

FITTINGS, CONTROLS AND ACCESSORIES



Regardless of your application, Norgren has fittings and accessories to complete your pneumatic package. Norgren has an extensive lineup of Pneufit® push-in fittings in metric or inch, metal or composite, as well as function fittings and flow controls, Fleet-Fit® vehicle fittings, tubing, and accessories, Quietaire® mufflers, and miniature control devices.



FITTINGS, CONTROLS AND ACCESSORIES

FITTINGS



FIT-2



FIT-8



FIT-20



FIT-26



FIT-34



FIT-46

FUNCTION FITTINGS AND FLOW CONTROLS



FIT-52



FIT-54



FIT-57



FIT-58



FIT-60



FIT-61

FITTINGS, CONTROLS AND ACCESSORIES

FUNCTION FITTINGS AND FLOW CONTROLS (cont)



FIT-62



FIT-64



FIT-65



FIT-66



FIT-67



FIT-68

FLEETFIT VEHICLE FITTINGS



FIT-70

TUBING AND ACCESSORIES



FIT-76

FITTINGS, CONTROLS AND ACCESSORIES

MUFFLERS AND SPEED CONTROLS

Quietaire MA and MB Series

heavy duty
1/8" to 2"
PTF, BSPT, BSPP



FIT-80

Sintered bronze

10-32, 1/8" to 1-1/2"
NPT, BSPT, BSPP



FIT-81

Porous plastic

M5, 1/8" to 1"
BSPP, NPT



FIT-81

Stem silencers

5/32" to 3/8" NPT
6 to 12 mm



FIT-81

Quietaire Coalescing muffler

1/2", 3/4", 1"



FIT-81

Plastic speed control

1/2" to 1-1/4" NPT



FIT-82

Sintered bronze speed control

1/8" to 1" NPT



FIT-82

High performance flow control and muffler

M5, 1/8" to 1/2"



FIT-82

Breather vents

1/8" to 1-1/2"
NPT, ISO G



FIT-82

FITTINGS, CONTROLS AND ACCESSORIES

MINI CONTROLS

Selector valves 2-way and 3-way



FIT-83

Sensors, non-contact



FIT-83

Sensors, contact



FIT-83

Rotowink indicators 10-32, 1/8" NPTF



FIT-83

Pressure drop indicators 1/8" NPT



FIT-84

Miniature check valves 10-32, 1/16" to 5/32"



FIT-84

Miniature inline restrictor 10-32 UNF, barbed



FIT-84

Miniature inline filters 1/8", 5/32" ID



FIT-84

High pressure needle valves 1/8", 5/32" ID



FIT-84

BLOW GUNS

Blow guns BG Series 1/4"



FIT-84

FITTINGS, CONTROLS AND ACCESSORIES

Norgren push-in fittings provide a simple means of connecting compressed air products to system piping. They are designed for use with flexible thermoplastic tubing and are available in a wide range of configurations to fit nearly every conceivable application.

Reduced Assembly and Maintenance Time

Norgren Push-In Fittings reduce assembly time by 70 to 80% by eliminating the time consuming insertion of ferrules and wrenching of compression nuts. Also, no tools are required for the insertion or removal of tubing from fittings, simplifying plumbing modifications and repairs.

Reduced Installation Distances

All straight Norgren Push-In Fittings feature internal hexes. Since the wrench is applied internally to the fittings rather than externally, the fittings can be located virtually shoulder to shoulder.

Expanded Pressure Rating

With a pressure operating range of 750 mm Hg vacuum to 18 bar (29.5" Hg vacuum to 260 psig), one fitting covers over 98% of applications, extending the usable range of push-in fittings and reducing both inventory and stocking requirements.

Pre-applied thread sealant

Precote 5, a non-PTFE based thread sealant is applied to the circumference of all tapered male threads (ISO R); thermoplastic sealing washers are supplied on all parallel male threads (ISO G). This added feature eliminates the necessity of having to seal threads, reducing the possibility of system contamination with PTFE tape. Precote 5 thread sealant has a four year minimum shelf life, connections can be remade into the same port up to six times, it is inert, has a maximum service temperature of 180°C (350°F), and since it does not contain PTFE is accepted by the Pharmaceutical and Tobacco Industries.

Silicone Free O-rings

Silicone will migrate to product surfaces during the finishing process creating unsightly "fish eyes" that require costly rework. All O-rings used in Norgren Fittings are silicone free, a mandatory requirement of both the automotive and product finishing industry.

Nickel Plated Brass Bodies and Collets

Nickel plating gives Pneufit a uniform stainless steel like appearance, does not tarnish like brass and provides an added degree of corrosion resistance.

Size Identification

All collets or release buttons are marked with the O.D. tube size in millimeters, fractional inch, or both, providing instant tube size identification. Stem fittings have two grooves for inch and one groove for metric.

Anti-kink design (Pneufit only)

Pneufit Collets are designed to rotate freely within the fitting's body. This eliminates the troublesome kinking and twisting that can occur when tubes are retained in a rigid connection.

Maximum Flows in a Reduced Size

Maximized internal bores provide optimal flows, while forged brass bodies deliver maximum strength, reduced weights (over extruded types) and reduced envelope size.

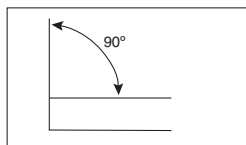
Conveniently Packaged

Stocking and inventory are simplified because Push-In Fittings are packaged in boxes of ten, with product number, shape and sizes prominently displayed on the box.

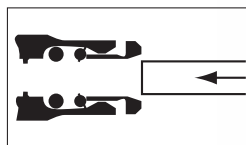
Internationally significant part numbering system A numbering system that identifies all aspects of the product is a standard feature, with support and availability provided world wide by a network of NORGREN distributors.

Method of Assembly

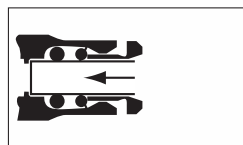
Pneufit



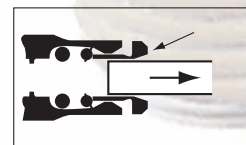
1. Ensure that the tube end is cut square and is free of burrs.



2. Push the tube through the collet into the fitting.

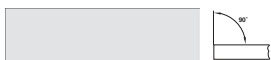


3. Continue pushing the tube (firmly) through the O-ring until it bottoms on the tube stop, then pull back

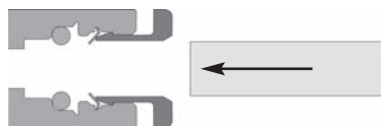


4. To disconnect, push the tube into the fitting until it bottoms on the tube stop. Then while holding down the collet, withdraw the tube.

Pneufit C



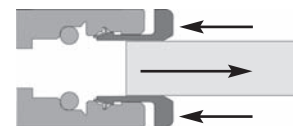
1. Ensure that the end of the tube is cut square and is free from burrs.



2. Push the tube through the release button and grab ring into the fitting.



3. Push the tube firmly through the 'O' ring until it bottoms on the tube stop then pull back.



4. To disconnect, push the tube into the fitting, hold down the release button and withdraw the tube.

Pneufit® push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube

For simple and quick assembly of pneumatic circuits.

Positive tube connection.

Wide range of types available.

Reliable and corrosion resistant.

Specifications

Fluid: Compressed air, nitrogen, inert and non-combustible gases compatible with materials of construction.

Note: For other types of fluids or compressed gases, please consult factory.

Working Pressure: 29.5" Hg vacuum to 260 psig (750 mm Hg to 18 bar)

Note: Flow Control working pressures: 5 to 150 psig (.3 to 10 bar)

Working Temperature: 0° to 175°F (-20° to 80°C)

Request viton® option on selected part numbers for extended temperature range : 0° to 350°F (-20° to 180°C)

Materials

Body, swivel fitting and collet: Nickel plated brass

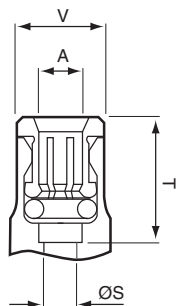
O-ring: Silicone free Nitrile

Sealing washer (parallel male threads): silicone free nitrile

Tubing: Nylon 11 or 12, Polyurethane (95 durometer or above) and LDPE (Low Density Polyethylene).

Note: Lower durometer polyurethane may be used, however, an internal tube support is required to prevent internal collapse of the tube wall.

Thread Sealant: Precote 5 thread sealant is factory applied to the circumference of tapered male threads.

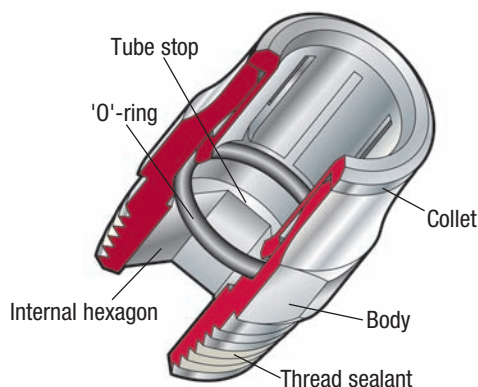


Dimensions Inches (mm)

A O.D. Tube	T S	Tubing Stop	V
1/8"	0.09 (2.3)	0.53 (13.5)	0.26 (6.5)
5/32" (4)	0.11 (2.8)	0.55 (14.0)	0.30 (7.5)
3/16"	0.13 (3.4)	0.59 (15.1)	0.38 (9.7)
1/4"	0.17 (4.4)	0.61 (15.5)	0.42 (10.7)
5/16" (8)	0.24 (6.0)	0.65 (16.5)	0.51 (13.0)
3/8"	0.30 (7.6)	0.83 (21.0)	0.59 (15.1)
1/2"	0.38 (9.6)	0.96 (24.3)	0.71 (18.1)

Recommended tightening torques

Thread	Tightening torque ft lbs (Nm)
10-32 UNF	.75 – 1 (1-1.4)
1/8" NPT	5.0 – 6.5 (6.9 – 8.8)
1/4" NPT	8.7 – 10.1 (11.8 – 13.7)
3/8" NPT	15.9 – 17.3 (21.6 – 23.5)
1/2" NPT	20.2 – 21.7 (27.4 – 29.4)



Tube O.D.'s and Tube Tolerances

Tube O.D.	O.D. Tube Tolerances	
	Nylon	Polyurethane
1/8" to 1/2"	+0.002" (+0.05 mm)	+0.005"
(3 mm to 14 mm)	-0.004" (-0.10 mm)	(±0.12 mm)

Pneufit push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube

Pneufit Union

O/D Tube	Part Number
1/8"	12 020 0100
1/8" to 1/4"*	12 020 0104
5/32"	12 020 0200
3/16"	12 020 0300
1/4"	12 020 0400
5/16"	12 020 0500
3/8"	12 020 0600
1/2"	12 020 0700

* Reducing union with 1/8" and 1/4" connections

Pneufit Conversion Union (Inch tube to mm tube)

O/D Inch	O/D MM	Part Number
5/32	4	12 020 0200
3/16	5	12 037 0305
1/4	6	12 037 0406
5/16	8	12 020 0500
3/8	10	12 037 0610
1/2	12	12 037 0712

Pneufit Double Male Union (Brass)

O/D Stem	Part Number
1/8"	12 022 0100
5/32"	12 022 0200
3/16"	12 022 0300
1/4"	12 022 0400
5/16"	12 022 0500
3/8"	12 022 0600
1/2"	12 022 0700

Not suitable for use with Pneufit C

Pneufit Double Male Union (Plastic)

O/D Stem	Part Number
5/32"	C0 022 0400
3/16"	C2 022 0300
1/4"	C2 022 0400
5/16"	C2 022 0500
3/8"	C2 022 0600
1/2"	C2 022 0700

Pneufit Tube End Expander/Reducer

O/D Tube	O/D Stem	Part Number
Reducing		
1/8"	5/32"	12 023 0201
1/8"	1/4"	12 023 0401
5/32"	1/4"	12 023 0402
5/32"	5/16"	12 023 0502
5/32"	3/8"	12 023 0602
3/16"	1/4"	12 023 0403
3/16"	5/16"	12 023 0503
1/4"	5/16"	12 023 0504
1/4"	3/8"	12 023 0604
1/4"	1/2"	12 023 0704
5/16"	3/8"	12 023 0605
5/16"	1/2"	12 023 0705
3/8"	1/2"	12 023 0706
Expanding		
1/4"	1/8"	12 023 0104
1/4"	5/32"	12 023 0204
1/4"	3/16"	12 023 0304

Not suitable for use with Pneufit C

Pneufit Bulkhead Union

O/D Tube	Metric Thread	Part Number
1/8"	M10 x 1.0	12 029 0100
5/32"	M10 x 1.0	12 029 0200
3/16"	M12 x 1.0	12 029 0300
1/4"	M14 x 1.5	12 029 0400
5/16"	M16 x 1.5	12 029 0500
3/8"	M20 x 1.5	12 029 0600
1/2"	M24 x 1.5	12 029 0700

Pneufit Union Elbow

O/D Tube	Part Number
1/8"	12 040 0100
5/32"	12 040 0200
3/16"	12 040 0300
1/4"	12 040 0400
5/16"	12 040 0500
3/8"	12 040 0600
1/2"	12 040 0700

Pneufit Union Tee

O/D Tube	Part Number
1/8"	12 060 0100
5/32"	12 060 0200
3/16"	12 060 0300
1/4"	12 060 0400
5/16"	12 060 0500
3/8"	12 060 0600
1/2"	12 060 0700

Pneufit push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Pneufit Parallel Union "Y"*

O/D Tube	O/D Tube	Part Number
5/32"	5/32"	12 082 0200
5/32"	1/4"	12 082 0402
1/4"	1/4"	12 082 0400
5/16"	5/16"	12 082 0500

*Body Material: Thermoplastic



Pneumatic Male Adapter

O/D Tube	NPT or UNF Thread	Part Number
1/8"	10-32 UNF	12 425 0110
1/8"	1/16	12 425 0116
1/8"	1/8	12 425 0118
1/8"	1/4	12 425 0128
5/32"	10-32 UNF	12 425 0210
5/32"	1/8	12 425 0218
5/32"	1/4	12 425 0228
3/16"	1/8	12 425 0318
3/16"	1/4	12 425 0328
1/4"	10-32 UNF	12 425 0410
1/4"	1/8	12 425 0418
1/4"	1/4	12 425 0428
1/4"	3/8	12 425 0438
5/16"	1/8	12 425 0518
5/16"	1/4	12 425 0528
5/16"	3/8	12 425 0538
3/8"	1/8	12 425 0618
3/8"	1/4	12 425 0628
3/8"	3/8	12 425 0638
3/8"	1/2	12 425 0648
1/2"	1/4	12 425 0728
1/2"	3/8	12 425 0738
1/2"	1/2	12 425 0748

Pneufit Straight Adapter

O/D Tube	G Thread	Part Number
1/4"	M5x08	12 225 0405
1/4"	G 1/8	12 225 0418
1/4"	G 1/4	12 225 0428
3/8"	G 1/4	12 225 0628
3/8"	G 3/8	12 225 0638
1/2"	G 3/8	12 225 0738
1/2"	G 1/2	12 225 0748



Pneufit Male Adapter -
Conversion (mm O.D. Tube
to NPTF [Male] Thread)

A O/D Tube	B NPT Thread	Part Number
4	10-32	12 425 0210
4	1/8	12 425 0218
4	1/4	12 425 0228
5	1/8	10 425 0518
5	1/4	10 425 0528
6	10-32	10 425 0610
6	1/8	10 425 0618
6	1/4	10 425 0628
6	3/8	10 425 0638
8	1/8	12 425 0518
8	1/4	12 425 0528
8	3/8	12 425 0538
10	1/8	10 425 1018
10	1/4	10 425 1028
10	3/8	10 425 1038
10	1/2	10 425 1048
12	1/4	10 425 1228
12	3/8	10 425 1238
12	1/2	10 425 1248

Pneufit Female Bulkhead
Adapter

O/D Tube	NPT Female	Part Number
1/4"	1/4	12 432 0428
3/8"	1/4	12 432 0628

Pneufit Male Adapter -
Conversion (Inch O.D. Tube
to ISO R [Male] Thread)

O/D Tube	ISO R Thread	Part Number
1/8"	1/8	12 125 0118
1/8"	1/4	12 125 0128
5/32"	1/8	10 125 0418
5/32"	1/4	10 125 0428
1/4"	1/8	12 125 0418
1/4"	1/4	12 125 0428
1/4"	3/8	12 125 0438
5/16"	1/8	10 125 0818
5/16"	1/4	10 125 0828
5/16"	3/8	10 125 0838
3/8"	1/8	12 125 0618
3/8"	1/4	12 125 0628
3/8"	3/8	12 125 0638
3/8"	1/2	12 125 0648
1/2"	1/4	12 125 0728
1/2"	3/8	12 125 0738
1/2"	1/2	12 125 0748

Pneufit push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube

Pneufit Stem Adapter

O/D Tube	NPT Thread	Part Number
3/32"	10-32	12 415 0210
5/32"	1/8	12 415 0218
5/32"	1/4	12 415 0228
1/4"	1/8	12 415 0418
1/4"	1/4	12 415 0428
5/16"	1/8	12 415 0518
5/16"	1/4	12 415 0528
3/8"	1/4	12 415 0628
3/8"	3/8	12 415 0638
1/2"	3/8	12 415 0738
1/2"	1/2	12 415 0748

Not suitable for use with Pneufit C

Pneufit Stem Adapter (mm O.D. Stem to NPT [Male] Thread)

O/D Stem	NPT Thread	Part Number
4	1/8	12 415 0218
4	1/4	12 415 0228
8	1/8	12 415 0518
8	1/4	12 415 0528

Not suitable for use with Pneufit C

Pneufit Stem Adapter (Inch O.D. Stem to ISO R Thread)

O/D Stem	ISO R Thread	Part Number
5/32	1/8	10 115 0418
5/32	1/4	10 115 0428
1/4	1/8	12 115 0418
1/4	1/4	12 115 0428
5/16	1/8	10 115 0518
5/16	1/4	10 115 0528
3/8	1/4	12 115 0628
3/8	3/8	12 115 0638
1/2	3/8	12 115 0738
1/2	1/2	12 115 0748

Not suitable for use with Pneufit C

Pneufit Female Adapter

O/D Tube	NPT Thread	Part Number
1/8"	1/8	12 426 0118
1/8"	1/4	12 426 0128
5/32"	1/8	12 426 0218
5/32"	1/4	12 426 0228
1/4"	1/8	12 426 0418
1/4"	1/4	12 426 0428
5/16"	1/8	12 426 0518
5/16"	1/4	12 426 0528
3/8"	1/4	12 426 0628
3/8"	3/8	12 426 0638

Pneufit Fixed Male Elbow

O/D Tube	NPT Thread	Part Number
1/8"	1/8	12 445 0118
5/32"	1/8	12 445 0218
5/32"	1/4	12 445 0228
3/16"	1/8	12 445 0318
3/16"	1/4	12 445 0328
1/4"	1/8	12 445 0418
1/4"	1/4	12 445 0428
1/4"	3/8	12 445 0438
5/16"	1/8	12 445 0518
5/16"	1/4	12 445 0528
3/8"	1/8	12 445 0618
3/8"	1/4	12 445 0628
3/8"	3/8	12 445 0638
3/8"	1/2	12 445 0648
1/2"	1/4	12 445 0728
1/2"	3/8	12 445 0738
1/2"	1/2	12 445 0748

Pneufit Swivel Male Elbow

O/D Tube	NPT or UNF Thread	Part Number
1/8"	10-32 UNF	12 447 0110
1/8"	1/8	12 447 0118
1/8"	1/4	12 447 0128
5/32"	10-32 UNF	12 447 0210
5/32"	1/8	12 447 0218
5/32"	1/4	12 447 0228
3/16"	1/8	12 447 0318
3/16"	1/4	12 447 0328
1/4"	10-32 UNF	12 447 0410
1/4"	1/8	12 447 0418
1/4"	1/4	12 447 0428
1/4"	3/8	12 447 0438
5/16"	1/8	12 447 0518
5/16"	1/4	12 447 0528
3/8"	1/8	12 447 0618
3/8"	1/4	12 447 0628
3/8"	3/8	12 447 0638
3/8"	1/2	12 447 0648
1/2"	1/4	12 447 0728
1/2"	3/8	12 447 0738
1/2"	1/2	12 447 0748

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Pneufit Extended Swivel Male Elbow

O/D Tube	NPT Thread	Part Number
5/32"	1/8	12 454 0218
5/32"	1/4	12 454 0228
1/4"	1/8	12 454 0418
1/4"	1/4	12 454 0428
3/8"	1/4	12 454 0628
3/8"	3/8	12 454 0638



Pneufit Swivel Male Elbow

O/D Tube	ISO Thread	Part Number
1/4"	M5x08	12 247 0405
1/4"	G1/8	12 247 0418
1/4"	G1/4	12 247 0428
3/8"	G1/4	12 247 0628
3/8"	G3/8	12 247 0638
1/2"	G3/8	12 247 0738
1/2"	G1/2	12 247 0748

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.



Swivel Female Elbow

O/D Tube	NPT Thread	Part Number
1/8"	1/8	12 448 0118
5/32"	1/8	12 448 0218
5/32"	1/4	12 448 0228
1/4"	1/8	12 448 0418
1/4"	1/4	12 448 0428
5/16"	1/4	12 448 0528
3/8"	1/4	12 448 0628
1/2"	3/8	12 448 0738

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.



Pneufit Swivel Male Tee

O/D Tube	NPT or UNF Thread	Part Number
1/8"	10-32 UNF	12 467 0110
1/8"	1/8	12 467 0118
1/8"	1/4	12 467 0128
5/32"	10-32 UNF	12 467 0210
5/32"	1/8	12 467 0218
5/32"	1/4	12 467 0228
3/16"	1/8	12 467 0318
3/16"	1/4	12 467 0328
1/4"	1/8	12 467 0418
1/4"	1/4	12 467 0428
1/4"	3/8	12 467 0438
5/16"	1/8	12 467 0518
5/16"	1/4	12 467 0528
3/8"	1/8	12 467 0618
3/8"	1/4	12 467 0628
3/8"	3/8	12 467 0638
3/8"	1/2	12 467 0648
1/2"	1/4	12 467 0728
1/2"	3/8	12 467 0738
1/2"	1/2	12 467 0748

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit Swivel Male Side Tee

O/D Tube	NPT or UNF Thread	Part Number
1/8"	10-32 UNF	12 468 0110
1/8"	1/8	12 468 0118
1/8"	1/4	12 468 0128
5/32"	10-32 UNF	12 468 0210
5/32"	1/8	12 468 0218
5/32"	1/4	12 468 0228
3/16"	1/8	12 468 0318
3/16"	1/4	12 468 0328
1/4"	1/8	12 468 0418
1/4"	1/4	12 468 0428
1/4"	3/8	12 468 0438
5/16"	1/8	12 468 0518
5/16"	1/4	12 468 0528
3/8"	1/8	12 468 0618
3/8"	1/4	12 468 0628
3/8"	3/8	12 468 0638
3/8"	1/2	12 468 0648
1/2"	1/4	12 468 0728
1/2"	3/8	12 468 0738
1/2"	1/2	12 468 0748



*Material: Thermoplastic

Pneufit Male Swivel Y*

O/D Tube	NPT Thread	Part Number
1/4"	1/8	12 488 0418
1/4"	1/4	12 488 0428
3/8"	3/8	12 488 0638



Pneufit Banjo Elbow

O/D Tube	NPT or UNF Thread	Part Number
1/8"	1/8	12 R51 0118
5/32"	10-32 UNF	12 R51 0210
5/32"	1/8	12 R51 0218
1/4"	1/8	12 R51 0418
1/4"	1/4	12 R51 0428
1/4"	3/8	12 R51 0438
3/8"	1/4	12 R51 0628
3/8"	3/8	12 R51 0638



Pneufit Banjo Tee

O/D Tube	NPT or UNF Thread	Part Number
5/32"	10-32 UNF	12 R71 0210
1/4"	1/8	12 R71 0418
1/4"	1/4	12 R71 0428
3/8"	1/4	12 R71 0628
3/8"	3/8	12 R71 0638

Pneufit push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



* Material: Nickel plated Brass

Pneufit Plug*

O/D Stem	Part Number
1/8"	12 004 0100
5/32"	12 004 0200
3/16"	12 004 0300
1/4"	12 004 0400
5/16"	12 004 0500
3/8"	12 004 0600
1/2"	12 004 0700

Not suitable for use with Pneufit C



Pneufit Manifold**

A O/D Tube	B O/D Tube	C NPT Thread	Product Number
5/16	5/32	1/4	12 4D6 0228
5/16	5/32	3/8	12 4D6 0238
5/16	1/4	1/4	12 4D6 0428
5/16	1/4	3/8	12 4D6 0438
3/8	1/4	1/2	12 4D6 0448
3/8	5/16	1/2	12 4D6 0548

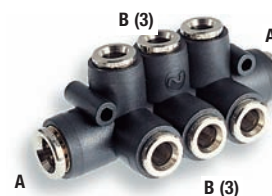
**Body material PBT



Pneufit Barb Adapter

A O/D Stem	B Hose Bore	Part Number
1/8"	1/8"	12 019 0101
5/32"	1/8"	12 019 0201
1/4"	3/16"	12 019 0403
3/8"	5/16"	12 019 0605
1/2"	3/8"	12 019 0706

Not suitable for use with Pneufit C



Pneufit Manifold**

A O/D Inlet	B O/D Outlet	Part Number
1/4	5/32	12 0D6 0402
5/16	5/32	12 0D6 0502
3/8	1/4	12 0D6 0604
3/8	5/16	12 0D6 0605

**Body material PBT

Pneufit® C composite and Pneufit M fittings

Inch

Ø 1/8" to 1/2" O/D tube

Ready to use.

Over 1,000 composite push-in pneumatic fittings.

Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).

Nickel plated brass components.

Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads.

Internal and external hexagons on straight fittings.

Immediate quality sealing using silicone free U-packing.

Mounting holes on all union fittings.

Introducing Miniature Pneufit M an ultra compact alternative where space is at a premium.

Technical data

Medium

Compressed air

Operating pressure

29.5" Hg vacuum up to 150 psi

Temperature

32°F to 140°F

Materials

Body: PBT

Seals: NBR (silicone free) u-packaging and O-rings

Threaded bodies: nickel plated zinc

Release sleeve and backing ring: POM

Grab-ring: stainless steel

Collar: nickel plated brass

Thread sealant: Chemiseal G 175

Tube sizes

Standard sizes: 5/32", 3/16", 1/4", 5/16", 3/8" and 1/2"

Miniature sizes: 1/8", 1/4", 5/32"

Thread sizes

Standard sizes: 10-32 UNF, 1/8", 1/4", 3/8 and 1/2" NPT and ISO R

Miniature sizes: 10-32 UNF, 1/16" and 1/8" NPT

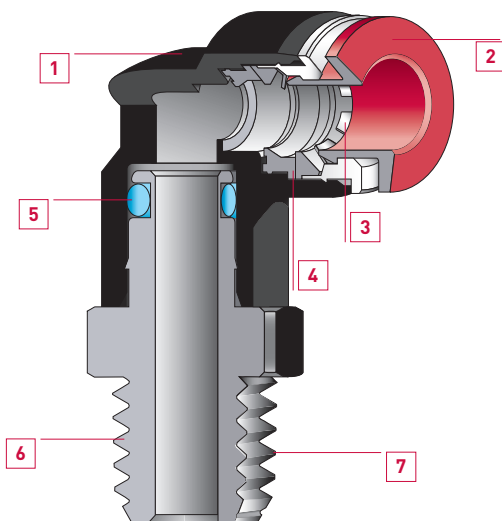
Tube types

Nylon 11 or 12

Polyurethane 85 or 95 durometer



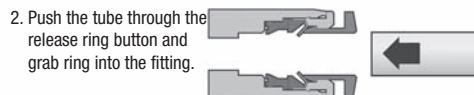
- 1 Impact resistant PBT body in black for Pneufit® C and light gray for Pneufit® M.
- 2 Release buttons are red for metric, grey for inch, and light grey oval for Pneufit® M.
- 3 Stainless steel grab ring with special design to retain softer tube and provide easy releasability.
- 4 Silicon free U-packing provides leak tight tube seal under side loading.
- 5 Stem seal provides leak tight 360° swivel connection.
- 6 Nickel plated brass threads and notches on hex to signify NPT.
- 7 Pre-applied thread sealant on tapered threads and recessed captive O-ring on parallel threads.



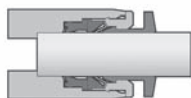
Method of assembly



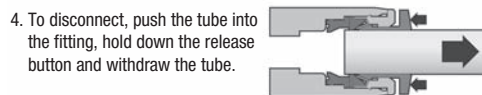
1. Ensure that the end tube is cut square and is free from burrs.



2. Push the tube through the release ring button and grab ring into the fitting.



3. Push the tube firmly through the 'O' ring until it bottoms on the tube stop, then pull back.



4. To disconnect, push the tube into the fitting, hold down the release button and withdraw the tube.

Pneufit® C composite and Pneufit M fittings

Inch

Ø 1/8" to 1/2" O/D tube

Straight adapter (external + internal hex)



O/D tube	Thread	Part number
5/32"	10-32 UNF	C24250210
5/32"	1/8" NPT	C24250218
5/32"	1/4" NPT	C24250228
5/32"	3/8" NPT	C24250238
5/32"	1/8" R	C01250418
5/32"	1/4" R	C01250428
5/32"	3/8" R	C01250438
3/16"	10-32 UNF	C24250310
3/16"	1/8" NPT	C24250318
3/16"	1/4" NPT	C24250328
3/16"	3/8" NPT	C24250338
1/4"	10-32 UNF	C24250410
1/4"	1/8" NPT	C24250418
1/4"	1/4" NPT	C24250428
1/4"	3/8" NPT	C24250438
1/4"	1/2" NPT	C24250448
1/4"	1/8" R	C21250418
1/4"	1/4" R	C21250428
1/4"	3/8" R	C21250438
5/16"	1/8" NPT	C24250518
5/16"	1/4" NPT	C24250528
5/16"	3/8" NPT	C24250538
5/16"	1/2" NPT	C24250548
5/16"	1/8" R	C01250818
5/16"	1/4" R	C01250828
5/16"	3/8" R	C01250838
5/16"	1/2" R	C01250848
3/8"	1/8" NPT	C24250618
3/8"	1/4" NPT	C24250628
3/8"	3/8" NPT	C24250638
3/8"	1/2" NPT	C24250648
3/8"	1/8" R	C21250618
3/8"	1/4" R	C21250628
3/8"	3/8" R	C21250638
3/8"	1/2" R	C21250648
1/2"	1/8" NPT	C24250718
1/2"	1/4" NPT	C24250728
1/2"	3/8" NPT	C24250738
1/2"	1/2" NPT	C24250748
1/2"	1/4" R	C21250728
1/2"	3/8" R	C21250738
1/2"	1/2" R	C21250748

Straight adapter (internal hex only)



O/D tube	Thread	Part number
5/32"	10-32 UNF	C242A0210
5/32"	1/8" NPT	C242A0218
5/32"	1/4" NPT	C242A0228
5/32"	1/8" R	C012A0418
5/32"	1/4" R	C012A0428
5/32"	3/8" R	C012A0438
3/16"	10-32 UNF	C242A0310
3/16"	1/8" NPT	C242A0318
3/16"	1/4" NPT	C242A0328
1/4"	10-32 UNF	C242A0410
1/4"	1/8" NPT	C242A0418
1/4"	1/4" NPT	C242A0428
1/4"	1/8" R	C212A0418
1/4"	1/4" R	C212A0428
5/16"	1/8" NPT	C242A0518
5/16"	1/4" NPT	C242A0528
5/16"	3/8" NPT	C242A0538
5/16"	1/8" R	C012A0818
5/16"	1/4" R	C012A0828
5/16"	3/8" R	C012A0838
3/8"	1/8" NPT	C242A0618
3/8"	1/4" NPT	C242A0628
3/8"	3/8" NPT	C242A0638
3/8"	1/2" NPT	C242A0648
3/8"	1/4" R	C212A0628
3/8"	3/8" R	C212A0638
3/8"	1/2" R	C212A0648
1/2"	1/4" NPT	C242A0728
1/2"	3/8" NPT	C242A0738
1/2"	1/2" NPT	C242A0748

Straight adapter (female thread)



O/D tube	Thread	Part number
5/32"	1/8" NPT	C24260218
5/32"	1/4" NPT	C24260228
5/32"	1/8" R	C02260418
5/32"	1/4" R	C02260428
3/16"	1/8" NPT	C24260318
3/16"	1/4" NPT	C24260328
1/4"	1/8" NPT	C24260418
1/4"	1/4" NPT	C24260428
1/4"	3/8" NPT	C24260438
1/4"	1/8" R	C21260418
1/4"	1/4" R	C21260428
5/16"	1/8" NPT	C24260518
5/16"	1/4" NPT	C24260528
5/16"	3/8" NPT	C24260538
5/16"	1/2" NPT	C24260548
5/16"	1/8" R	C02260818
5/16"	1/4" R	C02260828
3/8"	1/8" NPT	C24260618
3/8"	1/4" NPT	C24260628
3/8"	3/8" NPT	C24260638
3/8"	1/2" NPT	C24260648
3/8"	1/4" R	C21260628
3/8"	3/8" R	C21260638
1/2"	1/4" NPT	C24260728
1/2"	3/8" NPT	C24260738

Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Female bulkhead

O/D tube	Thread	Part number
5/32"	1/8" NPT	C24320218
3/16"	1/8" NPT	C24320318
3/16"	1/4" NPT	C24320328
1/4"	1/8" NPT	C24320418
1/4"	1/4" NPT	C24320428
5/16"	1/8" NPT	C24320518
5/16"	1/4" NPT	C24320528
5/16"	3/8" NPT	C24320538
3/8"	1/4" NPT	C24320628
3/8"	3/8" NPT	C24320638
1/2"	1/4" NPT	C24320728
1/2"	3/8" NPT	C24320738
1/2"	1/2" NPT	C24320748



90° Swivel elbow adapter (extended)

O/D tube	Thread	Part number
5/32"	10-32 UNF	C24540210
5/32"	1/8" NPT	C24540218
5/32"	1/4" NPT	C24540228
5/32"	1/8" R	C01540418
5/32"	1/4" R	C01540428
5/32"	3/8" R	C01540438
3/16"	1/8" NPT	C24540318
3/16"	1/4" NPT	C24540328
3/16"	3/8" NPT	C24540338
1/4"	10-32 UNF	C24540410
1/4"	1/8" NPT	C24540418
1/4"	1/4" NPT	C24540428
1/4"	3/8" NPT	C24540438
1/4"	1/8" R	C21540418
1/4"	1/4" R	C21540428
5/16"	1/8" NPT	C24540518
5/16"	1/4" NPT	C24540528
5/16"	3/8" NPT	C24540538
5/16"	1/8" R	C01540818
5/16"	1/4" R	C01540828
5/16"	3/8" R	C01540838
3/8"	1/8" NPT	C24540618
3/8"	1/4" NPT	C24540628
3/8"	3/8" NPT	C24540638
3/8"	1/2" NPT	C24540648
3/8"	1/4" R	C21540628
3/8"	3/8" R	C21540638
1/2"	1/4" NPT	C24540728
1/2"	3/8" NPT	C24540738
1/2"	1/2" NPT	C24540748



90° Swivel elbow

O/D tube	Thread	Part number
5/32"	10-32 UNF	C24470210
5/32"	1/8" NPT	C24470218
5/32"	1/4" NPT	C24470228
5/32"	1/8" R	C01470418
5/32"	1/4" R	C01470428
5/32"	3/8" R	C01470438
3/16"	10-32 UNF	C24470310
3/16"	1/8" NPT	C24470318
3/16"	1/4" NPT	C24470328
3/16"	3/8" NPT	C24470338
1/4"	10-32 UNF	C24470410
1/4"	1/8" NPT	C24470418
1/4"	1/4" NPT	C24470428
1/4"	3/8" NPT	C24470438
1/4"	1/8" R	C21470418
1/4"	1/4" R	C21470428
1/4"	3/8" R	C21470438
5/16"	1/8" NPT	C24470518
5/16"	1/4" NPT	C24470528
5/16"	3/8" NPT	C24470538
5/16"	1/2" NPT	C24470548
5/16"	1/8" R	C01470818
5/16"	1/4" R	C01470828
5/16"	3/8" R	C01470838
3/8"	1/8" NPT	C24470618
3/8"	1/4" NPT	C24470628
3/8"	3/8" NPT	C24470638
3/8"	1/2" NPT	C24470648
3/8"	1/8" R	C21470618
3/8"	1/4" R	C21470628
3/8"	3/8" R	C21470638
3/8"	1/2" R	C21470648
1/2"	1/4" NPT	C24470728
1/2"	3/8" NPT	C24470738
1/2"	1/2" NPT	C24470748
1/2"	1/4" R	C21470728
1/2"	3/8" R	C21470738
1/2"	1/2" R	C21470748



