

Kunststoff PA

Verschraubungen

**Materiale plastico
PA**

Raccordi

Plastic PA


























Unions



Übersicht

Descrizione

Overview

Seite/Pagina/Page		Seite/Pagina/Page		Seite/Pagina/Page	
428	<p>Klemmring Anello di serraggio Compression ferrule</p>  <p>SO 30001</p>	438-440	<p>Einstellnippel Nipplo maschio orientabile Adjustable male adaptor</p>  <p>SO 31600</p>	449	<p>2-fach Winkel-Schwenkverschraubung Banjo doppio Double banjo</p>  <p>SO 32921</p>
428	<p>Abschlusszapfen Tappo di chiusura Plug</p>  <p>SO 30002</p>	441	<p>Reduktions-Einstellverschraubung Raccordo di riduzione orientabile Adjustable reduction union</p>  <p>SO 31821</p>	450	<p>T-Verschraubung Raccordo a T Tee union</p>  <p>SO 33021</p>
429	<p>Anschlussmutter gerändelt Dado zigrinato Union nut knurled</p>  <p>SO 30020</p>	442	<p>Winkelverschraubung Raccordo a gomito Elbow union</p>  <p>SO 32021</p>	451	<p>Einstellbare T-Verschraubung Raccordo a T orientabile Adjustable tee union</p>  <p>SO 33621</p>
429	<p>Gerade Verschraubung Raccordo intermedio diritto Straight union</p>  <p>SO 31021</p>	443	<p>Winkel-Einschraubverschraubung Raccordo a gomito con filetto maschio Male adaptor elbow union</p>  <p>SO 32421</p>	452	<p>T-Einschraubverschraubung Raccordo a T con filetto maschio Male adaptor tee union</p>  <p>SO 33721</p>
430-433	<p>Gerade Einschraubverschraubung Raccordo diritto con filetto maschio Male adaptor union</p>  <p>SO 31121</p>	444	<p>Einstellbare Winkelverschraubung Raccordo a gomito orientabile Adjustable elbow union</p>  <p>SO 32621</p>	<p>Sonderausführungen auf Anfrage Servizi opzionali su richiesta Optional services on request</p>  <p>Vorbeschichtete Gewinde mit Loctite 5061 Filetti prerivestiti con Loctite 5061 Pre-coated threads with Loctite 5061</p>	
434	<p>Gerade Aufschraubverschraubung Raccordo diritto con filetto femmina Female adaptor union</p>  <p>SO 31221</p>	445	<p>Winkelschottverschraubung Raccordo a gomito passa paratia Panel mount elbow union</p>  <p>SO 32721</p>	<p>Bestätigungen auf www.serto.com Conferme su www.serto.com Confirmations on www.serto.com</p>    	
435-436	<p>Verbindungs-nippel Nipplo di collegamento Tube stub</p>  <p>SO 31300</p>	446	<p>Schwenkverschraubung Raccordo girevole Single banjo</p>  <p>SO 32821</p>		
437	<p>Gerade Schottverschraubung Raccordo diritto passa paratia Panel mount union</p>  <p>SO 31521</p>	447-448	<p>Schwenkverschraubung Raccordo girevole Single banjo</p>  <p>SO 37621</p>		

Kunststoff PA

Materiale plastico PA

Plastic PA

Eigenschaften, Besonderheiten

- einfache, schnelle Montage
- preisgünstige Verschraubungsreihe
- grosse Sortimentsvielfalt

Funktionsprinzip

Siehe Kapitel i

Werkstoff

Das Polyamid PA6.6 grau bietet eine sehr gute Festigkeit und Zähigkeit. Die Verschraubungen sind universell einsetzbar, wobei die allgemeine Beständigkeit in jedem Fall berücksichtigt werden muss (s. Beständigkeitsliste im Anhang). Die PA Verschraubungen sind vor direkter UV-Bestrahlung zu schützen.

Betriebsdruck PN

10 bar bei +23 °C (3-fache Sicherheit), höhere Drücke in Kombination mit SERTO Kunststoffrohren auf Anfrage (bar+).

Temperaturbereich

-40 °C bis +80 °C

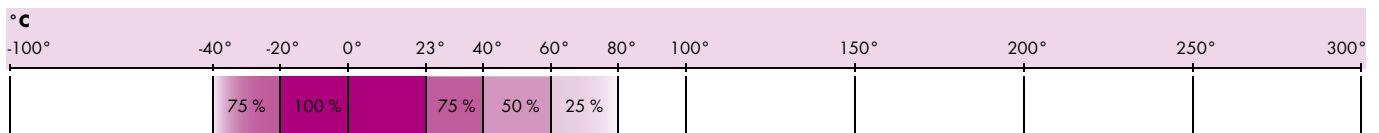
Anzuschliessende Schläuche

Toleranzhaltige Schläuche mit sauberer Oberfläche und gleichmässiger Wandung. Siehe auch Kapitel i und Kapitel 19.

Kegelige Einschraubgewinde

Zum Abdichten der Einschraubgewinde empfehlen wir das PTFE Band AC 840 oder den Dichtstift «Plasto-Joint» AC 833.

Druckauswertungsgrad in % des PN



Caratteristiche, particolarità

- montaggio facile e veloce
- economicamente vantaggiosi
- ampia gamma

Principio di funzionamento

Vedi capitolo i

Materiale

La poliammide PA6.6 grigio offre un'ottima resistività e tenacità. I raccordi possono essere utilizzati universalmente, tenendo conto in ogni caso della sua resistenza chimica e generale (vedi l'elenco delle resistenze in appendice). I raccordi PA devono essere protetti dai raggi UV diretti.

Pressione di esercizio PN

10 bar a +23 °C (fattore di sicurezza 3), pressioni più elevate in combinazione con i tubi in plastica SERTO su richiesta (bar+).

Gamma di temperature

-40 °C a +80 °C

Tubi da utilizzare

I tubi flessibili che rientrano nelle tolleranze con superficie pulita e spessore di parete uniforme. Vedi anche il capitolo i e capitolo 19.

Filettature maschio conico

Per una tenuta sicura delle filettature maschio, consigliamo il nastro in PTFE AC 840 o il «Plasto-Joint» AC 833.

Coefficiente di pressione in % della PN

Characteristics, specialities

- easy and fast to install
- advantageous price
- extensive product range

Operating principle

See chapter i

Material

Polyamide PA6.6 grey offers very good strength and toughness. The fittings can be used universally, whereby the general resistance must be taken into account in any case (see resistance list in the appendix). The PA fittings must be protected against direct UV radiation.

Working pressure PN

10 bar at +23 °C (safety factor of 3), higher pressures in combination with SERTO plastic tubes on request (bar+).

Temperature range

-40 °C to +80 °C

Hoses to use

True to tolerance hoses with clean surface and uniform wall thickness. See also chapter i and chapter 19.

Tapered male threads

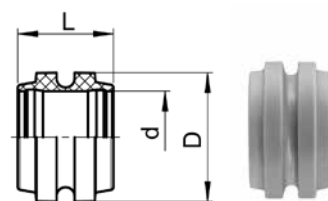
For sealing the male threads we recommend the PTFE tape AC 840 or the sealing stick «Plasto-Joint» AC 833.

Pressure coefficient % of PN

Klemmring

Anello di serraggio

Compression ferrule



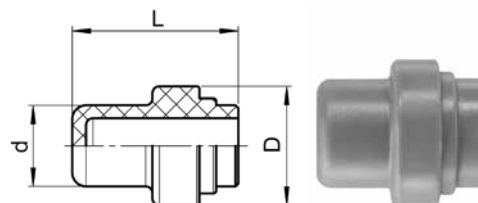
SO 30001

Type -d	Mat.-Nr.	bar +	L	D	kg/100
SO 30001-6	166.0010.060	10	6.4	8.6	0.019
SO 30001-8	166.0010.080	10	6.4	10.7	0.025
SO 30001-10	166.0010.100	10	6.9	12.7	0.032
SO 30001-12	166.0010.120	10	7.5	14.7	0.043

Abschlusszapfen

Tappo di chiusura

Plug



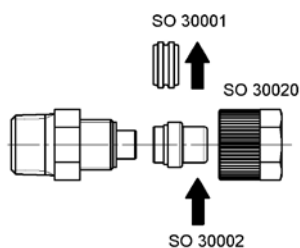
SO 30002

Type -d	Mat.-Nr.	bar +	L	D	kg/100
SO 30002-6	166.0020.060	10	12.0	8.7	0.036
SO 30002-8	166.0020.080	10	12.7	10.8	0.051
SO 30002-10	166.0020.100	10	15.0	12.8	0.078
SO 30002-12	166.0020.120	10	17.0	14.8	0.105

Anwendungsbeispiele:

Esempio di utilizzo:

Sample combinations:



Der Abschlusszapfen lässt sich in jede Verschraubung anstelle eines Klemmringes der gleichen Größe einsetzen.

Montagehinweis: Anschlussmutter mit 1/2 - 1 Umdrehung anziehen.

Il tappo di chiusura può essere inserito in ogni raccordo al posto di un anello di serraggio di analoghe dimensioni.

Nota per il montaggio: Stringere il dado di attacco di 1/2 - 1 di giro.

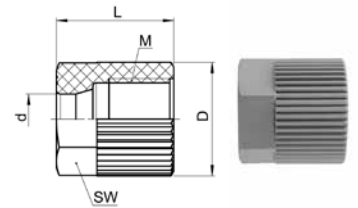
The plug can be inserted into all unions instead of a compression ferrule of the same size.

Assembly information: Tighten the union nut with 1/2 - 1 turn.

