

**numatics**®

Accessories



***Accessories***

***Fittings · Flow Controls · Mufflers · Etc***

*We're everywhere you need us to be!*



## Accessories

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### How to Order

**INW 103 V – 104 – 022**

**Fitting Series**

INW = World Thread NPTF  
 NW = World Thread Metric

**Fitting Style**

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

**Thread Size**

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

**Tube Size**

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

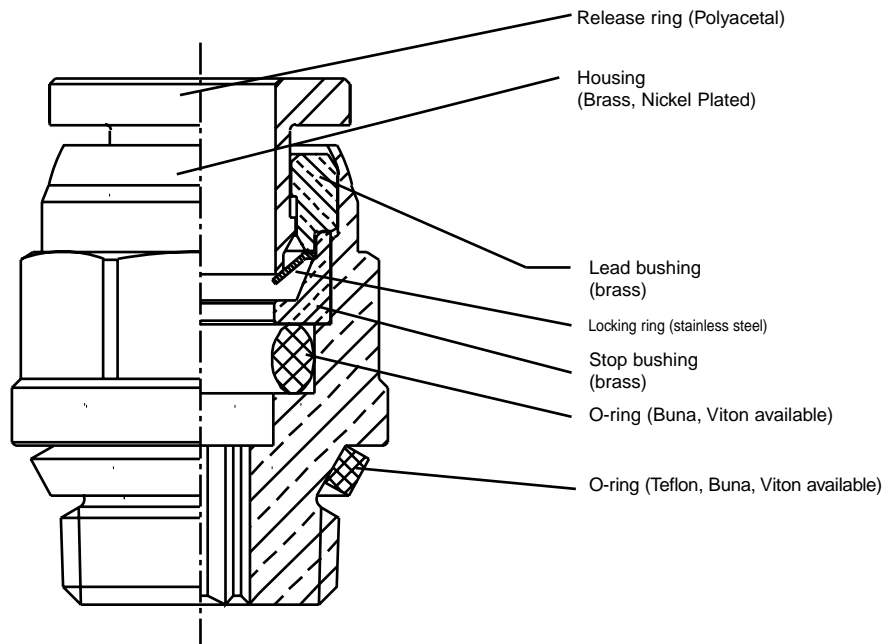
**Metric**

004 = 4mm  
 006 = 6mm  
 008 = 8mm  
 010 = 10mm

**Material**

V = Stainless Steel

- Pressure Rating to 265 psi
- Vacuum Rating: 29" of Mercury Hg
- 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.

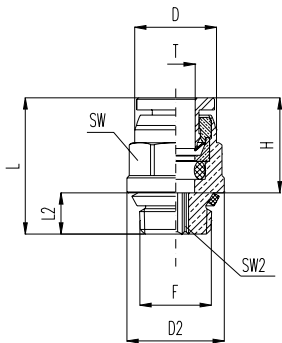
- Extremely versatile – One fitting design for multiple thread types
- Rapid assembly – Requires fewer turns to tighten and seal
- Re-usable – Fittings can be used several times with out gasket deterioration
- Reliable seal – Helical thread profile and PTFE gasket ensure proper seal
- Maximum working pressure: 116 PSIG at 68°F (8 bar at 20°C)
- Conductor compatibility – Nylon, Polyurethane, Polyethylene

Numatics' World Tread™ IN-Fitting 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) 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.



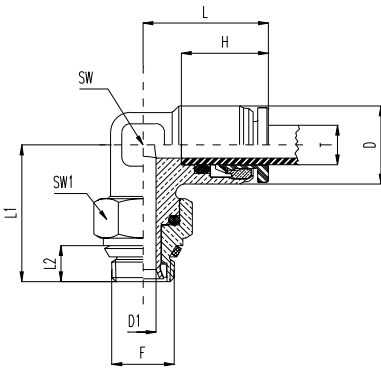
## World Thread Fittings

### INW103 Straight/Inch Tube



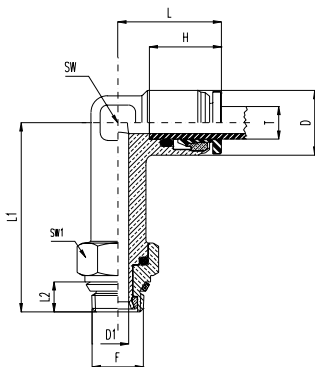
INW103	Tube Diameter	T	Thread F	D	D2	L	L2	H	SW	SW2
INW103-108-020	1/8	1/8	0.370	0.472	0.709	0.217	0.472	0.375	0.063	
INW103-108-021	1/8	1/4	0.370	0.591	0.787	0.303	0.472	0.375	0.063	
INW103-532-020	5/32	1/8	0.390	0.512	0.709	0.217	0.492	0.438	0.063	
INW103-532-021	5/32	1/4	0.390	0.591	0.795	0.303	0.492	0.438	0.063	
INW103-104-020	1/4	1/8	0.465	0.552	0.799	0.217	0.531	0.500	0.156	
INW103-104-021	1/4	1/4	0.465	0.591	0.886	0.303	0.531	0.500	0.156	
INW103-104-022	1/4	3/8	0.465	0.748	0.906	0.323	0.531	0.500	0.156	
INW103-516-020	5/16	1/8	0.689	0.787	0.925	0.323	0.650	0.594	0.156	
INW103-516-021	5/16	1/4	0.689	0.945	1.004	0.406	0.650	0.594	0.219	
INW103-516-022	5/16	3/8	0.807	0.866	1.004	0.303	0.650	0.594	0.219	
INW103-308-020	3/8	1/8	0.807	0.866	1.043	0.323	0.669	0.688	0.156	
INW103-308-021	3/8	1/4	0.807	0.945	1.043	0.406	0.669	0.688	0.219	
INW103-308-022	3/8	3/8	0.807	0.866	1.071	0.323	0.669	0.688	0.250	
INW103-308-023	3/8	1/2	0.807	0.945	1.161	0.406	0.669	0.688	0.250	
INW103-102-021	1/2	1/4	0.807	0.945	1.142	0.406	0.728	0.813	0.250	
INW103-102-022	1/2	3/8	0.807	0.866	1.181	0.323	0.728	0.813	0.250	
INW103-102-023	1/2	1/2	0.807	0.945	1.220	0.406	0.728	0.813	0.375	

### INW109 Swivel Elbow/Inch Tube



INW109	Tube Diameter	T	Thread F	D	D1	L	L1	H	L2	SW	SW1
INW109-108-020	1/8	1/8	0.394	0.157	0.650	0.768	0.472	0.217	0.354	0.500	
INW109-108-021	1/8	1/4	0.394	0.157	0.650	0.768	0.472	0.303	0.354	0.594	
INW109-532-020	5/32	1/8	0.394	0.157	0.669	0.768	0.492	0.217	0.354	0.500	
INW109-532-021	5/32	1/4	0.394	0.157	0.669	0.874	0.492	0.303	0.354	0.594	
INW109-104-020	1/4	1/8	0.472	0.157	0.768	0.799	0.531	0.217	0.433	0.500	
INW109-104-021	1/4	1/4	0.472	0.236	0.768	0.8155	0.531	0.303	0.433	0.594	
INW109-104-022	1/4	3/8	0.472	0.236	0.768	0.906	0.531	0.323	0.433	0.750	
INW109-516-020	5/16	1/8	0.591	0.157	0.945	0.878	0.650	0.217	0.551	0.500	
INW109-516-021	5/16	1/4	0.591	0.236	0.945	0.886	0.650	0.303	0.551	0.594	
INW109-516-022	5/16	3/8	0.591	0.315	0.945	0.996	0.650	0.323	0.551	0.750	
INW109-308-020	3/8	1/8	0.689	0.157	1.063	0.929	0.669	0.217	0.630	0.500	
INW109-308-021	3/8	1/4	0.689	0.236	1.063	0.945	0.669	0.303	0.630	0.594	
INW109-308-022	3/8	3/8									
INW109-308-023	3/8	1/2	0.689	0.315	1.063	1.197	0.669	0.406	0.630	0.938	
INW109-102-021	1/2	1/4	0.827	0.236	1.201	1.059	0.728	0.303	0.688	0.594	
INW109-102-022	1/2	3/8	0.827	0.315	1.201	1.122	0.728	0.323	0.688	0.750	
INW109-102-023	1/2	1/2	0.827	0.315	1.201	1.280	0.728	0.406	0.688	0.938	

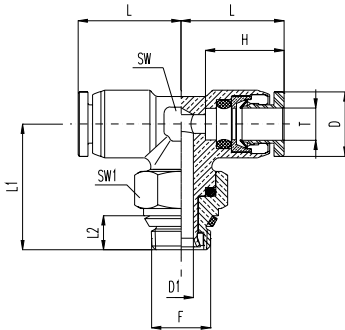
### INW109E Extended Swivel Elbow/Inch Tube



INW109E	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW	SW1
INW109E-532-020	5/32	1/8	0.394	0.157	0.638	1.461	0.374	0.472	0.354	0.512	
INW109E-532-021	5/32	1/4	0.394	0.157	0.638	1.598	0.512	0.472	0.354	0.591	
INW109E-104-020	1/4	1/8	0.394	0.157	0.657	1.457	0.374	0.492	0.354	0.512	
INW109E-104-021	1/4	1/4	0.394	0.157	0.657	1.594	0.512	0.492	0.354	0.591	
INW109E-104-022	1/4	3/8	0.472	0.157	0.740	1.575	0.374	0.531	0.433	0.512	
INW109E-516-020	5/16	1/8	0.472	0.236	0.740	1.693	0.512	0.531	0.433	0.591	
INW109E-516-021	5/16	1/4	0.472	0.236	0.740	1.732	0.512	0.531	0.433	0.709	
INW109E-516-022	5/16	3/8	0.591	0.157	0.925	1.772	0.374	0.531	0.551	0.512	
INW109E-308-020	3/8	1/8	0.591	0.236	0.925	1.909	0.512	0.531	0.551	0.591	
INW109E-308-021	3/8	1/4	0.630	0.315	0.925	1.969	0.512	0.531	0.551	0.709	
INW109E-308-022	3/8	3/8	0.669	0.157	1.043	1.929	0.374	0.531	0.591	0.512	
INW109E-108-020	1/8	1/8	0.709	0.236	1.043	2.067	0.512	0.531	0.591	0.591	
INW109E-108-021	1/8	1/4	0.748	0.315	1.043	2.106	0.512	0.531	0.591	0.709	