90° Swivel elbow adapter (female)

O/D tube	Thread	Part number
5/32"	10-32 UNF	C24480210
5/32"	1/8" NPT	C24480218
5/32"	1/4" NPT	C24480228
5/32"	1/8" R	C01480418
3/16"	10-32 UNF	C24480310
3/16"	1/8" NPT	C24480318
3/16"	1/4" NPT	C24480328
1/4"	10-32 UNF	C24480410
1/4"	1/8" NPT	C24480418
1/4"	1/4" NPT	C24480428
1/4"	3/8" NPT	C24480438
5/16"	1/8" NPT	C24480518
5/16"	1/4" NPT	C24480528
5/16"	3/8" NPT	C24480538
5/16"	1/8" R	C01480818
5/16"	1/4" R	C01480828
3/8"	1/4" NPT	C24480628
3/8"	3/8" NPT	C24480628
3/8"	1/2" NPT	C24480648
1/2"	3/8" NPT	C24480738
1/2"	1/2" NPT	C24480748

Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



45° Swivel elbow adapter

O/D tube	Thread	Part number
1/4"	10-32 UNF	C24570410
1/4"	1/8" NPT	C24570418
1/4"	1/4" NPT	C24570428
1/4"	3/8" NPT	C24570438



Swivel tee adapter

O/D tube	Thread	Part number
5/32"	10-32 UNF	C24670210
5/32"	1/8" NPT	C24670218
5/32"	1/4" NPT	C24670228
5/32"	1/8" R	C01670418
5/32"	1/4" R	C01670428
5/32"	3/8" R	C01670438
3/16"	10-32 UNF	C24670310
3/16"	1/8" NPT	C24670318
3/16"	1/4" NPT	C24670328
3/16"	3/8" NPT	C24670338
1/4"	10-32 UNF	C24670410
1/4"	1/8" NPT	C24670418
1/4"	1/4" NPT	C24670428
1/4"	3/8" NPT	C24670438
1/4"	1/8" R	C21670418
1/4"	1/4" R	C21670428
1/4"	3/8" R	C21670438
5/16"	1/8" NPT	C24670518
5/16"	1/4" NPT	C24670528
5/16"	3/8" NPT	C24670538
5/16"	1/2" NPT	C24670548
5/16"	1/8" R	C01670818
5/16"	1/4" R	C01670828
5/16"	3/8" R	C01670838
3/8"	1/8" NPT	C24670618
3/8"	1/4" NPT	C24670628
3/8"	3/8" NPT	C24670638
3/8"	1/2" NPT	C24670648
3/8"	1/8" R	C21670618
3/8"	1/4" R	C21670628
3/8"	3/8" R	C21670638
3/8"	1/2" R	C21670648
1/2"	1/4" NPT	C24670728
1/2"	3/8" NPT	C24670738
1/2"	1/2" NPT	C24670748
1/2"	1/4" R	C21670728
1/2"	3/8" R	C21670738
1/2"	1/2" R	C21670748



Swivel Y adapter

O/D tube	Thread	Part number
5/32"	10-32 UNF	C24880210
5/32"	1/8" NPT	C24880218
5/32"	1/4" NPT	C24880228
5/32"	1/8" R	C01880418
5/32"	1/4" R	C01880428
5/32"	3/8" R	C01880438
3/16"	10-32 UNF	C24880310
3/16"	1/8" NPT	C24880318
3/16"	1/4" NPT	C24880328
3/16"	3/8" NPT	C24880338
1/4"	10-32 UNF	C24880410
1/4"	1/8" NPT	C24880418
1/4"	1/4" NPT	C24880428
1/4"	3/8" NPT	C24880438
1/4"	1/8" R	C21880418
1/4"	1/4" R	C21880428
1/4"	3/8" R	C21880438
5/16"	1/8" NPT	C24880518
5/16"	1/4" NPT	C24880528
5/16"	3/8" NPT	C24880538
5/16"	1/2" NPT	C24880548
5/16"	1/8" R	C01880818
5/16"	1/4" R	C01880828
5/16"	3/8" R	C01880838
3/8"	1/8" NPT	C24880618
3/8"	1/4" NPT	C24880628
3/8"	3/8" NPT	C24880638
3/8"	1/2" NPT	C24880648
3/8"	1/4" R	C21880628
3/8"	3/8" R	C21880638
3/8"	1/2" R	C21880648
1/2"	1/4" NPT	C24880728
1/2"	3/8" NPT	C24880738
1/2"	1/2" NPT	C24880748
1/2"	1/4" R	C21880728
1/2"	3/8" R	C21880738
1/2"	1/2" R	C21880748

Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Swivel side tee adapter

O/D tube	Thread	Part number
5/32"	10-32 UNF	C24680210
5/32"	1/8" NPT	C24680218
5/32"	1/4" NPT	C24680228
5/32"	1/8" R	C01680418
5/32"	1/4" R	C01680428
5/32"	3/8" R	C01680438
3/16"	10-32 UNF	C24680310
3/16"	1/8" NPT	C24680318
3/16"	1/4" NPT	C24680328
3/16"	3/8" NPT	C24680338
1/4"	10-32 UNF	C24680410
1/4"	1/8" NPT	C24680418
1/4"	1/4" NPT	C24680428
1/4"	3/8" NPT	C24680438
1/4"	1/8" R	C21680418
1/4"	1/4" R	C21680428
1/4"	3/8" R	C21680438
5/16"	1/8" NPT	C24680518
5/16"	1/4" NPT	C24680528
5/16"	3/8" NPT	C24680538
5/16"	1/2" NPT	C24680548
5/16"	1/8" R	C01680818
5/16"	1/4" R	C01680828
5/16"	3/8" R	C01680838
3/8"	1/8" NPT	C24680618
3/8"	1/4" NPT	C24680628
3/8"	3/8" NPT	C24680638
3/8"	1/2" NPT	C24680648
3/8"	1/4" R	C21680628
3/8"	3/8" R	C21680638
3/8"	1/2" R	C21680648
1/2"	1/4" NPT	C24680728
1/2"	3/8" NPT	C24680738
1/2"	1/2" NPT	C24680748
1/2"	1/4" R	C21680728
1/2"	3/8" R	C21680738
1/2"	1/2" R	C21680748



Banjo

O/D tube	Thread	Part number
5/32"	10-32 UNF	C2R510210
5/32"	1/8" NPT	C2R510218
1/4"	10-32 UNF	C2R510410
1/4"	1/8" NPT	C2R510418
1/4"	1/4" NPT	C2R510428
5/16"	1/8" NPT	C2R510518
5/16"	1/4" NPT	C2R510528
3/8"	1/4" NPT	C2R510628
3/8"	3/8" NPT	C2R510638
3/8"	1/2" NPT	C2R510648
1/2"	3/8" NPT	C2R510738
1/2"	1/2" NPT	C2R510748

Banjo with top port

O/D tube	Thread	Part number
5/32"	10-32 UNF	C2D510210
5/32"	1/8" NPT	C2E510218
1/4"	10-32 UNF	C2D510410
1/4"	1/8" NPT	C2E510418
1/4"	1/4" NPT	C2F510428
5/16"	1/8" NPT	C2E510518
5/16"	1/4" NPT	C2F510528
3/8"	1/4" NPT	C2F510628
3/8"	3/8" NPT	C2G510638
1/2"	3/8" NPT	C2G510738



Banjo flow control (regulating out)

O/D tube	Thread	Part number
5/32"	10-32 UNF	C2VA00210
5/32"	1/8" NPT	C2VA00218
5/32"	M5	C0K510405
5/32"	1/8"R	C0TA00418
5/32"	1/4"R	C0TA00428
3/16"	10-32 UNF	C2VA00310
3/16"	1/8" NPT	C2VA00318
3/16"	1/4" NPT	C2VA00328
3/16"	3/8" NPT	C2VA00338
1/4"	10-32 UNF	C2VA00410
1/4"	1/8" NPT	C2VA00418
1/4"	1/4" NPT	C2VA00428
1/4"	3/8" NPT	C2VA00438
1/4"	M5	C2VA00405
1/4"	1/8"R	C2TA00418
1/4"	1/4"R	C2TA00428
5/16"	1/8" NPT	C2VA00518
5/16"	1/4" NPT	C2VA00528
5/16"	3/8" NPT	C2VA00538
5/16"	1/2" NPT	C2VA00548
5/16"	1/8"R	C0TA00818
5/16"	1/4"R	C0TA00828
5/16"	3/8"R	C0TA00838
3/8"	1/4" NPT	C2VA00628
3/8"	3/8" NPT	C2VA00638
3/8"	1/2" NPT	C2VA00648
3/8"	1/4"R	C2TA00628
3/8"	3/8"R	C2TA00638
1/2"	3/8" NPT	C2VA00738
1/2"	1/2" NPT	C2VA00748



Swivel tee adapter

O/D tube	Thread	Part number
5/32"	1/8" NPT	C246C0218
3/16"	1/8" NPT	C246C0318
3/16"	1/4" NPT	C246C0328
1/4"	1/8" NPT	C246C0418
1/4"	1/4" NPT	C246C0428
5/16"	1/8" NPT	C246C0518
5/16"	1/4" NPT	C246C0528
5/16"	3/8" NPT	C246C0538
3/8"	1/4" NPT	C246C0628
3/8"	3/8" NPT	C246C0638
1/2"	3/8" NPT	C246C0738
1/2"	1/2" NPT	C246C0748



Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Shrouded banjo flow control (regulating out)

O/D tube	Thread	Part number
5/32"	10-32 UNF	C2VB00210
1/4"	10-32 UNF	C2VB00410
1/4"	1/8" NPT	C2VB00418
1/4"	1/4" NPT	C2VB00428
3/8"	3/8" NPT	C2VB00638



Plug

O/D tube	Part number
5/32"	C00040400
3/16"	C20040300
1/4"	C20040400
5/16"	C00040800
3/8"	C20040600
1/2"	C20040700



In line flow control

O/D tube	Part number
5/32"	C20GE0200
3/16"	C20GE0300
1/4"	C20GE0400
5/16"	C20GE0500
3/8"	C20GE0600
1/2"	C20GE0700



Cap

O/D tube	Part number
5/32"	C20120200
3/16"	C20120300
1/4"	C20120400
5/16"	C20120500
3/8"	C20120600
1/2"	C20120700



Straight union

O/D tube	Part number
5/32"	C20200200
3/16"	C20200300
1/4"	C20200400
5/16"	C20200500
3/8"	C20200600
1/2"	C20200700



Union elbow

O/D tube	Part number
5/32"	C20400200
3/16"	C20400300
1/4"	C20400400
5/16"	C20400500
3/8"	C20400600
1/2"	C20400700



Bulkhead union

O/D tube	Part number
5/32"	C20290200
3/16"	C20290300
1/4"	C20290400
5/16"	C20290500
3/8"	C20290600
1/2"	C20290700



Stem union

O/D tube	Part number
5/32"	C20220200
3/16"	C20220300
1/4"	C20220400
5/16"	C20220500
3/8"	C20220600
1/2"	C20220700



Stem elbow

O/D tube	Part number
5/32"	C20430200
3/16"	C20430300
1/4"	C20430400
5/16"	C20430500
3/8"	C20430600
1/2"	C20430700

Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Union tee

O/D tube	Part number
5/32"	C20600200
3/16"	C20600300
1/4"	C20600400
5/16"	C20600500
3/8"	C20600600
1/2"	C20600700



Stem Y

O/D tube	Part number
5/32"	C20840202
3/16"	C20840300
1/4"	C20840404
5/16"	C20840505
3/8"	C20840600
1/2"	C20840700



Stem tee

O/D tube	Part number
5/32"	C20630200
3/16"	C20630300
1/4"	C20630400
5/16"	C20630500
3/8"	C20630600
1/2"	C20630700



Union cross

O/D tube	Part number
5/32"	C20900200
3/16"	C20900300
1/4"	C20900400
5/16"	C20900500
3/8"	C20900600
1/2"	C20900700



Stem side tee

O/D tube	Part number
5/32"	C20640200
3/16"	C20640300
1/4"	C20640400
5/16"	C20640500
3/8"	C20640600
1/2"	C20640700



Straight union (unequal)

O/D tube	Part number
3/16" - 5/32"	C20200302
1/4" - 5/32"	C20200402
1/4" - 3/16"	C20200403
5/16" - 1/4"	C20200504
3/8" - 1/4"	C20200604
3/8" - 5/16"	C20200605
1/2" - 3/8"	C20200706



Union Y

O/D tube	Part number
5/32"	C20820200
3/16"	C20820300
1/4"	C20820400
5/16"	C20820500
3/8"	C20820600
1/2"	C20820700



Stem Reducer (stem/tube)

O/D tube	Part number
1/4" - 5/32"	C20230402
5/16" - 1/4"	C20230504
3/8" - 1/4"	C20230604
3/8" - 5/16"	C20230605
1/2" - 1/4"	C20230704
1/2" - 3/8"	C20230706

Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube



Stem Union (unequal)

O/D tube	Part number
3/16" - 5/32"	C20220302
1/4" - 5/32"	C20220402
1/4" - 3/16"	C20220403
5/16" - 1/4"	C20220504
3/8" - 1/4"	C20220604
3/8" - 5/16"	C20220605
1/2" - 3/8"	C20220706



Stem Side Tee (unequal)

O/D tube	Part number
1/4" - 5/32"	C20640402
5/16" - 1/4"	C20640504
3/8" - 1/4"	C20640604
1/2" - 1/4"	C20640605



Union Tee (unequal)

O/D tube	Part number
1/4" - 5/32"	C206A0402
5/16" - 1/4"	C206A0504
3/8" - 1/4"	C206A0604
3/8" - 5/16"	C206A0605
1/2" - 1/4"	C206A0704
1/2" - 3/8"	C206A0706



Union Y (unequal)

O/D tube	Part number
3/16" - 5/32"	C20820302
1/4" - 5/32"	C20820402
1/4" - 3/16"	C20820403
5/16" - 1/4"	C20820504
3/8" - 1/4"	C20820604
3/8" - 5/16"	C20820605
1/2" - 3/8"	C20820706



Stem Tee (unequal)

O/D tube	Part number
1/4" - 5/32"	C20630402
5/16" - 1/4"	C20630504
3/8" - 1/4"	C20630604
3/8" - 5/16"	C20630605



Stem Y (unequal)

O/D tube	Part number
1/4" - 5/32"	C20840402
5/16" - 1/4"	C20840504
3/8" - 1/4"	C20840604
3/8" - 5/16"	C20840605

Pneufit M miniature fittings

Inch

Ø 1/8" to 1/2" O/D tube

Straight adapter (external + internal hex)



O/D tube	Thread	Part number
1/8"	M3	M22250103
1/8"	M5	M22250105
1/8"	M6	M22250106
1/8"	10-32 UNF	M24250110
1/8"	1/16" NPT	M24250116
1/8"	1/8" NPT	M24250118
1/8"	1/8" R	M21250118
1/8"	1/4" NPT	M24250128
5/32"	M3	M02250403
5/32"	M5	M02250405
5/32"	M6	M02250406
5/32"	10-32 UNF	M24250210
5/32"	1/16" NPT	M24250216
5/32"	1/8" NPT	M24250218
5/32"	1/8" R	M01250418
1/4"	M5	M22250405
1/4"	M6	M22250406
1/4"	10-32 UNF	M24250410
1/4"	1/16" NPT	M24250416
1/4"	1/8" NPT	M24250418
1/4"	1/8" R	M21250418



90° Swivel Elbow Adapter

O/D tube	Thread	Part number
1/8"	M3	M22470103
1/8"	M5	M22470105
1/8"	M6	M22470106
1/8"	10-32 UNF	M24470110
1/8"	1/16" NPT	M24470116
1/8"	1/8" NPT	M24470118
1/8"	1/4" NPT	M24470128
5/32"	M3	M02470403
5/32"	M5	M02470405
5/32"	M6	M02470406
5/32"	10-32 UNF	M24470210
5/32"	1/16" NPT	M24470216
5/32"	1/8" NPT	M24470218
5/32"	1/8" R	M01470418
1/4"	M5	M22470405
1/4"	M6	M22470406
1/4"	10-32 UNF	M24470410
1/4"	1/16" NPT	M24470416
1/4"	1/8" NPT	M24470418

Straight adapter (internal hex only)



O/D tube	Thread	Part number
1/8"	M3	M222A0103
1/8"	M5	M222A0105
1/8"	M6	M222A0106
1/8"	10-32 UNF	M242A0110
1/8"	1/16" NPT	M242A0116
1/8"	1/8" NPT	M242A0118
5/32"	M3	M022A0403
5/32"	M5	M022A0405
5/32"	M6	M022A0406
5/32"	10-32 UNF	M242A0210
5/32"	1/16" NPT	M242A0216
5/32"	1/8" NPT	M242A0218
1/4"	M5	M242A0405
1/4"	M6	M242A0406
1/4"	10-32 UNF	M242A0410
1/4"	1/16" NPT	M242A0416
1/4"	1/8" NPT	M242A0418



Swivel Tee Adapter

O/D tube	Thread	Part number
1/8"	M3	M22670103
1/8"	M5	M22670105
1/8"	M6	M22680106
1/8"	10-32 UNF	M24670110
1/8"	1/6" NPT	M24670116
1/8"	1/8" NPT	M24670118
5/32"	M3	M02670403
5/32"	M5	M02670405
5/32"	M6	M02670406
5/32"	10-32 UNF	M24670210
5/32"	1/16" NPT	M24670216
5/32"	1/8" NPT	M24670218
5/32"	1/8" R	M01670418
1/4"	M5	M22670405
1/4"	M6	M22670406
1/4"	10-32 UNF	M24670410
1/4"	1/16" NPT	M24670416
1/4"	1/8" NPT	M24670418
1/4"	1/8" R	M21670418

Straight adapter (female thread)



O/D tube	Thread	Part number
1/8"	M3	M22260103
1/8"	M5	M22260105
1/8"	10-32 UNF	M24260110
1/8"	1/16" NPT	M24260116
1/8"	1/8" NPT	M24260118
1/8"	1/4" NPT	M24260128
5/32"	M3	M22260103
5/32"	M5	M22260105
5/32"	10-32 UNF	M24260210
5/32"	1/16" NPT	M24260216

Pneufit M miniature fittings

Inch

Ø 1/8" to 1/2" O/D tube



Swivel Side Tee Adapter

O/D tube	Thread	Part number
1/8"	M3	M24680103
1/8"	M5	M22680105
1/8"	M6	M22680106
1/8"	10-32 UNF	M24680110
1/8"	1/16" NPT	M24680116
1/8"	1/8" NPT	M24680118
5/32"	M3	M02680403
5/32"	M5	M02680405
5/32"	M6	M22680106
5/32"	10-32 UNF	M24680210
5/32"	1/16" NPT	M24680216
5/32"	1/8" NPT	M24680218
5/32"	1/8" R	M01680418
1/4"	M5	M22680405
1/4"	M6	M22680406
1/4"	10-32 UNF	M24680410
1/4"	1/16" NPT	M24680416
1/4"	1/8" NPT	M24680418
1/4"	1/8" R	M21680418



Straight Union (unequal)

O/D tube	Part number
5/32"-1/8"	M20200201
1/4"-1/8"	M20200401
1/4"-5/32"	M20200402



Stem Reducer (stem/tube)

O/D tube	Part number
5/32" to 1/8"	C20230201
1/4" to 1/8"	C20230401



Straight Union

O/D tube	Part number
1/8"	M20200100
5/32"	M20200200
1/4"	M20200400



Union Elbow

O/D tube	Part number
1/8"	M20400100
5/32"	M20400200
1/4"	M20400400



Stem Expander (stem/tube)

O/D tube	Part number
1/8" to 1/4"	C20230104
5/32" to 1/4"	C20230204



Union Tee

O/D tube	Part number
1/8"	M20600100
5/32"	M20600200
1/4"	M20600400



Banjo Flow Control

O/D tube	Thread	Part number
1/8"	10-32 UNF	C2VA00110 regulating out
1/8"	10-32 UNF	C2WA00110 regulating out

Pneufit C push-in fittings

Inch

Ø 1/8" to 1/2" O/D tube

Pneufit® C Manifolds



Male Manifold

Tube	Thread	Part number
1/4"-5/32"	1/8" NPT	C24D30218
5/16"-5/32"	1/4" NPT	C24D30228
5/16"-3/16"	1/4" NPT	C24D30328
5/16"-1/4"	1/4" NPT	C24D30428
3/8"-1/4"	3/8" NPT	C24D30438



Manifold Union

Tube	Part number
3/16"-5/32"	C20D30302
1/4"- 5/32"	C20D30402
5/16"- 5/32"	C20D30502
5/16"-3/16"	C20D30503
5/16"-1/4"	C20D30504
3/8"- 1/4"	C20D30604
3/8"- 5/16"	C20D30605



Stem Manifold

Tube	Part number
3/16"- 5/32"	C20J30302
1/4"- 5/32"	C20J30402
5/16"-5/32"	C20J30502
5/16"-3/16"	C20J30503
5/16"-1/4"	C20J30504
3/8"- 1/4"	C20J30604
3/8"-5/16"	C20J30605

3/2 Shut off valves



Thread to thread

NPT thread to thread	Part number
1/8"	C24GG1818
1/4"	C24GG2828
3/8"	C24GG3838
1/2"	C24GG4848



Tube to tube

Tube to tube	Part number
1/4"	C20GF0400
5/16"	C20GF0500
3/8"	C20GF0600
1/2"	C20GF0700



Tube to thread

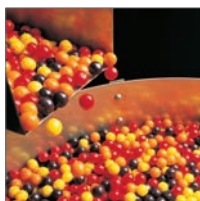
Inlet tube O/D	Outlet NPT thread	Part number
1/4"	1/8"	C24GH 0418
1/4"	1/4"	C24GH 0428
1/4"	3/8"	C24GH 0438
5/16"	1/8"	C24GH 0518
5/16"	1/4"	C24GH 0528
5/16"	3/8"	C24GH 0538
3/8"	1/4"	C24GH 0628
3/8"	3/8"	C24GH 0638
3/8"	1/2"	C24GH 0648
1/2"	3/8"	C24GH 0738
1/2"	1/2"	C24GH 0748



Thread to tube

Inlet NPT thread	Outlet tube O/D	Part number
1/8"	1/4"	C24GJ 0418
1/8"	5/16"	C24GJ 0518
1/4"	1/4"	C24GJ 0428
1/4"	5/16"	C24GJ 0528
1/4"	3/8"	C24GJ 0628
3/8"	1/4"	C24GJ 0438
3/8"	5/16"	C24GJ 0538
3/8"	3/8"	C24GJ 0638
1/2"	3/8"	C24GJ 0648
1/2"	1/2"	C24GJ 0748

PNEUFIT D INCH AND METRIC ADVANTAGE



Pneufit D offers a broad range of fittings with approvals and certification from world wide standard organizations.

- » Pneufit D used in processing of food meets health and safety standards with the added quality assurance of NSF 61 certification.
- » Sanitary design for water and drinks dispense applications adhering to NSF 51 and WRAS specifications.

- » Suitable for use in medical and analytical equipment including fluid and precision gas control.
- » Appropriate for inert gas and industrial air applications.
- » Available in inch and metric tube sizes with NPTF, BSPP, BSPT and UNF threads.



- >> 01 OVAL RELEASE SLEEVE
- 02 MOUNTING HOLES ON UNIONS
- 03 FEMALE THREAD OPTIONS



Pneufit® D fittings

Inch

Ø 5/32" to 1/2" O/D tube

Ready to use.

Manufactured from FDA approved acetal material, and are certified by NSF (51 & 61), WRAS and SK-Zert for use with water and food.

Comprehensive range of over 600 plastic push-in fittings in both inch and metric sizes.

Releasable stainless-steel grab-ring offers fast, secure assembly and disassembly of nylon, PU and PE tubing.

Suitable for use in medical and analytical equipment including fluid and precision gas control.

Appropriate for inert gas and industrial air applications.

Technical data

Medium
Air and liquids

Operating pressure

Vacuum up to 29.5" Hg

5/32" to 5/16", -4°F to 68°F, 230 psig

3/8" to 1/2", -4°F to 68°F, 170 psig

5/32" to 5/16", 68°F to 149°F, 150 psig

3/8" to 1/2", 68°F to 149°F, 100 psig

Temperature

-4°F to 149°F

Materials

Body: Acetal

Seals: Food and water grade NBR

Collet: PBT with Stainless Steel teeth

Tube sizes

5/32", 3/16", 1/4", 5/16", 3/8" and 1/2"

Thread sizes

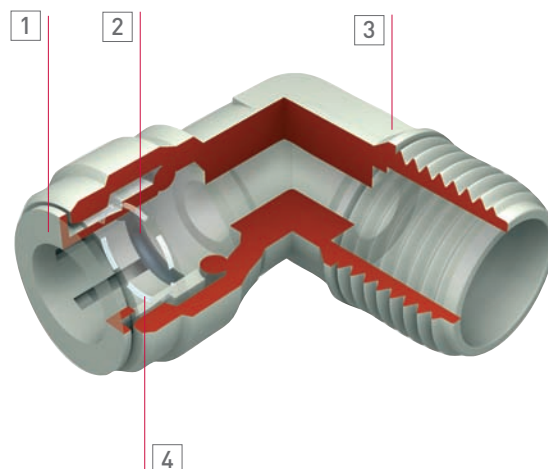
1/8", 1/4", 3/8", 1/2", 5/8" NPTF, ISO R and ISO G

Tube types

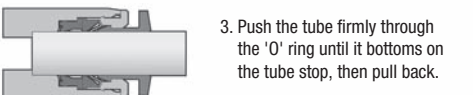
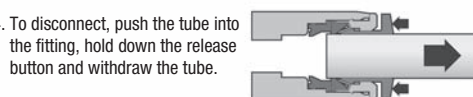
Nylon, Polyurethane, Polyethylene



- 1 Collet- unique oval shape allowing for easier connecting and disconnecting.
- 2 O-ring - NBR provides leak proof seal.
- 3 Body and cap - made of highly durable acetal copolymer (POM).
- 4 Stainless steel teeth - holds tubing in place



Method of assembly

1. Ensure that the end tube is cut square and is free from burrs. 
2. Push the tube through the release ring button and grab ring into the fitting. 
3. Push the tube firmly through the 'O' ring until it bottoms on the tube stop, then pull back. 
4. To disconnect, push the tube into the fitting, hold down the release button and withdraw the tube. 

Pneufit® D fittings

Inch

Ø 5/32" to 1/2" O/D tube

Straight Adapter



O/D tube	Thread	Part number
5/32"	1/8" NPTF	D24250218
5/32"	1/4" NPT	D24250228
5/32"	1/8" BSPT	D21250218
5/32"	1/4" BSPT	D21250228
5/32"	1/8" BSPP	D22250218
5/32"	1/4" BSPP	D22250228
3/16"	1/8" NPTF	D24250318
3/16"	1/8" BSPT	D21250318
3/16"	1/4" BSPT	D21250328
3/16"	1/8" BSPP	D22250318
3/16"	1/4" BSPP	D22250328
1/4"	1/8" NPTF	D24250418
1/4"	1/4" NPTF	D24250428
1/4"	3/8" NPTF	D24250438
1/4"	1/2" NPTF	D24250448
1/4"	1/8" BSPT	D21250418
1/4"	1/4" BSPT	D21250428
1/4"	3/8" BSPT	D21250438
1/4"	1/2" BSPT	D21250448
1/4"	1/8" BSPP	D22250418
1/4"	1/4" BSPP	D22250428
5/16"	1/8" NPTF	D24250518
5/16"	1/4" NPTF	D24250528
5/16"	3/8" NPTF	D24250538
5/16"	1/8" BSPT	D21250518
5/16"	1/4" BSPT	D21250528
5/16"	3/8" BSPT	D21250538
5/16"	1/8" BSPP	D22250518
5/16"	1/4" BSPP	D22250528
5/16"	3/8" BSPP	D22250538
3/8"	1/8" NPTF	D24250618
3/8"	1/4" NPTF	D24250628
3/8"	3/8" NPTF	D24250638
3/8"	1/2" NPTF	D24250648
3/8"	1/8" BSPT	D21250618
3/8"	1/4" BSPT	D21250628
3/8"	3/8" BSPT	D21250638
3/8"	1/2" BSPT	D21250648
3/8"	1/4" BSPP	D22250628
3/8"	3/8" BSPP	D22250638
3/8"	1/2" BSPP	D22250648
1/2"	3/8" NPTF	D24250738
1/2"	1/2" NPTF	D24250748
1/2"	3/8" BSPT	D21250738
1/2"	1/2" BSPT	D21250748
1/2"	3/8" BSPP	D22250738
1/2"	1/2" BSPP	D22250748

Straight Adapter (female thread, flat type)



O/D tube	Thread	Part number
1/4"	1/8" NPTF	D242C0418
1/4"	1/4" NPTF	D242C0428
5/16"	1/8" NPTF	D242C0518
5/16"	1/4" NPTF	D242C0528
5/16"	5/8" BSPP	D222C0558
3/8"	1/8" NPTF	D242C0618
3/8"	1/4" NPTF	D242C0628
3/8"	1/2" BSPP	D222C0648
3/8"	5/8" BSPP	D222C0658
1/2"	3/8" BSPP	D222C0738
1/2"	1/2" BSPP	D222C0748
1/2"	5/8" BSPP	D222C0758

Straight Adapter (female thread, v type)



O/D tube	Thread	Part number
1/4"	7/16-20UNF	D242B042Y
5/16"	7/16-20UNF	D242B052Y
5/16"	1/2-16UNF	D242B053Z
3/8"	7/16-20UNF	D242B062Y
3/8"	5/8-18UNF	D242B064Y
3/8"	1/2-16UNF	D242B063Z
1/2"	1/2-16UNF	D242B073Z

Straight Adapter (female thread, cone type)



O/D tube	Thread	Part number
1/4"	7/16-20UNF	D242D042Y
1/4"	7/16-24UNS	D242D042W
1/4"	3/8" BSPP	D222D0438
1/4"	1/2" BSPP	D222D0448
5/16"	7/16-20UNF	D242D052Y
5/16"	7/16-24UNS	D242D052W
5/16"	3/8" BSPP	D222D0538
5/16"	1/2" BSPP	D222D0548
3/8"	7/16-20UNF	D242D062Y
3/8"	7/16-24UNS	D242D062W
3/8"	3/8" BSPP	D222D0638
3/8"	1/2" BSPP	D222D0648
3/8"	5/8" BSPP	D222D0658
1/2"	5/8" BSPP	D222D0758

Elbow Adapter



O/D tube	Thread	Part number
3/16"	1/8" NPTF	D24450318
1/4"	1/8" NPTF	D24450418
1/4"	1/4" NPTF	D24450428
1/4"	3/8" NPTF	D24450438
5/16"	1/4" NPTF	D24450528
5/16"	3/8" NPTF	D24450538
3/8"	1/4" NPTF	D24450628
3/8"	3/8" NPTF	D24450638
1/2"	3/8" NPTF	D24450738
1/2"	1/2" NPTF	D24450748

Pneufit® D fittings

Inch

Ø 5/32" to 1/2" O/D tube

90° Swivel Elbow Adapter



O/D tube	Thread	Part number
5/32"	1/8" NPTF	D24470218
5/32"	1/4" NPTF	D24470228
3/16"	1/8" NPTF	D24470318
1/4"	1/8" NPTF	D24470418
1/4"	1/4" NPTF	D24470428
5/16"	1/8" NPTF	D24470518
5/16"	1/4" NPTF	D24470528
5/16"	3/8" NPTF	D24470538
3/8"	1/4" NPTF	D24470628
3/8"	3/8" NPTF	D24470638
1/2"	3/8" NPTF	D24470738
1/2"	1/2" NPTF	D24470748

Straight Stem Adapter



O/D tube	Thread	Part number
5/32"	1/8" NPTF	D24150218
5/32"	1/4" NPTF	D24150228
3/16"	1/8" NPTF	D24150318
1/4"	1/8" NPTF	D24150418
1/4"	1/4" NPTF	D24150428
5/16"	1/8" NPTF	D24150518
5/16"	1/4" NPTF	D24150528
5/16"	3/8" NPTF	D24150538
3/8"	1/4" NPTF	D24150628
3/8"	3/8" NPTF	D24150638
1/2"	3/8" NPTF	D24150738
1/2"	1/2" NPTF	D24150748

Swivel Side Tee Adapter



O/D tube	Thread	Part number
5/32"	1/8" NPTF	D24480218
5/32"	1/4" NPTF	D24480228
3/16"	1/8" NPTF	D24480318
1/4"	1/8" NPTF	D24480418
1/4"	1/4" NPTF	D24480428
5/16"	1/8" NPTF	D24480518
5/16"	1/4" NPTF	D24480528
5/16"	3/8" NPTF	D24480538
3/8"	1/4" NPTF	D24480628
3/8"	3/8" NPTF	D24480638
1/2"	3/8" NPTF	D24480738
1/2"	1/2" NPTF	D24480748

Straight Union



O/D tube	Part number
5/32"	D20200200
3/16"	D20200300
1/4"	D20200400
5/16"	D20200500
3/8"	D20200600
1/2"	D20200700

Bulkhead Union



O/D tube	Part number
5/32"	D20290200
3/16"	D20290300
1/4"	D20290400
5/16"	D20290500
3/8"	D20290600
1/2"	D20290700

Swivel Tee Adapter



O/D tube	Thread	Part number
5/32"	1/8" NPTF	D24670218
5/32"	1/4" NPTF	D24670228
3/16"	1/8" NPTF	D24670318
1/4"	1/8" NPTF	D24670418
1/4"	1/4" NPTF	D24670428
5/16"	1/8" NPTF	D24670518
5/16"	1/4" NPTF	D24670528
5/16"	3/8" NPTF	D24670538
3/8"	1/4" NPTF	D24670628
3/8"	3/8" NPTF	D24670638
1/2"	3/8" NPTF	D24670738
1/2"	1/2" NPTF	D24670748

Plug



O/D tube	Part number
5/32"	D20040200
3/16"	D20040300
1/4"	D20040400
5/16"	D20040500
3/8"	D20040600
1/2"	D20040700

End stop



O/D tube	Part number
1/4"	D200A0400
5/16"	D200A0500
3/8"	D200A0600
1/2"	D200A0700

Pneufit® D fittings

Inch

Ø 5/32" to 1/2" O/D tube



Union Elbow

O/D tube	Part number
5/32"	D20400200
3/16"	D20400300
1/4"	D20400400
5/16"	D20400500
3/8"	D20400600
1/2"	D20400700



Stem Elbow

O/D tube	Part number
5/32"	D20430200
3/16"	D20430300
1/4"	D20430400
5/16"	D20430500
3/8"	D20430600
1/2"	D20430700



Union Tee

O/D tube	Part number
5/32"	D20600200
3/16"	D20600300
1/4"	D20600400
5/16"	D20600500
3/8"	D20600600
1/2"	D20600700



Union Y

O/D tube	Part number
5/32"	D20820200
3/16"	D20820300
1/4"	D20820400
5/16"	D20820500
3/8"	D20820600
1/2"	D20820700



Union Cross

O/D tube	Part number
5/32"	D20900200
3/16"	D20900300
1/4"	D20900400
5/16"	D20900500
3/8"	D20900600
1/2"	D20900700



U Bend

O/D tube	Part number
1/4"	D20890400
5/16"	D20890500
3/8"	D20890600
1/2"	D20890700



Straight Union (Unequal)

A O/D tube	A1 O/D tube	Part number
1/4"	5/32"	D20200402
1/4"	3/16"	D20200403
5/16"	5/32"	D20200502
5/16"	3/16"	D20200503
5/16"	1/4"	D20200504
3/8"	5/32"	D20200602
3/8"	3/16"	D20200603
3/8"	1/4"	D20200604
3/8"	5/16"	D20200605
1/2"	5/16"	D20200705
1/2"	3/8"	D20200706



Union Elbow (Unequal)

A O/D tube	A1 O/D tube	Part number
5/16"	5/32"	D20400502
5/16"	3/16"	D20400503
5/16"	1/4"	D20400504
3/8"	3/16"	D20400603
3/8"	1/4"	D20400604
3/8"	5/16"	D20400605
1/2"	1/4"	D20400704
1/2"	5/16"	D20400705
1/2"	3/8"	D20400706



40° Union Elbow (Unequal)

A O/D tube	A1 O/D tube	Part number
3/8"	1/4"	D205A0604
1/2"	5/16"	D205A0705



Union Y (One/two)

A O/D tube	A1 O/D tube	Part number
3/8"	5/16"	D20820605
3/8"	1/2"	D20820607



Bulkhead Union (Unequal)

O/D tube	Thread	Part number
1/4"	3/8"	D20290406
3/8"	1/4"	D20290604

Pneufit® D fittings

Inch

Ø 5/32" to 1/2" O/D tube



Three Way Splitter (in/out)

A O/D tube	A1 O/D tube	Part number
3/8"	1/4"	D20910604
1/2"	3/8"	D20910706



Stem Elbow (Stem/Tube)

A O/D tube	A1 O/D stem	Part number
3/16"	3/8"	D20430603
1/4"	3/8"	D20430604
5/16"	3/8"	D20430605



Stem Reducer (stem/tube)

A O/D stem	A1 O/D tube	Part number
1/4"	5/32"	D20230402
5/16"	3/16"	D20230503
5/16"	1/4"	D20230504
3/8"	3/16"	D20230603
3/8"	1/4"	D20230604
3/8"	5/16"	D20230605
1/2"	5/16"	D20230705
1/2"	3/8"	D20230706



Hand Valve (Union)

O/D tube	Part number
1/4"	D20GR0400
3/8"	D20GR0600
1/2"	D20GR0700



Stem Elbow Adapter (Stem/Barb)

A O/D tube	A1 O/D tube	Part number
1/4"	5/16"	D204A0405
5/16"	1/4"	D204A0504
3/8"	1/4"	D204A0604
3/8"	5/16"	D204A0605



Hand Valve (male adapter)

O/D tube	Thread	Part number
1/4"	1/4" NPTF	D24GT0428
3/8"	3/8" NPTF	D24GT0638
1/2"	1/2" NPTF	D24GT0748



Stem Tailpiece Adapter (Stem/Barb)

A O/D tube	A1 O/D tube	Part number
1/4"	5/16"	D20390405
5/16"	3/16"	D20390503
5/16"	1/4"	D20390504
5/16"	3/8"	D20390506
3/8"	1/4"	D20390604
3/8"	5/16"	D20390605
3/8"	1/2"	D20390607
1/2"	3/8"	D20390706



Hand Valve (female adapter)

O/D tube	Thread	Part number
1/4"	1/4" NPTF	D24GU0428
3/8"	3/8" NPTF	D24GU0638
1/2"	1/2" NPTF	D24GU0748

Pneufit D fittings

Inch

Ø 5/32" to 1/2" O/D tube

ACCESSORIES



Cartridges (Brass)

O/D tube	Part number
5/32"	D20080200B
3/16"	D20080300B
1/4"	D20080400B
5/16"	D20080500B
3/8"	D20080600B
1/2"	D20080700B



Locking Clip

O/D tube	Part number
1/4"	D2LC04**
5/16"	D2LC05**
3/8"	D2LC06**
1/2"	D2LC07**

**BK-Black, BU-Blue, GN-Green, RD-Red, YW-Yellow



Cartridges (Stainless Steel)

O/D tube	Part number
5/32"	D20080200G
3/16"	D20080300G
1/4"	D20080400G
5/16"	D20080500G
3/8"	D20080600G
1/2"	D20080700G



Flow Bend Clip

O/D tube	Part number
5/16"	D2D5B0500
3/8"	D2D5B1000
1/2"	D2D5B1200



Tube Support

O/D tube	Part number
1/4"	D20330403
5/16"	D20330504
3/8"	D20330605
1/2"	D20330706



LDPE Tubing (natural)

O/D tube	Part number
5/32"	PE0052500
3/16"	PE0053500
1/4"	PE0054500
5/16"	PE0055500
3/8"	PE0056500
1/2"	PE0057250

Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube

Compact units featuring retained collets and positive tube anchorage.

