



# Push-in fittings

The RAP series push-in fittings are produced in Italy according to the reference ISO norms as warranty of high quality level and answer to the followings technical specifications and applications.

- **Brass push-in fittings**
- **Brass push-in fittings Mini series**
- **Technopolymer push-in fittings**
- **Stainless steel push-in fittings**
- **Push-in fittings for Food & Beverage**
- **Stems for push-in fittings**



## Brass push-in fittings

# Series RAP - RAP BLACK - OT



The RAP series push-in fittings are produced in Italy according to the reference ISO norms as warranty of high quality level. They are available with different thrust sleeve colours and in numerous variants to meet all application requirements.

### Ordering code

**A 10 C 08 M5**

#### THRUST SLEEVE COLOUR

blank = Green  
**A** = Blue  
**B** = Black  
**S** = Grey

#### MODEL TYPE

01 ... 90

#### FUNCTIONAL DENOMINATIONS

**OT** = Nickel-plated Brass Sleeve  
**OTV** = Nickel-plated Brass Sleeve - O-Ring Viton  
**OV** = All Metal - O-Ring FKM  
**C** = Conical thread  
**F** = Threaded body  
**L** = Extended elbow  
**E** = Increaser  
**V** = Thrust sleeve in POM - O-Ring FKM

#### TUBE CONNECTION

04 ... 14 = Tube diameter (mm)

#### THREADED CONNECTION

**M5; M6; M12; 18; 14; 38; 12** = Thread size (M5; M6; M12x1,5; 1/8; 1/4; 3/8; 1/2)

04 ... 16 = Tube diameter

**L0** = Version with lateral plug

See assembly instructions in the appendix on page 211

### Series

• **B**



• **OT**



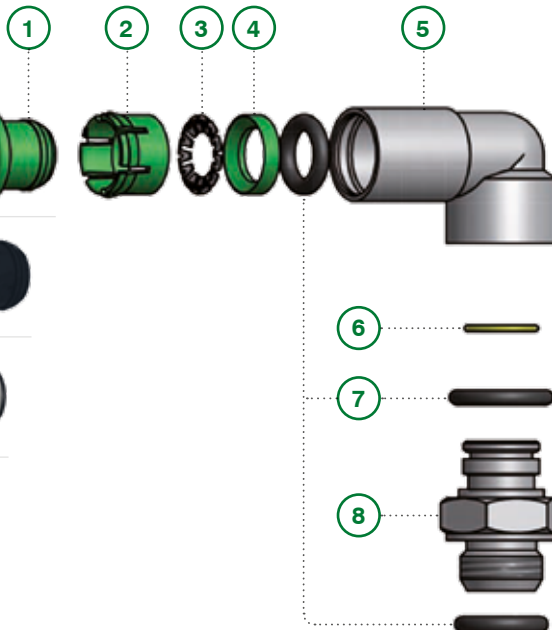
• **S**

*on request*



• **A**

*on request*



### Components

- 1 Thrust sleeve
- 2 Lock ring
- 3 Crimping gripper
- 4 Supporting ring
- 5 Fitting body
- 6 Elastic ring
- 7 O-Ring seal
- 8 Swivel base



## Technical sheet

<b>FLUIDS</b>		Compressed air (for different fluid please contact our Technical Dept.)
<b>APPLICATIONS</b>		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms. Suitable for vacuum applications.
<b>SUGGESTED TUBES</b>		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethylene), TPA (Polyurethane/Copolyester)
<b>TUBES TOLERANCES</b>		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
<b>PROTECTION RATING</b>		IP 68
<b>TEMPERATURE AND PRESSURE</b>	Recommended limit values	Temperatures and pressures usually depend by the technical features of the employed tubes, anyway it is suggested a limit working pressure of 15 bar and a temperature range between -20°C and +70°C
	Technical testing data	In the table below there are indicated the load traction resistance values and the main working and breaking limit (Pressure and Temperature) of the main commercial tubing.
	Note	For more complete informations please read the technical catalogue of your tube supplier.
<b>THREAD TYPE</b>		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
<b>MATERIALS</b>	Body, "OT" sleeve, stems and swivel bases	Brass UNI EN 12164 CW614N
	Sleeve, collar and back ring	POM copolymer ISO1043-1
	Spring	Stainless steel AISI 301 austenitic
	Seals	NBR 70 DWGV-EN549 UL157

## Additional technical informations

Each RAP production batch is tested according to severe cyclics "lot breaker" controls along all the production period, which include shape observation, leakage verification, functionality, at the working pressure of 8 bar. Then all samples taken from the lot are tested by a traction machine which simulate a breaking pressure of 50 bar. Here below are indicated the traction loads (in Newton) for each size:

<b>TUBE DIAMETER</b>	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14
<b>BREAKING LOAD</b>	63 N	141 N	251 N	393 N	566 N	750 N

**Important note:** The values refer to the resistance of the crimping gripper, "core part" of both fittings, the brass RAP and the technopolymer Tecno-RAP, whereby homogeneous. The breaking experimental values measured, according to the diameter, were from 1.2 to 2.5 times higher.

## Additional information regarding the working temperatures:

Further to all the necessary assessments on the use of the fittings in operating conditions different from how suggested in the initial technical sheet must be considered, with reference to temperatures, the nominal data regarding the type of the used tube and the limit imposed by the most critical component.

Series TECNORAP: **-20° +50°**  
 Series RAP: **-20° +70°**  
 Series RAP-BLACK: **-20° +70°**  
 Series RAP OT: **-20° +80°**  
 Series OV: **-20° +120°**  
 Series SS: **-20° +140°**

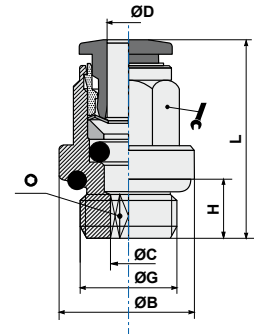
WORKING PRESSURE AND BREAKING PRESSURE (BAR) AT DIFFERENT TEMPERATURES						
Example	T-20°C		T+23°C		T+60°C	
Tube 6x4 colored	Working P bar	Breaking P bar	Working P bar	Breaking P bar	Working P bar	Breaking P bar
<b>TPU</b>	18,7	74,8	10,0	40,0	5,2	20,8
<b>PA11</b>	37,4	149,6	20,0	80,0	10,4	41,6
<b>PA12</b>	48,6	168,3	26,0	90,0	10,4	36,0
<b>PE</b>	18,7	74,8	10,0	40,0	5,0	20,0

ART. **01**

**Straight male adaptor (parallel)**



COD.	ØD	G	ØC	ØB	H	L				
01CH04M5	4	M5	2	8	4	20,85	10	2	100	5,8
0104M5	4	M5	2,5	8	4	20,85	*	2,5	100	4,1
0104M6	4	M6	2,5	9	5	21,85	*	2,5	50	4,3
010418	4	1/8	2,5	13,5	5,5	20	9	2,5	50	7,4
010414	4	1/4	2,5	17	6,5	20	9	2,5	50	11
0106M5	6	M5	2,5	8	4	24,4	*	2,5	50	6
0106M6	6	M6	2,5	11	5	25,4	*	2,5	50	6,7
010618	6	1/8	4,1	13,5	5,5	25,4	11	4	50	10,1
010614	6	1/4	4,1	17	6,5	23,4	11	4	50	13,6
010818	8	1/8	5,1	13	5,5	26,8	13	5	50	11,3
010814	8	1/4	6,1	17	6,5	24	13	6	50	12,5
010838	8	3/8	6,1	20	7,5	24	13	6	50	18,9
010812	8	1/2	6,1	24	9	25	13	6	25	18
011018	10	1/8	5,1	13,5	5,5	30,3	16	4	25	19,6
011014	10	1/4	7,2	16	6,5	29,4	16	7	50	18,1
011038	10	3/8	8,2	21	7,5	29,4	16	8	50	24,9
011012	10	1/2	8,2	24	9	29,4	16	8	25	34,8
011214	12	1/4	7,2	16	6,5	32,2	19	7	25	26,3
011238	12	3/8	10,2	22	7,5	32,2	19	10	25	31,2
011212	12	1/2	10,2	24	9	31,7	19	10	25	37,3
011438	14	3/8	10,2	21	7,5	35	21	10	25	35,9
011412	14	1/2	12,2	25	9	34,3	21	12	25	39,3
011638	16	3/8	11,5	20	7,5	35	24	8	25	38,5
011612	16	1/2	15,5	24	10	37	24	10	25	45,5



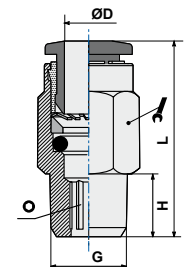
\* codes without key flats having the following Ø:  
0104M5 and 0104M6 = Ø9  
0106M5 and 0106M6 = Ø11

ART. **01C**

**Straight male adaptor (tapered)**



COD.	ØD	G	H	L				
01C0418	4	1/8	7,5	19,6	10	3	50	6,3
01C0414	4	1/4	9,5	18	14	3	50	12,1
01C0438	4	3/8	10,5	19,1	17	3	25	21,7
01C0618	6	1/8	7,5	20,3	12	4	50	7,1
01C0614	6	1/4	9,5	22,1	14	4	50	12,9
01C0638	6	3/8	10,5	20,1	17	4	25	21,1
01C0612	6	1/2	13,5	24,1	24	4	25	39,3
01C0818	8	1/8	7,5	25,7	14	5	50	11,2
01C0814	8	1/4	9,5	24,7	14	6	50	12,3
01C0838	8	3/8	10,5	21,7	17	6	50	18,3
01C0812	8	1/2	12,5	25,7	21	6	25	36,5
01C1018	10	1/8	7,5	29,3	17	4	25	18,1
01C1014	10	1/4	9,5	30,8	17	6	50	19,7
01C1038	10	3/8	10,5	28,3	17	8	50	20,5
01C1012	10	1/2	13,5	26,1	21	8	25	34,9
01C1218	12	1/8	7,5	30,8	21	4	25	28,4
01C1214	12	1/4	9,5	32,8	19	6	25	21,3
01C1238	12	3/8	10,5	29,8	21	8	25	29,7
01C1212	12	1/2	13,5	32,3	21	8	25	39
01C1438	14	3/8	10,5	34,2	21	8	25	34,9
01C1412	14	1/2	13,5	32,7	21	10	25	37,5



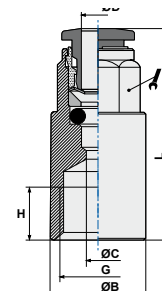


ART. **02**

**Straight female adaptor**



COD.	ØD	G	ØC	ØB	H	L			
020418	4	1/8	3	12	7,5	26,5	9	50	10,7
020414	4	1/4	3	17	11,5	29,5	9	50	19,1
020618	6	1/8	5	12	7,5	29,1	11	50	11
020614	6	1/4	5	17	11,5	31,9	11	50	16,8
020818	8	1/8	7	12	7,5	28	13	50	10,9
020814	8	1/4	7	17	11,5	33,3	13	50	19,2

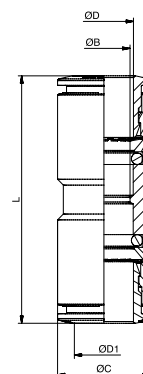


ART. **03**

**Straight connector**



COD.	ØD	ØD1	ØB	ØC	L		
030400	4	4	3	11	32,7	50	5,7
030600	6	6	5	13	37,3	50	9,5
030800	8	8	7	13	38,6	50	12,5
031000	10	10	9	18	43,3	50	17,8
031200	12	12	11	21	46,4	25	32,5
031400	14	14	13	21	50	25	36

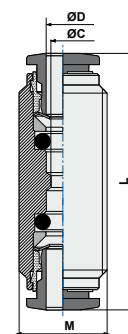


ART. **03F**

**Threaded connector**



COD.	ØD	ØC	M	L		
03F0400	4	3	11x1	32,7	50	10,7
03F0600	6	5	14x1	37,3	50	18,7
03F0800	8	7	16x1	38,6	50	24,1
03F1000	10	9	18x1	43,3	50	33,4
03F1200	12	11	22x1	46,4	25	53,3
03F1400	14	13	24x1	50	25	61,2

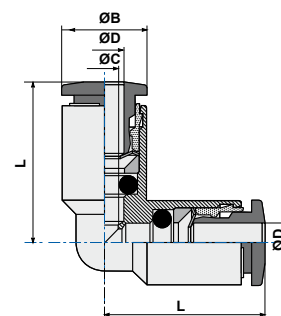


ART. **04**

**Elbow connector**



COD.	ØD	ØC	ØB	L		
040400	4	3	9	18,55	50	7,6
040600	6	5	11	20,4	50	8,6
040800	8	7	13	23,3	50	13,7
041000	10	9	16	27,1	50	20,1
041200	12	11	19	29,3	25	47,2
041400	14	13	21	31,7	25	45

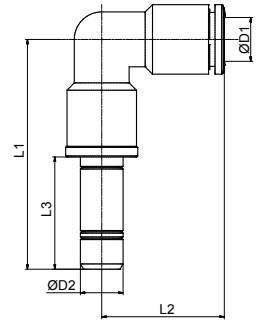


ART. **04L0**

**Plug-in elbow connector**



COD.	ØD1	ØD2	L1	L2	L3		
0404L0	4	4	34,5	18.55	16,7	50	6,6
0406L0	6	6	39	20.4	19,5	50	7,5
0408L0	8	8	43	23.8	21	50	22,4
0410L0	10	10	51	27.1	24	25	27
0412L0	12	12	54	29.3	25	25	64

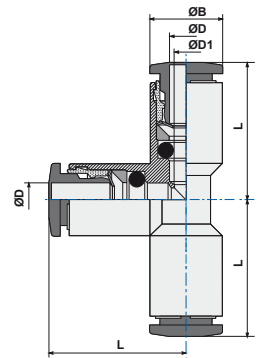


ART. **05**

**T connector**



COD.	ØD	ØD1	ØB	L		
050400	4	3	9	18.55	50	10,8
050600	6	5	11	21.2	50	12,2
050800	8	7	13	23.3	50	16,4
051000	10	8	16	26.9	25	30,6
051200	12	10	19	29.3	25	56
051400	14	12	21	31.7	10	58,3

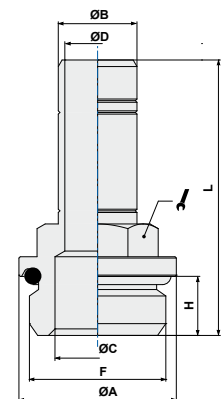


ART. **06**

**Adaptor parallel (short)**

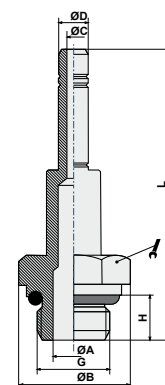


COD.	ØB	F	ØA	ØC	ØD	H	L			
0604M5	4	M5	8	2	2	4	24,7	8	50	3,6
0604M6	4	M6	9	2	2	5	25,7	8	50	3,7
060418	4	1/8	13	5,5	2	5,5	27,7	13	50	9,1
060414	4	1/4	16	7,5	2	6,5	29,2	13	50	11,2
0606M5	6	M5	8	2,6	2,6	4	27,5	8	50	4,6
060618	6	1/8	13	5,5	4	5,5	30,5	13	50	9,6
060614	6	1/4	16	7,5	4	6,5	33,5	13	50	12
060818	8	1/8	13	6	6	5,5	32,0	13	50	10,5
060814	8	1/4	16	7,5	6	6,5	33,5	13	50	31,1
060838	8	3/8	20	9	6	7,5	35,5	13	50	18,9
061018	10	1/8	13	6	6	5,5	35,0	13	50	16,7
061014	10	1/4	16	8	8	6,5	38	13	50	14,1
061038	10	3/8	20	8	8	7,5	39,5	13	50	20,8
061214	12	1/4	16	8	8	6,5	37,5	13	25	21,5
061238	12	3/8	20	11	10	7,5	40,5	13	25	21,1
061212	12	1/2	24	13	10	9	42,0	16	25	31,3
061438	14	3/8	20	12	12	7,5	43,0	16	25	22,3
061412	14	1/2	24	13	12	9	44,5	16	25	32,2

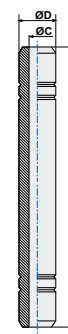


**ART. 60**
**Adaptor parallel (long)**

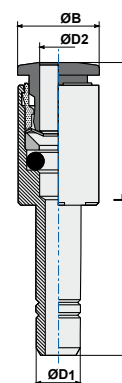

COD.	ØD	G	ØC	ØB	H	L	ØA			
600418	4	1/8	2	13	5,5	39,2	6	13	50	10,2
600618	6	1/8	4	13	5,5	44,5	5,5	13	50	13,5
600614	6	1/4	4	16	6,5	48	7,5	13	50	18,1
600818	8	1/8	6	13	5,5	48	6	13	50	19,1
600814	8	1/4	6	16	6,5	49,5	7,5	13	50	19,8
600838	8	3/8	6	20	7,5	51,5	9	13	50	27
601038	10	3/8	8	20	7,5	56	9	13	25	33,2


**ART. 07**
**Connector**

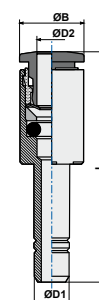

COD.	ØD	ØB	L		
070400	4	2	33,4	100	2,6
070600	6	4	39	50	5
070800	8	6	42	50	7,5
071000	10	8	48	50	10,8
071200	12	10	48	50	14,3


**ART. 08**
**Plug-in reducer**


COD.	ØD1	ØD2	ØB	L		
080604	6	4	9	32,85	50	5,5
080804	8	4	9	34	50	9,7
080806	8	6	11	36,9	50	8,6
081006	10	6	11	39,9	50	15,5
081008	10	8	13	39,3	50	11,8
081208	12	8	13	39,8	25	18,8
081210	12	10	16	41,9	25	16,6
081406	14	6	15	36,9	25	36


**ART. 08E**
**Plug-in increaser**


COD.	ØD1	ØD2	ØB	L		
08E0406	4	6	11	40,4	50	7,5
08E0608	6	8	13	44	50	11,3

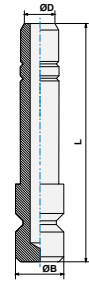


ART. **09**

**Plug**



COD.	ØD	ØB	L		
090400	4	5	26	50	3,1
090600	6	7	29	50	4,7
090800	8	9	31,5	50	7,7
091000	10	11	35	50	10,8
091200	12	13	37	25	14,5

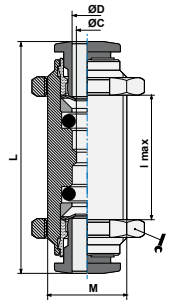


ART. **10**

**Bulkhead connector**



COD.	ØD	ØC	M	lmax	L			
100400	4	3	11x1	14	32,7	14	50	15,8
100600	6	5	14x1	14,5	37,3	17	50	25,9
100800	8	7	16x1	15	38,6	18	50	30
101000	10	9	18x1	16,5	43,3	21	25	44,4
101200	12	11	22x1	18,6	46,4	26	25	70,6
101400	14	13	24x1	21,7	50	27	25	79,9

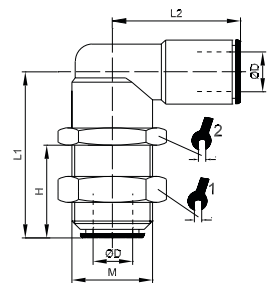


ART. **10L**

**Elbow bulkhead**



COD.	ØD	M	H	L1	L2				
10L0400	4	M11x1	12,5	25,5	20	13	13	50	22,4
10L0600	6	M14x1	15	28	21	17	17	50	31,1
10L0800	8	M16x1	17	30,5	24	18	18	50	35
10L1000	10	M18x1	19	35	27	21	21	25	52,7

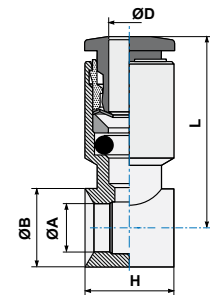


ART. **13**

**Single banjo body**



COD.	ØD	G*	ØA	ØB	H	L		
1304M5	4	M5	5	9	9	19,85	50	5,9
130418	4	1/8	9,9	14	15	21,65	50	13,4
130618	6	1/8	9,9	14	15	24,9	50	14,2
130614	6	1/4	13,3	18	17	26,1	50	20,4
130818	8	1/8	9,9	14	15	25,15	50	14,6
130814	8	1/4	13,3	18	17	26,8	50	20,8
130838	8	3/8	16,75	21	20	28,3	50	27,6
131014	10	1/4	13,3	18	17	28,9	50	25,7
131038	10	3/8	16,75	21	20	30,35	25	30
131214	12	1/4	13,3	18	17	30,7	25	28,1
131238	12	3/8	16,75	21	20	31,6	25	32,6
131212	12	1/2	21	26	24	35,15	25	47,3
13R04M5	4	M5	6	9	10	19,85	50	5,4
13R06M5	6	M5	6	9	10	22,1	50	7,9



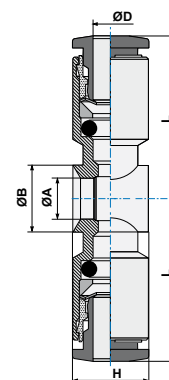
G\* = stem thread. See page 95 of stem section

ART. **14**

**Double banjo body**



COD.	ØD	G*	ØA	ØB	H	L		
140618	6	1/8	9,9	14	15	24,3	50	17,2
140818	8	1/8	9,9	14	15	24,8	50	18
140814	8	1/4	13,3	18	17	26,5	50	27,6
140838	8	3/8	16,75	21	20	28	50	32,2
141014	10	1/4	13,3	18	17	28,4	50	31,4
141038	10	3/8	16,75	21	20	29,9	25	36,9



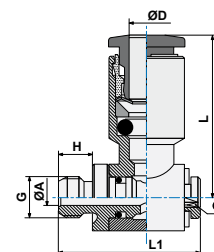
G\* = Stem thread. See page 95 of stem section

ART. **15**

**Complete single banjo (rotating under pressure)**



COD.	ØD	G	ØA	H	L1	L			
1504M5	4	M5	2	4	16,8	19,85	2,5	50	8,4
1504M6	4	M6	2	5	17,8	19,85	2,5	50	8,5
150418	4	1/8	5,5	5,5	24,5	21,65	3	50	22,9
1506M5	6	M5	2	4	16,8	22,4	2,5	50	9,3
150618	6	1/8	5,5	5,5	24,5	24,9	3	50	23,3
150614	6	1/4	7,8	6,5	27,8	26,1	4	50	38,8
150818	8	1/8	5,5	5,5	24,5	25,15	3	50	24,2
150814	8	1/4	7,8	6,5	27,8	26,8	4	50	39,4
150838	8	3/8	10	7,5	32,5	28,3	5	25	60
151014	10	1/4	7,8	6,5	27,8	28,9	4	25	44,6
151038	10	3/8	10	7,5	32,5	30,35	5	25	63,5
151214	12	1/4	7,8	6,5	27,8	30,85	4	25	46,9
151238	12	3/8	10	7,5	32,5	31,6	5	25	65,2
151212	12	1/2	12	9	38,8	35,15	8	10	110

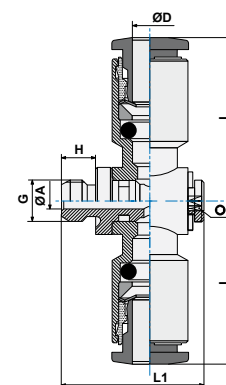


ART. **16**

**Complete double banjo (rotating under pressure)**



COD.	ØD	G	ØA	H	L1	L			
160618	6	1/8	5,5	5,5	24,5	24,3	3	50	27,4
160818	8	1/8	5,5	5,5	25	24,8	3	50	27,4
160814	8	1/4	7,8	6,5	28	26,5	4	25	32,1
160838	8	3/8	10	7,5	32,5	28	5	25	39,8
161014	10	1/4	7,8	6,5	28	28,4	4	25	49,9
161038	10	3/8	10	7,5	32,5	29,9	5	25	55,1

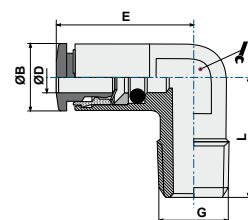


ART. **19**

**Elbow male adapter**



COD.	ØD	G	ØB	E	L			
190418	4	1/8	9	19,35	16,5	10	100	11,6
190618	6	1/8	11	24,4	16,5	10	100	13,3
190614	6	1/4	11	25,4	22	11	100	19,3
190818	8	1/8	13	25,3	18,5	11	100	16,5
190814	8	1/4	13	25,3	22,0	11	100	19,1
191014	10	1/4	16	26,9	23,5	13	50	25,4

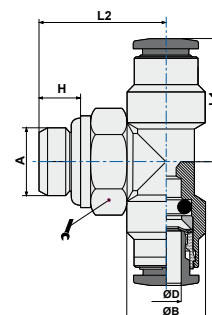


ART. **20**

**Swivel male stud T (parallel)**



COD.	ØD	A	H	ØB	L1	L2			
2004M5	4	M5	3,5	11	18,1	15,7	10	50	16,6
200418	4	1/8	5,5	11,3	18,1	18,5	13	50	21,5
200414	4	1/4	6,5	11,3	18,1	20,5	16	50	28,7
2006M5	6	M5	3,5	12	20,1	15,7	10	50	16
200618	6	1/8	5,5	11	20,1	18,5	13	50	20,1
200614	6	1/4	6,5	11	20,1	20,5	16	50	27,4
200818	8	1/8	5,5	13	23,6	20,5	13	50	25,8
200814	8	1/4	6,5	13	23,6	21,3	16	50	29,8
200838	8	3/8	7,5	13	23,6	22,8	16	25	36
201014	10	1/4	6,5	16	28,6	25,7	16	25	50,3
201038	10	3/8	7,5	16	28,6	25,7	17	25	50,3

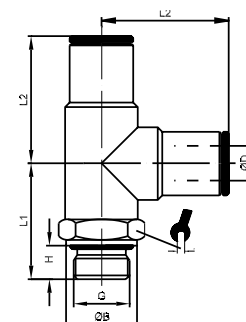


ART. **21**

**Swivel male branch T (parallel)**

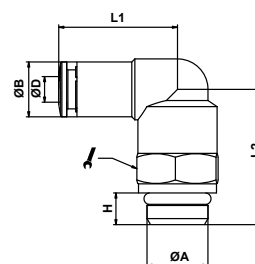


COD.	ØD	G	H	ØB	L1	L2			
2104M5	4	M5	4	8	16,5	19	9	50	14,7
210418	4	G1/8	5,5	13	18,5	17,5	13	50	26,8
210414	4	G1/4	6,5	16	22,5	19	13	50	29,7
210618	6	G1/8	5,5	13	20	21	13	50	29
210614	6	G1/4	6,5	16	24	21	13	50	31,8
210818	8	G1/8	5,5	13	20	23	13	50	29,6
210814	8	G1/4	6,5	16	24	23	13	50	32,6
210838	8	G3/8	4,5	20	25,5	23	17	25	37,2
211014	10	G1/4	6,5	16	24	27	16	25	51,5

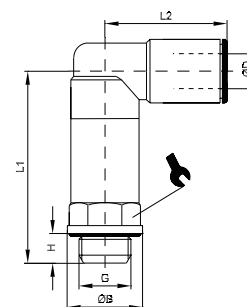


**ART. 22**
**Swivel elbow male adaptor (parallel)**

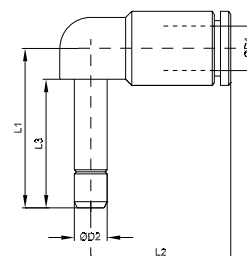

COD.	ØD	A	H	ØB	L1	L2			
2204M5	4	M5	4	9,1	18,55	14,8	9	100	8,9
2204M12	4	M12x1,5	6,5	9,1	20,35	22,4	13	100	10
220418	4	1/8	5,5	9,1	20,35	19,9	13	100	18,1
220414	4	1/4	6,5	9,1	20,35	22,7	13	100	21,6
220438	4	3/8	7,5	9,1	20,35	24,9	13	100	21,9
2206M5	6	M5	4	11	22,4	15	9	100	10,6
2206M12	6	M12x1,5	6,5	11	23,9	22,2	13	100	12,7
220618	6	1/8	5,5	11	23,9	19,7	13	100	19,5
220614	6	1/4	6,5	11	23,9	22,7	13	100	22,6
220638	6	3/8	7,5	11	23,9	24,7	13	100	28,3
2208M12	8	M12x1,5	6,5	13	24,3	22,2	13	100	21,3
220818	8	1/8	5,5	13	23,95	19,7	13	100	18,8
220814	8	1/4	6,5	13	24,3	22,7	13	50	21,9
220838	8	3/8	7,5	13	24,3	24,7	13	50	28,4
221014	10	1/4	6,5	16	28,4	22,6	16	50	32,8
221038	10	3/8	7,5	16	28,4	26,6	16	50	38,8
221012	10	1/2	9	16	28,4	28,1	16	50	43,5
221214	12	1/4	6,5	19	31,4	29,2	16	25	60,3
221238	12	3/8	7,5	19	31,4	27,2	20	25	58,7
221212	12	1/2	9	19	31,4	31,7	20	25	68,8
221438	14	3/8	7,5	21	32,0	28,5	20	25	57,5
221412	14	1/2	9	21	32,0	33,5	20	25	71


**ART. 22L**
**Swivel longer elbow male adaptor (parallel)**


COD.	ØD	G	ØB	H	L1	L2			
22L0418	4	G1/8	13	5,5	33,2	20,35	13	25	29,1
22L0414	4	G1/4	16	6,5	38,2	20,35	13	25	32,5
22L0618	6	G1/8	13	5,5	33	23,9	13	25	30,5
22L0614	6	G1/4	16	6,5	38	23,9	13	25	34,2
22L0818	8	G1/8	13	5,5	33	24	13	25	30,2
22L0814	8	G1/4	16	6,5	38	24,3	13	25	33,7
22L1014	10	G1/4	16	6,5	40,5	28,4	16	25	52,5


**ART. 22L0**
**Plug-in elbow connector**


COD.	ØD1	ØD2	L1	L2	L3		
2204L0	4	4	25,2	20,35	16,2	50	8,9
2206L0	6	6	28,5	23,9	19,5	50	19,1
2208L0	8	8	30	24,3	21	50	21,6
2210L0	10	10	35	28,4	24	25	26,5
2212L0	12	12	38,5	31,4	25	25	31,7



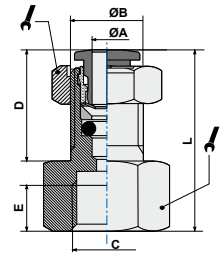


ART. **25**

**Female bulkhead**



COD.	ØA	C	ØB	D	E	L			
250418	4	1/8	M12x1	13,5	8,5	23,5	14	25	15,8
250618	6	1/8	M14x1	16,8	8,5	29,3	17	25	23,7
250614	6	1/4	M14x1	16,8	11,0	24,6	17	25	26,8
250818	8	1/8	M16x1	20,7	8,5	32,2	19	25	29,7
250814	8	1/4	M16x1	20,7	11,0	26,8	19	25	36,5

