PNEUMADYNE

Composite Push-in Fittings

Setting a new standard for:

- Connectors
- Fluid Management
- Value
- Availability

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PNEUMADYNE Phone 763-559-0177 Fax 763-559-0547

Features

- Black Polybutylene and nickel plated brass construction
- Oval release button eases tubing disconnection
- Threaded sealant standard on pipe threads
- Captive o-ring seals (10-32 UNF threads only)
- Stainless steel gripper ring
- Recommended for use with 95A Polyurethane, Polyethylene and Nylon Tubing
- Vacuum applications to 29.5" Hg

Composite Push-in Fittings

Pneumadyne's new Composite Push-in fittings are a quick and convenient method of connecting components throughout a pneumatic system. Designed for use with polyurethane, polyethylene and nylon tubing, these fittings accommodate tube sizes ranging from 1/8" OD to 1/2" OD. The oval design of the release button provides a larger surface area making tubing disconnection easier than standard round style collets.

A variety of configurations are available to accommodate connection requirements. To ensure a leakproof fit, thread sealant is standard on all male pipe threads while the 10-32 UNF thread features a captive o-ring for a superior seal.

Performance Data

Operating Pressure: 29.5" Hg to 150 psi
Max Pressure: 250 psi
Temperature Range: 32° to 140°F
Media: Air, Vacuum

Materials of Construction

Body: Polybutylene and nickel plated brass
Seals: Buna-N
Collet (Release Button): Polyacetate
Gripper Ring: Stainless Steel
Collar: Zinc Dichromate

Tubing Installation:

1. Use a sharp tube cutter to ensure a clean, square cut. The outer diameter of the tube must be free of sharp edges, debris, burrs and score marks.
2. Insert the tubing into the fitting until it stops.
3. Gently pull the tubing back to engage the gripper ring. Internal stainless steel gripper teeth grasp the tube and prevent it from being released.

Tubing Disconnection:

1. Push in the oval release button to retract the gripper teeth.
2. Pull the tubing out while the release button is depressed.

Product Number Diagram

Composite Push-In Fittings

C P B 2 5 0 - 1 / 8

Product Line
CP = Composite Push-in

Fitting Configuration
B = Male Connector
BR = Male Connector, Round
BU = Bulkhead Union
ELS = Elbow, Extended Male Swivel
EUB = Elbow, Bulkhead
FB = Female Connector
FBT = Female Branch Tee
FBU = Female Bulkhead
LS = Elbow, Male Swivel
P = Plug
RT = Tee, Reducing
RTS = Run Tee, Male Swivel
RU = Union, Reducing
SR = Stem Reducer
T = Union Tee
TS = Branch Tee, Male Swivel
TSE = Elbow, Tube to Stem
TSER = Elbow, Reducing Tube to Stem
U = Union
UB = Union Branch
UE = Union Elbow
X = Cross
Y = Union Y
YS = Y, Male Swivel

Connector Options

Tube OD
125 = 1/8 OD
156 = 5/32 OD (4mm)
250 = 1/4 OD
312 = 5/16 OD (8mm)
375 = 3/8 OD
500 = 1/2 OD

Thread Size
1032 = 10-32 UNF
1/8 = 1/8 NPT
1/4 = 1/4 NPT
3/8 = 3/8 NPT
1/2 = 1/2 NPT

Recommended Torque for Different Thread Specification

Thread Type	Thread Type	Torque
UNF (Unified)	10-32	13-16.5 in/lbs
NPT Thread	1/8	5-6.5 ft/lbs
	1/4	8.7-10.1 ft/lbs
	3/8	15.9-17.3 ft/lbs
	1/2	20.25-21.7 ft/lbs

