

valves

# Accessories

*Fittings, Flow Controls, Mufflers, Etc.*



# NUMATICS®

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### How to Order

**INW 103 – 104 – 022**

#### Fitting Series

INWB = World Thread Inch Tube (All Brass)  
 INW = World Thread Inch Tube  
 NW = World Thread Metric Tube

#### Fitting Style

103 = Straight  
 109 = Swivel Elbow  
 109E = Extended Swivel Elbow  
 114 = Swivel Branch Tee  
 116 = Swivel Run Tee

#### INW Thread Size

020 = 1/8  
 021 = 1/4  
 022 = 3/8  
 023 = 1/2

#### NW Thread Size

000 = 1/8  
 001 = 1/4  
 002 = 3/8  
 003 = 1/2

#### Tube Size

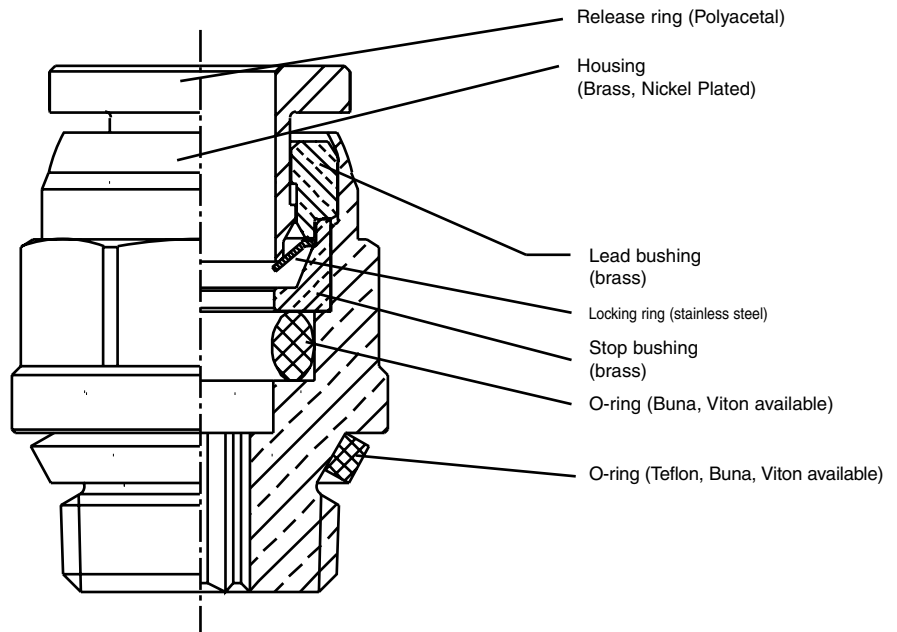
##### Inch

108 = 1/8"  
 532 = 5/32"  
 104 = 1/4"  
 516 = 5/16"  
 308 = 3/8"  
 102 = 1/2"

##### Metric

004 = 4mm  
 005 = 5mm  
 006 = 6mm  
 008 = 8mm  
 010 = 10mm  
 012 = 12mm

- Pressure Rating to 265 psi
- Temperature range: -20°F to +176°F (BUNA N O-ring)  
+230°F (Viton O-ring)
- Tube diameter: 1/8" to 1/2"  
4mm to 12mm
- Thread size: 1/8" to 1/2"



Numatics' World Thread™ IN-Fittings provides extreme versatility in use, which on longer requires the management of different fittings for different thread types or application.

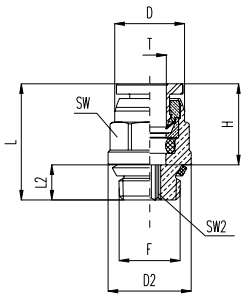
- Extremely versatile – One fitting design for multiple thread types
- Rapid assembly – Requires fewer turns to tighten and seal
- Re-usable – Fittings can be used several times with out gasket deterioration
- Reliable seal – Helical thread profile and PTFE gasket ensure proper seal
- Maximum working pressure: 265 PSIG at 68°F (18 bar at 20°C)
- Conductor compatibility – Nylon, Polyurethane, Polyethylene

Numatics' World Tread™ IN-of the NPTF is designed with a helical thread design that represents the envelope for the profile of the NPTF, ISO 228/1(BSPP), (G-Tap), ISO 7/1(BSPT), (JIS B 0202) and (JIS B 0203) thread types. In conjunction with the thread design the seal between the male and female threads is created with a PTFE gasket, housed in a groove at the rear of the thread. This gasket seal meets UNI 571-65 standards.



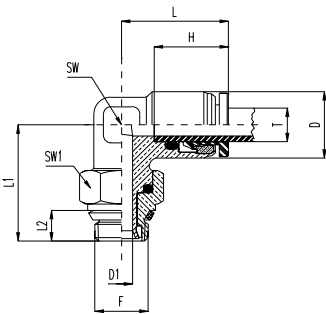
**World Thread Fittings**

**INW103 Male Connector/Inch Tube**



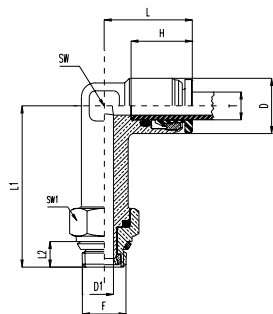
Plastic Release Ring	Brass Release Ring	Part Number	Tube Diameter T	Thread F	D	D2	L	L2	H	SW	SW2
INW	INWB	103-108-020	1/8	1/8	0.370	0.472	0.709	0.217	0.472	0.375	0.063
INW	INWB	103-108-021	1/8	1/4	0.370	0.591	0.787	0.303	0.472	0.375	0.063
INW	INWB	103-532-020	5/32	1/8	0.390	0.512	0.709	0.217	0.492	0.438	0.063
INW	INWB	103-532-021	5/32	1/4	0.390	0.591	0.795	0.303	0.492	0.438	0.063
INW	INWB	103-104-020	1/4	1/8	0.465	0.552	0.799	0.217	0.531	0.500	0.156
INW	INWB	103-104-021	1/4	1/4	0.465	0.591	0.886	0.303	0.531	0.500	0.156
INW	INWB	103-104-022	1/4	3/8	0.465	0.748	0.906	0.323	0.531	0.500	0.156
INW	INWB	103-516-020	5/16	1/8	0.689	0.787	0.925	0.323	0.650	0.594	0.156
INW	INWB	103-516-021	5/16	1/4	0.689	0.945	1.004	0.406	0.650	0.594	0.219
INW	INWB	103-516-022	5/16	3/8	0.807	0.866	1.004	0.303	0.650	0.594	0.219
INW	INWB	103-308-020	3/8	1/8	0.807	0.866	1.043	0.323	0.669	0.688	0.156
INW	INWB	103-308-021	3/8	1/4	0.807	0.945	1.043	0.406	0.669	0.688	0.219
INW	INWB	103-308-022	3/8	3/8	0.807	0.866	1.071	0.323	0.669	0.688	0.250
INW	INWB	103-308-023	3/8	1/2	0.807	0.945	1.161	0.406	0.669	0.688	0.250
INW	INWB	103-102-021	1/2	1/4	0.807	0.945	1.142	0.406	0.728	0.813	0.250
INW	INWB	103-102-022	1/2	3/8	0.807	0.866	1.181	0.323	0.728	0.813	0.250
INW	INWB	103-102-023	1/2	1/2	0.807	0.945	1.220	0.406	0.728	0.813	0.375

**INW109 Swivel Elbow/Inch Tube**



Plastic Release Ring	Brass Release Ring	Part Number	Tube Diameter T	Thread F	D	D1	L	L1	H	L2	SW	SW1
INW	INWB	103-108-020	1/8	1/8	0.394	0.157	0.650	0.768	0.472	0.217	0.354	0.500
INW	INWB	103-108-021	1/8	1/4	0.394	0.157	0.650	0.768	0.472	0.303	0.354	0.594
INW	INWB	103-532-020	5/32	1/8	0.394	0.157	0.669	0.768	0.492	0.217	0.354	0.500
INW	INWB	103-532-021	5/32	1/4	0.394	0.157	0.669	0.874	0.492	0.303	0.354	0.594
INW	INWB	103-104-020	1/4	1/8	0.472	0.157	0.768	0.799	0.531	0.217	0.433	0.500
INW	INWB	103-104-021	1/4	1/4	0.472	0.236	0.768	0.8155	0.531	0.303	0.433	0.594
INW	INWB	103-104-022	1/4	3/8	0.472	0.236	0.768	0.906	0.531	0.323	0.433	0.750
INW	INWB	103-516-020	5/16	1/8	0.591	0.157	0.945	0.878	0.650	0.217	0.551	0.500
INW	INWB	103-516-021	5/16	1/4	0.591	0.236	0.945	0.886	0.650	0.303	0.551	0.594
INW	INWB	103-516-022	5/16	3/8	0.591	0.315	0.945	0.996	0.650	0.323	0.551	0.750
INW	INWB	103-308-020	3/8	1/8	0.689	0.157	1.063	0.929	0.669	0.217	0.630	0.500
INW	INWB	103-308-021	3/8	1/4	0.689	0.236	1.063	0.945	0.669	0.303	0.630	0.594
INW	INWB	103-308-022	3/8	3/8	0.689	0.315	1.063	1.039	0.669	0.323	0.630	0.750
INW	INWB	103-308-023	3/8	1/2	0.689	0.315	1.063	1.197	0.669	0.406	0.630	0.938
INW	INWB	103-102-021	1/2	1/4	0.827	0.236	1.201	1.059	0.728	0.303	0.688	0.594
INW	INWB	103-102-022	1/2	3/8	0.827	0.315	1.201	1.122	0.728	0.323	0.688	0.750
INW	INWB	103-102-023	1/2	1/2	0.827	0.315	1.201	1.280	0.728	0.406	0.688	0.938

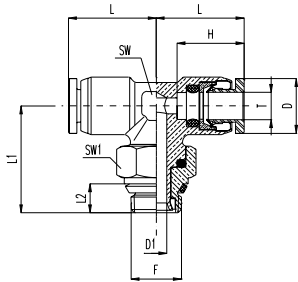
**INW109E Extended Swivel Elbow/Inch Tube**



Plastic Release Ring	Brass Release Ring	Part Number	Tube Diameter T	Thread F	D	D1	L	L1	L2	H	SW	SW1
INW	INWB	109E-532-020	5/32	1/8	0.394	0.157	0.638	1.461	0.374	0.472	0.354	0.512
INW	INWB	109E-532-021	5/32	1/4	0.394	0.157	0.638	1.598	0.512	0.472	0.354	0.591
INW	INWB	109E-104-020	1/4	1/8	0.394	0.157	0.657	1.457	0.374	0.492	0.354	0.512
INW	INWB	109E-104-021	1/4	1/4	0.394	0.157	0.657	1.594	0.512	0.492	0.354	0.591
INW	INWB	109E-104-022	1/4	3/8	0.472	0.157	0.740	1.575	0.374	0.531	0.433	0.512
INW	INWB	109E-516-020	5/16	1/8	0.472	0.236	0.740	1.693	0.512	0.531	0.433	0.591
INW	INWB	109E-516-021	5/16	1/4	0.472	0.236	0.740	1.732	0.512	0.531	0.433	0.709
INW	INWB	109E-516-022	5/16	3/8	0.591	0.157	0.925	1.772	0.374	0.531	0.551	0.512
INW	INWB	109E-308-020	3/8	1/8	0.591	0.236	0.925	1.909	0.512	0.531	0.551	0.591
INW	INWB	109E-308-021	3/8	1/4	0.630	0.315	0.925	1.969	0.512	0.531	0.551	0.709
INW	INWB	109E-308-022	3/8	3/8	0.669	0.157	1.043	1.929	0.374	0.531	0.591	0.512
INW	INWB	109E-108-020	1/8	1/8	0.709	0.236	1.043	2.067	0.512	0.531	0.591	0.591
INW	INWB	109E-108-021	1/8	1/4	0.748	0.315	1.043	2.106	0.512	0.531	0.591	0.709

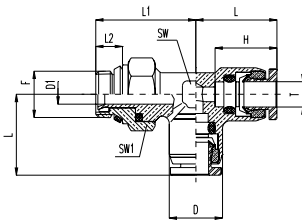


### INW114 Swivel Branch Tee/Inch Tube



Plastic Release Ring	Brass Release Ring	Part Number	Tube Diameter	T	Thread	F	D	D1	L	L1	H	L2	SW	SW1
INW	INWB	114-108-020	1/8		1/8	0.394	0.157	0.650	0.768	0.472	0.217	0.354	0.500	
INW	INWB	114-108-021	1/8		1/4	0.394	0.157	0.650	0.787	0.472	0.303	0.354	0.594	
INW	INWB	114-532-020	5/32		1/8	0.394	0.157	0.669	0.768	0.492	0.217	0.354	0.500	
INW	INWB	114-532-021	5/32		1/4	0.394	0.157	0.669	0.787	0.492	0.303	0.354	0.594	
INW	INWB	114-104-020	1/4		1/8	0.472	0.157	0.768	0.886	0.531	0.217	0.433	0.500	
INW	INWB	114-104-021	1/4		1/4	0.472	0.236	0.768	0.906	0.531	0.303	0.433	0.594	
INW	INWB	114-104-022	1/4		3/8	0.472	0.236	0.768	0.965	0.531	0.323	0.433	0.750	
INW	INWB	114-516-020	5/16		1/8	0.591	0.157	0.945	0.874	0.650	0.217	0.551	0.500	
INW	INWB	114-516-021	5/16		1/4	0.591	0.236	0.945	0.886	0.650	0.303	0.551	0.594	
INW	INWB	114-308-020	3/8		1/8	0.689	0.157	1.063	0.925	0.669	0.217	0.630	0.500	
INW	INWB	114-308-021	3/8		1/4	0.689	0.236	1.063	0.945	0.669	0.303	0.630	0.594	
INW	INWB	114-308-022	3/8		3/8	0.689	0.315	1.063	1.043	0.669	0.323	0.630	0.750	
INW	INWB	114-308-023	3/8		1/2	0.689	0.315	1.063	1.201	0.669	0.406	0.630	0.938	
INW	INWB	114-102-021	1/2		1/4	0.827	0.236	1.201	1.063	0.728	0.303	0.688	0.594	
INW	INWB	114-102-022	1/2		3/8	0.827	0.315	1.201	1.122	0.728	0.323	0.688	0.750	
INW	INWB	114-102-023	1/2		1/2	0.827	0.315	1.201	1.280	0.728	0.406	0.688	0.938	

### INW116 Swivel Run Tee/Inch Tube

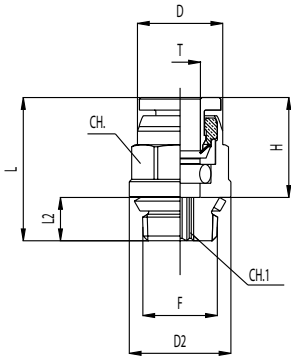


Plastic Release Ring	Brass Release Ring	Part Number	Tube Diameter	T	Thread	F	D	D1	L	L1	H	L2	SW	SW1
INW	INWB	116-108-020	1/8		1/8	0.394	0.157	0.650	0.768	0.472	0.217	0.354	0.500	
INW	INWB	116-108-021	1/8		1/4	0.394	0.157	0.650	0.787	0.472	0.303	0.354	0.594	
INW	INWB	116-532-020	5/32		1/8	0.394	0.157	0.650	0.768	0.492	0.217	0.354	0.500	
INW	INWB	116-532-021	5/32		1/4	0.394	0.157	0.638	0.787	0.492	0.303	0.354	0.594	
INW	INWB	116-104-020	1/4		1/8	0.472	0.157	0.638	0.886	0.531	0.217	0.433	0.500	
INW	INWB	116-104-021	1/4		1/4	0.472	0.236	0.657	0.906	0.531	0.303	0.433	0.594	
INW	INWB	116-104-022	1/4		3/8	0.472	0.236	0.657	0.965	0.531	0.323	0.433	0.750	
INW	INWB	116-516-020	5/16		1/8	0.591	0.157	0.740	0.874	0.650	0.217	0.551	0.500	
INW	INWB	116-516-021	5/16		1/4	0.591	0.236	0.740	0.886	0.650	0.303	0.551	0.594	
INW	INWB	116-308-020	3/8		1/8	0.689	0.157	0.740	0.925	0.669	0.217	0.630	0.500	
INW	INWB	116-308-021	3/8		1/4	0.689	0.236	0.925	0.945	0.669	0.303	0.630	0.594	
INW	INWB	116-308-022	3/8		3/8	0.689	0.315	0.925	1.043	0.669	0.323	0.630	0.750	
INW	INWB	116-308-023	3/8		1/2	0.689	0.315	0.925	1.201	0.669	0.406	0.630	0.938	
INW	INWB	116-102-021	1/2		1/4	0.827	0.236	1.043	1.063	0.728	0.303	0.688	0.594	
INW	INWB	116-102-022	1/2		3/8	0.827	0.315	1.043	1.122	0.728	0.323	0.688	0.750	
INW	INWB	116-102-023	1/2		1/2	0.827	0.315	1.043	1.280	0.728	0.406	0.688	0.938	



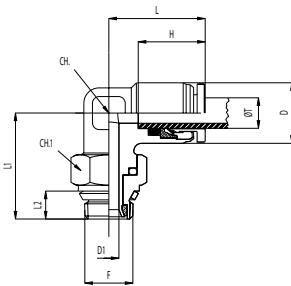
## World Thread Fittings

### NW103 Male Connector/Metric Tube



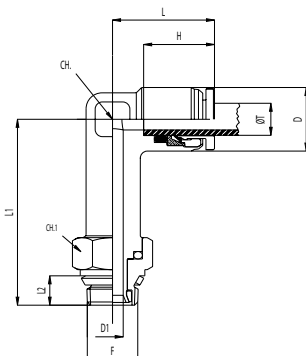
NW103	Tube Diameter T	Thread F	D	D2	L	L2	H	CH	CH1
NW103-004-000	4	1/8	10.0	12	17.5	5.5	12.5	10	3
NW103-004-001	4	1/4	10.0	15	20.5	7.7	12.5	10	3
NW103-005-000	5	1/8	11.0	12	18.5	5.5	13.0	11	3
NW103-005-001	5	1/4	11.0	15	21.0	7.7	13.0	11	3
NW103-006-000	6	1/8	12.0	14	19.0	5.5	13.5	12	4
NW103-006-001	6	1/4	12.0	15	21.0	7.7	13.5	12	4
NW103-008-000	8	1/8	15.0	16	23.5	5.5	16.0	15	5
NW103-008-001	8	1/4	15.0	16	23.5	7.7	16.0	15	6
NW103-008-002	8	3/8	15.0	19	24.5	8.2	16.0	15	6
NW103-010-001	10	1/4	17.5	20	27.0	7.7	17.0	18	6
NW103-010-002	10	3/8	17.5	20	25.0	8.2	17.0	18	7
NW103-010-003	10	1/2	17.5	24	28.5	10.3	17.0	18	7
NW103-012-001	12	1/4	20.5	22	28.0	7.7	19.0	20	6
NW103-012-002	12	3/8	20.5	22	28.5	8.2	19.0	20	8
NW103-012-003	12	1/2	20.5	24	31.0	10.3	19.0	20	9

### NW109 Swivel Elbow/Metric Tube



NW109	Tube Diameter T	Thread F	D	D1	L	L1	H	L2	CH	CH1
NW109-004-000	4	1/8	10.0	4	16.5	19.5	12.5	5.5	9	13
NW109-004-001	4	1/4	10.0	4	16.5	20.0	12.5	7.7	9	15
NW109-005-000	5	1/8	11.0	4	16.5	21.0	13.0	5.5	10	13
NW109-005-001	5	1/4	11.0	4	16.5	21.5	13.0	7.7	10	15
NW109-006-000	6	1/8	12.0	4	19.0	20.5	13.5	5.5	11	13
NW109-006-001	6	1/4	12.0	4	19.0	21.0	13.5	7.7	11	15
NW109-008-000	8	1/8	15.0	4	23.5	22.5	16.0	5.5	14	13
NW109-008-001	8	1/4	15.0	6	23.5	23.0	16.0	7.7	14	15
NW109-008-002	8	3/8	15.0	8	23.5	25.5	16.0	8.2	14	19
NW109-010-001	10	1/4	17.5	6	26.5	23.7	17.0	7.7	16	15
NW109-010-002	10	3/8	17.5	8	26.5	26.4	17.0	8.2	16	19
NW109-010-003	10	1/2	17.5	8	26.5	30.5	16.8	11.8	16	19
NW109-012-001	12	1/4	20.5	6	29.1	27.1	18.6	7.7	17	15
NW109-012-002	12	3/8	20.5	8	29.1	28.5	18.6	8.2	17	19
NW109-012-003	12	1/2	20.5	8	29.1	32.5	17.0	8.2	15	19

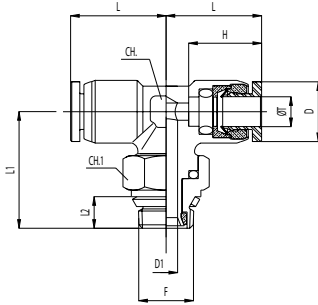
### NW109E Extended Swivel Elbow/Metric Tube



