000 NBR
Üst Mil / Upper Rod	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B
Alt Mil / Lower Rod	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B
Kama Pimi / Cotter Pin	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Vinç Kaptını / Crane Coupling	Karbon Çelik / Carbon Steel	A53 Tip / Type S Seviye/Grade B

TEKNİK RESİM / TECHNICAL DRAWING



Akış Ölçer / Flow Meter



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Gövde / Body: Karbon Çelik / Carbon Steel
Venturi Tip / Venturi Type
Skala/Meters: 4" 12.5 -10.000 GPM Ölçüm Aralığı / Measuring Range
Bağlantı / Connection: Yivli / Grooved
Ölçü/Size: DN80 - DN250

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Ölçü Datası

Konstrüksiyon: Alüminyum Gövde
Operasyon: Diyafram (Kauçuk)
Doğruluk: Tam Skalanın Yüzde 2'si
Sıcaklık: 180°F / 80°C
Basınç: 500 PSI - 3450 kPa Yaklaşık
Ağırlık: 3.75 Lbs (1.7 Kg)
4" Gösterge Standart - 6" Gösterge Opsiyonel

Meter Data

Construction: Aluminum Body
Operation: Diaphragm (Buna Convoluted)
Accuracy: + 2% Full Scale
Temperature: 180°F / 80°C
Pressure: 500 PSI - 3450 kPa Approx
Weight: 3.75 Lbs (1.7 Kg)
4" Dial Standard - 6" Dial Available

MALZEME LİSTESİ / MATERIAL LIST

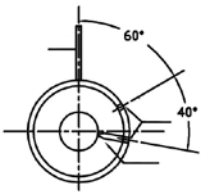
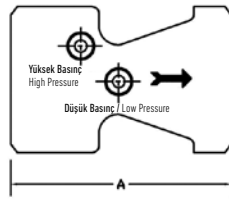
Konstrüksiyon ve Özellikler

Materyal: İşlenmiş 1018 / 1026 Karbon Çelik veya Karbon Çelik Döküm "WCB"
Vanalar: 1/4 Pirinç Küresel Vana
Flaş Seçenekleri: 150# ANSIB 16.5 - 300# ANSİ B 16.5
Hortum: Polikarbonat

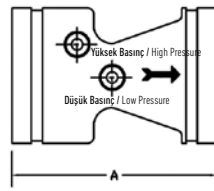
Construction & Specifications

Materials: Machined 1018 / 1026 Carbon Steel or Cast Carbon Steel "Wcb"
Valves: 1/4" Brassball
Flange Opt: 150# ANSIB 16.5 - 300# ANSİ B 16.5
Idtag: Polycarbonate

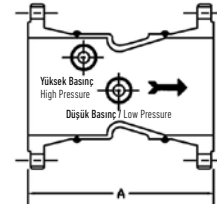
ÖLÇÜ TABLOSU / DIMENSIONS

ALIN KAYNAK / YİVLİ
BUTT WELD / GROOVED

ALIN KAYNAK / BUTT WELD



YİVLİ / GROOVED



FLANŞLI / FLANGED

Ölçü / Size	Alın Kaynaklı ve Yivli / But Weld & Grooved		150# Flaşlı / Flanged		300# Flaşlı / Flanged	
	"A" DIM	Yaklaşık Ağırlık Approx. Weight	"A" DIM	Yaklaşık Ağırlık Approx. Weight	"A" DIM	Yaklaşık Ağırlık Approx. Weight
1-1/4"	4.875	2 lbs.	-	-	-	-
2"	5.000	3.5 lbs.	-	-	-	-
2-1/2"	4.000	5 lbs.	9.250	21 lbs.	10.000	28 lbs.
3"	4.000	6 lbs.	9.375	30 lbs.	10.250	36 lbs.
3-1/2"	-	-	-	-	-	-
4"	5.375	10 lbs.	11.375	40 lbs.	12.125	60 lbs.
5"	6.000	20 lbs.	13.000	58 lbs.	13.750	84 lbs.
6"	7.000	22 lbs.	14.000	70 lbs.	14.750	106 lbs.
8"	7.250	31 lbs.	15.250	93 lbs.	16.000	181 lbs.
10"	8.000	45 lbs.	16.000	149 lbs.	17.250	227 lbs.
12"	12.000	78 lbs.	21.000	238 lbs.	22.250	358 lbs.
14"	14.000	85 lbs.	-	-	-	-
16"	28.000	166 lbs.	-	-	-	-

Köşe Hortum Vanası / Angle Hose Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300 PSI (20,6 bar)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Dövme pirinç malzemeden köşe tip hortum vanaları, dikey boru sistemlerindeki ana kolonlarda su akışını kontrol etmek için kullanılır. Dişli veya yivli bağlantılı.

Forged brass angle pattern hose valves, with threaded or grooved connections, intended to control the flow of the water from the main risers in standpipe systems.

MALZEME LİSTESİ / MATERIAL LIST

Gövde: CuZn40Pb2 uygun, EN 12165 CW617N, CB753S Avrupa Standartlarına uygun, ASTM B124 C37700 Amerikan standartlarına uygun pirinç döküm.

- Çubuk şeklindeki malzemenin akma gerilimi: 360 MPa
- Kalıcı bozukluk gerilimi: R(0.2) 138 MPa
- Uzama: %10

Klape: CuZn40Pb2 uygun, EN 12165 CW617N, Avrupa Standartlarına uygun, ASTM B124 C37700 Amerikan standartlarına uygun pirinç döküm.

Mil: Pirinç EN 12164 CW713R

Volan: Kırmızı boyalı alüminyum

Body: forged brass CuZn40Pb2 in accordance with European Standard EN 12165 CW617N, similar to American Standard ASTM B124 C37700

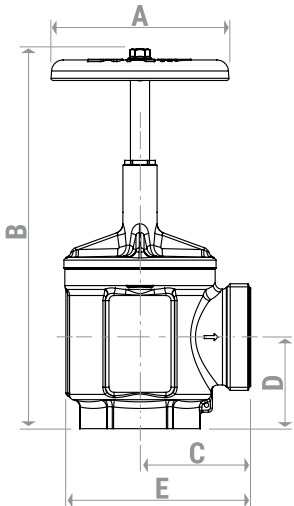
- Yield stress of the material in the shape of bar: 360 MPa
- Stress for permanent distortion R(0.2): 138 MPa
- Elongation: 10%

Clapper: forged brass CuZn40Pb2 in accordance with European Standard EN 12165 CW617N, similar to American Standard ASTM B124 C37700

Stem: brass EN 12164 CW713R

Handwheel: Red painted aluminum

ÖLÇÜ TABLOSU / DIMENSIONS



Ölçü / Size	A	B	C	D	E
1 1/2" x 1 1/2"	4 1/32"	7 19/32"	2 1/4"	1 7/8"	3 13/16"
2 1/2" x 2 1/2"	5 1/8"	10 19/32"	3 3/16"	2 5/8"	5 3/8"

İtfaiye Bağlantı Ağızı Düz/Tek Klapeli

Fire Department Connection/Straight/ Single Clapper



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300 PSI (20,6 bar)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Açık itfaiye bağlantı ağızı çift yönlü giriş gövdesi, tek klapeli, hortum dişli döner bağlantılar. Düz tip NPT çıkış bağlantılı.. Ana özellikler aşağıdaki gibidir.

- Gövde piriç döküm
- Klape dövme piriç
- Döner bağlantı ağızları dövme piriç
- 2 pimli boru dişli döner giriş ağızları
- 4" NPT çıkışı
- Basınç sınıfı: 300 PSI
- FM onaylı, UL listeli

Exposed Fire Department Inlet Connection, two way inlet body with singleback swing clapper and pin or rocker lug hose thread swivels; straight NPT outlet connection with main feature as following:

- Casted brass body
- Forged brass clapper
- Forged brass swivels
- 2 1/2" two pin or rocker lug hose thread swivel inlets
- 4" straight NPT outlet
- Rated pressure 300 psi
- FM approved, UL listed

MALZEME LİSTESİ / MATERIAL LIST

Gövde: CuZn37Pb2NiAlFe-B uygun, UNI EN1982-2000 CB753S Avrupa Standartlarına uygun, ASTM B30 C85700 Amerikan standart uygun piriç döküm.

- Çubuk şeklindeki malzemenin çekme dayanımı: Minimum 300 MPa
- Kalıcı bozulma için gerilim: R (0.2): Minimum 150 MPa.
- Uzama: Minimum %15

Klape ve döner giriş bağlantıları: CuZn40Pb2 uygun, EN 12165 CW617N Avrupa standartlarına uygun, ASTM B124 C3770 Amerikan standartlarına uygun piriç döküm.

- Çubuk şeklindeki malzemenin akma gerilimi: 360 MPa
- Kalıcı bozukluk gerilimi: R(0.2) 138 MPa
- Uzama: %10

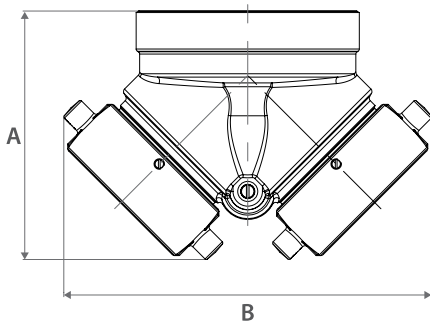
Body: casted brass CuZn37Pb2Ni1AlFe-B in accordance with European Standard UNI EN1982-2000 CB753S, corresponding to American Standard ASTM B30 C85700

- Tensile strength of the material in the shape of bar: min. 300 MPa
- Stress for permanent distortion R(0.2): min. 150 MPa
- Elongation: Min. 15%

Clapper and swivels: forged brass CuZn40Pb2 in accordance with European Standard EN 12165 CW617N, similar to American Standard ASTM B124 C37700

- Yield stress of the material in the shape of bar: 360 MPa
- Stress for permanent distortion R(0.2): 138 MPa
- Elongation: 10%

ÖLÇÜ TABLOSU / DIMENSIONS



Ölçü / Size	A	B
4" x 2 1/2"	5 33/64"	8 5/64"

Basınç Kısıtlayıcı Köşe Hortum Vanası

Pressure Restricting Angle Hose Valve



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Vanalar sadece aşağıdaki koşullar altında bir dizi çıkış basıncı ayarlama yeteneğine sahiptir. Yangın koruma dikey boru sistemlerinde 300 PSI'ye kadar maksimum çalışma basıncı hortum bağlantıları için kullanılır.

The valves are capable of adjustment to provide a range of the outlet pressures under flowing condition only. For Hose Connections to be used on fire protection standpipe system with maximum working pressure up to 300 PSI.

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Köşe tip basınç kısıtlayıcı hortum vanaları, ayarlanabilir akış kısıtlamasına sahiptir. 1 1/2" NPT iç dişli, 1 1/2" dış dişli (hortum dişi) ve kırmızı boyalı alüminyum volana sahiptir. Basınç sınıfı 175 PSI.