Silicone free 'O'-ring seals.

Non-PTFE based thread sealant on all BSP taper threads.

Easy tube insertion for rapid assembly.

Internal hexagon on straight adaptors allows assembly in confined spaces.

Wide range of types available.

Reliable and corrosion resistant.

Specifications

Fluid: Compressed air, nitrogen, inert and non-combustible gases compatible with materials of construction. For other types of fluids or compressed gases, please consult factory.

Working Pressure: 750 mm Hg to 18 bar

(29.5" Hg vacuum to 260 psig)

Note: Flow Controls working pressures:

.3 to 10 bar (5 to 150 psig)

Working Temperature: -20° to 80°C (0° to 175°F)

Request viton® option on selected part numbers for extended temperature range : -20° to 180°C (0° to 350°F)

Materials of Construction

Body, swivel fitting and collet:

Nickel plated brass

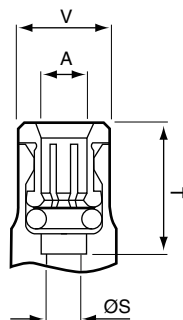
O-ring: Silicone free Nitrile

Sealing washer (parallel male threads): Silicon free nitrile

Tubing: Nylon 11 or Nylon 12, Polyurethane (95 durometer or above) and LDPE (Low Density Polyethylene).

Note: Lower durometer polyurethane may be used, however, an internal tube support is required to prevent internal collapse of the tube wall.

Thread Sealant: Precote 5 thread sealant is factory applied to the circumference of tapered male threads (ISO R).



Dimensions mm (in.)

A	S	T	V
O.D. Tube		Tube Stop	
4 (5/32")	2.8 (.11)	14.0 (.55)	7.5 (.30)
5	3.4 (.13)	15.0 (.59)	10.0 (.39)
6	4.4 (.17)	15.5 (.61)	11.0 (.43)
8 (5/16")	6.0 (.24)	16.5 (.65)	13.0 (.51)
10	7.6 (.30)	21.0 (.83)	14.5 (.57)
12	9.6 (.38)	24.5 (.96)	18.0 (.71)
14	11.5 (.45)	24.5 (.96)	20.0 (.79)

Recommended tightening torques

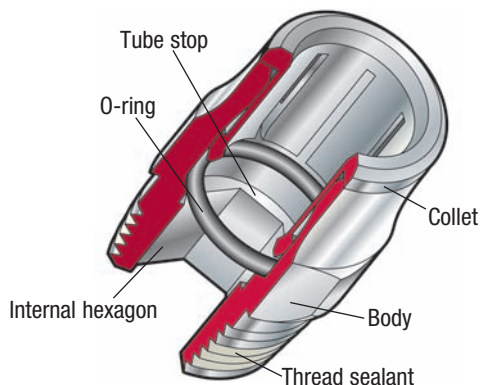
Thread Size	Tightening Torque Nm (ft lbs)	ISO G*
M5	—	1 - 1.4 (.75 - 1.05)
1/8	6.9 - 8.8 (5.0 - 6.5)	7 - 9 (5.3 - 6.8)
1/4	11.8 - 13.7 (8.7 - 10.0)	9 - 12 (6.8 - 9.0)
3/8	21.6 - 23.5 (15.9 - 17.3)	34 - 38 (25.5 - 28.5)
1/2	27.4 - 29.4 (20.2 - 21.7)	41 - 47 (30.8 - 35.3)

* Lower torques can be used to achieve a seal but these figures are recommended to provide some vibration resistance.

Tube O.D.'s and Tube Tolerances

O.D. Tube Tolerances	Nylon	Polyurethane
4 mm to 5 mm (5/32" to 3/16")	+0.05 mm (+0.002") -0.07 mm (-0.003")	+0.10 mm (±0.004")
6 mm to 14 mm (1/4" to 1/2")	+0.05 mm (+0.002") -0.10 mm (-0.004")	

LDPE -Tolerances specified in DIN 73378 or BS54-09/1:1976



Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube

Pneufit Union



O/D Tube	Part Number
4	10 020 0400
5	10 020 0500
6	10 020 0600
8	10 020 0800
10	10 020 1000
12	10 020 1200
14	10 020 1400

Pneufit Conversions Union (Inch tube to mm tube)



O/D Inch	O/D MM	Part Number
5/32	4	12 020 0200
3/16	5	12 037 0305
1/4	6	12 037 0406
5/16	8	12 020 0500
3/8	10	12 037 0610
1/2	12	12 037 0712

Pneufit Double Male Union (Brass)



O/D Stem	Part Number
4	10 022 0400
5	10 022 0500
6	10 022 0600
8	10 022 0800
10	10 022 1000
12	10 022 1200
14	10 022 1400

Not suitable for use with Pneufit C

Pneufit Tube End Expander/Reducer



O/D Tube	O/D Stem	Part Number
4	5	10 023 0504
4	6	10 023 0604
5	6	10 023 0605
4	8	10 023 0804
5	8	10 023 0805
6	8	10 023 0806
4	10	10 023 1004
5	10	10 023 1005
6	10	10 023 1006
8	10	10 023 1008
4	12	10 023 1204
5	12	10 023 1205
6	12	10 023 1206
8	12	10 023 1208
10	12	10 023 1210
6	14	10 023 1406
8	14	10 023 1408
10	14	10 023 1410
12	14	10 023 1412

Not suitable for use with Pneufit C

Pneufit Bulkhead Union



O/D Tube	Metric Thread	Part Number
4	M10 x 1.0	10 029 0400
5	M12 x 1.0	10 029 0500
6	M14 x 1.0	10 029 0600
8	M16 x 1.5	10 029 0800
10	M20 x 1.5	10 029 1000
12	M24 x 1.5	10 029 1200
14	M24 x 1.5	10 029 1400

Pneufit Union Elbow



O/D Tube	Part Number
4	10 040 0400
5	10 040 0500
6	10 040 0600
8	10 040 0800
10	10 040 1000
10	10 040 1200
14	10 040 1400

Pneufit Union Tee



O/D Tube	Part Number
4	10 060 0400
5	10 060 0500
6	10 060 0600
8	10 060 0800
10	10 060 1000
12	10 060 1200
14	10 060 1400

Pneufit Union "Y"



O/D Tube	O/D Tube	Part Number
4	4	12 082 0200
6	6	10 082 0600
8	8	12 082 0500
10	10	10 082 1000
6	4	10 082 0604
8	6	10 082 0806
10	8	10 082 1008

Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube

Pneumatic Male Adapter

O/D Tube	NPT Thread	Part Number
4	10-32	12 425 0210
4	1/8	12 425 0218
4	1/4	12 425 0228
5	1/8	10 425 0518
5	1/4	10 425 0528
6	10-32	10 425 0610
6	1/8	10 425 0618
6	1/4	10 425 0628
6	3/8	10 425 0638
8	1/8	12 425 0518
8	1/4	12 425 0528
8	3/8	12 425 0538
10	1/8	10 425 1018
10	1/4	10 425 1028
10	3/8	10 425 1038
10	1/2	10 425 1048
12	1/4	10 425 1228
12	3/8	10 425 1238
12	1/2	10 425 1248

Pneufit ISO G Male Adapter

O/D Tube	ISO G or Metric Thread	Part Number
4	M5 x .8	10 225 0405
4	1/8	10 225 0418
4	1/4	10 225 0428
5	M5 x .8	10 225 0505
5	1/8	10 225 0518
5	1/4	10 225 0528
6	M5 x .8	10 225 0605
6	1/8	10 225 0618
6	1/4	10 225 0628
8	1/8	10 225 0818
8	1/4	10 225 0828
8	3/8	10 225 0838
8	1/2	10 225 0848
10	1/8	10 225 1018
10	1/4	10 225 1028
10	3/8	10 225 1038
10	1/2	10 225 1048
12	1/4	10 225 1228
12	3/8	10 225 1238
12	1/2	10 225 1248
14	3/8	10 225 1438
14	1/2	10 225 1448

Pneufit ISO G Male Connector

Self Sealing (checked) Adapter (ISO R)

O/D Tube	ISO R Thread	Part Number
4	1/8	10 124 0418
6	1/8	10 124 0618
6	1/4	10 124 0628
8	1/4	10 124 0828

Pneufit Male Adapter - Conversion (Inch O.D. Tube to ISO R [Male] Thread)

O/D Tube	ISO R Thread	Part Number
4	1/8	10 125 0418
4	1/4	10 125 0428
5	1/8	10 125 0518
5	1/4	10 125 0528
6	1/8	10 125 0618
6	1/4	10 125 0628
8	1/8	10 125 0818
8	1/4	10 125 0828
8	3/8	10 125 0838
8	1/2	10 125 0848
10	1/8	10 125 1018
10	1/4	10 125 1028
10	3/8	10 125 1038
10	1/2	10 125 1048
12	1/4	10 125 1228
12	3/8	10 125 1238
12	1/2	10 125 1248
14	3/8	10 125 1438
14	1/2	10 125 1448

Pneufit ISO R Stem Adapter

O/D Stem	ISO R Thread	Part Number
4	1/8	10 115 0418
4	1/4	10 115 0428
5	1/8	10 115 0518
5	1/4	10 115 0528
6	1/8	10 115 0618
6	1/4	10 115 0628
8	1/8	10 115 0818
8	1/4	10 115 0828
8	3/8	10 115 0838
10	1/4	10 115 1028
10	3/8	10 115 1038
10	1/2	10 115 1048
12	3/8	10 115 1238
12	1/2	10 115 1248
14	1/2	10 115 1448

Not suitable for use with Pneufit C

Pneufit ISO G Stem Adapter

O/D Stem	ISO G Thread	Part Number
4	1/8	10 215 0418
4	1/4	10 215 0428
5	1/8	10 215 0518
5	1/4	10 215 0528
6	1/8	10 215 0618
6	1/4	10 215 0628
8	1/8	10 215 0818
8	1/4	10 215 0828
8	3/8	10 215 0838
10	1/4	10 215 1028
10	3/8	10 215 1038
10	1/2	10 215 1048
12	3/8	10 215 1238
12	1/2	10 215 1248
14	1/2	10 215 1448

Not suitable for use with Pneufit C

Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube

Pneufit Swivel Bulkhead Union Elbow



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

O/D Tube	Thread	Product Number
4	M12x1.0	10 049 0400
5	M12x1.0	10 049 0500
6	M14x1.5	10 049 0600
8	M16x1.5	10 049 0800
10	M22x1.5	10 049 1000
12	M24x1.5	10 049 1200
14	M26x1.5	10 049 1400

Pneufit ISO R Male Fixed Elbow



O/D Tube	ISO R Thread	Part Number
4	1/8	10 145 0418
4	1/4	10 145 0428
5	1/8	10 145 0518
5	1/4	10 145 0528
6	1/8	10 145 0618
6	1/4	10 145 0628
8	1/8	10 145 0818
8	1/4	10 145 0828
8	3/8	10 145 0838
8	1/2	10 145 0848
10	1/8	10 145 1018
10	1/4	10 145 1028
10	3/8	10 145 1038
10	1/2	10 145 1048
12	1/4	10 145 1228
12	3/8	10 145 1238
12	1/2	10 145 1248

Pneufit Stem Elbow



O/D Tube	O/D Stem	Part Number
4	4	10 043 0400
6	6	10 043 0600
8	8	10 043 0800

Not suitable for use with Pneufit C

Pneufit ISO G Female Adapter



O/D Tube	ISO G or Metric Thread	Part Number
4	M5 x .8	10 226 0405
4	1/8	10 226 0418
4	1/4	10 226 0428
5	1/8	10 226 0518
5	1/4	10 226 0528
6	1/8	10 226 0618
6	1/4	10 226 0628
8	1/8	10 226 0818
8	1/4	10 226 0828
10	1/4	10 226 1028
10	3/8	10 226 1038
12	3/8	10 226 1238
12	1/2	10 226 1248

Pneufit ISO G Swivel Male Elbow



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

O/D Tube	ISO G or Metric Thread	Part Number
4	M5 x .8	10 247 0405
4	1/8	10 247 0418
4	1/4	10 247 0428
5	M5 x .8	10 247 0505
5	1/8	10 247 0518
5	1/4	10 247 0528
6	M5 x .8	10 247 0605
6	1/8	10 247 0618
6	1/4	10 247 0628
8	1/8	10 247 0818
8	1/4	10 247 0828
8	3/8	10 247 0838
8	1/2	10 247 0848
10	1/8	10 247 1018
10	1/4	10 247 1028
10	3/8	10 247 1038
10	1/2	10 247 1048
12	1/4	10 247 1228
12	3/8	10 247 1238
12	1/2	10 247 1248
14	3/8	10 247 1438
14	1/2	10 247 1448

Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit ISO R Swivel Male Elbow

O/D Tube	ISO R Thread	Part Number
4	1/8	10 147 0418
4	1/4	10 147 0428
5	1/8	10 147 0518
5	1/4	10 147 0528
6	1/8	10 147 0618
6	1/4	10 147 0628
6	3/8	10 147 0638
8	1/8	10 147 0818
8	1/4	10 147 0828
8	3/8	10 147 0838
8	1/2	10 147 0848
10	1/8	10 147 1018
10	1/4	10 147 1028
10	3/8	10 147 1038
10	1/2	10 147 1048
12	1/4	10 147 1228
12	3/8	10 147 1238
12	1/2	10 147 1248
14	3/8	10 147 1438
14	1/2	10 147 1448



Pneufit ISO G Swivel Male Tee

A O/D Tube	B ISO G or Metric Thrd	Part Number
4	M5 x .8	10 267 0405
4	1/8	10 267 0418
5	M5 x .8	10 267 0505
5	1/8	10 267 0518
5	1/4	10 267 0528
6	M5 x .8	10 267 0605
6	1/8	10 267 0618
6	1/4	10 267 0628
8	1/8	10 267 0818
8	1/4	10 267 0828
10	1/4	10 267 1028
10	3/8	10 267 1038
12	1/4	10 267 1228
12	3/8	10 267 1238
14	3/8	10 267 1438
14	1/2	10 267 1448



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit ISO R Swivel Male Tee

A O/D Tube	B ISO R Thrd	Part Number
4	1/8	10 167 0418
4	1/4	10 167 0428
5	1/8	10 167 0518
5	1/4	10 167 0528
6	1/8	10 167 0618
6	1/4	10 167 0628
8	1/8	10 167 0818
8	1/4	10 167 0828
8	3/8	10 167 0838
10	1/4	10 167 1028
10	3/8	10 167 1038
12	1/4	10 167 1228
12	3/8	10 167 1238
12	1/2	10 167 1248
14	3/8	10 167 1438
14	1/2	10 167 1448



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit ISO R Swivel Male Side Tee

A O/D Tube	B ISO R Thrd	Part Number
4	1/8	10 168 0418
4	1/4	10 168 0428
5	1/8	10 168 0518
5	1/4	10 168 0528
6	1/8	10 168 0618
6	1/4	10 168 0628
8	1/8	10 168 0818
8	1/4	10 168 0828
8	3/8	10 168 0838
10	1/4	10 168 1028
10	3/8	10 168 1038
12	1/4	10 168 1228
12	3/8	10 168 1238
12	1/2	10 168 1248
14	3/8	10 168 1438
14	1/2	10 168 1448

Pneufit ISO G Swivel Male Side Tee

A O/D Tube	B ISO G or Metric Thrd	Part Number
4	M5 x .8	10 268 0405
4	1/8	10 268 0418
5	1/8	10 268 0518
5	1/4	10 268 0528
6	1/8	10 268 0618
6	1/4	10 268 0628
8	1/8	10 268 0818
8	1/4	10 268 0828
10	1/4	10 268 1028
10	3/8	10 268 1038
12	1/4	10 268 1228
12	3/8	10 268 1238
14	3/8	10 268 1438
14	1/2	10 268 1448



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit ISO G Swivel 45° Male Elbow

O/D Tube	ISO G Thread	Part Number
6	1/8	10 257 0618
6	1/4	10 257 0628
8	1/8	10 257 0818
8	1/4	10 257 0828



CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube

Pneufit Single Stacking Banjo Bolt (Supplied complete w/sealing washers)



ISO G or Metric Thread	Part Number
M5 x .8	20 A00 0005
1/8	20 A00 0018
1/4	20 A00 0028
3/8	20 A00 0038
1/2	20 A00 0048

Pneufit Triple Stacking Banjo Bolt



ISO G Thread	Part Number
1/8	20 C00 0018
1/4	20 C00 0028
3/8	20 C00 0038

Pneufit Elbow Body



A O/D Tube	Use With Banjo Bolt Size	Part Number
4	M5 x .8	10 051 0405
4	1/8	10 051 0418
5	M5 x .8	10 051 0505
5	1/8	10 051 0518
6	M5 x .8	10 051 0605
6	1/8	10 051 0618
6	1/4	10 051 0628
8	1/8	10 051 0818
8	1/4	10 051 0828
8	3/8	10 051 0838
10	1/4	10 051 1028
10	3/8	10 051 1038
12	3/8	10 051 1238
12	1/2	10 051 1248



Pneufit ISO G Banjo Elbow

O/D Tube	ISO G or Metric Thread	Part Number
4	M5 x .8	10 A51 0405
4	1/8	10 A51 0418
5	M5 x .8	10 A51 0505
5	1/8	10 A51 0518
6	M5 x .8	10 A51 0605
6	1/8	10 A51 0618
6	1/4	10 A51 0628
8	1/8	10 A51 0818
8	1/4	10 A51 0828
8	3/8	10 A51 0838
10	1/4	10 A51 1028
10	3/8	10 A51 1038

Pneufit Double Stacking Banjo Bolt (Supplied complete w/sealing washers)



ISO G or Metric Thread	Part Number
M5 x .8	20 B00 0005
1/8	20 B00 0018
1/4	20 B00 0028
3/8	20 B00 0038
1/2	20 B00 0048

Pneufit Single Stacking Banjo Bolt w/ Top Port (ISO G) (Supplied complete w/sealing washers)



ISO G or Metric Thread	ISO G or Metric Top Port Thread	Part Number
M5 x .8	M5 x .8	20 D00 0505
1/4	M5 x .8	20 D00 0528
1/4	1/8	20 E00 1828
1/4	1/4	20 F00 2828
1/8	1/8	20 E00 1818
3/8	M5 x .8	20 D00 0538
3/8	1/8	20 E00 1838
3/8	3/8	20 G00 3838

Pneufit Tee Body



O/D Tube	Use With Banjo Bolt Size	Part Number
4	M5 x .8	10 071 0405
4	1/8	10 071 0418
5	M5 x .8	10 071 0505
5	1/8	10 071 0518
6	1/8	10 071 0618
6	1/4	10 071 0628
8	1/8	10 071 0818
8	1/4	10 071 0828

Pneufit push-in fittings

Metric

Ø 4 to 14 mm O/D tube

Pneufit Barb Adapter



O/D Stem	Part Number
4	10 019 0403
4	10 019 0405
5	10 019 0505
6	10 019 0605
8	10 019 0806
8	10 019 0808
10	10 019 1006
10	10 019 1008
10	10 019 1010
12	10 019 1208
12	10 019 1210
12	10 019 1212
14	10 019 1412

Not suitable for use with Pneufit C

Pneufit Pressure Indicator



O/D Stem	Part Number
4	10 010 0400
6	10 010 0600
8	10 010 0800

Not suitable for use with Pneufit C

Manifold* (O/D tube)



O/D Tube	O/D Tube	Product Number
8.0	4.0	12 OD6 0502
8.0	6.0	10 OD6 0806
10.0	6.0	10 OD6 1006
10.0	8.0	10 OD6 1008

* Body material thermoplastic

Pneufit ISO G Hex Nipple (Supplied with sealing washers)



ISO G Thread	Part Number
1/8	16 020 1818
1/4	16 020 2828
3/8	16 020 3838
1/2	16 020 4848

Manifold*



O/D Tube	O/D Tube	ISO R Thread	Product Number
8.0	4.0	1/4	10 1D6 0428
8.0	4.0	3/8	10 1D6 0438
8.0	6.0	1/4	10 1D6 0628
8.0	6.0	3/8	10 1D6 0638
10.0	8.0	3/8	10 1D6 0838
10.0	8.0	1/2	10 1D6 0848

* Body material thermoplastic

Pneufit ISO R Hex Nipple



ISO R Thread	Part Number
1/8	15 020 1818
1/4	15 020 2828
3/8	15 020 3838
1/2	15 020 4848

METRIC or INCH... NORGREN HAS YOUR FITTINGS SOLUTION



Pneufit C **Metric**
(red collet)



Pneufit C **Inch**
(gray collet)

Norgren Pneufit® C fittings are ready to use, offering easy assembly without the need for tools.

Pneufit® C offers a broad range of over 1,000 composite push-in pneumatic fittings to complement our established all brass Pneufit® series.

Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).

Nickel plated brass components provide corrosion and contamination resistance and an extended life.

Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads provides optimum rapid sealing.

Internal and external hexagons on straight fittings.

Immediate quality sealing using silicone free U-packing.

Mounting holes on all union fittings.

Miniature Pneufit® M is an ultra compact alternative where space is at a premium.



- » 01 WIDE RANGE OF METRIC OPTIONS
02 FEMALE THREAD OPTIONS
03 RANGES INCLUDE BANJO FLOW CONTROLS

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube

Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).

Nickel plated brass components.

Pre-applied thread sealant on all taper threads and recessed captive O-ring on parallel threads.

Internal and external hexagons on straight fittings.

Immediate quality sealing using silicone free U-packing.

Technical data

Medium

Compressed air

Operating pressure

750mm Hg vacuum, up to 10 bar

Temperature

0 to 60°C

Medium

compressed air

Tube sizes

Standard sizes:

4, 6, 8, 10, 12, 16 mm

Miniature sizes:

3, 4, and 6 mm

Thread sizes

Standard sizes:

M5, M6, 1/8, 1/4, 3/8 and 1/2 inch

ISO G and ISO R

Miniature sizes:

M3, M5 and 1/8 inch ISO R

Tube types

Nylon 11 or 12

Polyurethane 85, 95 or 98 durometer

Materials

Body: PBT

Seals: NBR (silicone free) u-packing and O-rings

Threaded bodies: nickel plated brass

Release sleeve and backing ring: POM

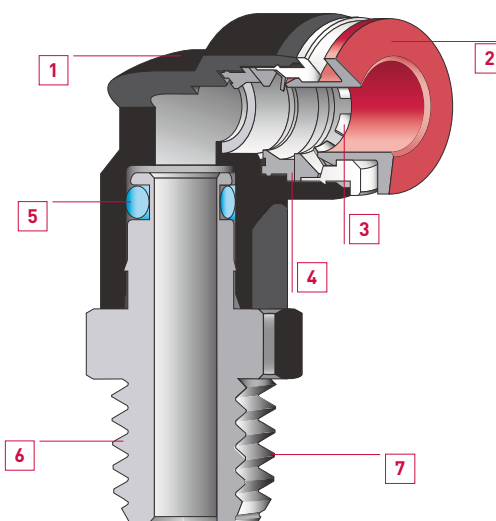
Grab-ring: stainless steel

Collar: nickel plated zinc

Thread sealant: Chemiseal G 175



- 1 Impact resistant PBT body in black for Pneufit® C and light gray for Pneufit® M.
- 2 Release buttons are red for metric, grey for inch, and light grey oval for Pneufit® M.
- 3 Stainless steel grab ring with special design to retain softer tube and provide easy releasability.
- 4 Silicon free U-packing provides leak tight tube seal under side loading.
- 5 Stem seal provides leak tight 360° swivel connection.
- 6 Nickel plated brass threads and notches on hex to signify NPT.
- 7 Pre-applied thread sealant on tapered threads and recessed captive O-ring on parallel threads.



Method of assembly



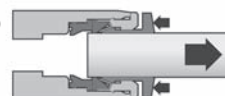
1. Ensure that the end tube is cut square and is free from burrs.

2. Push the tube through the release ring button and grab ring into the fitting.



3. Push the tube firmly through the 'O' ring until it bottoms on the tube stop, then pull back.

4. To disconnect, push the tube into the fitting, hold down the release button and withdraw the tube.



Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube



Straight adapter (external + internal hex)

O/D tube	Thread	Part number
4mm	M5	C02250405
4mm	M6	C02250406
4mm	1/8" R	C01250418
4mm	1/4" R	C01250428
4mm	3/8" R	C01250438
4mm	1/8" G	C02250418
4mm	1/4" G	C02250428
4mm	3/8" G	C02250438
6mm	M5	C02250605
6mm	M6	C02250606
6mm	1/8" R	C01250618
6mm	1/4" R	C01250628
6mm	3/8" R	C01250638
6mm	1/2" R	C01250648
6mm	1/8" G	C02250618
6mm	1/4" G	C02250628
6mm	3/8" G	C02250638
8mm	1/8" R	C01250818
8mm	1/4" R	C01250828
8mm	3/8" R	C01250838
8mm	1/2" R	C01250848
8mm	1/8" G	C02250818
8mm	1/4" G	C02250828
8mm	3/8" G	C02250838
8mm	1/2" G	C02250848
10mm	1/8" R	C01251018
10mm	1/4" R	C01251028
10mm	3/8" R	C01251038
10mm	1/2" R	C01251048
10mm	1/8" G	C02251018
10mm	1/4" G	C02251028
10mm	3/8" G	C02251038
10mm	1/2" G	C02251048
12mm	1/8" R	C01251218
12mm	1/4" R	C01251228
12mm	3/8" R	C01251238
12mm	1/2" R	C01251248
12mm	1/4" G	C02251228
12mm	3/8" G	C02251238
12mm	1/2" G	C02251248
16mm	3/8" R	C01251638
16mm	1/2" R	C01251648
16mm	3/8" G	C02251638
16mm	1/2" G	C02251648



Straight adapter (internal hex only)

O/D tube	Thread	Part number
4mm	M5	C022A0405
4mm	M6	C022A0406
4mm	1/8" R	C012A0418
4mm	1/4" R	C012A0428
4mm	3/8" R	C012A0438
6mm	M5	C022A0605
6mm	M6	C022A0606
6mm	1/8" R	C012A0618
6mm	1/4" R	C012A0628
6mm	3/8" R	C012A0638
8mm	1/8" R	C012A0818
8mm	1/4" R	C012A0828
8mm	3/8" R	C012A0838
8mm	1/2" R	C012A0848
10mm	1/8" R	C012A1018
10mm	1/4" R	C012A1028
10mm	3/8" R	C012A1038
10mm	1/2" R	C012A1048
12mm	1/8" R	C012A1218
12mm	1/4" R	C012A1228
12mm	3/8" R	C012A1238
12mm	1/2" R	C012A1248



Straight adapter (female thread)

O/D tube	Thread	Part number
4mm	M5	C02260405
4mm	1/8" G	C02260418
4mm	1/4" G	C02260428
4mm	3/8" G	C02260438
6mm	1/8" G	C02260618
6mm	1/4" G	C02260628
6mm	3/8" G	C02260638
8mm	1/8" G	C02260818
8mm	1/4" G	C02260828
8mm	3/8" G	C02260838
8mm	1/2" G	C02260848
10mm	1/8" G	C02261018
10mm	1/4" G	C02261028
10mm	3/8" G	C02261038
10mm	1/2" G	C02261048
12mm	1/4" G	C02251228
12mm	3/8" G	C02261238
12mm	1/2" G	C02261248

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube



Straight Adaptor (female bulkhead)

O/D tube	Thread	Part number
4mm	1/8" G	C02320418
4mm	1/4" G	C02320428
4mm	3/8" G	C02320438
6mm	1/8" G	C02320618
6mm	1/4" G	C02320628
6mm	3/8" G	C02320638
8mm	1/8" G	C02320818
8mm	1/4" G	C02320828
8mm	3/8" G	C02320838
10mm	1/4" G	C02321028
10mm	3/8" G	C02321038
10mm	1/2" G	C02321048
12mm	1/4" G	C02321228
12mm	3/8" G	C02321238
12mm	1/2" G	C02321248



90° Swivel elbow adapter (extended)

O/D tube	Thread	Part number
4mm	M5	C02540405
4mm	M6	C02540406
4mm	1/8" R	C01540418
4mm	1/4" R	C01540428
4mm	3/8" R	C01540438
6mm	M5	C02540605
6mm	M6	C02540606
6mm	1/8" R	C01540618
6mm	1/4" R	C01540628
6mm	3/8" R	C01540638
6mm	1/2" R	C01540648
8mm	1/8" R	C01540818
8mm	1/4" R	C01540828
8mm	3/8" R	C01540838
8mm	1/2" R	C01540848
10mm	1/8" R	C01541018
10mm	1/4" R	C01541028
10mm	3/8" R	C01541038
10mm	1/2" R	C01541048
12mm	1/8" R	C01541218
12mm	1/4" R	C01541228
12mm	3/8" R	C01541238
12mm	1/2" R	C01541248
16mm	3/8" R	C01541638
16mm	1/2" R	C01541648



90° Swivel elbow

O/D tube	Thread	Part number
4mm	M5	C02470405
4mm	M6	C02470406
4mm	1/8" R	C01470418
4mm	1/4" R	C01470428
4mm	3/8" R	C01470438
4mm	1/8" G	C02470418
4mm	1/4" G	C02470428
4mm	3/8" G	C02470438
6mm	M5	C02470605
6mm	M6	C02470606
6mm	1/8" R	C02470618
6mm	1/4" G	C02470628
6mm	3/8" G	C02470638
8mm	1/8" R	C01470818
8mm	1/4" R	C01470828
8mm	3/8" R	C01470838
8mm	1/2" R	C01470848
8mm	1/8" G	C02470818
8mm	1/4" G	C02470828
8mm	3/8" G	C02470838
8mm	1/2" G	C02470848
10mm	1/8" R	C01471018
10mm	1/4" R	C01471028
10mm	3/8" R	C01471038
10mm	1/2" R	C01471048
10mm	1/8" G	C02471018
10mm	1/4" G	C02471028
10mm	3/8" G	C02471038
10mm	1/2" G	C02471048
12mm	1/8" R	C01471218
12mm	1/4" R	C01471228
12mm	3/8" R	C01471238
12mm	1/2" R	C01471248
12mm	1/4" G	C02471228
12mm	3/8" G	C02471238
12mm	1/2" G	C02471248
16mm	3/8" R	C01471638
16mm	1/2" R	C01471648
16mm	3/8" G	C02471638
16mm	1/2" G	C02471648



90° Swivel elbow adapter (female)

O/D tube	Thread	Part number
4mm	M5	C02480405
4mm	M6	C02480406
4mm	1/8" R	C01480418
4mm	1/4" R	C01480428
6mm	M5	C02480605
6mm	M6	C02480606
6mm	1/8" R	C01480618
6mm	1/4" R	C01480628
6mm	3/8" R	C01480638
8mm	1/8" R	C01480818
8mm	1/4" R	C01480828
8mm	3/8" R	C01480838
10mm	1/4" R	C01481028
10mm	3/8" R	C01481038
10mm	1/2" R	C01481048
12mm	1/4" R	C01481228
12mm	3/8" R	C01481238
12mm	1/2" R	C01481248

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 ... 16 mm O/D tube

Swivel Y adapter



O/D tube	Thread	Part number
4mm	M5	C02880405
4mm	M6	C02880406
4mm	1/8" R	C01880418
4mm	1/4" R	C01880428
4mm	3/8" R	C01880438
4mm	1/8" G	C02880418
4mm	1/4" G	C02880428
4mm	3/8" G	C02880438
6mm	M5	C02880605
6mm	M6	C02880606
6mm	1/8" R	C01880618
6mm	1/4" R	C01880628
6mm	3/8" R	C01880638
6mm	1/2" R	C01880648
6mm	1/8" G	C02880618
6mm	1/4" G	C02880628
6mm	3/8" G	C02880638
6mm	1/2" G	C02880648
8mm	1/8" R	C01880818
8mm	1/4" R	C01880828
8mm	3/8" R	C01880838
8mm	1/2" R	C01880848
8mm	1/8" G	C02880818
8mm	1/4" G	C02880828
8mm	3/8" G	C02880838
8mm	1/2" G	C02880848
10mm	1/8" R	C01881018
10mm	1/4" R	C01881028
10mm	3/8" R	C01881038
10mm	1/2" R	C01881048
10mm	1/8" G	C02881018
10mm	1/4" G	C02881028
10mm	3/8" G	C02881038
10mm	1/2" G	C02881048
12mm	1/8" R	C01881218
12mm	1/4" R	C01881228
12mm	3/8" R	C01881238
12mm	1/2" R	C01881248
12mm	1/4" G	C02881228
12mm	3/8" G	C02881238
12mm	1/2" G	C02881248