NW109E	Tube Diameter T	Thread F	D	D1	L	L1	H	L2	CH	CH1
NW109E-004-000	4	1/8	10	4	16.5	34.5	12.5	5.5	9	13
NW109E-004-001	4	1/4	10	4	16.5	35	12.5	7.7	9	15
NW109E-006-000	6	1/8	12	4	19	37.5	13.5	5.5	11	13
NW109E-006-001	6	1/4	12	6	19	38	13.5	7.7	11	15
NW109E-008-000	8	1/8	15	4	23.5	42.5	16	5.5	14	13
NW109E-008-001	8	1/4	15	6	23.5	42.5	16	7.7	14	15
NW109E-008-002	8	3/8	15	8	23.5	45.2	16	8.2	14	19
NW109E-010-001	10	1/4	17.5	6	26.5	46.5	17	7.7	15	15
NW109E-010-002	10	3/8	17.5	8	26.5	49	17	8.2	15	19

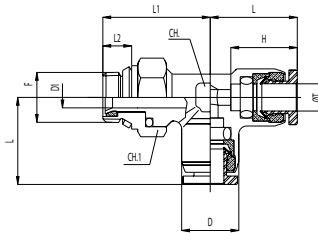


### NW114 Swivel Branch Tee/Metric Tube



NW114	Tube Diameter	T	Thread F	D	D1	L	L1	H	L2	SW	SW1
NW114-004-000	4	1/8	10.0	4	16.5	19.5	12.5	5.5	9	13	
NW114-005-000	5	1/8	11.0	4	16.5	21.0	13.0	5.5	10	13	
NW114-006-000	6	1/8	12.0	4	19.0	22.7	13.5	5.5	11	13	
NW114-006-001	6	1/4	12.0	6	19.0	23.6	13.5	7.7	11	15	
NW114-008-000	8	1/8	15.0	4	23.5	22.3	16.0	5.5	14	13	
NW114-008-001	8	1/4	15.0	6	23.5	22.5	16.0	7.7	14	15	
NW114-008-002	8	3/8	15.0	8	23.5	25.2	16.0	8.2	14	19	
NW114-010-001	10	1/4	17.5	6	26.5	23.7	17.0	7.7	15	15	
NW114-010-002	10	3/8	17.5	8	26.5	28.5	17.0	8.2	15	19	
NW114-010-003	10	1/2	17.5	8	26.5	26.5	16.8	8.2	16	19	
NW114-012-001	12	1/4	20.5	6	29.1	27.1	17.0	7.7	15	15	
NW114-012-002	12	3/8	20.5	8	29.1	28.5	17.0	8.2	15	19	
NW114-012-003	12	1/2	20.5	8	29.1	32.5	17.0	8.2	15	19	

### NW116 Swivel Run Tee/Metric Tube



NW116	Tube Diameter	T	Thread F	D	D1	L	L1	H	L2	SW	SW1
NW116-004-000	4	1/8	10.0	4	16.5	19.5	12.5	5.5	9	13	
NW116-005-000	5	1/8	11.0	4	16.5	19.6	13.0	5.5	10	13	
NW116-006-000	6	1/8	12.0	4	19.0	22.3	13.5	5.5	11	13	
NW116-006-001	6	1/4	12.0	6	19.0	23.6	13.5	7.7	11	15	
NW116-008-000	8	1/8	15.0	4	23.2	22.3	16.0	5.5	14	13	
NW116-008-001	8	1/4	15.0	6	23.2	22.5	16.0	7.7	14	15	
NW116-008-002	8	3/8	15.0	8	23.4	25.2	16.0	8.2	14	19	
NW116-010-001	10	1/4	17.5	6	26.5	23.7	17.0	7.7	15	15	
NW116-010-002	10	3/8	17.5	8	26.5	26.4	17.0	8.2	15	19	
NW116-010-003	10	1/2	17.5	8	26.5	26.5	16.8	8.2	16	19	
NW116-012-001	12	1/4	20.5	6	29.1	27.1	17.0	7.7	15	15	
NW116-012-002	12	3/8	20.5	8	29.1	28.5	17.0	8.2	15	19	
NW116-012-003	12	1/2	20.5	8	29.1	32.5	17.0	8.2	15	19	





## NPTF/Inch Tube Fittings

### How to Order

**IN 109 - 104 - 022**

#### Fitting Series

INB = NPTF/Inch Table  
(All Brass)  
IN = NPTF/Inch Tube

#### Fitting Style

100 = Union  
101 = Bulkhead Union  
103 = Male Connector  
105 = Female Connector  
106 = Union Elbow  
107 = Fixed Elbow  
109 = Swivel Elbow  
109E = Extended Swivel Elbow  
110 = Union Tee  
114 = Swivel Branch Tee  
116 = Swivel Run Tee  
118 = Plug  
119 = Double Male Union  
120 = Stem Adapter  
121 = Reducer  
122 = Single Banjo  
123 = Double Banjo  
124 = Single Manifold  
125 = Double Manifold  
131 = Union Y  
132 = Male Y

#### Options

(Blank) = BUNA-N O-Ring  
F = Viton "O" Ring

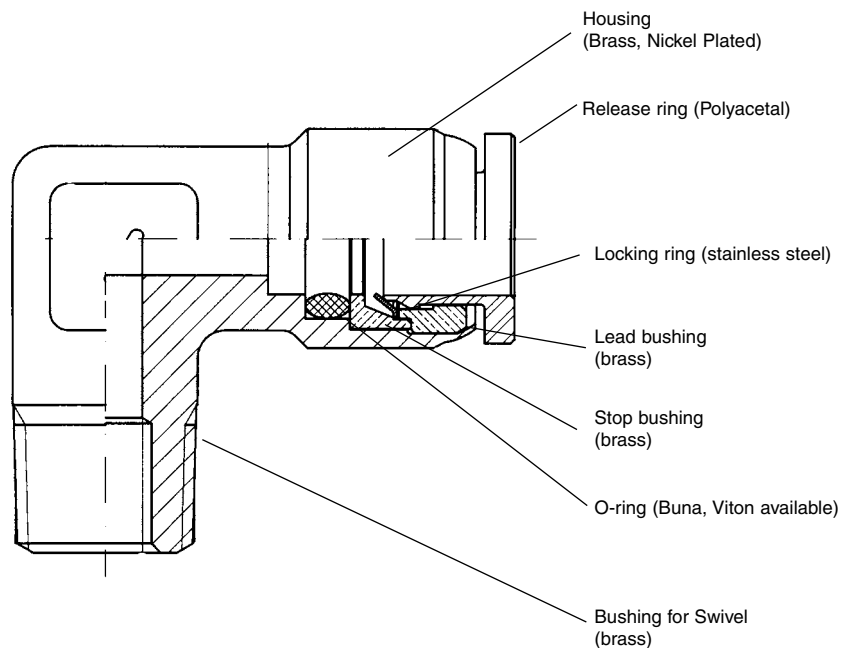
#### Thread Size

000 = No Thread  
036 = 10-32 UNF  
020 = 1/8 NPTF  
021 = 1/4 NPTF  
022 = 3/8 NPTF  
023 = 1/2 NPTF

#### Tube Size

108 = 1/8"  
532 = 5/32"  
104 = 1/4"  
516 = 5/16"  
308 = 3/8"  
102 = 1/2"  
000 = No Tube

- Pressure Rating to 265 psi
- Temperature range: -20°F to +176°F (BUNA N O-ring)  
+230°F (Viton O-ring)
- Push-in fittings with NPTF Threads
- Teflon thread sealant
- Tube diameter: 1/8" to 1/2"
- Thread size: 10-32 UNF to 1/2 NPTF

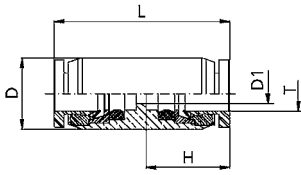






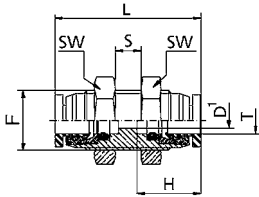
## NPTF/Inch Tube Fittings

### IN100 Union



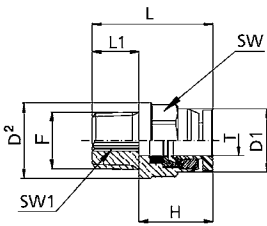
Plastic Release Ring	Brass Release Ring	IN100/INB100	Tube Diameter T	D	D1	L	H
IN	INB	100-108-000	1/8	0.394	0.094	0.984	0.472
IN	INB	100-532-000	5/32	0.394	0.118	1.024	0.492
IN	INB	100-104-000	1/4	0.472	0.157	1.110	0.531
IN	INB	100-516-000	5/16	0.591	0.236	1.299	0.630
IN	INB	100-308-000	3/8	0.709	0.276	1.398	0.669
IN	INB	100-102-000	1/2	0.787	0.413	1.575	0.748

### IN101 Bulkhead Union



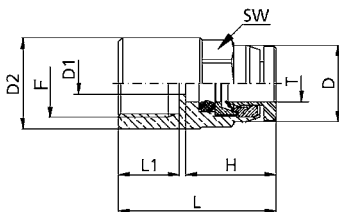
Plastic Release Ring	Brass Release Ring	IN101/INB101	Tube Diameter T	Thread F	D1	L	H	SW	S MAX
IN	INB	100-108-000	1/8	M11x1	0.094	1.091	0.472	0.551	0.197
IN	INB	100-532-000	5/32	M12x1	0.118	1.130	0.492	0.551	0.236
IN	INB	100-104-000	1/4	M13x1	0.157	1.244	0.531	0.630	0.315
IN	INB	100-516-000	5/16	M16x1	0.236	1.437	0.630	0.748	0.315
IN	INB	100-308-000	3/8	M19x1	0.276	1.614	0.669	0.866	0.433
IN	INB	100-102-000	1/2	M22x1	0.413	1.850	0.748	1.024	0.591

### IN103 Male Connector



Plastic Release Ring	Brass Release Ring	IN103/INB103	Tube Diameter T	Thread F	D1	D2	L	L1	H	SW	SW1
IN	INB	103-108-036	1/8	10-32 UNF	0.370	0.370	0.697	0.165	0.472	/	5/64
IN	INB	103-108-020	1/8	1/8 NPTF	0.370	0.472	0.854	0.374	0.472	3/8	5/64
IN	INB	103-108-021	1/8	1/4 NPTF	0.370	0.551	0.992	0.512	0.472	3/8	5/64
IN	INB	103-532-036	5/32	10-32 UNF	0.394	0.394	0.717	0.165	0.492	/	5/64
IN	INB	103-532-020	5/32	1/8 NPTF	0.394	0.512	0.866	0.374	0.492	7/16	5/64
IN	INB	103-532-021	5/32	1/4 NPTF	0.394	0.551	1.004	0.512	0.492	7/16	5/64
IN	INB	103-104-036	1/4	10-32 UNF	0.472	0.472	0.772	0.165	0.531	/	5/64
IN	INB	103-104-020	1/4	1/8 NPTF	0.472	0.551	0.886	0.374	0.531	1/2	5/32
IN	INB	103-104-021	1/4	1/4 NPTF	0.472	0.551	1.024	0.512	0.531	1/2	5/32
IN	INB	103-104-022	1/4	3/8 NPTF	0.472	0.709	1.024	0.512	0.531	1/2	5/32
IN	INB	103-516-020	5/16	1/8 NPTF	0.591	0.669	1.055	0.374	0.630	19/32	7/32
IN	INB	103-516-021	5/16	1/4 NPTF	0.591	0.669	1.173	0.512	0.630	19/32	7/32
IN	INB	103-516-022	5/16	3/8 NPTF	0.591	0.709	1.173	0.512	0.630	19/32	7/32
IN	INB	103-308-020	3/8	1/8 NPTF	0.669	0.787	1.114	0.374	0.669	11/16	7/32
IN	INB	103-308-021	3/8	1/4 NPTF	0.669	0.787	1.232	0.512	0.669	11/16	1/4
IN	INB	103-308-022	3/8	3/8 NPTF	0.669	0.787	1.232	0.512	0.669	11/16	1/4
IN	INB	103-308-023	3/8	1/2 NPTF	0.669	0.866	1.390	0.709	0.669	11/16	1/4
IN	INB	103-102-021	1/2	1/4 NPTF	0.827	0.906	1.339	0.512	0.748	13/16	1/4
IN	INB	103-102-022	1/2	3/8 NPTF	0.827	0.906	1.339	0.512	0.748	13/16	3/8
IN	INB	103-102-023	1/2	1/2 NPTF	0.827	0.906	1.496	0.709	0.748	13/16	3/8

### IN105 Female Connector

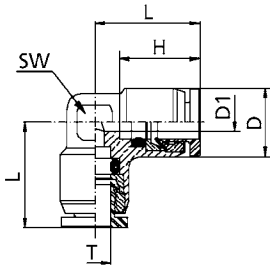


Plastic Release Ring	Brass Release Ring	IN105/INB105	Tube Diameter T	Thread F	D	D1	D2	L	L2	H	SW
IN	INB	105-108-020	1/8	1/8 NPTF	0.370	0.094	0.551	0.945	0.335	0.472	3/8
IN	INB	105-108-021	1/8	1/4 NPTF	0.370	0.094	0.669	1.102	0.472	0.472	3/8
IN	INB	105-532-020	5/32	1/8 NPTF	0.394	0.118	0.551	0.965	0.335	0.492	7/16
IN	INB	105-532-021	5/32	1/4 NPTF	0.394	0.118	0.669	1.122	0.472	0.492	7/16
IN	INB	105-104-020	1/4	1/8 NPTF	0.472	0.157	0.551	0.965	0.335	0.531	1/2
IN	INB	105-104-021	1/4	1/4 NPTF	0.472	0.157	0.669	1.142	0.472	0.531	1/2
IN	INB	105-516-020	5/16	1/8 NPTF	0.591	0.236	0.669	1.055	0.335	0.630	19/32
IN	INB	105-516-021	5/16	1/4 NPTF	0.591	0.236	0.669	1.213	0.472	0.630	19/32
IN	INB	105-308-021	3/8	1/4 NPTF	0.669	0.276	0.866	1.248	0.472	0.669	3/4
IN	INB	105-308-022	3/8	3/8 NPTF	0.669	0.276	0.866	1.366	0.495	0.669	11/16



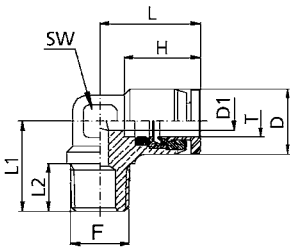
## NPTF/Inch Tube Fittings

### IN106 Union Elbow



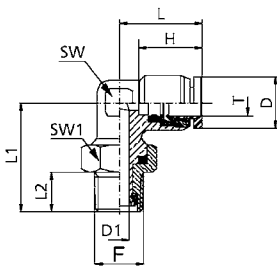
Plastic Release Ring	Brass Release Ring	IN106/INB106	Tube Diameter T	D	D1	L	H	SW
IN	INB	106-108-000	1/8	.0394	0.094	0.638	0.472	0.354
IN	INB	106-532-000	5/32	0.394	0.118	0.657	0.492	0.354
IN	INB	106-104-000	1/4	0.472	0.157	0.740	0.531	0.433
IN	INB	106-516-000	5/16	0.591	0.236	0.858	0.630	0.551
IN	INB	106-308-000	3/8	0.709	0.295	1.004	0.669	0.630
IN	INB	106-102-000	1/2	0.827	0.413	1.161	0.748	0.685

### IN107 Fixed Elbow



Plastic Release Ring	Brass Release Ring	IN107/INB107	Tube Diameter T	Thread F	D	D1	L	L1	L2	H	SW
IN	INB	107-532-020	5/32	1/8 NPTF	0.394	0.118	0.657	0.650	0.374	0.492	0.354
IN	INB	107-532-021	5/32	1/4 NPTF	0.394	0.118	0.657	0.787	0.512	0.492	0.354
IN	INB	107-104-020	1/4	1/8 NPTF	0.472	0.157	0.740	0.693	0.374	0.531	0.433
IN	INB	107-104-021	1/4	1/4 NPTF	0.472	0.157	0.740	0.831	0.512	0.531	0.433
IN	INB	107-308-021	3/8	1/4 NPTF	0.709	0.295	1.004	0.945	0.512	0.685	0.630
IN	INB	107-308-022	3/8	3/8 NPTF	0.709	0.295	1.004	0.945	0.512	0.685	0.630

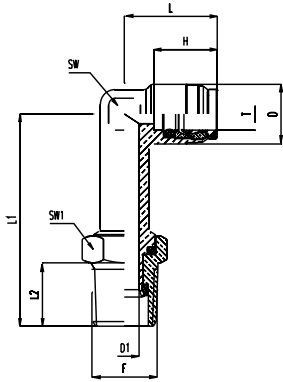
### IN109 Swivel Elbow



Plastic Release Ring	Brass Release Ring	IN109/INB109	Tube Diameter T	Thread F	D	D1	L	L1	L2	H	SW	SW1
IN	INB	109-108-036	1/8	10-32 UNF	0.394	0.087	0.638	0.630	0.165	0.472	0.354	0.354
IN	INB	109-108-020	1/8	1/8 NPTF	0.394	0.157	0.638	0.874	0.374	0.472	0.354	0.512
IN	INB	109-108-021	1/8	1/4 NPTF	0.394	0.157	0.638	1.008	0.512	0.472	0.354	0.591
IN	INB	109-532-036	5/32	10-32 UNF	0.394	0.087	0.657	0.630	0.165	0.492	0.354	0.354
IN	INB	109-532-020	5/32	1/8 NPTF	0.394	0.157	0.657	0.874	0.374	0.492	0.354	0.512
IN	INB	109-532-021	5/32	1/4 NPTF	0.394	0.157	0.657	1.008	0.512	0.492	0.354	0.591
IN	INB	109-104-036	1/4	10-32 UNF	0.472	0.087	0.740	0.709	0.165	0.531	0.433	0.354
IN	INB	109-104-020	1/4	1/8 NPTF	0.472	0.157	0.740	0.906	0.374	0.531	0.433	0.512
IN	INB	109-104-021	1/4	1/4 NPTF	0.472	0.236	0.740	1.031	0.512	0.531	0.433	0.591
IN	INB	109-104-022	1/4	3/8 NPTF	0.472	0.236	0.740	1.071	0.512	0.531	0.433	0.709
IN	INB	109-516-020	5/16	1/8 NPTF	0.591	0.157	0.925	0.984	0.374	0.630	0.551	0.512
IN	INB	109-516-021	5/16	1/4 NPTF	0.591	0.236	0.925	1.122	0.512	0.630	0.551	0.591
IN	INB	109-516-022	5/16	3/8 NPTF	0.591	0.315	0.925	1.181	0.512	0.630	0.551	0.709
IN	INB	109-308-020	3/8	1/8 NPTF	0.709	0.157	1.043	1.043	0.374	0.669	0.630	0.512
IN	INB	109-308-021	3/8	1/4 NPTF	0.709	0.236	1.043	1.181	0.512	0.669	0.630	0.591
IN	INB	109-308-022	3/8	3/8 NPTF	0.709	0.315	1.043	1.220	0.512	0.669	0.630	0.709
IN	INB	109-308-023	3/8	1/2 NPTF	0.709	0.315	1.043	1.358	0.709	0.669	0.630	0.866
IN	INB	109-102-021	1/2	1/4 NPTF	0.827	0.236	1.181	1.299	0.512	0.748	0.685	0.591
IN	INB	109-102-022	1/2	3/8 NPTF	0.827	0.315	1.181	1.299	0.512	0.748	0.685	0.709
IN	INB	109-102-023	1/2	1/2 NPTF	0.827	0.315	1.181	1.476	0.709	0.748	0.685	0.866

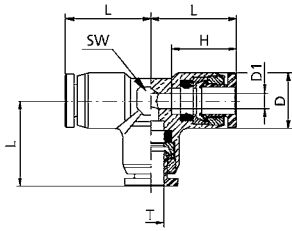


### IN109E Extended Swivel Elbow



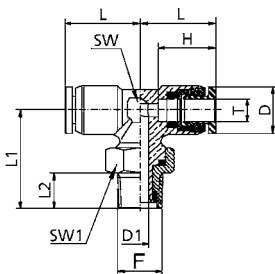
Plastic Release Ring	Brass Release Ring	IN109E/INB109E	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW	SW1
IN	INB	109E-108-020	1/8		1/8 NPTF	0.394	0.157	0.638	1.461	0.374	0.472	0.354	0.512
IN	INB	109E-108-021	1/8		1/4 NPTF	0.394	0.157	0.638	1.598	0.512	0.472	0.354	0.591
IN	INB	109E-532-020	5/32		1/8 NPTF	0.394	0.157	0.657	1.457	0.374	0.492	0.354	0.512
IN	INB	109E-532-021	5/32		1/4 NPTF	0.394	0.157	0.657	1.594	0.512	0.492	0.354	0.591
IN	INB	109E-104-020	1/4		1/8 NPTF	0.472	0.157	0.740	1.575	0.374	0.531	0.433	0.512
IN	INB	109E-104-021	1/4		1/4 NPTF	0.472	0.236	0.740	1.693	0.512	0.531	0.433	0.591
IN	INB	109E-104-022	1/4		3/8 NPTF	0.472	0.236	0.740	1.732	0.512	0.531	0.433	0.709
IN	INB	109E-516-020	5/16		1/8 NPTF	0.591	0.157	0.925	1.772	0.374	0.531	0.551	0.512
IN	INB	109E-516-021	5/16		1/4 NPTF	0.591	0.236	0.925	1.909	0.512	0.531	0.551	0.591
IN	INB	109E-516-022	5/16		3/8 NPTF	0.630	0.315	0.925	1.969	0.512	0.531	0.551	0.709
IN	INB	109E-308-020	3/8		1/8 NPTF	0.669	0.157	1.043	1.929	0.374	0.531	0.591	0.512
IN	INB	109E-308-021	3/8		1/4 NPTF	0.709	0.236	1.043	2.067	0.512	0.531	0.591	0.591
IN	INB	109E-308-022	3/8		3/8 NPTF	0.748	0.315	1.043	2.106	0.512	0.531	0.591	0.709