Angle pressure restricting valves for water pressure control by adjustable flow restriction; forged brass body with 1 1/2" female NPT - 1 1/2" male hose thread and red painted aluminum, handwheel. Rated pressure 175 PSI.

MALZEME LİSTESİ / MATERIAL LIST

Gövde: CuZn40Pb2 EN 12165 CW617N Avrupa standartlarına uygun, ASTM B124 C37700 Amerikan standartlarına uygun dövme pirinç

- Çubuk şeklindeki malzemenin akma gerilimi: 360 MPa
- Kalıcı bozulma için gerilim: R (0.2): 138 MPa
- Uzama: %10

Kapak: CuZn40Pb2 EN 12165 CW617N Avrupa standartlarına uygun, ASTM B124 C37700 Amerikan standartlarına uygun dövme pirinç.

Mil: EN 12164 CW614N benzer Amerikan standartlarında pirinç.

Volan: Kırmızı boyalı alüminyum.

Body: forged brass CuZn40Pb2 in accordance with European Standard EN 12165 CW617N, similar to American Standard ASTM B124 C37700

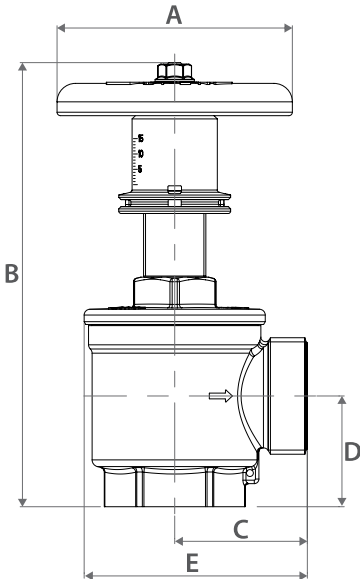
- Yield stress of the material in the shape of bar: 360 MPa
- Stress for permanent distortion R(0.2): 138 MPa
- Elongation: 10%

Bonnet: forged brass CuZn40Pb2 in accordance with European Standard EN 12165 CW617N, similar to American Standard ASTM B124 C37700

Stem: Brass EN 12164 CW614N similar to American Standard ASTM B124 C37700

Handwheel: Red painted aluminum

ÖLÇÜ TABLOSU / DIMENSIONS



Ölçü / Size	A	B	C	D
1 1/2"	4 1/32"	7 19/32"	2 1/4"	1 7/8"
2 1/2"	5 1/8"	10 19/32"	3"	2 5/8"

KURULUM / INSTALLATION

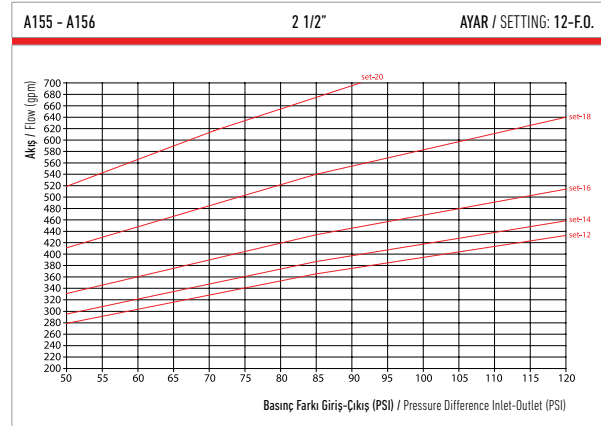
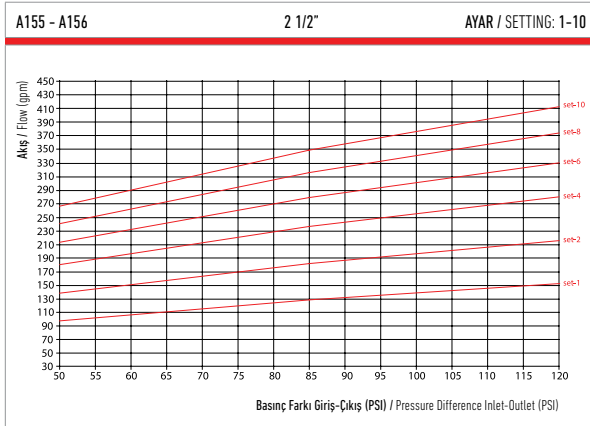
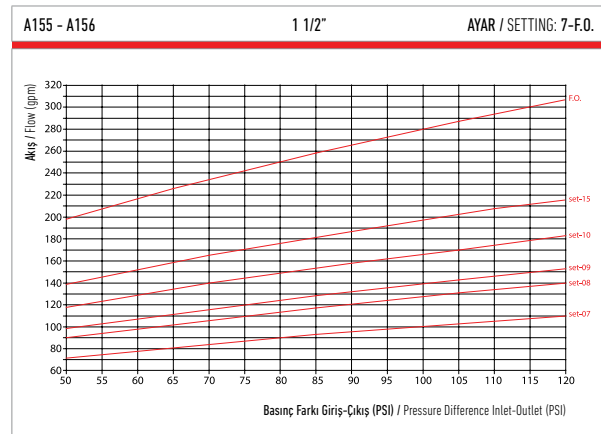
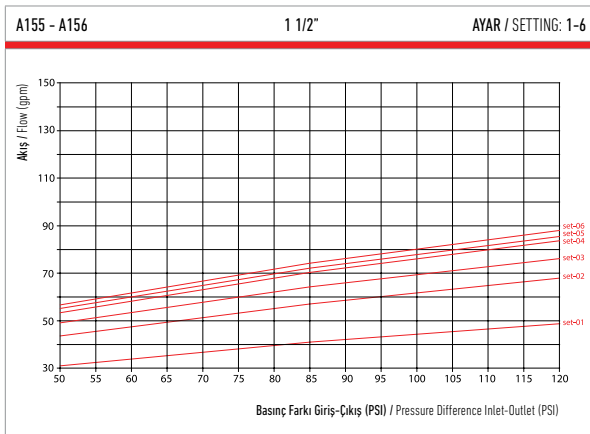
- 1- Vananın her iki ucuna boru rakorları veya kauçuk contalı fittingsler kullanılmalıdır.
- 2- Vanayı boru hattına bağlayın.
- 3- Grafikten, uygun ayar numarasını seçin.
- 4- Vanayı elle sıkıca kapatın.
- 5- Üst yakadaki ayar vidasını çıkarın
- 6- Üst yakada seçilen ayara ulaşana kadar, gösterge kafasını çevirin.
- 7- Üst yakadaki ayar vidasını sıkın. Vana şimdi ayarlanmıştır.
- 8- Basınç kısıtlamasını geçersiz kılmak için, yaylı klipsi çekin.
- 9- Bu vanalar, Class 3 Standpipe sistemlerine göre kullanılmak için tasarlanmıştır.
- 10- Vananın giriş ve çıkışında boru rakorları veya kauçuk contalı fittingsler kullanılmalıdır.
- 11- Vanalar amaçlandığı gibi çalışmazsa, yenileriyle değiştirmek gerekir.

Vanalar, NPT dişli boru hattına aşağıdaki ekipmanları kullanarak, bağlanmalıdır. Gövdenin alt kısmındaki altıgene uygun anahtar kullanılmalıdır. Montaj sırasında, kapağı ve diğer vana kısımlarını zedelememeye dikkat edilmelidir. Volan, saat yönünün tersine çevrildiğinde vana açılır, saat yönüne çevrildiğinde vana kapanır. Montajdan sonra vana sızdırmazlık ve basınç testi yapılmalıdır.

- 1- Pipe unions or rubber-gasketed fittings are to be installed immediately upstream and downstream of the valve to permit easy replacement.
- 2- Connect the valve to the piping.
- 3- Select setting number from proper graph.
- 4- Close valve hand-tight.
- 5- Loosen set screw in collar.
- 6- Rotate indicator-cap until top collar reaches selected setting number.
- 7- Tighten set screw in collar. Valve is now set.
- 8- To override pressure restriction, pull spring clip. See Fig. 1.
- 9- These valves are intended for use in Class III Standpipe systems.
- 10- Pipe unions or rubber-gasketed fittings are to be installed immediately upstream of the valve to permit easy replacement.
- 11- If the valve fail to perform as intended, the valve would need to be replaced.

The valves must be installed on threaded end NPT pipe line using appropriate tools through the hexagon at the bottom of the body. During the installation pay attention not to deform the bonnet or other valve parts, as this could compromise the valve functioning. By turning the handle counterclockwise, the valve opens and it closes by turning the handle clockwise. After installation, verify the tightness through a pressure test.

AKIŞ KARAKTERİSTİĞİ / FLOW CHARACTERISTIC



İtfaiye Bağlantı Ağız / Düz / İki Ağızlı Klapeli Exposed Fire Dept. Inlet Clapper Connections



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300 PSI (20,6 bar)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Yangından korunma su teminini desteklemek için. 500 GPM giriş kapasiteli (2 yollu) veya 750 GPM giriş kapasiteli (3 yollu). Açık yardımcı itfaiye bağlantı ağız. Çalpara klape ile tam su yolu sağlar.

Exposed auxiliary inlet connections with 500 GPM. inlet capacity (two way) or 750 GPM. inlet capacity (three way) to supplement fire protection water supply. Swing clapper provides full waterway.

MALZEME LİSTESİ / MATERIAL LIST

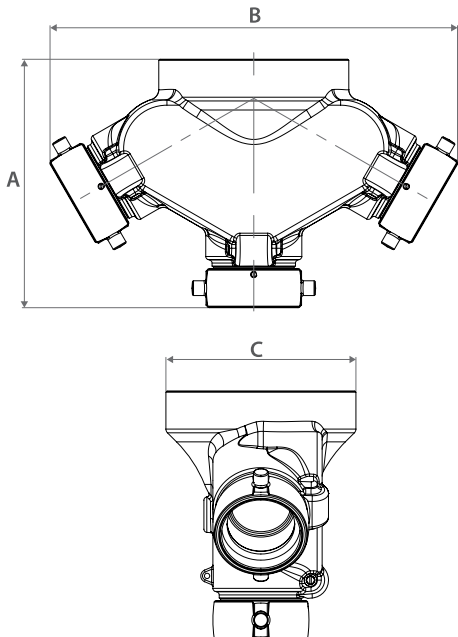
Gövde: UNI EN1982-2000 CB753S'e uygun, Avrupa standartlarında CuZn37PbNi1AlFe-B, ASTM B30 C85700 Amerikan standartlarına uygun pirinç döküm.