Swivel tee adapter



O/D tube	Thread	Part number
4mm	M5	C02670405
4mm	M6	C02670406
4mm	1/8" R	C01670418
4mm	1/4" R	C01670428
4mm	3/8" R	C01670438
4mm	1/8" G	C02670418
4mm	1/4" G	C02670428
4mm	3/8" G	C02670438
6mm	M5	C02670605
6mm	M6	C02670606
6mm	1/8" R	C01670618
6mm	1/4" R	C01670628
6mm	3/8" R	C01670638
6mm	1/2" R	C01670648
6mm	1/8" G	C02670618
6mm	1/4" G	C02670628
6mm	3/8" G	C02670638
6mm	1/2" G	C02670648
8mm	1/8" R	C01670818
8mm	1/4" R	C01670828
8mm	3/8" R	C01670838
8mm	1/2" R	C01670848
8mm	1/8" G	C02670818
8mm	1/4" G	C02670828
8mm	3/8" G	C02670838
8mm	1/2" G	C02670848
10mm	1/8" R	C01671018
10mm	1/4" R	C01671028
10mm	3/8" R	C01671038
10mm	1/2" R	C01671048
10mm	1/8" G	C02671018
10mm	1/4" G	C02671028
10mm	3/8" G	C02671038
10mm	1/2" G	C02671048
12mm	1/8" R	C01671218
12mm	1/4" R	C01671228
12mm	3/8" R	C01671238
12mm	1/2" R	C01671248
12mm	1/4" G	C02671228
12mm	3/8" G	C02671238
12mm	1/2" G	C02671248
16mm	3/8" R	C01671638
16mm	1/2" R	C01671648
16mm	3/8" G	C02671638
16mm	3/8" G	C02671638

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube



Swivel side tee adapter

O/D tube	Thread	Part number
4mm	M5	C02680405
4mm	M6	C02680406
4mm	1/8" R	C01680418
4mm	1/4" R	C01680428
4mm	3/8" R	C01680438
4mm	1/8" G	C02680418
4mm	1/4" G	C02680428
4mm	3/8" G	C02680438
6mm	M5	C02680605
6mm	M6	C02680606
6mm	1/8" R	C02680618
6mm	1/4" R	C01680628
6mm	3/8" R	C01680638
6mm	1/2" R	C01680648
6mm	1/8" G	C02680618
6mm	1/4" G	C02680628
6mm	3/8" G	C02680638
8mm	1/8" R	C01680818
8mm	1/4" R	C01680828
8mm	3/8" R	C01680838
8mm	1/2" R	C01680848
8mm	1/8" G	C02680818
8mm	1/4" G	C02680828
8mm	3/8" G	C02680838
8mm	1/2" G	C02680848
10mm	1/8" R	C01681018
10mm	1/4" R	C01681028
10mm	3/8" R	C01681038
10mm	1/2" R	C01681048
10mm	1/8" G	C02681018
10mm	1/4" G	C02681028
10mm	3/8" G	C02681038
10mm	1/2" G	C02681048
12mm	1/8" R	C01681218
12mm	1/4" R	C01681228
12mm	3/8" R	C01681238
12mm	1/2" R	C01681248
12mm	1/4" G	C02681228
12mm	3/8" G	C02681238
12mm	1/2" G	C02681248



Swivel tee adapter

O/D tube	Thread	Part number
4mm	M5	C026C0405
4mm	M6	C026C0406
4mm	1/8" R	C016C0418
4mm	1/4" R	C016C0428
6mm	M5	C026C0605
6mm	M6	C026C0606
6mm	1/8" R	C016C0628
6mm	1/4" R	C016C0628
6mm	3/8" R	C016C0638
8mm	1/8" R	C016C0818
8mm	1/4" R	C016C0828
8mm	3/8" R	C016C0838
8mm	1/2" R	C016C0848
10mm	1/8" R	C016C1018
10mm	1/4" R	C016C1028
10mm	3/8" R	C016C1038
10mm	1/2" R	C016C1048
12mm	1/4" R	C016C1228
12mm	3/8" R	C016C1238
12mm	1/2" R	C016C1248



Banjo

O/D tube	Thread	Part number
4mm	M5	C0A510405
4mm	M6	C0A510406
4mm	1/8" G	C0A510418
4mm	1/4" G	C0A510428
6mm	M5	C0A510605
6mm	1/8" G	C0A510618
6mm	1/4" G	C0A510628
6mm	3/8" G	C0A510638
8mm	1/8" G	C0A510818
8mm	1/4" G	C0A510828
8mm	3/8" G	C0A510838
8mm	1/2" G	C0A510848
10mm	1/4" G	C0A511028
10mm	3/8" G	C0A511038
10mm	1/2" G	C0A511048
12mm	3/8" G	C0A511238
12mm	1/2" G	C0A511248



Banjo with top port

O/D tube	Thread	Part number
4mm	M5	C0D510405
4mm	1/8" R	C0E510418
4mm	1/4" R	C0F510428
6mm	M5	C0D510605
6mm	1/8" R	C0E510618
6mm	1/4" R	C0F510628
6mm	3/8" R	C0G510638
8mm	1/8" R	C0E510818
8mm	1/4" R	C0F510828
8mm	3/8" R	C0G510838
10mm	1/4" R	C0F511028
10mm	3/8" R	C0G511038
12mm	3/8" R	C0G511238

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube

Banjo flow control (regulating out)



O/D tube	Thread	Part number
4mm	M5	COK510405
4mm	1/8" R	COTA00418
4mm	1/4" R	COTA00428
4mm	1/8" G	COK510418
4mm	1/4" G	COK510428
6mm	M5	COK510605
6mm	1/8" R	COTA00618
6mm	1/4" R	COTA00628
6mm	3/8" R	COTA00638
6mm	1/8" G	COK510618
6mm	1/4" G	COK510628
6mm	3/8" G	COK510638
8mm	1/8" R	COTA00818
8mm	1/4" R	COTA00828
8mm	3/8" R	COTA00838
8mm	1/2" R	COTA00848
8mm	1/8" G	COK510818
8mm	1/4" G	COK510828
8mm	3/8" G	COK510838
10mm	1/4" R	COTA01028
10mm	3/8" R	COTA01038
10mm	1/2" R	COTA01048
10mm	1/4" G	COK511028
10mm	3/8" G	COK511038
10mm	1/2" G	COK511048
12mm	1/4" R	COTA01228
12mm	3/8" R	COTA01238
12mm	1/2" R	COTA01248
12mm	1/4" G	COK511228
12mm	3/8" G	COK511238
12mm	1/2" G	COK511248

Bulkhead union



O/D tube	Part number
4mm	C00290400
6mm	C00290600
8mm	C00290800
10mm	C00291000
12mm	C00291200

Stem union



O/D tube	Part number
4mm	C00220400
6mm	C00220600
8mm	C00220800
10mm	C00221000
12mm	C00221200
16mm	C00221600

Plug



O/D tube	Part number
4mm	C00040400
6mm	C00040600
8mm	C00040800
10mm	C00041000
12mm	C00041200
16mm	C00041600

In line flow control



O/D tube	Part number
4mm	C00GE0400
6mm	C00GE0600
8mm	C00GE0800
10mm	C00GE1000
12mm	C00GE1200

Cap



O/D tube	Part number
4mm	C00120400
6mm	C00120600
8mm	C00120800
10mm	C00121000
12mm	C00121200
16mm	C00121600

Straight union



O/D tube	Part number
4mm	C00200400
6mm	C00200600
8mm	C00200800
10mm	C00201000
12mm	C00201200
16mm	C00201600

Union elbow



O/D tube	Part number
4mm	C00400400
6mm	C00400600
8mm	C00400800
10mm	C00401000
12mm	C00401200
16mm	C00401600

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube



Stem elbow

O/D tube	Part number
4mm	C00430400
6mm	C00430600
8mm	C00430800
10mm	C00431000
12mm	C00431200
16mm	C00431600



Union Y

O/D tube	Part number
4mm	C00820400
6mm	C00820600
8mm	C00820800
10mm	C00821000
12mm	C00821200



Union tee

O/D tube	Part number
4mm	C00600400
6mm	C00600600
8mm	C00600800
10mm	C00601000
12mm	C00601200
16mm	C00601600



Stem Y

O/D tube	Part number
4mm	C00840400
6mm	C00840600
8mm	C00840800
10mm	C00841000
12mm	C00841200



Stem tee

O/D tube	Part number
4mm	C00630400
6mm	C00630600
8mm	C00630800
10mm	C00631000
12mm	C00631200



Union cross

O/D tube	Part number
4mm	C00900400
6mm	C00900600
8mm	C00900800
10mm	C00901000
12mm	C00901200



Stem side tee

O/D tube	Part number
4mm	C00640400
6mm	C00640600
8mm	C00640800
10mm	C00641000
12mm	C00641200



Straight union (unequal)

O/D tube	Part number
6 - 4mm	C00200604
8 - 6mm	C00200806
10 - 8mm	C00201008
12 - 10mm	C00201210
16 - 12mm	C00201612

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube



Stem Reducer (stem/tube)

O/D tube	Part number
6 - 4mm	C00230604
8 - 4mm	C00230804
8 - 6mm	C00230806
10 - 6mm	C00231006
10 - 8mm	C00231008
12 - 8mm	C00231208
12 - 10mm	C00231210
16 - 12mm	C00231612



Stem Side Tee (unequal)

O/D tube	Part number
6 - 4mm	C00640604
8 - 6mm	C00640806
10 - 8mm	C00641008
12 - 10mm	C00641210



Stem Expander (stem/tube)

O/D tube	Part number
6 - 4mm	C00230406
8 - 6mm	C00230608



Stem Tee (unequal)

O/D tube	Part number
6 - 4mm	C00630604
8 - 6mm	C00630806
10 - 8mm	C00631008
12 - 10mm	C00631210



Stem Union (unequal)

O/D tube	Part number
6 - 4mm	C00220604
8 - 6mm	C00220806
10 - 8mm	C00221008
12 - 10mm	C00221210
16 - 12mm	C00221612



Union Y (unequal)

O/D tube	Part number
6 - 4mm	C00820604
8 - 6mm	C00820806
10 - 8mm	C00821008
12 - 10mm	C00821210



Union Tee (unequal)

O/D tube	Part number
6 - 4mm	C006A0604
8 - 6mm	C006A0806
10 - 6mm	C006A1006
10 - 8mm	C006A1008
12 - 8mm	C006A1208
12 - 10mm	C006A1210
16 - 12mm	C006A1612



Stem Y (unequal)

O/D tube	Part number
6 - 4mm	C00840604
8 - 6mm	C00840806
10 - 8mm	C00841008
12 - 10mm	C00841210

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube

MINIATURE PNEUFIT® M

Straight adapter (external + internal hex)



O/D tube	Thread	Part number
3mm	M3	M02250303
3mm	M5	M02250305
3mm	M6	M02250306
4mm	M3	M02250403
4mm	M5	M02250405
4mm	M6	M02250406
4mm	1/8"	M01250418
6mm	M5	M02250605
6mm	M6	M02250606
6mm	1/8"	M01250618



90° Swivel Elbow Adapter

O/D tube	Thread	Part number
3mm	M3	M02470303
3mm	M5	M02470305
3mm	M6	M02470306
4mm	M3	M02470403
4mm	M5	M02470405
4mm	M6	M02470406
4mm	1/8"	M01470418
6mm	M5	M02470605
6mm	M6	M02470606
6mm	1/8"	M01470618

Straight adapter (internal hex only)



O/D tube	Thread	Part number
3mm	M3	M022A0303
3mm	M5	M022A0305
3mm	M6	M022A0306
4mm	M3	M022A0403
4mm	M5	M022A0405
4mm	M6	M022A0406
4mm	1/8"	M012A0418
6mm	M5	M022A0605
6mm	M6	M022A0606
6mm	1/8"	M012A0618



Swivel Tee Adapter

O/D tube	Thread	Part number
3mm	M3	M02670303
3mm	M5	M02670305
3mm	M6	M02670306
4mm	M3	M02670403
4mm	M5	M02670405
4mm	M6	M02670406
4mm	1/8"	M01670418
6mm	M5	M02670605
6mm	M6	M02670606
6mm	1/8"	M01670618

Straight adapter (female thread)



O/D tube	Thread	Part number
3mm	M3	M02260303
3mm	M5	M02260305
3mm	M6	M02260306
4mm	M3	M02260403
4mm	M5	M02260405
4mm	M6	M02260406
4mm	1/8"	M01260418
6mm	M6	M02260606
6mm	1/8"	M01260618



Swivel Side Tee Adapter

O/D tube	Thread	Part number
3mm	M3	M02680303
3mm	M5	M02680305
3mm	M6	M02680306
4mm	M3	M02680403
4mm	M5	M02680405
4mm	M6	M02680406
4mm	1/8"	M01680418
6mm	M5	M02680605
6mm	M6	M02680606
6mm	1/8"	M01680618

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube



Straight Union

O/D tube	Part number
3mm	M00200300
4mm	M00200400
6mm	M00200600



Straight Union (unequal)

O/D tube	Part number
4mm-3mm	M00200403
6mm-3mm	M00200603
6mm-4mm	M00200604



Union Elbow

O/D tube	Part number
3mm	M00400300
4mm	M00400400
6mm	M00400600



Stem Reducer (stem/tube)

O/D tube	Thread	Part number
3mm	M5	C0K510305
4mm	M5	C0K510405
6mm	M5	C0K510605



Union Tee

O/D tube	Part number
3mm	M00600300
4mm	M00600400
6mm	M00600600

Pneufit® C composite and Pneufit M fittings

Metric

Ø 3 to 16 mm O/D tube

Thread to thread

PNEUFIT® C MANIFOLDS

3/2 Shut off valves



Male Manifold

O/D tube	Thread	Part number
6 - 4mm	1/8" R	C01D30418
8 - 4mm	1/4" R	C01D30428
8 - 6mm	1/4" R	C01D30628
10 - 8mm	3/8" R	C01D30838



ISO R thread to thread	Part number
R 1/8"	C01GG1818
R 1/4"	C01GG2828
R 3/8"	C01GG3838
R 1/2"	C01GG4848



Manifold Union

O/D tube	Part number
6 - 4mm	C00D30604
8 - 4mm	C00D30804
8 - 6mm	C00D30806
10 - 6mm	C00D31006
10 - 8mm	C00D31008



Tube to tube

Tube to tube (mm)	Part number
6	C00GF0600
8	C00GF0800
10	C00GF1000
12	C00GF1200



Tube to thread

Inlet tube O/D (mm)	Outlet ISO R thread	Part number
6	R 1/8	C01GH 0618
6	R 1/4	C01GH 0628
6	R 3/8	C01GH 0638
8	R 1/8	C01GH 0818
8	R 1/4	C01GH 0828
8	R 3/8	C01GH 0838
10	R 1/4	C01GH 1028
10	R 3/8	C01GH 1038
10	R 1/2	C01GH 1048
12	R 1/4	C01GH 1228
12	R 3/8	C01GH 1238
12	R 1/2	C01GH 1248



Stem Manifold

O/D tube	Part number
6 - 4mm	C00J30604
8 - 4mm	C00J30804
8 - 6mm	C00J30806
10 - 8mm	C00J31008



Thread to tube

Inlet ISO R thread	Outlet tube O/D (mm)	Part number
R 1/8	6	C01GJ 0618
R 1/8	8	C01GJ 0818
R 1/4	6	C01GJ 0628
R 1/4	8	C01GJ 0828
R 1/4	10	C01GJ 1028
R 1/4	12	C01GJ 1228
R 3/8	6	C01GJ 0638
R 3/8	8	C01GJ 0838
R 3/8	10	C01GJ 1038
R 3/8	12	C01GJ 1238
R 1/2	10	C01GJ 1048
R 1/2"	12	C01GJ 1248

FITTINGS **ADVANTAGE** AND **EXPERTISE** IN YOUR INDUSTRY



Pneufit D offers a broad range of fittings with approvals and certification from world wide standard organisations.

- » Pneufit D used in processing of food meets health and safety standards with the added quality assurance of NSF 61 certification.
- » Sanitary design for water and drinks dispense applications adhering to NSF 51 and WRAS

specifications.

- » Suitable for use in medical and analytical equipment including fluid and precision gas control.
- » Appropriate for inert gas and industrial air applications.
- » Available in inch and metric tube sizes with NPTF, BSPP, BSPT and UNF threads.



Pneufit® D fittings

Metric

Ø 4mm to 12mm O/D tube

Ready to use.

Manufactured from FDA approved acetal material, and are certified by NSF (51 & 61), WRAS and SK-Zert for use with water and food.

Comprehensive range of over 600 plastic push-in fittings in both inch and metric sizes.

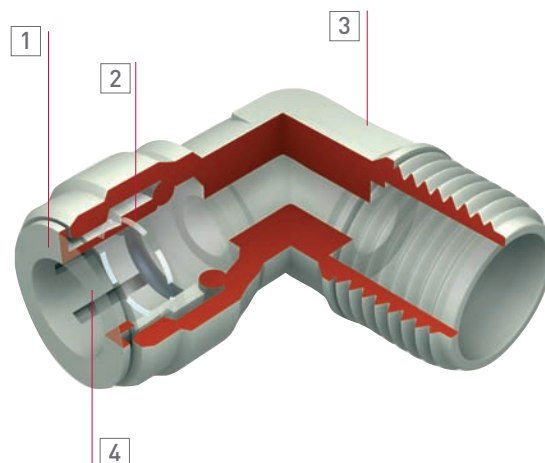
Releasable stainless-steel grab-ring offers fast, secure assembly and disassembly of nylon, PU and PE tubing.

Suitable for use in medical and analytical equipment including fluid and precision gas control.

Appropriate for inert gas and industrial air applications.



- 1 Collet- unique oval shape allowing for easier connecting and disconnecting.
- 2 O-ring - NBR provides leak proof seal.
- 3 Body and cap - made of highly durable acetal copolymer (POM).
- 4 Stainless steel teeth - holds tubing in place



Technical data

Medium

Air and liquids

Operating pressure

749.3 mmHg vacuum up to:

4mm to 8mm, -20°C to 20°C, 15 bar
10mm to 12mm, -20°C to 20°C, 12 bar
4mm to 8mm, +20°C to 65°C, 10 psig
10mm to 12mm, +20°C to 65°C, 7 bar

Temperature

-20°C to 65°C

Materials

Body: Acetal

Seals: Food and water grade NBR

Collet: PBT with Stainless Steel teeth

Tube sizes

4, 5, 6, 8, 10, 12 mm

Thread sizes

1/8", 1/4", 3/8", 1/2"

BSPT, BSPP, UNF and UNS types

Tube types

Nylon, Polyurethane, Polyethylene

Method of assembly



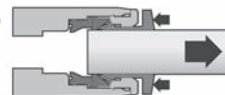
1. Ensure that the end tube is cut square and is free from burrs.

2. Push the tube through the release ring button and grab ring into the fitting.



3. Push the tube firmly through the 'O' ring until it bottoms on the tube stop, then pull back.

4. To disconnect, push the tube into the fitting, hold down the release button and withdraw the tube.



Pneufit® D fittings

Metric

Ø 4mm to 12mm O/D tube

Straight adapter



O/D tube	Thread	Part number
4mm	1/8" BSPT	D01250418
4mm	1/4" BSPT	D01250428
4mm	1/8" BSPP	D02250418
4mm	1/4" BSPP	D02250428
5mm	1/8" BSPT	D01250518
5mm	1/4" BSPT	D01250528
5mm	1/8" BSPP	D02250518
5mm	1/4" BSPP	D02250528
6mm	1/8" BSPT	D01250618
6mm	1/4" BSPT	D01250628
6mm	3/8" BSPT	D01250638
6mm	1/2" BSPT	D01250648
6mm	1/8" BSPP	D02250618
6mm	1/4" BSPP	D02250628
8mm	1/8" BSPT	D01250818
8mm	1/4" BSPT	D01250828
8mm	3/8" BSPT	D01250838
8mm	1/2" BSPT	D02250818
8mm	1/4" BSPP	D02250828
8mm	3/8" BSPP	D02250838
10mm	1/8" BSPT	D01251018
10mm	1/4" BSPT	D01251028
10mm	3/8" BSPT	D01251038
10mm	1/2" BSPT	D01251048
10mm	1/4" BSPP	D02251028
10mm	3/8" BSPP	D02251038
10mm	1/2" BSPP	D02251048
12mm	3/8" BSPT	D01251238
12mm	1/2" BSPT	D01251248
12mm	3/8" BSPP	D02251238
12mm	1/2" BSPP	D02251248

Straight adapter (female thread, cone type)



O/D tube	Thread	Part number
6mm	7/16-20UNF	D042D062Y
6mm	7/16-24UNS	D042D062W
6mm	3/8" BSPP	D022D0638
6mm	1/2" BSPP	D022D0648
8mm	7/16-20UNF	D042D082Y
8mm	7/16-24UNS	D042D082W
8mm	3/8" BSPP	D022D0838
8mm	1/2" BSPP	D022D0848
10mm	7/16-20UNF	D042D102Y
10mm	7/16-24UNS	D042D102W
10mm	3/8" BSPP	D022D1038
10mm	1/2" BSPP	D022D1048
10mm	5/8" BSPP	D022D1058
12mm	5/8" BSPP	D022D1258

Elbow adapter



O/D tube	Thread	Part number
6mm	1/8" BSPT	D01450618
6mm	1/4" BSPT	D01450628
6mm	3/8" BSPT	D01450638
8mm	1/4" BSPT	D01450828
8mm	3/8" BSPT	D01450838
10mm	1/4" BSPT	D01451028
10mm	3/8" BSPT	D01451038
12mm	3/8" BSPT	D01451238
12mm	1/2" BSPT	D01451248

Straight adapter (female thread, flat type)



O/D tube	Thread	Part number
6mm	1/8" BSPT	D012C0618
6mm	1/4" BSPT	D012C0628
8mm	1/8" BSPT	D012C0818
8mm	1/4" BSPT	D012C0828
8mm	5/8" BSPP	D022C0858
10mm	1/8" BSPT	D012C1018
10mm	1/4" BSPT	D012C1028
10mm	1/2" BSPP	D022C1048
10mm	5/8" BSPP	D022C1058
12mm	3/8" BSPP	D022C1238
12mm	1/2" BSPP	D022C1248

Straight adapter (female thread, v type)



O/D tube	Thread	Part number
6mm	7/16-20UNF	D042B062Y
8mm	7/16-20UNF	D042B082Y
8mm	1/2-16UNF	D042D083Z
10mm	7/16-20UNF	D042B102Y
10mm	5/8-18UNF	D042B104Y
10mm	1/2-16UNF	D042D103Z
12mm	1/2-16UNF	D042D123Z

90° Swivel Elbow Adapter



O/D tube	Thread	Part number
4mm	1/8" BSPT	D01470418
4mm	1/4" BSPT	D01470428
4mm	1/8" BSPP	D02470418
4mm	1/4" BSPP	D02470428
5mm	1/8" BSPT	D01470518
5mm	1/8" BSPP	D02470518
5mm	1/4" BSPP	D02470528
6mm	1/8" BSPT	D01470618
6mm	1/4" BSPT	D01470628
6mm	1/8" BSPP	D02470618
6mm	1/4" BSPP	D02470628
8mm	1/8" BSPT	D01470818
8mm	1/4" BSPT	D01470828
8mm	3/8" BSPT	D01470838
8mm	1/8" BSPP	D02470818
8mm	1/4" BSPP	D02470828
8mm	3/8" BSPP	D02470838
10mm	1/4" BSPT	D01471028
10mm	3/8" BSPT	D01471038
10mm	1/4" BSPP	D02471028
10mm	3/8" BSPP	D02471038
10mm	1/2" BSPP	D02471048
12mm	3/8" BSPT	D01471238
12mm	1/2" BSPT	D01471248
12mm	3/8" BSPP	D02471238
12mm	1/2" BSPP	D02471248

Pneufit® D fittings

Metric

Ø 4mm to 12mm O/D tube

Swivel Side Tee Adapter



O/D tube	Thread	Part number
4mm	1/8" BSPT	D01680418
4mm	1/4" BSPT	D01680428
4mm	1/8" BSPP	D02680418
4mm	1/4" BSPP	D02680428
5mm	1/8" BSPT	D01680518
5mm	1/4" BSPT	D01681528
5mm	1/8" BSPP	D02680518
5mm	1/4" BSPP	D02680528
6mm	1/8" BSPT	D01680618
6mm	1/4" BSPT	D01680628
6mm	1/8" BSPP	D02680618
6mm	1/4" BSPP	D02680628
8mm	1/8" BSPT	D01680818
8mm	1/4" BSPT	D01680828
8mm	3/8" BSPT	D01680838
8mm	1/8" BSPP	D02680818
8mm	1/4" BSPP	D02680828
8mm	3/8" BSPP	D02680838
10mm	1/4" BSPT	D01681028
10mm	3/8" BSPT	D01681038
10mm	1/2" BSPT	D01681048
10mm	1/4" BSPP	D02681028
10mm	3/8" BSPP	D02681038
10mm	1/2" BSPP	D02681048
12mm	3/8" BSPT	D01681238
12mm	1/2" BSPT	D01681248
12mm	3/8" BSPP	D02681238
12mm	1/2" BSPP	D02681248

Swivel Tee Adapter



O/D tube	Thread	Part number
4mm	1/8" BSPT	D01670418
4mm	1/4" BSPT	D01670428
4mm	1/8" BSPP	D02670418
4mm	1/4" BSPP	D02670428
5mm	1/8" BSPT	D01670518
5mm	1/4" BSPT	D01671528
5mm	1/8" BSPP	D02670518
5mm	1/4" BSPP	D02670528
6mm	1/8" BSPT	D01670618
6mm	1/4" BSPT	D01670628
6mm	1/8" BSPP	D02670618
6mm	1/4" BSPP	D02670628
8mm	1/8" BSPT	D01670818
8mm	1/4" BSPT	D01670828
8mm	3/8" BSPT	D01670838
8mm	1/8" BSPP	D02670818
8mm	1/4" BSPP	D02670828
8mm	3/8" BSPP	D02670838
10mm	1/4" BSPT	D01671028
10mm	3/8" BSPT	D01671038
10mm	1/2" BSPT	D01671048
10mm	1/4" BSPP	D02671028
10mm	3/8" BSPP	D02671038
10mm	1/2" BSPP	D02671048
12mm	3/8" BSPT	D01671238
12mm	1/2" BSPT	D01671248
12mm	3/8" BSPP	D02671238
12mm	1/2" BSPP	D02671248

Straight Stem Adapter



O/D tube	Thread	Part number
4mm	1/8" BSPT	D01150418
4mm	1/4" BSPT	D01150428
4mm	1/8" BSPP	D02150418
4mm	1/4" BSPP	D02150428
5mm	1/8" BSPT	D01150518
5mm	1/4" BSPT	D01151528
5mm	1/8" BSPP	D02150518
5mm	1/4" BSPP	D02150528
6mm	1/8" BSPT	D01150618
6mm	1/4" BSPT	D01150628
6mm	1/8" BSPP	D02150618
6mm	1/4" BSPP	D02150628
8mm	1/8" BSPT	D01150818
8mm	1/4" BSPT	D01150828
8mm	3/8" BSPT	D01150838
8mm	1/8" BSPP	D02150818
8mm	1/4" BSPP	D02150828
8mm	3/8" BSPP	D02150838
10mm	1/4" BSPT	D01151028
10mm	3/8" BSPT	D01151038
10mm	1/2" BSPT	D01151048
10mm	1/4" BSPP	D02151028
10mm	3/8" BSPP	D02151038
10mm	1/2" BSPP	D02151048
12mm	3/8" BSPT	D01151238
12mm	1/2" BSPT	D01151248
12mm	3/8" BSPP	D02151238
12mm	1/2" BSPP	D02151248

Straight Union



O/D tube	Part number
4mm	D00200400
5mm	D00200500
6mm	D00200600
8mm	D00200800
10mm	D00201000
12mm	D00201200

Bulkhead Union



O/D tube	Part number
4mm	D00290400
5mm	D00290500
6mm	D00290600
8mm	D00290800
10mm	D00291000
12mm	D00291200

Pneufit® D fittings

Metric

Ø 4mm to 12mm O/D tube



Plug

O/D tube	Part number
4mm	D00040400
5mm	D00040500
6mm	D00040600
8mm	D00040800
10mm	D00041000
12mm	D00041200



End Stop

O/D tube	Part number
6mm	D000A0600
8mm	D000A0800
10mm	D000A1000
12mm	D000A1200



Union Elbow

O/D tube	Part number
4mm	D00400400
5mm	D00400500
6mm	D00400600
8mm	D00400800
10mm	D00401000
12mm	D00401200



Stem Elbow

O/D tube (A, A1)	Part number
4mm	D00430400
5mm	D00430500
6mm	D00430600
8mm	D00430800
10mm	D00431000
12mm	D00431200



Union Tee

O/D tube	Part number
4mm	D00600400
5mm	D00600500
6mm	D00600600
8mm	D00600800
10mm	D00601000
12mm	D00601200



Union Y

O/D tube	Part number
4mm	D00820400
6mm	D00820600
8mm	D00820800
10mm	D00821000
12mm	D00821200



Union Cross

O/D tube	Part number
4mm	D00900400
6mm	D00900600
8mm	D00900800
10mm	D00901000
12mm	D00901200



U Bend

O/D tube	Part number
6mm	D00890600
8mm	D00890800
10mm	D00891000
12mm	D00891200



Straight Union (Unequal)

A O/D tube	A1 O/D tube	Part number
6mm	4mm	D00200604
6mm	5mm	D00200605
8mm	4mm	D00200804
8mm	5mm	D00200805
8mm	6mm	D00200806
10mm	4mm	D00201004
10mm	5mm	D00201005
10mm	6mm	D00201006
10mm	8mm	D00201008
12mm	8mm	D00201208
12mm	10mm	D00201210



Union Elbow (Unequal)

A O/D tube	A1 O/D tube	Part number
8mm	4mm	D00400804
8mm	5mm	D00400805
8mm	6mm	D00400806
10mm	6mm	D00401006
10mm	8mm	D00401008
12mm	6mm	D00401206
12mm	8mm	D00401208
12mm	10mm	D00401210



45° Union Elbow (Unequal)

O/D tube	O/D tube	Part number
10mm	6mm	D005A1006
12mm	8mm	D005A1208

Pneufit® D fittings

Metric

Ø 4mm to 12mm O/D tube



Union Tee (Unequal)

A O/D tube	A1 O/D tube	A2 O/D tube	Part number
6mm	10mm	10mm	D006A1006
10mm	12mm	12mm	D006A1210



Stem Tailpiece Adapter (barb/stem)

A O/D tube	A1 O/D tube	Part number
6mm	4.5mm	D00390604
8mm	6.5mm	D00390806
10mm	8.5mm	D00391008
12mm	10mm	D00391210



Bulkhead Union (Unequal)

O/D tube	Thread	Part number
6mm	10mm	D00290610
10mm	6mm	D00291006



Stem Elbow (tube/stem)

A O/D tube	A1 O/D tube	Part number
10mm	6mm	D00431006
10mm	8mm	D00431008



Three Way Splitter (in/out)

A O/D tube	A1 O/D tube	Part number
10mm	6mm	D00011006
12mm	10mm	D00911210



Hand Valve (Union)

O/D tube	Part number
6mm	D00GR0600
10mm	D00GR1000
12mm	D00GR1200



Stem Reducer (tube/stem)

A O/D tube	A1 O/D tube	Part number
5mm	4mm	D00230504
6mm	4mm	D00230604
6mm	5mm	D00230605
8mm	4mm	D00230804
8mm	5mm	D00230805
8mm	6mm	D00230806
10mm	6mm	D00231006
10mm	8mm	D00231008
12mm	8mm	D00231208
12mm	10mm	D00231210



Hand Valve (male adapter)

O/D tube	Thread	Part number
6mm	1/4" BSPT	D01GT0628
10mm	3/8" BSPT	D01GT1038
12mm	1/2" BSPT	D01GT1248



Hand Valve (female adapter)

O/D tube	Thread	Part number
6mm	1/4" BSPT	D01GU0628
10mm	3/8" BSPT	D01GU1038
10mm	1/2" BSPT	D01GU1238
12mm	3/8" BSPT	D01GU1048
12mm	1/2" BSPT	D01GU1248

Pneufit® D fittings

Metric

Ø 4mm to 12mm O/D tube

ACCESSORIES



Cartridges (Brass)

O/D tube	Part number
4mm	D00080400B
5mm	D00080500B
6mm	D00080600B
8mm	D00080800B
10mm	D00081000B
12mm	D00081200B



Locking Clip

O/D tube	Part number
6mm	D0LC0600*
8mm	D0LC0800*
10mm	D0LC1000*
12mm	D0LC1200*

*00 denotes Red. Other colors are available on request.



Cartridges (Stainless Steel)

O/D tube	Part number
4mm	D00080400G
5mm	D00080500G
6mm	D00080600G
8mm	D00080800G
10mm	D00081000G
12mm	D00081200G



Flow Bend Clip

O/D tube	Part number
8mm	D005B0800
10mm	D005B1000
12mm	D005B1200



Tube Support

O/D tube	Part number
8mm	D00330806
10mm	D00331008
12mm	D00331210



LDPE Tubing (natural)

O/D tube	Part number
4mm	PE0004025C
5mm	PE0005025C
6mm	PE0006025C
8mm	PE0008025C
10mm	PE0010025C
12mm	PE0012025C

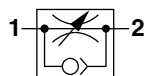


Double Seal (tube support)

O/D tube	Part number
8mm	D00330806H
10mm	D00331008H
12mm	D00331210H

Pneufit push-in elbow banjo flow controls

1/8" to 1/2", 4 to 12 mm O/D tube



High maximum flow, progressive flow gain, and positive tube grip
Silicone free 'O'-ring seals
Non-PTFE based thread sealant on all BSP taper threads (VAO, VB0, TA0)

Easy tube insertion for rapid assembly

For simple and quick assembly of pneumatic circuits

Wide range available

Reliable and corrosion resistant

Technical data

Fluid:

Compressed air

Operating pressure:

5 to 150 psig (.3 to 10 bar) unless otherwise stated (dependent upon tubing specification).

Temperature range:

0° to 175°F (-20° to 80°C).

