

## Serie 9000

 <b>9200</b> Pag. 17.8	 <b>9220</b> Pag. 17.8	 <b>9230</b> Pag. 17.8	 <b>9260</b> Pag. 17.8	 <b>9280</b> Pag. 17.9	 <b>9460</b> Pag. 17.9	 <b>9480</b> Pag. 17.9	 <b>9500</b> Pag. 17.9	 <b>9550</b> Pag. 17.10	
 <b>9680</b> Pag. 17.10	 <b>9740</b> Pag. 17.10	 <b>10770</b> Pag. 17.10							

## Serie 10000

 <b>10200</b> Pag. 17.14	 <b>10220</b> Pag. 17.14	 <b>10230</b> Pag. 17.14	 <b>10240</b> Pag. 17.14	 <b>10260</b> Pag. 17.15	 <b>10280</b> Pag. 17.15	 <b>10290</b> Pag. 17.15	 <b>10460</b> Pag. 17.15	 <b>10465</b> Pag. 17.16
 <b>10480</b> Pag. 17.16	 <b>10485</b> Pag. 17.16	 <b>10500</b> Pag. 17.17	 <b>10510</b> Pag. 17.17	 <b>13530</b> Pag. 17.17	 <b>13540</b> Pag. 17.18	 <b>10550</b> Pag. 17.18	 <b>10680</b> Pag. 17.18	 <b>10740</b> Pag. 17.18
 <b>10760</b> Pag. 17.19	 <b>10770</b> Pag. 17.19	 <b>13780</b> Pag. 17.19	 <b>1612</b> Pag. 17.19	 <b>1613</b> Pag. 17.19				

## Serie 13000

 <b>13200</b> Pag. 17.24	 <b>13220</b> Pag. 17.24	 <b>13230</b> Pag. 17.24	 <b>13240</b> Pag. 17.24	 <b>13260</b> Pag. 17.25	 <b>13280</b> Pag. 17.25	 <b>13290</b> Pag. 17.25	 <b>13300</b> Pag. 17.26	 <b>13460</b> Pag. 17.26
 <b>13465</b> Pag. 17.26	 <b>13480</b> Pag. 17.26	<b>New</b>  <b>13483</b> Pag. 17.27	 <b>13485</b> Pag. 17.27	 <b>13500</b> Pag. 17.28	 <b>13510</b> Pag. 17.28	 <b>13530</b> Pag. 17.28	 <b>13540</b> Pag. 17.29	 <b>13550</b> Pag. 17.29
 <b>13550BI</b> Pag. 17.29	 <b>13570BI</b> Pag. 17.30	 <b>13958BI</b> Pag. 17.30	 <b>13600</b> Pag. 17.30	 <b>13680</b> Pag. 17.30	 <b>13740</b> Pag. 17.31	 <b>13780</b> Pag. 17.31	 <b>10770</b> Pag. 17.31	 <b>1612</b> Pag. 17.31
 <b>1613</b> Pag. 17.31	<b>New</b>  <b>13800</b> Pag. 17.32	<b>New</b>  <b>13805</b> Pag. 17.33	 <b>13810</b> Pag. 17.33	<b>New</b>  <b>13820</b> Pag. 17.34	<b>New</b>  <b>13825</b> Pag. 17.34	 <b>TBPL</b> Pag. 17.35		

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**RACCORDI A COMPRESSIONE, RACCORDI A BICONO E RACCORDI UNIVERSALI**

*COMPRESSION FITTINGS, DOUBLE CONE FITTINGS AND UNIVERSAL FITTINGS*

*KLEMMRING VERSCHRAUBUNGEN, DOPPELKEGEL VERSCHRAUBUNGEN, UNIVERSAL VERSCHRAUBUNGEN*

*RACCORDS À COMPRESSION, RACCORDS À BICONE, RACCORDS UNIVERSELS LAITON*

*RACORDAJE A COMPRESIÓN, RACORDAJE UNIVERSAL A BICONO, RACORDAJE UNIVERSAL*

*CONEXÕES DE COMPRESSÃO, CONEXÕES UNIVERSAIS DE CONE DUPLO, CONEXÕES UNIVERSAIS*



**Serie Compression Fittings**

Le 3 gamme di raccordi a compressione in ottone Aignep si differenziano principalmente per le normative di riferimento, le applicazioni e le caratteristiche tecniche delle ogive.

Con queste tre tipologie Aignep rappresenta la scelta più ampia del mercato e riesce a risolvere problemi applicativi ben noti. Le possibilità di utilizzo e di connessione sono molteplici, si possono connettere in assoluta sicurezza tubi rigidi metallici (ottone, rame, alluminio) e tubi in materiali termo plastici come poliuretano, poliammide e teflon. Disponibili Ogive in teflon.

Serie 9.000	DIN 3861
Serie 10.000	DIN 3862 (Bicono)
Serie 13.000	UNI EN 1254 2:2000 (universale)

#### Principali vantaggi

- 3 tecnologie di connessione
- Compatibilità numerosi fluidi industriali
- Tenuta garantita su differenti tipologie di tubi
- Senza elementi di tenuta (elastomeri)
- Dal ø 4 al ø 22 mm
- Robustezza meccanica
- Versioni con nichelatura
- Silicon Free

#### Applicazioni

- Automazione Pneumatica pesante
- Automotive
- Raffreddamento industriale
- Gas inerti, vapore, lubrificazione
- Vuoto

Aignep offers 3 lines of compression fittings in brass according to different manufacturing directives. This wide selection helps to satisfy the most demanding needs of the market.

Especially designed for connection with metallic tubes (brass, copper, aluminium) to secure connection in low-medium pressure. Connection with PU, PA and PTFE tubes with a smart internal bush.

9.000 Serie	DIN 3861
10.000 Serie	DIN 3862 (Dual cone)
13.000 Serie	UNI EN 1254 2:2000 (Universal)

#### Main advantages

- 3 Connection Technologies
- All industrial fluids compatibility
- Secured connection with different tubes
- Metallic sealing
- From ø 4 to 22 mm
- Mechanical Resistance
- Nickel-plated version
- Silicon Free

#### Applications

- Heavy Pneumatic Automation
- Automotive
- Industrial cooling
- Inert Gases, Steam
- Vacuum

Aignep bietet drei Serien von Klemmringverschraubungen aus Messing an, welche sich vor allem durch verschiedene Herstellungsrichtlinien unterscheiden. Dank dieser großen Auswahl können auch die anspruchsvollsten Nachfragen erfüllt werden.

Speziell entwickelt für die sichere Verbindung von Metall-Rohren (Messing, Kupfer, Aluminium) bei geringem bis mittlerem Druck. Verbindung mit PU, PA und PTFE-Schläuchen mit einer Stützhülse.

9.000er Serie	DIN 3861
10.000er Serie	DIN 3862 (Doppelkegel)
13.000er Serie	UNI EN 1254 2:2000 (Universal)

#### Hauptvorteile

- 3 Verbindungs-Technologien
- Kompatibel mit allen Medien
- Sichere Verbindung mit allen Rohren
- Metall-Dichtungen
- Von ø 4 bis 22 mm
- Mechanische Festigkeit
- Vernickelte Version
- Silikonfrei

#### Anwendungen

- Schwere pneumatische Automation
- Automotive
- Industrie-Kühlung
- Inertgase, Dampf

Aignep propose 3 gammes de raccords à compression en laiton selon différentes normes.

Cette large sélection permet de répondre à tous les besoins dans de nombreuses applications industrielles.

Spécialement conçus pour le raccordement avec des tubes métalliques rigides (Laiton, cuivre, aluminium) ils garantissent une parfaite sécurité dans la connexion en basse et moyenne pression.

Raccordement avec du tube PU, PA et PTFE possibles en utilisant une fourrure intérieure.

Série 9000	selon DIN 3861
Série 10000	selon DIN 3862 (Bi cône)
Série 13000	selon UNI EN 1254 2: 2000 (Universelle)

#### Principaux avantages

- 3 Technologies de raccordement
- Compatibilité avec tous les fluides industriels
- Connexion sécurisée avec différents tubes
- Étanchéité métal/métal
- De ø 4 à 22 mm
- Excellente résistance mécanique
- Versions nickelées ou brute
- Sans silicone

#### Applications

- Automatismes pneumatiques – milieux sévères
- Process Automobile
- Refroidissement industriel
- Gaz neutre, vapeur
- Vide

Las 3 gamas de racores a compresión en latón Aignep se diferencian principalmente por las normativas de referencia, las aplicaciones y las características técnicas de los anillos.

Con estas tres tipologías Aignep representa la elección mas amplia del mercado y resuelve problemas aplicativos de forma notable. Las posibilidades de utilización y de conexión son múltiples, pueden conectarse con absoluta seguridad tubos rígidos metálico (latón, cobre, aluminio) y tubos en material plástico como poliuretano, poliamida y teflón. Disponibles anillos en teflón.

Serie 9.000	DIN 3861
Serie 10.000	DIN 3862 (bicono)
Serie 13.000	UNI EN 1254 2:2000 (Universal)

#### Principales ventajas

- 3 tecnologías de conexión
- Compatibilidad con numerosos fluidos industriales
- Estanqueidad garantizada con diferentes tipologías de tubo
- Sin elementos de estanqueidad (Elastómeros)
- Del diam. 4 al diam 22 mm
- Robustez mecánica
- Versión con níquelatura
- Libres de silicona

#### Aplicaciones

- Automatización neumática pesada
- Automoción
- Refrigeración industrial
- Gases inertes, vapor, lubricación
- Vacío

A Aignep oferece 3 linhas de conexões de compressão em latão de acordo com diferentes diretivas de fabricação.

Esta ampla gama de itens auxilia a atender as mais complexas necessidades do mercado.

Especialmente desenvolvido para conectar tubos metálicos (latão, cobre, alumínio) e assegurar conexões em pressões médias e baixas.

Conexão com tubos em PU, PA e PTFE através de uma bucha interna.