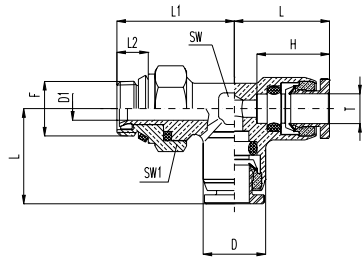


### INW114 Swivel Branch Tee/Inch Tube



INW114	Tube Diameter	T	Thread	F	D	D1	L	L1	H	L2	SW	SW1
INW114-108-020	1/8		1/8	0.394	0.157	0.650	0.768	0.472	0.217	0.354	0.500	
INW114-108-021	1/8		1/4	0.394	0.157	0.650	0.787	0.472	0.303	0.354	0.594	
INW114-532-020	5/32		1/8	0.394	0.157	0.669	0.768	0.492	0.217	0.354	0.500	
INW114-532-021	5/32		1/4	0.394	0.157	0.669	0.787	0.492	0.303	0.354	0.594	
INW114-104-020	1/4		1/8	0.472	0.157	0.768	0.886	0.531	0.217	0.433	0.500	
INW114-104-021	1/4		1/4	0.472	0.236	0.768	0.906	0.531	0.303	0.433	0.594	
INW114-104-022	1/4		3/8	0.472	0.236	0.768	0.965	0.531	0.323	0.433	0.750	
INW114-516-020	5/16		1/8	0.591	0.157	0.945	0.874	0.650	0.217	0.551	0.500	
INW114-516-021	5/16		1/4	0.591	0.236	0.945	0.886	0.650	0.303	0.551	0.594	
INW114-308-020	3/8		1/8	0.689	0.157	1.063	0.925	0.669	0.217	0.630	0.500	
INW114-308-021	3/8		1/4	0.689	0.236	1.063	0.945	0.669	0.303	0.630	0.594	
INW114-308-022	3/8		3/8	0.689	0.315	1.063	1.043	0.669	0.323	0.630	0.750	
INW114-308-023	3/8		1/2	0.689	0.315	1.063	1.201	0.669	0.406	0.630	0.938	
INW114-102-021	1/2		1/4	0.827	0.236	1.201	1.063	0.728	0.303	0.688	0.594	
INW114-102-022	1/2		3/8	0.827	0.315	1.201	1.122	0.728	0.323	0.688	0.750	
INW114-102-023	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

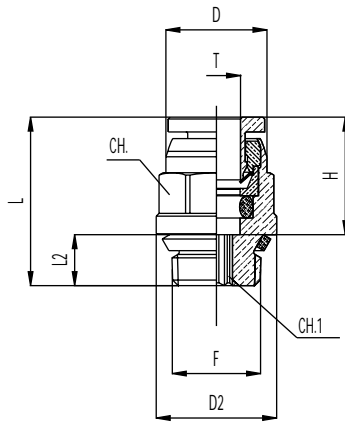


INW116	Tube Diameter	T	Thread	F	D	D1	L	L1	H	L2	SW	SW1
INW116-108-020	1/8		1/8	0.394	0.157	0.650	0.768	0.472	0.217	0.354	0.500	
INW116-108-021	1/8		1/4	0.394	0.157	0.650	0.787	0.472	0.303	0.354	0.594	
INW116-532-020	5/32		1/8	0.394	0.157	0.650	0.768	0.492	0.217	0.354	0.500	
INW116-532-021	5/32		1/4	0.394	0.157	0.638	0.787	0.492	0.303	0.354	0.594	
INW116-104-020	1/4		1/8	0.472	0.157	0.638	0.886	0.531	0.217	0.433	0.500	
INW116-104-021	1/4		1/4	0.472	0.236	0.657	0.906	0.531	0.303	0.433	0.594	
INW116-104-022	1/4		3/8	0.472	0.236	0.657	0.965	0.531	0.323	0.433	0.750	
INW116-516-020	5/16		1/8	0.591	0.157	0.740	0.874	0.650	0.217	0.551	0.500	
INW116-516-021	5/16		1/4	0.591	0.236	0.740	0.886	0.650	0.303	0.551	0.594	
INW116-308-020	3/8		1/8	0.689	0.157	0.740	0.925	0.669	0.217	0.630	0.500	
INW116-308-021	3/8		1/4	0.689	0.236	0.925	0.945	0.669	0.303	0.630	0.594	
INW116-308-022	3/8		3/8	0.689	0.315	0.925	1.043	0.669	0.323	0.630	0.750	
INW116-308-023	3/8		1/2	0.689	0.315	0.925	1.201	0.669	0.406	0.630	0.938	
INW116-102-021	1/2		1/4	0.827	0.236	1.043	1.063	0.728	0.303	0.688	0.594	
INW116-102-022	1/2		3/8	0.827	0.315	1.043	1.122	0.728	0.323	0.688	0.750	
INW116-102-023	1/2		1/2	0.827	0.315	1.043	1.280	0.728	0.406	0.688	0.938	



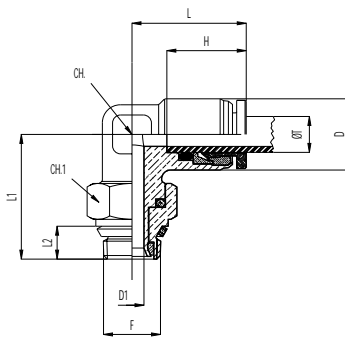
## World Thread Fittings

### NW103 Straight/Metric Tube



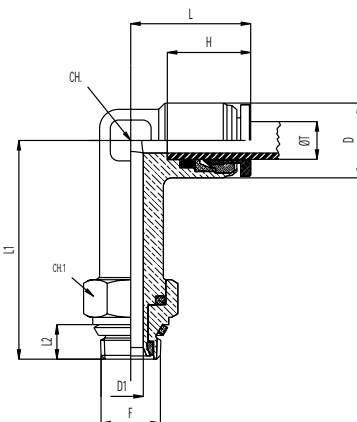
NW103	Tube Diameter	T	Thread F	D	D2	L	L2	H	CH	CH1
NW103-004-000	4		1/8	10.0	12	17.5	5.5	12.5	10	3
NW103-004-001	4		1/4	10.0	15	20.5	7.7	12.5	10	3
NW103-005-000	5		1/8	11.0	12	18.5	5.5	13.0	11	3
NW103-005-001	5		1/4	11.0	15	21.0	7.7	13.0	11	3
NW103-006-000	6		1/8	12.0	14	19.0	5.5	13.5	12	4
NW103-006-001	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

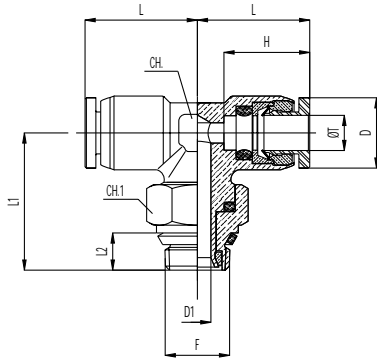


NW109E	Tube Diameter	T	Thread F	D	D1	L	L1	H	L2	CH	CH1
NW109E-004-000	4		1/8	10	4	16.5	34.5	12.5	5.5	9	13
NW109E-004-001	4		1/4	10	4	16.5	35	12.5	7.7	9	15
NW109E-006-000	6		1/8	12	4	19	37.5	13.5	5.5	11	13
NW109E-006-001	6		1/4	12	6	19	38	13.5	7.7	11	15
NW109E-008-000	8		1/8	15	4	23.5	42.5	16	5.5	14	13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



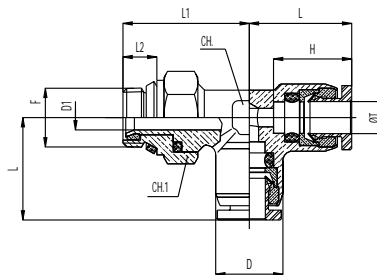


### NW114 Swivel Branch Tee/Metric Tube



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

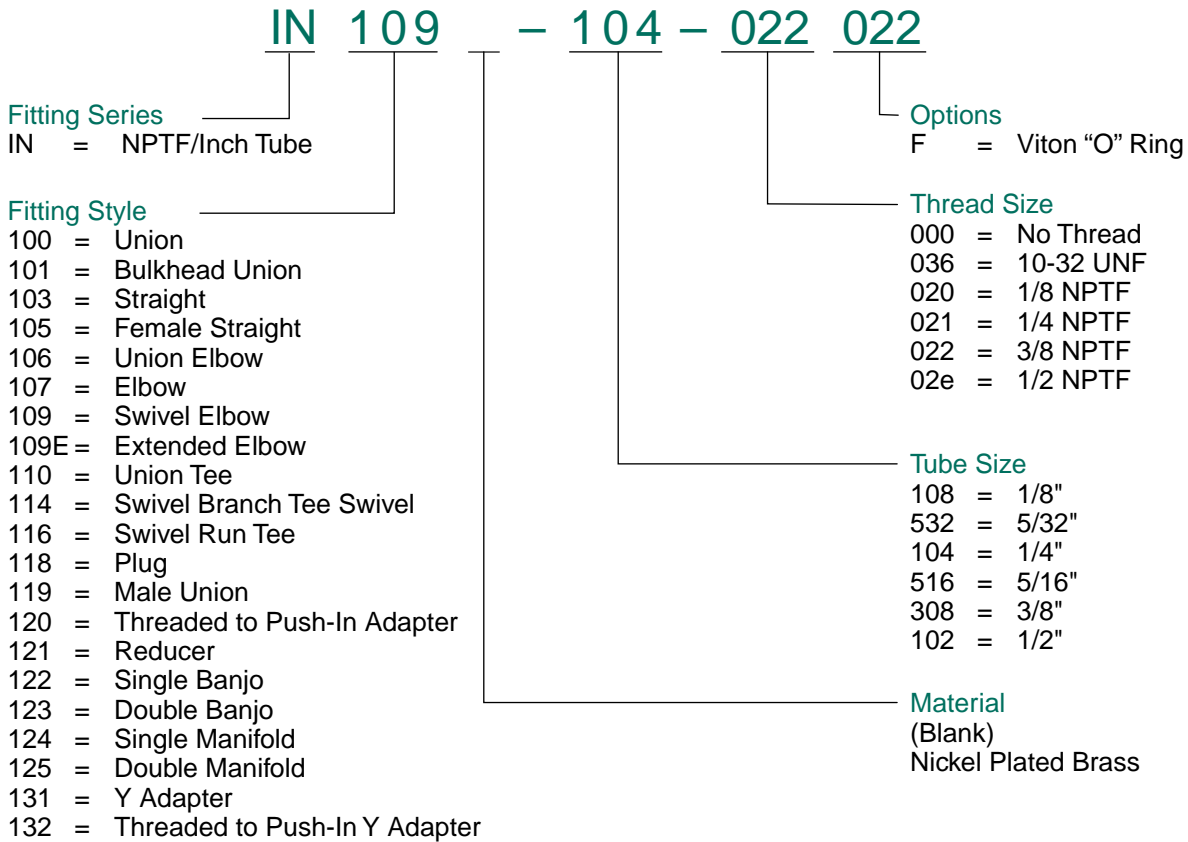


NW116	Tube Diameter	T	Thread F	D	D1	L	L1	H	L2	SW	SW1
NW116-004-000	4		1/8	10.0	4	16.5	19.5	12.5	5.5	9	13
NW116-005-000	5		1/8	11.0	4	16.5	19.6	13.0	5.5	10	13
NW116-006-000	6		1/8	12.0	4	19.0	22.3	13.5	5.5	11	13
NW116-006-001	6		1/4	12.0	6	19.0	23.6	13.5	7.7	11	15
NW116-008-000	8		1/8	15.0	4	23.2	22.3	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