Materials

Body: Nickel plated brass, glass filled nylon, or PBT

Collet: Nickel plated brass

Grabring: stainless steel

'O'-ring: Silicone free nitrile rubber

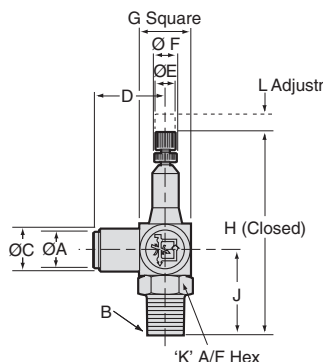
Sealing washer (parallel threads):

Nitrile 'O'-ring

Thread sealant: non-PTFE

Tube types

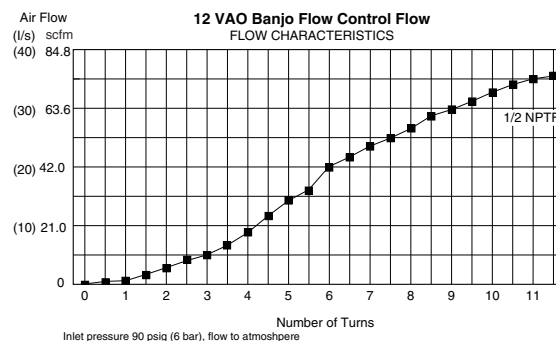
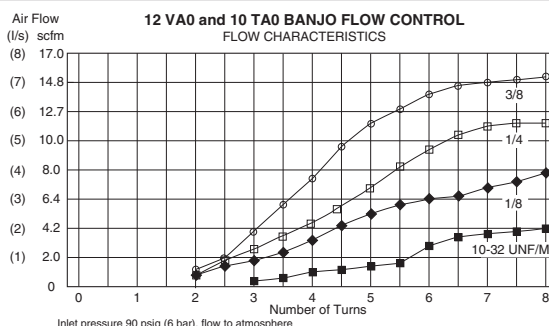
Nylon 11 or 12, polyurethane (95 durometer and 85 durometer on C0 and C2 models)



VAO and TA0 Series

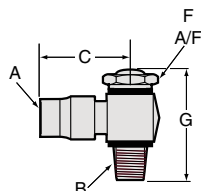
A	B												
O.D.	NPT or UNF	Part											
Tube	Thread	Number	C	D	E	F	G	H	J	K	A/F	L	Adj
5/32"	10-32 UNF	12 VAO 0210	0.37	1.04	0.16	0.28	0.38	1.51	0.45	—		0.12	
5/32"	1/8	12 VAO 0218	0.45	0.87	0.31	0.35	0.63	2.09	0.89	9/16"		0.12	
1/4"	1/8	12 VAO 0418	0.51	0.91	0.31	0.35	0.63	2.09	0.89	9/16"		0.12	
1/4"	1/4	12 VAO 0428	0.53	1.00	0.39	0.43	0.79	2.64	1.16	11/16"		0.24	
3/8"	1/4	12 VAO 0628	0.77	1.24	0.39	0.43	0.79	2.64	1.16	11/16"		0.24	
3/8"	3/8	12 VAO 0638	0.77	1.28	0.47	0.51	0.87	3.07	1.30	3/4"		0.24	
1/2"	1/2"	12 VAO 0748	0.91	1.50	0.63	0.71	1.06	3.66	1.65	7/8"		0.28	

A	B												
O.D.	ISO R	Part											
Tube	Thread	Number	C	D	E	F	G	H	J	K	A/F	L	Adj
4	1/8	10 TA0 0418	11.5	22.0	8.0	9.0	16	53	22.5	14		3	
6	1/8	10 TA0 0618	13.0	23.0	8.0	9.0	16	53	22.5	14		3	
6	1/4	10 TA0 0628	13.5	25.5	10.0	11.0	20	67	29.5	17		6	
8	1/4	10 TA0 0828	15.5	27.0	10.0	11.0	20	67	29.5	17		6	
8	3/8	10 TA0 0838	15.5	28.0	12.0	13.0	22	78	33.0	19		6	
10	1/4	10 TA0 1028	19.5	31.5	10.0	11.0	20	67	29.5	17		6	
10	3/8	10 TA0 1038	19.5	32.5	12.0	13.0	22	78	33.0	19		6	



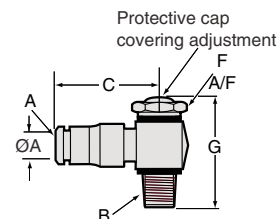
Pneufit push-in elbow banjo flow controls

Ø 4 ... 12 mm O/D tube



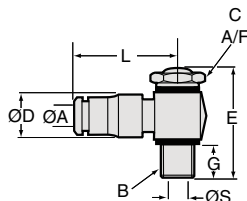
VB0 Series

A NPT Female	B NPT Male	Part Number	C	F	G
1/8	1/8	12 VB0 1818	0.83	9/16"	1.57
1/4	1/4	12 VB0 2828	1.14	3/4"	1.83
3/8	3/8	12 VB0 3838	1.24	7/8"	2.22
1/2	1/2	12 VB0 4848	1.53	1 1/16"	2.55



VB0 Series

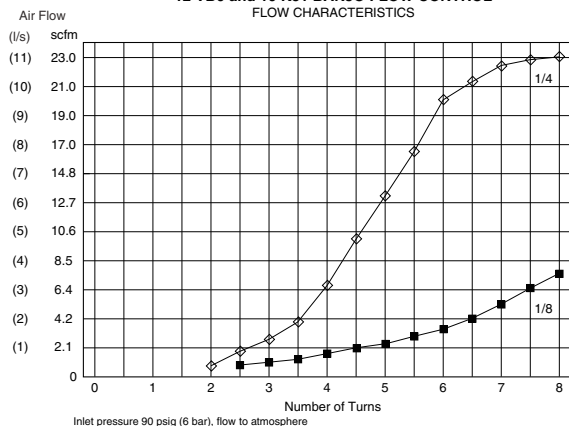
A O.D. Tube	B NPT or UNF Thread	Part Number	C	F A/F	G
5/32"	10-32 UNF	12 VB0 0210	0.74	-	1.06
5/32"	1/8	12 VB0 0218	0.88	9/16"	1.57
1/4"	1/8	12 VB0 0418	0.91	9/16"	1.57
1/4"	1/4	12 VB0 0428	0.99	3/4"	1.83
3/8"	1/4	12 VB0 0628	1.23	3/4"	1.83
3/8"	3/8	12 VB0 0638	1.29	7/8"	2.22
1/2"	3/8	12 VB0 0738	1.46	7/8"	2.22
1/2"	1/2	12 VB0 0748	1.56	1 1/16"	2.55



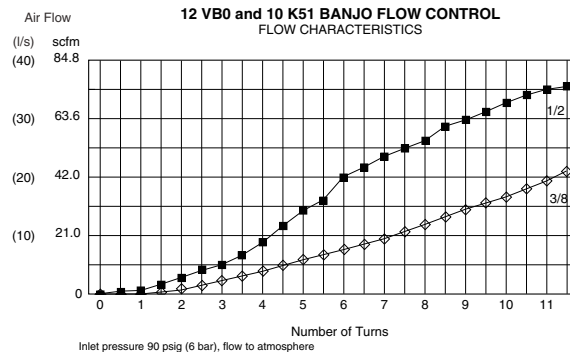
K51 Series

A O.D. Tube	B ISO G or Metric Thread	Part Number	C A/F	D	E	G	L	S
4	M5 X .8	10 K51 0405	8	9.5	26.5	4.0	18.7	2.5
4	1/8	10 K51 0418	14	11.0	34.0	6.5	20.6	5.0
5	M5 X .8	10 K51 0505	8	11.0	26.5	4.0	20.2	2.5
5	1/8	10 K51 0518	14	11.5	34.0	6.5	21.7	5.0
6	M5 X .8	10 K51 0605	8	12.5	26.5	4.0	22.2	2.5
6	1/8	10 K51 0618	14	12.5	34.0	6.5	23.7	5.0
6	1/4	10 K51 0628	17	13.0	36.5	7.0	24.2	8.5
8	1/8	10 K51 0818	14	13.5	34.0	6.0	23.7	-
8	1/4	10 K51 0828	17	14.0	36.5	7.0	24.7	8.5
8	3/8	10 K51 0838	22	16.5	51.5	10.0	26.7	10.0
10	3/8	10 K51 1038	22	17.0	51.5	10.0	31.2	10.0
12	1/2	10 K51 1248	27	17.5	57.5	10.0	38.2	-

12 VB0 and 10 K51 BANJO FLOW CONTROL
FLOW CHARACTERISTICS



12 VB0 and 10 K51 BANJO FLOW CONTROL
FLOW CHARACTERISTICS



Inch and metric flow controls

Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).

Nickel plated brass components provide corrosion and contamination resistance and an extended life.

Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads provides optimum rapid sealing.

Immediate quality sealing using silicone free U-packing.

Technical data

Operating pressure

750mm Hg vacuum, up to 10 bar

Temperature

32°F to 140°F (0 to 60°C)

Medium

Compressed air

Materials

Body: PBT

Seals: NBR (silicone free) u-packing and O-rings

Threaded bodies: nickel plated brass

Release sleeve and backing ring: POM

Grab-ring: stainless steel

Collar: nickel plated brass

Thread sealant: threebond 2350B

Tube sizes

Inch: 5/32", 3/16", 1/4", 5/16", 3/8, 1/2"

Metric: 4, 6, 8, 10, 12, 16 mm

Thread sizes

Inch: 10-32 UNF, 1/8", 1/4", 3/8 and 1/2" NPT and ISO R

Metric: M5, M6, 1/8", 1/4", 3/8" and 1/2", ISO G and ISO Rc

Tube types

Nylon 11 or 12

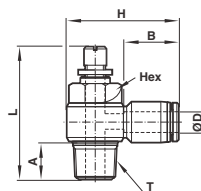
Polyurethane 85, 95 or 98 durometer



C2VA0 Inch

Banjo Flow Control

(Regulating out)

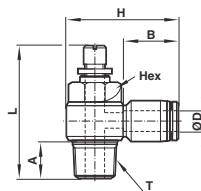


ØD	T	L		H	B	A	Hex	Part number
		min	max					
1/8	UNF 10/32	1.07	1.19	0.85	0.44	0.14	0.31	C2VA00110
5/32	UNF 10/32	1.07	1.19	0.99	0.64	0.14	0.31	C2VA00210
3/16	UNF 10/32	1.07	1.19	1.05	0.66	0.14	0.31	C2VA00310
1/4	UNF 10/32	1.07	1.19	1.13	0.69	0.14	0.31	C2VA00410
5/32	NPT 1/8	1.37	1.58	1.2	0.64	0.31	0.43	C2VA00218
3/16	NPT 1/8	1.37	1.58	1.24	0.66	0.31	0.43	C2VA00318
1/4	NPT 1/8	1.37	1.58	1.26	0.69	0.31	0.43	C2VA00418
5/16	NPT 1/8	1.37	1.58	1.3	0.74	0.31	0.43	C2VA00518
5/32	NPT 1/4	1.57	1.8	1.36	0.64	0.39	0.59	C2VA00228
3/16	NPT 1/4	1.57	1.8	1.39	0.66	0.39	0.59	C2VA00328
1/4	NPT 1/4	1.57	1.8	1.41	0.69	0.39	0.59	C2VA00428
5/16	NPT 1/4	1.57	1.8	1.45	0.74	0.39	0.59	C2VA00528
3/8	NPT 1/4	1.57	1.8	1.48	0.8	0.39	0.59	C2VA00628
1/4	NPT 3/8	1.84	2.17	1.56	0.69	0.43	0.75	C2VA00438
5/16	NPT 3/8	1.84	2.17	1.58	0.74	0.43	0.75	C2VA00538
3/8	NPT 3/8	1.84	2.17	1.66	0.8	0.43	0.75	C2VA00638
1/2	NPT 3/8	1.84	2.17	1.78	0.87	0.43	0.75	C2VA00738
5/16	NPT 1/2	2.09	2.37	1.8	0.74	0.55	0.94	C2VA00548
3/8	NPT 1/2	2.09	2.37	1.86	0.8	0.55	0.94	C2VA00648
1/2	NPT 1/2	2.09	2.37	1.99	0.87	0.55	0.94	C2VA00748

C2WAO

Banjo Flow Control (inch)

(Regulating in)



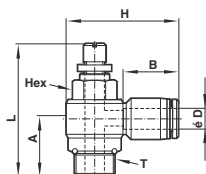
ØD	T	L		H	B	A	Hex	Part number
		min	max					
1/8	UNF 10/32	1.07	1.19	0.85	0.44	0.14	0.31	C2WAO0110
5/32	UNF 10/32	1.07	1.19	0.99	0.64	0.14	0.31	C2WAO0210
3/16	UNF 10/32	1.07	1.19	1.03	0.66	0.14	0.31	C2WAO0310
1/4	UNF 10/32	1.07	1.19	1.13	0.69	0.14	0.31	C2WAO0410
5/32	NPT 1/8	1.37	1.58	1.2	0.64	0.31	0.43	C2WAO0218
3/16	NPT 1/8	1.37	1.58	1.24	0.66	0.31	0.43	C2WAO0318
1/4	NPT 1/8	1.37	1.58	1.26	0.69	0.31	0.43	C2WAO0418
5/16	NPT 1/8	1.37	1.58	1.3	0.74	0.31	0.43	C2WAO0518
5/32	NPT 1/4	1.57	1.8	1.36	0.64	0.39	0.59	C2WAO0228
3/16	NPT 1/4	1.57	1.8	1.39	0.66	0.39	0.59	C2WAO0328
1/4	NPT 1/4	1.57	1.8	1.39	0.66	0.39	0.59	C2WAO0428
5/16	NPT 1/4	1.57	1.8	1.45	0.74	0.39	0.59	C2WAO0528
3/8	NPT 1/4	1.57	1.8	1.48	0.8	0.39	0.59	C2WAO0628
1/4	NPT 3/8	1.84	2.17	1.56	0.69	0.43	0.75	C2WAO0438
5/16	NPT 3/8	1.84	2.17	1.58	0.74	0.43	0.75	C2WAO0538
3/8	NPT 3/8	1.84	2.17	1.66	0.8	0.43	0.75	C2WAO0638
1/2	NPT 3/8	1.84	2.17	1.78	0.87	0.43	0.75	C2WAO0738
5/16	NPT 1/2	2.09	2.37	1.8	0.74	0.55	0.94	C2WAO0548
3/8	NPT 1/2	2.09	2.37	1.86	0.8	0.55	0.94	C2WAO0648
1/2	NPT 1/2	2.09	2.37	1.99	0.87	0.55	0.94	C2WAO0748

Inch and metric flow controls

COK51

Banjo Flow Control (mm)

(out)

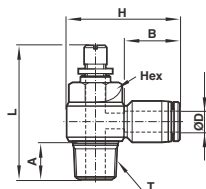


ØD	T	L		H	B	A	Hex	Part number
		min	max					
3.0	M5*0.8p	27.2	30.2	21.4	11.1	3.6	8.0	COK510305
4.0	M5*0.8p	27.2	30.2	25.1	16.3	10.0	15.0	COK510405
4.0	G 1/8	34.9	40.1	30.5	16.3	6.0	8.0	COK510418
4.0	G 1/4	40	45.7	34.5	16.3	8.0	12.0	COK510428
6.0	M5*0.8p	27.2	30.2	27.8	17.6	3.6	8.0	COK510605
6.0	G 1/8	34.9	40.1	31.2	17.6	6.0	8.0	COK510618
6.0	G 1/4	40	45.7	35	17.6	8.0	12.0	COK510628
6.0	G 3/8	46.7	55	38.7	17.6	8.0	14.0	COK510638
8.0	G 1/8	34.9	40.1	33	18.7	6.0	8.0	COK510818
8.0	G 1/4	40	45.7	36.8	18.7	8.0	12.0	COK510828
8.0	G 3/8	46.7	55	40.1	18.7	8.0	14.0	COK510838
8.0	G 1/2	53	60.2	45.8	18.7	9.0	19.0	COK510848
10	G 1/4	40	45.7	38.8	19.6	8.0	12.0	COK511028
10	G 3/8	46.7	55	42.2	19.6	8.0	14.0	COK511038
10	G 1/2	53	60.2	47.5	19.6	9.0	19.0	COK511048
12	G 1/4	40	45.7	40.8	21.9	8.0	12.0	COK511228
12	G 3/8	46.7	55	45.9	21.9	8.0	14.0	COK511238
12	G 1/2	53	60.2	50.1	21.9	9.0	19.0	COK511248

C0TA0

Banjo Flow Control (mm)

(out)

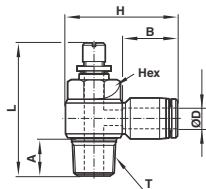


ØD	T	L		H	B	A	Hex	Part number
		min	max					
4.0	R 1/8	34.9	40.1	30.5	16.3	8.0	11.0	C0TA00418
4.0	R 1/4	40.0	45.7	34.5	16.3	10.0	15.0	C0TA00428
6.0	R 1/8	34.9	40.1	31.2	17.6	8.0	11.0	C0TA00618
6.0	R 1/4	40.0	45.7	35.0	17.6	10.0	15.0	C0TA00628
6.0	R 3/8	46.7	55.0	38.7	17.6	11.0	19.0	C0TA00638
8.0	R 1/8	34.9	40.1	33.0	18.7	8.0	11.0	C0TA00818
8.0	R 1/4	40.0	45.7	36.8	18.7	10.0	15.0	C0TA00828
8.0	R 3/8	46.7	55.0	40.1	18.7	11.0	19.0	C0TA00838
8.0	R 1/2	53.0	60.2	45.8	18.7	14.0	24.0	C0TA00848
10.0	R 1/4	40.0	45.7	38.8	19.6	10.0	15.0	C0TA01028
10.0	R 3/8	46.7	55.0	42.2	19.6	11.0	19.0	C0TA01038
10.0	R 1/2	53.0	60.2	47.5	19.6	14.0	24.0	C0TA01048
12.0	R 1/4	40.0	45.7	40.8	21.9	10.0	15.0	C0TA01228
12.0	R 3/8	46.7	55.0	45.9	21.9	11.0	19.0	C0TA01238
12.0	R 1/2	53.0	60.2	50.1	21.9	14.0	24.0	C0TA01248

C0SA0

Banjo Flow Control (mm)

(in)

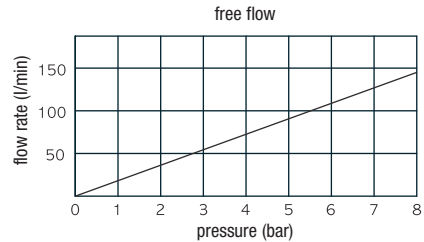
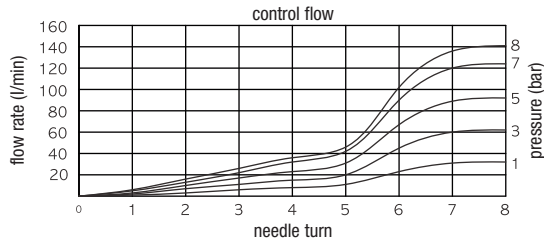


ØD	T	L		H	B	A	Hex	Part number
		min	max					
4.0	R 1/8	34.9	40.1	30.5	16.3	8.0	11.0	C0SA00418
4.0	R 1/4	40.0	45.7	34.5	16.3	10.0	15.0	C0SA00428
6.0	R 1/8	34.9	40.1	31.2	17.6	8.0	11.0	C0SA00618
6.0	R 1/4	40.0	45.7	35.0	17.6	10.0	15.0	C0SA00628
6.0	R 3/8	46.7	55.0	38.7	17.6	11.0	19.0	C0SA00638
8.0	R 1/8	34.9	40.1	33.0	18.7	8.0	11.0	C0SA00818
8.0	R 1/4	40.0	45.7	36.8	18.7	10.0	15.0	C0SA00828
8.0	R 3/8	46.7	55.0	40.1	18.7	11.0	19.0	C0SA00838
8.0	R 1/2	53.0	60.2	45.8	18.7	14.0	24.0	C0SA00848
10.0	R 1/4	40.0	45.7	38.8	19.6	10.0	15.0	C0SA01028
10.0	R 3/8	46.7	55.0	42.2	19.6	11.0	19.0	C0SA01038
10.0	R 1/2	53.0	60.2	47.5	19.6	14.0	24.0	C0SA01048
12.0	R 1/4	40.0	45.7	40.8	21.9	10.0	15.0	C0SA01228
12.0	R 3/8	46.7	55.0	45.9	21.9	11.0	19.0	C0SA01238
12.0	R 1/2	53.0	60.2	50.1	21.9	14.0	24.0	C0SA01248

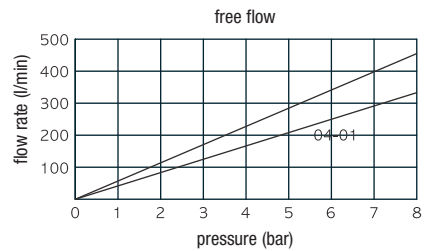
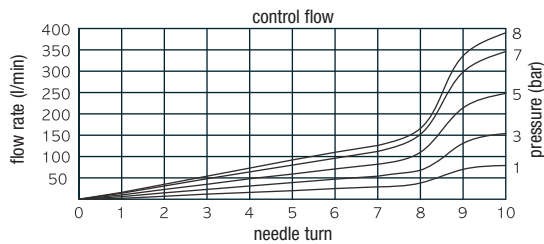
Inch and metric flow controls

Speed Controllers Flowrate for C2VA0, C2WA0, C0K51, C0L51, C0TA0, and C0SA0 Banjo Types

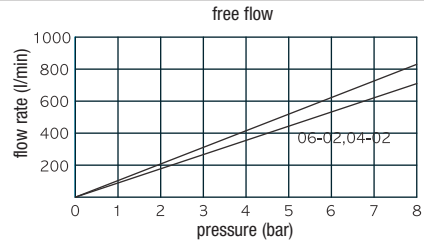
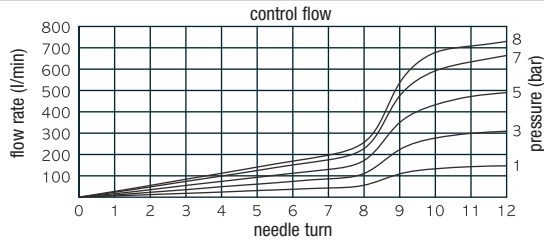
1/8, 5/32, 1/4" to
10/32 UNF, 3, 4, 6
mm, and M5



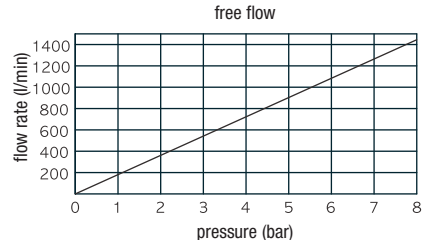
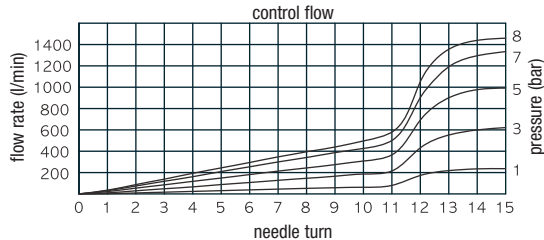
5/32, 1/4, 5/16 to
1/8 NPT, 4, 6, 8
mm, and 1/8"



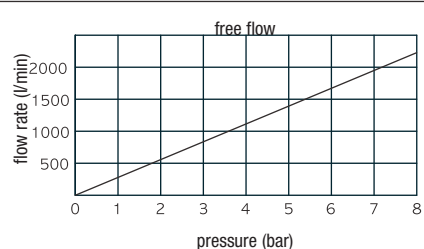
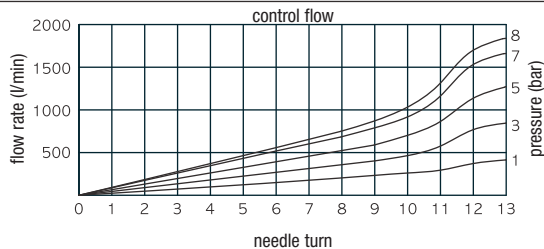
5/32, 1/4, 5/16,
3/8, 1/2 to 1/4
NPT, 4, 6, 8, 10, 12
mm, and 1/4"



1/4, 5/16, 3/8, 1/2
to 3/8 NPT, 6, 8,
10, 12 mm, and
3/8"



5/16, 3/8, 1/2 to 1/2
NPT, 8, 10, 12 mm,
and 1/2"

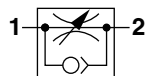


T1000 Series

Block form flow controls

Uni-directional

M5, 1/8" to 1/2" NPT or ISO G



Compact size/low weight/ in-line units

High flow performance

Suitable for panel and wall mounting

Adjustment can be locked

Captive regulator needle will not blow out when unscrewed

Adjusting knob position line

Technical data

Medium:

Compressed air, filtered, lubricated or non-lubricated, inert gases

Operating pressure:

15 to 145 psig (1-10 bar)

5 to 145 psig (0.3 to 10 bar) -M5

Operating temperature:

0° to 175°F* (-20° to 80°C)

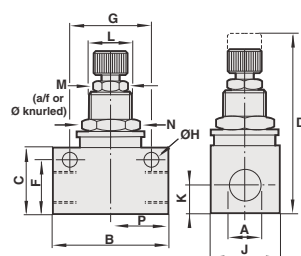
*Consult our Technical Service for use below 35°F (2°C)

Materials

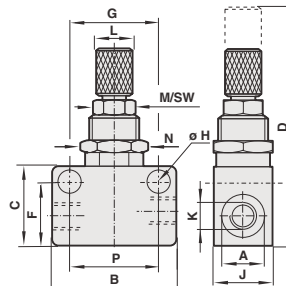
1/8, 1/4, 3/8, 1/2: Aluminum alloy body, Nitrile seals, brass needle and internal parts, external parts in aluminum alloy.

M5: Aluminum alloy body, nitrile seals and brass needle.

Model T1000A and T1000C



Model T1000M

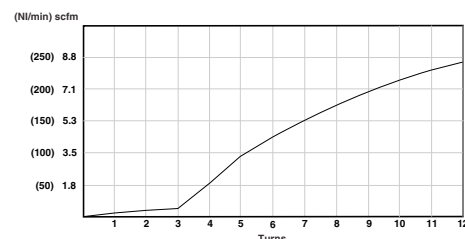


Model	Cv Regulating NPT port	Cv Free Flow NPT port	Weight grams oz. (g)
T1000M0500	0.07	0.07	.0007 (.020)
T1000A1800	0.14	0.37	1.1 (31)
T1000A2800	0.32	0.69	2.0 (56)
T1000A3800	1.00	1.45	5.3 (150)
T1000A4800	1.60	1.90	6.3(180)

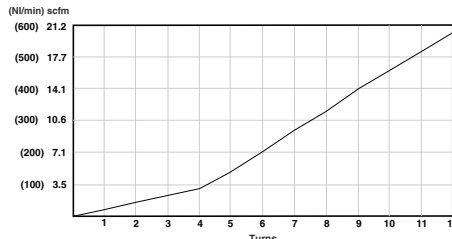
Model	A	B	C	D	F	G	H	J	K	L	A/F M	N	P	Panel Hole	Max Panel Thickness
T1000A1800	1/8 NPT	1.33	0.79	2.0	0.65	0.94	0.18	0.63	0.38	M12 x 1	0.39	0.55	0.67	0.49	0.16
T1000A2800	1/4 NPT	1.77	1.0	2.42	0.82	1.26	0.18	0.75	0.38	M14 x 1	0.39	0.67	0.89	0.57	0.16
T1000A3800	3/8 NPT	2.28	1.28	3.09	1.06	1.69	0.26	1.10	0.51	M20 x 1	0.39(a/f)	0.94	1.14	0.81	0.16
T1000A4800	1/2 NPT	2.56	1.42	3.23	1.20	1.97	0.26	1.18	0.29	M20 x 1	0.39 (a/f)	0.94	1.28	0.81	0.16
T1000M0500	M5	0.98	0.59	1.77	0.47	0.70	0.17	0.47	0.21	M10x.75	0.31	0.47	0.49	0.41	0.15
T1000C1800	G1/8	1.33	0.78	2.0	0.64	0.94	0.17	0.62	0.31	M12 x 1	0.39	0.55	0.66	0.49	0.15
T1000C2800	G1/4	1.77	1.0	2.42	0.82	1.26	0.17	0.74	0.37	M14 x 1	0.39	0.66	0.88	0.57	0.15
T1000C3800	G3/8	2.28	1.27	3.9	1.06	1.69	0.25	1.1	0.51	M20 x 1	0.55	0.94	1.14	0.80	0.15
T1000C4800	G1/2	2.55	1.41	3.22	1.20	1.96	0.25	1.18	0.59	M20 x 1	0.55	0.94	1.27	0.8	0.15

Flow vs Turns at 90 psi (6 bar)

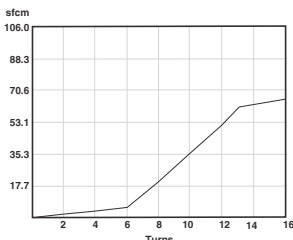
T1000A1800



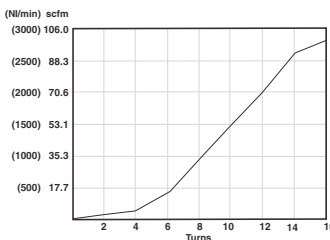
T1000A2800



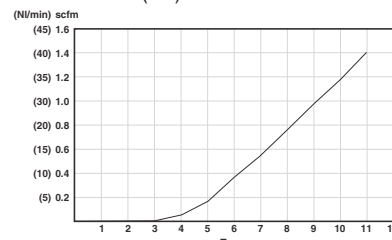
T1000A3800



T1000A4800



T1000M0500 (M5)



Pneufit C In-line Flow Controls

Inch and metric

Releasable stainless-steel grab-ring to grip nylon or polyurethane tube (85 or 95 durometer).

Nickel plated brass components provide corrosion and contamination resistance and an extended life.

Pre applied thread sealant on all taper threads and recessed captive O-ring on parallel threads provides optimum rapid sealing.

Immediate quality sealing using silicone free U-packaging.

Mounting holes on all union fittings

Technical data

Medium

Compressed air

Operating pressure

29.5" Hg vacuum up to 150 psi

Temperature

32°F to 140°F

Materials

Body: PBT

Seals: NBR (silicone free) u-packaging and O-rings

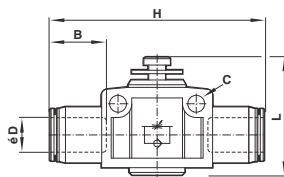
Threaded bodies: nickel plated brass

Release sleeve and backing ring: POM

Grab-ring: stainless steel

Collar: nickel plated brass

Thread sealant: threebond 2350B



C20G

Pneufit C inch In-line flow control

ØD	L		C	H	B	
	min	max				
5/32	1.18	1.31	0.13	1.78	0.64	C20GE0200
3/16	1.38	1.56	0.17	1.98	0.66	C20GE0300
1/4	1.38	1.56	0.17	1.98	0.69	C20GE0400
5/16	1.47	1.66	0.17	2.19	0.74	C20GE0500
3/8	1.72	1.93	0.17	2.41	0.80	C20GE0600
1/2	1.87	2.11	0.17	2.75	0.87	C20GE0700

C00G

Pneufit C metric In-Line Flow Control

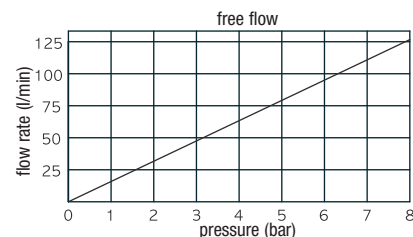
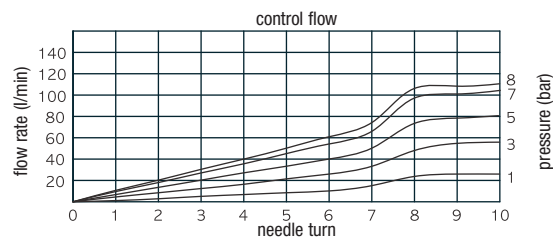
ØD	L		C	H	B	
	min	max				
4.0	29.9	33.3	3.3	45.1	16.3	C00GE0400
6.0	35.0	39.5	4.3	50.3	17.6	C00GE0600
8.0	37.4	42.1	4.4	55.7	18.7	C00GE0800
10.0	43.8	49.0	4.4	61.2	19.6	C00GE1000
12.0	47.7	53.6	4.4	69.8	21.9	C00GE1200

Pneufit C In-line Flow Controls

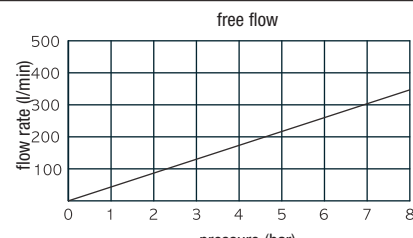
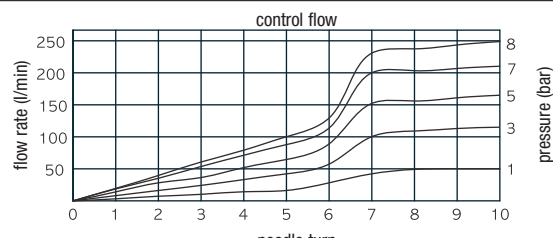
Inch and metric

Speed Controllers Flowrate for C20GE (inch) and C00GE (mm) Banjo Types

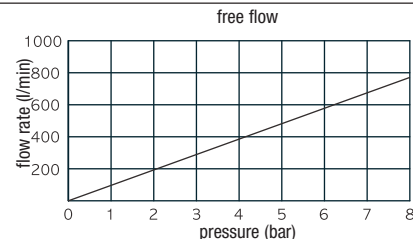
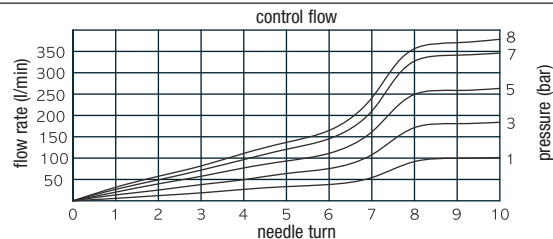
C20GE0200
C00GE0400



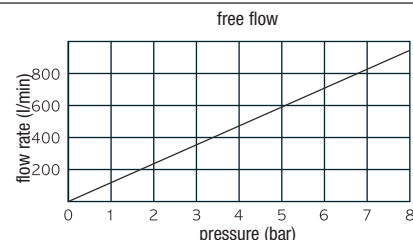
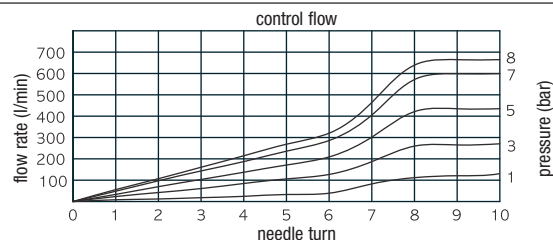
C20GE0400
C00GE0600



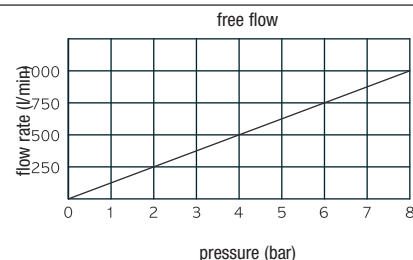
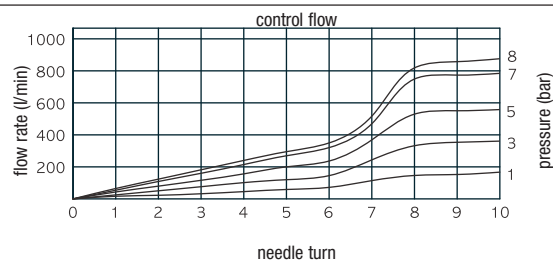
C20GE0500
C00GE0800



C20GE0600
C00GE1000



C20GE0700
C00GE1200

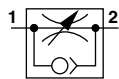


M/800, C/800 Series

Heavy duty flow controls

In-line

1/8", 1/4", 1/2", 3/4", 1"



Line mounted general purpose regulators

Captive regulating needle will not blow out when unscrewed

Calibrated adjusting knob, can be locked

Suitable for wall mounting

High operating pressure

Technical data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

5 to 230 psig (0.3 to 16 bar)

Operating temperature:

0°F to 175°F (-20°C to + 80°C)

(Alternative models to 300°F

[150°C])

Consult our Technical Service for use below 35°F (+2°C)

Materials

S/836, M/837, M/839:

Body, adjusting knob and locking ring: brass

M/840, M/855:

Body, adjusting knob and locking ring: aluminum

Seals: nitrile rubber.

Alternative models

T1000 range of block form flow controls, see website

TM, TC/800 High temperature version (150°C max.).

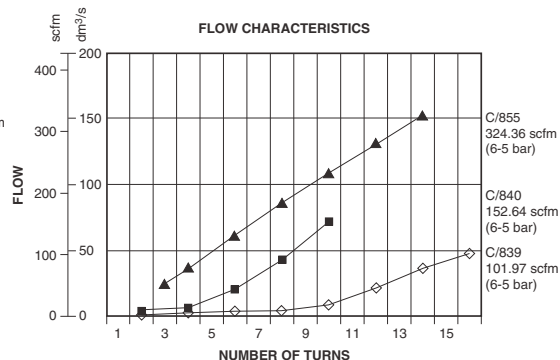
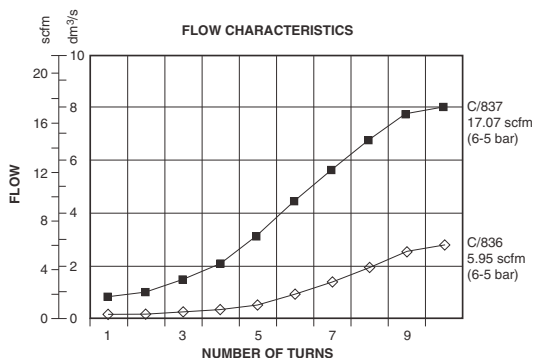
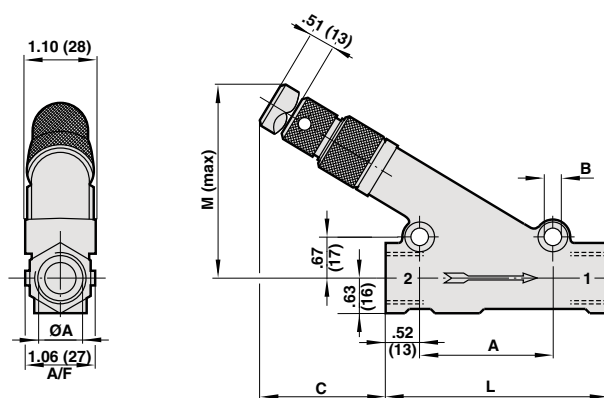
T15 range In-line push-in flow controls, see website

C20GE series inline push-in flow controls



Model			Max. Regulating	Max. Free
Port	NPT	ISO G	Flow Cv	Flow Cv
1/8	C/836	S/836	0.17	0.6
1/4	C/837	M/837	0.49	1.0
1/2	C/839	M/839	2.6	3.6
3/4	C/840	M/840	3.7	6.5
1	C/855	M/855	8.4	8.9

Thread	NPT	G	A	L	C	B	M (max)	D
1/8	C/836	S/836	.96	1.81	1.06	.33	3.11	.67
1/4	C/837	M/837	1.63	2.36	.98	.20	1.46	.87
1/2	C/839	M/839	2.25	3.7	2.09	.33	3.11	1.10
3/4	C/840	M/840	2.99	4.69	2.60	.34	4.09	1.38
1	C/855	M/855	3.54	5.90	4.22	.51	5.79	2.04



T51, T52 and T53 Series

Push-in non-return valves

In-line

Ø 5/32", 3/16", 1/4", 5/16", 1/2" inch O/D tube

Ø 4, 6, 8, 10, 12 mm O/D tube



Low cracking pressure

Releasable grab ring technology combining plastic and brass components for a compact and superior fitting design

Non-PTFE based thread sealant on taper threads

Molded mounting brackets on tube connector designs (PIF/PIF connection)

Red release sleeve indicating metric tube sizes

Grey release sleeve indicating inch tube sizes

Reliable and corrosion resistant

Technical data

Medium:

Compressed air, filtered, lubricated or non-lubricated, vacuum

Operating pressure:

1.5 to 145 psig (0.1 to 10 bar) (T51, T52)

4.4 to 145 psig (0.3 to 10 bar) (T53)

3" to 30" Hg (-0.1 to -1 bar) vacuum (T51, T52)

Ambient temperature:

0° to 175°F (-20° to +80°C)

Consult our Technical Service for use below 35°F (2°C)

Mounting:

Tube/tube PIF

Tube PIF/male thread

Male threaded/tube PIF

Materials

4 mm to 8 mm, 5/32" up to 5/16" OD:

Body: Plastic PBT

Seal: silicon free nitrile

Valve: plastic PBT

Natural brass insert

Spring: stainless steel

Grab ring: stainless steel, (4-6-8 sizes, and 5/32" to 5/16")

O/D 5 fitted with collet connection

T52 and T53 series, nickel brass threads.