Body: casted brass CuZn37Pb2Ni1AlFe-B in accordance with European Standard UNI EN1982-2000 CB753S, corresponding to American Standard ASTM B30 C85700

- **Çubuk şeklindeki malzemenin çekme dayanımı:** dk. 300 MPa
- **Kalıcı bozulma için gerilim:** Minimum 300 MPa
- **Uzama:** Min. %15

- **Tensile strength of the material in the shape of bar:** min. 300 MPa
- **Stress for permanent distortion R(0.2):** min. 150 MPa
- **Elongation:** Min. 15%

ÖLÇÜ TABLOSU / DIMENSIONS



Ölçü / Size	A	B
4" x 2 1/2"	7 9/32"	11 21/32"
4" x 3"	8 1/32"	12 27/32"
6" x 2 1/2"	8 5/32"	11 21/32"
6" x 3"	8 23/32"	12 7/8"

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

A105 – İki yönlü 4" x 2 1/2"

Açık İtfaiye Bağlantı Ağızı Klape Tipi 2 adet iç dişli döner girişlere ve iç dişli NPT çıkışa sahiptir. Ana özellikler aşağıdaki gibidir:

- Pirinç döküm
- Markalama tipleri: AUTO-SPKR, STANDPIPE, PLAIN
- 4" iç dişli NPT çıkış
- 2-1/2" 2 adet hortum dişli döner tip girişli
- Minimum giriş kapasitesi: 500 GPM
- Basınç sınıfı: 175 psi
- UL ULC listeli

A105 – İki yönlü 4" x 3"

Açık İtfaiye Bağlantı Ağızı Klape Tipi 2 adet iç dişli döner girişlere ve iç dişli NPT çıkışa sahiptir. Ana özellikler aşağıdaki gibidir:

- Pirinç döküm
- Markalama tipleri: AUTO-SPKR, STANDPIPE, PLAIN
- 4" iç dişli NPT çıkış
- 3" 2 adet hortum dişli döner tip girişli
- Minimum giriş kapasitesi: 500 GPM
- Basınç sınıfı: 300 psi
- UL ULC listeli

A105 – İki yönlü 6" x 2 1/2"

Açık İtfaiye Bağlantı Ağızı Klape Tipi 2 adet iç dişli döner girişlere ve iç dişli NPT çıkışa sahiptir. Ana özellikler aşağıdaki gibidir:

- Pirinç döküm
- Markalama tipleri: AUTO-SPKR, STANDPIPE, PLAIN
- 6" iç dişli NPT çıkış
- 2-1/2" 2 adet hortum dişli döner tip girişli
- Minimum giriş kapasitesi: 500 GPM
- Basınç sınıfı: 175 psi
- UL ULC listeli

A105 – İki yönlü 6" x 3"

Açık İtfaiye Bağlantı Ağızı Klape Tipi 2 adet iç dişli döner girişlere ve iç dişli NPT çıkışa sahiptir. Ana özellikler aşağıdaki gibidir:

- Pirinç döküm
- Markalama tipleri: AUTO-SPKR, STANDPIPE, PLAIN
- 6" iç dişli NPT çıkış
- 3" 2 adet hortum dişli döner tip girişli
- Minimum giriş kapasitesi: 500 GPM
- Basınç sınıfı: 300 psi
- UL ULC listeli

A105 – Two way 4" x 2 1/2"

Exposed Fire Department Inlet Connection, clapper type, two female hose threaded swivel inlets and female NPT outlet, back connection, with main feature as following:

- Casted brass
- Branding types: AUTO-SPKR, STANDPIPE, PLAIN
- 4" female NPT outlet
- 2-1/2" double female hose thread swivel inlets
- Minimum inlet capacity 500 GPM
- Rated pressure 175 psi
- UL ULC listed

A105 – Two way 4" x 3"

Exposed Fire Department Inlet Connection, clapper type, two female hose threaded swivel inlets and female NPT outlet, back connection, with main feature as following:

- Casted brass
- Branding types: AUTO-SPKR, STANDPIPE, PLAIN
- 4" female NPT outlet
- 3" double female hose thread swivel inlets
- Minimum inlet capacity 500 GPM
- Rated pressure 300 psi
- UL listed

A105 – Two way 6" x 2 1/2"

Exposed Fire Department Inlet Connection, clapper type, two female hose threaded swivel inlets and female NPT outlet, back connection, with main feature as following:

- Casted brass
- Branding types: AUTO-SPKR, STANDPIPE, PLAIN
- 6" female NPT outlet
- 2-1/2" double female hose thread swivel inlets
- Minimum inlet capacity 500 GPM
- Rated pressure 175 psi
- UL listed

A105 – Two way 6" x 3"

Exposed Fire Department Inlet Connection, clapper type, two female hose threaded swivel inlets and female NPT outlet, back connection, with main feature as following:

- Casted brass
- Branding types: AUTO-SPKR, STANDPIPE, PLAIN
- 6" female NPT outlet
- 3" double female hose thread swivel inlets
- Minimum inlet capacity 500 GPM
- Rated pressure 300 psi
- UL listed

Test ve Drenaj Vanası

Test and Drain Valve



YİVLİ / GROOVED

DİŞLİ / FEMALE



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 300 psi

Gövde / Body: Pirinç / Brass

Kol / Lever: Karbon Çelik / Carbon Steel

Orifis / Orifice: 1/2" 3/8" - 7/16" - 17/32" - 5/8" - 3/4" - 15/16" - 15/65" - 19/64"

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Test ve drenaj vanaları, NFBE-13', NFPA-13D de, gerekliliklerine uygun olarak sulu sprinkler sistemlerinde test ve drenaj fonksiyonlarını yerine getirilir. UL listeli ve FM onaylıdır.

Temel özellikler:

- Rp, EN 10226 dişli 1" - 1 1/4" - 1 1/2" - 2"
- Dişli 1" - 1 1/4" - 1 1/2" - 2"
- Yivli bağlantılı 1 1/4" - 2"
- Gövde dövme çelik
- Krom kaplı pirinç küre

Test and drain valve for sprinkler systems combines the functions of test and drain for wet sprinkler systems. complies with the requirements of NFPA-13, NFPA-13R and NFPA-13D and is FM approved and UL listed.

Main feature as following:

- Rp, EN 10226 threads 1" - 1 1/4" - 1 1/2" - 2"
- NPT threads 1" - 1 1/4" - 1 1/2" - 2"
- Groove connections 1 1/4" - 2"
- Forged brass body
- Chrome plated brass ball

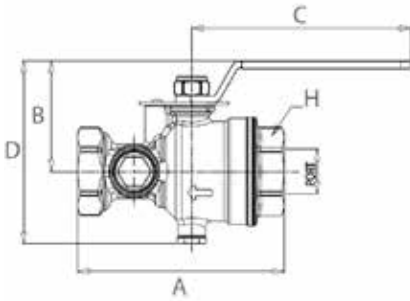
MALZEME LİSTESİ / MATERIAL LIST

- Gövde dövme pirinç
- Küre krom kaplı
- Karbon çelik
- Vana siti, PTFE
- Gösterge disk, pirinç
- Gözetleme camı polikarbonat
- Forged brass body
- Chrome plated ball
- Steel handle
- Valve seat in PTFE
- Indication disk in brass
- Sight glasses in polycarbonate

VERSİYONLAR VE ÜRÜN KODLARI / VERSIONS AND PRODUCT CODES

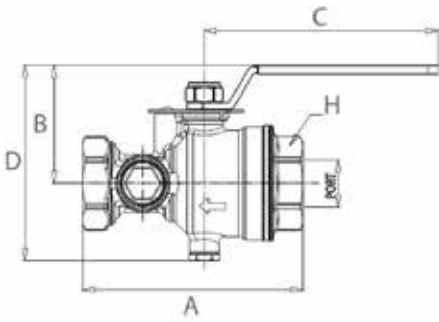
Seriler / Series	Ölçü / Size	Tip / Type
A61	1"	Rp, EN 10226 (F) x Rp, EN 10226 (F)
	1 1/4"	
	1 1/2"	
	2"	
	1"	Rp, EN 10226 (F) x Rp, EN 10226 (F)
	1 1/4"	
	1 1/2"	
	2"	
1 1/4"	Yivli x Yivli / Grooved x Grooved	
2"		

ÖLÇÜ TABLOSU / DIMENSIONS



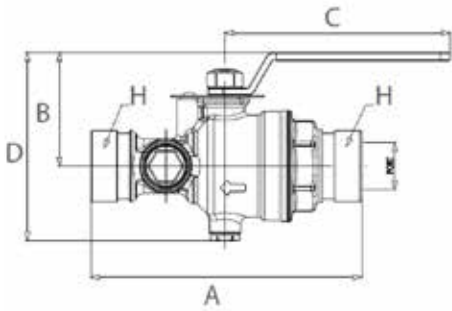
A61 - DİŞLİ/FEMALE Rp x DİŞLİ Rp

Ölçü / Size	C (Tapa / Plug)	Geçiş / Port	A	B	C	D	H
1"	1/4"	1 1/16"	5 1/18"	2 43/64"	5 11/32"	4 27/64"	1 57/64"
1 1/4"	1/4"	1 1/16"	5 7/16"	2 43/64"	5 11/32"	4 27/64"	1 57/64"
1 1/2"	1/4"	1 18/32"	6 3/16"	4"	6 26/32"	6 21/64"	2 40/64"
2"	1/4"	1 12/16"	6 21/32"	4"	6 26/32"	6 21/64"	2 40/64"



A61 - DİŞLİ/FEMALE NPT x DİŞLİ/FEMALE NPT

Ölçü / Size	C (Tapa / Plug)	Geçiş / Port	A	B	C	D	H
1"	1/4"	1 1/16"	5 1/32"	2 43/64"	5 11/32"	4 27/64"	1 57/64"
1 1/4"	1/4"	1 1/16"	5 1/32"	2 43/64"	5 11/32"	4 27/64"	1 57/64"
1 1/2"	1/4"	1 18/32"	6 6/32"	4"	6 26/32"	6 21/64"	2 40/64"
2"	1/4"	1 12/16"	6 6/32"	4"	6 26/32"	6 21/64"	2 40/64"



A61 - YİVLİ/GROOVED x YİVLİ/ GROOVED

Ölçü / Size	C (Tapa / Plug)	Geçiş / Port	A	B	C	D	H
1"	1/4"	1 1/16"	6 13/32"	2 43/64"	5 11/32"	4 27/64"	1 1/4" YİVLİ / GROOVE
2"	1/4"	1 12/16"	7 17/32"	4"	6 26/32"	6 21/64"	2" YİVLİ / GROOVE



ANAHTARLAR SWITCHES

Akış Anahtarı / Waterflow Detector



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: 450 psi
Gövde / Saddle: Sfero Döküm / Ductile Iron
Kapak / Cover: Alüminyum Alaşım / Aluminium Alloy
Geciktirme Özelliği / Retard Feature: Paletli Tip / Vane Type
Ölçü / Size: DN50-DN200

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

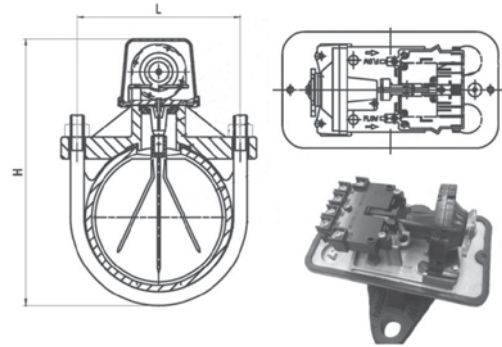
Su Akış anahtarları, siprinks sistemlerinde su taşıyan borulara monte edilir. Sch10'dan Sch40'a kadar olan ve DN 50'den DN 200 inç ölçülerindeki çelik borularda kullanılır. Akış anahtarlarının boyutları için tablo 1'e bakınız. Borudaki su akışı, genellikle belirli bir gecikme süresinden sonra, bir kanadı iterek, anahtarı tetikler. Bütün su akış anahtarları pnömatik olarak kontrol edilen mekanik geciktirme mekanizmasına sahiptir. Tüm gecikme süresi dolmadan su akışı durursa gecikmeler sıfırlanır. Bütün anahtarlar su akış hızı dakika. Su akış hızı dakikada 10 galon veya daha fazla olduğunda tüm anahtarlar etkinleşir, ancak hız dakikada 4 galondan az olduğunda, anahtar etkin hale gelmez.