### IN110 Union Tee



Plastic Release Ring	Brass Release Ring	IN110/INB110	Tube Diameter	T	D	D1	L	H	SW
IN	INB	110-108-000	1/8		0.394	0.094	0.638	0.472	0.354
IN	INB	110-532-000	5/32		0.394	0.118	0.657	0.492	0.354
IN	INB	110-104-000	1/4		0.472	0.157	0.740	0.531	0.433
IN	INB	110-516-000	5/16		0.591	0.236	0.858	0.630	0.551
IN	INB	110-308-000	3/8		0.709	0.295	1.004	0.669	0.630
IN	INB	110-102-000	1/2		0.827	0.413	1.161	0.748	0.685

### IN114 Swivel Branch Tee

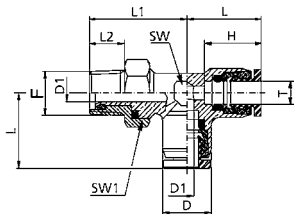


Plastic Release Ring	Brass Release Ring	IN114/INB114	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW	SW1
IN	INB	114-108-036	1/8		10-32 UNF	0.394	0.087	0.638	0.630	0.165	0.472	0.354	0.354
IN	INB	114-108-020	1/8		1/8 NPTF	0.394	0.157	0.638	0.874	0.374	0.472	0.354	0.512
IN	INB	114-108-021	1/8		1/4 NPTF	0.394	0.157	0.638	1.008	0.512	0.472	0.354	0.591
IN	INB	114-532-036	5/32		10-32 UNF	0.394	0.087	0.657	0.630	0.165	0.492	0.354	0.354
IN	INB	114-532-020	5/32		1/8 NPTF	0.394	0.157	0.657	0.874	0.374	0.492	0.354	0.512
IN	INB	114-532-021	5/32		1/4 NPTF	0.394	0.157	0.657	1.008	0.512	0.492	0.354	0.591
IN	INB	114-104-020	1/4		1/8 NPTF	0.472	0.157	0.740	0.996	0.374	0.531	0.433	0.512
IN	INB	114-104-021	1/4		1/4 NPTF	0.472	0.236	0.740	1.142	0.512	0.531	0.433	0.591
IN	INB	114-104-022	1/4		3/8 NPTF	0.472	0.236	0.740	1.181	0.512	0.531	0.433	0.709
IN	INB	114-516-020	5/16		1/8 NPTF	0.591	0.157	0.925	0.984	0.374	0.630	0.551	0.512
IN	INB	114-516-021	5/16		1/4 NPTF	0.591	0.236	0.925	1.122	0.512	0.630	0.551	0.591
IN	INB	114-308-020	3/8		1/8 NPTF	0.709	0.157	1.043	1.043	0.374	0.669	0.630	0.709
IN	INB	114-308-021	3/8		1/4 NPTF	0.709	0.236	1.043	1.181	0.512	0.669	0.630	0.591
IN	INB	114-308-022	3/8		3/8 NPTF	0.709	0.315	1.043	1.220	0.512	0.669	0.630	0.709
IN	INB	114-308-023	3/8		1/2 NPTF	0.709	0.315	1.043	1.394	0.709	0.669	0.630	0.866
IN	INB	114-102-021	1/2		1/4 NPTF	0.827	0.236	1.181	1.299	0.512	0.748	0.685	0.591
IN	INB	114-102-022	1/2		3/8 NPTF	0.827	0.315	1.181	1.299	0.512	0.748	0.685	0.709
IN	INB	114-102-023	1/2		1/2 NPTF	0.827	0.315	1.181	1.476	0.709	0.748	0.685	0.866



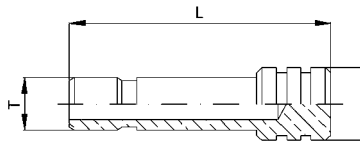
## NPTF/Inch Tube Fittings

### IN116 Swivel Run Tee



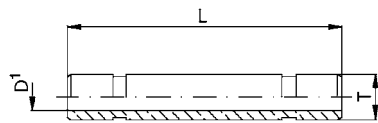
Plastic Release Ring	Brass Release Ring	IN116/INB116	Tube Diameter	T	Thread	F	D	D1	L	L1	L2	H	SW	SW1
IN	INB	116-108-036	1/8	10-32 UNF	0.394	0.087	0.638	0.630	0.165	0.472	0.354	0.354		
IN	INB	116-108-020	1/8	1/8 NPTF	0.394	0.157	0.638	0.874	0.374	0.472	0.354	0.512		
IN	INB	116-108-021	1/8	1/4 NPTF	0.394	0.157	0.638	1.008	0.512	0.472	0.354	0.591		
IN	INB	116-532-036	5/32	10-32 UNF	0.394	0.087	0.657	0.630	0.165	0.492	0.354	0.354		
IN	INB	116-532-020	5/32	1/8 NPTF	0.394	0.157	0.657	0.874	0.374	0.492	0.354	0.512		
IN	INB	116-532-021	5/32	1/4 NPTF	0.394	0.157	0.657	1.008	0.512	0.492	0.354	0.591		
IN	INB	116-104-020	1/4	1/8 NPTF	0.472	0.157	0.740	0.996	0.374	0.531	0.433	0.512		
IN	INB	116-104-021	1/4	1/4 NPTF	0.472	0.236	0.740	1.142	0.512	0.531	0.433	0.591		
IN	INB	116-104-022	1/4	3/8 NPTF	0.472	0.236	0.740	1.181	0.512	0.531	0.433	0.709		
IN	INB	116-516-020	5/16	1/8 NPTF	0.591	0.157	0.925	0.984	0.374	0.630	0.551	0.512		
IN	INB	116-516-021	5/16	1/4 NPTF	0.591	0.236	0.925	1.122	0.512	0.630	0.551	0.591		
IN	INB	116-308-020	3/8	1/8 NPTF	0.709	0.157	1.043	1.043	0.374	0.669	0.630	0.512		
IN	INB	116-308-021	3/8	1/4 NPTF	0.709	0.236	1.043	1.181	0.512	0.669	0.630	0.591		
IN	INB	116-308-022	3/8	3/8 NPTF	0.709	0.315	1.043	1.220	0.512	0.669	0.630	0.709		
IN	INB	116-308-023	3/8	1/2 NPTF	0.709	0.315	1.043	1.394	0.709	0.669	0.630	0.866		
IN	INB	116-102-021	1/2	1/4 NPTF	0.827	0.236	1.181	1.299	0.512	0.748	0.685	0.591		
IN	INB	116-102-022	1/2	3/8 NPTF	0.827	0.315	1.181	1.299	0.512	0.748	0.685	0.709		
IN	INB	116-102-023	1/2	1/2 NPTF	0.827	0.315	1.181	1.476	0.709	0.748	0.685	0.866		

### IN118 Plug



IN118	T	D	L
IN118-108-000	1/8	0.197	0.827
IN118-532-000	5/32	0.236	0.906
IN118-104-000	1/4	0.315	0.984
IN118-516-000	5/16	0.394	1.063
IN118-308-000	3/8	0.472	1.102
IN118-102-000	1/2	0.591	1.260

### IN119 Double Male Union

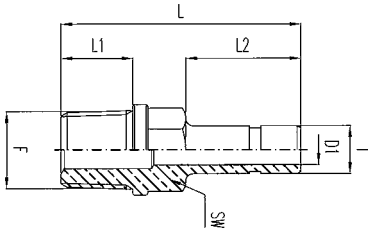


IN119	T	D1	L
IN119-108-000	1/8	0.063	1.102
IN119-532-000	5/32	0.079	1.181
IN119-104-000	1/4	0.157	1.260
IN119-516-000	5/16	0.236	1.535
IN119-308-000	3/8	0.295	1.614
IN119-102-000	1/2	0.394	1.811



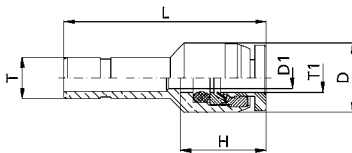
## NPTF/Inch Tube Fittings

### IN120 Stem Adapter



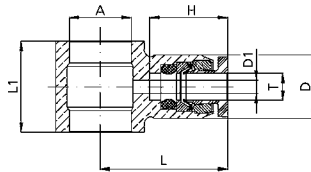
IN120/INB120	T	Thread F	D1	L	L1	L2	SW
IN120-108-020	1/8	1/8 NPTF	0.063	1.181	0.374	0.531	3/8
IN120-108-021	1/8	1/4 NPTF	0.063	1.358	0.512	0.531	1/2
IN120-532-020	5/32	1/8 NPTF	0.079	1.201	0.374	0.551	3/8
IN120-532-021	5/32	1/4 NPTF	0.079	1.378	0.512	0.551	1/2
IN120-104-020	1/4	1/8 NPTF	0.157	1.252	0.374	0.602	3/8
IN120-104-021	1/4	1/4 NPTF	0.157	1.429	0.512	0.602	1/2
IN120-516-020	5/16	1/8 NPTF	0.236	1.358	0.374	0.709	3/8
IN120-516-021	5/16	1/4 NPTF	0.236	1.535	0.512	0.709	1/2
IN120-308-021	3/8	1/4 NPTF	0.276	1.654	0.512	0.827	1/2
IN120-308-022	3/8	3/8 NPTF	0.276	1.673	0.512	0.827	19/32
IN120-102-022	1/2	3/8 NPTF	0.394	1.752	0.512	0.906	19/32
IN120-102-023	1/2	1/2 NPTF	0.394	1.949	0.709	0.906	11/16

### IN121 Reducer



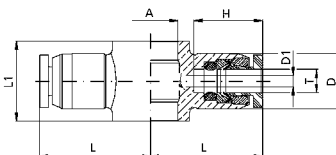
IN121/INB121	T	T1	D	D1	L	H
IN121-104-108	1/4	1/8	0.394	0.094	1.082	0.472
IN121-104-532	1/4	5/32	0.394	0.118	1.142	0.492
IN121-308-104	3/8	1/4	0.472	0.157	1.339	0.531
IN121-102-104	1/2	1/4	0.472	0.157	1.417	0.531
IN121-102-308	1/2	3/8	0.669	0.295	1.673	0.669

### IN122 Single Banjo



IN122/INB122	Tube Diameter T	A	D	D1	L	L1	H
IN122-108-020	1/8	1/8 NPTF	0.394	0.094	0.748	0.571	0.472
IN122-532-036	5/32	10-32 UNF	0.394	0.110	0.748	0.472	0.492
IN122-532-020	5/32	1/8 NPTF	0.394	0.118	0.795	0.571	0.492
IN122-104-020	1/4	1/8 NPTF	0.472	0.157	0.811	0.571	0.531
IN122-104-021	1/4	1/4 NPTF	0.472	0.157	0.890	0.689	0.531
IN122-308-021	3/8	1/4 NPTF	0.709	0.295	1.067	0.709	0.669

### IN123 Double Banjo

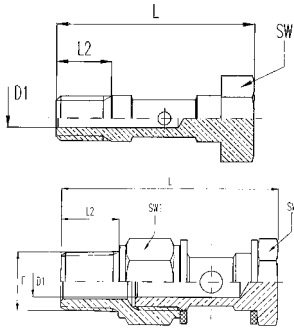


IN123/INB123	Tube Diameter T	A	D	D1	L	L1	H
IN123-532-036	5/32	10-32 UNF	0.394	0.118	0.748	0.472	0.492
IN123-104-020	1/4	1/8 NPTF	0.472	0.157	0.811	0.571	0.531
IN123-104-021	1/4	1/4 NPTF	0.472	0.157	0.890	0.689	0.531
IN123-308-021	3/8	1/4 NPTF	0.709	0.295	1.067	0.709	0.669



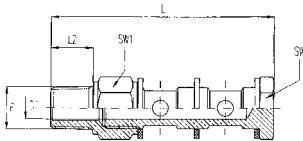
## NPTF/Inch Tube Fittings

### IN124 Single Manifold



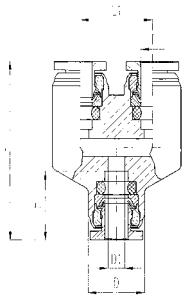
IN124	Thread F	L	L2	D1	SW	SW1
IN124-000-036	10-32 UNF	0.827	0.223	0.079	0.315	-
IN124-000-020	1/8 NPTF	1.634	0.374	0.197	0.551	0.551
IN124-000-021	1/4 NPTF	2.067	0.512	0.276	0.669	0.669

### IN125 Double Manifold



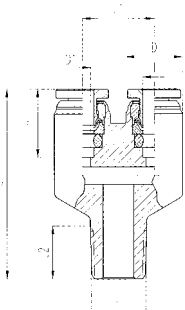
IN125	Thread F	L	L2	D1	SW	SW1
IN125-000-020	1/8 NPTF	2.187	0.374	0.197	0.551	0.551
IN125-000-021	1/4 NPTF	2.715	0.512	0.276	0.669	0.669

### IN131 Union Y



Plastic Release Ring	Brass Release Ring	IN131	Tube Diameter T	L	H	L 1	D	D1
IN	INB	131-108-000	1/8	1.240	0.472	0.512	0.394	0.094
IN	INB	131-532-000	5/32	1.280	0.492	0.512	0.394	0.118
IN	INB	131-104-000	1/4	1.398	0.531	0.598	0.472	0.157

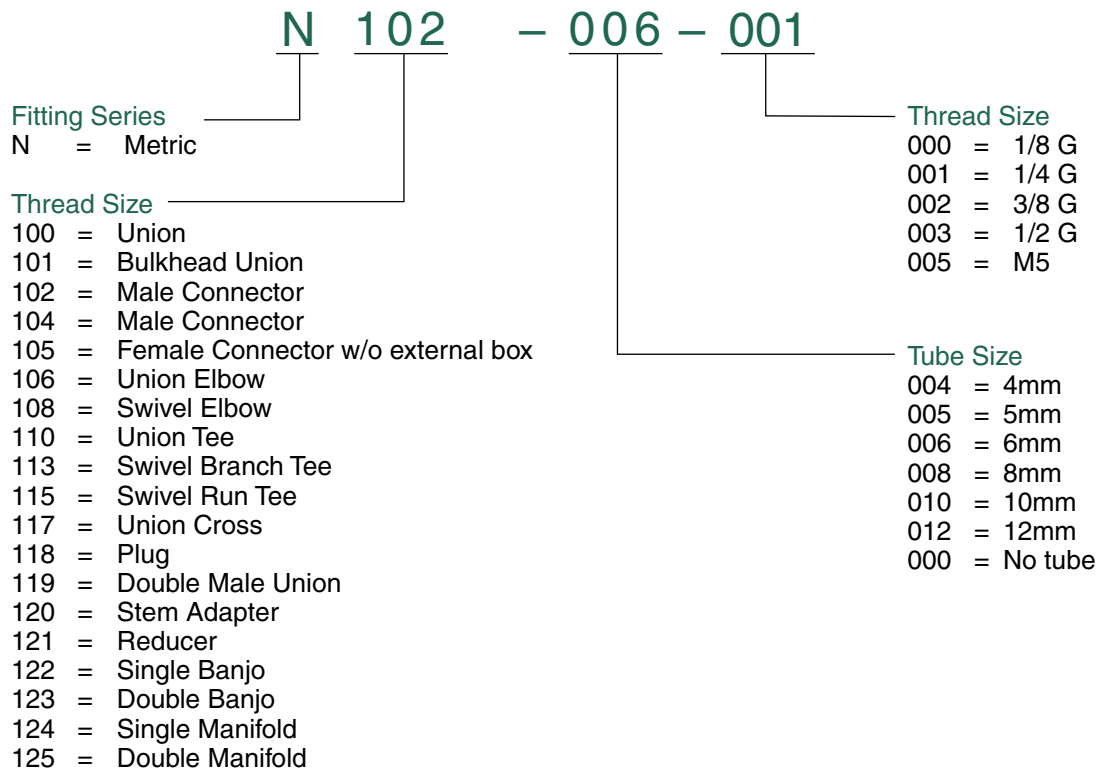
### IN132 Male Y



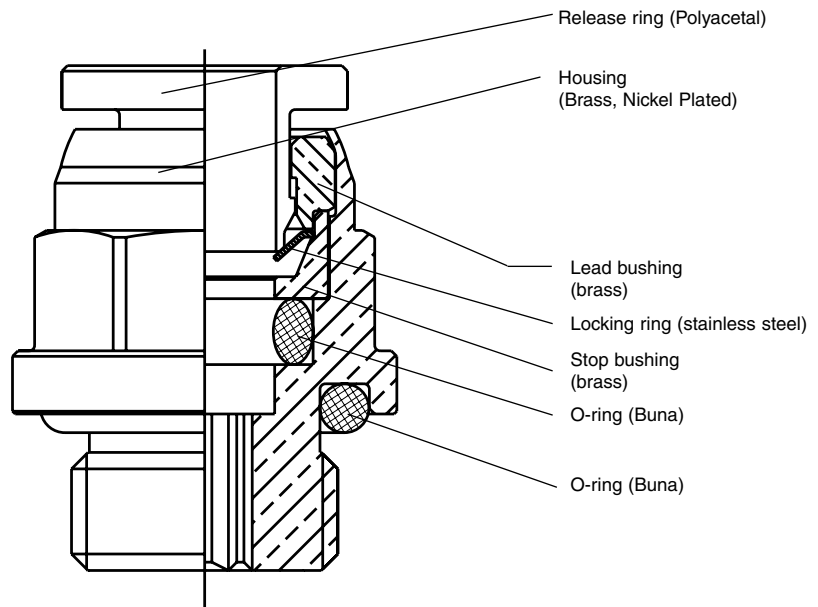
PLASTIC RELEASE RING	BRASS RELEASE RING	IN132/INB132	Tube Diameter T	Thread F	L2	L	H	L1	D	D1
IN	INB	132-104-020	1/4	1/8 NPTF	0.165	1.319	0.472	0.512	0.394	0.094
IN	INB	132-108-020	1/8	1/8 NPTF	0.374	1.339	0.472	0.512	0.394	0.094
IN	INB	132-532-020	5/32	1/8 NPTF	0.374	1.350	0.492	0.512	0.394	0.118



### How to Order



- Pressure Rating to 265 psi
- Temperature range: -20°F to +176°F (BUNA N O-ring)  
+230°F (Viton O-ring)
- Push-in fittings with G Threads
- Tube diameter: 4mm to 12mm
- Thread size: M5 to 1/2 G

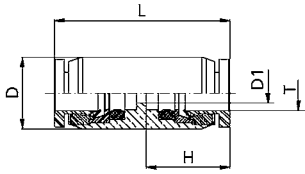






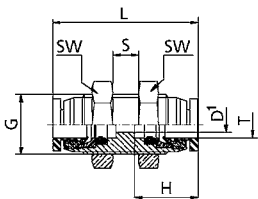
## Metric Fittings

### N100 Union



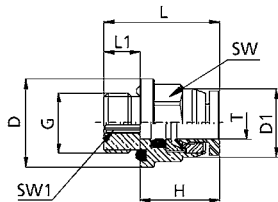
N100	Tube Diameter T	D	D1	H	L
N100-004-000	4.0	10.0	2.0	12.2	26.0
N100-005-000	5.0	11.0	3.0	12.7	27.0
N100-006-000	6.0	12.0	4.0	13.3	28.0
N100-008-000	8.0	15.0	6.0	15.8	33.0
N100-010-000	10.0	18.0	8.0	16.8	35.5
N100-012-000	12.0	20.0	10.0	18.9	41.0

### N101 Bulkhead Union



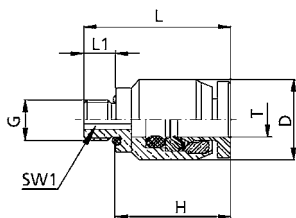
N101	Tube Diameter T	External Thread G	D1	H	L	min. S	max. S	SW
N101-004-000	4.0	M11	2.0	12.2	28.7	0	6	14
N101-005-000	5.0	M12	3.0	12.7	29.2	0	6	15
N101-006-000	6.0	M13	4.0	13.3	31.6	0	8	16
N101-008-000	8.0	M16	6.0	15.8	36.5	0	8	19
N101-010-000	10.0	M19	8.0	16.8	41.6	0	11	22
N101-012-000	12.0	M22	10.0	18.9	48.0	0	15	26