3/8" and 1/2", O/D 10 to O/D 12

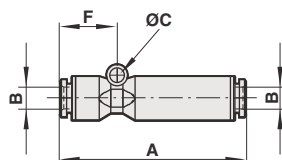
Collet: nickel plated brass

Body: black anodized aluminum

Valve and insert: aluminum



T51



Inch	PIF/PIF	Model #	Metric	PIF/PIF	Model #
5/32"	T51Y0002	4	T51P0004		
3/16"	T51Y0003*	5	T51P0005*		
1/4"	T51Y0004	6	T51P0006		
5/16"	T51Y0005	8	T51P0008		
3/8"	T51Y0006*	10	T51P0010*		
1/2"	T51Y0007*	12	T51P0012*		

* Available only with collet tube connection

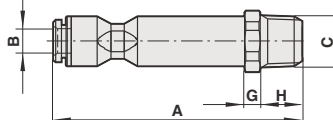
Inch

Inch Model	A	B	F	ØC
T51Y0002	2.0	5/32	0.6	0.2
T51Y0003*	2.1	3/16	0.6	0.2
T51Y0004	2.2	1/4	0.7	0.2
T51Y0005	2.5	5/16	0.7	0.2
T51Y0006*	3.0	3/8	-	-
T51Y0007*	3.5	1/2	-	-

Metric

Metric Model	A	B	F	ØC
T51P0004	48.8	4	15.5	4.3
T51P0005*	53.1	5	15.2	4.3
T51P0006	55.3	6	16.9	4.3
T51P0008	62.5	8	19.0	4.3
T51P0010*	77.4	10	-	-
T51P0012*	88.4	12	-	-

T52, T53



Inch PIF/Male Thrd.	Model #	Metric PIF/ISO Rc	Model #
5/32" x 1/8"	T52A1802	4 x M5	T52M0504
3/16" x 1/8"	T52A1803*	4 x 1/8"	T52B1804
3/16" x 1/4"	T52A2803*	5 x 1/8"	T52B1805*
1/4" x 1/8"	T52A1804	5 x 1/4"	T52B2805*
1/4" x 1/4"	T52A2804	6 x 1/8"	T52B1806
5/16" x 1/8"	T52A1805*	6 x 1/4"	T52B2806
5/16" x 1/4"	T52A2805	8 x 1/8"	T52B1808
5/16" x 1/4"	T52A2805	8 x 1/4"	T52B2808

Inch Model	A	B	C**	G	H
T52A1802 T53A1802	2.1	5/32	1/8	0.2	0.4
T52A1803* T53A1803*	2.3	3/16	1/8	0.2	0.4
T52A2803* T53A2803*	2.5	3/16	1/4	0.2	0.6
T52A1804 T53A1804	2.3	1/4	1/8	0.2	0.4
T52A2804 T53A2804	2.5	1/4	1/4	0.2	0.6
T52A1805 T53A1805	2.5	1/8	1/8	0.2	0.4
T52A2805 T53A2805	2.7	1/4	1/4	0.2	0.6

* Available only with collet tube connection

** NPTF

Inch Male Thrd./PIF	Model #	Metric ISO Rc/PIF	Model #
1/8 x 5/32"	T53A1802	M5 x 4	T53M0504
1/8 x 3/16"	T53A1803*	1/8 x 4	T53B1804
1/4 x 3/16"	T53A2803*	1/8 x 5	T53B1805*
1/8 x 1/4"	T53A1804	1/4 x 5	T53B2805*
1/4 x 1/4"	T53A2804	1/8 x 6	T53B1806
1/8 x 5/16"	T53A1805	1/4 x 6	T53B2806
1/4 x 5/16"	T53A2805	1/8 x 8	T53B1808
1/4 x 5/16"	T53A2805	1/4 x 8	T53B2808

Metric Model	A	B	C**	G	H
T52M0504 T53M0504	49.2	4	M5	4	4.3
T52B1804 T53B1804	54.4	4	1/8	4	9.5
T52B1805* T53B1805*	57.9	5	1/8	4	9.5
T52B2805* T53B2805*	59.4	5	1/4	4	11
T52B1806 T53B1806	59.2	6	1/8	4	9.5
T52B2806 T53B2806	60.7	6	1/4	4	11
T52B1808 T53B1808	63.7	8	1/8	4	9.5
T52B2808 T53B2808	65.2	8	1/4	4	11

** BSPT

Alternative models

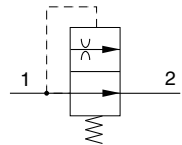
T55, T56 range of aluminum threaded check valves.

C/520 range of brass threaded check valve.

Air fuses

In-line excess flow shut-off valves

1/4 ... 1-1/2 NPT



Assists in complying with safety regulations.

Tamper proof.

Compact and safe design.

Low pressure drop.

Automatically resets after failure correction.

High corrosion resistance.

High air pressure rating.

Technical data

Medium:

Compressed air, filtered, lubricated and non lubricated inert gases

Operating pressure:

Maximum 232 psi (16 bar)

Minimum according to hose length

Drop pressure at shut-off flow: 2 to 4.5 psi (0.14 or 0.3 bar)

Mounting:

In-line two way valve. To be inserted between fixed air supply and flexible hose air line. See guidelines for typical installation.

Operating temperature:

0*** to 175° F (-20° to 80°C)

**Consult our Technical Service for use below 35°F (2°C)

At low temperature ensure air fuse is not subjected to freezing conditions which may prevent its function.

Materials

Body: aluminum

Internal parts: brass

Spring: stainless steel

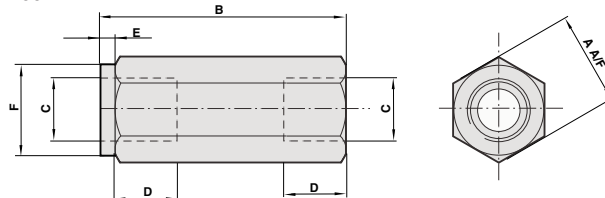
Model		Port size	Drop pressure at shut off flow (psi)	Shut off flow rate at 100 psi	Flow at 100 psi DP 1 psi (scfm)	Weight oz.
NPT	ISO G					
T60A2890	T60C2890	1/4	2.0	17.6	13.8	1.4
T60A2891	T60C2891	1/4	4.4	29.7	13.8	1.4
T60A3890	T60C3890	3/8	2.0	41.1	28.6	2.3
T60A3891	T60C3891	3/8	4.4	68.2	28.6	2.3
T60A4890	T60C4890	1/2	2.0	68.2	49.2	5.3
T60A4891	T60C4891	1/2	4.4	102.3	49.2	5.3
T60A6890	T60C6890	3/4	2.0	102.3	91.1	4.6
T60A6891	T60C6891	3/4	4.4	169.5	91.1	4.6
T60A8890	T60C8890	1	2.0	195.0	144	19.0
T60A8891	T60C8891	1	4.4	271.0	144	19.0
T60AB890	T60CB890	1-1/2	2.0	394.0	307	38.8
T60AB891	T60CB891	1-1/2	4.4	568.0	307	38.8

NPT : according to ANSI-B1.20.1.

ISO G : according to BS2779 and ISO-228/1

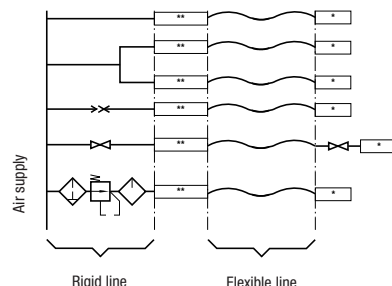
Flow and pressure test conducted according to ISO-6358 test circuit. Mean measured flow values are provided at standard reference conditions.

T60



Model	T60A289	T60C289	T60A389	T60C389	T60A489	T60C489	T60A689	T60C689	T60A889	T60C889	T60AB89	T60CB89
	NPT	ISO G	NPT	ISO G	NPT	ISO G	NPT	ISO G	NPT	ISO G	NPT	ISO G
A	0.81	0.81	0.94	0.94	1.25	1.25	1.25	1.25	2.00	2.00	2.50	2.50
B	2.01	2.01	2.44	2.44	3.07	3.07	3.54	3.54	4.65	4.65	5.71	5.71
C	1/4	1/4	3/8	3/8	1/2	1/2	3/4	3/4	1.0	1.0	1.5	1.5
D	0.39	0.43	0.41	0.55	0.59	0.54	0.56	0.75	0.66	1.00	0.68	1.00
E	0.12	0.12	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
F	0.81	0.81	0.94	0.94	1.25	1.25	1.25	1.25	2.00	2.00	2.50	2.50

Guidelines for typical installation



The air fuse should be installed directly between fixed or rigid pipework and the flexible tube to protect the whole length of the flexible tube. Only tubing **after** the air fuse is protected. The air fuse must be installed in the correct orientation. Failure to do this will render it ineffective. When a shut off valve is located before the air fuse, the valve must be opened slowly in order to control initial air flow and avoid decompression effects which may trip the air fuse.

It should be noted that the OSHA standard (29 CFR ChXVII Para 1926.302-b7) relating to pneumatic power tools states "All hoses exceeding 1/2" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in the case of hose failure."

Air Fuses

In-line excess flow shut-off valves

1/4" to 1-1/2"

How to select an air fuse

- The port size of the air fuse should be nominally equal to that of the supply lines e.g. a 1/2" (12,7mm) air fuse should be used with a 1/2" (12,7mm) ID hose.
- Always select the high flow model (91) if there is sufficient system pressure for the length of hose to be protected. See tables hose length vs minimum supply pressure.
- If there is insufficient system pressure, or long hose lengths are to be protected, use model 90.
- After installation always test each valve for proper function. See section how to check an air fuse below.
- The pneumatic system must be capable of delivering the flow required to activate the air fuse.
- For use with spring coils consult table. See table flow vs pressure supply.

Coiled hose selection table

Selection procedure for coiled hose:

Choose the thread size of your hose, the hose internal diameter in inches and the hose length in feet. The minimum supply pressure in psi is shown in the table below and the appropriate air fuse is shown in the left column. The "*" in the middle of the part number represents the thread type - put an "A" for NPT and a "C" for ISO G threads. If no value is shown, it may not be possible to protect your hose with an air fuse. If in doubt, consult a Norgren distributor or Norgren.

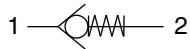
Valve Model	Thread Size	Hose length Feet	Internal Hose Diameter (inch)												
			0.125	0.188	0.215	0.250	0.313	0.370	0.470	0.500	0.590	0.750	1.000	1.250	1.500
T60*2890	1/4	12		124	64	29	16	11	8	8	8	7	7	7	7
T60*2890	1/4	25			126	52	25	14	9	9	8	7	7	7	7
T60*2890	1/4	50			244	97	42	21	11	10	8	8	7	7	7
T60*2890	1/4	100				187	76	35	15	13	10	8	7	7	7
T60*2891	1/4	12				70	31	17	10	9	8	7	7	7	7
T60*2891	1/4	25				137	57	27	13	11	9	8	7	7	7
T60*2891	1/4	50					107	47	19	15	11	8	7	7	7
T60*2891	1/4	100					207	87	30	23	14	9	8	7	7
T60*3890	3/8	12				125	52	25	12	11	9	8	7	7	7
T60*3890	3/8	25					102	45	18	15	10	8	7	7	7
T60*3890	3/8	50					196	82	29	22	14	9	8	7	7
T60*3890	3/8	100						157	50	38	20	11	8	7	7
T60*3891	3/8	12					132	57	21	17	11	8	8	7	7
T60*3891	3/8	25						111	37	28	16	10	8	7	7
T60*3891	3/8	50						215	67	49	25	12	8	8	7
T60*3891	3/8	100							126	91	42	17	9	8	7
T60*4890	1/2	12					132	57	21	17	11	8	8	7	7
T60*4890	1/2	25						111	37	28	16	10	8	7	7
T60*4890	1/2	50						215	67	49	25	12	8	8	7
T60*4890	1/2	100							126	91	42	17	9	8	7
T60*4891	1/2	12						119	39	30	17	10	8	7	7
T60*4891	1/2	25							74	54	27	13	8	8	7
T60*4891	1/2	50							141	102	46	18	10	8	8
T60*4891	1/2	100								196	85	29	12	9	8
T60*6890	3/4	12					119	39	30	17	10	8	7	7	7
T60*6890	3/4	25						74	54	27	13	8	8	7	7
T60*6890	3/4	50						141	102	46	18	10	8	8	8
T60*6890	3/4	100							196	85	29	12	9	8	8
T60*6891	3/4	12						96	70	33	15	9	8	7	7
T60*6891	3/4	25						193	139	62	23	11	8	8	8
T60*6891	3/4	50								116	38	14	9	8	8
T60*6891	3/4	100								224	69	20	11	9	9
T60*8890	1	12					123	89	41	17	9	8	7	7	7
T60*8890	1	25						178	78	27	12	9	8	8	8
T60*8890	1	50							148	47	16	10	8	8	8
T60*8890	1	100								88	24	13	9	8	8
T60*8891	1	12					231	166	73	26	11	8	8	8	8
T60*8891	1	25							144	46	16	10	8	8	8
T60*8891	1	50								85	24	12	9	8	8
T60*8891	1	100								163	41	17	11	9	9
T60*B890	1-1/2	12								147	47	16	10	8	8
T60*B890	1-1/2	25									90	25	13	9	9
T60*B890	1-1/2	50									173	43	18	11	11
T60*B890	1-1/2	100										78	29	16	16
T60*B891	1-1/2	12									89	25	13	9	9
T60*B891	1-1/2	25									179	44	18	12	12
T60*B891	1-1/2	50										81	30	16	16
T60*B891	1-1/2	100										154	52	24	24

T55/T56 Series

Non-return valves

In-line

M5, 1/8", 1/4", 3/8", 1/2"



Permit free flow of air in one direction only

Simple, reliable design

Silicone free

Low cracking pressure

T56 male connections have an O-ring in parallel threads

Technical data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

1.5 to 145 psig (0.1 to 10 bar)

Operating temperature:

0°F to 175°F* (-20°C to +80°C)

*Consult our Technical Service for use below 35°F (+2°C)

Materials

Body: aluminum (T55), brass (T56)

O-ring: nitrile rubber

Valve: POM

Spring: stainless steel

Note: Viton seals for high temperature version

Alternative models

T51 Series in-line push-in check valves, see previous page

S/520 Series heavy duty non-return valves for high temperatures, see page ???.

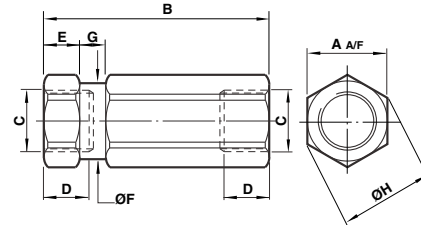


T55 Series

Port Size	Flow Factor Cv**	Cracking pressure	Weight oz	Metric	Model NPT	BSPP	BSPT
M5	0.19	0.73	0.35	T55M0500			
1/8	0.59	0.73	0.53		T55A1800	T55C1800	T55B1800
1/4	1.35	0.73	0.88		T55A2800	T55C2800	T55B2800
3/8	2.20	0.73	2.12		T55A3800	T55C3800	T55B3800
1/2	3.70	0.73	2.82		T55A4800	T55C4800	T55B4800

** Cv measured in US gal/min.

T55

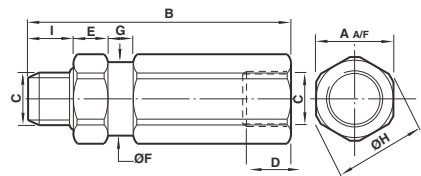


Model	A	B	C	D	E	F	G	H
T55M0500	0.43	1.08	M5	0.20	0.16	0.42	0.12	0.47
T55A1800	0.55	1.67	1/8	—	0.28	0.54	0.16	0.59
T55B1800	0.55	1.67	1/8	—	0.28	0.54	0.16	0.59
T55C1800	0.55	1.67	1/8	0.28	0.28	0.54	0.16	0.59
T55A2800	0.67	2.13	1/4	—	0.31	0.66	0.20	0.73
T55B2800	0.67	2.13	1/4	—	0.31	0.66	0.20	0.73
T55C2800	0.67	2.13	1/4	0.41	0.31	0.66	0.20	0.73
T55A3800	0.94	2.48	3/8	—	0.35	0.93	0.28	1.02
T55B3800	0.94	2.48	3/8	—	0.35	0.93	0.28	1.02
T55C3800	0.94	2.48	3/8	0.47	0.35	0.93	0.28	1.02
T55A4800	1.06	3.03	1/2	—	0.47	1.05	0.39	1.18
T55B4800	1.06	3.03	1/2	—	0.47	1.05	0.39	1.18
T55C4800	1.06	3.03	1/2	0.59	0.47	1.05	0.39	1.18

T56 Series

Port Size	Flow Factor Cv**	Cracking pressure	Weight oz	Model Metric	NPT	BSPP	BSPT
M5	0.19	0.73	0.64	T56M0500			
1/8	0.59	0.73	1.59		T56A1800	T56C1800	T56B1800
1/4	1.23	0.73	2.82		T56A2800	T56C2800	T56B2800

** Cv measured in US gal/min.

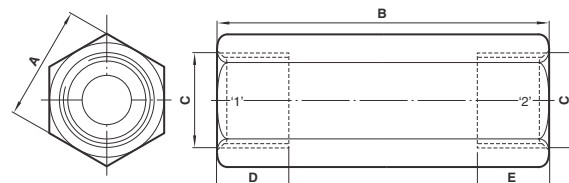


Model	A	B	C	D	F	G	H	I
T56M0500	0.43	1.25	M5	.20	0.42	0.12	0.47	0.17
T56A1800	0.55	1.93	1/8	—	0.54	0.16	0.59	0.37
T56B1800	0.55	1.93	1/8	—	0.54	0.16	0.59	0.37
T56C1800	0.55	1.77	1/8	.28	0.54	0.16	0.59	0.22
T56A2800	0.67	2.46	1/4	—	0.66	0.20	0.73	0.56
T56B2800	0.67	2.32	1/4	—	0.66	0.20	0.73	0.43
T56C2800	0.67	2.21	1/4	.41	0.66	0.20	0.73	0.31

C/523 - C/524 Series

Model NPT	Port ISO G	Size	Flow factor Cv	Cracking Pressure psi	Weight oz.	Spares Kit NPT	ISO G
C/523	S/523	3/4	6.5	0.9	19.4	QC/523/00	QS/523/00
C/524	S/524	1	8.9	0.9	38.9	QC/524/00	QS/524/00

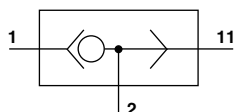
Note : For high temperature applications a T should be added on spares kit part number (i.e. TQS/520/00)
Initial cracking pressure may be higher if valve has been stored for a long period.



Model	A	B	C	D	E
C/523	1.42	3.6	3/4	0.71	0.71
S/523	1.42	3.6	3/4	0.71	0.71
C/524	1.93	4.88	(1)	0.98	0.98
S/524	1.93	4.88	(1)	0.98	0.98

T65 Series 1/8" and 1/4"

NPT and ISO G Shuttle Valves



Allows two independent signal sources to be connected to a common pilot line

Can be used to perform an 'OR' logic function

Selects the highest of two applied pressures

Can be combined to operate from three or more sources

Valves can be ganged together



Product Number		Port Size	Flow Factor Cv	Weight oz. (kg)
NPT	ISO G			
T65A1800	T65C1800	1/8	0.42	1.9 (.055)
T65A2800	T65C2800	1/4	0.64	4.6 (.130)

NPT according to ANSI B1.20.1

Technical data

Fluid:

Compressed air, filtered, lubricated and non-lubricated, inert gases

Operation:

Shuttle valve

Mounting:

Through holes in valve body

Port Size:

Female Thread

NPT

1/8 NPT T65A1800

1/4 NPT T65A2800

ISO G

G1/8 T65C1800

G1/4 T65C2800

Operating Pressure:

10 to 145 psi (0.7 - 10 bar)

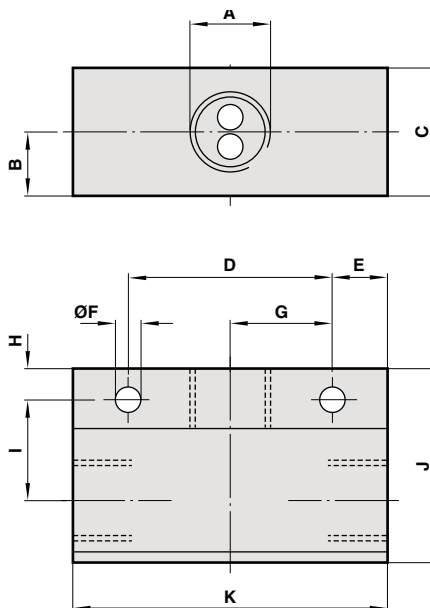
Operating

Temperature:

0° to 175°F (-20°* to +80°C)

*Consult our Technical Service for use

below 35°F (2°C)



Materials

Body: Zinc

Ball: Nitrile

Seat: Brass

Model	A	B	C	D	E	F	G	H	I	J	K
T65A 1800	1/8 NPT	0.30	0.59	0.79	0.3	0.21	0.39	0.24	0.39	1.00	1.42
T65C 1800	G1/8	0.30	0.59	0.79	0.3	0.21	0.39	0.24	0.39	1.00	1.42
T65A 2800	NPT1/4	0.39	0.79	0.98	0.49	0.21	0.49	0.31	0.47	1.18	2.00
T65C 2800	G1/4	0.39	0.79	0.98	0.49	0.21	0.49	0.31	0.47	1.18	2.00

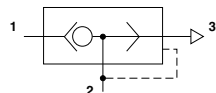
NPT according to ANSI B1.20.1

G according to BS 2779/ISO 228/1

T70, and C/511 Series

Quick exhaust valves

1/8" to 3/4"



Enables air to be exhausted quickly from air reservoirs and cylinders.

Allows higher cylinder speeds to be achieved.

Simple, compact design and construction.

Very reliable in operation.

Technical data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Operating pressure:

7 to 145 psi (0.5 to 10 bar) (T70)

10 to 145 psi (0.7 to 10 bar) (S/511)

10 to 100 psig (0.7 to 7 bar) (S/513, S/514)

Operating temperature:

-4°F to 176°F (-20°C to +80°C).

Consult our Technical Service for use below 35°F (+2°C).

Materials

Body & cover: zinc alloy (T70*1800 & T70*2800, S/513), aluminum alloy (T70*3800 & T70*4800, S/511, S/514)

Seals: nitrile (T70), polyurethane (S/51*)

O-ring: nitrile

Element: porous plastic (S/513, S/514)



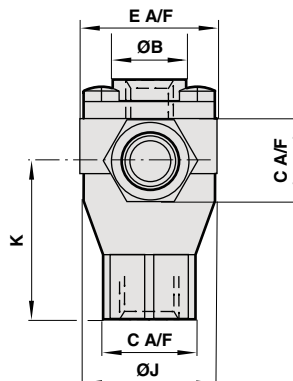
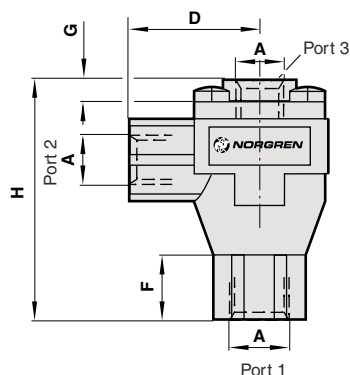
Model		Inlet port	Outlet port	Exhaust port	Cv Flow Factor Direction 1 - 2*	Cv Flow Factor Direction 2 - 3	Weight oz	Repair kit (seals only)
NPT	ISO G							
T70A 1800	T70C 1800	1/8	1/8	1/8	0.9	1.8	5.3	T70C1800K0
T70A 2800	T70C 2800	1/4	1/4	1/4	1.9	2.5	4.6	T70C2800K0
T70A 3800	T70C 3800	3/8	3/8	3/8	3.8	5.5	7.4	T70C3800K0
T70A 4800	T70C 4800	1/2	1/2	1/2	5.3	5.9	6.7	T70C4800K0

* Flow factor measured at 87 psi (6 bar) (inlet) guideline direction

** Alternative Cv shown for 14.5 psi (1 bar). For T70 Series, Cv approximately the same as at 6 bar. NPT threads per ANSI B1.20.1

Model	T70A1800	T70C1800	T70A2800	T70C2800	T70A3800	T70C3800	T70A4800	T70C4800	C/511*
A	1/8 NPT	G1/8	1/4 NPT	G1/4	3/8 NPT	G3/8	1/2 NPT	G1/2	1/20 - 3/4
ØB	0.75	0.75	0.75	0.75	1.18	1.18	1.18	1.18	—
C A/F	0.75	0.75	0.75	0.75	1.18	1.18	1.18	1.18	—
D	1.10	1.10	1.10	1.10	1.57	1.57	1.57	1.57	2.0
E A/F	1.18	1.18	1.18	1.18	1.81	1.81	1.81	1.81	1.87
F	0.60	0.60	0.60	0.60	0.61	0.61	0.61	0.61	—
G	0.14	0.14	0.14	0.14	0.16	0.16	0.16	0.16	—
H	2.09	2.09	2.09	2.09	2.89	2.89	2.89	2.89	3.38
ØJ	1.14	1.14	1.14	1.14	1.81	1.81	1.81	1.81	—
K	1.40	1.40	1.40	1.40	1.89	1.89	1.89	1.89	2.72

* Note the shape of the C/511 is different. Consult our technical department for the exact specifications.



Typical Fill and Exhaust Times (seconds)

Model	Port size	Volume	Fill time	Exhaust time
T70A1800	1/8" NPT	150 cc	0.036	0.021
T70A2800	1/4" NPT	150 cc	0.023	0.017
T70A3800	3/8" NPT	1500 cc	0.110	0.080
T70A4800	1/2" NPT	15,000 cc	0.460	0.480
C/511	3/4" NPT	15,000 cc	0.480	0.250

Note: Fill time is 0 to 80 psig (0 to 5.5 bar), and exhaust time is 101 to 20 psig (7.0 to 1.4 bar)

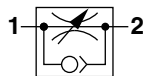
T15 Series

Push-in flow controls

In-line

Ø 1/8, 5/32, 3/16, 1/4, 5/16, 3/8, 1/2" O/D inch tube

Ø 3, 4, 5, 6, 8, 10, 12 O/D metric tube



High flow performance

Suitable for panel/wall mounting and manifold

Adjustment can be locked

Captive regulator needle will not blow out when unscrewed

Adjusting knob position

Releasable grab ring technology combining plastic and brass components for a compact and superior fitting design

Red release sleeve indicating metric tube sizes

Grey release sleeve indicating inch tube sizes

Reliable and corrosion resistant

Technical data

Medium:

Filtered, compressed air,

Operation:

Uni-directional flow control

Mounting:

In-line. Panel mounted by hexagonal mounting nut. Wall mounted by through-holes in regulator body. Manifold by quick connection

Operating pressure:

1.5 to 145 psig (0.1 to 10 bar maximum)

Operating temperature:

0° to 175°F (-20° to +80°C)

Consult our Technical Service for use below 35°F (2°C)

Materials

3 mm, 1/8", 5/32", 1/4", 5/16", and 3/8" OD:

Body: plastic PBT

Seals: silicone free nitrile seal

External metal parts: nickel plated brass

Internal parts: brass

Spring: stainless steel

Grab ring: stainless steel

Knob and panel nut: plastic POM

5 mm, 3/16" and 1/2" OD:

Collet: nickel plated brass

Alternative models

Block form flow controls, T1000 series.

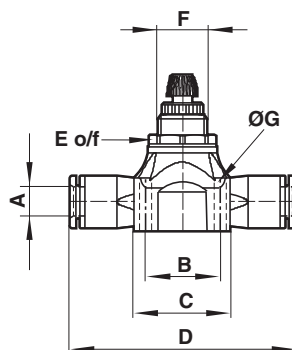
Heavy duty flow controls, M/800, and S/790



Inch Tube	Model	Metric Tube	Model	Maxi regulated flow factor Cv**	Free flow factor Cv**	oz (kg)
1/8"	T15Y0001	3 mm	T15P0003	0.3	0.3	.46 (0.013)
5/32"	T15Y0002	4 mm	T15P0004	0.45	0.45	.46 (0.013)
3/16"	T15Y0003*	5 mm	T15P0005*	0.85	0.85	1.13 (0.032)
1/4"	T15Y0004	6 mm	T15P0006	1.3	1.3	.99 (0.028)
5/16"	T15Y0005	8 mm	T15P0008	2.2	2.2	1.66 (0.047)
3/8"	T15Y0006	10 mm	T15P0010	2.9	3.2	3.28 (0.093)
1/2"	T15Y0007*	12 mm	T15P0012*	5.4	5.4	.50 (0.0143)

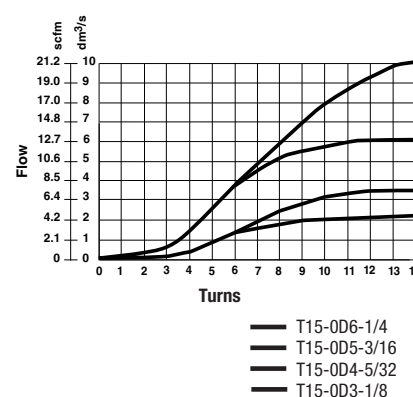
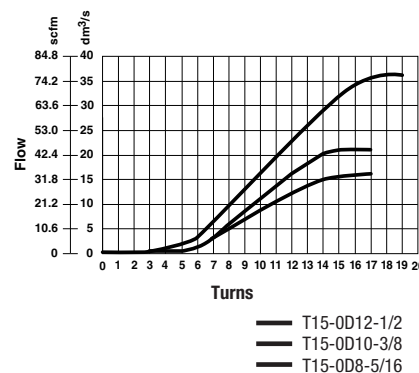
* Available in collet system

** C measured in dm³/(s.bar) Cv measured in US gal/min



Inch	A	B	C	D	E	F	ØG
T15Y0001	1/8	0.51	0.67	1.81	0.51	M10x1	0.09
T15Y0002	5/32	0.51	0.67	1.81	0.51	M10x1	0.09
T15Y0003	3/16	0.75	0.98	1.93	0.59	M12x1	0.14
T15Y0004	1/4	0.75	0.98	2.17	0.59	M12x1	0.14
T15Y0005	5/16	0.83	1.06	2.58	0.71	M14x1.5	0.14
T15Y0006	3/8	1.04	1.34	3.02	0.94	M20x1.5	0.17
T15Y0007	1/2	1.12	1.42	3.64	0.94	M20x1.5	0.17
Metric	A	B	C	D	E	F	ØG
T15P0003	0.12	0.51	0.67	1.81	0.51	M10x1	0.09
T15P0004	0.16	0.51	0.67	1.81	0.51	M10x1	0.09
T15P0005	0.20	0.75	0.98	1.93	0.59	M12x1	0.14
T15P0006	0.24	0.75	0.98	2.17	0.59	M12x1	0.14
T15P0008	0.31	0.83	1.06	2.58	0.71	M14x1.5	0.14
T15P0010	0.39	1.04	1.34	3.02	0.94	M20x1.5	0.17
T15P0012	0.47	1.12	1.42	3.64	0.94	M20x1.5	0.17

Flow vs turns at 6 bar - flow in dm³/s ANR



Pressure Sensor Fitting Inch and Metric

Compact units Easy tube insertion
for rapid assembly of pneumatic
circuits

Positive tube retention

Simplifies pneumatic systems

**Eliminates need for electrical reed
switches**

Exhausts on signal side (port 2)

Technical data

Fluid: Compressed air, nitrogen,
inert and non-combustible gases
compatible with materials of
construction.

Note: For other types of fluids or compressed gases,
please consult factory.

Operating Pressure:

Cylinder pressure (Pc)

145 psi (10 bar) max

Sensor supply pressure

43 to 145 psi (3 - 10 bar)

Sensor switch pressure

14.5 psi (1.0 bar) typical

Operating Temperature:

0° to 175°F (-20° to +80°C)

Body Ports

5/32" O.D. tube Push-in

4mm O.D. tube Push-in

1/8, 1/4 NPTF Banjo Bolt

1/8, 1/4 ISO G Banjo Bolt

Tube Sizes

5/32" O/D

4mm O/D

Tubing Types:

Nylon 11 or 12, polyurethane (95
durometer or above)

and LPDE (Low Density Polyethylene)

Materials

Body, swivel fitting and collet: Nickel
plated brass

O-ring: Silicone free Nitrile

Sealing washer (parallel male
threads): Thermoplastic

Tubing: Nylon 11 or 12, Polyurethane
(95 durometer or above) and LDPE
(Low Density Polyethylene).

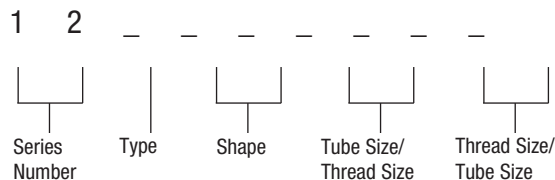
Note: Lower durometer polyurethane
may be used, however, an internal
tube support is required to prevent
internal collapse of the tube wall.



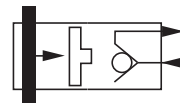
Ordering Information

To order, quote appropriate product number from the tables on
the following pages.

Product numbering system is designed to make identification
and selection simple:



124GD

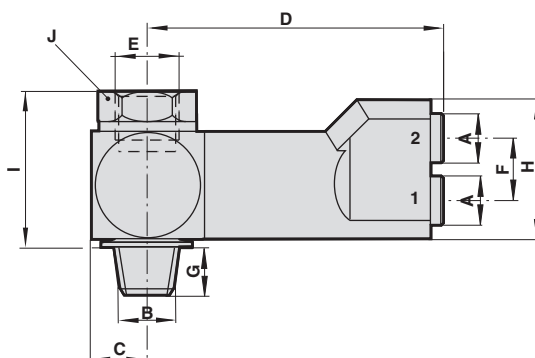


124GD



Pressure Sensor Fitting- 124GD

Inch O.D. tube x NPTF Banjo Bolt



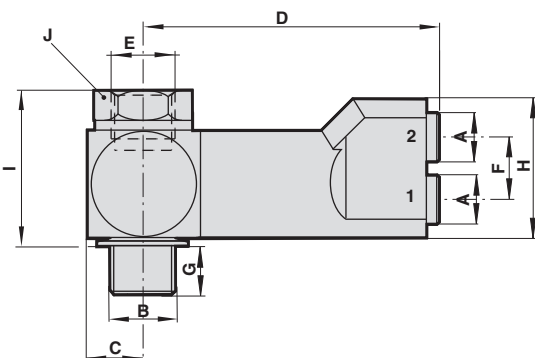
Product Number	A Tube O/D	B NPT Thread	C	D	E NPT Thread	F	G	H	I	J A/F
12 4GD 0218	5/32"	1/8	0.35 (9)	1.77 (45)	1/8	0.39 (10)	0.39 (10)	0.83 (21)	1.12 (29)	9/16"
12 4GD 0228	5/32"	1/4	0.43 (11)	1.85 (47)	1/4	0.39 (10)	0.56 (14)	0.83 (21)	1.33 (34)	3/4"

This sensor fitting produces an end of stroke signal when exhaust back pressure in a cylinder decays below a set value. It should be mounted directly on the cylinder and can be used with a flow control device mounted into the top port.

