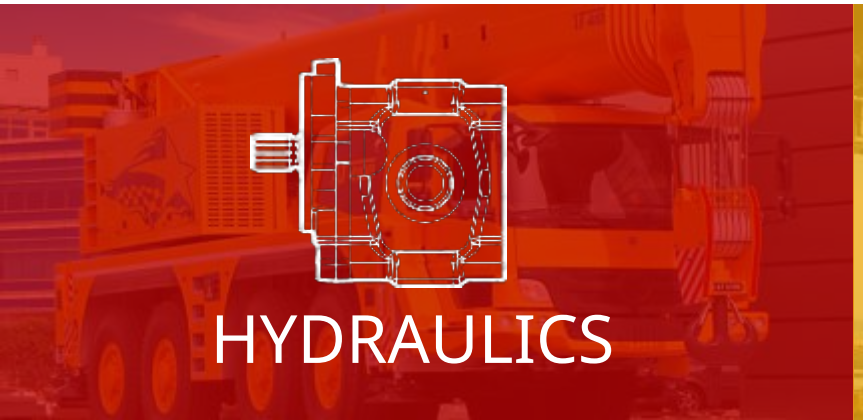
34 TECHNOLOGY

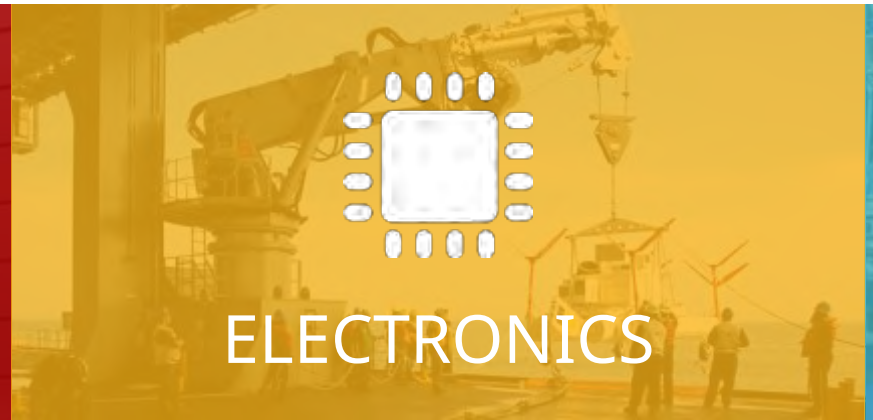
MAKİNE SANAYİ TİCARET LİMİTED ŞİRKETİ

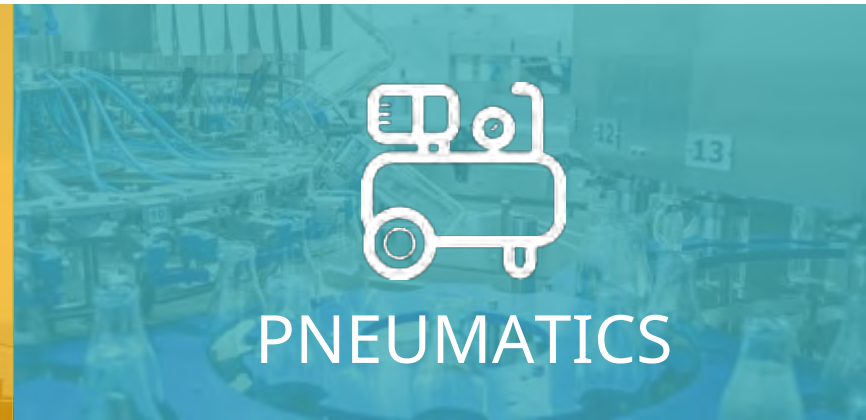
https://store.34teknoloji.com.tr
http://market.34teknoloji.com.tr
info@34teknoloji.com.tr

https://34technology.com.tr
info@34technology.com.tr

Whatsapp: +905425113099







PNEUMAX

GREEN LINE

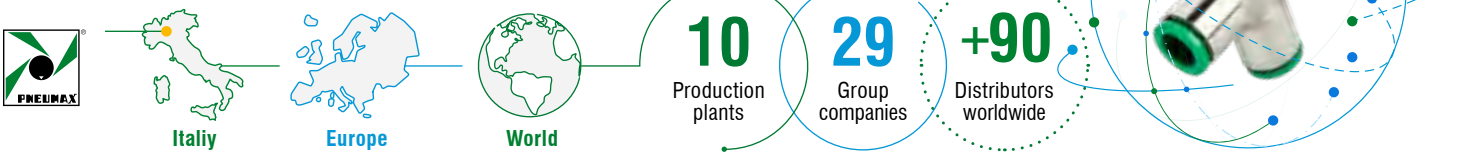
PNEUMATIC FITTINGS
CATALOGUE

Titan Engineering

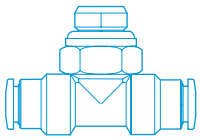
Expertise and Reliability since 1993

TITAN ENGINEERING 30 1993 2023

a **Pneumax Group** Company



Titan Engineering S.p.A. is a company of the **Pneumax Group**, founded in 1993 with the goal of becoming the production site and warehouse for fittings and accessories for compressed air for the worldwide Pneumax distribution network, following the development strategies pursued by the Group over the years. The constant growth of the company during the years is due to the capability of modeling itself on the needs of customers: this allows to make targeted investments in production activities, in co-operation agreements with the best Italian and foreign partners, enhancing the quality and flexibility of the service. The main result of this strategy is the creation of the “Green Line Catalog“, a tool for specialists of fittings for compressed air, among the most comprehensive available on the market.



TECHNOLOGY

QUALITY

COMPETENCE

A wide range of solutions for pneumatic connections

- Push-in fittings
- Standard fittings
- Compression fittings
- Push-on fittings
- Flow regulator
- Valves and Function fittings
- Ball taps
- Silencers and Flow nozzles
- Tubes and accessories

Selected and certified materials

Brass, Technopolymer and Stainless Steel

METALS	Brass CW614N CW6117N (OT 58), Brass CW510N (OT 57) Aluminum, Stainless Steel (AISI 301- AISI 304 -K110-316-316L)
TECHNOPOLYMERS	Acetal compounds – POM compounds – ABS compounds with glass fibre reinforcement IXEF 1022 – IXEF 1022FC – Grivory HT1V-4
SEALS	NBR, VITON, FKM, EXTREME VITON, SILICON, TEFLON

COMPETENCE AND EXPERIENCE

Application engineering knowledge allows us to always provide the best solution

Our R&D department is available to work in co-design with customers, creating customized projects, using brass, technopolymer or other special materials. Titan Engineering also has partnership agreements with accredited laboratories for the execution of tests dedicated to specific sectors.

Special products

- Machine Tools
- Life Science
- Food and Beverage

- Cooling
- Wood Machinery
- Textile
- Stone & Glass Machinery

SMART PRODUCTION

High flexibility to manage small and big batches

Our production department is constantly renewed by integrating the **most advanced technologies** to ensure maximum efficiency and flexibility to manage batches of different sizes and special productions dedicated to individual customers.
Product assembling is managed through machines equipped with anthropomorphic robots. Ultrasonic welding guarantees maximum tightness of the technopolymer fittings.
The control of assembly phases is done by integrated vision systems with **real-time self-learning software,** guaranteeing each single component high quality.
All the machined batches are tested using dedicated instrumentation such as load cells and simulating real operating conditions.

TOTAL QUALITY MANAGEMENT

Product and process certifications to meet customers needs

At Titan Engineering **Total Quality is an "operating style"** constantly nurtured by ongoing training at all levels and an awareness of shared "knowledge" as a corporate asset essential to the company's success.
Choosing to operate under a total quality system means implementing management methods and tools that involve all staff and enable constant monitoring of process efficiency and product quality, starting from the raw materials and the components necessary to make them and continuing through processing and assembly.

All company departments work in compliance with ISO 9001, ISO 14001 and ISO 45001 standards.

Certifications:

ISO Certifications	• Quality Management System Certification ISO 9001-14001-45001 IQNET
	• Quality Management System Certification ISO 9001-14001-45001 SQS
Food Certifications	• Certificate NFS – San Marino Factory
	• Certificate NFS
	• Product in contact with food certification Regulation CE 1935/2004 FCM
	• Product in contact with water Intendend for human consumption Certification Italy D.M. 174/2004

NSF COMPONENT

FCM Fittings - Food Contact Materials
Designed to operate in Food & Beverage sector
in compliance with FCM and NSF/ANSI 169 standards.

Index
Pneumatic fittings

Push-in fittings

Standard fittings

Brass standard fittings

Stainless steel standard fittings

Compression fittings

Brass compression fittings

Push-on fittings

Brass push-on fittings

Stainless steel push-on fittings

Flow regulators

Brass flow regulators

Technopolymer flow regulators

Stainless steel flow regulators

Valves and function fittings

Function fittings

Quick exhaust valves

Manual valves

Ball taps

Ball taps - mini

Silencers and flow nozzles

Silencers

Flow nozzles

Tubes and accessories

Tubes and accessories

Appendix

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

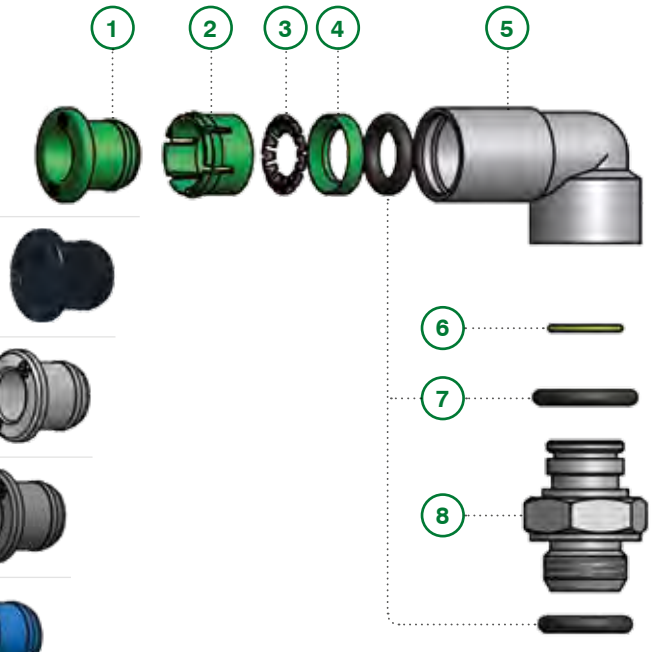
TUBE CONNECTION
04 ... 14 = Tube diameter (mm)

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 207

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

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms. Suitable for vacuum applications.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
PROTECTION RATING		IP 68
TEMPERATURE AND PRESSURE	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.
THREAD TYPE		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	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:

TUBE DIAMETER	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14
BREAKING LOAD	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.

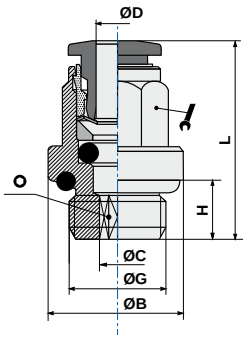
Series TECNORAP: **-20°+50°**
Series RAP: **-20° +70°**
Series RAP-BLACK: **-20° +70°**
Series RAP OT: **-20° +80°**
Series OV: **-20° +120°**
Series SS: **-20° +140°**

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
TPU	18,7	74,8	10,0	40,0	5,2	20,8
PA11	37,4	149,6	20,0	80,0	10,4	41,6
PA12	48,6	168,3	26,0	90,0	10,4	36,0
PE	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

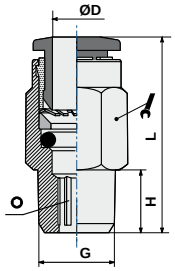


* codes without key flats having the following Ø:
0104M5 and 0104M6 = Ø9
0106M5 and 0106M6 = Ø11

ART. 01C

Straight male adaptor (tapered)

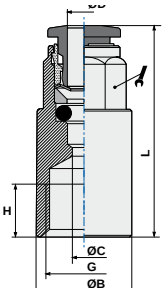
COD.	ØD	G	H	L				
01C0418	4	1/8	7,5	19,6	10	3	50	6,3
01C0414	4	1/4	9,5	18	14	3	50	12,1
01C0438	4	3/8	10,5	19,1	17	3	25	21,7
01C0618	6	1/8	7,5	20,3	12	4	50	7,1
01C0614	6	1/4	9,5	22,1	14	4	50	12,9
01C0638	6	3/8	10,5	20,1	17	4	25	21,1
01C0612	6	1/2	13,5	24,1	24	4	25	39,3
01C0818	8	1/8	7,5	25,7	14	5	50	11,2
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

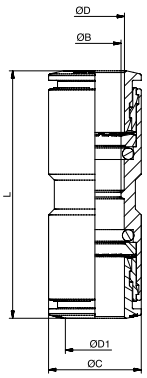
COD.	ØD	G	ØC	ØB	H	L			g
020418	4	1/8	3	12	7,5	26,5	9	50	10,7
020414	4	1/4	3	17	11,5	29,5	9	50	19,1
020618	6	1/8	5	12	7,5	29,1	11	50	11
020614	6	1/4	5	17	11,5	31,9	11	50	16,8
020818	8	1/8	7	12	7,5	28	13	50	10,9
020814	8	1/4	7	17	11,5	33,3	13	50	19,2



ART. 03

Straight connector

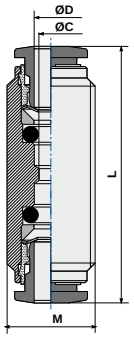
COD.	ØD	ØD1	ØB	ØC	L		g
030400	4	4	3	11	32,7	50	5,7
030600	6	6	5	13	37,3	50	9,5
030800	8	8	7	13	38,6	50	12,5
031000	10	10	9	18	43,3	50	17,8
031200	12	12	11	21	46,4	25	32,5
031400	14	14	13	21	50	25	36



ART. 03F

Threaded connector

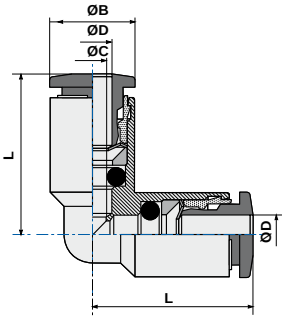
COD.	ØD	ØC	M	L		g
03F0400	4	3	11x1	32,7	50	10,7
03F0600	6	5	14x1	37,3	50	18,7
03F0800	8	7	16x1	38,6	50	24,1
03F1000	10	9	18x1	43,3	50	33,4
03F1200	12	11	22x1	46,4	25	53,3
03F1400	14	13	24x1	50	25	61,2



ART. 04

Elbow connector

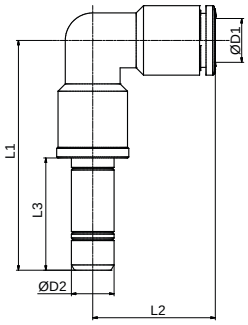
COD.	ØD	ØC	ØB	L		g
040400	4	3	9	18,55	50	7,6
040600	6	5	11	20,4	50	8,6
040800	8	7	13	23,3	50	13,7
041000	10	9	16	27,1	50	20,1
041200	12	11	19	29,3	25	47,2
041400	14	13	21	31,7	25	45



ART. 04L0

Plug-in elbow connector

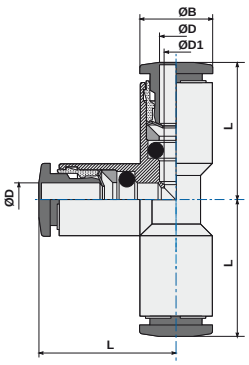
COD.	ØD1	ØD2	L1	L2	L3		g
0404L0	4	4	34,5	18.55	16,7	50	6,6
0406L0	6	6	39	20.4	19,5	50	7,5
0408L0	8	8	43	23.8	21	50	22,4
0410L0	10	10	51	27.1	24	25	27
0412L0	12	12	54	29.3	25	25	64



ART. 05

T connector

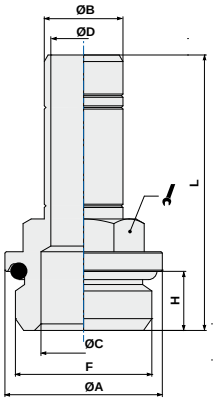
COD.	ØD	ØD1	ØB	L		g
050400	4	3	9	18.55	50	10,8
050600	6	5	11	21.2	50	12,2
050800	8	7	13	23.3	50	16,4
051000	10	8	16	26.9	25	30,6
051200	12	10	19	29.3	25	56
051400	14	12	21	31.7	10	58,3



ART. 06

Adaptor parallel (short)

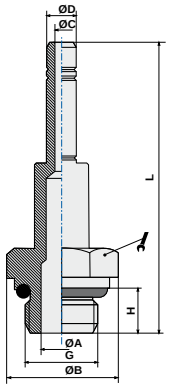
COD.	ØB	F	ØA	ØC	ØD	H	L			g
0604M5	4	M5	8	2	2	4	24,7	8	50	3,6
0604M6	4	M6	9	2	2	5	25,7	8	50	3,7
060418	4	1/8	13	5,5	2	5,5	27,7	13	50	9,1
060414	4	1/4	16	7,5	2	6,5	29,2	13	50	11,2
0606M5	6	M5	8	2,6	2,6	4	27,5	8	50	4,6
060618	6	1/8	13	5,5	4	5,5	30,5	13	50	9,6
060614	6	1/4	16	7,5	4	6,5	33.5	13	50	12
060818	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)

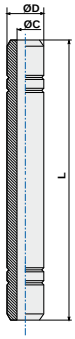
COD.	ØD	G	ØC	ØB	H	L	ØA			g
600418	4	1/8	2	13	5,5	39,2	6	13	50	10,2
600618	6	1/8	4	13	5,5	44,5	5,5	13	50	13,5
600614	6	1/4	4	16	6,5	48	7,5	13	50	18,1
600818	8	1/8	6	13	5,5	48	6	13	50	19,1
600814	8	1/4	6	16	6,5	49,5	7,5	13	50	19,8
600838	8	3/8	6	20	7,5	51,5	9	13	50	27
601038	10	3/8	8	20	7,5	56	9	13	25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



ART. 07

Connector

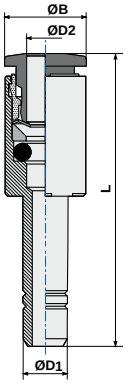
COD.	ØD	ØB	L		g
070400	4	2	33,4	100	2,6
070600	6	4	39	50	5
070800	8	6	42	50	7,5
071000	10	8	48	50	10,8
071200	12	10	48	50	14,3



ART. 08

Plug-in reducer

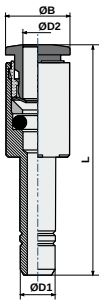
COD.	ØD1	ØD2	ØB	L		g
080604	6	4	9	32,85	50	5,5
080804	8	4	9	34	50	9,7
080806	8	6	11	36,9	50	8,6
081006	10	6	11	39,9	50	15,5
081008	10	8	13	39,3	50	11,8
081208	12	8	13	39,8	25	18,8
081210	12	10	16	41,9	25	16,6
081406	14	6	15	36,9	25	36



ART. 08E

Plug-in increaser

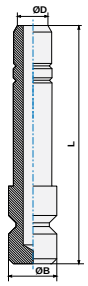
COD.	ØD1	ØD2	ØB	L		g
08E0406	4	6	11	40,4	50	7,5
08E0608	6	8	13	44	50	11,3



ART. 09

Plug

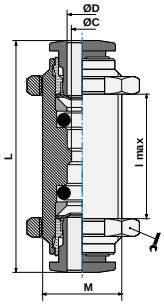
COD.	ØD	ØB	L		g
090400	4	5	26	50	3,1
090600	6	7	29	50	4,7
090800	8	9	31,5	50	7,7
091000	10	11	35	50	10,8
091200	12	13	37	25	14,5



ART. 10

Bulkhead connector

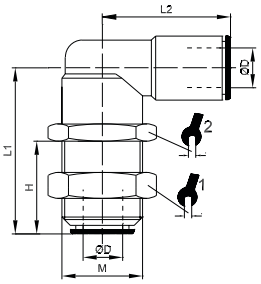
COD.	ØD	ØC	M	lmax	L			g
100400	4	3	11x1	14	32,7	14	50	15,8
100600	6	5	14x1	14,5	37,3	17	50	25,9
100800	8	7	16x1	15	38,6	18	50	30
101000	10	9	18x1	16,5	43,3	21	25	44,4
101200	12	11	22x1	18,6	46,4	26	25	70,6
101400	14	13	24x1	21,7	50	27	25	79,9



ART. 10L

Elbow bulkhead

COD.	ØD	M	H	L1	L2	1	2		g
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

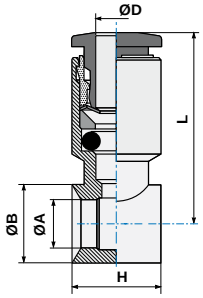


ART. 13

Single banjo body

COD.	ØD	G*	ØA	ØB	H	L		g
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

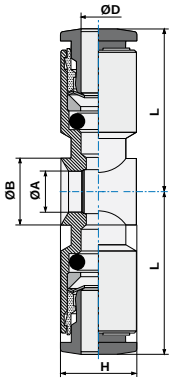
G* = stem thread. See page 91 of stem section



ART. 14

Double banjo body

COD.	ØD	G*	ØA	ØB	H	L		g
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

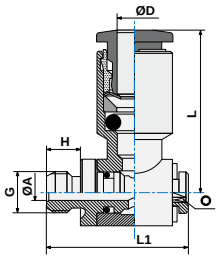


G* = Stem thread. See page 91 of stem section

ART. 15

Complete single banjo (rotating under pressure)

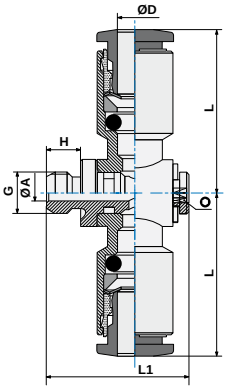
COD.	ØD	G	ØA	H	L1	L	O		g
1504M5	4	M5	2	4	16,8	19,85	2,5	50	8,4
1504M6	4	M6	2	5	17,8	19,85	2,5	50	8,5
150418	4	1/8	5,5	5,5	24,5	21,65	3	50	22,9
1506M5	6	M5	2	4	16,8	22,4	2,5	50	9,3
150618	6	1/8	5,5	5,5	24,5	24,9	3	50	23,3
150614	6	1/4	7,8	6,5	27,8	26,1	4	50	38,8
150818	8	1/8	5,5	5,5	24,5	25,15	3	50	24,2
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)

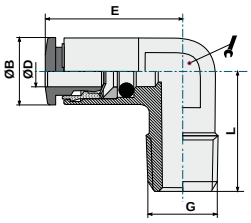
COD.	ØD	G	ØA	H	L1	L	O		g
160618	6	1/8	5,5	5,5	24,5	24,3	3	50	27,4
160818	8	1/8	5,5	5,5	25	24,8	3	50	27,4
160814	8	1/4	7,8	6,5	28	26,5	4	25	32,1
160838	8	3/8	10	7,5	32,5	28	5	25	39,8
161014	10	1/4	7,8	6,5	28	28,4	4	25	49,9
161038	10	3/8	10	7,5	32,5	29,9	5	25	55,1



ART. 19

Elbow tapered male adpater

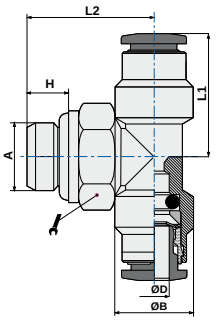
COD.	ØD	G	ØB	E	L			g
190418	4	1/8	9	19,35	16,5	10	100	11,6
190618	6	1/8	11	24,4	16,5	10	100	13,3
190614	6	1/4	11	25,4	22	11	100	19,3
190818	8	1/8	13	25,3	18,5	11	100	16,5
190814	8	1/4	13	25,3	22,0	11	100	19,1
191014	10	1/4	16	26,9	23,5	13	50	25,4



ART. 20

Swivel male stud T (parallel)

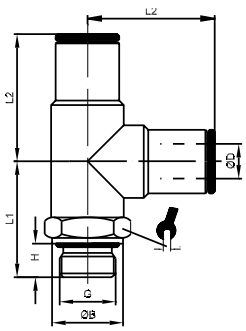
COD.	ØD	A	H	ØB	L1	L2			g
2004M5	4	M5	3,5	11	18,1	15,7	10	50	16,6
200418	4	1/8	5,5	11,3	18,1	18,5	13	50	21,5
200414	4	1/4	6,5	11,3	18,1	20,5	16	50	28,7
2006M5	6	M5	3,5	12	20,1	15,7	10	50	16
200618	6	1/8	5,5	11	20,1	18,5	13	50	20,1
200614	6	1/4	6,5	11	20,1	20,5	16	50	27,4
200818	8	1/8	5,5	13	23,6	20,5	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)

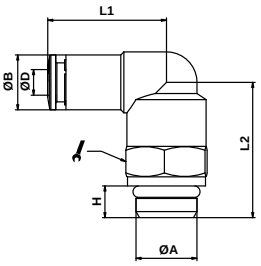
COD.	ØD	G	H	ØB	L1	L2			g
2104M5	4	M5	4	8	16,5	19	9	50	14,7
210418	4	G1/8	5,5	13	18,5	17,5	13	50	26,8
210414	4	G1/4	6,5	16	22,5	19	13	50	29,7
210618	6	G1/8	5,5	13	20	21	13	50	29
210614	6	G1/4	6,5	16	24	21	13	50	31,8
210818	8	G1/8	5,5	13	20	23	13	50	29,6
210814	8	G1/4	6,5	16	24	23	13	50	32,6
210838	8	G3/8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

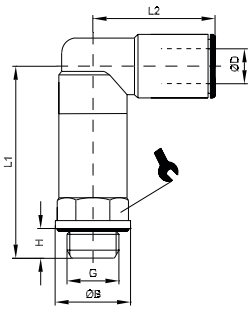
COD.	ØD	A	H	ØB	L1	L2			g
2204M5	4	M5	4	9,1	18,55	14,8	9	100	8,9
2204M12	4	M12x1,5	6,5	9,1	20,35	22,4	13	100	10
220418	4	1/8	5,5	9,1	20,35	19,9	13	100	18,1
220414	4	1/4	6,5	9,1	20,35	22,7	13	100	21,6
220438	4	3/8	7,5	9,1	20,35	24,9	13	100	21,9
2206M5	6	M5	4	11	22,4	15	9	100	10,6
2206M12	6	M12x1,5	6,5	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)

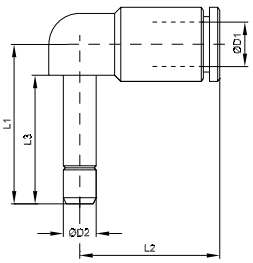
COD.	ØD	G	ØB	H	L1	L2			g
22L0418	4	G1/8	13	5,5	33,2	20,35	13	25	29,1
22L0414	4	G1/4	16	6,5	38,2	20,35	13	25	32,5
22L0618	6	G1/8	13	5,5	33	23,9	13	25	30,5
22L0614	6	G1/4	16	6,5	38	23,9	13	25	34,2
22L0818	8	G1/8	13	5,5	33	24	13	25	30,2
22L0814	8	G1/4	16	6,5	38	24,3	13	25	33,7
22L1014	10	G1/4	16	6,5	40,5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



ART. 22L0

Plug-in elbow connector

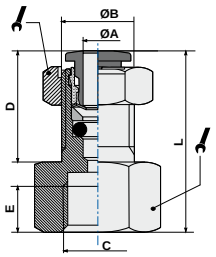
COD.	ØD1	ØD2	L1	L2	L3		g
2204L0	4	4	25,2	20,35	16,2	50	8,9
2206L0	6	6	28,5	23,9	19,5	50	19,1
2208L0	8	8	30	24,3	21	50	21,6
2210L0	10	10	35	28,4	24	25	26,5
2212L0	12	12	38,5	31,4	25	25	31,7



ART. 25

Female bulkhead

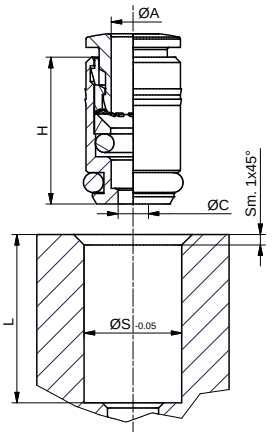
COD.	ØA	C	ØB	D	E	L			
250418	4	1/8	M12x1	13,5	8,5	23,5	14	25	15,8
250618	6	1/8	M14x1	16,8	8,5	29,3	17	25	23,7
250614	6	1/4	M14x1	16,8	11,0	24,6	17	25	26,8
250818	8	1/8	M16x1	20,7	8,5	32,2	19	25	29,7
250814	8	1/4	M16x1	20,7	11,0	26,8	19	25	36,5



ART. 27

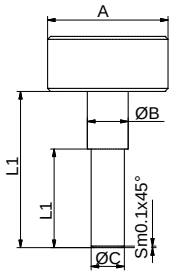
Cartrige

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

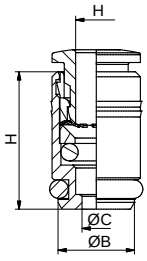
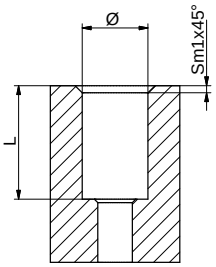


Table for housing on plastic material

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

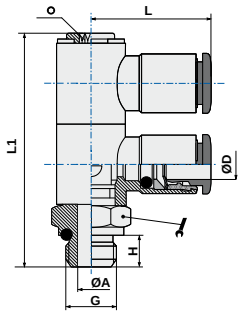
Ø Cartrige	Ø	L
Ø 4	9.1 -0.05	13.5 -0.1
Ø 6	11.1 -0.05	15.5 -0.1
Ø 8	13.6 -0.05	16.5 -0.1



ART. 33

Swivel double banjo stem

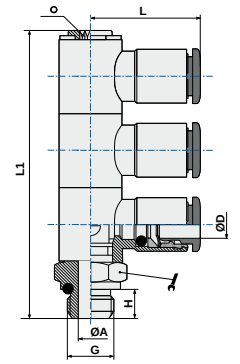
COD.	ØD	G	ØA	H	L1	L				
330418	4	1/8	5,5	5,5	43,3	21,65	14	3	25	44,41
330618	6	1/8	5,5	5,5	43,3	24,9	14	3	25	45,5
330614	6	1/4	7,8	6,5	50	26,1	18	4	25	75,6
330818	8	1/8	5,5	5,5	43,3	25,1	14	3	25	48,5
330814	8	1/4	7,8	6,5	50	26,8	18	4	25	76,4
331014	10	1/4	7,8	6,5	50	28,9	18	4	25	87



ART. 34

Swivel triple banjo stem

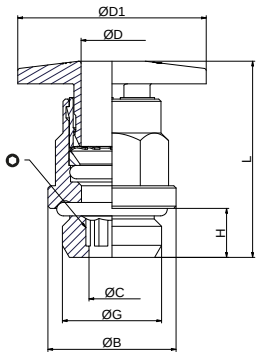
COD.	ØD	G	ØA	H	L1	L				
340418	4	1/8	5,5	5,5	58,4	21,65	14	3	10	54,1
340618	6	1/8	5,5	5,5	58,4	24,9	14	3	10	63,9
340614	6	1/4	7,8	6,5	67,1	26,1	18	4	10	65,6
340818	8	1/8	5,5	5,5	58,4	25,1	14	3	10	66,2
340814	8	1/4	7,8	6,5	67,1	26,8	18	4	10	108
341014	10	1/4	7,8	6,5	67,1	28,9	18	4	10	151,1



ART. 01AM

Straight male adaptor (parallel) larger pusher

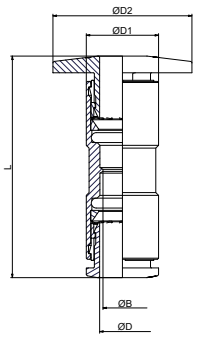
COD.	ØD	ØD1	G	ØC	ØB	H	L			
010814AM	8	25	1/4	6,2	17	6,5	25,6	13	6	13



ART. 03AM

Straight connector larger pusher

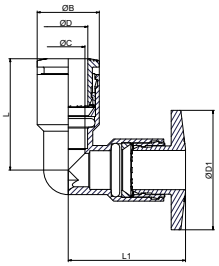
COD.	ØD	ØD1	ØD2	ØB	L	
030800AM	8	15	25	7	39,9	12,7



ART. 04AM

Elbow connector larger pusher

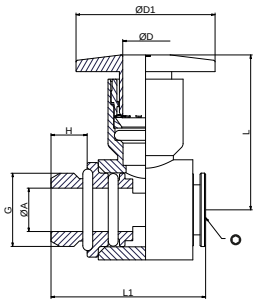
COD.	ØD	ØD1	ØC	ØB	L1	L	g
040800AM	8	25	7	13	24,6	23,3	15



ART. 15AM

Complete single banjo (rotating under pressure) larger pusher

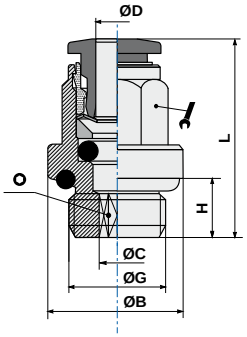
COD.	ØD	ØD1	G	ØA	H	L	L1	O	g
150814AM	8	25	1/4	7,8	6,5	27,9	27,8	4	40



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

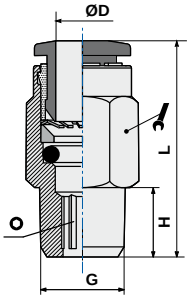


*codes without key flats having the following Ø:
B0104M5 and B0104M6 = Ø9
B0106M5 and B0106M6 = Ø11

ART. B01C

Straight male adaptor (tapered)

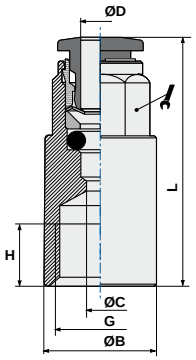
COD.	ØD	G	H	L				
B01C0418	4	1/8	7,5	19,6	10	3	50	6,3
B01C0414	4	1/4	9,5	18	14	3	50	12,1
B01C0438	4	3/8	10,5	19,1	17	3	25	21,7
B01C0618	6	1/8	7,5	20,3	12	4	50	7,1
B01C0614	6	1/4	9,5	22,1	14	4	50	12,9
B01C0638	6	3/8	10,5	20,1	17	4	25	21,1
B01C0612	6	1/2	13,5	24,1	24	4	25	39,3
B01C0818	8	1/8	7,5	25,7	14	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

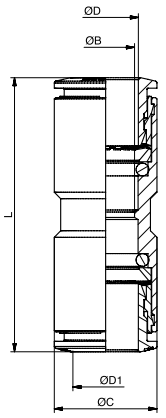
COD.	ØD	G	ØC	ØB	H	L			g
B020418	4	1/8	3	12	7,5	26,5	9	50	10,7
B020414	4	1/4	3	17	11,5	29,5	9	50	19,1
B020618	6	1/8	5	12	7,5	29,1	11	50	11
B020614	6	1/4	5	17	11,5	31,9	11	50	16,8
B020818	8	1/8	7	12	7,5	28	13	50	10,9
B020814	8	1/4	7	17	11,5	33,3	13	50	19,2



ART. B03

Straight connector

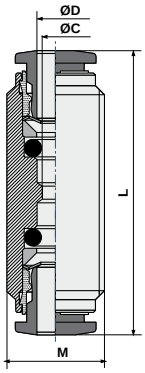
COD.	ØD	ØD1	ØB	ØC	L		g
B030400	4	4	3	11	32,7	50	5,7
B030600	6	6	5	13	37,3	50	9,5
B030800	8	8	7	13	38,6	50	12,5
B031000	10	10	9	18	43,3	50	17,8
B031200	12	12	11	21	46,4	25	32,5
B031400	14	14	13	21	50	25	36



ART. B03F

Threaded connector

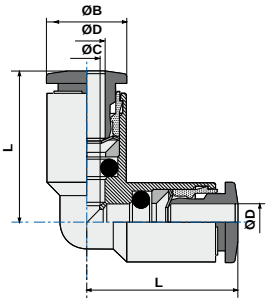
COD.	ØD	ØC	M	L		g
B03F0400	4	3	11x1	32	50	10,7
B03F0600	6	5	14x1	36,1	50	18,7
B03F0800	8	7	16x1	38	50	24,1
B03F1000	10	9	18x1	42,3	50	33,4
B03F1200	12	11	22x1	45,8	25	53,3
B03F1400	14	13	24x1	47,5	25	61,2



ART. B04

Elbow connector

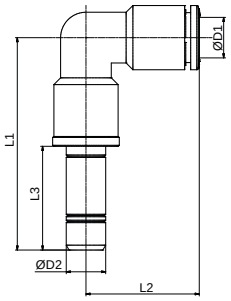
COD.	ØD	ØC	ØB	L		g
B040400	4	3	9	18,55	50	7,6
B040600	6	5	11	20,4	50	8,6
B040800	8	7	13	23,3	50	13,7
B041000	10	9	16	27,1	50	20,1
B041200	12	11	19	29,3	25	47,2
B041400	14	13	21	31,7	25	45



ART. B04L0

Plug-in elbow connector

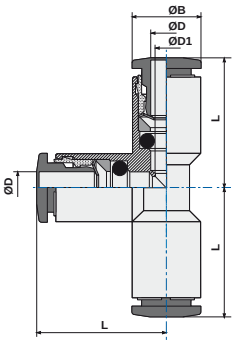
COD.	ØD1	ØD2	L1	L2	L3		g
B0404L0	4	4	34,5	18.55	16,7	50	6,6
B0406L0	6	6	39	20.4	19,5	50	7,5
B0408L0	8	8	43	23.8	21	50	22,4
B0410L0	10	10	51	27.1	24	25	27
B0412L0	12	12	54	29.3	25	25	64



ART. B05

T connector

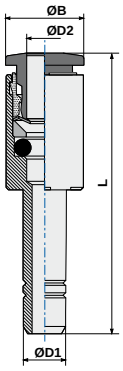
COD.	ØD	ØC	ØB	L		g
B050400	4	3	9	18.55	50	10,8
B050600	6	5	11	21.2	50	12,2
B050800	8	7	13	23.3	50	16,4
B051000	10	8	16	26.9	25	30,6
B051200	12	10	19	29.3	25	56
B051400	14	12	21	31.7	10	58,3



ART. B08

Plug-in reducer

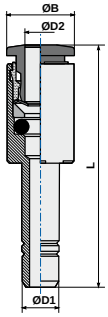
COD.	ØD1	ØD2	ØB	L		g
B080604	6	4	9	32,85	50	5,5
B080804	8	4	9	34	50	9,7
B080806	8	6	11	36,9	50	8,6
B081006	10	6	11	39,9	50	15,5
B081008	10	8	13	39,3	50	11,8
B081208	12	8	13	39,8	25	18,8
B081210	12	10	16	41,9	25	16,6
B081406	14	6	15	36,9	25	36



ART. B08/E

Plug-in increaser

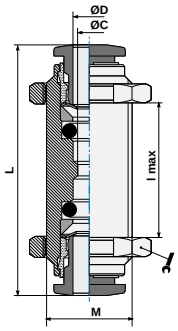
COD.	ØD1	ØD2	ØB	L		g
B08E0406	4	6	11	40,4	50	7,5
B08E0608	6	8	13	44	50	11,3



ART. B10

Bulkhead connector

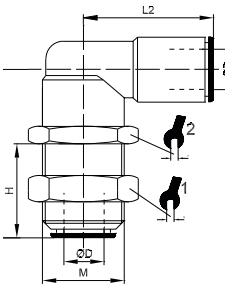
COD.	ØD	ØC	M	lmax	L			g
B100400	4	3	11x1	14	32,7	14	50	15,8
B100600	6	5	14x1	14,5	37,3	17	50	25,9
B100800	8	7	16x1	15	38,6	18	50	30
B101000	10	9	18x1	16,5	43,3	21	25	44,4
B101200	12	11	22x1	18,6	46,4	26	25	70,6
B101400	14	13	24x1	21,7	50	27	25	79,9



ART. B10L

Elbow bulkhead

COD.	ØD	M	H	L1	L2				g
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

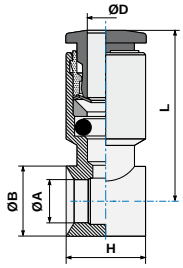


ART. B13

Single banjo body

COD.	ØD	G*	ØA	ØB	H	L		g
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 91 of stem section.

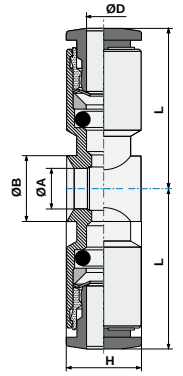


ART. B14

Double banjo body

COD.	ØD	G*	ØA	ØB	H	L		g
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

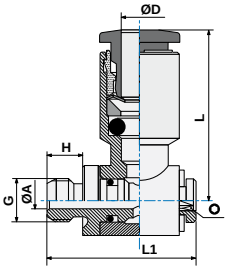
G* = Stem thread. See page 91 of stem section.



ART. B15

Complete single banjo (rotating under pressure)

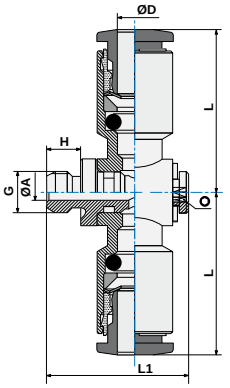
COD.	ØD	G	ØA	H	L1	L	O		g
B1504M5	4	M5	2	4	16,8	19,85	2,5	50	8,4
B1504M6	4	M6	2	5	17,8	19,85	2,5	50	8,5
B150418	4	1/8	5,5	5,5	24,5	21,65	3	50	22,9
B1506M5	6	M5	2	4	16,8	22,4	2,5	50	9,3
B150618	6	1/8	5,5	5,5	24,5	24,9	3	50	23,3
B150614	6	1/4	7,8	6,5	27,8	26,1	4	50	38,8
B150818	8	1/8	5,5	5,5	24,5	25,15	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 double banjo (rotating under pressure)

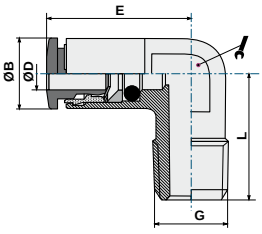
COD.	ØD	G	ØA	H	L1	L	O		g
B160618	6	1/8	5,5	5,5	24,5	24,3	3	50	27,4
B160818	8	1/8	5,5	5,5	25	24,8	3	50	27,4
B160814	8	1/4	7,8	6,5	28	26,5	4	25	32,1
B160838	8	3/8	10	7,5	32,5	28	5	25	39,8
B161014	10	1/4	7,8	6,5	28	28,4	4	25	49,9
B161038	10	3/8	10	7,5	32,5	29,9	5	25	55,1



ART. B19

Elbow male adaptor

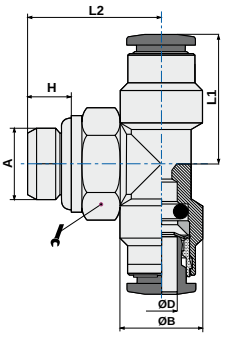
COD.	ØD	G	ØB	E	L			g
B190418	4	1/8	9	19,35	16,5	10	100	11,6
B190618	6	1/8	11	24,4	16,5	10	100	13,3
B190614	6	1/4	11	25,4	22	11	100	19,3
B190818	8	1/8	13	25,3	18,5	11	100	16,5
B190814	8	1/4	13	25,3	22,0	11	100	19,1
B191014	10	1/4	16	26,9	23,5	13	50	25,4



ART. B20

Swivel male stud T parallel

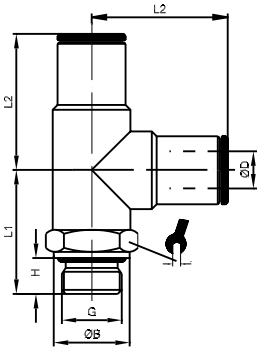
COD.	ØD	A	H	ØB	L1	L2			g
B2004M5	4	M5	4	9	17,3	20,0	8	50	16,6
B200418	4	1/8	5,5	11,40	17,3	18,5	13	50	21,5
B200414	4	1/4	6,5	9	19,0	22,5	16	50	28,7
B2006M5	6	M5	4	11,20	20,5	21	8	50	16
B200618	6	1/8	5,5	11	19,5	18,5	13	50	20,1
B200614	6	1/4	6,5	11	22,1	22,5	16	50	27,4
B200818	8	1/8	5,5	13	23,0	20,5	13	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)

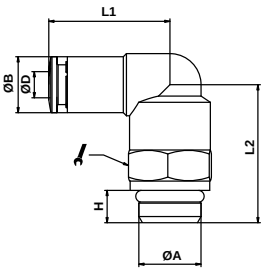
COD.	ØD	G	H	ØB	L1	L2			g
B2104M5	4	M5	4	8	16,5	19	9	50	14,7
B210418	4	G1/8	5,5	13	18,5	17,5	13	50	26,8
B210414	4	G1/4	6,5	16	22,5	19	13	50	29,7
B210618	6	G1/8	5,5	13	20	21	13	50	29
B210614	6	G1/4	6,5	16	24	21	13	50	31,8
B210818	8	G1/8	5,5	13	20	23	13	50	29,6
B210814	8	G1/4	6,5	16	24	23	13	50	32,6
B210838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

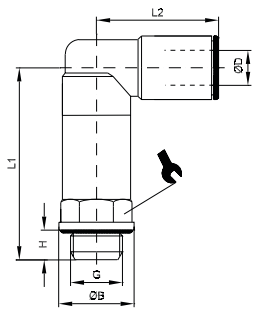
COD.	ØD	A	H	ØB	L1	L2			g
B2204M5	4	M5	4	9,1	18,55	14,8	9	100	8,9
B2204M12	4	M12x1,5	6,5	9,1	20,35	22,4	13	100	10
B220418	4	1/8	5,5	9,1	20,35	19,9	13	100	18,1
B220414	4	1/4	6,5	9,1	20,35	22,7	13	100	21,6
B220438	4	3/8	7,5	9,1	20,35	24,9	13	100	21,9
B2206M5	6	M5	4	11	22,4	15	9	100	10,6
B2206M12	6	M12x1,5	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)

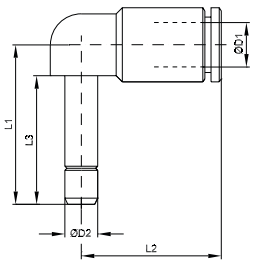
COD.	ØD	G	ØB	H	L1	L2			g
B22L0418	4	G1/8	13	5,5	33,2	20,35	13	25	29,1
B22L0414	4	G1/4	16	6,5	38,2	20,35	13	25	32,5
B22L0618	6	G1/8	13	5,5	33	23,9	13	25	30,5
B22L0614	6	G1/4	16	6,5	38	23,9	13	25	34,2
B22L0818	8	G1/8	13	5,5	33	24	13	25	30,2
B22L0814	8	G1/4	16	6,5	38	24,3	13	25	33,7
B22L1014	10	G1/4	16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



ART. B22L0

Plug-in elbow connector

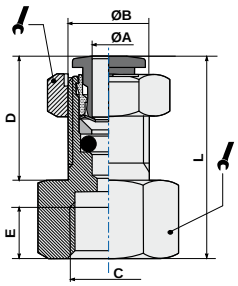
COD.	ØD1	ØD2	L1	L2	L3		g
B2204L0	4	4	25,2	20,35	16,2	50	8,9
B2206L0	6	6	28,5	23,9	19,5	50	19,1
B2208L0	8	8	30	24,3	21	50	21,6
B2210L0	10	10	35	28,4	24	25	26,5
B2212L0	12	12	38,5	31,4	25	25	31,7



ART. B25

Female bulkhead

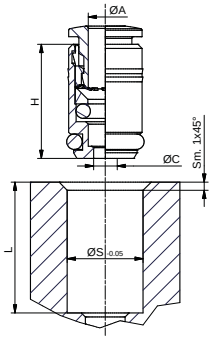
COD.	ØA	C	ØB	D	E	L			g
B250418	4	1/8	M12x1	13,5	8,5	23,5	14	25	15,8
B250618	6	1/8	M14x1	16,8	8,5	29,3	17	25	23,7
B250614	6	1/4	M14x1	16,8	11,0	24,6	17	25	26,8
B250818	8	1/8	M16x1	20,7	8,5	32,2	19	25	29,7
B250814	8	1/4	M16x1	20,7	11,0	26,8	19	25	36,5



ART. B27

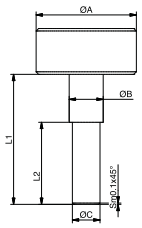
Cartrige

COD.	ØD	ØC	H	ØS	L		g
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 Cartuccia	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

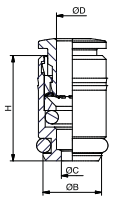
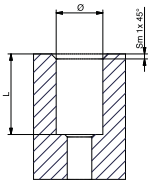


Table for housing on plastic material

Ø	L	Ø 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

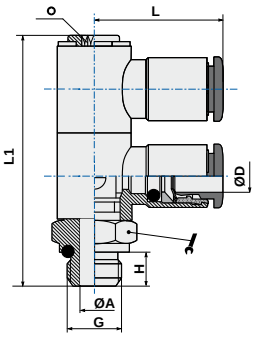
Ø Cartuccia	Ø	L
Ø 4	9.1 -0.05	13.5 -0.1
Ø 6	11.1 -0.05	15.5 -0.1
Ø 8	13.6 -0.05	16.5 -0.1



ART. B33

Swivel double banjo stem

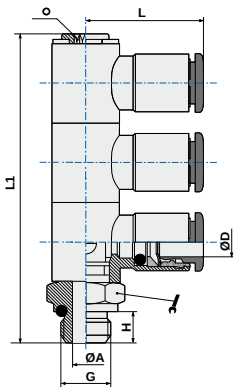
COD.	ØD	G	ØA	H	L1	L				
B330418	4	1/8	5,5	5,5	43,3	21,65	14	3	25	44,41
B330618	6	1/8	5,5	5,5	43,3	24,9	14	3	25	45,5
B330614	6	1/4	7,8	6,5	50	26,1	18	4	25	75,6
B330818	8	1/8	5,5	5,5	43,3	25,1	14	3	25	48,5
B330814	8	1/4	7,8	6,5	50	26,8	18	4	25	76,4
B331014	10	1/4	7,8	6,5	50	28,9	18	4	25	87



ART. B34

Swivel triple banjo stem

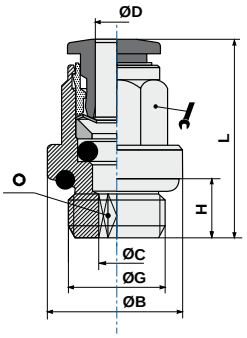
COD.	ØD	G	ØA	H	L1	L				
B340418	4	1/8	5,5	5,5	58,4	21,65	14	3	10	54,1
B340618	6	1/8	5,5	5,5	58,4	24,9	14	3	10	63,9
B340614	6	1/4	7,8	6,5	67,1	26,1	18	4	10	65,6
B340818	8	1/8	5,5	5,5	58,4	25,1	14	3	10	66,2
B340814	8	1/4	7,8	6,5	67,1	26,8	18	4	10	108
B341014	10	1/4	7,8	6,5	67,1	28,9	18	4	10	151,1



ART. 01OT

Straight male adaptor parallel

COD.	ØD	G	ØC	ØB	H	L		O		g
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

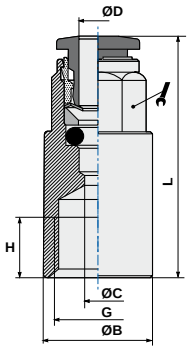


* codes without key flats having the following Ø:
010T04M5 and 010T04M6 = Ø9
010T06M5 and 010T06M6 = Ø11

ART. 02OT

Straight female adaptor

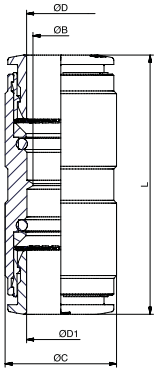
COD.	ØD	G	ØC	ØB	H	L			g
020T0418	4	1/8	3	12	7,5	26,5	9	50	11,92
020T0414	4	1/4	3	17	11,5	29,5	9	50	20,20
020T0618	6	1/8	5	12	7,5	29,1	11	50	12,50
020T0614	6	1/4	5	17	11,5	31,9	11	50	18,29
020T0818	8	1/8	7	12	7,5	28	13	50	12,09
020T0814	8	1/4	7	17	11,5	33,3	13	50	20,94



ART. 03OT

Straight connector

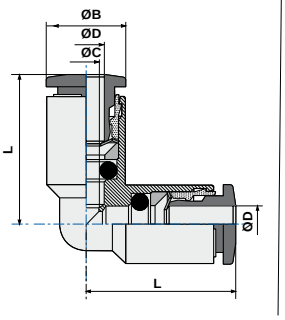
COD.	ØD	ØD1	ØB	ØC	L		g
030T0400	4	4	3	11	32,7	50	8,07
030T0600	6	6	5	13	37,3	50	12,46
030T0800	8	8	7	13	38,6	50	16,02
030T1000	10	10	9	18	43,3	50	25,80
030T1200	12	12	11	21	46,4	25	41,50
030T1400	14	14	13	21	50	25	46



ART. 04OT

Elbow connector

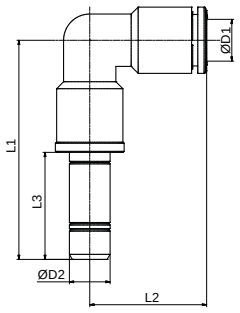
COD.	ØD	ØC	ØB	L		g
040T0400	4	3	9	18,55	50	10,00
040T0600	6	5	11	20,4	50	11,63
040T0800	8	7	13	23,3	50	17,28
040T1000	10	9	16	27,1	50	28,08
040T1200	12	11	19	29,3	25	56,13
040T1400	14	13	21	31,7	25	55,01



ART. 04OTL0

Plug-in elbow connector

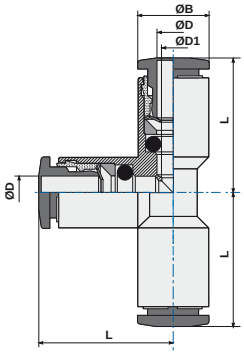
COD.	ØD1	ØD2	L1	L2	L3		g
040T04L0	4	4	34,5	18,55	16,7	50	7,82
040T06L0	6	6	39	20,4	19,5	50	9,00
040T08L0	8	8	43	23,8	21	50	24,23
040T10L0	10	10	51	27,1	24	25	26,00
040T12L0	12	12	54	29.3	25	25	69,02



ART. 05OT

T connector

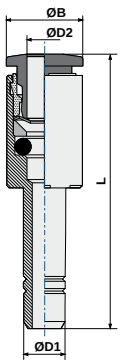
COD.	ØD	ØC	ØB	L		g
050T0400	4	3	9	18.55	50	14,36
050T0600	6	5	11	21.2	50	16,73
050T0800	8	7	13	23.3	50	21,76
050T1000	10	8	16	26.9	25	42,57
050T1200	12	10	19	29.3	25	69,50
050T1400	14	12	21	31.7	10	73,01



ART. 08OT

Plug-in reducer

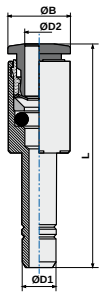
COD.	ØD1	ØD2	ØB	L		g
080T0604	6	4	9	32,85	50	6,67
080T0804	8	4	9	34	50	10,88
080T0806	8	6	11	36,9	50	10,10
080T1006	10	6	11	39,9	50	17,30
080T1008	10	8	13	39,3	50	14,44
080T1208	12	8	13	39,8	25	20,64
080T1210	12	10	16	41,9	25	20,56
080T1406	14	6	15	36,9	25	37,50



ART. 08OT/E

Plug-in increaser

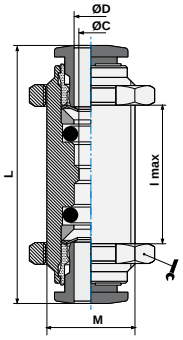
COD.	ØD1	ØD2	ØB	L		g
08OTE0406	4	6	11	40,4	50	8,97
08OTE0608	6	8	13	44	50	13,06