### N102 Male Connector



N102	Tube Diameter T	Thread G	D	D1	H	L	L1	SW	SW1
N102-004-000	4.0	1/8	14.0	9.9	12.2	18.1	5.7	10	3
N102-004-001	4.0	1/4	17.0	9.9	12.2	18.8	6.0	10	3
N102-005-000	5.0	1/8	14.0	10.9	12.7	18.8	5.7	11	3
N102-005-001	5.0	1/4	17.0	10.9	12.7	19.2	6.0	11	3
N102-006-000	6.0	1/8	14.0	11.9	13.3	19.0	5.7	12	4
N102-006-001	6.0	1/4	17.0	11.9	13.3	19.8	6.0	12	4
N102-008-000	8.0	1/8	17.0	15.0	15.8	24.5	5.7	15	6
N102-008-001	8.0	1/4	19.0	15.0	15.8	22.0	6.0	16	6
N102-008-002	8.0	3/8	21.0	15.0	15.8	22.7	6.5	16	6
N102-010-001	10.0	1/4	20.0	17.4	16.8	25.3	6.0	18	7
N102-010-002	10.0	3/8	22.0	17.4	16.8	23.3	6.5	18	7
N102-010-003	10.0	1/2	26.0	17.4	16.8	28.3	9.5	18	7
N102-012-001	12.0	1/4	22.0	20.0	18.9	27.4	6.0	20	7
N102-012-002	12.0	3/8	22.0	20.0	18.9	28.0	6.0	20	7
N102-012-003	12.0	1/2	26.0	20.0	18.9	31.5	9.5	20	9

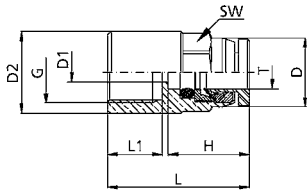
### N104 Male Connector without External Hex



N104	Tube Diameter T	Thread G	D	H	L	L1	SW1
N104-004-005	4.0	M5	10.0	14.4	18.4	4.0	2
N104-005-005	5.0	M5	11.0	14.7	18.7	4.0	2
N104-006-005	6.0	M5	12.0	15.3	19.3	4.0	2

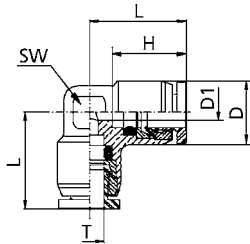


### N105 Female Connector



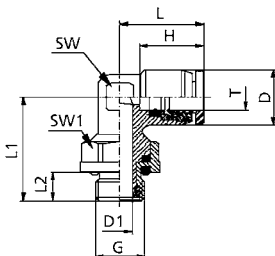
N105	Tube Diameter T	Thread G	D	D1	D2	H	L	L1	SW
N105-004-005	4.0	M5	9.9	2.0	8.0	12.2	19.4	5.5	10
N105-004-000	4.0	1/8	9.9	2.0	12.0	12.2	22.4	8.5	10
N105-005-005	5.0	M5	10.9	3.0	8.0	12.7	19.7	5.5	11
N105-005-000	5.0	1/8	10.9	3.0	12.0	12.7	22.7	8.5	11
N105-005-001	5.0	1/4	10.9	3.0	17.0	12.7	24.7	10.5	11
N105-006-000	6.0	1/8	11.9	4.0	12.0	13.3	23.3	8.5	12
N105-006-001	6.0	1/4	11.9	4.0	17.0	13.3	25.3	10.5	12
N105-008-000	8.0	1/8	15.0	6.0	12.0	15.8	25.8	8.5	15
N105-008-001	8.0	1/4	15.0	6.0	17.0	15.8	28.3	10.5	15
N105-010-001	10.0	1/4	17.4	8.0	17.0	16.8	29.3	10.5	18
N105-010-002	10.0	3/8	17.4	8.0	20.0	16.8	30.3	11.5	18
N105-012-001	12.0	1/4	20.0	10.0	22.0	18.9	32.0	10.5	20
N105-012-002	12.0	3/8	20.0	10.0	22.0	18.9	33.0	11.5	20
N105-012-003	12.0	1/2	20.0	10.0	26.0	18.9	37.4	16.0	20

### N106 Union Elbow



N106	Tube Diameter T	D	D1	H	L	SW
N106-004-000	4.0	9.9	2.0	12.2	16.6	9
N106-005-000	5.0	10.9	3.0	12.7	16.6	10
N106-006-000	6.0	11.9	4.0	13.3	19.1	11
N106-008-000	8.0	15.0	6.0	15.8	21.8	14
N106-010-000	10.0	17.4	8.0	16.8	25.3	16
N106-012-000	12.0	20.4	10.0	18.9	29.1	17

### N108 Swivel Elbow

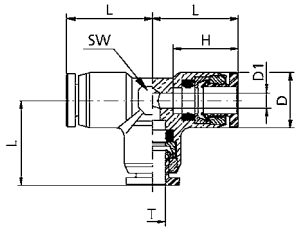


N108	Tube Diameter T	Thread G	D	D1	H	L	L1	L2	SW	SW1
N108-004-005	4.0	M5	9.9	2.3	12.2	16.6	16.5	4.0	9	9
N108-004-000	4.0	1/8	9.9	4.0	12.2	16.6	19.8	5.7	9	13
N108-004-001	4.0	1/4	9.9	4.0	12.2	16.6	20.0	6.0	9	15
N108-005-005	5.0	M5	10.9	2.3	12.7	16.6	18.0	4.0	10	9
N108-005-000	5.0	1/8	10.9	4.0	12.7	16.6	20.0	5.7	10	13
N108-005-001	5.0	1/4	10.9	4.0	12.7	16.6	20.2	6.0	10	15
N108-006-005	6.0	M5	11.9	2.3	13.3	19.1	18.5	4.0	11	9
N108-006-000	6.0	1/8	11.9	4.0	13.3	19.1	20.9	5.7	11	13
N108-006-001	6.0	1/4	11.9	6.0	13.3	19.1	21.0	6.0	11	15
N108-008-000	8.0	1/8	15.0	4.0	15.8	23.3	22.7	5.7	14	13
N108-008-001	8.0	1/4	15.0	6.0	15.8	23.3	22.7	6.0	14	15
N108-008-002	8.0	3/8	15.0	8.0	15.8	23.3	25.2	6.5	14	18
N108-010-000	10.0	1/8	17.4	4.0	16.8	26.5	24.0	5.7	16	13
N108-010-001	10.0	1/4	17.4	6.0	16.8	26.5	24.1	6.0	16	15
N108-010-002	10.0	3/8	17.4	8.0	16.8	26.5	26.4	6.5	16	18
N108-010-003	10.0	1/2	17.4	8.0	16.8	26.5	30.4	9.5	16	18
N108-012-001	12.0	1/4	20.0	6.0	18.9	29.1	27.3	6.0	17	15
N108-012-002	12.0	3/8	20.0	8.0	18.9	29.1	29.5	6.5	17	18
N108-012-003	12.0	1/2	20.0	8.0	18.9	29.1	33.5	9.5	17	18



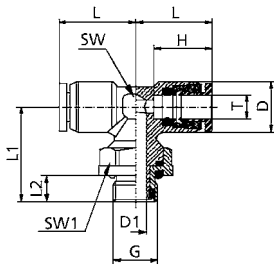
## Metric Fittings

### N110 Union Tee



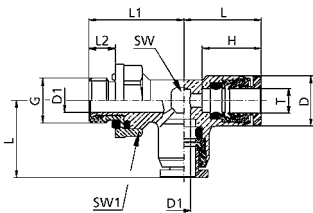
N110	Tube Diameter T	D	D1	H	L	SW
N110-004-000	4.0	9.9	2.0	12.2	16.6	9
N110-005-000	5.0	10.9	3.0	12.7	16.6	10
N110-006-000	6.0	11.9	4.0	13.3	19.1	11
N110-008-000	8.0	15.0	6.0	15.8	21.8	14
N110-010-000	10.0	17.4	8.0	16.8	25.3	16
N110-012-000	12.0	20.4	10.0	18.9	29.1	17

### N113 Swivel Branch Tee



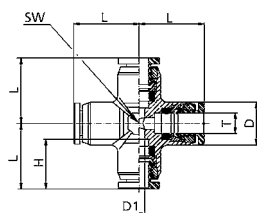
N113	Tube Diameter T	Thread G	D	D1	H	L	L1	L2	SW	SW1
N113-004-000	4.0	1/8	9.9	4.0	12.2	16.6	19.8	5.7	9	13
N113-005-000	5.0	1/8	10.9	4.0	12.7	16.6	20.0	5.7	10	13
N113-006-000	6.0	1/8	11.9	4.0	13.3	19.1	20.9	5.7	11	13
N113-006-001	6.0	1/4	11.9	6.0	13.3	19.1	21.5	6.0	11	15
N113-008-000	8.0	1/8	15.0	4.0	15.8	23.3	22.7	5.7	14	13
N113-008-001	8.0	1/4	15.0	6.0	15.8	23.3	22.7	6.0	14	15
N113-008-002	8.0	3/8	15.0	8.0	15.8	23.3	25.2	6.5	14	18
N113-010-001	10.0	1/4	17.4	6.0	16.8	26.5	24.1	6.0	16	15
N113-010-002	10.0	3/8	17.4	8.0	16.8	26.5	26.4	6.5	16	18
N113-010-003	10.0	1/2	17.4	8.0	16.8	26.5	30.4	9.0	16	18
N113-012-001	12.0	1/4	20.0	6.0	18.9	29.1	27.3	6.0	17	15
N113-012-002	12.0	3/8	20.0	8.0	18.9	29.1	29.5	6.5	17	18
N113-012-003	12.0	1/2	20.0	8.0	18.9	29.1	33.5	8.5	17	18

### N115 Swivel Run Tee



N115	Tube Diameter T	Thread G	D	D1	H	L	L1	L2	SW	SW1
N115-004-000	4.0	1/8	9.9	4.0	12.2	16.6	19.8	5.7	9	13
N115-005-000	5.0	1/8	10.9	4.0	12.7	16.6	20.0	5.7	10	13
N115-006-000	6.0	1/8	11.9	4.0	13.3	19.1	20.9	5.7	11	13
N115-006-001	6.0	1/4	11.9	6.0	13.3	19.1	21.5	6.0	11	15
N115-008-000	8.0	1/8	15.0	4.0	15.8	23.3	22.7	5.7	14	13
N115-008-001	8.0	1/4	15.0	6.0	15.8	23.3	22.7	6.0	14	15
N115-008-002	8.0	3/8	15.0	8.0	15.8	23.3	25.2	6.5	14	18
N115-010-001	10.0	1/4	17.4	6.0	16.8	26.5	24.1	6.0	16	15
N115-010-002	10.0	3/8	17.4	8.0	16.8	26.5	26.4	6.5	16	18
N115-010-003	10.0	1/2	17.4	8.0	16.8	26.5	30.4	9.5	16	18
N115-012-001	12.0	1/4	20.0	6.0	18.9	29.1	27.3	6.0	17	15
N115-012-002	12.0	3/8	20.0	8.0	18.9	29.1	29.5	6.5	17	18
N115-012-003	12.0	1/2	20.0	8.0	18.9	29.1	33.5	9.5	17	18

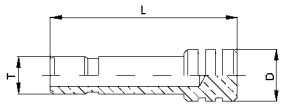
### N117 Union Cross



N117	Tube Diameter T	D	D1	H	L	SW
N117-004-000	4.0	9.9	2.0	12.2	16.6	9
N117-005-000	5.0	10.9	3.0	12.7	16.6	10
N117-006-000	6.0	11.9	4.0	13.3	19.1	11
N117-008-000	8.0	15.0	6.0	15.8	21.8	14
N117-010-000	10.0	17.4	8.0	16.8	25.3	16
N117-012-000	12.0	20.4	10.0	18.9	29.1	17

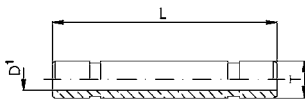


### N118 Plug



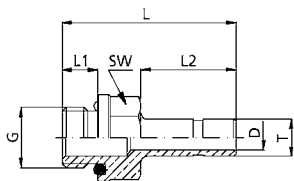
N118	Tube Diameter T	D	L
N118-004-000	4.0	6.0	23.1
N118-005-000	5.0	7.0	25.1
N118-006-000	6.0	8.0	25.1
N118-008-000	8.0	10.0	27.1
N118-010-000	10.0	12.0	28.1
N118-012-000	12.0	14.0	32.0

### N119 Double Male Union



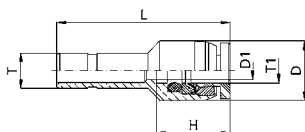
N119	Tube Diameter T	D	L
N119-004-000	4.0	2.0	30.0
N119-005-000	5.0	3.0	30.0
N119-006-000	6.0	4.0	32.0
N119-008-000	8.0	6.0	38.0
N119-010-000	10.0	8.0	41.0
N119-012-000	12.0	10.0	46.0

### N120 Stem Adapter



N120	Tube Diameter T	Thread G	D	L	L1	L2	SW
N120-004-005	4.0	M5	2.0	23.0	4.0	14.0	9
N120-004-000	4.0	1/8	2.0	26.7	5.7	14.0	12
N120-004-001	4.0	1/4	2.0	27.0	6.0	14.0	15
N120-005-005	5.0	M5	2.0	24.0	4.0	15.0	9
N120-005-000	5.0	1/8	3.0	27.7	5.7	15.0	12
N120-005-001	5.0	1/4	3.0	28.0	6.0	15.0	15
N120-006-005	6.0	M5	2.0	24.3	4.0	15.3	9
N120-006-000	6.0	1/8	4.0	28.0	5.7	15.3	12
N120-006-001	6.0	1/4	4.0	28.3	6.0	15.3	15
N120-008-000	8.0	1/8	6.0	30.7	5.7	18.0	12
N120-008-001	8.0	1/4	6.0	31.0	6.0	18.0	15
N120-008-002	8.0	3/8	6.0	32.0	6.5	18.0	18
N120-010-001	10.0	1/4	8.0	34.0	6.0	21.0	15
N120-010-002	10.0	3/8	8.0	35.0	6.5	21.0	18
N120-010-003	10.0	1/2	8.0	40.0	9.5	21.0	18
N120-012-001	12.0	1/4	10.0	36.0	6.0	23.0	15
N120-012-002	12.0	3/8	10.0	37.0	6.5	23.0	18
N120-012-003	12.0	1/2	10.0	42.0	9.5	23.0	18

### N121 Reducer

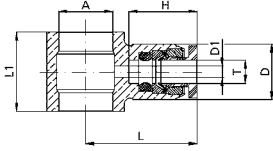


N121	from Tube Diameter T	to Tube Diameter T1	D	D1	H	L
N121-005-000	5.0	4.0	10.0	3.0	12.2	28.2
N121-006-000	6.0	4.0	10.0	3.0	12.2	29.2
N121-006-001	6.0	5.0	11.0	3.0	12.7	29.6
N121-008-000	8.0	4.0	10.0	2.0	12.2	32.2
N121-008-001	8.0	5.0	11.0	3.0	12.7	32.5
N121-008-002	8.0	6.0	12.0	4.0	13.3	33.1
N121-010-002	10.0	6.0	12.0	4.0	13.3	25.9
N121-010-003	10.0	8.0	15.0	6.0	15.8	38.3
N121-012-002	12.0	6.0	12.0	4.0	13.3	36.3
N121-012-003	12.0	8.0	15.0	6.0	15.8	40.3
N121-012-004	12.0	10.0	18.0	8.0	16.8	42.8



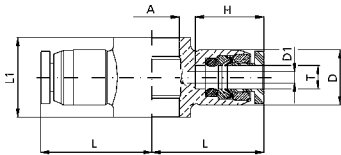
## Metric Fittings

### N122 Single Banjo



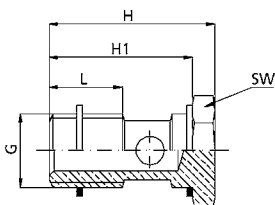
N122	Tube Diameter T	for Banjo Bolts	A	D	D1	H	L	L1
N122-004-005	4.0	M5	10.0	2.0	12.2	19.0	12.0	
N122-004-000	4.0	1/8	10.0	2.0	12.2	20.2	14.5	
N122-005-005	5.0	M5	11.0	3.0	12.7	20.0	12.0	
N122-005-000	5.0	1/8	11.0	3.0	12.7	20.6	14.5	
N122-006-005	6.0	M5	12.0	4.0	13.3	20.6	12.0	
N122-006-000	6.0	1/8	12.0	4.0	13.3	20.6	14.5	
N122-006-001	6.0	1/4	12.0	4.0	13.3	22.6	14.5	
N122-008-000	8.0	1/8	15.0	6.0	15.8	23.8	17.5	
N122-008-001	8.0	1/4	15.0	6.0	15.8	25.8	17.5	
N122-010-001	10.0	1/4	17.6	8.0	16.8	27.1	18.0	
N122-012-001	12.0	1/4	20.0	10.0	18.9	31.5	18.0	

### N123 Double Banjo



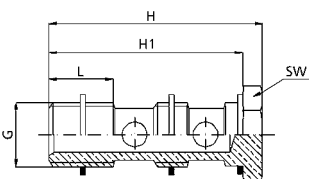
N123	Tube Diameter T	for Banjo Bolts	A	D	D1	H	L	L1
N123-004-005	4.0	M5	10.0	2.0	12.2	19.0	12.0	
N123-004-000	4.0	1/8	10.0	2.0	12.2	20.2	14.5	
N123-005-005	5.0	M5	11.0	3.0	12.7	20.0	12.0	
N123-005-000	5.0	1/8	11.0	3.0	12.7	20.6	14.5	
N123-006-005	6.0	M5	12.0	4.0	13.3	20.6	12.0	
N123-006-000	6.0	1/8	12.0	4.0	13.3	20.6	14.5	
N123-006-001	6.0	1/4	12.0	4.0	13.3	22.6	14.5	
N123-008-000	8.0	1/8	15.0	6.0	15.8	23.8	17.5	
N123-008-001	8.0	1/4	15.0	6.0	15.8	25.8	17.5	
N123-010-001	10.0	1/4	17.6	8.0	16.8	27.1	18.0	
N123-012-001	12.0	1/4	20.0	10.0	18.9	31.5	18.0	

### N124 Single Manifold



IN124	Thread F	L	L2	D1	SW	SW1
IN124-000-036	10-32 UNF	0.827	0.223	0.079	0.315	-
IN124-000-020	1/8 NPTF	1.634	0.374	0.197	0.551	0.551
IN124-000-021	1/4 NPTF	2.067	0.512	0.276	0.669	0.669

### N125 Double Manifold



N125	Thread G	H	H1	L	SW
N125-000-000	1/8	43.0	39.0	8.0	14
N125-000-001	1/4	45.5	41.0	11.0	17



### How to Order

**INP 109 – 104 – 022**

**Fitting Series**

INP = NPTF/Inch Plastic Tube

**Fitting Style**

- 100 = Union
- 103 = Male Connector
- 106 = Union Elbow
- 109 = Swivel Elbow
- 110 = Union Tee
- 114 = Swivel Branch Tee
- 116 = Swivel Run Tee
- 131 = Union Y
- 132 = Male Y

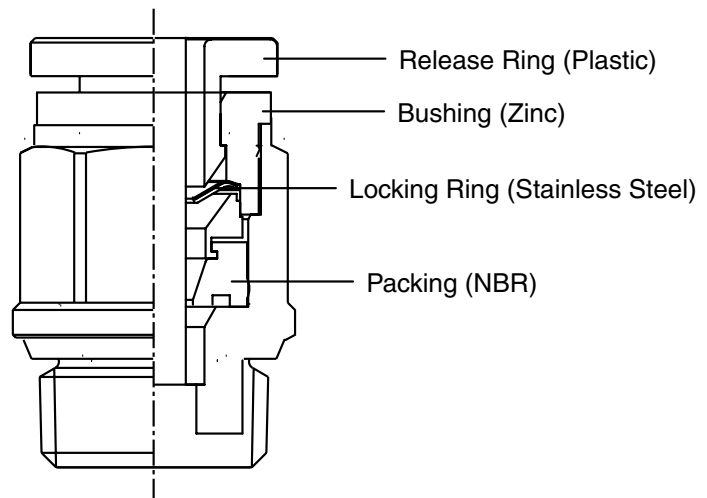
**Thread Size**

- 000 = No Thread
- 036 = 10-32 UNF
- 020 = 1/8 NPTF
- 021 = 1/4 NPTF
- 022 = 3/8 NPTF
- 023 = 1/2 NPTF

**Tube Size**

- 108 = 1/8"
- 532 = 5/32"
- 104 = 1/4"
- 516 = 5/16"
- 308 = 3/8"
- 102 = 1/2"
- 000 = No Tube