It is recommended that the sensor supply pressure to port 1 be the same as the nominal working pressure of the cylinder.

Pressure Sensor Fitting- 102GD

mm O.D. tube x ISO G Banjo Bolt



Product Number	A Tube O/D	B ISO G Thrd	C	D	E ISO G thread	F	G	H	I	J A/F
10 2GD 0418	4	1/8	0.35 (9)	1.77 (45)	1/8	0.39 (10)	0.24 (6)	0.83 (21)	0.98 (25)	0.59 (15)
10 2GD 0428	4	1/4	0.43 (11)	1.85 (47)	1/4	0.39 (10)	0.28 (7)	0.83 (21)	1.14 (29)	0.75 (19)

This sensor fitting produces an end of stroke signal when exhaust back pressure in a cylinder decays below a set value. It should be mounted directly on the cylinder and can be used with a flow control device mounted into the top port.

It is recommended that the sensor supply pressure to port 1 be the same as the nominal working pressure of the cylinder.

FleetFit Vehicle push-in fittings

Inch and Metric

Simple tube connection and disconnection - no tools required

Fewer component parts - Internally machined form in body to secure collet reduces number of potential leak paths

Corrosion resistant

Easy identification - All collets marked with tube size

Total fittings system solution

Reduced assembly & maintenance times provide time/labor savings

Greater reliability and reduced testing

Ease of tube insertion in areas of restricted access

Operating Medium:

Compressed air

Maximum Working

Pressure:

0 to 150 psi (0 to 10 bar)

Working Temperature:

-40°F to 220°F (-40°C to 100°C)

Materials:

Body (Straights), Tube support, Collet - Brass BS 2874 CZ 121

Body (Elbows, Tees) - Brass BS 2874 CZ 122

'O' Ring - Buna N (Low Nitrile).

Thread Sealant - Precoat 5

Tubing:

Tube should be to SAE J844 (Imperial) or DIN 74324 (Metric)

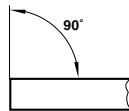
Standards & Legislation:

Fittings and Tubing Comply to Department Of Transport Federal Motor Vehicle Safety Standard, (DOT FMVSS 106) (Mandatory requirements for Inch tube fittings in U.S.A.)

Society for Automotive Engineers (SAE) J2494 (Inch tube and fittings) and meet DIN 74324 and German TÜV requirements (Metric Tube and Fittings)



Tube Connection / Disconnection



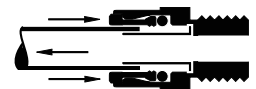
1. Ensure that the end of the tube is cut square and is free from burrs.



2. Push the tube through the collet into the fitting.

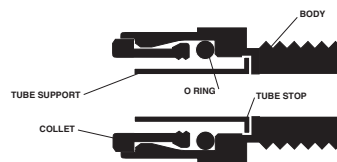


3. Continue pushing the tube through the 'O' ring until it bottoms on the tube stop. Then pull back on the tube to reinforce the collet teeth gripping action.



4. To disconnect - First ensure there is no air present. Push the tube into the fitting until it bottoms on the tube stop. Then hold down the collet and withdraw the tube.

Component Functions



Body -The body has an internally machined form to secure the collet(s), "O" ring(s) and

Tube support(s). It also has internal & externally machined thread form(s) for connection to ports where applicable.

Collet -The purpose of the collet is to grip the tube and ensure it is retained by the fitting at all times.

"O" Ring-The "O" ring is to ensure adequate interference between the tube & fitting body

therefore providing a pneumatic seal at all times.

Tube Support-The tube support prevents the tube collapsing during extreme tensile loading

conditions. Such conditions are only encountered during performance testing and

far exceed those experienced during normal use.

FleetFit Vehicle push-in fittings

Inch and Metric

Male Connectors NPT

O/D Tube	NPT	Product Number
5/32"	1/16"*	70 4542 02V
5/32"	1/8"	70 4530 02V
3/16"	1/8"	95 4530 03
1/4"	1/16"	95 4530 01
1/4"	1/8"	95 4530 04
1/4"	1/4"	95 4530 10
1/4"	3/8"	95 4530 18
3/8"	1/8"	95 4530 06
3/8"	1/4"	95 4530 12
3/8"	3/8"	95 4530 20
3/8"	1/2"	95 4530 29
1/2"	1/4"	95 4530 13
1/2"	3/8"	95 4530 21
1/2"	1/2"	95 4530 30
5/8"	3/8"	95 4530 22
5/8"	1/2"	95 4530 31
3/4"	3/8"	95 4530 48
3/4"	1/2"	95 4530 49
3/4"	3/4"	95 4530 55



Part numbers ending with "V"
have Viton seals.
*Special short 1/16" PTF-SAE
short thread
5/32" fittings have a Pneufit style
body and collet



SAE 630101

Reducing Unions Inch

O/D Tube	Tube	Product Number
3/8"	1/4"	94 4504 48
1/2"	3/8"	94 4504 64

Female Bulkhead Connectors NPT Female, UNF

O/D Tube	NPT Female	C UNF	Product Number
1/4"	1/8"	5/8"	95 4570 06
1/4"	1/4"	5/8"	95 4570 01
3/8"	1/4"	3/4"	95 4570 03
3/8"	3/8"	3/4"	95 4570 04
3/8"	1/2"	3/4"	95 4570 02
1/2"	3/8"	7/8"	95 4570 05
1/2"	1/2"	7/8"	95 4570 07



Additional Bulkhead Nuts

Bulkheads include lock nuts. Refer to the
numbers below to order additional nuts.

Thread	Part Number
M12 X 1.0	95 0520 01
M15 X 1.0	95 0520 03
M20 X 1.5	95 0520 06
M24 X 1.5	95 0520 07

Male Connectors Metric

O/D Tube	Thread Thread	Product Number
1/4"	M10 x 1.0	94 4666 31
1/4"	M12 x 1.5	94 4666 33
1/4"	M16 x 1.5	94 4666 35
1/4"	M22 x 1.5	94 4666 38
3/8"	M12 x 1.5	94 4666 53
3/8"	M14 x 1.5	94 4666 54
3/8"	M16 x 1.5	94 4666 55
3/8"	M22 x 1.5	94 4666 58
1/2"	M16 x 1.5	94 4666 65
1/2"	M20 x 1.5	94 4666 67
1/2"	M22 x 1.5	94 4666 68
5/8"	M22 x 1.5	94 4666 75



SAE 630103



SAE 630601



SAE 630202

Female Connectors NPT Female

O/D Tube	B NPT	Product Number
1/4"	1/8"	95 4355 04
1/4"	1/4"	95 4355 10
3/8"	1/8"	95 4355 06
3/8"	1/4"	95 4355 12
3/8"	3/8"	95 4355 20
1/2"	1/2"	95 4355 30

Bulkhead Unions Metric

O/D Tube	Thread	Product Number
1/4"	M15 x 1.0	94 4507 04
3/8"	M20 x 1.5	94 4507 06
1/2"	M24 x 1.5	94 4507 07

Male Elbows NPT

O/D Tube	NPT	Product Number
5/32"	1/8"	70 4331 02V
3/16"	1/8"	95 4331 03
1/4"	1/8"	95 4331 04
1/4"	1/4"	95 4331 10
1/4"	3/8"	95 4331 18
1/4"	1/2"	95 4331 27
5/16"	1/8"	95 4331 05
3/8"	1/8"	95 4331 06
3/8"	1/4"	95 4331 12
3/8"	3/8"	95 4331 20
3/8"	1/2"	95 4331 29
1/2"	1/4"	95 4331 13
1/2"	3/8"	95 4331 21
1/2"	1/2"	95 4331 30
1/2"	3/4"	95 4331 44
5/8"	3/8"	95 4331 98
5/8"	1/2"	95 4331 31
3/4"	3/8"	95 4331 48
3/4"	1/2"	95 4331 49
3/4"	3/4"	95 4331 55

Straight Bulkhead Adapters UNF / SAE 45° Flare

O/D Tube	UNF	Product Number
1/4"	7/16"	94 4602 03
3/8"	5/8"	94 4602 02
1/2"	3/4"	94 4602 01



FleetFit Vehicle push-in fittings

Inch and Metric



Male Hobbs Elbows Metric

O/D Tube	Thread	Product Number
1/4"	M10 x 1.0	94 4138 31
1/4"	M12 x 1.0	94 4138 32
1/4"	M12 x 1.5	94 4138 33
1/4"	M16 x 1.5	94 4138 35
1/4"	M22 x 1.5	94 4138 38
3/8"	M12 x 1.5	94 4138 53
3/8"	M14 x 1.5	94 4138 54
3/8"	M16 x 1.5	94 4138 55
3/8"	M22 x 1.5	94 4138 58
1/2"	M14 x 1.5	94 4138 64
1/2"	M16 x 1.5	94 4138 65
1/2"	M22 x 1.5	94 4138 68
5/8"	M22 x 1.5	94 4138 75
3/4"	M22 x 1.5	94 4138 98



Male Elbows BSP Taper

O/D Tube	BSP Taper	Product Number
1/4"	1/8"	94 4330 04
1/4"	1/4"	94 4330 10
3/8"	1/4"	94 4330 12
3/8"	3/8"	94 4330 20
3/8"	1/2"	94 4330 29
1/2"	1/4"	94 4330 13
1/2"	3/8"	94 4330 21
1/2"	1/2"	94 4330 30



SAE 6302AA

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

Male Swivel Elbows NPT

O/D Tube	NPT	Product Number
1/4"	1/8"	95 4114 04
1/4"	1/4"	95 4114 10
1/4"	3/8"	95 4114 18
3/8"	1/8"	95 4114 06
3/8"	1/4"	95 4114 12
3/8"	3/8"	95 4114 20
3/8"	1/2"	95 4114 29
1/2"	1/4"	95 4114 13
1/2"	3/8"	95 4114 21
1/2"	1/2"	95 4114 30
5/8"	1/2"	95 4114 31
3/4"	1/2"	95 4114 49



SAE 630302

45° Male Elbows NPT

O/D Tube	NPT	Product Number
1/4"	1/8"	95 4600 04
1/4"	1/4"	95 4600 10
3/8"	1/8"	95 4600 06
3/8"	1/4"	95 4600 12
3/8"	3/8"	95 4600 20
3/8"	1/2"	95 4600 29
1/2"	1/4"	95 4600 13
1/2"	3/8"	95 4600 21
1/2"	1/2"	95 4600 30
5/8"	3/8"	95 4600 22
5/8"	1/2"	95 4600 31
3/4"	1/2"	95 4600 49



SAE 630203

Female Elbows NPT

A O/D Tube	B NPT	Product Number
3/16"	1/8"	95 4564 01
1/4"	1/4"	95 4564 10
1/4"	1/8"	95 4562 04
1/4"	3/8"	95 4564 18
3/8"	1/8"	95 4564 06
3/8"	3/8"	95 4564 20
1/2"	1/2"	95 4564 30



SAE 630201

Union Elbows

O/D Tube	Product Number
1/4"	94 4511 04
3/8"	94 4511 06
1/2"	94 4511 07



SAE 630109

Plug*

O/D Stem	Part Number
1/4"	94 0509 04
3/8"	94 0509 06
1/2"	94 0509 07

*Material: Thermoplastic



SAE 630303

45° Female Elbows NPT

O/D Tube	NPT	Product Number
3/8"	1/8"	95 4470 06

FleetFit Vehicle push-in fittings

Inch and Metric



SAE 630701

Union Bulkhead Elbows Metric

O/D Tube	Thread	Product Number
1/4"	M15 x 1.0	94 4591 04
3/8"	M20 x 1.5	94 4591 06
1/2"	M24 x 1.5	94 4591 07



SAE 631403

Male Bulkhead Elbows

NPT Female, UNF

O/D Tube	NPT Female	UNF	Product Number
1/4"	1/8"	5/8"	95 4597 04
3/8"	3/8"	7/8"	95 4597 01
1/2"	3/8"	7/8"	95 4597 02
5/8"	3/8"	7/8"	95 4597 03



SAE 630425

Male Branch Tees NPT

O/D Tube	O/D Tube	NPT	Product Number
1/4"	1/4"	1/8"	95 4590 02
1/4"	1/4"	1/4"	95 4590 12
1/4"	1/4"	3/8"	95 4590 19
3/8"	1/4"	1/4"	95 4590 16
3/8"	3/8"	1/4"	95 4590 10
3/8"	3/8"	3/8"	95 4590 01
1/2"	1/4"	1/4"	95 4590 09
1/2"	1/4"	3/8"	95 4590 06
1/2"	1/4"	1/2"	95 4590 08
1/2"	3/8"	1/2"	95 4590 14
1/2"	1/2"	1/4"	95 4590 13
1/2"	1/2"	3/8"	95 4590 05
1/2"	1/2"	1/2"	95 4590 04
5/8"	1/2"	3/8"	95 4590 15
5/8"	1/2"	1/2"	95 4590 07



Double Elbow Adapters NPT

O/D Tube	O/D Tube	NPT	Product Number
1/4"	1/4"	1/8"	95 4761 01
1/4"	1/4"	3/8"	95 4761 13



Special Tee Adapters

NPT, NPT Female

O/D Tube	NPT	NPT Female	Product Number
3/8"	1/4"	1/4"	95 4593 09
3/8"	3/8"	1/4"	95 4593 11
3/8"	1/2"	1/4"	95 4593 03
1/2"	3/8"	1/4"	95 4593 07
1/2"	1/2"	1/8"	95 4593 06
1/2"	1/2"	1/4"	95 4593 02



Male Branch Tees BSP Taper

O/D Tube	O/D Tube	BSP Taper	Product Number
1/4"	1/4"	1/4"	94 4590 12
3/8"	3/8"	1/4"	94 4590 10



SAE 6304AC

Male Swivel Branch Tees NPT

O/D Tube	NPT	Product Number
3/16"	1/8"	95 4111 03
1/4"	1/8"	95 4111 04
1/4"	1/4"	95 4111 10
3/8"	1/4"	95 4111 12
3/8"	3/8"	95 4111 20
1/2"	1/4"	95 4111 13
1/2"	3/8"	95 4111 21
1/2"	1/2"	95 4111 30



SAE 630424

Male Run Tees NPT

O/D Tube	O/D Tube	NPT	Product Number
1/4"	1/4"	1/8"	95 4586 28
1/4"	1/4"	1/4"	95 4586 13
1/4"	1/4"	3/8"	95 4586 17
1/4"	3/8"	1/4"	95 4586 21
1/4"	3/8"	3/8"	95 4586 07
1/4"	1/2"	3/8"	95 4586 06
1/4"	1/2"	1/2"	95 4586 18
1/4"	5/8"	3/8"	95 4586 14
3/8"	1/4"	1/4"	95 4586 05
3/8"	1/4"	3/8"	95 4586 27
3/8"	3/8"	1/4"	95 4586 03
3/8"	3/8"	3/8"	95 4586 10
3/8"	3/8"	1/2"	95 4586 04
3/8"	1/2"	3/8"	95 4586 26
1/2"	1/4"	1/2"	95 4586 02
1/2"	3/8"	3/8"	95 4586 20
1/2"	1/2"	1/4"	95 4586 16
1/2"	1/2"	3/8"	95 4586 11
1/2"	1/2"	1/2"	95 4586 15

CAUTION: Swivel adapters are not suitable for use in continuously rotating or gyrating applications.

FleetFit Vehicle push-in fittings

Inch and Metric



SAE 630835

Side Tee Adapters NPT, NPT Female

O/D Tube	B Tube	NPT Female	Product Number
1/4"	1/4"	1/4"	95 4585 10
3/8"	1/4"	1/4"	95 4585 03
3/8"	1/4"	1/8"	95 4585 11
1/2"	3/8"	1/4"	95 4585 05
1/2"	1/2"	1/8"	95 4585 02
1/2"	1/2"	1/4"	95 4585 04



Special 90° Tees NPT

O/D Tube	O/D Tube	NPT	Product Number
1/4"	1/4"	1/4"	95 4589 01
1/4"	3/8"	3/8"	95 4589 11
3/8"	3/8"	3/8"	95 4589 19
3/8"	3/8"	1/4"	95 4589 16
3/8"	1/2"	3/8"	95 4589 10
3/8"	1/2"	1/2"	95 4589 07
1/2"	1/2"	3/8"	95 4589 04
1/2"	1/2"	1/2"	95 4589 02
1/2"	5/8"	1/2"	95 4589 05
5/8"	3/8"	1/2"	95 4589 20
5/8"	5/8"	1/2"	95 4589 06



Special Tee Adapters NPT Female, NPT

O/D Tube	NPT Female	NPT	Product Number
1/2"	1/4"	1/4"	95 4563 01
1/2"	1/4"	3/8"	95 4563 02



45° Tee Adapter

O/D Tube	NPT	NPT	Product Number
1/2"	3/8"	1/4"	95 4653 02
5/8"	3/8"	1/8"	95 4653 03

Note: Ports are threaded on opposite side shown.



SAE 6308AB

Male Swivel Run Tees NPT

O/D Tube	NPT	Product Number
1/4"	1/8"	95 4112 04
1/4"	1/4"	95 4112 10
3/8"	1/4"	95 4112 12
3/8"	3/8"	95 4112 20
3/8"	1/2"	95 4112 29
1/2"	1/4"	95 4112 13
1/2"	3/8"	95 4112 21
1/2"	1/2"	95 4112 30



Union Tee

O/D Tube	Product Number
1/4"	94 4514 04
3/8"	94 4514 06
1/2"	94 4514 07
5/8"	94 4514 08

SAE 630401



90° Fixed Tee

O/D Tube	NPT Female	NPT	Product Number
3/8"	1/8"	3/8"	95 4565 03
3/8"	1/8"	1/4"	95 4565 04
1/2"	1/8"	3/8"	95 4565 01
1/2"	1/4"	1/2"	95 4565 02
3/4"	1/4"	1/2"	95 4565 05

Note: Ports are threaded on side shown.



Special 4-Way Adaptors NPT Female

O/D Tube	NPT Female	NPT	Product Number
1/4"	1/4"	1/4"	95 4594 03*
1/2"	3/8"	1/8"	95 4594 04
1/2"	1/2"	1/8"	95 4594 02
1/2"	1/2"	1/4"	95 4594 01

* Special SAE short thread

» ENGINEERING ADVANTAGE FOR THE LIFE SCIENCES MARKET

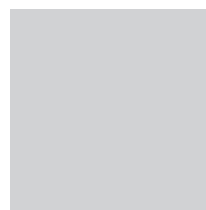
Norgren Fluid Controls has over 25 years experience working in life sciences with dedicated engineering centers in Europe, USA and China plus a global team of Key Account Managers.

Kloehn, one of the most respected names in the life sciences market, is focused on developing customized solutions including high-quality syringes, pumps, and integrated fluidic platforms (IFP`s) for analytical, diagnostic and medical OEM`s.

In 2007 Kloehn became an integral part of Norgren Fluid Controls thus creating a major new force in precision liquid and gas control technology. As part of Norgren`s focus on the Life Sciences Market – alongside its other established product brands such as FAS and KIP – Kloehn`s expertise compliments existing miniature solenoid valve, pressure regulator, media isolation valve and proportional technologies. Capabilities now include manifold system solutions in acrylic and other high-grade polymers, as well as GMP compliant assembly areas and Class 10,000 clean rooms.

As a combined force, Norgren Fluid Controls and Kloehn help customers gain competitive advantage through

- » An unrivaled range of precision technologies for liquid handling and gas control
- » Shared market knowledge for enhanced fluid control performance
- » System solutions enabling reduced complexity and footprint, and lower total cost of ownership



- » 01 FAS FLATPROP OFFERS SPACE, WEIGHT AND POWER SAVING AND EXCELLENT HIGH-FLOW PERFORMANCE – UP TO 200 L/MIN
- » 02 HIGH RESOLUTION V6 KLOEHN SYRINGE PUMP FOR EXCEPTIONAL ACCURACY AND PRECISION
- » 03 KIP MULTILAYERED ACRYLIC MANIFOLD ASSEMBLY INCORPORATING FAS SOLENOID VALVES

Tubing and accessories

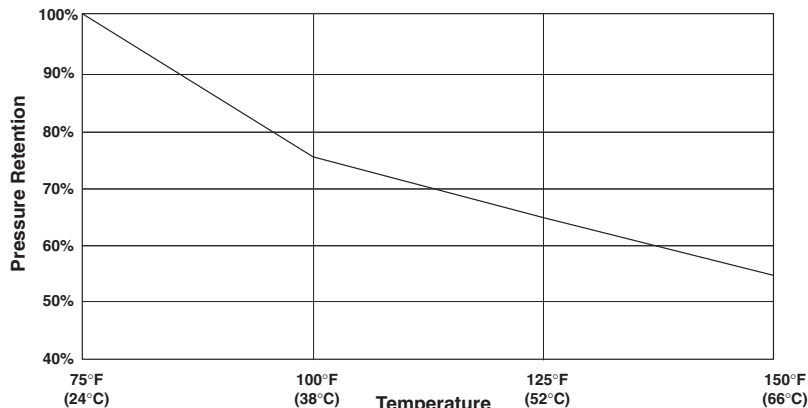
Nylon Inch Tube

Recommended for use with Pneufit Push-In Fittings
Manufactured from Nylon 11
UL-94HB flame retardant rating
Heat and light stabilized
Shipped in 100 ft. coils (30m) packed in polyethylene bags

Specifications

Fluids: Compressed air, nitrogen and inert gases
Material: Nylon 11
Temperature Rating: -60°F to 200°F (-5°C to 93°C)*
Vacuum Rating: To 28° Hg (711 mm Hg)
Diameter Tolerances: + 0.002"; -0.004"
Hardness: 78 Rockwell R

Working Pressure at Elevated Temperature



OD (inch)	ID (inch)	OD (mm)	ID (mm)	Maximum Working Pressure		Minimum Bend Radius		Part Number and Color					
				-40°F to 70°F psig	(-40°C to 20°C) bar	inch	mm	Natural	Black	Blue	Green	Red	Yellow
1/8	0.093			225	15.5	0.38	10	PB 0051 100	PB 0751 100	PB 0551 100	PB 0251 100	PB 0151 100	PB 0351 100
5/32	0.106	4	2.3	275	19.0	0.50	13	PB 0052 100	PB 0752 100	PB 0552 100	PB 0252 100	PB 0152 100	PB 0352 100
3/16	0.138			225	15.5	0.63	16	PB 0053 100	PB 0753 100	PB 0553 100	PB 0253 100	PB 0153 100	PB 0353 100
1/4	0.180			250	17.2	0.88	22	PB 0054 100	PB 0754 100	PB 0554 100	PB 0254 100	PB 0154 100	PB 0354 100
5/16	0.232	8	5.5	220	15.2	1.25	32	PB 0055 100	PB 0755 100	PB 0555 100	PB 0255 100	PB 0155 100	PB 0355 100
3/8	0.275			220	15.2	1.50	38	PB 0056 100	PB 0756 100	PB 0556 100	PB 0256 100	PB 0156 100	PB 0356 100
1/2	0.375			200	13.8	2.00	51	PB 0057 100	PB 0757 100	PB 0557 100	PB 0257 100	PB 0157 100	PB 0357 100

Notes

The working pressure for Nylon 11 tubing is calculated using a 4 to 1 safety factor.

* To determine working pressures at other temperatures, see chart. Tubing is supplied in 100 ft. (30.5m) coils, packaged in poly bags. For other colors, lengths or packaging, please consult factory.

Polyurethane Tube

Recommended for use with Pneufit Push-In Fittings
Manufactured from Polyurethane
Shipped 100' coils packed in Polyethylene bags

Specifications

Fluids: Compressed air
Material: 95 Durometer Polyurethane
Temperature Rating: -40°F to 165°F (-40°C to 73°C)
Vacuum Rating: To 28° Hg (711 mm Hg)
Diameter Tolerances: ± 0.005"



OD (mm)	ID (mm)	Maximum Working Pressure at 75°F		Minimum Bend Radius	Part Number and Color				
		psig	bar		Natural	Black	Trans Blue	Trans Green	Trans Red
1/8"	.066	233	16.1	1/4"	PW 0051 100	PW 0751 100	PW 0551 100	PW 0251 100	PW 0151 100
5/32"	.094	176	12.1	3/8"	PW 0052 100	PW 0752 100	PW 0552 100	PW 0252 100	PW 0152 100
1/4"	.160	148	10.2	1/2"	PW 0054 100	PW 0754 100	PW 0554 100	PW 0254 100	PW 0154 100
5/16"	.197	155	10.7	3/4"	PW 0055 100	PW 0755 100	PW 0555 100	PW 0255 100	PW 0155 100
3/8"	.245	147	10.1	7/8"	PW 0056 100	PW 0756 100	PW 0556 100	PW 0256 100	PW 0156 100

Tubing and accessories

Metric Tubing

Recommended for use with Pneufit Push-In Fittings.

Manufactured from Nylon 12

Resistant to many chemicals

Excellent pressure rating

Black tubing provides reduced ultraviolet degradation

Conforms to BS5409-1:1976 and DIN 73378

Shipped in 25 meter (82 ft.) coils packed in polyethylene bags.

Specifications

Fluids: Compressed air, nitrogen and inert gases

Material: Nylon 12

Maximum continuous working temperature: 80°C (175°F)

Tubing		Maximum Working Pressure		Minimum Bend		Part Number and Color				
OD (mm)	ID (mm)	-40°C to 20°C bar	(-40°F to 70°F) psig	Radius		Natural	Black	Blue	Green	Red
4	2.5	28.0	406	25	0.98	PA 0004 030C	PA 0704 030C	PA 0504 030C	PA 0204 030C	PA 0104 030C
5	3.0	31.0	450	25	0.98	PA 0005 030C	PA 0705 030C	PA 0505 030C	PA 0205 030C	PA 0105 030C
6	4.0	25.0	362	30	1.18	PA 0006 030C	PA 0706 030C	PA 0506 030C	PA 0206 030C	PA 0106 030C
8	6.0	19.0	275	50	1.97	PA 0008 030C	PA 0708 030C	PA 0508 030C	PA 0208 030C	PA 0108 030C
10	7.5	24.0	348	60	2.36	PA 0010 030C	PA 0710 030C	PA 0510 030C	PA 0210 030C	PA 0110 030C
12	9.0	18.0	261	75	2.95	PA 0012 030C	PA 0712 030C	PA 0512 030C	PA 0212 030C	PA 0112 030C
14	11.0	15.0	218	80	3.15	PA 0014 030C	PA 0714 030C	PA 0514 030C	PA 0214 030C	PA 0114 030C

For other colors, lengths or packaging, please consult factory.

Tube Cutter

Makes clean, square cuts in Nylon tubing that are necessary for leak free connections.

Small size (3" long, 1" wide, 1" high) makes it easy to use and convenient to carry.

Spring actuation keeps it closed when not in use.

Order part number M/3314.

Replacement blades (5 pack) M/32009



Tube Mount - 2 Channel

Part Number	Tube Size	Mounting Screw Size	Color
94 910 004	5/32" & 4 mm	#4	Black
94 910 006	1/4" & 6 mm	#4	Black
94 910 008	5/16" & 8 mm	#6	Black
94 910 010	3/8"	#6	Black
94 910 012	1/2"	#6	Black
94 910 015	5/8"	#10	Black

Save installation time - tube mounts provide quick, secure mounting and exact spacing between tubes.

Tubing snaps into channels for clean, organized circuits.

Tube mounts are drilled for machine screw mounting.



Tubing and accessories

Tube Markers

PVC tube markers eliminate confusing fluid power connections by providing easy to read identification.

Permanent, hot stamped black characters on white background are not affected by grease, oil, or lubricating fluids.

Markers snap on without tools before or after tube terminations made. Can be removed without disconnecting tubing.

Non-adhesive interior of marker will not pinch, kink, or mar tubing.



Tube Marker Kits

Tube Size (O.D.)

Code	1/8"	5/32" & 4 mm	1/4" & 6 mm	3/8"
Alphanumeric Kit*	94 911 025	94 911 058	94 911 091	94 911 124
Descriptive Kit**	94 911 033	94 911 066	94 911 099	94 911 132

* Contains 50 each of all numbers (0-9) and letters (A-H, J, P, R, X, Y, and Z)

** Contains 50 each of CYL, PV, LV, IN, OUT, + and -.



Tube Mount - 10 Channel

Part Number	Tube Size	Mounting Screw Size	Color
94 902 002	5/32" & 4 mm	#4	Black
94 902 003	3/16"	#4	Black
94 901 004	1/4" & 6 mm	#4	White
94 902 004	1/4" & 6 mm	#4	Black
94 903 004	1/4" & 6 mm	#4	Blue
94 904 004	1/4" & 6 mm	#4	Green
94 905 004	1/4" & 6 mm	#4	Red
94 906 004	1/4" & 6 mm	#4	Yellow
94 908 004	1/4" & 6 mm	#4	Grey
94 902 006	3/8" & 10 mm	-	Black

Full 10 channel section (4" long, 5/8" wide and 3/8" high) is easily cut for 1 to 10 channels.

Each channel is countersunk for No. 4 machine screws.

Tubing snaps into channels for clean, organized circuits.

Pressure sensitive Urethane foam adhesive backing for quick mounting (except 3/8" model).

Slotted design allows mounting on curved or angular surfaces. Color of mounts match machine or tubing.



Tubing and accessories

Spiral Flex Wrap

Natural color Polyethylene spiral flex wrap twists easily over bundles of various sized tubing or insulated electric wire.

Nominal 1/2" O.D. accommodates bundles from 3/8" to 4" in diameter. Can be wrapped for greater flexibility or butted for rigidity.

Tubing or wire can be led out at any point.

Provided in 50' (15 meter) coils.

Order part number 94 960 001.



Release Tool

Used to disconnect tubing from all Norgren fittings. Helps in situations where fitting is difficult to reach.

Part Number: 54 0001 00



Replacement Parts

48 026 101

Replacement thermoplastic sealing washer for use with 10-32 and M5 threads. Sold individually.

48 031 101

Replacement viton bonded sealing washer for use with 10-32 and M5 threads. Sold in package of 10.

Quietaire heavy duty mufflers

MA and MB Series

1/8" to 2" BSPT, BSPP or PTF

Reduce the noise levels of pneumatic equipment.

Prevent open line exhaust dangers.

Corrosion resistant.

High flow capacity with low back pressure.

Brass mesh screen and aluminum construction provide improved flow, longer life and cleanable element.

Prevent metal chips, abrasive grits, dust and other contaminants from entering open exhaust ports.

Technical data

Medium:

Compressed air, filtered, lubricated and non-lubricated

Inert gases

Operation:

Exhaust silencer

Mounting:

Directly in the exhaust port

Maximum Pressure: 300 psig (20.7 bar)

Maximum temperature: 176°F (80°C)

Consult our Technical Service for use below 2°C

Materials

Element: Brass wire

Base: Aluminum

Shell: Aluminum

Alternative models

M/S & C/S range of porous plastic silencers.

T40 series of Quietaire sintered bronze silencers



Male thread

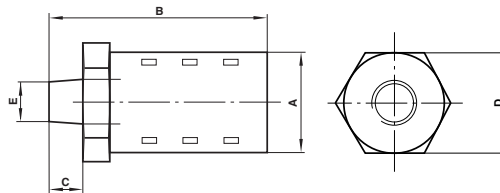
Model	Port size	Flow factor	oz.
PTF BSPT		Cv*/C**	
MB001A MB001B	1/8"	1.3 / 5.3	1.05
MB002A MB002B	1/4"	2.3 / 9.4	1.05
MBP03A MBP03B	3/8"	2.9 / 11.8	1.05
MB003A MB003B	3/8"	4.9 / 20.0	3.53
MB004A MB004B	1/2"	6.8 / 27.7	3.17
MBP06A MBP06B	3/4"	7.2 / 29.4	3.17
MB006A MB006B	3/4"	14.8 / 60.4	15.9
MB008A MB008B	1"	18.0 / 73.4	14.0
MBP10A MBP10B	1 1/4"	23.6 / 96.3	14.0

*Cv measured in US/gall/min **C measured in dm³/(s.bar)

Female thread

Model	Port size	Flow factor	kg
PTF BSPT BSPP		Cv*/C**	
MA001 MA001B	1/8"	0.8 / 3.26	1.05
MA002 MA002B	1/4"	2.4 / 9.79	1.05
MA003 MA003B	3/8"	5.7 / 23.3	3.53
MA004 MA004B	1/2"	6.9 / 28.1	3.17
MA006 MA006B	3/4"	18.0 / 73.4	15.9
MA008 MA008B	1"	20 / 81.6	14.0
MA010	MA010C 1-1/4"	42 / 171.4	21.9
MA012	MA012C 1-1/2"	39 / 159.1	21.2
MA016A	MA016C 2"	59 / 241.0	26.8

*Cv measured in US/gall/min **C measured in dm³/(s.bar)



Male thread

A	B	C	D	E*	
0.83	2.01	0.35	0.81	1/8"	MB001
0.83	2.17	0.51	0.81	1/4"	MB002
0.83	2.17	0.51	0.81	3/8"	MBP03
1.26	3.46	0.51	1.25	3/8"	MB003
1.26	3.62	0.67	1.25	1/2"	MB004
1.26	3.62	0.67	1.25	3/4"	MBP06
2.01	5.28	0.79	2.00	3/4"	MB006
2.01	5.43	0.91	2.00	1"	MB008
2.01	5.51	1.02	2.00	1 1/4"	MBP10

* For MB***B Rc (BSPT) according to BS21 and ISO - 7/1

For MB***A PTF-SAE SHORT according to ANSI-B1.20.1x

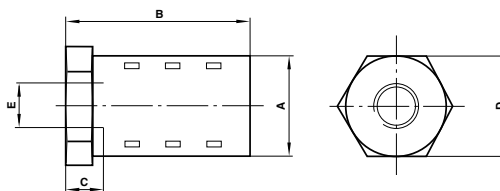
Female thread

A	B	C	D	E*	
0.83	1.65	0.24	0.81	1/8"	MA001
0.83	1.77	0.35	0.81	1/4"	MA002
1.26	3.07	0.35	1.25	3/8"	MA003
1.26	3.27	0.47	1.25	1/2"	MA004
2.01	4.65	0.47	2.00	3/4"	MA006
2.01	4.65	0.59	2.00	1"	MA008
2.52	5.67	0.59	2.50	1 1/4"	MA010
2.52	5.67	0.59	2.50	1 1/2"	MA012
2.99	6.61	0.63	3.00	2"	MA016A

* For MA***B Rc (BSPT) according to BS21 and ISO - 7/1

For MA***A PTF-SAE SHORT according to ANSI-B1.20.1

For MA***C G (BSPP) according to BS2779 and ISO-228/x



Additional ranges

Sintered bronze mufflers

Size	NPT model	Cv
10-32	MS000A	
1/8	MS001A	0.7
1/4	MS002A	1.4
3/8	MS003A	1.9
1/2	MS004A	3.8
3/4	MS006A	6.5
1	MS008A	10.5
1-1/4	MS010A	11.8
1-1/2	MS012A	18.3

Reduce the noise levels of pneumatic equipment.
Compact and efficient.
Screw directly into the exhaust port.
Prevent the ingress of dirt.



Size	BSPT model	Size	BSPP model	Cv
		M5	T40M0500	0.2
1/8"	T40 B1800	1/8	T40C1800	0.54
1/4"	T40 B2800	1/4	T40C2800	1.6
3/8"	T40 B3800	3/8	T40C3800	3.5
1/2"	T40 B4800	1/2	T40C4800	5.1
3/4"	T40 B6800	3/4	T40C6800	9.0
1"	T40 B8800	1	T40C8800	11.6

Porous plastic mufflers

Size	NPT Model	BSPP Model	Cv
M5		M/S0	0.31
1/8	C/S1	M/S1	0.98
1/4	C/S2	M/S2	1.93
3/8	C/S3	M/S3	3.75
1/2	C/S4	M/S4	
3/4	C/S6	M/S6	7.79
1	C/S8	M/S8	9.63

Reduce the noise levels of pneumatic equipment.
Compact, efficient and lightweight.
Screw directly into the exhaust port.
Prevent the ingress of dirt.
Low cost.