9.000 Série	DIN 3861
10.000 Série	DIN 3862 (Dual cone)
13.000 Série	UNI EN 1254 2:2000 (Universal)

#### Principais vantagens

- 3 Tecnologia de Conexão
- Compatibilidade com todos os fluidos industriais
- Conexão segura com diferentes tubos
- Vedação Metálica
- Para tubos de ø 4 a 22 mm
- Resistência Mecânica
- Versão Niquelada
- Livre de Silicone

#### Aplicações

- Automação Pneumática Pesada
- Automotiva
- Refrigeração Industrial
- Gases Inertes, Vapor
- Vácuo

**RACCORDI UNIVERSALI**

*UNIVERSAL FITTINGS*

*UNIVERSAL VERSCHRAUBUNGEN*

*RACCORDS UNIVERSELS*

*RACORDAJE UNIVERSAL*

*CONEXÕES UNIVERSAIS*





**CARATTERISTICHE TECNICHE**  
 TECHNICAL CHARACTERISTICS  
 TECHNISCHE ANGABEN  
 CARACTÉRISTIQUES TECHNIQUES  
 CARACTERÍSTICAS TÉCNICAS  
 CARACTERÍSTICAS TÉCNICAS



**Norma di Riferimento**  
 Reference standard  
 Entspricht der Norm  
 Norme de référence  
 Normativa de referencia  
 Norma de referência

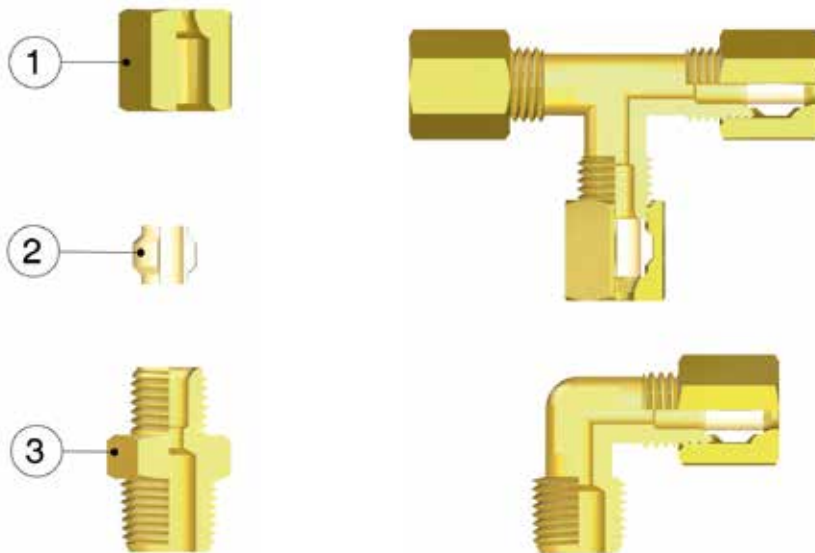
1907/2006  
**REACH** ✓

2011/65/CE  
**RoHS** ✓

UNI EN 1254  
 2:2000

PED  
 2014/68/UE

**SILICON  
 FREE**



Materiali e Componenti	IT	Component Parts and Materials	GB	Komponenten und Materialien	DE
1 Dado in Ottone 2 Ogiva in Ottone 3 Corpo in Ottone		1 Brass Nut 2 Brass Olive 3 Brass Body		1 Übrwurfmutter Messing 2 Klemmring Messing 3 Körper Messing	
Matériaux et Composants	FR	Materiales y Componentes	ES	Materiais e Componentes	PT
1 Ecrou: laiton 2 Bague: laiton 3 Corps: laiton		1 Tuerca en Latón 2 Bicono en Latón 3 Cuerpo en Latón		1 Porca em Latão 2 Bucha em Latão 3 Corpo em Latão	



Tubi di Collegamento	IT	Connection Tubes	GB	Geeignete Rohre	DE
Tubi in rame, ferro, acciaio, alluminio, ottone, PA.		Tubes made in copper, steel, iron, aluminium, brass, PA.		Rohre in Kupfer, Eisen, Stahl, Aluminium, Messing, PA.	
Tubes Conseillés	FR	Tubos de Conexión	ES	Tubos de Conexão	PT
Tubes en cuivre, acier, aluminium, laiton, PA.		Tubos en cobre, hierro, acero, aluminio, latón, PA.		Tubos de cobre, ferro, aço, alumínio, latão, PA.	



Filettatura	IT	Threads	GB	Gewindearten	DE
Gas conica conforme ISO 7.1, BS 21, DIN 2999. Gas cilindrica conforme ISO 228 Classe A. Metrica conforme ISO R/262.		Tapered gas in conformity with ISO 7.1, BS 21, DIN 2999. Parallel gas in conformity with ISO 228 Class A. Metric in conformity with ISO R/262.		Konisches Gewinde nach Norm ISO 7.1, BS 21, DIN 2999. Zylindrisches Gewinde nach Norm ISO 228 Classe A. Metrisches Gewinde nach Norm ISO R/262.	
Filetages	FR	Roscas	ES	Roscas	PT
Filetage conique conforme: ISO 7.1, BS 21, DIN 2999. Filetage cylindrique conforme: ISO 228 Classe A. Filetage métrique conforme: ISO R/262.		Gas cónica conforme ISO 7.1, BS 21, DIN 2999. Gas cilíndrica conforme ISO 228 Clase A. Métrica conforme ISO R/262.		Gas cônica conforme ISO 7.1, BS 21, DIN 2999. Gas paralela conforme ISO 228 Classe A. Métrica conforme ISO R/262.	



## Pressioni e Temperature

IT

Pressioni e temperature vengono determinate dal tipo di tubo impiegato, pertanto tali valori sono da definirsi in base alle caratteristiche del tubo stesso.

Riportiamo di seguito i valori delle pressioni massime consigliate per l'utilizzo dei raccordi con tubi di rame dallo spessore di 1 mm a 20° C.

I valori delle pressioni consigliate, riportate in tabella, sono stati ottenuti dai valori di prova adottando un Coefficiente di Sicurezza 4.

Sono disponibili i certificati delle prove rilasciati dai vari laboratori che le hanno eseguite.

## Pressures and Temperatures

GB

The working pressures and working temperatures depend on which type of tube is used, for this reason, the values must be determined in accordance with the tube's features.

Hereunder, we specify the values of the maximum pressure advised for the fittings at a temperature of 20° C connected with copper tube, which has a thickness of 1 mm.

The values of working pressures advised, specified in table have been obtained from the test values using a Safety Factor 4.

It is available the test report made by the external laboratory test.

## Druckbereich und Temperatur

DE

Drücke und Temperaturen sind definiert durch die verwendete Ausführung der Leitung, d.h. die Werte der eingesetzten Rohre sind zu beachten.

Nachfolgend geben wir die Werte des maximalen Druckes für den Einsatz der Verschraubungen mit Kupferrohren an, deren Wandstärke min. 1mm beträgt und bei einer Temperatur von 20° C.

Es muss berücksichtigt werden, dass die angegebenen Druckwerte in der Tabelle mit einem Sicherheitsfaktors von 4 berechnet wurden.

Es stehen Prüfberichte zur Verfügung, die von verschiedenen, externen Labors gemacht wurden.

## Pressions et Températures

FR

type de tube utilisé. Pour cette raison, les valeurs doivent être déterminées en conformité avec les caractéristiques du tube. Ci-dessous, nous indiquons les valeurs de la pression maximale recommandée pour une connexion avec un tube en cuivre de 1 mm d'épaisseur à une température de 20° C.

Les pressions de service indiquées ont été calculées avec un coefficient de sécurité de 4.

Des rapports externes de tests sont disponibles sur demande pour attester ces valeurs.

## Presiones y Temperaturas

ES

Presión y temperatura vienen determinadas según el tipo de tubo empleado, por lo tanto estos valores se definen en base a las características del mismo tubo. Representamos a continuación los valores de las presiones máximas aconsejadas para la utilización de los racores con tubo de cobre espesor 1 mm a 20° C.

Los valores de las presiones aconsejadas, representadas en la tabla, han sido obtenidas de valores de prueba adoptando un coeficiente de seguridad 4.

Están disponibles los certificados de las pruebas realizadas en distintos laboratorios especializados.

## Pressões e Temperaturas

PT

Pressões e temperaturas dependem do tipo de tubo aplicado, portanto tais valores devem ser definidos com base nas características do tubo em questão.

A seguir apresentamos os valores das pressões máximas aconselhadas para a utilização das conexões com tubos de cobre de espessura de 1 mm a 20° C.

Os valores das pressões aconselhadas, reportados na tabela, foram obtidas dos valores de teste adotando-se um Coeficiente de Segurança 4.

Os certificados de teste executados por laboratórios externos estão disponíveis.



## Temperature

Temperatures

Temperatur

Températures

Temperaturas

Temperaturas

- 60 °C  
+ 300 °C

Misura Size Größe Dimensions Tamaño Tamanho	Pressione massima consigliata a 20 °C Maximum pressure advised at 20 °C Maximal Empfohlener Druck bei 20 °C Pression maximum conseillée à 20 °C Presión máxima aconsejada a 20 °C Pressão máxima aconselhada a 20 °C	
Ø	kg/cm <sup>q</sup>	bar
4	150	148.4
6	150	148.4
8	135	133.6
10	95	94
12	75	74.2
14	100	99
15	95	94
16	95	94
18	70	69.3
22	70	69.3



## Fluidi compatibili

Acqua / Olio / Aria compressa

Fluidi in genere per l'impiantistica idraulica, oleodinamica, idropneumatica, ecc.

### Fluids

Water / Oils / Compressed air

Fluids in general for the hydraulic, pneumatic and oildynamic plants etc.

### Geeignete Medien

Wasser / Öl / Druckluft

Medien im Allgemeinen für hydraulische-, hydropneumatische- und pneumatische Anlagen, usw.

### Fluides compatibles

Eau / Huile / Air comprimé

Fluides courants utilisés en hydraulique et pneumatique, etc.

### Fluidos compatibles

Agua / Aceite / Aire comprimido

Fluidos en general para los campos hidráulicos, neumáticos y oleodinámicos, etc.