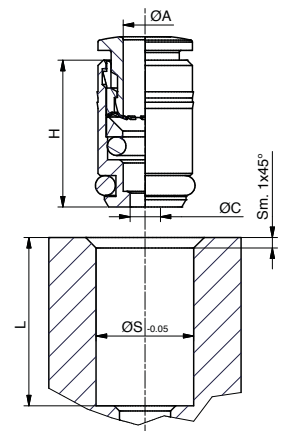


ART. **27**

**Cartridge**

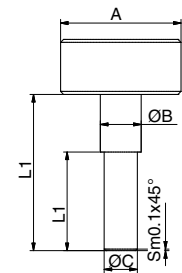


COD.	ØD	ØC	H	ØS	L		
270400	4	2,9	14	9,1	13,5	100	1,3
270600	6	4,5	16	11,1	15,5	50	4,8
270800	8	6,5	17	13,6	16,5	50	3,2



**Assembly instructions**

Ø Cartrige	ØA	ØB	ØC	L1	L2
Ø 4	20	4	3.5 -0.1	20	12,5
Ø 6	20	6	5.1 -0.1	20	12,5
Ø 8	20	8	7.1 -0.1	20.5	12,5



COD.	ØD	ØC	ØB	H
270400	4	2.9	7.8	14
270600	6	5	10	16
270800	8	7	11.8	17

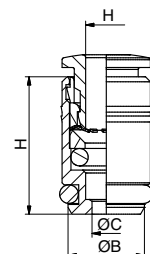
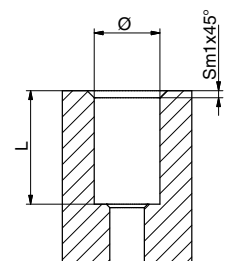


Table for housing  
on plastic material

Ø	L	Ø Cartrige
9 -0.05	13.5 -0.1	Ø 4
10.97 -0.05	15.5 -0.1	Ø 6
12.95 -0.05	16.5 -0.1	Ø 8

Table for housing  
on aluminium

Ø Cartrige	Ø	L
Ø 4	9.1 -0.05	13.5 -0.1
Ø 6	11.1 -0.05	15.5 -0.1
Ø 8	13.6 -0.05	16.5 -0.1

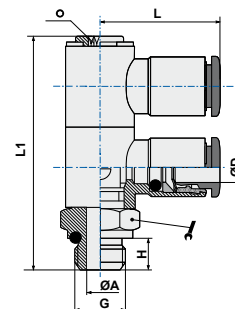


ART. **33**

**Swivel double banjo stem**



COD.	ØD	G	ØA	H	L1	L				
330418	4	1/8	5,5	5,5	43,3	21,65	14	3	25	44,41
330618	6	1/8	5,5	5,5	43,3	24,9	14	3	25	45,5
330614	6	1/4	7,8	6,5	50	26,1	18	4	25	75,6
330818	8	1/8	5,5	5,5	43,3	25,1	14	3	25	48,5
330814	8	1/4	7,8	6,5	50	26,8	18	4	25	76,4
331014	10	1/4	7,8	6,5	50	28,9	18	4	25	87

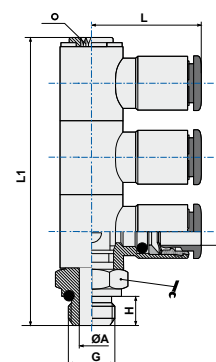


ART. **34**

**Swivel triple banjo stem**



COD.	ØD	G	ØA	H	L1	L				
340418	4	1/8	5,5	5,5	58,4	21,65	14	3	10	54,1
340618	6	1/8	5,5	5,5	58,4	24,9	14	3	10	63,9
340614	6	1/4	7,8	6,5	67,1	26,1	18	4	10	65,6
340818	8	1/8	5,5	5,5	58,4	25,1	14	3	10	66,2
340814	8	1/4	7,8	6,5	67,1	26,8	18	4	10	108
341014	10	1/4	7,8	6,5	67,1	28,9	18	4	10	151,1

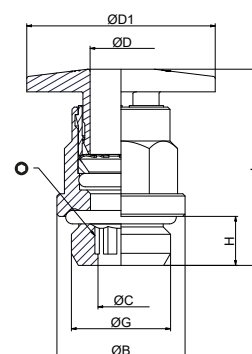


ART. **01AM**

**Straight male adaptor (parallel) larger pusher**



COD.	ØD	ØD1	G	ØC	ØB	H	L			
010814AM	8	25	1/4	6,2	17	6,5	25,6	13	6	13

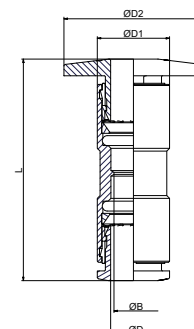


ART. **03AM**

**Straight connector larger pusher**



COD.	ØD	ØD1	ØD2	ØB	L	
030800AM	8	15	25	7	39,9	12,7

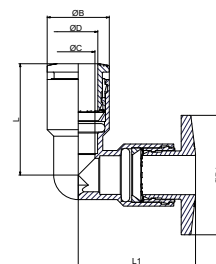


ART. **04AM**

**Elbow connector larger pusher**



COD.	ØD	ØD1	ØC	ØB	L1	L	g
040800AM	8	25	7	13	24,6	23,3	15

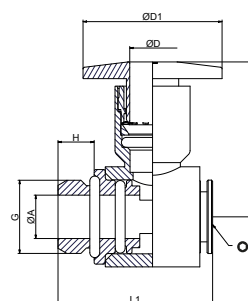


ART. **15AM**

**Complete single banjo (rotating under pressure) larger pusher**



COD.	ØD	ØD1	G	ØA	H	L	L1	Ø	g
150814AM	8	25	1/4	7,8	6,5	27,9	27,8	4	40

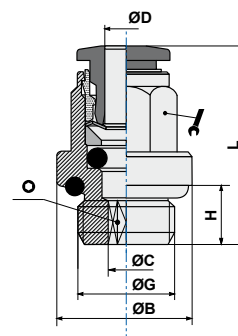


ART. **B01**

**Straight male adaptor (parallel)**



COD.	ØD	G	ØC	ØB	H	L				
B0104M5	4	M5	2	8	4	20,85	*	2	100	5,8
B0104M6	4	M6	2,5	9	5	21,85	*	2,5	50	4,3
B010418	4	1/8	2,5	13,5	5,5	20	9	2,5	50	7,4
B010414	4	1/4	2,5	17	6,5	20	9	2,5	50	11
B0106M5	6	M5	2,5	8	4	24,4	*	2,5	50	6
B0106M6	6	M6	2,5	11	5	25,4	*	2,5	50	6,7
B010618	6	1/8	4,1	13,5	5,5	25,4	11	4	50	10,1
B010614	6	1/4	4,1	17	6,5	23,4	11	4	50	13,6
B010818	8	1/8	5,1	13	5,5	26,8	13	5	50	11,3
B010814	8	1/4	6,1	17	6,5	24	13	6	50	12,5
B010838	8	3/8	6,1	20	7,5	24	13	6	50	18,9
B010812	8	1/2	6,1	24	9	25	13	6	25	18
B011018	10	1/8	5,1	13,5	5,5	30,3	16	4	25	19,6
B011014	10	1/4	7,2	16	6,5	29,4	16	7	50	18,1
B011038	10	3/8	8,2	21	7,5	29,4	16	8	50	24,9
B011012	10	1/2	8,2	24	9	29,4	16	8	25	34,8
B011214	12	1/4	7,2	16	6,5	32,2	19	7	25	26,3
B011238	12	3/8	10,2	22	7,5	32,2	19	10	25	31,2
B011212	12	1/2	10,2	24	9	31,7	19	10	25	37,3
B011438	14	3/8	10,2	21	7,5	35	21	10	25	35,9
B011412	14	1/2	12,2	25	9	34,3	21	12	25	39,3



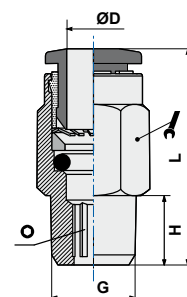
\*codes without key flats having the following Ø:  
B0104M5 and B0104M6 = Ø9  
B0106M5 and B0106M6 = Ø11

ART. **B01C**

**Straight male adaptor (tapered)**



COD.	ØD	G	H	L				
B01C0418	4	1/8	7,5	19,6	10	3	50	6,3
B01C0414	4	1/4	9,5	18	14	3	50	12,1
B01C0438	4	3/8	10,5	19,1	17	3	25	21,7
B01C0618	6	1/8	7,5	20,3	12	4	50	7,1
B01C0614	6	1/4	9,5	22,1	14	4	50	12,9
B01C0638	6	3/8	10,5	20,1	17	4	25	21,1
B01C0612	6	1/2	13,5	24,1	24	4	25	39,3
B01C0818	8	1/8	7,5	25,7	14	5	50	11,2
B01C0814	8	1/4	9,5	24,7	14	6	50	12,3
B01C0838	8	3/8	10,5	21,7	17	6	50	18,3
B01C0812	8	1/2	12,5	25,7	21	6	25	36,5
B01C1018	10	1/8	7,5	29,3	17	4	25	18,1
B01C1014	10	1/4	9,5	30,8	17	6	50	19,7
B01C1038	10	3/8	10,5	28,3	17	8	50	20,5
B01C1012	10	1/2	13,5	26,1	21	8	25	34,9
B01C1218	12	1/8	7,5	30,8	21	4	25	28,4
B01C1214	12	1/4	9,5	32,8	19	6	25	21,3
B01C1238	12	3/8	10,5	29,8	21	8	25	29,7
B01C1212	12	1/2	13,5	32,3	21	8	25	39
B01C1438	14	3/8	10,5	34,2	21	8	25	34,9
B01C1412	14	1/2	13,5	32,7	21	10	25	37,5

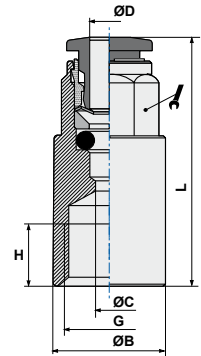


ART. **B02**

**Straight female adaptor**



COD.	ØD	G	ØC	ØB	H	L			
B020418	4	1/8	3	12	7,5	26,5	9	50	10,7
B020414	4	1/4	3	17	11,5	29,5	9	50	19,1
B020618	6	1/8	5	12	7,5	29,1	11	50	11
B020614	6	1/4	5	17	11,5	31,9	11	50	16,8
B020818	8	1/8	7	12	7,5	28	13	50	10,9
B020814	8	1/4	7	17	11,5	33,3	13	50	19,2

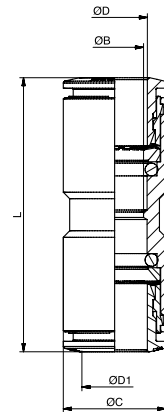


ART. **B03**

**Straight connector**



COD.	ØD	ØD1	ØB	ØC	L		
B030400	4	4	3	11	32,7	50	5,7
B030600	6	6	5	13	37,3	50	9,5
B030800	8	8	7	13	38,6	50	12,5
B031000	10	10	9	18	43,3	50	17,8
B031200	12	12	11	21	46,4	25	32,5
B031400	14	14	13	21	50	25	36

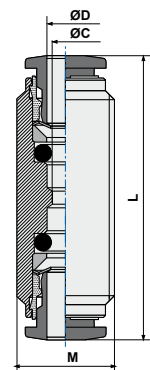


ART. **B03F**

**Threaded connector**



COD.	ØD	ØC	M	L		
B03F0400	4	3	11x1	32	50	10,7
B03F0600	6	5	14x1	36,1	50	18,7
B03F0800	8	7	16x1	38	50	24,1
B03F1000	10	9	18x1	42,3	50	33,4
B03F1200	12	11	22x1	45,8	25	53,3
B03F1400	14	13	24x1	47,5	25	61,2

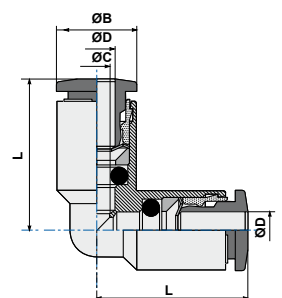


ART. **B04**

**Elbow connector**



COD.	ØD	ØC	ØB	L		
B040400	4	3	9	18,55	50	7,6
B040600	6	5	11	20,4	50	8,6
B040800	8	7	13	23,3	50	13,7
B041000	10	9	16	27,1	50	20,1
B041200	12	11	19	29,3	25	47,2
B041400	14	13	21	31,7	25	45

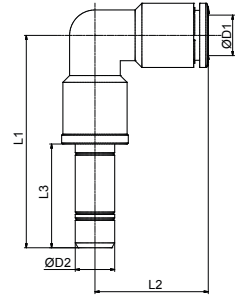


ART. **B04L0**

**Plug-in elbow connector**



COD.	ØD1	ØD2	L1	L2	L3		
B0404L0	4	4	34,5	18.55	16,7	50	6,6
B0406L0	6	6	39	20.4	19,5	50	7,5
B0408L0	8	8	43	23.8	21	50	22,4
B0410L0	10	10	51	27.1	24	25	27
B0412L0	12	12	54	29.3	25	25	64

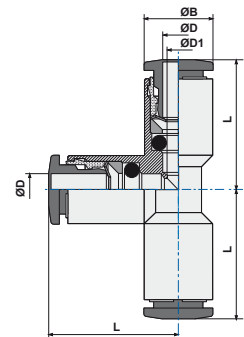


ART. **B05**

**T connector**



COD.	ØD	ØC	ØB	L		
B050400	4	3	9	18.55	50	10,8
B050600	6	5	11	21.2	50	12,2
B050800	8	7	13	23.3	50	16,4
B051000	10	8	16	26.9	25	30,6
B051200	12	10	19	29.3	25	56
B051400	14	12	21	31.7	10	58,3

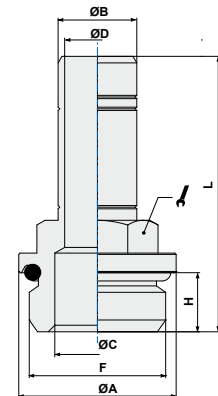


ART. **06**

**Adaptor parallel (short)**



COD.	ØB	F	ØA	ØC	ØD	H	L			
0604M5	4	M5	8	2	2	4	24,7	8	50	3,6
0604M6	4	M6	9	2	2	5	25,7	8	50	3,7
060418	4	1/8	13	5,5	2	5,5	27,7	13	50	9,1
060414	4	1/4	16	7,5	2	6,5	29,2	13	50	11,2
0606M5	6	M5	8	2,6	2,6	4	27,5	8	50	4,6
060618	6	1/8	13	5,5	4	5,5	30,5	13	50	9,6
060614	6	1/4	16	7,5	4	6,5	33,5	13	50	12
060818	8	1/8	13	6	6	5,5	32,0	13	50	10,5
060814	8	1/4	16	7,5	6	6,5	33,5	13	50	31,1
060838	8	3/8	20	9	6	7,5	35,5	13	50	18,9
061018	10	1/8	13	6	6	5,5	35,0	13	50	16,7
061014	10	1/4	16	8	8	6,5	38	13	50	14,1
061038	10	3/8	20	8	8	7,5	39,5	13	50	20,8
061214	12	1/4	16	8	8	6,5	37,5	13	25	21,5
061238	12	3/8	20	11	10	7,5	40,5	13	25	21,1
061212	12	1/2	24	13	10	9	42,0	16	25	31,3
061438	14	3/8	20	12	12	7,5	43,0	16	25	22,3
061412	14	1/2	24	13	12	9	44,5	16	25	32,2

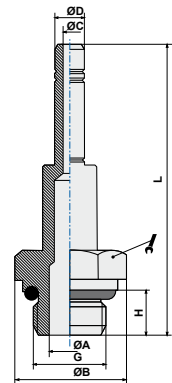


ART. **60**

**Adaptor parallel (long)**



COD.	ØD	G	ØC	ØB	H	L	ØA			
600418	4	1/8	2	13	5,5	39,2	6	13	50	10,2
600618	6	1/8	4	13	5,5	44,5	5,5	13	50	13,5
600614	6	1/4	4	16	6,5	48	7,5	13	50	18,1
600818	8	1/8	6	13	5,5	48	6	13	50	19,1
600814	8	1/4	6	16	6,5	49,5	7,5	13	50	19,8
600838	8	3/8	6	20	7,5	51,5	9	13	50	27
601038	10	3/8	8	20	7,5	56	9	13	25	33,2

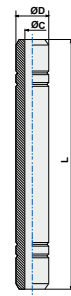


ART. **07**

**Connector**



COD.	ØD	ØC	L		
070400	4	2	33,4	100	2,6
070600	6	4	39	50	5
070800	8	6	42	50	7,5
071000	10	8	48	50	10,8
071200	12	10	48	50	14,3

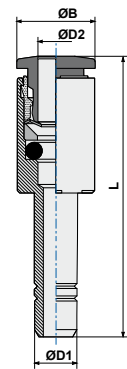


ART. **B08**

**Plug-in reducer**



COD.	ØD1	ØD2	ØB	L		
B080604	6	4	9	32,85	50	5,5
B080804	8	4	9	34	50	9,7
B080806	8	6	11	36,9	50	8,6
B081006	10	6	11	39,9	50	15,5
B081008	10	8	13	39,3	50	11,8
B081208	12	8	13	39,8	25	18,8
B081210	12	10	16	41,9	25	16,6
B081406	14	6	15	36,9	25	36

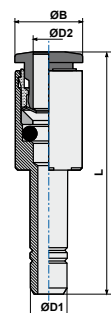


ART. **B08/E**

**Plug-in increaser**



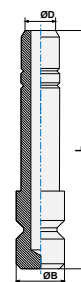
COD.	ØD1	ØD2	ØB	L		
B08E0406	4	6	11	40,4	50	7,5
B08E0608	6	8	13	44	50	11,3



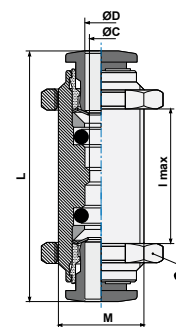


**ART. 09**
**Plug**

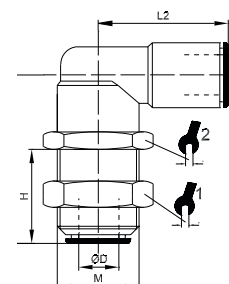

COD.	ØD	ØB	L		
090400	4	5	26	50	3,1
090600	6	7	29	50	4,7
090800	8	9	31,5	50	7,7
091000	10	11	35	50	10,8
091200	12	13	37	25	14,5


**ART. B10**
**Bulkhead connector**

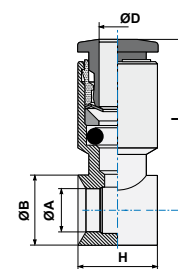

COD.	ØD	ØC	M	lmax	L			
B100400	4	3	11x1	14	32,7	14	50	15,8
B100600	6	5	14x1	14,5	37,3	17	50	25,9
B100800	8	7	16x1	15	38,6	18	50	30
B101000	10	9	18x1	16,5	43,3	21	25	44,4
B101200	12	11	22x1	18,6	46,4	26	25	70,6
B101400	14	13	24x1	21,7	50	27	25	79,9


**ART. B10L**
**Elbow bulkhead**


COD.	ØD	M	H	L1	L2				
B10L0400	4	M11x1	12,5	25,5	20	13	13	50	22,4
B10L0600	6	M14x1	15	28	21	17	17	50	31,1
B10L0800	8	M16x1	17	30,5	24	18	18	50	35
B10L1000	10	M18x1	19	35	27	21	21	25	52,7


**ART. B13**
**Single banjo body**


COD.	ØD	G*	ØA	ØB	H	L		
B1304M5	4	M5	5	9	9	19,85	50	5,9
B130418	4	1/8	9,9	14	15	21,65	50	13,4
B130618	6	1/8	9,9	14	15	24,9	50	14,2
B130614	6	1/4	13,3	18	17	26,1	50	20,4
B130818	8	1/8	9,9	14	15	25,15	50	14,6
B130814	8	1/4	13,3	18	17	26,8	50	20,8
B130838	8	3/8	16,75	21	20	28,3	50	27,6
B131014	10	1/4	13,3	18	17	28,9	50	25,7
B131038	10	3/8	16,75	21	20	30,35	25	30
B131214	12	1/4	13,3	18	17	30,7	25	28,1
B131238	12	3/8	16,75	21	20	31,6	25	32,6
B131212	12	1/2	21	26	24	35,15	25	47,3
B13R04M5	4	M5	6	9	10	19,85	50	5,4
B13R06M5	6	M5	6	9	10	22,1	50	7,9



G\* = Stem thread. See page 94 of stem section.

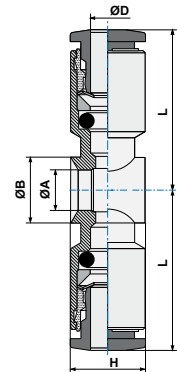
ART. **B14**

**Double banjo body**



COD.	ØD	G*	ØA	ØB	H	L		
B140618	6	1/8	9,9	14	15	24,3	50	17,2
B140818	8	1/8	9,9	14	15	24,8	50	18
B140814	8	1/4	13,3	18	17	26,5	50	27,6
B140838	8	3/8	16,75	21	20	28	50	32,2
B141014	10	1/4	13,3	18	17	28,4	50	31,4
B141038	10	3/8	16,75	21	20	29,9	25	36,9

G\* = Stem thread. See page 95 of stem section.

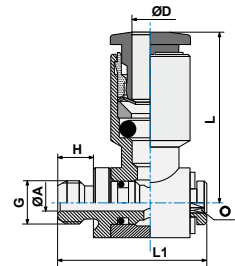


ART. **B15**

**Complete single banjo (rotating under pressure)**



COD.	ØD	G	ØA	H	L1	L			
B1504M5	4	M5	2	4	16,8	19,85	2,5	50	8,4
B1504M6	4	M6	2	5	17,8	19,85	2,5	50	8,5
B150418	4	1/8	5,5	5,5	24,5	21,65	3	50	22,9
B1506M5	6	M5	2	4	16,8	22,4	2,5	50	9,3
B150618	6	1/8	5,5	5,5	24,5	24,9	3	50	23,3
B150614	6	1/4	7,8	6,5	27,8	26,1	4	50	38,8
B150818	8	1/8	5,5	5,5	24,5	25,15	3	50	24,2
B150814	8	1/4	7,8	6,5	27,8	26,8	4	50	39,4
B150838	8	3/8	10	7,5	32,5	28,3	5	25	60
B151014	10	1/4	7,8	6,5	27,8	28,9	4	25	44,6
B151038	10	3/8	10	7,5	32,5	30,35	5	25	63,5
B151214	12	1/4	7,8	6,5	27,8	30,85	4	25	46,9
B151238	12	3/8	10	7,5	32,5	31,6	5	25	65,2
B151212	12	1/2	12	9	38,8	35,15	8	10	110

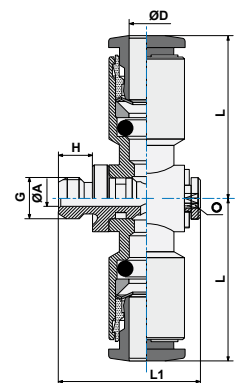


ART. **B16**

**Complete single banjo (rotating under pressure)**



COD.	ØD	G	ØA	H	L1	L			
B160618	6	1/8	5,5	5,5	24,5	24,3	3	50	27,4
B160818	8	1/8	5,5	5,5	25	24,8	3	50	27,4
B160814	8	1/4	7,8	6,5	28	26,5	4	25	32,1
B160838	8	3/8	10	7,5	32,5	28	5	25	39,8
B161014	10	1/4	7,8	6,5	28	28,4	4	25	49,9
B161038	10	3/8	10	7,5	32,5	29,9	5	25	55,1

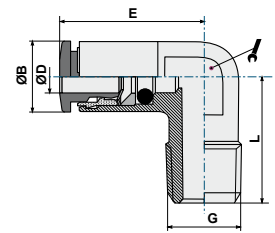


ART. **B19**

**Elbow male adaptor**



COD.	ØD	G	ØB	E	L			
B190418	4	1/8	9	19,35	16,5	10	100	11,6
B190618	6	1/8	11	24,4	16,5	10	100	13,3
B190614	6	1/4	11	25,4	22	11	100	19,3
B190818	8	1/8	13	25,3	18,5	11	100	16,5
B190814	8	1/4	13	25,3	22,0	11	100	19,1
B191014	10	1/4	16	26,9	23,5	13	50	25,4

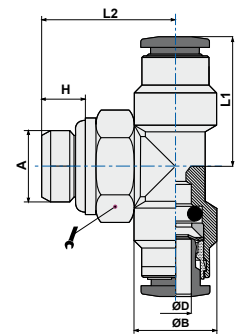


ART. **B20**

**Swivel male stud T parallel**



COD.	ØD	A	H	ØB	L1	L2			
B2004M5	4	M5	4	9	17,3	20,0	8	50	16,6
B200418	4	1/8	5,5	11,40	17,3	18,5	13	50	21,5
B200414	4	1/4	6,5	9	19,0	22,5	16	50	28,7
B2006M5	6	M5	4	11,20	20,5	21	8	50	16
B200618	6	1/8	5,5	11	19,5	18,5	13	50	20,1
B200614	6	1/4	6,5	11	22,1	22,5	16	50	27,4
B200818	8	1/8	5,5	13	23,0	20,5	13	50	25,8
B200814	8	1/4	6,5	13	23,0	22,5	16	50	29,8
B200838	8	3/8	7,5	13	24,5	25,5	18	25	36
B201014	10	1/4	6,5	16	26,4	24,5	16	25	50,3
B201038	10	3/8	7,5	16	26,4	25,5	18	25	50,3

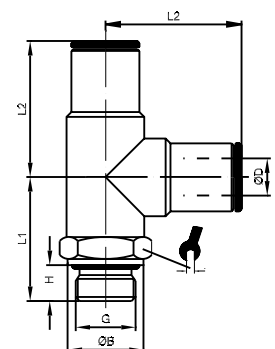


ART. **B21**

**Swivel male branch T (parallel)**



COD.	ØD	G	H	ØB	L1	L2			
B2104M5	4	M5	4	8	16,5	19	9	50	14,7
B210418	4	G1/8	5,5	13	18,5	17,5	13	50	26,8
B210414	4	G1/4	6,5	16	22,5	19	13	50	29,7
B210618	6	G1/8	5,5	13	20	21	13	50	29
B210614	6	G1/4	6,5	16	24	21	13	50	31,8
B210818	8	G1/8	5,5	13	20	23	13	50	29,6
B210814	8	G1/4	6,5	16	24	23	13	50	32,6
B210838	8	G3/8	4,5	20	25,5	23	17	25	37,2
B211014	10	G1/4	6,5	16	24	27	16	25	51,5

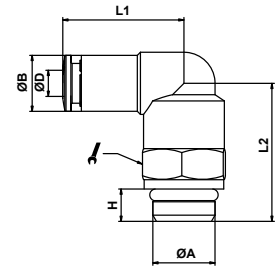


ART. **B22**

**Swivel elbow male adaptor (parallel)**



COD.	ØD	A	H	ØB	L1	L2			
B2204M5	4	M5	4	9,1	18,55	14,8	9	100	8,9
B2204M12	4	M12x1,5	6,5	9,1	20,35	22,4	13	100	10
B220418	4	1/8	5,5	9,1	20,35	19,9	13	100	18,1
B220414	4	1/4	6,5	9,1	20,35	22,7	13	100	21,6
B220438	4	3/8	7,5	9,1	20,35	24,9	13	100	21,9
B2206M5	6	M5	4	11	22,4	15	9	100	10,6
B2206M12	6	M12x1,5	6,5	11	23,9	22,2	13	100	12,7
B220618	6	1/8	5,5	11	23,9	19,7	13	100	19,5
B220614	6	1/4	6,5	11	23,9	22,7	13	100	22,6
B220638	6	3/8	7,5	11	23,9	24,7	13	100	28,3
B2208M12	8	M12x1,5	6,5	13	24,3	22,2	13	100	21,3
B220818	8	1/8	5,5	13	23,95	19,7	13	100	18,8
B220814	8	1/4	6,5	13	24,3	22,7	13	50	21,9
B220838	8	3/8	7,5	13	24,3	24,7	13	50	28,4
B221014	10	1/4	6,5	16	28,4	22,6	16	50	32,8
B221038	10	3/8	7,5	16	28,4	26,6	16	50	38,8
B221012	10	1/2	9	16	28,4	28,1	16	50	43,5
B221214	12	1/4	6,5	19	31,4	29,2	16	25	60,3
B221238	12	3/8	7,5	19	31,4	27,2	20	25	58,7
B221212	12	1/2	9	19	31,4	31,7	20	25	68,8
B221438	14	3/8	7,5	21	32,0	28,5	20	25	57,5
B221412	14	1/2	9	21	32,0	33,5	20	25	71

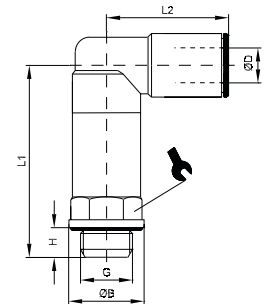


ART. **B22L**

**Swivel longer elbow male adaptor (parallel)**



COD.	ØD	G	ØB	H	L1	L2			
B22L0418	4	G1/8	13	5,5	33,2	20,35	13	25	29,1
B22L0414	4	G1/4	16	6,5	38,2	20,35	13	25	32,5
B22L0618	6	G1/8	13	5,5	33	23,9	13	25	30,5
B22L0614	6	G1/4	16	6,5	38	23,9	13	25	34,2
B22L0818	8	G1/8	13	5,5	33	24	13	25	30,2
B22L0814	8	G1/4	16	6,5	38	24,3	13	25	33,7
B22L1014	10	G1/4	16	6,5	40,5	28,4	16	25	52,5

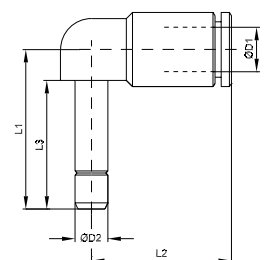


ART. **B22L0**

**Plug-in elbow connector**



COD.	ØD1	ØD2	L1	L2	L3		
B2204L0	4	4	25,2	20,35	16,2	50	8,9
B2206L0	6	6	28,5	23,9	19,5	50	19,1
B2208L0	8	8	30	24,3	21	50	21,6
B2210L0	10	10	35	28,4	24	25	26,5
B2212L0	12	12	38,5	31,4	25	25	31,7

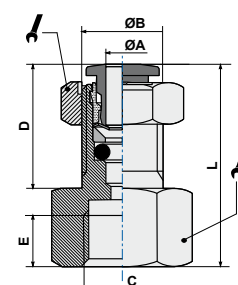


ART. **B25**

**Female bulkhead**



COD.	ØA	C	ØB	D	E	L			
B250418	4	1/8	M12x1	13,5	8,5	23,5	14	25	15,8
B250618	6	1/8	M14x1	16,8	8,5	29,3	17	25	23,7
B250614	6	1/4	M14x1	16,8	11,0	24,6	17	25	26,8
B250818	8	1/8	M16x1	20,7	8,5	32,2	19	25	29,7
B250814	8	1/4	M16x1	20,7	11,0	26,8	19	25	36,5

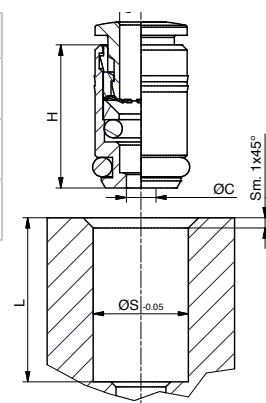


ART. **B27**

**Cartridge**

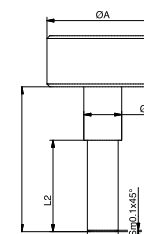


COD.	ØD	ØC	H	ØS	L		
B270400	4	2,9	14	9,1	13,5	100	1,3
B270600	6	4,5	16	11,1	15,5	50	4,8
B270800	8	6,5	17	13,6	16,5	50	3,2