ART. 10OT

Bulkhead connector

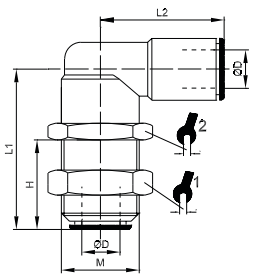
COD.	ØD	ØC	M	lmax	L			g
10OT0400	4	3	11x1	14	32,7	14	50	18,19
10OT0600	6	5	14x1	14,5	37,3	17	50	28,87
10OT0800	8	7	16x1	15	38,6	18	50	33,60
10OT1000	10	9	18x1	16,5	43,3	21	25	54,16
10OT1200	12	11	22x1	18,6	46,4	26	25	79,55
10OT1400	14	13	24x1	21,7	50	27	25	89,85



ART. 10LOT

Elbow bulkhead

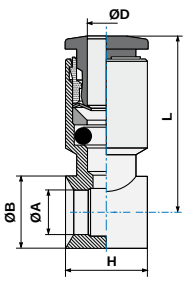
COD.	ØD	M	H	L1	L2				g
10LOT0400	4	M11x1	12,5	25,5	20	13	13	50	24,76
10LOT0600	6	M14x1	15	28	21	17	17	50	34,11
10LOT0800	8	M16x1	17	30,5	24	18	18	50	38,59
10LOT1000	10	M18x1	19	35	27	21	21	25	62,49



ART. 13OT

Single banjo body

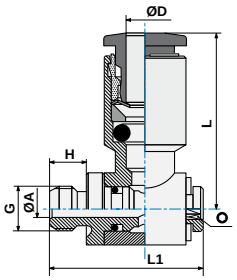
COD.	ØD	G*	ØA	ØB	H	L		g
13OT04M5	4	M5	5	9	9	19,85	50	7,05
13OT0418	4	1/8	9,9	14	15	21,65	50	14,57
13OT0618	6	1/8	9,9	14	15	24,9	50	15,70
13OT0614	6	1/4	13,3	18	17	26,1	50	21,92
13OT0818	8	1/8	9,9	14	15	25,15	50	16,39
13OT0814	8	1/4	13,3	18	17	26,8	50	22,57
13OT0838	8	3/8	16,75	21	20	28,3	50	29,39
13OT1014	10	1/4	13,3	18	17	28,9	50	30,58
13OT1038	10	3/8	16,75	21	20	30,35	25	34,90
13OT1214	12	1/4	13,3	18	17	30,7	25	35,12
13OT1238	12	3/8	16,75	21	20	31,6	25	37,14
13OT1212	12	1/2	21	26	24	35,15	25	51,86
13OTR04M5	4	M5	6	9	10	19,85	50	5,65
13OTR06M5	6	M5	6	9	10	22,1	50	7,02



ART. 15OT

Complete single banjo (rotating under pressure)

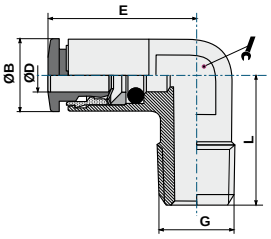
COD.	ØD	G	ØA	H	L1	L	O		g
150T04M5	4	M5	2	4	16,8	19,85	2,5	50	9,61
150T04M6	4	M6	2	5	17,8	19,85	2,5	50	9,74
150T0418	4	1/8	5,5	5,5	24,5	21,65	3	50	24,12
150T06M5	6	M5	2	4	16,8	22,4	2,5	50	10,82
150T0618	6	1/8	5,5	5,5	24,5	24,9	3	50	24,84
150T0614	6	1/4	7,8	6,5	27,8	26,1	4	50	40,32
150T0818	8	1/8	5,5	5,5	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. 19OT

Elbow male adaptor

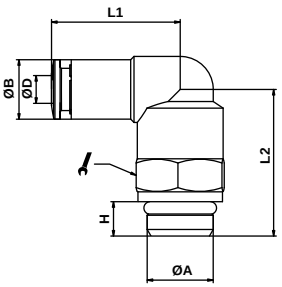
COD.	ØD	G	ØB	E	L			g
190T0418	4	1/8	9	19,35	16,5	10	100	12,83
190T0618	6	1/8	11	24,4	16,5	10	100	14,84
190T0614	6	1/4	11	25,4	22	11	100	20,81
190T0818	8	1/8	13	25,3	18,5	11	100	18,26
190T0814	8	1/4	13	25,3	22,0	11	100	20,94
190T1014	10	1/4	16	26,9	23,5	13	50	30,26



22OT

Swivel elbow male adaptor (parallel)

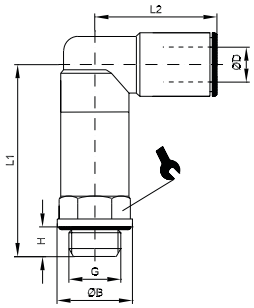
COD.	ØD	A	H	ØB	L1	L2			g
220T04M5	4	M5	4	9,1	18,55	14,8	9	100	10,10
220T04M12	4	M12x1,5	6,5	9,1	20,35	22,4	13	100	11,55
220T0418	4	1/8	5,5	9,1	20,35	19,9	13	100	19,00
220T0414	4	1/4	6,5	9,1	20,35	22,7	13	100	22,80
220T0438	4	3/8	7,5	9,1	20,35	24,9	13	100	27,60
220T06M5	6	M5	4	11	22,4	15	9	100	12,12
220T06M12	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

Plug-in elbow connector

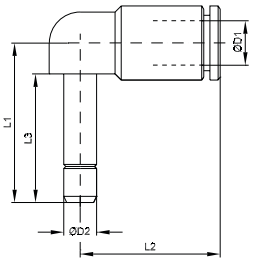
COD.	ØD	G	ØB	H	L1	L2			g
22L0T0418	4	G1/8	13	5,5	33,2	20,35	13	25	30,34
22L0T0414	4	G1/4	16	6,5	38,2	20,35	13	25	33,72
22L0T0618	6	G1/8	13	5,5	33	23,9	13	25	32,04
22L0T0614	6	G1/4	16	6,5	38	23,9	13	25	35,72
22L0T0818	8	G1/8	13	5,5	33	24	13	25	31,97
22L0T0814	8	G1/4	16	6,5	38	24,3	13	25	35,46
22L0T1014	10	G1/4	16	6,5	40,5	28,4	16	25	57,49



ART. 22OTL0

Plug-in elbow connector

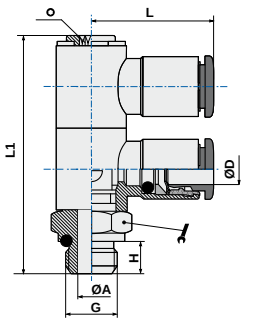
COD.	ØD1	ØD2	L1	L2	L3		g
220T04L0	4	4	25,2	20,35	16,2	50	22,12
220T06L0	6	6	28,5	23,9	19,5	50	28,25
220T08L0	8	8	30	24,3	21	50	29,15
220T10L0	10	10	35	28,4	24	25	27,07
220T12L0	12	12	38,5	31,4	25	25	32,45



ART. 33OT

Swivel double banjo stem

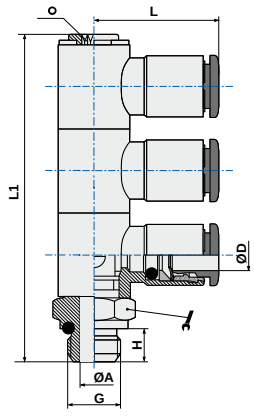
COD.	ØD	G	ØA	H	L1	L		O		g
330T0418	4	1/8	5,5	5,5	43,3	21,65	14	3	25	46,81
330T0618	6	1/8	5,5	5,5	43,3	24,9	14	3	25	48,46
330T0614	6	1/4	7,8	6,5	50	26,1	18	4	25	78,57
330T0818	8	1/8	5,5	5,5	43,3	25,1	14	3	25	52,14
330T0814	8	1/4	7,8	6,5	50	26,8	18	4	25	80,02
330T1014	10	1/4	7,8	6,5	50	28,9	18	4	25	97,00



ART. 34OT

Swivel triple banjo stem

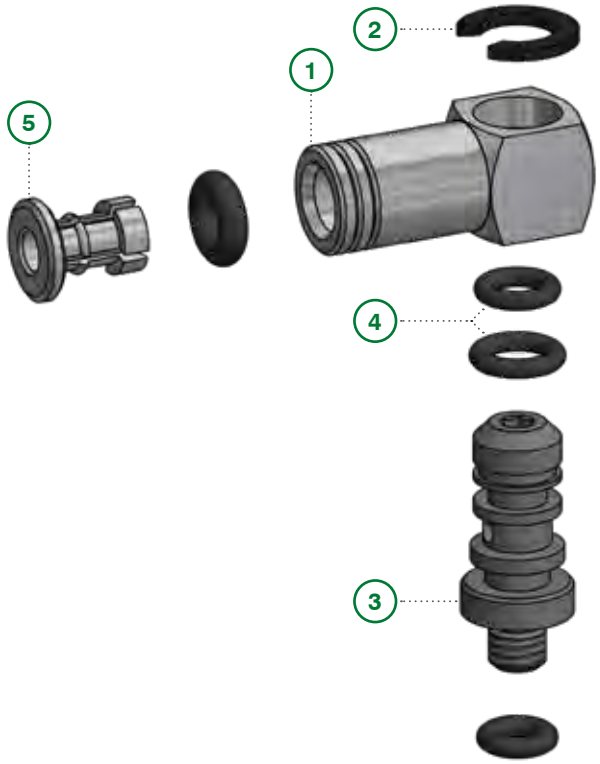
COD.	ØD	G	ØA	H	L1	L		O		g
340T0418	4	1/8	5,5	5,5	58,4	21,65	14	3	10	44,10
340T0618	6	1/8	5,5	5,5	58,4	24,9	14	3	10	66,93
340T0614	6	1/4	7,8	6,5	67,1	26,1	18	4	10	107,87
340T0818	8	1/8	5,5	5,5	58,4	25,1	14	3	10	110,86
340T0814	8	1/4	7,8	6,5	67,1	26,8	18	4	10	115,56
340T1014	10	1/4	7,8	6,5	67,1	28,9	18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

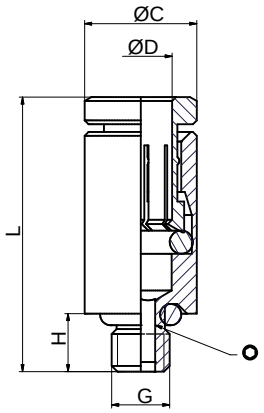
Technical sheet

FLUIDS		Compressed air, some liquids (for different fluid please contact our Technical Dept.)
APPLICATIONS		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBE TOLERANCES		Diam. from 4 to 10 mm +/- 0,05 - Diam. from 12 mm +/- 0,1
THREAD TYPE		Cylindrical with O-ring.
RECOMMENDED LIMIT VALUE	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.
MATERIALS	Body	Nichel-plated
	Grip	Brass
	Seals	Silicon free NBR
IMPORTANT NOTE		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

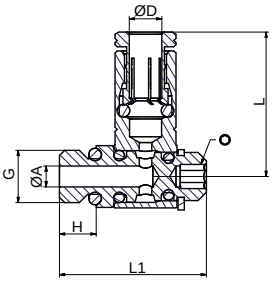
COD.	D	G	C	H	L	O	📦	g
RDR320	2,0	M3	5,4	3	13,5	1,5	100	1,50
RDR330	3,0	M3	5,8	3	14,5	1,5	100	2,00
RDR331	3,17	M3	5,8	3	14,0	1,5	100	1,50
RDR340	4,0	M3	7,0	3	15,5	1,5	100	2,50
RDR340-MH05	4,0	M3	6,9	5	17,5	1,5	100	2,50
RDR520	2,0	M5	5,4	3,5	13,0	1,5	100	1,50
RDR530	3,0	M5	5,8	3,5	14,5	2,0	100	1,50
RDR531	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

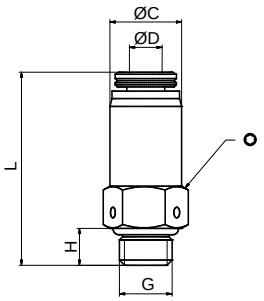
COD.	D	G	C	H	L	L1	O	📦	g
RGR320	2	M3	1,4	3,0	13,5	13,5	1,5	100	3,63
RGR330	3	M3	1,4	3,0	13,5	13,5	1,5	100	3,52
RGR331	3,17	M3	1,4	3,0	13,5	13,5	1,5	100	3,34
RGR340	4,2	M3	1,4	3,0	13,5	13,5	1,5	100	3,68
RGR340-MH05	4,2	M3	1,4	5,0	13,5	13,5	1,5	100	3,80
RGR520	2	M5	2,0	3,5	14	14	2,0	100	3,64
RGR530	3	M5	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

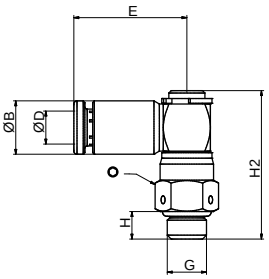
COD.	L	ØC	ØD	G	H	O	📦	g
RDSR520	18,5	6,8	2,0	M5	3,5	7	100	2,00
RDSR530	18,5	6,8	3,0	M5	3,5	7	100	3,00
RDSR531	18,3	6,8	3,0	M5	3,5	7	100	3,00
RDSR540	19,5	7,8	4,2	M5	3,5	8	100	4,00



ART. RGSR

Quick exhaust swivel elbow parallel adapter

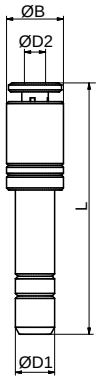
COD.	ØB	ØD	H	H2	E	G	O	📦	g
RGSR520	5,8	2,1	3,5	19	14	M5	7	100	5,00
RGSR530	5,8	3,0	3,5	19	14	M5	7	100	5,00
RGSR531	5,8	3,2	3,5	19	14	M5	7	100	5,00
RGSR540	5,8	4,2	3,5	19	14	M5	7	100	5,00



ART. RRR

Plug-in reducer

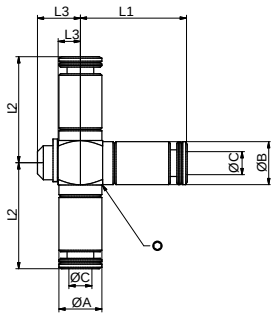
COD.	ØD1	ØD2	ØB	L	📦	g
RRR3020	2,0	3,2	5,8	23,2	100	2,00
RRR4020	4,0	2,0	5,8	25,5	100	2,00
RRR4030	4,0	3,0	5,8	25,5	100	2,50



ART. RTR020

T combined connector

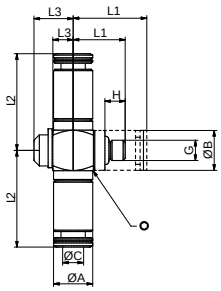
COD.	ØC	L1	L2	ØB	ØA	L3	O	📦	g
RTR020	2,10	13,7	12	5,8	5,8	3	6	100	4,50



ART. RTR330

T combined thread

COD.	ØC	L1	L2	G	H	ØB	ØA	L3	O	📦	g
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

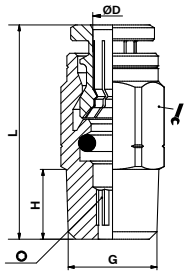
FLUIDS		Oil and Grease for lubrication.
APPLICATIONS		Centralised Lubrication and Greasing Systems such as: industrial automation, heavy industry, heavy transport, construction machinery and agricultural vehicles.
WORKING PRESSURE		0 ... 150 Bar
MAXIMUM PRESSURE*		250 Bar
RECOMMENDED TUBES**		PA6-6; High pressure hose with metal end terminal.
TUBE TOLERANCES		±0,07 mm until Ø6 mm
TEMPERATURE		-20°C ... +80°C
THREAD TYPE		M5; M6x0,75; M6x1; M8x1; M10x1; M12x1. ISO7/1 (BSPT): R1/8” - R1/4” ISO 228/1 (BSPP) G1/8” - G1/4”
MATERIALS	Body	Nickel plated brass
	Spring	Brass
	Seals	NBR
IMPORTANT NOTE	*	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

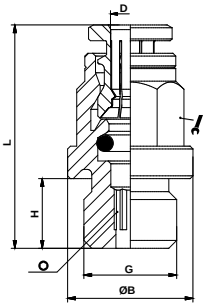
Straight male

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

TAB. A



TAB. B

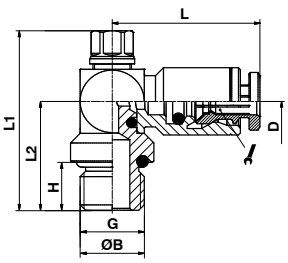


ART. 15HP

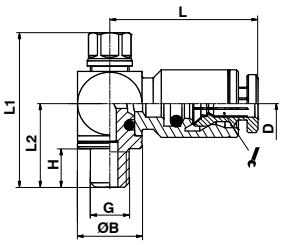
Swivel elbow

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

TAB. A



TAB. B



Technopolymer push-in fittings

SERIES TECNORAP - TECNORAP BLACK

Tecnorap 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

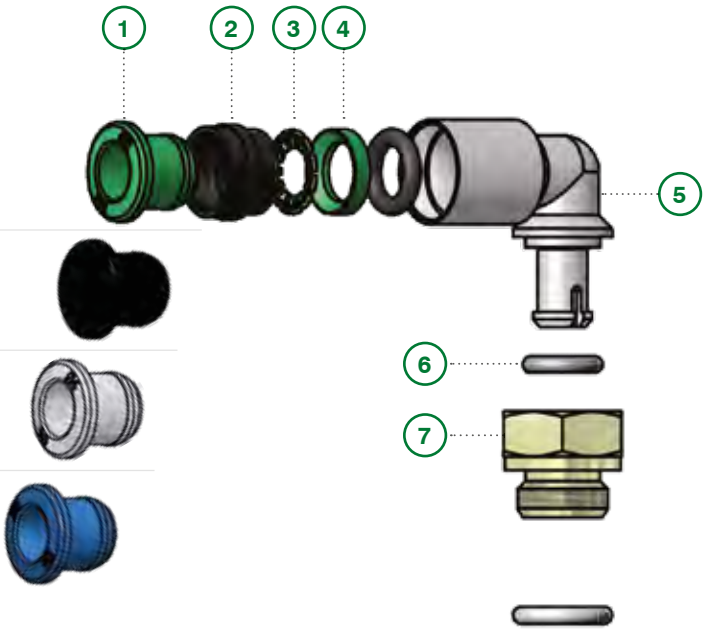
TUBE CONNECTION
- **04 ... 16** = Tube diameter (mm)

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 207

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. Swiwel base

Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms. Suitable for vacuum applications.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyurethane), TPE (Polyurethane), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
PROTECTION DEGREE		IP 68
TEMPERATURE AND PRESSURE	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.
THREAD TYPE		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	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:

TUBE DIAMETER	Ø4	Ø6	Ø8	Ø10	Ø12
BREAKING LOAD	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.

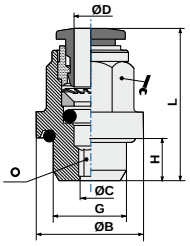
Series TECNORAP: **-20°+50°**
Series RAP: **-20° +70°**
Series OT: **-20° + 80°**
Series OV: **-20° +150°**
Series SS: **-20° +120°**

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
TPU	18,7	74,8	10,0	40,0	5,2	20,8
PA11	37,4	149,6	20,0	80,0	10,4	41,6
PA12	48,6	168,3	26,0	90,0	10,4	36,0
PE	18,7	74,8	10,0	40,0	5,0	20,0

ART. T01

Straight male adaptor (parallel)

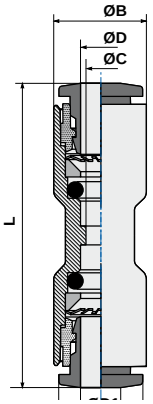
COD.	ØD	G	ØC	ØB	H	L				
T0104M10	4	M10x1,5	2,5	14,0	8,0	22,15	10	2,5	50	2,26
T010418	4	1/8	2,5	14,0	5,5	19,65	10	2,5	50	2,16
T010414	4	1/4	2,5	17,5	6,5	21,15	10	2,5	50	3,36
T0106M10	6	M10x1,5	4,0	14,0	8,0	27,60	12	4,0	50	3,18
T010618	6	1/8	4,0	14,0	5,5	25,10	12	4,0	50	3,10
T010614	6	1/4	4,0	17,5	6,5	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

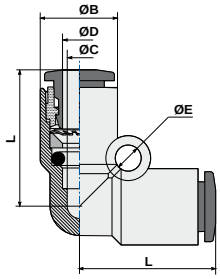
COD.	ØD	ØD1	ØC	ØB	ØB1	L		
T030400	4	4	3	9,5	9,5	32,30	50	1,96
T030406	4	6	3	9,5	11,5	34,25	50	2,39
T030600	6	6	5	11,5	11,5	36,70	50	3,00
T030608	6	8	5	11,5	13,5	37,70	50	3,27
T030800	8	8	7	13,5	13,5	38,20	50	3,53
T030810	8	10	7	13,5	17,0	40,75	50	5,03
T031000	10	10	9	17,0	17,0	42,90	50	6,04
T031012	10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

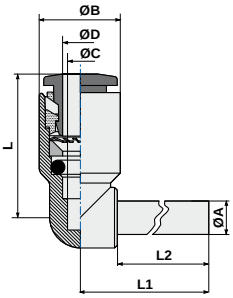
COD.	ØD	ØC	ØB	ØL	ØE		
T040400	4	3	9,5	17,35	3,20	50	2,21
T040600	6	5	11,5	21,10	3,20	50	3,28
T040800	8	7	13,5	23,10	3,20	50	4,14
T041000	10	9	17,0	26,70	4,30	50	7,21
T041200	12	10	20,0	28,90	4,20	25	10,98
T041600	16	13	26,5	33,00	*	10	26,80



ART. T04L0

Plug-in elbow connector

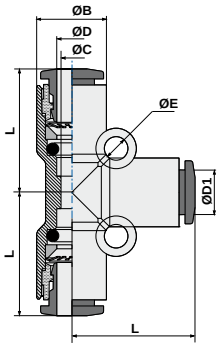
COD.	ØD	ØC	ØB	L	L1	ØA	L2		
T0404L0	4	3	9,5	17,35	20,75	4	16,7	50	1,39
T0406L0	6	5	11,5	21,10	24,25	6	19,5	50	2,18
T0408L0	8	7	13,5	23,10	27,25	8	21,0	50	2,96
T0410L0	10	9	17,0	26,70	31,80	10	24,0	50	5,07
T0412L0	12	10	20,0	28,90	36,00	12	25,0	25	8,00



ART. T05

T connector

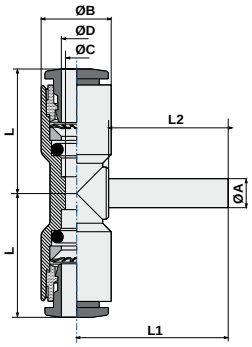
COD.	ØD	ØD1	ØC	ØB	L	ØE		g
T050400	4	4	3,0	9,50	17,35	3,2	50	3,16
T050604	6	4	5,3	13,00	19,10	3,2	50	8,20
T050600	6	6	5,0	11,50	21,10	3,2	50	4,72
T050806	8	6	7,1	14,40	22,70	3,2	25	11,07
T050800	8	8	7,0	13,50	23,10	3,2	50	5,96
T051008	10	8	9,3	18,40	27,90	4,2	25	21,85
T051000	10	10	9,0	17,00	26,70	4,3	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. T05L0

Plug-in T connector (center)

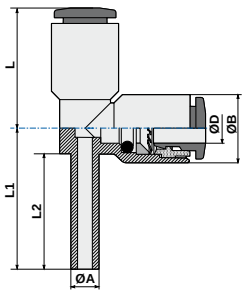
COD.	ØD	ØC	ØB	L	L1	ØA	L2		g
T0504L0	4	3	9,5	17,2	20,8	4	16,7	50	2,26
T0506L0	6	5	11,5	20,8	24,3	6	19,5	50	3,51
T0508L0	8	7	13,5	23,0	27,3	8	21,0	50	4,66
T0510L0	10	9	17,0	26,4	31,8	10	24,0	25	5,64
T0512L0	12	10	20,0	28,9	36,0	12	25,0	10	7,11



ART. T05V0

Plug-in T connector (lateral)

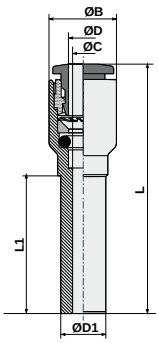
COD.	ØD	ØB	L	L1	ØA	L2		g
T0506V0	6	11,5	20,8	24,3	6	19,5	50	3,42
T0508V0	8	13,5	23,0	27,3	8	21,0	50	4,54
T0510V0	10	17,0	26,4	31,8	10	24,0	25	7,65
T0512V0	12	20,0	28,9	36,0	12	25,0	10	8,10



ART. T08

Reducer

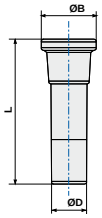
COD.	ØD1	ØD	ØC	ØB	L	L1		g
T080604	6	4	3	9,5	35,65	19,50	50	1,37
T080804	8	4	3	9,5	37,15	21,00	50	1,60
T081004	10	4	3	9,5	40,15	24,00	25	1,97
T081204	12	4	3	9,5	41,15	25,00	25	2,22
T080806	8	6	5	11,5	39,35	23,00	50	2,10
T081006	10	6	5	11,5	42,35	24,00	25	2,49
T081206	12	6	5	11,5	43,35	25,00	25	2,80
T081008	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

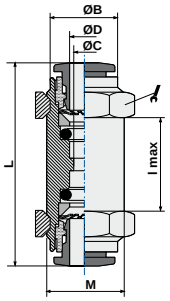
COD.	ØD	ØB	L		g
T090400	4	7,0	25,0	100	0,43
T090600	6	9,5	27,5	100	0,84
T090800	8	12,0	30,0	100	1,39
T091000	10	14,0	32,5	100	2,04
T091200	12	16,0	35,0	100	2,67



ART. T10

Bulkhead connector

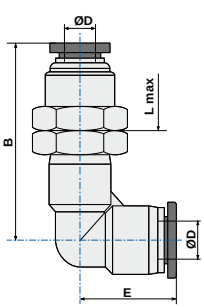
COD.	ØD	ØB	ØC	L	M	Lmax			g
T100400	4	9,5	3	32,0	11x1	8	14	50	7,78
T100600	6	11,5	5	36,1	14,1	12	17	50	11,05
T100800	8	13,5	7	38,0	16x1	15	18	50	10,93
T101000	10	17,5	9	42,3	20x1	17	24	25	25,34
T101200	12	20	10	46,2	22x1	20	26	25	33,12



ART. T10L

Elbow bulkhead

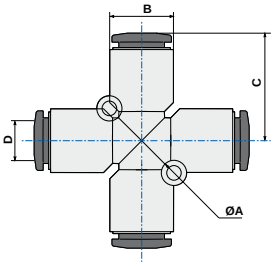
COD.	ØD	M	B	E	H	lmax	CH		g
T10L0400	4	12x1	28,5	19,0	14,0	6,0	14	25	17,77
T10L0600	6	14x1	32,1	19,2	17,0	7,0	17	25	28,99
T10L0800	8	16x1	39,4	23,0	19,0	7,5	19	25	39,23
T10L1000	10	20x1	48,8	28,2	24,0	9,5	24	25	63,06
T10L1200	12	22x1	49,5	29,5	27,0	10,0	26	10	79,66



ART. T11

Cross connector

COD.	ØD	ØB	ØA	C		g
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

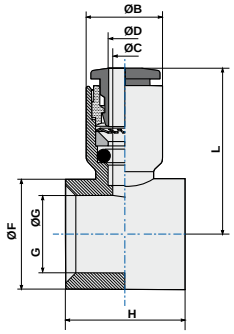


ART. T13

Single banjo body

COD.	ØD	G*	ØC	ØB	ØG	H	L	ØF		g
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 91 of stem section.

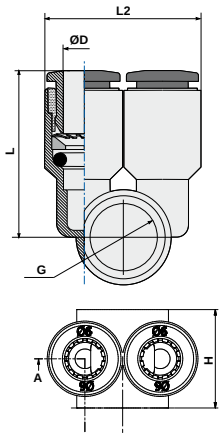


ART. T13B

Single branch body

COD.	ØD	G*	H	L	L2		g
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

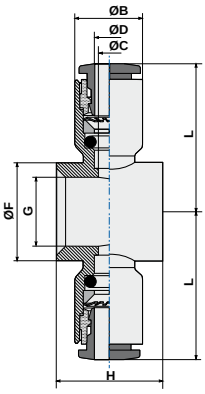
G*= stem thread. See page 91 of stems section.
H = stem site lenght



ART. T14

Double banjo body

COD.	ØD	G*	ØC	ØB	H	ØF	L		g
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

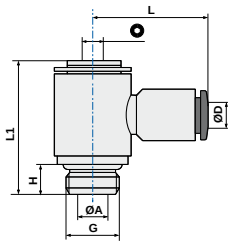


G*= Stem thread. See page 91 of stem section.

ART. T15

Complete single banjo (rotating under pressure)

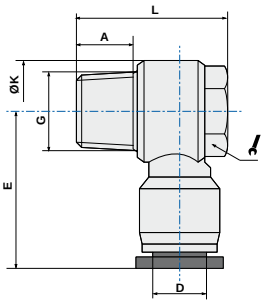
COD.	ØD	G	ØA	H	L1	L	O		g
T1504M5	4	M5	2,0	4,0	17,8	19,65	2,5	50	3,54
T1504M6	4	M6	2,0	5,0	18,8	19,65	2,5	50	3,96
T150418	4	1/8	5,5	5,5	24,5	21,25	3,0	50	11,87
T150618	6	1/8	5,5	5,5	24,5	24,60	3,0	50	12,29
T150614	6	1/4	7,8	6,5	27,8	25,80	4,0	50	22,36
T150818	8	1/8	5,5	5,5	24,5	24,90	3,0	50	12,67
T150814	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

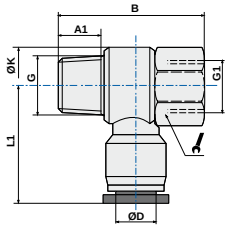
COD.	ØD	G	A	L	ØK	E			g
T15C0418	4	1/8	7,5	23,5	14,4	22,40	12,0	50	12,22
T15C0618	6	1/8	7,5	23,5	14,4	22,90	12,0	50	12,95
T15C0614	6	1/4	9,5	26,5	18,3	25,00	14,0	50	21,03
T15C0638	6	3/8	10,5	32,0	22,0	26,60	19,0	25	37,28
T15C0818	8	1/8	7,5	23,5	14,4	25,60	12,0	50	13,66
T15C0814	8	1/4	9,5	26,5	18,3	28,70	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

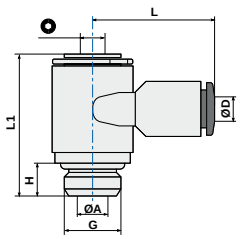
COD.	ØD	G/G1	L1	A1	B	ØK			g
T15FC0418	4	1/8	22,4	7,5	29,0	14,40	14,0	50	16,26
T15FC0414	4	1/4	25,0	9,5	35,0	18,30	17,0	50	29,78
T15FC0618	6	1/8	22,9	7,5	29,0	14,40	14,0	50	16,81
T15FC0614	6	1/4	25,0	9,5	35,0	18,30	17,0	50	29,62
T15FC0818	8	1/8	25,6	7,5	29,0	14,40	14,0	50	17,68
T15FC0814	8	1/4	28,7	9,5	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

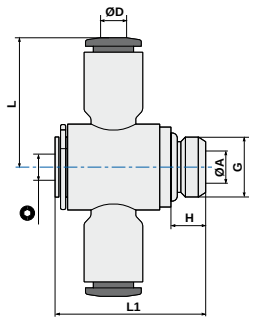
COD.	ØD	G	ØA	H	L1	L			g
T15B04M5	4	M5	2,0	4,0	17,8	19,7	2,5	50	4,57
T15B0618	6	1/8	5,5	5,5	24,5	24,6	3,0	50	13,73
T15B0814	8	1/4	7,8	6,5	27,8	26,6	4,0	50	24,51
T15B1038	10	3/8	10,0	7,5	32,5	30,2	5,0	25	44,78
T15B1212	12	1/2	12,0	9,0	38,8	34,9	8,0	10	77,84



ART. T16

Complete double banjo (rotating under pressure)

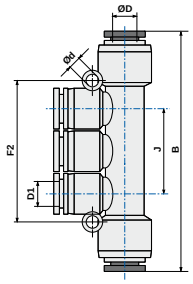
COD.	ØD	G	ØA	H	L1	L			g
T1604M5	4	M5	2	4,0	17,8	19,5	2,5	50	4,48
T160418	4	1/8	5,5	5,5	24,5	21,1	3,0	50	55,00
T160618	6	1/8	5,5	5,5	24,5	24,3	3,0	50	38,55
T160838	8	3/8	7,5	7,5	32,5	28,0	5,0	25	67,55
T161038	10	3/8	7,5	7,5	32,5	30,0	5,0	25	48,90
T161012	10	1/2	9,0	9,0	38,8	30,0	8,0	10	48,65
T161238	12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

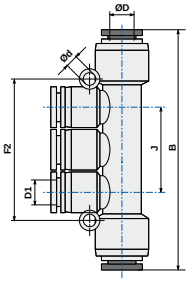
COD.	ØD	ØD1	J	B	Ød	F2		g
T180604	6	4	26,0	60,3	3,2	42,0	25	16,05
T180804	8	4	26,0	61,7	3,2	42,0	25	15,89
T180806	8	6	26,0	61,7	3,2	42,0	25	15,66
T181006	10	6	29,2	83,0	4,2	48,0	10	27,15
T181008	10	8	29,2	83,0	4,2	48,0	10	27,50



ART. T18G

Male triple branch

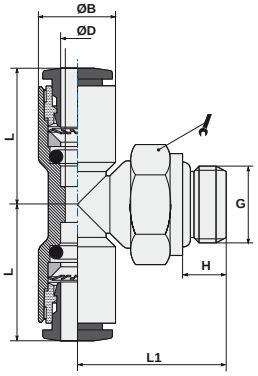
COD.	ØD	D1	G	A	B	J		Ød		g
T18G0418	4	4	1/8	5,5	67,2	26	14	3,2	25	25,26
T18G0414	4	4	1/4	7,5	69,7	26	17	3,2	25	31,01
T18G0438	4	4	3/8	7,5	69,7	26	20	3,2	10	152,50
T18G0618	6	6	1/8	5,5	67,2	26	14	3,2	25	25,51
T18G0614	6	6	1/4	7,5	69,7	26	17	3,2	25	30,52
T18G0638	6	6	3/8	7,5	70,2	26	20	3,2	10	157,40
T18G0612	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

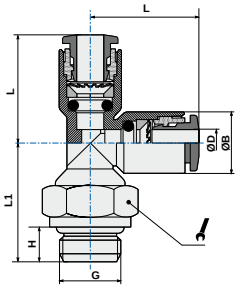
COD.	ØD	G	ØB	H	L	L1			g
T2004M3	4	M3	9,5	3,0	17,35	15,00	8	50	4,53
T2004M5	4	M5	9,5	4,0	17,35	17,00	8	50	4,65
T200418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,56
T200414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,83
T200438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
T2006M5	6	M5	9,5	4,0	21,10	17,00	8	50	5,71
T200618	6	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)

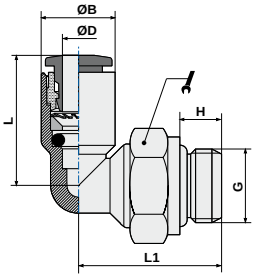
COD.	ØD	G	ØB	H	L	L1			g
T2104M3	4	M3	9,5	3,0	17,35	14,80	8	50	4,52
T2104M5	4	M5	9,5	4,0	17,35	15,80	8	50	4,74
T210418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,50
T210414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,96
T210438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
T210618	6	1/8	11,5	5,5	21,10	18,35	13	50	9,71
T210614	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)

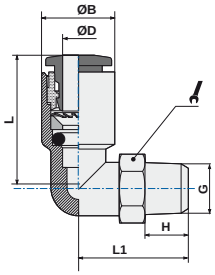
COD.	ØD	G	ØB	H	L	L1			g
T2204M3	4	M3	9,5	3	17,35	14,80	8	50	3,64
T2204M5	4	M5	9,5	4	17,35	15,80	8	100	3,80
T220418	4	1/8	9,5	5,5	17,35	18,35	13	100	7,77
T220414	4	1/4	9,5	6,5	17,35	20,55	16	100	13,12
T2206M5	6	M5	11,5	4,0	21,10	16,10	8	100	4,31
T220618	6	1/8	11,5	5,5	21,10	18,35	13	100	8,11
T220614	6	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

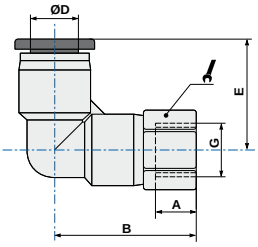
COD.	ØD	G	ØB	H	L	L1			g
T22C0418	4	1/8	11,0	7,5	19,0	20,5	10	100	6,67
T22C0414	4	1/4	11,0	9,5	19,0	20,0	14	100	12,46
T22C0438	4	3/8	11,0	10,5	19,0	21,0	17	25	19,82
T22C0618	6	1/8	13,0	7,5	19,8	21,5	10	100	7,34
T22C0614	6	1/4	13,0	9,5	19,8	21,0	14	100	13,02
T22C0638	6	3/8	13,0	10,5	19,8	22,0	17	25	20,04
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

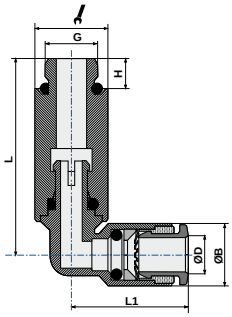
COD.	ØD	G	A	B	E			g
T22F04M5	4	M5	5,5	20,5	19,0	10	50	9,17
T22F0418	4	1/8	8,5	24,0	19,0	14	50	14,80
T22F0414	4	1/4	11,0	27,0	19,0	17	50	20,24
T22F06M5	6	M5	6,0	20,7	19,2	12	50	13,27
T22F0618	6	1/8	8,5	24,2	19,2	14	50	16,85
T22F0614	6	1/4	11,0	27,2	19,2	17	50	21,91
T22F0638	6	3/8	12,0	28,7	19,2	21	25	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)

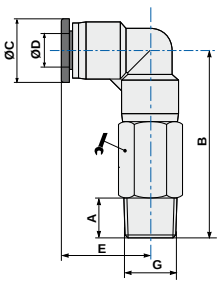
COD.	ØD	G	ØB	H	L	L1			g
T22L04M5	4	M5	11,0	3,5	34,5	18,6	10	25	18,44
T22L0418	4	1/8	9,5	5,5	35,9	17,4	13	25	23,78
T22L06M5	6	M5	13,0	3,5	37,2	19,6	12	25	24,07
T22L0618	6	1/8	11,5	5,5	35,9	20,8	13	25	24,21
T22L0818	8	1/8	13,5	5,5	38,2	23,1	13	25	25,17
T22L0814	8	1/4	14,5	7,5	46,8	22,8	17	25	46,55



ART. T22LC

Swivel longer elbow male adaptor (parallel)

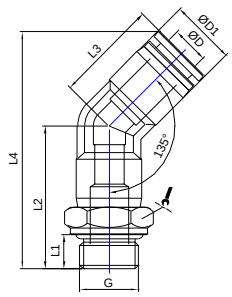
COD.	ØD	G	A	B	ØC	E			g
T22LC0418	4	1/8	7,5	37,0	11,0	18,6	10	25	14,74
T22LC0414	4	1/4	9,5	40,0	11,0	18,6	14	25	19,89
T22LC0618	6	1/8	7,5	40,5	13,0	19,6	12	25	22,41
T22LC0614	6	1/4	9,5	43,0	13,0	19,6	14	25	24,74
T22LC0638	6	3/8	10,5	44,5	13,0	19,6	17	25	31,65
T22LC0818	8	1/8	7,5	44,8	14,5	22,8	14	25	34,35
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)

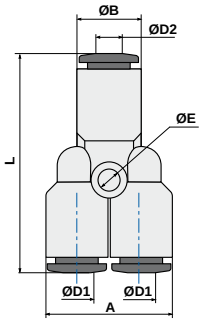
COD.	ØD	G	L1	L2	L3	L4	ØD1			g
T4504M5	4	M5	3,5	22,5	19,0	39,5	11,3	10	1	8,37
T450418	4	G1/8	5,5	25,5	19	42,5	11,3	14	1	13,10
T450618	6	G1/8	5,5	25,5	19,2	43,5	13,3	14	1	14,16
T450614	6	G1/4	7,5	28	19,2	46	13,3	17	1	19,81
T450818	8	G1/8	5,5	29	22,5	49,5	14,8	14	1	17,60
T450814	8	G1/4	7,5	31,5	22,5	52	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

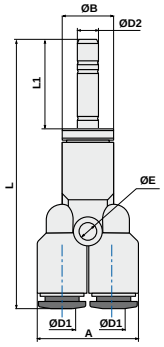
COD.	ØD1	ØD2	ØE	ØB	A	L		g
T230400	4	4	3,2	9,5	19,0	33,3	50	2,98
T230406	4	6	3,2	11,5	19,0	36,2	50	3,56
T230600	6	6	3,2	11,5	23,0	39,2	50	4,83
T230608	6	8	3,2	13,5	23,0	42,7	50	5,26
T230800	8	8	3,2	13,5	27,0	42,7	50	6,29
T230810	8	10	3,2	17,0	27,0	49,0	25	7,84
T231000	10	10	4,3	17,0	34,0	49,4	25	11,16
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

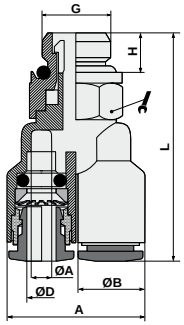
COD.	ØD1	ØD2	ØB	A	ØE	L	L1		g
T2304L0	4	4	9,5	19	3,2	50,0	16,7	50	6,69
T2306L0	6	6	11,5	23	3,2	57,6	19,5	50	11,19
T2308L0	8	8	13,5	27	3,2	62,6	21,0	50	15,24
T2310L0	10	10	17,0	34	4,3	72,3	24,0	25	24,64
T2312L0	12	12	20,0	40	4,2	77,1	25,0	10	33,95



ART. T23G

Y connector with swivel parallel male adapter

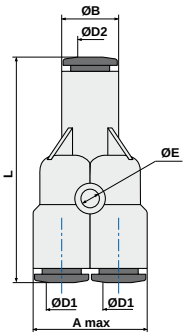
COD.	ØD	G	ØA	ØB	H	A	L			g
T23G04M5	4	M5	2,0	11,0	3,5	22,0	39,8	10	50	11,09
T23G0418	4	1/8	3,0	9,5	5,5	19,0	31,8	13	50	8,57
T23G0414	4	1/4	3,0	9,5	6,5	19,0	32,8	16	50	21,04
T23G0438	4	3/8	3,0	11,0	7,5	22,0	46,0	20	25	26,95
T23G0618	6	1/8	5,0	11,5	5,5	23,0	35,3	13	50	9,66
T23G0614	6	1/4	5,0	11,5	6,5	23,0	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

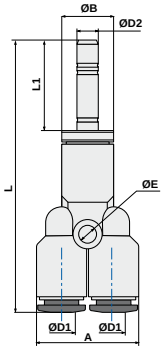
COD.	ØD1	ØD2	ØE	ØB	A max	L		g
T240400	4	4	3,2	9,5	20,0	34,8	25	5,97
T240406	4	6	3,2	11,5	20,0	37,3	25	6,39
T240408	4	8	3,2	14,5	22,0	38,4	25	12,89
T240600	6	6	3,2	11,5	24,0	40,2	25	9,02
T240608	6	8	3,2	14,5	26,0	39,9	25	16,81
T240800	8	8	3,2	14,5	29,5	41,6	25	20,07
T240810	8	10	3,2	17,0	28,0	46,8	25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



ART. T24L0

Plug-in double Y connector

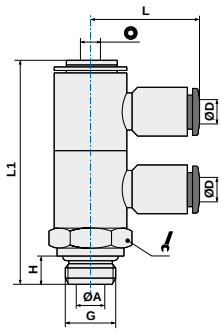
COD.	ØD1	ØD2	ØE	ØB	A	L	L1		g
T2404L0	4	4	3,2	9,5	19	50,3	16,7	25	9,56
T2406L0	6	6	3,2	11,5	24	59,0	19,5	25	14,15
T2408L0	8	8	3,2	13,5	28	64,0	21,0	25	24,65



ART. T33

Swivel double banjo stem

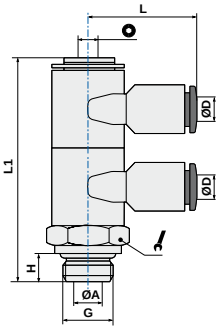
COD.	ØD	G	ØA	H	L1	L	O			g
T3304M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	25	5,88
T330418	4	1/8	5,5	5,5	43,3	21,3	3	14	25	22,33
T330618	6	1/8	5,5	5,5	43,3	24,6	3	14	25	23,17
T330614	6	1/4	7,8	6,5	50,0	25,8	4	18	25	42,26
T330818	8	1/8	5,5	5,5	43,3	24,9	3	14	25	23,66
T330814	8	1/4	7,8	6,5	50,0	26,6	4	18	25	44,98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



ART. T33B

Double banjo universal male elbow

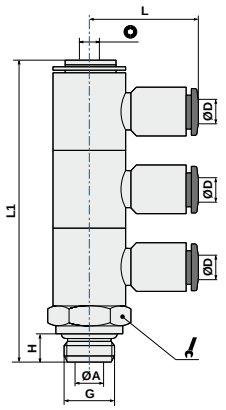
COD.	ØD	G	ØA	H	L1	L	O			g
T33B04M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	10	7,90
T33B0618	6	1/8	5,5	5,5	43,3	24,6	3	14	10	19,88
T33B0814	8	1/4	7,8	6,5	50,0	26,6	4	18	10	48,50



ART. T34

Swivel triple banjo stem

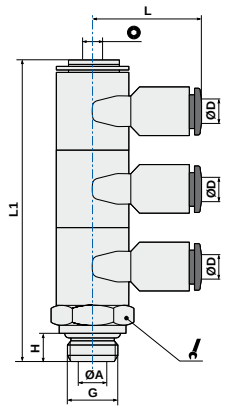
COD.	ØD	G	ØA	H	L1	L	O			g
T340418	4	1/8	5,5	5,5	58,4	21,3	3	14	10	28,50
T340618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	30,06
T340818	8	1/8	5,5	5,5	58,4	24,9	3	14	10	56,19
T340614	6	1/4	7,8	6,5	67,1	25,8	4	18	10	30,58
T340814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	56,63
T341014	10	1/4	7,8	6,5	67,1	28,7	4	18	10	60,71



ART. T34B

Triple banjo universal male elbow

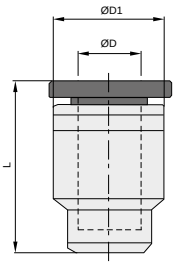
COD.	ØD	G	ØA	H	L1	L	O			g
T34B0618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	34,58
T34B0814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	62,84



ART. T90

Tube blanking cap

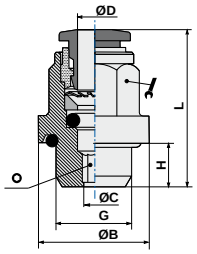
COD.	ØD	ØD1	L		g
T900400	4	11,5	17,5	100	1,97
T900600	6	13,5	17,7	100	2,56
T900800	8	15	21,3	100	3,37
T901000	10	19	25,0	50	6,84
T901200	12	21,5	26,0	50	8,59



ART. TB01

Straight male adaptor (parallel)

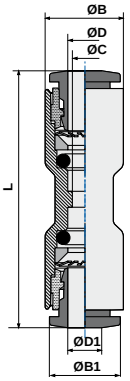
COD.	ØD	G	ØC	ØB	H	L	O			g
TB010418	4	1/8	2,5	14,0	5,5	19,65	10	2,5	50	2,16
TB010414	4	1/4	2,5	17,5	6,5	21,15	10	2,5	50	3,36
TB010618	6	1/8	4,0	14,0	5,5	25,10	12	4,0	50	3,10
TB010614	6	1/4	4,0	17,5	6,5	26,60	12	4,0	50	4,26
TB010818	8	1/8	5,0	14,0	5,5	26,10	14	5,0	50	3,53
TB010814	8	1/4	6,0	17,5	6,5	27,60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

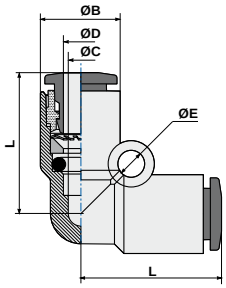
COD.	ØD	ØD1	ØC	ØB	ØB1	L		g
TB030400	4	4	3	9,5	9,5	32,30	50	1,96
TB030406	4	6	3	9,5	11,5	34,25	50	2,39
TB030600	6	6	5	11,5	11,5	36,70	50	3,00
TB030608	6	8	5	11,5	13,5	37,70	50	3,27
TB030800	8	8	7	13,5	13,5	38,20	50	3,53
TB030810	8	10	7	13,5	17,0	40,75	50	5,03
TB031000	10	10	9	17,0	17,0	42,90	50	6,04
TB031012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

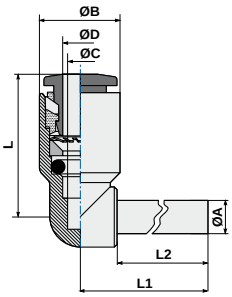
COD.	ØD	ØC	ØB	L	ØE		g
TB040400	4	3	9,5	17,35	3,20	50	2,21
TB040600	6	5	11,5	21,10	3,20	50	3,28
TB040800	8	7	13,5	23,10	3,20	50	4,14
TB041000	12	10	20,0	28,90	4,20	25	10,98
TB041200	12	10	20,0	28,90	4,20	25	10,98



ART. TB04L0

Plug-in elbow connector

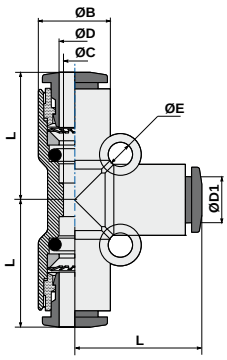
COD.	ØD	ØC	ØB	L	L1	ØA	L2		g
TB0404L0	4	3	9,5	17,35	20,75	4	16,7	50	1,39
TB0406L0	6	5	11,5	21,10	24,25	6	19,5	50	2,18
TB0408L0	8	7	13,5	23,10	27,25	8	21,0	50	2,96
TB0410L0	10	9	17,0	26,70	31,80	10	24,0	50	5,07
TB0412L0	12	10	20,0	28,90	36,00	12	25,0	25	8,00



ART. TB05

T connector

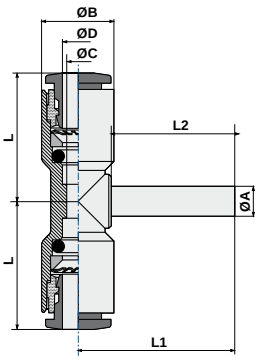
COD.	ØD	ØD1	ØC	ØB	L	ØE		g
TB050400	4	4	3,0	9,50	17,35	3,2	50	3,16
TB050604	6	4	5,3	13,00	19,10	3,2	50	8,20
TB050600	6	6	5,0	11,50	21,10	3,2	50	4,72
TB050806	8	6	7,1	14,40	22,70	3,2	25	11,07
TB050800	8	8	7,0	13,50	23,10	3,2	50	5,96
TB051008	10	8	9,3	18,40	27,90	4,2	25	21,85
TB051000	10	10	9,0	17,00	26,70	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. TB05L0

Plug-in T connector (center)

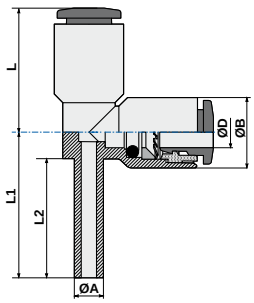
COD.	ØD	ØC	ØB	L	L1	ØA	L2		g
TB0504L0	4	3	9,5	17,2	20,8	4	16,7	50	2,26
TB0506L0	6	5	11,5	20,8	24,3	6	19,5	50	3,51
TB0508L0	8	7	13,5	23,0	27,3	8	21,0	50	4,66
TB0510L0	10	9	17,0	26,4	31,8	10	24,0	25	5,64
TB0512L0	12	10	20,0	28,9	36,0	12	25,0	10	7,11



ART. TB05V0

Plug-in T connector (lateral)

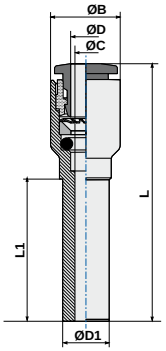
COD.	ØD	ØB	L	L1	ØA	L2		g
TB0506V0	6	11,5	20,8	24,3	6	19,5	50	3,42
TB0508V0	8	13,5	23,0	27,3	8	21,0	50	4,54
TB0510V0	10	17,0	26,4	31,8	10	24,0	25	7,65
TB0512V0	12	20,0	28,9	36,0	12	25,0	10	8,10



ART. TB08

Reducer

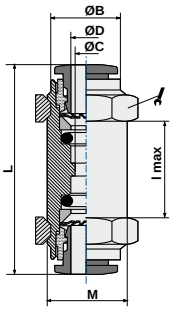
COD.	ØD1	ØD	ØC	ØB	L	L1		g
TB080604	6	4	3	9,5	35,65	19,50	50	1,37
TB080804	8	4	3	9,5	37,15	21,00	50	1,60
TB081004	10	4	3	9,5	40,15	24,00	25	1,97
TB081204	12	4	3	9,5	41,15	25,00	25	2,22
TB080806	8	6	5	11,5	39,35	23,00	50	2,10
TB081006	10	6	5	11,5	42,35	24,00	25	2,49
TB081206	12	6	5	11,5	43,35	25,00	25	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

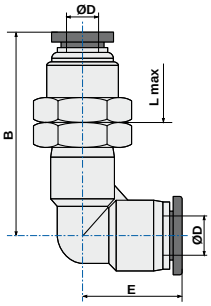
COD.	ØD	ØB	ØC	L	M	Lmax			
TB100400	4	9,5	3	32,0	11x1	8	14	50	7,78
TB100600	6	11,5	5	36,1	14,1	12	17	50	11,05
TB100800	8	13,5	7	38,0	16x1	15	18	50	10,93
TB101000	10	17,5	9	42,3	20x1	17	24	25	25,34
TB101200	12	20	10	46,2	22x1	20	26	25	33,12



ART. TB10L

L bulkhead

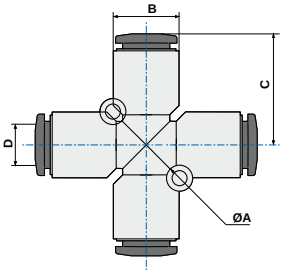
COD.	ØD	M	B	E	H	Lmax			
TB10L0400	4	12x1	28,5	19,0	14,0	6,0	14	25	17,77
TB10L0600	6	14x1	32,1	19,2	17,0	7,0	17	25	28,99
TB10L0800	8	16x1	39,4	23,0	19,0	7,5	19	25	39,23
TB10L1000	10	20x1	48,8	28,2	24,0	9,5	24	25	63,06
TB10L1200	12	22x1	49,5	29,5	27,0	10,0	26	10	79,66



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

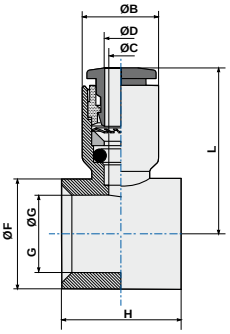


ART. TB13

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 91 of stem section.