### Fluidos compatíveis

Água / Óleo / Ar comprimido

Fluidos em geral para aplicações hidráulicas, oleodinâmicas, hidropneumáticas, etc.



## Coppia di serraggio

Torque specifications

Angaben Drehmoment

Couple de serrage

Par de apriete

Especificações de Torque

COPPIE DI SERRAGGIO DADO SU OGIVA TORQUE FORCE ON OLIVE NUT ANZUGSDREHMOMENT ZWISCHEN MUTTER UND KLEMMRING COUPLE DE SERRAGE DE L'ÉCROU SUR LA BAGUE OLIVE PAR DE APRIETE DE LA TUERCA DE OJIVA TORQUE DE APERTO PARA PORCA EM BUCHA			
Ø	N° Giri chiave N° Key turns N° Schlüssel Umdrehungen N° de tours N° Giro de la tuerca N° Rotação da porca	Forza Force Drehmoment Couple Fuerza Força	Forza Force Drehmoment Couple Fuerza Força
mm		Nm	kgf
4	1 1/4 + 1/4	15	1.55
6	1 1/4 + 1/4	18	1.85
8	1 1/4 + 1/4	22	2.25
10	1 1/4 + 1/4	45	2.25
12	1 1/4 + 1/4	70	4.6
14	1 1/4 + 1/4	80	8.15
15	1 + 1/4	90	9.2
16	1 + 1/4	90	9.2
18	1 + 1/4	140	14.3
22	1 + 1/4	160	16.3

Forze di serraggio, minime consigliate, e n° di giri utili, per garantire un montaggio corretto.  
Torque force, minimum recommended, and useful turn, to ensure a correct installation.  
Empfohlenes Anzugsdrehmoment und mindest umdrehungsanzahl für eine korrekte montage.  
Couple de serrage minimum recommandé et nombre de tours pour assurer une installation correcte.  
Par de apriete mínimo recomendado y n. giros necesarios para garantizar un montaje correcto.  
Torque de aperto mínimo garantido, n. rotações necessário para garantir a correcta instalação.

## 13200

### RACCORDO A T INTERMEDIO

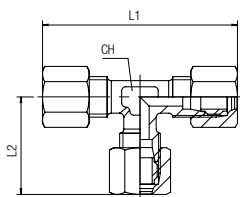
TEE CONNECTOR

T-ANSCHLUSS

RACCORD TÉ

RACOR A T INTERMEDIO

CONEXÃO EM "T" TUBO-TUBO



Code	Tube	L1	L2	CH	Pack.
13200 00 001	4	44	22	8	10
13200 00 002	6	48	24	9	10
13200 00 003	8	57	28.5	12	10
13200 00 004	10	64	32	13	10
13200 00 005	12	69	35	14	10
13200 00 006	14	78	39	18	10
13200 00 007	15	77	38.5	18	10
13200 00 008	16	78.5	39.5	17	10
13200 00 009	18	83	41.5	20	10
13200 00 010	22	89	44.5	27	10

## 13220

### RACCORDO A T MASCHIO CENTRALE

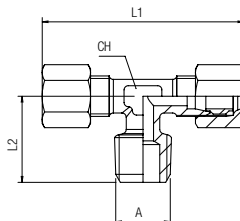
TEE MALE ADAPTOR CENTRE LEG

T-EINSCHRAUBVERSCHRAUBUNG KONISCH

TÉ À PIQUAGE MÂLE CENTRAL, CONIQUE

RACOR A T MACHO CENTRAL

CONEXÃO EM "T" COM ROSCA MACHO CENTRAL



Code	Tube	A	L1	L2	CH	Pack.
13220 00 001	4	1/8	45	15	8	10
13220 00 002	6	1/8	48	16.5	9	10
13220 00 003	6	1/4	48	20.5	9	10
13220 00 004	8	1/8	57	16.5	12	10
13220 00 005	8	1/4	57	20.5	12	10
13220 00 006	8	3/8	61	23	13	10
13220 00 007	10	1/4	64	22.5	13	10
13220 00 008	10	3/8	64	23.5	13	10
13220 00 009	10	1/2	68	27	14	10
13220 00 010	12	1/4	69	24.5	14	10
13220 00 011	12	3/8	69	25	14	10
13220 00 012	12	1/2	69	26.5	14	10
13220 00 013	14	3/8	74	26	16	10
13220 00 014	14	1/2	77	31	18	10
13220 00 015	15	1/2	78	31	18	10
13220 00 016	16	1/2	78.5	28	17	10
13220 00 017	18	1/2	83	29.5	20	10
13220 00 018	18	3/4	83	32.5	20	10
13220 00 019	22	3/4	89	34	27	10

## 13230

### RACCORDO A T MASCHIO LATERALE

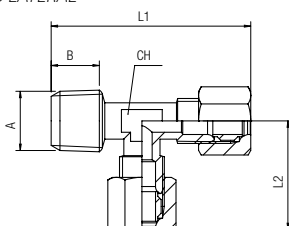
TEE MALE ADAPTOR OFF SET LEG

L-EINSCHRAUBVERSCHRAUBUNG KONISCH

TÉ À PIQUAGE LATÉRAL, CONIQUE

RACOR A T MACHO LATERAL

CONEXÃO EM "T" COM ROSCA MACHO LATERAL



Code	Tube	A	L1	L2	CH	Pack.
13230 00 001	4	1/8	37.5	22.5	8	10
13230 00 002	6	1/8	40	25	9	10
13230 00 003	6	1/4	44	24	9	10
13230 00 004	8	1/8	45.5	28.5	12	10
13230 00 005	8	1/4	49	28.5	12	10
13230 00 006	8	3/8	52	28.5	13	10
13230 00 007	10	1/4	55	32	13	10
13230 00 008	10	3/8	55.5	32	13	10
13230 00 009	12	3/8	58.5	35	14	10
13230 00 010	12	1/2	60	35.5	15	10
13230 00 011	14	1/2	67	38.5	18	10

## 13240

### RACCORDO A T FEMMINA CENTRALE

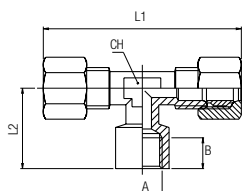
TEE FEMALE CENTRE LEG

T-EINSCHRAUBVERSCHRAUBUNG INNENGEWINDE

TÉ FEMELLE CENTRAL

RACOR A T HEMBRA CENTRAL

CONEXÃO EM "T" COM ROSCA FÊMEA CENTRAL

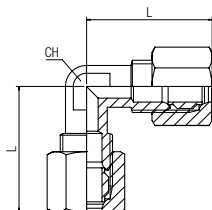


Code	Tube	A	B	L1	L2	CH	Pack.
13240 00 001	4	1/8	8.5	45	18	8	10
13240 00 002	6	1/8	8.5	47.5	19.5	9	10
13240 00 003	6	1/4	11	56	24.5	13	10
13240 00 004	8	1/8	8.5	57	19.5	12	10
13240 00 005	8	1/4	11	59	24.5	13	10
13240 00 007	10	1/4	11	64	24.5	13	10
13240 00 008	10	3/8	10.5	58	26	14	10
13240 00 009	10	1/2	10.5	69	26	15	10
13240 00 010	12	1/4	11	69	25.5	14	10
13240 00 011	12	3/8	10.5	69	26	14	10
13240 00 012	12	1/2	10.5	70	26	15	10
13240 00 013	14	1/2	10.5	77	30	18	10
13240 00 014	15	1/2	10.5	78	30	18	10
13240 00 015	16	1/2	10.5	77.5	28.5	17	10
13240 00 016	18	1/2	10.5	83	28	20	10
13240 00 017	18	3/4	14	83	34	20	10

## 13260

### RACCORDO A L INTERMEDIO

ELBOW CONNECTOR  
WINKELVERSCHRAUBUNG  
RACCORD EQUERRE  
RACOR A L INTERMEDIO  
CONEXÃO EM "L" TUBO-TUBO

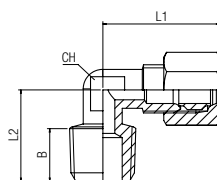


Code	Tube	L	CH	Pack.
13260 00 001	4	21.5	8	10
13260 00 002	6	24	9	10
13260 00 003	8	30	11	10
13260 00 004	10	33	13	10
13260 00 005	12	36	14	10
13260 00 006	14	37	17	10
13260 00 007	15	38	17	10
13260 00 008	16	39.5	17	10
13260 00 009	18	41.5	20	10
13260 00 010	22	44.5	27	10

## 13280

### RACCORDO A L MASCHIO

ELBOW MALE ADAPTOR  
WINKELVERSCHRAUBUNG KONISCH  
EQUERRE MÂLE, CONIQUE  
RACOR A L MACHO  
CONEXÃO EM "L" COM ROSCA MACHO

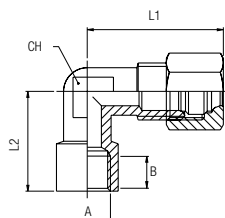


Code	Tube	A	L1	L2	CH	Pack.
13280 00 001	4	1/8	21.5	15	8	10
13280 00 002	6	1/8	24	17	9	10
13280 00 003	6	1/4	24	19	9	10
13280 00 004	8	1/8	30	18	11	10
13280 00 005	8	1/4	30	21.5	11	10
13280 00 006	8	3/8	30.5	24	13	10
13280 00 007	10	1/4	33	23.5	13	10
13280 00 008	10	3/8	33	24.5	13	10
13280 00 009	10	1/2	35	25	14	10
13280 00 010	12	1/4	36	24	14	10
13280 00 011	12	3/8	36	26	14	10
13280 00 012	12	1/2	36	25	14	10
13280 00 013	14	3/8	39	26	17	10
13280 00 014	14	1/2	39	28.5	17	10
13280 00 015	15	1/2	39	28.5	17	10
13280 00 016	16	1/2	40	28	17	10
13280 00 017	18	1/2	41.5	29.5	20	10
13280 00 018	18	3/4	41.5	32	20	10
13280 00 019	22	3/4	44.5	34	27	10