**Assembly instructions**

Ø Cartridge	ØA	ØB	ØC	L1	L2
Ø 4	20	4	3.5 -0.1	20	12,5
Ø 6	20	6	5.1 -0.1	20	12,5
Ø 8	20	8	7.1 -0.1	20.5	12,5



COD.	ØD	ØC	ØB	H
B270400	4	2.9	7.8	14
B270600	6	5	10	16
B270800	8	7	11.8	17

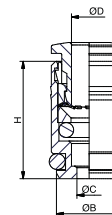
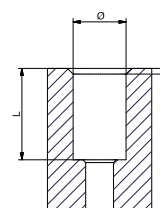


Table for housing  
on plastic material

Ø	L	Ø Cartuccia
9 -0.05	13.5 -0.1	Ø 4
10.97 -0.05	15.5 -0.1	Ø 6
12.95 -0.05	16.5 -0.1	Ø 8

Table for housing  
on aluminium

Ø Cartuccia	Ø	L
Ø 4	9.1 -0.05	13.5 -0.1
Ø 6	11.1 -0.05	15.5 -0.1
Ø 8	13.6 -0.05	16.5 -0.1

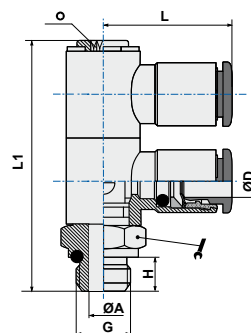


ART. **B33**

**Swivel double banjo stem**



COD.	ØD	G	ØA	H	L1	L				
B330418	4	1/8	5,5	5,5	43,3	21,65	14	3	25	44,41
B330618	6	1/8	5,5	5,5	43,3	24,9	14	3	25	45,5
B330614	6	1/4	7,8	6,5	50	26,1	18	4	25	75,6
B330818	8	1/8	5,5	5,5	43,3	25,1	14	3	25	48,5
B330814	8	1/4	7,8	6,5	50	26,8	18	4	25	76,4
B331014	10	1/4	7,8	6,5	50	28,9	18	4	25	87

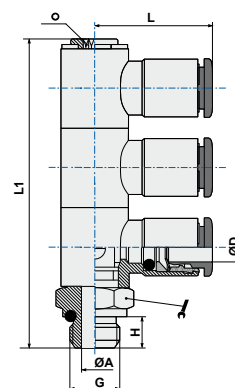


ART. **B34**

**Swivel triple banjo stem**

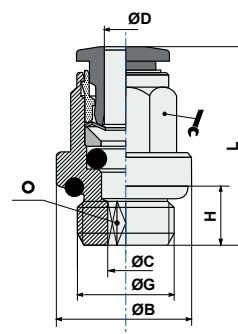


COD.	ØD	G	ØA	H	L1	L				
B340418	4	1/8	5,5	5,5	58,4	21,65	14	3	10	54,1
B340618	6	1/8	5,5	5,5	58,4	24,9	14	3	10	63,9
B340614	6	1/4	7,8	6,5	67,1	26,1	18	4	10	65,6
B340818	8	1/8	5,5	5,5	58,4	25,1	14	3	10	66,2
B340814	8	1/4	7,8	6,5	67,1	26,8	18	4	10	108
B341014	10	1/4	7,8	6,5	67,1	28,9	18	4	10	151,1



**ART. 010T**
**Straight male adaptor parallel**


COD.	ØD	G	ØC	ØB	H	L				
010T04M5	4	M5	2,5	8	4	20,85	*	2,5	100	4,93
010T04M6	4	M6	2,5	9	5	21,85	*	2,5	50	5,53
010T0418	4	1/8	2,5	13,5	5,5	20	9	2,5	50	8,60
010T0414	4	1/4	2,5	17	6,5	20	9	2,5	50	12,21
010T06M5	6	M5	2,5	8	4	24,4	*	2,5	50	7,20
010T06M6	6	M6	2,5	11	5	25,4	*	2,5	50	8,20
010T0618	6	1/8	4,1	13,5	5,5	25,4	11	4	50	11,65
010T0614	6	1/4	4,1	17	6,5	23,4	11	4	50	15,10
010T0818	8	1/8	5,1	13	5,5	26,8	13	5	50	13,10
010T0814	8	1/4	6,1	17	6,5	24	13	6	50	14,34
010T0838	8	3/8	6,1	20	7,5	24	13	6	50	20,72
010T0812	8	1/2	6,1	24	9	25	13	6	25	40,80
010T1014	10	1/4	7,2	16	6,5	29,4	16	7	50	22,15
010T1038	10	3/8	8,2	21	7,5	29,4	16	8	50	28,98
010T1012	10	1/2	8,2	24	9	29,4	16	8	25	38,77
010T1214	12	1/4	7,2	16	6,5	32,2	19	7	25	30,50
010T1238	12	3/8	10,2	22	7,5	32,2	19	10	25	35,68
010T1212	12	1/2	10,2	24	9	31,7	19	10	25	42,72
010T1438	14	3/8	10,2	21	7,5	35	21	10	25	40,89
010T1412	14	1/2	12,2	25	9	34,3	21	12	25	44,28



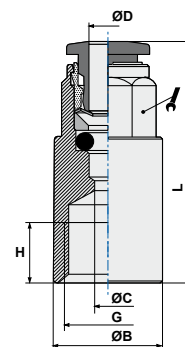
\* codes without key flats having the following Ø:

010T04M5 and 010T04M6 = Ø9

010T06M5 and 010T06M6 = Ø11

**ART. 020T**
**Straight female adaptor**


COD.	ØD	G	ØC	ØB	H	L			
020T0418	4	1/8	3	12	7,5	26,5	9	50	11,92
020T0414	4	1/4	3	17	11,5	29,5	9	50	20,20
020T0618	6	1/8	5	12	7,5	29,1	11	50	12,50
020T0614	6	1/4	5	17	11,5	31,9	11	50	18,29
020T0818	8	1/8	7	12	7,5	28	13	50	12,09
020T0814	8	1/4	7	17	11,5	33,3	13	50	20,94



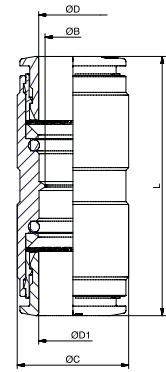


ART. **03OT**

**Straight connector**



COD.	ØD	ØD1	ØB	ØC	L		
03OT0400	4	4	3	11	32,7	50	8,07
03OT0600	6	6	5	13	37,3	50	12,46
03OT0800	8	8	7	13	38,6	50	16,02
03OT1000	10	10	9	18	43,3	50	25,80
03OT1200	12	12	11	21	46,4	25	41,50
03OT1400	14	14	13	21	50	25	46

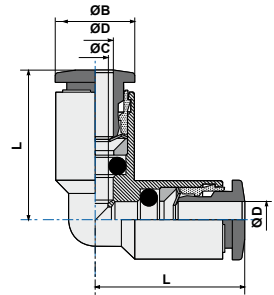


ART. **04OT**

**Elbow connector**



COD.	ØD	ØC	ØB	L		
04OT0400	4	3	9	18,55	50	10,00
04OT0600	6	5	11	20,4	50	11,63
04OT0800	8	7	13	23,3	50	17,28
04OT1000	10	9	16	27,1	50	28,08
04OT1200	12	11	19	29,3	25	56,13
04OT1400	14	13	21	31,7	25	55,01

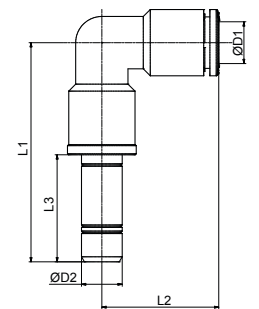


ART. **04OTL0**

**Plug-in elbow connector**



COD.	ØD1	ØD2	L1	L2	L3		
04OT04L0	4	4	34,5	18,55	16,7	50	7,82
04OT06L0	6	6	39	20,4	19,5	50	9,00
04OT08L0	8	8	43	23,8	21	50	24,23
04OT10L0	10	10	51	27,1	24	25	26,00
04OT12L0	12	12	54	29,3	25	25	69,02

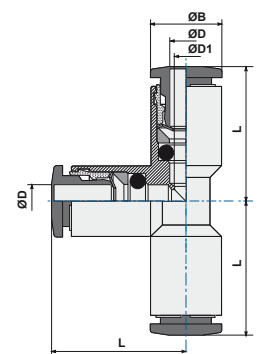


ART. **05OT**

**T connector**



COD.	ØD	ØC	ØB	L		
05OT0400	4	3	9	18,55	50	14,36
05OT0600	6	5	11	21,2	50	16,73
05OT0800	8	7	13	23,3	50	21,76
05OT1000	10	8	16	26,9	25	42,57
05OT1200	12	10	19	29,3	25	69,50
05OT1400	14	12	21	31,7	10	73,01

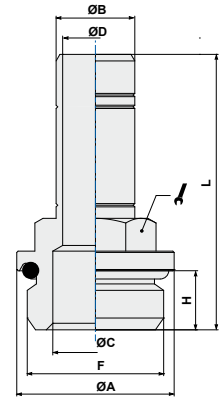


ART. **06**

**Adaptor parallel (short)**



COD.	ØB	F	ØA	ØC	ØD	H	L			
0604M5	4	M5	8	2	2	4	24,7	8	50	3,6
0604M6	4	M6	9	2	2	5	25,7	8	50	3,7
060418	4	1/8	13	5,5	2	5,5	27,7	13	50	9,1
060414	4	1/4	16	7,5	2	6,5	29,2	13	50	11,2
0606M5	6	M5	8	2,6	2,6	4	27,5	8	50	4,6
060618	6	1/8	13	5,5	4	5,5	30,5	13	50	9,6
060614	6	1/4	16	7,5	4	6,5	33,5	13	50	12
060818	8	1/8	13	6	6	5,5	32,0	13	50	10,5
060814	8	1/4	16	7,5	6	6,5	33,5	13	50	31,1
060838	8	3/8	20	9	6	7,5	35,5	13	50	18,9
061018	10	1/8	13	6	6	5,5	35,0	13	50	16,7
061014	10	1/4	16	8	8	6,5	38	13	50	14,1
061038	10	3/8	20	8	8	7,5	39,5	13	50	20,8
061214	12	1/4	16	8	8	6,5	37,5	13	25	21,5
061238	12	3/8	20	11	10	7,5	40,5	13	25	21,1
061212	12	1/2	24	13	10	9	42,0	16	25	31,3
061438	14	3/8	20	12	12	7,5	43,0	16	25	22,3
061412	14	1/2	24	13	12	9	44,5	16	25	32,2

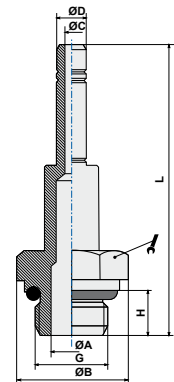


ART. **60**

**Adaptor parallel (long)**



COD.	ØD	G	ØC	ØB	H	L	ØA			
600418	4	1/8	2	13	5,5	39,2	6	13	50	10,2
600618	6	1/8	4	13	5,5	44,5	5,5	13	50	13,5
600614	6	1/4	4	16	6,5	48	7,5	13	50	18,1
600818	8	1/8	6	13	5,5	48	6	13	50	19,1
600814	8	1/4	6	16	6,5	49,5	7,5	13	50	19,8
600838	8	3/8	6	20	7,5	51,5	9	13	50	27
601038	10	3/8	8	20	7,5	56	9	13	25	33,2

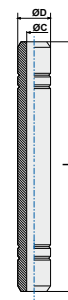


ART. **07**

**Connector**



COD.	ØD	ØC	L		
070400	4	2	33,4	100	2,6
070600	6	4	39	50	5
070800	8	6	42	50	7,5
071000	10	8	48	50	10,8
071200	12	10	48	50	14,3

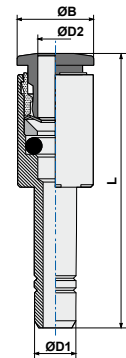


ART. **080T**

**Plug-in reducer**



COD.	ØD1	ØD2	ØB	L		
080T0604	6	4	9	32,85	50	6,67
080T0804	8	4	9	34	50	10,88
080T0806	8	6	11	36,9	50	10,10
080T1006	10	6	11	39,9	50	17,30
080T1008	10	8	13	39,3	50	14,44
080T1208	12	8	13	39,8	25	20,64
080T1210	12	10	16	41,9	25	20,56
080T1406	14	6	15	36,9	25	37,50

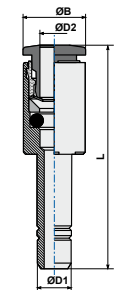


ART. **080T/E**

**Plug-in increaser**



COD.	ØD1	ØD2	ØB	L		
080TE0406	4	6	11	40,4	50	8,97
080TE0608	6	8	13	44	50	13,06

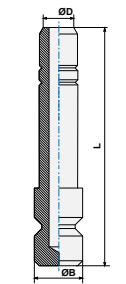


ART. **09**

**Plug**



COD.	ØD	ØB	L		
090400	4	5	26	50	3,1
090600	6	7	29	50	4,7
090800	8	9	31,5	50	7,7
091000	10	11	35	50	10,8
091200	12	13	37	25	14,5

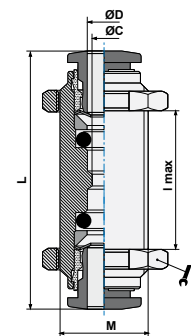


ART. **100T**

**Bulkhead connector**



COD.	ØD	ØC	M	lmax	L			
100T0400	4	3	11x1	14	32,7	14	50	18,19
100T0600	6	5	14x1	14,5	37,3	17	50	28,87
100T0800	8	7	16x1	15	38,6	18	50	33,60
100T1000	10	9	18x1	16,5	43,3	21	25	54,16
100T1200	12	11	22x1	18,6	46,4	26	25	79,55
100T1400	14	13	24x1	21,7	50	27	25	89,85

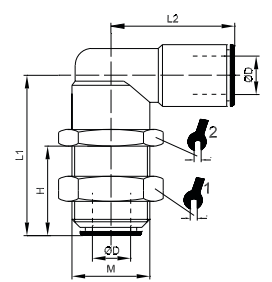


**ART. 10LOT**

**Elbow bulkhead**



COD.	ØD	M	H	L1	L2				
10LOT0400	4	M11x1	12,5	25,5	20	13	13	50	24,76
10LOT0600	6	M14x1	15	28	21	17	17	50	34,11
10LOT0800	8	M16x1	17	30,5	24	18	18	50	38,59
10LOT1000	10	M18x1	19	35	27	21	21	25	62,49

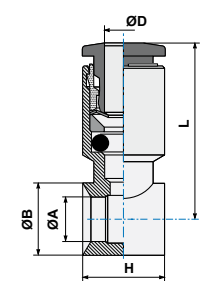


**ART. 130T**

**Single banjo body**



COD.	ØD	G*	ØA	ØB	H	L		
130T04M5	4	M5	5	9	9	19,85	50	7,05
130T0418	4	1/8	9,9	14	15	21,65	50	14,57
130T0618	6	1/8	9,9	14	15	24,9	50	15,70
130T0614	6	1/4	13,3	18	17	26,1	50	21,92
130T0818	8	1/8	9,9	14	15	25,15	50	16,39
130T0814	8	1/4	13,3	18	17	26,8	50	22,57
130T0838	8	3/8	16,75	21	20	28,3	50	29,39
130T1014	10	1/4	13,3	18	17	28,9	50	30,58
130T1038	10	3/8	16,75	21	20	30,35	25	34,90
130T1214	12	1/4	13,3	18	17	30,7	25	35,12
130T1238	12	3/8	16,75	21	20	31,6	25	37,14
130T1212	12	1/2	21	26	24	35,15	25	51,86
130TR04M5	4	M5	6	9	10	19,85	50	5,65
130TR06M5	6	M5	6	9	10	22,1	50	7,02

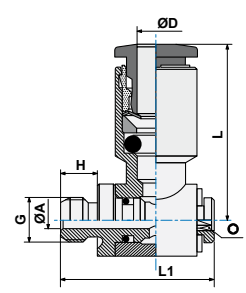


**ART. 150T**

**Complete single banjo (rotating under pressure)**



COD.	ØD	G	ØA	H	L1	L	○		
150T04M5	4	M5	2	4	16,8	19,85	2,5	50	9,61
150T04M6	4	M6	2	5	17,8	19,85	2,5	50	9,74
150T0418	4	1/8	5,5	5,5	24,5	21,65	3	50	24,12
150T06M5	6	M5	2	4	16,8	22,4	2,5	50	10,82
150T0618	6	1/8	5,5	5,5	24,5	24,9	3	50	24,84
150T0614	6	1/4	7,8	6,5	27,8	26,1	4	50	40,32
150T0818	8	1/8	5,5	5,5	24,5	25,15	3	50	25,96
150T0814	8	1/4	7,8	6,5	27,8	26,8	4	50	41,19
150T0838	8	3/8	10	7,5	32,5	28,3	5	25	61,83
150T1014	10	1/4	7,8	6,5	27,8	28,9	4	25	49,51
150T1038	10	3/8	10	7,5	32,5	30,35	5	25	68,41
150T1214	12	1/4	7,8	6,5	27,8	30,85	4	25	51,38
150T1238	12	3/8	10	7,5	32,5	31,6	5	25	69,72
150T1212	12	1/2	12	9	38,8	35,15	8	10	114,78

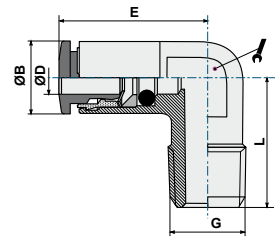


ART. **190T**

**Elbow male adaptor**



COD.	ØD	G	ØB	E	L			
190T0418	4	1/8	9	19,35	16,5	10	100	12,83
190T0618	6	1/8	11	24,4	16,5	10	100	14,84
190T0614	6	1/4	11	25,4	22	11	100	20,81
190T0818	8	1/8	13	25,3	18,5	11	100	18,26
190T0814	8	1/4	13	25,3	22,0	11	100	20,94
190T1014	10	1/4	16	26,9	23,5	13	50	30,26

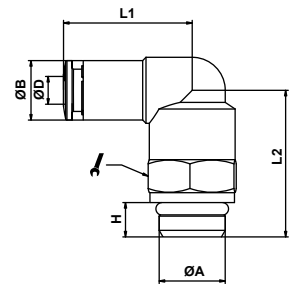


**220T**

**Swivel elbow male adaptor (parallel)**



COD.	ØD	A	H	ØB	L1	L2			
220T04M5	4	M5	4	9,1	18,55	14,8	9	100	10,10
220T04M12	4	M12x1,5	6,5	9,1	20,35	22,4	13	100	11,55
220T0418	4	1/8	5,5	9,1	20,35	19,9	13	100	19,00
220T0414	4	1/4	6,5	9,1	20,35	22,7	13	100	22,80
220T0438	4	3/8	7,5	9,1	20,35	24,9	13	100	27,60
220T06M5	6	M5	4	11	22,4	15	9	100	12,12
220T06M12	6	M12x1,5	6,5	11	23,9	22,2	13	100	14,11
220T0618	6	1/8	5,5	11	23,9	19,7	13	100	21,02
220T0614	6	1/4	6,5	11	23,9	22,7	13	100	24,11
220T0638	6	3/8	7,5	11	23,9	24,7	13	100	29,49
220T08M12	8	M12x1,5	6,5	13	24,3	22,2	13	100	24,55
220T0818	8	1/8	5,5	13	23,95	19,7	13	100	20,57
220T0814	8	1/4	6,5	13	24,3	22,7	13	50	23,67
220T0838	8	3/8	7,5	13	24,3	24,7	13	50	30,23
220T1014	10	1/4	6,5	16	28,4	22,6	16	50	37,68
220T1038	10	3/8	7,5	16	28,4	26,6	16	50	43,70
220T1012	10	1/2	9	16	28,4	28,1	16	50	48,40
220T1214	12	1/4	6,5	19	31,4	29,2	16	25	64,75
220T1238	12	3/8	7,5	19	31,4	27,2	20	25	63,21
220T1212	12	1/2	9	19	31,4	31,7	20	25	73,27
220T1438	14	3/8	7,5	21	32,0	28,5	20	25	62,54
220T1412	14	1/2	9	21	32,0	33,5	20	25	75,98

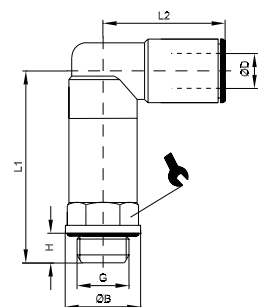


**22LOT**

**Swivel longer elbow male adaptor (parallel)**



COD.	ØD	G	ØB	H	L1	L2			
22LOT0418	4	G1/8	13	5,5	33,2	20,35	13	25	30,34
22LOT0414	4	G1/4	16	6,5	38,2	20,35	13	25	33,72
22LOT0618	6	G1/8	13	5,5	33	23,9	13	25	32,04
22LOT0614	6	G1/4	16	6,5	38	23,9	13	25	35,72
22LOT0818	8	G1/8	13	5,5	33	24	13	25	31,97
22LOT0814	8	G1/4	16	6,5	38	24,3	13	25	35,46
22LOT1014	10	G1/4	16	6,5	40,5	28,4	16	25	57,49

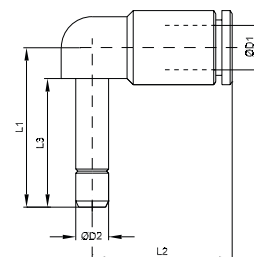


**ART. 220TLO**

**Plug-in elbow connector**



COD.	ØD1	ØD2	L1	L2	L3		
220T04L0	4	4	25,2	20,35	16,2	50	22,12
220T06L0	6	6	28,5	23,9	19,5	50	28,25
220T08L0	8	8	30	24,3	21	50	29,15
220T10L0	10	10	35	28,4	24	25	27,07
220T12L0	12	12	38,5	31,4	25	25	32,45

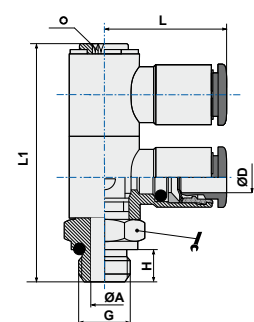


**ART. 330T**

**Swivel double banjo stem**



COD.	ØD	G	ØA	H	L1	L				
330T0418	4	1/8	5,5	5,5	43,3	21,65	14	3	25	46,81
330T0618	6	1/8	5,5	5,5	43,3	24,9	14	3	25	48,46
330T0614	6	1/4	7,8	6,5	50	26,1	18	4	25	78,57
330T0818	8	1/8	5,5	5,5	43,3	25,1	14	3	25	52,14
330T0814	8	1/4	7,8	6,5	50	26,8	18	4	25	80,02
330T1014	10	1/4	7,8	6,5	50	28,9	18	4	25	97,00

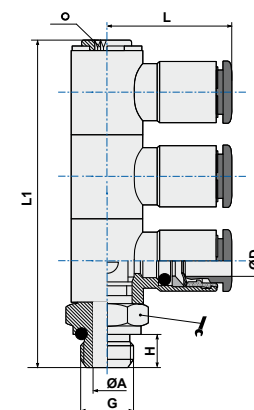


**ART. 340T**

**Swivel triple banjo stem**



COD.	ØD	G	ØA	H	L1	L				
340T0418	4	1/8	5,5	5,5	58,4	21,65	14	3	10	44,10
340T0618	6	1/8	5,5	5,5	58,4	24,9	14	3	10	66,93
340T0614	6	1/4	7,8	6,5	67,1	26,1	18	4	10	107,87
340T0818	8	1/8	5,5	5,5	58,4	25,1	14	3	10	110,86
340T0814	8	1/4	7,8	6,5	67,1	26,8	18	4	10	115,56
340T1014	10	1/4	7,8	6,5	67,1	28,9	18	4	10	127,50



## Brass push-in fittings

# Series MINI



The brass push-in fittings - Mini series combines light weight with maximum strength. It can be used with PA, TPU, Ny and PE hoses; the design of the O-ring seat ensures a seal even with polished and particularly slick surfaces.



### Components

- 1 Fitting body
- 2 Elastic ring
- 3 Swivel stem
- 4 O-ring seal
- 5 Thrust and crimping sleeve





## Technical sheet

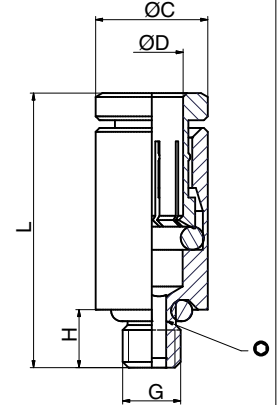
<b>FLUIDS</b>	Compressed air, some liquids (for different fluid please contact our Technical Dept.)	
<b>APPLICATIONS</b>	BSP parallel UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262	
<b>SUGGESTED TUBES</b>	TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethylene), TPA (Polyurethane/Copolyester)	
<b>TUBE TOLERANCES</b>	Diam. from 4 to 10 mm +/- 0,05 - Diam. from 12 mm +/- 0,1	
<b>THREAD TYPE</b>	Cylindrical with O-ring.	
<b>RECOMMENDED LIMIT VALUE</b>	Maximum torque	Thread M3 = 0,4 Nm; Thread M6 and M6x0,75 = 1,3 Nm
	Temperature	The working temperatures range is between -20°C and +70°C
	Pressure	The maximum working pressure is 10 Bar.
<b>MATERIALS</b>	Body	Nichel-plated
	Grip	Brass
	Seals	Silicon free NBR
<b>IMPORTANT NOTE</b>	The raw material is non-magnetic, however after cold working, a small amount of austenite could be transformed into martensite, which could be very weakly magnetic.	

ART. **RDR**

**Straight male adaptor parallel**



COD.	D	G	C	H	L	∅		
RDR320	2,0	M3	5,4	3	13,5	1,5	100	1,50
RDR330	3,0	M3	5,8	3	14,5	1,5	100	2,00
RDR331	3,17	M3	5,8	3	14,0	1,5	100	1,50
RDR340	4,0	M3	7,0	3	15,5	1,5	100	2,50
RDR340-MH05	4,0	M3	6,9	5	17,5	1,5	100	2,50
RDR520	2,0	M5	5,4	3,5	13,0	1,5	100	1,50
RDR530	3,0	M5	5,8	3,5	14,5	2,0	100	1,50
RDR531	3,17	M5	5,8	3,5	14,5	2,0	100	1,50
RDR540	4,0	M5	5,8	3,5	16,5	2,0	100	2,00
RDR640-FH12	4,0	M6	7	12	24,5	2,0	100	3,00
RDR640-MH12	4,0	M6	7	12	24,5	2,0	100	3,50

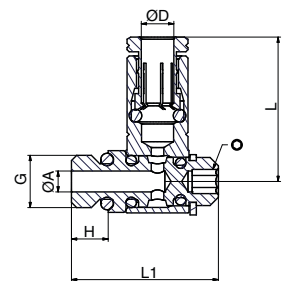


ART. **RGR**

**Complete single banjo with stem**



COD.	D	G	C	H	L	L1	∅		
RGR320	2	M3	1,4	3,0	13,5	13,5	1,5	100	3,63
RGR330	3	M3	1,4	3,0	13,5	13,5	1,5	100	3,52
RGR331	3,17	M3	1,4	3,0	13,5	13,5	1,5	100	3,34
RGR340	4,2	M3	1,4	3,0	13,5	13,5	1,5	100	3,68
RGR340-MH05	4,2	M3	1,4	5,0	13,5	13,5	1,5	100	3,80
RGR520	2	M5	2,0	3,5	14	14	2,0	100	3,64
RGR530	3	M5	2,0	3,5	14	14	2,0	100	3,62
RGR531	3,2	M5	2,0	3,5	13,5	13,5	2,0	100	3,54
RGR540	4,2	M5	2,0	3,5	13,5	13,5	2,0	100	3,82
RGR640-FH12	4,2	M6	2,0	12	13,5	13,5	2,0	100	6,01
RGR640-MH12	4,0	M6	2,0	12	13,5	13,5	2,0	100	5,94

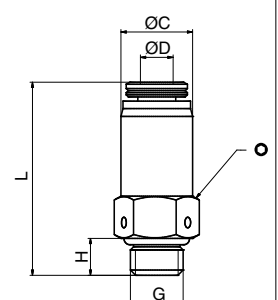


ART. **RDSR**

**Quick exhaust straight male parallel adapter**



COD.	L	∅C	∅D	G	H	∅		
RDSR520	18,5	6,8	2,0	M5	3,5	7	100	2,00
RDSR530	18,5	6,8	3,0	M5	3,5	7	100	3,00
RDSR531	18,3	6,8	3,0	M5	3,5	7	100	3,00
RDSR540	19,5	7,8	4,2	M5	3,5	8	100	4,00

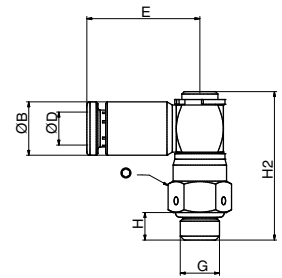


ART. **RGSR**

**Quick exhaust swivel elbow parallel adapter**



COD.	ØB	ØD	H	H2	E	G	⊙	📦	📊
RGSR520	5,8	2,1	3,5	19	14	M5	7	100	5,00
RGSR530	5,8	3,0	3,5	19	14	M5	7	100	5,00
RGSR531	5,8	3,2	3,5	19	14	M5	7	100	5,00
RGSR540	5,8	4,2	3,5	19	14	M5	7	100	5,00

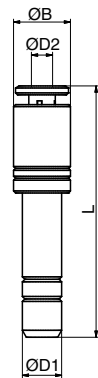


ART. **RRR**

**Plug-in reducer**



COD.	ØD1	ØD2	ØB	L	📦	📊
RRR3020	2,0	3,2	5,8	23,2	100	2,00
RRR4020	4,0	2,0	5,8	25,5	100	2,00
RRR4030	4,0	3,0	5,8	25,5	100	2,50

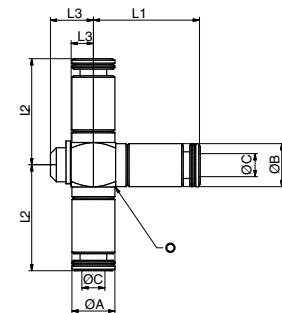


ART. **RTR020**

**T combined connector**



COD.	ØC	L1	L2	ØB	ØA	L3	⊙	📦	📊
RTR020	2,10	13,7	12	5,8	5,8	3	6	100	4,50

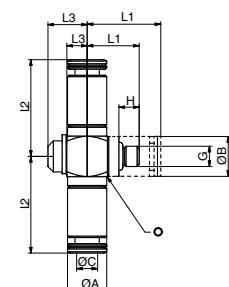


ART. **RTR330**

**T combined thread**



COD.	ØC	L1	L2	G	H	ØB	ØA	L3	⊙	📦	📊
RTR330	3,0	7,7	14	M3	3	5,8	5,8	5,8	6	100	4,50



## Brass high pressure push-in fittings

### HP series



The High Pressure brass push-in fittings series have been developed for use with oils and greases in lubrication and greasing systems and can be used up to a maximum pressure of 250 bar thanks to a special crimping gripper. They are suitable for rigid and semi-rigid hoses commonly used in lubrication.