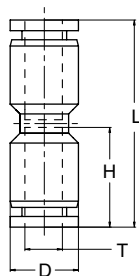
- Pressure Rating to 215 psi
- Vacuum Rating to 29 Inches of Mercury
- Temperature range: -20°F to +140°F
- Push-in fittings with NPTF Threads
- Teflon thread sealant
- Tube diameter: 1/8" to 1/2"
- Thread size: 10-32 UNF to 1/2 NPTF





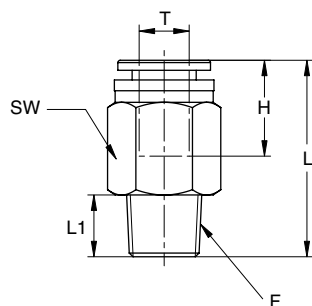
## NPTF Composite Fittings

### INP100 Union



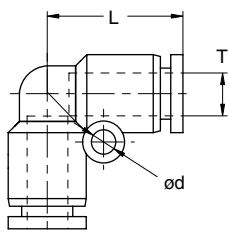
INP100	Tube Diameter (T)	D	L	H
INP100-532-000	5/32	0.433	1.197	0.555
INP100-104-000	1/4	0.528	1.358	0.624
INP100-516-000	5/16	0.583	1.500	0.713
INP100-308-000	3/8	0.724	1.843	0.823
INP100-102-000	1/2	0.854	1.874	0.870

### INP103 Male Connector



INP103	Tube Diameter (T)	Thread (F)	L	L1	H	SW
INP103-532-020	5/32	1/8 NPTF	0.795	0.315	0.516	7/16
INP103-532-021	5/32	1/4 NPTF	0.772	0.433	0.516	9/16
INP103-104-020	1/4	1/8 NPTF	0.982	0.315	0.585	1/2
INP103-104-021	1/4	1/4 NPTF	0.982	0.433	0.585	9/16
INP103-104-022	1/4	3/8 NPTF	0.904	0.472	0.585	11/16
INP103-516-020	5/16	1/8 NPTF	1.047	0.315	0.654	9/16
INP103-516-021	5/16	1/4 NPTF	1.047	0.433	0.654	9/16
INP103-308-020	3/8	1/8 NPTF	1.173	0.315	0.764	11/16
INP103-308-021	3/8	1/4 NPTF	1.311	0.433	0.764	11/16
INP103-308-022	3/8	3/8 NPTF	1.193	0.472	0.764	11/16
INP103-308-023	3/8	1/2 NPTF	1.213	0.591	0.764	7/8
INP103-102-021	1/2	1/4 NPTF	1.350	0.433	0.831	7/8
INP103-102-022	1/2	3/8 NPTF	1.390	0.472	0.831	7/8
INP103-102-023	1/2	1/2 NPTF	1.350	0.591	0.831	7/8

### INP106 Union Elbow



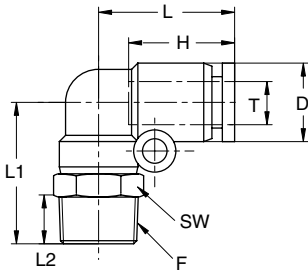
INP106	Tube Diameter (T)	L	d
INP106-532-000	5/32	0.638	-
INP106-104-000	1/4	0.766	0.126
INP106-516-000	5/16	0.878	0.126
INP106-308-000	3/8	1.067	0.165
INP106-102-000	1/2	1.154	0.169





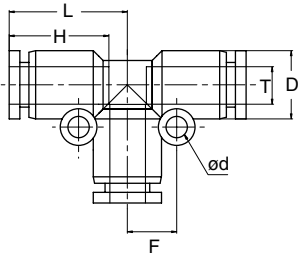
## NPTF Composite Fittings

### INP109 Swivel Elbow



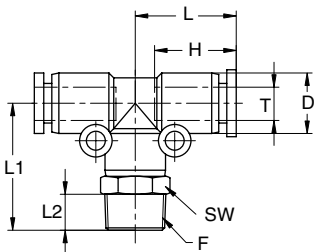
INP109	Tube Diameter (T)	Thread (F)	D	L	L1	L2	H	SW
INP109-532-036	5/32	10-32 UNF	0.433	0.638	0.669	0.157	0.535	7/16
INP109-532-020	5/32	1/8 NPTF	0.433	0.638	0.965	0.315	0.535	7/16
INP109-532-021	5/32	1/4 NPTF	0.433	0.638	1.122	0.433	0.535	9/16
INP109-104-036	1/4	10-32 UNF	0.528	0.766	0.689	0.157	0.624	1/2
INP109-104-020	1/4	1/8 NPTF	0.528	0.766	1.063	0.315	0.624	1/2
INP109-104-021	1/4	1/4 NPTF	0.528	0.766	1.201	0.433	0.624	9/16
INP109-104-022	1/4	3/8 NPTF	0.528	0.766	1.260	0.472	0.624	11/16
INP109-516-020	5/16	1/8 NPTF	0.583	0.878	1.181	0.315	0.713	9/16
INP109-516-021	5/16	1/4 NPTF	0.583	0.878	1.299	0.433	0.713	9/16
INP109-308-020	3/8	1/8 NPTF	0.724	1.067	1.370	0.315	0.803	11/16
INP109-308-021	3/8	1/4 NPTF	0.724	1.067	1.488	0.433	0.803	11/16
INP109-308-022	3/8	3/8 NPTF	0.724	1.067	1.528	0.472	0.803	11/16
INP109-308-023	3/8	1/2 NPTF	0.724	1.067	1.665	0.591	0.803	7/8
INP109-102-021	1/2	1/4 NPTF	0.854	1.154	1.594	0.433	0.870	7/8
INP109-102-022	1/2	3/8 NPTF	0.854	1.154	1.634	0.472	0.870	7/8
INP109-102-023	1/2	1/2 NPTF	0.854	1.154	1.752	0.591	0.870	7/8

### INP110 Union Tee



INP110	Tube Diameter (T)	D	L	H	F	d
INP110-532-000	5/32	0.433	0.677	0.555	0.276	0.126
INP100-104-000	1/4	0.528	0.774	0.624	0.327	0.126
INP100-516-000	5/16	0.583	0.876	0.693	0.354	0.126
INP100-308-000	3/8	0.724	1.094	0.823	0.472	0.165
INP100-102-000	1/2	0.854	1.154	0.870	0.543	0.169

### INP114 Swivel Branch Tee

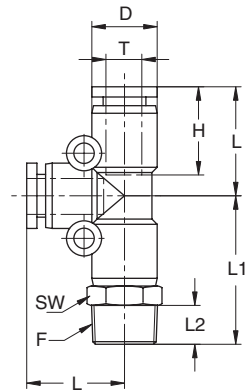


INP114	Tube Diameter (T)	Thread (F)	D	L	L1	L2	H	SW
INP114-532-036	5/32	10-32 UNF	0.433	0.638	0.886	0.157	0.535	7/16
INP114-532-020	5/32	1/8 NPTF	0.433	0.638	0.965	0.315	0.535	7/16
INP114-532-021	5/32	1/4 NPTF	0.433	0.638	1.122	0.433	0.535	9/16
INP114-104-036	1/4	10-32 UNF	0.528	0.766	0.925	0.157	0.624	1/2
INP114-104-020	1/4	1/8 NPTF	0.528	0.766	1.063	0.315	0.624	1/2
INP114-104-021	1/4	1/4 NPTF	0.528	0.766	1.201	0.433	0.624	9/16
INP114-104-022	1/4	3/8 NPTF	0.528	0.766	1.260	0.472	0.624	11/16
INP114-516-020	5/16	1/8 NPTF	0.583	0.878	1.181	0.315	0.713	9/16
INP114-516-021	5/16	1/4 NPTF	0.583	0.878	1.299	0.433	0.713	9/16
INP114-308-021	3/8	1/4 NPTF	0.724	1.067	1.488	0.433	0.803	11/16
INP114-308-022	3/8	3/8 NPTF	0.724	1.067	1.528	0.472	0.803	11/16
INP114-308-023	3/8	1/2 NPTF	0.724	1.067	1.665	0.591	0.803	7/8
INP114-102-021	1/2	1/4 NPTF	0.854	1.154	1.594	0.433	0.870	7/8
INP114-102-022	1/2	3/8 NPTF	0.854	1.154	1.634	0.472	0.870	7/8
INP114-102-023	1/2	1/2 NPTF	0.854	1.154	1.752	0.591	0.870	7/8



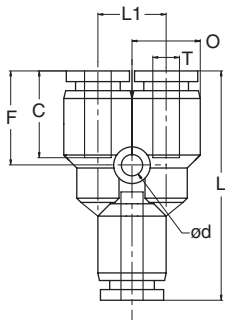
## NPTF Composite Fittings

### INP116 Swivel Run Tee



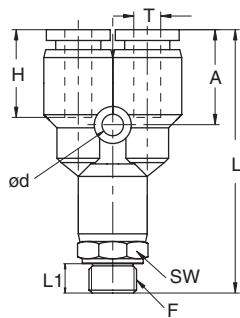
INP116	Tube Diameter (T)	Thread (F)	D	L	L1	L2	H	SW
INP116-532-036	5/32	10-32 UNF	0.433	0.638	0.886	0.157	0.535	7/16
INP116-532-020	5/32	1/8 NPTF	0.433	0.638	0.965	0.315	0.535	7/16
INP116-532-021	5/32	1/4 NPTF	0.433	0.638	1.122	0.433	0.535	9/16
INP116-104-036	1/4	10-32 UNF	0.528	0.766	0.925	0.157	0.624	1/2
INP116-104-020	1/4	1/8 NPTF	0.528	0.766	1.063	0.315	0.624	1/2
INP116-104-021	1/4	1/4 NPTF	0.528	0.766	1.201	0.433	0.624	9/16
INP116-104-022	1/4	3/8 NPTF	0.528	0.766	1.260	0.472	0.624	11/16
INP116-516-020	5/16	1/8 NPTF	0.583	0.878	1.181	0.315	0.713	9/16
INP116-516-021	5/16	1/4 NPTF	0.583	0.878	1.299	0.433	0.713	9/16
INP116-308-021	3/8	1/4 NPTF	0.724	1.067	1.488	0.433	0.803	11/16
INP116-308-022	3/8	3/8 NPTF	0.724	1.067	1.528	0.472	0.803	11/16
INP116-308-023	3/8	1/2 NPTF	0.724	1.067	1.665	0.591	0.803	7/8
INP116-102-021	1/2	1/4 NPTF	0.854	1.154	1.594	0.433	0.870	7/8
INP116-102-022	1/2	3/8 NPTF	0.854	1.154	1.634	0.472	0.870	7/8
INP116-102-023	1/2	1/2 NPTF	0.854	1.154	1.752	0.591	0.870	7/8

### INP131 Union Y



INP131	Tube Diameter (T)	D	L	L1	C	F	d
INP131-532-000	5/32	0.433	1.295	0.433	0.535	0.394	0.126
INP131-104-000	1/4	0.528	1.433	0.528	0.604	0.413	0.126
INP131-516-000	5/16	0.583	1.551	0.591	0.673	0.528	0.126
INP131-308-000	3/8	0.724	1.917	0.709	0.783	0.610	0.165
INP131-102-000	1/2	0.854	2.051	0.846	0.870	0.630	0.165

### INP132 Male Y



INP132	Tube Diameter (T)	Thread (F)	L	L1	A	H	d	SW
INP132-532-020	5/32	1/8 NPTF	1.622	0.433	0.394	0.535	0.126	7/16
INP132-532-021	5/32	1/4 NPTF	1.780	0.433	0.394	0.535	0.126	9/16
INP132-104-020	1/4	1/8 NPTF	1.732	0.528	0.413	0.604	0.126	1/2
INP132-104-021	1/4	1/4 NPTF	1.870	0.528	0.413	0.604	0.126	9/16
INP132-516-020	5/16	1/8 NPTF	1.854	0.591	0.528	0.673	0.126	9/16
INP132-516-021	5/16	1/4 NPTF	1.972	0.591	0.528	0.673	0.126	9/16
INP132-308-021	3/8	1/4 NPTF	2.339	0.709	0.610	0.783	0.165	11/16
INP132-308-022	3/8	3/8 NPTF	2.378	0.709	0.610	0.783	0.165	11/16
INP132-102-022	1/2	3/8 NPTF	2.531	0.846	0.630	0.870	0.165	7/8



### How to Order

**NP 109 – 104 – 022**

**Fitting Series**

NP = Metric Plastic Fittings

**Fitting Style**

- 100 = Union
- 102 = Male Connector
- 106 = Union Elbow
- 108 = Swivel Elbow
- 110 = Union Tee
- 113 = Swivel Branch Tee
- 115 = Swivel Run Tee
- 131 = Union Y
- 132 = Male Y

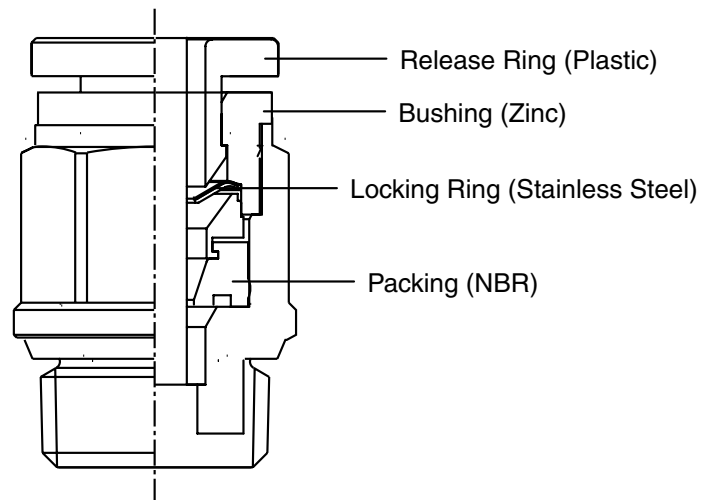
**Thread Size**

- 000 = No Thread
- 036 = 10-32 UNF
- 020 = 1/8 NPTF
- 021 = 1/4 NPTF
- 022 = 3/8 NPTF
- 023 = 1/2 NPTF

**Tube Size**

- 108 = 1/8"
- 532 = 5/32"
- 104 = 1/4"
- 516 = 5/16"
- 308 = 3/8"
- 102 = 1/2"
- 000 = No Tube

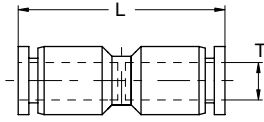
- Pressure Rating to 215 psi
- Vacuum Rating to 29 Inches of Mercury
- Temperature range: -20°F to +140°F
- Push-in fittings with NPTF Threads
- Teflon thread sealant
- Tube diameter: 1/8" to 1/2"
- Thread size: 10-32 UNF to 1/2 NPTF





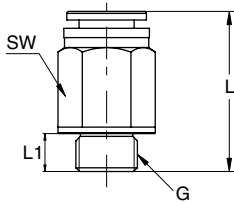
## Composite Metric Fittings

### NP100 Union



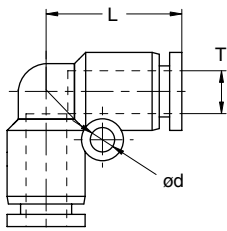
NP100	Tube Diameter (T)	L
NP100-004-000	4.0	33.0
NP100-006-000	6.0	35.2
NP100-008-000	8.0	39.1
NP100-010-000	10.0	47.8
NP100-012-000	12.0	49.2

### NP102 All-Composite Straight Connector



NP102	Tube Diameter (T)	Thread (G)	L	L1	SW
NP102-006-000	6.0	1/8	25.0	5.5	12
NP102-006-001	6.0	1/4	24.0	7.5	14
NP102-008-000	8.0	1/8	26.6	5.5	14
NP102-008-001	8.0	1/4	25.6	7.5	14
NP102-008-002	8.0	3/8	23.8	8.5	17
NP102-010-001	10.0	1/4	33.3	7.5	17
NP102-010-002	10.0	3/8	29.8	8.5	17
NP102-010-003	10.0	1/2	30.8	11.0	21
NP102-012-002	12.0	3/8	30.6	8.5	21
NP102-012-003	12.0	1/2	33.6	11.0	21

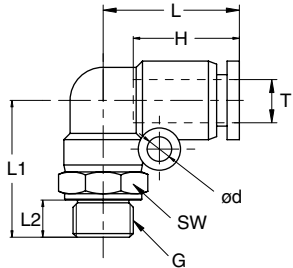
### NP106 Union Elbow



NP106	Tube Diameter (T)	L	d
NP106-004-000	4.0	17.5	-
NP106-006-000	6.0	19.0	3.2
NP106-008-000	8.0	22.8	3.2
NP106-010-000	10.0	27.6	4.2
NP106-012-000	12.0	29.6	4.3

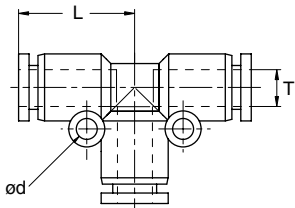


### NP108 Swivel Elbow



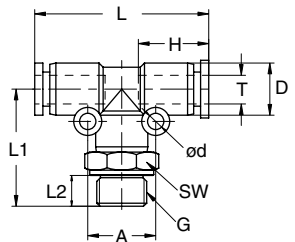
NP108	Tube Diameter (T)	Thread (G)	H	L	L1	L2	SW
NP108-004-005	4.0	M5	15.1	17.5	17.0	4.0	10
NP108-004-000	4.0	1/8	15.1	17.7	24.5	5.5	14
NP108-004-001	4.0	1/4	15.1	17.7	27.0	7.5	17
NP108-006-005	6.0	M5	16.0	19.0	17.5	4.0	12
NP108-006-000	6.0	1/8	16.0	19.3	25.7	5.5	14
NP108-006-001	6.0	1/4	16.0	19.3	28.2	7.5	17
NP108-006-002	6.0	3/8	16.0	19.3	29.7	8.5	20
NP108-008-000	8.0	1/8	18.1	22.8	29.0	5.5	14
NP108-008-001	8.0	1/4	18.1	22.8	31.5	7.5	17
NP108-008-002	8.0	3/8	18.1	22.8	33.0	8.5	20
NP108-010-000	10.0	1/8	20.4	27.6	33.8	5.5	17
NP108-010-001	10.0	1/4	20.4	27.6	35.8	7.5	17
NP108-010-002	10.0	3/8	20.4	27.6	37.3	8.5	20
NP108-010-003	10.0	1/2	20.4	27.6	41.3	11.0	24
NP108-012-001	12.0	1/4	23.2	29.6	38.0	7.5	21
NP108-012-002	12.0	3/8	23.2	29.6	39.0	8.5	21
NP108-012-003	12.0	1/2	23.2	29.6	43.0	11.0	24

### NP110 Union Tee



NP110	Tube Diameter (T)	L	d
NP110-004-000	4.0	18.5	3.2
NP110-006-000	6.0	19.3	3.2
NP110-008-000	8.0	22.75	3.2
NP110-010-000	10.0	28.3	4.2
NP110-012-000	12.0	29.6	4.3

### NP113 Swivel Branch Tee

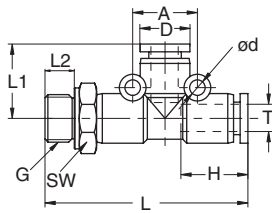


NP113	Tube Diameter (T)	Thread (G)	D	A	H	L	L1	L2	d	SW
NP113-004-005	4.0	M5	11.0	14.0	15.1	37.4	22.5	4.0	3.2	10
NP113-004-000	4.0	1/8	11.0	14.0	15.1	37.4	25.5	5.5	3.2	14
NP113-006-005	6.0	M5	13.0	16.0	16.0	39.2	23.5	4.0	3.2	12
NP113-006-000	6.0	1/8	13.0	16.0	16.0	39.2	26.0	5.5	3.2	14
NP113-006-001	6.0	1/4	13.0	16.0	16.0	39.2	28.5	7.5	3.2	17
NP113-008-000	8.0	1/8	14.8	18.0	18.1	45.5	29.0	29.0	3.2	14
NP113-008-001	8.0	1/4	14.8	18.0	18.1	45.5	31.5	31.5	3.2	17
NP113-008-002	8.0	3/8	14.8	18.0	18.1	45.5	33.0	33.0	3.2	20
NP113-010-001	10.0	1/4	18.4	24.0	20.4	56.3	36.5	36.5	4.2	17
NP113-010-002	10.0	3/8	18.4	24.0	20.4	56.3	38.0	38.0	4.2	20
NP113-010-003	10.0	1/2	18.4	24.0	20.4	56.3	42.0	42.0	4.2	24
NP113-012-001	12.0	1/4	21.0	27.0	23.2	59.2	38.0	38.0	4.2	21
NP113-012-002	12.0	3/8	21.0	27.0	23.2	59.2	39.0	39.0	4.2	21
NP113-012-003	12.0	1/2	21.0	27.0	23.2	59.2	43.0	43.0	4.2	24