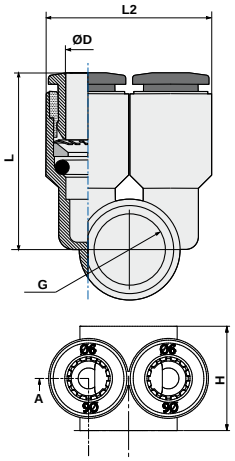


ART. TB13B

Single branch body

COD.	ØD	G*	H	L	L2	📦	g
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 91 of stem section.
H = Stem size lenght

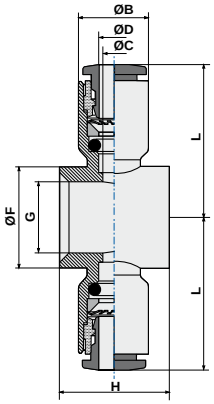


ART. TB14

Double banjo body

COD.	ØD	G*	ØC	ØB	H	ØF	L	📦	g
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

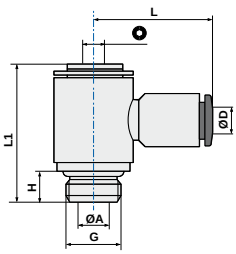
G* = Stem thread. See page 91 of stem section.



ART. TB15

Complete single banjo (rotating under pressure)

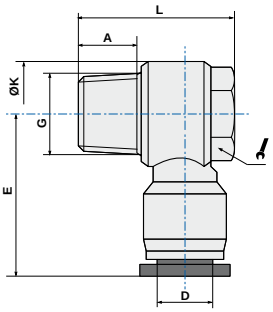
COD.	ØD	G	ØA	H	L1	L	O	📦	g
TB1504M5	4	M5	2,0	4,0	17,8	19,65	2,5	50	3,54
TB1504M6	4	M6	2,0	5,0	18,8	19,65	2,5	50	3,96
TB150418	4	1/8	5,5	5,5	24,5	21,25	3,0	50	11,87
TB150618	6	1/8	5,5	5,5	24,5	24,60	3,0	50	12,29
TB150614	6	1/4	7,8	6,5	27,8	25,80	4,0	50	22,36
TB150818	8	1/8	5,5	5,5	24,5	24,90	3,0	50	12,67
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

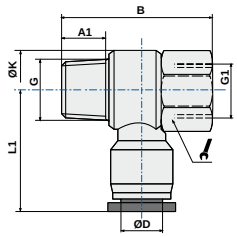
COD.	ØD	G	A	L	ØK	E			g
TB15C0418	4	1/8	7,5	23,5	14,4	22,40	12,0	50	12,22
TB15C0618	6	1/8	7,5	23,5	14,4	22,90	12,0	50	12,95
TB15C0614	6	1/4	9,5	26,5	18,3	25,00	14,0	50	21,03
TB15C0638	6	3/8	10,5	32,0	22,0	26,60	19,0	25	37,28
TB15C0818	8	1/8	7,5	23,5	14,4	25,60	12,0	50	13,66
TB15C0814	8	1/4	9,5	26,5	18,3	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

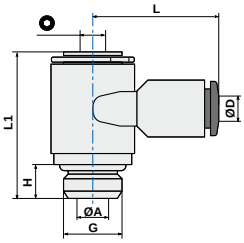
COD.	ØD	G/G1	L1	A1	B	ØK			g
TB15FC0418	4	1/8	22,4	7,5	29,0	14,40	14,0	50	16,26
TB15FC0414	4	1/4	25,0	9,5	35,0	18,30	17,0	50	29,78
TB15FC0618	6	1/8	22,9	7,5	29,0	14,40	14,0	50	16,81
TB15FC0614	6	1/4	25,0	9,5	35,0	18,30	17,0	50	29,62
TB15FC0818	8	1/8	25,6	7,5	29,0	14,40	14,0	50	17,68
TB15FC0814	8	1/4	28,7	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

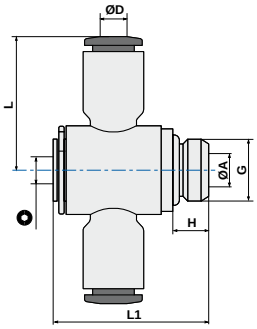
COD.	ØD	G	ØA	H	L1	L				g
TB15B04M5	4	M5	2,0	4,0	17,8	19,7	2,5	2,5	50	4,57
TB15B0618	6	1/8	5,5	5,5	24,5	24,6	3,0	3,0	50	13,73
TB15B0814	8	1/4	7,8	6,5	27,8	26,6	4,0	4,0	50	24,51
TB15B1038	10	3/8	10,0	7,5	32,5	30,2	5,0	5,0	25	44,78
TB15B1212	12	1/2	12,0	9,0	38,8	34,9	8,0	8,0	10	77,84



ART. TB16

Complete double banjo (rotating under pressure)

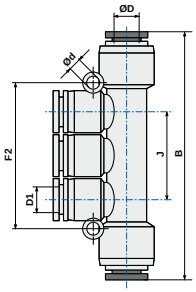
COD.	ØD	G*	ØA	H	L1	L	O		g
TB1604M5	4	M5	2	4,0	17,8	19,5	2,5	50	4,48
TB160418	4	1/8	5,5	5,5	24,5	21,1	3,0	50	55,00
TB160618	6	1/8	5,5	5,5	24,5	24,3	3,0	50	38,55
TB160838	8	3/8	7,5	7,5	32,5	28,0	5,0	25	67,55
TB161038	10	3/8	7,5	7,5	32,5	30,0	5,0	25	48,90
TB161012	10	1/2	9,0	9,0	38,8	30,0	8,0	10	48,65
TB161238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

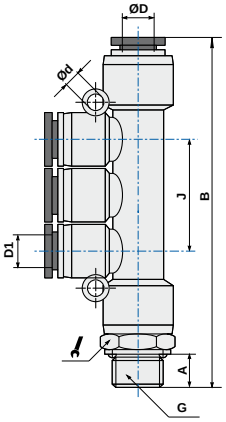
COD.	ØD	ØD1	J	B	Ød	F2		g
TB180604	6	4	26,0	60,3	3,2	42,0	25	16,05
TB180804	8	4	26,0	61,7	3,2	42,0	25	15,89
TB180806	8	6	26,0	61,7	3,2	42,0	25	15,66
TB181006	10	6	29,2	83,0	4,2	48,0	10	27,15
TB181008	10	8	29,2	83,0	4,2	48,0	10	27,50



ART. TB18G

Male triple branch

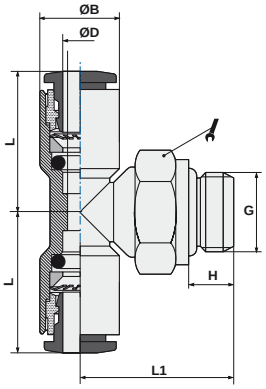
COD.	ØD	D1	G	A	B	J		Ød		g
TB18G0418	4	4	1/8	5,5	67,2	26	14	3,2	25	25,26
TB18G0414	4	4	1/4	7,5	69,7	26	17	3,2	25	31,01
TB18G0438	4	4	3/8	7,5	69,7	26	20	3,2	10	152,50
TB18G0618	6	6	1/8	5,5	67,2	26	14	3,2	25	25,51
TB18G0614	6	6	1/4	7,5	69,7	26	17	3,2	25	30,52
TB18G0638	6	6	3/8	7,5	70,2	26	20	3,2	10	157,40
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

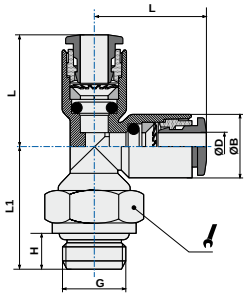
COD.	ØD	G	ØB	H	L	L1			g
TB2004M3	4	M3	9,5	3,0	17,35	15,00	8	50	4,53
TB2004M5	4	M5	9,5	4,0	17,35	17,00	8	50	4,65
TB200418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,56
TB200414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,83
TB200438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
TB2006M5	6	M5	9,5	4,0	21,10	17,00	8	50	5,71
TB200618	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

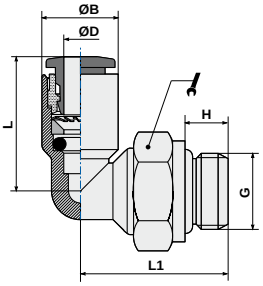
COD.	ØD	G	ØB	H	L	L1			g
TB2104M3	4	M3	9,5	3,0	17,35	14,80	8	50	4,52
TB2104M5	4	M5	9,5	4,0	17,35	15,80	8	50	4,74
TB210418	4	1/8	9,5	5,5	17,35	18,35	13	50	8,50
TB210414	4	1/4	9,5	6,5	17,35	20,55	16	50	13,96
TB210438	4	3/8	11,0	7,5	18,60	28,50	20	25	25,42
TB210618	6	1/8	11,5	5,5	21,10	18,35	13	50	9,71
TB210614	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

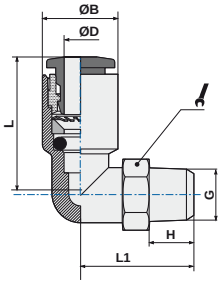
COD.	ØD	G	ØB	H	L	L1			g
TB2204M3	4	M3	9,5	3	17,35	14,80	8	50	3,64
TB2204M5	4	M5	9,5	4	17,35	15,80	8	100	3,80
TB220418	4	1/8	9,5	5,5	17,35	18,35	13	100	7,77
TB220414	4	1/4	9,5	6,5	17,35	20,55	16	100	13,12
TB2206M5	6	M5	11,5	4,0	21,10	16,10	8	100	4,31
TB220618	6	1/8	11,5	5,5	21,10	18,35	13	100	8,11
TB220614	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

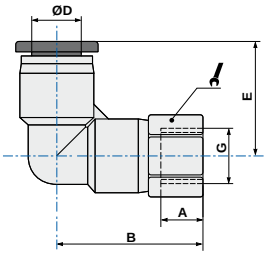
COD.	ØD	G	ØB	H	L	L1			g
TB22C0418	4	1/8	11,0	7,5	19,0	20,5	10	100	6,67
TB22C0414	4	1/4	11,0	9,5	19,0	20,0	14	100	12,46
TB22C0438	4	3/8	11,0	10,5	19,0	21,0	17	25	19,82
TB22C0618	6	1/8	13,0	7,5	19,8	21,5	10	100	7,34
TB22C0614	6	1/4	13,0	9,5	19,8	21,0	14	100	13,02
TB22C0638	6	3/8	13,0	10,5	19,8	22,0	17	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

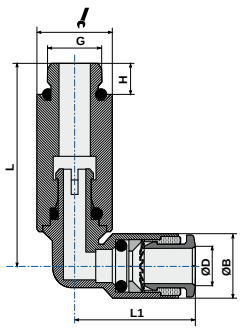
COD.	ØD	G	A	B	E			g
TB22F04M5	4	M5	5,5	20,5	19,0	10	50	9,17
TB22F0418	4	1/8	8,5	24,0	19,0	14	50	14,80
TB22F0414	4	1/4	11,0	27,0	19,0	17	50	20,24
TB22F06M5	6	M5	6,0	20,7	19,2	12	50	13,27
TB22F0618	6	1/8	8,5	24,2	19,2	14	50	16,85
TB22F0614	6	1/4	11,0	27,2	19,2	17	50	21,91
TB22F0638	6	3/8	12,0	28,7	19,2	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

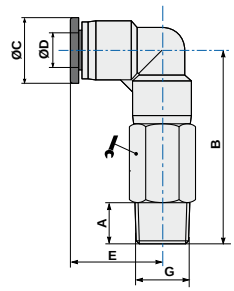
COD.	ØD	G	ØB	H	L	L1			g
TB22L04M5	4	M5	11,0	3,5	34,5	18,6	10	25	18,44
TB22L0418	4	1/8	9,5	5,5	35,9	17,4	13	25	23,78
TB22L06M5	6	M5	13,0	3,5	37,2	19,6	12	25	24,07
TB22L0618	6	1/8	11,5	5,5	35,9	20,8	13	25	24,21
TB22L0818	8	1/8	13,5	5,5	38,2	23,1	13	25	25,17
TB22L0814	8	1/4	14,5	7,5	46,8	22,8	17	25	46,55



ART. TB22LC

Swivel longer elbow male adaptor parallel

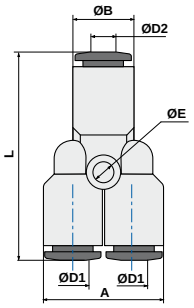
COD.	ØD	G	A	B	ØC	E			g
TB22LC0418	4	1/8	7,5	37,0	11,0	18,6	10	25	14,74
TB22LC0414	4	1/4	9,5	40,0	11,0	18,6	14	25	19,89
TB22LC0618	6	1/8	7,5	40,5	13,0	19,6	12	25	22,41
TB22LC0614	6	1/4	9,5	43,0	13,0	19,6	14	25	24,74
TB22LC0638	6	3/8	10,5	44,5	13,0	19,6	17	25	31,65
TB22LC0818	8	1/8	7,5	44,8	14,5	22,8	14	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

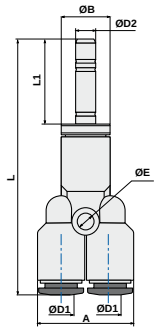
COD.	ØD1	ØD2	ØE	ØB	A	L		g
TB230400	4	4	3,2	9,5	19,0	33,3	50	2,98
TB230406	4	6	3,2	11,5	19,0	36,2	50	3,56
TB230600	6	6	3,2	11,5	23,0	39,2	50	4,83
TB230608	6	8	3,2	13,5	23,0	42,7	50	5,26
TB230800	8	8	3,2	13,5	27,0	42,7	50	6,29
TB230810	8	10	3,2	17,0	27,0	49,0	25	7,84
TB231000	10	10	4,3	17,0	34,0	49,4	25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

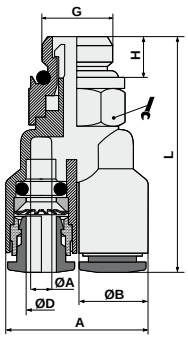
COD.	ØD1	ØD2	ØB	A	ØE	L	L1		g
TB2304L0	4	4	9,5	19	3,2	50,0	16,7	50	6,69
TB2306L0	6	6	11,5	23	3,2	57,6	19,5	50	11,19
TB2308L0	8	8	13,5	27	3,2	62,6	21,0	50	15,24
TB2310L0	10	10	17,0	34	4,3	72,3	24,0	25	24,64
TB2312L0	12	12	20,0	40	4,2	77,1	25,0	10	33,95



ART. TB23G

Y connector with swivel parallel male adapter

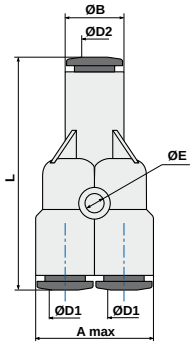
COD.	ØD	G	ØA	ØB	H	A	L			g
TB23G04M5	4	M5	2,0	11,0	3,5	22,0	39,8	10	50	11,09
TB23G0418	4	1/8	3,0	9,5	5,5	19,0	31,8	13	50	8,57
TB23G0414	4	1/4	3,0	9,5	6,5	19,0	32,8	16	50	21,04
TB23G0438	4	3/8	3,0	11,0	7,5	22,0	46,0	20	25	26,95
TB23G0618	6	1/8	5,0	11,5	5,5	23,0	35,3	13	50	9,66
TB23G0614	6	1/4	5,0	11,5	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

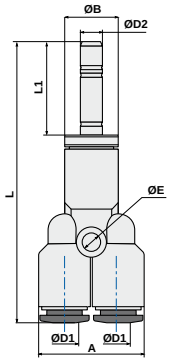
COD.	ØD1	ØD2	ØE	ØB	Amax	L		g
TB240400	4	4	3,2	9,5	20,0	34,8	25	5,97
TB240406	4	6	3,2	11,5	20,0	37,3	25	6,39
TB240408	4	8	3,2	14,5	22,0	38,4	25	12,89
TB240600	6	6	3,2	11,5	24,0	40,2	25	9,02
TB240608	6	8	3,2	14,5	26,0	39,9	25	16,81
TB240800	8	8	3,2	14,5	29,5	41,6	25	20,07
TB240810	8	10	3,2	17,0	28,0	46,8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



ART. TB24L0

Plug-in double Y connector

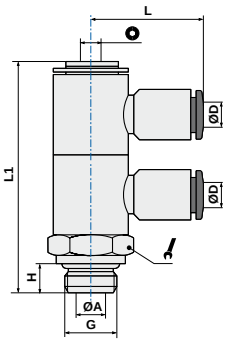
COD.	ØD1	ØD2	ØE	ØB	A	L	L1		g
TB2404L0	4	4	3,2	9,5	19	50,3	16,7	25	9,56
TB2406L0	6	6	3,2	11,5	24	59,0	19,5	25	14,15
TB2408L0	8	8	3,2	13,5	28	64,0	21,0	25	24,65



ART. TB33

Swivel double banjo stem

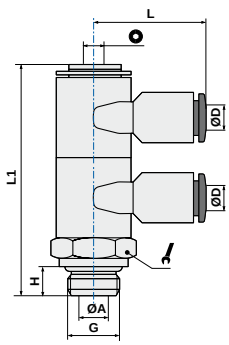
COD.	ØD	G	ØA	H	L1	L	O			g
TB3304M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	25	5,88
TB330418	4	1/8	5,5	5,5	43,3	21,3	3	14	25	22,33
TB330618	6	1/8	5,5	5,5	43,3	24,6	3	14	25	23,17
TB330614	6	1/4	7,8	6,5	50,0	25,8	4	18	25	42,26
TB330818	8	1/8	5,5	5,5	43,3	24,9	3	14	25	23,66
TB330814	8	1/4	7,8	6,5	50,0	26,6	4	18	25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



ART. TB33B

Double banjo universal male

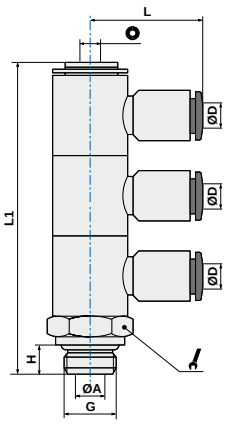
COD.	ØD	G	ØA	H	L1	L	O			g
TB33B04M5	4	M5	2,0	4,0	28,0	19,7	2,5	14	10	7,90
TB33B0618	6	1/8	5,5	5,5	43,3	24,6	3	14	10	19,88
TB33B0814	8	1/4	7,8	6,5	50,0	26,6	4	18	10	48,50



ART. TB34

Swivel triple banjo stem

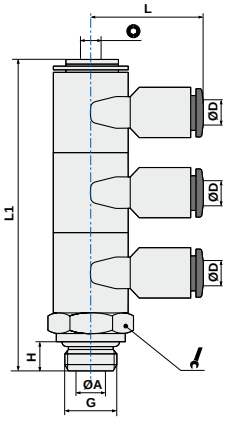
COD.	ØD	G	ØA	H	L1	L	O			g
TB340418	4	1/8	5,5	5,5	58,4	21,3	3	14	10	28,50
TB340618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	30,06
TB340818	8	1/8	5,5	5,5	58,4	24,9	3	14	10	56,19
TB340614	6	1/4	7,8	6,5	67,1	25,8	4	18	10	30,58
TB340814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	56,63
TB341014	10	1/4	7,8	6,5	67,1	28,7	4	18	10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



ART. TB34B

Triple banjo universal male L

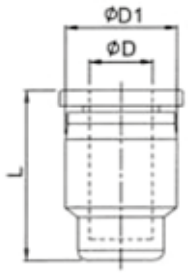
COD.	ØD	G	ØA	H	L1	L	O			g
TB34B0618	6	1/8	5,5	5,5	58,4	24,6	3	14	10	34,58
TB34B0814	8	1/4	7,8	6,5	67,1	26,6	4	18	10	62,84



ART. TB90

Tube blanking cap

COD.	ØD	ØD1	L		g
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

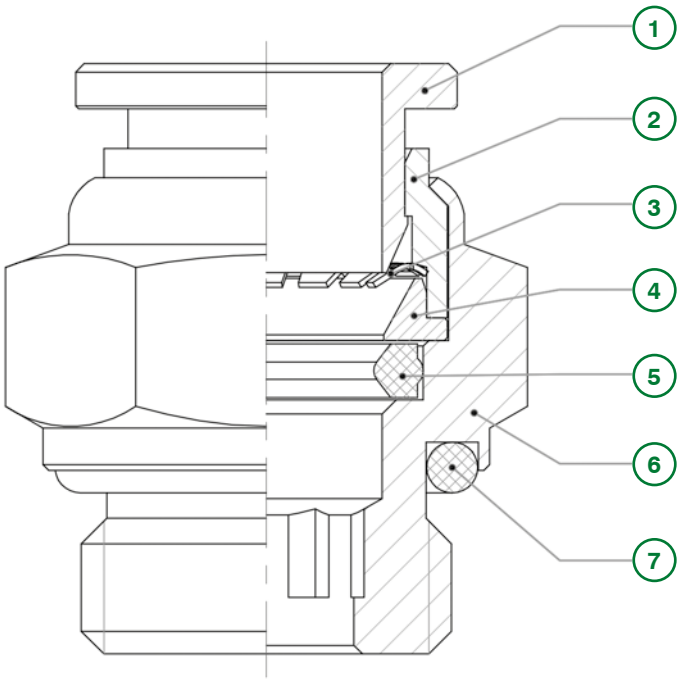
SERIES
SS = Stainless steel push-in fittings

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 parallel adaptor
L = Swivel elbow tapered adaptor
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 = Elbow 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 207



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

FLUIDS		Compressed air, water, steam (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic equipments which are applied widely in the range of Industy 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.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
RECOMMENDED LIMIT VALUES	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.
THREAD TYPE		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	Body, sleeve, collar and back ring	Stainless Steel SUS316L
	Spring	Stainless Steel SUS316L
	Seals	FKM/FPM
IMPORTANT NOTE		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 TÜV NORD on behalf of the manufacturer

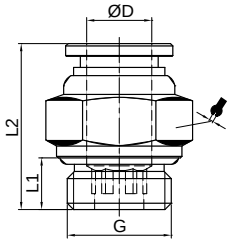
	Test report N.	Data	Period (days)	Item	Main material	Test purpose
A	TRHZ1208110	06/08/2012	6	Seal ring	Viton FPM fluororubber (FKM)	The compliance with the food and drug administration regulations for determining the amount of chloroform-soluble extractives (ppm) from closures with sealing gaskets for food containers
B	TRHZ1208111	06/08/2012	6	Elbow fitting mod SSV	Stainless Steel SUS316L	To determine total chromium content in the submitted sample
C	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 risult	Conclusion
A	Immension 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 extractivers for closures (clos)
	Immension for 2 hours in alcohol 8% at 212°F	Detected value 7,0 Max permissible 50,0	
	Immension for 2 hours in n-heptane at 150°F	Detected value 11,5 Max permissible 50,0	
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
C	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)

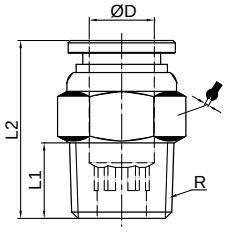
COD.	ØD	G	L1	L2	O			g
SSC04-M5	4	M5	4	19,3	2	10	1	6,60
SSC04-G01	4	1/8	5,5	17,3	3	13	1	9,80
SSC04-G02	4	1/4	6,5	21,2	3	17	1	16,00
SSC06-M5	6	M5	4	20,6	2	12	1	10,00
SSC06-G01	6	1/8	5,5	18,8	4	13	1	9,80
SSC06-G02	6	1/4	6,5	18,8	4	16	1	16,00
SSC08-G01	8	1/8	5,5	23,2	5	14	1	13,00
SSC08-G02	8	1/4	6,5	20,7	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)

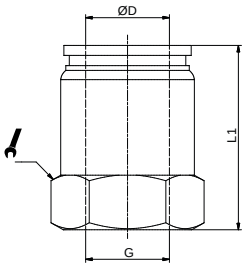
COD.	ØD	R	L1	L2	O			g
SSC04-01	4	1/8	7,5	16,8	3	10	1	9,80
SSC04-02	4	1/4	9,5	21	3	14	1	14,00
SSC06-01	6	1/8	7,5	19,3	4	12	1	9,80
SSC06-02	6	1/4	9,5	19,8	4	14	1	16,00
SSC06-03	6	3/8	10,5	22	4	17	1	22,00
SSC06-04	6	1/2	12,5	24	4	21	1	42,00
SSC08-01	8	1/8	7,5	23,7	6	14	1	13,00
SSC08-02	8	1/4	9,5	22,2	6	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 thread)

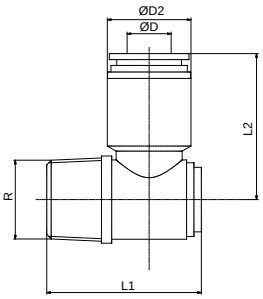
COD.	ØD	G	L1			g
SSCF04-M5	4	M5	20,2	12	1	8,00
SSCF04-01	4	1/8	21,2	12	1	8,00
SSCF04-02	4	1/4	21	17	1	18,00
SSCF06-01	6	1/8	21,6	14	1	16,00
SSCF06-02	6	1/4	21	17	1	18,00
SSCF08-01	8	1/8	25	17	1	16,00
SSCF08-02	8	1/4	24,5	17	1	21,00



ART. SSH

Complete single banjo tapered

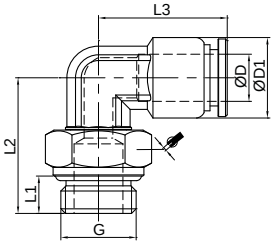
COD.	ØD	R	L1	L2	D2		g
SSH04-01	4	1/8	25,5	26	10,5	1	24,00
SSH06-01	6	1/8	25,5	26	12,5	1	28,00
SSH06-02	6	1/4	28	28	12,5	1	38,00
SSH08-01	8	1/8	25,5	29	14,5	1	28,00
SSH08-02	8	1/4	28	30	14,5	1	40,00
SSH08-03	8	3/8	33,2	33	14,5	1	66,00
SSH10-02	10	1/4	28	32	17,5	1	46,00
SSH10-03	10	3/8	33,2	35	17,5	1	74,00
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 parallel adaptor

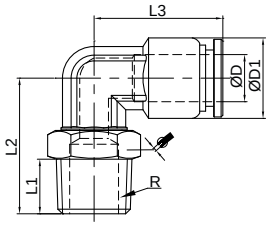
COD.	ØD	G	L1	L2	L3	ØD1			g
SSL04-M5	4	M5	4	17,5	18,3	10	10	1	12,00
SSL04-G01	4	1/8	5,5	20	18,3	10	13	1	16,00
SSL04-G02	4	1/4	6,5	27,5	23	10,5	14	1	24,00
SSL06-M5	6	M5	4	17,5	20,3	12	10	1	16,00
SSL06-G01	6	1/8	5,5	22	20,3	12	13	1	20,00
SSL06-G02	6	1/4	6,5	23	20,3	12	16	1	26,00
SSL06-G03	6	3/8	7,5	28	24	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 tapered adaptor

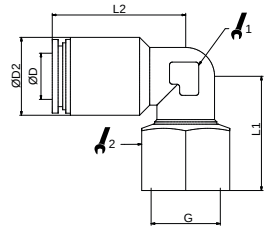
COD.	ØD	R	L1	L2	L3	ØD1			g
SSL04-01	4	1/8	7,5	20	18,3	10	12	1	14,00
SSL04-02	4	1/4	9,5	27,5	23	10,5	14	1	22,00
SSL06-01	6	1/8	7,5	23	20,3	12	12	1	19,00
SSL06-02	6	1/4	9,5	23	20,3	12	14	1	22,00
SSL06-03	6	3/8	10,5	28	24	12,5	17	1	30,00
SSL08-01	8	1/8	7,5	23,5	22,3	14	12	1	24,20
SSL08-02	8	1/4	9,5	23,5	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)

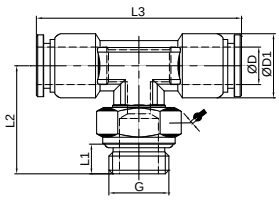
COD.	ØD	G	L1	L2	D2	1	2		g
SSLF04-01	4	1/8	25,5	23	10,5	9,2	10	1	24,00
SSLF06-01	6	1/8	27	24	12,5	9,2	14	1	26,00
SSLF06-02	6	1/4	28	24	12,5	9,2	17	1	32,00
SSLF08-01	8	1/8	27	27	14,5	11,2	14	1	30,00
SSLF08-02	8	1/4	28	27	14,5	11,2	17	1	34,00



ART. SSB-G

Swivel male stud T parallel

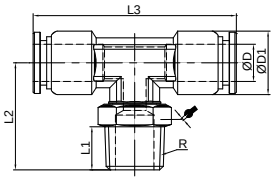
COD.	ØD	G	L1	L2	L3	ØD1			g
SSB04-M5	4	M5	4	17,5	36,6	10	10	1	18,00
SSB04-G01	4	1/8	5,5	20	36,6	10	13	1	22,00
SSB06-M5	6	M5	4	17,5	40,6	12	10	1	22,00
SSB06-G01	6	1/8	5,5	22	40,6	12	13	1	27,00
SSB06-G02	6	1/4	6,5	23	40,6	12	16	1	34,00
SSB08-G01	8	1/8	5,5	22,5	44,6	14	13	1	34,00
SSB08-G02	8	1/4	6,5	23,5	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

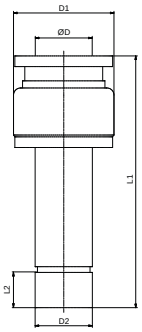
COD.	ØD	R	L1	L2	L3	ØD1			
SSB04-01	4	1/8	7,5	20	36,6	10	12	1	20,00
SSB06-01	6	1/8	7,5	23	40,6	12	12	1	26,00
SSB06-02	6	1/4	9,5	23	40,6	12	14	1	30,00
SSB08-01	8	1/8	7,5	23,5	44,6	14	12	1	22,00
SSB08-02	8	1/4	9,5	23,5	44,6	14	14	1	37,00
SSB10-02	10	1/4	9,5	33	52,8	17	17	1	56,00
SSB10-03	10	3/8	10,5	30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

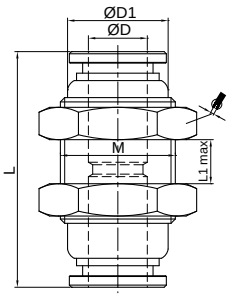
COD.	ØD	D1	D2	L1	L2		
SSGJ06-04	4	10,5	6	41	6,7	1	6,00
SSGJ08-06	6	12,5	8	44	7,0	1	10,00
SSGJ08-04	4	10,5	8	43	7,0	1	8,00
SSGJ10-08	8	14,5	10	47	8,0	1	12,00
SSGJ10-06	6	12,5	10	47	8,0	1	12,00
SSGJ12-10	10	17,5	12	53	8,7	1	20,00
SSGJ12-08	8	14,5	12	52	8,7	1	16,00
SSGJ14-10	10	17,5	14	56	10,0	1	30,00



ART. SSM

Bulkhead connector

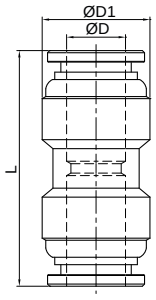
COD.	ØD	ØD1	L	L1 max	M			
SSM04	4	10	27	8	M12x1	14	1	16,00
SSM06	6	12	29,5	8	M14x1	17	1	24,10
SSM08	8	14	32,5	8,5	M16x1	19	1	31,70
SSM10	10	17	36,8	9,5	M20x1	24	1	56,00
SSM12	12	20	39,8	11,5	M22x1	26	1	70,00
SSM14	14	24	42	17	M24x1	27	1	75,00



ART. SSU

Equal straight connector

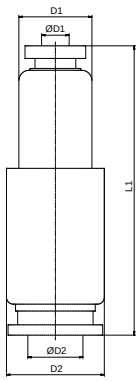
COD.	ØD	ØD1	L		g
SSU04	4	11	27	1	11,40
SSU06	6	13	29,5	1	15,40
SSU08	8	15	32,5	1	20,40
SSU10	10	18	36,8	1	33,00
SSU12	12	21	39,8	1	47,70
SSU14	14	22	42	1	46,00



ART. SSG

Reducer straight connector

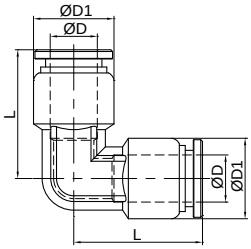
COD.	ØD1	ØD2	D1	D2	L1		g
SSG04-06	4	6	10,5	12,5	30,6	1	14,00
SSG06-08	6	8	12,5	14,5	32,8	1	18,00
SSG08-10	8	10	14,5	17,5	35	1	26,00
SSG10-12	10	12	17,5	20,5	38,2	1	40,00



ART. SSV

Elbow connector

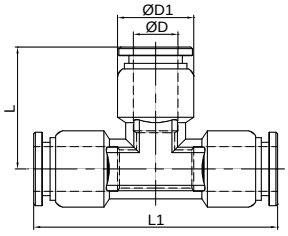
COD.	ØD	ØD1	L		g
SSV04	4	10	18,3	1	16,00
SSV06	6	12	20,3	1	17,10
SSV08	8	14	22,3	1	23,20
SSV10	10	17	26,4	1	37,60
SSV12	12	20	29,4	1	56,00
SSV14	14	22	37	1	98,00



ART. SSE

T connector

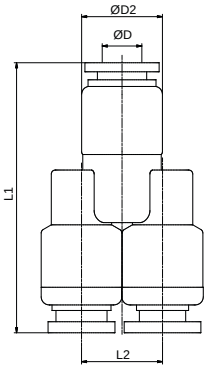
COD.	ØD	ØD1	L	L1		g
SSE04	4	10	18,3	36,6	1	18,00
SSE06	6	12	20,3	40,6	1	23,70
SSE08	8	14	22,3	44,6	1	31,80
SSE10	10	17	26,4	52,8	1	53,50
SSE12	12	20	29,4	58,8	1	79,00
SSE14	14	14	37	74	1	80,00



ART. SSY

Y connector

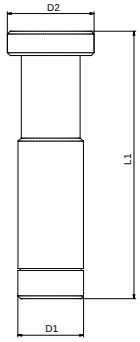
COD.	ØD	L1	L2	ØD2		g
SSY04	4	36	14	11	1	24,00
SSY06	6	37,5	16	13	1	34,00
SSY08	8	41,3	18	15	1	38,00
SSY10	10	44,3	21	18	1	56,00
SSY12	12	51	24	21	1	84,00



ART. SSP

Plug

COD.	D1	D2	L1		g
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
04L0 = 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 207

Components

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

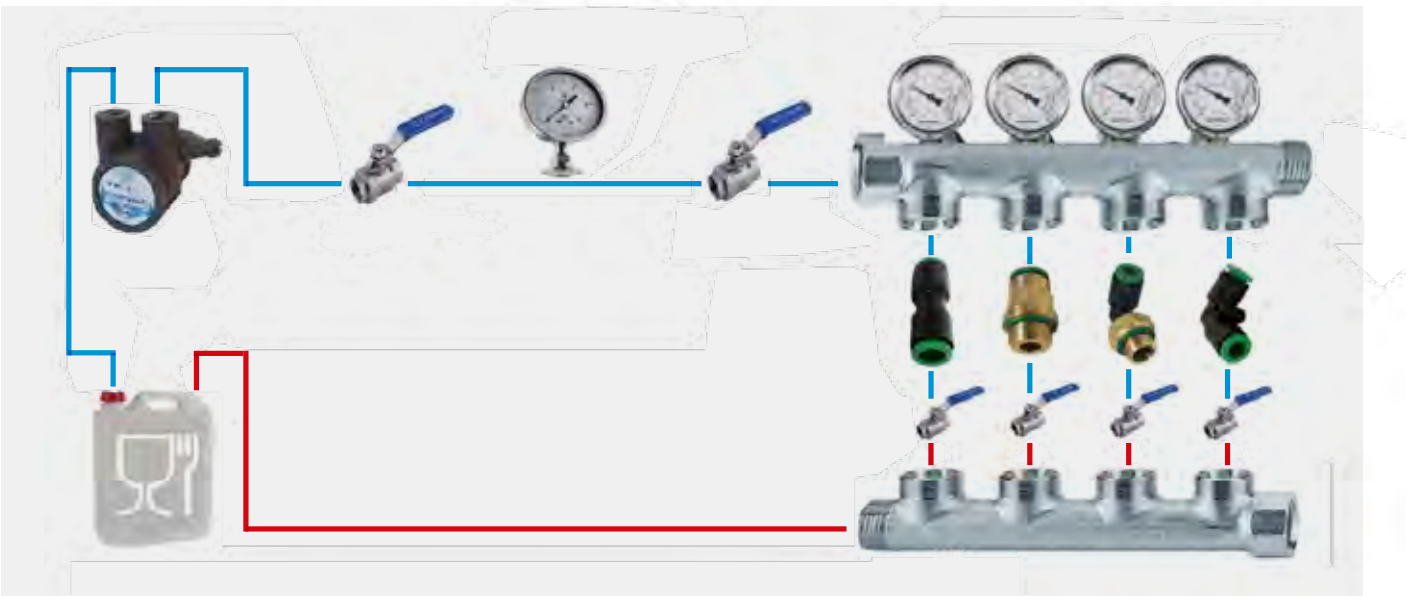
Plant technical description: Pipes, fittings, machine, entirely in AISI 316L stainless steel, approved for use with drinking water and food contact

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



TEST CONDITION	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
TEST RESULTS	Liquid leakage	NO	NO	NO	NO
	Presure 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 mmine 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

FLUIDS		Compressed air and main food fluids
APPLICATIONS		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.)
SUGGESTED TUBES		TPU, PA11/PA12, TPE, TCO for compressed air. PE, PVC, PELD for food fluids.
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05
TEMPERATURE AND PRESSURE	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.
THREAD TYPE		BSP parallel UNI-ISO 228; Metric ISO/R 262
MATERIALS	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:

TUBE DIAMETER	Ø4	Ø6	Ø8	Ø10
BREAKING LOAD	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:

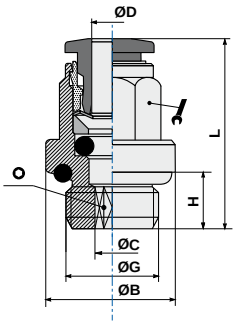
Further to all the necessary assessments on the use of the fittings in operating conditions different from how suggested in the initial technical sheet must be considered, with reference to temperatures, the nominal data regarding the type of the used tube and the limit imposed by the most critical component.
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
TPU	18,7	74,8	10,0	40,0	5,2	20,8
PA11	37,4	149,6	20,0	80,0	10,4	41,6
PA12	48,6	168,3	26,0	90,0	10,4	36,0
PE	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		O		g
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

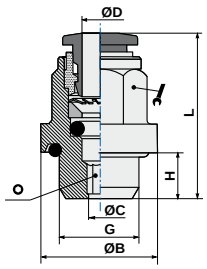


* codes without key flats having the following Ø:
F0104M5 = Ø9
F0106M5 = Ø11

ART. F01T

Straight male adaptor (parallel)

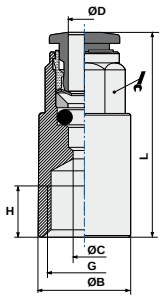
COD.	ØD	G	ØC	ØB	H	L		O		g
F01T0418	4	1/8	2,5	14,0	5,5	19,0	10	2,5	5	2,16
F01T0414	4	1/4	2,5	17,5	6,5	20,8	10	2,5	5	3,36
F01T0618	6	1/8	4,0	14,0	5,5	24,5	12	4,0	5	3,10
F01T0614	6	1/4	4,0	17,5	6,5	26,0	12	4,0	5	4,26
F01T0818	8	1/8	5,0	14,0	5,5	25,7	14	5,0	5	3,53
F01T0814	8	1/4	6,0	17,5	6,5	27,2	14	6,0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

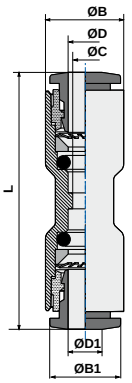
COD.	ØD	G	ØC	ØB	H	L			g
F020418	4	1/8	3	12	6,5	26,5	9	5	10,73
F020618	6	1/8	5	12	6,5	28,3	11	5	11,03
F020614	6	1/4	5	17	10	31,3	11	5	16,80
F020818	8	1/8	7	12	6,5	28,5	13	5	10,89
F020814	8	1/4	7	17	10	32,5	13	5	19,15



ART. F03

Straight connector

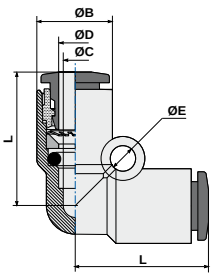
COD.	ØD	ØD1	ØC	ØB	ØB1	L		g
F030400	4	4	3	9,5	9,5	32,0	5	1,96
F030406	4	6	3	9,5	11,5	32,5	5	2,40
F030600	6	6	5	11,5	11,5	35,6	5	3,00
F030608	6	8	5	11,5	13,5	36,0	5	3,27
F030800	8	8	7	13,5	13,5	38,0	5	3,53
F030810	8	10	7	13,5	17,0	32,5	5	5,03
F031000	10	10	9	17,0	17,0	42,3	5	6,04



ART. F04

Elbow connector

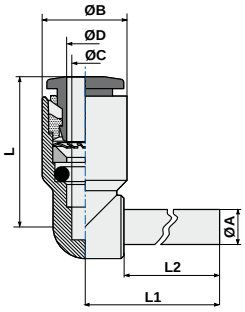
COD.	ØD	ØC	ØB	L	ØE		g
F040400	4	3	9,5	17,2	3,2	5	2,21
F040600	6	5	11,5	20,8	3,2	5	3,28
F040800	8	7	13,5	23,0	3,2	5	4,14
F041000	10	9	17,0	26,4	4,3	5	7,21



ART. F04L0

Plug-in elbow connector

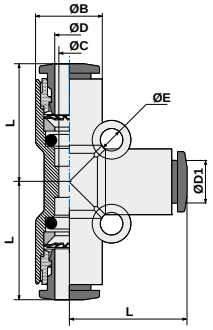
COD.	ØD	ØC	ØB	L	L1	ØA	L2		g
F0404L0	4	3	9,5	17,2	20,75	4	16,7	5	1,40
F0406L0	6	5	11,5	20,8	24,25	6	19,5	5	2,18
F0408L0	8	7	13,5	23,0	27,25	8	21,0	5	2,96
F0410L0	10	9	17,0	26,4	31,80	10	24,0	5	5,07



ART. F05

T connector

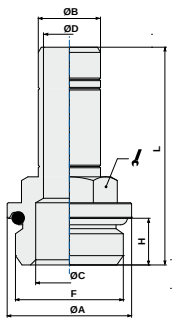
COD.	ØD	ØD1	ØC	ØB	L	ØE		g
F050400	4	4	3,0	9,5	17,2	3,2	5	3,16
F050600	6	6	5,0	11,5	20,8	3,2	5	4,72
F050800	8	8	7,0	13,5	23,0	3,2	5	5,96
F051000	10	10	9,0	17,0	26,4	4,3	5	10,69



ART. F06

Adaptor parallel (short)

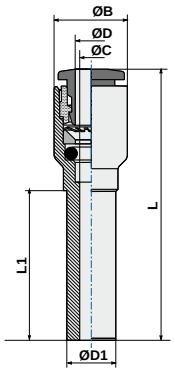
COD.	ØB	F	ØA	ØC	ØD	H	L			g
F060418	4	1/8	13	5,5	2	5,5	27,7	13	5	9,10
F060618	6	1/8	13	5,5	4	5,5	30,5	13	5	9,61
F060614	6	1/4	16	7,5	4	6,5	32,0	13	5	11,97
F060818	8	1/8	13	6	6	5,5	32,0	13	5	11,05
F060814	8	1/4	16	7,5	6	6,5	33,5	13	5	13,12
F061014	10	1/4	16	8	8	6,5	36,5	13	5	14,06



ART. F08

Reducer

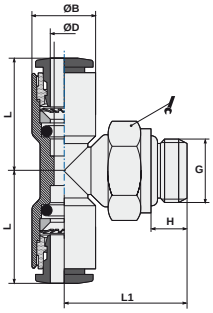
COD.	ØD1	ØD	ØC	ØB	L	L1		g
F080604	6	4	3	9,5	35,5	19,5	5	1,37
F080804	8	4	3	9,5	37,0	21,0	5	1,60
F081004	10	4	3	9,5	40,0	24,0	5	1,97
F081204	12	4	3	9,5	41,0	25,0	5	2,22
F080806	8	6	5	11,5	39,05	23,0	5	2,10
F081006	10	6	5	11,5	42,05	24,0	5	2,49
F081206	12	6	5	11,5	43,05	25,0	5	2,80
F081008	10	8	7	13,5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

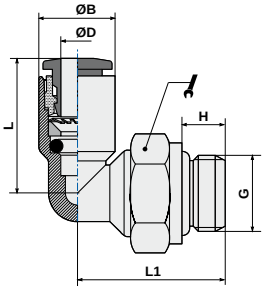
COD.	ØD	G	ØB	H	L	L1			g
F200418	4	1/8	9,5	5,5	17,2	18,5	13	5	8,56
F200618	6	1/8	11,5	5,5	20,8	18,5	13	5	9,48
F200614	6	1/4	11,5	7,5	20,8	20,4	16	5	14,94
F200818	8	1/8	13,5	5,5	23,0	20,0	13	5	10,64
F200814	8	1/4	13,5	6,5	23,0	20,4	16	5	14,30
F201014	10	1/4	17,0	7,5	26,4	23,2	16	5	42,30



ART. F22

Swivel elbow technopolymer male adaptor

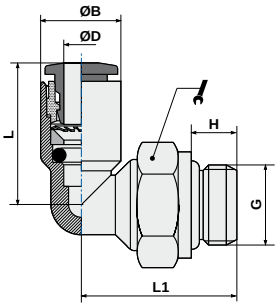
COD.	ØD	G	ØB	H	L	L1			g
F2204M5	4	M5	9,5	4	17,2	17	8	10	3,79
F220418	4	1/8	9,5	5,5	17,2	18,5	14	10	7,80
F220414	4	1/4	9,5	6,5	17,2	20,4	16	10	13,12
F2206M5	6	M5	11,5	4	20,8	17	8	10	4,31
F220618	6	1/8	11,5	5,5	20,8	18,5	14	10	8,11
F220614	6	1/4	11,5	6,5	20,8	20,4	16	10	13,82
F220818	8	1/8	13,5	5,5	23,0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

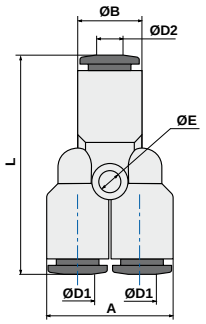
COD.	ØD	G	ØB	H	L	L1			g
F22T0418	4	1/8	9,5	5,5	17,2	18,5	14	10	7,76
F22T0414	4	1/4	9.5	6,5	17,2	20,4	16	10	13,11
F22T0618	6	1/8	11,5	5,5	20,8	18,5	14	10	8,10
F22T0614	6	1/4	11,5	6,5	20,8	20,4	16	10	13,81
F22T0818	8	1/8	13,5	5,5	23,0	20,0	14	10	8,92
F22T0814	8	1/4	13,5	6,5	23,0	20,4	16	10	12,99
F22T1014	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		g
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

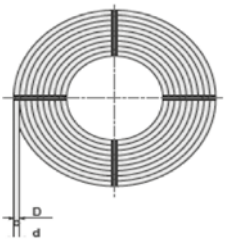


ART. PELD

Polyethilene 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

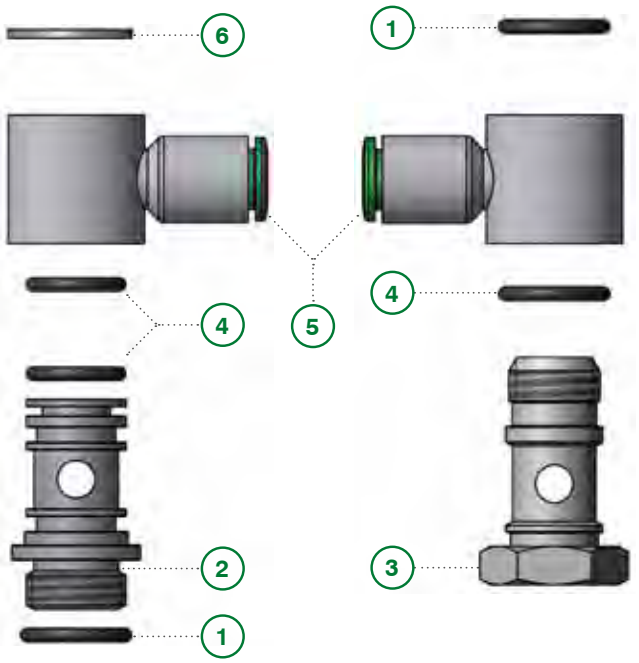
P*= Working pressure (Bar) 23°C
P1*= Breaking pressure (Bar) 23°C
R*= Tight bending radius (mm) 23°C



Stems for push-in fittings

Series 400-15-33

Stems, 407 series and higher, and 15A series, employed with our banjo fittings (push-in type, quick type, etc,) are produced in Italy according to the reference ISO norms as warranty of high quality level.



Components

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

Technical sheet

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

Stem - banjo couplings

Push-in fittings - Series RAP - art. 13

Banjo code	407	407V	408	408V	15A	15AL	33A	33AL	34A
1304M5	●				●				
130418	●		●		●		●		●
130618	●		●		●		●		●
130614	●		●		●		●		●
130818	●		●		●		●		●
130814	●		●		●		●		●
130838	●		●		●				
131014	●		●		●		●		●
131038	●		●		●				
131214	●		●		●		●		●
131238	●		●		●				
131212			●		●				

Push-in fittings - Series RAP - art. 14

Banjo code	407	407V	408	408V	15A	15AL	33A	33AL	34A
140618	●		●		●		●		●
140818	●		●		●		●		●
140814	●		●		●		●		●
140838	●		●		●				
141014	●		●		●		●		●
141038	●		●		●				

Push-in fittings - Series Tecnorap - art. T13

Banjo code	407	407V	408	408V	15A	15AL	33A	33AL	34A
T1304M5.						●		●	
T130418.	●		●		●		●		●
T130618.	●		●		●		●		●
T130614.	●		●		●		●		●
T130818.	●		●		●		●		●
T130814.	●		●		●		●		●
T130838.	●		●		●				
T131014.	●		●		●		●		●
T131038.	●		●		●				
T131214.	●		●		●		●		●
T131238.	●		●		●				
T131212.			●		●				

Push-in fittings - Series Tecnorap - art. T13B

Banjo code	407	407V	408	408V	15A	15AL	33A	33AL	34A
T13B04M5						●		●	
T13B0618	●		●		●		●		●
T13B0814	●		●		●		●		●
T13B1038	●		●		●				
T13B1212			●		●				

Push-in fittings - Series Tecnorap - art. T14

Banjo code	407	407V	408	408V	15A	15AL	33A	33AL	34A
T1404M5						●		●	
T140418	●		●		●		●		●
T140814	●		●		●		●		●
T140838	●		●		●				
T141038	●		●		●				
T141012					●				
T141238	●		●		●				
T141212					●				

Brass compression fittings - Series 100 - art. 412

Banjo code	407	407K	407V	408	408K	408V	15A	33A	34A
41218	●			●			●	●	●
41214	●			●			●	●	●
41238	●			●			●		
41212				●			●		

Brass compression fittings - Series 200 - art. 216

Banjo code	407	407K	407V	408	408K	408V	15A	33A	34A
2160418			●			●			
2160618			●			●			
2160614		●			●				
2160818			●			●			
2160814		●			●				
2161014		●			●				

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

Banjo code	407	407K	407V	408	408K	408V	15A	33A	34A
40504M5	●		●						
4050418			●			●			
40506M5	●		●			●			
4050618			●			●			
4050614	●			●			●	●	●
4050818			●			●			
4050814	●			●			●	●	●
4051014	●			●			●	●	●

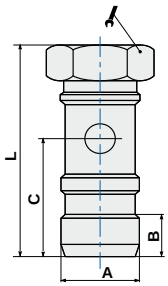
Brass push-on fittings - Series 300 - art. 406

Banjo code	407	407K	407V	408	408K	408V	15A	33A	34A
4060618			●			●			
4060614		●			●				
4060818			●			●			
4060814		●			●				
4061014		●			●				

ART. 407

Banjo stem single with O-Ring

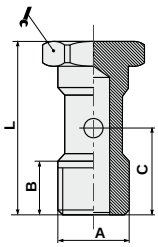
COD.	A	B	C	L			g
40718	G1/8	4,5	13,75	25	14	100	11,78
40714	G1/4	9,9	16,7	30	17	50	22,89
40738	G3/8	6	18	34	22	25	38,58



ART. 407K

Banjo stem single

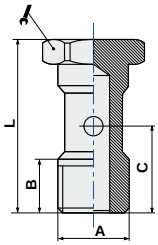
COD.	A	B	C	L			g
407K14	G1/4	11	16,5	29,5	17	50	22,90



ART. 407V

Banjo stem single

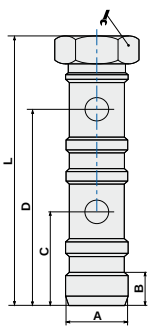
COD.	A	B	C	L			g
407M5	M5	5,8	9,6	18	8	100	2,90
40718V	G1/8	9	15	28	14	100	13,27
40714V	G1/4	11	18	33	17	50	26,48
40738V	G3/8	12	21,5	37	22	50	45,68



ART. 408

Banjo stem double with O-Ring

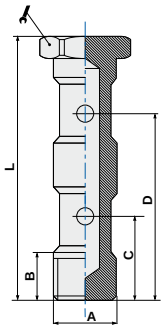
COD.	A	B	C	D	L			g
40818	G1/8	4,5	13	29	40	14	50	16,95
40814	G1/4	6	16,5	33,5	47	17	50	33,23
40838	G3/8	8,5	18	37,6	52,5	22	25	52,14
40812	G1/2	7,4	21,5	45	63	27	10	99,50



ART. 408K

Banjo stem double

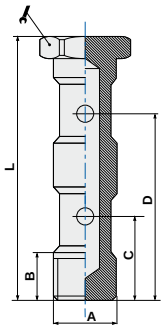
COD.	A	B	C	D	L			g
408K14	G1/4	11	16,5	33	45,5	17	50	36,73



ART. 408V

Banjo stem double

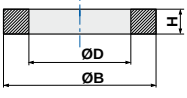
COD.	A	B	C	D	L			g
40818V	G1/8	9	15	31	44,5	14	50	11,50
40814V	G1/4	11	17	36	51,5	17	50	36,73
40838V	G3/8	12	20,5	42	58,6	22	25	63,97
40812V	G1/2	14	24	50	68	24	10	78,14



ART. 411

Spacer washer

COD.	A	ØB	ØD	H		g
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

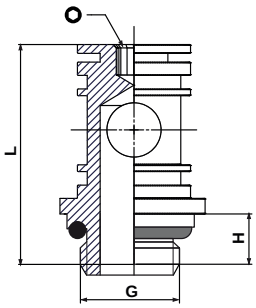


P = Nylon material
A = Size

ART. 15A

Single stem for swivel banjo

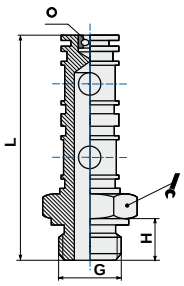
COD.	G	L	O	H		g
15AM5	M5	17	2,5	4,0	10	2,00
15AM5L	M5	18	2,5	4,0	10	2,13
15AM6L	M6	19	2,5	5,0	10	2,47
15A18	1/8	24,5	3	5,5	10	11,16
15A14	1/4	28	4	6,5	10	17,59
15A38	3/8	32,5	5	7,5	10	31,24
15A12	1/2	39	8	10,0	10	61,31



ART. 33A

Double stem for swivel banjo

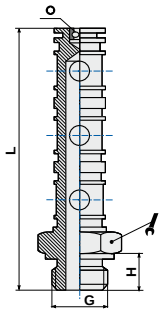
COD.	G	H	L		O		g
33AM5L	M5	4,0	28,0	N.C.	2,5	50	3,00
33A18	1/8	5,5	43,3	14	3	50	16,92
33A14	1/4	6,5	50,0	18	4	50	20,62



ART. 34A

Triple stem for swivel banjo

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



Standard fittings

Standard fittings in different configurations with auxiliary functions made of nickel-plated brass and AISI 316 stainless steel according to the reference ISO norms.

- **Brass standard fittings**
- **Stainless steel standard fittings**

Brass standard fittings

Series 100

The standard 100 series fittings are produced in Italy according to the reference ISO norms as warranty of high quality level and reliability.