#### Ordering code

**01 HP 04 018C**

#### MODEL TYPE

- 01 = Straight male push-in fitting
- 15 = Swivel elbow push-in fitting

#### SERIES

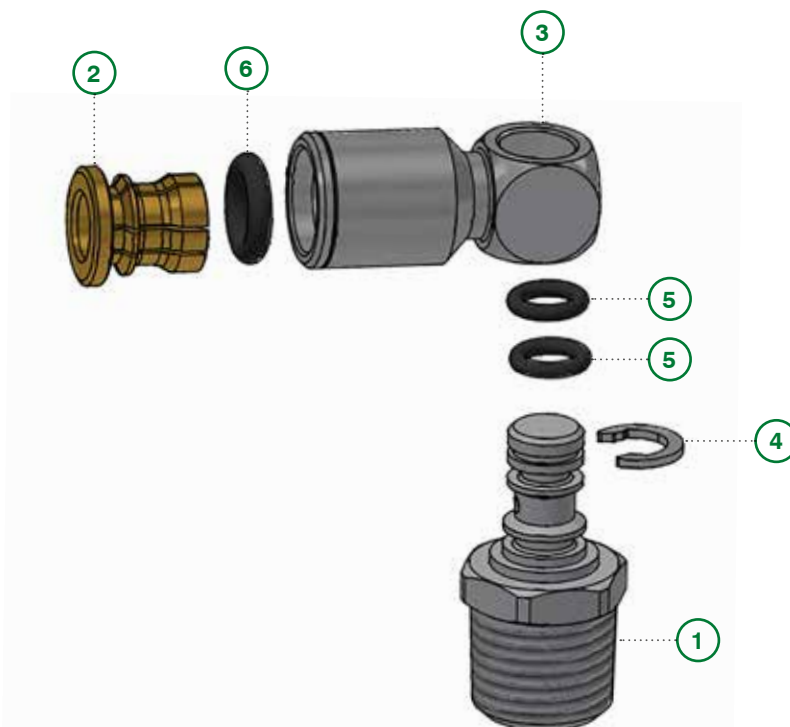
- HP = High pressure push-in fitting

#### TUBE CONNECTION

- 04 = Tube diameter (mm)
- 06 = Tube diameter (mm)

#### THREADED CONNECTION

- 018C = Gc 1/8" (UNI ISO7/1)
- 014C = Gc 1/4" (UNI ISO7/1)
- 0516 = 5/16" 24UNF
- 675D = M6x0,75 Parallel
- 0061 = M6x1 Tapered
- 0081 = M8x1 Tapered
- 081D = M8x1 Parallel
- 0101 = M10x1 Tapered
- 101D = M10x1 Parallel
- 0121 = M12x1 Tapered
- 0010 = M10x1 with O-Ring
- 0018 = G1/8" with O-Ring



#### Components

- 1 Stem for swivel banjo
- 2 Crimping gripper
- 3 Swivel banjo
- 4 Stopping ring
- 5 OR
- 6 OR



## Technical sheet

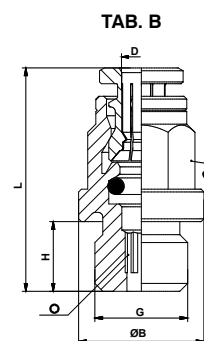
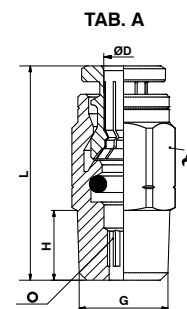
<b>FLUIDS</b>		Oil and Grease for lubrication.
<b>APPLICATIONS</b>		Centralised Lubrication and Greasing Systems such as: industrial automation, heavy industry, heavy transport, construction machinery and agricultural vehicles.
<b>WORKING PRESSURE</b>		0 ... 150 Bar
<b>MAXIMUM PRESSURE*</b>		250 Bar
<b>RECOMMENDED TUBES**</b>		PA6-6; High pressure hose with metal end terminal.
<b>TUBE TOLERANCES</b>		±0,07 mm until Ø6 mm
<b>TEMPERATURE</b>		-20°C ... +80°C
<b>THREAD TYPE</b>		M5; M6x0,75; M6x1; M8x1; M10x1; M12x1. ISO7/1 (BSPT): R1/8" - R1/4" ISO 228/1 (BSPP) G1/8" - G1/4"
<b>MATERIALS</b>	Body	Nickel plated brass
	Spring	Brass
	Seals	NBR
<b>IMPORTANT NOTE</b>	*	The maximum working pressure value is influenced by the type of hose used and the temperature, which can significantly reduce the burst pressure of the hose.
	**	If the fitting is used with a metal terminal, in case of disassembly, it is not recommended to use the same fitting with plastic pipes.

ART. **01HP**

**Straight male**



COD.	ØD	G	ØB	H	L	Tav.				
01HP04675D	4	M6x0,75 Parallel	*	6,0	25,0	A	10	2,5	100	10,00
01HP040061	4	M6x1	*	8,0	27,0	A	10	2,5	100	10,00
01HP040081	4	M8x1	*	8,0	24,0	A	10	3,0	100	10,00
01HP040516	4	5/16"	*	8,0	24,0	A	10	3,0	100	10,00
01HP040101	4	M10x1	*	8,0	23,0	A	11	3,0	100	10,00
01HP040010	4	M10x1	13,5	7,5	24,0	B	10	3,0	100	10,00
01HP040018	4	G1/8"	13,5	7,5	24,0	B	10	3,0	100	12,00
01HP04018C	4	R1/8"	*	7,5	23,0	A	10	3,0	100	10,00
01HP060061	6	M6x1	*	8,0	29,0	A	12	2,5	100	10,00
01HP060081	6	M8x1	*	8,0	29,0	A	12	4,0	100	14,00
01HP060516	6	5/16"	*	8,0	29,0	A	12	4,0	100	14,00
01HP060101	6	M10x1	*	8,0	25,0	A	12	4,0	100	10,00
01HP060010	6	M10x1	13,5	7,5	27,0	B	12	4,0	100	15,00
01HP060121	6	M12x1	*	9,0	26,0	A	13	4,0	100	20,00
01HP06018C	6	R1/8"	*	7,5	25,0	A	12	4,0	100	10,00
01HP06014C	6	R1/4"	*	11,0	27,0	A	14	4,0	100	20,00
01HP060018	6	G1/8"	13,5	7,5	27,0	B	12	4,0	100	14,00

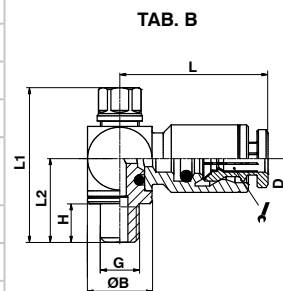
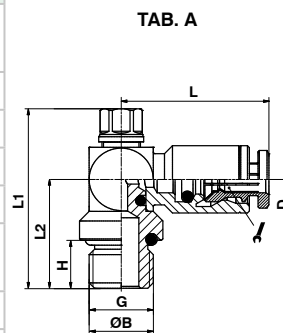


ART. **15HP**

**Swivel elbow**



COD.	ØD	G	ØB	H	L	L1	L2	Tav.			
15HP04675D	4	M6x0,75 Parallel	10,0	6,0	23,0	24,0	13,0	A	6	100	18,00
15HP040061	4	M6x1 Tapered	10,0	8,0	23,0	26,0	13,0	A	6	100	20,00
15HP040081	4	M8x1 Tapered	10,0	8,0	23,0	26,0	15,0	A	6	100	19,00
15HP040516	4	5/16"	10,0	8,0	23,0	26,0	15,0	A	6	100	19,00
15HP040101	4	M10x1 Tapered	10,0	8,0	23,0	26,0	15,0	A	6	100	20,00
15HP040010	4	M10x1 Parallel	13,0	7,5	23,0	28,0	17,0	B	6	100	22,00
15HP04018C	4	R1/8"	10,0	7,5	23,0	25,0	14,0	A	6	100	20,00
15HP040018	4	G1/8"	13,0	7,5	23,0	27,0	16,0	B	6	100	20,00
15HP060061	6	M6x1 Tapered	10,0	8,0	25,0	26,0	15,0	A	6	100	20,00
15HP060081	6	M8x1 Tapered	10,0	8,0	25,0	26,0	15,0	A	6	100	20,00
15HP060516	6	5/16"	10,0	8,0	25,0	26,0	15,0	A	6	100	20,00
15HP060101	6	M10x1 Tapered	10,0	8,0	25,0	26,0	15,0	A	6	100	20,00
15HP060010	6	M10x1 Parallel	13,0	7,5	25,0	28,0	17,0	B	6	100	20,00
15HP060121	6	M12x1 Tapered	13,0	8,0	25,0	26,0	15,0	A	6	100	24,00
15HP06018C	6	R1/8"	10,0	7,5	25,0	25,0	14,0	A	6	100	20,00
15HP060018	6	G1/8"	13,0	7,5	25,0	27,0	16,0	B	6	100	23,00
15HP06014C	6	R1/4"	*	11,0	25,0	28,0	20,5	A	14	100	27,00





## Technopolymer push-in fittings

# SERIES TECNORAP - TECNORAP BLACK



Technorap series push-in fittings are manufactured in Italy, guaranteeing high quality standards according to the ISO norms of reference.

### Ordering code

**T 10 C 08 M5**

#### FITTING BODY COLOUR + THRUST SLEEVE

- T** = Grey Body Green Thrust Sleeve
- TN** = Grey Body Black Thrust Sleeve
- TS** = Grey Body Grey Thrust Sleeve
- TA** = Grey Body Blue Thrust Sleeve
- TB** = Black Body Black Thrust Sleeve
- TBV** = Black Body Green Thrust Sleeve
- TBS** = Black Body Grey Thrust Sleeve
- TBA** = Black Body Blue Thrust Sleeve

#### MODEL TYPE

**01 ... 90**

#### FUNCTIONAL DENOMINATIONS

- C** = Tapered thread
- F** = Female thread / Threaded body
- L** = Extended elbow
- B** = Two-way banjo

#### TUBE CONNECTION

**04 ... 16** = Tube diameter (mm)

#### THREADED CONNECTION

- M3; M5; 18; 14; 38; 12** = Thread size (M3; M5; 1/8; 1/4; 3/8; 1/2)
- 04 ... 16** = Tube diameter (mm)
- L0** = Version with plug
- V0** = Version with lateral plug

See assembly instructions in the appendix on page 211

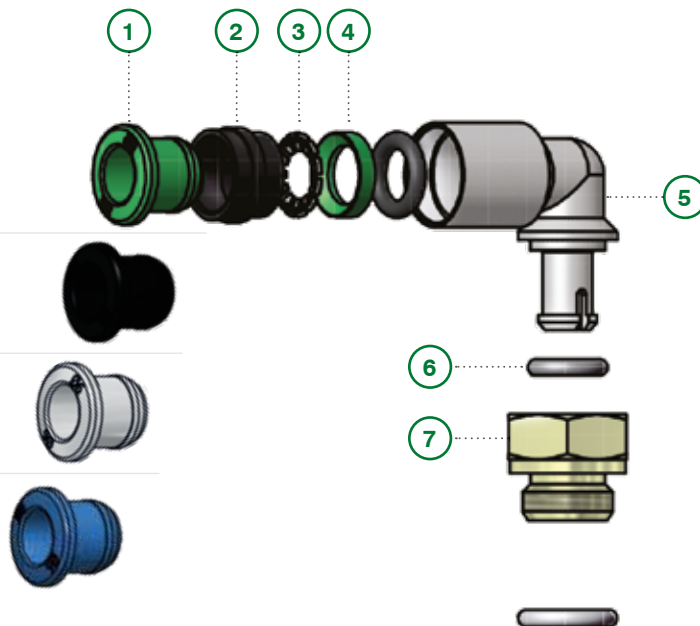
### Series

• **T, TB**

• **TN**  
*on request*

• **TS, TBS**  
*on request*

• **TA, TBA**  
*on request*



### Components

- 1 Thrust sleeve
- 2 Lock ring
- 3 Crimping gripper
- 4 Supporting ring
- 5 Fitting body
- 6 O-Ring seal
- 7 Swivel base



## Technical sheet

<b>FLUIDS</b>		Compressed air (for different fluid please contact our Technical Dept.)
<b>APPLICATIONS</b>		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms. Suitable for vacuum applications.
<b>SUGGESTED TUBES</b>		TPU (Polyurethane), PA11/PA12 (Polyurethane), TPE (Polyurethane), TPA (Polyurethane/Copolyester)
<b>TUBES TOLERANCES</b>		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
<b>PROTECTION DEGREE</b>		IP 68
<b>TEMPERATURE AND PRESSURE</b>	Recommended limit values	Temperatures and pressures usually depend by the technical features of the employed tubes, anyway it is suggested a limit working pressure of 12 bar and a temperature range between -20°C and +50°C
	Technical testing data	In the table below there are indicated the load traction resistance values and the main working and breaking limit (Pressure and Temperature) of the main commercial tubing.
	Note	For more complete informations please read the technical catalogue of your tube supplier.
<b>THREAD TYPE</b>		BSP parallel UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
<b>MATERIALS</b>	Body, sleeve, collar and back ring	POM copolymer ISO1043-1; Technopolymer glass-fiber reinforced
	Swivel stems and bases	Brass UNI EN 12164 CW614N
	Spring	Stainless steel AISI 301 austenitic
	Seals	NBR 70 DWGV-EN549 UL157

## Additional technical informations

Each Tecno-RAP production batch is tested according to severe cyclics "lot breaker" controls along all the production period, which include shape observation, leakage verification, functionality, at the working pressure of 8 bar. Then all samples taken from the lot are tested by a traction machine which simulate a breaking pressure of 50 bar. Here below are indicated the traction loads (in Newton) for each size:

<b>TUBE DIAMETER</b>	Ø4	Ø6	Ø8	Ø10	Ø12
<b>BREAKING LOAD</b>	63 N	141 N	251 N	393 N	566 N

**Important note:** The values refer to the resistance of the crimping gripper, "core part" of both fittings, the technopolymer Tecno-RAP and the brass RAP, whereby homogeneous. The breaking experimental values measured, according to the diameter, were from 1.2 to 2.5 times higher.

## Additional information regarding the working temperatures:

Further to all the necessary assessments on the use of the fittings in operating conditions different from how suggested in the initial technical sheet must be considered, with reference to temperatures, the nominal data regarding the type of the used tube and the limit imposed by the most critical component.

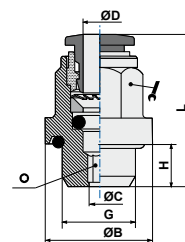
Series TECNORAP: **-20° +50°**  
 Series RAP: **-20° +70°**  
 Series OT: **-20° + 80°**  
 Series OV: **-20° +150°**  
 Series SS: **-20° +120°**

WORKING PRESSURE AND BREAKING PRESSURE AT DIFFERENT TEMPERATURES						
Example	T-20°C		T+23°C		T+60°C	
Tube 6x4 colored	Working P bar	Breaking P bar	Working P bar	Breaking P bar	Working P bar	Breaking P bar
<b>TPU</b>	18,7	74,8	10,0	40,0	5,2	20,8
<b>PA11</b>	37,4	149,6	20,0	80,0	10,4	41,6
<b>PA12</b>	48,6	168,3	26,0	90,0	10,4	36,0
<b>PE</b>	18,7	74,8	10,0	40,0	5,0	20,0

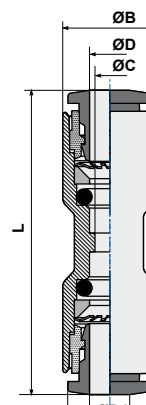


**ART. T01**
**Straight male adaptor (parallel)**

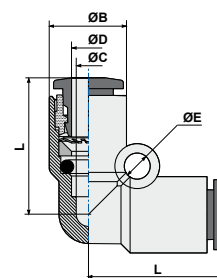

COD.	ØD	G	ØC	ØB	H	L				
T0104M10	4	M10x1,5	2,5	14,0	8,0	22,15	10	2,5	50	2,26
T010418	4	1/8	2,5	14,0	5,5	19,65	10	2,5	50	2,16
T010414	4	1/4	2,5	17,5	6,5	21,15	10	2,5	50	3,36
T0106M10	6	M10x1,5	4,0	14,0	8,0	27,60	12	4,0	50	3,18
T010618	6	1/8	4,0	14,0	5,5	25,10	12	4,0	50	3,10
T010614	6	1/4	4,0	17,5	6,5	26,60	12	4,0	50	4,26
T0108M10	8	M10x1,5	6,0	14,0	8,0	28,60	14	5,0	50	3,58
T010818	8	1/8	5,0	14,0	5,5	26,10	14	5,0	50	3,53
T010814	8	1/4	6,0	17,5	6,5	27,60	14	6,0	50	4,58
T011014	10	1/4	7,0	17,5	6,5	29,20	18	7,0	50	6,33


**ART. T03**
**Straight connector**

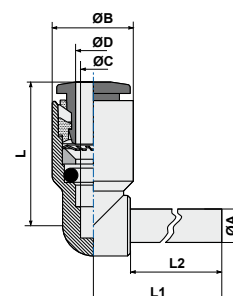

COD.	ØD	ØD1	ØC	ØB	ØB1	L		
T030400	4	4	3	9,5	9,5	32,30	50	1,96
T030406	4	6	3	9,5	11,5	34,25	50	2,39
T030600	6	6	5	11,5	11,5	36,70	50	3,00
T030608	6	8	5	11,5	13,5	37,70	50	3,27
T030800	8	8	7	13,5	13,5	38,20	50	3,53
T030810	8	10	7	13,5	17,0	40,75	50	5,03
T031000	10	10	9	17,0	17,0	42,90	50	6,04
T031012	10	12	9	17,0	20,0	44,50	50	5,04
T031200	12	12	10	20,0	20,0	46,20	25	9,06
T031600	16	16	13	26,5	26,5	64,00	10	28,10


**ART. T04**
**Elbow connector**


COD.	ØD	ØC	ØB	ØL	ØE		
T040400	4	3	9,5	17,35	3,20	50	2,21
T040600	6	5	11,5	21,10	3,20	50	3,28
T040800	8	7	13,5	23,10	3,20	50	4,14
T041000	10	9	17,0	26,70	4,30	50	7,21
T041200	12	10	20,0	28,90	4,20	25	10,98
T041600	16	13	26,5	33,00	*	10	26,80


**ART. T04L0**
**Plug-in elbow connector**


COD.	ØD	ØC	ØB	L	L1	ØA	L2		
T0404L0	4	3	9,5	17,35	20,75	4	16,7	50	1,39
T0406L0	6	5	11,5	21,10	24,25	6	19,5	50	2,18
T0408L0	8	7	13,5	23,10	27,25	8	21,0	50	2,96
T0410L0	10	9	17,0	26,70	31,80	10	24,0	50	5,07
T0412L0	12	10	20,0	28,90	36,00	12	25,0	25	8,00

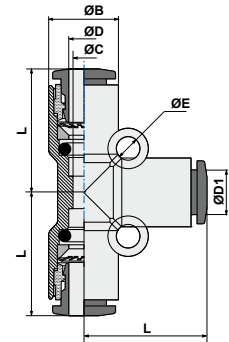


ART. **T05**

**T connector**



COD.	ØD	ØD1	ØC	ØB	L	ØE		
T050400	4	4	3,0	9,50	17,35	3,2	50	3,16
T050604	6	4	5,3	13,00	19,10	3,2	50	8,20
T050600	6	6	5,0	11,50	21,10	3,2	50	4,72
T050806	8	6	7,1	14,40	22,70	3,2	25	11,07
T050800	8	8	7,0	13,50	23,10	3,2	50	5,96
T051008	10	8	9,3	18,40	27,90	4,2	25	21,85
T051000	10	10	9,0	17,00	26,70	4,3	25	10,70
T051210	12	10	10,0	21,00	29,90	4,2	10	26,78
T051200	12	12	10,0	20,00	28,90	4,2	10	26,78
T051600	16	16	13,0	26,50	32,00	*	10	37,00

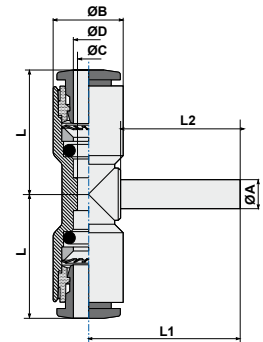


ART. **T05LO**

**Plug-in T connector (center)**



COD.	ØD	ØC	ØB	L	L1	ØA	L2		
T0504L0	4	3	9,5	17,2	20,8	4	16,7	50	2,26
T0506L0	6	5	11,5	20,8	24,3	6	19,5	50	3,51
T0508L0	8	7	13,5	23,0	27,3	8	21,0	50	4,66
T0510L0	10	9	17,0	26,4	31,8	10	24,0	25	5,64
T0512L0	12	10	20,0	28,9	36,0	12	25,0	10	7,11

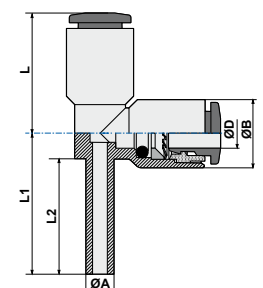


ART. **T05V0**

**Plug-in T connector (lateral)**

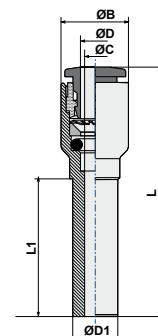


COD.	ØD	ØB	L	L1	ØA	L2		
T0506V0	6	11,5	20,8	24,3	6	19,5	50	3,42
T0508V0	8	13,5	23,0	27,3	8	21,0	50	4,54
T0510V0	10	17,0	26,4	31,8	10	24,0	25	7,65
T0512V0	12	20,0	28,9	36,0	12	25,0	10	8,10



**ART. T08**
**Reducer**

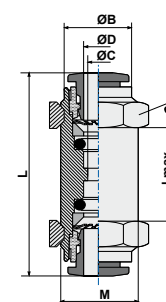

COD.	ØD1	ØD	ØC	ØB	L	L1		
T080604	6	4	3	9,5	35,65	19,50	50	1,37
T080804	8	4	3	9,5	37,15	21,00	50	1,60
T081004	10	4	3	9,5	40,15	24,00	25	1,97
T081204	12	4	3	9,5	41,15	25,00	25	2,22
T080806	8	6	5	11,5	39,35	23,00	50	2,10
T081006	10	6	5	11,5	42,35	24,00	25	2,49
T081206	12	6	5	11,5	43,35	25,00	25	2,80
T081008	10	8	7	13,5	43,10	26,25	25	2,74
T081208	12	8	7	13,5	44,10	25,00	25	3,00
T081210	12	10	9	17,0	46,45	27,55	25	4,40


**ART. T09**
**Plug**

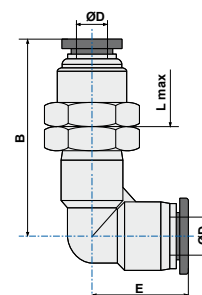

COD.	ØD	ØB	L		
T090400	4	7,0	25,0	100	0,43
T090600	6	9,5	27,5	100	0,84
T090800	8	12,0	30,0	100	1,39
T091000	10	14,0	32,5	100	2,04
T091200	12	16,0	35,0	100	2,67


**ART. T10**
**Bulkhead connector**


COD.	ØD	ØB	ØC	L	M	Lmax			
T100400	4	9,5	3	32,0	11x1	8	14	50	7,78
T100600	6	11,5	5	36,1	14,1	12	17	50	11,05
T100800	8	13,5	7	38,0	16x1	15	18	50	10,93
T101000	10	17,5	9	42,3	20x1	17	24	25	25,34
T101200	12	20	10	46,2	22x1	20	26	25	33,12


**ART. T10L**
**Elbow bulkhead**


COD.	ØD	M	B	E	H	Lmax	CH		
T10L0400	4	12x1	28,5	19,0	14,0	6,0	14	25	17,77
T10L0600	6	14x1	32,1	19,2	17,0	7,0	17	25	28,99
T10L0800	8	16x1	39,4	23,0	19,0	7,5	19	25	39,23
T10L1000	10	20x1	48,8	28,2	24,0	9,5	24	25	63,06
T10L1200	12	22x1	49,5	29,5	27,0	10,0	26	10	79,66

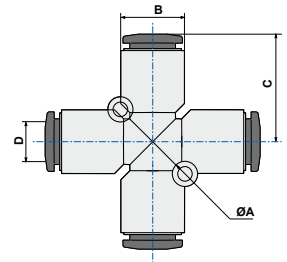


ART. **T11**

**Cross connector**



COD.	ØD	ØB	ØA	C		
T110400	4	9,5	17,4	3,2	25	4,02
T110600	6	11,5	21,1	3,2	25	6,20
T110800	8	13,5	23,1	3,2	25	7,79
T111000	10	17,0	26,7	4,2	10	14,06
T111200	12	21,0	29,5	4,3	10	34,38

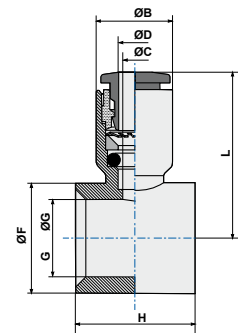


ART. **T13**

**Single banjo body**



COD.	ØD	G*	ØC	ØB	ØG	H	L	ØF		
T1304M5	4	M5	3	9,5	5,00	10	19,65	8,0	50	1,33
T130418	4	1/8	3	9,5	9,90	15	21,25	14,0	50	2,37
T130618	6	1/8	5	11,5	9,90	15	24,60	14,0	50	2,85
T130614	6	1/4	5	11,5	13,30	17	25,80	18,0	50	3,77
T130818	8	1/8	7	13,5	9,90	15	24,90	14,0	50	3,09
T130814	8	1/4	7	13,5	13,30	17	26,60	18,0	50	3,95
T130838	8	3/8	7	13,5	16,75	20	28,10	21,3	50	4,89
T131014	10	1/4	9	17,0	13,30	17	28,70	18,0	50	5,36
T131038	10	3/8	9	17,0	16,75	20	30,20	21,3	25	6,22
T131012	10	1/2	9	17,0	13,30	24	33,20	26,0	25	6,78
T131238	12	3/8	10	20,0	16,75	20	31,40	21,3	25	7,51
T131212	12	1/2	10	20,0	21,00	24	34,90	26,0	25	9,53
T13R04M5	4	M5	3	9,5	6,00	10	19,90	9,0	50	1,76
T13R06M5	6	M5	5	11,5	6,00	10	22,10	9,0	50	1,26



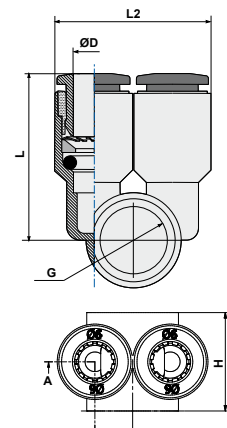
G\* = Stem thread. See page 95 of stem section.

ART. **T13B**

**Single branch body**



COD.	ØD	G*	H	L	L2		
T13B04M5	4	M5	10	19,7	19	50	2,39
T13B0618	6	1/8	15	24,6	23	50	4,40
T13B0814	8	1/4	17	26,6	27	50	6,06
T13B1038	10	3/8	20	30,2	34	25	9,88
T13B1212	12	1/2	24	34,9	40	10	15,36



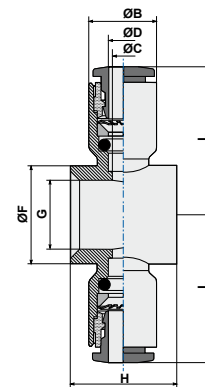
G\* = stem thread. See page 95 of stems section.  
H = stem site length

ART. **T14**

**Double banjo body**



COD.	ØD	G*	ØC	ØB	H	ØF	L		
T1404M5	4	M5	3	9,5	10	8,00	19,5	50	2,24
T140418	4	1/8	3	9,5	15	14,00	21,1	50	3,33
T140618	6	1/8	5	11,5	15	14,00	24,3	50	5,10
T140838	8	3/8	7	13,5	20	21,30	28,0	25	6,48
T141038	10	3/8	9	17,0	20	21,30	29,9	25	8,89
T141012	10	1/2	9	17,0	24	26,00	30,0	10	11,19
T141238	12	3/8	10	20,0	20	21,30	31,4	25	11,57
T141212	12	1/2	10	20,0	24	26,00	34,9	10	14,21



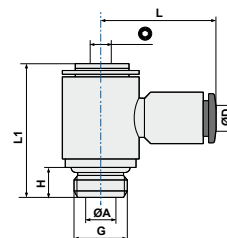
G\*= Stem thread. See page 95 of stem section.