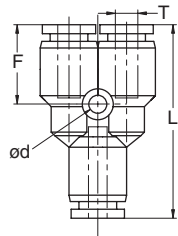
## Composite Metric Fittings

### NP115 Swivel Run Tee



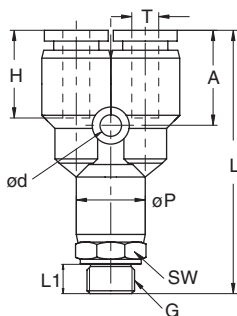
NP115	Tube Diameter (T)	Thread (G)	D	A	H	L	L1	L2	d	SW
NP115-004-005	4.0	M5	11.0	14.0	15.1	37.4	22.5	4.0	3.2	10
NP115-004-000	4.0	1/8	11.0	14.0	15.1	44.2	18.7	5.5	3.2	14
NP115-006-005	6.0	M5	13.0	16.0	16.0	39.2	23.5	4.0	3.2	12
NP115-006-000	6.0	1/8	13.0	16.0	16.0	45.6	19.6	5.5	3.2	14
NP115-006-001	6.0	1/4	13.0	16.0	16.0	48.1	19.6	7.5	3.2	17
NP115-008-000	8.0	1/8	14.8	18.0	18.1	51.7	22.8	5.5	3.2	14
NP115-008-001	8.0	1/4	14.8	18.0	18.1	54.2	22.8	7.5	3.2	17
NP115-008-002	8.0	3/8	14.8	18.0	18.1	55.7	22.8	8.5	3.2	20
NP115-010-001	10.0	1/4	18.4	24.0	20.4	64.8	28.3	7.5	4.2	17
NP115-010-002	10.0	3/8	18.4	24.0	20.4	66.3	28.3	8.5	4.2	20
NP115-010-003	10.0	1/2	18.4	24.0	20.4	70.3	28.3	11.0	4.2	24
NP115-012-001	12.0	1/4	21.0	27.0	23.2	67.6	29.6	7.5	4.2	21
NP115-012-002	12.0	3/8	21.0	27.0	23.2	68.6	29.6	8.5	4.2	21
NP115-012-003	12.0	1/2	21.0	27.0	23.2	72.6	29.6	11.0	4.2	21

### NP131 Union Y



NP131	Tube Diameter (T)	L	F	d
NP131-004-000	4.0	35.5	14.0	3.2
NP131-006-000	6.0	37.1	14.8	3.2
NP131-008-000	8.0	40.4	18.2	3.2
NP131-010-000	10.0	49.7	20.8	4.2
NP131-012-000	12.0	53.2	21.6	4.2

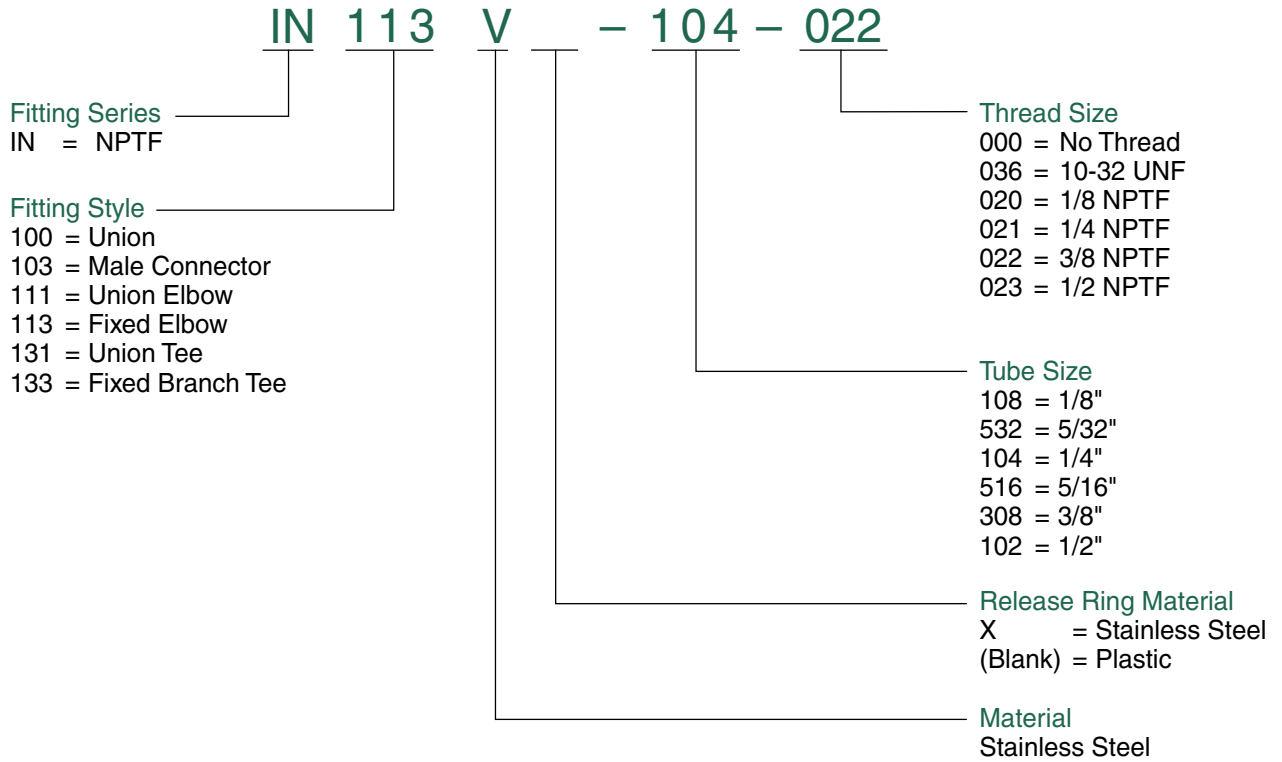
### NP132 Swivel Male Y



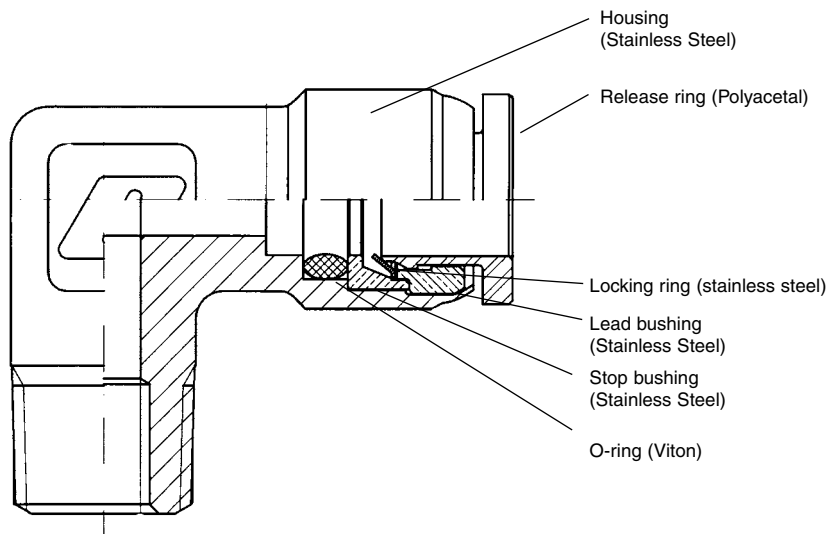
NP132	Tube Diameter (T)	Thread (G)	L	L1	A	H	P	d	SW
NP132-004-000	4.0	1/8	35.5	5.5	10.0	15.1	11.0	3.2	14
NP132-004-001	4.0	1/4	39.0	7.5	10.0	15.1	11.0	3.2	17
NP132-006-000	6.0	1/8	39.2	5.5	10.5	16.0	13.0	3.2	14
NP132-006-001	6.0	1/4	42.2	7.5	10.5	16.0	13.0	3.2	17
NP132-008-000	8.0	1/8	44.3	5.5	13.4	18.1	14.8	3.2	14
NP132-008-001	8.0	1/4	46.8	7.5	13.4	18.1	14.8	3.2	17
NP132-010-001	10.0	1/4	56.3	7.5	15.5	20.4	18.4	4.2	17
NP132-010-002	10.0	3/8	57.3	8.5	15.5	20.4	18.4	4.2	20
NP132-012-002	12.0	3/8	62.5	8.5	15.5	23.2	21.0	4.2	21
NP132-012-003	12.0	1/2	65.5	11.0	15.5	23.2	21.0	4.2	24



### How to Order



- Max. pressure range 265 psi
- Temperature range: -20°F to 230°F (Viton gaskets)
- Push-in fittings with NPTF Threads
- Tube diameter: 1/8" to 1/2"
- Thread size: 10-32 UNF to 1/2 NPTF
- Teflon thread sealant

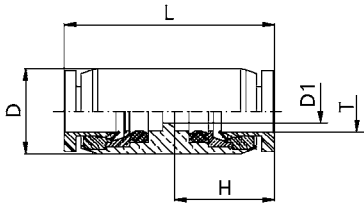






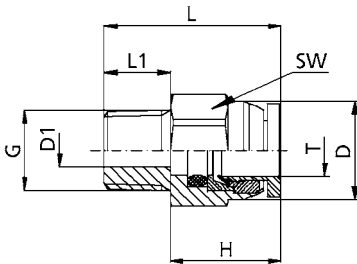
## NPTF Stainless Steel Fittings

### IN100V Union



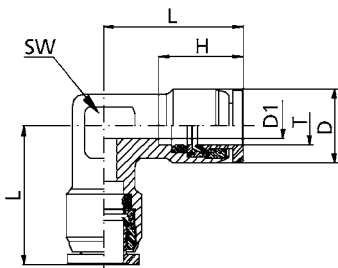
IN100V	Tube Diameter	T	D	D1	L	H
IN100V-532-000	5/32	0.394	0.118	1.024	0.492	
IN100V-104-000	1/4	0.472	0.157	1.110	0.531	
IN100V-516-000	5/16	0.591	0.236	1.299	0.630	
IN100V-308-000	3/8	0.709	0.276	1.398	0.669	
IN100V-102-000	1/2	0.787	0.413	1.575	0.748	

### IN103V Male Connector



IN103V	Tube Diameter	T	Thread F	D	D1	L	L2	H	SW
IN103V-532-020	5/32	1/8 NPTF	0.394	0.118	0.866	0.374	0.492	7/16	
IN103V-104-020	1/4	1/8 NPTF	0.472	0.157	0.886	0.374	0.531	1/2	
IN103V-104-021	1/4	1/4 NPTF	0.472	0.157	1.024	0.512	0.531	1/2	
IN103V-516-020	5/16	1/8 NPTF	0.591	0.236	1.055	0.374	0.630	19/32	
IN103V-516-021	5/16	1/4 NPTF	0.591	0.236	1.173	0.512	0.630	19/32	
IN103V-308-021	3/8	1/4 NPTF	0.669	0.295	1.232	0.512	0.669	11/16	
IN103V-308-022	3/8	3/8 NPTF	0.669	0.295	1.232	0.512	0.669	11/16	
IN103V-102-021	1/2	1/4 NPTF	0.827	0.413	1.339	0.512	0.748	13/16	
IN103V-102-022	1/2	3/8 NPTF	0.827	0.413	1.339	0.512	0.748	13/16	

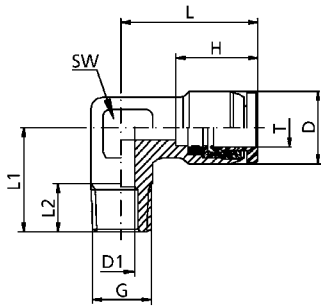
### IN111V Union Elbow



IN111V	Tube Diameter	T	D	D1	L	H	SW
IN111V-532-000	5/32	0.433	0.118	0.846	0.492	0.472	
IN111V-104-000	1/4	0.472	0.157	0.870	0.531	0.472	
IN111V-516-000	5/16	0.591	0.236	0.992	0.630	0.472	
IN111V-308-000	3/8	0.709	0.295	1.004	0.669	0.551	

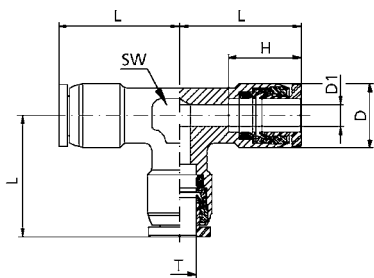


### IN113V Fixed Elbow



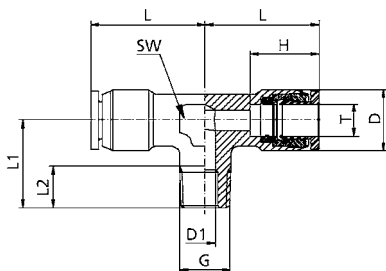
IN113V	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW
IN113V-532-020	5/32		1/8 NPTF	0.433	0.118	0.846	0.768	0.374	0.492	0.472
IN113V-104-020	1/4		1/8 NPTF	0.472	0.157	0.870	0.768	0.374	0.531	0.472
IN113V-104-021	1/4		1/4 NPTF	0.472	0.157	0.870	1.043	0.512	0.531	0.472
IN113V-516-021	5/16		1/4 NPTF	0.591	0.236	0.992	1.043	0.512	0.630	0.551
IN113V-308-021	3/8		1/4 NPTF	0.709	0.295	1.004	0.906	0.512	0.669	0.669

### IN131V Union Tee



IN131V	Tube Diameter	T	D	D1	L	H
IN131V-532-000	5/32		0.433	0.118	0.846	0.492
IN131V-104-000	1/4		0.472	0.157	0.870	0.531
IN131V-516-000	5/16		0.591	0.236	0.992	0.630
IN131V-308-000	3/8		0.709	0.295	1.004	0.669

### IN133V Fixed Branch Tee

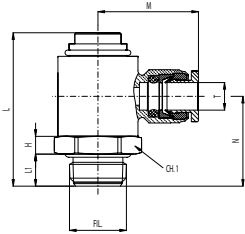


IN133V	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW
IN133V-532-020	5/32		1/8 NPTF	0.433	0.118	0.846	0.768	0.374	0.492	0.472
IN133V-104-020	1/4		1/8 NPTF	0.472	0.157	0.870	0.768	0.374	0.531	0.472
IN133V-104-021	1/4		1/4 NPTF	0.472	0.157	0.870	1.043	0.512	0.531	0.551
IN133V-516-021	5/16		1/4 NPTF	0.591	0.236	0.992	1.043	0.512	0.630	0.472
IN133V-308-021	3/8		1/4 NPTF	0.709	0.295	1.004	0.906	0.512	0.669	0.551



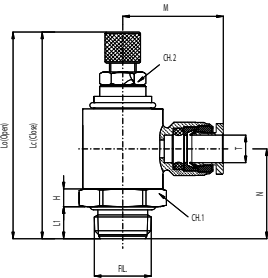
**World Thread Flow Controls**

**INW1391C World Thread Flow Control – Inch Tube**



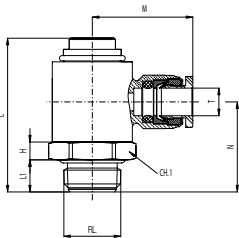
Plastic Release Ring	Brass Release Ring	INW1391C/INWB1391C	Tube Diameter T	Thread F	L	M	N	L1	CH.1	H
IN	INB	1391C-108-020	1/8	1/8	42.4	20.5	24.0	4.9	14	6
IN	INB	1391C-532-020	5/32	1/8	42.4	21.0	24.0	4.9	14	6
IN	INB	1391C-104-020	1/4	1/8	42.4	21.5	24.0	4.9	14	6
IN	INB	1391C-104-021	1/4	1/4	37.5	23.0	23.2	7.2	17	7
IN	INB	1391C-516-021	5/16	1/4	37.5	26.0	23.2	7.2	17	7
IN	INB	1391C-308-021	3/8	1/4	3.75	27.5	23.2	7.2	17	7
IN	INB	1391C-516-022	5/16	3/8	42.2	28.0	26.0	7.6	20	8
IN	INB	1391C-308-022	3/8	3/8	42.2	29.5	26.0	7.6	20	8

**INW139C World Thread Flow Control with Knob – Inch Tube**



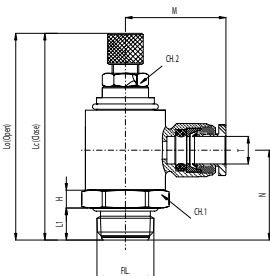
Plastic Release Ring	Brass Release Ring	139C/INWB139C	Tube Diameter T	Thread F	Lc	Lo	M	N	L1	CH.1	H	CH.2
IN	INB	139C-108-020	1/8	1/8	54.5	61.0	20.5	24.0	4.9	14	6	7
IN	INB	139C-532-020	5/32	1/8	54.5	61.0	21.0	24.0	4.9	14	6	7
IN	INB	139C-104-020	1/4	1/8	54.5	61.0	21.5	24.0	4.9	14	6	7
IN	INB	139C-104-021	1/4	1/4	50.0	54.5	23.0	23.2	7.2	17	7	9
IN	INB	139C-516-021	5/16	1/4	50.0	54.5	26.0	23.2	7.2	17	7	9
IN	INB	139C-308-021	3/8	1/4	50.0	54.5	27.5	23.2	7.2	17	7	9
IN	INB	139C-516-022	5/16	3/8	56.8	60.3	28.0	26.0	7.6	20	8	11
IN	INB	139C-308-022	3/8	3/8	56.8	60.3	29.5	26.0	7.6	20	8	11

**NW1391C World Thread Flow Control – Metric Tube**



NW1391C	Tube Diameter T	Thread F	L	M	N	L1	CH.1	H
NW1391C-004-020	4mm	1/8	42.4	20.5	24.0	4.9	14	6
NW1391C-006-020	6mm	1/8	42.4	21.0	24.0	4.9	14	6
NW1391C-006-021	6mm	1/4	37.5	23.0	23.2	7.2	17	7
NW1391C-008-021	8mm	1/4	37.5	26.5	23.2	7.2	17	7
NW1391C-010-021	10mm	1/4	37.5	27.5	23.2	7.2	17	7
NW1391C-008-022	8mm	3/8	42.2	28.0	26.0	7.6	20	8
NW1391C-010-022	10mm	3/8	42.2	29.5	26.0	7.6	20	8

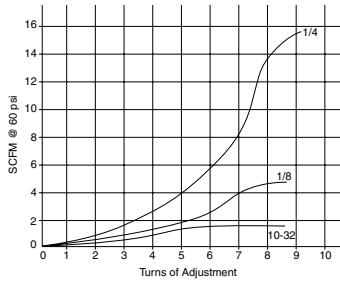
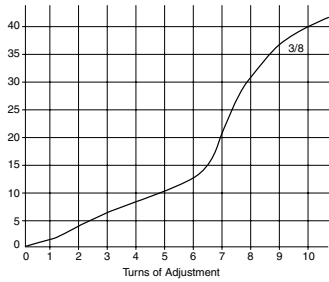
**NW139C World Thread Flow Control with Knob – Metric Tube**



NW139C	Tube Diameter T	Thread F	Lc	Lo	M	N	L1	CH.1	H	CH.2
NW139C-004-020	4mm	1/8	54.5	61.0	20.5	24.0	4.9	14	6	7
NW139C-006-020	6mm	1/8	54.5	61.0	21.0	24.0	4.9	14	6	7
NW139C-006-021	6mm	1/4	50.0	54.5	23.0	23.2	7.2	17	7	9
NW139C-008-021	8mm	1/4	50.0	54.5	26.5	23.2	7.2	17	7	9
NW139C-010-021	10mm	1/4	50.0	54.5	27.5	23.2	7.2	17	7	9
NW139C-008-022	8mm	3/8	56.8	60.3	28.0	26.0	7.6	20	8	11
NW139C-010-022	10mm	3/8	56.8	60.3	29.5	26.0	7.6	20	8	11



### OEM Flow Controls



#### Features

Knob adjust, screwdriver adjust

#### Specifications

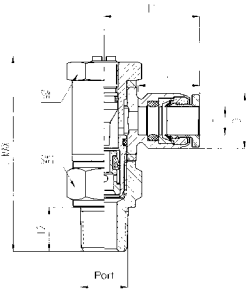
Temperature Range: 0° to 176°F

Maximum Operating Pressure: 265 psi

#### Materials of Construction

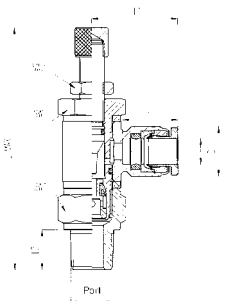
Body: brass-nickel plated; screw: stainless steel; seals: Buna; release button: polyacetal; adjustment needle: brass

### IN135C Flow control



Composite Release Ring	Brass Release Ring	IN135C/INW135C	Tube Diameter T	PORTS		DIMENSIONS					
				NPTF	L MAX	L1	L2	H	D	SW	SW1
IN	INB	135C-108-036	1/8	10-32	.945	0.748	0.217	0.472	0.394	0.315	/
IN	INB	135C-108-020	1/8	1/8	1.665	0.748	0.374	0.472	0.394	0.551	0.551
IN	INB	135C-532-036	5/32	10-32	.945	0.748	0.217	0.492	0.394	0.315	/
IN	INB	135C-532-020	5/32	1/8	1.673	0.795	0.374	0.492	0.394	0.551	0.551
IN	INB	135C-104-020	1/4	1/8	1.673	0.881	0.374	0.531	0.472	0.551	0.551
IN	INB	135C-104-021	1/4	1/4	2.126	0.890	0.512	0.531	0.472	0.669	0.669
IN	INB	135C-308-021	3/8	1/4	2.126	1.067	0.512	0.669	0.709	0.669	0.669
IN	INB	135C-308-022	3/8	3/8	2.333	1.220	0.512	0.669	0.709	0.748	0.866