Anschlussmutter gerändelt

Dado zigrinato

Union nut knurled



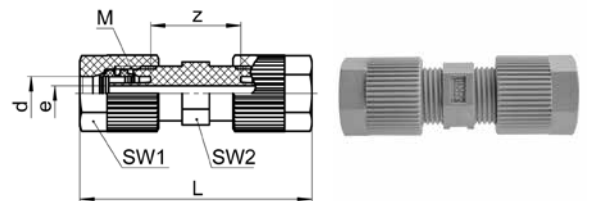
SO 30020

Type -d	Mat.-Nr.	bar +	M	SW	L	D	kg/100
SO 30020-6	166.0100.060	10	10x1.0	12	14.5	14.0	0.160
SO 30020-8	166.0100.080	10	12x1.0	14	16.0	16.0	0.210
SO 30020-10	166.0100.100	10	14x1.0	17	17.5	19.5	0.360
SO 30020-12	166.0100.120	10	16x1.0	19	19.5	22.0	0.480

Gerade Verschraubung

Raccordo intermedio diritto

Straight union



SO 31021

Type -d	Mat.-Nr.	bar +	M	SW1	SW2	L	z	e	kg/100
SO 31021-6	168.1000.060	10	10x1.0	12	10	38.5	16.5	2.8	0.513
SO 31021-8	168.1000.080	10	12x1.0	14	12	44.0	18.0	4.8	0.702
SO 31021-10	168.1000.100	10	14x1.0	17	14	45.5	18.0	6.6	1.096
▼ SO 31021-10/7	168.1000.102	10	14x1.0	17	14	46.0	18.5	5.6	1.111
SO 31021-12	168.1000.120	10	16x1.0	19	17	51.5	16.5	8.0	1.492
▼ SO 31021-12/9	168.1000.122	10	16x1.0	19	17	52.0	17.0	7.0	1.506

d=Rohrassens- \varnothing / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

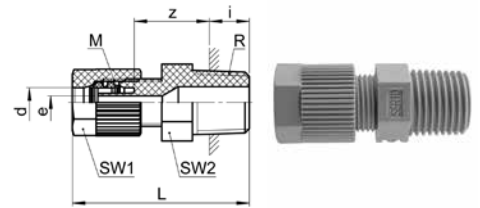
d=diametro esterno del tubo / con pareti di 1 mm
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

Gerade Einschraubverschraubung

Raccordo diritto con filetto maschio

Male adaptor union

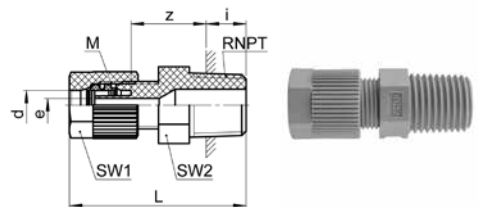
SO 31121

Type-d-R	Mat.-Nr.	bar +	M	SW1	SW2	L	i	z	e	kg/100
R=Rohrgewinde (kegelig)	R=Filettatura BSP (conica)	R=BSP thread (tapered)								
SO 31121-6-1/8	168.1101.100	10	10x1.0	12	12	30.5	5.0	14.5	2.8	0.143
SO 31121-6-1/4	168.1101.110	10	10x1.0	12	14	35.5	8.0	16.5	2.8	0.302
SO 31121-6-3/8	168.1101.120	10	10x1.0	12	17	36.0	8.0	17.0	2.8	0.460
SO 31121-8-1/8	168.1101.160	10	12x1.0	14	12	32.0	5.0	14.0	4.8	0.175
SO 31121-8-1/4	168.1101.170	10	12x1.0	14	14	37.5	8.0	16.5	4.8	0.328
SO 31121-8-3/8	168.1101.180	10	12x1.0	14	17	38.5	8.0	17.5	4.8	0.485
SO 31121-10-1/4	168.1101.270	10	14x1.0	17	14	38.5	8.0	16.5	6.6	0.352
SO 31121-10-3/8	168.1101.280	10	14x1.0	17	17	38.5	8.0	16.5	6.6	0.508
▼ SO 31121-10-7/16	168.1101.320	10	14x1.0	17	14	38.5	8.0	16.5	5.6	0.360
▼ SO 31121-10-7-3/8	168.1101.330	10	14x1.0	17	17	39.0	8.0	17.0	5.6	0.516
SO 31121-12-1/4	168.1101.380	10	16x1.0	19	14	41.0	8.0	15.5	6.7	0.385
SO 31121-12-3/8	168.1101.390	10	16x1.0	19	17	41.5	8.0	16.0	8.0	0.538
SO 31121-12-1/2	168.1101.400	10	16x1.0	19	22	46.5	10.0	19.0	8.0	0.876
▼ SO 31121-12-9-1/4	168.1101.410	10	16x1.0	19	14	41.0	8.0	15.5	6.7	0.394
▼ SO 31121-12-9-3/8	168.1101.412	10	16x1.0	19	17	41.5	8.0	16.0	7.0	0.551
▼ SO 31121-12-9-1/2	168.1101.414	10	16x1.0	19	22	46.5	10.0	19.0	7.0	0.879

Gerade Einschraubverschraubung NPT

Raccordo diritto con filetto maschio NPT

Male adaptor union NPT

SO 31121 NPT

Type-d-RNPT	Mat.-Nr.	bar +	M	SW1	SW2	L	i	z	e	kg/100
RNPT=NPT Gewinde	RNPT=Filettatura NPT	RNPT=NPT thread								
SO 31121-6-1/8 NPT	168.1102.100	10	10x1.0	12	11	32.5	7.0	14.5	2.8	0.165
SO 31121-6-1/4 NPT	168.1102.110	10	10x1.0	12	14	37.5	10.0	16.5	2.8	0.293
SO 31121-8-1/8 NPT	168.1102.160	10	12x1.0	14	11	34.5	7.0	14.5	4.8	0.193
SO 31121-8-1/4 NPT	168.1102.170	10	12x1.0	14	14	40.0	10.0	17.0	4.8	0.321
SO 31121-10-1/4 NPT	168.1102.270	10	14x1.0	17	14	40.5	10.0	16.5	6.6	0.347
SO 31121-10-3/8 NPT	168.1102.280	10	14x1.0	17	17	41.0	10.0	17.0	6.6	0.500
▼ SO 31121-10-7-1/4 NPT	168.1102.320	10	14x1.0	17	14	41.0	10.0	17.0	5.6	0.353
▼ SO 31121-10-7-3/8 NPT	168.1102.330	10	14x1.0	17	17	41.0	10.0	17.0	5.6	0.508
▼ SO 31121-12-9-3/8 NPT	168.1102.412	10	16x1.0	19	17	44.0	10.0	16.0	7.0	1.164

d=Rohrassen-Ø / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

d=diámetro externo del tubo / con paredes de 1 mm
 e=foro mínimo de paso
 L=dimensión raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

Gerade Einschraubverschraubung

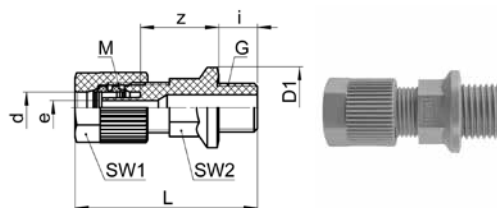
mit Dichtkante

Raccordo diritto con filetto maschio

con bordo di tenuta

Male adapter union

with edge seal

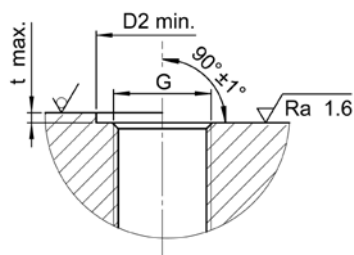

SO 31124

Type -d-G	Mat.-Nr.	bar +	M	SW1	SW2	L	D1	D2	i	t	z	e	kg/100
G=Rohrgewinde (zylindrisch)													
			G=Filettatura BSP (cilindrica)										
									G=BSP thread (parallel)				
SO 31124-6-1/8	168.1161.100	10	10x1.0	12	10	34.5	16.0	16.5	8.0	3.5	15.5	2.8	0.577
SO 31124-6-1/4	168.1161.110	10	10x1.0	12	13	36.5	19.0	19.5	10.0	3.5	15.5	2.8	0.746
SO 31124-8-1/8	168.1161.160	10	12x1.0	14	10	36.5	16.0	16.5	8.0	3.5	15.5	4.8	0.690
SO 31124-8-1/4	168.1161.170	10	12x1.0	14	13	38.5	19.0	19.5	10.0	3.5	15.5	4.8	0.846
SO 31124-10-1/4	168.1161.270	10	14x1.0	17	13	39.0	19.5	20.0	10.0	3.5	15.0	6.6	1.097
SO 31124-10-3/8	168.1161.280	10	14x1.0	17	17	40.0	23.5	24.0	10.0	4.0	16.0	6.6	1.398
SO 31124-12-1/4	168.1161.380	10	16x1.0	19	13	41.5	19.5	20.0	10.0	3.5	14.0	8.0	1.317
SO 31124-12-3/8	168.1161.390	10	16x1.0	19	17	42.5	23.0	23.5	10.0	4.0	15.0	8.0	1.632

Einbauempfehlung:

Raccomandazione di montaggio:

Recommendation for installation:



Gerade Einschraubverschraubung

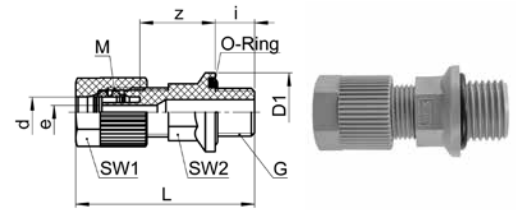
mit O-Ringabdichtung (NBR)

Raccordo diritto con filetto maschio

con O-rin (NBR)

Male adaptor union

with O-Ring seal (NBR)