ART. **T15**

**Complete single banjo (rotating under pressure)**



COD.	ØD	G	ØA	H	L1	L			
T1504M5	4	M5	2,0	4,0	17,8	19,65	2,5	50	3,54
T1504M6	4	M6	2,0	5,0	18,8	19,65	2,5	50	3,96
T150418	4	1/8	5,5	5,5	24,5	21,25	3,0	50	11,87
T150618	6	1/8	5,5	5,5	24,5	24,60	3,0	50	12,29
T150614	6	1/4	7,8	6,5	27,8	25,80	4,0	50	22,36
T150818	8	1/8	5,5	5,5	24,5	24,90	3,0	50	12,67
T150814	8	1/4	7,8	6,5	27,8	26,60	4,0	50	21,89
T150838	8	3/8	10,0	7,5	32,5	28,10	5,0	25	37,40
T151014	10	1/4	7,8	6,5	27,8	28,70	4,0	25	23,86
T151038	10	3/8	10,0	7,5	32,5	30,20	5,0	25	38,54
T151012	10	1/2	12,0	9,0	38,8	33,20	8,0	10	37,55
T151238	12	3/8	10,0	7,5	32,5	31,40	5,0	10	39,91
T151212	12	1/2	12,0	9,0	38,8	34,90	8,0	10	44,50

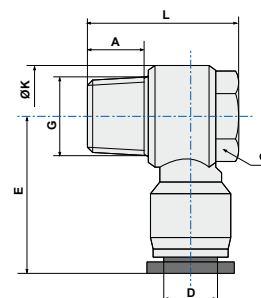


ART. **T15C**

**Complete single banjo tapered**



COD.	ØD	G	A	L	ØK	E			
T15C0418	4	1/8	7,5	23,5	14,4	22,40	12,0	50	12,22
T15C0618	6	1/8	7,5	23,5	14,4	22,90	12,0	50	12,95
T15C0614	6	1/4	9,5	26,5	18,3	25,00	14,0	50	21,03
T15C0638	6	3/8	10,5	32,0	22,0	26,60	19,0	25	37,28
T15C0818	8	1/8	7,5	23,5	14,4	25,60	12,0	50	13,66
T15C0814	8	1/4	9,5	26,5	18,3	28,70	14,0	50	12,95
T15C0838	8	3/8	10,5	32,0	22,0	29,60	19,0	25	37,97
T15C1014	10	1/4	9,5	26,5	18,3	32,60	14,0	25	25,63
T15C1038	10	3/8	10,5	32,0	22,0	33,10	19,0	25	13,66
T15C1012	10	1/2	13,5	38,5	28,0	36,10	24,0	10	21,84
T15C1238	12	3/8	10,5	32,0	22,0	35,40	19,0	10	37,98
T15C1212	12	1/2	13,5	38,5	28,0	36,40	24,0	10	25,63

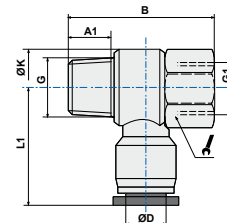


ART. **T15FC**

Female complete single banjo tapered



COD.	ØD	G/G1	L1	A1	B	ØK			
T15FC0418	4	1/8	22,4	7,5	29,0	14,40	14,0	50	16,26
T15FC0414	4	1/4	25,0	9,5	35,0	18,30	17,0	50	29,78
T15FC0618	6	1/8	22,9	7,5	29,0	14,40	14,0	50	16,81
T15FC0614	6	1/4	25,0	9,5	35,0	18,30	17,0	50	29,62
T15FC0818	8	1/8	25,6	7,5	29,0	14,40	14,0	50	17,68
T15FC0814	8	1/4	28,7	9,5	35,0	18,30	17,0	50	30,66
T15FC0838	8	3/8	29,6	10,5	40,0	22,00	21,0	25	46,70
T15FC1014	10	1/4	32,6	9,5	35,0	18,30	17,0	25	33,97
T15FC1038	10	3/8	33,1	10,5	40,0	22,00	21,0	25	49,53
T15FC1012	10	1/2	36,1	13,5	47,5	28,00	24,0	10	67,13
T15FC1238	12	3/8	35,4	10,5	40,0	22,00	21,0	10	51,20
T15FC1212	12	1/2	36,4	13,5	47,5	28,00	24,0	10	69,13

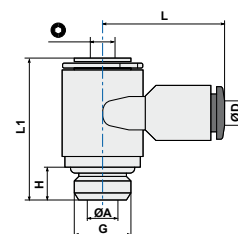


ART. **T15B**

Single banjo universal male elbow



COD.	ØD	G	ØA	H	L1	L	○		
T15B04M5	4	M5	2,0	4,0	17,8	19,7	2,5	50	4,57
T15B0618	6	1/8	5,5	5,5	24,5	24,6	3,0	50	13,73
T15B0814	8	1/4	7,8	6,5	27,8	26,6	4,0	50	24,51
T15B1038	10	3/8	10,0	7,5	32,5	30,2	5,0	25	44,78
T15B1212	12	1/2	12,0	9,0	38,8	34,9	8,0	10	77,84

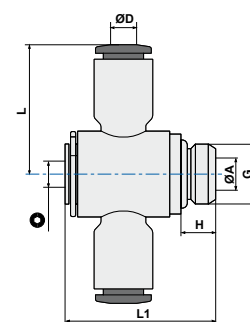


ART. **T16**

Complete double banjo (rotating under pressure)



COD.	ØD	G	ØA	H	L1	L	○		
T1604M5	4	M5	2	4,0	17,8	19,5	2,5	50	4,48
T160418	4	1/8	5,5	5,5	24,5	21,1	3,0	50	55,00
T160618	6	1/8	5,5	5,5	24,5	24,3	3,0	50	38,55
T160838	8	3/8	7,5	7,5	32,5	28,0	5,0	25	67,55
T161038	10	3/8	7,5	7,5	32,5	30,0	5,0	25	48,90
T161012	10	1/2	9,0	9,0	38,8	30,0	8,0	10	48,65
T161238	12	3/8	7,5	7,5	32,5	31,5	5,0	25	44,10
T161212	12	1/2	9,0	9,0	38,8	35,0	8,0	10	51,16

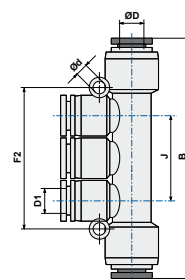


ART. **T18**

Triple branch union



COD.	ØD	ØD1	J	B	Ød	F2		
T180604	6	4	26,0	60,3	3,2	42,0	25	16,05
T180804	8	4	26,0	61,7	3,2	42,0	25	15,89
T180806	8	6	26,0	61,7	3,2	42,0	25	15,66
T181006	10	6	29,2	83,0	4,2	48,0	10	27,15
T181008	10	8	29,2	83,0	4,2	48,0	10	27,50

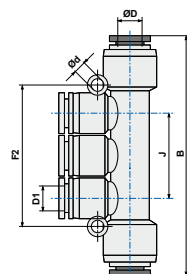


ART. **T18G**

**Male triple branch**



COD.	ØD	D1	G	A	B	J		Ød		
T18G0418	4	4	1/8	5,5	67,2	26	14	3,2	25	25,26
T18G0414	4	4	1/4	7,5	69,7	26	17	3,2	25	31,01
T18G0438	4	4	3/8	7,5	69,7	26	20	3,2	10	152,50
T18G0618	6	6	1/8	5,5	67,2	26	14	3,2	25	25,51
T18G0614	6	6	1/4	7,5	69,7	26	17	3,2	25	30,52
T18G0638	6	6	3/8	7,5	70,2	26	20	3,2	10	157,40
T18G0612	6	6	1/2	9	72,7	26	24	3,2	10	207,40
T18G0818	8	8	1/8	5,5	87,8	29	14	3,2	10	37,54
T18G0814	8	8	1/4	7,5	90,3	29	17	3,2	10	41,48
T18G0838	8	8	3/8	7,5	90,8	29	20	3,2	10	47,77
T18G0812	8	8	1/2	9,0	93,3	29	24	3,2	10	259,20
T18G1018	10	10	1/8	5,5	99,0	37	14	4,2	10	235,00
T18G1014	10	10	1/4	7,5	101,5	37	17	4,2	10	58,26
T18G1038	10	10	3/8	7,5	101,5	37	20	4,2	10	58,09
T18G1012	10	10	1/2	9	105,0	37	24	4,2	10	293,00

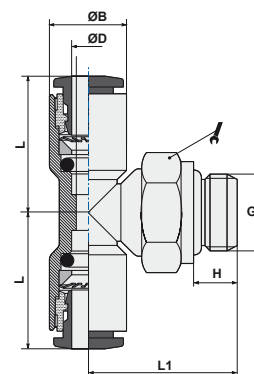


ART. **T20**

**Swivel male stud T parallel**



COD.	ØD	G	ØB	H	L	L1			
T2004M3	4	M3	9,5	3,0	17,35	15,00	8	50	4,53
T2004M5	4	M5	9,5	4,0	17,35	17,00	8	50	4,65
T200418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,56
T200414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,83
T200438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
T2006M5	6	M5	9,5	4,0	21,10	17,00	8	50	5,71
T200618	6	1/8	11,5	5,5	21,10	18,50	13	50	9,48
T200614	6	1/4	11,5	6,5	21,10	20,55	16	50	14,94
T200638	6	3/8	13,0	7,5	19,60	29,50	20	25	28,36
T200612	6	1/2	13,0	9,0	19,60	32,00	24	10	39,55
T200818	8	1/8	13,5	5,5	23,10	20,00	13	50	10,64
T200814	8	1/4	13,5	6,5	23,10	20,55	16	50	14,28
T200838	8	3/8	13,5	7,5	23,10	25,00	18	25	21,66
T200812	8	1/2	15,7	10,0	22,80	34,50	24	10	38,99
T201018	10	1/8	18,4	5,5	28,50	34,50	17	25	38,40
T201014	10	1/4	17,0	6,5	27,30	23,35	16	25	42,85
T201038	10	3/8	18,4	7,5	28,50	37,00	20	25	20,74
T201012	10	1/2	18,4	10,0	28,50	40,50	24	10	225,40
T201218	12	1/8	21,0	5,5	29,40	36,00	21	10	49,05
T201214	12	1/4	21,0	7,5	29,40	38,50	21	10	47,68
T201238	12	3/8	21,0	7,5	29,40	38,50	21	10	49,46
T201212	12	1/2	21,0	10,0	29,40	41,50	24	10	54,72

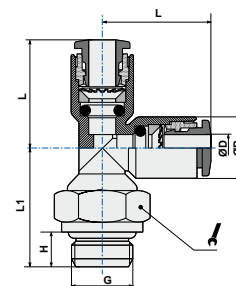


ART. **T21**

**Swivel male branch T (parallel)**



COD.	ØD	G	ØB	H	L	L1			
T2104M3	4	M3	9,5	3,0	17,35	14,80	8	50	4,52
T2104M5	4	M5	9,5	4,0	17,35	15,80	8	50	4,74
T210418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,50
T210414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,96
T210438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
T210618	6	1/8	11,5	5,5	21,10	18,35	13	50	9,71
T210614	6	1/4	11,5	6,5	21,10	20,55	16	50	14,85
T210638	6	3/8	13,0	7,5	19,60	29,50	20	25	27,71
T210612	6	1/2	13,0	10,0	19,60	32,00	24	10	36,70
T210818	8	1/8	13,5	5,5	20,65	23,00	13	50	10,58
T210814	8	1/4	13,5	6,5	23,00	20,55	16	50	13,97
T210838	8	3/8	13,5	7,5	23,00	25,00	18	25	21,60
T210812	8	1/2	14,5	10,0	22,80	34,50	24	10	38,56
T211018	10	1/8	18,4	5,5	28,50	34,50	17	25	35,67
T211014	10	1/4	18,4	7,5	28,50	37,00	17	25	36,23
T211038	10	3/8	18,4	7,5	28,50	37,00	20	25	40,82
T211012	10	1/2	18,4	10,0	28,50	40,50	24	10	51,01
T211218	12	1/8	21,0	5,5	29,40	38,50	21	25	49,78
T211214	12	1/4	21,0	7,5	29,40	38,50	21	10	48,31
T211238	12	3/8	21,0	7,5	29,40	38,50	21	10	51,21
T211212	12	1/2	21,0	10,0	29,40	41,50	24	10	55,38

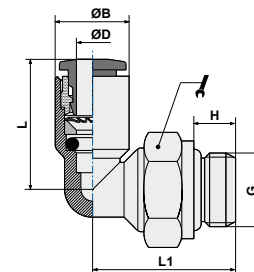


ART. **T22**

**Swivel elbow male adaptor (parallel)**



COD.	ØD	G	ØB	H	L	L1			
T2204M3	4	M3	9,5	3	17,35	14,80	8	50	3,64
T2204M5	4	M5	9,5	4	17,35	15,80	8	100	3,80
T220418	4	1/8	9,5	5,5	17,35	18,35	13	100	7,77
T220414	4	1/4	9,5	6,5	17,35	20,55	16	100	13,12
T2206M5	6	M5	11,5	4,0	21,10	16,10	8	100	4,31
T220618	6	1/8	11,5	5,5	21,10	18,35	13	100	8,11
T220614	6	1/4	11,5	6,5	21,10	20,55	16	100	13,82
T220818	8	1/8	13,5	5,5	23,10	20,65	13	100	8,93
T220814	8	1/4	13,5	6,5	23,10	20,55	16	50	12,39
T220838	8	3/8	13,5	7,5	23,10	25,20	18	50	19,93
T220812	8	1/2	15,0	10,0	24,00	25,50	24	25	37,70
T221014	10	1/4	17,0	6,5	26,70	23,35	16	50	14,40
T221038	10	3/8	17,0	7,5	26,70	25,00	18	50	17,63
T221012	10	1/2	17,0	9,0	26,70	29,30	21	25	29,73
T221214	12	1/4	20,0	6,5	28,90	24,35	16	25	17,14
T221238	12	3/8	20,0	7,5	28,90	26,50	18	25	20,51
T221212	12	1/2	20,0	9,0	28,90	29,30	21	25	28,32
T221638	16	3/8	26,5	7,5	33,00	42,50	24	10	66,02
T221612	16	1/2	26,5	10,0	33,00	44,50	24	10	60,38



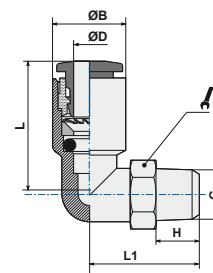


ART. **T22C**

**Swivel elbow male adaptor tapered**



COD.	ØD	G	ØB	H	L	L1			
T22C0418	4	1/8	11,0	7,5	19,0	20,5	10	100	6,67
T22C0414	4	1/4	11,0	9,5	19,0	20,0	14	100	12,46
T22C0438	4	3/8	11,0	10,5	19,0	21,0	17	25	19,82
T22C0618	6	1/8	13,0	7,5	19,8	21,5	10	100	7,34
T22C0614	6	1/4	13,0	9,5	19,8	21,0	14	100	13,02
T22C0638	6	3/8	13,0	10,5	19,8	22,0	17	25	20,04
T22C0612	6	1/2	13,0	13,5	19,8	25,5	21	10	34,22
T22C0818	8	1/8	14,5	7,5	23,7	22,3	10	100	8,27
T22C0814	8	1/4	14,5	9,5	23,7	21,8	14	100	13,94
T22C0838	8	3/8	14,5	10,5	23,7	22,8	17	50	21,49
T22C0812	8	1/2	14,5	13,5	23,7	26,3	21	10	35,12
T22C1018	10	1/8	18,4	7,5	27,8	26,9	14	50	16,55
T22C1014	10	1/4	18,4	9,5	27,8	28,4	14	50	18,45
T22C1038	10	3/8	18,4	10,5	27,8	24,7	17	50	22,21
T22C1012	10	1/2	19,0	13,5	27,8	28,2	21	25	35,70
T22C1218	12	1/8	21,0	7,5	29,5	28,2	15	25	20,55
T22C1214	12	1/4	21,0	9,5	29,5	29,7	15	25	22,32
T22C1238	12	3/8	21,0	10,5	29,5	26,0	17	50	24,18
T22C1212	12	1/2	21,0	13,5	29,5	29,5	21	25	35,40

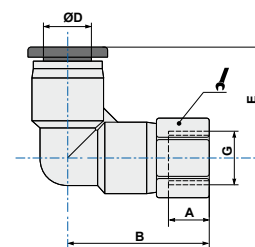


ART. **T22F**

**Female swivel elbow adaptor**



COD.	ØD	G	A	B	E			
T22F04M5	4	M5	5,5	20,5	19,0	10	50	9,17
T22F0418	4	1/8	8,5	24,0	19,0	14	50	14,80
T22F0414	4	1/4	11,0	27,0	19,0	17	50	20,24
T22F06M5	6	M5	6,0	20,7	19,2	12	50	13,27
T22F0618	6	1/8	8,5	24,2	19,2	14	50	16,85
T22F0614	6	1/4	11,0	27,2	19,2	17	50	21,91
T22F0638	6	3/8	12,0	28,7	19,2	21	25	26,37
T22F0818	8	1/8	8,0	27,0	23,0	14	50	19,27
T22F0814	8	1/4	11,0	30,5	23,0	17	50	23,47
T22F0838	8	3/8	12,0	32,0	23,0	21	25	32,70
T22F1014	10	1/4	11,0	34,3	28,2	17	25	34,59
T22F1038	10	3/8	12,0	35,8	28,2	21	25	38,84
T22F1012	10	1/2	14,0	38,8	28,2	24	10	47,77
T22F1214	12	1/4	11,0	37,0	29,5	21	25	57,88
T22F1238	12	3/8	12,0	38,0	29,5	21	25	45,98
T22F1212	12	1/2	14,0	40,5	29,5	24	10	52,68

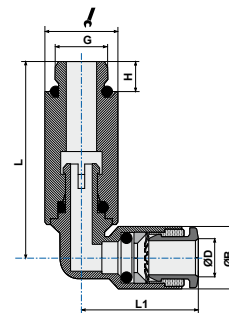


ART. **T22L**

**Swivel longer elbow male adaptor (parallel)**



COD.	ØD	G	ØB	H	L	L1			
T22L04M5	4	M5	11,0	3,5	34,5	18,6	10	25	18,44
T22L0418	4	1/8	9,5	5,5	35,9	17,4	13	25	23,78
T22L06M5	6	M5	13,0	3,5	37,2	19,6	12	25	24,07
T22L0618	6	1/8	11,5	5,5	35,9	20,8	13	25	24,21
T22L0818	8	1/8	13,5	5,5	38,2	23,1	13	25	25,17
T22L0814	8	1/4	14,5	7,5	46,8	22,8	17	25	46,55

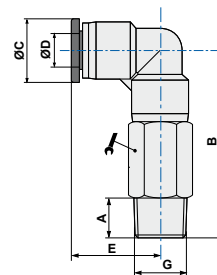


ART. **T22LC**

**Swivel longer elbow male adaptor (parallel)**



COD.	ØD	G	A	B	ØC	E			
T22LC0418	4	1/8	7,5	37,0	11,0	18,6	10	25	14,74
T22LC0414	4	1/4	9,5	40,0	11,0	18,6	14	25	19,89
T22LC0618	6	1/8	7,5	40,5	13,0	19,6	12	25	22,41
T22LC0614	6	1/4	9,5	43,0	13,0	19,6	14	25	24,74
T22LC0638	6	3/8	10,5	44,5	13,0	19,6	17	25	31,65
T22LC0818	8	1/8	7,5	44,8	14,5	22,8	14	25	34,35
T22LC0814	8	1/4	9,5	46,8	14,5	22,8	14	25	32,40
T22LC0838	8	3/8	10,5	48,3	14,5	22,8	17	25	41,71
T22LC1018	10	1/8	7,5	55,0	18,5	28,5	17	25	35,12
T22LC1014	10	1/4	9,5	57,0	18,5	28,5	17	25	65,78
T22LC1038	10	3/8	10,5	58,0	18,5	28,5	17	25	55,75
T22LC1012	10	1/2	13,5	61,5	18,5	28,5	21	10	57,90
T22LC1214	12	1/4	9,5	61,5	21,0	29,5	21	10	105,46
T22LC1238	12	3/8	10,5	62,5	21,0	29,5	21	10	100,28
T22LC1212	12	1/2	13,5	65,5	21,0	29,5	21	10	92,26

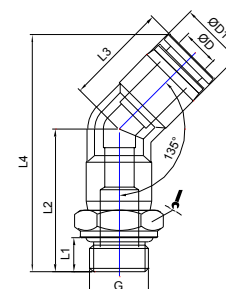


ART. **T45**

**Swivel 45° elbow male adaptor (parallel)**



COD.	ØD	G	L1	L2	L3	L4	ØD1			
T4504M5	4	M5	3,5	22,5	19,0	39,5	11,3	10	1	8,37
T450418	4	G1/8	5,5	25,5	19	42,5	11,3	14	1	13,10
T450618	6	G1/8	5,5	25,5	19,2	43,5	13,3	14	1	14,16
T450614	6	G1/4	7,5	28	19,2	46	13,3	17	1	19,81
T450818	8	G1/8	5,5	29	22,5	49,5	14,8	14	1	17,60
T450814	8	G1/4	7,5	31,5	22,5	52	14,8	17	1	21,83
T451014	10	G1/4	7,5	36	27,8	62,5	18,7	17	1	30,80
T451038	10	G3/8	7,5	36	27,8	62,5	18,7	20	1	35,27

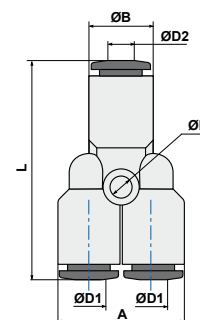


ART. **T23**

**Y connector**



COD.	ØD1	ØD2	ØE	ØB	A	L		
T230400	4	4	3,2	9,5	19,0	33,3	50	2,98
T230406	4	6	3,2	11,5	19,0	36,2	50	3,56
T230600	6	6	3,2	11,5	23,0	39,2	50	4,83
T230608	6	8	3,2	13,5	23,0	42,7	50	5,26
T230800	8	8	3,2	13,5	27,0	42,7	50	6,29
T230810	8	10	3,2	17,0	27,0	49,0	25	7,84
T231000	10	10	4,3	17,0	34,0	49,4	25	11,16
T231012	10	12	4,3	20,0	34,0	50,8	10	14,12
T231200	12	12	4,2	20,0	40,0	53,2	10	16,73
T231600	16	16	4,2	26,0	51,5	58,5	10	41,27

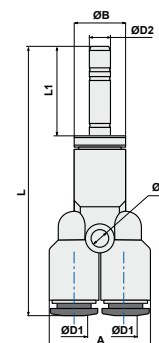


ART. **T23L0**

**Plug-in Y connector**



COD.	ØD1	ØD2	ØB	A	ØE	L	L1		
T2304L0	4	4	9,5	19	3,2	50,0	16,7	50	6,69
T2306L0	6	6	11,5	23	3,2	57,6	19,5	50	11,19
T2308L0	8	8	13,5	27	3,2	62,6	21,0	50	15,24
T2310L0	10	10	17,0	34	4,3	72,3	24,0	25	24,64
T2312L0	12	12	20,0	40	4,2	77,1	25,0	10	33,95

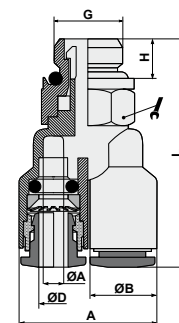


ART. **T23G**

**Y connector with swivel parallel male adapter**



COD.	ØD	G	ØA	ØB	H	A	L			
T23G04M5	4	M5	2,0	11,0	3,5	22,0	39,8	10	50	11,09
T23G0418	4	1/8	3,0	9,5	5,5	19,0	31,8	13	50	8,57
T23G0414	4	1/4	3,0	9,5	6,5	19,0	32,8	16	50	21,04
T23G0438	4	3/8	3,0	11,0	7,5	22,0	46,0	20	25	26,95
T23G0618	6	1/8	5,0	11,5	5,5	23,0	35,3	13	50	9,66
T23G0614	6	1/4	5,0	11,5	6,5	23,0	36,8	16	50	15,12
T23G0638	6	3/8	5,0	13,0	7,5	26,0	46,8	20	25	29,25
T23G0818	8	1/8	7,0	13,5	5,5	27,0	37,8	13	50	10,71
T23G0814	8	1/4	7,0	13,5	6,5	27,0	38,8	16	50	14,38
T23G0838	8	3/8	6,2	14,5	7,5	29,0	49,9	20	25	31,11
T23G1014	10	1/4	8,2	18,4	7,5	36,4	58,5	17	25	38,11
T23G1038	10	3/8	8,2	18,4	7,5	36,4	58,5	20	25	41,81
T23G1012	10	1/2	8,2	18,4	10,0	36,4	62,0	24	10	52,32
T23G1214	12	1/4	9,5	21,0	7,5	42,0	62,0	21	10	57,62
T23G1238	12	3/8	9,5	21,0	7,5	42,0	62,0	21	10	52,03
T23G1212	12	1/2	9,5	21,0	10,0	42,0	65,0	24	10	58,58

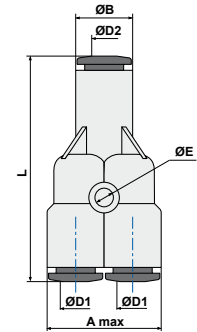


ART. **T24**

**Double Y connector**



COD.	ØD1	ØD2	ØE	ØB	A max	L		
T240400	4	4	3,2	9,5	20,0	34,8	25	5,97
T240406	4	6	3,2	11,5	20,0	37,3	25	6,39
T240408	4	8	3,2	14,5	22,0	38,4	25	12,89
T240600	6	6	3,2	11,5	24,0	40,2	25	9,02
T240608	6	8	3,2	14,5	26,0	39,9	25	16,81
T240800	8	8	3,2	14,5	29,5	41,6	25	20,07
T240810	8	10	3,2	17,0	28,0	46,8	25	13,99

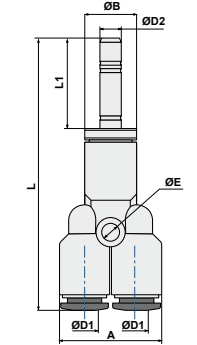


ART. **T24L0**

**Plug-in double Y connector**



COD.	ØD1	ØD2	ØE	ØB	A	L	L1		
T2404L0	4	4	3,2	9,5	19	50,3	16,7	25	9,56
T2406L0	6	6	3,2	11,5	24	59,0	19,5	25	14,15
T2408L0	8	8	3,2	13,5	28	64,0	21,0	25	24,65

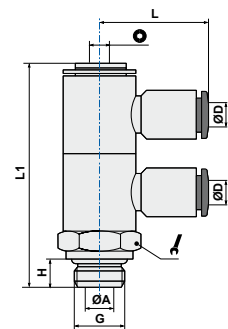


ART. **T33**

**Swivel double banjo stem**



COD.	ØD	G	ØA	H	L1	L				
T3304M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	25	5,88
T330418	4	1/8	5,5	5,5	43,3	21,3	3	14	25	22,33
T330618	6	1/8	5,5	5,5	43,3	24,6	3	14	25	23,17
T330614	6	1/4	7,8	6,5	50,0	25,8	4	18	25	42,26
T330818	8	1/8	5,5	5,5	43,3	24,9	3	14	25	23,66
T330814	8	1/4	7,8	6,5	50,0	26,6	4	18	25	44,98
T331014	10	1/4	7,8	6,5	50,0	28,7	4	18	25	45,86

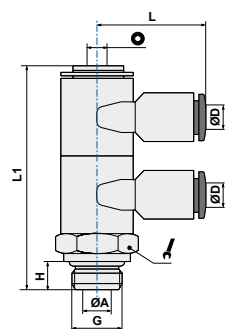


ART. **T33B**

**Double banjo universal male**



COD.	ØD	G	ØA	H	L1	L				
T33B04M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	10	7,90
T33B0618	6	1/8	5,5	5,5	43,3	24,6	3	14	10	19,88
T33B0814	8	1/4	7,8	6,5	50,0	26,6	4	18	10	48,50

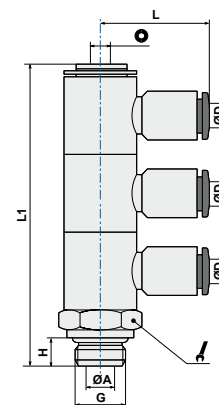


ART. **T34**

**Swivel triple banjo stem**



COD.	ØD	G	ØA	H	L1	L	⊙	🔧	📦	📊
T340418	4	1/8	5,5	5,5	58,4	21,3	3	14	10	28,50
T340618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	30,06
T340818	8	1/8	5,5	5,5	58,4	24,9	3	14	10	56,19
T340614	6	1/4	7,8	6,5	67,1	25,8	4	18	10	30,58
T340814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	56,63
T341014	10	1/4	7,8	6,5	67,1	28,7	4	18	10	60,71

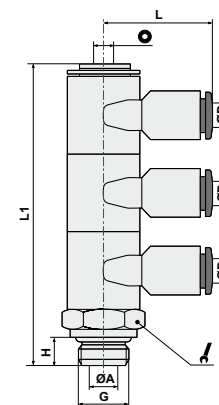


ART. **T34B**

**Triple banjo universal male elbow**



COD.	ØD	G	ØA	H	L1	L	⊙	🔧	📦	📊
T34B0618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	34,58
T34B0814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	62,84

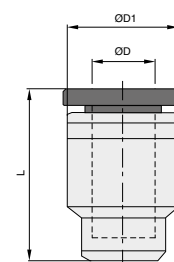


ART. **T90**

**Tube blanking cap**



COD.	ØD	ØD1	L	📦	📊
T900400	4	11,5	17,5	100	1,97
T900600	6	13,5	17,7	100	2,56
T900800	8	15	21,3	100	3,37
T901000	10	19	25,0	50	6,84
T901200	12	21,5	26,0	50	8,59

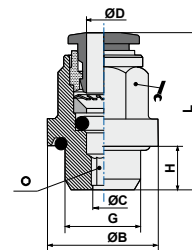


ART. **TB01**

**Straight male adaptor (parallel)**



COD.	ØD	G	ØC	ØB	H	L	Ø			
TB010418	4	1/8	2,5	14,0	5,5	19,65	10	2,5	50	2,16
TB010414	4	1/4	2,5	17,5	6,5	21,15	10	2,5	50	3,36
TB010618	6	1/8	4,0	14,0	5,5	25,10	12	4,0	50	3,10
TB010614	6	1/4	4,0	17,5	6,5	26,60	12	4,0	50	4,26
TB010818	8	1/8	5,0	14,0	5,5	26,10	14	5,0	50	3,53
TB010814	8	1/4	6,0	17,5	6,5	27,60	14	6,0	50	4,58
TB011014	10	1/4	7,0	17,5	6,5	29,20	18	7,0	50	6,33

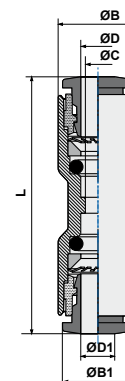


ART. **TB03**

**Straight connector**



COD.	ØD	ØD1	ØC	ØB	ØB1	L		
TB030400	4	4	3	9,5	9,5	32,30	50	1,96
TB030406	4	6	3	9,5	11,5	34,25	50	2,39
TB030600	6	6	5	11,5	11,5	36,70	50	3,00
TB030608	6	8	5	11,5	13,5	37,70	50	3,27
TB030800	8	8	7	13,5	13,5	38,20	50	3,53
TB030810	8	10	7	13,5	17,0	40,75	50	5,03
TB031000	10	10	9	17,0	17,0	42,90	50	6,04
TB031012	10	12	9	17,0	20,0	44,50	50	5,04
TB031200	12	12	10	20,0	20,0	46,20	25	9,06

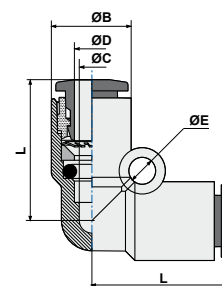


ART. **TB04**

**Elbow connector**



COD.	ØD	ØC	ØB	L	ØE		
TB040400	4	3	9,5	17,35	3,20	50	2,21
TB040600	6	5	11,5	21,10	3,20	50	3,28
TB040800	8	7	13,5	23,10	3,20	50	4,14
TB041000	12	10	20,0	28,90	4,20	25	10,98
TB041200	12	10	20,0	28,90	4,20	25	10,98

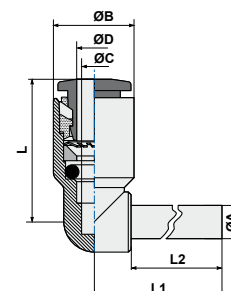


ART. **TB04LO**

**Plug-in elbow connector**



COD.	ØD	ØC	ØB	L	L1	ØA	L2		
TB0404LO	4	3	9,5	17,35	20,75	4	16,7	50	1,39
TB0406LO	6	5	11,5	21,10	24,25	6	19,5	50	2,18
TB0408LO	8	7	13,5	23,10	27,25	8	21,0	50	2,96
TB0410LO	10	9	17,0	26,70	31,80	10	24,0	50	5,07
TB0412LO	12	10	20,0	28,90	36,00	12	25,0	25	8,00

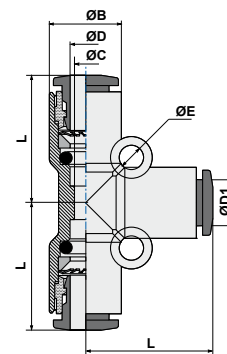


ART. **TB05**

**T connector**



COD.	ØD	ØD1	ØC	ØB	L	ØE		
TB050400	4	4	3,0	9,50	17,35	3,2	50	3,16
TB050604	6	4	5,3	13,00	19,10	3,2	50	8,20
TB050600	6	6	5,0	11,50	21,10	3,2	50	4,72
TB050806	8	6	7,1	14,40	22,70	3,2	25	11,07
TB050800	8	8	7,0	13,50	23,10	3,2	50	5,96
TB051008	10	8	9,3	18,40	27,90	4,2	25	21,85
TB051000	10	10	9,0	17,00	26,70	4,3	25	10,70
TB051210	12	10	10,0	21,00	29,90	4,2	10	26,78
TB051200	12	12	10,0	20,00	28,90	4,2	10	26,78