### IN136C Flow Control with Knob

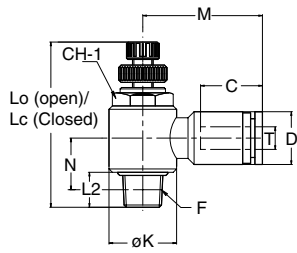


Composite Release Ring	Brass Release Ring	IN136C/INW136C	Tube Diameter T	PORTS		DIMENSIONS					
				NPTF	L MAX	L1	L2	H	D	SW	SW1
IN	INB	136C-108-036	1/8	10-32	.945	0.748	0.217	0.472	0.394	0.315	/
IN	INB	136C-108-020	1/8	1/8	1.665	0.748	0.374	0.472	0.394	0.551	0.551
IN	INB	136C-532-036	5/32	10-32	.945	0.748	0.217	0.492	0.394	0.315	/
IN	INB	136C-532-020	5/32	1/8	1.673	0.795	0.374	0.492	0.394	0.551	0.551
IN	INB	136C-104-020	1/4	1/8	1.673	0.881	0.374	0.531	0.472	0.551	0.551
IN	INB	136C-104-021	1/4	1/4	2.126	0.890	0.512	0.531	0.472	0.669	0.669
IN	INB	136C-308-021	3/8	1/4	2.126	1.067	0.512	0.669	0.709	0.669	0.669
IN	INB	136C-308-022	3/8	3/8	2.333	1.220	0.512	0.669	0.709	0.748	0.866



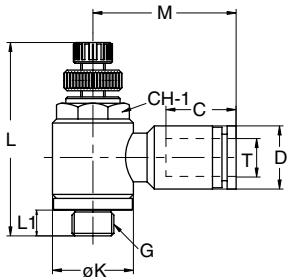
**Valves and Flow Controls**

**INP136C Composite Tube Flow Control with Knob**



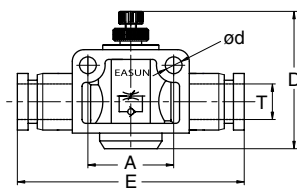
INP136C	Tube Diameter (T)	Thread (F)	D	Lc	Lo	M	N	L1	C	K	CH.1
INP136C-532-036	5/32	10-32 UNF	0.433	1.220	1.449	1.063	0.413	0.157	0.535	0.567	7/16
INP136C-532-020	5/32	1/8 NPTF	0.433	1.378	1.606	1.063	0.413	0.315	0.535	0.567	7/16
INP136C-104-036	1/4	10-32 UNF	0.528	1.220	1.449	0.896	0.421	0.157	0.604	0.567	1/2
INP136C-104-020	1/4	1/8 NPTF	0.528	1.378	1.606	0.896	0.421	0.315	0.604	0.567	7/16
INP136C-104-021	1/4	1/4 NPTF	0.528	1.646	1.890	0.976	0.461	0.433	0.604	0.720	9/16
INP136C-516-020	5/16	1/8 NPTF	0.583	1.378	1.606	0.988	0.445	0.315	0.713	0.567	7/16
INP136C-516-021	5/16	1/4 NPTF	0.583	1.646	1.890	1.108	0.492	0.433	0.713	0.720	9/16
INP136C-308-021	3/8	1/4 NPTF	0.724	1.646	1.890	1.254	0.559	0.433	0.803	0.720	9/16
INP136C-308-022	3/8	3/8 NPTF	0.724	1.870	2.106	1.236	0.583	0.472	0.803	0.866	3/4
INP136C-102-022	1/2	3/8 NPTF	0.854	1.870	2.106	1.402	0.648	0.472	0.870	0.866	3/4
INP136C-102-023	1/2	1/2 NPTF	0.854	2.047	2.283	1.476	0.695	0.591	0.870	1.102	1

**NP136C Composite Flow Control with Knob**



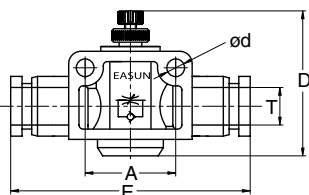
NP136C	Tube Diameter (T)	Thread	D	L	M	L1	C	K	CH.1
NP136C-004-005	4.0	M5	10.0	28.2	20.0	4.0	15.1	14.4	8
NP136C-004-000	4.0	1/8	10.0	41.1	22.5	5.7	15.1	14.4	14
NP136C-006-005	6.0	M5	12.0	28.2	21.9	5.700	16.0	14.4	14
NP136C-006-000	6.0	1/8	12.0	41.1	23.4	5.7	16.0	14.4	14
NP136C-006-001	6.0	1/4	12.0	48.8	25.5	8.3	16.0	18.3	17
NP136C-008-000	8.0	1/8	14.0	41.1	25.6	5.7	18.1	14.4	14
NP136C-008-001	8.0	1/4	14.0	48.8	28.7	8.3	18.1	18.3	17
NP136C-010-001	10.0	1/4	17.0	48.8	32.3	8.3	20.4	18.3	17
NP136C-010-002	10.0	3/8	17.0	54.5	32.9	13.9	20.4	22.0	21
NP136C-012-002	12.0	3/8	20.0	54.5	35.6	13.9	23.2	22.0	21
NP136C-012-003	12.0	1/2	20.0	60.0	36.6	11.0	23.2	28.0	24

**INP139 Composite Inline Flow Control with Knob**



INP139	Tube Diameter (T)	D	A	E	d
INP139-532-000	5/32	25.7	14.0	39.5	3.2
INP139-104-000	1/4	41.9	20.0	47.3	4.3
INP139-516-000	5/16	45.6	22.0	52.6	4.3
INP139-308-000	3/8	52.3	26.0	62.9	4.3
INP139-102-000	1/2	55.0	32.0	73.7	4.3

**NP139 Composite Inline Flow Control with Knob**



NP139	Tube Diameter (T)	D	A	E	d
NP139-004-000	4 mm	25.7	14.0	39.5	3.2
NP139-006-000	6 mm	41.9	20.0	47.6	4.3
NP139-008-000	8 mm	45.6	22.0	52.6	4.3
NP139-010-000	10 mm	52.3	26.0	63.1	4.3
NP139-012-000	12 mm	55.0	32.0	74.2	4.3



### Flow Controls

#### Features

Body swivels 360°, provides accurate speed control in a compact size and eliminates need for fitting.

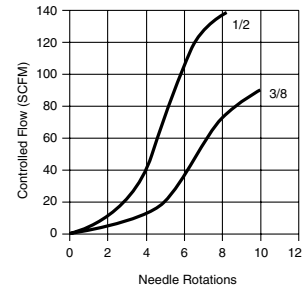
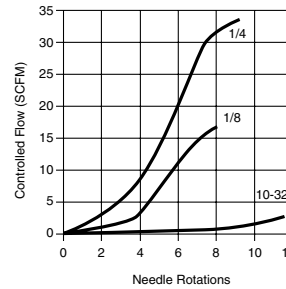
#### Specifications

Temperature Range: 0° to 160° F

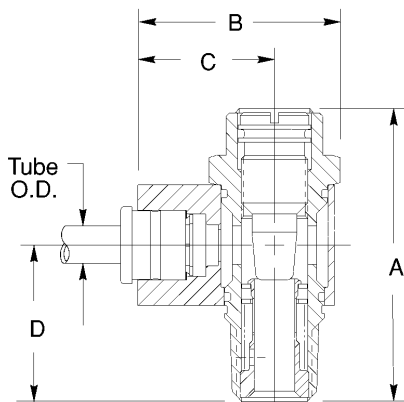
Maximum Operating Pressure: 175 PSIG (12 bar)

#### Materials of Construction

Body: anodized aluminum; cartridge: nickel plated brass; screw: stainless steel; spring: stainless steel; seals: Buna N

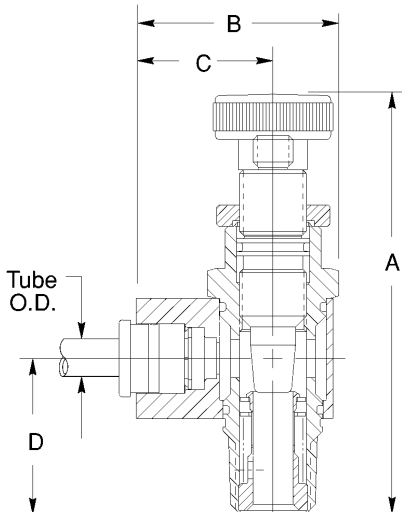


### Standard Flow Control (with and without push-in fitting)



PORTS NPTF	TUBE CONNECTION		Tube Diameter	T	DIMENSIONS			
	WITHOUT PUSH-IN	WITH PUSH-IN			A	B	C	D
10-32	0FCRN	0FPRN4	1/8	.89	.62	.43	.69	
		0FPRN5	5/32					
1/8	1FCRN	1FPRN8	1/4	1.46	.98	.65	1.00	
		1FPRN5	5/32					
1/4	2FCRN	2FPRN8	1/4	1.78	1.28	.91	1.03	
		2FPRN12	3/8					
3/8	3FCRN	3FPRN12	3/8	2.23	1.45	1.02	1.30	
		3FPRN16	1/2					
1/2	4FCRN	4FPRN12	3/8	2.82	1.84	1.28	1.40	
		4FPRN16	1/2					

### Knob Adjust Flow Control (with and without push-in fitting)



PORTS NPTF	TUBE CONNECTION		Tube Diameter	T	DIMENSIONS			
	WITHOUT PUSH-IN	WITH PUSH-IN			A	B	C	D
10-32	0FCTN	0FPTN4	1/8	1.21	.62	.43	.69	
		0FPTN5	5/32					
1/8	1FCTN	1FPTN8	1/4	2.21	.98	.65	1.00	
		1FPTN5	5/32					
1/4	2FCTN	2FPTN8	1/4	2.50	1.28	.91	1.03	
		2FPTN12	3/8					
3/8	3FCTN	3FPTN12	3/8	3.23	1.45	1.02	1.30	
		3FPTN16	1/2					
1/2	4FCTN	4FPTN12	3/8	3.96	1.84	1.28	1.40	
		4FPTN16	1/2					

### Metric Flow Controls

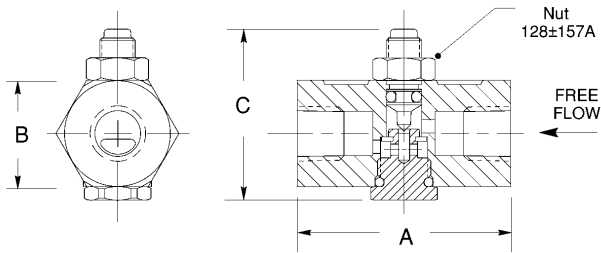
#### How to Order

Change "N" to "G" in part number for BSPP Thread or Tube option.

For example, change 0FCTN to 0FCTG or change 0FTPTN4 to 0FTPTG4.

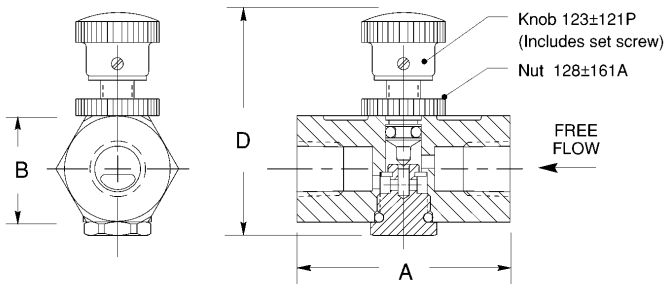


### 1FC1 Inline Flow controls

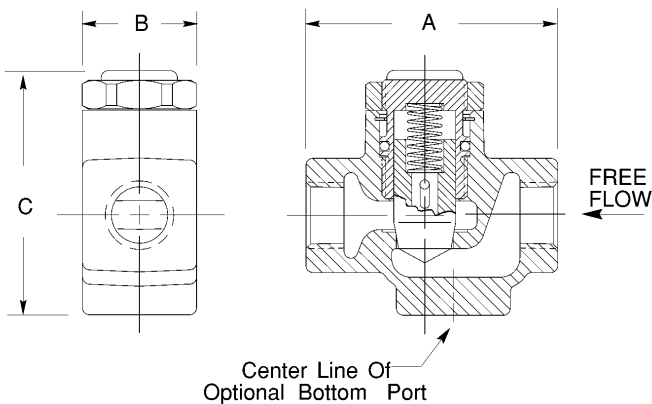


PORTS NPTF	WITHOUT KNURLED KNOB	WITH KNURLED KNOB	Cv	DIMENSIONS			
				A	B	C	D
1/8	1FC1	1FC1K	.22	1.50	.75	1.08	1.66
1/4	2FC1	2FC1K	.22	1.50	.75	1.08	1.66

#### Optional Knurled Knob (suffix K)



### FC2 Inline Flow Controls



PORTS NPTF	WITHOUT BOTTOM PORT	WITH BOTTOM PORT	Cv	DIMENSIONS		
				A	B	C
1/4	2FC2	2FC2B	2.3	2.34	1.06	2.21
3/8	3FC2	3FC2B	2.7	2.34	1.06	2.21

PORTS NPTF	WITHOUT BOTTOM PORT	WITH BOTTOM PORT	Cv	DIMENSIONS		
				A	B	C
1/2	4FC3	4FC3B	6.0	3.28	1.50	3.17
3/4	5FC3	5FC3B	7.5	3.28	1.50	3.17



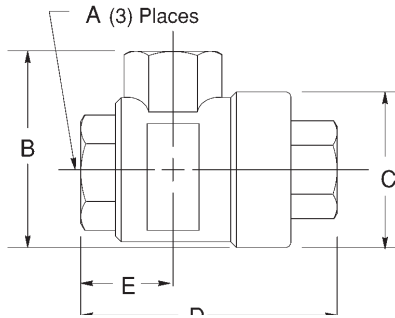
### SEV Quick Exhaust Valve

#### Specifications

Quick exhaust valve, line mounting

Temperature Range: -40° to 165° F

Pressure range: 3.9 to 145 PSI



PORTS NPTF	SEV_BN	A	B	C	D	E
1/8	SEV10BN	1/8	1.30	1.10	1.65	0.55
1/4	SEV25BN	1/4	1.58	1.30	2.05	0.71
3/8	SEV38BN	3/8	1.70	1.30	2.16	0.75
1/2	SEV50BN	1/2	2.17	1.69	2.80	1.06
3/4	SEV75BN	3/4	2.45	1.93	3.55	1.42

PORTS G Tap	SEV_	A	B	C	D	E
1/8	SEV10B	G1/8	33	28	42	14
1/4	SEV25B	G1/4	40	33	52	18
1/2	SEV50B	G1/2	55	43	71	27
3/4	SEV75B	G3/4	74	64	90	42
1	SEV100B	G1	88	80	108	48

NOTE: Service parts are available, please consult the factory.

### IN530 Slide Valve

#### Features

The IN530 Slide Valve allows easy isolation of downstream components by dumping circuit pressure.

#### Specifications

Temperature Range: 0° to 160° F

Maximum Operating Pressure: 150 PSIG (10 bar)

Pipe Sizes: 1/8, 1/4, 3/8 1/2 NPTF

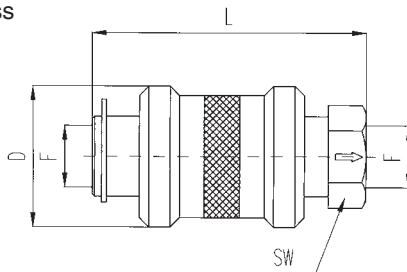
#### Materials of Construction

Sleeve: Aluminum

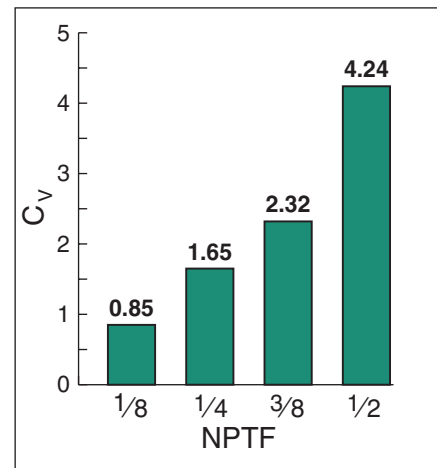
Body: Chrome Plated Brass

Seal: Buna

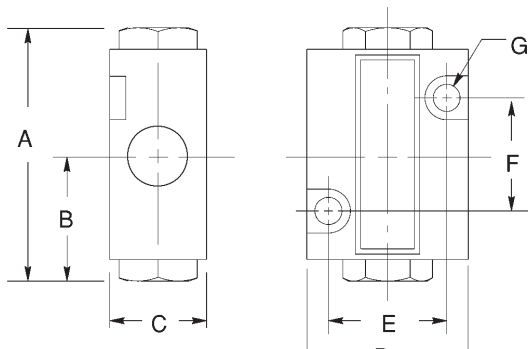
Snap Ring: Steel



F NPTF	Part Number	dimensions		
		L	D	SW
1/8	IN530-020-020	1.89	0.98	0.55
1/4	IN530-021-021	2.28	1.18	0.75
3/8	IN530-022-022	2.76	1.38	0.87
1/2	IN530-023-023	3.15	1.57	1.06



### OA22-1 Shuttle Valve



#### Specifications

Temperature Range: -4° to 194° F

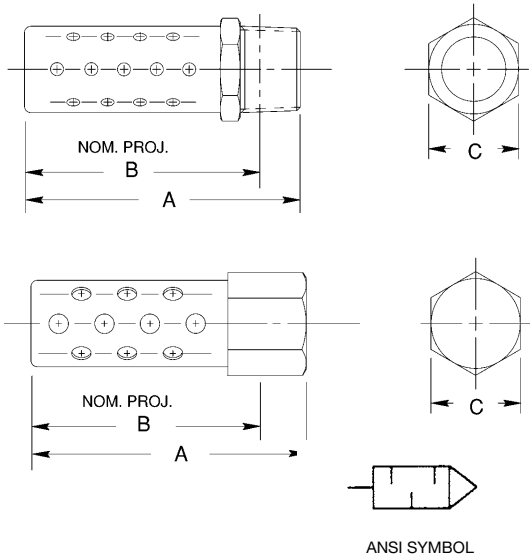
Pressure Range: 3.9 to 145 PSI

ports NPTF	OA22-1	dimensions						
		A	B	C	D	E	F	G
1/8	OA22-1	1.93	.95	.75	1.26	.91	.87	.20





**M Series Metal Air Silencers**



**NPTF Male Dimensions**

MODEL	NPTF	A	B	C	cv
M1MN	1/8	1.38 (34.9)	1.22 (31.0)	0.44 (11.1)	1.17
M2MN	1/4	1.75 (44.5)	1.53 (38.9)	0.56 (14.3)	2.54
M3MN	3/8	2.25 (57.2)	2.00 (50.8)	0.69 (17.5)	5.08
M4MN	1/2	2.72 (69.1)	2.41 (61.1)	0.88 (22.2)	7.32
M5MN	3/4	3.16 (80.2)	2.81 (71.4)	1.06 (27.0)	13.87
M6MN	1	3.88 (98.4)	3.47 (88.1)	1.31 (33.3)	19.53
M7MN	1 1/4	4.50 (114.3)	4.16 (105.6)	1.69 (42.9)	28.32
M8MN	1 1/2	5.00 (127.0)	4.59 (116.7)	2.00 (50.8)	38.09
M9MN	2	5.50 (139.7)	5.06 (128.6)	2.38 (60.3)	52.73

**NPTF Female Dimensions**

MODEL	NPTF	A	B	C	cv
M1FN	1/8	1.38 (34.9)	1.22 (31.0)	0.50 (12.7)	1.17
M2FN	1/4	1.75 (44.5)	1.53 (38.9)	0.62 (15.9)	2.54
M3FN	3/8	2.25 (57.2)	2.00 (50.8)	0.75 (19.1)	5.08
M4FN	1/2	2.72 (69.1)	2.41 (61.1)	0.94 (23.8)	7.32

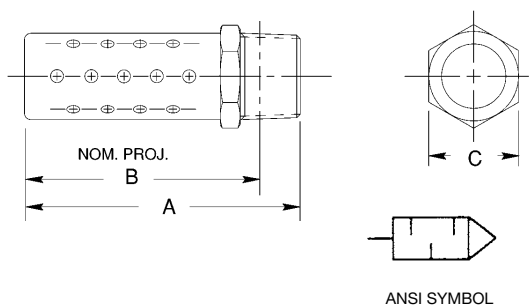
**BSPT Male Dimensions**

MODEL	BSPT	A	B	C	cv
M1MB	1/8	1.38 (34.9)	1.22 (31)	0.44 (11.1)	1.17
M2MB	1/4	1.75 (44.5)	1.53 (38.9)	0.56 (14.3)	2.54
M3MB	3/8	2.25 (57.2)	2.00 (50.8)	0.69 (17.5)	5.08
M4MB	1/2	2.72 (69.1)	2.41 (61.1)	0.88 (22.2)	7.32
M5MB	3/4	3.16 (80.2)	2.81 (71.4)	1.06 (27.0)	13.87
M6MB	1	3.88 (98.4)	3.47 (88.1)	1.31 (33.3)	19.53

**Application:**

The M Series muffler softly exhausts air and disperses it over a 360° pattern. Constructed of a corrosion resistant metal, it can withstand shock and continuous, heavy duty use under many conditions. This muffler is ideal for use on the 22/32 Series Solenoid Soft Start Quick Exhaust Valve, Lockout Valves, valve exhaust ports, single acting cylinders, and many other applications.