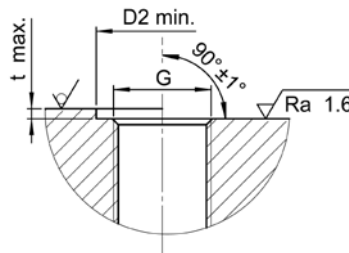
SO 31124 OR

Type -d-G	Mat.-Nr.	bar +	M	SW1	SW2	L	D1	D2	i	t	O-Ring	z	e	kg/100
G=Rohrgewinde (zylindrisch)				G=Filettatura BSP (cilindrica)					G=BSP thread (parallel)					
SO 31124-6-1/8 OR	168.1171.100	10	10x1.0	12	10	34.5	16.0	16.5	8.5	3.5	9.25x1.78	15.0	2.8	0.378
SO 31124-6-1/4 OR	168.1171.110	10	10x1.0	12	13	36.5	19.5	20.0	10.0	3.5	12.42x1.78	15.5	2.8	0.482
SO 31124-6-3/8 OR	168.1171.120	10	10x1.0	12	17	37.5	23.5	24.0	10.0	3.5	15.6x1.78	16.5	2.8	0.695
SO 31124-8-1/8 OR	168.1171.160	10	12x1.0	14	10	36.5	16.0	16.5	8.0	3.5	9.25x1.78	15.5	4.7	0.462
SO 31124-8-1/4 OR	168.1171.170	10	12x1.0	14	13	38.5	19.5	20.0	10.0	3.5	12.42x1.78	15.5	4.8	0.557
SO 31124-8-3/8 OR	168.1171.180	10	12x1.0	14	17	39.5	23.5	24.0	10.0	3.5	15.6x1.78	16.5	4.8	0.758
SO 31124-10-1/4 OR	168.1171.270	10	14x1.0	17	13	39.0	19.5	20.0	10.0	3.5	12.42x1.78	15.0	6.6	0.737
SO 31124-10-3/8 OR	168.1171.280	10	14x1.0	17	17	40.0	23.5	24.0	10.0	3.5	15.6x1.78	16.0	6.6	0.924
SO 31124-10-1/2 OR	168.1171.285	10	14x1.0	17	19	45.0	30.0	31.0	12.0	5.5	20.29x2.62	19.0	6.6	1.210
SO 31124-12-1/4 OR	168.1171.380	10	16x1.0	19	13	41.5	19.5	20.0	10.0	3.5	12.42x1.78	14.0	8.0	0.897
SO 31124-12-3/8 OR	168.1171.390	10	16x1.0	19	17	42.5	23.5	24.0	10.0	3.5	15.6x1.78	15.0	8.0	1.092
SO 31124-12-1/2 OR	168.1171.400	10	16x1.0	19	19	47.5	29.5	30.5	12.0	5.5	20.29x2.62	18.0	8.0	1.376

Einbauempfehlung:

Raccomandazione di montaggio:

Recommendation for installation:



Einsatztemperaturbereich: -30 °C bis +80 °C

Gamma di temperatura operativa: -30 °C a +80 °C

Operating temperature range: -30 °C to +80 °C

Die Vorteile dieser O-Ringabdichtung:

- keine Dichtmittelreste in Geräten
- einwandfreie Abdichtung
- keine Beschädigung von Geräten durch konische Gewinde
- schnelle Montage

I vantaggi di questa guarnizione O-ring:

- assenza di residui di sigillante nelle apparecchiature
- tenuta perfetta
- assenza di danni alle apparecchiature dovuti a filettature coniche
- montaggio rapido

Advantages of this O-ring seal:

- no sealing residues in devices
- perfect seal
- no damage to devices due to tapered thread
- rapid assembly

Gerade Einschraubverschraubung UNJF

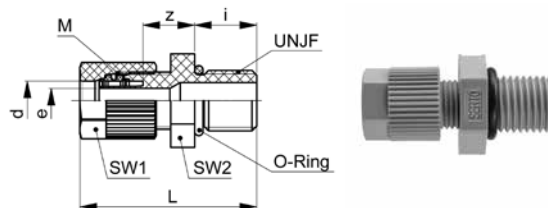
mit O-Ringabdichtung (NBR)

Raccordo diritto con filetto maschio UNJF

con O-ring (NBR)

Male adapter union UNJF

with O-Ring seal (NBR)



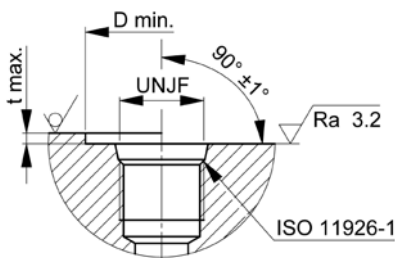
SO 31124 OR UNJF

Type -d-UNJF	Mat.-Nr.	bar +	M	SW1	SW2	L	D	i	t	O-Ring	z	e	kg/100
UNJF=Feingewinde (zylindrisch)													
UNJF=Filettatura fine (cilindrica)													
UNJF=Fine thread (parallel)													
SO 31124-6-7/16 UNJF OR	168.1178.122	10	10x1.0	12	17	35.0	21.0	13.0	1.0	9.25x1.78	11.0	2.8	0.500
SO 31124-6-3/8 UNJF OR	168.1178.126	10	10x1.0	12	17	35.0	21.0	13.0	1.0	12.0x2.0	11.0	2.8	0.500

Einbauempfehlung:

Raccomandazione di montaggio:

Recommendation for installation:

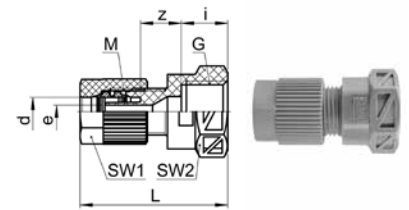


Einsatztemperaturbereich: -30°C bis +80°C

Gamma di temperatura operativa: -30°C a +80°C

Operating temperature range: -30°C to +80°C

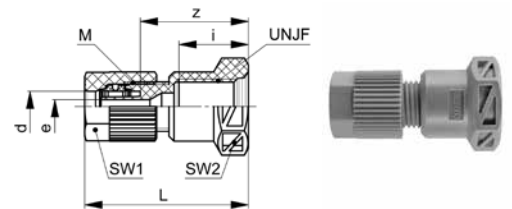
Gerade Aufschraubverschraubung Raccordo diretto con filetto femmina Female adaptor union



SO 31221

Type -d-G	Mat.-Nr.	bar +	M	SW1	SW2	L	i	z	e	kg/100
G=Rohrgewinde (zylindrisch)	G=Filettatura BSP (cilindrica)	G=BSP thread (parallel)								
SO 31221-6-1/8	168.1201.100	10	10x1.0	12	14	29.0	9.0	9.0	2.8	0.309
SO 31221-6-1/4	168.1201.110	10	10x1.0	12	17	30.0	10.0	9.0	2.8	0.379
SO 31221-6-3/8	168.1201.120	10	10x1.0	12	22	31.0	11.0	9.0	2.8	0.526
SO 31221-6-1/2	168.1201.125	10	10x1.0	12	27	34.5	14.0	9.5	2.8	0.864
SO 31221-8-1/8	168.1201.160	10	12x1.0	14	14	31.0	9.0	9.0	4.8	0.376
SO 31221-8-1/4	168.1201.170	10	12x1.0	14	17	32.0	10.0	9.0	4.8	0.453
SO 31221-8-3/8	168.1201.180	10	12x1.0	14	22	33.0	11.0	9.0	4.8	0.587
SO 31221-8-1/2	168.1201.185	10	12x1.0	14	27	36.5	14.5	9.0	4.8	0.938
SO 31221-10-1/4	168.1201.270	10	14x1.0	17	17	32.5	10.0	8.5	6.6	0.602
SO 31221-10-3/8	168.1201.280	10	14x1.0	17	22	33.5	11.0	8.5	6.6	0.742
SO 31221-10-1/2	168.1201.285	10	14x1.0	17	27	37.0	14.0	9.0	6.6	1.074
▼ SO 31221-10-7/16	168.1201.320	10	14x1.0	17	17	32.5	10.0	8.5	5.6	0.615
▼ SO 31221-10-7-3/8	168.1201.330	10	14x1.0	17	22	33.5	11.0	8.5	5.6	0.755
SO 31221-12-3/8	168.1201.390	10	16x1.0	19	22	36.0	11.0	7.5	8.0	0.883
SO 31221-12-1/2	168.1201.400	10	16x1.0	19	27	39.5	14.0	8.0	8.0	1.234
▼ SO 31221-12-9-3/8	168.1201.412	10	16x1.0	19	22	36.0	11.0	7.5	7.0	0.908
▼ SO 31221-12-9-1/2	168.1201.414	10	16x1.0	19	27	39.5	14.0	8.0	7.0	1.253

Gerade Aufschraubverschraubung UNJF Raccordo diretto con filetto femmina UNJF Female adaptor union UNJF



SO 31221 UNJF

Type -d-UNJF	Mat.-Nr.	bar +	M	SW1	SW2	L	i	z	e	kg/100
UNJF=Feingewinde (zylindrisch)	UNJF=Filettatura fine (cilindrica)	UNJF=Fine thread (parallel)								
SO 31221-6-7/16 UNJF	168.1205.122	10	10x1.0	12	17	33.0	14.0	22.0	2.8	0.400
SO 31221-6-9/16 UNJF	168.1205.126	10	10x1.0	12	22	34.0	14.0	23.0	2.8	0.700

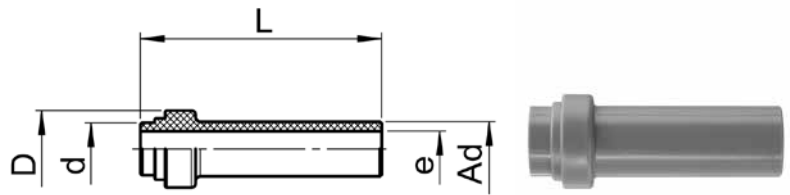
d=Rohrassen- \varnothing / mit Wandung 1 mm
e=kleinste Bohrung
L=Mass in montiertem Zustand
▼=für Rohre mit Wandung 1,5 mm

d=diametro esterno del tubo / con pareti di 1 mm
e=foro minimo di passaggio
L=dimensione raccordo montato
▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
e=minimum bore
L=installed length
▼=for tubes with wall thickness of 1,5 mm