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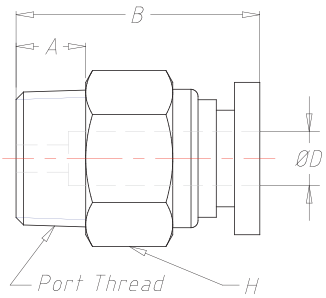
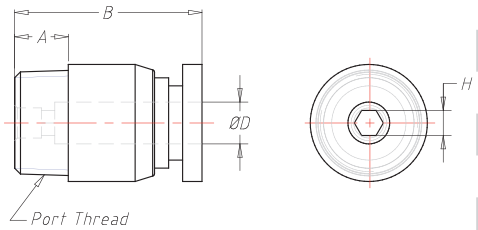
Male Connector



Part Number	Tube ØD	Thread Size	A	B	H
CPB156-1032	5/32" OD	10-32 UNF	0.1	0.7	7/16
CPB156-1/8	5/32" OD	1/8 NPT	0.2	0.7	7/16
CPB156-1/4	5/32" OD	1/4 NPT	0.4	0.7	9/16
CPB250-1032	1/4" OD	10-32 UNF	0.1	0.8	1/2
CPB250-1/8	1/4" OD	1/8 NPT	0.2	0.8	1/2
CPB250-1/4	1/4" OD	1/4 NPT	0.4	0.8	9/16
CPB250-3/8	1/4" OD	3/8 NPT	0.4	0.8	11/16
CPB312-1/8	5/16" OD	1/8 NPT	0.2	1.0	9/16
CPB312-1/4	5/16" OD	1/4 NPT	0.4	1.0	9/16
CPB312-3/8	5/16" OD	3/8 NPT	0.4	0.9	11/16
CPB375-1/8	3/8" OD	1/8 NPT	0.2	1.1	11/16
CPB375-1/4	3/8" OD	1/4 NPT	0.4	1.2	11/16
CPB375-3/8	3/8" OD	3/8 NPT	0.4	1.1	11/16
CPB500-1/4	1/2" OD	1/4 NPT	0.4	1.3	7/8
CPB500-3/8	1/2" OD	3/8 NPT	0.4	1.1	7/8
CPB500-1/2	1/2" OD	1/2 NPT	0.5	1.1	7/8

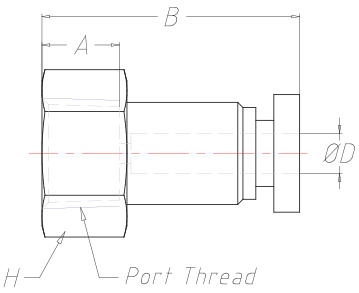
Round Male Connector



Part Number	Tube ØD	Thread Size	A	B	H	Fitting ØD +/- .01
CPBR156-1032	5/32" OD	10-32 UNF	0.1	0.7	N/A	0.40
CPBR156-1/8	5/32" OD	1/8 NPT	0.2	0.7	3mm	0.40
CPBR156-1/4	5/32" OD	1/4 NPT	0.4	0.7	3mm	0.55
CPBR250-1032	1/4" OD	10-32 UNF	0.1	0.8	N/A	0.47
CPBR250-1/8	1/4" OD	1/8 NPT	0.2	0.8	4mm	0.47
CPBR250-1/4	1/4" OD	1/4 NPT	0.4	0.8	4mm	0.55
CPBR250-3/8	1/4" OD	3/8 NPT	0.4	0.8	4mm	0.67
CPBR312-1/8	5/16" OD	1/8 NPT	0.2	1.0	5mm	0.55
CPBR312-1/4	5/16" OD	1/4 NPT	0.4	1.0	6mm	0.55
CPBR312-3/8	5/16" OD	3/8 NPT	0.2	1.1	6mm	0.67
CPBR375-1/8	3/8" OD	1/8 NPT	0.2	1.1	5mm	0.67
CPBR375-1/4	3/8" OD	1/4 NPT	0.4	1.2	6mm	0.67
CPBR375-3/8	3/8" OD	3/8 NPT	0.4	1.1	8mm	0.67