Water flow detectors are mounted to water-filled pipes in sprinkler systems. It is used on steel pipe, schedules 10 through 40, sizes 50mm thru 200mm (2" thru 8"). See Table 1 for detectors sizes. Water flow in the pipe deflects a vane, which triggers a switch usually after a specified delay period. All water flow detectors have a pneumatically controlled mechanical delay mechanism. Delays reset if the flow of water stops before the entire delay has elapsed. All switches are actuate when the water flow rate is 10 gallons per minute or greater, but will not actuate if the rate is less than 4gallons per minute.

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Gövde / Saddle	Sfero Döküm / Ductile Iron, A536 65-45-12
Kavrayıcı / Holder	SS304+EPDM
Plaka / Plate	Alüminyum Alaşım / Aluminium Alloy
Kapak / Cover	Plastik / Plastic
Kanat / Paddle	Plastik / Plastic
Mikroanahtar / Microswitch	Alüminyum Alaşım / Aluminium Alloy
Conta / Gasket	EPDM
Geciktirme Mekanizması / Retarding Device	Plastik / Plastic
Terminal Kutusu / Terminal Box	Plastik / Plastic

TEKNİK RESİM / TECHNICAL DRAWING



ÖLÇÜ TABLOSU / DIMENSIONS

Ölçü / Size	2	2,5	3	4	5	6	8
W	84/3.31	92 / 3.62	104 / 4.09	133 / 5.24	160 / 6.30	187 / 7.36	239 / 9.41
H	190 / 7.48	200 / 7.87	220 / 8.66	245 / 9.65	270 / 10.63	300 / 11.8	350 / 13.78
Nominal Boru Ölçüsü Nominal Pipe Size OD.	60.3 / 2.37	73 / 2.87	88.9 / 3.50	114.3 / 4.50	141.3 / 5.56	168.3 / 6.63	219.1 / 8.63
Boru Et Kalınlığı Pipe Wall Thickness	2.77 - 3.91 0.11 - 0.15	3.05 - 5.16 0.12 - 0.20	3.05 - 5.49 0.12 - 0.22	3.05 - 6.02 0.12 - 0.24	3.40 - 6.55 0.13-0.26	3.40 / 7.11 0.13 / 0.28	3.76 - 8.18 0.15 - 0.32

OSY-2 İzleme Anahtarı / Supervisory Switch



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Model: WOSY

Kapak / Enclosure Cover: Alüminyum Döküm: Kırmızı Toz Boya Kaplı Döküm / Die Cast Finish: Red Powder Coat

Gövde / Base: Alüminyum Döküm/ Die Cast

- Bütün parçaları korozyona dayanımlı şekilde kaplanmış döküm
All parts have corrosion resistant finishes

Kapak/ Cover Tamper: Tamper Dayanımlı Vidalar / Tamper Resistant Screws

Opsiyonel Kapak / Optional Cover: Tamper Anahtar Uygulanabilir, 125/250 VAC 3 Amper / 5 Amper / Tamper Switch Available 3Amps / 5 Amps at 125/250VAC

Kontakt Sınıfı / Contact Ratings:

- WOSY-1: 1 Set SPDT / One Set of SPDT
- WOSY-2: 2 Set SPDT / Two Sets of SPDT
- WOSY-3: 2 Set SPDT ve Kapak Tamper Anahtarı / Two Sets of SPDT and Cover Tamper Switch
- 125/250 VAC 10 Amper / 10 Amps at 125/250 VAC
- 30 VDC dirençte 2.5 Amper / 2.5 Amps at 30VDC Resistive

Çevresel Sınırlamalar / Environmental Limitations:

- Açık ve kapalı ortamlarda -40° ila 60° arasında işletme sıcaklığı / -40°C to 60°C operating temperature range indoor or outdoor sse
- IP 67

Kablo Girişi / Conduit Entrances: 1/2 inç kablo giriş / One knockouts and one hole for 1/2" conduit provided

Kullanım / Service Use: NFPA 13, 13D, 13R, 72"

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

WOSY, bir OSY'nin açık konumunu izlemek için kullanılır. (dış vida ve boyunduruk) tip sürgülü vana. Bu anahtarlar, 2" ila 24" (50 mm ila 600 mm) arasında değişen çoğu OSY valfine uygun şekilde monte edilir. Kapak, çıkarılması için özel bir alet gerektiren, kurcalamaya karşı dayanıklı iki vidayla yerinde tutulur. Alet, her cihazla donatılmıştır.

- Tüm parçalar korozyona dayanıklı kaplamalara sahiptir
- İki kanal girişi
- Ayarlanabilir uzunluk trip çubuğu
- Üç konumlu anahtar kurcalamayı ve valf kapanmasını algılar
- Hızlı, kolay kurulum için ince ayar özelliği
- Bir veya iki SPDT kontak modeli (-1, -2, -3)

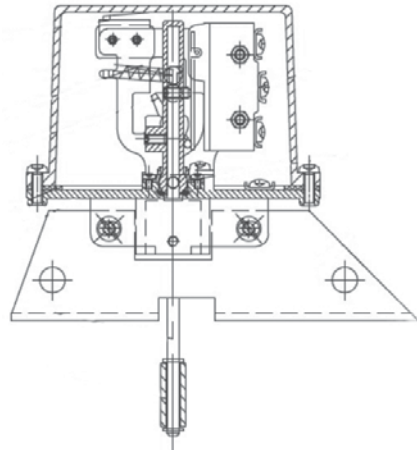
The WOSY is used to monitor the open position of an OSY(outside screw and yoke) type gate valve. These switches mount conveniently to most OSY valves ranging in size from 2" to 24" (50mm to 600mm). The cover is held in place by two tamper resistant screws that require a special tool to remove. The tool is furnished with each device.

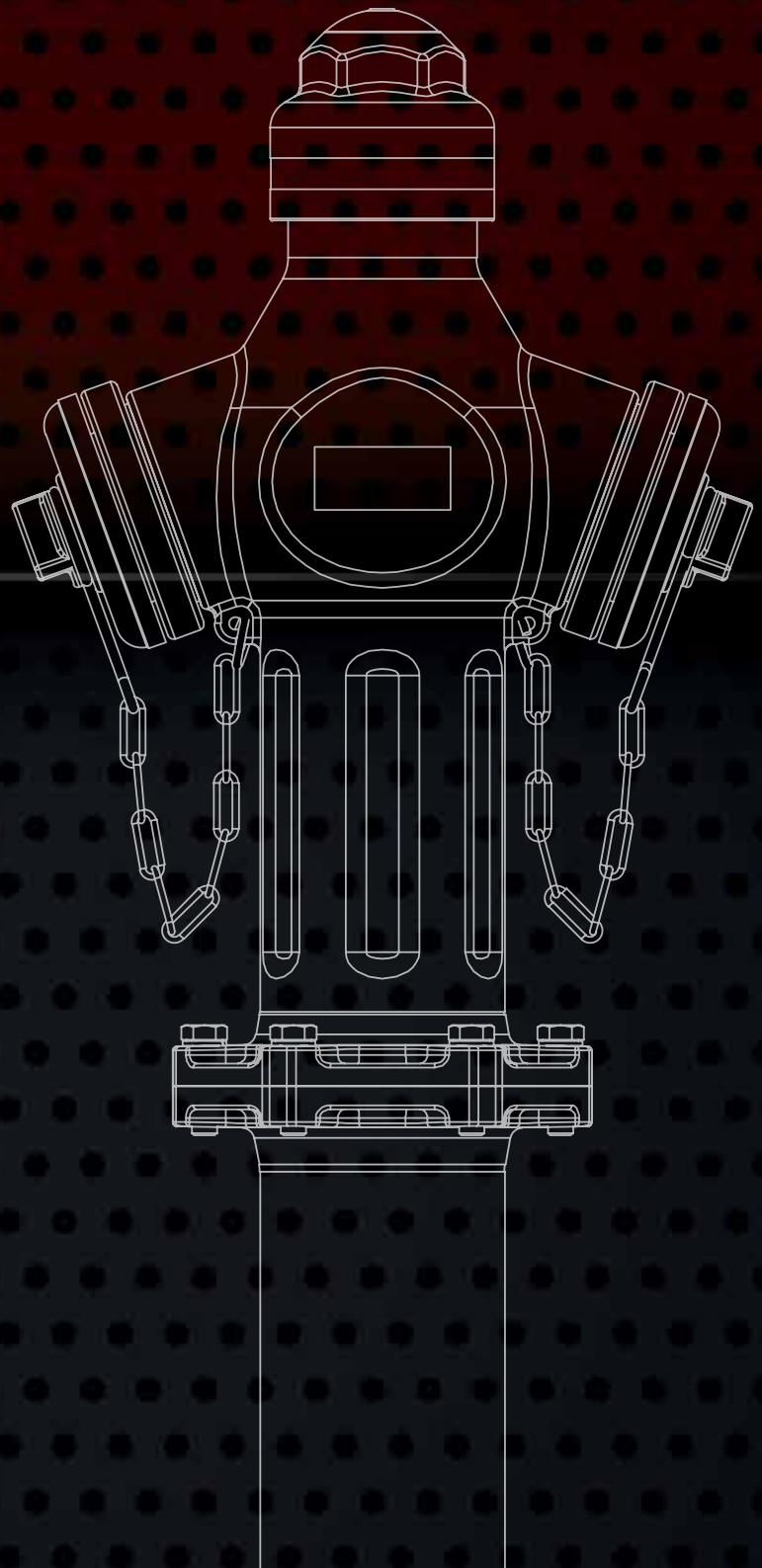
- All parts have corrosion resistant finishes
- Two conduit entrances
- Adjustable length trip rod
- Three position switch detects tampering and valve closure
- Fine adjustment feature for fast, easy installation
- One or two SPDT contact models (-1, -2, -3)