Verbindungsrippel Nipplo di collegamento Tube stub

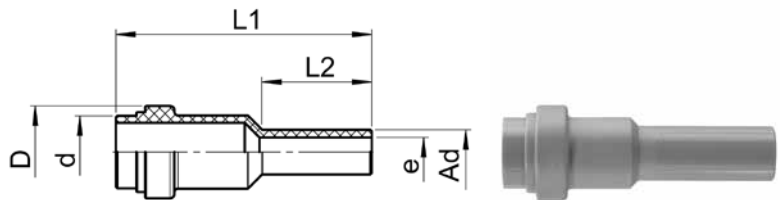
SO 31300



Type -d -Ad	Mat.-Nr.	bar +	L	D	e	kg/100
SO 31300-6-A6	166.1300.060	10	27.0	8.7	4.0	0.060
SO 31300-8-A8	166.1300.080	10	28.0	10.8	6.0	0.085
SO 31300-10-A10	166.1300.100	10	33.5	12.8	8.0	0.127
SO 31300-12-A12	166.1300.120	10	37.5	14.7	10.0	0.171
▼ SO 31300-12/9-A12	166.1300.122	10	37.0	14.7	9.0	0.233

Verbindungsrippel reduziert Nipplo di collegamento ridotto Tube stub reduced

SO 31300 RED



Type -d -Ad	Mat.-Nr.	bar +	L1	L2	D	e	kg/100
SO 31300-8-A6 RED	166.1304.140	10	30.0	15.0	10.8	4.0	0.080
SO 31300-10-A6 RED	166.1304.175	10	35.0	15.0	12.8	4.0	0.113
SO 31300-10-A8 RED	166.1304.190	10	35.0	15.0	12.8	6.0	0.124
SO 31300-12-A8 RED	166.1304.225	10	39.5	19.0	14.7	6.0	0.150
SO 31300-12-A10 RED	166.1304.240	10	39.0	19.0	14.7	8.0	0.166

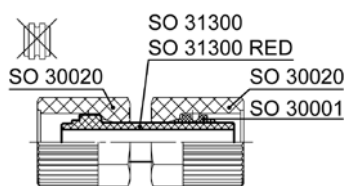
Anwendungsbeispiele:

Werden die Verbindungsrippel mit einer Anschlussmutter und einem Armaturenanschluss (Anschlussmutter und Klemmring) verbunden, ergibt dies eine einstellbare Verschraubung.

Montagehinweis: Auf Seite des angedrehten Klemmringes (links im Bild) Anschlussmutter mit 1/4 Umdrehung anziehen. Auf Seite des Armaturenanschlusses (rechts im Bild) Anschlussmutter mit 1 3/4 Umdrehung anziehen.

Empfehlung: Für die einfache und korrekte Platzierung des Klemmringes die Montagehilfe AC 870 verwenden.

Esempio di utilizzo:



Se i nippoli di collegamento vengono uniti ad un dado di attacco e ad un dado con anello di serraggio, si forma un raccordo orientabile.

Nota per il montaggio: Stringere il dado di attacco sul lato dell'anello di serraggio ruotato (a sinistra in fig.) con 1/4 di giro. Stringere il dado di attacco sull'altro lato (a destra in fig.) con 1 3/4 di giro.

Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

Sample combinations:

If the tube stubs are coupled with a union nut and a nut connection (union nut and compression ferrule), an adjustable union is produced.

Assembly information: Tighten the union nut on the side of the turned compression ferrule (left in pict.) with 1/4 turn. Tighten the union nut on the other side (right in pict.) 1 3/4 turns.

Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

Fortsetzung nächste Seite

Vedi pagina seguente

Continued on next page

d=Rohrassen- \varnothing / mit Wandung 1 mm
Ad=Aussen- \varnothing der Andrehung
e=kleinste Bohrung
▼=für Rohre mit Wandung 1,5 mm

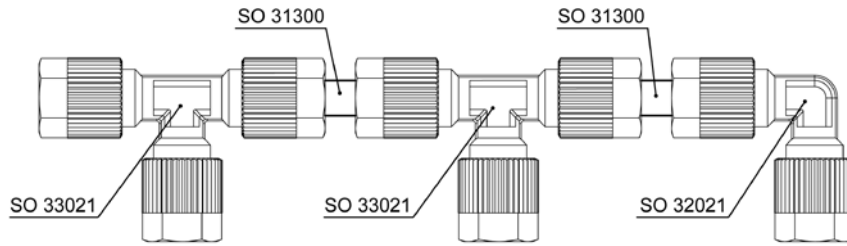
d=diametro esterno del tubo / con pareti di 1 mm
Ad=diametro esterno del nippolo cil.
e=foro minimo di passaggio
▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
Ad=outside diameter of cyl. stub
e=minimum bore
▼=for tubes with wall thickness of 1,5 mm

Anwendungsbeispiele:

Esempio di utilizzo:

Sample combinations:



Mit der einstellbaren Verschraubung lassen sich Formteile mit dem gleichen Anschlussgewinde verbinden.

Con il raccordo orientabile è possibile di collegare i pezzi con la stessa filettatura.

With the adjustable union, parts with the same connecting thread can be connected.

d=Rohraussen- \varnothing / mit Wandung 1 mm
 Ad=Aussen- \varnothing der Andrehung
 e=kleinste Bohrung
 ▼=für Rohre mit Wandung 1,5 mm

d=diametro esterno del tubo / con pareti di 1 mm
 Ad=diametro esterno del nippolo cil.
 e=foro minimo di passaggio
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 Ad=outside diameter of cyl. stub
 e=minimum bore
 ▼=for tubes with wall thickness of 1,5 mm

Gerade Schottverschraubung

Durchführungslänge max. 6 mm

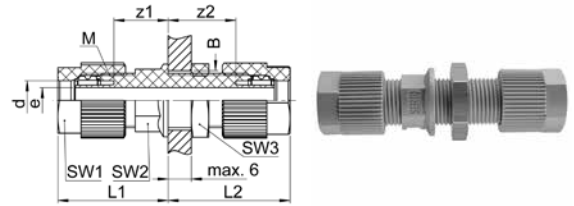
Raccordo diritto passa paratia

spessore max. paratia 6 mm

Panel mount union

max. panel thickness 6 mm

SO 31521



Type -d	Mat.-Nr.	bar +	M	SW1	SW2	SW3	L1	L2	B	z1	z2	e	kg/100
SO 31521-6	168.1500.060	10	10x1.0	12	14	14	24.0	28.0	10.5	13.0	17.0	2.8	0.678
SO 31521-8	168.1500.080	10	12x1.0	14	12	17	27.0	31.0	12.5	14.0	18.0	4.8	0.938
SO 31521-10	168.1500.100	10	14x1.0	17	14	19	28.0	32.0	14.5	14.0	18.0	6.6	1.387
▼ SO 31521-107	168.1500.102	10	14x1.0	17	14	19	28.0	31.5	14.5	14.0	17.5	5.6	1.417
SO 31521-12	168.1500.120	10	16x1.0	19	17	19	31.0	37.5	16.5	13.5	20.0	8.0	1.917
▼ SO 31521-129	168.1500.122	10	16x1.0	19	17	19	31.0	37.5	16.5	13.5	20.0	7.0	1.957

Sechskantmutter SO 40006 (Messing)

Dado esagonale SO 40006 (ottone)

Hexagon nut SO 40006 (brass)

d=Rohrussen- \varnothing / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

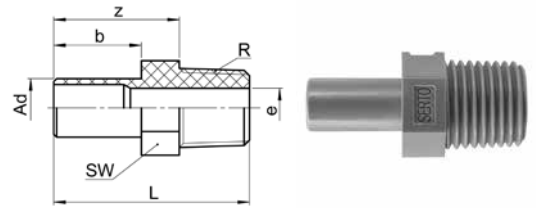
d=diametro esterno del tubo / con pareti di 1 mm
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

Einstellnippel

Nipplo maschio orientabile

Adjustable male adaptor



SO 31600

Type -Ad -R	Mat.-Nr.	bar +	SW	L	b	z	e	kg/100
R=Rohrgewinde (kegelig)								
			R=Filettatura BSP (conica)					
							R=BSP thread (tapered)	
SO 31600-A6-1/8	166.1601.100	10	12	27.0	13.0	19.0	4.0	0.110
SO 31600-A6-1/4	166.1601.110	10	14	31.5	13.0	19.5	4.0	0.268
SO 31600-A6-3/8	166.1601.120	10	17	32.0	13.0	20.0	4.0	0.410
SO 31600-A8-1/8	166.1601.160	10	12	28.0	14.0	20.0	5.0	0.124
SO 31600-A8-1/4	166.1601.170	10	14	32.5	14.0	20.5	6.0	0.282
SO 31600-A8-3/8	166.1601.180	10	17	33.0	14.0	21.0	6.0	0.429
SO 31600-A10-1/4	166.1601.270	10	14	34.0	15.5	22.0	6.7	0.285
SO 31600-A10-3/8	166.1601.280	10	17	34.0	15.0	22.0	6.5	0.442
SO 31600-A10-1/2	166.1601.285	10	22	39.0	15.0	23.0	8.0	0.760
SO 31600-A12-1/4	166.1601.380	10	14	37.5	19.0	25.5	6.7	0.315
SO 31600-A12-3/8	166.1601.390	10	17	38.0	19.0	26.0	8.0	0.464
SO 31600-A12-1/2	166.1601.400	10	22	43.0	19.0	27.0	8.5	0.798

Empfehlung: Für die einfache und korrekte Platzierung des Klemmrings die Montagehilfe AC 870 verwenden.