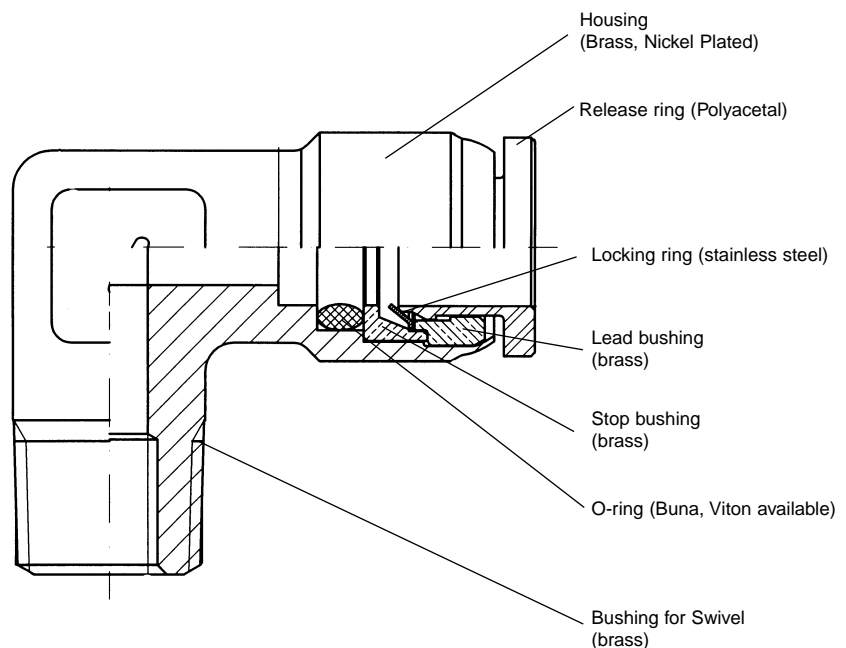


## NPTF/Inch Tube Fittings

### How to Order



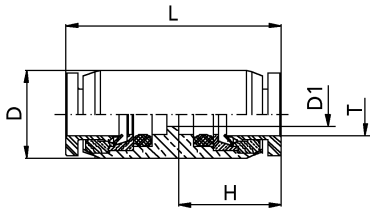
- Pressure Rating to 265 psi
- Vacuum Rating: 29" of Mercury Hg
- Temperature range: -20°F to +176°F (BUNA N O-ring)  
+230°F (Viton O-ring)
- Push-in fittings with NPTF Threads
- Teflon thread sealant
- Tube diameter: 1/8" to 1/2"
- Thread size: 10-32 UNF to 1/2 NPTF





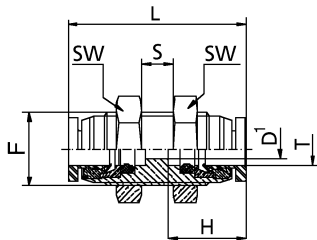


### IN100 Union



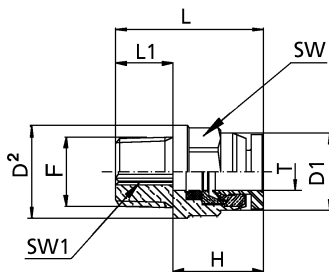
IN100	T	D	D1	L
IN100-108-000	1/8	0.394	0.094	0.984
IN100-532-000	5/32	0.394	0.118	1.024
IN100-104-000	1/4	0.472	0.157	1.110
IN100-516-000	5/16	0.591	0.236	1.299
IN100-308-000	3/8	0.709	0.276	1.398
IN100-102-000	1/2	0.787	0.413	1.575

### IN101 Bulkhead Union



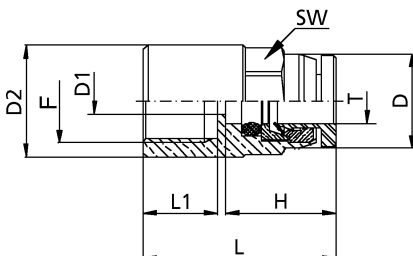
IN101	Tube Diameter T	Thread F	D1	L	H	SW	S MAX
IN101-108-000	1/8	M11x1	0.094	1.091	0.472	0.551	0.197
IN101-532-000	5/32	M12x1	0.118	1.130	0.492	0.551	0.236
IN101-104-000	1/4	M13x1	0.157	1.244	0.531	0.630	0.315
IN101-516-000	5/16	M16x1	0.236	1.437	0.630	0.748	0.315
IN101-308-000	3/8	M19x1	0.276	1.614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

### IN103 Straight



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

### IN105 Female Straight

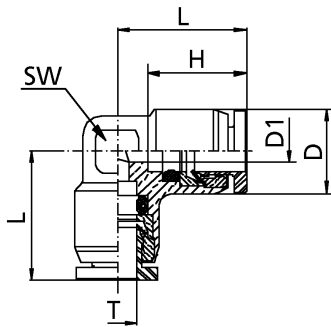


IN105	Tube Diameter T	Thread F	D	D1	D2	L	L2	H	SW
IN105-108-020	1/8	1/8 NPTF	0.370	0.094	0.551	0.945	0.335	0.472	3/8
IN105-108-021	1/8	1/4 NPTF	0.370	0.094	0.669	1.102	0.472	0.472	3/8
IN105-532-020	5/32	1/8 NPTF	0.394	0.118	0.551	0.965	0.335	0.492	7/16
IN105-532-021	5/32	1/4 NPTF	0.394	0.118	0.669	1.122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



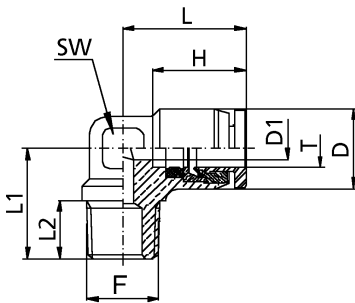
## NPTF/Inch Tube Fittings

### IN106 Union Elbow



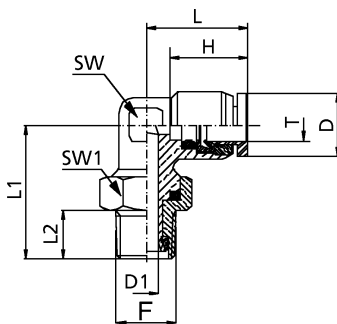
IN106	Tube Diameter	T	D	D1	L	H	SW
IN106-108-000	1/8	.0394	0.094	0.638	0.472	0.354	
IN106-532-000	5/32	0.394	0.118	0.657	0.492	0.354	
IN106-104-000	1/4	0.472	0.157	0.740	0.531	0.433	
IN106-516-000	5/16	0.591	0.236	0.858	0.630	0.551	
IN106-308-000	3/8	0.709	0.295	1.004	0.669	0.630	
IN106-102-000	1/2	0.827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

### IN107 Elbow



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

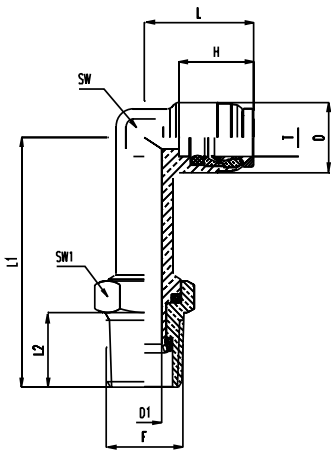
### IN109 Swivel Elbow



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

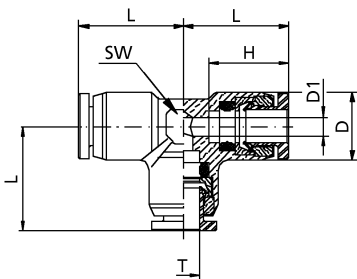


### IN109E Extended Elbow



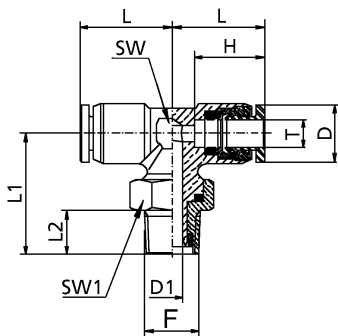
IN109E	Tube Diameter T	Thread F	D	D1	L	L1	L2	H	SW	SW1
IN109E-108-020	1/8	1/8 NPTF	0.394	0.157	0.638	1.461	0.374	0.472	0.354	0.512
IN109E-108-021	1/8	1/4 NPTF	0.394	0.157	0.638	1.598	0.512	0.472	0.354	0.591
IN109E-532-020	5/32	1/8 NPTF	0.394	0.157	0.657	1.457	0.374	0.492	0.354	0.512
IN109E-532-021	5/32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



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

### IN114 Swivel Branch Tee

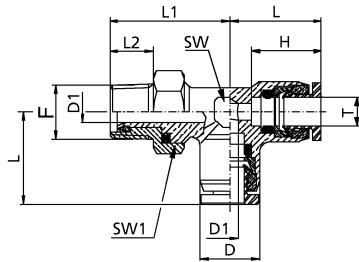


IN114	Tube Diameter T	Thread F	D	D1	L	L1	L2	H	SW	SW1
IN114-108-036	1/8	10-32 UNF	0.394	0.087	0.638	0.630	0.165	0.472	0.354	0.354
IN114-108-020	1/8	1/8 NPTF	0.394	0.157	0.638	0.874	0.374	0.472	0.354	0.512
IN114-108-021	1/8	1/4 NPTF	0.394	0.157	0.638	1.008	0.512	0.472	0.354	0.591
IN114-532-036	5/32	10-32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



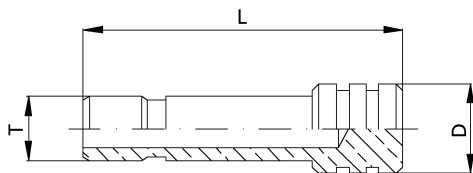
## NPTF/Inch Tube Fittings

### IN116 Swivel Run Tee



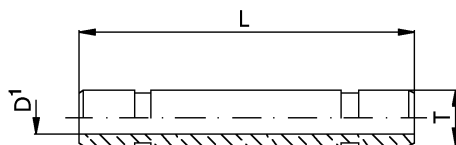
IN116	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW	SW1
IN116-108-036	1/8		10-32 UNF	0.394	0.087	0.638	0.630	0.165	0.472	0.354	0.354
IN116-108-020	1/8		1/8 NPTF	0.394	0.157	0.638	0.874	0.374	0.472	0.354	0.512
IN116-108-021	1/8		1/4 NPTF	0.394	0.157	0.638	1.008	0.512	0.472	0.354	0.591
IN116-532-036	5/32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