## 13290

### RACCORDO A L FEMMINA

ELBOW FEMALE ADAPTOR  
WINKELVERSCHRAUBUNG INNENGEWINDE  
EQUERRE FEMELLE  
RACOR A L HEMBRA  
CONEXÃO EM "L" COM ROSCA FÊMEA



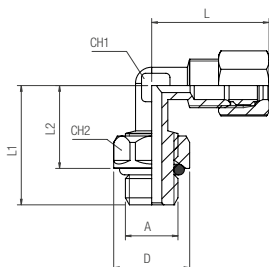
Code	Tube	A	B	L1	L2	CH	Pack.
13290 00 001	4	1/8	8.5	23	18	8	10
13290 00 002	6	1/8	8.5	24	18	9	10
13290 00 003	6	1/4	10.5	24.5	22.5	11	10
13290 00 004	8	1/8	8.5	30	21	11	10
13290 00 005	8	1/4	11	30.5	25.5	13	10
13290 00 006	8	3/8	10.5	31	25	14	10
13290 00 007	10	1/4	11	34	25	13	10
13290 00 008	10	3/8	10.5	34	25	14	10
13290 00 009	10	1/2	10.5	34	27	15	10
13290 00 010	12	1/4	11	36	26	14	10
13290 00 011	12	3/8	10.5	36	26	14	10
13290 00 012	12	1/2	10.5	36	27	15	10
13290 00 013	14	1/2	10.5	39	30	18	10
13290 00 014	15	1/2	10.5	39	30	18	10
13290 00 015	16	1/2	10.5	41.5	30	18	10
13290 00 016	18	1/2	10.5	41.5	29	20	10
13290 00 017	18	3/4	14	44.5	33.5	20	10



## 13300

### RACCORDO A L ORIENTABILE MASCHIO CON OR

ORIENTING ELBOW MALE ADAPTOR WITH OR  
WINKELVERSCHRAUBUNG (DREHBAR) MIT OR  
EQUERRE ORIENTABLE MÂLE AVEC JOINT  
RACOR A L ORIENTABLE MACHO CON TÓRICA  
CONEXÃO MACHO EM "L" ORIENTÁVEL COM O-RING



Code	Tube	A	L	L1	L2	D	CH1	CH2	Pack.
13300 00 001	4	1/8	23	22.5	15.5	15	9	14	10
13300 00 002	4	1/4	23	30	19	19	9	17	10
13300 00 003	6	1/8	24.5	23	15.5	15	9	14	10
13300 00 004	6	1/4	24	21	19	19	9	17	10
13300 00 005	8	1/8	29	23	15.5	15	11	14	10
13300 00 006	8	1/4	29	29.5	19	19	11	17	10
13300 00 007	8	3/8	29.5	30.5	19	22	13	20	10
13300 00 008	10	1/4	32.5	30	19	19	13	17	10
13300 00 009	10	3/8	32.5	30.5	19	22	13	20	10
13300 00 010	10	1/2	33.5	39	24	25	17	23	10
13300 00 011	14	3/8	38.5	33.5	19	22	17	20	10
13300 00 012	14	1/2	38.5	39	24	25	17	23	10
13300 00 013	18	1/2	41.5	39.5	24	25	20	23	10
13300 00 014	18	3/4	41.5	42	25.5	32	20	30	10
13300 00 015	22	3/4	44.5	50	25.5	32	20	30	10
13300 00 016	22	1"	44.5	54	35	44	27	41	10



Temperature

min

- 20 °C

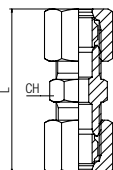
max

+ 80 °C

## 13460

### RACCORDO DIRITTO INTERMEDIO

STRAIGHT CONNECTOR  
VERBINDUNGSVERSCHRAUBUNG  
RACCORD UNION DOUBLE  
RACOR RECTO INTERMEDIO  
CONEXÃO RETA TUBO-TUBO

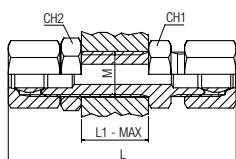


Code	Tube	L	CH	Pack.
13460 00 001	4	33	10	10
13460 00 002	6	36	11	10
13460 00 003	8	40	13	10
13460 00 004	10	45.5	16	10
13460 00 005	12	47	18	10
13460 00 006	14	47.5	21	10
13460 00 007	15	52	21	10
13460 00 008	16	52.5	22	10
13460 00 009	18	56	26	10
13460 00 010	22	58.5	30	10

## 13465

### RACCORDO INTERMEDIO DI ATTRAVERSAMENTO

BULKHEAD CONNECTOR  
SCHOTTVERSCHRAUBUNG  
RACCORD DROIT TRAVERSÉE DE CLOISON  
RACOR INTERMEDIO PASATABIQUES  
CONEXÃO PASSAMURO TUBO-TUBO

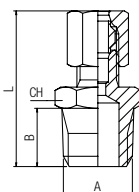


Code	Tube	L	L max	CH1	CH2	M	Pack.
13465 00 001	4	49	12	10	13	M8x1	10
13465 00 002	6	52.5	12.5	13	14	M10x1	10
13465 00 003	8	56.5	12.5	14	17	M12x1	10
13465 00 004	10	63.5	13	19	22	M16x1.5	10
13465 00 005	12	70.5	17	22	22	M18x1.5	10
13465 00 006	14	72.5	19	24	24	M20x1.5	10

## 13480

### RACCORDO DIRITTO MASCHIO CONICO

STRAIGHT MALE ADAPTOR (TAPER)  
GERADE EINSCHRAUBVERSCHRAUBUNG KONISCH  
RACCORD DROIT MÂLE CONIQUE  
RACOR RECTO MACHO CÓNICO  
CONEXÃO RETA COM ROSCA MACHO CÔNICA



Code	Tube	A	L	CH	Pack.
13480 00 001	4	1/8	26.5	11	10
13480 00 002	4	1/4	29.5	14	10
13480 00 003	6	1/8	28	11	10
13480 00 004	6	1/4	31.5	14	10
13480 00 005	6	3/8	32	17	10
13480 00 006	8	1/8	30	13	10
13480 00 007	8	1/4	33.5	14	10
13480 00 008	8	3/8	34	17	10
13480 00 009	10	1/4	36	16	10
13480 00 010	10	3/8	36.5	17	10
13480 00 011	10	1/2	38	21	10
13480 00 012	12	1/4	37	18	10
13480 00 013	12	3/8	37.5	18	10
13480 00 014	12	1/2	39	21	10
13480 00 015	14	3/8	37.5	20	10
13480 00 016	14	1/2	40	21	10
13480 00 017	15	1/2	40	21	10
13480 00 018	16	1/2	42.5	22	10
13480 00 019	16	3/4	44	27	10
13480 00 020	18	1/2	43.5	24	10
13480 00 021	18	3/4	45	27	10
13480 00 022	22	1/2	46	30	10
13480 00 023	22	3/4	47.5	30	10

## 13483

**New**

### RACCORDO DIRITTO MASCHIO CILINDRICO CON OR

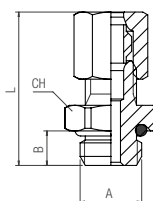
STRAIGHT MALE ADAPTOR WITH OR (PARALLEL)

EINSCHRAUBVERSCHRAUBUNG ZYLINDRISCH MIT OR

RACCORD DROIT AVEC JOINT TORIQUE MALE CYLINDRIQUE

RACOR RECTO MACHO CILÍNDRICO CON TÓRICA

CONEXÃO RETA COM ROSCA MACHO PARALELA COM O-RING



Code	Tube	A	L	B	CH	Pack.
13483 00 013	4	M5	19.5	4	10	10
13483 00 014	4	M8	21.5	5.5	13	10
13483 00 001	4	1/8	24	5.5	13	10
13483 00 015	6	M10X1	22	5.5	13	10
13483 00 016	6	M10X1.5	22	5.5	13	10
13483 00 002	6	1/8	25	5.5	13	10
13483 00 003	6	1/4	27.5	8	16	10
13483 00 017	8	M12X1	26	8	16	10
13483 00 018	8	M12X1,25	26	8	16	10
13483 00 004	8	1/8	27	5.5	13	10
13483 00 005	8	1/4	29.5	8	16	10
13483 00 006	8	3/8	30.5	8	20	10
13483 00 007	10	1/4	32	8	16	10
13483 00 008	10	3/8	32.5	8	20	10
13483 00 027	12	1/4	33.5	8	18	10
13483 00 028	12	3/8	33	8	20	10
13483 00 029	12	1/2	36	9.5	25	10
13483 00 009	14	3/8	34	8	22	10
13483 00 010	14	1/2	36.5	9.5	25	10
13483 00 030	15	3/8	34	8	22	10
13483 00 025	15	1/2	37	9.5	25	10
13483 00 031	16	3/8	37	8	22	10
13483 00 032	16	1/2	39.5	9.5	25	10
13483 00 033	18	1/2	40.5	9.5	25	10
13483 00 034	18	3/4	45	11	34	10
13483 00 011	22	3/4	48	11	34	10
13483 00 012	22	1"	48.5	12	40	10

min

max



Temperature

- 20 °C

+ 80 °C

## 13485

### RACCORDO DIRITTO MASCHIO CILINDRICO

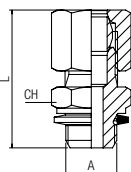
STRAIGHT MALE ADAPTOR (PARALLEL)