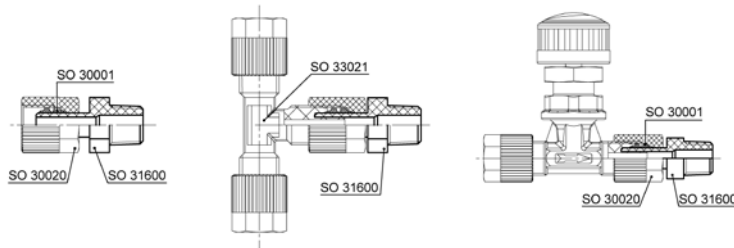
Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

Anwendungsbeispiele:

Esempio di utilizzo:

Sample combinations:



Mögliche Kombinationen:

- mit Armaturenanschluss zu einstellbaren Anschlüssen
- mit Verschraubungen/Ventilen zu einstellbaren Verschraubungen/Ventilen

Combinazioni possibili:

- con dado e anello di serraggio divengono raccordi orientabili
- con raccordi/valvole divengono raccordi/valvole orientabili

Possible combinations:

- with nut connection to adjustable connections
- with unions/valves to adjustable unions/valves

Einstellnippel

mit O-Ringabdichtung (NBR)

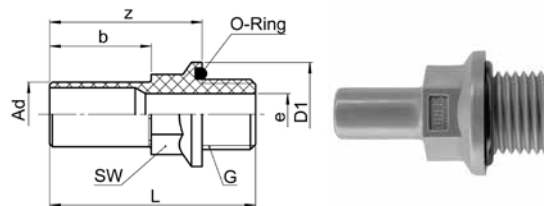
Nipplo maschio orientabile

con tenuta O-ring (NBR)

Adjustable male adaptor

with O-Ring seal (NBR)

SO 31624 OR



Type -Ad-G	Mat.-Nr.	bar +	SW	L	D1	D2	b	O-Ring	t	z	e	kg/100
G=Rohrgewinde (zylindrisch)												

Einsatztemperaturbereich: -30°C bis +80°C

Gamma di temperatura operativa: -30°C a +80°C

Operating temperature range: -30°C to +80°C

Empfehlung: Für die einfache und korrekte Platzierung des Klemmrings die Montagehilfe AC 870 verwenden.

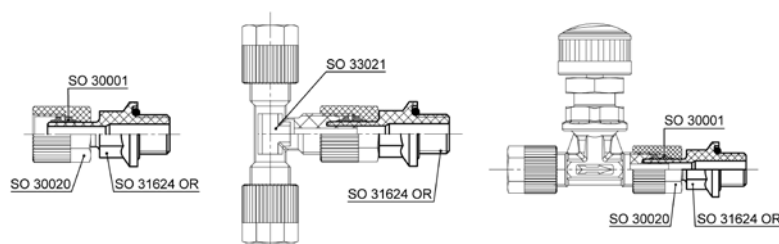
Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

Anwendungsbeispiele:

Esempio di utilizzo:

Sample combinations:



Mögliche Kombinationen:

- mit Armaturenanschluss zu einstellbaren Anschlüssen
- mit Verschraubungen/Ventilen zu einstellbaren Verschraubungen/Ventilen

Combinazioni possibili:

- con dado e anello di serraggio divengono raccordi orientabili
- con raccordi/valvole divengono raccordi/valvole orientabili

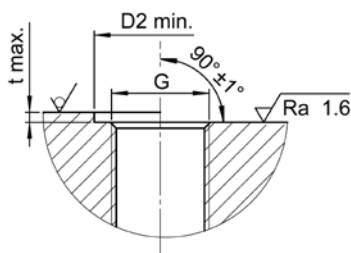
Possible combinations:

- with nut connection to adjustable connections
- with unions/valves to adjustable unions/valves

Einbauempfehlung:

Raccomandazione di montaggio:

Recommendation for installation:



Ad=Aussen-Ø der Andrehung
e=kleinste Bohrung

Ad=diametro esterno del nipplo cil.
e=foro minimo di passaggio

Ad=outside diameter of cyl. stub
e=minimum bore

Einstellnippel UNJF

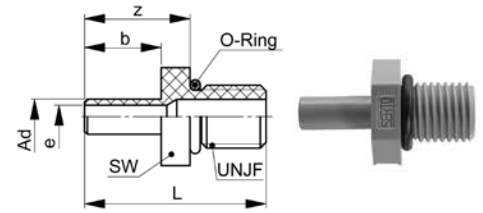
mit O-Ringabdichtung (NBR)

Nipplo maschio orientabile UNJF

con tenuta O-ring (NBR)

Adjustable male adaptor UNJF

with O-Ring seal (NBR)



SO 31624 OR UNJF

Type -Ad -UNJF	Mat.-Nr.	bar +	SW	L	D	b	t	O-Ring	z	e	kg/100
UNJF=Feingewinde (zylindrisch)	UNJF=Filettatura fine (cilindrica)	UNJF=Fine thread (parallel)									
SO 31624-A6-7/16 UNJF OR	166.1685.122	10	17	31.5	21.0	13.0	1.0	9.25x1.78	18.5	4.0	0.300
SO 31624-A6-3/8 UNJF OR	166.1685.126	10	17	31.5	21.0	13.0	1.0	12.0x2.0	18.5	4.0	0.350

Einsatztemperaturbereich: -30°C bis +80°C

Gamma di temperatura operativa: -30°C a +80°C

Operating temperature range: -30°C to +80°C

Empfehlung: Für die einfache und korrekte Platzierung des Klemmrings die Montagehilfe AC 870 verwenden.

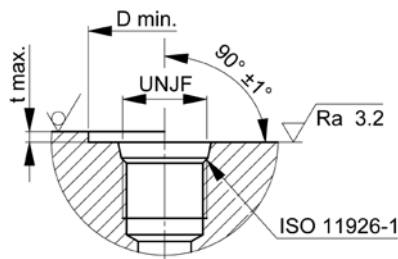
Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

Einbauempfehlung:

Raccomandazione di montaggio:

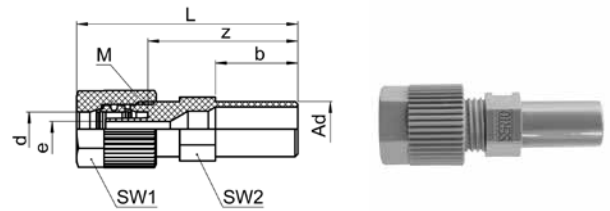
Recommendation for installation:



Reduktions-Einstellverschraubung

Raccordo di riduzione orientabile

Adjustable reduction union

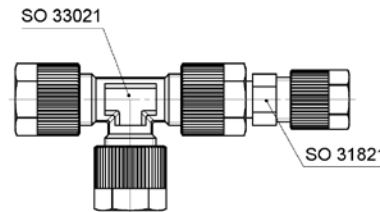
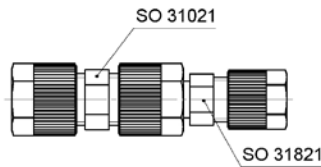

SO 31821

Type -Ad -d	Mat.-Nr.	bar +	M	SW1	SW2	L	b	z	e	kg/100
SO 31821-A8-6	168.1800.140	10	10x1.0	12	10	37.5	14.5	26.5	2.8	0.301
SO 31821-A10-6	168.1800.175	10	10x1.0	12	10	39.0	15.5	28.0	2.8	0.308
SO 31821-A10-8	168.1800.190	10	12x1.0	14	12	41.5	15.5	28.5	4.8	0.415
SO 31821-A12-6	168.1800.215	10	10x1.0	12	10	50.0	20.0	32.5	2.8	0.348
SO 31821-A12-8	168.1800.225	10	12x1.0	14	12	50.0	19.5	32.5	4.8	0.436
SO 31821-A12-10	168.1800.240	10	14x1.0	17	14	49.5	19.5	32.0	6.6	0.500
▼ SO 31821-A12-10/7	168.1800.242	10	14x1.0	17	14	49.0	19.0	31.5	5.6	0.667

Empfehlung: Für die einfache und korrekte Platzierung des Klemmrings die Montagehilfe AC 870 verwenden.

Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

Anwendungsbeispiele:
Esempio di utilizzo:
Sample combinations:


Mit dieser Reduktion können Verschraubungen reduziert werden.

Questa riduzione consente di ridurre i raccordi.

Unions can be reduced with this reduction.

d=Rohrassens- \varnothing / mit Wandung 1 mm
 Ad=Aussen- \varnothing der Andrehung
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

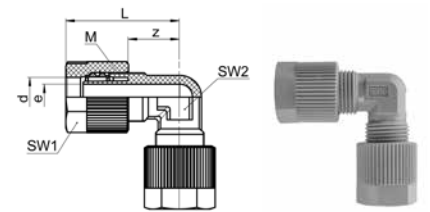
d=diametro esterno del tubo / con pareti di 1 mm
 Ad=diametro esterno del nipplo cil.
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 Ad=outside diameter of cyl. stub
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

Winkelverschraubung

Raccordo a gomito

Elbow union



SO 32021

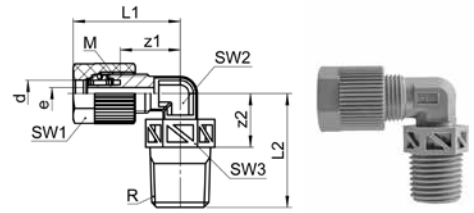
Type -d	Mat.-Nr.	bar +	M	SW1	SW2	L	z	e	kg/100
SO 32021-6	168.2000.060	10	10x1.0	12	8	25.0	14.0	2.8	0.546
SO 32021-8	168.2000.080	10	12x1.0	14	10	27.5	14.5	4.8	0.743
SO 32021-10	168.2000.100	10	14x1.0	17	12	30.0	16.0	6.6	1.178
▼ SO 32021-10/7	168.2000.102	10	14x1.0	17	12	30.0	16.0	7.0	1.209
SO 32021-12	168.2000.120	10	16x1.0	19	13	33.5	16.0	8.0	1.545
▼ SO 32021-12/9	168.2000.122	10	16x1.0	19	13	33.5	16.0	7.0	1.580

d=Rohrassens- \varnothing / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

d=diametro esterno del tubo / con pareti di 1 mm
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