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Kapak / Cover	Aluminium Alloy
Çerçeve / Frame	Karbon Çelik / Carbon Steel, Çinko Kaplı Zine Plate
Limitleyici / Limit Striker	Polikarbonat / Polycarbonate
Conta / Gasket	EPDM
Rod	SS 304
Plaka / Plate	Alüminyum Alaşım / Aluminium Alloy
Döner Boru / Trundle	SS 304
Braket / Bracket	Karbon Çelik / Carbon Steel, Çinko Kaplı Zine Plate
Sabit Blok / Fix Block	Polikarbonat / Polycarbonate
Anahtar / Switch	Model: LZ15-GW4-B
Kapak Tamper Anahtarı / Cover Tamper Switch	Model: KW1-2 With 2 Leads

TEKNİK RESİM / TECHNICAL DRAWING





YANGIN HİDRANTI FIRE HYDRANT

FRH-0101

uni
vaj

Yer Üstü Yangın Hidrantı / Fire Hydrant



CE

TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: PN16
Gövde / Body: Dökme Demir / Cast Iron
Mil / Pipe: Karbon Çelik / Carbon Steel
Ölçü / Size: DN100

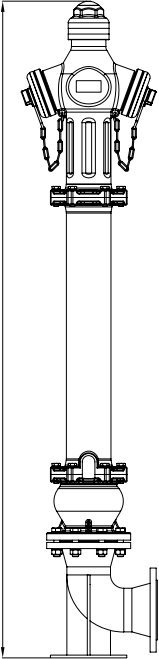
GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: PN16
Maks. Çalışma Sıcaklığı / Max. Working Temperature.: 90°C

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Gövde / Body	Dökme demir / Cast Iron
Klape / Disc	Dökme demir / Cast Iron
Sit / Seat	Pirinç / Brass
Rot / Rot	Karbon Çelik / Carbon Steel
Mil Kafası / Stem Cap	Dökme demir / Cast Iron
Mil Kılavuzu / Guide Stem	Paslanmaz Çelik / Stainless Steel

ÖLÇÜ TABLOSU / DIMENSIONS



ÜRÜN KODU PRODUCT CODE	DN	L
0101X100	100	1700 mm

Kuru Tip Yangın Hidrantı / Dry-Barrel Fire Hydrant



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Korozyon Koruması / Corrosion Protection: İçi ve dışı AWW C550 standardına göre füzyon bağlı epoksi kaplı. / *Fusion Bonded Epoxy Coated Interior and Exterior to AWW C550 Standard.*

Opsiyonlar / Option:

- Mevcut Monitör Stili
- Monitör Flanşı / *Monitor Flange:* ASTM B16. 1 Class 125, Size 4" or 3"
- Flanş Taban Dirseği / *Flange Base Elbow*
- Çoklu Nozul Yapılandırılmaları / *Multiple Nozzle Configurations*

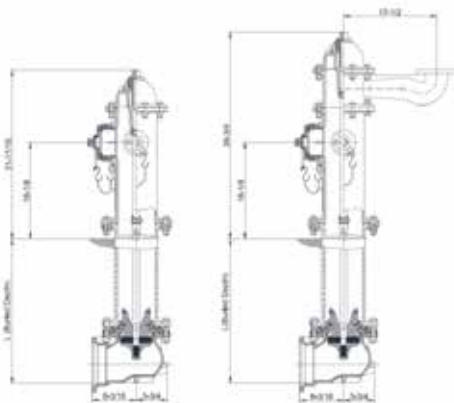
GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

- AWWA C502 Standardının Gereksinimlerini Karşılar
- NFPA 1963 Nozul Dişleri Standardına göre.
- Trafikte ve çarpma olaylarına karşı dubleks paslanmaz çelik emniyet mili.
- Mükemmel Akış Özellikleri
- Çoklu Nozul Konfigürasyonları
- Mekanik Bağlantı Dirseği
- O-ring Contalı Yağ Haznesi ile Kuru Üst Tasarım
- Donmaya karşı çift otomatik boşaltma vanası
- UL246 Listeli ve FM 1510 Onaylı
- Nominal çalışma basıncı 250 psi
- *Meet or Exceed the Requirements of AWWA C502 Standard*
- *NFPA 1963 Nozzle Threads.*
- *Traffic Feature with Duplex Stainless Steel Safety Stem Coupling*
- *Excellent Flow Characteristics.*
- *Multiple Nozzle Configurations.*
- *Mechanical Joint Base Elbow.*
- *Dry Top Design with O-ring Sealed Oil Reservoir.*
- *Dual Auto-frost Bronze Drain Valves as Standard.*
- *UL246 Listed and FM 1510 Approved.*
- *Rated Working Pressure 250 psi*

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material	ASTM Şartname / Specification
Operasyon Somunu / Operating Nut	Bronz / Bronze	B62 C83600
Baskı Somunu / Hold Down Nut	Bronz / Bronze	B62 C83600
Kapak / Bonnet	Dökme Demir / Gray Cast Iron	A126 Sınıf / Class B
Kapak Civataları ve Somunları / Bonnet Bolts and Nuts	Karbon Çelik / Carbon Steel	A307 Seviye / Grade B
Kapak Contası / Bonnet Gasket	Kauçuk / Rubber	D2000 NBR
Nozul / Nozzle	Bronz / Bronze	B62 C83600
Nozul Kapağı / Nozzle Cap	Dökme Demir / Gray Cast Iron	A126 Sınıf / Class B
Nozul Contası / Nozzle Gasket	Kauçuk / Rubber	D2000 NBR
Nozul Ringi / Nozzle O-Ring	Kauçuk / Rubber	D2000 NBR
Kapak Zinciri / Cap Chain	Karbon Çelik / Carbon Steel	A105
Üst Boru / Standpipe Upper	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 65-45-12
Emniyet Kaplini / Safety Coupling	Duplex Paslanmaz Çelik / Duplex Stainless Steel	A890 J92205
Kama Pimi / Cotter Pin	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Çatal Pimi / Clevis Pin	Paslanmaz Çelik / Stainless Steel	A276 Tip / Type 304
Emniyet Flanşı / Safety Flange	Dökme Demir / Gray Cast Iron	A126 Sınıf / Class B
Flanş Civataları ve Somunları / Flange Bolts and Nuts	Karbon Çelik / Carbon Steel	A307 Seviye / Grade B
Alt Boru / Standpipe Lower	Sfero Döküm / Ductile Iron	A536 Seviye / Grade 65-45-12
Üst Mil / Upper Rod	Karbon Çelik / Carbon Steel	A576 Seviye / Grade B
Alt Mil / Lower Rod	Karbon Çelik / Carbon Steel	A576 Seviye / Grade B
Vana Süt Plakası / Valve Top Plate	Bronz / Bronze	B62 C83600
Drenaj Vana Kaplaması / Drain Valve Facing	Plastik / Plastic	
Sit Ringi / Seat Ring	Bronz / Bronze	B62 C83600
Drenaj Ringi / Drain Ring	Bronz / Bronze	B62 C83600

ÖLÇÜ TABLOSU / DIMENSIONS



Tip Numarası / Type Number	Hortum Çıkışı / Hose Outlet	Pompa Nozul Tipi / Pumper Nozzle Style	İzleme Monitör / Monitor	Çıkış Ağız Sayısı / Way
UV0733-250	-2HOP	2 x 2.5"	N/A	2
	-2HOPM	2 x 2.5"	N/A	2
	-2H1P	2 x 2.5"	1 x 4" or 4.5" Nozul / Nozzle, or 5" Storz	3
	-2H1 PM	2 x 2.5"	1 x 4" or 4.5" Nozul / Nozzle, or 5" Storz	3
	-3H1P	3 x 2.5"	1 x 4" or 4.5" Nozul / Nozzle, or 5" Storz	4
	-3H1 PM	3 x 2.5"	1 x 4" or 4.5" Nozul / Nozzle, or 5" Storz	4
	-4HOP	4 x 2.5"	N/A	4
	-4HOPM	4 x 2.5"	N/A	4
	-2H2P	2 x 2.5"	2 x 4" or 4.5" Nozul / Nozzle, or 5" Storz	4
	-2H2PM	2 x 2.5"	2 x 4" or 4.5" Nozul / Nozzle, or 5" Storz	4



SPRINKLER

UV310 - UV311

Sprinkler UV-3 Serisi / Sprinkler UV-3 Series



UV310

UV311



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Minimum İşletme Basıncı / Minimum Operating Pressure:
7 psi (0.5 bar)

Maksimum Çalışma Basıncı / Maximum Working Pressure:
175 psi (12 bar)

Boşaltma Katsayısı / Discharge Coefficient:
K = 5.6 GPM/psi^{1/2} (80.7 LPM/bar^{1/2})

Sıcaklık Derecesi / Temperature Rating: 135°F / 155°F / 175°F / 200°F / 286°F (57°C / 68°C / 79°C / 93°C / 141°C)

Fabrikadaki Sızdırmazlık Testi / Leakage Test at Factory:
30 Kg/cm² (0.3Mpa, 29.4bar, 426.7 psi)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Sprinkler Kodları ve Özellikleri

UV310 : Standart tepkimeli, Upright, K5.6, ½"(NPT)
UV311 : Hızlı tepkimeli, Upright, K5.6, ½"(NPT)

Sprinkler Codes and Specifications

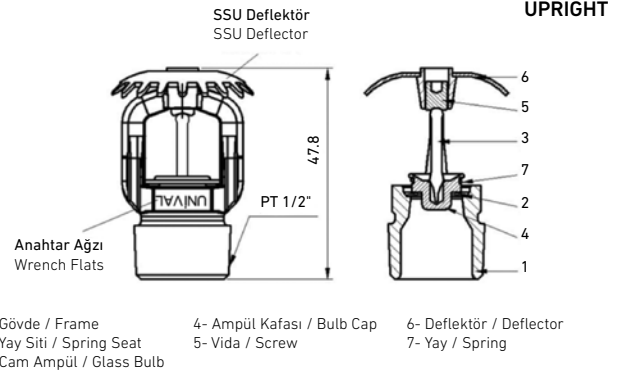
UV310 : Standard response, Upright, K5.6, ½" NPT
UV311 : Quick response, Upright, K5.6, ½" NPT

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Çerçeve Dövme / Frame Forging	Pirinç / Brass
Deflektör / Deflector	Pirinç / Brass
Yay Siti / Spring Seat	Ni-Be alaşımı her iki tarafı teflon kaplı. Ni-Be alloy, coated on both sides with teflon tape.
Ampül / Bulb	Cam / Glass
Ampül Kapağı / Bulb Cap	Pirinç / Brass
Vida / Screw	Pirinç / Brass
Yay / Spring	Paslanmaz Çelik / Stainless steel