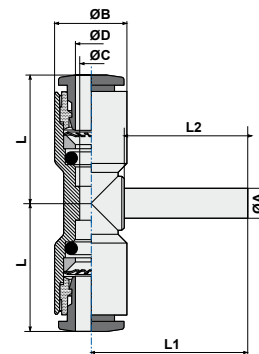


ART. **TB05LO**

**Plug-in T connector (center)**



COD.	ØD	ØC	ØB	L	L1	ØA	L2		
TB0504L0	4	3	9,5	17,2	20,8	4	16,7	50	2,26
TB0506L0	6	5	11,5	20,8	24,3	6	19,5	50	3,51
TB0508L0	8	7	13,5	23,0	27,3	8	21,0	50	4,66
TB0510L0	10	9	17,0	26,4	31,8	10	24,0	25	5,64
TB0512L0	12	10	20,0	28,9	36,0	12	25,0	10	7,11

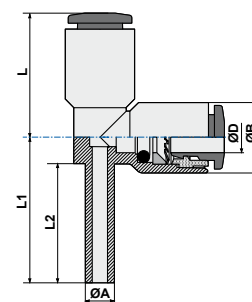


ART. **TB05V0**

**Plug-in T connector (lateral)**



COD.	ØD	ØB	L	L1	ØA	L2		
TB0506V0	6	11,5	20,8	24,3	6	19,5	50	3,42
TB0508V0	8	13,5	23,0	27,3	8	21,0	50	4,54
TB0510V0	10	17,0	26,4	31,8	10	24,0	25	7,65
TB0512V0	12	20,0	28,9	36,0	12	25,0	10	8,10

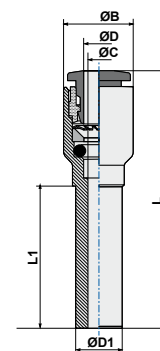


ART. **TB08**

**Reducer**



COD.	ØD1	ØD	ØC	ØB	L	L1		
TB080604	6	4	3	9,5	35,65	19,50	50	1,37
TB080804	8	4	3	9,5	37,15	21,00	50	1,60
TB081004	10	4	3	9,5	40,15	24,00	25	1,97
TB081204	12	4	3	9,5	41,15	25,00	25	2,22
TB080806	8	6	5	11,5	39,35	23,00	50	2,10
TB081006	10	6	5	11,5	42,35	24,00	25	2,49
TB081206	12	6	5	11,5	43,35	25,00	25	2,80
TB081008	10	8	7	13,5	43,10	26,25	25	2,74
TB081208	12	8	7	13,5	44,10	25,00	25	3,00
TB081210	12	10	9	17,0	46,45	27,55	25	4,40

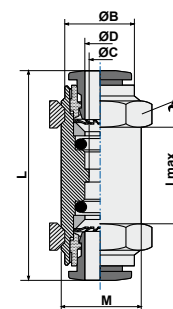


ART. **TB10**

**Bulkhead connector**



COD.	ØD	ØB	ØC	L	M	Lmax			
TB100400	4	9,5	3	32,0	11x1	8	14	50	7,78
TB100600	6	11,5	5	36,1	14,1	12	17	50	11,05
TB100800	8	13,5	7	38,0	16x1	15	18	50	10,93
TB101000	10	17,5	9	42,3	20x1	17	24	25	25,34
TB101200	12	20	10	46,2	22x1	20	26	25	33,12

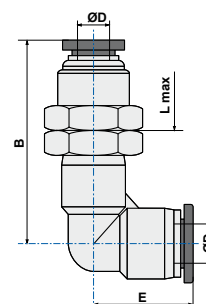


ART. **TB10L**

**L bulkhead**



COD.	ØD	M	B	E	H	Lmax			
TB10L0400	4	12x1	28,5	19,0	14,0	6,0	14	25	17,77
TB10L0600	6	14x1	32,1	19,2	17,0	7,0	17	25	28,99
TB10L0800	8	16x1	39,4	23,0	19,0	7,5	19	25	39,23
TB10L1000	10	20x1	48,8	28,2	24,0	9,5	24	25	63,06
TB10L1200	12	22x1	49,5	29,5	27,0	10,0	26	10	79,66

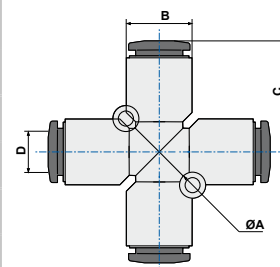


ART. **TB11**

**Cross connector**



COD.	ØD	ØB	C	ØA		
TB110400	4	9,5	17,4	3,2	25	4,02
TB110600	6	11,5	21,1	3,2	25	6,20
TB110800	8	13,5	23,1	3,2	25	7,79
TB111000	10	17,0	26,7	4,2	10	14,06
TB111200	12	21,0	29,5	4,3	10	34,38

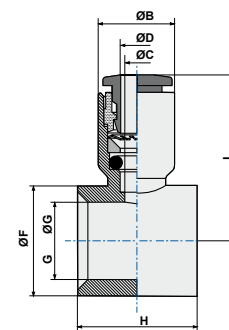


ART. **TB13**

**Single banjo body**



COD.	ØD	G*	ØC	ØB	ØG	H	L	ØF		
TB1304M5	4	M5	3	9,5	5,00	10	19,65	8,0	50	1,33
TB130418	4	1/8	3	9,5	9,90	15	21,25	14,0	50	2,37
TB130618	6	1/8	5	11,5	9,90	15	24,60	14,0	50	2,85
TB130614	6	1/4	5	11,5	13,30	17	25,80	18,0	50	3,77
TB130818	8	1/8	7	13,5	9,90	15	24,90	14,0	50	3,09
TB130814	8	1/4	7	13,5	13,30	17	26,60	18,0	50	3,95
TB130838	8	3/8	7	13,5	16,75	20	28,10	21,3	50	4,89
TB131014	10	1/4	9	17,0	13,30	17	28,70	18,0	50	5,36
TB131038	10	3/8	9	17,0	16,75	20	30,20	21,3	25	6,22
TB131012	10	1/2	9	17,0	13,30	24	33,20	26,0	25	6,78
TB131238	12	3/8	10	20,0	16,75	20	31,40	21,3	25	7,51
TB131212	12	1/2	10	20,0	21,00	24	34,90	26,0	25	9,53
TB13R04M5	4	M5	3	9,5	6,00	10	19,90	9,0	50	1,76
TB13R06M5	6	M5	5	11,5	6,00	10	22,10	9,0	50	1,26



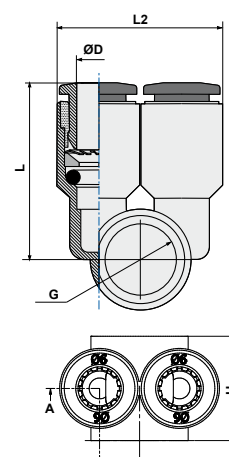
G\* = Stem thread. See page 94 of stem section.



**ART. TB13B**
**Single branch body**

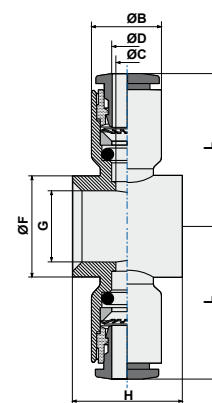

COD.	ØD	G*	H	L	L2		
TB13B04M5	4	M5	10	19,7	19	50	2,39
TB13B0618	6	1/8	15	24,6	23	50	4,40
TB13B0814	8	1/4	17	26,6	27	50	6,06
TB13B1038	10	3/8	20	30,2	34	25	9,88
TB13B1212	12	1/2	24	34,9	40	10	15,36

G\* = Stem thread. See page 95 of stem section.  
 H = Stem size length

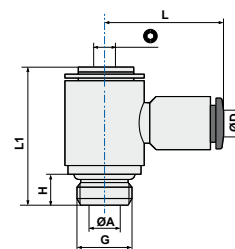

**ART. TB14**
**Double banjo body**


COD.	ØD	G*	ØC	ØB	H	ØF	L		
TB1404M5	4	M5	3	9,5	10	8,00	19,5	50	2,24
TB140418	4	1/8	3	9,5	15	14,00	21,1	50	3,33
TB140618	6	1/8	5	11,5	15	14,00	24,3	50	5,10
TB140838	8	3/8	7	13,5	20	21,30	28,0	25	6,48
TB141038	10	3/8	9	17,0	20	21,30	29,9	25	8,89
TB141012	10	1/2	9	17,0	24	26,00	30,0	10	11,19
TB141238	12	3/8	10	20,0	20	21,30	31,4	25	11,57
TB141212	12	1/2	10	20,0	24	26,00	34,9	10	14,21

G\* = Stem thread. See page 95 of stem section.


**ART. TB15**
**Complete single banjo (rotating under pressure)**


COD.	ØD	G	ØA	H	L1	L			
TB1504M5	4	M5	2,0	4,0	17,8	19,65	2,5	50	3,54
TB1504M6	4	M6	2,0	5,0	18,8	19,65	2,5	50	3,96
TB150418	4	1/8	5,5	5,5	24,5	21,25	3,0	50	11,87
TB150618	6	1/8	5,5	5,5	24,5	24,60	3,0	50	12,29
TB150614	6	1/4	7,8	6,5	27,8	25,80	4,0	50	22,36
TB150818	8	1/8	5,5	5,5	24,5	24,90	3,0	50	12,67
TB150814	8	1/4	7,8	6,5	27,8	26,60	4,0	50	21,89
TB150838	8	3/8	10,0	7,5	32,5	28,10	5,0	25	37,40
TB151014	10	1/4	7,8	6,5	27,8	28,70	4,0	25	23,86
TB151038	10	3/8	10,0	7,5	32,5	30,20	5,0	25	38,54
TB151012	10	1/2	12,0	9,0	38,8	33,20	8,0	10	37,55
TB151238	12	3/8	10,0	7,5	32,5	31,40	5,0	10	39,91
TB151212	12	1/2	12,0	9,0	38,8	34,90	8,0	10	44,50

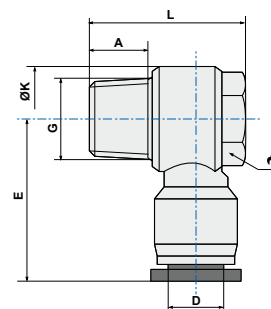


ART. **TB15C**

Complete single banjo tapered



COD.	ØD	G	A	L	ØK	E			
TB15C0418	4	1/8	7,5	23,5	14,4	22,40	12,0	50	12,22
TB15C0618	6	1/8	7,5	23,5	14,4	22,90	12,0	50	12,95
TB15C0614	6	1/4	9,5	26,5	18,3	25,00	14,0	50	21,03
TB15C0638	6	3/8	10,5	32,0	22,0	26,60	19,0	25	37,28
TB15C0818	8	1/8	7,5	23,5	14,4	25,60	12,0	50	13,66
TB15C0814	8	1/4	9,5	26,5	18,3	28,70	14,0	50	21,84
TB15C0838	8	3/8	10,5	32,0	22,0	29,60	19,0	25	37,98
TB15C1014	10	1/4	9,5	26,5	18,3	32,60	14,0	25	25,63
TB15C1038	10	3/8	10,5	32,0	22,0	33,10	19,0	25	41,63
TB15C1012	10	1/2	13,5	38,5	28,0	36,10	24,0	10	65,27
TB15C1238	12	3/8	10,5	32,0	22,0	35,40	19,0	10	43,92
TB15C1212	12	1/2	13,5	38,5	28,0	36,40	24,0	10	67,49

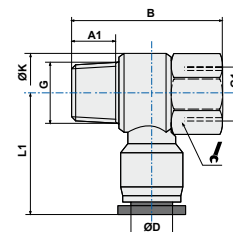


ART. **TB15FC**

Female complete single banjo tapered



COD.	ØD	G/G1	L1	A1	B	ØK			
TB15FC0418	4	1/8	22,4	7,5	29,0	14,40	14,0	50	16,26
TB15FC0414	4	1/4	25,0	9,5	35,0	18,30	17,0	50	29,78
TB15FC0618	6	1/8	22,9	7,5	29,0	14,40	14,0	50	16,81
TB15FC0614	6	1/4	25,0	9,5	35,0	18,30	17,0	50	29,62
TB15FC0818	8	1/8	25,6	7,5	29,0	14,40	14,0	50	17,68
TB15FC0814	8	1/4	28,7	9,5	35,0	18,30	17,0	50	30,66
TB15FC0838	8	3/8	29,6	10,5	40,0	22,00	21,0	25	46,70
TB15FC1014	10	1/4	32,6	9,5	35,0	18,30	17,0	25	33,97
TB15FC1038	10	3/8	33,1	10,5	40,0	22,00	21,0	25	49,53
TB15FC1012	10	1/2	36,1	13,5	47,5	28,00	24,0	10	67,13
TB15FC1238	12	3/8	35,4	10,5	40,0	22,00	21,0	10	51,20
TB15FC1212	12	1/2	36,4	13,5	47,5	28,00	24,0	10	69,13

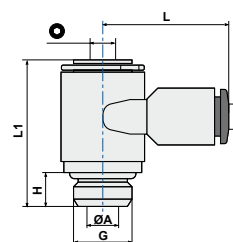


ART. **TB15B**

Single banjo universal male elbow



COD.	ØD	G	ØA	H	L1	L				
TB15B04M5	4	M5	2,0	4,0	17,8	19,7	2,5	2,5	50	4,57
TB15B0618	6	1/8	5,5	5,5	24,5	24,6	3,0	3,0	50	13,73
TB15B0814	8	1/4	7,8	6,5	27,8	26,6	4,0	4,0	50	24,51
TB15B1038	10	3/8	10,0	7,5	32,5	30,2	5,0	5,0	25	44,78
TB15B1212	12	1/2	12,0	9,0	38,8	34,9	8,0	8,0	10	77,84

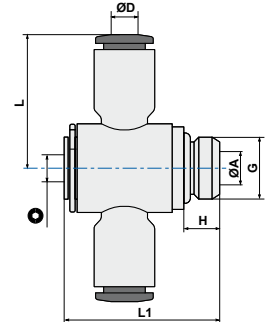


ART. **TB16**

**Complete double banjo (rotating under pressure)**



COD.	ØD	G*	ØA	H	L1	L	⊙		
TB1604M5	4	M5	2	4,0	17,8	19,5	2,5	50	4,48
TB160418	4	1/8	5,5	5,5	24,5	21,1	3,0	50	55,00
TB160618	6	1/8	5,5	5,5	24,5	24,3	3,0	50	38,55
TB160838	8	3/8	7,5	7,5	32,5	28,0	5,0	25	67,55
TB161038	10	3/8	7,5	7,5	32,5	30,0	5,0	25	48,90
TB161012	10	1/2	9,0	9,0	38,8	30,0	8,0	10	48,65
TB161238	12	3/8	7,5	7,5	32,5	31,5	5,0	25	44,10
TB161212	12	1/2	9,0	9,0	38,8	35,0	8,0	10	51,16

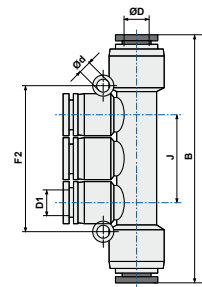


ART. **TB18**

**Triple branch union**



COD.	ØD	ØD1	J	B	Ød	F2		
TB180604	6	4	26,0	60,3	3,2	42,0	25	16,05
TB180804	8	4	26,0	61,7	3,2	42,0	25	15,89
TB180806	8	6	26,0	61,7	3,2	42,0	25	15,66
TB181006	10	6	29,2	83,0	4,2	48,0	10	27,15
TB181008	10	8	29,2	83,0	4,2	48,0	10	27,50

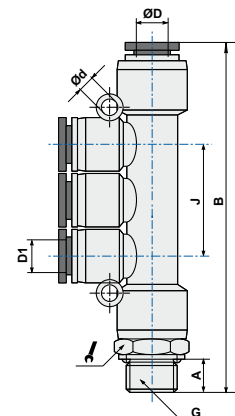


ART. **TB18G**

**Male triple branch**



COD.	ØD	D1	G	A	B	J		Ød		
TB18G0418	4	4	1/8	5,5	67,2	26	14	3,2	25	25,26
TB18G0414	4	4	1/4	7,5	69,7	26	17	3,2	25	31,01
TB18G0438	4	4	3/8	7,5	69,7	26	20	3,2	10	152,50
TB18G0618	6	6	1/8	5,5	67,2	26	14	3,2	25	25,51
TB18G0614	6	6	1/4	7,5	69,7	26	17	3,2	25	30,52
TB18G0638	6	6	3/8	7,5	70,2	26	20	3,2	10	157,40
TB18G0612	6	6	1/2	9	72,7	26	24	3,2	10	207,40
TB18G0818	8	8	1/8	5,5	87,8	29	14	3,2	10	37,54
TB18G0814	8	8	1/4	7,5	90,3	29	17	3,2	10	41,48
TB18G0838	8	8	3/8	7,5	90,8	29	20	3,2	10	47,77
TB18G0812	8	8	1/2	9,0	93,3	29	24	3,2	10	259,20
TB18G1018	10	10	1/8	5,5	99,0	37	14	4,2	10	235,00
TB18G1014	10	10	1/4	7,5	101,5	37	17	4,2	10	58,26
TB18G1038	10	10	3/8	7,5	101,5	37	20	4,2	10	58,09
TB18G1012	10	10	1/2	9	105,0	37	24	4,2	10	293,00

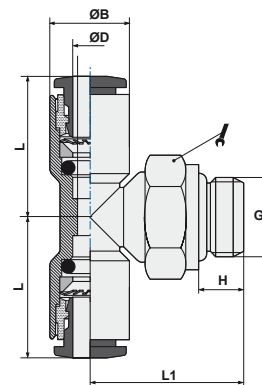


ART. **TB20**

**Swivel male stud T parallel**



COD.	ØD	G	ØB	H	L	L1			
TB2004M3	4	M3	9,5	3,0	17,35	15,00	8	50	4,53
TB2004M5	4	M5	9,5	4,0	17,35	17,00	8	50	4,65
TB200418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,56
TB200414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,83
TB200438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
TB2006M5	6	M5	9,5	4,0	21,10	17,00	8	50	5,71
TB200618	6	1/8	11,5	5,5	21,10	18,50	13	50	9,48
TB200614	6	1/4	11,5	6,5	21,10	20,55	16	50	14,94
TB200638	6	3/8	13,0	7,5	19,60	29,50	20	25	28,36
TB200612	6	1/2	13,0	9,0	19,60	32,00	24	10	39,55
TB200818	8	1/8	13,5	5,5	23,10	20,00	13	50	10,64
TB200814	8	1/4	13,5	6,5	23,10	20,55	16	50	14,28
TB200838	8	3/8	13,5	7,5	23,10	25,00	18	25	21,66
TB200812	8	1/2	15,7	10,0	22,80	34,50	24	10	38,99
TB201018	10	1/8	18,4	5,5	28,50	34,50	17	25	38,40
TB201014	10	1/4	17,0	6,5	27,30	23,35	16	25	42,85
TB201038	10	3/8	18,4	7,5	28,50	37,00	20	25	20,74
TB201012	10	1/2	18,4	10,0	28,50	40,50	24	10	225,40
TB201218	12	1/8	21,0	5,5	29,40	36,00	21	10	49,05
TB201214	12	1/4	21,0	7,5	29,40	38,50	21	10	47,68
TB201238	12	3/8	21,0	7,5	29,40	38,50	21	10	49,46
TB201212	12	1/2	21,0	10,0	29,40	41,50	24	10	54,72

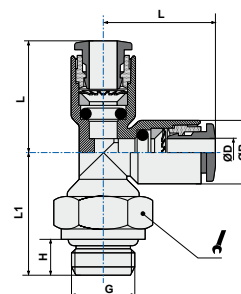


ART. **TB21**

**Swivel male branch T parallel**



COD.	ØD	G	ØB	H	L	L1			
TB2104M3	4	M3	9,5	3,0	17,35	14,80	8	50	4,52
TB2104M5	4	M5	9,5	4,0	17,35	15,80	8	50	4,74
TB210418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,50
TB210414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,96
TB210438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
TB210618	6	1/8	11,5	5,5	21,10	18,35	13	50	9,71
TB210614	6	1/4	11,5	6,5	21,10	20,55	16	50	14,85
TB210638	6	3/8	13,0	7,5	19,60	29,50	20	25	27,71
TB210612	6	1/2	13,0	10,0	19,60	32,00	24	10	36,70
TB210818	8	1/8	13,5	5,5	20,65	23,00	13	50	10,58
TB210814	8	1/4	13,5	6,5	23,00	20,55	16	50	13,97
TB210838	8	3/8	13,5	7,5	23,00	25,00	18	25	21,60
TB210812	8	1/2	14,5	10,0	22,80	34,50	24	10	38,56
TB211018	10	1/8	18,4	5,5	28,50	34,50	17	25	35,67
TB211014	10	1/4	18,4	7,5	28,50	37,00	17	25	36,23
TB211038	10	3/8	18,4	7,5	28,50	37,00	20	25	40,82
TB211012	10	1/2	18,4	10,0	28,50	40,50	24	10	51,01
TB211218	12	1/8	21,0	5,5	29,40	38,50	21	25	49,78
TB211214	12	1/4	21,0	7,5	29,40	38,50	21	10	48,31
TB211238	12	3/8	21,0	7,5	29,40	38,50	21	10	51,21
TB211212	12	1/2	21,0	10,0	29,40	41,50	24	10	55,38

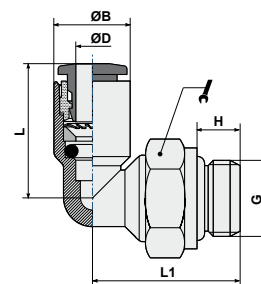


ART. **TB22**

**Swivel elbow male adaptor parallel**



COD.	ØD	G	ØB	H	L	L1			
TB2204M3	4	M3	9,5	3	17,35	14,80	8	50	3,64
TB2204M5	4	M5	9,5	4	17,35	15,80	8	100	3,80
TB220418	4	1/8	9,5	5,5	17,35	18,35	13	100	7,77
TB220414	4	1/4	9,5	6,5	17,35	20,55	16	100	13,12
TB2206M5	6	M5	11,5	4,0	21,10	16,10	8	100	4,31
TB220618	6	1/8	11,5	5,5	21,10	18,35	13	100	8,11
TB220614	6	1/4	11,5	6,5	21,10	20,55	16	100	13,82
TB220818	8	1/8	13,5	5,5	23,10	20,65	13	100	8,93
TB220814	8	1/4	13,5	6,5	23,10	20,55	16	50	12,39
TB220838	8	3/8	13,5	7,5	23,10	25,20	18	50	19,93
TB220812	8	1/2	15,0	10,0	24,00	25,50	24	25	37,70
TB221014	10	1/4	17,0	6,5	26,70	23,35	16	50	14,40
TB221038	10	3/8	17,0	7,5	26,70	25,00	18	50	17,63
TB221012	10	1/2	17,0	9,0	26,70	29,30	21	25	29,73
TB221214	12	1/4	20,0	6,5	28,90	24,35	16	25	17,14
TB221238	12	3/8	20,0	7,5	28,90	26,50	18	25	20,51
TB221212	12	1/2	20,0	9,0	28,90	29,30	21	25	28,32

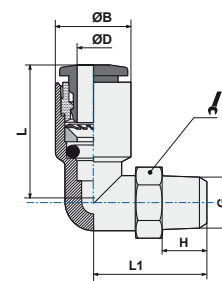


ART. **TB22C**

**Swivel elbow male adaptor tapered**



COD.	ØD	G	ØB	H	L	L1			
TB22C0418	4	1/8	11,0	7,5	19,0	20,5	10	100	6,67
TB22C0414	4	1/4	11,0	9,5	19,0	20,0	14	100	12,46
TB22C0438	4	3/8	11,0	10,5	19,0	21,0	17	25	19,82
TB22C0618	6	1/8	13,0	7,5	19,8	21,5	10	100	7,34
TB22C0614	6	1/4	13,0	9,5	19,8	21,0	14	100	13,02
TB22C0638	6	3/8	13,0	10,5	19,8	22,0	17	25	20,04
TB22C0612	6	1/2	13,0	13,5	19,8	25,5	21	10	34,22
TB22C0818	8	1/8	14,5	7,5	23,7	22,3	10	100	8,27
TB22C0814	8	1/4	14,5	9,5	23,7	21,8	14	100	13,94
TB22C0838	8	3/8	14,5	10,5	23,7	22,8	17	50	21,49
TB22C0812	8	1/2	14,5	13,5	23,7	26,3	21	10	35,12
TB22C1018	10	1/8	18,4	7,5	27,8	26,9	14	50	16,55
TB22C1014	10	1/4	18,4	9,5	27,8	28,4	14	50	18,45
TB22C1038	10	3/8	18,4	10,5	27,8	24,7	17	50	22,21
TB22C1012	10	1/2	19,0	13,5	27,8	28,2	21	25	35,70
TB22C1218	12	1/8	21,0	7,5	29,5	28,2	15	25	20,55
TB22C1214	12	1/4	21,0	9,5	29,5	29,7	15	25	22,32
TB22C1238	12	3/8	21,0	10,5	29,5	26,0	17	50	24,18
TB22C1212	12	1/2	21,0	13,5	29,5	29,5	21	25	35,40

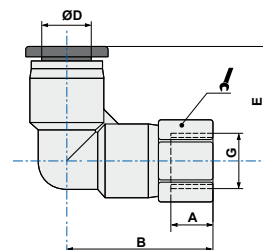


ART. **TB22F**

Female swivel elbow adaptor



COD.	ØD	G	A	B	E			
TB22F04M5	4	M5	5,5	20,5	19,0	10	50	9,17
TB22F0418	4	1/8	8,5	24,0	19,0	14	50	14,80
TB22F0414	4	1/4	11,0	27,0	19,0	17	50	20,24
TB22F06M5	6	M5	6,0	20,7	19,2	12	50	13,27
TB22F0618	6	1/8	8,5	24,2	19,2	14	50	16,85
TB22F0614	6	1/4	11,0	27,2	19,2	17	50	21,91
TB22F0638	6	3/8	12,0	28,7	19,2	21	25	26,37
TB22F0818	8	1/8	8,0	27,0	23,0	14	50	19,27
TB22F0814	8	1/4	11,0	30,5	23,0	17	50	23,47
TB22F0838	8	3/8	12,0	32,0	23,0	21	25	32,70
TB22F1014	10	1/4	11,0	34,3	28,2	17	25	34,59
TB22F1038	10	3/8	12,0	35,8	28,2	21	25	38,84
TB22F1012	10	1/2	14,0	38,8	28,2	24	10	47,77
TB22F1214	12	1/4	11,0	37,0	29,5	21	25	57,88
TB22F1238	12	3/8	12,0	38,0	29,5	21	25	45,98
TB22F1212	12	1/2	14,0	40,5	29,5	24	10	52,68

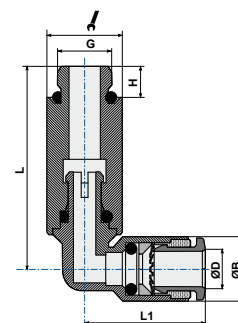


ART. **TB22L**

Swivel longer elbow male adaptor parallel



COD.	ØD	G	ØB	H	L	L1			
TB22L04M5	4	M5	11,0	3,5	34,5	18,6	10	25	18,44
TB22L0418	4	1/8	9,5	5,5	35,9	17,4	13	25	23,78
TB22L06M5	6	M5	13,0	3,5	37,2	19,6	12	25	24,07
TB22L0618	6	1/8	11,5	5,5	35,9	20,8	13	25	24,21
TB22L0818	8	1/8	13,5	5,5	38,2	23,1	13	25	25,17
TB22L0814	8	1/4	14,5	7,5	46,8	22,8	17	25	46,55

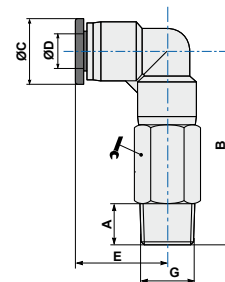


ART. **TB22LC**

Swivel longer elbow male adaptor tapered



COD.	ØD	G	A	B	ØC	E			
TB22LC0418	4	1/8	7,5	37,0	11,0	18,6	10	25	14,74
TB22LC0414	4	1/4	9,5	40,0	11,0	18,6	14	25	19,89
TB22LC0618	6	1/8	7,5	40,5	13,0	19,6	12	25	22,41
TB22LC0614	6	1/4	9,5	43,0	13,0	19,6	14	25	24,74
TB22LC0638	6	3/8	10,5	44,5	13,0	19,6	17	25	31,65
TB22LC0818	8	1/8	7,5	44,8	14,5	22,8	14	25	34,35
TB22LC0814	8	1/4	9,5	46,8	14,5	22,8	14	25	32,40
TB22LC0838	8	3/8	10,5	48,3	14,5	22,8	17	25	41,71
TB22LC1018	10	1/8	7,5	55,0	18,5	28,5	17	25	35,12
TB22LC1014	10	1/4	9,5	57,0	18,5	28,5	17	25	65,78
TB22LC1038	10	3/8	10,5	58,0	18,5	28,5	17	25	55,75
TB22LC1012	10	1/2	13,5	61,5	18,5	28,5	21	10	57,90
TB22LC1214	12	1/4	9,5	61,5	21,0	29,5	21	10	105,46
TB22LC1238	12	3/8	10,5	62,5	21,0	29,5	21	10	100,28
TB22LC1212	12	1/2	13,5	65,5	21,0	29,5	21	10	92,26

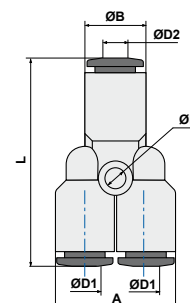


ART. **TB23**

**Y connector**



COD.	ØD1	ØD2	ØE	ØB	A	L		
TB230400	4	4	3,2	9,5	19,0	33,3	50	2,98
TB230406	4	6	3,2	11,5	19,0	36,2	50	3,56
TB230600	6	6	3,2	11,5	23,0	39,2	50	4,83
TB230608	6	8	3,2	13,5	23,0	42,7	50	5,26
TB230800	8	8	3,2	13,5	27,0	42,7	50	6,29
TB230810	8	10	3,2	17,0	27,0	49,0	25	7,84
TB231000	10	10	4,3	17,0	34,0	49,4	25	11,16
TB231012	10	12	4,3	20,0	34,0	50,8	10	14,12
TB231200	12	12	4,2	20,0	40,0	53,2	10	16,73

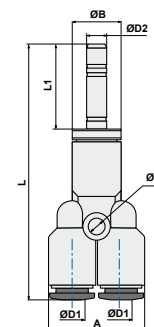


ART. **TB23L0**

**Plug-in Y connector**



COD.	ØD1	ØD2	ØB	A	ØE	L	L1		
TB2304L0	4	4	9,5	19	3,2	50,0	16,7	50	6,69
TB2306L0	6	6	11,5	23	3,2	57,6	19,5	50	11,19
TB2308L0	8	8	13,5	27	3,2	62,6	21,0	50	15,24
TB2310L0	10	10	17,0	34	4,3	72,3	24,0	25	24,64
TB2312L0	12	12	20,0	40	4,2	77,1	25,0	10	33,95