Winkel-Einschraubverschraubung
Raccordo a gomito con filetto maschio
Male adaptor elbow union

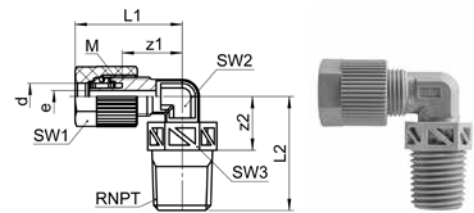


SO 32421

Type -d -R	Mat.-Nr.	bar +	M	SW1	SW2	SW3	L1	L2	z1	z2	e	kg/100
R=Rohrgewinde (kegelig)			R=Filettatura BSP (conica)									
			R=BSP thread (tapered)									
SO 32421-6-1/8	168.2401.100	10	10x1.0	12	8	10	25.0	19.0	14.0	11.0	2.8	0.387
SO 32421-6-1/4	168.2401.110	10	10x1.0	12	8	14	25.0	24.5	14.0	12.5	2.8	0.528
SO 32421-8-1/8	168.2401.160	10	12x1.0	14	10	10	27.5	20.0	14.5	12.0	4.8	0.499
SO 32421-8-1/4	168.2401.170	10	12x1.0	14	10	14	27.5	25.5	14.5	13.5	4.8	0.640
SO 32421-10-1/4	168.2401.270	10	14x1.0	17	12	14	30.0	26.5	16.0	14.5	6.6	0.877
SO 32421-10-3/8	168.2401.280	10	14x1.0	17	12	17	30.0	27.0	16.0	15.0	6.6	1.016
▼ SO 32421-107-1/4	168.2401.320	10	14x1.0	17	12	14	30.0	26.5	16.0	14.5	5.6	0.892
▼ SO 32421-107-3/8	168.2401.330	10	14x1.0	17	12	17	30.0	27.0	16.0	15.0	5.6	1.031
SO 32421-12-1/4	168.2401.380	10	16x1.0	19	13	14	33.5	27.5	16.0	15.5	6.7	1.080
SO 32421-12-3/8	168.2401.390	10	16x1.0	19	13	17	33.5	28.0	16.0	16.0	8.0	1.207
SO 32421-12-1/2	168.2401.400	10	16x1.0	19	13	22	33.5	35.5	16.0	19.5	8.0	1.574
▼ SO 32421-129-1/4	168.2401.410	10	16x1.0	19	13	14	33.5	27.5	16.0	15.5	6.7	1.098
▼ SO 32421-129-3/8	168.2401.412	10	16x1.0	19	13	17	33.5	28.0	16.0	16.0	7.0	1.224
▼ SO 32421-129-1/2	168.2401.414	10	16x1.0	19	13	22	33.5	35.5	16.0	19.5	7.0	1.607

Winkel-Einschraubverschraubung NPT
Raccordo a gomito con filetto maschio
NPT

Male adaptor elbow union NPT



SO 32421 NPT

Type -d -RNPT	Mat.-Nr.	bar +	M	SW1	SW2	SW3	L1	L2	z1	z2	e	kg/100
RNPT=NPT Gewinde			RNPT=Filettatura NPT									
			RNPT=NPT thread									
SO 32421-6-1/8 NPT	168.2402.100	10	10x1.0	12	8	11	25.0	21.0	14.0	11.0	2.8	0.419
SO 32421-6-1/4 NPT	168.2402.110	10	10x1.0	12	8	14	25.0	26.5	14.0	12.5	2.8	0.559
SO 32421-8-1/8 NPT	168.2402.160	10	12x1.0	14	10	11	27.5	22.0	14.5	12.0	4.8	0.532
SO 32421-8-1/4 NPT	168.2402.170	10	12x1.0	14	10	14	27.5	27.5	14.5	13.5	4.8	0.672
SO 32421-10-1/4 NPT	168.2402.270	10	14x1.0	17	12	14	30.0	28.5	16.0	14.5	6.6	0.905
SO 32421-10-3/8 NPT	168.2402.280	10	14x1.0	17	12	17	30.0	29.0	16.0	15.0	6.6	1.057
▼ SO 32421-107-1/4 NPT	168.2402.320	10	14x1.0	17	12	14	30.0	28.5	16.0	14.5	5.6	0.920
▼ SO 32421-107-3/8 NPT	168.2402.330	10	14x1.0	17	12	17	30.0	29.0	16.0	15.0	5.6	1.072

d=Rohrassen-ø / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

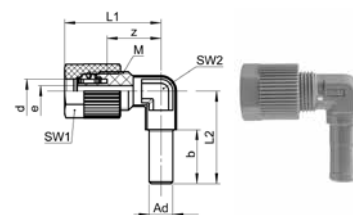
d=diametro esterno del tubo / con pareti di 1 mm
 L=dimensione raccordo montato
 e=foro minimo di passaggio
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 L=installed length
 e=minimum bore
 ▼=for tubes with wall thickness of 1,5 mm

Einstellbare Winkelverschraubung

Raccordo a gomito orientabile

Adjustable elbow union



SO 32621

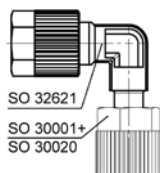
Type -d -Ad	Mat.-Nr.	bar +	M	SW1	SW2	L1	L2	b	z	e	kg/100
SO 32621-6-A6	168.2600.060	10	10x1.0	12	8	25.0	24.0	14.0	14.0	2.8	0.353
SO 32621-8-A8	168.2600.080	10	12x1.0	14	10	27.5	25.0	16.0	14.5	4.8	0.486
SO 32621-10-A10	168.2600.100	10	14x1.0	17	12	30.0	29.0	18.0	16.0	6.6	0.755
SO 32621-12-A12	168.2600.120	10	16x1.0	19	13	33.5	32.0	21.0	16.0	8.0	0.983

Empfehlung: Für die einfache und korrekte Platzierung des Klemmrings die Montagehilfe AC 870 verwenden.

Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

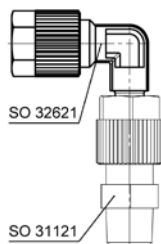
Anwendungsbeispiele:



Mögliche Kombinationen:

- mit Armaturenanschluss zu einstellbaren Winkelverschraubungen
- mit Verschraubungen zu einstellbaren Verschraubungen
- mit Einschraubverschraubungen zu einstellbaren Einschraubwinkeln. Gegenüber dem Einschraubwinkel lässt sich diese Kombination einfacher einstellen, da Einschrauben und Ausrichten getrennt voneinander vorgenommen werden.

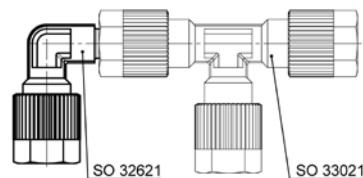
Esempio di utilizzo:



Combinazioni possibili:

- con dado e anello di serraggio divengono raccordi orientabili
- con raccordi divengono raccordi orientabili
- con raccordi filettati maschi divengono gomiti con estremità orientabili. Contrariamente al gomito maschio, questa combinazione risulta più semplice da realizzare poiché l'incastro e l'allineamento vengono effettuati separatamente.

Sample combinations:



Possible combinations:

- with a nut connection to adjustable elbow unions
- with a union to adjustable unions
- with a male adaptor union to adjustable male adaptor elbow unions. This combination is simpler to produce, as screwing in and alignment are carried out separately.

d=Rohrassen- \varnothing / mit Wandung 1 mm
Ad=Aussen- \varnothing der Andrehung
e=kleinste Bohrung
L=Mass in montiertem Zustand

d=diametro esterno del tubo / con pareti di 1 mm
Ad=diametro esterno del nippolo cil.
e=foro minimo di passaggio
L=dimensione raccordo montato

d=tube outside diameter / with wall thickness 1 mm
Ad=outside diameter of cyl. stub
e=minimum bore
L=installed length

Winkelschottverschraubung

Durchführungslänge max. 6 mm

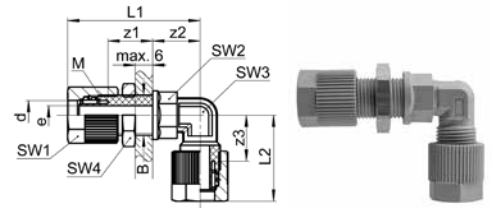
Raccordo a gomito passa paratia

spessore max. paratia 6 mm

Panel mount elbow union

max. panel thickness 6 mm

SO 32721



Type -d	Mat.-Nr.	bar +	M	SW1	SW2	SW3	SW4	L1	L2	B	z1	z2	z3	e	kg/100
SO 32721-6	168.2700.060	10	10x1.0	12	10	8	14	39.5	25.0	10.5	15.5	13.0	14.0	2.8	1.234
SO 32721-8	168.2700.080	10	12x1.0	14	12	10	17	43.0	27.5	12.5	15.0	15.0	14.5	4.8	1.040
SO 32721-10	168.2700.100	10	14x1.0	17	14	12	19	46.0	30.0	14.5	15.5	16.5	16.0	6.6	1.490
SO 32721-12	168.2700.120	10	16x1.0	19	17	13	19	48.5	33.5	16.5	13.5	17.5	16.0	8.0	2.000

Sechskantmutter SO 40006 (Messing)

Dado esagonale SO 40006 (ottone)

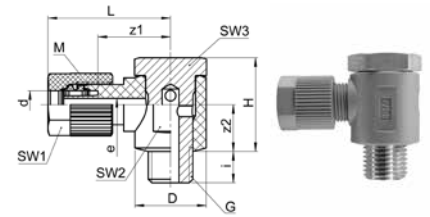
Hexagon nut SO 40006 (brass)

d=Rohraussen- \varnothing / mit Wandung 1 mm
Ad=Aussen- \varnothing der Andrehung
e=kleinste Bohrung
L=Mass in montiertem Zustand

d=diametro esterno del tubo / con pareti di 1 mm
Ad=diametro esterno del nipplo cil.
e=foro minimo di passaggio
L=dimensione raccordo montato

d=tube outside diameter / with wall thickness 1 mm
Ad=outside diameter of cyl. stub
e=minimum bore
L=installed length