DİZAYN KRİTERLERİ / DESIGN CRITERION

Sprinkler Sıcaklıkları ve Kaplamaları Available Sprinkler Temperature Ratings and Finishes			
Sprinkler Sıcaklık Sınıflandırması Sprinkler Temperature Classification	Sprinkler Nominal Sıcaklık Derecesi ¹ Sprinkler Nominal Temperature Rating ¹	Maksimum Çevre Tavan Sıcaklığı ² Maximum Ambient Ceiling Temperature ²	Ampül Rengi Bulb Color
Normal / Ordinary	135°F (57°C)	100°F (38°C)	Turuncu / Orange
Normal / Ordinary	155°F (68°C)	100°F (38°C)	Kırmızı / Red
Orta Düzey / Intermediate	175°F (79°C)	150°F (65°C)	Sarı / Yellow
Orta Düzey / Intermediate	200°F (93°C)	150°F (65°C)	Yeşil / Green
Yüksek / High	286°F (141°C)	225°F (107°C)	Mavi / Blue

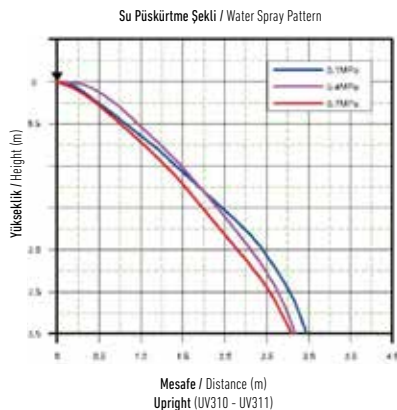


Sprinkler Kaplamaları / Sprinkler Finishes: Pirinç, Nikel-Krom, Beyaz Polyester, Siyah Teflon Kaplama / Brass, Nickel-Chrome, White Polyester, Black Teflon Coating

Not / Note: ¹ Sprinkler sıcaklık derecesi deflektörün üzerinde mühür olarak yer alır. / The sprinkler temperature rating is stamped on the deflector.

² NFPA-13 e göredir. Yangın yükü, sprinkler konumu ve yetkili idarelere bağlı olarak diğer ve özel gereklilikler uygulanabilir. / Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

PÜSKÜRTME ŞEKLİ / SPRAY PATTERN



MONTAJ / INSTALLATION

Unival sprinkler sistemleri, yürürlükteki standart, onay kuruluşları ve listelerdeki montaj kurallarına uygun olarak dizayn edilmiş yangın koruma sistemlerine göre seçilmelidir.

Not: Ampülü çatlamış veya ampülde sıvı kaybı olan hiçbir sprinkleri kullanmayınız. Sprinkler yatay tutulduğunda içerisinde küçük bir hava kabarcığı olmalıdır. Sprinkler maksimum 28.5 Nm (21 ft-lbs) tork ile takılmalıdır.

The UNIVAL sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or UL 199 Standard)

Note: Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

UV320 - UV321



Sprinkler UV-3 Serisi / Sprinkler UV-3 Series



UV320

UV321



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Minimum İşletme Basıncı / Minimum Operating Pressure:
7 psi (0.5 bar)

Maksimum Çalışma Basıncı / Maximum Working Pressure:
175 psi (12 bar)

Boşaltma Katsayısı / Discharge Coefficient:
K = 5.6 GPM/psi^{1/2} (80.7 LPM/bar^{1/2})

Sıcaklık Derecesi / Temperature Rating: 135°F / 155°F / 175°F / 200°F / 286°F (57°C / 68°C / 79°C / 93°C / 141°C)

Fabrikadaki Sızdırmazlık Testi / Leakage Test at Factory:
30 Kg/cm² (0.3Mpa, 29.4bar, 426.7 psi)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Sprinkler Kodları ve Özellikleri

UV320 : Standard tepkimeli, Pendent, K5.6, ½" (NPT)
UV321 : Hızlı tepkimeli, Pendent, K5.6, ½" (NPT)*

Sprinkler Codes and Specifications

UV320 : Standard response, Pendent, K5.6, ½" NPT
UV321 : Quick response, Pendent, K5.6, ½" NPT

MALZEME LİSTESİ / MATERIAL LIST

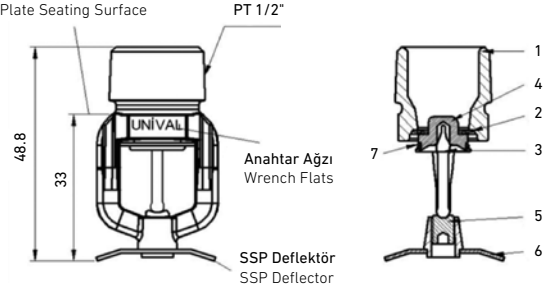
Parça Adı / Part Name	Malzeme / Material
Çerçeve Dövme / Frame Forging	Pirinç / Brass
Deflektör / Deflector	Pirinç / Brass
Yay Siti / Spring Seat	Ni-Be alaşımı her iki taraflı teflon kaplı. Ni-Be alloy, coated on both sides with teflon tape.
Ampül / Bulb	Cam / Glass
Ampül Kapağı / Bulb Cap	Pirinç / Brass
Vida / Screw	Pirinç / Brass
Yay / Spring	Paslanmaz Çelik / Stainless steel

DİZAYN KRİTERLERİ / DİZAYN CRITERION

Sprinkler Sıcaklıkları ve Kaplamaları Available Sprinkler Temperature Ratings and Finishes

Sprinkler Sıcaklık Sınıflandırması Sprinkler Temperature Classification	Sprinkler Nominal Sıcaklık Derecesi ¹ Sprinkler Nominal Temperature Rating ¹	Maksimum Çevre Tavan Sıcaklığı ² Maximum Ambient Ceiling Temperature ²	Ampül Rengi Bulb Color
Normal / Ordinary	135°F (57°C)	100°F (38°C)	Turuncu / Orange
Normal / Ordinary	155°F (68°C)	100°F (38°C)	Kırmızı / Red
Orta Düzey / Intermediate	175°F (79°C)	150°F (65°C)	Sarı / Yellow
Orta Düzey / Intermediate	200°F (93°C)	150°F (65°C)	Yeşil / Green
Yüksek / High	286°F (141°C)	225°F (107°C)	Mavi / Blue

Rozet Plakası Oturma Düzeyi
Escutcheon Plate Seating Surface



1- Gövde / Frame
2- Yay Siti / Spring Seat
3- Cam Ampül / Glass Bulb

4- Ampül Kafası / Bulb Cap
5- Vida / Screw

6- Deflektör / Deflector
7- Yay / Spring

Sprinkler Kaplamaları / Sprinkler Finishes: Pirinç, Nikel-Krom, Beyaz Polyester, Siyah Teflon Kaplama / Brass, Nickel-Chrome, White Polyester, Black Teflon Coating

Not / Note: ¹ Sprinkler sıcaklık derecesi deflektörün üzerinde mühür olarak yer alır. / The sprinkler temperature rating is stamped on the deflector.

² NFPA-13 e göredir. Yangın yükü, sprinkler konumu ve yetkili idarelere bağlı olarak diğer ve özel gereklilikler uygulanabilir. / Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

PÜSKÜRTME ŞEKLİ / SPRAY PATTERN



MONTAJ / INSTALLATION

Unival sprinkler sistemleri, yürürlükteki standart, onay kuruluşları ve listelerdeki montaj kurallarına uygun olarak dizayn edilmiş yangın koruma sistemlerine göre seçilmelidir.

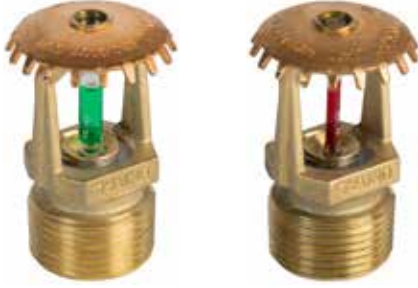
Not: Ampülü çatlamış veya ampülde sıvı kaybı olan hiçbir sprinkleri kullanmayınız. Sprinkler yatay tutulduğunda içerisinde küçük bir hava kabarcığı olmalıdır. Sprinkler maksimum 28.5 Nm (21 ft-lbs) tork ile takılmalıdır.

The UNIVAL sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or UL 199 Standard)

Note: Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

UV410 - UV411

Sprinkler UV-4 Serisi / Sprinkler UV-4 Series



UV410

UV411



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Minimum İşletme Basıncı / Minimum Operating Pressure:
7 psi (0.5 bar)

Maksimum Çalışma Basıncı / Maximum Working Pressure:
175 psi (12 bar)

Boşaltma Katsayısı / Discharge Coefficient:
K = 8.0 GPM/psi^{1/2} (115.2 LPM/bar^{1/2})

Sıcaklık Derecesi / Temperature Rating: 135°F / 155°F / 175°F /
200°F / 286°F (57°C / 68°C / 79°C / 93°C / 141°C)

Fabrikadaki Sızdırmazlık Testi / Leakage Test at Factory:
(0.3Mpa, 29.4bar, 426.7 psi)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Sprinkler Kodları ve Özellikleri

UV410 : Standart tepkimeli, Upright, K8.0, 3/4" NPT
UV411 : Hızlı tepkimeli, Upright, K8.0, 3/4" NPT

Sprinkler Codes and Specifications

UV410 : Standard response, Upright, K8.0, 3/4" NPT
UV411 : Quick response, Upright, K8.0, 3/4" NPT

MALZEME LİSTESİ / MATERIAL LIST

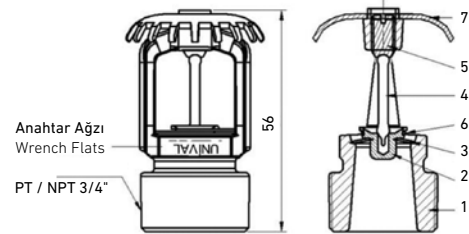
Parça Adı / Part Name	Malzeme / Material
Çerçeve Dövme / Frame Forging	Pirinç / Brass
Deflektör / Deflector	Pastanmaz Çelik / Stainless Steel
Yay Siti / Spring Seat	Ni-Be alaşımı her iki tarafı teflon kaplı. Ni-Be alloy, coated on both sides with teflon tape.
Ampül / Bulb	Cam / Glass
Ampül Kapağı / Bulb Cap	Pirinç / Brass
Vida / Screw	Pastanmaz Çelik / Stainless Steel
Yay / Spring	Pastanmaz Çelik / Stainless steel

DİZAYN KRİTERLERİ / DESIGN CRITERION

Sprinkler Sıcaklıkları ve Kaplamaları Available Sprinkler Temperature Ratings and Finishes

Sprinkler Sıcaklık Sınıflandırması Sprinkler Temperature Classification	Sprinkler Nominal Sıcaklık Derecesi ¹ Sprinkler Nominal Temperature Rating ¹	Maksimum Çevre Tavan Sıcaklığı ² Maximum Ambient Ceiling Temperature ²	Ampül Rengi Bulb Color
Normal / Ordinary	135°F (57°C)	100°F (38°C)	Turuncu / Orange
Normal / Ordinary	155°F (68°C)	100°F (38°C)	Kırmızı / Red
Orta Düzey / Intermediate	175°F (79°C)	150°F (65°C)	Sarı / Yellow
Orta Düzey / Intermediate	200°F (93°C)	150°F (65°C)	Yeşil / Green
Yüksek / High	286°F (141°C)	225°F (107°C)	Mavi / Blue

UPRIGHT



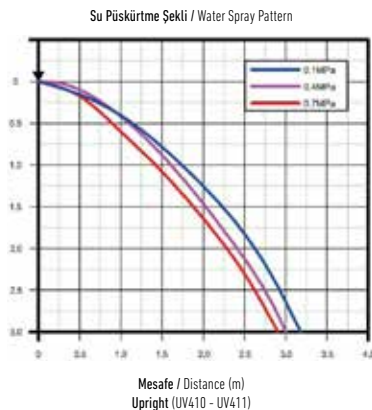
- 1- Gövde / Frame
- 2- Yay Siti / Spring Seat
- 3- Cam Ampül / Glass Bulb
- 4- Ampül Kapağı / Bulb Cap
- 5- Vida / Screw
- 6- Deflektör / Deflector
- 7- Yay / Spring

Sprinkler Kaplamaları / Sprinkler Finishes: Pirinç , Nikel-Krom, Beyaz Polyester, Siyah Teflon Kaplama / Brass, Nickel-Chrome, White Polyester, Black Teflon Coating

Not / Note: ¹ Sprinkler sıcaklık derecesi deflektörün üzerinde mühür olarak yer alır. / The sprinkler temperature rating is stamped on the deflector.