GERADE EINSCHRAUBVERSCHRAUBUNG ZYLINDRISCH

RACCORD DROIT MÂLE CYLINDRIQUE

RACOR RECTO MACHO CILÍNDRICO

CONEXÃO RETA COM ROSCA MACHO PARALELA



Code	Tube	A	L	CH	Pack.
13485 00 001	4	1/8	26	13	10
13485 00 002	6	1/8	27	13	10
13485 00 003	6	1/4	30.5	17	10
13485 00 004	8	1/8	30	13	10
13485 00 005	8	1/4	32.5	17	10
13485 00 006	8	3/8	36.5	22	10
13485 00 007	10	1/4	35	17	10
13485 00 008	10	3/8	39	22	10
13485 00 009	14	3/8	40	22	10
13485 00 010	14	1/2	42	27	10
13485 00 011	22	3/4	49	32	10
13485 00 012	22	1"	52	40	10

min

max



Temperature

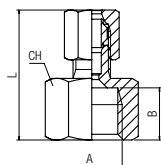
- 20 °C

+ 80 °C

## 13500

### RACCORDO DIRITTO FEMMINA

STRAIGHT FEMALE ADAPTOR  
 AUFSCHRAUBVERSCHRAUBUNG  
 RACCORD DROIT TARAUEE  
 RACOR RECTO HEMBRA  
 CONEXÃO RETA COM ROSCA FÊMEA

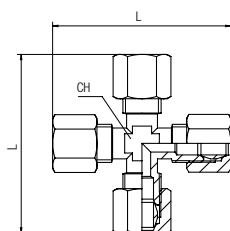


Code	Tube	A	B	L	CH	Pack.
13500 00 001	4	1/8	8.5	25	14	10
13500 00 002	4	1/4	11	27.5	17	10
13500 00 003	6	1/8	8.5	26	14	10
13500 00 004	6	1/4	11	28.5	17	10
13500 00 005	8	1/8	8.5	28	14	10
13500 00 006	8	1/4	11	30.5	17	10
13500 00 007	8	3/8	11.5	31.5	20	10
13500 00 008	10	1/4	11	33	17	10
13500 00 009	10	3/8	11.5	33.5	20	10
13500 00 010	10	1/2	13.5	35.5	24	10
13500 00 011	12	1/4	14.5	34	18	10
13500 00 012	12	3/8	11.5	34.5	20	10
13500 00 013	12	1/2	13.5	34	24	10
13500 00 014	14	3/8	11.5	36.5	20	10
13500 00 015	14	1/2	13.5	34	24	10
13500 00 016	15	1/2	13.5	36.5	24	10
13500 00 017	16	1/2	13.5	39	24	10
13500 00 018	16	3/4	14.5	40.5	30	10
13500 00 019	18	1/2	13.5	40	24	10
13500 00 020	18	3/4	14.5	41.5	30	10
13500 00 021	22	3/4	14.5	41.5	30	10

## 13510

### RACCORDO A CROCE

EQUAL CROSS  
 KREUZVERSCHRAUBUNG  
 RACCORD EN CROIX  
 RACOR A CRUZ  
 CONEXÃO TIPO CRUZETA TUBO-TUBO

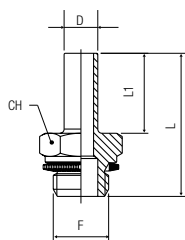


Code	Tube	L	CH	Pack.
13510 00 001	4	47	8	10
13510 00 002	6	48	9	10
13510 00 003	8	58	11	10
13510 00 004	10	66	13	10
13510 00 005	12	74.5	17	10
13510 00 006	14	74.5	17	10

## 13530

### ADATTATORE ORIENTABILE MASCHIO CILINDRICO

ORIENTING MALE ADAPTOR PARALLEL  
 EINSCHRAUBSTECKVERSCHRAUBUNG ZYLINDRISCH  
 ADAPTATEUR D'ORIENTATION CYLINDRIQUE  
 ADAPTADOR ORIENTABLE MACHO CILÍNDRICO  
 ADAPTADOR ORIENTÁVEL COM ROSCA MACHO PARALELA



Code	D	F	L	L1	CH	Pack.
13530 00 001	6	1/8	27.5	16	13	10
13530 00 002	6	1/4	31	16	17	10
13530 00 003	8	1/8	31.5	19	13	10
13530 00 004	8	1/4	34	19	17	10
13530 00 005	8	3/8	38	19	22	10
13530 00 006	10	1/4	35	20	17	10
13530 00 007	10	3/8	39	20	22	10
13530 00 008	14	3/8	40	21	22	10
13530 00 009	14	1/2	42	21	27	10



Temperature

 min  
 - 20 °C

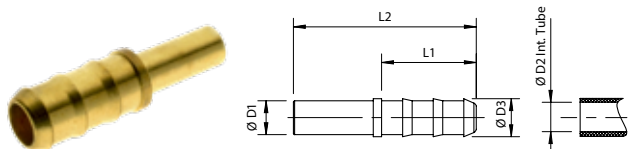
 max  
 + 80 °C

## 13540

### MANICOTTO PORTAGOMMA PER TUBO CAUCCIÙ

SLEEVE HOSE ADAPTER FOR CAOUTCHOUC TUBES  
SCHLAUCHTÜLLE FÜR GUMMISCHLAUCH  
DOUILLE ANNELÉE POUR TUBE CAOUTCHOUC  
MANGUITO PORTAGOMA PARA TUBO DE CAUCHO  
ESPIGÃO PARA ENGATE DE MANGUEIRAS

**New**

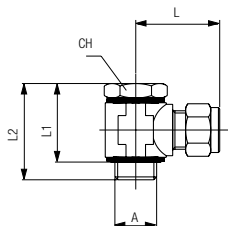


Code	D1	D2	D3	L1	L	Pack.
13540 00 01 MT 00	4	4	6	22.5	39	10
13540 00 01 FM 00	6	4	6	22.5	38.5	10
13540 00 01 GG 00	6	7	9	22.5	40.5	10
13540 00 01 GF 00	8	6	8	22.5	40	10
13540 00 01 GH 00	8	7	9	22.5	43.5	10
13540 00 01 GP 00	8	10	12	22.5	43.5	10
13540 00 01 GI 00	10	7	9	22.5	44.5	10
13540 00 01 FR 00	10	10	12	22.5	44.5	10
13540 00 01 FS 00	12	10	12	22.5	45	10
13540 00 01 GM 00	12	13	15.5	29.5	52	10
13540 00 01 GN 00	14	13	15.5	29.5	52.5	10
13540 0A 01 1Q 00	14	16	18.5	38	62.5	10
13540 0A 01 1R 00	16	13	15	29.5	53.5	10
13540 00 01 Y5 00	16	16	18.5	38	64	10
13540 0A 01 1S 00	18	16	18.5	38	62	10
13540 0A 01 1T 00	18	19	21.5	38	64	10
13540 0A 01 1U 00	20	19	21.5	38	66	10
13540 0A 01 1V 00	25	19	21.5	38	70	10
13540 00 01 J4 00	25	25	27.5	38	72	10

## 13550

### RACCORDO ORIENTABILE A L CON VITE

SINGLE BANJO BODY WITH STEM  
WINKELSCHWENKVERSCHRÄUBUNG (DREHBAR)  
EQUERRE MÂLE BANJO, ORIENTABLE  
RACOR ORIENTABLE A L CON TORNILLO  
CONEXÃO EM "L" ORIENTÁVEL TIPO BANJO



Code	Tube	A	L	L2	L1	CH	Pack.
13550 00 001	4	1/8	22.5	31	24.5	14	10
13550 00 002	6	1/8	23.5	31	24.5	14	10
13550 00 003	6	1/4	26.5	32	25	17	10
13550 00 004	8	1/8	28.5	31	24.5	14	10
13550 00 005	8	1/4	28.5	32	25	17	10
13550 00 006	8	3/8	30	36	27.5	19	10
13550 00 007	10	1/4	32.5	32	25	17	10
13550 00 008	10	3/8	32.5	36	27.5	19	10
13550 00 009	14	1/4	37	44	38	17	10
13550 00 010	14	3/8	37	46	38	22	10
13550 00 011	14	1/2	37	49	39.5	24	10
13550 00 012	22	3/4	47	64	55	32	10



Temperature

min max

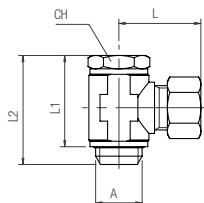
- 20 °C

+ 80 °C

## 13550BI

### RACCORDO ORIENTABILE A L CON VITE E RONDELLE BIMATERIALE (1613)

SINGLE BANJO BODY WITH STEM AND BIMATERIAL WASHER (1613)  
WINKELSCHWENKVERSCHRÄUBUNG MIT BIMATERIAL UNTERLAGSSCHEIBE (1613)  
RACCORD BANJO MALE CYLINDRIQUE AVEC JOINT BI MATIÈRE (1613)  
RACOR ORIENTABLE A L CON TORNILLO Y ARANDELA BIMATERIAL (1613)  
CONEXÃO EM "L" ORIENTÁVEL COM PARAFUSOS E ARRUELA BI-MATERIAL (1613)



Code	Tube	A	L	L2	L1	CH1	Pack.
13550 BI 001	4	1/8	22.5	31	25	14	10
13550 BI 002	6	1/8	23.5	31	25	14	10
13550 BI 003	6	1/4	26.5	32	25.5	17	10
13550 BI 004	8	1/8	28.5	31	25	14	10
13550 BI 005	8	1/4	28.5	32	26.5	17	10
13550 BI 006	8	3/8	30	36	28.5	19	10
13550 BI 007	10	1/4	32.5	32	25.5	17	10
13550 BI 008	10	3/8	32.5	36	28.5	19	10
13550 BI 027	12	1/4	37	44	38.5	17	10
13550 BI 028	12	3/8	37	46	39	19	10
13550 BI 009	14	1/4	37	44	38.5	17	10
13550 BI 010	14	3/8	37	46	39	22	10
13550 BI 011	14	1/2	37	49	41	24	10
13550 BI 029	15	3/8	37	46	39	22	10
13550 BI 030	15	1/2	37	49	41	24	10
13550 BI 031	16	1/2	39	49	41	24	10
13550 BI 032	18	1/2	45.5	49	41	24	10
13550 BI 012	22	3/4	47	64	55	32	10