Schwenkverschraubung Raccordo girevole Single banjo


SO 32821

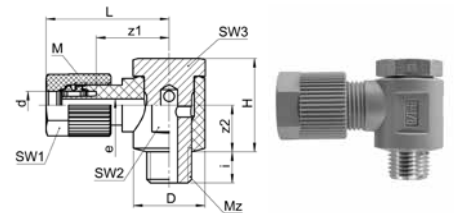
Type -d-G	Mat.-Nr.	bar	M	SW1	SW2	SW3	L	D	H	i	z1	z2	e	kg/100
G=Rohrgewinde (zylindrisch)				G=Filettatura BSP (cilindrica)							G=BSP thread (parallel)			
SO 32821-6-1/8	168.2841.100	10	10x1.0	12	14	14	27.5	16.0	21.0	7.0	16.5	10.5	2.8	1.950
SO 32821-6-1/4	168.2841.110	10	10x1.0	12	19	19	27.5	20.0	26.0	10.0	16.5	12.5	2.8	4.080
SO 32821-8-1/8	168.2841.160	10	12x1.0	14	14	14	29.5	16.0	21.0	7.0	16.5	10.5	3.8	2.040
SO 32821-8-1/4	168.2841.170	10	12x1.0	14	19	19	29.5	20.0	26.0	10.0	16.5	12.5	4.8	4.160
SO 32821-10-1/4	168.2841.270	10	14x1.0	17	19	19	30.0	20.0	26.0	10.0	16.0	12.5	6.5	4.360
▼ SO 32821-10/7-1/4	168.2841.320	10	14x1.0	17	19	19	30.0	20.0	26.0	10.0	16.0	12.5	5.6	4.450

Hohlsschraube aus Messing

Vite banjo in ottone

Hollow screw of brass

Schwenkverschraubung METR Raccordo girevole METR Single banjo METR


SO 32821 METR

Type -d-Mz	Mat.-Nr.	bar	M	SW1	SW2	SW3	L	D	H	i	z1	z2	e	kg/100
Mz=metrisches Gewinde (zylindrisch)				Mz=Filettatura metrica (cilindrica)							Mz=Metric thread (parallel)			
SO 32821-6-M10x1	168.2843.180	10	10x1.0	12	14	14	27.5	16.0	21.0	7.0	16.5	10.5	2.8	1.960
SO 32821-6-M12x1,5	168.2843.195	10	10x1.0	12	19	19	27.5	20.0	27.0	9.0	16.5	12.5	2.8	4.050
SO 32821-6-M14x1,5	168.2843.198	10	10x1.0	12	19	19	27.5	20.0	27.0	9.0	16.5	12.5	2.8	4.050
SO 32821-8-M10x1	168.2843.230	10	12x1.0	14	14	14	29.5	16.0	21.0	7.0	16.5	10.5	3.8	2.040
SO 32821-8-M12x1,5	168.2843.240	10	12x1.0	14	19	19	29.5	20.0	27.0	9.0	16.5	12.5	4.8	4.130
SO 32821-8-M14x1,5	168.2843.245	10	12x1.0	14	19	19	29.5	20.0	27.0	9.0	16.5	12.5	4.8	4.160
SO 32821-10-M12x1,5	168.2843.275	10	14x1.0	17	19	19	30.0	20.0	27.0	9.0	16.0	12.5	6.5	4.320
SO 32821-10-M14x1,5	168.2843.280	10	14x1.0	17	19	19	30.0	20.0	27.0	9.0	16.0	12.5	6.5	4.340
▼ SO 32821-10/7-M12x1,5	168.2843.300	10	14x1.0	17	19	19	30.0	20.0	27.0	9.0	16.0	12.5	5.6	4.420
▼ SO 32821-10/7-M14x1,5	168.2843.305	10	14x1.0	17	19	19	30.0	20.0	27.0	9.0	16.0	12.5	5.6	4.430

Hohlsschraube aus Messing

Vite banjo in ottone

Hollow screw of brass

d=Rohrassen- \varnothing / mit Wandung 1 mm
e=kleinste Bohrung
L=Mass in montiertem Zustand
▼=für Rohre mit Wandung 1,5 mm

d=diametro esterno del tubo / con pareti di 1 mm
e=foro minimo di passaggio
L=dimensione raccordo montato
▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
e=minimum bore
L=installed length
▼=for tubes with wall thickness of 1,5 mm

Schwenkverschraubung

mit Drossel-Ventil

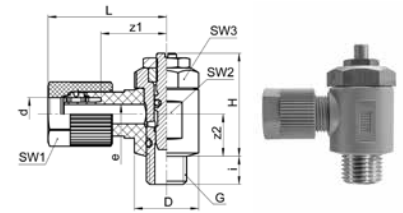
Raccordo girevole

con valvola a farfalla

Single banjo

with throttle valve

SO 37621



Type -d-G	Mat.-Nr.	bar	M	SW1	SW2	SW3	L	D	H	i	z1	z2	e	kv	kg/100
G=Rohrgewinde (zylindrisch)				G=Filettatura BSP (cilindrica)							G=BSP thread (parallel)				
SO 37621-6-1/8	168.7600.100	10	10x1.0	12	14	14	27.5	16.0	25.0	7.0	16.5	10.5	2.8	3.0	2.100
SO 37621-6-1/4	168.7600.110	10	10x1.0	12	19	19	27.5	20.0	32.0	9.0	16.5	12.5	2.8	6.0	4.400
SO 37621-8-1/8	168.7600.160	10	12x1.0	14	14	14	29.5	16.0	25.5	7.0	16.5	10.5	4.8	3.0	2.800
SO 37621-8-1/4	168.7600.170	10	12x1.0	14	19	19	29.5	20.0	30.5	9.0	16.5	12.5	4.8	6.0	4.500
SO 37621-10-1/4	168.7600.270	10	14x1.0	17	19	19	30.0	20.0	30.5	9.0	16.0	12.5	6.6	6.0	4.600

Dieses Drossel-Ventil dient zur Regulierung von Luftströmen in beiden Richtungen. Die Kombination von Verschraubung und Drossel-Ventil erlaubt den Anbau direkt an einen passenden Zylinder.

Die Spindelfixierung mittels Kontermutter garantiert, dass sich die Spindel auch bei Vibration nicht verstellt.

Technische Hinweise:

Körper, Anschlussmutter: PA 6.6

O-Ringe: NBR

Hohlschraube, Ventileinsatz: Messing

Questa valvola a farfalla serve a regolare il flusso d'aria in entrambe le direzioni. La combinazione raccordo con valvola a farfalla consente il montaggio diretto su un cilindro adatto.

Il fissaggio dello stelo tramite un controdado garantisce una regolazione stabile anche in caso di vibrazioni.

Dati tecnici:

Corpo, dado di attacco: PA 6.6

O-Ring: NBR

Vite banjo, parti valvola: ottone

This throttle valve serves to regulate air flow in both directions. The combination of union and throttle valve permits direct fitting to a matching cylinder.

The spindle fixation via counter nut assures that the spindle can not shift, even due to vibration.

Technical notes:

Body, union nut: PA 6.6

O-rings: NBR

Hollow screw, valve parts: brass

d=Rohrassens- \varnothing / mit Wandung 1 mm

e=kleinste Bohrung

kv=Kenngröße für das Durchflussverhalten (l/min)

L=Mass in montiertem Zustand

d=diametro esterno del tubo / con pareti di 1 mm

e=foro minimo di passaggio

kv=fattore di scarico (l/min)

L=dimensione raccordo montato

d=tube outside diameter / with wall thickness 1 mm

e=minimum bore

kv=flow factor (l/min)

L=installed length

Schwenkverschraubung

mit Drossel-Rückschlagventil

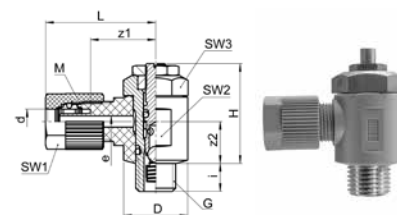
Raccordo girevole

con valvola di ritegno a farfalla

Single banjo

with throttle non-return valve

SO 37721



Type -d-G	Mat.-Nr.	bar	M	SW1	SW2	SW3	L	D	H	i	z1	z2	e	kv	kg/100
G=Rohrgewinde (zylindrisch)				G=Filettatura BSP (cilindrica)							G=BSP thread (parallel)				
SO 37721-6-1/8	168.7700.100	10	10x1.0	12	14	14	27.5	16.0	25.0	7.0	16.5	10.5	2.8	3.0	2.100
SO 37721-6-1/4	168.7700.110	10	10x1.0	12	19	19	27.5	20.0	32.0	9.0	16.5	12.5	2.8	6.0	4.300
SO 37721-8-1/8	168.7700.160	10	12x1.0	14	14	14	29.5	16.0	25.5	7.0	16.5	10.5	4.8	3.0	2.400
SO 37721-8-1/4	168.7700.170	10	12x1.0	14	19	19	29.5	20.0	30.5	9.0	16.5	12.5	4.8	6.0	4.500
SO 37721-10-1/4	168.7700.270	10	14x1.0	17	19	19	30.0	20.0	30.5	9.0	16.0	12.5	6.6	6.0	4.600

Dieses Drossel-Rückschlagventil dient zur Regulierung von Luftströmen in der Anschlussrichtung. Die Kombination von Verschraubung und Ventil erlaubt den Anbau direkt an einen passenden Zylinder. Die Spindelfixierung mittels Kontermutter garantiert, dass sich die Spindel auch bei Vibration nicht verstellt.