² NFPA-13 e göredir . Yangın yükü , sprinkler konumu ve yetkili idarelere bağlı olarak diğer ve özel gereklilikler uygulanabilir. / Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

PÜSKÜRTME ŞEKLİ / SPRAY PATTERN



MONTAJ / INSTALLATION

Unival sprinkler sistemleri, yürürlükteki standart, onay kuruluşları ve listelerdeki montaj kurallarına uygun olarak dizayn edilmiş yangın koruma sistemlerine göre seçilmelidir.

Not: Ampülü çatlamış veya ampülde sıvı kaybı olan hiçbir sprinkleri kullanmayınız. Sprinkler yatay tutulduğunda içerisinde küçük bir hava kabarcığı olmalıdır. Sprinkler maksimum 28.5 Nm (21 ft-lbs) tork ile takılmalıdır.

The UNIVAL sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or UL 199 Standard)

Note: Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

UV420 - UV421



Sprinkler UV-4 Serisi / Sprinkler UV-4 Series



UV420

UV421



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Minimum İşletme Basıncı / Minimum Operating Pressure:
7 psi (0.5 bar)

Maksimum Çalışma Basıncı / Maximum Working Pressure:
175 psi (12 bar)

Boşaltma Katsayısı / Discharge Coefficient:
K = 8.0 GPM/psi^{1/2} (115.2 LPM/bar^{1/2})

Sıcaklık Derecesi / Temperature Rating: 135°F / 155°F / 175°F / 200°F / 286°F (57°C / 68°C / 79°C / 93°C / 141°C)

Fabrikadaki Sızdırmazlık Testi / Leakage Test at Factory:
(0.3Mpa, 29.4bar, 426.7 psi)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Sprinkler Kodları ve Özellikleri

UV420 : Standart tepkimeli, Pendent, K8.0, 3/4" NPT
UV421 : Hızlı tepkimeli, Pendent, K8.0, 3/4" NPT

Sprinkler Codes and Specifications

UV420 : Standard response, Pendent, K8.0, 3/4" NPT
UV421 : Quick response, Pendent, K8.0, 3/4" NPT

MALZEME LİSTESİ / MATERIAL LIST

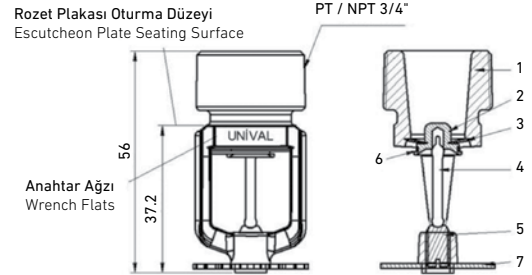
Parça Adı / Part Name	Malzeme / Material
Çerçeve Dövme / Frame Forging	Pirinç / Brass
Deflektör / Deflector	Paslanmaz Çelik / Stainless Steel
Yay Siti / Spring Seat	Ni-Be alaşımı her iki tarafı teflon kaplı. Ni-Be alloy, coated on both sides with teflon tape.
Ampül / Bulb	Cam / Glass
Ampül Kapağı / Bulb Cap	Pirinç / Brass
Vida / Screw	Paslanmaz Çelik / Stainless Steel
Yay / Spring	Paslanmaz Çelik / Stainless steel

DİZAYN KRİTERLERİ / DESIGN CRITERION

Sprinkler Sıcaklıkları ve Kaplamaları Available Sprinkler Temperature Ratings and Finishes

Sprinkler Sıcaklık Sınıflandırması Sprinkler Temperature Classification	Sprinkler Nominal Sıcaklık Derecesi ¹ Sprinkler Nominal Temperature Rating ¹	Maksimum Çevre Tavan Sıcaklığı ² Maximum Ambient Ceiling Temperature ²	Ampül Rengi Bulb Color
Normal / Ordinary	135°F (57°C)	100°F (38°C)	Turuncu / Orange
Normal / Ordinary	155°F (68°C)	100°F (38°C)	Kırmızı / Red
Orta Düzey / Intermediate	175°F (79°C)	150°F (65°C)	Sarı / Yellow
Orta Düzey / Intermediate	200°F (93°C)	150°F (65°C)	Yeşil / Green
Yüksek / High	286°F (141°C)	225°F (107°C)	Mavi / Blue

PENDENT



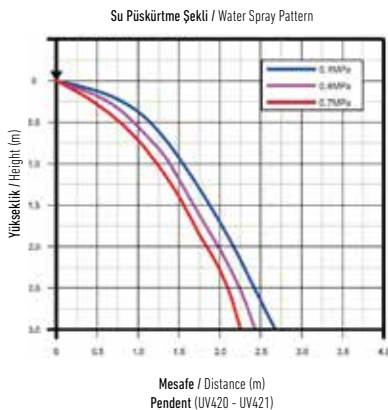
- 1- Gövde / Frame
- 2- Yay Siti / Spring Seat
- 3- Cam Ampül / Glass Bulb
- 4- Ampül Kafası / Bulb Cap
- 5- Vida / Screw
- 6- Deflektör / Deflector
- 7- Yay / Spring

Sprinkler Kaplamaları / Sprinkler Finishes: Pirinç, Nikel-Krom, Beyaz Polyester, Siyah Teflon Kaplama / Brass, Nickel-Chrome, White Polyester, Black Teflon Coating

Not / Note: ¹ Sprinkler sıcaklık derecesi deflektörün üzerinde mühür olarak yer alır. / The sprinkler temperature rating is stamped on the deflector.

² NFPA-13 e göredir. Yangın yükü, sprinkler konumu ve yetkili idarelere bağlı olarak diğer ve özel gereklilikler uygulanabilir. / Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

PÜSKÜRTME ŞEKLİ / SPRAY PATTERN



MONTAJ / INSTALLATION

Unival sprinkler sistemleri, yürürlükteki standart, onay kuruluşları ve listelerdeki montaj kurallarına uygun olarak dizayn edilmiş yangın koruma sistemlerine göre seçilmelidir.

Not: Ampülü çatlamış veya ampülde sıvı kaybı olan hiçbir sprinkleri kullanmayınız. Sprinkler yatay tutulduğunda içerisinde küçük bir hava kabarcığı olmalıdır. Sprinkler maksimum 28.5 Nm (21 ft-lbs) tork ile takılmalıdır.

The UNIVAL sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or UL 199 Standard)

Note: Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

UV820 - UV821

Gizli Tip Sprinkler UV-8 Serisi Hızlı Tepkimeli Sprinkler UV-8 Series (Concealed Sprinkler)



UV820



UV821

TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

- Minimum İşletme Basıncı / Minimum Operating Pressure:**
7 psi (0.5 bar)
- Maksimum Çalışma Basıncı / Maximum Working Pressure:**
175 psi (12 bar)
- Boşaltma Katsayısı / Discharge Coefficient:**
K = 5.6 GPM/psi^{1/2} (80.7 LPM/bar^{1/2})
- Sıcaklık Derecesi / Temperature Rating:** 155°F / 175°F (68°C / 93°C)
- Fabrikadaki Sızdırmazlık Testi / Leakage Test at Factory:**
30 Kg/cm² (0.3Mpa, 29.4bar, 426.7 psi)

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Sprinkler Kodları ve Özellikleri

UV820 : Standart Tepkimeli, Pendent, 5.6K, 1/2" NPT
UV821 : Hızlı Tepkimeli, Pendent, 5.6K, 1/2" NPT

Sprinkler Codes and Specifications

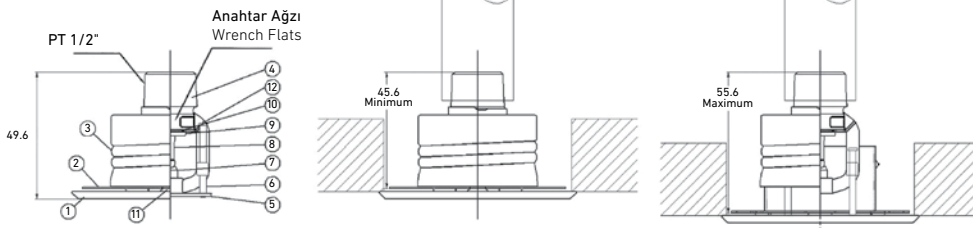
UV820 : Standard response, Pendent, 5.6K, 1/2" NPT
UV821 : Quick response, Pendent, 5.6K, 1/2" NPT

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Çerçeve Dövme / Frame Forging	Pirinç / Brass
Deflektör / Deflector	Pastanmaz Çelik / Stainless Steel
Yay Siti / Spring Seat	Ni-Be alaşımı her iki tarafı teflon kaplı. Ni-Be alloy, coated on both sides with teflon tape.
Ampül / Bulb	Cam / Glass
Ampül Kapağı / Bulb Cap	Pirinç / Brass
Vida / Screw	Pastanmaz Çelik / Stainless Steel