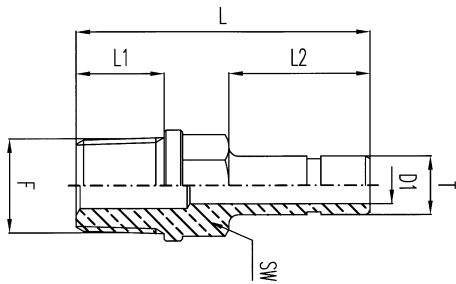
### IN119 Male Union



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

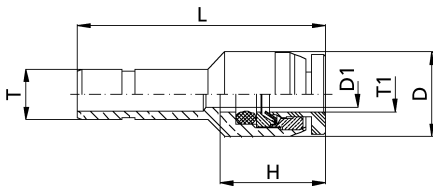


### IN120 Threaded to Push-In Adapter



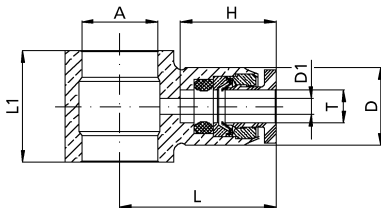
IN120	T	Thread F	D1	L	L1	L2	SW
IN120-108-020	1/8	1/8 NPTF	0.063	1.181	0.374	0.531	3/8
IN120-108-021	1/8	1/4 NPTF	0.063	1.358	0.512	0.531	1/2
IN120-532-020	5/32	1/8 NPTF	0.079	1.201	0.374	0.551	3/8
IN120-532-021	5/32	1/4 NPTF	0.079	1.378	0.512	0.551	1/2
IN120-104-020	1/4	1/8 NPTF	0.157	1.252	0.374	0.602	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



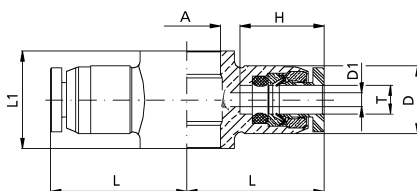
IN121	T	T1	D	D1	L	H
IN121-104-108	1/4	1/8	0.394	0.094	1.082	0.472
IN121-104-532	1/4	5/32	0.394	0.118	1.142	0.492
IN121-308-104	3/8	1/4	0.472	0.157	1.339	0.531
IN121-102-104	1/2	1/4	0.472	0.157	1.417	0.531
IN121-102-308	1/2	3/8	0.669	0.295	1.673	0.669

### IN122 Single Banjo



IN122	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

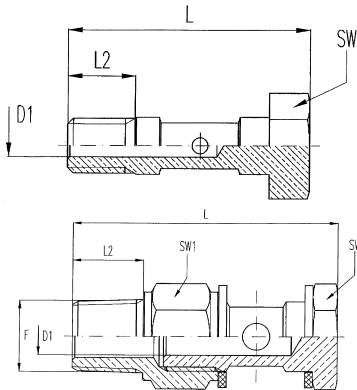


IN123	Tube Diameter	T	A	D	D1	L	L1	H
IN123-532-036	5/32	10-32 UNF	0.394	0.118	0.748	0.472	0.492	
IN123-104-020	1/4	1/8 NPTF	0.472	0.157	0.811	0.571	0.531	
IN123-104-021	1/4	1/4 NPTF	0.472	0.157	0.890	0.689	0.531	
IN123-308-021	3/8	1/4 NPTF	0.709	0.295	1.067	0.709	0.669	



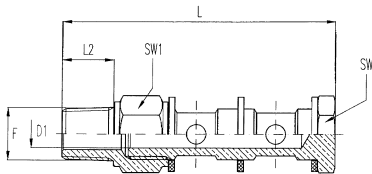
## NPTF/Inch Tube Fittings

### IN124 Single Manifold



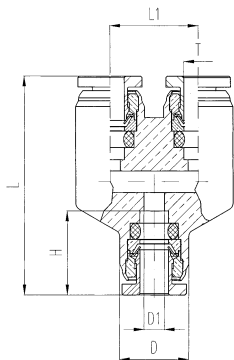
IN124	Thread F	L	L2	D1	SW	SW1
IN124-000-036	10-32 UNF	0.827	0.223	0.079	0.315	-
IN124-000-020	1/8 NPTF	1.634	0.374	0.197	0.551	0.551
IN124-000-021	1/4 NPTF	2.067	0.512	0.276	0.669	0.669

### IN125 Double Manifold



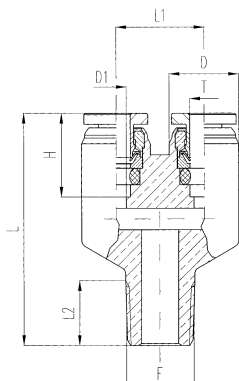
IN125	Thread F	L	L2	D1	SW	SW1
IN125-000-020	1/8 NPTF	2.187	0.374	0.197	0.551	0.551
IN125-000-021	1/4 NPTF	2.715	0.512	0.276	0.669	0.669

### IN131 Y Adapter



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

### IN132 Threaded to Push-In Y Adapter

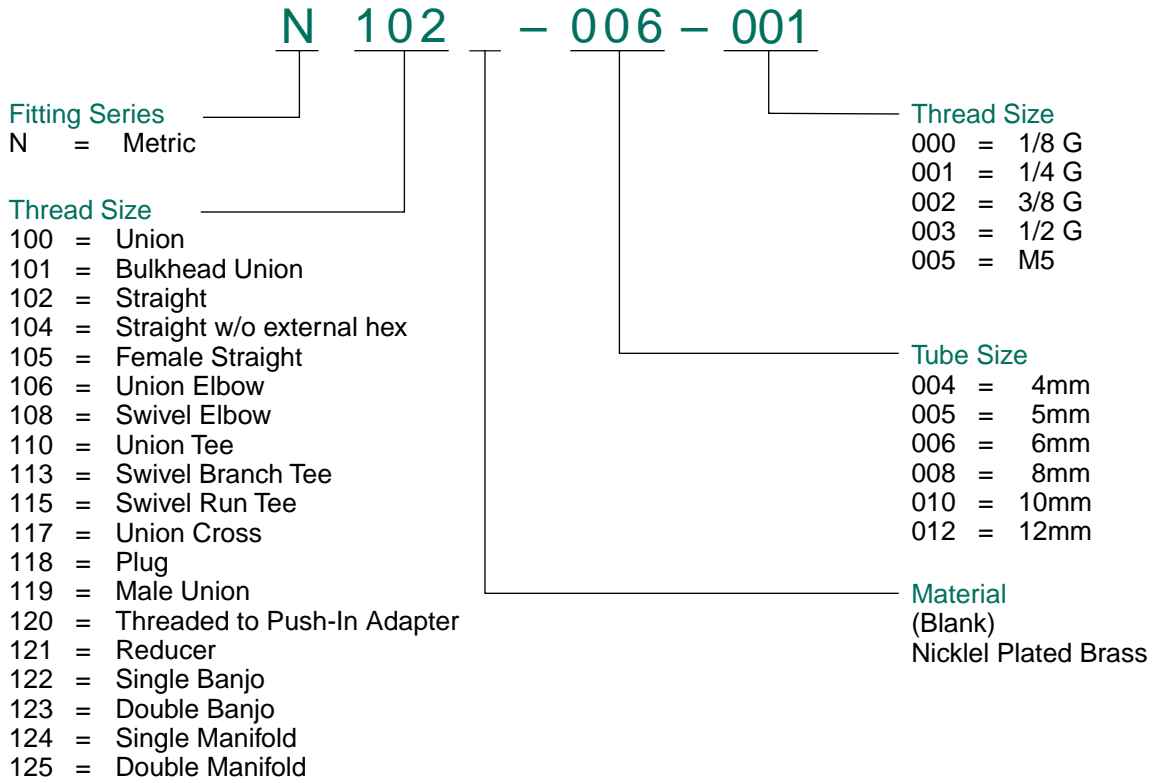


IN132	Tube Diameter T	Thread F	L2	L	H	L1	D	D1
IN132-104-020	1/4	1/8 NPTF	0.165	1.319	0.472	0.512	0.394	0.094
IN132-108-020	1/8	1/8 NPTF	0.374	1.339	0.472	0.512	0.394	0.094
IN132-532-020	5/32	1/8 NPTF	0.374	1.350	0.492	0.512	0.394	0.118

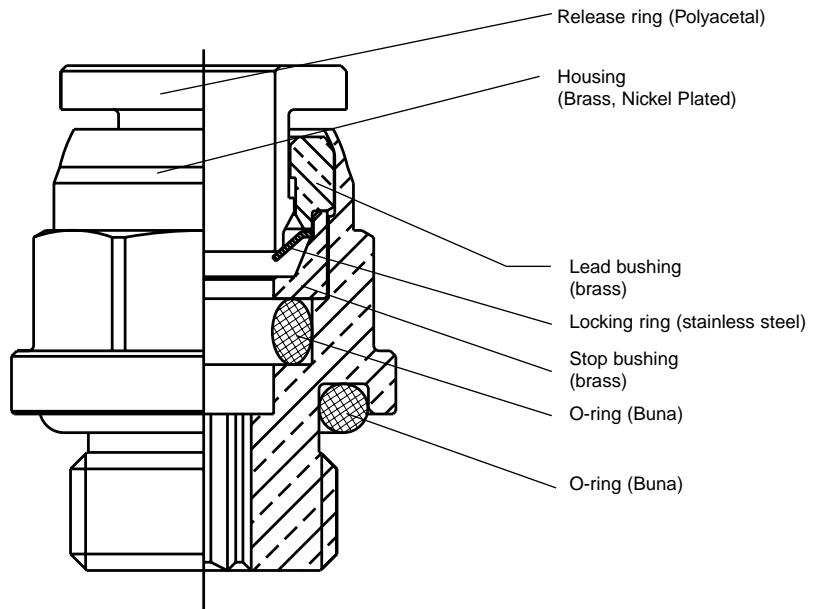




How to Order



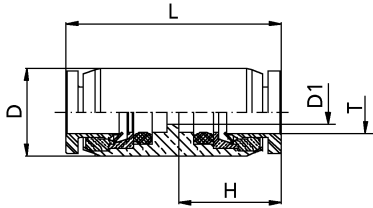
- Pressure Rating to 265 psi
- Vacuum Rating: 29" of Mercury Hg
- Temperature range: -20°F to +176°F (BUNA N O-ring)  
+230°F (Viton O-ring)
- Push-in fittings with G Threads
- Tube diameter: 4mm to 12mm
- Thread size: M5 to 1/2 G