Temperature

min max

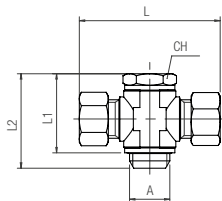
- 30 °C

+ 100 °C

## 13570BI

### RACCORDO ORIENTABILE A T CON VITE E RONDELLE BIMATERIALE (1613)

DOUBLE BANJO BODY WITH STEM AND BIMATERIAL WASHER (1613)  
 DOPPELSCHWENKVERSCHRAUBUNG MIT BIMATERIAL UNTERLAGSSCHEIBE (1613)  
 RACCORD BANJO DOUBLE MALE CYLINDRIQUE AVEC JOINT BI-MATIÈRE (1613)  
 RACOR ORIENTABLE A T CON TORNILLO Y ARANDELA BIMATERIAL (1613)  
 CONEXÃO EM "T" ORIENTÁVEL COM PARAFUSOS E ARRUELA BI-MATERIAL (1613)



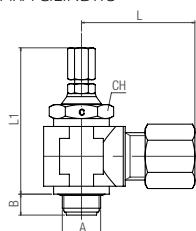
Code	Tube	A	L	L2	L1	CH1	Pack.
13570 BI 001	4	1/8	45	31	25	14	10
13570 BI 002	6	1/8	47	31	25	14	10
13570 BI 003	6	1/4	53	32	25.5	17	10
13570 BI 004	8	1/8	57	36	25	14	10
13570 BI 005	8	1/4	57	32	26.5	17	10
13570 BI 006	8	3/8	60	36	28.5	19	10
13570 BI 007	10	1/4	63	32	25.5	17	10
13570 BI 008	10	3/8	65	36	28.5	19	10
13570 BI 027	12	1/4	73	44	38.5	17	10
13570 BI 028	12	3/8	73	46	39	19	10
13570 BI 009	14	1/4	73	44	38.5	17	10
13570 BI 010	14	3/8	73	46	39	22	10
13570 BI 011	14	1/2	73	49	41	24	10
13570 BI 029	15	3/8	73	46	39	22	10
13570 BI 030	15	1/2	73	49	41	24	10
13570 BI 031	16	1/2	78	49	41	24	10
13570 BI 032	18	1/2	91	49	41	24	10
13570 BI 012	22	3/4	93	64	55	32	10

	min	max
Temperature	- 30 °C	+ 100 °C

## 13958BI

### REGOLATORE UNIDIREZIONALE ORIENTABILE PER CILINDRO

ORIENTING FLOW REGULATOR FOR CYLINDER  
 DURCHFLOSSREGLER ABLUFTDROSSELUNG (DREHBAR)  
 RÉGULATEUR DE DÉBIT À L'ÉCHAPPEMENT FILETAGE (ORIENTABLE)  
 REGULADOR UNIDIRECCIONAL ORIENTABLE PARA CILINDRO  
 REGULADORA UNIDIRECCIONAL ORIENTÁVEL PARA CILINDRO



Code	Tube	A	L	L1min	L1max	B	CH1	Pack.
13958 BI 001	8	1/8	28.5	36.5	42	4.5	14	10
13958 BI 002	10	1/4	32.5	40	45.5	6.5	17	10
13958 BI 003	14	3/8	36.5	50	57	6.5	20	10
13958 BI 004	18	1/2	46	54.5	62	7.5	24	10

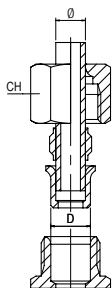
Regolatore (8905) + Rondelle bimateriale (1613).  
 Regulator (8905) + Bimaterial washer (1613).  
 Regler (8905) + Bimaterial unterlagsscheibe (1613).  
 Régulateur (8905) + Joint bi matière (1613).  
 Regulador (8905) + Arandela bimaterial (1613).  
 Reguladora (8905) + Arruela bi-material (1613).

	min	max
Temperature	- 20 °C	+ 80 °C

**Regolazione manuale - Manual regulation - Einstellbar von hand**  
 À vis extérieure - regulación manual - regulagem manual

## 13600

**RIDUZIONE**  
 REDUCTION  
 REDUZIERUNG  
 RÉDUCTION  
 REDUCCIÓN  
 REDUÇÃO

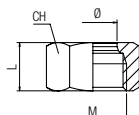


Code	Tube	D	CH	Pack.
13600 00 001	4	6	13	10
13600 00 002	6	8	14	10
13600 00 003	8	10	19	10
13600 00 004	10	12	22	10
13600 00 005	12	14	24	10

Questo articolo è comprensivo di tre particolari quali: Dado, Ogiva, Riduzione.  
 This article is comprehensive of 3 parts: Nut, Olive, Reduction.  
 Dieser Artikel enthält drei wie insbesondere: Mutter, Spinner, Verringerung.  
 Cet article comprend trois des détails tels que: Écrous, Spinner, Réduction.  
 Este artículo incluye tres partes: Tuerca, Ojiva, Reducción.  
 Este artigo inclui três especial, tais como: Nut, Girador, Redução.

## 13680

**DADO**  
 NUT  
 ÜBERWURFMUTTER  
 ECROU  
 TUERCA  
 PORCA

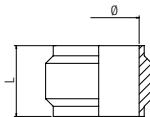


Code	Tube	L	CH	M	Pack.
13680 00 01 X1 00	4	10.5	10	M 8x1	50
13680 00 01 X4 00	6	10.5	13	M 10x1	50
13680 00 01 X7 00	8	12.5	14	M 12x1	50
13680 00 01 X9 00	10	15	19	M 16x1.5	50
13680 00 01 Y1 00	12	15	22	M 18x1.5	50
13680 00 01 Y3 00	14	15	24	M 20x1.5	20
13680 00 01 Y4 00	15	15	24	M 20x1.5	20
13680 00 01 Y5 00	16	17	27	M 22x1.5	20
13680 00 01 Y7 00	18	18	30	M 24x1.5	20
13680 00 01 J1 00	22	19	36	M 30x1.5	10

### 13740

**OGIVA OTTONE**

BRASS OLIVE  
KLEMMRING MESSING  
OLIVE LAITON  
BICONO LATÓN  
BUCHA EM LATÃO

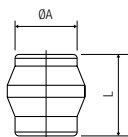


Code	Tube	L	Pack.
13740 00 01 X1 00	4	6	50
13740 00 01 X4 00	6	6.5	50
13740 00 01 X7 00	8	7	50
13740 00 01 X9 00	10	8	50
13740 00 01 Y1 00	12	8.5	50
13740 00 01 Y3 00	14	8.5	20
13740 00 01 Y4 00	15	8.5	20
13740 00 01 Y5 00	16	9	20
13740 00 01 Y7 00	18	9.5	20
13740 00 01 J1 00	22	10	10

### 13780

**TAPPO PER RACCORDI UNIVERSALI**

PLUG FOR UNIVERSAL FITTINGS  
STOPFEN FÜR DOPPELKEGEL VERSCHRAUBUNGEN  
BOUCHON POUR RACCORDS UNIVERSELS  
TAPÓN PARA RACORES UNIVERSELS  
TAMPÃO PARA CONEXÃO UNIVERSAIS

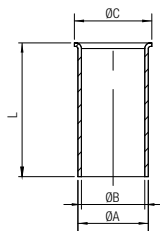


Code	Tube	L	Pack.
13780 00 01 X1 00	4	10	50
13780 00 01 X4 00	6	10.5	50
13780 00 01 X7 00	8	10.5	50
13780 00 01 X9 00	10	11.5	50
13780 00 01 Y1 00	12	12	50
13780 00 01 Y3 00	14	14	20
13780 00 01 Y4 00	15	14	20
13780 00 01 Y5 00	16	14	20
13780 00 01 Y7 00	18	16	20
13780 00 01 J1 00	22	15	20

### 10770

**BUSSOLA DI RINFORZO**

INTERNAL SUPPORT BUSH  
STÜTZHÜLSE MESSING  
FOURRURE INTÉRIEURE  
REFUERZO  
BUCHA DE REFORÇO INTERNA

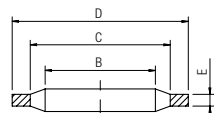


Code	Tube	A	B	C	L	Pack.
10770 00 01 1D 00	4/2.7	2.7	2.1	3.7	13	10
10770 00 01 3D 00	6/4	4	3.2	5	13	10
10770 00 01 4D 00	8/6	6	5	7	16.5	10
10770 00 01 5D 00	10/8	8	7	9	17	10
10770 00 01 7D 00	12/9	9	8	11	19	10
10770 00 01 8D 00	12/10	10	9	11	19	10
10770 00 01 0E 00	14/12	12	11	13.5	21	10
10770 00 01 1E 00	15/12.5	12.5	11.6	14	21	10
10770 00 01 3E 00	16/13	13	12	15.5	22	10
10770 00 01 7E 00	18/15	15	14	17.5	23	10
10770 00 01 8E 00	18/16	16	15	17.5	23	10
10770 00 01 0F 00	22/18	18	17	21	25	10

### 1612

**RONDELLA BIMATERIALE IN ACCIAIO E NBR**

STEEL AND NBR BIMATERIAL WASHER  
VERBUNDDICHTRINGE AUS STAHL UND NBR  
RONDELLE-JOINT BI-MATIÈRE (NBR/ACIER)  
ARANDELA BIMATERIAL EN ACERO Y NBR  
ARRUELA BI-MATERIAL EM AÇO E NBR



Code	Size	B	C	D	E	Pack.
01612 00 001	1/8	10.4	12	14.7	1.25	20
01612 00 002	1/4	13.85	15.75	18.7	1.25	20
01612 00 003	3/8	17.35	19.25	22.7	1.25	20
01612 00 004	1/2	21.65	23.55	26.7	1.25	20
01612 00 005	3/4	27.3	29.2	32.5	1.25	20
01612 00 006	1"	34.2	36.1	39.5	2	20