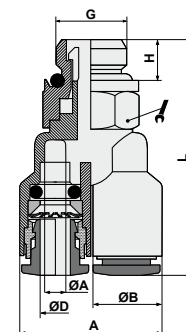


ART. **TB23G**

**Y connector with swivel parallel male adapter**



COD.	ØD	G	ØA	ØB	H	A	L			
TB23G04M5	4	M5	2,0	11,0	3,5	22,0	39,8	10	50	11,09
TB23G0418	4	1/8	3,0	9,5	5,5	19,0	31,8	13	50	8,57
TB23G0414	4	1/4	3,0	9,5	6,5	19,0	32,8	16	50	21,04
TB23G0438	4	3/8	3,0	11,0	7,5	22,0	46,0	20	25	26,95
TB23G0618	6	1/8	5,0	11,5	5,5	23,0	35,3	13	50	9,66
TB23G0614	6	1/4	5,0	11,5	6,5	23,0	36,8	16	50	15,12
TB23G0638	6	3/8	5,0	13,0	7,5	26,0	46,8	20	25	29,25
TB23G0818	8	1/8	7,0	13,5	5,5	27,0	37,8	13	50	10,71
TB23G0814	8	1/4	7,0	13,5	6,5	27,0	38,8	16	50	14,38
TB23G0838	8	3/8	6,2	14,5	7,5	29,0	49,9	20	25	31,11
TB23G1014	10	1/4	8,2	18,4	7,5	36,4	58,5	17	25	38,11
TB23G1038	10	3/8	8,2	18,4	7,5	36,4	58,5	20	25	41,81
TB23G1012	10	1/2	8,2	18,4	10,0	36,4	62,0	24	10	52,32
TB23G1214	12	1/4	9,5	21,0	7,5	42,0	62,0	21	10	57,62
TB23G1238	12	3/8	9,5	21,0	7,5	42,0	62,0	21	10	52,03
TB23G1212	12	1/2	9,5	21,0	10,0	42,0	65,0	24	10	58,58



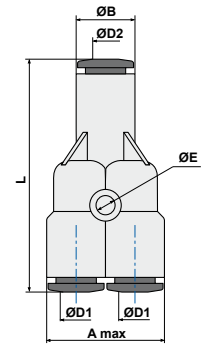


ART. **TB24**

**Double Y connector**



COD.	ØD1	ØD2	ØE	ØB	Amax	L		
TB240400	4	4	3,2	9,5	20,0	34,8	25	5,97
TB240406	4	6	3,2	11,5	20,0	37,3	25	6,39
TB240408	4	8	3,2	14,5	22,0	38,4	25	12,89
TB240600	6	6	3,2	11,5	24,0	40,2	25	9,02
TB240608	6	8	3,2	14,5	26,0	39,9	25	16,81
TB240800	8	8	3,2	14,5	29,5	41,6	25	20,07
TB240810	8	10	3,2	17,0	28,0	46,8	25	13,99

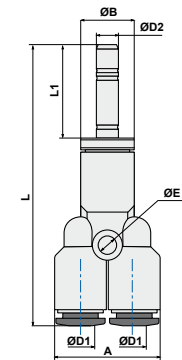


ART. **TB24L0**

**Plug-in double Y connector**



COD.	ØD1	ØD2	ØE	ØB	A	L	L1		
TB2404L0	4	4	3,2	9,5	19	50,3	16,7	25	9,56
TB2406L0	6	6	3,2	11,5	24	59,0	19,5	25	14,15
TB2408L0	8	8	3,2	13,5	28	64,0	21,0	25	24,65

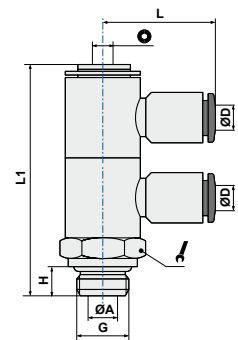


ART. **TB33**

**Swivel double banjo stem**



COD.	ØD	G	ØA	H	L1	L			
TB3304M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	5,88
TB330418	4	1/8	5,5	5,5	43,3	21,3	3	14	22,33
TB330618	6	1/8	5,5	5,5	43,3	24,6	3	14	23,17
TB330614	6	1/4	7,8	6,5	50,0	25,8	4	18	42,26
TB330818	8	1/8	5,5	5,5	43,3	24,9	3	14	23,66
TB330814	8	1/4	7,8	6,5	50,0	26,6	4	18	44,98
TB331014	10	1/4	7,8	6,5	50,0	28,7	4	18	45,86

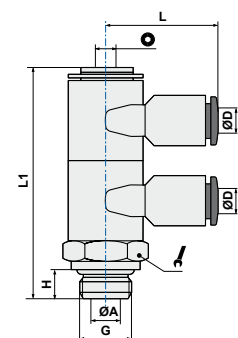


ART. **TB33B**

**Double banjo universal male**



COD.	ØD	G	ØA	H	L1	L			
TB33B04M5	4	M5	2,0	4,0	28,0	19,7	2,5	10	7,90
TB33B0618	6	1/8	5,5	5,5	43,3	24,6	3	10	19,88
TB33B0814	8	1/4	7,8	6,5	50,0	26,6	4	10	48,50



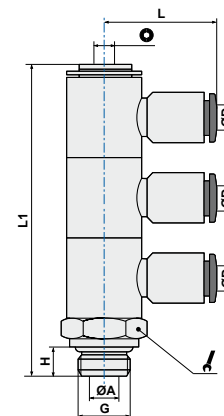


ART. **TB34**

**Swivel triple banjo stem**



COD.	ØD	G	ØA	H	L1	L	⊙	🔧	📦	⚖️
TB340418	4	1/8	5,5	5,5	58,4	21,3	3	14	10	28,50
TB340618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	30,06
TB340818	8	1/8	5,5	5,5	58,4	24,9	3	14	10	56,19
TB340614	6	1/4	7,8	6,5	67,1	25,8	4	18	10	30,58
TB340814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	56,63
TB341014	10	1/4	7,8	6,5	67,1	28,7	4	18	10	60,71

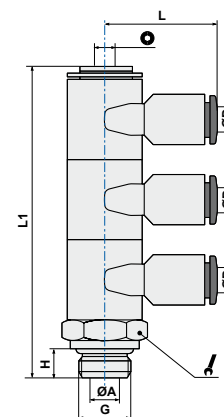


ART. **TB34B**

**Triple banjo universal male L**



COD.	ØD	G	ØA	H	L1	L	⊙	🔧	📦	⚖️
TB34B0618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	34,58
TB34B0814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	62,84

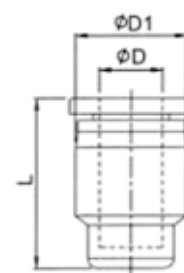


ART. **TB90**

**Tube blanking cap**



COD.	ØD	ØD1	L	📦	⚖️
TB900400	4	11,5	17,5	100	1,97
TB900600	6	13,5	17,7	100	2,56
TB900800	8	15	21,3	100	3,37
TB901000	10	19	25,0	50	6,84
TB901200	12	21,5	26,0	50	8,59



## Stainless steel push-in fittings

### Series SS



“SS” series push-in fittings are “oil free” and manufactured according to the ISO norms of reference.

#### Ordering code

**SS C 08 M5**

#### SERIES

**SS** = Stainless steel push-in fittings

#### MODEL TYPE

- C-G** = Straight male adaptor
- C** = Straight male tapered adaptor
- F-G** = Straight female adaptor (parallel thread)
- H** = Complete single banjo tapered
- L-G** = Swivel elbow male adaptor (parallel)
- L** = Swivel elbow adaptor (tapered)
- LF** = Female swivel elbow adaptor (parallel thread)
- B-G** = Swivel male stud T parallel
- B** = Swivel male stud T tapered
- GJ** = Plug-in reducer
- M** = Bulkhead connector
- U** = Equal straight connector
- G** = Reducer straight connector
- V** = Elbow connector
- E** = T connector
- Y** = Y connector
- P** = Plug

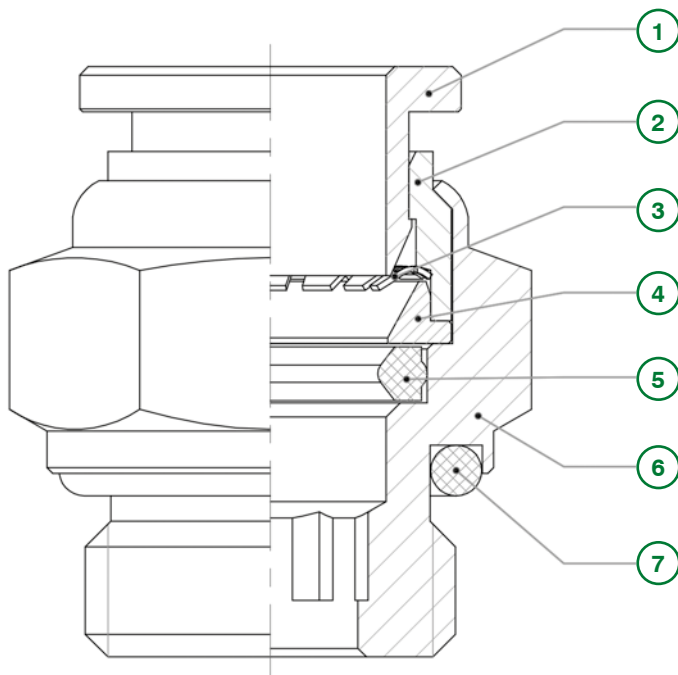
#### TUBE CONNECTION

**04 ... 14** = Tube diameter (mm)

#### THREADED CONNECTION

- M5** = M5 x 0,8
- 01** = 1/8" Tapered
- 02** = 1/4" Tapered
- 03** = 3/8" Tapered
- 04** = 1/2" Tapered
- G01** = 1/8" Parallel
- G02** = 1/4" Parallel
- G03** = 3/8" Parallel
- G04** = 1/2" Parallel

See assembly instructions in the appendix on page 211



#### Components

- 1** Thrust sleeve
- 2** Lock ring
- 3** Crimping gripper
- 4** Supporting ring
- 5** Elastic ring
- 6** Fitting body
- 7** O-Ring seal



## Technical sheet

<b>FLUIDS</b>		Compressed air, water, steam (for different fluid please contact our Technical Dept.)
<b>APPLICATIONS</b>		Pneumatic equipments which are applied widely in the range of Industry such as food service industry, chemical industry and medical industry. In general where required to ensure anti-corrosion and acid resistant, or usage at high temperature.
<b>SUGGESTED TUBES</b>		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethylene), TPA (Polyurethane/Copolyester)
<b>TUBES TOLERANCES</b>		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
<b>RECOMMENDED LIMIT VALUES</b>	Temperature	The working temperatures range is between -20°C and +140°C
	Working pressure	The working pressure range is between 0 and 1,5 MPa (0-15 bar)
	Max. pressure	1,8 MPa (18 bar)
	Note	For more complete informations please read the technical catalogue of your tube supplier.
<b>THREAD TYPE</b>		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
<b>MATERIALS</b>	Body, sleeve, collar and back ring	Stainless Steel SUS316L
	Spring	Stainless Steel SUS316L
	Seals	FKM/FPM
<b>IMPORTANT NOTE</b>		The raw material is non-magnetic, however after cold working, a small amount of austenite could be transformed into martensite, which could be very weakly magnetic.

## Test results to FDA specifications compatibility, made by on behalf of the manufacturer

	Test report N.	Data	Period (days)	Item	Main material	Test purpose
<b>A</b>	TRHZ1208110	06/08/2012	6	Seal ring	Viton FPM fluororubber (FKM)	The compliance with the food and drug administration regulations for determining the amount of chloroform-soluble extractives (ppm) from closures with sealing gaskets for food containers
<b>B</b>	TRHZ1208111	06/08/2012	6	Elbow fitting mod SSV	Stainless Steel SUS316L	To determine total chromium content in the submitted sample
<b>C</b>	TRHZ1208112	06/08/2012	6	Straight Fitting mod. SSC-G	Stainless Steel SUS316L	To determine total chromium content in the submitted sample

	Test method (ref. FDA 21 CFR 177.1210)	Test result	Conclusion
<b>A</b>	Immersion for 2 hours in distilled water at 212°F	Detected value 13,0 Max permissible 50,0	When tested as specified, the test results of the submitted sample comply with the FDA specifications for determining the amount of chloroform-soluble extractives for closures (clos)
	Immersion for 2 hours in alcohol 8% at 212°F	Detected value 7,0 Max permissible 50,0	
	Immersion for 2 hours in n-heptane at 150°F	Detected value 11,5 Max permissible 50,0	
<b>B</b>	Titration method	Detected value 16,38% Max permissible >=10,5%	When tested as specified, the test results of the submitted sample is suitable for contact with food
<b>C</b>	Titration method	Detected value 17,18% Max permissible >=10,5%	When tested as specified, the test results of the submitted sample is suitable for contact with food

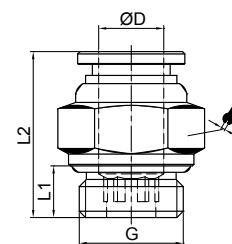


ART. **SSC-G**

**Straight male adaptor (parallel)**



COD.	ØD	G	L1	L2	○	🔑	📦	📊
SSC04-M5	4	M5	4	19,3	2	10	1	6,60
SSC04-G01	4	1/8	5,5	17,3	3	13	1	9,80
SSC04-G02	4	1/4	6,5	21,2	3	17	1	16,00
SSC06-M5	6	M5	4	20,6	2	12	1	10,00
SSC06-G01	6	1/8	5,5	18,8	4	13	1	9,80
SSC06-G02	6	1/4	6,5	18,8	4	16	1	16,00
SSC08-G01	8	1/8	5,5	23,2	5	14	1	13,00
SSC08-G02	8	1/4	6,5	20,7	6	16	1	15,00
SSC08-G03	8	3/8	7,5	22,5	6	21	1	24,00
SSC10-G02	10	1/4	6,5	26,4	8	17	1	22,00
SSC10-G03	10	3/8	7,5	22,9	8	20	1	26,00
SSC10-G04	10	1/2	9,0	24	8	24	1	38,00
SSC12-G02	12	1/4	6,5	31,3	8	21	1	34,00
SSC12-G03	12	3/8	7,5	25,4	10	20	1	28,00
SSC12-G04	12	1/2	9	25,4	10	24	1	43,60
SSC14-G03	14	3/8	7,5	33	10	22	1	38,00
SSC14-G04	14	1/2	9,0	32	10	24	1	43,00

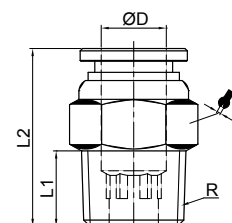


ART. **SSC**

**Straight male adaptor (tapered)**



COD.	ØD	R	L1	L2	○	🔑	📦	📊
SSC04-01	4	1/8	7,5	16,8	3	10	1	9,80
SSC04-02	4	1/4	9,5	21	3	14	1	14,00
SSC06-01	6	1/8	7,5	19,3	4	12	1	9,80
SSC06-02	6	1/4	9,5	19,8	4	14	1	16,00
SSC06-03	6	3/8	10,5	22	4	17	1	22,00
SSC06-04	6	1/2	12,5	24	4	21	1	42,00
SSC08-01	8	1/8	7,5	23,7	6	14	1	13,00
SSC08-02	8	1/4	9,5	22,2	6	14	1	15,00
SSC08-03	8	3/8	10,5	22,5	6	17	1	20,00
SSC08-04	8	1/2	12,5	24	6	21	1	38,00
SSC10-02	10	1/4	9,5	26,4	8	17	1	19,72
SSC10-03	10	3/8	10,5	22,9	8	17	1	26,00
SSC10-04	10	1/2	12,5	25	8	21	1	36,00
SSC12-02	12	1/4	9,5	31,3	8	21	1	36,00
SSC12-03	12	3/8	10,5	26,4	10	20	1	28,00
SSC12-04	12	1/2	13,5	26,4	10	21	1	43,60
SSC14-04	14	1/2	12,5	33	10	22	1	43,00

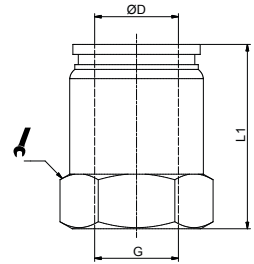


ART. **SSCF-G**

**Straight female adaptor (parallel)**



COD.	ØD	G	L1			
SSCF04-M5	4	M5	20,2	12	1	8,00
SSCF04-01	4	1/8	21,2	12	1	8,00
SSCF04-02	4	1/4	21	17	1	18,00
SSCF06-01	6	1/8	21,6	14	1	16,00
SSCF06-02	6	1/4	21	17	1	18,00
SSCF08-01	8	1/8	25	17	1	16,00
SSCF08-02	8	1/4	24,5	17	1	21,00

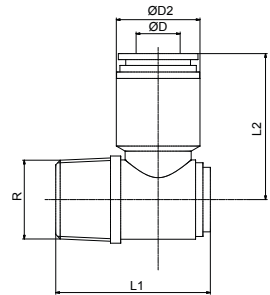


ART. **SSH**

**Complete single banjo tapered**



COD.	ØD	R	L1	L2	D2		
SSH04-01	4	1/8	25,5	26	10,5	1	24,00
SSH06-01	6	1/8	25,5	26	12,5	1	28,00
SSH06-02	6	1/4	28	28	12,5	1	38,00
SSH08-01	8	1/8	25,5	29	14,5	1	28,00
SSH08-02	8	1/4	28	30	14,5	1	40,00
SSH08-03	8	3/8	33,2	33	14,5	1	66,00
SSH10-02	10	1/4	28	32	17,5	1	46,00
SSH10-03	10	3/8	33,2	35	17,5	1	74,00
SSH12-02	12	1/4	28	34	20,5	1	56,00
SSH12-03	12	3/8	33,2	36,5	20,5	1	84,00
SSH12-04	12	1/2	37,2	38	20,5	1	120,00

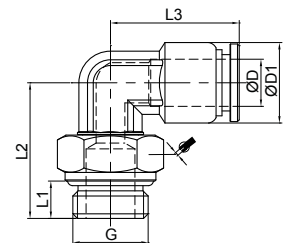


ART. **SSL-G**

**Swivel elbow male adaptor (parallel)**



COD.	ØD	G	L1	L2	L3	ØD1			
SSL04-M5	4	M5	4	17,5	18,3	10	10	1	12,00
SSL04-G01	4	1/8	5,5	20	18,3	10	13	1	16,00
SSL04-G02	4	1/4	6,5	27,5	23	10,5	14	1	24,00
SSL06-M5	6	M5	4	17,5	20,3	12	10	1	16,00
SSL06-G01	6	1/8	5,5	22	20,3	12	13	1	20,00
SSL06-G02	6	1/4	6,5	23	20,3	12	16	1	26,00
SSL06-G03	6	3/8	7,5	28	24	12,5	17	1	34,00
SSL08-G01	8	1/8	5,5	22,5	22,3	14	13	1	24,00
SSL08-G02	8	1/4	6,5	23,5	22,3	14	16	1	30,00
SSL08-G03	8	3/8	7,5	28	27	14,5	17	1	40,00
SSL10-G01	10	1/8	5,5	32,3	30,5	17,5	17	1	36,00
SSL10-G02	10	1/4	6,5	31	26,4	17	17	1	46,00
SSL10-G03	10	3/8	7,5	28,5	26,4	17	20	1	50,00
SSL10-G04	10	1/2	9	31	30,5	17,5	21	1	48,50
SSL12-G02	12	1/4	6,5	30,5	34	20,5	14	1	56,00
SSL12-G03	12	3/8	7,5	30	29,4	20	20	1	62,00
SSL12-G04	12	1/2	9	30,5	29,4	20	24	1	76,00
SSL14-G03	14	3/8	7,5	33	37	22	17	1	96,00
SSL14-G04	12	1/2	9	35	37	22	21	1	100,00

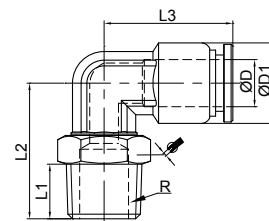


ART. **SSL**

**Swivel elbow adaptor (tapered)**



COD.	ØD	R	L1	L2	L3	ØD1			
SSL04-01	4	1/8	7,5	20	18,3	10	12	1	14,00
SSL04-02	4	1/4	9,5	27,5	23	10,5	14	1	22,00
SSL06-01	6	1/8	7,5	23	20,3	12	12	1	19,00
SSL06-02	6	1/4	9,5	23	20,3	12	14	1	22,00
SSL06-03	6	3/8	10,5	28	24	12,5	17	1	30,00
SSL08-01	8	1/8	7,5	23,5	22,3	14	12	1	24,20
SSL08-02	8	1/4	9,5	23,5	22,3	14	14	1	27,90
SSL08-03	8	3/8	10,5	28	27	14,5	17	1	34,00
SSL10-02	10	1/4	9,5	33	26,4	17	17	1	46,00
SSL10-03	10	3/8	10,5	30	26,4	17	17	1	46,00
SSL12-02	12	1/4	9,5	30,5	34	20,5	14	1	52,00
SSL12-03	12	3/8	10,5	31,5	29,4	20	17	1	62,00
SSL12-04	12	1/2	13,5	33,5	29,4	20	21	1	74,90

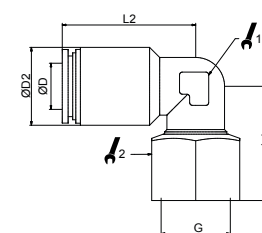


ART. **SSLF**

**Female swivel elbow adaptor (parallel thread)**



COD.	ØD	G	L1	L2	D2				
SSLF04-01	4	1/8	25,5	23	10,5	9,2	10	1	24,00
SSLF06-01	6	1/8	27	24	12,5	9,2	14	1	26,00
SSLF06-02	6	1/4	28	24	12,5	9,2	17	1	32,00
SSLF08-01	8	1/8	27	27	14,5	11,2	14	1	30,00
SSLF08-02	8	1/4	28	27	14,5	11,2	17	1	34,00

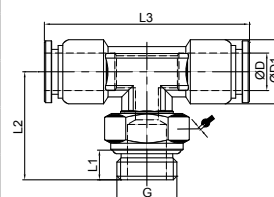


ART. **SSB-G**

**Swivel male stud T parallel**

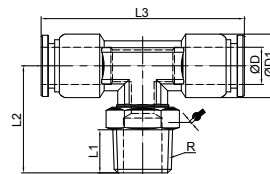


COD.	ØD	G	L1	L2	L3	ØD1			
SSB04-M5	4	M5	4	17,5	36,6	10	10	1	18,00
SSB04-G01	4	1/8	5,5	20	36,6	10	13	1	22,00
SSB06-M5	6	M5	4	17,5	40,6	12	10	1	22,00
SSB06-G01	6	1/8	5,5	22	40,6	12	13	1	27,00
SSB06-G02	6	1/4	6,5	23	40,6	12	16	1	34,00
SSB08-G01	8	1/8	5,5	22,5	44,6	14	13	1	34,00
SSB08-G02	8	1/4	6,5	23,5	44,6	14	16	1	39,80
SSB10-G02	10	1/4	6,5	31	52,8	17	17	1	60,00
SSB10-G03	10	3/8	7,5	28,5	52,8	17	20	1	64,00
SSB12-G03	12	3/8	7,5	30	58,8	20	20	1	86,00
SSB12-G04	12	1/2	9	30,5	58,8	20	24	1	98,00

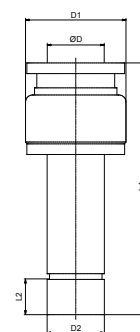


**ART. SSB**
**Swivel male stud T tapered**

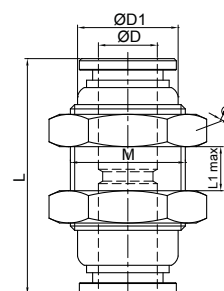

COD.	ØD	R	L1	L2	L3	ØD1			
SSB04-01	4	1/8	7,5	20	36,6	10	12	1	20,00
SSB06-01	6	1/8	7,5	23	40,6	12	12	1	26,00
SSB06-02	6	1/4	9,5	23	40,6	12	14	1	30,00
SSB08-01	8	1/8	7,5	23,5	44,6	14	12	1	22,00
SSB08-02	8	1/4	9,5	23,5	44,6	14	14	1	37,00
SSB10-02	10	1/4	9,5	33	52,8	17	17	1	56,00
SSB10-03	10	3/8	10,5	30	52,8	17	17	1	58,00
SSB12-03	12	3/8	10,5	31,5	58,8	20	17	1	80,00
SSB12-04	12	1/2	13,5	33,5	58,8	20	21	1	96,00


**ART. SSGJ**
**Plug-in reducer**


COD.	ØD	D1	D2	L1	L2		
SSGJ06-04	4	10,5	6	41	6,7	1	6,00
SSGJ08-06	6	12,5	8	44	7,0	1	10,00
SSGJ08-04	4	10,5	8	43	7,0	1	8,00
SSGJ10-08	8	14,5	10	47	8,0	1	12,00
SSGJ10-06	6	12,5	10	47	8,0	1	12,00
SSGJ12-10	10	17,5	12	53	8,7	1	20,00
SSGJ12-08	8	14,5	12	52	8,7	1	16,00
SSGJ14-10	10	17,5	14	56	10,0	1	30,00


**ART. SSM**
**Bulkhead connector**


COD.	ØD	ØD1	L	L1 max	M			
SSM04	4	10	27	8	M12x1	14	1	16,00
SSM06	6	12	29,5	8	M14x1	17	1	24,10
SSM08	8	14	32,5	8,5	M16x1	19	1	31,70
SSM10	10	17	36,8	9,5	M20x1	24	1	56,00
SSM12	12	20	39,8	11,5	M22x1	26	1	70,00
SSM14	14	24	42	17	M24x1	27	1	75,00

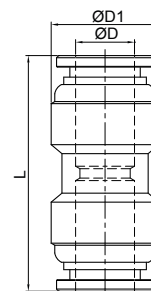


ART. **SSU**

**Straight connector**



COD.	ØD	ØD1	L		
SSU04	4	11	27	1	11,40
SSU06	6	13	29,5	1	15,40
SSU08	8	15	32,5	1	20,40
SSU10	10	18	36,8	1	33,00
SSU12	12	21	39,8	1	47,70
SSU14	14	22	42	1	46,00

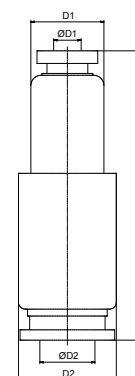


ART. **SSG**

**Reducer straight connector**



COD.	ØD1	ØD2	D1	D2	L1		
SSG04-06	4	6	10,5	12,5	30,6	1	14,00
SSG06-08	6	8	12,5	14,5	32,8	1	18,00
SSG08-10	8	10	14,5	17,5	35	1	26,00
SSG10-12	10	12	17,5	20,5	38,2	1	40,00

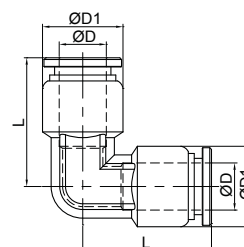


ART. **SSV**

**Elbow connector**



COD.	ØD	ØD1	L		
SSV04	4	10	18,3	1	16,00
SSV06	6	12	20,3	1	17,10
SSV08	8	14	22,3	1	23,20
SSV10	10	17	26,4	1	37,60
SSV12	12	20	29,4	1	56,00
SSV14	14	22	37	1	98,00

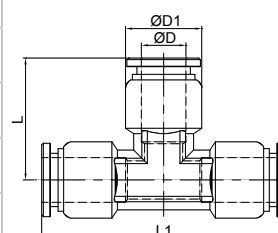


ART. **SSE**

**T connector**



COD.	ØD	ØD1	L	L1		
SSE04	4	10	18,3	36,6	1	18,00
SSE06	6	12	20,3	40,6	1	23,70
SSE08	8	14	22,3	44,6	1	31,80
SSE10	10	17	26,4	52,8	1	53,50
SSE12	12	20	29,4	58,8	1	79,00
SSE14	14	14	37	74	1	80,00



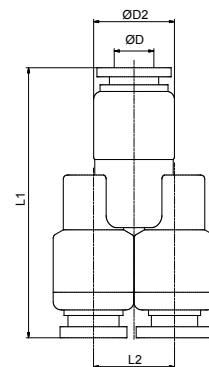


ART. **SSY**

**Y connector**



COD.	ØD	L1	L2	ØD2		
SSY04	4	36	14	11	1	24,00
SSY06	6	37,5	16	13	1	34,00
SSY08	8	41,3	18	15	1	38,00
SSY10	10	44,3	21	18	1	56,00
SSY12	12	51	24	21	1	84,00

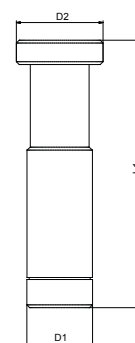


ART. **SSP**

**Plug**



COD.	D1	D2	L1		
SSP04	4	6	28	1	2,00
SSP06	6	8	33	1	4,00
SSP08	8	10	37	1	8,00
SSP10	10	12	42	1	14,00
SSP12	12	14	44	1	18,00
SSP14	14	16	46	1	32,00



## Food contact push-in fittings

# Series FCM



The “Food Contact Material” push-in fittings series are produced in Italy according to the reference ISO norms as warranty of high quality level.

### Ordering code

**F 01 4 M5**

#### SERIES

**F** = Food contact push-in fittings FCM

#### MODEL TYPE

- 01** = Straight male adaptor (parallel)
- 01T** = Technopolymer straight male adaptor (parallel)
- 02** = Straight female adaptor
- 03** = Straight connector
- 04** = Elbow connector
- 04LO** = Plug-in elbow connector
- 05** = T connector
- 06** = Adaptor parallel (short)
- 08** = Plug-in reducer
- 20** = Swivel male stud T parallel
- 22** = Swivel T technopolymer male adaptor
- 22T** = Swivel T technopolymer male adaptor
- 23** = Y connector

#### TUBE CONNECTION

**4 ... 10** = Tube diameter

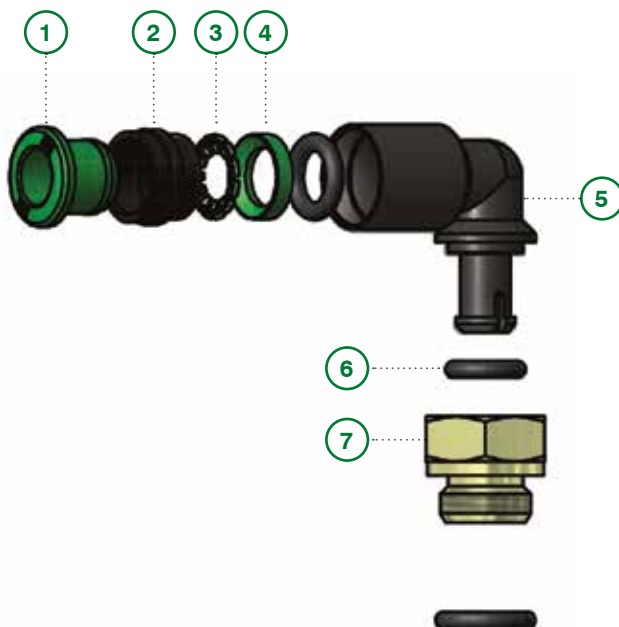
#### THREADED CONNECTION

- M5** = M5 x 0,8
- 18** = G1/8
- 14** = G1/4

#### THRUST SLEEVE COLOUR

**Blank** = Green

See assembly instructions in the appendix on page 211



### Components

- 1** Thrust sleeve
- 2** Lock ring
- 3** Crimping gripper
- 4** Supporting ring
- 5** Fitting body
- 6** O-Ring seal
- 7** Swivel base

## A new mission

In a demanding sector such as “Food & Beverage”, in order to satisfy customers' requests, products must ensure high reliability and compliance with relevant international standards.