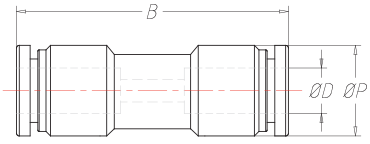
Female Connector

Part Number	Tube ØD	Thread Size	A	B	H
CPFB156-1/8	5/32" OD	1/8 NPT (F)	0.3	1.0	9/16
CPFB156-1/4	5/32" OD	1/4 NPT (F)	0.4	1.1	11/16
CPFB250-1/8	1/4" OD	1/8 NPT (F)	0.4	1.1	11/16
CPFB250-1/4	1/4" OD	1/4 NPT (F)	0.4	1.1	11/16
CPFB312-1/8	5/16" OD	1/8 NPT (F)	0.3	1.0	9/16
CPFB312-1/4	5/16" OD	1/4 NPT (F)	0.4	1.3	11/16
CPFB312-3/8	5/16" OD	3/8 NPT (F)	0.4	1.2	7/8
CPFB375-1/4	3/8' OD	1/4 NPT (F)	0.4	1.3	11/16
CPFB375-3/8	3/8" OD	3/8 NPT (F)	0.4	1.3	7/8
CPFB375-1/2	3/8" OD	1/2 NPT (F)	0.5	1.4	7/8
CPFB500-1/4	1/2" OD	1/4 NPT (F)	0.4	1.3	7/8
CPFB500-3/8	1/2" OD	3/8 NPT (F)	0.4	1.4	7/8



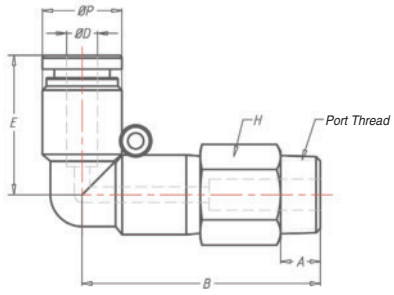
Union Connector

Part Number	Tube ØD	B	ØP
CPU156	5/32" OD	1.2	0.4
CPU250	1/4" OD	1.3	0.5
CPU312	5/16" OD	1.5	0.5
CPU375	3/8" OD	1.8	0.7
CPU500	1/2" OD	1.9	0.8

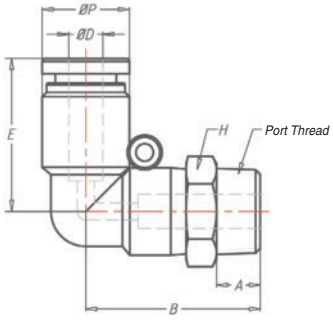


Extended Male Elbow, Swivel

Part Number	Tube ØD	Thread Size	A	B	E	H	ØP
CPELS156-1032	5/32" OD	10-32 UNF	0.1	1.2	0.7	7/16	0.4
CPELS156-1/8	5/32" OD	1/8 NPT	0.2	1.2	0.7	7/16	0.4
CPELS250-1/8	1/4" OD	1/8 NPT	0.2	1.5	0.7	1/2	0.5
CPELS250-1/4	1/4" OD	1/4 NPT	0.4	1.6	0.7	9/16	0.5
CPELS250-3/8	1/4" OD	3/8 NPT	0.4	1.6	0.7	11/16	0.5
CPELS312-1/8	5/16" OD	1/8 NPT	0.2	1.7	0.9	9/16	0.5
CPELS312-1/4	5/16" OD	1/4 NPT	0.4	1.7	0.9	9/16	0.5
CPELS312-3/8	5/16" OD	3/8 NPT	0.4	1.8	0.9	11/16	0.5
CPELS375-1/8	3/8" OD	1/8 NPT	0.2	2.1	1	11/16	0.7
CPELS375-1/4	3/8" OD	1/4 NPT	0.4	2.2	1	11/16	0.7
CPELS375-3/8	3/8" OD	3/8 NPT	0.4	2.3	1	11/16	0.7
CPELS500-1/4	1/2" OD	1/4 NPT	0.4	2.3	1.1	7/8	0.8
CPELS500-3/8	1/2" OD	3/8 NPT	0.4	2.4	1.1	7/8	0.8
CPELS500-1/2	1/2" OD	1/2 NPT	0.5	2.5	1.1	7/8	0.8