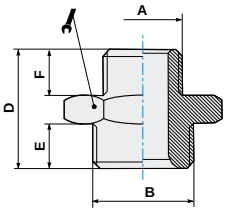
Technical sheet

FLUIDS		Compressed air, water up to 100 °C (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic, oleodynamic and hydraulic circuits.
TEMPERATURE AND PRESSURE		Temperatures and pressures usually depend by the technical features of the employed tubes. Max pressure suggested 60 bar.
THREAD TYPE		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	Body	Brass UNI EN 12164 CW614N (bar); UNI EN 12165 CW617N (molded)
	Seals	NBR 70 DWGV-EN549 UL157
	Washers	Aluminium/Nylon

ART. 101

Parallel nipple

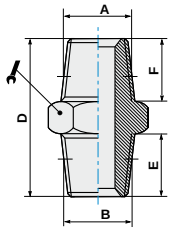
COD.	A	B	D	E	F			g
101M5M5	M5	M5	11,5	4	4	8	100	2,35
101M518	M5	G1/8	14,5	6	4	14	100	8,58
1011818	G1/8	G1/8	16,5	6	6	14	100	8,83
1011814	G1/8	G1/4	19,0	8	6	17	100	14,62
1011838	G1/8	G3/8	20,0	9	6	19	100	19,94
1011414	G1/4	G1/4	21,0	8	8	17	100	18,96
1011438	G1/4	G3/8	22,0	9	8	19	100	23,72
1011412	G1/4	G1/2	23,5	10	8	24	100	32,44
1013838	G3/8	G3/8	23,0	9	9	19	50	23,46
1013812	G3/8	G1/2	24,5	10	9	24	50	37,61
1011212	G1/2	G1/2	25,5	10	10	24	50	41,00
1011234	G1/2	G3/4	27,5	11	10	30	25	74,00
1013434	G3/4	G3/4	28,5	11	11	30	25	72,00



ART. 102

Taper nipple

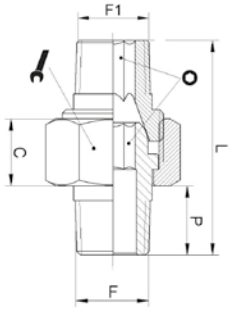
COD.	A	B	D	E	F			g
1021818	G1/8	G1/8	20,0	8,0	8,0	12	100	8,85
1021814	G1/8	G1/4	24,0	11,0	8,0	14	100	14,89
1021838	G1/8	G3/8	24,5	11,5	8,0	17	100	20,73
1021812	G1/8	G1/2	27,5	14,0	8,0	22	50	37,08
1021414	G1/4	G1/4	27,0	11,0	11,0	14	100	17,90
1021438	G1/4	G3/8	27,5	11,5	11,0	17	100	23,83
1021412	G1/4	G1/2	30,5	14,0	11,0	22	50	36,50
1023838	G3/8	G3/8	28,0	11,5	11,5	17	100	25,51
1023812	G3/8	G1/2	31,0	14,0	11,5	22	50	37,42
1021212	G1/2	G1/2	33,5	14,0	14,0	22	50	41,91
1021234	G1/2	G3/4	37,5	16,5	14,0	27	25	69,40
1023434	G3/4	G3/4	40,0	16,5	16,5	27	25	79,08
1023401	G3/4	G1'	42,5	19,0	16,5	34	10	122,00
1020101	G1'	G1'	45,0	19,0	19,0	34	10	113,54



ART. 102P3

Taper nipple - 3 pieces

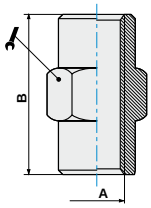
COD.	F	F1	P	L	C				g
10218P3	1/8	1/8	9,0	27,0	8,6	15	5	50	47,14
10214P3	1/4	1/4	11,5	33,5	9,6	19	6	50	49,00
10238P3	3/8	3/8	13,0	36,0	10,0	22	8	50	55,26
10212P3	1/2	1/2	15,5	45,0	12,0	27	12	25	55,00
10234P3	3/4	3/4	18,0	53,0	17,0	36	14	25	84,62
10201P3	1"	1"	22,0	64,0	20,0	46	19	5	37,60
1021814P3	1/8	1/4	9,0	30,0	8,5	15	5	50	23,49
1021438P3	1/4	3/8	11,5	36,0	9,5	19	6	50	22,84
1023812P3	3/8	1/2	13,0	39,0	10,0	22	8	25	39,32



ART. 103

Sleeve

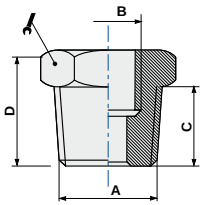
COD.	A	B			g
103M5	M5	11	8	100	2,00
10318	G1/8	15	14	100	10,95
10314	G1/4	22	17	100	18,97
10338	G3/8	23	22	50	33,96
10312	G1/2	30	26	25	49,35
10334	G3/4	32	32	10	76,00



ART. 104

Taper M/F reducer

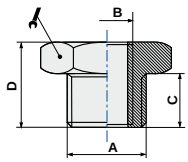
COD.	A	B	C	D			g
1041418	G1/4	G1/8	11,0	16,0	14	100	9,99
1043818	G3/8	G1/8	11,5	16,5	17	100	20,90
1041218	G1/2	G1/8	14,0	19,5	22	50	44,22
1043814	G3/8	G1/4	11,5	16,5	17	100	13,06
1041214	G1/2	G1/4	14,0	19,5	22	50	30,54
1041238	G1/2	G3/8	14,0	19,5	22	50	28,43
1043412	G3/4	G1/2	16,5	23,0	27	25	42,38
1043438	G3/4	G3/8	16,5	23,0	27	10	55,86
1040112	G1'	G1/2	17,0	25,0	34	10	126,52
1040134	G1'	G3/4	17,0	25,0	34	10	73,07



ART. 104Z

Parallel M/F reducer

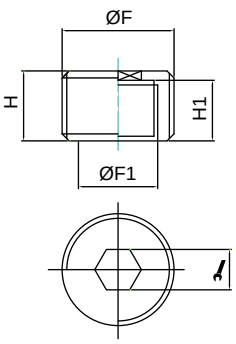
COD.	A	B	C	D			g
104Z18M5	G1/8	M5	6,0	10,5	14	100	8,00
104Z1418	G1/4	G1/8	8,0	13,0	17	100	10,74
104Z3818	G3/8	G1/8	9,0	14,0	19	100	19,13
104Z3814	G3/8	G1/4	9,0	14,0	19	100	13,00
104Z1218	G1/2	G1/8	10,0	15,5	24	50	39,06
104Z1214	G1/2	G1/4	10,0	15,5	24	50	32,42
104Z1238	G1/2	G3/8	10,0	15,5	24	50	21,48
104Z3412	G3/4	G1/2	12,5	18,0	30	25	41,24
104Z3438	G3/4	G3/8	12,5	18,0	30	10	53,72



ART. 104S

Disapperance parallel reducer

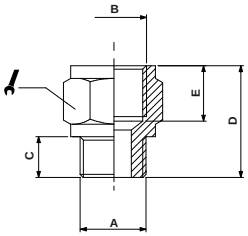
COD.	ØF	ØF1	H	H1			g
104S1418	1/4	1/8	8	7	6	50	4,16
104S3814	3/8	1/4	9	7	8	50	13,06
104S1238	1/2	3/8	10	9	10	25	65,00
104S3412	3/4	1/2	14	11	12	10	41,38
104S0134	1"	3/4	20	12,5	17	10	73,07



ART. 105

Taper M/F extension

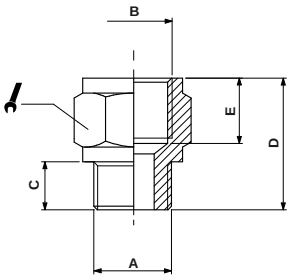
COD.	A	B	C	D	E			
1051818	G1/8	G1/8	8,0	18,0	8,0	14	100	10,85
1051814	G1/8	G1/4	8,0	21,5	11,0	17	100	17,75
1051838	G1/8	G3/8	8,0	22,5	11,5	22	50	30,26
1051414	G1/4	G1/4	11,0	24,5	11,0	17	100	21,07
1051438	G1/4	G3/8	11,0	24,5	11,5	22	50	31,86
1051412	G1/4	G1/2	11,0	29,0	14,0	24	50	50,38
1053838	G3/8	G3/8	11,5	26,0	11,5	22	50	38,16
1053812	G3/8	G1/2	11,5	29,5	14,0	24	25	40,04
1051212	G1/2	G1/2	14,0	32,0	14,0	26	25	53,33
1051234	G1/2	G3/4	14,0	35,0	16,5	32	10	77,70
1051201	G1/2	G1	14,0	37,0	18,0	38	10	104



ART. 105Z

Parallel M/F extension

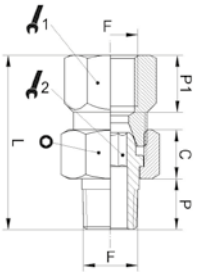
COD.	A	B	C	D	E			
105ZM5M5	M5	M5	5	14,0	7,0	9	100	4,39
105ZM518	M5	G1/8	4	14,5	8,0	14	100	9,54
105ZM618	M6	G1/8	6	16,0	8,0	14	100	9,67
105Z1818	G1/8	G1/8	6	16,0	8,0	14	100	10,06
105Z1814	G1/8	G1/4	6	19,5	11,0	17	100	17,58
105Z1838	G1/8	G3/8	6	20,5	11,5	22	50	30,98
105Z1414	G1/4	G1/4	8	21,5	11,0	17	100	19,07
105Z1438	G1/4	G3/8	8	22,5	11,5	22	50	32,12
105Z1412	G1/4	G1/2	8	26,0	14,0	24	50	36,08
105Z3838	G3/8	G3/8	9	23,5	11,5	22	50	34,23
105Z3812	G3/8	G1/2	9	27,0	14,0	24	25	52,04
105Z1212	G1/2	G1/2	10	28,0	14,0	26	25	53,54
105Z1234	G1/2	G3/4	10	30,0	16,5	32	10	2,00



ART. 105P3

Extension M/F - 3 pieces

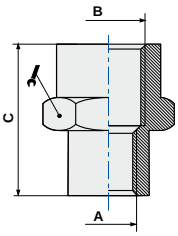
COD.	F	P	P1	L	C	1	2			
10518P3	1/8	9,0	10,0	30,5	8,5	14	15	5	50	12,41
10514P3	1/4	12,0	12,0	37,0	9,5	17	19	6	50	21,07
10538P3	3/8	12,0	12,0	40,0	10,0	21	22	8	25	38,16
10512P3	1/2	15,0	15,0	48,0	12,0	25	27	12	10	53,33



ART. 106

Reducing sleeve

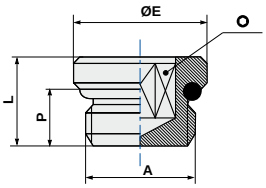
COD.	A	B	C			
106M518	M5	G1/8	13,5	14	100	9,58
1061814	G1/8	G1/4	19,0	17	100	16,39
1061838	G1/8	G3/8	20,0	22	25	27,57
1061812	G1/8	G1/2	24,0	26	50	57,96
1061438	G1/4	G3/8	23,0	22	50	30,55
1061412	G1/4	G1/2	25,0	26	50	32,94
1063812	G3/8	G1/2	27,5	26	25	38,93
1061234	G1/2	G3/4	30,0	32	10	36,00



ART. 107

Parallel male plug + O-Ring

COD.	A	P	L	ØE	O		g
107M5	M5	4,0	5,5	8	2,5	100	0,81
10718	G1/8	5,5	7,5	14	4,0	100	4,39
10714	G1/4	6,5	8,5	17	6,0	100	7,68
10738	G3/8	7,5	10,5	20	8,0	100	15,21
10712	G1/2	9,0	12,0	24	10,0	50	25,00
10734	G3/4	15,0	20,0	32	12,0	10	27,00

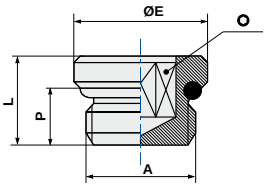


ART. 107P

Parallel male plug + OR (Technopolymer)

COD.	A	P	L	ØE	Nm*	O		g
107P18	G1/8	5,3	8,2	14	1,2	4	100	1,13
107P14	G1/4	6,5	9,2	18	1,5	6	100	2,11

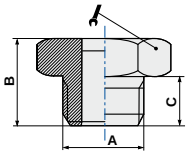
Nm* = Tightening torque
Note: Product made of Technopolymer IXEF 1022



ART. 107Z

Parallel male plug

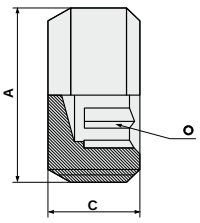
COD.	A	B	C			g
107Z18	G1/8	10,5	6	14	100	7,07
107Z14	G1/4	13,0	8	17	100	13,99
107Z38	G3/8	14,0	9	19	50	17,82
107Z12	G1/2	15,5	10	24	50	31,44
107Z34	G3/4	16,5	11	30	25	48,70
107Z01	G1"	19,0	13	38	10	152,71



ART. E100

Disappearance tapered plug

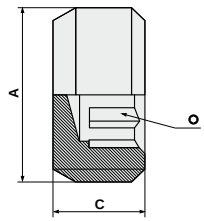
COD.	A	C	O		g
E10018	G1/8	8	5	100	3,04
E10018L5	G1/8	5	5	100	2,88
E10014	G1/4	10	6	100	6,83
E10038	G3/8	11	8	50	9,00
E10012	G1/2	13	10	50	14,00



ART. E200

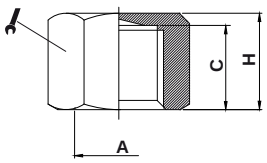
Disappearance parallel plug

COD.	A	C	O		g
E20018	G1/8	8	5	100	2,80
E20014	G1/4	10	6	100	6,86
E20038	G3/8	11	8	50	13,58
E20012	G1/2	13	10	50	23,11



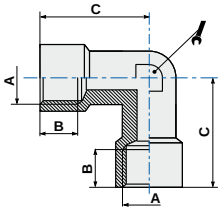
ART. 108 — Female plug

COD.	A	C	H			g
10818	G1/8	8,0	10,0	14	100	9,52
10814	G1/4	11,0	13,5	17	100	16,28
10838	G3/8	11,5	14,0	20	50	30,18
10812	G1/2	14,0	16,5	24	50	31,50



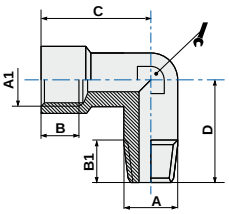
ART. 109 — F/F elbow

COD.	A	B	C			g
10918	G1/8	7	20,0	10	100	20,25
10914	G1/4	8	25,5	13	50	39,05
10938	G3/8	10	29,0	17	25	62,56
10912	G1/2	11	35,0	20	10	105,15
10934	G3/4	16	36,0	25	5	143,00
10901	G1'	19	44,0	30	5	236,97



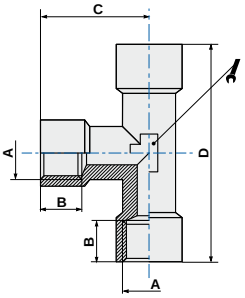
ART. 110 — M/F elbow

COD.	A	A1	B	B1	C	D			g
110M5	M5	M5	4	*	11,0	11,5	9	100	7,01
11018	G1/8	G1/8	7	8	20,0	19,0	10	50	16,30
11014	G1/4	G1/4	8	11	25,5	24,0	13	50	33,90
11038	G3/8	G3/8	10	11,5	29,0	26,5	17	25	53,01
11012	G1/2	G1/2	11	14	35,0	31,5	20	20	88,06
11034	G3/4	G3/4	16	16	35,0	34,5	25	10	121,63
11001	G1'	G1'	19	16	44,0	51,0	30	5	119,02
11014F18M	G1/8	G1/4	8	8	25,5	23,0	13	50	32,28



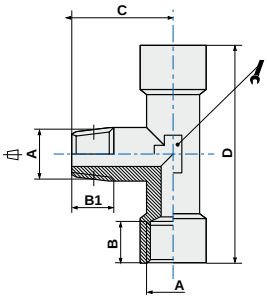
ART. 111 — F/F T

COD.	A	B	C	D			g
11118	G1/8	7	20,0	40	10	50	28,79
11114	G1/4	8	25,5	51	13	25	57,04
11138	G3/8	10	29,0	58	17	10	83,55
11112	G1/2	11	35,0	70	20	10	145,94
11134	G3/4	16	31,0	73	25	5	196,05
11101	G1'	19	49,5	90	30	5	346,23



ART. 112 — F/M/F T

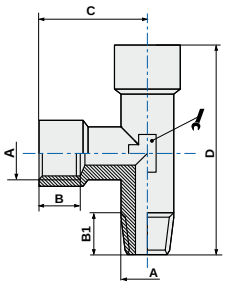
COD.	A	B	B1	C	D			g
11218	G1/8	7	8,0	19,0	40	10	50	22,42
11214	G1/4	8	11,0	24,0	51	13	25	50,84
11238	G3/8	10	13,6	26,5	58	17	25	74,67
11212	G1/2	11	15,5	31,5	72	20	10	127,43
11234	G3/4	16	15,0	31,0	73	25	5	290,76
11201	G1'	19	16,0	38,0	90	30	5	340,00



ART. 113

M/F/F T

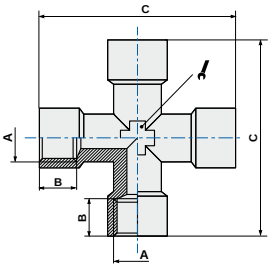
COD.	A	B	B1	C	D			g
11318	G1/8	7	8,0	20,0	39,0	10	50	24,94
11314	G1/4	8	11,0	25,5	49,5	13	25	50,68
11338	G3/8	10	13,6	29,0	55,5	17	25	74,46
11312	G1/2	11	15,5	35,0	65,0	20	10	127,29
11334	G3/4	16	15,0	31,0	67,0	25	5	290,76
11301	G1'	19	16,0	44,0	84,0	30	5	340



ART. 114

F.F.F.F. cross

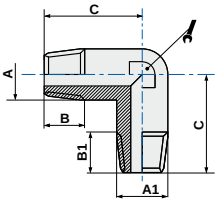
COD.	A	B	C			g
11418	G1/8	7	40	10	25	37,69
11414	G1/4	8	51	13	25	73,04
11438	G3/8	10	58	17	10	108,34
11412	G1/2	11	72	20	5	185,92



ART. 115

M/M elbow

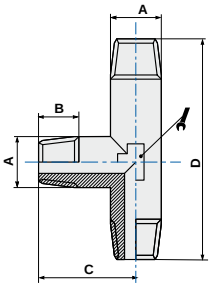
COD.	A	B	C	A1	B1			g
11518	G1/8	8,0	19,0	G1/8	8,0	10	100	12,44
11514	G1/4	12,5	24,0	G1/4	12,5	13	50	27,87
11538	G3/8	13,6	26,5	G3/8	26,5	17	25	41,66
11512	G1/2	15,5	31,5	G1/2	15,5	20	25	70,62
11534	G3/4	15,0	35,5	G3/4	15,0	25	5	98,63
11501	G1"	16,0	51,0	G1"	51,0	30	5	151,16
1151814	G1/8	8,0	22,0	G1/4	12,5	13	100	16,10



ART. 116

M/M/M T

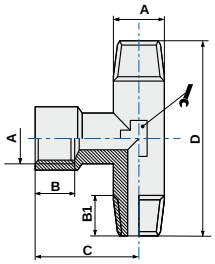
COD.	A	B	C	D			g
11618	G1/8	8,0	19,0	38	10	100	19,07
11614	G1/4	12,5	24,0	48	13	50	32,72
11638	G3/8	13,6	26,5	53	17	25	54,98
11612	G1/2	15,5	31,5	63	20	10	91,05
11634	G3/4	15,0	35,5	66	25	5	127,06
11601	G1"	16,0	40,5	78	30	5	209,77



ART. 117

M/F/M T

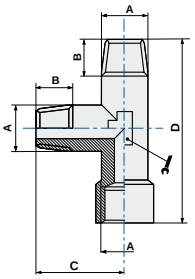
COD.	A	B	B1	C	D			g
11718	G1/8	7	8,0	20,0	38	10	100	19,90
11714	G1/4	8	12,5	25,5	48	13	50	43,69
11738	G3/8	10	13,6	29,0	53	17	25	68,01
11712	G1/2	11	15,5	36,0	63	17	10	111,33
11734	G3/4	16	15,0	34,5	66	25	5	205,44
11701	G1"	19	16,0	46,5	78	30	5	205,12



ART. 118

M/M/F T

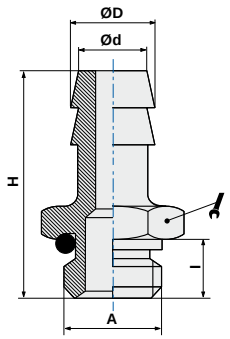
COD.	A	B	C	D			g
11818	G1/8	8,0	19,0	39,0	10	100	20,84
11814	G1/4	12,5	24,0	49,5	13	50	44,09
11838	G3/8	13,6	26,5	55,5	17	25	64,58
11812	G1/2	15,5	31,5	67,5	20	10	109,27
11834	G3/4	15,0	34,5	69,0	25	5	157,53
11801	G1"	16,0	38,0	84,0	30	5	245,53



ART. 119

Male hose adapter + O-Ring

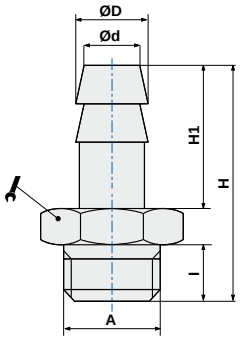
COD.	ØD	A	l	H	Ød			g
11945M5	4,5	M5	4	31,5	2,2	11	100	2,00
1190718	7	G1/8	6	31,5	4	13	100	9,00
1190714	7	G1/4	8	34,0	4	16	100	15,06
1190818	8	G1/8	6	31,5	5,30	13	100	16,21
1190918	9	G1/8	6	31,5	5,5	13	100	11,77
1190914	9	G1/4	8	34,0	5,5	16	100	19,34
1190938	9	G3/8	9	35,0	5,5	17	50	22,18
1191014	10	G1/4	8	34,0	6	16	50	21,82
1191038	10	G3/8	9	35,0	6	17	50	23,12
1191214	12	G1/4	8	34,0	8	16	50	21,27
1191238	12	G3/8	9	36,0	8	17	50	25,12
1191212	12	G1/2	11	37,0	8	22	50	35,50
1191738	17	G3/8	9	36,0	11	17	50	28,53
1191712	17	G1/2	11	37,0	12	22	50	42,18



ART. 119Z

Male hose adapter

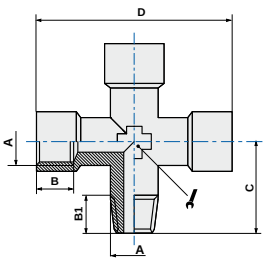
COD.	ØD	A	l	H	H1	Ød			g
119Z04M5	4,5	M5	4	22,5	15,0	2	8	100	3,00
119Z0618	6	G1/8	6	29,5	19,0	3	12	100	8,23
119Z0614	6	G1/4	8	32,0	19,0	3	14	100	14,66
119Z0718	7	G1/8	6	29,5	19,0	4	12	100	10,02
119Z0714	7	G1/4	8	32,0	19,0	4	14	100	16,06
119Z0818	8	G1/8	6	29,5	19,0	5	12	100	9,02
119Z0814	8	G1/4	8	32,0	19,0	5	14	100	13,55
119Z0838	8	G3/8	9	33,0	19,0	5	19	100	21,64
119Z0918	9	G1/8	6	29,5	19,0	6	12	100	11,24
119Z0914	9	G1/4	8	32,0	19,0	6	14	100	17,66
119Z0938	9	G3/8	9	33,0	19,0	6	19	100	21,78
119Z0912	9	G1/2	10	35,5	19,0	6	24	25	32,76
119Z1018	10	G1/8	6	30,5	20,0	7	12	100	10,26
119Z1014	10	G1/4	8	33,0	20,0	7	14	50	19,74
119Z1038	10	G3/8	9	34,0	20,0	7	19	100	23,98
119Z1012	10	G1/2	10	36,0	20,0	7	24	50	32,46
119Z1214	12	G1/4	8	33,0	20,0	9	14	50	16,19
119Z1238	12	G3/8	9	34,0	20,0	9	19	50	23,22
119Z1212	12	G1/2	10	35,5	20,0	9	22	50	31,72
119Z1414	14	G1/4	8	33,0	20,0	10	14	25	33,61
119Z1438	14	G3/8	9	36,0	22,0	10,5	19	50	26,34
119Z1412	14	G1/2	10	37,5	22,0	10,5	22	50	33,73
119Z1638	16	G3/8	9	38,0	24,0	12	19	50	29,76
119Z1612	16	G1/2	10	38,0	22,0	12,5	24	25	34,18
119Z1738	17	G3/8	9	38,0	24,0	13	19	50	31,05
119Z1712	17	G1/2	10	39,5	24,0	13	22	50	44,64
119Z2012	20	G1/2	10	39,5	24,0	14	24	25	40,26
119Z2034	20	G3/4	10	39,5	24,0	16	24	25	60,00



ART. 120

M.F.F.F.cross

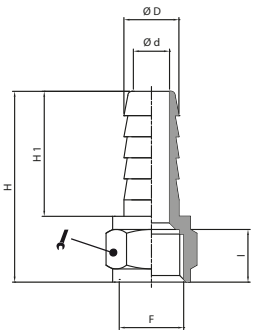
COD.	A	B	B1	C	D			g
12018	G1/8	7	8,0	19,0	40	10	25	30,06
12014	G1/4	8	12,5	24,0	51	13	25	68,02
12038	G3/8	10	13,6	26,5	58	17	10	98,03
12012	G1/2	11	15,5	31,5	72	20	5	166,23



ART. 122

Female hose adapter

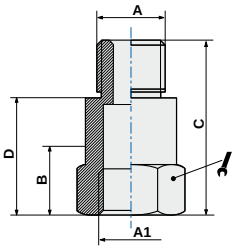
COD.	ØD	F	Ød	l	H	H1			g
1220618	6	G1/8	3,5	8	28,5	19	12	100	12,01
1220718	7	G1/8	4,5	8	28,5	19	12	100	27,00
1220714	7	G1/4	4,5	11	31,5	19	15	100	23,98
1220818	8	G1/8	5,5	8	28,5	19	12	100	10,00
1220814	8	G1/4	5,5	11	31,5	19	15	100	20,74
1220914	9	G1/4	6,5	11	31,5	19	15	100	25,01
1221014	10	G1/4	7,5	11	32,5	20	15	100	14,00
1221038	10	G3/8	7,5	11,5	33	20	19	100	28,09
1221238	12	G3/8	9,5	11,5	33	20	19	100	30,26
1221212	12	G1/2	9,5	14	36	20	24	100	45,02
1221438	14	G3/8	11	11,5	35	22	19	100	22,00
1221412	14	G1/2	11	14	38	22	24	25	40,00



ART. 123

Extension

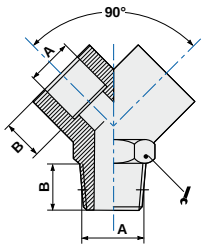
COD.	A	A1	B	C	D			g
12318L22	G1/8	G1/8	6	22	16	14	100	14,71
12318L32	G1/8	G1/8	6	32	26	14	100	21,57
12318L42	G1/8	G1/8	6	42	36	14	100	20,44
12318L51	G1/8	G1/8	6	51	45	14	50	36,30
12314L28	G1/4	G1/4	8	28	20	17	50	25,20
12314L35	G1/4	G1/4	8	35	27	17	50	31,32
12314L51	G1/4	G1/4	8	51	43	17	25	44,72



ART. 125

Male Y

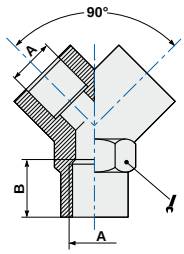
COD.	A	B			g
12518	G1/8	8,0	13	50	21,52
12514	G1/4	11,0	17	25	38,07
12538	G3/8	11,5	20	25	52,03
12512	G1/2	14,0	25	10	100,72



ART. 126

Female Y

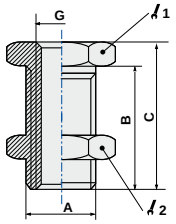
COD.	A	B			g
12618	G1/8	8	13	50	19,34
12614	G1/4	11	17	25	33,84
12638	G3/8	11	20	25	45,38
12612	G1/2	14	25	10	84,53



ART. 127

Female bulkhead (nickel plated)

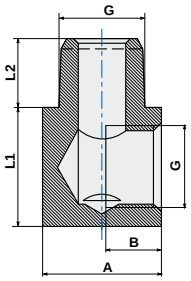
COD.	G	A	B	C	1	2		g
127M5	M5	M10x1,0	10,5	14	14	14	100	11,86
12718	G1/8	M16x1,5	14,0	18	22	19	50	29,97
12714	G1/4	M20x1,5	21,0	24	27	24	25	53,78
12738	G3/8	M26x1,5	21,0	26	32	30	25	95,70
12712	G1/2	M28x1,5	27,0	33	36	32	10	11,01



ART. RLB100

M/F elbow tapered

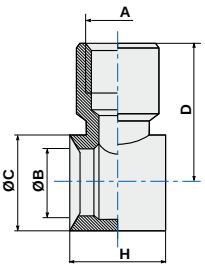
COD.	G	A	B	L1	L2		g
RLB100M5	M5	9	4,5	9	4,5	100	5,03
RLB10018	1/8	14	6,5	14	8	100	17,21
RLB10014	1/4	18	9	18	10	100	37,13
RLB10038	3/8	19	11	19	11,5	50	50,00



ART. 412

Female single banjo body

COD.	A	ØB	ØC	D	H		g
41218	G1/8	9,9	14	20	15	50	17,40
41214	G1/4	13,3	18	24	17	50	29,14
41238	G3/8	16,8	21	28,5	20	25	41,00
41212	G1/2	21	26	34,524	24	25	60,15



Stainless steel standard fittings

Series RX-100

The stainless steel accessory fittings “RX” series are “oil free” and manufactured according to the ISO norms of reference as warranty of high quality and reliability.

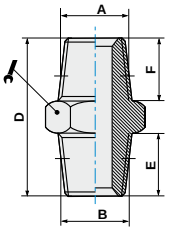
Technical sheet

FLUIDS		Compressed air, some liquids (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic equipments which are applied widely in the range of Industy 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.
RECOMMENDED LIMIT VALUES	**TEMPERATURE**	The working temperatures range is between -20°C and +120°C
	WORKING PRESSURES	Maximum value 25 bar
THREAD TYPE		BSP parallel UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	**Body**	Stainless steel SUS316; O-Ring FKM
IMPORTANT NOTE		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. RX102

Taper nipple

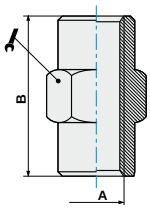
COD.	A	B	D	E	F			g
RX1021818	G1/8	G1/8	21	7,5	7,5	14	1	8,00
RX1021814	G1/8	G1/4	23	7,5	9,5	14	1	12,00
RX1021414	G1/4	G1/4	25	9,5	9,5	17	1	16,00
RX1021438	G1/4	G3/8	25	9,5	10,5	17	1	22,00
RX1021412	G1/4	G1/2	26,5	13	9,5	24	1	30,00
RX1023838	G3/8	G3/8	26,5	10,5	10,5	21	1	24,00
RX1023812	G3/8	G1/2	29	10,5	13	24	1	38,00
RX1021212	G1/2	G1/2	31	13	13	21	1	38,00



ART. RX103

Sleeve

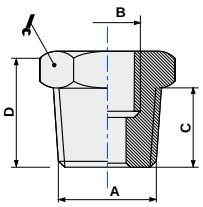
COD.	A	B			g
RX10318	G1/8	17	14	1	10,00
RX10314	G1/4	23	17	1	18,00
RX10338	G3/8	25	21	1	28,00
RX10312	G1/2	28	24	1	30,00



ART. RX104

Taper M/F reducer

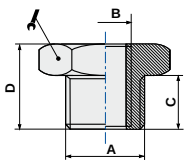
COD.	A	B	C	D			g
RX1041418	G1/4	G1/8	10	16	17	1	8,00
RX1043818	G3/8	G1/8	11,5	18	17	1	18,00
RX1041218	G1/2	G1/8	12	18	21	1	36,00
RX1043814	G3/8	G1/4	11,5	18	21	1	12,00
RX1041214	G1/2	G1/4	12	18	24	1	28,00
RX1041238	G1/2	G3/8	12	18	24	1	18,00



ART. RX104Z

Parallel M/F reducer with O-Ring

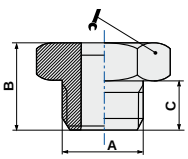
COD.	A	B	C	D			g
RX104Z18M5	G1/8	M5	5,5	12,5	14	1	8,00
RX104Z1418	G1/4	G1/8	6,5	13,5	17	1	12,00
RX104Z3814	G3/8	G1/4	7,5	14,5	21	1	18,00



ART. RX107Z

Parallel male plug with O-Ring

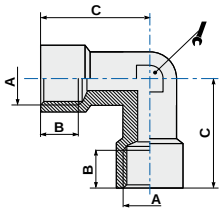
COD.	A	B	C			g
RX107Z18	G1/8	12,5	5,5	14	1	8,00
RX107Z14	G1/4	13,5	6,5	17	1	16,00
RX107Z38	G3/8	14,5	7,5	21	1	24,00
RX107Z12	G1/2	16	9	24	1	38,00



ART. RX109

F/F elbow

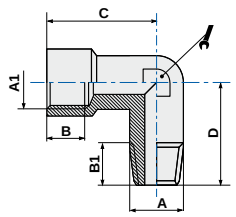
COD.	A	B	C			g
RX10918	G1/8	9,5	22,5	11	1	24,00
RX10914	G1/4	11,5	25	13	1	36,00
RX10938	G3/8	12,5	28	15,6	1	54,00
RX10912	G1/2	15	31,5	20,6	1	90,00



ART. RX110

M/F elbow

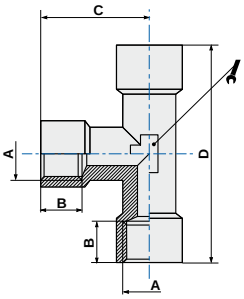
COD.	A	A1	B	B1	C	D			g
RX11018	G1/8	G1/8	9,5	7,5	22,5	18,5	11	1	18,00
RX11014	G1/4	G1/4	11,5	10	25	22,5	13	1	32,00
RX11038	G3/8	G3/8	12,5	11,5	28	25	15,6	1	46,00
RX11012	G1/2	G1/2	15	12	31,5	29,5	20,6	1	88,00



ART. RX111

F/F/F T

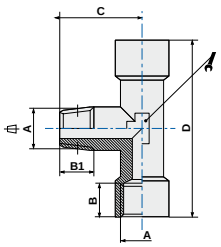
COD.	A	B	C	D			g
RX11118	G1/8	7,5	7,5	18,5	11	1	32,00
RX11114	G1/4	10	25	50	13	1	52,00
RX11138	G3/8	11,5	27	58,5	15	1	78,00
RX11112	G1/2	12	31	67	20,6	1	120,00



ART. RX112

F/M/F T

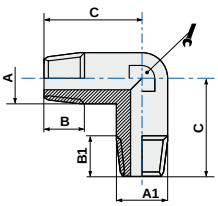
COD.	A	B	B1	C	D			g
RX11218	G1/8	7,5	9,5	18,5	45	11	1	26,00
RX11214	G1/4	10	11,5	22,5	50	13	1	46,00
RX11238	G3/8	11,5	12,5	25	58,5	15,6	1	68,00
RX11212	G1/2	12	15	29,5	67	20,6	1	116,00



ART. RX115

M/M elbow

COD.	A	B	C	A1	B1			g
RX11218	G1/8	7,5	17	8,5	7,5	9	1	10,00
RX11214	G1/4	10	21	10,5	10	11	1	32,00
RX11238	G3/8	11,5	23,5	12,5	10,5	13	1	32,00
RX11212	G1/2	13	26,7	15	13	15,6	1	54,00



Compression fittings

Compression fittings guarantee the clamping of the tube and the consequent pneumatic/hydraulic seal thanks to the compression of a ring called 'ogive' on the tube.

- **Brass compression fittings**

Brass compression fittings

Series 200

The compressed 200 series fittings are produced in Italy according to the reference ISO/DIN norms as warranty of high quality level.

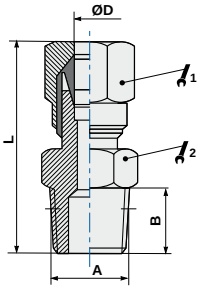
Technical sheet

FLUIDS		Compressed air, water up to 100 °C (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic, oleodynamic and hydraulic circuits.
CONNECTING TUBES	**plastic**	TPU, PE, PA, PET, PVC braided, PTFE, FEP (with internal reinforcement included)
	metal	Copper, brass, steel, aluminium, etc.
WORKING PRESSURE		The operating pressure generally depends on the characteristics of the hose used, and in any case a maximum pressure of 60 Bar is recommended.
THREAD TYPE		BSP paralell UNI-ISO 228; BSPT tapered UNI-ISO 7-DIN2999
MATERIALS	**bodies**	Brass UNI EN 12164 CW614N (bar); UNI EN 12165 CW617N (molded)
	seals	NBR 70 DWGV-EN549 UL157
	washers	Aluminium/Nylon

ART. 201

Taper straight male adaptor

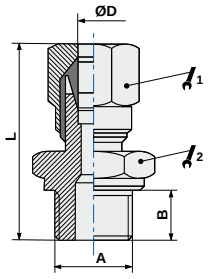
COD.	ØD	A	B	L	1	2		g
2010418	4	G1/8	8	27	10	10	100	11,46
2010618	6	G1/8	8	28	12	12	100	15,02
2010614	6	G1/4	11	32,5	12	14	100	20,76
2010818	8	G1/8	8	29,5	14	12	100	18,62
2010814	8	G1/4	11	33	14	14	100	22,80
2010838	8	G3/8	11,5	33	14	17	50	35,39
2011014	10	G1/4	11	37,5	19	17	50	43,04
2011038	10	G3/8	11,5	38	19	17	50	49,48
2011012	10	G1/2	14	40,5	19	22	25	73,02
2011238	12	G3/8	11,5	39	22	19	25	58,01
2011212	12	G1/2	14	41	22	22	25	68,80
2011412	14	G1/2	14	42,5	27	22	25	100,05
2011512	15	G1/2	14	42,5	27	22	25	95,04
2011612	16	G1/2	14	42	30	24	10	124,08
2011812	18	G1/2	14	43	32	26	10	131,06



ART. 201Z

Parallel straight male adaptor

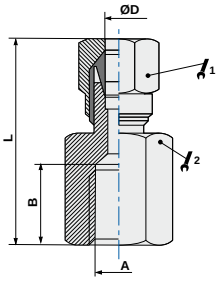
COD.	ØD	A	B	L	1	2		g
201Z0418	4	G1/8	6	25	10	14	100	14,00
201Z0618	6	G1/8	6	26	12	14	100	16,35
201Z0614	6	G1/4	8	29,5	12	17	100	22,00
201Z0814	8	G1/8	6	27,5	14	14	100	25,08
201Z0818	8	G1/4	8	30	14	17	50	17,36
201Z0838	8	G3/8	9	30,5	14	19	50	42,00
201Z1014	10	G1/4	8	34,5	19	17	50	43,62



ART. 202

Female straight adaptor

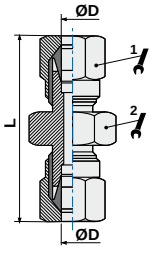
COD.	ØD	A	B	L	1	2		g
2020418	4	G1/8	8	24,5	10	14	100	15,02
2020618	6	G1/8	8	26	12	14	100	19,03
2020614	6	G1/4	11	30,5	12	17	100	23,48
2020818	8	G1/8	8	26,5	14	14	50	22,66
2020814	8	G1/4	11	31	14	17	50	27,09
2020838	8	G3/8	11,5	31	14	20	50	31,26
2021014	10	G1/4	11	35,5	19	17	50	36,56
2021038	10	G3/8	11,5	36,5	19	20	25	49,28



ART. 203

Straight connector

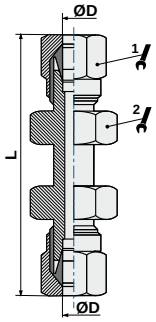
COD.	ØD	L	1	2		g
2030400	4	33,5	10	10	50	15,62
2030600	6	36,5	12	12	50	21,38
2030800	8	38,5	14	14	50	27,94
2031000	10	47,5	19	17	25	66,22
2031200	12	50,5	22	19	25	85,34
2031400	14	55,5	27	24	10	148,83
2031500	15	55,5	27	24	10	139,43



ART. 204

Bulkhead adaptor

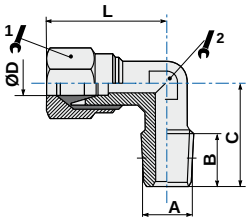
COD.	ØD	L	1	2		g
2040600	6	51,5	12	14	50	32,22
2040800	8	55,5	14	16	50	44,43
2041000	10	62,5	19	19	25	88,09
2041200	12	64,5	22	22	10	69,32
2041400	14	69,5	27	25	5	192,00
2041500	15	69,5	27	25	5	72,88



ART. 205

Elbow male adaptor

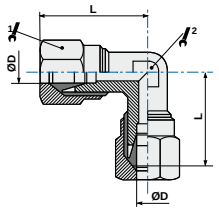
COD.	ØD	A	B	C	L	1	2		g
2050418	4	G1/8	8	16	21	10	9	100	14,13
2050618	6	G1/8	8	16	22	12	9	100	15,60
2050614	6	G1/4	11	20	24,5	12	11	100	23,92
2050818	8	G1/8	8	17	24	14	11	100	20,32
2050814	8	G1/4	11	20	24	14	11	100	28,04
2050838	8	G3/8	11,5	24	27	14	13	50	36,02
2051014	10	G1/4	11	23,5	32	19	13	50	47,58
2051038	10	G3/8	11,5	24	32	19	13	25	66,06
2051012	10	G1/2	14	28,5	34	19	15	25	73,87
2051238	12	G3/8	11,5	25,5	34,5	22	15	25	55,42
2051212	12	G1/2	14	28,5	34,5	22	15	25	74,84
2051412	14	G1/2	14	30	38	27	17	25	105,46
2051512	15	G1/2	14	30	38	27	17	10	99,05
2051612	16	G1/2	14	31,5	39,5	30	19	10	124,02
2051812	18	G1/2	14	34	44	32	22	10	152,93



ART. 206

Elbow connector

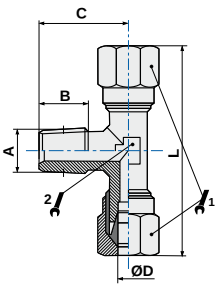
COD.	ØD	L	1	2		g
2060400	4	21	10	9	100	18,68
2060600	6	23	12	9	50	21,27
2060800	8	24	14	11	50	29,55
2061000	10	32	19	13	25	56,93
2061200	12	34,5	22	15	10	94,04
2061400	14	38	27	17	10	148,03
2061500	15	38	27	17	10	143,03
2061600	16	39,5	30	19	10	252,56



ART. 207

Centre male T adaptor

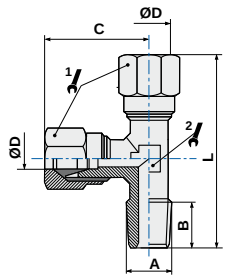
COD.	ØD	A	B	C	L	1	2		g
2070418	4	G1/8	8	16	42	10	9	100	22,58
2070618	6	G1/8	8	16	46	12	9	50	26,09
2070614	6	G1/4	11	20	48	12	11	50	35,23
2070818	8	G1/8	8	17	48	14	11	50	35,03
2070814	8	G1/4	11	20	48	14	11	25	38,01
2070838	8	G3/8	11,5	24	54	14	13	25	51,74
2071014	10	G1/4	11	23,5	64	19	13	25	54,68
2071038	10	G3/8	11,5	24	64	19	13	25	75,04
2071238	12	G3/8	11,5	25,5	69	22	15	10	78,08
2071212	12	G1/2	14	28,5	69	22	15	10	112,01



ART. 208

Off-set male T adaptor

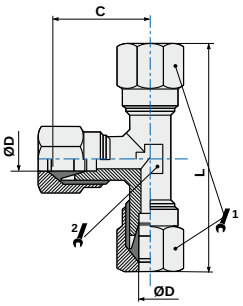
COD.	ØD	A	B	C	L	1	2		g
2080418	4	G1/8	8	37	21	10	9	100	21,48
2080618	6	G1/8	8	39	23	10	9	50	25,82
2080614	6	G1/4	11	44,5	24,5	12	11	50	35,18
2080818	8	G1/8	8	41	24	14	11	50	38,22
2080814	8	G1/4	11	44	24	14	11	25	40,03
2080838	8	G3/8	11,5	51	27	14	13	25	52,16
2081014	10	G1/4	11	55,5	32	19	13	25	65,80
2081038	10	G3/8	11,5	56	32	19	13	25	84,06
2081238	12	G3/8	11,5	60	34,5	22	15	10	100,65
2081212	12	G1/2	14	63	34,5	22	15	10	118,05



ART. 209

T connector

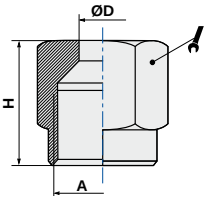
COD.	ØD	C	L	1	2		g
2090400	4	21	42	10	9	50	26,12
2090600	6	23	46	12	9	50	25,50
2090800	8	24	48	14	11	25	42,08
2091000	10	32	64	19	13	25	102,00
2091200	12	34,5	69	22	15	10	136,00



ART. 210

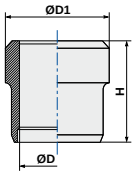
Nut

COD.	ØD	A	H			g
2100400	4	M8x1	11	10	100	4,00
2100600	6	M10x1	11,5	12	100	6,00
2100800	8	M12x1	12	14	100	8,00
2101000	10	M16x1,5	15,5	19	100	18,00
2101200	12	M18x1,5	15,5	22	100	25,00
2101400	14	M22x1,5	17,5	27	10	44,00
2101500	15	M22x1,5	17	27	10	42,00
2101600	16	M24x1,5	17,5	30	10	56,00
2101800	18	M26x1,5	18,5	32	10	64,00



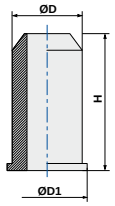
ART. 211 — Ogive

COD.	ØD	ØD1	H		
2110400	4	6	6	100	0,10
2110600	6	8	7	100	0,89
2110800	8	10	7	100	2,00
2111000	10	13	10	100	3,26
2111200	12	15	10	100	4,00
2111400	14	17	10	10	5,00
2111500	15	18	10	10	4,70
2111600	16	19	10	10	5,00
2111800	18	21	10,5	10	6,00



ART. 212 — Support bush

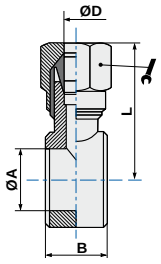
COD.	ØD	ØD1	H		
2120200	2	3,5	8	100	0,20
2120250	2,5	3,9	10	100	0,20
2120400	4	5,5	12	100	0,60
2120600	6	7,5	13	100	0,20
2120800	8	9,5	14	100	0,30
2121000	10	11,5	16	100	0,40
2121200	12	13,5	16	100	0,50
2121250	12,5	14,5	17	100	2,80
2121400	14	15,5	18	100	0,6



ART. 216 — Single banjo body

COD.	ØD	G*	ØA	B	L			
2160418	4	1/8	9,8	14,5	24,5	10	50	18,00
2160618	6	1/8	9,8	14,5	26,5	12	50	20,00
2160614	6	1/4	13,2	14,5	28,5	12	50	24,00
2160818	8	1/8	9,8	14,5	25,5	14	50	22,00
2160814	8	1/4	13,2	14,5	28	14	50	26,00
2161014	10	1/4	13,3	14,5	32	17	25	30,00

G*= Stem thread. See page 91 of stems section



Push-on fittings

The shape of push-on fittings ensures a perfect pneumatic seal once the tube is clamped and the nut tightened properly. Available in nickel-plated brass and AISI 316 stainless steel.

- **Brass push-on fittings**
- **Stainless steel push-on fittings**

Brass push-on fittings

Series 300

The push-on 300 series fittings are produced in Italy according to the reference ISO norms as warranty of high quality level.