In this perspective born the new series of Fcm (Food Contact Material) fittings, suitable for food contact, and drinkable liquid passage, according to the European regulations 1935/2004, 2023/2006, 11/2011 and for contact with drinking according to the Ministerial Decree 174/2004.

The FCM series also complies with NSF/169 regulations for the US market.

The FCM series, manufactured by Titan Engineering Spa, is part of a route based on the conviction that it is increasingly necessary to direct business strategies towards sustainable development, paying the greatest attention to people's health and respect for the environment; these are fundamental beliefs for which the company already acquired the ISO14001 and ISO45001 certifications, which are integrated into the quality management system ISO9001.



## Introduction

Titan Engineering Spa, motivated by the target to innovate and progress and following its studies and research in the field of “food contact”, has committed itself to designing and implementing, in a path of synergic growth with the main partners, both customers and suppliers, a test machine capable of satisfying the requests for compatibility and use of its products in the food sector, with the possibility of using the most varied liquids.

## Purpose of the machine and tests

With these assumptions the machine named: **“APC060519TE”** was born, a real test tool developed in collaboration with expert and specialized longtime companies in the “food contact” field, thanks to whose application experience all necessary peculiarities in compliance with the expected regulatory requirements have been ensured, just think that the machine, in all its parts, was built using only components suitable for contact with food and drinking liquids.

The tests that can be performed have the purpose of validating the suitability of the new FCM fittings series made by Titan Engineering Spa, **so not only on contact, but also on the passage of a specific food fluid**. Furthermore, the general test parameters (pressure, duration, type of fluid, etc.) may change according to the end customer's request and to the type of application, with the aim of offering a response as close as possible to the real use conditions.

## Test result and reports

The results obtained from the carried out tests, supported by proper photographic documentation, will be used, where required and thanks to appropriate forms, to accompany the supply, constituting adequate certification of suitability.

With this in mind, Titan Engineering Spa, in a preventive way, is also carrying out a program of tests concerning the fluids among those most used in the food applications, such as: drinking water, wine, beer and carbonated drinks in general, in order to create a documentary base to be made available to customers, leaving them the chance to request targeted tests, even personalized ones, just when their application needs should require it (in this regard, a special access form, which must contain all specifications necessary in order to correctly proceed to the validation tests, has been prepared).



### General technical characteristics

**Dimensions:** 74 x 130 x 100.5 cm

**Weight:** 160 kg

**Testable pressure range:** 0-16 Bar

**Testable piping sizes:** Ø4-Ø14

**Types of testable fluids:** Drinking water and any fluid for food use at the customer's request

**Test temperature:** environment

**Pump type:** NFS 169 food approved

**Pump capacity:** 100 L/H

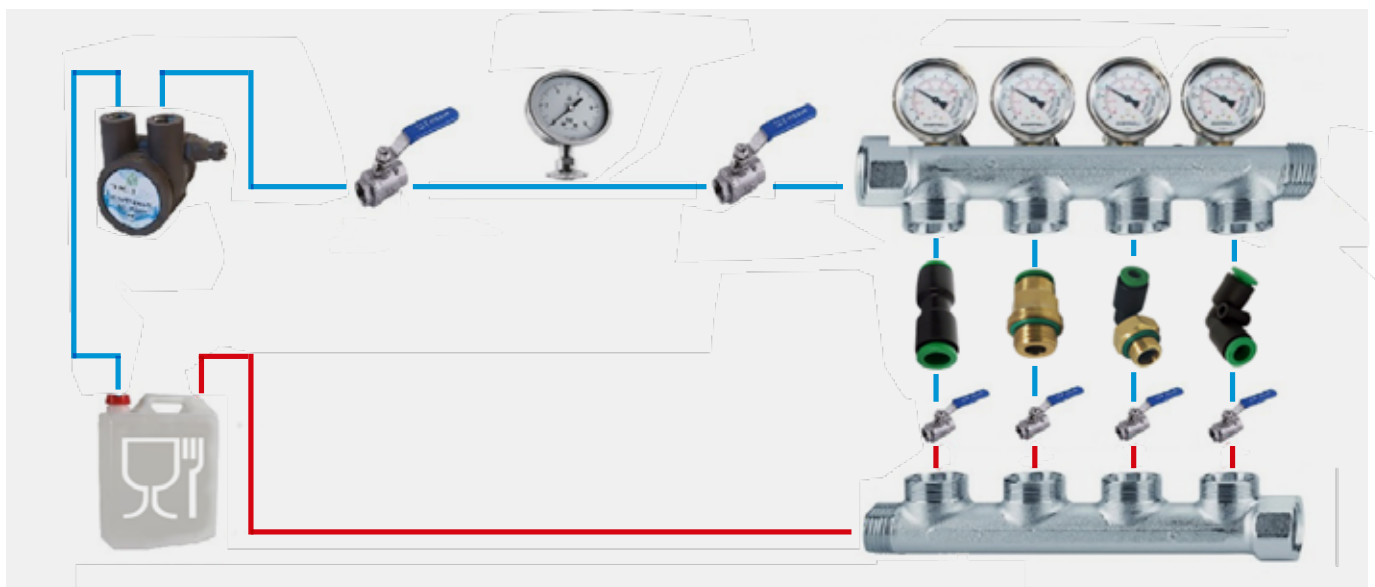
**Plant technical description:** Pipes, fittings, machine, entirely in AISI 316L stainless steel, approved for use with drinking water and food contact

### Machine certifications

Machine compliant with CE standards 2014/35 / UE  
Tests compliant with UNI EN ISO 13846: 2001 and above  
Available documentation:

- CE declaration of conformity
- Use and maintenance manual
- PED non-applicability analysis
- Analysis and machine risks sheet

## Functional tests performed with machine APC060519TE





<b>TEST CONDITION</b>	Pressure	Constant 8 bar
	Circuit	Closed
	Temperature	Environment 22°C-30°C
	Duration	2400 h continuously



		Type of fluid			
		Drinking water	Wine	Beer	Sparkling soft drink
<b>TEST RESULTS</b>	Liquid leakage	NO	NO	NO	NO
	Pressure loss	NO	NO	NO	NO
	Outcome				

## Migration test

The global and specific migration tests shown in the table are used to determine the quantities migrated and the subsequent control of re-entry within the limits imposed by the regulations, are carried out to check the migration phenomena of materials in contact with food.

TYPE OF TEST PERFORMED	COMPONENTS	TEST RESULT
Global migration, specific migration of dyes, specific migration of metals. Simulants: A, B, D2 + primary aromatic amine migration test simulant B.	Thrus sleeve	
	Fitting body (POM)	
	Fitting body and swivel base (Ixef1022 FC)	
Global migration + Citric acid simulant	Fitting body and swivel base (CW510L-OT57)	
Specific migration test Cr, Ni, Mn simulant B	Crimping Gripper	
Global migration test simulant rubber A + specific migration test simulant B	O-ring seal	

The specific migration limits are respected in the conditions of use mentioned above.

- A:** Ethanol ..... 10%
- B:** Acetic acid..... 3%
- C:** Ethanol ..... 20%
- D1:** Ethanol ..... 50%
- D2:** Vegetable oil
- E:** Poly (2,6-diphenyl-p-phenylene oxide)



## Technical sheet

<b>FLUIDS</b>		Compressed air and main food fluids
<b>APPLICATIONS</b>		Compressed air applied to machines intended for the food and beverage field (boxing, bagging machines, vacuum packaging, oenology, etc.) and machines for the passage of low temperature drinkable fluids (filling, bottling, tapping, etc.)
<b>SUGGESTED TUBES</b>		TPU, PA11/PA12, TPE, TCO for compressed air. PE, PVC, PELD for food fluids.
<b>TUBES TOLERANCES</b>		Diam. between 4 and 10 mm +/- 0,05
<b>TEMPERATURE AND PRESSURE</b>	Recommended limit values	Temperatures and pressures usually depend by the technical features of the employed tubes, anyway it is suggested a limit working pressure of 15 bar and a temperature range between -20°C and +70°C.
	Technical testing data	In the table below there are indicated the load traction resistance values and the main working and breaking limit (Pressure and Temperature) of the main commercial tubing.
	Note	For more complete informations please read the technical catalogue of your tube supplier.
<b>THREAD TYPE</b>		BSP parallel UNI-ISO 228; Metric ISO/R 262
<b>MATERIALS</b>	Body and swivel bases	Brass UNI EN CW510L
	Sleeve, collar and back ring	POM copolymer ISO1043-1 (REG. UE 10/2011)
	Spring	Stainless steel AISI 301 austenitic
	Seals	NBR 70 DIN-ISO 1629 (DM 21:1973, FDA 177.2600)

## Additional technical informations

Each FCM production batch is tested according to severe cyclics "lot breaker" controls along all the production period, which include shape observation, leakage verification, functionality, at the working pressure of 8 bar. Then all samples taken from the lot are tested by a traction machine which simulate a breaking pressure of 50 bar. Here below are indicated the traction loads (in Newton) for each size:

<b>TUBE DIAMETER</b>	Ø4	Ø6	Ø8	Ø10
<b>BREAKING LOAD</b>	63 N	141 N	251 N	393 N

**Important note:** The values refer to the resistance of the crimping gripper, "core part" of both fittings, the brass and the technopolymer FCM. The breaking experimental values measured, according to the diameter, were from 1.2 to 2.5 times higher.

## Additional information regarding the working temperatures:

Further to all the necessary assessments on the use of the fittings in operating conditions different from how suggested in the initial technical sheet must be considered, with reference to temperatures, the nominal data regarding the type of the used tube and the limit imposed by the most critical component.

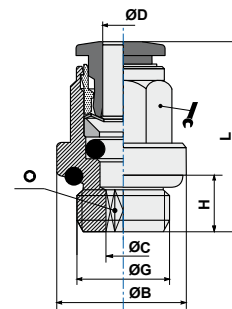
SERIES FCM: **-20° +70°**

WORKING PRESSURE AND BREAKING PRESSURE (BAR) AT DIFFERENT TEMPERATURES						
Example	T-20°C		T+23°C		T+60°C	
Tube 6x4 colored	working P bar	breaking P bar	working P bar	breaking P bar	working P bar	breaking P bar
<b>TPU</b>	18,7	74,8	10,0	40,0	5,2	20,8
<b>PA11</b>	37,4	149,6	20,0	80,0	10,4	41,6
<b>PA12</b>	48,6	168,3	26,0	90,0	10,4	36,0
<b>PE</b>	18,7	74,8	10,0	40,0	5,0	20,0

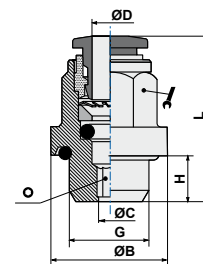
**ART. F01**
**Straight male adaptor (parallel)**


COD.	ØD	G	ØC	ØB	H	L				
F0104M5	4	M5	2,6	9	4	20,5	*	2,5	10	4,07
F010418	4	1/8	2,6	13,5	5,5	20	9	2,5	5	7,42
F010414	4	1/4	2,6	17	6,5	21	9	2,5	5	11,02
F0106M5	6	M5	2,6	11	4	22,8	*	2,5	5	6,70
F010618	6	1/8	4,2	13,5	5,5	25,3	11	4	5	10,16
F010614	6	1/4	4,2	17	6,5	24,3	11	4	5	13,64
F010818	8	1/8	5,2	12,8	5,5	27	13	5	5	11,33
F010814	8	1/4	6,2	17	6,5	25,5	13	6	5	12,54
F011014	10	1/4	7,3	16	6,5	30,4	16	7	5	18,15

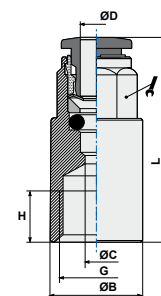
\* codes without key flats having the following Ø:  
 F0104M5 = Ø9  
 F0106M5 = Ø11


**ART. F01T**
**Straight male adaptor (parallel)**

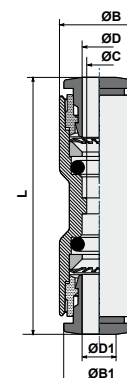

COD.	ØD	G	ØC	ØB	H	L				
F01T0418	4	1/8	2,5	14,0	5,5	19,0	10	2,5	5	2,16
F01T0414	4	1/4	2,5	17,5	6,5	20,8	10	2,5	5	3,36
F01T0618	6	1/8	4,0	14,0	5,5	24,5	12	4,0	5	3,10
F01T0614	6	1/4	4,0	17,5	6,5	26,0	12	4,0	5	4,26
F01T0818	8	1/8	5,0	14,0	5,5	25,7	14	5,0	5	3,53
F01T0814	8	1/4	6,0	17,5	6,5	27,2	14	6,0	5	4,58
F01T1014	10	1/4	7,0	17,5	6,5	28,7	18	7,0	5	6,33


**ART. F02**
**Straight female adaptor**


COD.	ØD	G	ØC	ØB	H	L			
F020418	4	1/8	3	12	6,5	26,5	9	5	10,73
F020618	6	1/8	5	12	6,5	28,3	11	5	11,03
F020614	6	1/4	5	17	10	31,3	11	5	16,80
F020818	8	1/8	7	12	6,5	28,5	13	5	10,89
F020814	8	1/4	7	17	10	32,5	13	5	19,15


**ART. F03**
**Straight connector**


COD.	ØD	ØD1	ØC	ØB	ØB1	L		
F030400	4	4	3	9,5	9,5	32,0	5	1,96
F030406	4	6	3	9,5	11,5	32,5	5	2,40
F030600	6	6	5	11,5	11,5	35,6	5	3,00
F030608	6	8	5	11,5	13,5	36,0	5	3,27
F030800	8	8	7	13,5	13,5	38,0	5	3,53
F030810	8	10	7	13,5	17,0	32,5	5	5,03
F031000	10	10	9	17,0	17,0	42,3	5	6,04



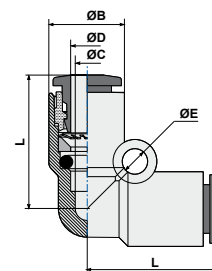


ART. **F04**

**Elbow connector**



COD.	ØD	ØC	ØB	L	ØE		
F040400	4	3	9,5	17,2	3,2	5	2,21
F040600	6	5	11,5	20,8	3,2	5	3,28
F040800	8	7	13,5	23,0	3,2	5	4,14
F041000	10	9	17,0	26,4	4,3	5	7,21

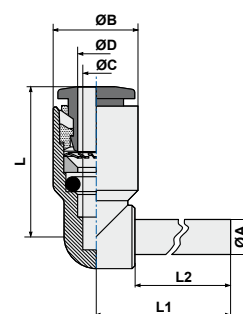


ART. **F04L0**

**Plug-in elbow connector**



COD.	ØD	ØC	ØB	L	L1	ØA	L2		
F0404L0	4	3	9,5	17,2	20,75	4	16,7	5	1,40
F0406L0	6	5	11,5	20,8	24,25	6	19,5	5	2,18
F0408L0	8	7	13,5	23,0	27,25	8	21,0	5	2,96
F0410L0	10	9	17,0	26,4	31,80	10	24,0	5	5,07

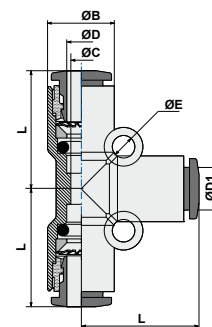


ART. **F05**

**T connector**



COD.	ØD	ØD1	ØC	ØB	L	ØE		
F050400	4	4	3,0	9,5	17,2	3,2	5	3,16
F050600	6	6	5,0	11,5	20,8	3,2	5	4,72
F050800	8	8	7,0	13,5	23,0	3,2	5	5,96
F051000	10	10	9,0	17,0	26,4	4,3	5	10,69

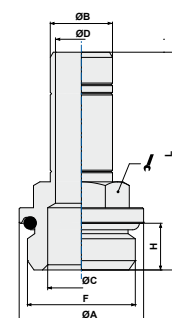


ART. **F06**

**Adaptor parallel (short)**



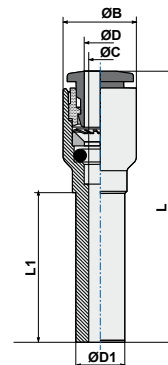
COD.	ØB	F	ØA	ØC	ØD	H	L			
F060418	4	1/8	13	5,5	2	5,5	27,7	13	5	9,10
F060618	6	1/8	13	5,5	4	5,5	30,5	13	5	9,61
F060614	6	1/4	16	7,5	4	6,5	32,0	13	5	11,97
F060818	8	1/8	13	6	6	5,5	32,0	13	5	11,05
F060814	8	1/4	16	7,5	6	6,5	33,5	13	5	13,12
F061014	10	1/4	16	8	8	6,5	36,5	13	5	14,06



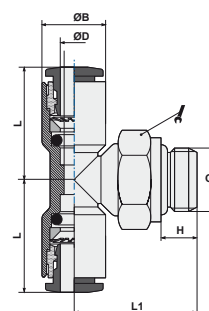


**ART. F08**
**Reducer**

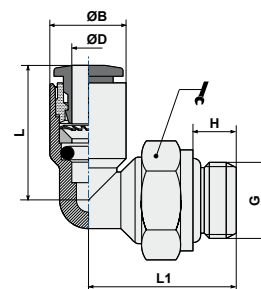

COD.	ØD1	ØD	ØC	ØB	L	L1		
F080604	6	4	3	9,5	35,5	19,5	5	1,37
F080804	8	4	3	9,5	37,0	21,0	5	1,60
F081004	10	4	3	9,5	40,0	24,0	5	1,97
F081204	12	4	3	9,5	41,0	25,0	5	2,22
F080806	8	6	5	11,5	39,05	23,0	5	2,10
F081006	10	6	5	11,5	42,05	24,0	5	2,49
F081206	12	6	5	11,5	43,05	25,0	5	2,80
F081008	10	8	7	13,5	43,0	26,25	5	2,74
F081208	12	8	7	13,5	44,0	25,0	5	3,00
F081210	12	10	9	17,0	46,15	27,55	5	4,40


**ART. F20**
**Swivel male stud T parallel**


COD.	ØD	G	ØB	H	L	L1			
F200418	4	1/8	9,5	5,5	17,2	18,5	13	5	8,56
F200618	6	1/8	11,5	5,5	20,8	18,5	13	5	9,48
F200614	6	1/4	11,5	7,5	20,8	20,4	16	5	14,94
F200818	8	1/8	13,5	5,5	23,0	20,0	13	5	10,64
F200814	8	1/4	13,5	6,5	23,0	20,4	16	5	14,30
F201014	10	1/4	17,0	7,5	26,4	23,2	16	5	42,30


**ART. F22**
**Swivel elbow technopolymer male adaptor**


COD.	ØD	G	ØB	H	L	L1			
F2204M5	4	M5	9,5	4	17,2	17	8	10	3,79
F220418	4	1/8	9,5	5,5	17,2	18,5	14	10	7,80
F220414	4	1/4	9,5	6,5	17,2	20,4	16	10	13,12
F2206M5	6	M5	11,5	4	20,8	17	8	10	4,31
F220618	6	1/8	11,5	5,5	20,8	18,5	14	10	8,11
F220614	6	1/4	11,5	6,5	20,8	20,4	16	10	13,82
F220818	8	1/8	13,5	5,5	23,0	20,0	14	10	8,93
F220814	8	1/4	13,5	6,5	23,0	20,4	16	5	12,39
F221014	10	1/4	17,0	6,5	26,4	23,2	16	5	14,40

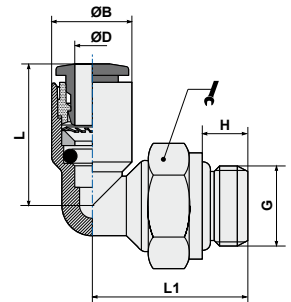


ART. **F22T**

**Swivel elbow technopolymer male adaptor**



COD.	ØD	G	ØB	H	L	L1			
F22T0418	4	1/8	9,5	5,5	17,2	18,5	14	10	7,76
F22T0414	4	1/4	9,5	6,5	17,2	20,4	16	10	13,11
F22T0618	6	1/8	11,5	5,5	20,8	18,5	14	10	8,10
F22T0614	6	1/4	11,5	6,5	20,8	20,4	16	10	13,81
F22T0818	8	1/8	13,5	5,5	23,0	20,0	14	10	8,92
F22T0814	8	1/4	13,5	6,5	23,0	20,4	16	10	12,99
F22T1014	10	1/4	17,0	6,5	26,4	23,2	16	10	14,40

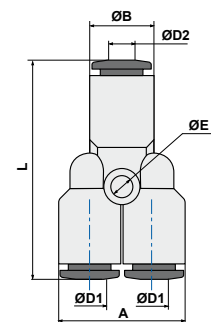


ART. **F23**

**Y connector**



COD.	ØD1	ØD2	ØE	ØB	A	L		
F230400	4	4	2,40	9,5	19	33,0	5	2,98
F230406	4	6	2,40	11,5	19	35,8	5	3,56
F230600	6	6	2,60	11,5	23	38,6	5	4,83
F230608	6	8	3,20	13,5	23	39,8	5	5,26
F230800	8	8	2,75	16,5	27	42,5	5	6,29
F230810	8	10	3,20	17,0	27	44,4	5	7,84
F231000	10	10	4,30	20,0	34	50,8	5	11,16

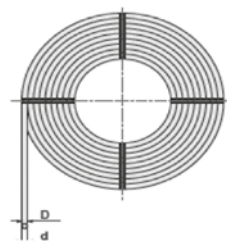


ART. **PELD**

**Polyethylene tube for food applications (low density)**



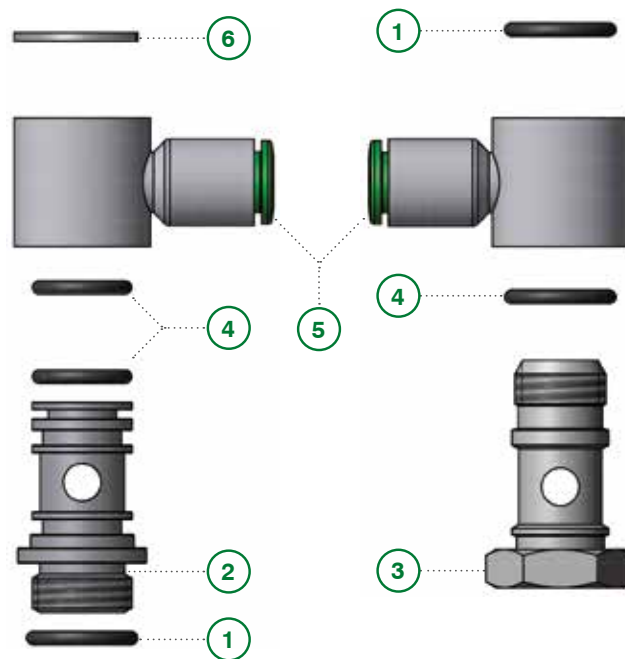
COD.	Dxd mm	P* bar	P1* bar	R* mm	
PE0402	4x2	18,5	75	20	100
PE0425	4x2,5	15	60	25	100
PE0604	6x4	10	40	40	100
PE0806	8x6	7,5	30	50	100
PE1008	10x8	6	25	120	100



P\* = Working pressure (Bar) 23°C  
P1\* = Breaking pressure (Bar) 23°C  
R\* = Tight bending radius (mm) 23°C

## Stems for push-in fittings

### Series 400-15-33



#### Components

- |                        |                         |
|------------------------|-------------------------|
| 1 External O-ring      | 4 Internal O-ring       |
| 2 Swivel stem 15A type | 5 Swivel banjo T13 type |
| 3 Fix stem 407 type    | 6 Elastic ring          |

### Technical sheet

<b>FLUIDS</b>		Compressed air, water up to 100 °C (for different fluid please contact our Technical Dept.)
<b>APPLICATIONS</b>		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms
<b>TEMPERATURE AND PRESSURE</b>		Temperatures and pressures usually depend by the technical features of the employed tubes
<b>THREAD TYPE</b>		BSP parallell UNI-ISO 228 BSP tapered UNI-ISO 7 Metric ISO/R 262
<b>MATERIALS</b>	Body	Brass UNI EN 12164 CW614N
	Seals	NBR 70 DWGV-EN549 UL157
	Washers	Nylon/Aluminium



## Stem - banjo couplings

Banjo code	Type of stem								
	407	407V	408	408V	15A	15AL	33A	33AL	34A

### Push-in fittings - Series RAP - art. 13

1304M5	●				●				
130418	●		●		●		●		●
130618	●		●		●		●		●
130614	●		●		●		●		●
130818	●		●		●		●		●
130814	●		●		●		●		●
130838	●		●		●				
131014	●		●		●		●		●
131038	●		●		●				
131214	●		●		●		●		●
131238	●		●		●				
131212			●		●				

### Push-in fittings - Series RAP - art. 14

140618	●		●		●		●		●
140818	●		●		●		●		●
140814	●		●		●		●		●
140838	●		●		●				
141014	●		●		●		●		●
141038	●		●		●				

### Push-in fittings - Series Tecnorap - art. T13

T1304M5.						●		●	
T130418.	●		●		●		●		●
T130618.	●		●		●		●		●
T130614.	●		●		●		●		●
T130818.	●		●		●		●		●
T130814.	●		●		●		●		●
T130838.	●		●		●				
T131014.	●		●		●		●		●
T131038.	●		●		●				
T131214.	●		●		●		●		●
T131238.	●		●		●				
T131212.			●		●				

### Push-in fittings - Series Tecnorap - art. T13B

T13B04M5						●		●	
T13B0618	●		●		●		●		●
T13B0814	●		●		●		●		●
T13B1038	●		●		●				
T13B1212			●		●				

### Push-in fittings - Series Tecnorap - art. T14

T1404M5						●		●	
T140418	●		●		●		●		●
T140814	●		●		●		●		●
T140838	●		●		●				
T141038	●		●		●				
T141012					●				
T141238	●		●		●				
T141212					●				

Banjo code	Type of stem								
	407	407K	407V	408	408K	408V	15A	33A	34A

### Brass compression fittings - Series 100 - art. 412

41218	●				●			●	●
41214	●				●			●	●
41238	●				●			●	
41212					●			●	

### Brass compression fittings - Series 200 - art. 216

2160418			●			●			
2160618			●			●			
2160614		●			●				
2160818			●			●			
2160814		●			●				
2161014		●			●				

### Brass push-on fittings - Series 300 - art. 405

40504M5	●		●						
4050418			●			●			
40506M5	●		●			●			
4050618			●			●			
4050614	●			●			●	●	●
4050818			●			●			
4050814	●			●			●	●	●
4051014	●			●			●	●	●

### Brass push-on fittings - Series 300 - art. 406

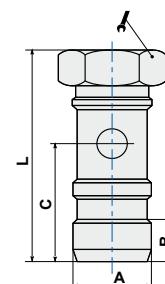
4060618			●			●			
4060614		●			●				
4060818			●			●			
4060814		●			●				
4061014		●			●				

ART. **407**

**Banjo stem single with O-Ring**



COD.	A	B	C	L			
40718	G1/8	4,5	13,75	25	14	100	11,78
40714	G1/4	9,9	16,7	30	17	50	22,89
40738	G3/8	6	18	34	22	25	38,58

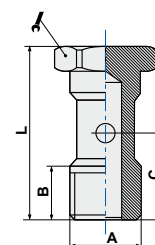


ART. **407K**

**Banjo stem single**



COD.	A	B	C	L			
407K14	G1/4	11	16,5	29,5	17	50	22,90

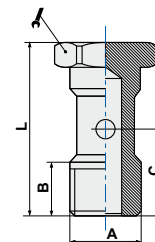


ART. **407V**

**Banjo stem single**



COD.	A	B	C	L			
407M5	M5	5,8	9,6	18	8	100	2,90
40718V	G1/8	9	15	28	14	100	13,27
40714V	G1/4	11	18	33	17	50	26,48
40738V	G3/8	12	21,5	37	22	50	45,68

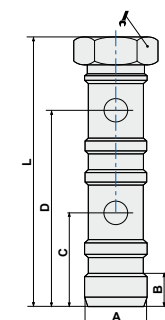


ART. **408**

**Banjo stem double with O-Ring**



COD.	A	B	C	D	L			
40818	G1/8	4,5	13	29	40	14	50	16,95
40814	G1/4	6	16,5	33,5	47	17	50	33,23
40838	G3/8	8,5	18	37,6	52,5	22	25	52,14
40812	G1/2	7,4	21,5	45	63	27	10	99,50

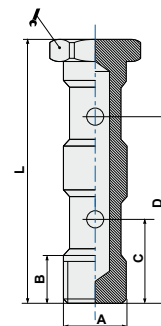


ART. **408K**

**Banjo stem double**



COD.	A	B	C	D	L			
408K14	G1/4	11	16,5	33	45,5	17	50	36,73

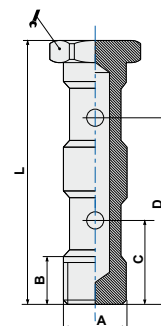


ART. **408V**

**Banjo stem double**



COD.	A	B	C	D	L			
40818V	G1/8	9	15	31	44,5	14	50	11,50
40814V	G1/4	11	17	36	51,5	17	50	36,73
40838V	G3/8	12	20,5	42	58,6	22	25	63,97
40812V	G1/2	14	24	50	68	24	10	78,14

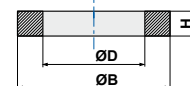


ART. **411**

**Spacer washer**



COD.	A	ØB	ØD	H		
411PM5	M5	9	5,1	1,5	100	0,10
411P18	G1/8	14	9,8	1,5	100	0,13
411P14	G1/4	18	13,5	1,5	100	0,21
411P38	G3/8	21	16,7	1,5	100	0,27
411P12	G1/2	26	21,1	2	100	0,32
411M5	M5	8,8	5,2	1	100	0,14
41118	G1/8	13,8	9,8	1,5	100	0,28
41114	G1/4	18	13,2	1,5	100	0,43
41138	G3/8	21	16,8	1,5	100	0,47
41112	G1/2	26	20,8	1,5	100	0,68
41134	G3/4	32,8	26,8	1,5	100	0,96



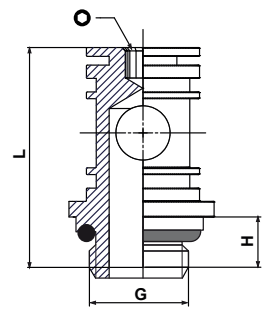
P = Nylon material  
A = Size

ART. **15A**

**Single stem for swivel banjo**



COD.	G	L	Ø	H		
15AM5	M5	17	2,5	4,0	10	2,00
15AM5L	M5	18	2,5	4,0	10	2,13
15AM6L	M6	19	2,5	5,0	10	2,47
15A18	1/8	24,5	3	5,5	10	11,16
15A14	1/4	28	4	6,5	10	17,59
15A38	3/8	32,5	5	7,5	10	31,24
15A12	1/2	39	8	10,0	10	61,31

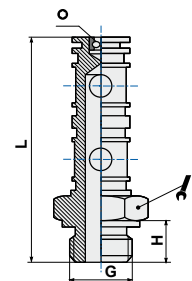


ART. **33A**

**Double stem for swivel banjo**



COD.	G	H	L		Ø		
33AM5L	M5	4,0	28,0	N.C.	2,5	50	3,00
33A18	1/8	5,5	43,3	14	3	50	16,92
33A14	1/4	6,5	50,0	18	4	50	20,62



ART. **34A**

**Triple stem for swivel banjo**



COD.	G	H	L		Ø		
34A18	1/8	5,5	58,4	14	3	50	21,50
34A14	1/4	6,5	67,1	18	4	25	20,62