DİZAYN KRİTERLERİ / DESIGN CRITERION

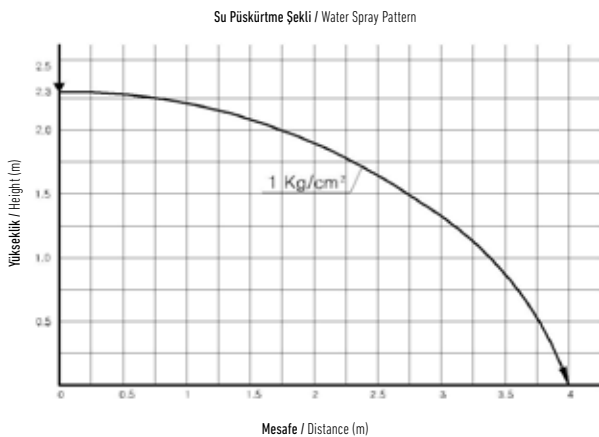
Kesit / Cross Section



- 1- Kapak Plakası / Cover Plate
- 2- Tutucu / Retainer
- 3- Kapak Adaptörü / Cover Adapter
- 4- Gövde / Frame
- 5- Deflektör / Deflector
- 6- Deflektör Pimi / Deflector Pin
- 7- Vida / Screw
- 8- Cam Ampül / Glass Bulb
- 9- Ampül Kafası / Bulb Cap
- 10- Yay Siti / Spring Seat
- 11- Plaka Yay / Plate Spring
- 12- Yay / Spring

SIN No	Püskürtme Dağılımı Spray Pattern	Tepki / Response	Dış Ölçüsü / Thread Size		K Faktörü K Factor	Dikey Ayar Mesafesi Vertical Adjustment Stroke	Onay Certification
			NPT	BSP			
UV 820	Sarkık / Pendent	SR	1/2"	15 mm	K 5.6 (US)	10 mm	UL _{US}
UV 821	Sarkık / Pendent	QR	1/2"	15 mm	K 5.6 (US)	10 mm	UL _{US}

PÜSKÜRTME ŞEKLİ / SPRAY PATTERN



MONTAJ / INSTALLATION

Unival sprinkler sistemleri, yürürlükteki standart, onay kuruluşları ve listelerdeki montaj kurallarına uygun olarak dizayn edilmiş yangın koruma sistemlerine göre seçilmelidir.

Not: Ampülü çatlamış veya ampülde sıvı kaybı olan hiçbir sprinkleri kullanmayınız. Sprinkler yatay tutulduğunda içerisinde küçük bir hava kabarcığı olmalıdır. Sprinkler maksimum 28.5 Nm (21 ft-lbs) tork ile takılmalıdır.

The UNIVAL sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or UL 199 Standard)

Note: Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

Duvar Tipi Sprinkler UV-3 Serisi / Automatic Sprinkler UV-3 Series (Glass Bulb Type)



UV340

UV341

GENEL ÖZELLİKLER / GENERAL SPECIFICATIONS

Sprinkler Kodları ve Özellikleri

UV340: Standart tepkimeli, Duvar tipi 5.6K, ½" NPT

UV341: Hızlı Tepkimeli, Duvar tipi, 5.6K, ½" NPT

Sprinkler Codes and Specifications

UV340: Standard response, Sidewall, 5.6K, ½" NPT

UV341: Quick response, Sidewall, 5.6K, ½" NPT

DİZAYN KRİTERLERİ / DESIGN CRITERION

Sprinkler Sıcaklıkları ve Kaplamaları Available Sprinkler Temperature Ratings and Finishes

Sprinkler Sıcaklık Sınıflandırması Sprinkler Temperature Classification	Sprinkler Nominal Sıcaklık Derecesi ¹ Sprinkler Nominal Temperature Rating ¹	Maksimum Çevre Tavan Sıcaklığı ² Maximum Ambient Ceiling Temperature ²	Ampül Rengi Bulb Color
Normal / Ordinary	135°F (57°C)	100°F (38°C)	Turuncu / Orange
Normal / Ordinary	155°F (68°C)	100°F (38°C)	Kırmızı / Red
Orta Düzey / Intermediate	175°F (79°C)	150°F (65°C)	Sarı / Yellow
Orta Düzey / Intermediate	200°F (93°C)	150°F (65°C)	Yeşil / Green
Yüksek / High	286°F (141°C)	225°F (107°C)	Mavi / Blue

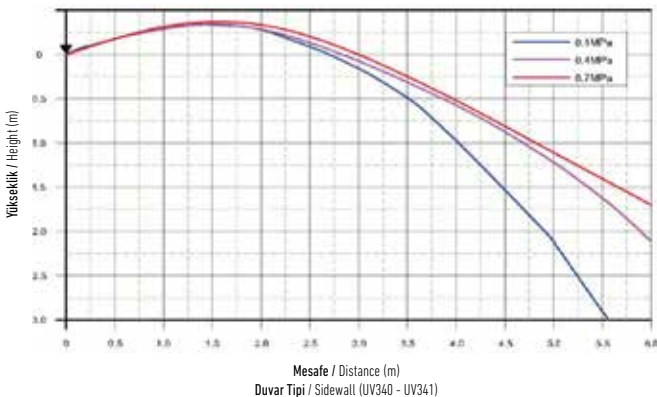
Sprinkler Kaplamaları / Sprinkler Finishes: Pirinç, Nikel-Krom, Beyaz Polyester, Siyah Teflon Kaplama / Brass, Nickel-Chrome, White Polyester, Black Teflon Coating

Not / Note: ¹ Sprinkler sıcaklık derecesi deflektörün üzerinde mühür olarak yer alır. / The sprinkler temperature rating is stamped on the deflector.

² NFPA-13 e göredir. Yangın yükü, sprinkler konumu ve yetkili idarelere bağlı olarak diğer ve özel gereklilikler uygulanabilir. / Based on NFPA-13. Other limits may apply, depending on fire loading, sprinkler location, and other requirements of the Authority Having Jurisdiction. Refer to specific installation standards.

PÜSKÜRTME ŞEKLİ / SPRAY PATTERN

Su Püskürtme Şekli / Water Spray Pattern



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Minimum İşletme Basıncı / Minimum Operating Pressure:
7 psi (0.5 bar)

Maksimum Çalışma Basıncı / Maximum Working Pressure:
175 psi (12 bar)

Boşaltma Katsayısı / Discharge Coefficient:
K = 5.6 GPM/psi^{1/2} (80.7 LPM/bar^{1/2})

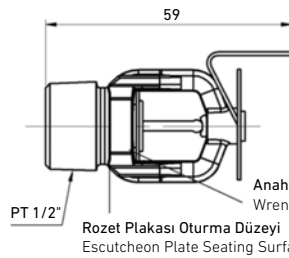
Sıcaklık Derecesi / Temperature Rating: 135°F / 155°F / 175°F / 200°F / 286°F (57°C / 68°C / 79°C / 93°C / 141°C)

Fabrikadaki Sızdırmazlık Testi / Leakage Test at Factory:
30 Kgf/cm² (0.3Mpa, 29.4bar, 426.7 psi)

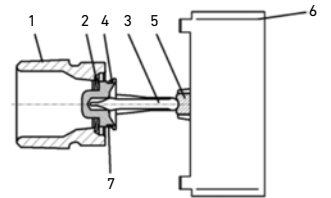
MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Çerçeve Dövme / Frame Forging	Pirinç / Brass
Deflektör / Deflector	Paslanmaz Çelik / Stainless Steel
Yay Siti / Spring Seat	Ni-Be alaşımı her iki taraflı teflon kaplı. Ni-Be alloy, coated on both sides with Teflon Tape.
Ampül / Bulb	Cam / Glass
Ampül Kapağı / Bulb Cap	Pirinç / Brass
Vida / Screw	Paslanmaz Çelik / Stainless Steel
Yay / Spring	Paslanmaz Çelik / Stainless Steel

Duvar Tipi / Sidewall



Kesit / Cross Section



- 1- Gövde / Frame
- 2- Yay Siti / Spring Seat
- 3- Cam Ampül / Glass Bulb
- 4- Ampül Kafası / Bulb Cap
- 5- Vida / Screw
- 6- Deflektör / Deflector
- 7- Yay / Spring

MONTAJ / INSTALLATION

Unival sprinkler sistemleri, yürürlükteki standart, onay kuruluşları ve listelerdeki montaj kurallarına uygun olarak dizayn edilmiş yangın koruma sistemlerine göre seçilmelidir.

Not: Ampülü çatlamış veya ampülde sıvı kaybı olan hiçbir sprinkleri kullanmayınız. Sprinkler yatay tutulduğunda içerisinde küçük bir hava kabarcığı olmalıdır. Sprinkler maksimum 28.5 Nm (21 ft-lbs) tork ile takılmalıdır.

The UNIVAL sprinklers are intended for fire protection systems designed in accordance with the standard installation rules of the applicable listings or approval agency. (eg., NFPA 13 or UL 199 Standard)

Note: Do not install any bulb type sprinkler if the bulb is cracked or there is a loss of fluid from the bulb. And with the sprinkler held horizontally, a small air bubble should be present. The sprinkler joint should be obtained with maximum torque of 28.5 Nm (21 ft-lbs)

Sprinkler Bağlantı Hortumu / Sprinkler Flexible Hose



TEKNİK ÖZELLİKLER / TECHNICAL SPECIFICATIONS

Basınç Sınıfı / Pressure Rating: PN16

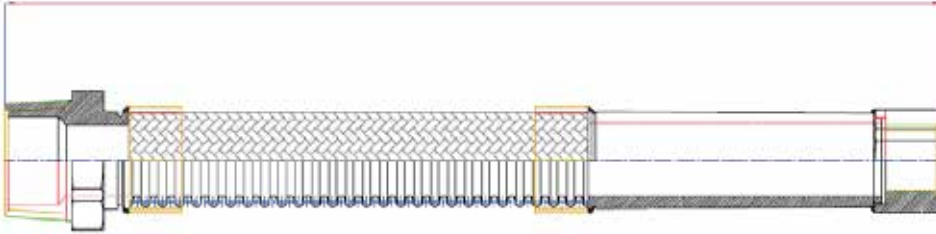
Hortum / Hose : Paslanmaz Çelik / Stainless Steel

Başlıklar / Nipple, Union : Karbon Çelik / Carbon Steel
Paslanmaz Çelik / Stainless Steel
(Opsiyonel / Optional)
Somun x Nipel / Nut x Nipple
(diğer bağlantılar opsiyonel /
other connections optional)

MALZEME LİSTESİ / MATERIAL LIST

Parça Adı / Part Name	Malzeme / Material
Hortum / Hose	Paslanmaz Çelik / Stainless Steel
Başlıklar / Nipple, Union	Karbon Çelik / Paslanmaz Çelik (Opsiyonel) Somun x Nipel (Diğer bağlantılar Opsiyonel) Carbon Steel / Stainless steel (Optional) Nut x Nipple (Other connections optional)

ÖLÇÜ TABLOSU / DIMENSIONS



ÜRÜN KODU PRODUCT CODE	Ölçü / Size (L)
SPH-0702X025-50	1 x 1/2" - 50 cm
SPH-0702X025-70	1 x 1/2" - 70 cm
SPH-0702X025-100	1 x 1/2" - 100 cm
SPH-0702X025-150	1 x 1/2" - 150 cm

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TESİSAT ARMATÜRLERİ SANAYİ ve
TİCARET LTD. ŞTİ.

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