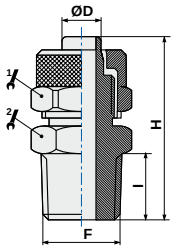
Technical sheet

FLUIDS		Compressed air, water up to 100 °C (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic, oleodynamic and hydraulic circuits.
CONNECTING TUBES	**plastic**	TPU, PE, PA, PET, PVC braided, PTFE, FEP
	metal	Copper, brass, steel, aluminium, etc.
WORKING PRESSURE		The pressure usually depend by the technical features of the employed tubes. Max pressure suggested 18 bar.
THREAD TYPE		BSP paralell UNI-ISO 228; BSPT tapered UNI-ISO 7-DIN2999; tapered ISO R/262
MATERIALS	**bodies**	Brass UNI EN 12164 CW614N (bar); UNI EN 12165 CW617N (molded)
	seals	NBR 70 DWGV-EN549 UL157
	washers	Aluminium/Nylon

ART. 301

Taper straight male adaptor

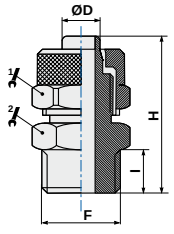
COD.	ØD	F	I	H	1	2		9
3010418	4/2,7	G1/8	8	25,5	9	12	100	9,40
3010518	5/3	G1/8	8	25	8	12	100	10,00
3010618	6/4	G1/8	8	26,5	12	12	100	26,00
3010614	6/4	G1/4	11	30	12	14	100	26,00
3010638	6/4	G3/8	11,5	30,5	12	17	100	28,00
3010818	8/6	G1/8	8	26,5	14	12	100	27,00
3010814	8/6	G1/4	11	30	14	14	100	23,50
3010838	8/6	G3/8	11,5	30,5	14	17	50	30,00
3010812	8/6	G1/2	14	33,5	14	22	50	44,00
3011018	10/8	G1/8	8	29	16	14	50	26,00
3011014	10/8	G1/4	11	32	16	14	50	30,00
3011038	10/8	G3/8	11,5	32,5	16	17	50	33,65
3011012	10/8	G1/2	14	35,5	16	22	50	45,75
3011238	12/10	G3/8	11,5	35,5	18	17	50	38,00
3011212	12/10	G1/2	14	38,5	18	22	25	48,85
3011512	15/12,5	G1/2	14	40	22	22	25	61,80



ART. 301Z

Parallel straight male adaptor

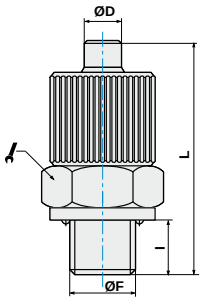
COD.	ØD	F	I	H	1	2		9
301Z0418	4/2,7	G1/8	6	21,5	8	13	100	12,00
301Z05M5	5/3	M5	4	20	8	8	100	4,00
301Z05M6	5/3	M6	4	22,1	8	8	100	6,00
301Z0518	5/3	G1/8	6	24,1	8	13	100	10,00
301Z06M5	6/4	M5	3,8	21,8	8	8	100	6,00
301Z0618	6/4	G1/8	6	24,5	12	14	100	16,83
301Z0614	6/4	G1/4	8	27	12	17	100	24,00
301Z0638	6/4	G3/8	9	28	12	19	50	28,00
301Z0818	8/6	G1/8	6	24,5	14	14	100	20,00
301Z0814	8/6	G1/4	8	27	14	17	50	26,00
301Z0838	8/6	G3/8	9	28	14	19	50	32,00
301Z1014	10/8	G1/4	8	29	16	17	50	30,00
301Z1038	10/8	G3/8	9	30	16	19	25	34,00
301Z1238	12/10	G3/8	9	33	18	19	25	38,00
301Z1212	12/10	G1/2	10	35	18	24	25	48,00
301Z1512	15/12,5	G1/2	10	35	22	24	25	56,00



ART. TC0

Parallel straight male adaptor (compact)

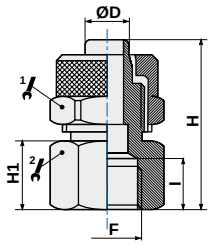
COD.	ØD	ØF	I	L			g
TC04M5	4	M5x0,8	4	17,0	8	100	4,00
TC0418	4	G1/8	5,5	20,0	14	100	9,00
TC06M5	6	M5x0,8	4	20,8	10	100	8,00
TC06M6	6	M6x1	4	20,8	10	100	8,00
TC0618	6	G1/8	5,5	23,0	14	100	12,00



ART. 302

Straight female adaptor

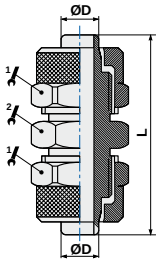
COD.	ØD	F	I	H	H1	1	2		g
3020618	6/4	G1/8	8	25	10	12	14	100	18,00
3020614	6/4	G1/4	11	29	14	12	17	100	26,00
3020638	6/4	G3/8	11,5	29,5	14,5	12	22	50	30,00
3020818	8/6	G1/8	8	25	10	14	14	100	20,00
3020814	8/6	G1/4	11	29	14	14	17	100	28,00
3020838	8/6	G3/8	11,5	29,5	14,5	14	22	50	32,00
3021014	10/8	G1/4	11	30,5	14	16	17	50	32,00
3021038	10/8	G3/8	11,5	31	14,5	16	22	50	36,00
3021238	12/10	G3/8	11,5	32,5	14,5	18	22	50	40,00



ART. 303

Straight connector

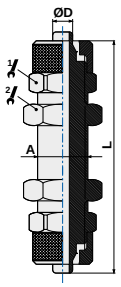
COD.	ØD	L	1	2		g
3030500	5/3	28,5	8	8	100	8,00
3030600	6/4	32	12	12	100	22,00
3030800	8/6	32	14	12	100	28,00
3031000	10/8	37	16	14	50	36,00
3031200	12/10	43	18	17	50	48,00
3031500	15/12,5	46,5	22	22	25	78,00



ART. 304

Bulkhead connector

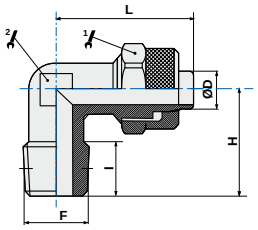
COD.	ØD	A	L	1	2		g
3040600	6/4	M10x1	45	12	14	100	34,00
3040800	8/6	M12x1	48	14	17	50	42,00
3041000	10/8	M14x1	54	16	17	50	55,45
3041200	12/10	M16x1	57	18	19	25	69,00
3041500	15/12,5	M20x1	59	22	24	10	110,00



ART. 305

Elbow taper male adaptor

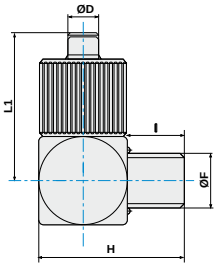
COD.	ØD	F	I	H	L	1	2		g
30504M5	4/2	M5	8	13	20,0	9	9	100	6,00
3050418	4/2	G1/8	8	17	20,0	9	9	100	13,42
3050518	5/3	G1/8	8	17	21,5	8	8	100	10,00
3050618	6/4	G1/8	8,5	17	20,5	12	10	100	16,00
3050614	6/4	G1/4	12,5	21	20,5	12	8	100	22,00
3050638	6/4	G3/8	15,5	23	20,5	12	8	50	30,00
3050818	8/6	G1/8	8	17	20,5	14	10	100	19,85
3050814	8/6	G1/4	12,5	21,5	20,5	14	10	100	23,00
3050838	8/6	G3/8	15,3	23,8	20,5	14	10	50	32,00
3051018	10/8	G1/8	8	17	24,5	16	12	50	27,254
3051014	10/8	G1/4	12,5	22	24,5	16	12	50	31,17
3051038	10/8	G3/8	14,8	24,3	24,5	16	12	50	34,00
3051012	10/8	G1/2	14	28	28	16	17	25	56,00
3051238	12/10	G3/8	14	26	29	18	14	50	48,00
3051212	12/10	G1/2	16	28	29	18	14	25	60,00
3051512	15/12,5	G1/2	15	28	24	22	16	25	70,00



ART. TL

Elbow parallel male adaptor

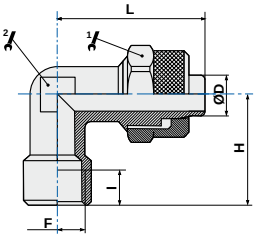
COD.	ØD	ØF	I	H	L1		g
TL04M5	4	M5x0,8	4,0	13,0	13,5	50	6,00
TL0418	4	G1/8	5,0	19,5	16,5	50	20,00
TL06M5	6	M5x0,8	4,9	13,9	16,3	50	12,00
TL06M6	6	M6x1	4,0	14,2	17,5	50	12,00
TL0618	6	G1/8	5,0	19,5	19,3	50	16,00



ART. 305F

Female elbow adaptor

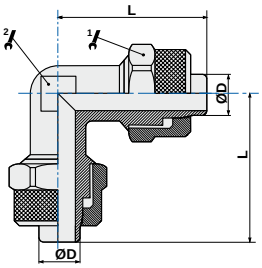
COD.	ØD	F	I	H	L	1	2		g
305F0618	6/4	G1/8	7	20,5	20,5	12	10	100	22,00
305F0614	6/4	G1/4	8	22,5	20,5	12	12	50	29,00
305F0818	8/6	G1/8	7	20,5	20,5	14	10	100	22,00
305F0814	8/6	G1/4	8	23,5	20,5	14	11	50	32,00
305F1014	10/8	G1/4	8	24	24,5	16	13	50	38,00
305F1038	10/8	G3/8	10	27	24,5	16	17	25	60,00
305F1238	12/10	G3/8	10	29	29	18	14	25	70,00



ART. 306

Elbow connector

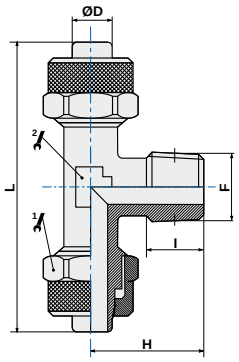
COD.	ØD	L	1	2		g
3060600	6/4	20,5	12	8	100	11,00
3060800	8/6	20,5	14	10	100	28,00
3061000	10/8	24,5	16	11	50	38,00
3061200	12/10	29	18	14	25	78,00
3061500	15/12,5	34	22	16	25	124,00



ART. 307

Central T adaptor

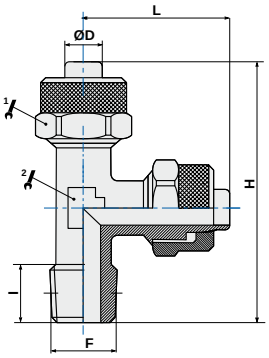
COD.	ØD	F	I	H	L	1	2		g
3070618	6/4	G1/8	8,5	17	41	12	8	100	26,00
3070614	6/4	G1/4	13	21,5	41	12	8	50	34,00
3070818	8/6	G1/8	8	16,5	41	14	10	50	34,00
3070814	8/6	G1/4	12,5	21	41	14	10	50	36,00
3070838	8/6	G3/8	15,3	23,8	41	14	10	25	44,00
3071018	10/8	G1/8	8	18,5	49	16	12	50	44,00
3071014	10/8	G1/4	11,8	22,3	49	16	12	50	48,00
3071038	10/8	G3/8	14,7	25,2	49	16	12	25	50,00
3071238	12/10	G3/8	14,1	26	58	18	14	25	70,00
3071212	12/10	G1/2	15	27	58	18	14	25	86,00
3071512	15/12,5	G1/2	14,4	27,4	68	22	16	10	100,00



ART. 308

Off-set T adaptor

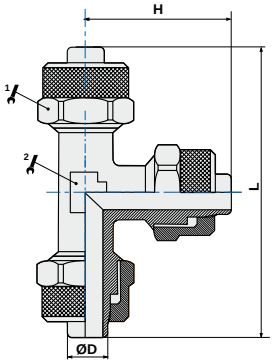
COD.	ØD	F	I	H	L	1	2		g
3080618	6/4	G1/8	8,5	37,5	20,5	12	8	100	26,00
3080614	6/4	G1/4	13	42	20,5	12	8	50	34,00
3080818	8/6	G1/8	8	37	20,5	14	10	50	34,00
3080814	8/6	G1/4	12,5	41,5	20,5	14	10	50	38,00
3080838	8/6	G3/8	15,3	44,3	20,5	14	10	25	44,00
3081018	10/8	G1/8	8	44	25,5	16	12	50	44,00
3081014	10/8	G1/4	11,8	46,8	24,5	16	12	50	48,00
3081038	10/8	G3/8	14,7	49,7	24,5	16	12	25	50,00
3081238	12/10	G3/8	14,1	55,1	29	18	14	25	70,00
3081212	12/10	G1/2	15	56	29	18	14	25	86,00
3081512	15/12,5	G1/2	14,4	61,4	34	22	16	10	108,00



ART. 309

T connector

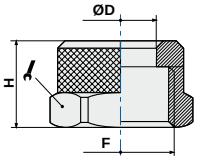
COD.	ØD	H	L	1	2		g
3090600	6/4	20,5	41	12	8	50	33,71
3090800	8/6	20,5	41	14	10	50	42,00
3091000	10/8	24,5	49	16	12	25	56,00
3091200	12/10	29	58	18	14	25	78,00
3091500	15/12,5	34	68	22	17	10	124,00



ART. 310

Locking nut

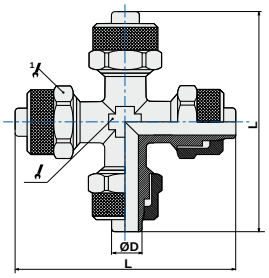
COD.	ØD	F	H			g
3100400	4/2,7	M7x0,75	8,1	9	100	1,50
3100500	5/3	M7x0,75	8,5	8	100	1,34
31006M8	6/4	M8x0,75	9	9	100	1,51
3100610	6/4	M10x1	10,5	12	100	4,64
3100800	8/6	M12x1	10,5	14	100	5,57
3101000	10/8	M14x1	11,5	16	100	7,09
3101200	12/10	M16x1	13	18	100	9,36
3101500	15/12,5	M20x1	15,5	22	50	15,04



ART. 311

Cross adaptor

COD.	ØD	L	1	2		g
3110600	6/4	41	8	12	50	42,00
3110800	8/6	41	10	14	25	52,00
3111000	10/8	49	12	16	25	70,00

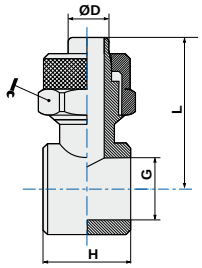


ART. 405

Single banjo body

COD.	ØD	G*	H	L			g
40504M5	4/2	M5	9	16,5	8	100	6,00
4050418	4/2,7	G1/8	9	16,5	8	100	14,00
40506M5	6/4	M5	9	18	9	100	8,00
4050618	6/4	G1/8	15	23,5	12	100	20,00
4050614	6/4	G1/4	17	25,5	12	100	24,00
4050818	8/6	G1/8	15	22,5	14	100	22,00
4050814	8/6	G1/4	17	24,5	14	50	26,00
4051014	10/8	G1/4	17	25,5	14	50	30,00

G*= Stem thread. See page 91 of stems section

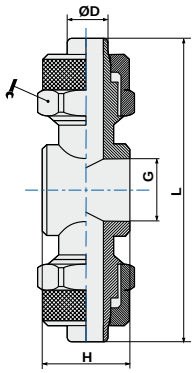


ART. 406

Double banjo body

COD.	ØD	G*	H	L			g
4060618	6/4	G1/8	14,5	48	12	100	30,00
4060614	6/4	G1/4	14,5	52	12	50	34,00
4060818	8/6	G1/8	14,5	48	14	50	32,00
4060814	8/6	G1/4	14,5	52	14	50	38,00
4061014	10/8	G1/4	14,5	55	16	50	44,00

G*= Stem thread. See page 91 of stems section



Stainless steel push-on fittings

Series RX300

The “RX” fittings series are “oil free” and manufactured according to the ISO norms of reference, and suitable for the following technical and applicative specifications.

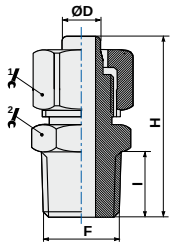
Technical sheet

FLUIDS		Compressed air, some liquids (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic equipments which are applied widely in the range of Industy 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.
SUGGESTED TUBES FOR THE QUICK SERIES		4x2,5; 6x4; 8x6; 10x8; 12x10; 14x11; 16x13
RECOMMENDED LIMIT VALUES	**TEMPERATURE**	The working temperatures range is between -20°C and +120°C
	WORKING PRESSURES	The working pressure depends on the type of employed pipe, maximum value 25bar
THREAD TYPE		BSP parallel UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	**Nut**	Stainless steel SUS316
	Body	Stainless steel SUS316
IMPORTANT NOTE		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. RX301

Taper straight male adaptor

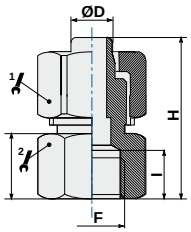
COD.	ØD	F	I	H	1	2		g
RX30106M5	6/4	M5	4	23,7	12	12	1	14,76
RX3010618	6/4	G1/8	7,5	25	12	12	1	14,00
RX3010614	6/4	G1/4	9,5	27	12	14	1	18,00
RX3010818	8/6	G1/8	7,5	26,2	14	14	1	20,00
RX3010814	8/6	G1/4	9,5	30,5	17	17	1	20,00
RX3011014	10/8	G1/4	10	31,5	17	17	1	32,00



ART. RX302

Straight female adaptor

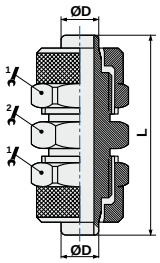
COD.	ØD	F	I	H	1	2		g
RX3020618	6/4	G1/8	9,5	23	12	14	1	16,00
RX30206146	6/4	G1/4	11,5	25	12	17	1	20,00
RX30208188	8/6	G1/8	9,5	24	14	14	1	20,00
RX30208148	8/6	G1/4	11,5	26	14	17	1	26,00



ART. RX303

Straight connector

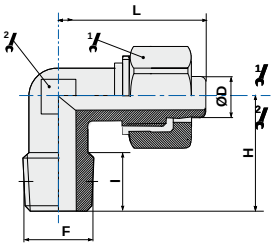
COD.	ØD	L	1	2		g
RX3030600	6/4	30	12	12	1	22,00
RX3030800	8/6	32	14	14	1	28,00
RX3031000	10/8	37	17	17	1	48,00
RX3031200	12/10	41	19	19	1	61,44



ART. RX305

Elbow taper male adaptor

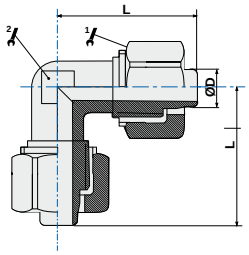
COD.	ØD	F	I	H	L	1	2		g
RX3050418	4/2,5	G1/8	8,5	17	16	8	9	1	12,00
RX3050618	6/4	G1/8	11	21	21	12	9	1	18,00
RX3050614	6/4	G1/4	11	21	21	12	11	1	24,00
RX3050818	8/6	G1/8	8,5	18	23	14	11	1	24,00
RX3050814	8/6	G1/4	11	22,3	23	14	11	1	26,00
RX3051014	10/8	G1/4	11	23,5	25	17	13	1	38,00
RX3051038	10/8	G3/8	14	25	25	17	13	1	42,00



ART. RX306

Elbow connector

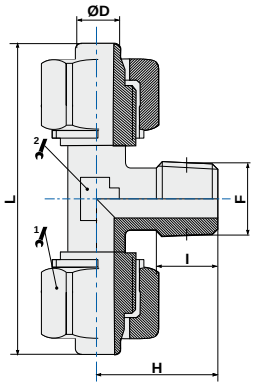
COD.	ØD	L	1	2		g
RX3060600	6/4	21	12	9	1	24,00
RX3060800	8/6	22,5	14	11	1	34,00
RX3061000	10/8	25	17	13	1	52,00
RX3061200	12/10	27,5	19	15,5	1	72,14



ART. RX307

Central T adaptor

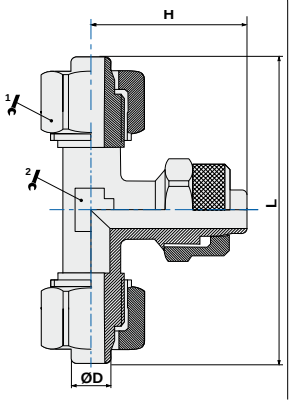
COD.	ØD	F	I	H	L	1	2		g
RX3070618	6/4	G1/8	11,5	22	41,5	12	9	1	30,00
RX3070614	6/4	G1/4	9	22	41,5	12	9	1	36,00
RX3070818	8/6	G1/8	8,5	18	44,5	14	11	1	38,00
RX3070814	8/6	G1/4	12	24	44	14	11	1	38,00
RX3071014	10/8	G1/4	11,5	24	50,5	17	13	1	58,00



ART. RX309

T connector

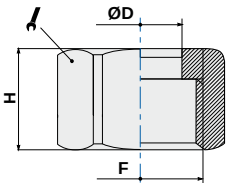
COD.	ØD	H	L	1	2		g
RX3090600	6/4	20,5	41	12	9	1	36,00
RX3090800	8/6	23,5	44,5	14	11	1	48,00
RX3091000	10/8	26,5	50,7	17	13	1	74,00
RX3091200	12/10	27,5	55,4	19	13	1	88,00



ART. RX310

Locking nut

COD.	ØD	F	H			g
RX3100600	6/4	M10x1	10	12	1	6,00
RX3100800	8/6	M12x1	10	14	1	6,00
RX3101000	10/8	M14x1	12	17	1	12,00



Flow regulators

Flow regulators unidirectional and bidirectional made of nickel-plated brass, technopolymer and AISI 316L stainless steel.

- **Brass flow regulators**
- **Technopolymer flow regulators**
- **Stainless steel flow regulators**

Brass flow regulator

Series RAP - RAP BLACK - OT

The RAP flow regulator series are produced in Italy according to the reference ISO norms as warranty of high quality level.

Ordering code

B 29 OT 12 14 P

THRUST SLEEVE COLOUR
blank = Green
B = Black
S = Grey
A = Blue

ADJUSTING STEM
28 = For valve
29 = For cylinder
30 = Bidirectional

VERSION
OT = Nickel-plated brass thrust sleeve

TUBE CONNECTION
4 ... 12 = Tube diameter (mm)

THREADED CONNECTION
M5; 18; 14; 38; 12 = Thread size (M5; 1/8; 1/4; 3/8; 1/2)

TYPE
blank = Orientable type with screwdriver nut
P = Swivel type with adjusting knob

See assembly instructions in the appendix on page 207.

Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
TEMPERATURE AND PRESSURE	**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	At page 17 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.
THREAD TYPE		BSP paralell UNI-ISO 228
MATERIALS	**RAP body, regulation stem, "OT" sleeve**	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

Components

1 Swivel banjo - “13” “13 R/*”

2 Adjusting stem with knob
28A (for valve)
29A (for cylinder)
30A (bidirectional)

3 Adjusting stem with screwdriver cut
28A (for valve)
29A (for cylinder)
30A (bidirectional)

(*) For M5 stem

Additional technical informations

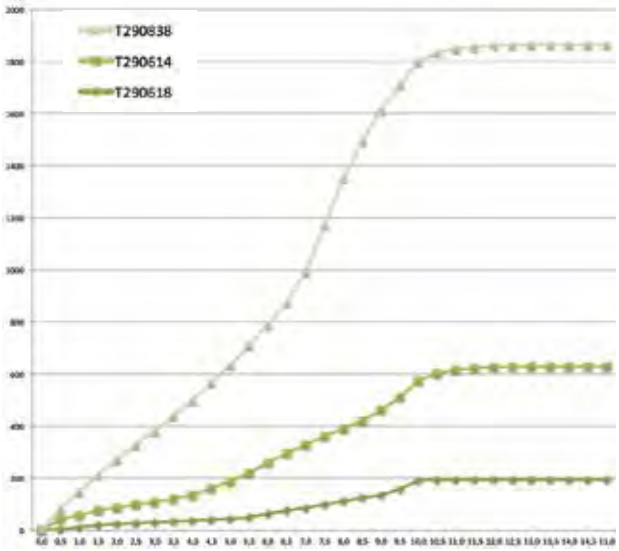
Flow tests

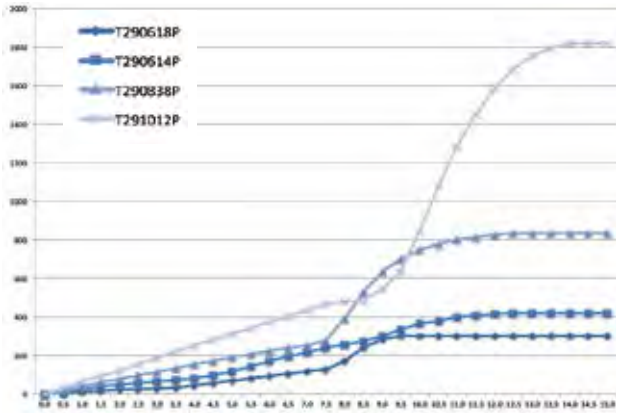
Test carried out at the Pneumax laboratory on a flow regulators sample under the following conditions:

Fluid	Filtered air
Temperature	20°C
Pression	6 bar

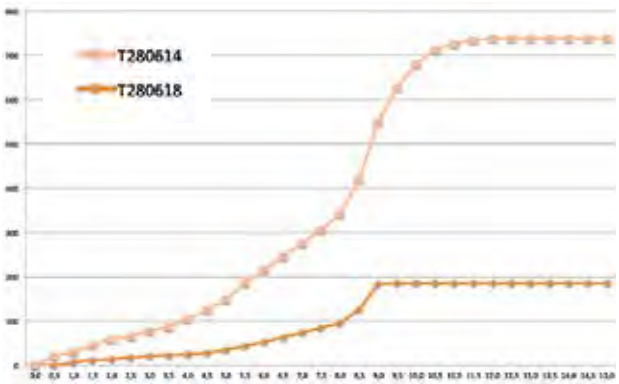
Tests results

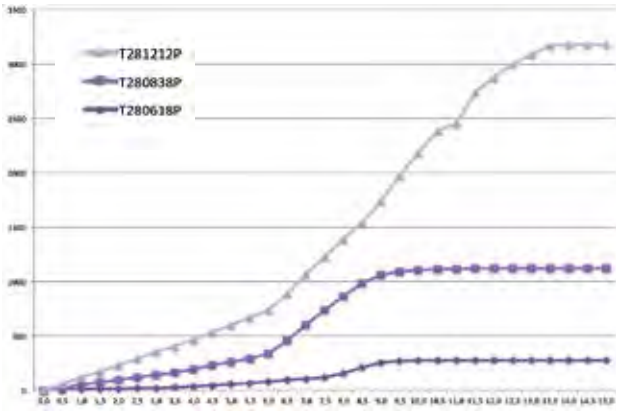
N° Needle turns	Flow (ltr/min)						
	T290618	T290618P	T290614	T290614P	T290838	T290838P	T291012P
0,0	0	0	0	0	0	0	0
0,5	5	5	38	2	40	21	30
1,0	10	10	48	23	92	40	63
1,5	20	16	55	41	139	59	94
2,0	23	22	65	50	185	78	123
2,5	27	25	72	58	230	96	156
3,0	30	28	80	64	272	115	186
3,5	34	33	88	73	318	135	220
4,0	37	43	100	81	361	153	251
4,5	40	55	121	97	405	171	282
5,0	44	68	145	118	447	190	312
5,5	52	80	170	142	489	207	343
6,0	64	93	196	169	530	224	375
6,5	75	105	220	193	580	240	404
7,0	88	118	241	217	664	251	437
7,5	101	127	260	238	811	276	466
8,0	113	172	277	255	963	392	480
8,5	126	240	294	273	1075	530	485
9,0	136	283	325	300	1154	635	543
9,5	158	300	355	334	1200	700	635
10,0	191		383	364	1228	750	845
10,5	195		408	379	1235	778	1083
11,0			421	400		802	1288
11,5			427	407		814	1454
12,0			432	414		824	1588
12,5			434	417		833	1685
13,0			436	418		835	1754
13,5							1795
14,0							1820
14,5							
15,0							





N° Needle turns	Flow (ltr/min)							
	T280618	T280618P	T280614	T280838P	T281212P	T290838-V	T290838-B	T290838-C
0,0	0	0	0	0	0	0	0	0
0,5	0	0	20	22	35	42	39	88
1,0	6	10	24	40	70	82	79	185
1,5	12	13	34	59	100	124	122	280
2,0	14	16	43	78	138	159	163	375
2,5	17	20	48	100	171	200	205	480
3,0	20	22	57	120	207	236	244	582
3,5	22	25	65	141	240	272	282	680
4,0	24	32	80	160	274	307	320	780
4,5	27	44	98	184	306	342	357	880
5,0	34	55	115	207	338	377	392	1110
5,5	44	69	142	226	370	411	425	1428
6,0	53	81	162	255	402	445	460	1628
6,5	64	94	182	360	433	478	496	1720
7,0	74	106	202	498	464	529	546	1767
7,5	84	120	221	614	494	640	642	1798
8,0	95	155	247	712	525	800	793	1820
8,5	125	207	294	778	560	970	983	1825
9,0	184	250	365	808	678	1088	1129	
9,5	185	269	442	823	877	1145	1222	
10,0		275	495	830	1079	1185		
10,5			528	835	1280	1187		
11,0			541	838	1340			
11,5			549	843	1623			
12,0			552		1760			
12,5			553		1880			
13,0					1970			
13,5					2055			
14,0					2060			
14,5								
15,0								



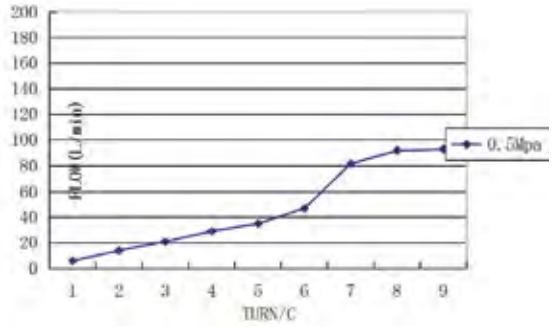


Stems G1/8" banjo diam. 4	1	2	3	4	5	m/a	um
Clamping OK	2,5	2,5	2,5	2,5		2,5	Nm
Ring crushed	3,5	3,5	3,0	3,3		3,5	Nm
Deformed ring	5,0	5,5	4,5	5,0		5,0	Nm
Stem breakage	16,4	16,4	15,3	14,5		16,0	Nm
Stems G1/4" banjo diam. 6	1	2	3	4	5	m/a	um
Clamping OK	2,5	3,0	2,5	2,5	3,0	3,0	Nm
Ring crushed	4,0	5,0	5,5	6,0	6,0	5,5	Nm
Deformed ring	7,0	7,5	8,0	8,5	9,0	8,0	Nm
Stem breakage	33,0	32,1	30,1	32,4	33,4	32,0	Nm
Stems G3/8" banjo diam. 8	1	2	3	4	5	m/a	um
Clamping OK	4,0	5,0				4,5	Nm
Ring crushed	8,0	8,5				8,0	Nm
Deformed ring	15,0	16,0				16,0	Nm
Stem breakage	41,9	44,3				43,0	Nm

Regulator code	Flow (ltr/min)	
	6 bar Δp=1 Nominal	6 bar max free exhaust
2804M5P	64	118
T280618	120	185
T280618P	170	280
T280614	320	550
T280838P	505	840
T281212P	1230	2060
T290618	120	195
T290618P	175	300
T290614	260	435
T290614P	245	420
T290838	790	1235
T290838P	525	835
T291012P	1120	1820
T300618	200	330
T301014	365	655
T290838-V	705	1185
T290838-B	775	1070
T291212-C	1160	1825

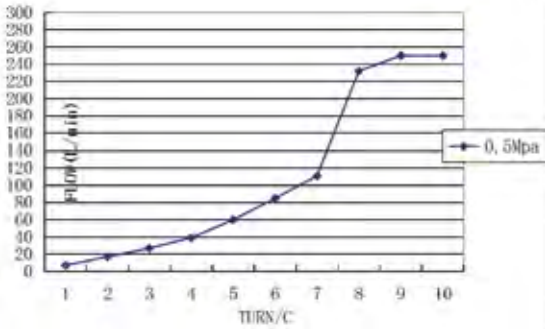
ART. T310400
ART. TB310400
In-Line Flow Regulator

Fluid	Filtered air
Temperature	20°C
Pression	5 bar



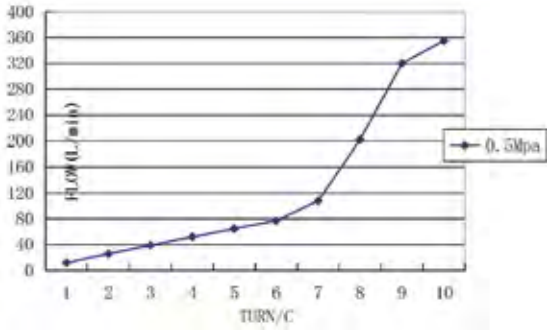
ART. T310600
ART. TB310600
In-Line Flow Regulator

Fluid	Filtered air
Temperature	20°C
Pression	5 bar



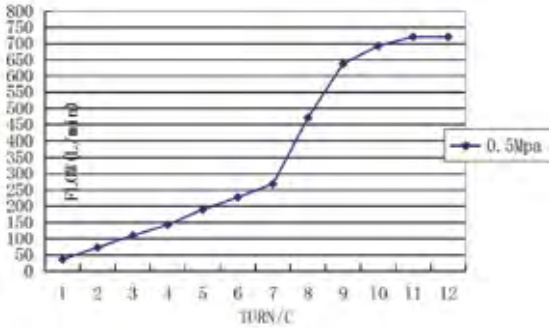
ART. T310800
ART. TB310800
In-Line Flow Regulator

Fluid	Filtered air
Temperature	20°C
Pression	5 bar



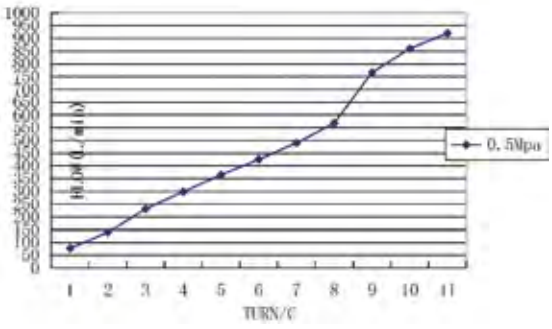
ART. T311000
ART. TB311000
In-Line Flow Regulator

Fluid	Filtered air
Temperature	20°C
Pression	5 bar



ART. T311200
ART. TB311200
In-Line Flow Regulator

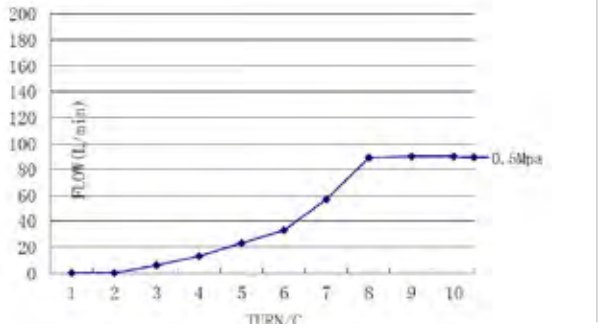
Fluid	Filtered air
Temperature	20°C
Pression	6 bar



ART. T29GS04M5
ART. T29GS06M5

Speed controller for cylinders with lock cap

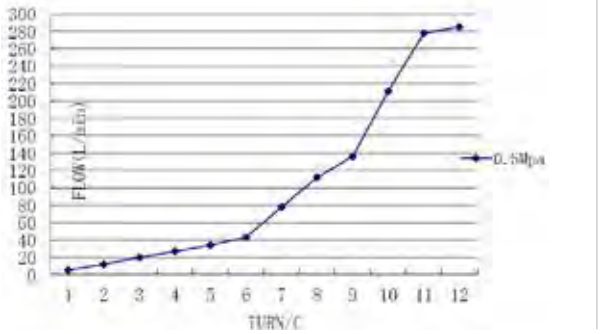
Fluid	Filtered air
Temperature	20°C
Pression	5 bar



ART. T29GS0418
ART. T29GS0618
ART. T29GS0818

Speed controller for cylinders with lock cap

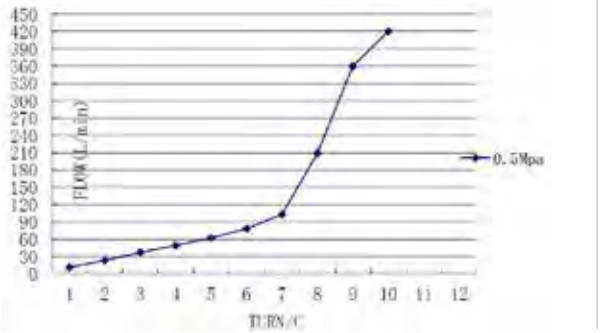
Fluid	Filtered air
Temperature	20°C
Pression	5 bar



ART. T29GS0614
ART. T29GS0618

Speed controller for cylinders with lock cap

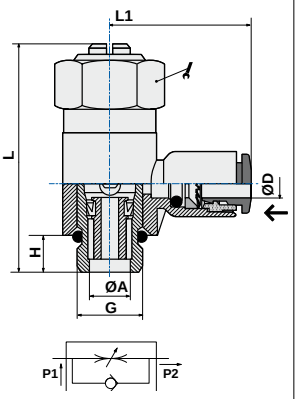
Fluid	Filtered air
Temperature	20°C
Pression	5 bar



ART. 28

Orientable flow regulator for valve

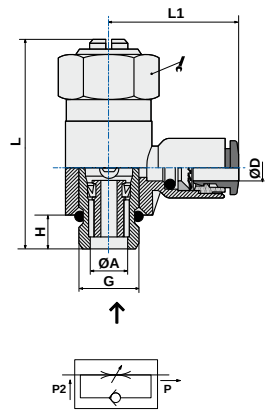
COD.	ØD	G	ØA	H	L1	L			g
2804M5	4	M5	1,9	4,0	19,5	24,0	8	25	10,28
280418	4	1/8	5,5	5,5	21,1	34,0	14	25	33,86
2806M5	6	M5	1,9	4,0	21,0	24,0	8	25	11,29
280618	6	1/8	5,5	5,5	24,3	34,0	14	25	35,00
280614	6	1/4	6,0	6,5	25,5	42,0	17	25	59,68
280818	8	1/8	5,5	5,5	24,8	34,0	14	25	34,96
280814	8	1/4	6,0	6,5	26,5	42,0	17	25	60,44
280838	8	3/8	8,0	7,5	28,0	52,0	20	10	94,87
281014	10	1/4	6,0	6,5	28,4	42,0	17	25	65,86
281038	10	3/8	8,0	7,5	29,9	52,0	20	10	78,13
281238	12	3/8	8,0	7,5	31,4	52,0	20	10	99,38



ART. 29

Orientable flow regulator for cylinder

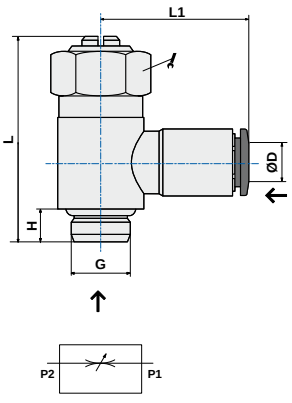
COD.	ØD	G	ØA	H	L1	L			g
2904M5	4	M5	1,9	4,0	19,5	24,0	8	25	10,50
290418	4	1/8	5,0	5,5	21,1	34,0	14	25	33,93
2906M5	6	M5	1,9	4,0	21,0	24,0	8	25	11,29
290618	6	1/8	5,0	5,5	24,3	34,0	14	25	34,72
290614	6	1/4	6,0	6,5	25,5	42,0	17	25	60,00
290818	8	1/8	5,0	5,5	24,8	34,0	14	25	35,31
290814	8	1/4	6,0	6,5	26,5	42,0	17	25	69,97
290838	8	3/8	6,5	7,5	28,0	52,0	20	10	95,17
291014	10	1/4	6,0	6,5	28,4	42,0	17	25	65,89
291038	10	3/8	6,5	7,5	29,9	52,0	20	10	97,53
291238	12	3/8	6,5	7,5	31,4	52,0	20	10	99,65
291212	12	1/2	10,0	9	34,9	61,0	26	10	160,80



ART. 30

Orientable bidirectional flow regulator

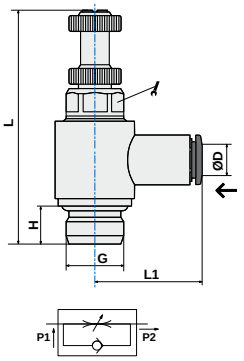
COD.	ØD	G	H	L1	L			g
3004M5	4	M5	4,0	19,5	24	8	25	10,50
300418	4	1/8	5,5	21,1	34	14	25	33,92
3006M5	6	M5	4,0	21,0	24	8	25	11,30
300618	6	1/8	5,5	24,3	34	14	25	35,89
300614	6	1/4	6,5	25,5	42	17	25	61,44
300818	8	1/8	5,5	24,8	34	14	25	36,32
300814	8	1/4	6,5	26,5	42	17	25	62,28
300838	8	3/8	7,5	28,0	52	20	10	94,34
301014	10	1/4	6,5	28,4	42	17	25	65,89
301038	10	3/8	7,5	29,9	52	20	10	97,53
301238	12	3/8	7,5	31,4	52	20	10	99,00
301212	12	1/2	9	34,9	61	26	10	160,00



ART. 28P

Swivel flow regulator for valve

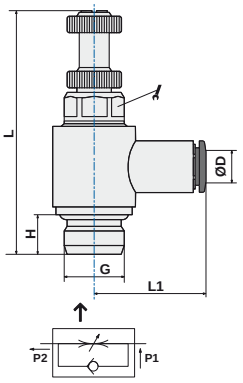
COD.	ØD	G	H	L1	L			g
2804M5P	4	M5	4	19,5	35,0	8	25	11,50
280418P	4	1/8	5,5	43,0	21,1	9	25	28,09
2806M5P	6	M5	4	21,0	35,0	8	25	12,60
280618P	6	1/8	5,5	43,0	24,3	9	25	29,09
280614P	6	1/4	6,5	50,0	25,5	12	25	51,13
280818P	8	1/8	5,5	43,0	24,8	9	25	30,08
280814P	8	1/4	6,5	50,0	26,5	12	25	51,69
281014P	10	1/4	6,5	50,0	28,4	12	25	56,18



ART. 29P

Swivel flow regulator for cylinder

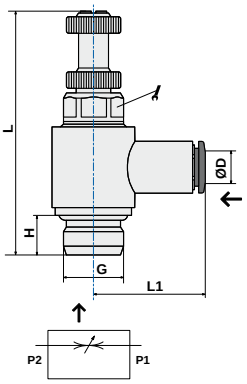
COD.	ØD	G	H	L1	L			g
2904M5P	4	M5	4	19,5	35,0	8	25	11,60
290418P	4	1/8	5,5	43,0	21,1	9	25	28,13
2906M5P	6	M5	4	21,0	35,0	8	25	12,60
290618P	6	1/8	5,5	43,0	24,3	9	25	29,50
290614P	6	1/4	6,5	50,0	25,5	12	25	50,55
290818P	8	1/8	5,5	43,0	24,8	9	25	29,51
290814P	8	1/4	6,5	50,0	26,5	12	25	51,43
291014P	10	1/4	6,5	50,0	28,4	12	25	56,20



ART. 30P

Swivel bidirectional flow regulator

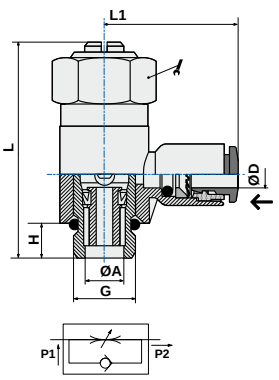
COD.	ØD	G	H	L1	L			g
3004M5P	4	M5	4	19,5	35,0	8	25	11,60
300418P	4	1/8	5,5	43	21,1	9	25	28,13
3006M5P	6	M5	4	21	35,0	8	25	13,00
300618P	6	1/8	5,5	43	24,3	9	25	29,50
300614P	6	1/4	6,5	50	25,5	12	25	50,55
300818P	8	1/8	5,5	43	24,8	9	25	29,51
300814P	8	1/4	6,5	50	26,5	12	25	51,43
301014P	10	1/4	6,5	50	28,4	12	25	56,20



ART. B28

Unidirectional flow regulator for valve

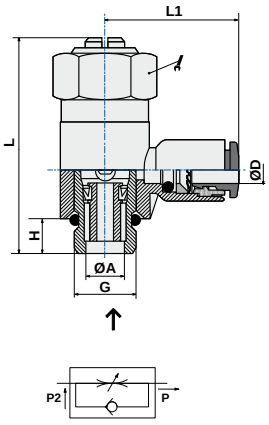
COD.	ØD	G	ØA	H	L1	L			g
B2804M5	4	M5	1,9	4,0	19,5	24,0	8	25	10,28
B280418	4	1/8	5,5	5,5	21,1	34,0	14	25	33,86
B2806M5	6	M5	1,9	4,0	21,0	24,0	8	25	11,29
B280618	6	1/8	5,5	5,5	24,3	34,0	14	25	35,00
B280614	6	1/4	6,0	6,5	25,5	42,0	17	25	59,68
B280818	8	1/8	5,5	5,5	24,8	34,0	14	25	34,96
B280814	8	1/4	6,0	6,5	26,5	42,0	17	25	60,44
B280838	8	3/8	8,0	7,5	28,0	52,0	20	10	94,87
B281014	10	1/4	6,0	6,5	28,4	42,0	17	25	65,86
B281038	10	3/8	8,0	7,5	29,9	52,0	20	10	78,13
B281238	12	3/8	8,0	7,5	31,4	52,0	20	10	99,38



ART. B29

Unidirectional flow regulator for cylinder

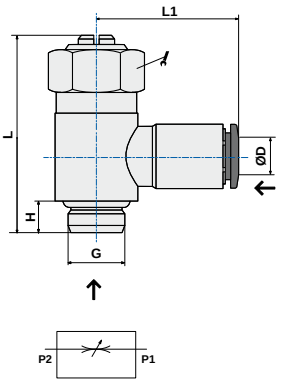
COD.	ØD	G	ØA	H	L1	L			g
B2904M5	4	M5	1,9	4,0	19,5	24,0	8	25	10,50
B290418	4	1/8	5,0	5,5	21,1	34,0	14	25	33,93
B2906M5	6	M5	1,9	4,0	21,0	24,0	8	25	11,29
B290618	6	1/8	5,0	5,5	24,3	34,0	14	25	34,72
B290614	6	1/4	6,0	6,5	25,5	42,0	17	25	60,00
B290818	8	1/8	5,0	5,5	24,8	34,0	14	25	35,31
B290814	8	1/4	6,0	6,5	26,5	42,0	17	25	69,97
B290838	8	3/8	6,5	7,5	28,0	52,0	20	10	95,17
B291014	10	1/4	6,0	6,5	28,4	42,0	17	25	65,89
B291038	10	3/8	6,5	7,5	29,9	52,0	20	10	97,53
B291238	12	3/8	6,5	7,5	31,4	52,0	20	10	99,65
B291212	12	1/2	10,0	9	34,9	61,0	26	10	160,80



ART. B30

Bidirectional flow regulator

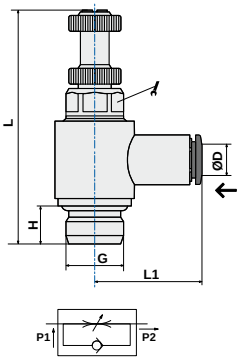
COD.	ØD	G	H	L1	L			g
B3004M5	4	M5	4,0	19,5	24	8	25	10,50
B300418	4	1/8	5,5	21,1	34	14	25	33,92
B3006M5	6	M5	4,0	21,0	24	8	25	11,30
B300618	6	1/8	5,5	24,3	34	14	25	35,89
B300614	6	1/4	6,5	25,5	42	17	25	61,44
B300818	8	1/8	5,5	24,8	34	14	25	36,32
B300814	8	1/4	6,5	26,5	42	17	25	62,28
B300838	8	3/8	7,5	28,0	52	20	10	94,34
B301014	10	1/4	6,5	28,4	42	17	25	65,89
B301038	10	3/8	7,5	29,9	52	20	10	97,53
B301238	12	3/8	7,5	31,4	52	20	10	99,00
B301212	12	1/2	9	34,9	61	26	10	160,00



ART. B28P

Swivel flow regulator for valve

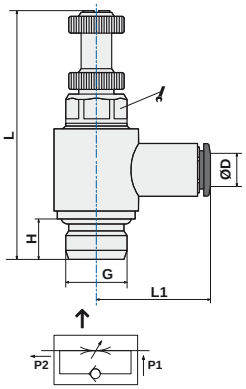
COD.	ØD	G	H	L	L1			g
B2804M5P	4	M5	4	19,5	35,0	8	25	11,50
B280418P	4	1/8	5,5	43,0	21,1	9	25	28,09
B2806M5P	6	M5	4	21,0	35,0	8	25	12,60
B280618P	6	1/8	5,5	43,0	24,3	9	25	29,09
B280614P	6	1/4	6,5	50,0	25,5	12	25	51,13
B280818P	8	1/8	5,5	43,0	24,8	9	25	30,08
B280814P	8	1/4	6,5	50,0	26,5	12	25	51,69
B281014P	10	1/4	6,5	50,0	28,4	12	25	56,18



ART. B29P

Swivel flow regulator for cylinder

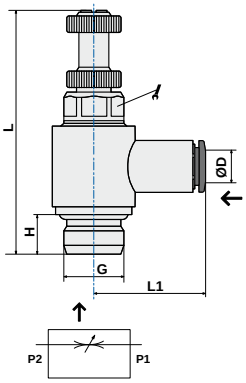
COD.	ØD	G	H	L	L1			g
B2904M5P	4	M5	4	19,5	35,0	8	25	11,60
B290418P	4	1/8	5,5	43,0	21,1	9	25	28,13
B2906M5P	6	M5	4	21,0	35,0	8	25	12,60
B290618P	6	1/8	5,5	43,0	24,3	9	25	29,50
B290614P	6	1/4	6,5	50,0	25,5	12	25	50,55
B290818P	8	1/8	5,5	43,0	24,8	9	25	29,51
B290814P	8	1/4	6,5	50,0	26,5	12	25	51,43
B291014P	10	1/4	6,5	50,0	28,4	12	25	56,20



ART. B30P

Bidirectional flow regulator

COD.	ØD	G	H	L	L1			g
B3004M5P	4	M5	4	19,5	35,0	8	25	11,60
B300418P	4	1/8	5,5	43	21,1	9	25	28,13
3006M5P	6	M5	4	21	35,0	8	25	
B300618P	6	1/8	5,5	43	24,3	9	25	29,50
B300614P	6	1/4	6,5	50	25,5	12	25	50,55
B300818P	8	1/8	5,5	43	24,8	9	25	29,51
B300814P	8	1/4	6,5	50	26,5	12	25	51,43
B301014P	10	1/4	6,5	50	28,4	12	25	56,20

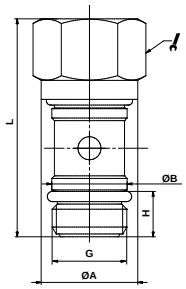


ART. 28/29/30A

Positioned flow regulator stem

COD.	L	G	H	ØB	ØA			g
28/29/30AM5*	24,0	M5	4	6,0	5,0	8	10	4,9
28/29/30A18	31,5	1/8	7	9,8	13,5	14	10	20,69
28/29/30A14	38,0	1/4	8	13,0	17,0	17	10	39,85
28/29/30A38	46,5	3/8	9	16,5	21,0	21	10	67,08
29A12 / 30A12	53,0	1/2	10	20,5	26	26	5	112,46

*Compatible only with versions 13R - T13R

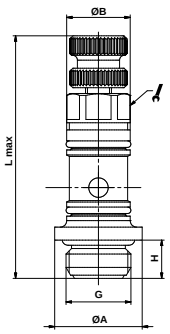


ART. 28/29/30AP

Swivel flow regulator stem

COD.	L max	G	H	ØB	ØA			g
28/29/30AM5P*	35,0	M5	4,2	6,0	5,0	8	10	4,9
28/29/30A18P	37,5	1/8	5,9	9,8	13,5	9	10	15,00
28/29/30A14P	44,0	1/4	7,0	13,0	17,0	12	10	31,00

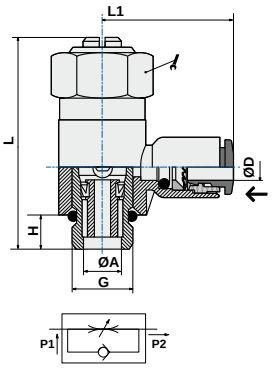
*Compatible only with versions 13R - T13R



ART. 28OT

Orientable flow regulator for valve

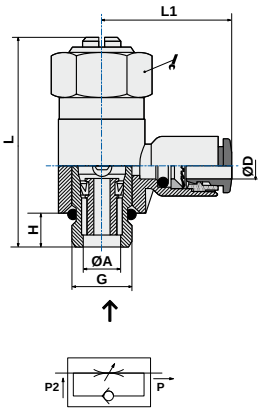
COD.	ØD	G	ØA	H	L1	L			g
28OT04M5	4	M5	1,9	4,0	19,5	24	8	25	11,48
28OT0418	4	1/8	5,5	5,5	21,1	34	14	25	35,06
28OT06M5	6	M5	1,9	4,0	21,0	24	8	25	36,50
28OT0618	6	1/8	5,5	5,5	24,3	34	14	25	36,50
28OT0614	6	1/4	6,0	6,5	25,5	42	17	25	61,18
28OT0818	8	1/8	5,5	5,5	24,8	34	14	25	36,77
28OT0814	8	1/4	6,0	6,5	26,5	42	17	25	62,24
28OT0838	8	3/8	8,0	7,5	28,0	52	20	10	96,67
28OT1014	10	1/4	6,0	6,5	28,4	42	17	25	69,86
28OT1038	10	3/8	8,0	7,5	29,9	52	20	10	82,13
28OT1238	12	3/8	8,0	7,5	31,4	52	20	10	103,88



ART. 29OT

Orientable flow regulator for cylinder

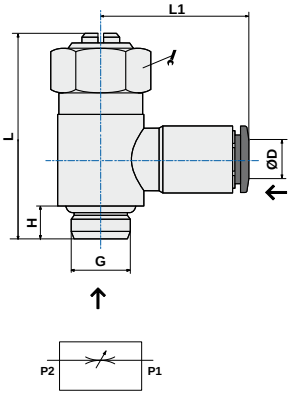
COD.	ØD	G	ØA	H	L	L1			g
29OT04M5	4	M5	1,9	4,0	24	19,5	8	25	11,48
29OT0418	4	1/8	5,0	5,5	34	21,1	14	25	35,06
29OT06M5	6	M5	1,9	4,0	24	21,0	8	25	36,50
29OT0618	6	1/8	5,0	5,5	34	24,3	14	25	36,50
29OT0614	6	1/4	6,0	6,5	42	25,5	17	25	61,18
29OT0818	8	1/8	5,0	5,5	34	24,8	14	25	36,77
29OT0814	8	1/4	6,0	6,5	42	26,5	17	25	62,24
29OT0838	8	3/8	6,5	7,5	52	28,0	20	10	96,67
29OT1014	10	1/4	6,0	6,5	42	28,4	17	25	69,86
29OT1038	10	3/8	6,5	7,5	52	29,9	20	10	82,13
29OT1238	12	3/8	6,5	7,5	52	31,4	20	10	103,88
29OT1212	12	1/2	10,0	9	61	34,9	26	10	165,30



ART. 30OT

Orientable bidirectional flow regulator

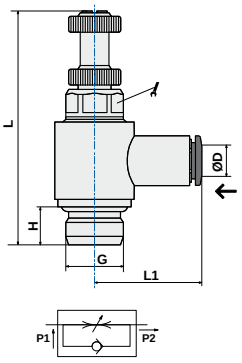
COD.	ØD	G	H	L	L1			g
30OT04M5	4	M5	4,0	24	19,5	8	25	11,48
30OT0418	4	1/8	5,5	34	21,1	14	25	35,06
30OT06M5	6	M5	4,0	24	21,0	8	25	36,50
30OT0618	6	1/8	5,5	34	24,3	14	25	36,50
30OT0614	6	1/4	6,5	42	25,5	17	25	61,18
30OT0818	8	1/8	5,5	34	24,8	14	25	36,77
30OT0814	8	1/4	6,5	42	26,5	17	25	62,24
30OT0838	8	3/8	7,5	52	28,0	20	10	96,67
30OT1014	10	1/4	6,5	42	28,4	17	25	69,86
30OT1038	10	3/8	7,5	52	29,9	20	10	82,13
30OT1238	12	3/8	7,5	52	31,4	20	10	103,88
30OT1212	12	1/2	9	61	34,9	26	10	165,30



ART. 28OT-P

Swivel flow regulator for valve

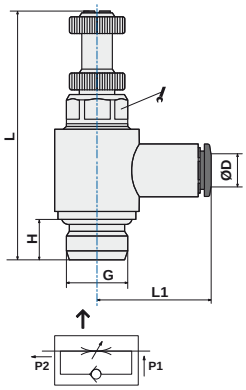
COD.	ØD	G	H	L	L1			g
28OT04M5P	4	M5	4	19,5	35,0	8	25	12,70
28OT0418P	4	1/8	5,5	43,0	21,1	9	25	29,29
28OT06M5P	6	M5	4	21,0	35,0	8	25	13,80
28OT0618P	6	1/8	5,5	43,0	24,3	9	25	30,59
28OT0614P	6	1/4	6,5	50,0	25,5	12	25	52,63
28OT0818P	8	1/8	5,5	43,0	24,8	9	25	31,88
28OT0814P	8	1/4	6,5	50,0	26,5	12	25	53,49
28OT1014P	10	1/4	6,5	50,0	28,4	12	25	60,18



ART. 29OT-P

Swivel flow regulator for cylinder

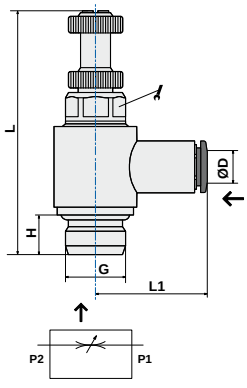
COD.	ØD	G	H	L	L1			g
29OT04M5P	4	M5	4	19,5	35,0	8	25	12,70
29OT0418P	4	1/8	5,5	43,0	21,1	9	25	29,29
29OT06M5P	6	M5	4	21,0	35,0	8	25	13,80
29OT0618P	6	1/8	5,5	43,0	24,3	9	25	30,59
29OT0614P	6	1/4	6,5	50,0	25,5	12	25	52,63
29OT0818P	8	1/8	5,5	43,0	24,8	9	25	31,88
29OT0814P	8	1/4	6,5	50,0	26,5	12	25	53,49
29OT1014P	10	1/4	6,5	50,0	28,4	12	25	60,18



ART. 30OT-P

Swivel bidirectional flow regulator

COD.	ØD	G	H	L	L1			g
30OT04M5P	4	M5	4	19,5	35,0	8	25	12,70
30OT0418P	4	1/8	5,5	43	21,1	9	25	29,29
30OT06M5P	6	M5	4	21	35,0	8	25	13,80
30OT0618P	6	1/8	5,5	43	24,3	9	25	30,59
30OT0614P	6	1/4	6,5	50	25,5	12	25	52,63
30OT0818P	8	1/8	5,5	43	24,8	9	25	31,88
30OT0814P	8	1/4	6,5	50	26,5	12	25	53,49
30OT1014P	10	1/4	6,5	50	28,4	12	25	60,18



Technopolymer flow regulators

Series TECNORAP - TECNORAP BLACK

The Tecnorap flow regulators series are produced in Italy according to the reference ISO norms as warranty of high quality level.