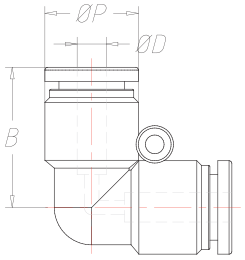


Male Elbow, Swivel



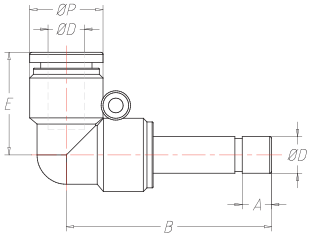
Part Number	Tube ØD	Thread Size	A	B	E	H	ØP
CPLS156-1032	5/32" OD	10-32 UNF	0.1	0.9	0.7	7/16	0.4
CPLS156-1/8	5/32" OD	1/8 NPT	0.2	0.8	0.7	1/2	0.4
CPLS156-1/4	5/32" OD	1/4 NPT	0.4	1.0	0.7	9/16	0.4
CPLS250-1032	1/4" OD	10-32 UNF	0.1	0.9	0.7	1/2	0.5
CPLS250-1/8	1/4" OD	1/8 NPT	0.2	1.0	0.7	1/2	0.5
CPLS250-1/4	1/4" OD	1/4 NPT	0.4	1.1	0.7	9/16	0.5
CPLS250-3/8	1/4" OD	3/8 NPT	0.4	1.1	0.7	11/16	0.5
CPLS312-1/8	5/16" OD	1/8 NPT	0.2	1.1	0.9	9/16	0.5
CPLS312-1/4	5/16" OD	1/4 NPT	0.4	1.2	0.9	9/16	0.5
CPLS312-3/8	5/16" OD	3/8 NPT	0.4	1.3	0.9	11/16	0.5
CPLS375-1/8	3/8" OD	1/8 NPT	0.2	1.3	1	11/16	0.7
CPLS375-1/4	3/8" OD	1/4 NPT	0.4	1.4	1	11/16	0.7
CPLS375-3/8	3/8" OD	3/8 NPT	0.4	1.5	1	11/16	0.7
CPLS500-1/4	1/2" OD	1/4 NPT	0.4	1.5	1.1	7/8	0.8
CPLS500-3/8	1/2" OD	3/8 NPT	0.4	1.5	1.1	7/8	0.8
CPLS500-1/2	1/2" OD	1/2 NPT	0.5	1.6	1.1	7/8	0.8

Union Elbow



Part Number	Tube ØD	B	ØP
CPUE156	5/32" OD	0.7	0.4
CPUE250	1/4" OD	0.7	0.5
CPUE312	5/16" OD	0.9	0.5
CPUE375	3/8" OD	1.0	0.7
CPUE500	1/2" OD	1.1	0.8

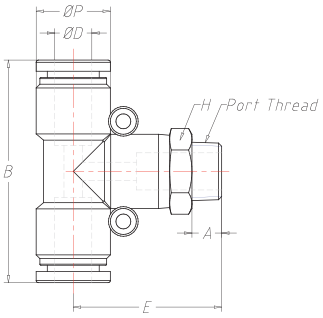
Tube to Stem Elbow



Part Number	Tube ØD	A	B	E	ØP
CPTSE156	5/32" OD	0.2	1.2	0.7	0.4
CPTSE250	1/4" OD	0.2	1.4	0.7	0.5
CPTSE312	5/16" OD	0.3	1.6	0.9	0.5
CPTSE375	3/8" OD	0.3	2.0	1	0.7
CPTSE500	1/2" OD	0.3	2.1	1.1	0.8