Stem silencers

Size	NPT Model
5/32"	T45Y0002
1/4"	T45Y0004
3/8"	T45Y0006
6mm	T45P0006
8mm	T45P0008
10mm	T45P0010
12mm	T45P0012

Reduce the noise levels of pneumatic equipment.
Compact, efficient and lightweight.
Insert directly into Push-in fitting exhaust port.
Prevent the ingress of dirt.
Low cost.



Quietaire coalescing muffler

Port Size NPT	Part Number	Flow Factor Cv
1/2	MC004A	5.2
3/4	MC006A	9.2
1	MC008A	15.7

Easily replaceable cartridge element
Removal of oil mist from exhaust air provides cleaner work environment.
Rugged, corrosion resistant construction



Additional ranges

Plastic speed control

Port Size NPT	Part Number	Flow Factor Cv
1/2	MQ004A	2.5
3/4	MQ006A	2.5
1	MQ008A	7.7
1-1/4	MQ010A	7.7

Easily replaceable cartridge element
 Removal of oil mist from exhaust air provides cleaner work environment.
 Rugged, corrosion resistant construction



Sintered bronze speed control

Port Size NPT	Part Number
1/8	MM001A
1/4	MM002A
3/8	MM003A
1/2	MM004A
3/4	MM006A
1	MM008A

Cleanable 40-micron sintered bronze diffuser element.
 Corrosion resistant construction.
 Adjustment screw to control rate of exhaust air flow.
 Adjustment screw facilitates a smooth, steady change to flow when turned.



High performance flow control Quietaire muffler

Port Size	Part Number	Metric or ISO G	Max. Flow Factor Cv
M5	—	T20M0500	0.07
1/8	T20A1800	T20C1800	0.4
1/4	T20A2800	T20C2800	0.8
3/8	T20A3800	T20C3800	1.7
1/2	T20A4800	T20C4800	2.4

Cleanable 40-micron sintered bronze diffuser element.
 Corrosion resistant construction.
 Adjustment screw to control rate of exhaust air flow.
 Adjustment screw facilitates a smooth, steady change to flow when turned.



Breather vents

Port Size NPT	Part Number	Flow Factor Cv
1/8	MV001A	0.1
1/4	MV002A	0.1
3/8	MV003A	0.3
1/2	MV004A	0.5
3/4	MV006A	1.3
1	MV008A	1.6
1-1/4	MV010A	4.2
1-1/2	MV012A	5.2

Port Size ISO G	Part Number	Flow Factor Cv
1/8	M/1511	0.45
1/4	M/1512	1.1
1/2	M/1514	1.5
3/4	M/1516	3.9
1	M/1518	5.5

Prevent the ingress of dirt with minimal flow restriction.
 Robust and compact.
 Screw directly into the exhaust port.
Materials

NPT:
 Base - Nickel plated steel
 Element - Sintered bronze
 ISO G:
 Base - Aluminum
 Element - Sintered bronze



2-Way and 3-Way Selector Valves

Positions	Part Number		Outlets	Port Location
	2-Way	3-Way		
2	5CV-022-000	5CV-032-000	2	Back
3	5CV-023-000	5CV-033-000	3	Back
6	5CV-026-000	5CV-036-000	6	Back
10	5CV-010-000	5CV-100-000	10	Back

2-, 3-, 6-, and 10- position models

Common inlet connected to selected outlet port (multiple choices)

Unselected ports blocked (2-way) or vented to atmosphere (3-way)

Panel mount construction with numbered index ring (10-position models)

Knob positions detented

Applications include function and output selection, system programming, and pressure monitoring



Non-contact Sensors

Part Number	Sensor Description	Air Consumption scfm (dm3/s)
4PS-010-D00	Proximity	0.36 (.17)
4JS-010-D00	Interruptible Jet	0.13 (.06)
4JS-020-D00	Impacting Jet	0.16 (.08)
4JS-030-D00	Emitter	0.45 (.21)

Ideally suited for use in hazardous atmospheres

Generates a pneumatic signal, indicating the presence or absence of an object

Operates small directional control valves, pneumatic devices, or in logic circuits

No moving parts

Not subject to wear or fatigue, fast operating speed, long term reliability

Ease of maintenance



Contact Sensors

Part Number	Sensor Description	Air Consumption scfm (dm3/s)
5FS-010-D00	Featherflex	0.05 (.03)
4TS-011-DN0	Interruptible Jet	0.03 (.02)

Generates a pneumatic signal, indicating the presence or absence of an object

Operates small directional control valves, pneumatic devices, or in logic circuits

Internal inlet port filter



Rotowink indicators

Size	Type	Model
10-32 UNF	Low pressure	5VS-100 Series
1/8 NPTF	Medium pressure	5VS-400 Series
1/8 NPTF	High pressure	5VS-200 Series

Indicate the presence or absence of a pneumatic signal

Wide angle of visibility

Contrasting color combinations for positive identification



Pressure drop indicators

Size	Type	Model
1/8 NPT	In-line ports	18-033-104
	In-line ports	18-033-101
	Rear ports	18-033-105
	Rear ports	18-033-102

Give visual indication of level of pressure drop across units.

Provide indication of condition of filter elements.

Domed lens gives wide angle of visibility.

Enable pressure drop in various parts of the system to be monitored.



Miniature Check Valves

Part Number	Connection
4LD-010-D00	10-32 UNF
4LD-050-D00	1/16" ID Flexible Tube
4LD-051-D00	1/16" ID Flexible Tube
4LD-052-D00	1/16" ID Flexible Tube
4LD-020-B01	1/8" ID Flexible Tube
4LD-063-D00	1/8" ID Flexible Tube
4LD-064-D00	5/32" ID Flexible Tube

Duckbill type check

Non-venting

Extremely low crack pressures

10-32 UNF or barbed tube connections

Direct in-line mounting

Control flow direction in medical equipment, instrumentation systems, and in miniature pneumatic control systems



Miniature Inline Restrictors

Part Number	Color Code
4LR-010-D04	Yellow
4LR-010-D06	Brown
4LR-010-D08	Red
4LR-010-D10	Black
4LR-010-D12	Blue
4LR-010-D16	Green

Provide "resistor" function in pneumatic circuits

High precision sapphire orifices

Color coded aluminum body with internal 200 x 200 mesh stainless steel prefilter

10-32 UNF or barbed tube connections

Direct in-line mounting

Signal attenuation and time delay functions in miniature pneumatic circuits



Miniature Inline Filters

Part Number	Flexible Tube Connection
4LF-010-000	1/8" ID
4LF-020-000	5/32" ID

25-micron element rating

Connections for 1/8" or 5/32" ID flexible tubing

Direct in-line mounting

Protection against particulate contamination for miniature pneumatic systems



High Pressure Needle valves

Part Number	Size NPT
17-001-106	1/8" ID
17-001-109	1/8" ID
17-001-112	1/8" ID
17-001-107	5/32" ID
17-001-110	5/32" ID
17-001-114	5/32" ID

Bar stock machined brass body

Tapered brass needle

Adjustable stem packing nut with Teflon® seal

Retained adjustment stem

Metal to metal sealing surfaces

Accurate metering of fluids

3,000 psig inlet pressure



Blow Guns BG Series

1/4" Port Size

Ordering Information

Port (PTF)	Part Number	Description
1/4"	BG4200	Metal blow gun
1/4"	BG3200	Plastic blow gun
1/8"	BG0200	Rubber Tip**

** Units are not O.S.H.A. compliant without air exhaust mechanism.
Air exhaust mechanism must be removed to use the rubber tip.

OSHA compliant**

Exhausts air when nozzle is blocked



BG0200



BG4200



BG3200

Conversion Factors

VOLUME								
from/to	cm ³	liter	in ³	ft ³	fl oz	pt.	qt.	gal
cm ³	1	.001	0.06102	3.53 x 10 ⁻⁵	.03381	.00211	0.106	2.64 x 10 ⁻³
liter	1000	1	61.02	0.03532	33.81	2.113	10.057	.2642
in ³	16.39	0.01639	1	5379 x 10 ⁻⁴	.5541	.03463	0.01732	.00433
ft ³	2.83 x 10 ⁴	28.32	1728	1	957.5	59.84	29.92	7.481
fl oz	29.57	0.02957	1.805	0.00104	1	.06250	.03125	.00781
pt	473.2	0.4732	28.88	0.01671	16	1	0.500	0.1250
qt	946.4	0.9463	57.75	0.03342	32	2	1	0.2500
gal (US)	3785	3.785	231	0.1337	128	8	4	1

PRESSURE							
from/to	mm Hg	in Hg	in H ₂ O	ft H ₂ O	atm	lb/in ²	kg/cm ²
mm Hg	1	0.03937	0.5353	0.04460	.00132	0.01934	.00136
in Hg	25.40	1	13.60	1.133	.03342	0.4912	0.03453
in H ₂ O	1.868	0.07355	1	0.08333	0.00246	0.03613	0.00254
ft H ₂ O	22.42	0.8826	12	1	0.02950	0.4335	0.03048
atm	760	29.92	406.8	33.9	1	14.70	1.033
lb/in ²	51.71	2.036	27.67	2.307	0.06805	1	0.07031
kg/cm ²	735.6	28.96	393.7	32.81	0.9678	14.22	1
bar	750.0	29.53	401.32	33.46	0.98592	14.504	1.01978
MPa	7500	295.3	4013.2	334.6	9.8592	145.04	10.1978

LENGTH						
from/to	cm	m	km	in	ft.	mile
cm	1	0.01	1 x 10 ⁻⁵	0.3937	0.03281	6.21 x 10 ⁻⁶
m	100	1	0.001	39.37	3.281	6.21 x 10 ⁻⁴
km	1 x 10 ⁵	1000	1	3.94 x 10 ⁴	3281	0.6214
in	2.540	0.02540	2.54 x 10 ⁻⁵	1	0.08333	1.58 x 10 ⁻⁵
ft	30.48	0.3048	3.05 x 10 ⁻⁴	12	1	1.89 x 10 ⁻⁴
mile	1.61 x 10 ⁵	1609	1.609	6.34 x 10 ⁴	5280	1

ENERGY					
from/to	BTU	Cal	Joule	Hp. hr.	Kw hr.
BTU	1	252.0	1055	3.93 x 10 ⁻⁴	2.93 x 10 ⁻⁴
Cal	0.397	1	4.186	1.56 x 10 ⁻⁵	1.16 x 10 ⁻⁵
joule	9.48 x 10 ⁻⁴	0.2389	1	3.73 x 10 ⁻⁷	2.78 x 10 ⁻⁷
Hp hr	2545	6.41 x 10 ⁵	2.68 x 10 ⁶	1	0.7457
Kw hr	3413	8.60 x 10 ⁵	3.60 x 10 ⁶	1.341	1

AREA					
from/to	cm ⁴	m ²	km ²	in ²	ft ²
cm ²	1	0.0001	1 x 10 ⁻¹⁰	0.1550	0.00108
m ²	1 x 10 ⁴	1	1 x 10 ⁻⁵	1550	10.76
km ²	1 x 10 ¹⁰	1x 10 ⁵	1	1.55 x 10 ⁹	1.08 x 10 ⁷
in ²	6.452	6.45 x 10 ⁻⁴	6.45 x 10 ⁻¹⁰	1	0.00694
ft ²	929.00	0.09290	9.29 x 10 ⁻⁸	144	1

FLOWS				
from/to	1 scfm	1 L/min	1 cm ³ /sec	1 dm ³ /sec
1 scfm	1	28.32	471.95	.472
1 L/min	0.035	1	16.67	0.0167
1 cm ³ /sec	0.0021	0.06	1	.001
1 dm ³ /sec	2.1	0.00006	1000	1

TEMPERATURE COMPARISON

-100°C to +300°C			
°C	°F	°C	°F
-100	-148	29	84.2
-90	-130	30	86.0
-80	-112	31	87.8
-70	-94	32	89.6
-60	-76	33	91.4
-50	-58	34	93.2
-40	-40	35	95.0
-35	-31	36	96.8
-30	-22	37	98.6
-25	-13	38	100.4
-20	-4	39	102.2
-15	5	40	104.0
-10	14	45	113
-5	23	50	122
0	32	55	131
1	33.8	60	140
2	35.6	65	149
3	37.4	70	158
4	39.2	75	167
5	41	80	176
6	42.8	85	185
7	44.6	90	194
8	46.4	95	203
9	48.2	100	212
10	50	110	230
11	51.8	120	248
12	53.6	130	266
13	55.4	140	284
14	57.2	150	302
15	59	160	320
16	60.8	170	338
17	62.6	180	356
18	64.4	190	374
19	66.2	200	392
20	68	210	410
21	69.8	220	428
22	71.6	230	446
23	73.4	240	464
24	75.2	250	482
25	77	260	500
26	78.8	270	518
27	80.6	280	531
28	82.4	290	554
		300	572

TEMPERATURE CONVERSION

$$\begin{aligned} ^\circ\text{C} &= 5/9 (^\circ\text{F} - 32) \\ ^\circ\text{F} &= 9/5 (^\circ\text{C} + 32) \\ ^\circ\text{K} &= ^\circ\text{C} + 273.2 \\ ^\circ\text{R} &= ^\circ\text{F} + 459.7 \end{aligned}$$

WEIGHT				
from/to	gm	kg	oz	lb
gm	1	0.001	0.03527	0.00220
kg	1000	1	35.27	2.205
oz	28.35	0.02835	1	0.06250
lb	453.6	0.4536	16	1

Chemical Resistance Chart

	N	PUR	PE		N	PUR	PE		N	PUR	PE
Acetic Acid, Glacial	-	4	1	Ethylene Chloride	-	4	3	Picric Acid	3	2	-
Acetic Acid, 30%	-	4	1	Ethylene Glycol	2	4	1	Potassium Acetate (aq)	-	4	-
Acetone	-	4	2	Ethylene Oxide	1	4	3	Potassium Chloride (aq)	-	1	1
Acetylene	-	4	1	Ethylene Trichloride	-	4	-	Potassium Cyanide (aq)	-	1	1
Alkazene	-	4	-	Ferric Chloride (aq)	-	1	1	Potassium Hydroxide (aq)	3	4	1
Aluminum Chloride (aq)	-	3	2	Ferric Nitrate (aq)	-	1	2	Producer Gas	-	1	1
Aluminum Nitrate (aq)	-	3	-	Ferric Sulfate (aq)	-	1	1	Propane	1	3	3
Ammonia Anhydrous	-	4	2	Fluorine (Liquid)	4	4	3	Propyl Alcohol	-	4	-
Ammonia Gas (cold)	-	3	-	Formaldehyde (RT)	-	4	2	Propylene	-	4	-
Ammonia Gas (hot)	-	4	-	Formic Acid	3	3	2	Propylene Oxide	-	4	-
Ammonium Chloride (aq)	-	1	1	Freon 11	-	4	3	Pydraul, 10E, 29 ELT	-	4	-
Ammonium Sulfate (aq)	-	1	1	Freon 12	1	1	3	Pydraul 30E, 50E, 65E	-	4	-
Amyl Alcohol	-	4	2	Freon 22	1	4	-	Pydraul, 115E	-	4	-
Amyl Naphthalene	-	4	-	Fuel Oil	-	2	3	Pydraul 230E, 312C, 540C	-	4	-
Animal Fats	-	1	-	Futural Glucose	-	4	1	Rapeseed Oil	-	2	-
Aqua Regia	-	4	2	Glue	-	1	1	Red Oil (MIL-H-5606)	-	1	-
Arsenic Acid	-	3	2	Glycerin	1	1	1	RJ-1 (MIL-F-23338 B)	-	1	-
Asphalt	-	2	1	Glycols	1	4	-	RP-1 (MIL-F-25576 C)	-	1	-
ASTM Fuel A	-	2	-	Green Sulfate Liquor	-	1	-	Salt Water	1-	2	1
ASTM Fuel B	-	3	-	Hexane	-	2	3	Sewage	-	4	-
ASTM Fuel C	-	3	1	Hydraulic Oil	-	1	1	Silicate Esters	-	1	-
Barium Chloride (aq)	-	1	1	Hydrochloric Acid (cold) 37%	-	4	2	Silicone Oils	-	1	1
Beer	1	2	1	Hydrochloric Acid (hot) 37%	-	4	-	Silver Nitrate	-	1	2
Beet Sugar Liquors	-	4	1	Hydrofluoric Acid (Conc.) Cold	-	3	-	Skydrol 500	-	4	-
Benzene	1	3	3	Hydrofluoric Acid (Conc.) Hot	-	4	-	Skydrol 700	-	4	-
Benzine	-	2	-	Hydrogen Gas	1	1	1	Soap Solutions	1	3	3
Blast Furnace Gas	-	4	-	Isobutyl Alcohol	-	4	-	Sodium Chloride (aq)	1	1	1
Bleach Solutions	-	4	-	Isocetane	-	2	-	Sodium Hydroxide (aq)	2	4	2
Borax	-	1	1	Isopropyl Acetate	-	4	2	Sodium Peroxide (aq)	-	4	1
Boric Acid	-	1	1	Isopropyl Alcohol	1	3	-	Sodium Phosphate (aq)	-	1	-
Brake Fluid	-	4	-	Isopropyl Ether	-	2	1	Sodium Sulfate (aq)	-	1	1
Brine	-	2	4	Kerosene	1	1	3	Soy Bean Oil	-	2	1
Bromine Water	4	4	-	Lacquers	-	4	2	Steam Under 300°F	4	4	-
Bunker Oil	-	2	-	Lacquer Solvents	-	4	2	Steam Over 300°F	4	4	-
Butane	1	1	3	Lard	-	1	2	Stoddard Solvent	-	1	3
Butter	-	1	-	Lavender Oil	-	4	-	Styrene	-	3	-
Butyl Alcohol	3	4	1	Lead Acetate (aq)	-	4	1	Sucrose Solution	-	4	-
Butylene	-	4	1	Linseed Oil	1	2	3	Sulfuric Acid (Dilute)	-	3	1
Calcium Chloride (aq)	1	1	2	Liquid Petroleum Gas	-	-	-	Sulfuric Acid (Conc.)	-	4	3
Calcium Hydroxide (aq)	-	1	2	Lubricating Oils	-	2	4	Sulfuric Acid (20% Oleum)	-	4	-
Calcium Nitrate (aq)	1	1	-	Lye	-	4	-	Sulfurous Acid	-	3	2
Calcium Sulfide (aq)	-	1	-	Magnesium Chloride (aq)	1	1	1	Tannic Acid	-	1	2
Cane Sugar Liquors	-	4	-	Magnesium Hydroxide (aq)	-	4	1	Tetrochlorethylene	-	4	2
Carbolic Acid	-	3	2	Mercury	1	1	1	Toluene	1	4	3
Carbon Dioxide	-	1	3	Methane	1	3	-	Transformer Oil	-	1	-
Carbonic Acid	-	1	2	Methyl Acetate	1	4	2	Transmission Fluid Type A	-	1	-
Carbon Monoxide	-	1	2	Methyl Acrylate	-	4	-	Trichloroethane	3	4	-
Carbon Tetrachloride	3	4	2	Methyl Alcohol	1	4	1	Trichloroethylene	3	4	3
Castor Oil	-	1	-	Methyl Butyl Ketone	-	4	-	Turbine Oil	-	1	3
Chlorine (dry)	4	4	2	Methyl Chloride	3	4	3	Turpentine	1	4	3
Chlorine (wet)	4	4	-	Methylene Chloride	-	4	3	Varnish	-	3	3
Chloroform	3	4	3	Methyl Ethyl Ketone	1	4	2	Vinegar	1	4	2
Chlorox	-	4	-	Methyl Isobutyl Ketone	1	4	-	Vinyl Chloride	-	4	-
Chromic Acid	4	4	1	Milk	1	4	1	Water	1	1	1
Citric Acid	1	1	1	Mineral Oil	1	1	2	Whiskey, Wines	1	2	3
Coal Tar	-	3	-	Naphtha	1	2	1	White Oil	-	1	-
Coconut Oil	-	2	-	Naphthalene	1	2	1	Wood Oil	-	3	-
Cod Liver Oil	-	1	-	Natural Gas	-	2	-	Xylene	2	4	3
Coke Oven Gas	-	4	-	Neatsfoot Oil	-	1	-	Zinc Acetate (aq)	-	4	-
Copper Chloride (aq)	-	1	2	Nitric Acid (Conc.)	4	4	3	Zinc Chloride (aq)	1	1	1
Copper Cyanide (aq)	-	1	2	Nitric Acid (Delute)	4	3	-				
Corn Oil	-	1	3	Nitroethane	-	4	-				
Cotton Seed Oil	-	1	2	Nitrogen	-	1	-				
Creosol	4	4	3	N-Octane	-	4	-				
Cyclohexane	1	1	2	Oleic Acid	1	2	3				
Denatured Alcohol	-	4	-	Oleum Spirits	-	3	4				
Detergent Solution	-	4	1	Olive Oil	-	1	1				
Diesel Oil	-	3	3	Oxygen - Cold	1	1	-				
Dioxane	-	4	-	Oxygen (200 - 400°F)	-	4	-				
Dowtherm Oil	-	3	-	Paint Thinner, Duco	-	4	-				
Dry Cleaning Fluids	-	4	-	Perchloric Acid	-	4	-				
Ethane	-	3	-	Perchloroethylene	3	4	4				
Ethyl Acrylate	-	4	-	Petroleum - Below 250°F	-	2	-				
Ethyl Alcohol	3	4	-	Petroleum - Above 250°F	4	4	-				
Ethyl Benzene	-	4	-	Phenol	4	3	2				
Ethyl Cellulose	-	2	-	Phenyl Ethyl Ether	-	4	-				
Ethyl Chloride	-	2	-	Phosphoric Acid - 45%	2	1	2				
Ethyl Ether	-	3	-	Pickling Solution	-	4	-				

Please note:

The following ratings are very general guidelines, designed only to be used as an initial screening tool. Dynamic vs. static application, temperature, chemical mixtures, and the specific tubing compound selected can significantly affect or change these ratings either positively or negatively. Careful testing under actual conditions is essential. Accuracy for these ratings is not given or implies.

Ratings:

- 1 = Little or no impact
- 2 = Minor effect
- 3 = Moderate effect
- 4 = Severe effect

N = NYLON
 PUR = POLYURETHANE
 PE = POLYETHYLENE

Helpful Engineering Information

Determining Proper Air Valve Size

Most manufacturers catalogs give flow rating C_v for the valve, which was established using proposed National Fluid Power Association (NFPA) standard T3.21.3. The following tables and formulas will enable you to quickly size a valve properly. The traditional, often used, approach of using the valve size equivalent to the port in the cylinder can be very costly. Cylinder speed, not port size, should be the determining factor.

The following C_v calculations are based upon simplified formulas which yield results with acceptable accuracy under the following standard condition:

Air at a temperature of 68°F (20°C)

Absolute downstream or secondary pressure must be 53% of absolute inlet or primary pressure or greater. Below 53%, the air velocity may become sonic and the C_v formula does not apply. To calculate air flow to atmosphere, enter outlet pressure p_2 as 53% of absolute p_2 . Pressure drop ΔP would be 47% of absolute inlet pressure. These valves have been calculated for a $C_v = 1$ in Table 3.

Nomenclature

B	Pressure drop factor	
C	Compression factor	
C_v	Flow factor	
D	Cylinder Diameter	(IN)
F	Cylinder Area	(SQ IN)
L	Cylinder Stroke	(IN)
p_1	Inlet or Primary Pressure	(PSIG)
p_2	Outlet or Secondary Pressure	(PSIG)
ΔP	Pressure differential ($p_1 - p_2$)	(PSID)
q	Air flow at actual condition	(CFM)
Q	Air flow of free air	(SCFM)
t	Time to complete one cylinder stroke	(SEC)
T	Absolute temperature at operating pressure	
	Deg R = Deg F + 460	(R°)

Valve Sizing for Cylinder Actuation – (Method A)

Example:

Cylinder size 4" Dia. x 10" stroke. Time to extend: 2 seconds. Inlet pressure 90 psig. Allowable pressure drop 5 psid. Determine C_v .

C_v	cylinder area (Sq In) (see Table 1) F x	cylinder stroke (IN) L x	Compression factor (see Table 2) C
	Pressure drop factor B x (See Table 2)	time to complete cylinder stroke t x 29 (SEC)	

Solution: Table 1 F = 12.57 sq in
Table 2 C = 7.1
B = 21.6

$$C_v = \frac{12.57 \times 10 \times 7.1}{21.6 \times 2 \times 29} = .7$$

Select a valve that has a C_v factor of .7 or higher. In most cases a 1/4" valve would be sufficient.

It is considered good engineering practice to limit the pressure drop ΔP to approximately 10% of primary pressure p_1 . The smaller the allowable pressure drop, the larger the required valve will become.

After the minimum required C_v has been calculated, the proper size valve can be selected from the catalog.
Table 1: Cylinder push bore area F for standard size cylinders

Bore Size D (in)	Push Bore F (sq in)	Bore Size D (in)	Push Bore F (sq in)
3/4"	.44	4"	12.57
1"	.79	4-1/2"	15.90
1-1/8"	.99	5"	19.64
1-1/4"	1.23	6"	28.27
1-1/2"	1.77	7"	38.48
1-3/4"	2.41	8"	50.27
2"	3.14	10"	78.54
2-1/2"	4.91	12"	113.10
3-1/4"	8.30	14"	153.94

Table 2: Compression Factor C and pressure drop Factor B.

Inlet Pressure (psig)	Compression Factor C	Pressure Drop Factor B for various Pressure Drops ΔP				
		2 psig	5 psid	10 psid	15 psid	20 psid
10	1.7	6.5				
20	2.4	7.8	11.8			
30	3.0	8.9	13.6	18.0		
40	3.7	9.9	15.3	20.5	23.6	
50	4.4	10.8	16.7	22.6	26.4	29.0
60	5.1	11.7	18.1	24.6	29.0	32.0
70	5.8	12.5	19.3	26.5	31.3	34.8
80	6.4	13.2	20.5	28.2	33.5	37.4
90	7.1	13.9	21.6	29.8	35.5	39.9
100	7.8	14.5	22.7	31.3	37.4	42.1
110	8.5	15.2	23.7	32.8	39.3	44.3
120	9.2	15.8	24.7	34.2	41.0	46.4
130	9.8	16.4	25.6	35.5	42.7	48.4
140	10.5	16.9	26.5	36.8	44.3	50.3
150	11.2	17.5	27.4	38.1	45.9	52.1
160	11.9	18.0	28.2	39.3	47.4	53.9
170	12.6	18.5	29.0	40.5	48.9	55.6
180	13.2	19.0	29.8	41.6	50.3	57.2
190	13.9	19.5	30.6	42.7	51.7	58.9
200	14.6	20.0	31.4	43.8	53.0	60.4
210	15.3	20.4	32.1	44.9	54.3	62.0
220	16.0	20.9	32.8	45.9	55.6	63.5
230	16.7	21.3	33.5	46.9	56.8	64.9
240	17.3	21.8	34.2	47.9	58.1	66.3
250	18.0	22.2	34.9	48.9	59.3	67.7

Valve Sizing with $C_v = 1$ Table (Method B)

(For nomenclature see previous page)

This method can be used if the required air flow is known or has been calculated with the formulas as shown below:

$$1. \quad Q = .0273 \frac{D^2 L}{t} \times \frac{p_2 + 14.7}{14.7} \quad (\text{SCFM})$$

Conversion of CFM to SCFM

$$2. \quad Q = q \times \frac{p_2 + 14.7}{14.7} \times \frac{528}{T} \quad (\text{SCFM})$$

Flow factor C_v (standard conditions)

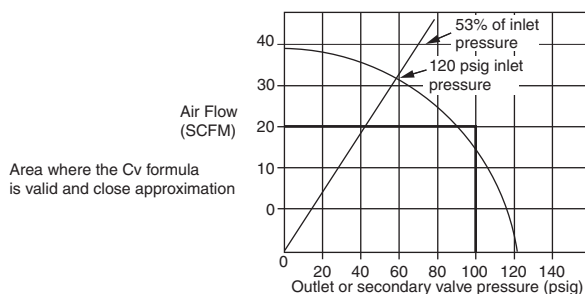
$$3. \quad C_v = \frac{1.024 \times Q}{\Delta P \times (p_2 + 14.7)} \quad \text{Proposed NFPA Standard T3.21.3}$$

Maximum pressure drop Δp across the valve should be less than 10% of inlet pressure p_1 .

Inlet Pressure (psig)	Air Flow Q (scfm) for various Pressure drops ΔP at $C_v = 1$					Air Flow Q (scfm) to atmosphere
	2 psid	5 psid	10 psid	15 psid	20 psid	
10	6.7					12.0
20	7.9	11.9				16.9
30	9.0	13.8	18.2			21.8
40	9.9	15.4	20.6	23.8		26.6
50	10.8	16.9	22.8	26.7	29.2	31.5
60	11.6	18.2	24.8	29.2	32.3	36.4
70	12.3	19.5	26.7	31.6	35.1	41.2
80	13.0	20.7	28.4	33.8	37.7	46.1
90	13.7	21.8	30.0	35.8	40.2	51.0
100	14.4	22.9	31.6	37.8	42.5	55.9
110	15.0	23.9	33.1	39.6	44.7	60.7
120	15.6	24.9	34.5	41.4	46.8	65.6
130	16.1	25.8	35.8	43.1	48.8	70.5
140	16.7	26.7	37.1	44.7	50.7	75.3
150	17.2	27.6	38.4	46.3	52.5	80.2
160	17.7	28.4	39.6	47.8	54.3	85.1
170	18.2	29.3	40.8	49.3	56.0	90.0
180	18.7	30.1	42.0	50.7	57.7	94.8
190	19.2	30.9	43.1	52.1	59.4	99.7
200	19.6	31.6	44.2	53.4	60.9	104.6
210	20.1	32.4	45.2	54.8	62.5	109.4
220	20.5	33.1	46.3	56.1	64.0	114.3
230	21.0	33.8	47.3	57.3	65.5	119.2
240	21.4	34.5	48.3	58.6	66.9	124.0
250	21.8	35.2	49.3	59.8	68.3	128.9

Table 3: Air Flow Q (scfm) for $C_v = 1$

Flow Curves: How to read them



Example 1: Find air flow Q (scfm) if C_v is known.

C_v (from valve catalog) = 1.8

Primary pressure $p_1 = 90$ psig

Pressure drop across valve $\Delta P = 5$ psid

Flow through valve from Table 3 for $C_v = 1$: 21.8 scfm

$$Q = C_v \text{ of valve} \times \text{air flow at } C_v = 1 \text{ (scfm)}$$

$$Q = 1.8 \times 21.8 = 39.2 \text{ scfm}$$

Example 2: Find C_v if air flow Q (scfm) is given.

Primary pressure $p_1 = 90$ psig

Pressure drop $\Delta P = 10$ psid

Air flow - Q = 60 scfm

Flow through valve from Table 3 for $C_v = 1$: 30 scfm

$$C_v = \frac{\text{Air flow Q (scfm)}}{\text{Air flow at } C_v = 1 \text{ (scfm)}}$$

$$C_v = \frac{60 \text{ scfm}}{30} = 2.0$$

A valve with a C_v of minimum 2 should be selected.

Example 3: Find C_v if air flow Q (scfm) to atmosphere is given (from catalog).

Primary pressure $p_1 = 90$ psig

Air flow to atmosphere Q = 100 scfm

Flow to atmosphere through valve from Table 3 for $C_v = 1$: 51 scfm

$$C_v = \frac{\text{Air flow to atmosphere Q (scfm)}}{\text{Air flow to atmosphere at } C_v = 1 \text{ (scfm)}}$$

$$C_v = \frac{100}{51} = 2.0$$

Flow given in catalog is equivalent to a valve with $C_v = 2$. This conversion is often necessary to size a valve properly since some manufacturers do not show the standard C_v to allow a comparison.

Example 4: Find C_v if cylinder size and stroke speed is known, using the formulas 1 and 3.

Primary pressure = 90 psig

Pressure drop across valve 5 psid

Cylinder size 4" dia. x 10" stroke

Time to complete stroke 2 sec.

$$Q = .0273 \frac{4^2 \times 10 \times 85 + 14.7}{2 \times 14.7} = 14.81 \text{ scfm}$$

$$C_v = \frac{1.024 \times 14.81}{\sqrt{5 \times (85 + 14.7)}} = 1.7$$

Recommended Lubricants

Recommended Oils for use with Norgren Lubricators

Oils listed in the following tables may be used in Norgren Lubricators. All oils, however, may not be compatible with the equipment to be lubricated. Contact your lubricant supplier and the builder of the equipment to be lubricated to obtain specific lubricant recommendations.

Light Duty Tool Lubricants (ISO 3448 Viscosity Grades 10 to 22) for Small Air Tools

Manufacturer	Product	ISO 3448 Viscosity Number
BRITISH PETROLEUM	Energal HLP10	10
CASTROL	Hyspin AWS10	10
MOBIL	Velocite Oil No. 6	10
SHELL	Tellus R10	10
TOTAL	Azolla ZS10	10
CENTURY	P198	15
DUCKHAMS	Zeroflo 15	15
ELF	Elfolna 15	15
ESSO	Nuto H15	15
MOBIL	Velocite Oil No. 8	15
ROCOL	MO-4	15
MOBIL	Velocite Oil No. 10	22
SHELL	Tellus 22	22

Heavy Duty Tool Lubricants (ISO 3448 Viscosity Grades 32 to 68) for Standard Air Tools and Cylinders

Manufacturer	Product	ISO 3448 Viscosity Number
BRITISH PETROLEUM	Energal HLP32	32
CASTROL	Hyspin AWS32	32
CENTURY	PWLA	32
ELF	Elfolna 32	32
ESSO	Nuto H32	32
GULF	Harmony 32	32
MOBIL	SHC 524	32
MOBIL	DTE 24	32
MOBIL	DTE Oil Light	32
MOBIL	Gargoyle Arctic Oil Light	32
SHELL	Tellus 32	32
TEXACO	Rondo 32	32
SHELL	Tellus 37	37
GULF	Hydrasil 46	46
BRITISH PETROLEUM	Energal HLP46	46
SHELL	Tellus 46	46
TEXACO	Regal Oil R & 046	46
ROCOL	MO-10	46
BRITISH PETROLEUM	Energal HLP68	68 *

Low Temperature Applications - For use when temperature remains below 32°F (0°C)

Manufacturer	Product	ISO 3448 Viscosity Number
MOBIL	SHC 624	32
DUCKHAMS	Zeroflo 32	32
MOBIL	S4C 524	32

Antifreeze Lubrication

Manufacturer	Product
CASTROL	Antifreeze Mist Lubricant

* For certain applications requiring heavy oil.

Assembly Greases

The following greases may be used in the reassembly of Norgren Airline Equipment.

Industrial Compressed Air Applications

Manufacturer	Product
BRITISH PETROLEUM	Energrelse LS2 (non-silicone)
DOW CORNING	Molykote BR-2 Plus (non-silicone)
CARLETON-STUART	Magnalube G (non-silicone)
DOW CORNING	DC44 (silicone)
DOW CORNING	DC55 (silicone)

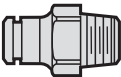
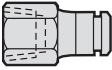
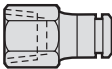
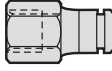
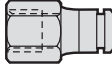
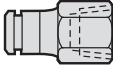
Low Temperature Industrial Compressed Air Applications below -20°F (-29°C)

Manufacturer	Product
KLUBER	Unisilicon L50/2 (silicone)

Food and Potable Water Applications

Manufacturer	Product
DOW CORNING	Molykote 111 (silicone)

Thread Form	Mates with	Thread Form	Method of Sealing
M5 (male)	→	M5 (female)	Molded thermoplastic sealing washer effects static face seal
ISO G (male)	→	ISO G (female)	Molded thermoplastic sealing washer effects static face seal
	→	BSPP (female)	
	→	JIS B 0202 (female)	
ISO G (female)	→	ISO G (male)	Molded thermoplastic sealing washer effects static face seal
	→	BSPP (male)	Sealing washer should be used to effect static face seal
	→	JIS B 0202 (male)	
	→	ISO R (male)	Thread sealant must be applied to prevent spiral leakage
	→	BSPT (male)	
	→	JIS B 0203 (male)	

Thread Form	Mates with	Thread Form	Method of Sealing
ISO R (male) 	→	ISO R _C (female) 	Thread sealant must be applied to prevent spiral leakage
		BSPT (female) 	
		BSPT (female) 	
		ISO G (female) 	
		BSPP (female) 	
		JIS B 0202 (female) 	
ISO R_C (female) 	→	ISO R (male) 	Thread sealant must be applied to prevent spiral leakage
		BSPT (male) 	
		JIS B 0203 (male) 	