Ordering code

T 29 06 18 P

COLOUR (FITTING BODY + 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

ADJUSTING STEM WITH KNOB
- **28** = For valve
- **29** = For cylinder
- **30** = Bidirectional

TUBE DIAMETER
- **04 ... 12** = For tube Ø4; Ø6; Ø8; Ø10, Ø12 mm

THREADED CONNECTION
- **M5** = M5
- **18** = G1/8”
- **14** = G1/4”
- **38** = G3/8”
- **12** = G1/2”

TYPE
- **blank** = Orientable type with screwdriver nut
- **P** = Swivel type with adjusting knob

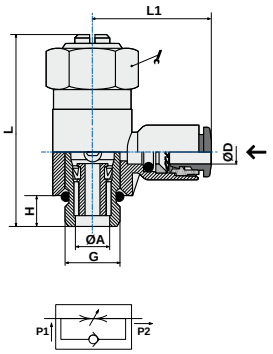
Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
TEMPERATURE AND PRESSURE	**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	At page 47 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.
THREAD TYPE		BSP paralell UNI-ISO 228
MATERIALS	**Regulation stem**	Brass UNI EN 12164 CW614N
	TRAP body, sleeve, collar and back ring	POM copolymer ISO1043-1
	Spring	Stainless steel AISI 301 austenitic
	Seals	NBR 70 DWGV-EN549 UL157

ART. T28

Orientable flow regulator for valve

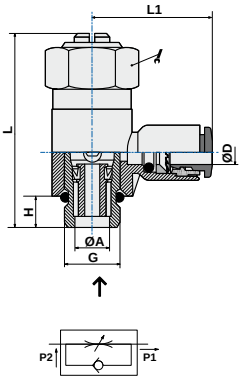
COD.	ØD	G	ØA	H	L	L1			g
T2804M5	4	M5	2,0	4	22,5	19,0	8	25	6,15
T280418	4	1/8	5,0	5,5	34,0	21,1	14	25	22,96
T2806M5	6	M5	2,0	4	22,5	22,0	8	25	6,00
T280618	6	1/8	5,0	5,5	34,0	24,3	14	25	23,41
T280614	6	1/4	6,0	6,5	42,0	25,5	17	25	43,38
T280818	8	1/8	5,0	5,5	34,0	24,8	14	25	23,65
T280814	8	1/4	6,0	6,5	42,0	26,5	17	25	44,10
T280838	8	3/8	6,5	7,5	52,0	28,0	20	10	72,00
T281014	10	1/4	6,0	6,5	42,0	28,4	17	25	44,00
T281038	10	3/8	6,5	7,5	52,0	29,9	20	10	72,00
T281238	12	3/8	6,5	7,5	52,0	31,4	20	10	74,00



ART. T29

Orientable flow regulator for cylinder

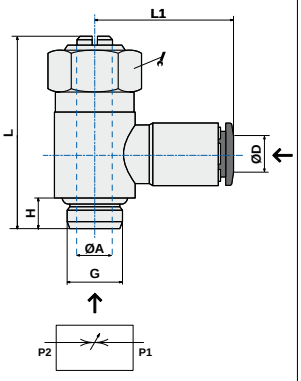
COD.	ØD	G	ØA	H	L	L1			g
T2904M5	4	M5	2,0	4	22,5	19,0	8	25	6,15
T290418	4	1/8	5,0	4	34,0	21,1	14	25	22,96
T2906M5	6	M5	2,0	4	22,5	22,0	8	25	6,00
T290618	6	1/8	5,0	5,5	34,0	24,3	14	25	23,41
T290614	6	1/4	6,0	6,5	42,0	25,5	17	25	43,38
T290818	8	1/8	5,0	5,5	34,0	24,8	14	25	23,65
T290814	8	1/4	6,0	6,5	42,0	26,5	17	25	44,10
T290838	8	3/8	6,5	7,5	52,0	28,0	20	10	72,00
T291014	10	1/4	6,0	6,5	42,0	28,4	17	25	44,00
T291038	10	3/8	6,5	7,5	52,0	29,9	20	10	72,00
T291012	10	1/2	10,0	9	61,0	30,0	26	10	12,00
T291238	12	3/8	6,5	7,5	52,0	31,4	20	10	7,40
T291212	12	1/2	10,0	9	61,0	34,9	26	10	122,00



ART. T30

Orientable bidirectional flow regulator

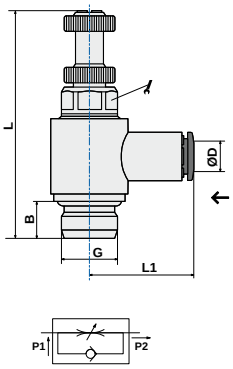
COD.	ØD	G	ØA	H	L	L1			g
T3004M5	4	M5	2,0	4	22,5	19,0	8	25	6,15
T300418	4	1/8	5,0	4	34,0	21,1	14	25	22,96
T3006M5	6	M5	2,0	4	22,5	22,0	8	5	6,00
T300618	6	1/8	5,0	5,5	34,0	24,3	14	25	23,41
T300614	6	1/4	6,0	6,5	42,0	25,5	17	25	43,38
T300818	8	1/8	5,0	5,5	34,0	24,8	14	25	23,65
T300814	8	1/4	6,0	6,5	42,0	26,5	17	25	44,10
T300838	8	3/8	6,5	7,5	52,0	28,0	20	10	72,00
T301014	10	1/4	6,0	6,5	42,0	28,4	17	25	44,00
T301038	10	3/8	6,5	7,5	52,0	29,9	20	10	72,00
T301238	12	3/8	6,5	7,5	52,0	31,4	20	10	74,00
T301212	12	1/2	10,0	9	61,0	34,9	26	10	74,00



ART. T28P

Swivel flow regulator for valve

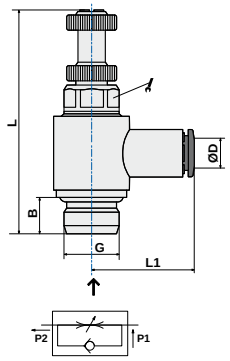
COD.	ØD	G	B	L	L1			
T2804M5P	4	M5	4	34	19,0	8,0	25	7,58
T280418P	4	1/8	5,5	43	21,1	9,0	25	17,26
T2806M5P	6	M5	4	34	22,0	8,0	25	8,00
T280618P	6	1/8	5,5	43	24,3	9,0	25	17,91
T280614P	6	1/4	6,5	50	25,5	12,0	25	34,79
T280638P	6	3/8	9,5	53	29,5	13,0	10	63,40
T280612P	6	1/2	12,0	61	30,2	13,0	10	104,00
T280818P	8	1/8	5,5	43	24,8	9,0	25	18,23
T280814P	8	1/4	6,5	50	26,5	12,0	25	34,76
T280838P	8	3/8	9,5	53	30,0	14,4	10	68,00
T280812P	8	1/2	12,0	61	35,8	14,4	10	104,20
T281018P	10	1/8	6,5	42	30,7	18,4	10	24,00
T281014P	10	1/4	6,5	50	28,4	12,0	25	35,50
T281038P	10	3/8	9,5	53	33,5	18,4	10	68,40
T281012P	10	1/2	12,0	61	36,5	18,4	10	108,00
T281214P	12	1/4	8,5	48	33,7	21,0	10	45,40
T281238P	12	3/8	9,5	53	35,5	19,0	10	70,40
T281212P	12	1/2	12,0	61	36,5	21,0	10	110,10



ART. T29P

Swivel flow regulator for cylinder

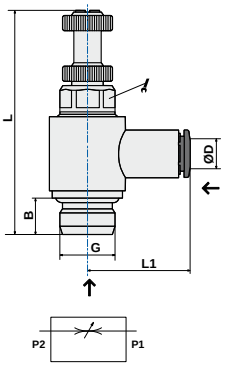
COD.	ØD	G	B	L	L1			
T2904M5P	4	M5	4	34	19,0	8,0	25	7,58
T290418P	4	1/8	5,5	43	21,1	9,0	25	17,26
T290414P	4	1/4	6,5	50	25,5	12,0	25	33,96
T2906M5P	6	M5	4	34	22,0	8,0	25	8,00
T290618P	6	1/8	5,5	43	24,3	9,0	25	17,72
T290614P	6	1/4	6,5	50	25,5	12,0	25	33,96
T290638P	6	3/8	9,5	53	29,5	13,0	10	63,40
T290612P	6	1/2	12,0	61	30,2	13,0	10	104,00
T290818P	8	1/8	5,5	43	24,8	9,0	25	18,04
T290814P	8	1/4	6,5	50	26,5	12,0	25	34,31
T290838P	8	3/8	9,5	53	30,0	14,4	10	68,00
T290812P	8	1/2	1,2	61	35,8	14,4	10	104,20
T291018P	10	1/8	6,5	42	30,7	18,4	10	24,00
T291014P	10	1/4	6,5	50	28,4	12,0	25	35,50
T291038P	10	3/8	9,5	53	33,5	18,4	10	68,40
T291012P	10	1/2	12,0	61	36,5	18,4	10	108,00
T291214P	12	1/4	8,5	48	33,7	21,0	10	45,40
T291238P	12	3/8	9,5	53	35,5	19,0	10	70,40
T291212P	12	1/2	12,0	61	36,5	21,0	10	110,10



ART. T30P

Swivel bidirectional flow regulator

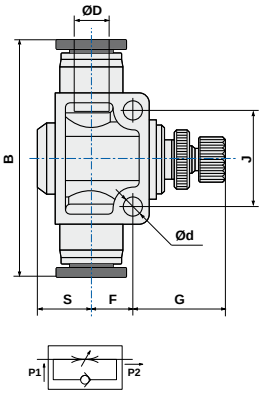
COD.	ØD	G	B	L	L1			g
T3004M5P	4	M5	4	34	19,0	8	25	750
T300418P	4	1/8	5,5	43	21,1	9	25	17,31
T3006M5P	6	M5	4	34	22,0	8	25	8,00
T300618P	6	1/8	5,5	43	24,3	9	25	178,91
T300614P	6	1/4	6,5	50	25,5	12	25	34,79
T300818P	8	1/8	5,5	43	24,8	9	25	18,03
T300814P	8	1/4	6,5	50	26,5	12	25	34,31
T301014P	10	1/4	6,5	50	28,4	12	25	35,50



ART. T31

Flat flow regulator

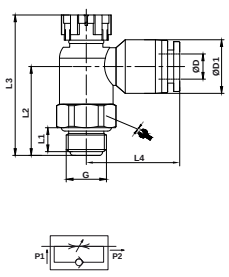
COD.	ØD	B	G	F	S	Ød	J		g
T310400	4	40,5	14,4	6,5	6,5	3,2	14	25	11,74
T310600	6	48,7	25,3	8,5	11,0	4,3	20	25	28,00
T310800	8	54,4	25,1	9,5	12,0	4,3	22	25	40,00
T311000	10	64,3	28,8	10,5	12,5	4,3	26	10	66,00
T311200	12	74,6	26,1	13,0	16,0	4,3	32	10	106,00



ART. T29GS

Speed controller for cylinders with lock cap

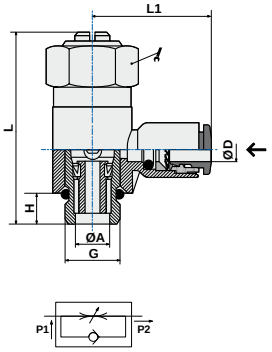
COD.	ØD	G	L1	L2	L3	L4	ØD1			g
T29GS04M5	4	M5	3,5	18,0	28,0	18,0	9,5	9	25	4,00
T29GS0418	4	G1/8	5,5	21,5	33,5	24,0	13,0	13	25	12,00
T29GS06M5	6	M5	3,5	17,6	28,0	19,0	11,5	9	25	4,00
T29GS0618	6	G1/8	5,5	21,5	33,5	22,3	13,0	13	25	12,00
T29GS0614	6	G1/4	7,5	24,5	38,7	24,0	13,0	17	25	30,00
T29GS0818	8	G1/8	5,5	21,5	33,5	25,5	14,5	13	25	16,00
T29GS0814	8	G1/4	7,5	24,5	38,7	27,0	14,5	17	25	26,00



ART. TB28

Orientable flow regulator for valve

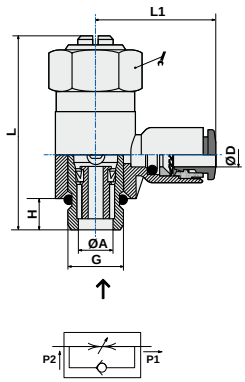
COD.	ØD	G	ØA	H	L	L1			g
TB2804M5	4	M5	2,0	4	22,5	19,0	8	25	6,15
TB280418	4	1/8	5,0	5,5	34,0	21,1	14	25	22,96
TB2806M5	6	M5	2,0	4	22,5	22,0	8	25	6,00
TB280618	6	1/8	5,0	5,5	34,0	24,3	14	25	23,41
TB280614	6	1/4	6,0	6,5	42,0	25,5	17	25	43,42
TB280818	8	1/8	5,0	5,5	34,0	24,8	14	25	23,65
TB280814	8	1/4	6,0	6,5	42,0	26,5	17	25	43,72
TB280838	8	3/8	6,5	7,5	52,0	28,0	20	10	72,00
TB281014	10	1/4	6,0	6,5	42,0	28,4	17	25	44,00
TB281038	10	3/8	6,5	7,5	52,0	29,9	20	10	72,00
TB281238	12	3/8	6,5	7,5	52,0	31,4	20	10	74,00



ART. TB29

Orientable flow regulator for cylinder

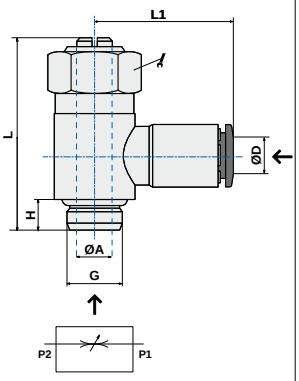
COD.	ØD	G	ØA	H	L1	L			g
TB2904M5	4	M5	2,0	4	19,0	22,5	8	25	6,15
TB290418	4	1/8	5,0	4	21,1	34,0	14	25	22,96
TB2906M5	6	M5	2,0	4	22,0	22,5	8	25	6,00
TB290618	6	1/8	5,0	5,5	24,3	34,0	14	25	23,41
TB290614	6	1/4	6,0	6,5	25,5	42,0	17	25	43,42
TB290818	8	1/8	5,0	5,5	24,8	34,0	14	25	23,65
TB290814	8	1/4	6,0	6,5	26,5	42,0	17	25	43,72
TB290838	8	3/8	6,5	7,5	28,0	52,0	20	10	72,00
TB291014	10	1/4	6,0	6,5	28,4	42,0	17	25	44,00
TB291038	10	3/8	6,5	7,5	29,9	52,0	20	10	72,00
TB291012	10	1/2	10,0	9	30,0	61,0	26	10	120,00
TB291238	12	3/8	6,5	7,5	31,4	52,0	20	10	74,00
TB291212	12	1/2	10,0	9	34,9	61,0	26	10	122,00



ART. TB30

Orientable bidirectional flow regulator

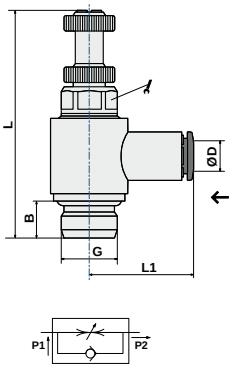
COD.	ØD	G	ØA	H	L1	L			g
TB3004M5	4	M5	2,0	4	19,0	22,5	8	25	6,15
TB300418	4	1/8	5,0	4	21,1	34,0	14	25	22,96
TB3006M5	6	M5	2,0	4	22,0	22,5	8	5	6,00
TB300618	6	1/8	5,0	5,5	24,3	34,0	14	25	23,41
TB300614	6	1/4	6,0	6,5	25,5	42,0	17	25	43,42
TB300818	8	1/8	5,0	5,5	24,8	34,0	14	25	23,65
TB300814	8	1/4	6,0	6,5	26,5	42,0	17	25	43,72
TB300838	8	3/8	6,5	7,5	28,0	52,0	20	10	72,00
TB301014	10	1/4	6,0	6,5	28,4	42,0	17	25	44,00
TB301038	10	3/8	6,5	7,5	29,9	52,0	20	10	72,00
TB301238	12	3/8	6,5	7,5	31,4	52,0	20	10	74,00
TB301212	12	1/2	10,0	9	34,9	61,0	26	10	122,00



ART. TB28P

Swivel flow regulator for valve

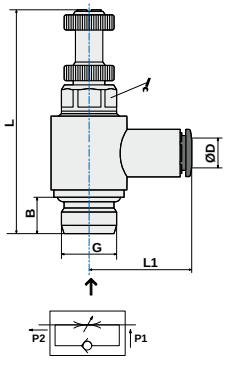
COD.	ØD	G	B	L	L1			g
TB2804M5P	4	M5	4	34	19,0	8,0	25	7,58
TB280418P	4	1/8	5,5	43	21,1	9,0	25	17,26
TB2806M5P	6	M5	4	34	22,0	8,0	25	8,00
TB280618P	6	1/8	5,5	43	24,3	9,0	25	17,91
TB280614P	6	1/4	6,5	50	25,5	12,0	25	34,79
TB280638P	6	3/8	9,5	53	29,5	13,0	10	63,40
TB280612P	6	1/2	12,0	61	30,2	13,0	10	104,00
TB280818P	8	1/8	5,5	43	24,8	9,0	25	18,23
TB280814P	8	1/4	6,5	50	26,5	12,0	25	34,76
TB280838P	8	3/8	9,5	53	30,0	14,4	10	68,00
TB280812P	8	1/2	1,2	61	35,8	14,4	10	104,20
TB281018P	10	1/8	6,5	42	30,7	18,4	10	24,00
TB281014P	10	1/4	6,5	50	28,4	12,0	25	35,50
TB281038P	10	3/8	9,5	53	33,5	18,4	10	68,40
TB281012P	10	1/2	12,0	61	36,5	18,4	10	108,00
TB281214P	12	1/4	8,5	48	33,7	21,0	10	45,40
TB281238P	12	3/8	9,5	53	35,5	19,0	10	70,40
TB281212P	12	1/2	12,0	61	36,5	21,0	10	110,10



ART. TB29P

Swivel flow regulator for cylinder

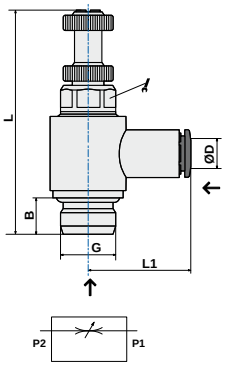
COD.	ØD	G	B	L	L1			g
TB2904M5P	4	M5	4	34	15,0	8,0	25	7,58
TB290418P	4	1/8	5,5	43	21,1	9,0	25	17,26
TB290414P	4	1/4	6,5	50	25,5	12,0	25	33,96
TB2906M5P	6	M5	4	34	22,0	8,0	25	8,00
TB290618P	6	1/8	5,5	43	24,3	9,0	25	17,91
TB290614P	6	1/4	6,5	50	25,5	12,0	25	34,79
TB290638P	6	3/8	9,5	53	29,5	13,0	10	63,40
TB290612P	6	1/2	12,0	61	30,2	13,0	10	104,00
TB290818P	8	1/8	5,5	43	24,8	9,0	25	18,23
TB290814P	8	1/4	6,5	50	26,5	12,0	25	34,76
TB290838P	8	3/8	9,5	53	30,0	14,4	10	68,00
TB290812P	8	1/2	1,2	61	35,8	14,4	10	104,20
TB291018P	10	1/8	6,5	42	30,7	18,4	10	24,00
TB291014P	10	1/4	6,5	50	28,4	12,0	25	35,50
TB291038P	10	3/8	9,5	53	33,5	18,4	10	68,40
TB291012P	10	1/2	12,0	61	36,5	18,4	10	108,00
T2B91214P	12	1/4	8,5	48	33,7	21,0	10	45,40
TB291238P	12	3/8	9,5	53	35,5	19,0	10	70,40
TB291212P	12	1/2	12,0	61	36,5	21,0	10	110,10



ART. TB30P

Swivel bidirectional flow regulator

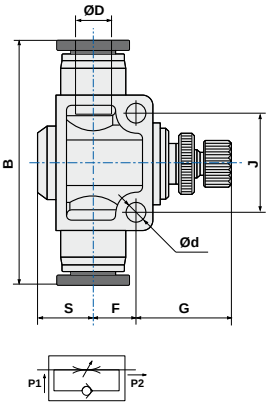
COD.	ØD	G	B	L	L1			g
TB3004M5P	4	M5	4	34	19,0	8	25	16,15
TB300418P	4	1/8	5,5	43	21,1	9	25	22,96
TB3006M5P	6	M5	4	34	22,0	8	25	6,00
TB300618P	6	1/8	5,5	43	24,3	9	25	23,41
TB300614P	6	1/4	6,5	50	25,5	12	25	43,42
TB300818P	8	1/8	5,5	43	24,8	9	25	23,65
TB300814P	8	1/4	6,5	50	26,5	12	25	43,72
TB301014P	10	1/4	6,5	50	28,4	12	25	44,00



ART. TB31

Flat flow regulator

COD.	ØD	B	G	F	S	Ød	J		g
TB310400	4	40,5	14,4	6,5	6,5	3,2	14	25	11,74
TB310600	6	48,7	25,3	8,5	11,0	4,3	20	25	28,00
TB310800	8	54,4	25,1	9,5	12,0	4,3	22	25	40,00
TB311000	10	64,3	28,8	10,5	12,5	4,3	26	10	66,00
TB311200	12	74,6	26,1	13,0	16,0	4,3	32	10	106,00



Stainless steel flow regulators

Series SSN-G

The Stainless steel flow regulators are “oil free” and manufactured according to the ISO norms.

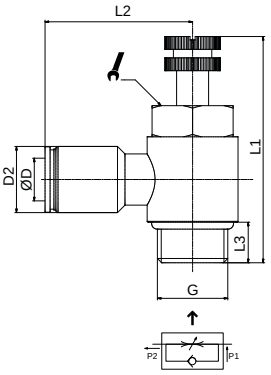
Technical sheet

FLUIDS		Compressed air, water, steam (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic equipments which are applied widely in the range of Industy 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.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
RECOMMENDED LIMIT VALUES	**Temperature**	The working temperatures range is between -20°C and +120°C
	Pression	The working pressure range is between 0 and 1,2MPa (0-12Bar)
	Note	For more complete informations please read the technical catalogue of your tube supplier.
THREAD TYPE		BSP paralell UNI-ISO 228; BSP tapered UNI-ISO 7; Metric ISO/R 262
MATERIALS	**Regulation stem**	Stainless Steel SUS316L UNI EN 12164 CW614N
	Spring	Stainless Steel SUS316L
	Seals	FKM
IMPORTANT NOTE		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. SSN-G

Swivel flow regulator for cylinder

COD.	ØD	G	L1	L2	L3	D2			g
SSN04-G01	4	1/8	34,5	28	7,5	10,5	12	10	30,00
SSN04-G02	4	1/4	43	28	9,5	10,5	14	10	48,00
SSN06-G01	6	1/8	34,5	28	7,5	12,5	12	10	34,00
SSN06-G02	6	1/4	43	28	9,5	12,5	14	10	52,00
SSN08-G01	8	1/8	34,5	30	7,5	14,5	12	10	34,00
SSN08-G02	8	1/4	43	30	9,5	14,5	14	10	52,00
SSN08-G03	8	3/8	47,3	33	10,5	14,5	19	10	92,00
SSN08-G04	8	1/2	51	33	12,5	14,5	22	10	126,00
SSN10-G02	10	1/4	43	32,5	9,5	17,5	14	10	68,00
SSN10-G03	10	3/8	47,3	35	10,5	17,5	19	10	90,00
SSN10-G04	10	1/2	51	35	12,5	17,5	22	10	130,00
SSN12-G02	12	1/4	43	36	9,5	20,5	14	10	100,00
SSN12-G03	12	3/8	47,3	38	10,5	20,5	19	10	102,00
SSN12-G04	12	1/2	51	38	12,5	20,5	22	10	134,00



Valves and function fittings

Function fittings incorporate a specific pneumatic function. They include flow regulators, pressure regulators, one-way valves and much more.
Made of nickel-plated brass or technopolymer.

- **Function fittings**
- **Manual valves**

Function fittings

Series TECNOFUN

New compact line of different logic functions that can be used in any place of the secondary pneumatic circuit, developed to be installed directly onto the main pneumatic components (distributors or cylinders).

Thanks to the modular design it is possible to easily join together multiple logic functions without the need of using pipes to connect them; it is also possible to choose the type and style of each connection. The connections available are the following: straight cartridge; Banjo PL cartridge; male cartridge threaded 1/8" or 1/4" and female cartridge threaded 1/8". Function fittings can also be assembled side by side in order to be assembled on the DIN EN 50022 rail (using the relevant kit).

Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic circuits according to DIN 3861-3870 norms.
SUGGESTED TUBES		TPU (Polyurethane), PA11/PA12 (Polyamide), TPE (Polyethilene), TPA (Polyurethane/Copolyester)
TUBES TOLERANCES		Diam. between 4 and 10 mm +/- 0,05 Diam. from 12 mm +/- 0,1
TEMPERATURE AND PRESSURE		Temperatures and pressures usually depend by the technical features of the employed tubes, for more complete informations please read the technical catalogue of your tube supplier.
THREAD TYPE		BSP paralell UNI-ISO 228
MATERIALS	**Main body**	IXEF 1022, technopolymer glass-fiber reinforced
	Fitting body, sleeve, collar and back ring	POM copolymer ISO1043-1
	Adjustment screw and fitting	Brass UNI EN 12164 CW614N
	Cartridge body	Alluminium
	Spring	Stainless steel AISI 301 austenitic
	Seals	NBR 70 DWGV-EN549 UL157

Additional technical informations

Input/output connection directly integrated into the body
In line or 90° connection
Possibility to build a manifold -parallel mounting-
Different connection options: - Tube Ø4 Ø6 Ø8 (elbow version as well) - G1/8" G1/4" male straight cartridge - G1/8" female cartridge, in line or 90°
Different mounting options: - Wall fixing through the holes in the body - By means of the fixing bracket - Panel mounting (for those function that include such possibility) - On DIN rail EN 50022 (using the DIN rail adapter kit)

Available functions:
- Flow control valve (FCV)
- Pressure regulator (PR)
- Block valve (BV)
- Quick exhaust valve (QEV)
- OR gate (CSV-OR)
- AND gate (CSV-AND)
- Pressure gauge (PI)
- Pressure regulator + pressure gauge (PR+PI)
- Block valve + Flow control valve (BV+FCV)
- Block valve + quick exhaust valve (BV+QEV)

ART. 551.11T.A.B.XX

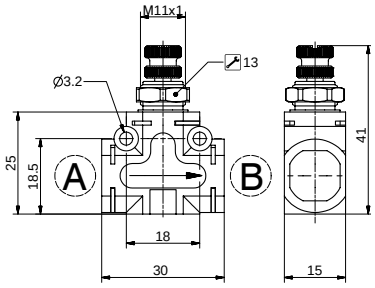
Flow regulator

	TYPE
T	**1** = Unidirectional **2** = Bidirectional
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST
00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note

Example: 551.111.D6.D6.XX
Flow control valve unidirectional, connections "A" and "B" Tube Ø6.
For the dimension including cartridges see page Accessories - Function fittings



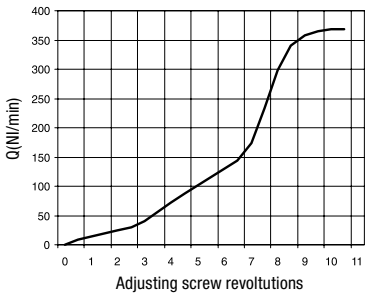
Technical characteristics

- The flow control valve is normally used to regulate the air flow and, as a consequence, for example, the speed of a cylinder. Two types of flow control valves are available: unidirectional and bidirectional.
- In the unidirectional valve the flow is regulated only in one direction while is free to move in the opposite direction; in the bidirectional valve the flow is regulated in both directions.
- Panel mounting using the lock nut supplied as standard.
- On DIN rail using the relevant adaptor kit (see accessories).
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

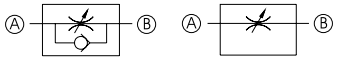
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **26 g**
- Orifice size: **Ø3 mm**
- Free exhaust flow rate in the opposite side of the regulation: **800 Nl/min (for unidirectional version)**

Flow rates curves 6 bar



Pneumatic symbols



ART. 551.12T.A.B.XX

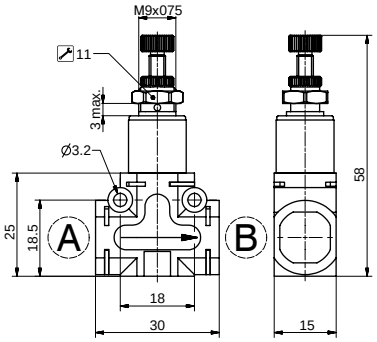
In line pressure regulator

	TYPE
T	**2** = 0 - 2 bar **4** = 0 - 4 bar **8** = 0 - 8 bar
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note
Example: 551.128.D8.D8.XX
In line pressure regulator, pressure range (bar) 0-8 bar. Connections "A" and "B" Tube Ø8.
For the dimension including cartridges see page Accessories - Function fittings



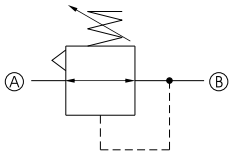
Technical characteristics

- The pressure regulator is a device which is used to reduce, regulate and stabilize theair pressure in a conduit in order to adapt it to the needs of the equipments to be supplied. The pressure regulator incorporates the relieving function.
- Panel mounting using the lock nut supplied as standard.
- On DIN rail using the relevant adaptor kit (see accessories).
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **31 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **180 Nl/min**
- Pressure range: **0 ... 2 / 0 ... 4 / 0 ... 8 bar**

Pneumatic symbols



ART. 551.22T.A.B.XX

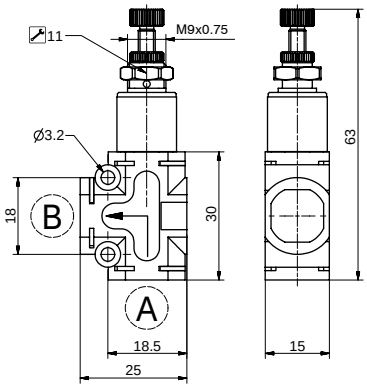
90° pressure regulator

	TYPE
T	**2** = 0 - 2 bar **4** = 0 - 4 bar **8** = 0 - 8 bar
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note
Example: 551.224.M1.D6.XX
90° pressure regulator, pressure range (bar) 0 - 4 bar. Connections "A" Male G1/8 and "B" Tube Ø6.
For the dimension including cartridges see page Accessories - Function fittings



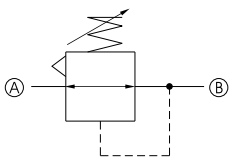
Technical characteristics

- The pressure regulator is a device which is used to reduce, regulate and stabilize the air pressure in a conduit in order to adapt it to the needs of the equipments to be supplied. The pressure regulator incorporates the relieving function.
- Panel mounting using the lock nut supplied as standard.
- On DIN rail using the relevant adaptor kit (see accessories).
- On DIN rail using the relevant adaptor kit (see accessories).
- Directly on the support plate thanks to two through holes on the body.

Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **31 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **180 Nl/min**
- Pressure range: **0 ... 2 / 0 ... 4 / 0 ... 8 bar**

Pneumatic symbols



ART. 551.13T.A.B.XX

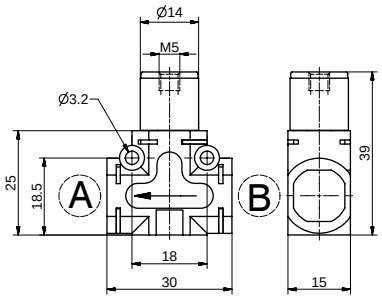
Blocking valve

	TYPE
T	**1** = Unidirectional **2** = Bidirectional
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8”
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8” male
M2 = G1/4” male
F1 = G1/8” female

Note:
Example: 551.131.D4.D4.XX
In line blocking valve, unidirectional.
Connections “A” and “B” Tube Ø4.
For the dimension including cartridges see page Accessories - Function fittings



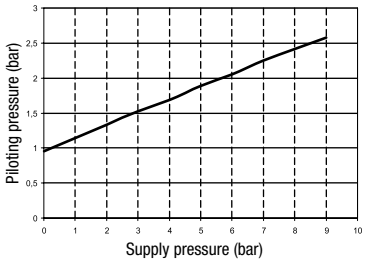
Technical characteristics

- The blocking valve function is to maintain the circuit downstream pressure in the event of loss of supply pressure. It is normally fitted directly onto the cylinder connections ports in order to ensure that, in case of accidental loss of the supply pressure, the units positions is maintained. This is achieved as the blocking valve preserves the pressure inside the pressurised chamber. Blocking valves can be unidirectional or bidirectional.
- In the unidirectional version the air flow is free in one direction while in order to allow the flow in the opposite direction is necessary to send a pneumatic signal to the unit connection 12.
- The bidirectional version requires a pneumatic signal on connection 12 to allow the flow in any of the two directions.
- On DIN rail using the relevant adaptor kit (see accessories).
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

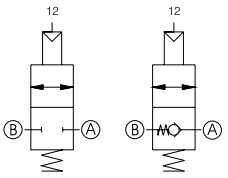
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Working pressure: **0,5 ... 10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **26 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **285 Nl/min**
- Flow rate at 6 bar with free exhaust: **450 Nl/min**

Piloting curves



Pneumatic symbols



ART. 551.23T.A.B.XX

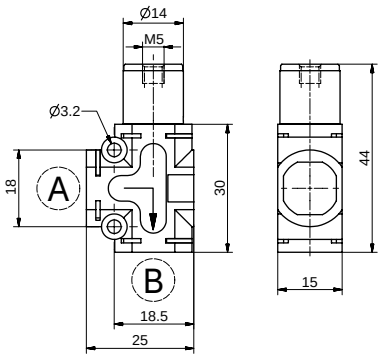
90° blocking valve

TYPE	
T	**1** = Unidirectional **2** = Bidirectional
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8”
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8” male
M2 = G1/4” male
F1 = G1/8” female

Note:
Example: 551.231.D6.M1.XX
90° blocking valve. Connections “A” Male G1/8 and “B” Tube Ø6.
For the dimension including cartridges see page Accessories - Function fittings



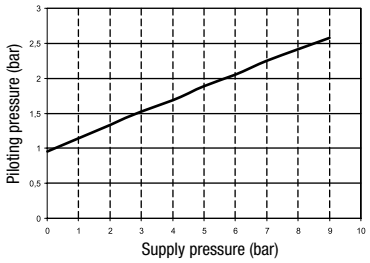
Technical characteristics

- The blocking valve function is to maintain the circuit downstre am pressure in the event of loss of supply pressure. It is nor mally fitted directly onto the cylinder connections ports in order to ensure that, in case of accidental loss of the supply pressure, the units positions is maintained. This is achieved as the blocking valve preserves the pressure inside the pressuri sed chamber.
- Unidirectional and bidirectional version are both available.
- In the unidirectional version the air flow is free in one direction while in order to allow the flow in the opposite direction is necessary to send a pneumatic signal to the unit connection 12.
- The bidirectional version requires a pneumatic signal on connection 12 to allow the flow in any of the two directions.
- On DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

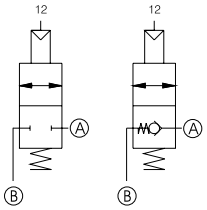
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Working pressure: **0,5 ... 10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **26 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **285 Nl/min**
- Flow rate at 6 bar with free exhaust: **450 Nl/min**

Piloting curves



Pneumatic symbols



ART. 551.141.A.B.C

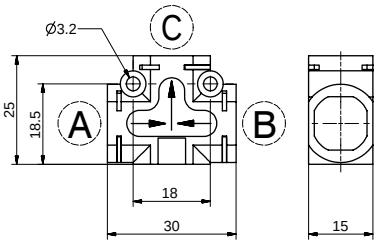
Circuit selector valve-OR

TYPE	
A	Connection A - see connections list
B	Connection B - see connections list
C	Connection C - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8”
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8” male
M2 = G1/4” male
F1 = G1/8” female

Note
Example: 551.141.D8.D8.D8
Circuit selector valve - OR.
Connections “A”, “B” and “C” Tube Ø8.
For the dimension including cartridges see page Accessories - Function fittings



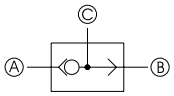
Technical characteristics

- These valves have two inlets and one output connection and are normally called high pressure selector valves as, when receiving two separate pressure supply, only allow the passage of the highest pressure. The most common application is to operate a component from two separate positions.
- On DIN rail using the relevant adaptor kit (see accessories).
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **10 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **600 Nl/min**

Pneumatic symbols



ART. 551.151A.B.C

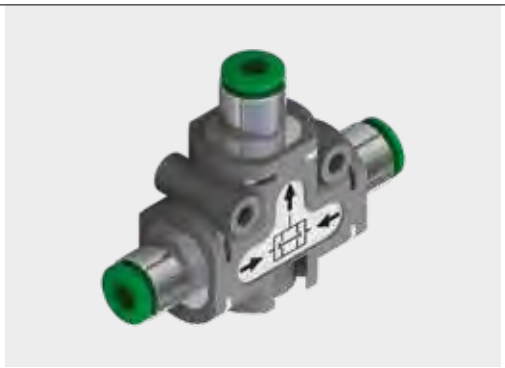
Circuit selector valve-AND

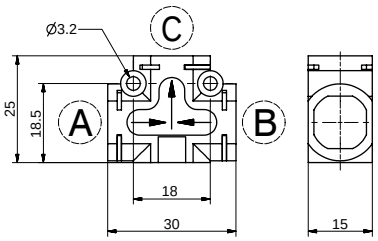
TYPE	
A	Connection A - see connections list
B	Connection B - see connections list
C	Connection C - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note
Example: 551.151.D6.D6.D6
Circuit selector valve AND.
Connections "A", "B" and "C" Tube Ø6.
For the dimension including cartridges see page Accessories - Function fittings

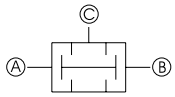




Technical characteristics
- These valves have two inlets and one output connection and are normally called low pressure selector valves as, when receiving two separate pressure supply, only allow the passage of the lowest pressure. The most common application is to operate a component from two separate positions.
- On DIN rail using the relevant adaptor kit (see accessories).
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

Technical characteristics
- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **10 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **550 Nl/min**

Pneumatic symbols



ART. 551.161.A.B.XX

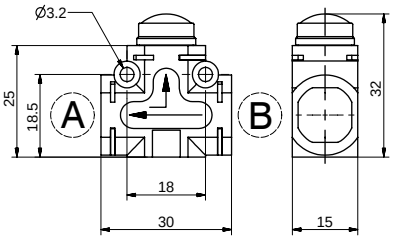
Quick exhaust valve

TYPE	
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

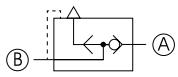
Note
Example: 551.161.D8.D8.XX
Quick exhaust valve. Connections "A" and "B" Tube Ø8.
For the dimension including cartridges see page Accessories - Function fittings



Technical characteristics
- These are 3 ways, two positions valves which can be directly mounted onto the actuator or between the actuator and the control valve. Their function is to discharge the air directly into the atmosphere without going through the pneumatic circuit enabling the actuator to reach the maximum speed.
- On DIN rail using the relevant adaptor kit (see accessories).
- With 90° bracket (see accessories).
- Directly on the support plate thanks to two through holes on the body.

Technical characteristics
- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **15 g**
- Flow rate at 6 bar with Δp=1 (Nl/min): **250 Nl/min**
- Flow rate at 6 bar with free exhaust (Nl/min): **500 Nl/min**

Pneumatic symbols



ART. 551.178.A.B.XX

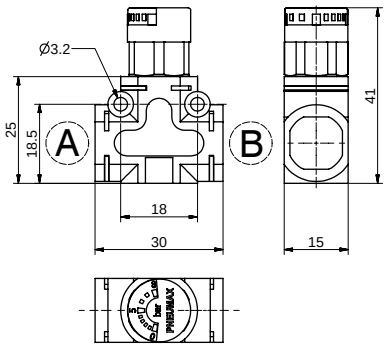
Pressure indicator

TYPE	
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note
Example: 551.178.D6.D4.XX
Pressure indicator. Connections "A" Tube Ø6, "B" Tube Ø4.
For the dimension including cartridges see page Accessories - Function fittings



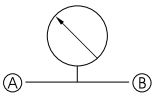
Technical characteristics

- The pressure visual indicator is a device which measures the pressure inside a pneumatic circuit. The 0 to 8 bar visual indicator makes very easy to monitor the pressure state inside the circuit. It can be use on its own or can be coupled with another device.
- It can be use on its own or can be coupled with another device.
- On DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories)
- Directly on the support plate thanks to two through holes on the body

Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **8 bar**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **20,5 g**
- Visualization scale: **0 - 8 bar**

Pneumatic symbols



ART. 551.181A.B.XX

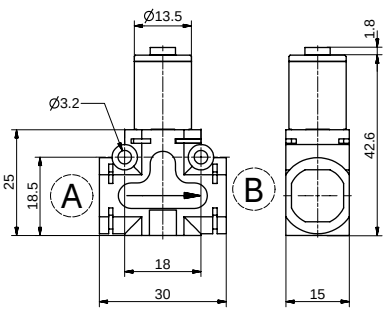
In line progressive start-up valve

TYPE	
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note
Example: 551.181.D6.D4.XX
In line progressive start-up valve.
Connections "A" Tube Ø6, "B" Tube Ø4.
For the dimension including cartridges see page Accessories - Function fittings



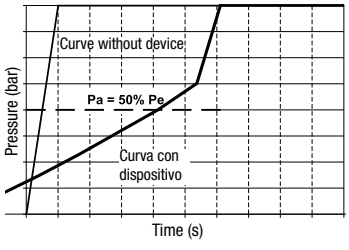
Technical characteristics

- The soft start valve is a device designed to gradually pressurise the downstream circuit until 50% of the upstream pressure value is reached.
- Once the 50% of the upstream pressure value is reached in the down stream circuit the valve fully opens allowing full air passage.
- The filling time can be adjusted thanks to the built in flow regulator.
- This device is used in order to ensure that during the pneumatic circuit start up the cylinders will return to theirs home position slowly avoiding collisions or sudden movements.

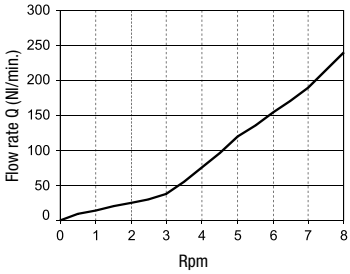
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Opening pressure (Pa): **50% of the inlet pressure (Pe)**
- Flow rate at 6 bar with free exhaust (Nl/min) from 1 to 2 with opening ciruit: **350 Nl/min**
- Flow rate at 6 bar with Δp=1 from 1 to 2 with opening ciruit: **600 Nl/min**
- Flow rate at 6 bar with Δp=1 from 2 to 1 with opening pin: **650 Nl/min**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **31 g**

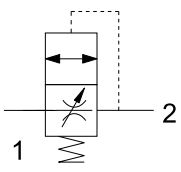
Piloting curves



Adjustment curve



Pneumatic symbols



ART. 551.281A.B.XX

90° progressive start-up valve

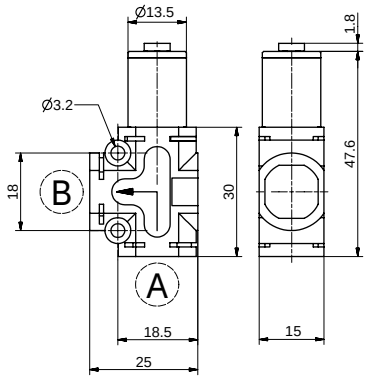
TYPE	
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8”
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8” male
M2 = G1/4” male
F1 = G1/8” female

Note

Example: 551.281.M1.D4.XX
90° progressive start-up valve. Connections “A” Male G1/8”, “B” Tube Ø4.
For the dimension including cartridges see page Accessories - Function fittings



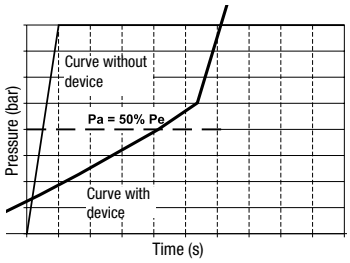
Technical characteristics

- The soft start valve is a device designed to gradually pressurise the downstream circuit until 50% of the upstream pressure value is reached.
- Once the 50% of the upstream pressure value is reached in the down stream circuit the valve fully opens allowing full air passage.
- The filling time can be adjusted thanks to the built in flow regulator.
- This device is used in order to ensure that during the pneumatic circuit start up the cylinders will return to theirs home position slowly avoiding collisions or sudden movements.

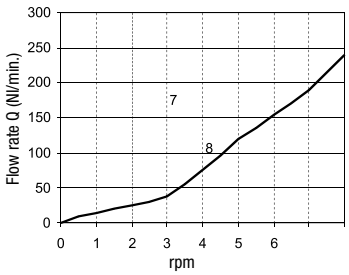
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Opening pressure (Pa):
  50% of the inlet pressure (Pi)
- Flow rate at 6 bar with free exhaust (Nl/min) from 1 to 2 with opening ciruit: **350 Nl/min**
- Flow rate at 6 bar with Δp=1 from 1 to 2 with opening ciruit: **600 Nl/min**
- Flow rate at 6 bar with Δp=1 from 2 to 1 with opening pin: **650 Nl/min**
- Temperature: **-5 °C ... + 50 °C**
- Weight: **31 g**

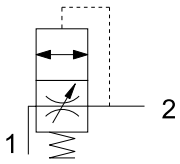
Piloting curves



Adjustment curve



Pneumatic symbols



ART. 551.1FT.A.B.XX

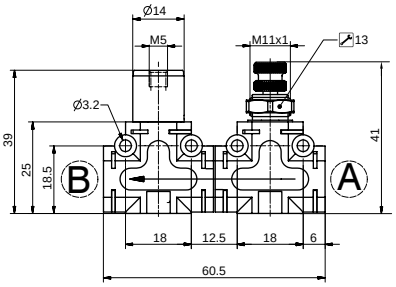
In line blocking valve with flow control valve

	TYPE
T	**1** = Unidirectional blocking valve + unidirectional flow control valve **2** = Bidirectional blocking valve + bidirectional flow control valve **3** = Unidirectional blocking valve + bidirectional flow control valve **4** = Bidirectional blocking valve + unidirectional flow control valve
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST
00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note

Example: 551.1F1.00.00.XX
In line blocking valve + flow control valve.
Without connections "A" and "B".
For the dimension including cartridges see page Accessories - Function fittings



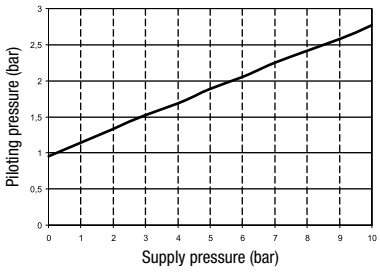
Technical characteristics

- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time grants the possibility to regulate the circuit flow rate. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to regulate the exhaust flow rate when the blocking valve is actuated.
- The possible combinations are the following:
  - Unidirectional blocking valve + unidirectional flow control valve
  - Bidirectional blocking valve + bidirectional flow control valve
  - Bidirectional blocking valve + unidirectional flow control valve
  - Unidirectional blocking valve + bidirectional flow control valve

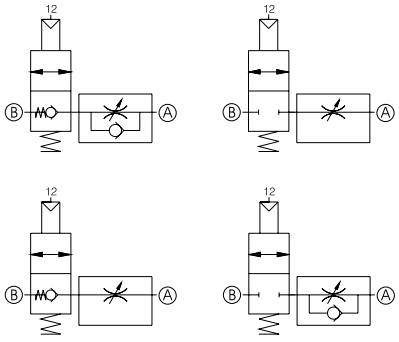
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **0,5 ... 10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Orifice size: **Ø3 mm**
- Flow rate at 6 bar with Δp=1 (Nl/min): **285 Nl/min**
- Weight: **62 g**

Piloting pressure



Pneumatic symbols



ART. 551.2FT.A.B.XX

90° blocking valve + flow control valve

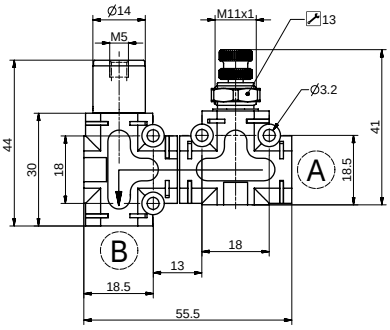
	TYPE
T	**1** = 90° unidirectional blocking valve + unidirectional flow control valve **2** = 90° bidirectional blocking valve + bidirectional flow control valve **3** = 90° unidirectional blocking valve + bidirectional flow control valve **4** = 90° bidirectional blocking valve + unidirectional flow control valve
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note

Example: 5512F1.00.00.XX
90° blocking valve + flow control valve.
Without connections "A" and "B".
For the dimension including cartridges see page Accessories - Function fittings



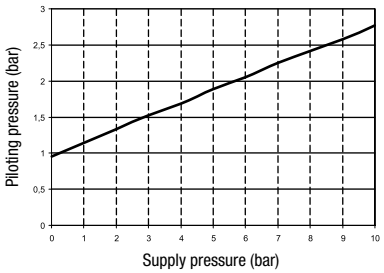
Technical characteristics

- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time grants the possibility to regulate the circuit flow rate. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to regulate the exhaust flow rate when the blocking valve is actuated.
- The possible combinations are the following:
  - 90° unidirectional blocking valve + unidirectional flow control valve
  - 90° bidirectional blocking valve + bidirectional flow control valve
  - 90° bidirectional blocking valve + unidirectional flow control valve
  - 90° unidirectional blocking valve + bidirectional flow control valve

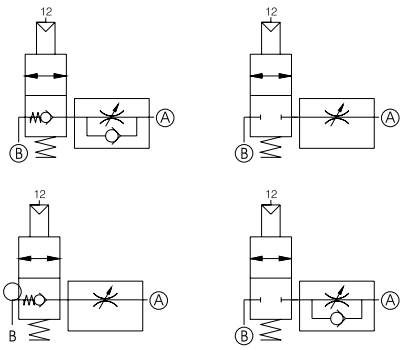
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **0,5 ... 10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Orifice size: **Ø3 mm**
- Flow rate at 6 bar with Δp=1 (Nl/min): **285 Nl/min**
- Weight: **62 g**

Piloting curves



Pneumatic symbols



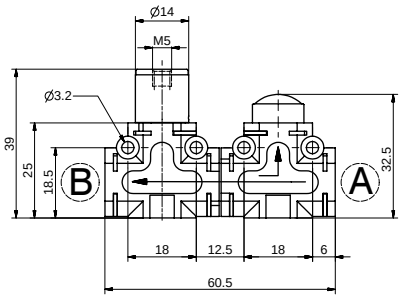
ART. 551.1GT.A.B.XX

In line blocking valve + quick exhaust valve

	TYPE
T	**1** = Unidirectional blocking valve + quick exhaust valve **2** = Bidirectional blocking valve + quick exhaust valve
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST
00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note:
Example: 5511G1.00.00.XX
In line blocking valve + quick exhaust valve. Without connections "A" and "B".
For the dimension including cartridges see page Accessories - Function fittings



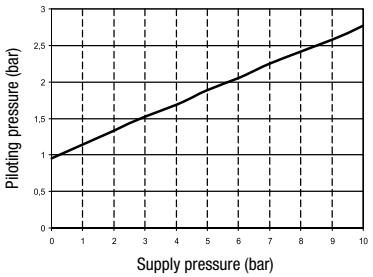
Technical characteristics

- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time allows for the air to be directly discharged into the atmosphere without going through the pneumatic circuit. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to quickly discharge the same chamber when the blocking valve is actuated.
- The possible combinations are the following:
  - Unidirectional blocking valve + quick exhaust valve
  - Bidirectional blocking valve + quick exhaust valve

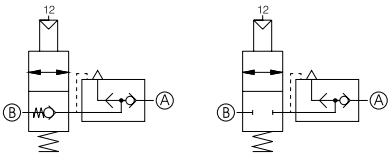
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **0,5 ... 10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Flow rate at 6 bar with Δp=1 (Nl/min): **285 Nl/min**
- Weight: **51 g**

Piloting curves



Pneumatic symbols



ART. 551.2GT.A.B.XX

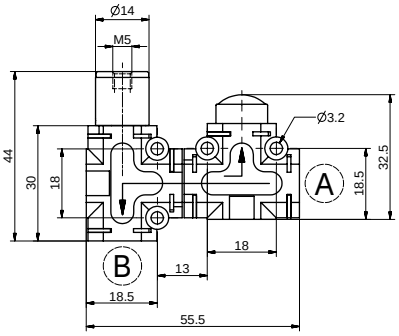
90° blocking valve + quick exhaust valve

	TYPE
T	**1** = 90° unidirectional blocking valve + quick exhaust valve **2** = 90° bidirectional blocking valve + quick exhaust valve
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female

Note:
Example: 5512G1.00.00.XX
90° bidirectional blocking valve + quick exhaust valve. Without connections "A" and "B".
For the dimension including cartridges see page Accessories - Function fittings



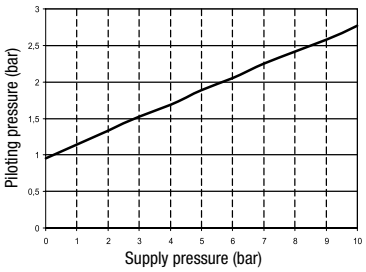
Technical characteristics

- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time allows for the air to be directly discharged into the atmosphere without going through the pneumatic circuit. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to quickly discharge the same chamber when the blocking valve is actuated.
- The possible combinations are the following:
  - 90° unidirectional blocking valve + quick exhaust valve
  - 90° bidirectional blocking valve + quick exhaust valve

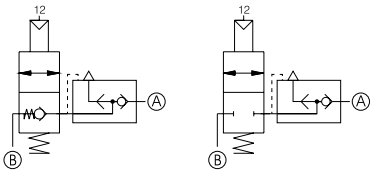
Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **0,5 ... 10 bar**
- Temperature: **-5 °C ... + 50 °C**
- Flow rate at 6 bar with Δp=1 (Nl/min): **285 Nl/min**
- Weight: **51 g**

Piloting curves



Pneumatic symbols



551.1HT.A.B.XX

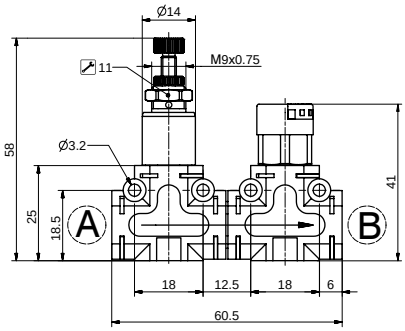
In line pressure regulator + pressure indicator

TYPE

T	**2** = 0 - 2 bar **4** = 0 - 4 bar **8** = 0 - 8 bar
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female



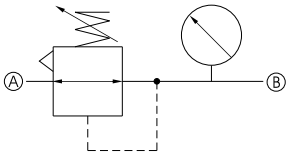
Technical characteristics

- The combination of this two functions ensures the possibility to regulate the downstream pressure while directly visualising the adjusted pressure value.
- The possible combinations are the following:
  - 0 to 2 bar pressure regulator + pressure visual indicator
  - 0 to 4 bar pressure regulator + pressure visual indicator
  - 0 to 8 bar pressure regulator + pressure visual indicator
  - The visual indicator Pressure range (bar) is always 0 to 8 bar

Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **8 bar**
- Temperature: **-5 °C ... + 50 °C**
- Visualization scale: **0 ... 8 bar**
- Pressure range: **0 ... 2 - 0 ... 4 - 0 ... 8 bar**
- Weight: **62 g**

Pneumatic symbols



Note

Example: 551.1H2.M1.D4.XX
In line pressure regulator, adjusting range 0 - 2 bar + pressure indicator. Connections "A" Male G 1/8 and "B" Tube Ø4.
For the dimension including cartridges see page Accessories - Function fittings

ART. 551.2HT.A.B.XX

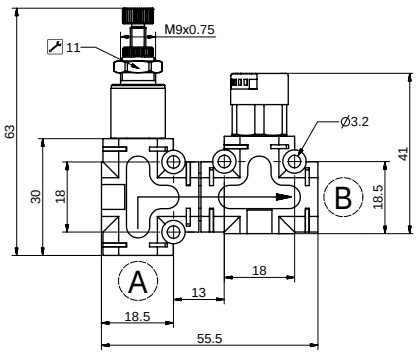
90° pressure regulator + pressure indicator

TYPE

T	**2** = 0 - 2 bar **4** = 0 - 4 bar **8** = 0 - 8 bar
A	Connection A - see connections list
B	Connection B - see connections list

SEE CONNECTIONS LIST

00 = None
D4 = Straight Ø4
D6 = Straight Ø6
D8 = Straight Ø8
L1 = Female banjo G1/8"
G4 = Rotating banjo Ø4
G6 = Rotating banjo Ø6
G8 = Rotating banjo Ø8
M1 = G1/8" male
M2 = G1/4" male
F1 = G1/8" female



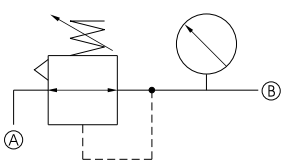
Technical characteristics

- The combination of this two functions ensures the possibility to regulate the downstream pressure while directly visualising the adjusted pressure value.
- The possible combinations are the following:
  - 0 to 2 bar pressure regulator + pressure visual indicator
  - 0 to 4 bar pressure regulator + pressure visual indicator
  - 0 to 8 bar pressure regulator + pressure visual indicator
  - The visual indicator Pressure range (bar) is always 0 to 8 bar

Technical characteristics

- Fluid: **Filtered and lubricated air or non**
- Working ports size: **see connections list**
- Max working pressure: **8 bar**
- Temperature: **-5 °C ... + 50 °C**
- Visualization scale: **0 ... 8 bar**
- Pressure range: **0 ... 2 - 0 ... 4 - 0 ... 8 bar**
- Weight: **62 g**

Pneumatic symbols



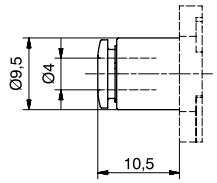
Note

Example: 551.2H2.M1.D4.XX
90° pressure regulator, adjusting range 0 - 2 bar + pressure indicator. Connections "A" Male G 1/8 and "B" Tube Ø4.
For the dimension including cartridges see page Accessories - Function fittings

ART. 551KD4

Straight cartridge Ø4

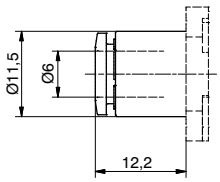
- Weight: **7,5 g**



ART. 551KD6

Straight cartridge Ø6

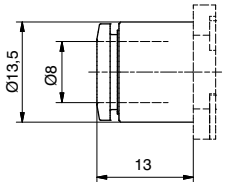
- Weight: **7,3 g**



ART. 551KD8

Straight cartridge Ø8

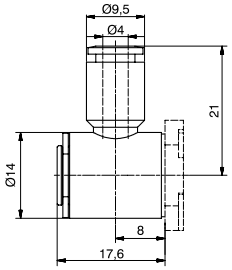
- Weight: **7 g**



ART. 551KG4

Banjo PL cartridge Ø4

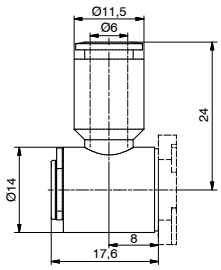
- Weight: **13,6 g**



ART. 551KG6

Banjo PL cartridge Ø6

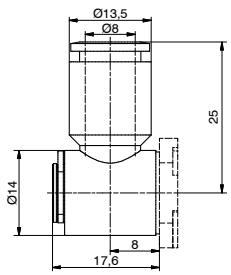
- Weight: **14 g**



ART. 551KG8

Banjo PL cartridge Ø8

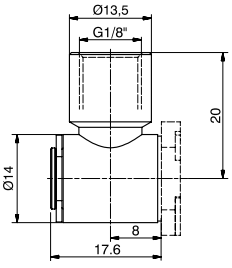
- Weight: **13,3 g**



ART. 551KL1

Banjo PL cartridge G1/8”

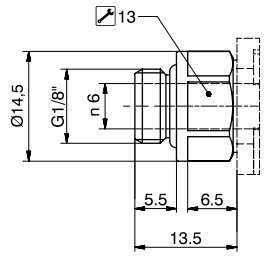
- Weight: **30 g**



ART. 551KM1

G1/8" male straight cartridge

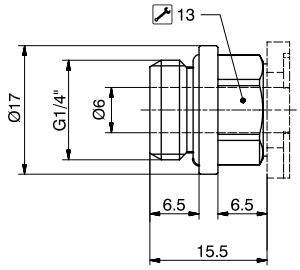
- Weight: **14 g**



ART. 551KM2

G1/4" male straight cartridge

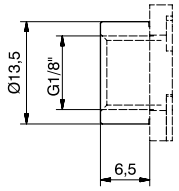
- Weight: **20 g**



ART. 551KF1

G1/8" female straight cartridge

- Weight: **9 g**



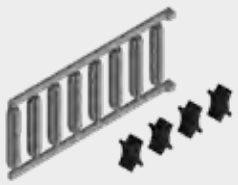
ART. 551KUU

Connection for multiple function

- Weight: **14 g**

ART. 55160

Coupling kit (pins and forks)



- Weight: **2,5 g**

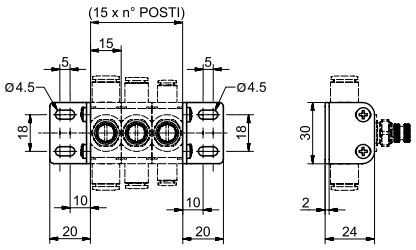
The kit, which includes a series of pins and forks, enables to join together in a fast and safe way the function fittings. The pins, once inserted in the front holes, ensure resistance against forces applied perpendicularly and sideway (for example the insertion of the tube in the cartridges). The forks, once located in the profiled housing ensures that the parts are held together tightly. The kit allows for 5 function fittings to be mounted together.