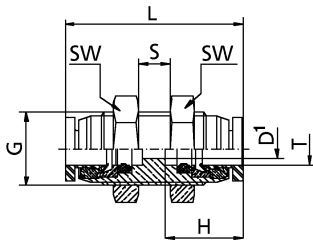
## Metric Fittings

### N100 Union



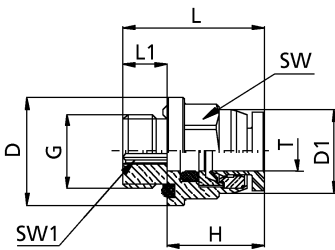
N100	Tube Diameter T	D	D1	H	L
N100-004-000	4.0	10.0	2.0	12.2	26.0
N100-005-000	5.0	11.0	3.0	12.7	27.0
N100-006-000	6.0	12.0	4.0	13.3	28.0
N100-008-000	8.0	15.0	6.0	15.8	33.0
N100-010-000	10.0	18.0	8.0	16.8	35.5
N100-012-000	12.0	20.0	10.0	18.9	41.0

### N101 Bulkhead Union



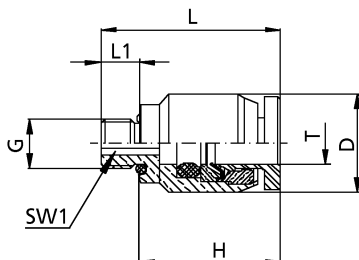
N101	Tube Diameter T	External Thread G	D1	H	L	min. S	max. S	SW
N101-004-000	4.0	M11	2.0	12.2	28.7	0	6	14
N101-005-000	5.0	M12	3.0	12.7	29.2	0	6	15
N101-006-000	6.0	M13	4.0	13.3	31.6	0	8	16
N101-008-000	8.0	M16	6.0	15.8	36.5	0	8	19
N101-010-000	10.0	M19	8.0	16.8	41.6	0	11	22
N101-012-000	12.0	M22	10.0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

### N102 Straight



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

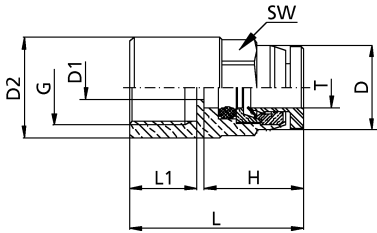
### N104 Straight without External Hex



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

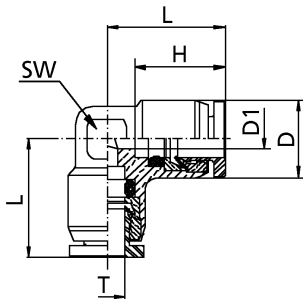


### N105 Female Straight



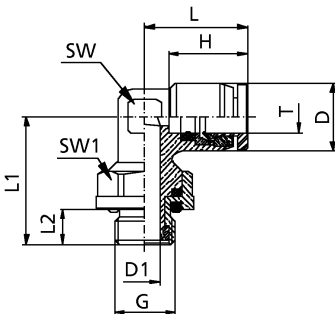
N105	Tube Diameter T	Thread G	D	D1	D2	H	L	L1	SW
N105-004-005	4.0	M5	9.9	2.0	8.0	12.2	19.4	5.5	10
N105-004-000	4.0	1/8	9.9	2.0	12.0	12.2	22.4	8.5	10
N105-005-005	5.0	M5	10.9	3.0	8.0	12.7	19.7	5.5	11
N105-005-000	5.0	1/8	10.9	3.0	12.0	12.7	22.7	8.5	11
N105-005-001	5.0	1/4	10.9	3.0	17.0	12.7	24.7	10.5	11
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

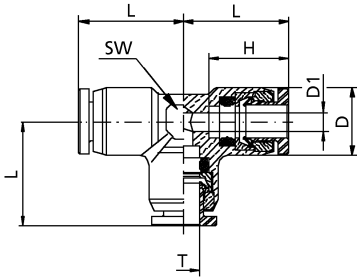


N108	Tube Diameter T	Thread G	D	D1	H	L	L1	L2	SW	SW1
N108-004-005	4.0	M5	9.9	2.3	12.2	16.6	16.5	4.0	9	9
N108-004-000	4.0	1/8	9.9	4.0	12.2	16.6	19.8	5.7	9	13
N108-004-001	4.0	1/4	9.9	4.0	12.2	16.6	20.0	6.0	9	15
N108-005-005	5.0	M5	10.9	2.3	12.7	16.6	18.0	4.0	10	9
N108-005-000	5.0	1/8	10.9	4.0	12.7	16.6	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



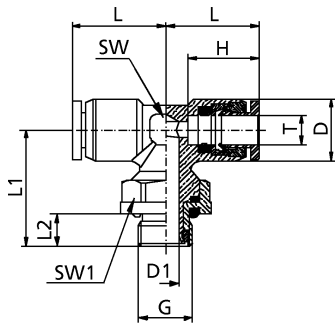
## Metric Fittings

### N110 Union Tee



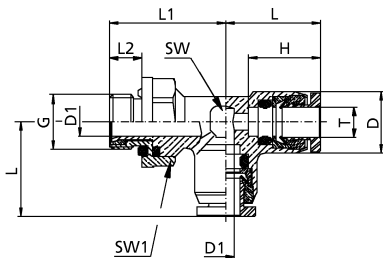
N110	Tube Diameter T	D	D1	H	L	SW
N110-004-000	4.0	9.9	2.0	12.2	16.6	9
N110-005-000	5.0	10.9	3.0	12.7	16.6	10
N110-006-000	6.0	11.9	4.0	13.3	19.1	11
N110-008-000	8.0	15.0	6.0	15.8	21.8	14
N110-010-000	10.0	17.4	8.0	16.8	25.3	16
N110-012-000	12.0	20.4	10.0	18.9	29.1	17

### N113 Swivel Branch Tee



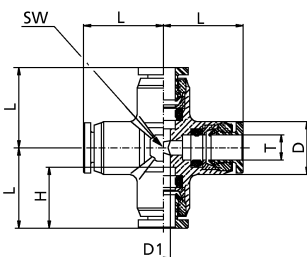
N113	Tube Diameter T	Thread G	D	D1	H	L	L1	L2	SW	SW1
N113-004-000	4.0	1/8	9.9	4.0	12.2	16.6	19.8	5.7	9	13
N113-005-000	5.0	1/8	10.9	4.0	12.7	16.6	20.0	5.7	10	13
N113-006-000	6.0	1/8	11.9	4.0	13.3	19.1	20.9	5.7	11	13
N113-006-001	6.0	1/4	11.9	6.0	13.3	19.1	21.5	6.0	11	15
N113-008-000	8.0	1/8	15.0	4.0	15.8	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

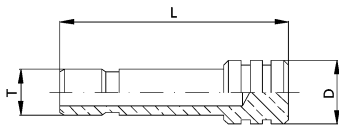
### N117 Union Cross



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

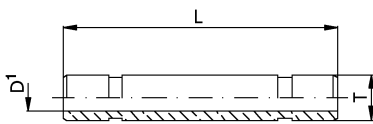


#### N118 Plug



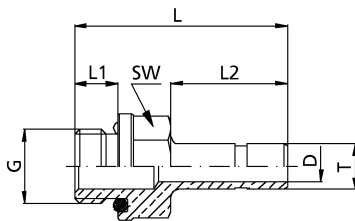
N118	Tube Diameter T	D	L
N118-004-000	4.0	6.0	23.1
N118-005-000	5.0	7.0	25.1
N118-006-000	6.0	8.0	25.1
N118-008-000	8.0	10.0	27.1
N118-010-000	10.0	12.0	28.1
N118-012-000	12.0	14.0	32.0

#### N119 Male Union



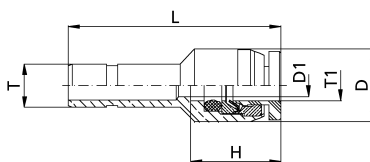
N119	Tube Diameter T	D	L
N119-004-000	4.0	2.0	30.0
N119-005-000	5.0	3.0	30.0
N119-006-000	6.0	4.0	32.0
N119-008-000	8.0	6.0	38.0
N119-010-000	10.0	8.0	41.0
N119-012-000	12.0	10.0	46.0

#### N120 Threaded to Push-In 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

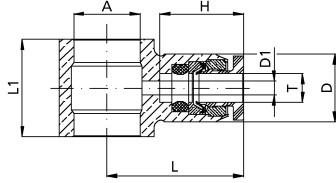


N121	from Tube Diameter T	to Tube Diameter T1	D	D1	H	L
N121-005-000	5.0	4.0	10.0	3.0	12.2	28.2
N121-006-000	6.0	4.0	10.0	3.0	12.2	29.2
N121-006-001	6.0	5.0	11.0	3.0	12.7	29.6
N121-008-000	8.0	4.0	10.0	2.0	12.2	32.2
N121-008-001	8.0	5.0	11.0	3.0	12.7	32.5
N121-008-002	8.0	6.0	12.0	4.0	13.3	33.1
N121-010-002	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



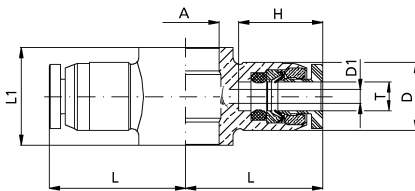
## Metric Fittings

### N122 Single Banjo



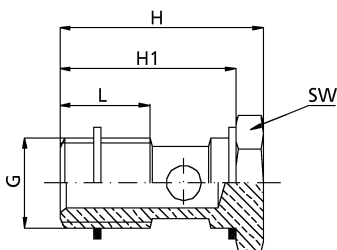
N122	Tube Diameter	T	for Banjo Bolts	A	D	D1	H	L	L1
N122-004-005	4.0		M5	10.0	2.0	12.2	19.0	12.0	
N122-004-000	4.0		1/8	10.0	2.0	12.2	20.2	14.5	
N122-005-005	5.0		M5	11.0	3.0	12.7	20.0	12.0	
N122-005-000	5.0		1/8	11.0	3.0	12.7	20.6	14.5	
N122-006-005	6.0		M5	12.0	4.0	13.3	20.6	12.0	
N122-006-000	6.0		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



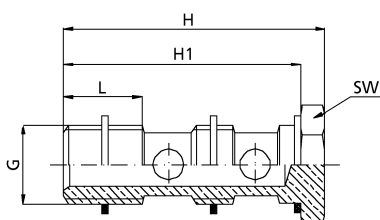
N123	Tube Diameter	T	for Banjo Bolts	A	D	D1	H	L	L1
N123-004-005	4.0		M5	10.0	2.0	12.2	19.0	12.0	
N123-004-000	4.0		1/8	10.0	2.0	12.2	20.2	14.5	
N123-005-005	5.0		M5	11.0	3.0	12.7	20.0	12.0	
N123-005-000	5.0		1/8	11.0	3.0	12.7	20.6	14.5	
N123-006-005	6.0		M5	12.0	4.0	13.3	20.6	12.0	
N123-006-000	6.0		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