**SSM Series Stainless Steel Air Silencers**



**NPTF Male Dimensions**

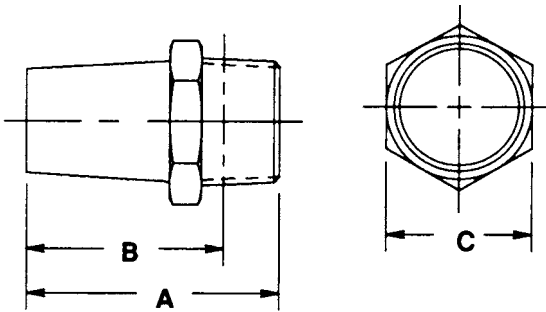
MODEL	NPTF	A	B	C	cv
SSM1MN	1/8	1.38 (34.9)	1.22 (31.0)	0.44 (11.1)	1.17
SSM2MN	1/4	1.75 (44.5)	1.53 (38.9)	0.56 (14.3)	2.54
SSM3MN	3/8	2.25 (57.2)	2.00 (50.8)	0.69 (17.5)	5.08
SSM4MN	1/2	2.72 (69.1)	2.41 (61.1)	0.88 (22.2)	7.32
SSM5MN	3/4	3.16 (80.2)	2.81 (71.4)	1.06 (27.0)	13.87
SSM6MN	1	3.88 (98.4)	3.47 (88.1)	1.31 (33.3)	19.53

**Application:**

The SSM Series Muffler is constructed with 300 Series stainless steel. Resistant to atmospheric corrosion, sterilizing solutions, organic chemicals, and many inorganic chemicals makes this a terrific product for dairy and food plants. The SSM Series Muffler softly exhausts air and disperses it over a 360° pattern. Because of its heavy-duty construction, it can withstand shock and continuous cycling.



### P Series Porous Bronze Air Silencers

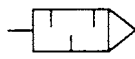


#### NPTF Male Dimensions

MODEL	NPTF	A	B	C	CV
P0MN	10-32	0.75 (19.1)	0.62 (15.7)	0.38 (9.5)	0.23
P1MN	1/8	0.84 (21.4)	0.69 (17.5)	0.44 (11.1)	1.07
P2MN	1/4	1.20 (30.6)	0.97 (24.6)	0.56 (14.3)	1.78
P3MN	3/8	1.45 (36.7)	1.20 (30.6)	0.69 (17.5)	2.30
P4MN	1/2	1.89 (48.0)	1.58 (40.1)	0.88 (22.2)	5.66
P5MN	3/4	2.12 (54.0)	1.78 (45.2)	1.06 (27.0)	9.67
P6MN	1	2.84 (72.2)	2.44 (61.9)	1.31 (33.3)	14.06
P7MN	1 1/4	3.44 (87.3)	3.00 (76.2)	1.69 (42.9)	20.51
P8MN	1 1/2	4.00 (101.6)	3.56 (90.5)	2.00 (50.8)	29.10
P9MN	2	4.75 (120.7)	4.31 (109.5)	2.38 (60.3)	44.92

#### BSPT Male Dimensions

MODEL	BSPT	A	B	C	CV
P1MB	1/8	0.84 (21.3)	0.69 (17.5)	0.44 (11.1)	1.07
P2MB	1/4	1.20 (30.5)	0.97 (24.6)	0.56 (14.3)	1.78
P3MB	3/8	1.45 (36.8)	1.20 (30.5)	0.69 (17.5)	2.30
P4MB	1/2	1.89 (48.0)	1.58 (40.1)	0.88 (22.2)	5.66
P5MB	3/4	2.12 (53.9)	1.78 (45.2)	1.06 (27.0)	9.67
P6MB	1	2.84 (72.1)	2.44 (62.0)	1.31 (33.3)	14.06

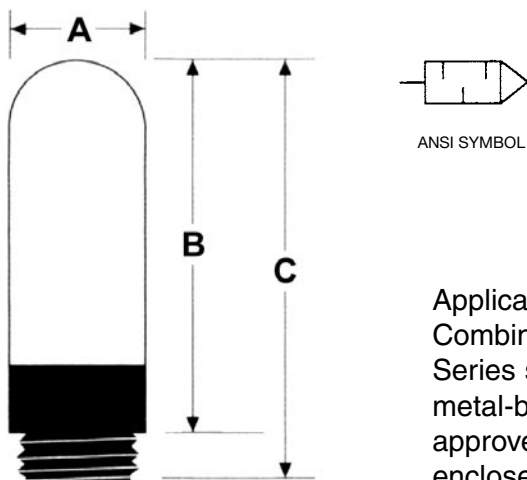


ANSI SYMBOL

#### Application:

The P Series muffler is perfect for limited space applications due to its compact size. This silencer can be used to muffle air valve exhaust noise, intake filtration, coalescing of oil mist exhaust, pressure or vacuum equalization, or on any other liquid vapor.

### E Series Polyethylene Air Silencers



#### NPTF Male Dimensions

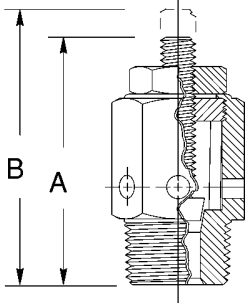
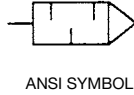
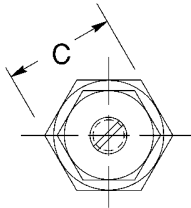
MODEL	NPTF	A	B	C
E1MN	1/8	0.49 (12.5)	1.1 (28.3)	1.3 (34.0)
E2MN	1/4	0.61 (15.5)	1.4 (35.5)	1.7 (42.5)
E3MN	3/8	0.73 (18.5)	2.2 (56.0)	2.7 (67.5)
E4MN	1/2	0.93 (23.5)	2.6 (67.0)	3.1 (78.0)
E5MN	3/4	1.50 (38.5)	4.9 (123.5)	5.5 (140.0)
E6MN	1	1.90 (49.0)	5.5 (140.5)	6.3 (160.0)

#### Application:

Combining a sturdy nylon thread with a polyethylene body, the E Series silencer gives a low-cost, light weight alternative to heavier, metal-based mufflers while reducing decibel levels to an OSHA approved level. It is perfect for robotic arm applications, low-traffic or enclosed areas, or where cost is of primary concern.



### Bronze Speed Control Muffler



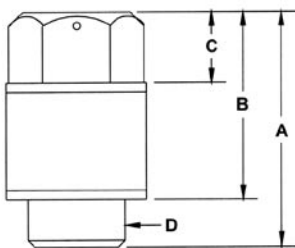
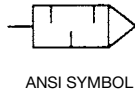
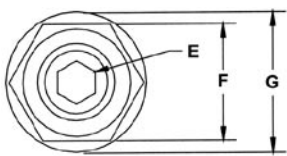
#### Model Selection

PORT SIZE	MODELS NPT	Cv	DIMENSIONS		
			A	B	C
1/8	A1MN	0.35	1.12 (28.0)	1.31 (33.0)	0.50 (13.0)
1/4	A2MN	0.67	1.42 (36.0)	1.56 (40.0)	0.63 (16.0)
3/8	A3MN	0.90	1.47 (32)	1.63 (41.0)	0.69 (18.0)
1/2	A4MN	1.35	1.75 (44)	2.00 (51.0)	0.88 (22.0)
3/4	A5MN	1.67	2.00 (51)	2.38 (60.0)	1.06 (27.0)
1	A6MN	2.32	2.25 (57)	2.50(63.0)	1.31 (33.0)

#### Application:

The Numatics Bronze Speed Control Muffler provides infinite metering of air flow. The sintered bronze is encased by an outer metal shroud. With linear adjusting capability, the speed of the cylinder can be decreased by adjusting the integrated screw. When optimal exhaust rate is reached, the lockout may be adjusted to prevent accidental adjustments due to vibration or other means. Maximum Operating Pressure: 300 PSI Temperature Range: 35°-300°F (1.7°-149°C)

### Polyethylene Speed Control Muffler



#### Model Selection

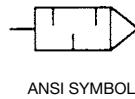
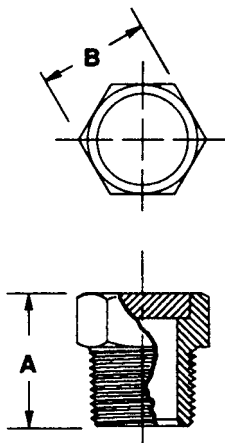
PORT SIZE	MODELS NPT	DIMENSIONS						
		A	B	C	D	E	F	G
M5	S0MN	0.52 (16.0)	0.36(11.0)	0.36(11.0)	M5	0.05(1.5)	3.1(79.0)	0.30(9.2.0)
1/8	S1MN	0.69(21.0)	0.49(15.0)	0.16(5.0)	1/8 NPT	0.08(2.5)	5.1(130.0)	0.49(15.0)
1/4	S2MN	0.95(29.0)	0.72(22.0)	0.23(7.0)	1/4 NPT	0.13(4.0)	5.9(150.0)	0.59(18.0)
3/8	S3MN	1.2(38.0)	0.98(30.0)	0.36(11.0)	3/8 NPT	0.20(6.0)	7.9(200.0)	0.79(24.0)
1/2	S4MN	1.6(50.0)	1.3(40.0)	0.49(15.0)	1/2 NPT	0.26(8.0)	8.4(213.0)	0.98(30.0)

#### Application:

The Polyethylene Speed Control Muffler is designed to give fine adjustment to the low end of the flow range, followed by more coarse control as flow is increased toward the maximum. The body is made of highly versatile and cost-effective nylon. The adjusting screw is made of high tensile steel and is coated with electroplated zinc. The S Series muffler reduces decibel levels to an OSHA approved level.



### Breather Vent Silencer



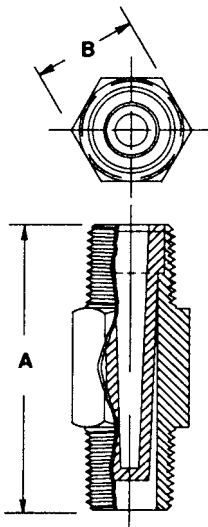
#### Model Selection

PORT SIZE	MODELS		Cv	DIMENSIONS	
	NPT	BSPT		A	B
1/8	B1MN	B1MB	0.44	0.44 (11.0)	0.44 (11.0)
1/4	B2MN	B2MB	0.65	0.63 (16.0)	0.56 (14.0)
3/8	B3MN	B3MB	1.12	0.75 (19.0)	0.68 (17.0)
1/2	B4MN	B4MB	1.77	0.88 (22.0)	0.88 (22.0)
3/4	B5MN	B5MB	4.72	1.00 (25.0)	1.06 (27.0)
1	B6MN	B6MB	7.30	1.31 (33.0)	1.31 (33.0)
1 1/4	B7MN	B7MB	10.63	1.41 (50.0)	1.68 (43.0)
1 1/2	B8MN	B8MB	12.72	1.50 (38.0)	2.00 (51.0)

#### Application:

The Breather Vent offers some noise reduction, but is better suited for keeping contaminant out of valve exhaust ports, single-acting cylinder ports, or any other threaded port open to atmosphere which needs flow relief. It is also used on gear boxes, storage tanks, or wherever pressure equalization is needed. The Breather Vent is compact and inexpensive. Maximum Operating Pressure: 150 PSI Operating Temperature: 35°-300°F (1.7°-149°C)

### Inlet Filter Strainer



#### Model Selection

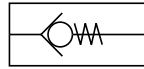
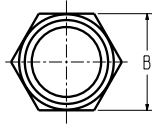
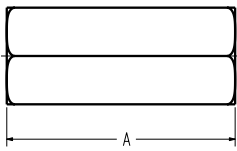
PORT SIZE	MODELS		Cv	DIMENSIONS	
	NPTF			A	B
1/8	C1MN		0.31	1.25 (32.0)	0.43 (11.0)
1/4	C2MN		0.78	1.50 (38.0)	0.56 (14.0)
3/8	C3MN		1.0	1.75 (44.0)	0.69 (17.0)
1/2	C4MN		2.0	2.00 (51.0)	0.88 (22.0)

#### Application:

Ideal for air, oil, or water, the C Series Inlet Filter Strainer is compact and light weight - perfect for point of use application. It features a brass fitting which contains a cone-shaped, sintered bronze, 40 micron filter. It is used as a prefilter which eliminates bulk contamination from air lines, extending the life of filter elements and other downstream components.



### CV Series Check Valves



ANSI SYMBOL

#### Specifications

Operating Temperature: 0° to 140° F  
(5° to 60°C)

Operating Pressure: 3.5 to 213 PSIG  
(0.24 to 14.69 bar)

#### Materials of Construction

Body: Nickel Plated Brass

Valve: Brass

#### Model Selection

PORT SIZE	MODELS NPTF	DIMENSIONS	
		A	B
1/8	CV1FN	1.75	9/16" Hex
1/4	CV2FN	2.00	11/16" Hex
3/8	CV3FN	2.00	7/8" Hex
1/2	CV4FN	2.50	1" Hex

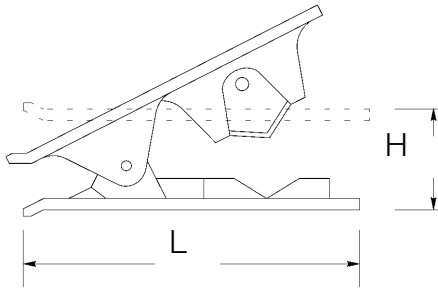
#### Application:

Numatics CV Series Check Valves are used in fluid systems to permit free flow of air in on direction and prevent the flow in the opposite direction. Each check valve is clearly marked with a direction arrow to prevent accidental misconnection.



## Tubing

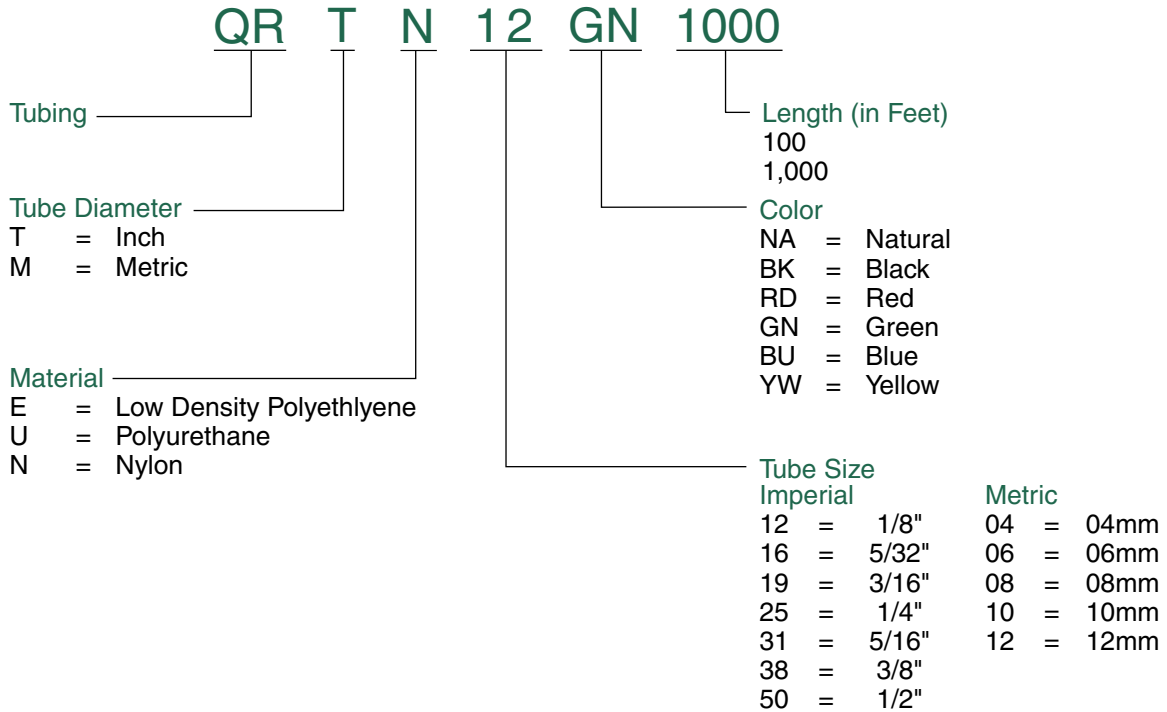
### QR300071 Tube Cutter



This tool will cut all composite tubes (e.g. nylon, teflon, polyurethane, braided polyethylene, soft rubber, etc.) from 1/8" to 1/2" diameter inclusive. It is designed to give a clean cut at right angles to tube axis. A spring maintains the cutter in the closed position.

MODEL NO.	HEIGHT	LENGTH
QR3000 71 00	.98	3.11

### How to Order





### Polyurethane 95 Tubing

#### Application

Polyurethane tubing is ideal for compressed air and vacuum systems. This rigid wall tubing is compatible with push to connect pneumatic fittings.

#### Features

Has excellent abrasion resistance and shape retention while working in high humidity and low temperatures. Withstands salt water, ages well, has good vibration absorption, and excellent tear resistance.

#### Specifications

- Vacuum to 28" Hg
- Temperature Range: -40° to 165° F
- UV Stabilized
- Shore 95 A
- NSF61 Compliant
- Meets UL94HB
- Dimensional Tolerance
  - Imperial ±.005 in.
  - Metric ±.127 mm

#### Inch

MODEL NUMBER*	O.D. (in.)	I.D. (in.)	WALL (in.)	MIN. BEND RADIUS	WORKING PRESSURE (PSIG)				WEIGHT lbs/100'
					@ 75°F	@ 100°F	@ 125°F	@ 150°F	
QRTU12__	1/8	.066	.030	1/4	233	172	140	117	0.5
QRTU16__	5/32	.093	.031	3/8	176	130	106	88	0.7
QRTU19__	3/16	.107	.040	3/8	150	111	90	75	1.0
QRTU25__	1/4	.160	.045	1/2	148	110	89	74	1.5
QRTU31__	5/16	.216	.048	3/4	133	98	80	67	3.9
QRTU38__	3/8	.245	.065	7/8	147	109	88	74	3.4
QRTU50__	1/2	.375	.090	1-1/8	140	104	84	70	5.1

#### Metric

MODEL NUMBER*	O.D. (mm)	I.D. (mm)	WALL (mm)	MIN. BEND RADIUS	WORKING PRESSURE (PSIG)				WEIGHT lbs/100'
					@ 75°F	@ 100°F	@ 125°F	@ 150°F	
QRMU04__	4	.24	0.8	3/8	176	130	106	88	0.7
QRMU06__	6	4.0	1.0	1/2	145	107	87	73	1.3
QRMU08__	8	5.0	1.5	3/4	155	115	93	78	2.6
QRMU10__	10	6.5	1.75	7/8	149	110	89	75	3.9
QRMU12__	12	8.0	2.0	1-1/8	133	98	80	67	5.3

\*See page 35 for complete model number information.

### Polyurethane Tubing for Numatrol™ Series

#### Application

This highly flexible tubing allows easy connection to "barbed" fittings with sharp bends possible in less than one inch. Many Numatrol™ installations that previously required the use of nylon tubing for high pressure, clamp functions for example, can now be easily accomplished with this tubing.

#### Features

Numatrol™ polyurethane tubing offers superior performance to other composite tubing with regard to kink resistance. Low temperature flexibility, higher working pressures, and resistance to ambient ozone oil, grease, fuels and most chemicals.

#### Specifications

- Vacuum to 28" Hg
- Temperature Range: -0° to 200° C
- Shore 83 A

MODEL NUMBER	O.D. (in.)	I.D. (in.)	WALL (in.)	TOLERANCE		@ 0°C	WORKING PRESSURE (PSIG)					ROLL LENGTH
				O.D.	I.D.		@ 40°C	@ 80°C	@ 120°C	@ 160°C	@ 200°C	
135-124	1/4	1/8	.031	±.008	±.005	180	135	97	60	48	22	1000 ft.
135-125	1/4	1/8	.031	±.008	±.005	180	135	97	60	48	22	100 ft.
135-127	1/8	1/16	.015	±.005	±.005	180	135	97	60	48	22	1000 ft.
135-126	1/8	1/16	.015	±.005	±.005	180	135	97	60	48	22	100 ft.



# NUMATICS®

World Class Supplier  
of Pneumatic Components



## World Headquarters

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Fax: 248-960-2160

### Numatics – Cylinders

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