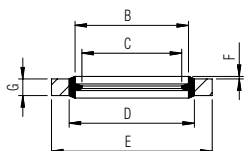
Temperature

min - 30 °C  
max + 100 °C

### 1613

**RONDELLA AUTOCENTRANTE BIMATERIALE IN ACCIAIO E NBR**

STEEL AND NBR CENTERING BIMATERIAL WASHER  
BI-MATERIAL STAHL SCHEIBE UND NBR  
RONDELLE JOINT BI-MATIÈRE (NBR/ACIER)  
ARANDELA BIMATERIAL EN ACERO Y NBR  
ARRUELA BI-MATERIAL EM AÇO E NBR



Code	Size	B	C	D	E	G	F	Pack.
01613 00 001	1/8	10.37	8.56	11.84	14	2	0.3	20
01613 00 002	1/4	13.74	11.45	15.21	17	2	0.3	20
01613 00 003	3/8	17.28	14.96	18.75	22	2	0.3	20
01613 00 004	1/2	21.54	18.64	23.01	26	2.5	0.4	20
01613 00 005	3/4	27.05	24.13	28.53	32	2.5	0.4	20
01613 00 006	1"	33.89	30.30	36.88	41	3.2	0.5	20



Temperature

min - 30 °C  
max + 100 °C

**RACCORDO PORTAGOMMA PER TUBO AUTOBLOCCANTE**

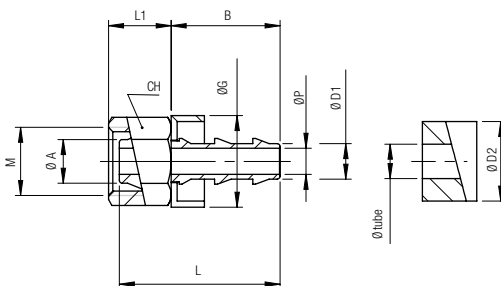
HOSE ADAPTER FOR LOCKING HOSE SELF  
 EINSCHRAUBTÜLLE FÜR STECKSCHLÄUCHE  
 DOUILLES ANNELÉES RAPIDES POUR TUYAUX AUTO-SERRANTS  
 RACORDAJE PORTAGOMA PARA TUBO AUTOBLOCCANTE  
 CONEXÃO ESPIGAO PARA TUBO AUTOBLOCCANTE

**13800**

**RACCORDO PORTAGOMMA FEMMINA PER TUBO AUTOBLOCCANTE**

FEMALE HOSE ADAPTER FOR LOCKING HOSE SELF  
 SCHNELLSTECKTÜLLE FÜR UNIVERSAL VERSCHSCHRAUBUNG  
 ÉCROU R.U. AVEC DOUILLE ANNELEE POUR TUYAUX AUTO-SERRANTS  
 RACORDAJE PORTAGOMA HEMBRA PARA TUBO AUTOBLOCCANTE  
 CONEXÃO ESPIGÃO FÊMEA PARA TUBO AUTOBLOCCANTE

**New**



Montaggio  
 Assembling  
 Montageanleitung  
 Assemblage  
 Montaje  
 Montagem

Code	Tube	M	Ø A	Ø D1	Ø D2	CH	Ø G	L	B	L1	Ø P	Pack.
13800 00 001	1/4	M10x1	6	6.5	13	12	16.7	32.5	20	11.5	4.8	10
13800 00 002	1/4	M12x1	8	6.5	13	14	16.7	29.5	20	12.5	4.8	10
13800 00 003	1/4	M16x1.5	10	6.5	13	19	16.7	30.5	24	14	4.8	10
13800 00 004	3/8	M16x1.5	10	9.5	16	19	19.5	34.5	24	14	7.5	10
13800 00 005	3/8	M20x1.5	14	9.5	16	24	19.5	36	28	14	7.5	10
13800 00 006	1/2	M20x1.5	14	12.7	19	24	23.5	40	28	14	10	10
13800 00 010	1/2	M22x1.5	16	12.7	19	27	23.5	44	28.5	15.5	10	10
13800 00 007	1/2	M24x1.5	18	12.7	19	30	23.5	40.5	36.5	17	10	10
13800 00 008	5/8	M24x1.5	18	15.7	23	30	27.3	49	36.5	17	13.5	10
13800 00 009	3/4	M30x1.5	22	18.8	27	36	30.8	57.5	43	17	16	10



**IT**

Su ogni articolo della serie 13000 è possibile sostituire dado e ogiva con 13800. Vedi "Ø A" come riferimento.

**GB**

For each item of the 13000 serie, you can remove the nut and the olive and connect with the art. 13800. See "Ø A" for nut size.

**DE**

Auf jedes Artikel der Serie 13000 kann man die Überwurfmutter und Klemmring mit dem Artikel 13800 ersetzen. Für die Auswahl Siehe "Ø A" Rohrdurchmesser.

**FR**

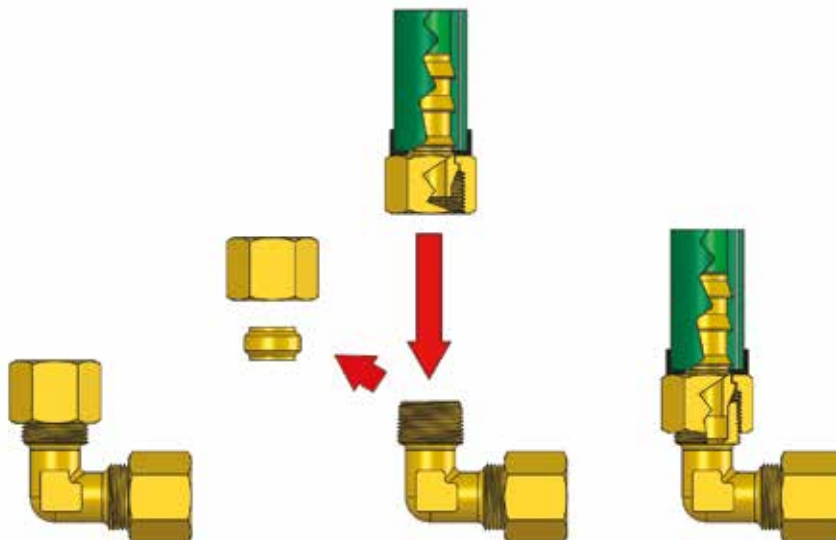
Pour chaque article de la série 13000, possibilité de substituer l'écrouet l'ogive avec le code 13800. Se reporter au "Ø A" pour diamètre écrou.

**ES**

Para cada artículo de la serie 13000 es posible de sustituir la tuerca y el bicono con 13800. Ver "Ø A" como referencia.

**PT**

Para cada item da série 13000 é possível fazer a substituição da porca e da anilha pelo item 13800. Veja "Ø A" para referência.



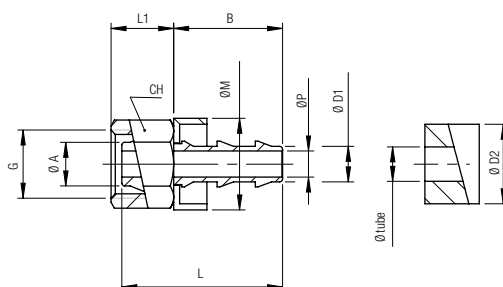
# 13805

## RACCORDO PORTAGOMMA FEMMINA PER TUBO AUTOBLOCCANTE

FEMALE HOSE ADAPTER FOR LOCKING HOSE SELF  
 SCHNELLSTECKTÜLLEN FÜR STECKSCHLÄUCHE  
 DOUILLES ANNELÉES RAPIDES POUR TUYAUX AUTO-SERRANTS  
 RACORDAJE PORTAGOMA HEMBRA PARA TUBO AUTOBLOCCANTE  
 CONEXÃO ESPIGÃO FÊMEA PARA TUBO AUTOBLOCCANTE

**New**

Montaggio  
 Assembling  
 Montageanleitung  
 Assemblage  
 Montaje  
 Montagem



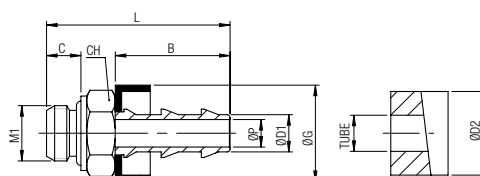
Code	Tube	G (Gas)	Ø A	Ø D1	Ø D2	CH	Ø M	L	B	L1	Ø P	Pack.
1380500002	1/4	1/4	8	6.5	13	15	16.7	29.5	20	12.5	4.8	10
1380500003	1/4	3/8	10	6.5	13	19	16.7	30.5	24	15	4.8	10
1380500004	3/8	3/8	10	9.5	16	19	19.5	34.5	24	15	7.5	10
1380500005	3/8	1/2	14	9.5	16	24	19.5	36	28	15	7.5	10
1380500006	1/2	1/2	14	12.7	19	24	23.5	40	28	15	10	10
1380500008	5/8	3/4	18	15.7	23	32	27.3	49	36.5	16.5	13.5	10
1380500009	3/4	3/4	18	18.7	27	32	30.8	57.5	43	18	13.5	10

# 13810

## RACCORDO PORTAGOMMA MASCHIO PER TUBO AUTOBLOCCANTE

MALE HOSE ADAPTER FOR LOCKING HOSE SELF  
 SCHNELLSTECKTÜLLE MIT AUSSENGEWINDE  
 DOUILLE ANNELEE RAPIDE POUR TUYAUX AUTO-SERRANTS  
 RACORDAJE PORTAGOMA MACHO PARA TUBO AUTOBLOCCANTE  
 CONEXÃO ESPIGÃO MACHO PARA TUBO AUTOBLOCCANTE

Montaggio  
 Assembling  
 Montageanleitung  
 Assemblage  
 Montaje  
 Montagem

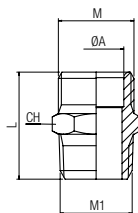


Code	Tube	M1	Ø D1	Ø D2	CH	Ø G	L	B	C	Ø P	Pack.
13810 00 001	1/4	1/8	6.5	13	13	16.7	32	20	6	4.8	10
13810 00 002	1/4	1/4	6.5	13	17	16.7	35.5	20	8	4.8	10
13810 00 003	3/8	1/4	9.5	16	17	19.5	39.5	24	8	7.5	10
13810 00 004	3/8	3/8	9.5	16	22	19.5	41	24	9	7.5	10
13810 00 005	1/2	3/8	12.7	19	22	23.5	45	28	9	10	10
13810 00 006	1/2	1/2	12.7	19	27	23.5	47	28	10	10	10
13810 00 007	5/8	1/2	15.7	23	27	27.3	55	36.5	10	13.5	10
13810 00 008	5/8	3/4	15.7	23	32	27.3	58.5	36.5	12	13.5	10
13810 00 009	3/4	3/4	18.8	27	32	30.8	65	43	12	16	10