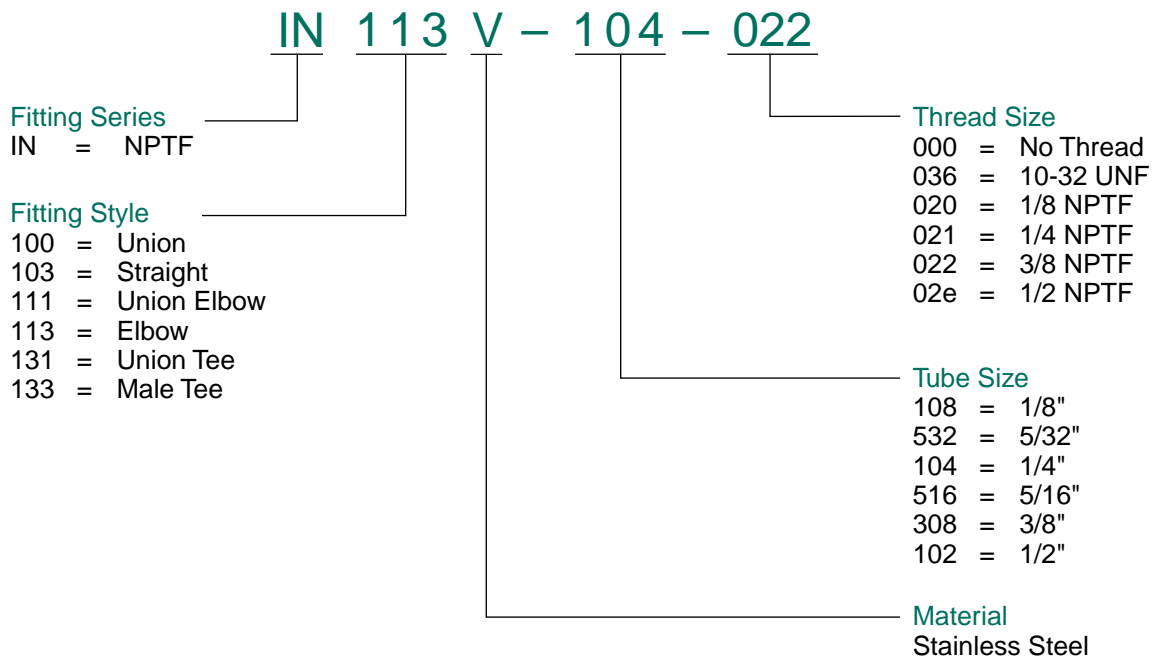


N125	Thread G	H	H1	L	SW
N125-000-000	1/8	43.0	39.0	8.0	14
N125-000-001	1/4	45.5	41.0	11.0	17

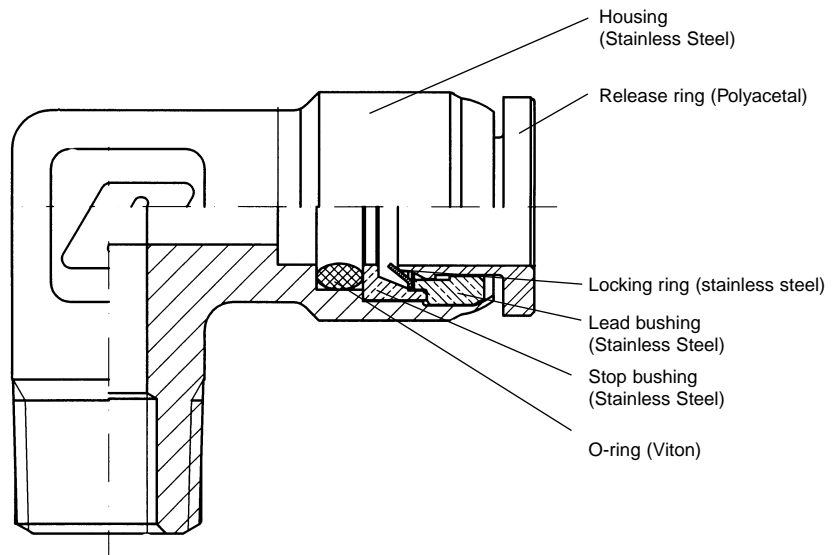




## How to Order



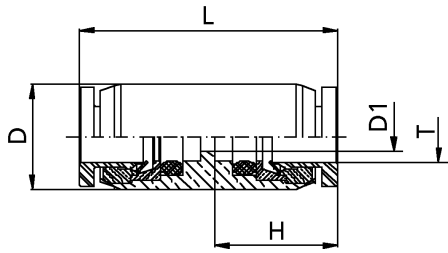
- Max. pressure range 265 psi
- Vacuum rating: 29" of Mercury Hg
- Temperature range: -20°F to 230°F (Viton gaskets)
- Push-in fittings with NPTF Threads
- Tube diameter: 1/8" to 1/2"
- Thread size: 10-32 UNF to 1/2 NPTF
- Teflon thread sealant





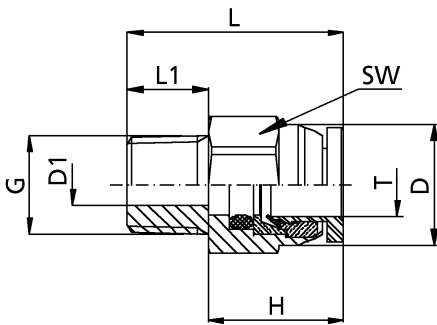
## NPTF Stainless Steel Fittings

### IN100V Union



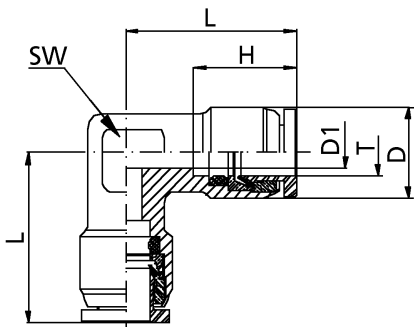
IN100V	Tube Diameter	T	D	D1	L	H
IN100V-532-000	5/32		0.394	0.118	1.024	0.492
IN100V-104-000	1/4		0.472	0.157	1.110	0.531
IN100V-516-000	5/16		0.591	0.236	1.299	0.630
IN100V-308-000	3/8		0.709	0.276	1.398	0.669
IN100V-102-000	1/2		0.787	0.413	1.575	0.748

### IN103V Straight



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

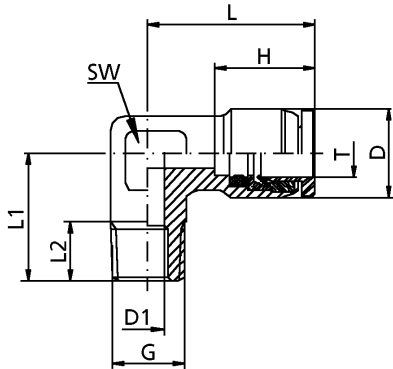
### IN111V Union Elbow



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

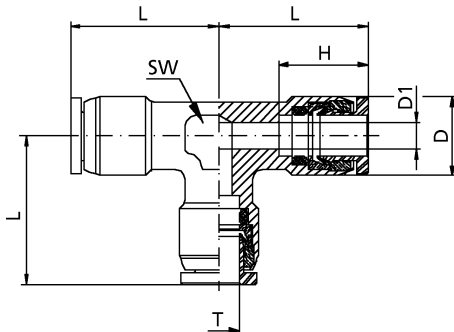


### IN113V Male Elbow



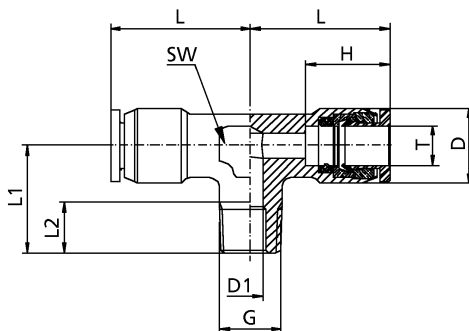
IN113V	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW
IN113V-532-020	5/32		1/8 NPTF	0.433	0.118	0.846	0.768	0.374	0.492	0.472
IN113V-104-020	1/4		1/8 NPTF	0.472	0.157	0.870	0.768	0.374	0.531	0.472
IN113V-104-021	1/4		1/4 NPTF	0.472	0.157	0.870	1.043	0.512	0.531	0.472
IN113V-516-021	5/16		1/4 NPTF	0.591	0.236	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 Male Tee

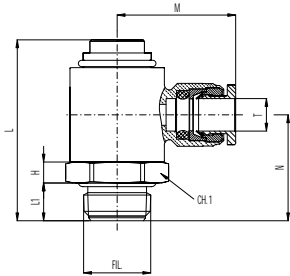


IN133V	Tube Diameter	T	Thread F	D	D1	L	L1	L2	H	SW
IN133V-532-020	5/32		1/8 NPTF	0.433	0.118	0.846	0.768	0.374	0.492	0.472
IN133V-104-020	1/4		1/8 NPTF	0.472	0.157	0.870	0.768	0.374	0.531	0.472
IN133V-104-021	1/4		1/4 NPTF	0.472	0.157	0.870	1.043	0.512	0.531	0.551
IN133V-516-021	5/16		1/4 NPTF	0.591	0.236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



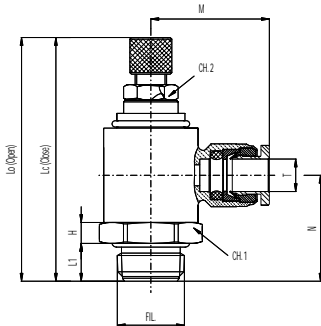
## World Thread Flow Controls

### INW1391C World Thread Flow Control – Inch Tube



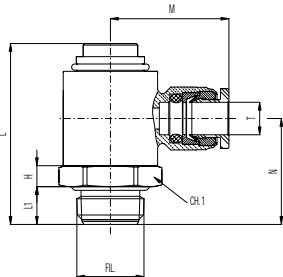
INW1391C	Tube Diameter T	Thread F	L	M	N	L1	CH.1	H
INW1391C-108-020	1/8	1/8	42.4	20.5	24.0	4.9	14	6
INW1391C-532-020	5/32	1/8	42.4	21.0	24.0	4.9	14	6
INW1391C-104-020	1/4	1/8	42.4	21.5	24.0	4.9	14	6
INW1391C-104-021	1/4	1/4	37.5	23.0	23.2	7.2	17	7
INW1391C-516-021	5/16	1/4	37.5	26.0	23.2	7.2	17	7
INW1391C-308-021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