ART. 55150

Fixing brackets

- Weight: **18 g**

The kit comprises two fixing brackets and screws

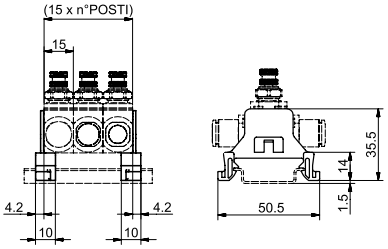


ART. 55116

DIN rail adapter

- Weight: **4 g**

The kit comprises two adapters



Function fittings

Series ISP

Ordering code

ISPC 04 G04

MODEL TYPE
ISPC = Straight male tapered “stop fitting”
ISPC-G = Straight male parallel “stop fitting”
ISPU = Stop fitting straight connector
ISPL = Elbow male tapered “stop fitting”
ISPL-G = Elbow male parallel “stop fitting”

TUBE CONNECTION
4 ... 12 = Tube Diameter Ø 4; 6; 8; 10; 12 mm

THREADED CONNECTION
M5 = M5x0,8
M6 = M6x1
01 = R1/8” tapered
02 = R1/4” tapered
03 = R3/8” tapered
04 = R1/2” tapered
G01 = G1/8” parallel
G02 = G1/4” parallel
G03 = G3/8” parallel
G04 = G1/2” parallel

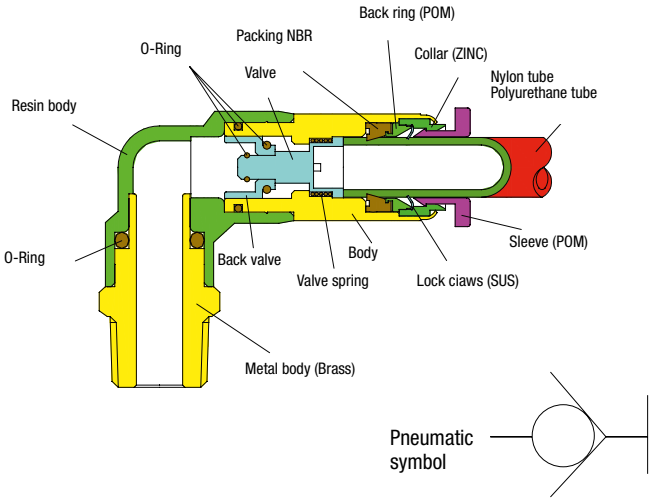
Characteristics

Air flows is stopped from the tube if it is released, the air flows again only after the tube is connected

Applications

Used in the place where tube frequently changes

Structure chart



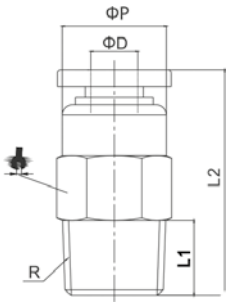
Technical sheet

FLUID	Air
OPERATION PRESSURE	0,1-1,0Mpa (150psi)
NEGATIVE PRESSURE	Please contact our Technical Dept.
OPERATING TEMPERATURE	0-60 °C (32-140 °F)
APPLICABLE TUBE	Polyurethane, Polyamide and Nylon

ART. ISPC

Straight male tapered stop fitting

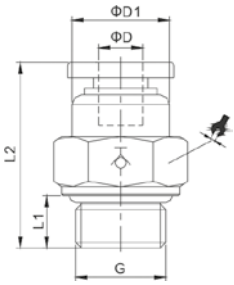
COD.	ØD	R	L1	L2	ØP			g
ISPC04-01	4	1/8	7,5	27,5	10	10	1	9,30
ISPC06-01	6	1/8	7,5	27,0	12	12	1	11,20
ISPC06-02	6	1/4	9,5	27,0	12	14	1	13,50
ISPC08-01	8	1/8	7,5	29,0	14	14	1	14,40
ISPC08-02	8	1/4	9,5	29,0	14	14	1	16,10
ISPC08-03	8	3/8	10,5	29,0	14	17	1	20,40
ISPC10-02	10	1/4	9,5	37,0	17	17	1	18,80
ISPC10-03	10	3/8	10,5	37,0	17	17	1	24,60
ISPC10-04	10	1/2	13,5	37,0	17	21	1	28,50
ISPC12-02	12	1/4	9,5	38,0	20	21	1	30,20
ISPC12-03	12	3/8	10,5	38,0	20	21	1	31,70
ISPC12-04	12	1/2	13,5	38,0	20	21	1	35,50



ART. ISPC-G

Straight male parallel stop fitting

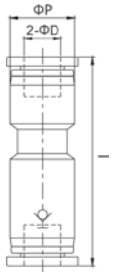
COD.	ØD	G	ØD1	L1	L2			g
ISPC04-G01	4	1/8	10	5,5	27,5	14	1	9,30
ISPC06-G01	6	1/8	12	5,5	27	14	1	11,20
ISPC06-G02	6	1/4	12	7,5	27	17	1	13,50
ISPC08-G01	8	1/8	14	5,5	29	14	1	14,40
ISPC08-G02	8	1/4	14	7,5	29	17	1	16,10
ISPC08-G03	8	3/8	14	7,5	29	20	1	20,40
ISPC10-G02	10	1/4	17	7,5	37	17	1	18,80
ISPC10-G03	10	3/8	17	7,5	37	20	1	24,60
ISPC10-G04	10	1/2	17	10	37	24	1	28,50
ISPC12-G02	12	1/4	20	7,5	38	21	1	30,20
ISPC12-G03	12	3/8	20	7,5	38	21	1	31,70
ISPC12-G04	12	1/2	20	10	38	24	1	35,50



ART. ISPU

Stop fitting straight connector

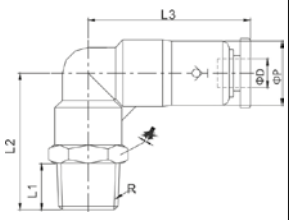
COD.	ØD	ØP	L		g
ISPU04	4	13,0	47,0	1	16,50
ISPU06	6	13,0	45,0	1	13,50
ISPU08	8	15,0	49,5	1	17,00
ISPU10	10	19,0	63,0	1	35,00
ISPU12	12	21,5	66,5	1	42,00



ART. ISPL

Elbow male tapered stop fitting

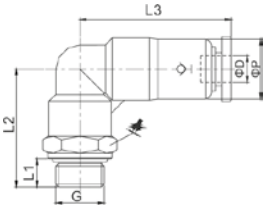
COD.	ØD	R	L1	L2	L3	ØP			g
ISPL04-M5	4	M5	3,5	21,3	31,0	13,0	10	1	12,00
ISPL04-M6	4	M6	4,0	21,8	31,0	13,0	10	1	12,00
ISPL04-01	4	1/8	7,5	26,5	31,0	13,0	10	1	14,00
ISPL06-M5	6	M5	3,5	21,7	29,4	13,0	12	1	13,00
ISPL06-M6	6	M6	4,0	22,2	29,4	13,0	12	1	13,00
ISPL06-01	6	1/8	7,5	26,5	30,0	13,0	12	1	20,20
ISPL06-02	6	1/4	9,5	29,0	30,0	13,0	14	1	22,40
ISPL08-01	8	1/8	7,5	29,5	33,5	14,5	14	1	24,60
ISPL08-02	8	1/4	9,5	31,5	33,5	14,5	14	1	29,00
ISPL08-03	8	3/8	10,5	33,0	33,5	14,5	17	1	31,00
ISPL10-02	10	1/4	9,5	37,0	43,2	18,4	17	1	33,00
ISPL10-03	10	3/8	10,5	38,0	43,2	18,4	17	1	35,00
ISPL10-04	10	1/2	13,5	41,5	43,2	18,4	21	1	37,40
ISPL12-02	12	1/4	9,5	38,5	46,7	21,0	21	1	42,00
ISPL12-03	12	3/8	10,5	39,5	46,7	21,0	21	1	45,00
ISPL12-04	12	1/2	13,5	42,5	46,7	21,0	21	1	49,00



ART. ISPL-G

Elbow male parallel stop fitting

COD.	ØD	R	L1	L2	L3	ØP			g
ISPL04-G01	4	1/8	5,5	26,5	31,7	13,0	14	1	14,00
ISPL06-G01	6	1/8	5,5	26,5	30,0	13,0	14	1	20,20
ISPL06-G02	6	1/4	7,5	29,0	30,0	13,0	17	1	22,40
ISPL08-G01	8	1/8	5,5	29,0	33,5	14,5	14	1	24,60
ISPL08-G02	8	1/4	7,5	31,5	33,5	14,5	17	1	29,00
ISPL08-G03	8	3/8	7,5	32,0	33,5	14,5	20	1	31,00
ISPL10-G02	10	1/4	7,5	37,0	43,2	18,4	17	1	33,00
ISPL10-G03	10	3/8	7,5	37,0	43,2	18,4	20	1	35,00
ISPL10-G04	10	1/2	10,0	40,5	43,2	18,4	24	1	37,40
ISPL12-G02	12	1/4	7,5	38,5	46,7	21,0	21	1	42,00
ISPL12-G03	12	3/8	7,5	38,5	46,7	21,0	21	1	45,00
ISPL12-G04	12	1/2	10,0	41,5	46,7	21,0	24	1	49,00



Function fittings

Series IPC

Ordering code

IPCVC 04 G04 B

MODEL TYPE
- **IPCVC** = Straight male tapered unidirectional fitting
- **IPCVC-G** = Straight male parallel unidirectional fitting
- **IPCVF** = Tapered male/female unidirectional fitting
- **IPCVF-G** = Parallel male/female unidirectional fitting
- **IPCVU** = Unidirectional straight connector

TUBE CONNECTION
- **4 ... 12** = Tube diameter Ø 4; 6; 8; 10; 12 mm

THREADED CONNECTION
- **01** = R1/8" Tapered thread
- **02** = R1/4" Tapered thread
- **03** = R3/8" Tapered thread
- **04** = R1/2" Tapered thread
- **G01** = G1/8" Parallel thread
- **G02** = G1/4" Parallel thread
- **G03** = G3/8" Parallel thread
- **G04** = G1/2" Parallel thread

FLOW RATE DIRECTION
- **BLANK** = from thread to tube
- **B** = from tube to thread

Features

Allow the airflow in one direction but stops in the opposite direction.

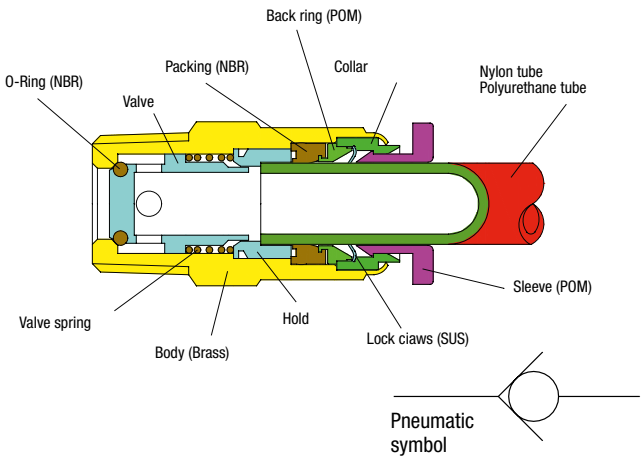
Notes

Tight the thread according to the rule.
It won't work if too tight.

Applications

Check valves allow airflow in one direction

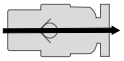
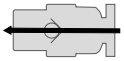
Structure chart



Technical sheet

FLUID	Air (no other gases or liquids)
OPERATION PRESSURE	0,05-1,0Mpa (150psi)
NEGATIVE PRESSURE	Please contact technical Dept.
OPERATING TEMPERATURE	0-60 °C (32-140 °F)
APPLICABLE TUBE	Polyurethane and Nylon

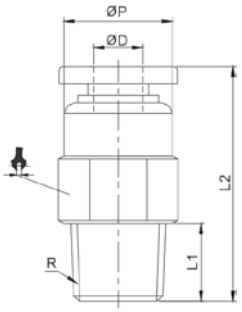
Control method

AIR FLOW	METER IN	METER OUT (B)
AIR FLOW	Thread to tube	Tube to thread
PCVC		
PCVF		

ART. IPCVC

Straight male tapered unidirectional fitting

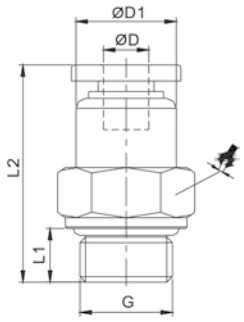
COD.	ØD	R	L1	L2	ØP			g
IPCVC04-M5	4	M5	3,5	29,2	10	10	1	10,40
IPCVC04-M6	4	M6	4,0	28,2	10	10	1	10,40
IPCVC04-01	4	1/8	7,5	25,0	10	10	1	9,20
IPCVC06-01	6	1/8	7,5	26,0	12	12	1	10,20
IPCVC06-02	6	1/4	9,5	37,0	12	14	1	19,50
IPCVC08-01	8	1/8	7,5	28,5	14	14	1	13,70
IPCVC08-02	8	1/4	9,5	39,0	14	14	1	27,50
IPCVC08-03	8	3/8	10,5	35,2	14	17	1	30,40
IPCVC10-02	10	1/4	9,5	42,9	17	17	1	30,70
IPCVC10-03	10	3/8	10,5	41,6	17	17	1	45,80
IPCVC10-04	10	1/2	13,5	43,7	17	21	1	48,90
IPCVC12-02	12	1/4	9,5	44,2	20	21	1	50,00
IPCVC12-03	12	3/8	10,5	42,5	20	21	1	54,50
IPCVC12-04	12	1/2	13,5	44,5	20	21	1	60,70



ART. IPCVC-G

Straight male parallel unidirectional fitting

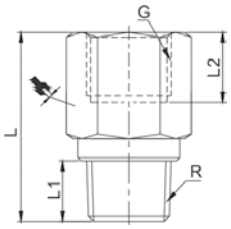
COD.	ØD	G	ØD1	L1	L2			g
IPCVC04-G01	4	1/8	10,0	5,5	24,4	10	1	9,20
IPCVC06-G01	6	1/8	12,0	5,5	26,0	12	1	10,20
IPCVC06-G02	6	1/4	12,0	7,5	33,0	12	1	19,50
IPCVC08-G01	8	1/8	14,0	5,5	28,5	14	1	13,70
IPCVC08-G02	8	1/4	14,0	7,5	34,8	14	1	27,50
IPCVC08-G03	8	3/8	14,0	7,5	34,8	14	1	30,40
IPCVC10-G02	10	1/4	17,0	7,5	39,5	17	1	30,60
IPCVC10-G03	10	3/8	17,0	7,5	41,6	20	1	45,80
IPCVC10-G04	10	1/2	17,0	10,0	43,7	24	1	48,90
IPCVC12-G02	12	1/4	20,0	7,5	40,3	21	1	50,00
IPCVC12-G03	12	3/8	20,0	7,5	42,3	21	1	54,50
IPCVC12-G04	12	1/2	20,0	10,0	44,4	24	1	60,70



ART. IPCVF

Tapered male/female unidirectional fitting

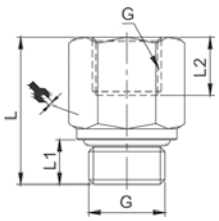
COD.	R	G	L1	L2	L			g
IPCVF-01-01	1/8	1/8	7,5	8,5	23,0	14	1	12,50
IPCVF-02-02	1/4	1/4	9,5	11,0	36,0	17	1	14,70
IPCVF-03-03	3/8	3/8	10,5	12,0	32,9	21	1	16,80
IPCVF-04-04	1/2	1/2	13,5	14,0	37,0	24	1	18,80



ART. IPCVF-G

Parallel male/female unidirectional fitting

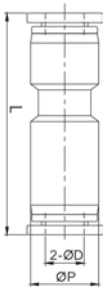
COD.	G	L1	L2	L			g
IPCVF-01-G01	1/8	5,5	8,5	23,0	14	1	12,50
IPCVF-02-G02	1/4	7,5	11,0	32,0	17	1	14,70
IPCVF-03-G03	3/8	7,5	12,0	32,9	21	1	16,80
IPCVF-04-G04	1/2	10,0	14,0	37,0	24	1	18,80



ART. IPCVU

Unidirectional straight connector

COD.	ØD	ØP	L		g
IPCVU04	4	11,0	40,4	1	5,70
IPCVU06	6	13,0	41,2	1	6,50
IPCVU08	8	14,5	52,6	1	9,90
IPCVU10	10	21,0	62,2	1	49,40
IPCVU12	12	21,0	63,3	1	46,00



Quick exhaust valves

Series VSR

The quick exhaust valves and the manual valves, 503 series, are produced in Italy according to the reference ISO norms as warranty of high quality level.

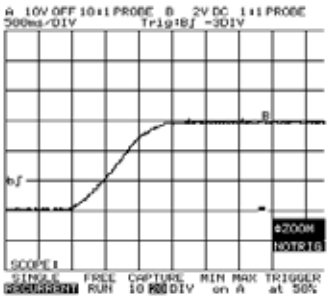
Technical characteristics

General test conditions and life test:

Fluid: Filtered air
Temperature: 20 ° C
Pressure: 6 bar
Tank capacity: 5 liters

Test Results

The technopolymer valves have the same flow rate as the brass version, the time of pressurization and emptying of the tank is the same. The opening and the exhaust time of the valves do not change by varying the operating temperature, from -20 ° C to +50 ° C. The breakout of the threads, for the technopolymer version, is inversely proportional to the temperature rise. Subjecting the valves to 50,000 charge/discharge continuous cycles, at a constant pressure of 7 bar, the functioning was showing none irregularities.



VALVE		FLOW RATE (L/MIN)	
		PA	AR
50314 brass	6 bar p=1	1070	1590
	6 bar max	2050	2360

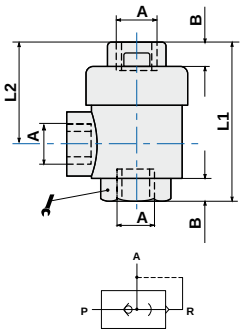
Technical sheet

FLUIDS	Compressed air (for different fluid please contact our Technical Dept.)
OPERATION PRESSURE	From 0,30 to10 bar
OPERATING TEMPERATURE	From -20° to +50° °C
THREAD TYPE	BSPP pipe thread ISO 228
MATERIALS	Brass UNI EN 12165 CW617N (body, plug) Polyurethane elastomer (sealing element)

ART. 503

Quick exhaust valve

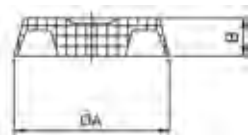
COD.	A	B	L1	L2			g
50318	G1/8	8	42	28	14	25	84,63
50314	G1/4	11	53,3	34,5	19	10	148,00
50338	G3/8	12	58	36	21	10	150,00
50312	G1/2	14	71	44	26	10	316,00
50334	G3/4	18	86	52	32	2	450,00
50301	G1"	19	94	56	38	1	525,00



ART. UR

Tablet for exhaust valve

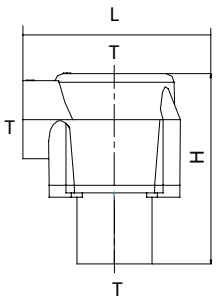
COD.	per valvola	A	B	Materiale
UR08	50318	20,5	5	PU
UR17	50314 - 50318	25,5	5,8	PU
UR35	50312	35,5	8,2	PU
UR44	50334 - 50301	40,5	9	PU



ART. JXQ

Heavy duty quick exhaust valve

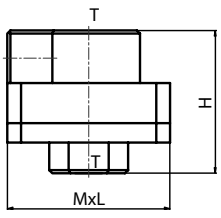
COD.	T	H	L		g
JXQ2000-06	3/4	112	92	1	781,66
JXQ2500-10	1”	112	92	1	691,70



ART. JAQ

Cube quick exhaust valve

COD.	T	Mx	L	H		g
JAQ2000-01	1/8	45	45	40	1	114,50
JAQ2000-02	1/4	45	45	40	1	107,08
JAQ3000-02	1/4	56	56	50	1	215,78
JAQ3000-03	3/8	56	56	50	1	304,16
JAQ5000-04	1/2	85	85	75	1	675,19
JAQ5000-06	3/4	85	85	75	1	652,44



Quick exhaust valves

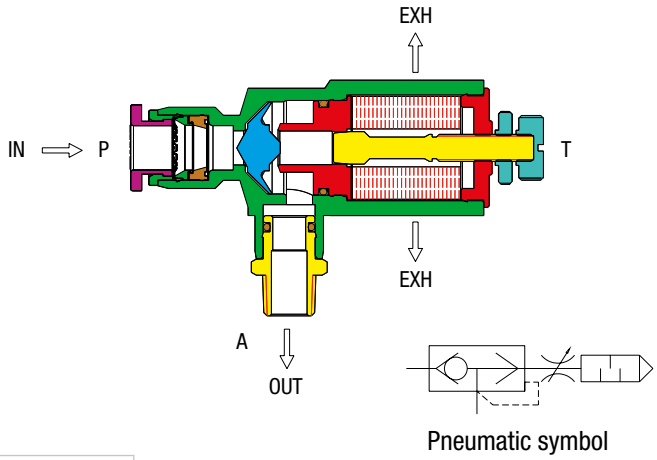
Series ISE

The quick exaust valve always used to the shuttle valve and cylinder, the air can be exhaust quickly and not through the shuttle valve, which fast the reciprocating motion on the cylinder and short the work period. The exhaust side T have the function with throttling and noise elimination. It can control the high-speed cylinder, at the same time also can reduce the exhaust noise.

Characteristics

- Used to the high-speed cylinders.
- The exhaust valve with a quick fittings to fix the tube easily.
- The valve have the function of the shuttle valve
- The exhaust side have the function with throttling and noise elimination.
- It can control the high-speed cylinder, at the same time also con reduce the exhaust noise.

Structure chart



Pneumatic symbol

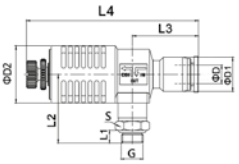
Technical sheet

FLUIDS	Air
OPERATION PRESSURE	0,05-1,0Mpa (150psi)
OPERATING TEMPERATURE	0-60 °C (32-140 °F)
APPLICABLE TUBE	Polyurethane, Polyamide and Nylon

ART. ISE

VSR + RFV taper thread

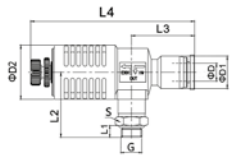
COD.	ØD	R	L1	L2	L3	L4 Max	ØD1	ØD2	S		g
ISE08-01	8	1/8	7,5	31	29	83	15	25	12	1	57,20
ISE08-02	8	1/4	9,5	34	29	83	15	25	14	1	61,70
ISE08-03	8	3/8	10,5	35,5	29	83	15	25	17	1	68,00
ISE10-01	10	1/8	7,5	31	32	86	19	25	12	1	62,10
ISE10-02	10	1/4	9,5	34	32	86	19	25	14	1	64,80
ISE10-03	10	3/8	10,5	35,5	32	86	19	25	17	1	71,10



ART. ISE-G

VSR + RFV parallel thread

COD.	ØD	G	L1	L2	L3	L4 Max	ØD1	ØD2	S		g
ISE08-G01	8	1/8	5,5	30	29	83	15	25	13	1	57,20
ISE08-G02	8	1/4	6,5	31,5	29	83	15	25	16	1	61,70
ISE08-G03	8	3/8	7,5	33	29	83	15	25	20	1	68,00
ISE10-G01	10	1/8	5,5	30	32	86	19	25	13	1	62,10
ISE10-G02	10	1/4	6,5	31,5	32	86	19	25	16	1	64,80
ISE10-G03	10	3/8	7,5	33	32	86	19	25	20	1	71,10



Manual valves

Series 500

The manual valves, 504-505 series, are produced in Italy according to the reference ISO norms as warranty of high quality level.

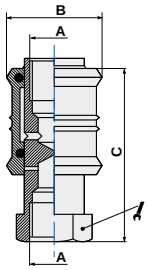
Technical sheet

CONNECTING TUBES		Normally not applied directly to pipes, however defined according to the applications
TEMPERATURE AND PRESSURE	**Working temperature**	from -20° to +70° °C
	Max. working pressure	10 bar
THREAD TYPE		BSP parallel UNI-ISO 228
MATERIALS	**Series 505 body**	Brass UNI EN 12165 CW617N
	Series 504 body **Seris 504-505 slider**	Anodized aluminum
	Seals gasket	NBR 70 DWGV-EN549 UL157

ART. 504

Hand slide valve

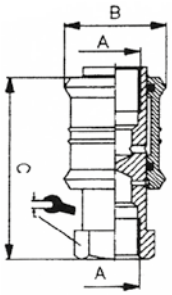
COD.	A	B	C			g
50418	G1/8	25	40	14	10	42,00
50414	G1/4	30	46	17	10	74,00
50438	G3/8	35	52	21	10	122,00
50412	G1/2	40	62	26	10	170,00



ART. 505

Brass hand slide valve

COD.	A	B	C			g
505M5	M5	14	30,5	10	10	11,80
50518	G1/8	25	48	14	10	50,50
50514	G1/4	30	58	19	10	95,50
50538	G3/8	35	70	22	10	154,00
50512	G1/2	40	75	27	10	210,00
50534	G3/4	50	83	32	10	187,00



Ball taps

Compact ball valves, ideal for use in pneumatic, hydraulic and medium/low vacuum circuits. Made of nickel-plated brass with technopolymer operating lever.

- **Ball taps - MINI**

Ball taps - MINI

Series VSTT

The mini ball valves with handle are produced in Italy according to the reference ISO norms as warranty of high quality level.

Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic, oleodynamic and hydraulic circuits
SUGGESTED TUBES		Plastic: TPU, PA, PE, ecc. Metal: copper, aluminium, steel
TEMPERATURE AND PRESSURE	**Working temperature**	From -20°C to +80°C
	Max working pressure	20 bar
THREAD TYPE		POM Copolymer ISO 10433-1 BSPP pipe thread ISO 228 - BSPT tapered ISO 7 - DIN 2999
MATERIALS	**Ball, ogive, nut, ring nut and shaft**	Brass UNI EN 12164 CW614N ((nickel plated)
	Sleeve, collar and back ring	POM Copolymer ISO 10433-1
	Spring	Stainless steel AISI 301 austenitic
	Washer ball seat	PTFE
	O-Ring	NBR 70

Additional technical informations

Each VSTT taps series 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:

Tube diameter	Breaking load
Ø4	63 N
Ø6	141 N
Ø8	251 N

Important note

The values refer to the resistance of the crimping gripper, "core part" as per the two fittings series, 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:

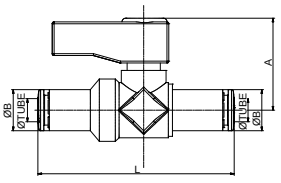
Working pressure and breaking pressure (bar) at different temperatures						
Example	T-20°C	T-20°C	T+23°C	T+23°C	T+60°C	T+60°C
Tube 6x4 colored	Working P bar	Breaking P bar	Working P bar	Breaking P bar	Working P bar	Breaking P bar
TPU	**18,7**	**74,8**	**10,0**	**40,0**	**5,2**	**20,8**
PA11	**37,4**	**149,6**	**20,0**	**80,0**	**10,4**	**41,6**
PA12	**48,6**	**168,3**	**26,0**	**90,0**	**10,4**	**36,0**
PE	**18,7**	**74,8**	**10,0**	**40,0**	**5,0**	**20,0**

Further to all the necessary assessments on the use of the VSTT taps 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. Acetal resins with which some components are made, and the O-ring itself, suggest precise range of usage. Specifically to the NBR O-rings the supplier declares a fork between -25°C and +100°C.

ART. **VSTT**

Tube/tube ball valve

COD.	A	L	Ø TUBE	ØB		g
VSTT0404	23	46	4	9	1	39,50
VSTT0606	23	50	6	11	1	37,50
VSTT0808	23	52	8	13	1	39,30



Ball taps - MINI

Series 4000

The mini ball valves with handle are produced in Italy according to the reference ISO norms as warranty of high quality level.

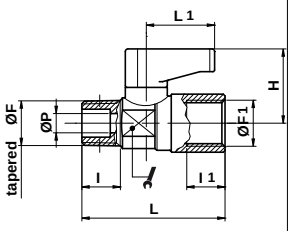
Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic, oleodynamic and hydraulic circuits
SUGGESTED TUBES		Plastic: TPU, PA, PE, ecc. Metal: copper, aluminium, steel
TEMPERATURE AND PRESSURE	**Working temperature**	from -20°C to +80°C
	Max working pressure	20 bar
THREAD TYPE		BSPP pipe thread ISO 228 - BSPT tapered ISO 7 - DIN 2999
MATERIALS	**Ball, ogive, nut, ring nut and shaft**	Brass UNI EN 12164 CW614N (nickel plated)
	Body	Brass UNI EN 12165 CW617N (nickel plated)
	Handle	PA66 plastic material
	Washer ball seat	PTFE
	O-Ring	NBR 70

ART. 4010

Tapered male/female ball valve

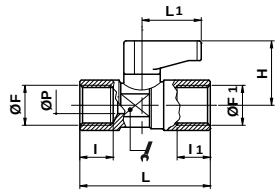
COD.	ØF	ØF1	ØP	I	I1	L	L1	H			g
40100900	1/8	1/8	5,5	8	8	35,5	19	21,5	14	1	34,00
40101800	1/4	1/8	5,5	11	8	38	19	21,5	14	1	38,00
40101900	1/4	1/4	5,5	11	11	40,5	19	21,5	14	1	44,50
40102800	3/8	1/4	5,5	11,5	11	41,5	19	21,5	14	1	48,00
40102900	3/8	3/8	7	13	16	48	19	22,5	18	1	66,00
40103900	3/8	1/2	10	17	23	58	25	25	22	1	128,00



ART. 4000

Female/female ball valve

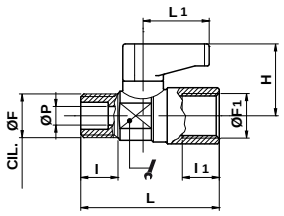
COD.	ØF	ØF1	ØP	I	I1	L	L1	H			g
40000900	1/8	1/8	5,5	8	8	36,5	19	21,5	14	1	36,00
40001900	1/4	1/4	5,5	11	11	43	19	21,5	14	1	48,00
40002900	3/8	3/8	7	11,5	16	48	19	22,5	18	1	74,00
40003900	1/2	1/2	10	16	23	59	25	32	32	1	138,00



ART. 4020

Parallel male/female ball valve

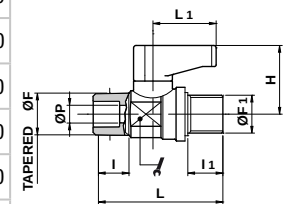
COD.	ØF	ØF1	ØP	I	I1	L	L1	H			g
40200900	1/8	1/8	5,5	7	8	34,5	19	21,5	14	1	32,00
40201800	1/4	1/8	5,5	8	8	35,5	19	21,5	14	1	36,00
40201900	1/4	1/4	5,5	8	11	37,5	19	21,5	14	1	40,00
40202800	3/8	1/4	5,5	5,5	9	11	19	21,5	14	1	46,00
40202900	3/8	3/8	7	10	16	43	19	22,5	18	1	86,00
40203900	1/2	1/2	1/2	15	23	58	25	32	22	1	128,00



ART. 4030

Tapered/parallel male ball valve

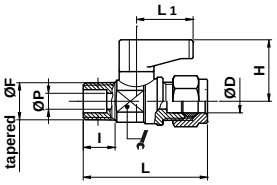
COD.	ØF	ØF1	ØP	I	I1	L	L1	H			g
40300900	1/8	1/8	5,5	8	7	33	19	21,5	14	1	30,00
40301000	1/8	1/4	5,5	8	7,5	33,5	19	21,5	14	1	32,00
40301800	1/4	1/8	5,5	11	7	35,5	19	21,5	14	1	34,00
40301900	1/4	1/4	5,5	11	7,5	7,5	19	21,5	14	1	36,00
40302800	3/8	1/4	5,5	11,5	7,5	37	19	21,5	14	1	40,00
40302900	3/8	3/8	7	13	10	10	19	22,5	18	1	44,00
40303900	1/2	1/2	1/2	10	10	48	25	32	22	1	49,00



ART. 4050

Tapered male ball valve bicone connection

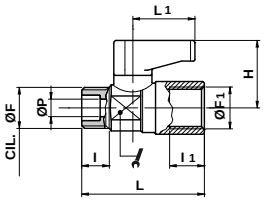
COD.	ØF	ØD	ØP	I	L	L1	H			
40501570	1/8	6	5,5	8	39	19,5	21,5	14	1	38,00
40501580	1/4	6	5,5	11	42	19,5	21,5	14	1	42,00
40501660	1/8	8	5,5	8	39	19,5	21,5	14	1	42,00
40501660	1/4	8	5,5	11	42	19,5	21,5	14	1	46,00
40501680	3/8	8	5,5	11,5	43	19,5	21,5	14	1	50,00



ART. 4070

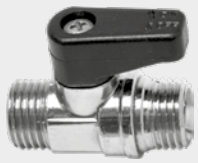
Parallel male/female ball valve (short series)

COD.	ØF	ØF1	ØP	I	I1	L	L1	H			
40700900	1/8	1/8	5,5	7	7	33,5	19,5	21,5	14	1	30,00
40701800	1/4	1/8	5,5	8	7	34	19,5	21,5	14	1	32,00
40701900	1/4	1/4	5,5	8	8	35	19,5	21,5	14	1	38,00
40702900	3/8	3/8	7	8	16	41	19,5	23	18	1	64,00
40703900	1/2	1/2	10	10	23	50	26,5	33	22	1	72,00

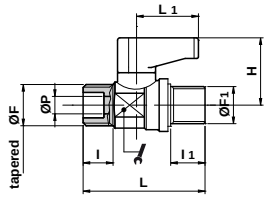


ART. 4080

Parallel/parallel male ball valve



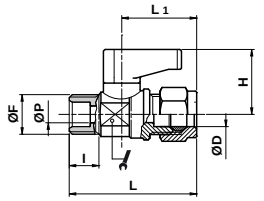
COD.	ØF	ØF1	ØP	I	I1	L	L1	H			
40800900	1/8	1/8	5,5	7	7	32	19,5	21,5	14	1	30,00
40801600	1/8	1/4	5,5	7	8	32,5	19,5	21,5	14	1	32,00
40801900	1/4	1/4	5,5	8	8	33	19,5	21,5	14	1	34,00
40802800	3/8	1/4	5,5	9	8	34	19,5	21,5	14	1	40,00
40802900	3/8	3/8	8	13,5	9	45,5	19,5	23	18	1	43,00
40803900	1/2	1/2	10	15	8,5	51	26,5	33	22	1	47,00



ART. 4100

Parallel male ball valve bicone connection

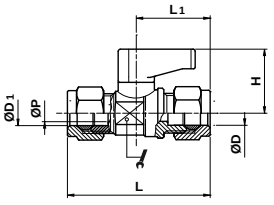
COD.	ØF	ØD	ØP	I	L	L1	H			
41001570	1/8	6	5,5	7	39,5	19,5	21,5	14	1	36,00
41001580	1/4	6	5,5	8	40,5	19,5	21,5	14	1	40,00
41001660	1/8	8	5,5	7	40,5	19,5	21,5	14	1	40,00
41001670	1/4	8	5,5	8	41,5	19,5	21,5	14	1	44,00
41001680	3/8	8	5,5	9	42,5	19,5	21,5	14	1	48,00



ART. 4110

Bicone - bicone ball valve

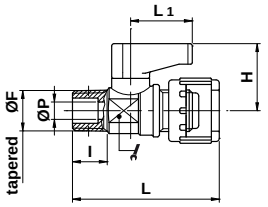
COD.	D1	ØD	ØP	L	L1	H			g
41105900	6	6	5,5	47,0	19,0	21,5	14	1	42,00
41106000	6	8	5,5	48,0	19,0	21,5	14	1	48,00
41106100	8	8	5,5	49,0	19,0	21,5	14	1	54,00



ART. 4120

Tapered male ball valve bayonet connection with nut

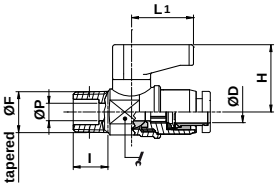
COD.	ØF	ØP	I	L	L1	H			g
41201000	1/8	5,5	8,0	38,5	19,0	21,5	14	1	44,00
41201900	1/4	5,5	11,0	41,0	19,0	21,5	14	1	54,00



ART. 4160

Tapered male ball valve with automatic tube connection

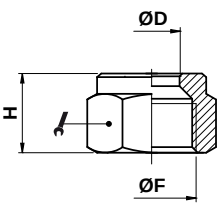
COD.	ØD	ØF	ØP	I	L	L1	H			g
41601490	4	1/8	5,5	8,5	41,0	19	21,5	14	1	36,00
41601500	4	1/4	5,5	11,5	44,0	19	21,5	14	1	40,00
41601570	6	1/8	5,5	8,5	41,0	19	21,5	14	1	38,00
41601580	6	1/4	5,5	11,5	44,0	19	21,5	14	1	42,00
41601590	6	3/8	5,5	12,0	45,0	19	21,5	14	1	46,00
41601670	8	1/4	5,5	11,5	48,0	19	21,5	14	1	48,00
41601680	8	3/8	5,5	12,0	48,5	19	21,5	14	1	52,00



ART. 4190

Ball valve nut with bicone

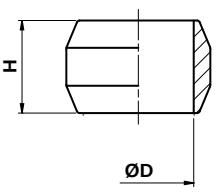
COD.	ØF	ØD	H			g
41901570	1/8	6	11,5	12	10	6,00
41201900	1/4	8	12,0	15	10	8,00



ART. 4200

Brass bicone for ball valve

COD.	ØD	H		g
42007500	6	6,6	10	0,80
42008300	8	6,6	10	1,60



Ball taps

Series 600

Ball taps made of brass alloy CW164N (nickel-plated) from hexagonal bar. Suitable for a wide range of regulation: pneumatic/oledynamic, hydraulic and medium/low vacuum systems.

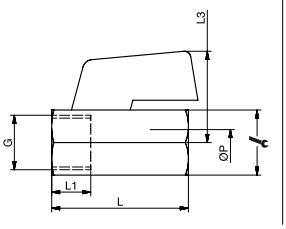
Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic, oleodynamic and hydraulic circuits
SUGGESTED TUBES		Plastic: TPU, PA, PE, etc. Metal: copper, aluminium, steel
TEMPERATURE AND PRESSURE	**Working temperature**	from -20°C to +80°C
	Max working pressure	20 bar
THREAD TYPE		BSPP pipe thread ISO 228
MATERIALS	**Ball, ogive, nut, ring nut and shaft**	Brass UNI EN 12164 CW614N (nickel plated)
	Body	Brass UNI EN 12165 CW617N (nickel plated)
	Handle	PA66 plastic material
	Washer ball seat	PTFE
	O-Ring	NBR 70

ART. 600

F/F ball tap with lever

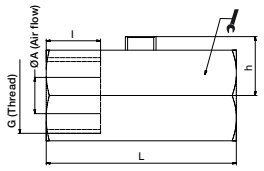
COD.	G	ØP	L	L1	L3			g
6001818	1/8	8	39	9	27,2	20	1	80,04
6001414	1/4	8	39	9	27,2	20	1	81,13
6003838	3/8	8	42	9,9	27,1	20	1	73,65
6001212	1/2	10	47	11,7	29,4	24	1	109,35
6003434	3/4	13,5	54	12	32	30	1	188,85



ART. 601

F/F screwdriver cut ball tap

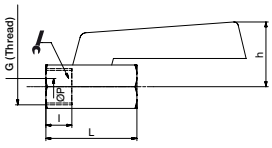
COD.	G	I	L	ØA	h			g
6011818	1/8	9	39	8	13	20	1	83,99
6011414	1/4	9	39	8	13	20	1	88,50
6013838	3/8	9,9	42	8	13	20	1	81,72
6011212	1/2	11,7	47	10	15,4	24	1	124,00
6013434	3/4	12	54	13,5	18	30	1	190,00



ART. 602

Long lever F/F ball tap

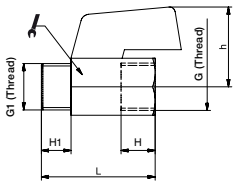
COD.	G	I	L	ØP	h			g
6021818	1/8	9	39	8	31,3	20	1	83,26
6021414	1/4	9	39	8	31,3	20	1	95,52
6023838	3/8	9,9	42	8	31,3	20	1	88,75
6021212	1/2	11,7	47	10	33,8	24	1	131,03
6023434	3/4	12	54	13,5	36,4	30	1	197,00



ART. 605

M/F bal tap with lever

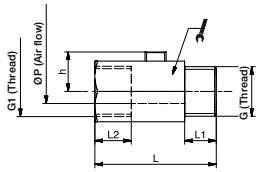
COD.	G	G1	H1	H	L	h			g
6051818	1/8	1/8	9	10	39	27,2	20	1	80,11
6051414	1/4	1/4	9,2	11	39	27,2	20	1	80,79
6053838	3/8	3/8	10,2	9,8	40	27,2	20	1	72,34
6051212	1/2	1/2	12,2	11,6	45	29,5	24	1	116,56
6053434	3/4	3/4	14	12,2	51	32	30	1	172,63



ART. 606

M/F screwdriver cut ball tap

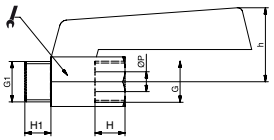
COD.	G	G1	L1	L2	L	P	h			g
6061818	1/8	9,0	10,0	39,0	8,0	13,0	20	20	1	83,32
6061414	1/4	9,2	11,0	39,0	8,0	13,0	20	20	1	79,52
6063838	3/8	10,2	9,8	40,0	8,0	13,0	20	20	1	77,55
6061212	1/2	12,2	11,6	45,0	10,0	15,4	24	24	1	100,51
6063434	3/4	14,0	12,2	51,0	13,5	17,9	30	30	1	170,00



ART. 607

Long lever M/F ball tap

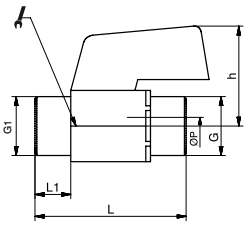
COD.	G	G1	H1	H	ØP	h			g
6071818	1/8	1/8	9,0	10	8	20	20	1	83,32
6071414	1/4	1/4	9,2	11	8	20	20	1	79,52
6073838	3/8	3/8	10,2	10	8	20	20	1	77,55
6071212	1/2	1/2	12,2	11,6	10	24	24	1	100,51
6073434	3/4	3/4	14,0	14	13,5	30	30	1	180,00



ART. 610

M/M ball tap with lever

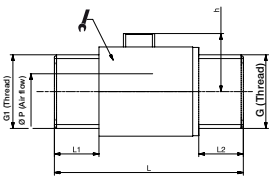
COD.	G	G1	L1	L	P	h			g
6101414	1/4	1/4	9,0	40,4	8,0	27,2	20	1	65,15
6103838	3/8	3/8	10,0	42,4	8,0	27,4	20	1	70,32
6101212	1/2	1/2	11,6	49,7	10,0	29,4	24	1	106,07



ART. 611

M/M screwdriver cut ball tap

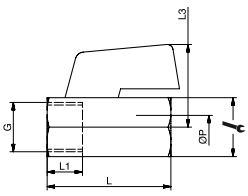
COD.	G	G1	L1	L2	L	ØP	h			g
6111414	1/4	1/4	9,0	9,0	40,4	8,0	12,9	20	1	64,35
6113838	3/8	3/8	10,0	10,0	42,4	8,0	12,9	20	1	64,94
6111212	1/2	1/2	11,6	11,6	49,7	10,0	15,4	24	1	99,44



ART. 650

F/F ball tap with lever

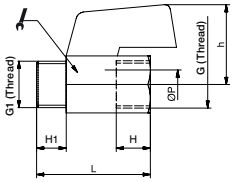
COD.	G	L1	L	ØP	L3			g
6501414	1/4	9,0	35,0	5,5	26,1	18	1	53,69
6503838	3/8	7,0	38,5	8,0	27,0	20	1	64,94
6501212	1/2	8,5	42,0	10,0	28,9	24	1	99,44



ART. 655

M/F ball tap with lever

COD.	G	G1	H1	H	L	P	h			g
6551414	1/4	1/4	9,0	7,0	35,0	5,5	26,1	18	1	51,00
6553838	3/8	3/8	10,0	7,0	38,5	8,0	27,0	20	1	64,09
6551212	1/2	1/2	9,0	9,3	32,0	10,0	28,9	24	1	86,62



Silencers and flow nozzles

Silencers are made of different materials: stainless steel, bronze, brass and technopolymer. They reduce the noise generated by valves and solenoid valves during the operating cycle in a pneumatic system.

Pneumatic nozzles are used to spread air or steam in a straight, concentrated jet. They generally have a flat, solid or round radial spray jet. When using conventional pneumatic nozzles, air is blown through a single hole.

Made of technopolymer and anodised aluminium, they can be used in a variety of applications: purification systems, fluid cooling and noise abatement.

- **Silencers**
- **Flow nozzle**

Silencers

Series S

The silencers metal wire stainless steel, bronze, brass, bronze powder and stainless steel are produced in Italy in accordance with ISO 9002 and are the solution to every need, from the purification of fluids (liquids and gases) to shock and noise absorption of liquids and gases.

Technical sheet

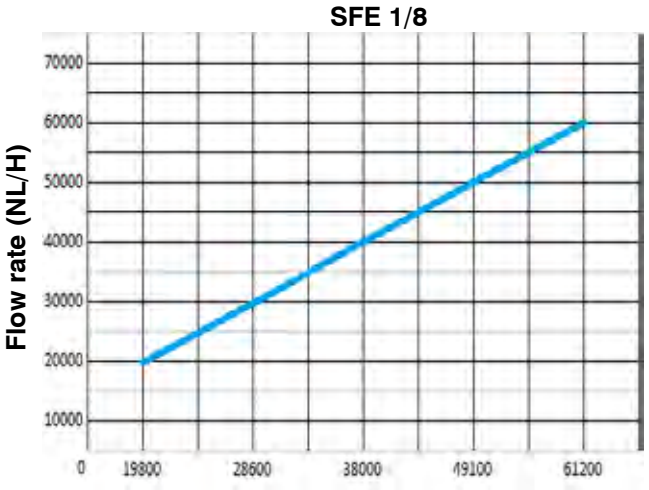
FLUIDS		Liquids and gases, compressed air (for information please contact our technical Dept.)
APPLICATIONS		Pneumatic equipment, filtration systems, reduction, abatement and protection related to the use of fluids.
SUGGESTED TUBES		Normally not applied directly to pipes, however defined according to the applications.
TEMPERATURE AND PRESSURE		In pneumatic applications they follow the requirements of other similar components, such as fittings, the salient element, the maximum noise level, is anyway determined at 4 and 6 bar.
THREAD TYPE		BSP pipe thread no nickel
MATERIALS	**Bodies**	Brass, stainless steel AISI 304, AISI 316, copper-plated steel, acetal resin and nylon
	Seals	Acetal resin and nylon AISI 304, AISI 316
	Filters	Sintered bronze

Additional technical informations

All silencers for air compressed illustrated ON the catalog have been classified according to objective evidence got as a result of flow tests and noise tests to which they were subjected by the manufacturer. The flow tests were carried out by varying the pressure upstream via the pressure regulator. The noise tests have been performed in the work environment at two pressure levels: 6 bar and 4 bar.

As an example is shown below the flow chart for the model SFE18 and a summary table of the levels of noise measured at a pressure of 6 bar on the main models (consider that at 4 bar such values fall on average values of about 3-6% depending on the model and size).