# 13820

**NIPPLO**  
 NIPPLE  
 DOPPELNIPPEL  
 MAMELON  
 MACHÓN  
 NIPLE



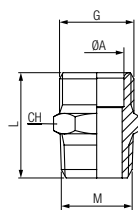
**New**

Montaggio con 13800  
 Assembling with 13800  
 Montageanleitung mit 13800  
 Assemblage avec 13800  
 Montaje con 13800  
 Montagem com 13800

Code	M	M1	Ø A	L	CH	Pack.
13820 00 001	M10x1	1/8	6	20	11	10
13820 00 002	M10x1	1/4	6	23.5	14	10
13820 00 003	M10x1	3/8	6	24	17	10
13820 00 004	M12x1	1/8	8	20.5	13	10
13820 00 005	M12x1	1/4	8	24	14	10
13820 00 006	M12x1	3/8	8	24.5	17	10
13820 00 007	M16x1.5	1/4	10	26	16	10
13820 00 008	M16x1.5	3/8	10	26.5	17	10
13820 00 009	M16x1.5	1/2	10	28	21	10
13820 00 010	M20x1.5	3/8	14	26.5	20	10
13820 00 011	M20x1.5	1/2	14	29	21	10
13820 00 016	M22x1.5	1/2	16	31	22	10
13820 00 012	M24x1.5	1/2	18	31	24	10
13820 00 013	M24x1.5	3/4	18	32.5	27	10
13820 00 014	M30x1.5	3/4	22	33.5	30	10
13820 00 015	M30x1.5	1/2	22	32	30	10

# 13825

**NIPPLO**  
 NIPPLE  
 DOPPELNIPPEL  
 MAMELON  
 MACHÓN  
 NIPLE



**New**

Montaggio con 13805  
 Assembling with 13805  
 Montageanleitung mit 13805  
 Assemblage avec 13805  
 Montaje con 13805  
 Montagem com 13805

Code	G (Gas)	M	Ø A	L	CH	Pack.
13825 00 01 03 00	1/4	1/4	8	24	14	10
13825 00 01 04 00	3/8	3/8	10	26.5	17	10
13825 00 01 05 00	1/2	1/2	14	29	22	10
13825 00 01 07 00	3/4	3/4	18	32.5	27	10

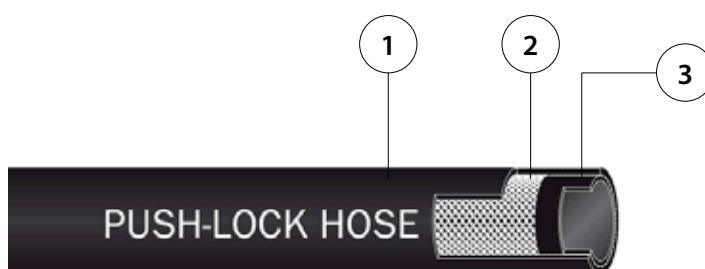
## TUBO AUTOBLOCCANTE

PUSH-LOCK HOSE  
SCHNELLSTECKSCHLÄUCHE  
TUYAUX AUTO-SERRANTS  
TUBERÍA AUTOBLOCANTE  
TUBO PUSH-LOCK



### CARATTERISTICHE TECNICHE

TECHNICAL CHARACTERISTICS  
TECHNISCHE ANGABEN  
CARACTÉRISTIQUES TECHNIQUES  
CARACTERÍSTICAS TÉCNICAS  
CARACTERÍSTICAS TÉCNICAS



Materiali	IT	Materials	GB	Materialien	DE
1 Sottostrato: NBR/PVC liscio resistente agli oli.		1 Sublayer: NBR/PVC smooth, oil resistant.		1 Innenrohr: NBR/PVC glatt, Öl.	
2 Armatura: Tela Tessile.		2 Armor: Cloth Textiles.		2 Gewebeeinlage: Synthetische Textilfasern.	
3 Rivestimento: NBR/PVC liscio resistente alle abrasioni, agli oli e agli agenti atmosferici.		3 Finish: NBR/PVC smooth, abrasion, oil and weather resistant.		3 Aussenschicht: NBR/PVC glatt, Abriebfest, Öl- und Witterungsbeständig.	
Matériaux	FR	Materials	ES	Materials	PT
1 Tube: NBR/PVC lisse, résistant aux huiles.		1 Tubo interior: NBR/PVC liso resistente a los aceites.		1 Tubo interior: NBR/PVC suave resistente a óleos.	
2 Armature: Fibres textiles.		2 Armadura: Trenza Textil		2 Armadura: Traçado Têxtil	
3 Revêtement extérieur: NBR/PVC lisse, résistant à l'abrasion, aux huiles et aux intempéries.		3 Tubo exterior: NBR/PVC liso resistente a la abrasión, a los aceites y a los agentes atmosféricos.		3 Tubo exterior: NBR/PVC suave resistência a abrasão, a óleos, a agentes atmosférico.	

COLORI STANDARD  
STANDARD COLORS  
STANDARD FARBEN  
COULEURS STANDARDS  
CORES STANDARD  
CORES PADRÃO

	<b>RO</b>	ROSSO RED ROT ROUGE ROJO VERMELHO
	<b>BL</b>	AZZURRO LIGHT BLUE HELLBLAU BLEU CLAIR AZUL AZUL CLARO
	<b>VE</b>	VERDE GREEN GRÜN VERT VERDE VERDE
	<b>NE</b>	NERO BLACK SCHWARZ NOIR NEGRO PRETO



Temperatura con aria compressa Temperature with compressed air Mit Druckluft Avec de l'air comprimé Con aire comprimido Com ar comprimido	<b>-20°C</b>	<b>+110°C</b> con picchi di 125°C peak +125°C Kurzfristig +125°C Pic à +125°C con picos de +125 °C com picos de +125 °C
Temperatura con acqua Temperature with water Mit Wasser Avec de l'eau Con Agua Com Água	<b>0°C</b>	<b>+100°C</b> con picchi di 110°C peak +110°C Kurzfristig +110°C Pic à +110°C con picos de +110 °C com picos de +110 °C
Temperatura con olio idraulico Temperature with hydraulic oil Mit Hydrauliköl Avec de l'huile hydraulique Con aceites hidráulicos Com óleos hidráulicos	<b>-20°C</b>	<b>+70°C</b> con picchi di 90°C peak +90°C Kurzfristig +90°C Pic à +90°C con picos de +90 °C com picos de +90 °C
Temperatura con Acqua Glicole Temperature with Water Glycol Mit Glykolwasser Avec de l'eau glycolé Con Agua Glicol Com Água e Glicol	<b>-20°C</b>	<b>+70°C</b> con picchi di 90°C peak +90°C Kurzfristig +90°C Pic à +90°C con picos de +90 °C com picos de +90 °C



### Pressioni

Pressures

Druckbereich

Pressions

Presiones

Pressões

**16 bar** (1.6 MPa)



### Fluidi compatibili

Aria compressa / Acqua / Olio Idraulico / Acqua Glicole / Gasolio / Benzina

### Fluids

Compressed air / Water / Hydraulic Oil / Water Glycol / Diesel Fuel / Petrol

### Geeignete Medien

Druckluft / Wasser / Hydrauliköl / Glykolwasser / Dieselkraftstoff / Benzin

### Fluides compatibles

Aire comprimé / Eau / Huile Hydraulique / Eau glycolé / Carburant diesel / Essence

### Fluidos compatibles

Aire comprimido / Agua / Aceite hidráulico / Agua Glicol / Combustible Diesel / Gasolina

### Fluidos compatíveis

Ar comprimido / Água / Óleo hidráulico / Água e Glicol / Combustível Diesel / Gasolina

## TBPL

### TUBO AUTOBLOCCANTE

PUSH-LOCK HOSE

SCHNELLSTECKSCHLÄUCHE

TUYAUX AUTO-SERRANTS

TUBERÍA AUTOBLOCANTE

TUBO PUSH-LOCK



Code	Code	Code	Code	Int.	Int.	Est.	Raggio di curvatura Bending Radius Biegeradius Rayon de Courbure Radio Curvatura Raio de Curvatura	Pressione d'esercizio Working Pressure Betriebsdruck Pression de Travail Presión de Ejercicio Pressão de Trabalho	Pressione di scoppio Burst Pressure Berstdruck Pression d'Éclatement Presión de Rótura Pressão de Ruptura	Pack.
				inch	mm	mm	mm	a/at 23°C bar	a/at 23°C bar	Mt
TBPL 1/4 0 RO 100	TBPL 1/4 0 BL 100	TBPL 1/4 0 VE 100	TBPL 1/4 0 NE 100	1/4	6.3	12.4	45	16	64	100
TBPL 3/8 0 RO 100	TBPL 3/8 0 BL 100	TBPL 3/8 0 VE 100	TBPL 3/8 0 NE 100	3/8	9.6	15.5	75	16	64	100
TBPL 1/2 0 RO 100	TBPL 1/2 0 BL 100	TBPL 1/2 0 VE 100	TBPL 1/2 0 NE 100	1/2	12.7	18.7	90	16	64	100
TBPL 5/8 0 RO 080	TBPL 5/8 0 BL 080	TBPL 5/8 0 VE 080	TBPL 5/8 0 NE 080	5/8	16	22.9	115	16	64	80
TBPL 3/4 0 RO 080	TBPL 3/4 0 BL 080	TBPL 3/4 0 VE 080	TBPL 3/4 0 NE 080	3/4	19.2	26.5	135	16	64	80