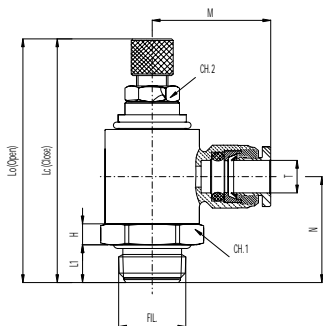
INW139C	Tube Diameter T	Thread F	Lc	Lo	M	N	L1	CH.1	H	CH.2
INW139C-108-020	1/8	1/8	54.5	61.0	20.5	24.0	4.9	14	6	7
INW139C-532-020	5/32	1/8	54.5	61.0	21.0	24.0	4.9	14	6	7
INW139C-104-020	1/4	1/8	54.5	61.0	21.5	24.0	4.9	14	6	7
INW139C-104-021	1/4	1/4	50.0	54.5	23.0	23.2	7.2	17	7	9
INW139C-516-021	5/16	1/4	50.0	54.5	26.0	23.2	7.2	17	7	9
INW139C-308-021	3/8	1/4	50.0	54.5	27.5	23.2	7.2	17	7	9
INW139C-516-022	5/16	3/8	56.8	60.3	28.0	26.0	7.6	20	8	11
INW139C-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

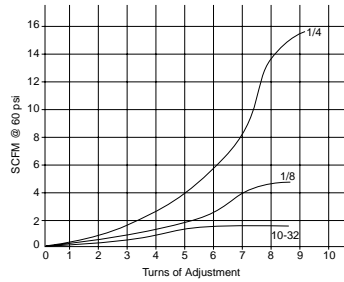
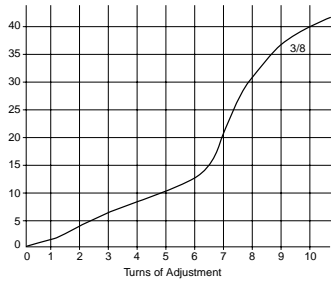
### NW139C World Thread Flow Control with Knob – Metric Tube



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

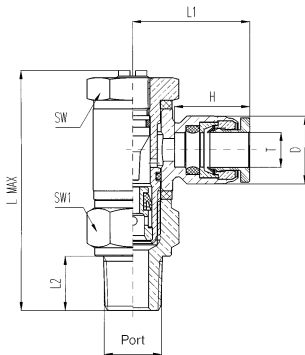
Temperature Range: 0° to 176°F

Maximum Operating Pressure: 265 psi

### Materials of Construction

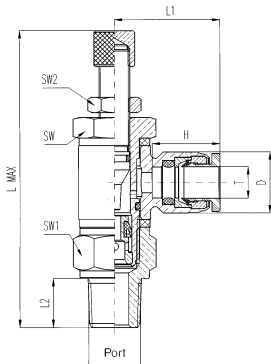
Body: brass-nickel plated; screw: stainless steel; seals: Buna; release button: polyacetal; adjustment needle: brass

## IN135C Flow control



MODEL NUMBER	Tube Diameter T	PORTS NPTF	L MAX	L1	DIMENSIONS		D	SW	SW1
					L2	H			
IN135C-108-036	1/8	10-32	.945	0.748	0.217	0.472	0.394	0.315	/
IN135C-108-020	1/8	1/8	1.665	0.748	0.374	0.472	0.394	0.551	0.551
IN135C-532-036	5/32	10-32	.945	0.748	0.217	0.492	0.394	0.315	/
IN135C-532-020	5/32	1/8	1.673	0.795	0.374	0.492	0.394	0.551	0.551
IN135C-104-020	1/4	1/8	1.673	0.881	0.374	0.531	0.472	0.551	0.551
IN135C-104-021	1/4	1/4	2.126	0.890	0.512	0.531	0.472	0.669	0.669
IN135C-308-021	3/8	1/4	2.126	1.067	0.512	0.669	0.709	0.669	0.669
IN135C-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



MODEL NUMBER	Tube Diameter T	PORTS NPTF	L MAX	L1	DIMENSIONS		D	SW	SW1
					L2	H			
IN136C-108-036	1/8	10-32	1.378	0.748	0.217	0.472	0.394	0.315	/
IN136C-108-020	1/8	1/8	2.283	0.748	0.374	0.472	0.394	0.551	0.551
IN136C-532-036	5/32	10-32	1.378	0.748	0.217	0.492	0.394	0.315	/
IN136C-532-020	5/32	1/8	2.283	0.795	0.374	0.492	0.394	0.551	0.551
IN136C-104-020	1/4	1/8	2.283	0.881	0.374	0.531	0.472	0.551	0.551
IN136C-104-021	1/4	1/4	2.717	0.890	0.512	0.531	0.472	0.669	0.669
IN136C-308-021	3/8	1/4	2.717	1.067	0.512	0.669	0.709	0.669	0.669
IN136C-308-022	3/8	3/8	3.000	1.220	0.512	0.669	0.709	0.748	0.866



## Valves and Flow Controls

### Flow Controls

#### Features

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

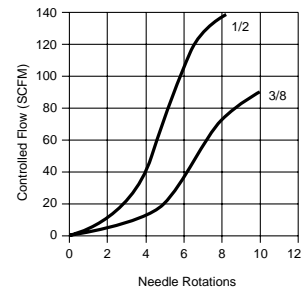
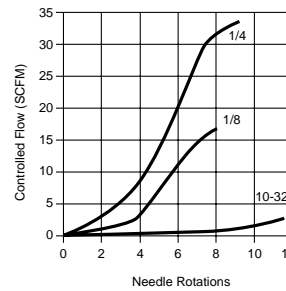
#### Specifications

Temperature Range: 0° to 160° F

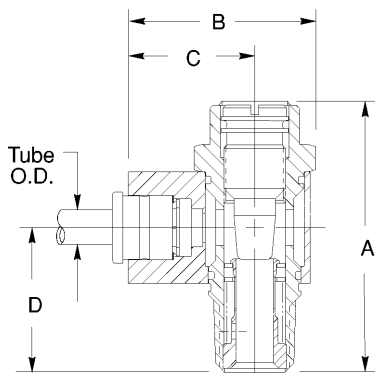
Maximum Operating Pressure: 175 PSIG (12 bar)

#### Materials of Construction

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

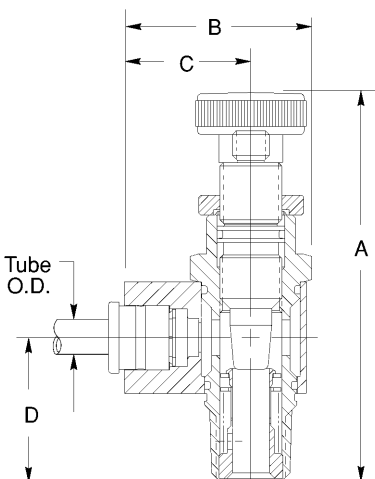


### Standard Flow Control (with and without push-in fitting)



PORTS NPTF	WITHOUT PUSH-IN	WITH PUSH-IN	Tube Diameter	T	DIMENSIONS			
					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	WITHOUT PUSH-IN	WITH PUSH-IN	Tube Diameter	T	DIMENSIONS			
					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

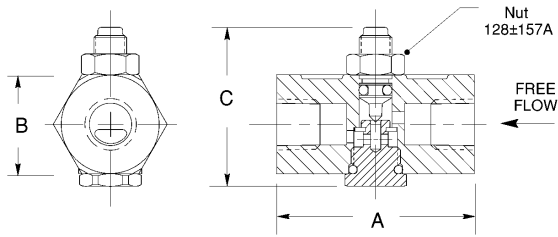
Change "N" to "G" in part number for BSPP Thread or Tube option.

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



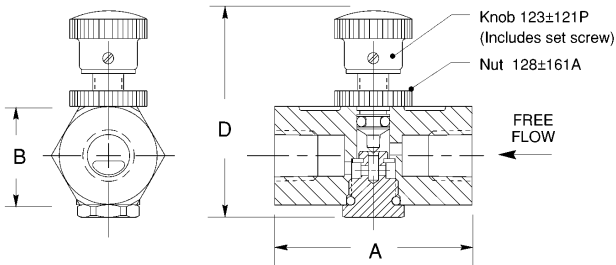


### 1FC1 Inline Flow controls

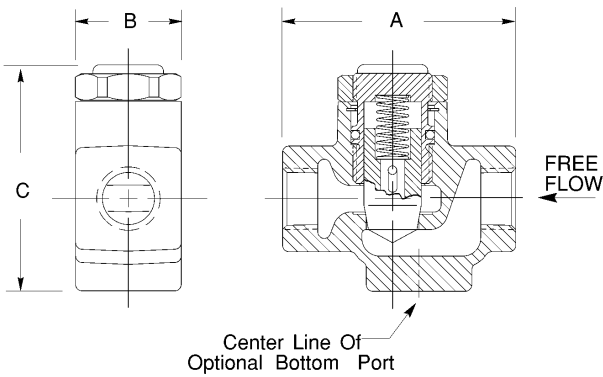


PORTS NPTF	WITHOUT KNURLED KNOB	WITH KNURLED KNOB	Cv	DIMENSIONS			
				A	B	C	D
1/8	1FC1	1FC1K	.22	1.50	.75	1.08	1.66
1/4	2FC1	2FC1K	.22	1.50	.75	1.08	1.66