Technische Hinweise:

Körper, Anschlussmutter: PA 6.6
O-Ringe: NBR
Hohlschraube, Ventileinsatz: Messing

Questo valvola di ritegno a farfalla serve a regolare il flusso d'aria nella direzione di collegamento. La combinazione raccordo con valvola consente il montaggio diretto su un cilindro adatto. Il fissaggio dello stelo tramite un controdado garantisce una regolazione stabile anche in caso di vibrazioni.

Dati tecnici:

Corpo, dado di attacco: PA 6.6
O-Ring: NBR
Vite banjo, parti valvola: ottone

This throttle non-return valve serves to regulate air flow in the direction of connection. The combination of union and valve permits direct fitting to a matching cylinder. The spindle fixation via counter nut assures that the spindle can not shift, even due to vibration.

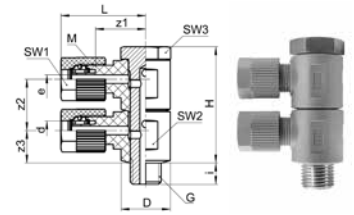
Technical notes:

Body, union nut: PA 6.6
O-rings: NBR
Hollow screw, valve parts: brass

2-fach Winkel-Schwenkverschraubung

Banjo doppio

Double banjo


SO 32921

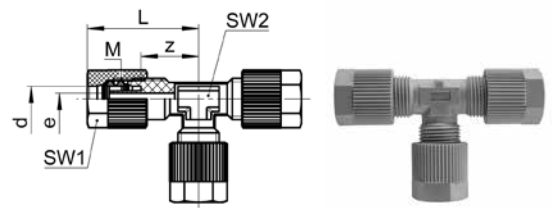
Type -d -G	Mat.-Nr.	bar	M	SW1	SW2	SW3	L	D	H	i	z1	z2	z3	e	kg/100
G=Rohrgewinde (zylindrisch)				G=Filettatura BSP (cilindrica)					G=BSP thread (parallel)						
SO 32921-2x6-1/8	168.2941.100	10	10x1.0	12	14	14	27.5	16.0	37.5	7.0	16.5	16.0	10.5	2.8	3.080
SO 32921-2x6-1/4	168.2941.110	10	10x1.0	12	19	19	27.5	20.0	48.0	10.0	16.5	21.0	12.5	2.8	6.140
SO 32921-2x8-1/8	168.2941.160	10	12x1.0	14	14	14	29.5	16.0	37.5	7.0	16.5	16.0	10.5	3.8	3.260
SO 32921-2x8-1/4	168.2941.170	10	12x1.0	14	19	19	29.5	20.0	48.0	10.0	16.5	21.0	12.5	4.8	6.300
SO 32921-2x10-1/4	168.2941.270	10	14x1.0	17	19	19	30.0	20.0	48.0	10.0	16.0	21.0	12.5	6.5	6.700
▼ SO 32921-2x10-7/8	168.2941.320	10	14x1.0	17	19	19	30.0	20.0	48.0	10.0	16.0	21.0	12.5	5.6	6.810

d=Rohrassens- \varnothing / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

d=diametro esterno del tubo / con pareti di 1 mm
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

T-Verschraubung
Raccordo a T
Tee union



SO 33021

Type -d	Mat.-Nr.	bar +	M	SW1	SW2	L	z	e	kg/100
SO 33021-6	168.3000.060	10	10x1.0	12	8	25.0	14.0	2.8	0.804
SO 33021-8	168.3000.080	10	12x1.0	14	10	27.5	14.5	4.8	1.089
SO 33021-10	168.3000.100	10	14x1.0	17	12	30.0	16.0	6.6	1.724
▼ SO 33021-10/7	168.3000.102	10	14x1.0	17	12	30.0	16.0	5.6	1.766
SO 33021-12	168.3000.120	10	16x1.0	19	13	33.5	16.0	8.0	2.267
▼ SO 33021-12/9	168.3000.122	10	16x1.0	19	13	33.5	16.0	7.0	2.313

d=Rohrussen- \varnothing / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

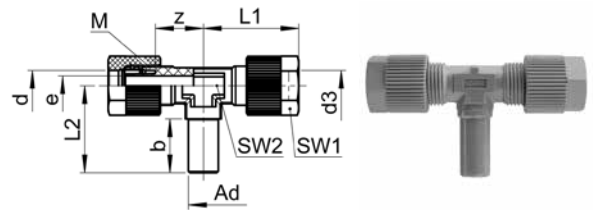
d=diametro esterno del tubo / con pareti di 1 mm
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

Einstellbare T-Verschraubung

Raccordo a T orientabile

Adjustable tee union

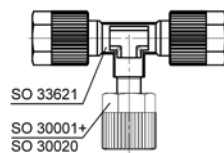
SO 33621


Type -d -Ad -d3	Mat.-Nr.	bar +	M	SW1	SW2	L1	L2	b	z	e	kg/100
SO 33621-6-A6-6	168.3600.060	10	10x1.0	12	8	25.0	24.0	14.0	14.0	2.8	0.618
SO 33621-8-A8-8	168.3600.080	10	12x1.0	14	10	27.5	25.0	16.0	14.5	4.8	0.850
SO 33621-10-A10-10	168.3600.100	10	14x1.0	17	12	30.0	29.0	18.0	16.0	6.6	1.304
SO 33621-12-A12-12	168.3600.120	10	16x1.0	19	13	33.5	30.0	21.0	16.0	8.0	1.715

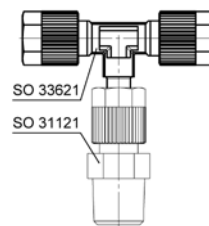
Empfehlung: Für die einfache und korrekte Platzierung des Klemmrings die Montagehilfe AC 870 verwenden.

Raccomandazione: Per un posizionamento facile e corretto dell'anello di serraggio, utilizzare l'utensile di montaggio AC 870.

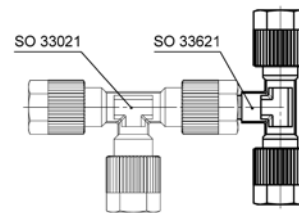
Recommendation: For easy and correct placement of the compression ferrule, use the assembly aid AC 870.

Anwendungsbeispiele:

Mögliche Kombinationen:

- mit Armatureanschluss zu einstellbaren T-Verschraubungen
- mit Verschraubungen zu einstellbaren Verschraubungen
- mit Einschraubverschraubungen zu einstellbaren T-Einschraubverschraubungen. Gegenüber der T-Einschraubverschraubung lässt sich diese Kombination einfacher einstellen, da Einschrauben und Ausrichten getrennt voneinander vorgenommen werden.

Esempio di utilizzo:

Combinazioni possibili:

- con dado e anello di serraggio divengono raccordi a T orientabili
- con raccordi divengono raccordi orientabili
- con raccordi filettati maschi divengono raccordi a T maschi orientabili. Contrariamente al raccordo a T maschio, questa combinazione risulta più semplice da realizzare poiché l'incastro e l'allineamento vengono effettuati separatamente.

Sample combinations:

Possible combinations:

- with nut connections to adjustable tee unions
- with unions to adjustable unions
- with male adaptor unions to adjustable male adaptor tee unions. This combination is simpler to produce, as screwing in and alignment are carried out separately.

d=Rohrussen-ø / mit Wandung 1 mm
 Ad=Aussen-ø der Andrehung
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

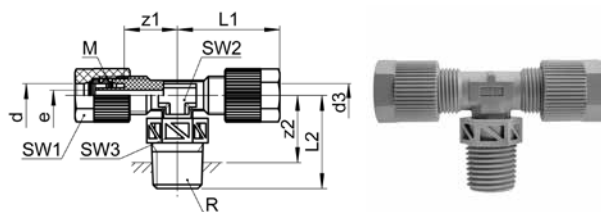
d=diametro esterno del tubo / con pareti di 1 mm
 Ad=diametro esterno del nipplo cil.
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 Ad=outside diameter of cyl. stub
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

T-Einschraubverschraubung

Raccordo a T con filetto maschio

Male adaptor tee union


SO 33721

Type -d-R-d3	Mat.-Nr.	bar +	M	SW1	SW2	SW3	L1	L2	z1	z2	e	kg/100
R=Rohrgewinde (kegelig)	R=Filettatura BSP (conica)											
▼ SO 33721-10/7-1/4-10/7	168.3701.320	10	14x1.0	17	12	14	30.0	26.5	16.0	18.5	5.6	1.448
▼ SO 33721-10/7-3/8-10/7	168.3701.330	10	14x1.0	17	12	17	30.0	27.0	16.0	19.0	5.6	1.387

d=Rohraussen- \varnothing / mit Wandung 1 mm
 e=kleinste Bohrung
 L=Mass in montiertem Zustand
 ▼=für Rohre mit Wandung 1,5 mm

d=diametro esterno del tubo / con pareti di 1 mm
 e=foro minimo di passaggio
 L=dimensione raccordo montato
 ▼=per tubi con pareti di 1,5 mm di spessore

d=tube outside diameter / with wall thickness 1 mm
 e=minimum bore
 L=installed length
 ▼=for tubes with wall thickness of 1,5 mm

SO NV 32A21



Regulierventil
Valvola di regolazione
Regulating valve

569

SO NV 31A21E



Regulier-Eckventil
Valvola di regolazione ad angolo
Elbow regulating valve

572

SO NV 31A21EB



Regulier-Eckventil mit Einschraubgewinde
Valvola di regolazione ad angolo con filetto
maschio
Elbow regulating valve with male adaptor
thread

572

SO CV 33B21



Kegelrückschlagventil
Valvola di ritegno a sede conica
Taper seat non-return valve

575

SO BV 38A00



Absperrhahn mit Innengewinde
Valvola on-off con filetto interno
Stopcock with female thread

577

SO BV 38A21



Absperrhahn
Valvola on-off
Stopcock

577

SO 30511

Einschraubtülle R
Portagomma con filetto maschio R
Male adaptor hose nozzle R

705