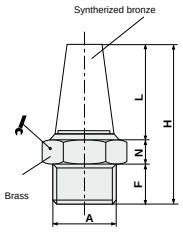
	Noise level at 6 BAR (dB)					
Model	1/8	1/4	3/8	1/2	3/4	1"
SBE	75	81	82	85		
SEB	79	78	82	85	94	95
SEP	73	74	85	89	89	90
SFE	74	72	88	90	90	92
SP	72	73	84	88	88	89
SVE	72	73	84	88	88	89
SPL	87	84	90	90	91	90
SPLF	87	90	92	92		



ART. SBE

Conical-shaped silencer on hexagonal base

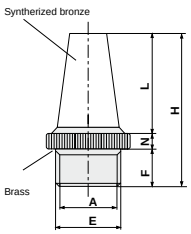
COD.	A	N	F	L	H			g
SBE18	1/8" BSP	8	6	15	29	13	50	8,80
SBE14	1/4" BSP	8	7	17	32	16	50	14,35
SBE38	3/8" BSP	7	8	25	40	19	25	22,88
SBE12	1/2" BSP	9	9	27	45	24	25	41,38
SBE34	3/4" BSP	10	9	37	56	30	5	82,90
SBE01	1" BSP	10	11	45	66	36	5	94,30
SBE5MA	M5"	4	4	9	17	8	100	2,40
SBE18FEM	1/8" FEM BSP	8	7	15	30	13	50	15,50



ART. SBT

Conical-shaped silencer on a circular base

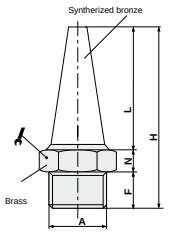
COD.	A	E	F	L	H	N		g
SBT18	1/8" BSP	12	6	15	25	4	100	8,83
SBT14	1/4" BSP	16	7	20	30	3	50	13,23
SBT38	3/8" BSP	19	8	27	38	3	25	21,30
SBT12	1/2" BSP	23	10	28	42	4	25	44,50
SBT34	3/4" BSP	29	10	38	52	4	5	81,00
SBT01	1" BSP	36	12	46	65,5	7,5	5	118,00



ART. SAC

Thin conical silencer on hexagonal base

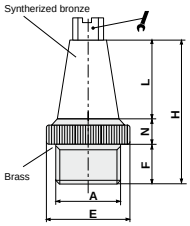
COD.	A	N	F	L	H			g
SAC18	1/8" BSP	8	6	30	44	13	100	10,10
SAC14	1/4" BSP	8	7	35	50	16	50	20,00
SAC38	3/8" BSP	7	8	39	54	19	25	30,00
SAC12	1/2" BSP	9	9	49	67	24	25	62,00
SAC34	3/4" BSP	10	9	46	65	30	5	95,00
SAC01	1" BSP	10	11	56	77	36	5	170,00
SAC5MA	M5"	4	4	18	26	8	100	2,00
SAC18FEM	1/8" FEM BSP	8	7	30	45	13	50	10,00



ART. SBTE-SBTT

Silencer with screwdriver cut on a circular base

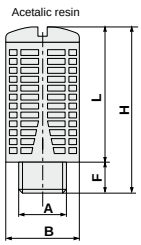
COD.	A	E	F	L	H	N			g
SBTT18	1/8" BSP	12	6	15	25	4	6	100	8,30
SBTT14	1/4" BSP	16	7	20	30	3	7	50	13,30
SBTT38	3/8" BSP	19	8	27	38	3	10	25	22,50
SBTT12	1/2" BSP	23	10	28	42	4	13	25	40,50
SBTT34	3/4" BSP	29	10	38	52	4	17	10	73,00
SBTT01	1" BSP	36	12	46	65,5	7,5	22	10	123,00
SBTE18	1/8" BSP	12	6	15	25	4	6	100	8,40
SBTE14	1/4" BSP	16	7	20	30	3	7	50	13,40
SBTE38	3/8" BSP	19	8	27	38	3	10	25	22,70
SBTE12	1/2" BSP	23	10	28	42	4	13	25	40,70
SBTE34	3/4" BSP	29	10	38	52	4	17	5	73,50
SBTE01	1" BSP	36	12	46	65,5	7,5	22	5	124,00



ART. SPL

Dynamic self-cleaning silencer

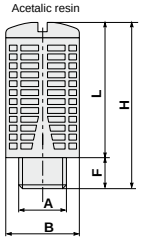
COD.	A	B	F	L	H		g
SPL18	1/8" BSP	15	8	27	35	100	4,04
SPL14	1/4" BSP	19,5	9	36	45	50	5,86
SPL38	3/8" BSP	24,5	11	47	58	50	13,10
SPL12	1/2" BSP	24,5	11	47	58	50	15,86
SPL34	3/4" BSP	48	18	96	114	10	98,00
SPL01	1" BSP	48	18	96	114	10	117,50



ART. SPLB

Dynamic self-cleaning silencer - Black

COD.	A	B	F	L	H		g
SPLB18	1/8" BSP	15	8	27	35	100	4,04
SPLB14	1/4" BSP	19,5	9	36	45	50	5,86
SPLB38	3/8" BSP	24,5	11	47	58	50	13,10
SPLB12	1/2" BSP	24,5	11	47	58	50	15,86
SPLB34	3/4" BSP	48	18	96	114	10	98,00
SPLB01	1" BSP	48	18	96	114	10	117,50

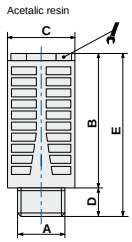


ART. SPLF

Static felt silencer

COD.	A	B	C	D	E			g
SPLF18	1/8" BSP	28	16	6	34	10	100	2,24
SPLF14	1/4" BSP	36,5	19,5	6,5	43	13	50	3,96
SPLF38	3/8" BSP	46	24	10	56	17	50	8,02
SPLF12	1/2" BSP	46	24	10	56	17	50	9,38
SPLF34	3/4" BSP	95	48	16	111	(*)	10	65,00
SPLF01	1" BSP	95	48	16	111	(*)	10	70,00

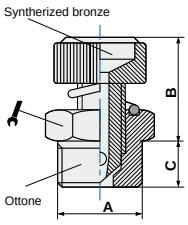
(*) Screwdriver cut



ART. SVE

Silencer with regulating valve

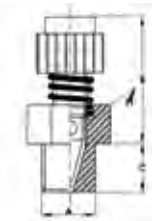
COD.	A	B min	B max	C			g
SVE18	1/8" BSP	20	22	6	13	50	16,20
SVE14	1/4" BSP	22	24	8	15	50	23,52
SVE38	3/8" BSP	25	28	10	22	25	57,00
SVE12	1/2" BSP	26	29	11	22	25	57,55
SVE34	3/4" BSP	32	37	12	30	5	136,50
SVE01	1" BSP	32	37	12	36	5	195,00



ART. SVEX-316

Stainless stell AISI 316 silencer with regulating valve

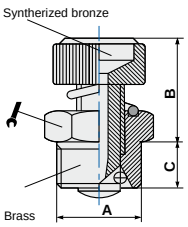
COD.	A	B min	B max	C			g
SVE18X-316	1/8" BSP	20	22	6	13	1	14,70
SVE14X-316	1/4" BSP	22	24	8	15	1	21,90



ART. RBP

Silencer with regulating valve

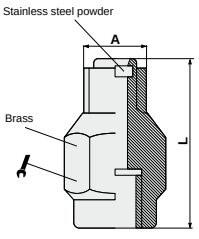
COD.	A	B min	B max	C			g
RBP18	1/8" BSP	14	19	6	12	50	10,85
RBP14	1/4" BSP	17	22	8	15	50	17,50
RBP38	3/8" BSP	18	24	9	19	25	34,80
RBP12	1/2" BSP	18	24	10,5	22	10	50,00



ART. SM

Pressure damper

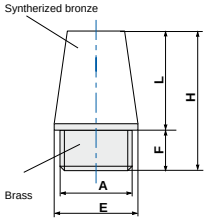
COD.	A	L			g
SM1018	1/8" BSP	30	14	50	17,00
SM2014	1/4" BSP	36	19	25	43,00
SM3038	3/8" BSP	45	27	25	120,00
SM4012	1/2" BSP	50	20	25	130,00



ART. SC

Conical-shaped silencer on a circular base

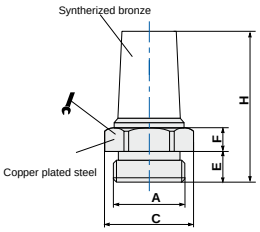
COD.	A	E	F	L	H		g
SC18	1/8" BSP	12	6	15	21	100	6,19
SC14	1/4" BSP	15	6	19	25	50	11,40
SC38	3/8" BSP	19	8	28	36	25	26,60
SC12	1/2" BSP	23	10	33	43	25	41,00
SC34	3/4" BSP	29	13	40	53	5	75,50
SC01	1" BSP	36	15	48	63	5	133,00
SC5MA	M5"	6	4,5	8,5	13	100	1,46



ART. SEB

Conical-shaped silencer on hexagonal base

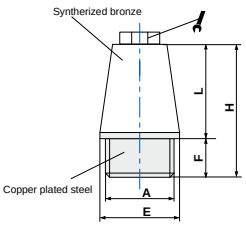
COD.	A	C	E	F	H			g
SEB18	1/8" BSP	12,6	4,5	3,8	20,5	12	100	47,00
SEB14	1/4" BSP	16	6	4,5	26,5	15	50	88,00
SEB38	3/8" BSP	20	7	5,4	33,9	19	25	22,20
SEB12	1/2" BSP	24,5	8	7	40,5	23	25	311,00
SEB34	3/4" BSP	32	9	7,5	51,5	30	5	619,00
SEB01	1" BSP	38,5	11	9	66	36	5	1283,00
SEB5MA	M5"	8	5,5	3,5	17	7	100	17,00



ART. SET

Hexagonal head silencer

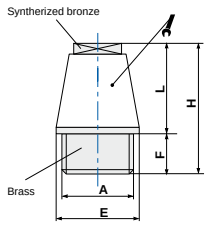
COD.	A	E	F	L	H			g
SET18	1/8" BSP	11,5	4,5	13	17,5	8	100	53,00
SET14	1/4" BSP	15	6	18	24	10	50	92,00
SET38	3/8" BSP	19	7	24	31	13	25	201,00
SET12	1/2" BSP	23	8	29	37	14	25	321,00
SET34	3/4" BSP	30	9	41	50	19	5	640,00
SET01	1" BSP	37	11	51	62	24	5	1157,00
SET5MA	M5"	8,5	5	15	20	27	100	28,00



ART. SCQ

Square head silencer

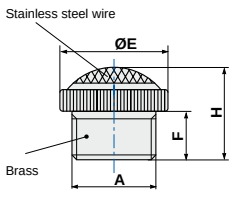
COD.	A	E	F	L	H			g
SCQ18	1/8" BSP	12	6	15	21	7	100	7,60
SCQ14	1/4" BSP	15	6	19	25	9	50	14,50
SCQ38	3/8" BSP	19	8	28	38	10	25	25,00
SCQ12	1/2" BSP	23	10	33	43	14	25	47,00
SCQ34	3/4" BSP	29	13	40	53	17	5	102,00
SCQ01	1" BSP	36	15	48	63	23	5	166,50



ART. SFT

Square head silencer

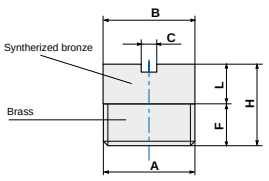
COD.	A	F	H	ØE		g
SFT18	1/8" BSP	6	13	12	100	5,30
SFT14	1/4" BSP	7	14	16	50	9,50
SFT38	3/8" BSP	8	18	19	25	12,60
SFT12	1/2" BSP	10	19	23	25	23,50
SFT34	3/4" BSP	10	22	29	5	31,50
SFT01	1" BSP	12	23	36	5	53,70
SFT5MA	M5"	5	12	11	100	4,50



ART. STT

Cap silencer with screwdriver cut

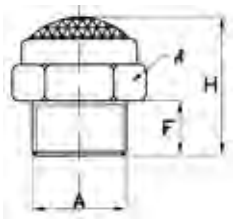
COD.	A	B	F	L	H	C		g
STT18	1/8" BSP	10	6	6	12	1,5	100	4,20
STT14	1/4" BSP	13	6	6	12	1,5	50	7,40
STT38	3/8" BSP	17	7	8	15	1,5	25	14,80
STT12	1/2" BSP	21	10	8	18	1,5	25	21,70
STT34	3/4" BSP	26	13	9	22	1,5	5	32,20
STT01	1" BSP	33	14	11	25	1,5	5	68,00



ART. SFE

Cap silencer with screwdriver cut

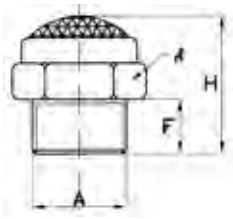
COD.	A	F	H			g
SFE18	1/8" BSP	6	15	13	100	6,18
SFE14	1/4" BSP	7	18	16	50	11,97
SFE38	3/8" BSP	8	20	19	50	15,36
SFE12	1/2" BSP	10	22	24	25	23,95
SFE34	3/4" BSP	10	26	30	25	34,19
SFE01	1" BSP	12	28	36	10	58,00
SFE5MA	M5"	4	8	8	100	1,76
SFE18FEM	1/8" FEM BSP	7	18	14	50	8,60



ART. SFEX

Stainless steel AISI 304 cap silencer on hexagonal base

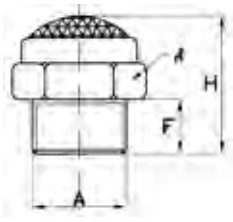
COD.	A	F	H			g
SFEXM5	M5	4	8	8	100	1,70
SFEX18	1/8" BSP	6	15	13	50	5,70
SFEX14	1/4" BSP	7	18	16	50	11,40
SFEX38	3/8" BSP	8	20	19	50	16,00
SFEX12	1/2" BSP	10	22	24	25	24,30
SFEX34	3/4" BSP	10	26	30	5	35,00
SFEX01	1" BSP	12	28	36	5	54,40



ART. SFEX NPT-316

Stainless steel AISI 316, NPT thread, cap silencer on hexagonal base

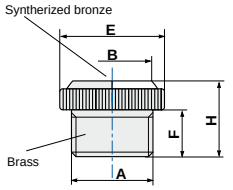
COD.	A	F	H			g
SFE18XNPT-316	1/8" NPT	10	18	13	1	7,60
SFE14XNPT-316	1/4" NPT	15	25	16	1	14,80
SFE38XNPT-316	3/8" NPT	15	26	19	1	19,80
SFE12XNPT-316	1/2" NPT	19	33	24	1	36,80
SFE34XNPT-316	3/4" NPT	20	35	30	1	50,60
SFE01XNPT-316	1" NPT	24	45	36	1	118,10



ART. SBP

Flat silencer on circular base

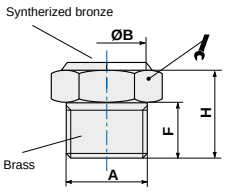
COD.	A	B	E	F	H		g
SBP18	1/8" BSP	11	12	6	12	100	5,60
SBP14	1/4" BSP	14	16	7	13	50	10,00
SBP38	3/8" BSP	17	19	8	17	25	15,00
SBP12	1/2" BSP	22	23	10	18	25	25,40
SBP34	3/4" BSP	28	29	10	20	5	32,80
SBP01	1" BSP	35	36	12	21	5	56,50
SBP5MA	M5"	11	12	5	11,5	100	4,50



ART. SEP

Flat silencer on hexagonal base

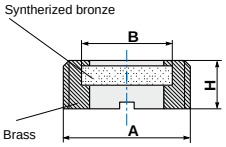
COD.	A	B	F	H			g
SEP18	1/8" BSP	11	6	14	13	100	52,00
SEP14	1/4" BSP	14	7	17	16	50	86,00
SEP38	3/8" BSP	17	8	18	19	25	130,00
SEP12	1/2" BSP	22	10	20	24	25	203,00
SEP34	3/4" BSP	28	10	23	30	5	285,00
SEP01	1" BSP	35	12	25	36	5	475,00
SEP5MA	M5"	7	5	12	8	100	15,00
SEP18FEM	1/8" FEM BSP	11	7	17	14	50	6,00



ART. SP

Retractable flat silencer

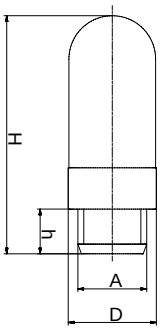
COD.	A	B	H		g
SP18	1/8" BSP	6	5	100	11,00
SP14	1/4" BSP	8	6	50	26,00
SP38	3/8" BSP	10	7	25	50,00
SP12	1/2" BSP	15	8	25	10,70
SP34	3/4" BSP	20	9	5	14,00
SP01	1" BSP	26	10	5	26,50



ART. SPL-P

Polyethylene silencer with threaded base

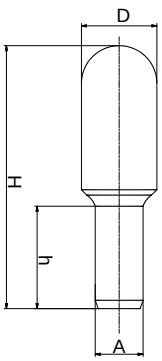
COD.	A	D	H	h		g
SPLP-M5	M5	6,5	21,5	4,0	50	0,30
SPLP-18	1/8	12,5	34,5	5,5	50	1,81
SPLP-14	1/4	15,5	42,5	8,0	50	3,07
SPLP-38	3/8	18,5	67,5	11,5	50	6,34
SPLP-12	1/2	23,5	79,0	11,0	50	14,00
SPLP-34	3/4	38,5	139,8	16,0	50	49,50
SPLP-1	1"	49,0	154,0	21,0	50	82,66



ART. SPL-R

Plug-in polyethylene silencer

COD.	A	D	H	h		g
SPLR-04	4,0	7,0	32,0	16,0	50	3,30
SPLR-06	6,0	12,5	45,0	20,5	50	1,65
SPLR-08	8,0	13,5	43,5	21,5	50	1,85
SPLR-10	10,0	15,5	57,5	26,5	50	3,19
SPLR-12	12,0	18,5	83,0	29,0	50	6,35



Flow nozzles

Series U

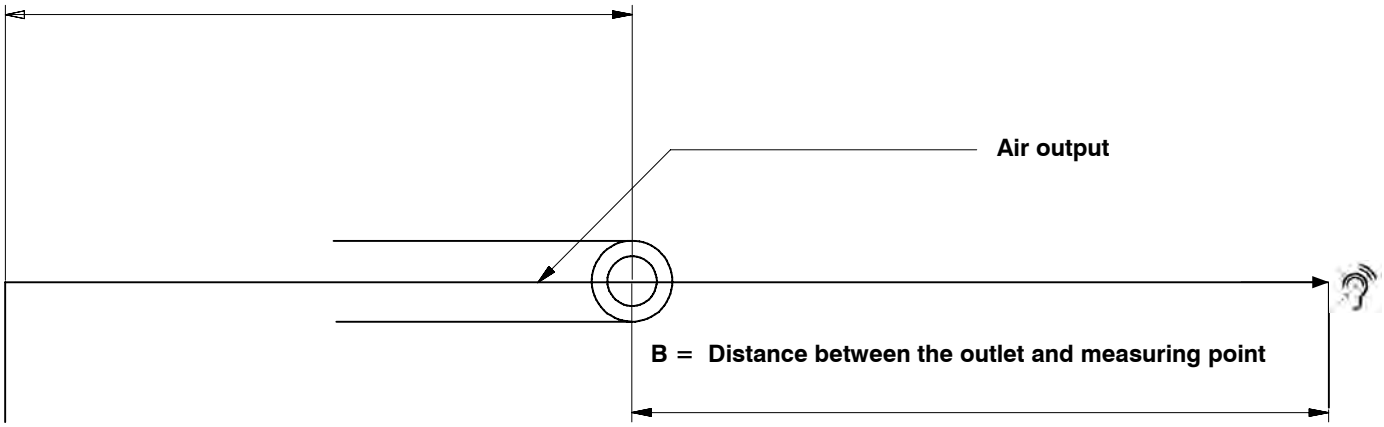
The multi-channels flow nozzles, flat (Titan-Jet) and circular (in aluminium and plastic), are produced in Italy according to the reference ISO norms.

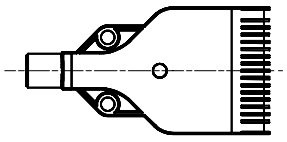
Technical sheet

FLUIDS		Liquids and gases, compressed air (for information contact our Technical Dept.)
APPLICATIONS		Cleaning and fluid cooling systems, noise abatement, uses as air curtains, irrigation systems
SUGGESTED TUBES		Normally not applied directly to pipes, however defined according to the applications.
TEMPERATURE AND PRESSURE		In pneumatic applications they follow the requirements of other similar components,, stesso materiale, quali la raccorderia. . In the POM versions indeformability is guaranteed up to +90°C while impact resistance down to -40°C
THREAD TYPE		BSPP 1/4 pipe thread
MATERIALS	**Flat body**	ABS-GP40 norme ASTM/IEC/UL
	Round body	POM shockproof
	Round model (AL)	Alluminium

Noise level test

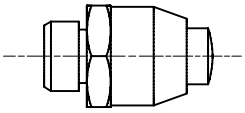
A = Distance between the air inlet and outlet point





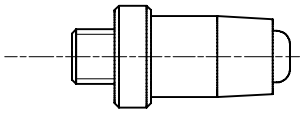
Multi channels flat nozzle	
Input pressure (Bar)	Max peak (dB)
2	61
4	66
6	71
8	75

A = 270 mm
B = 400 mm



Aluminium round nozzle	
Input pressure (Bar)	Max peak (dB)
2	65
4	69
6	75
8	79

A = 200 mm
B = 400 mm



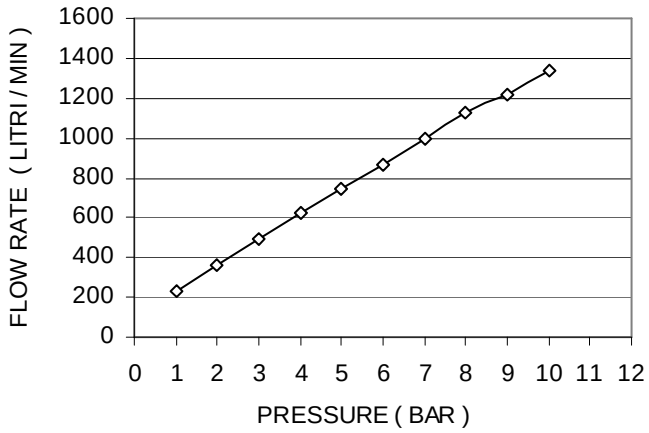
Plastic round nozzle	
Input pressure (Bar)	Max peak (dB)
2	65
4	69
6	75
8	79

A = 240 mm
B = 400 mm

Technical sheet

General test conditions:

Fluid: Filtered air - Temperature: 20 ° C - Pressure: 1 ... 10 bar

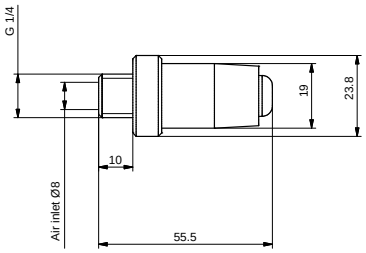


Pressure (bar)	Flow rate (l/min)
1	228
2	360
3	490
4	620
5	740
6	870
7	1000
8	1130
9	1220
10	1340

ART. **83892600**

Circular multi-channel nozzle ABS

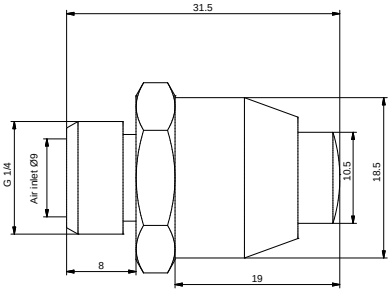
Circular multi-channel nozzle POM.
This model combines the undisputed advantages of the flat jet nozzle with a broader range of application and is ideal for stationary tasks. Note: the blowing force was measured 50 mm in front of the nozzle. The sound levels were measured in compliance with DIN 45635. When installing the multi-channel nozzles, the full thread length should be used.
Dimensions:
55 x 23 x 10
(length x ext. diam. x thread length)
Tube connection:
R1/4" (external thread on air inlet)
Characteristics:
Impact-resistant down to –40°C
Dimensional stability up to +90°C
Resistant to fuels, mineral oils, lubrificants and commonly used solvents.
Cod. 838.926



ART. **923702**

Circular multi-channel nozzle AL

Circular multi-channel nozzle in alluminum.
Recommended for particularly harsh operating conditions, such as high temperatures (foundries, etc.)
Principle application: blow guns.
Note: the blowing force was measured 50 mm in front of the nozzle. The sound levels were measured in compliance with DIN 45635.
Dimensions:
31,5 x 18,5 x 8
(length x ext. diam. x thread length)
Tube connection:
R1/4" (external thread on air inlet)
Cod.923.702

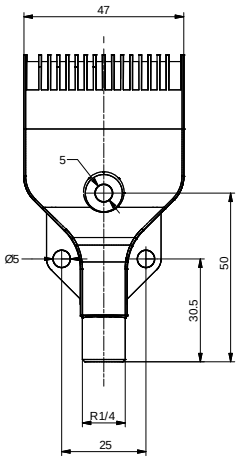


ART. 06952300T

Multi-channel flat jet nozzle

Titan jet

Dimensions:
90 x 47 x 14.5
(length x width x height)
Tube connection:
R1/4" (external thread on air inlet)
Characteristics:
Impact-resistant down to-40°C
Dimensional stability up to +90°C
Resistant to fuels, mineral oils, lubrificants and commonly used solvents.
Form of delivery:
Multi-channel flat jet nozzle
Concentrated blowing power:
The parallel arrangement of the component air streams gives an optinum blow-out width for work piece conveyance. Even the smallest finisched parts, e.g. on lathes, can be accurately and efficiently blown out. The new design enables the interchangeability with the main models available on the market and grant a larger blow-out line.



Tubes and accessories

Polyurethane, Polyamide and Polyurethane/ Copolyester hoses together with terminal blocks will help you realise your applications. A series of distribution manifolds made of anodised aluminium complete the line-up.

- **Plastic hoses**
- **Terminals and tube cutter**
- **Aluminium manifolds**

Plastic hoses

Series AC

The polyurethane, polyammide and copolyester tubes 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.

Technical sheet

FLUIDS	Liquids and gases, compressed air (for information contact our Technical Dept.)
APPLICATIONS	Pneumatic circuits, low pressure hydraulic applications, according to DIN 3861-3870 norms.
CONNECTING FITTINGS	Normally not applied directly to pipes, however present in installations and defined according to application.
TEMPERATURE AND PRESSURE	Temperatures and pressures usually depend by the features of the employed tubes and are detailed on the next pages
MATERIALS	Polyuerathane TPU Polyamide PA12 Polyuerathane / Copolyester TPA

POLYURETHANE TUBE

A material with exceptional mechanical properties, this tube is designed to solve the problems associated with particularly heavy-duty applications.

Technincal property:

Hardness Shore A:		98
Temperature working range:	-20°C	+70°C
Breaking Elongation:	540%	(DIN 53504)
Density (gr./cm³):	1.18	(DIN 53479)
Abrasion loss (mm³):	55	(DIN 53516)
Tensile strenght (KN/m):	120	(DIN 53515)

Technical features:

Excelent resistance at the abrasion.
High flexbility at the lowest temperatures.
Good resistance at the atmospheric effects.
Good ageing process
Extremely endeavor resistance.
Very low “click” and “stress cracking” effects.

Other features:

Tolerances: Outer diameter +/- 0,1 mm Thickness +/-0,1 mm
Available colours: Light blue, Red, Black, Green, Yellow, Neutral, Grey, Cristal blue, Cristal
Packing: 100 mt. Rolls in plastic film

Main application:

Pneumatic, Robotic, agriculture, garage, etc.

General notices:

Polyurethane tube material has excelent mechanical features and it is particularly addressed to mostly solve the heavy applications. Anyway polyurethanes, althoughthey are much resistant at the endeavor and at the flexion stress, trend to keep heat when working with continuous variable pressure and in case of high atmosphere temperature it could bring to the swelling or breaking of the tubing itself, specially on sizes 8x6, 10x8, 14x12. Polyurethane is normally also resistant to ozone, hydrocarbon, oils and greases, fuel and moderate chemical solutions. It is not, or very low, resistant to concentrated acids, ketons, esters and clhloride hydrocarbons.

The int. x ext. diameter, material type and batch number are marked on the tube for traceability.
Each batch of material is accompanied by a certificate of conformity.

POLYAMIDE TUBE

The polyamide is the most diffused material among the technical applications for its characteristics of flexibility and mechanical performances.

Characteristics:

High mechanicl properties to traction and to continuous & alternate flexion, notable flexibility, good stability to heat, notable resistance to ageing, law water absorption, notable resistance to hydrocarbons and oils and good inertness to chemical agents.

Mechanical/physical properties	**Trial method**	**Value**
Density:	ASTM D-792	1,03g/cm³
Hardness :	ASTM D-2240	65ShD
Elongation at break:	ASTM-D638	>300%
Elastic modulus:	ASTM D-790	410MPa
Working temperature:	-	-40°C/+70°C

Tolerances: Outer diameter +/- 0,1 mm Thickness +/-0,1 mm
Available colours: Light blue, black and neutral.
Packing: 100 mt. Rolls in plastic film

Application:

This kind of material is particularly indicated for the realization of tubing for pneumatic, robotic, steel, industrial machineries, ecc..., when there is the necessity of notable flexibility.

Reference norms:

ISO 1874 - DIN 73378 - DIN 74324

POLYURETHANE TUBE/COPOLYESTER

The “coex”, copolyester coated with polyurethane, is a material that has made mits entry into the pneumatic applications in the recent years, in particular to meet the needs of applications and availability. Today is a good alternative for both, technical and economic reasons, to the tubes storically used.

Characteristics:

Very high flexibility also at low temperatures, excellent elastic return, low sensibility to “click” and “stress cracking” effect, excellent resistance to abrasion, good resistance to atmospheric agents, good aging, extremely resistant to fatigue, good chemical resistance, excellent resistance to cut and lubrication oil at low/medium temperature.

Mechanical/physical properties	**Trial method**	**Value**
Hardness:	DIN 53505 - ISO868	95 ShA
Water absorpion:	a 23°C 50% r.h.	<1%
Density:	DIN 53479 - ISO1183	1,20 g/cm2
Elongation at break:	DIN 53504 - ISO37	500%
Flexural elastic modulus:	ASTN D790	110 Mpa
Abrasion loss:	DIN 53516 - ISO4649	25 mm3
Break resistance:	DIN 53504 - ISO37	55 Mpa
Working temperature:	-	40°C - +65°C

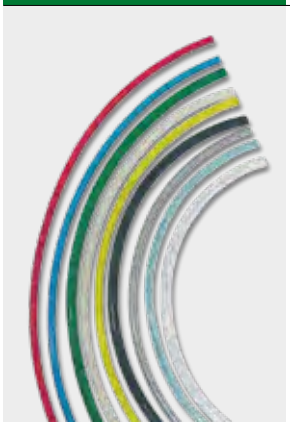
Tolerances: External diameter +/- 0,1 mm (+/- 0,15 from diam. 10mm).
Internal diameter +/- 0,2 mm (+/- 0,3 from diam. 7,5mm).
Available colours: See technical page 200
Packing: 100 mt. Rolls in plastic film

Application:

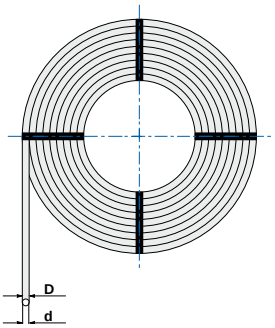
Tubes made with this row material have all the credentials to fit in pneumatics, agriculture, in general when is required resistance with grease, emulsiifed oils, lubrication. The use with continuous pulsating pressures can create heat accumulation.

ART. TPU

Polyurethane tube



COD.	Dxd mm	P bar	P1 bar	R mm	
TPU0315	3 x 1,5	13,5	54	7,5	100
TPU0402	4 x 2	15	60	11	100
TPU0425	4 x 2,5	10(10)	40(40)	15	100
TPU0604	6 x 4	10	40(36)	18	100
TPU0805	8 x 5	13	52	25	100
TPU0855	8 x 5,5	9 (8)	37 (34)	30	100
TPU0806	8 x 6	7	28	35	100
TPU1065	10 x 6,5	10(7)	40(28)	30	100
TPU1075	10 x 7,5	6,5(6)	27(25)	40	100
TPU1008	10 x 8	5,5	22	45	100



Ordering code

TPU 0315 B

TYPE
TPU = Polyurethane tube 98 Shore

EXTERNAL DIAMETER - INTERNAL DIAMETER
0315 = 3 x 1,5
0402 = 4 x 2
0425 = 4 x 2,5
0604 = 6 x 4
0505 = 8 x 5
0855 = 8 x 5,5
0806 = 8 x 6
1065 = 10 x 6,5
1075 = 10 x 7,5
1008 = 10 x 8

COLOURS
Blank = Neutral
B = Black
BU = Light Blue
G = Green
R = Red
GR = Grey
T = Transparent/Crystal
Y = Yellow

For other colours please contact our sales department

Adjusting scale on atmospheric temperature basis

Correction value scale for working pressure in consideration of the temperature variation								
Temp °C	-20	0	+23	+30	+40	+50	+60	+70
Coefficient	x 1,87	x 1,4	x 1	x 0,84	x 0,70	x 0,60	x 0,52	x 0,47

Legend

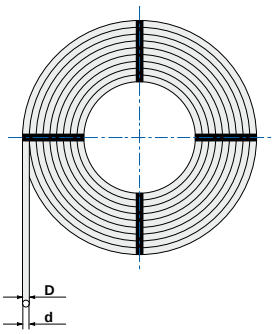
D = External diameter
d = Internal diameter
P = Working pressure
P1 = Breaking pressure
R = Bending radius
= Roll packing (mt)

In the application choice the user must keep in mind the different use variables (pressure, temperature, envinroment conditions) and all the things that can interfere with the application. These information must be considered only as a general indication. The validation of the application is always at the user charge. Medifly keeps the right to modify or adjourn the technical data in any moment without notify duty. This document has no contract value.

ART. PA12

Polyamide tube

COD.	Dxd mm	P bar	P1 bar	R mm	
PA120402 (*)	4 x 2	37	130	20	100
PA120425	4 x 2,5	32	112	20	100
PA120427	4 x 2,7	23	80	25	100
PA120604	6 x 4	26	90	30	100
PA120806	8 x 6	20	70	40	100
PA121007 (*)	10 x 7	25	88	70	100
PA121008	10 x 8	15	52	60	100
PA121210	12 x 10	12	42	85	100
PA121412	14 x 12	11	33	90	100



Note: = sizes only available on request.

Ordering code

PA12 0402 B

TYPE
PA12 = Polyamide tube PA12

EXTERNAL DIAMETER - INTERNAL DIAMETER
0402 = 4 x 2
0425 = 4 x 2,5
0427 = 4 x 2,7
0604 = 6 x 4
0806 = 8 x 6
1007 = 10 x 7*
1008 = 10 x 8
1210 = 12 x 10
1210 = 14 x 12

COLOURS
Blank = Neutral
B = Black
BU = Light Blue

*Only available on request
For other colours please contact our sales department

Adjusting scale on atmospheric temperature basis

Correction value scale for working pressure in consideration of the temperature variation							
Temp °C	-20	0	+23	+30	+40	+50	+60
Coefficient	x 1,87	x 1,4	x 1	x 0,90	x 0,80	x 0,70	x 0,60

Legend

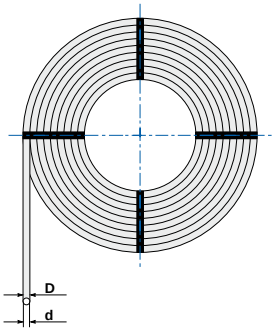
D = External diameter
d = Internal diameter
P = Working pressure
P1 = Breaking pressure
R = Bending radius
= Roll packing (mt)

In the application choice the user must keep in mind the different use variables (pressure, temperature, envinroment conditions) and all the things that can interfere with the application. These information must be considered only as a general indication. The validation of the application is always at the user charge. Medifly keeps the right to modify or adjourn the technical data in any moment without notify duty. This document has no contract value.

ART. TPA

Polyurethane tube/Copolyester ALLOY SOFT

COD.	Dxd mm	P bar	P1 bar	R mm	
TPA0425	4 x 2,5	18	72	12	100
TPA0604	6 x 4	14	56	15	100
TPA0806 (*)	8 x 6	10	40	25	100
TPA1008 (*)	10 x 8	8	34	35	100
TPA1209	12 x 9	8	34	45	100
TPA1411	14 x 11	6	24	120	100
TPA1412	14 x 12	3	12	160	100
TPA1612	16 x 12	5,5	22	150	100



Note: the sizes marked with an asterisk are also available in the PLUS version with an inner diameter reduced by 0.3 mm.
Available in light blue. For other colours please contact our sales department.

Adjusting scale on atmospheric temperature basis

Correction value scale for working pressure in consideration of the temperature variation								
Temp °C	-20	0	+23	+30	+40	+60	+70	+70
Coefficient	x 1,87	x 1,4	x 1	x 0,90	x 0,80	x 0,70	x 0,50	x 0,47

Legend

D = External diameter
d = Internal diameter
P = Working pressure
P1 = Breaking pressure
R = Bending radius
= Roll packing (mt)

Terminals and tube cutter

Series AC

The tube cutters, made in Italy in the metal version, and imported, in the plastic version, are designed to be used with all air hoses and measures shown in this catalog, they ensure precision cuts. A perfect pneumatic seal of the fitting requires a clean cut without burrs of the pipe; this is why the new “TPT” pipe cutter has been realized, equipped with a “made in Germany” quality steel blade for thousands of guaranteed cuts, a single tool for cutting perfectly and with minimal effort plastic pipes up to 20 mm in diameter.

Technical sheet

PRECAUTIONS	Cut the tube at right angles to the axis, with a resolute operation, having the attention to avoid abnormal inclinations of the cut that may compromise the proper insertion of the tube into the fitting and consequently result in air leakage. Eliminate possible internal and external burrs.
MATERIALS	Body in chrome metal die-cast Body in plastic material (PA66-50%FV - POM) Blade (interchangeable) hardened high strenght steel.

ART. PSVA

Metal tube cutter

COD.	A	B	C		g
PSVA853	130	40	63	1	292,50
PSVA854	185	55	88	1	104,88

ART. TPT

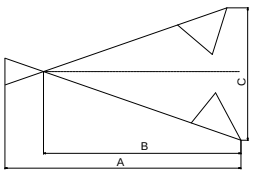
Technopolymer tube cutter

COD.	A	B	C		g
TPT0318AV	140	90	50	1	43,63

ART. TC

Plastic tube cutter

COD.	Colour	A	B	V		g
TC (BU)	Light blue	80.5	35	61	1	31,29



MORS

Terminals

COD.	Ø mm	Length mm	Width mm	Height mm		g
706.004	4	185	14	9	10	13,40
706.006	6	215	14	13	10	20,00
706.008	8	235	14	15	10	24,00
706.010	10	275	14	17	10	33,00
706.012	12	305	14	19	10	38,90
706.015	15	276	14	21	8	44,60

Aluminium manifolds

Series AC

The aluminum manifolds are inserted in the pneumatic circuitry as a compact and modular element for the distribution of compressed air.

Technical sheet

FLUIDS		Compressed air (for different fluid please contact our Technical Dept.)
APPLICATIONS		Pneumatic circuits
SUGGESTED TUBES		Plastic: TPU, PA, PE, etc. Metal: copper, aluminium, steel
TECHNICAL FEATURES	**Temperature and pressure**	The temperatures are within the range of the working environment (from -20° C to + 100° C), the maximum operating pressure is <12 bar.
	Thread type	BSP parallel ISO 228
	Material	EN-AW-6005-T6 alloy extruded according to UNI EN 755-2: 2016
MECHANICAL FEATURES	**Rm (Minimum breaking load)**	255 Mpa
	Rp 0,2 (yield strenght)	215 Mpa
	Minimum elongation %	8mm
	Typical hardness	85 HBW (brinnel)
	1 Mpa	=10,1972 Kg/cm2
NOTE		These values, indicated in the 755-2 standard, refer to a profile subject to mechanical traction, not to a differently applied load (lateral, at the tip).

ART. **RIPUL**

In-line output manifolds

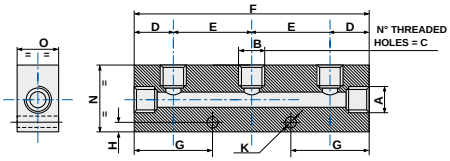


FIGURE 1

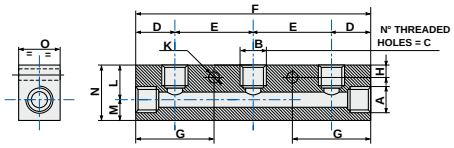


FIGURE 2

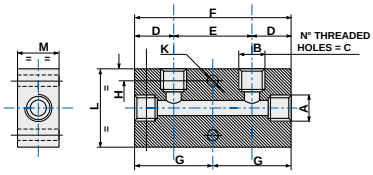


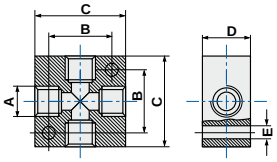
FIGURE 3

COD.	FIG.	A	B	C	D	E	F	G	H	K	L	M	N	O	THREAD		g
RIPUL1512	3	1/4"	1/8"	2	15	30	60	30	4,5	5,25	30	20	/	/	4 WAYS 2-1/4" 2-1/8"	5	75,76
RIPUL1513	1	1/4"	1/8"	3	15	30	90	30	4,5	5,25	/	/	30	20	5 WAYS 2-1/4" 3-1/8"	5	116,29
RIPUL1514	1	1/4"	1/8"	4	15	30	120	30	4,5	5,25	/	/	30	20	6 WAYS 2-1/4" 4-1/8"	5	156,50
RIPUL1515	1	1/4"	1/8"	5	15	30	150	30	4,5	5,25	/	/	30	20	7 WAYS 2-1/4" 5-1/8"	5	196,50
RIPUL1516	1	1/4"	1/8"	6	15	30	180	30	4,5	5,25	/	/	30	20	8 WAYS 2-1/4" 6-1/8"	5	236,44
RIPUL1522	3	3/8"	1/4"	4	18	36	72	36	6	6,5	40	20	/	/	4 WAYS 2-3/8" 2-1/4"	5	116,00
RIPUL1523	2	3/8"	1/4"	3	18	36	108	36	6	6,5	19	11	30	20	5 WAYS 2-3/8" 3-1/4"	5	120,50
RIPUL1524	2	3/8"	1/4"	4	18	36	144	36	6	4,5	19	11	30	20	6 WAYS 2-3/8" 4-1/4"	5	163,90
RIPUL1525	2	3/8"	1/4"	5	18	36	180	36	6	6,5	19	11	30	20	7 WAYS 2-3/8" 5-1/4"	5	207,50
RIPUL1526	2	3/8"	1/4"	6	18	36	216	36	6	6,5	19	11	30	20	8 WAYS 2-3/8" 6-1/4"	5	251,50
RIPUL1542	3	1/2"	1/4"	2	22	36	80	40	6	6,5	40	28	/	/	4 WAYS 2-1/2" 2-1/4"	5	165,80
RIPUL1543	1	1/2"	1/4"	3	22	36	116	40	6	6,5	/	/	40	28	5 WAYS 2-1/2" 3-1/4"	5	243,85
RIPUL1544	1	1/2"	1/4"	4	22	36	152	40	6	6,5	/	/	40	28	6 WAYS 2-1/2" 4-1/4"	5	323,13
RIPUL1545	1	1/2"	1/4"	5	22	36	188	40	6	6,5	/	/	40	28	7 WAYS 2-1/2" 5-1/4"	5	402,24
RIPUL1546	1	1/2"	1/4"	6	22	36	224	40	6	6,5	/	/	40	28	8 WAYS 2-1/2" 6-1/4"	5	478,56
RIPUL1552	3	1/2"	3/8"	2	22	36	80	40	6	6,5	40	20	/	/	4 WAYS 2-1/2" 2-3/8"	5	161,00
RIPUL1553	1	1/2"	3/8"	3	22	36	116	40	6	6,5	/	/	40	28	5 WAYS 2-1/2" 3-3/8"	5	236,75
RIPUL1554	1	1/2"	3/8"	4	22	36	152	40	6	6,5	/	/	40	28	6 WAYS 2-1/2" 4-3/8"	5	311,50
RIPUL1555	1	1/2"	3/8"	5	22	36	188	40	6	6,5	/	/	40	28	7 WAYS 2-1/2" 5-3/8"	5	386,66
RIPUL1556	1	1/2"	3/8"	6	22	36	224	40	6	6,5	/	/	40	28	8 WAYS 2-1/2" 6-3/8"	5	463,36

ART. RIP4V

Aluminium cross manifold

COD.	A	B	C	D	E		g
RIP4V1815	1/8"	17	25	15	4,5	25	17,02
RIP4V1816	1/8"	23	30	16	4,5	25	29,69
RIP4V1418	1/4"	23	30	18	4,5	25	26,01
RIP4V1420	1/4"	26	40	20	5,5	25	61,00
RIP4V3820	3/8"	30	40	20	5,5	10	47,38
RIP4V3825	3/8"	33	50	25	5,5	10	124,96
RIP4V1230	1/2"	33	50	30	5,5	10	131,73



ART. RIPUC

Opposite output manifolds

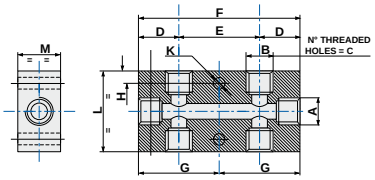


FIGURE 1

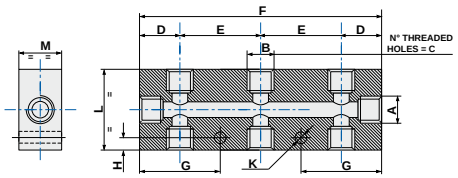


FIGURE 2

COD.	FIG.	A	B	C	D	E	F	G	H	K	L	M	THREAD		g
RIPUC15122	1	1/4"	1/8"	4	15	30	60	30	4,5	5,25	30	20	6 WAYS 2-1/4" 4-1/8"	5	72,00
RIPUC15133	2	1/4"	1/8"	6	15	30	90	30	4,5	5,25	30	20	8 WAYS 2 1/4" 6-1/8"	5	110,00
RIPUC15144	2	1/4"	1/8"	8	15	30	120	30	4,5	5,25	30	20	10 WAYS 2-1/4" 8-1/8"	5	148,62
RIPUC15155	2	1/4"	1/8"	10	15	30	150	30	4,5	5,25	30	20	12 WAYS 2-1/4" 10-1/8"	5	186,84
RIPUC15222	1	3/8"	1/4"	4	18	36	72	36	6	6,5	40	20	6 WAYS 2-3/8" 4-1/4"	5	105,38
RIPUC15233	2	3/8"	1/4"	6	18	36	108	36	6	6,5	40	20	8 WAYS 2-3/8" 6-1/4"	5	163,17
RIPUC15244	2	3/8"	1/4"	8	18	36	144	36	6	6,5	40	20	10 WAYS 2-3/8" 8-1/4"	5	218,81
RIPUC15255	2	3/8"	1/4"	10	18	36	180	36	6	6,5	40	20	12 WAYS 2-3/8" 10-1/4"	5	280,50
RIPUC15422	1	1/2"	1/4"	4	22	36	80	40	6	6,5	40	28	6 WAYS 2-1/2" 4-1/4"	5	158,70
RIPUC15433	2	1/2"	1/4"	6	22	36	116	40	6	6,5	40	28	8 WAYS 2-1/2" 6-1/4"	5	233,50
RIPUC15444	2	1/2"	1/4"	8	22	36	152	40	6	6,5	40	28	10 WAYS 2-1/2" 8-1/4"	5	307,31
RIPUC15455	2	1/2"	1/4"	10	22	36	188	40	6	6,5	40	28	12 WAYS 2-1/2" 10-1/4"	5	381,30
RIPUC15522	1	1/2"	3/8"	4	22	36	80	40	6	6,5	40	28	6 WAYS 2-1/2" 4-3/8"	5	148,65
RIPUC15533	2	1/2"	3/8"	6	22	36	116	40	6	6,5	40	28	8 WAYS 2-1/2" 6-3/8"	5	218,93
RIPUC15544	2	1/2"	3/8"	8	22	36	152	40	6	6,5	40	28	10 WAYS 2-1/2" 8-3/8"	5	286,50
RIPUC15555	2	1/2"	3/8"	10	22	36	188	40	6	6,5	40	28	12 WAYS 2-1/2" 10-3/8"	5	356,67

Appendix

For maximum product performance, installation instructions must be properly followed and chemical compatibility charts for materials must be adhered to.

Fittings instructions

Before the insertion

- The type of employed pipe must be declared as suitable by the manufacturer to be used with push-in fittings
- The cutting of the pipe must be at a right angle using a dedicated tube cutter (See our blueline catalogue)
- Do not cut the hose with scissors, pincers or other tools may cause non-linear surface to the end of the tube

Tube before insertion

Inserted tube

Correct insertion of the tube in the fitting

During the insertion

- Turn the tube slightly so to make it easier to get in, make sure the pipe reach the inside stop.

Hose extraction

- To extract the tube, or realising it, press the sleeve until it stops and keeping it pressed remove the tube from the fitting (the operation can be done easier using an appropriate fork).
- Make sure that the inserted tube is not under traction and that the sleeve does not run the risk of accidental contacts which may cause unintentional extraction or releasing.

Tube cut at 90° with plastic tube cutte

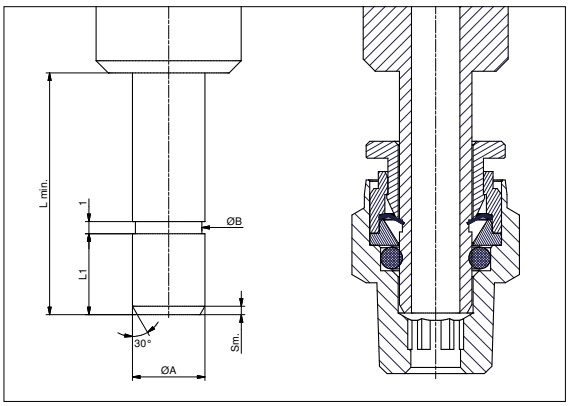
Correct tube cut with metal tube cutter

Fitting with inserted tube, in tension

Fitting with tube inserted, having a tight bending radius

Fittings instructions of rigid tube on series SS

ØA	$ØB^{+0}_{-0.1}$	L min.	$L1^{+0}_{-0.1}$	Sm.
4	3.7	18	6.7	0.7
6	5.7	19	6.7	0.7
8	7.7	20	7	1
10	9.7	22.5	8	1
12	11.7	24	8.7	1
14	13.6	29	10	1



Fittings instructions of rigid tube on series RAP and TECNO-RAP

- NO surface scratches
- NO dents
- Ovalities as required tolerances
- Pay attention to the straightness of the pipe
- (in the sealing area)

- Remove burrs that may damage the O-ring during insertion

SUBSTANCE	SEALS			FITTINGS			HOSES				
	NBR	FPM	EPDM	OTTONE	POM	INOX AISI316L	PA12	PA6	LDPE	PU	P.T.F.E
Acetaldehyde	X	X	●	X	○	●	◉	○	X	?	○
Acetylene	●	●	●	◉	○	●	○	○	?	?	○
Vi negar	○	●	●	◉	○	●	◉	○	○	?	?
Acetone	X	X	●	○	○	○	◉	○	◉	?	○
Acetic Acid (5%)	◉	◉	●	X	○	●	○	○	○	◉	○
Acetic Acid (20%)	X	X	●	X	◉	○	?	?	?	?	?
Acetic Acid (50%)	X	X	●	X	X	○	?	?	?	?	?
Arsenic Acid	○	○	○	X	X	●	?	?	◉	?	○
Borie Acid	●	●	●	◉	X	○	○	X	○	?	○
Hydrochloric Acid (10%)	◉	●	●	X	X	X	X	X	○	X	○
Chromic Acid (10%)	X	○	X	X	X	◉	X	X	X	?	○
Citric Acid	●	●	●	◉	◉	○	○	○	○	X	○
Formic Acid	X	X	●	X	X	○	X	X	○	X	○
Hydrofluoric Acid (10%)	X	○	○	X	X	◉	X	X	◉	?	○
Phosphoric Acid (30%)	X	●	●	X	X	◉	◉	X	◉	◉	?
Glycolic Acid	●	●	●	◉	X	●	?	X	?	?	?
Lactic Acid (20 °C)	●	●	●	◉	○	○	○	X	◉	?	○
Nitric Acid (10%)	X	●	○	X	X	●	X	X	◉	X	○
Nitrous Acid	?	○	○	?	X	○	?	?	?	?	?
Oleic Acid	◉	○	○	X	○	●	○	○	◉	?	○
Palmitic Acid	○	○	○	X	○	●	?	○	?	?	?
Perchloric Acid (10%)	X	●	○	?	X	◉	?	?	○	?	○
Salicylic Acid	○	●	●	?	X	○	◉	X	○	?	○
Sulfuric Acid (30%)	◉	○	○	X	X	X	X	X	◉	?	○
Sulfurous Acid	◉	○	◉	?	X	○	?	?	?	?	?
Stearic Acid	○	●	○	◉	X	●	○	◉	◉	?	○
Trichloroacetic Acid	○	X	○	?	X	◉	?	?	X	?	?
Urie Acid	?	?	?	?	?	○	○	○	○	?	?
Fresh Water	○	○	○	○	○	●	○	○	○	○	?
Sea Water	○	○	○	X	○	○	○	○	○	○	?
Hydrogen Peroxide (1 %)	○	●	○	X	○	○	◉	?	◉	?	?
Hydrogen Peroxide (30%)	◉	●	○	X	X	○	?	?	?	?	?
Acqua Regia	X	○	◉	X	X	X	?	?	?	?	?
Butyl Alcohol	◉	●	○	○	○	●	?	?	?	?	?
Ethyl Alcohol (Ethanol)	●	◉	●	○	○	○	◉	○	○	○	○
Methyl Alcohol (Methanol)	●	X	●	○	○	○	X	○	○	?	○
Isopropyl Alcohol	○	●	●	?	○	○	X	X	○	?	○
Ammonia (10%)	○	X	●	X	X	●	○	○	◉	?	?
Ammonium Acetale	○	●	●	◉	?	●	◉	X	○	?	○
Ammonium Carbonate	○	●	●	X	X	○	◉	X	○	?	○
Ammonium Chloride	○	●	●	◉	X	○	○	X	○	?	○
Ammonium Nitrate	●	●	●	X	○	●	○	X	○	?	○
Ammonium Sulfate	●	●	●	X	X	○	○	X	○	?	○
Carbon Dioxide	●	●	○	○	○	●	?	?	?	?	?
Sulfur Dioxide	X	●	●	X	X	●	X	X	X	?	?
Aniline	X	◉	○	◉	◉	○	◉	?	◉	?	○
Nitrogen	●	●	●	●	○	●	◉	?	?	?	?
Gasoline	○	●	X	○	○	●	◉	○	◉	○	○

● Very Good ○ Good ◉ Limited resistence X Not recommended ? Information not available

SUBSTANCE	SEALS			FITTINGS			HOSES				
	NBR	FPM	EPDM	OTTONE	POM	INOX AISI316L	PA12	PA6	LDPE	PU	P.T.F.E
Benzene	X	●	X	◉	○	○	◉	?	X	?	○
Sodium Bicarbonate	●	●	●	◉	○	○	○	◉	○	?	○
Methyl Bromide	○	●	X	?	X	?	◉	◉	?	?	?
Methylene Bromide	○	●	X	?	X	?	?	?	?	?	?
Butane	●	●	X	●	○	●	○	○	?	?	○
Diesel Fuel	●	●	X	?	○	●	○	○	◉	?	○
Jet Fuel/Kerosene	●	●	X	●	○	●	○	○	?	?	○
Cyclohexane	○	●	X	?	○	●	○	○	◉	X	?
Chorine (dry)	X	●	●	○	?	○	X	?	X	?	○
Chorine, Anhydrous liquid	X	●	○	X	?	X	X	X	X	?	○
Chloroform	X	●	●	○	◉	?	X	X	X	X	○
Calcium Chloride (10%)	●	●	●	◉	○	○	○	○	○	○	○
Ethyl Chloride	●	●	◉	◉	?	●	◉	◉	X	?	○
Ethylene Chloride	X	◉	X	?	X	?	?	?	?	?	?
Methyl Chloride	X	○	◉	○	◉	?	◉	○	X	?	○
Methylene Chloride	X	◉	X	?	◉	?	X	?	X	X	○
Sodium Chloride (10%)	●	●	●	X	○	○	○	○	○	○	○
Sulfur Chloride	X	●	X	◉	◉	○	?	?	?	?	○
Detergents	●	●	●	?	○	○	?	?	?	?	?
Dibutyl Phthalate	X	○	○	●	○	●	?	?	?	?	?
Dichloroethane	X	X	X	●	?	●	?	?	?	?	?
Dimethyl Phthalate	X	●	○	?	○	?	?	?	X	?	○
Dioxane	X	X	○	●	◉	●	○	○	◉	?	○
Heptane	●	●	X	●	○	●	○	?	◉	?	?
Hexane	●	●	X	○	○	●	○	?	◉	?	?
Ethyl Ether	X	X	X	○	○	●	?	?	?	?	?
Phenol	X	●	X	◉	X	●	X	?	X	?	○
Brake Fluid	X	?	●	?	○	?	○	?	?	?	?
Formaldehyde (37%)	◉	●	●	◉	○	●	◉	?	?	?	?
Freon 12	○	○	○	○	?	○	◉	○	X	?	◉
Freon 22	X	X	●	○	?	○	◉	○	X	?	?
Chiarine Gas	X	○	X	○	X	○	X	?	X	?	?
Nitrous gases	X	○	?	X	X	○	?	?	?	?	?
Glycerine	○	○	○	●	○	●	◉	○	○	?	○
Glycols	○	○	○	○	○	●	◉	○	○	◉	○
Ethylene glycol	●	●	●	○	○	●	○	?	○	○	?
Glucose	●	●	●	○	○	●	○	○	?	?	○
Hydrazine	○	X	●	◉	○	◉	?	X	X	?	○
Hydrogen (gas)	●	●	●	●	○	●	○	○	○	?	?
Hydrogen Sulfide	X	X	○	◉	X	●	?	?	?	?	?
Sodium Hydroxide(10%) Caustic Soda	X	X	○	◉	X	●	◉	X	○	?	○
Insecticide (D.D.T.)	?	?	○	?	○	?	◉	○	○	?	?
Iadine	○	●	○	X	?	◉	?	X	X	?	○
Calcium Hypochlorite (10%)	○	●	●	X	X	○	?	X	○	?	○
Sodium Hypochlorite (5%)	◉	○	◉	X	X	?	X	?	X	?	?
Isooctane	○	○	X	○	○	●	◉	?	X	?	?
Methane	●	●	X	●	○	●	○	○	?	?	○
Methyl Ethyl Ketone	X	X	○	?	◉	●	◉	○	X	?	○

● Very Good ○ Good ◉ Limited resistence X Not recommended ? Information not available

SUBSTANCE	SEALS			FITTINGS			HOSES				
	NBR	FPM	EPDM	BRASS	POM	INOX AISI316L	PA12	PA6	LDPE	PU	P.T.F.E
Ammonium Nitrate	●	●	●	X	○	●	○	X	○	?	○
Calcium Nitrate	●	●	●	●	○	●	○	?	○	?	?
Sodium Nitrate	●	●	●	●	○	●	?	?	○	?	○
Food Oils (vegetable)	●	●	?	○	○	●	●	○	●	○	○
Fuel Oil	●	●	X	●	○	●	●	○	X	?	?
Motor Oil	●	●	X	○	○	○	?	?	?	?	○
Lubricating Oil	●	●	X	○	○	○	○	○	X	?	?
Minerai Oil	●	●	X	●	○	●	○	○	X	?	○
Carbon Monoxide	○	○	○	●	○	●	?	?	?	?	?
Nitrous Oxide	○	X	○	○	X	○	?	?	?	?	?
Oxigen (Cold)	●	○	○	○	?	●	○	?	?	X	○
Ozone	○	●	●	○	●	●	X	?	X	○	○
Paraffin	○	○	X	○	○	●	?	?	?	?	?
Perchloroethylene	●	●	X	●	○	●	X	○	X	?	○
Potassium Permanganate (10%)	?	●	?	?	○	?	X	X	○	?	○
Petroleum Oil	●	●	X	○	○	○	○	○	X	?	○
Propane (liquefied)	○	○	X	○	○	○	○	○	?	?	○
Nickel Sulfate (10%)	○	●	●	X	○	○	?	?	?	?	?
Copper Sulfate (10%)	●	●	●	●	○	●	?	?	?	?	?
Calcium Sulfide	●	●	●	?	○	?	?	?	?	?	?
Fruit Juice	○	○	?	X	○	○	?	?	○	○	?
Carbon Tetrachloride	●	●	X	●	○	○	X	○	X	?	○
Tetrahydrofuran	X	X	●	?	●	●	?	○	X	?	○
Toulene (Toulol)	●	○	X	●	○	●	○	○	?	?	○
Turpentine	○	○	X	○	○	●	X	?	X	?	○
Trichloroethane	X	○	X	?	○	○	X	○	X	?	?
Trichloroethylene	●	●	X	○	●	○	X	○	X	?	○
Urea (5%)	○	●	●	●	○	○	○	○	○	●	○
Steam (< 150 °C)	X	○	●	○	X	●	?	?	?	?	?
Steam (> 150 °C)	X	X	X	○	X	●	?	?	?	?	?
Wine	●	X	●	●	?	●	●	○	●	?	○
Xylene	X	●	X	●	○	○	?	○	?	?	?

● Very Good ○ Good ● Limited resistence X Not recommended ? Information not available

THREAD TYPE	NORM REFERENCE	TIGHTENING TORQUE												
		M3x0,5	M5x0,8	M6x1	M7x1	M8x1	M10x1	M12x1,25	M12x1,5	10-32	1/8	1/4	3/8	1/2
Gas taper PTFE-coated	UNI EN 10226-1	-	-	-	-	-	-	-	-	-	2,5	3,5	6	12
NPTF PTFE-coated	ANSI/ASME B1.20.3	-	-	-	-	-	-	-	-	-	3,5	4,5	7	12
Gas parallel with O-Ring	UNI EN ISO 228-1	-	-	-	-	-	-	-	-	-	1,2	1,5	2,5	3,5
Gas parallel acetal resin threads with O-Ring	UNI EN ISO 228-1	-	-	-	-	-	-	-	-	-	1,2	1,5	2,5	-
Gas parallel with plastic ring	UNI EN ISO 228-1	-	-	-	-	-	-	-	-	-	2	3	4	8
UNF with O-Ring	ANSI/ASME B1.1	-	-	-	-	-	-	-	-	0,8	-	-	-	-
Metric with O-Ring	UNI EN ISO 965-1	0,8	0,8	0,8	0,8	-	-	1,5	1,5	-	-	-	-	-
Metrictaper with PTFE-coated	UNI 7707	-	-	2,5	-	2,5	2,5	-	-	-	-	-	-	-