#### 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



## Valves and Flow Controls

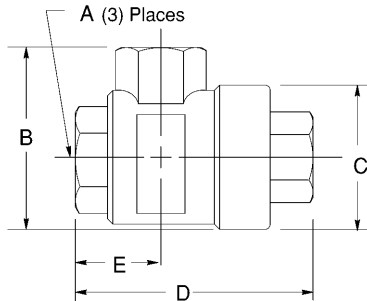
### SEV Quick Exhaust Valve

#### 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

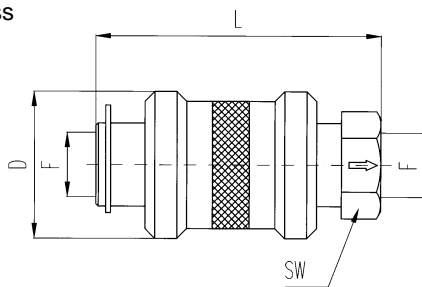
#### Materials of Construction

Sleeve: Aluminum

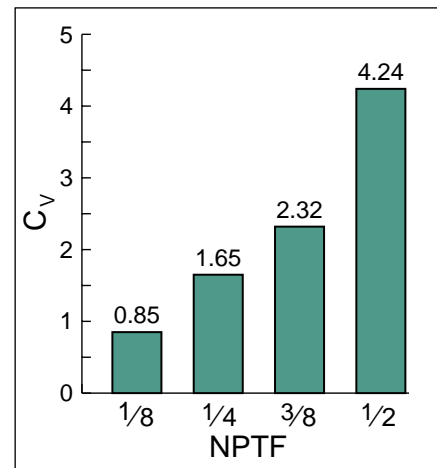
Body: Chrome Plated Brass

Seal: Buna

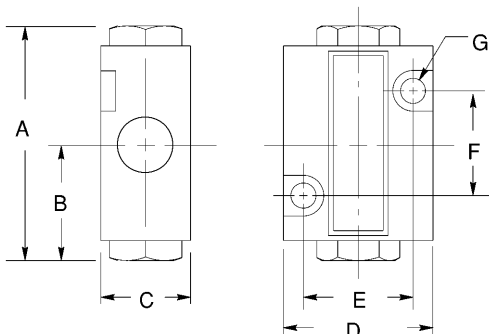
Snap Ring: Steel



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

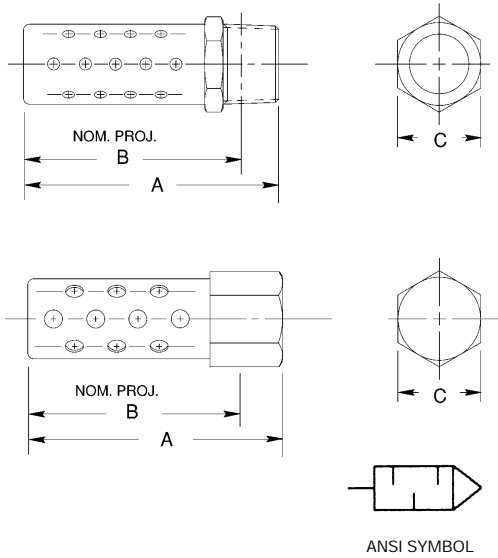
Temperature Range: -4° to 194° F

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

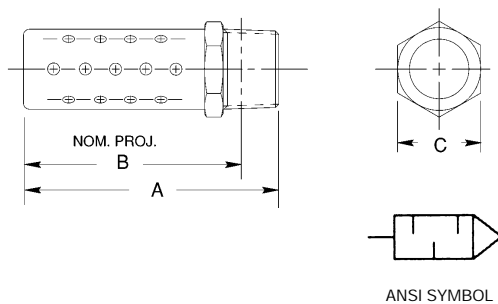
### BSPT Male Dimensions

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

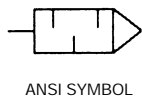
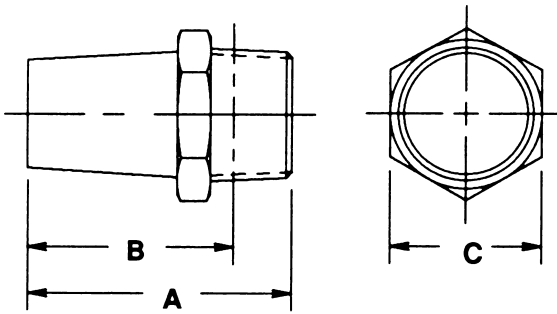
#### Application:

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.



## Accessories

### 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

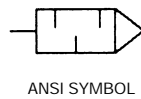
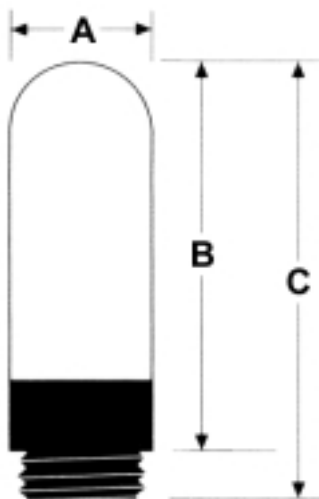
#### BSPT Male Dimensions

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

#### 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

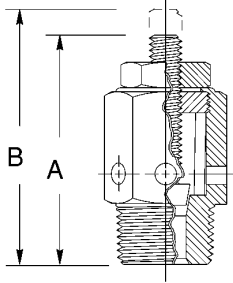
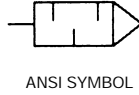
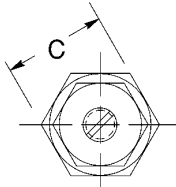
MODEL	NPTF	A	B	C
E1MN	1/8	0.49 (12.5)	1.1 (28.3)	1.3 (34.0)
E2MN	1/4	0.61 (15.5)	1.4 (35.5)	1.7 (42.5)
E3MN	3/8	0.73 (18.5)	2.2 (56.0)	2.7 (67.5)
E4MN	1/2	0.93 (23.5)	2.6 (67.0)	3.1 (78.0)
E5MN	3/4	1.50 (38.5)	4.9 (123.5)	5.5 (140.0)
E6MN	1	1.90 (49.0)	5.5 (140.5)	6.3 (160.0)

#### 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



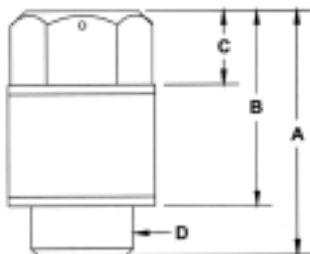
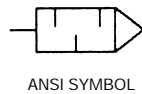
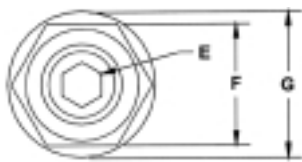
#### Model Selection

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

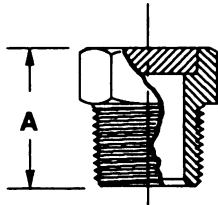
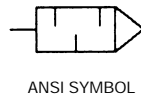
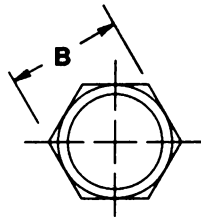
PORT SIZE	MODELS NPT	DIMENSIONS						
		A	B	C	D	E	F	G
M5	S0MN	0.52 (16.0)	0.36(11.0)	0.36(11.0)	M5	0.05(1.5)	3.1(79.0)	0.30(9.2.0)
1/8	S1MN	0.69(21.0)	0.49(15.0)	0.16(5.0)	1/8 NPT	0.08(2.5)	5.1(130.0)	0.49(15.0)
1/4	S2MN	0.95(29.0)	0.72(22.0)	0.23(7.0)	1/4 NPT	0.13(4.0)	5.9(150.0)	0.59(18.0)
3/8	S3MN	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



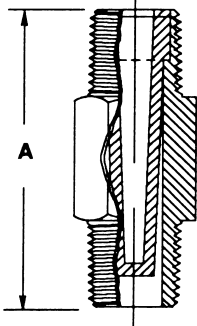
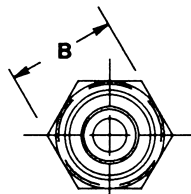
### Model Selection

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

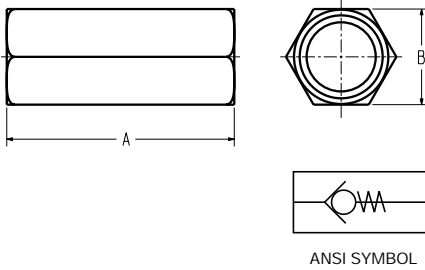
PORT SIZE	MODELS		Cv	DIMENSIONS	
	NPTF			A	B
1/8	C1MN		0.31	1.25 (32.0)	0.43 (11.0)
1/4	C2MN		0.78	1.50 (38.0)	0.56 (14.0)
3/8	C3MN		1.0	1.75 (44.0)	0.69 (17.0)
1/2	C4MN		2.0	2.00 (51.0)	0.88 (22.0)

### 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



### 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

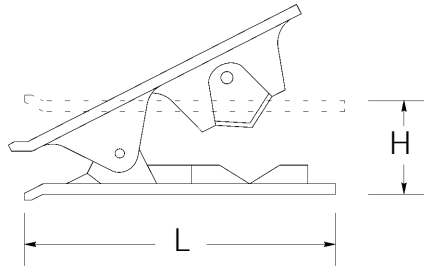
PORT SIZE	MODELS NPTF	Cv	DIMENSIONS	
			A	B
1/8	CV1FN	x	0.5625 (x)	1.xx (x)
1/4	CV2FN	x	0.6875 (x)	2.00 (x)
3/8	CV3FN	x	0.8750 (x)	2.00 (x)
1/2	CV4FN	x	1.0000 (x)	2.50 (x)

### 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.



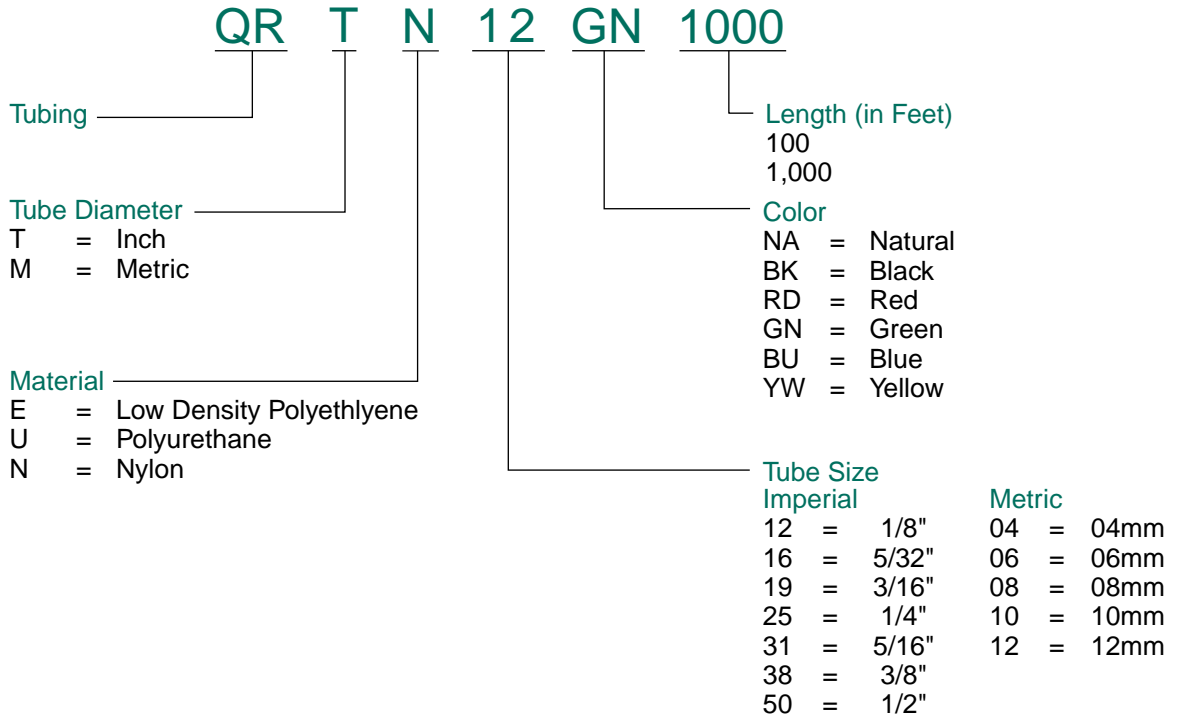
### QR300071 Tube Cutter



This tool will cut all plastic 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. Replacement blades are available.

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

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