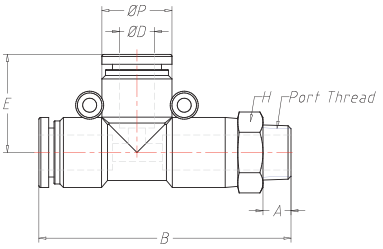
Male Branch Tee, Swivel

Part Number	Tube ØD	Thread Size	A	B	E	H	ØP
CPTS156-1032	5/32" OD	10-32 UNF	0.1	1.4	0.8	7/16	0.4
CPTS156-1/8	5/32" OD	1/8 NPT	0.2	1.4	1	7/16	0.4
CPTS156-1/4	5/32" OD	1/4 NPT	0.4	1.4	1.1	9/16	0.4
CPTS250-1032	1/4" OD	10-32 UNF	0.1	1.5	0.9	1/2	0.5
CPTS250-1/8	1/4" OD	1/8 NPT	0.2	1.5	1	1/2	0.5
CPTS250-1/4	1/4" OD	1/4 NPT	0.4	1.5	1.1	9/16	0.5
CPTS250-3/8	1/4" OD	3/8 NPT	0.4	1.5	1.2	11/16	0.5
CPTS312-1/8	5/16" OD	1/8 NPT	0.2	1.7	1.1	9/16	0.5
CPTS312-1/4	5/16" OD	1/4 NPT	0.4	1.7	1.2	9/16	0.5
CPTS312-3/8	5/16" OD	3/8 NPT	0.4	1.7	1.3	11/16	0.5
CPTS375-1/8	3/8" OD	1/8 NPT	0.2	2.2	1.3	11/16	0.7
CPTS375-1/4	3/8" OD	1/4 NPT	0.4	2.2	1.4	11/16	0.7
CPTS375-3/8	3/8" OD	3/8 NPT	0.4	2.2	1.5	11/16	0.7
CPTS375-1/2	3/8" OD	1/2 NPT	0.5	2.2	1.6	7/8	0.7
CPTS500-1/4	1/2" OD	1/4 NPT	0.4	2.3	1.5	7/8	0.8
CPTS500-3/8	1/2" OD	3/8 NPT	0.4	2.3	1.6	7/8	0.8
CPTS500-1/2	1/2" OD	1/2 NPT	0.5	2.3	1.6	7/8	0.8

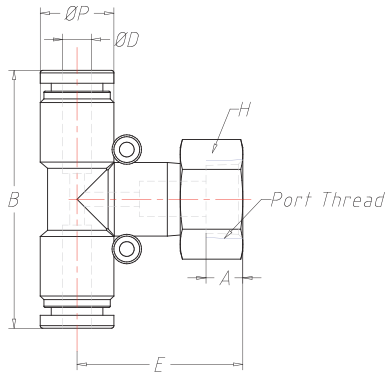


Male Run Tee, Swivel

Part Number	Tube ØD	Thread Size	A	B	E	H	ØP
CPRTS156-1032	5/32" OD	10-32 UNF	0.1	1.5	0.7	7/16	0.4
CPRTS156-1/8	5/32" OD	1/8 NPT	0.2	1.6	0.7	7/16	0.4
CPRTS156-1/4	5/32" OD	1/4 NPT	0.4	1.7	0.7	9/16	0.4
CPRTS250-1032	1/4" OD	10-32 UNF	0.1	1.6	0.7	1/2	0.5
CPRTS250-1/8	1/4" OD	1/8 NPT	0.2	1.8	0.7	1/2	0.5
CPRTS250-1/4	1/4" OD	1/4 NPT	0.4	1.9	0.7	9/16	0.5
CPRTS250-3/8	1/4" OD	3/8 NPT	0.5	2.1	0.7	7/8	0.5
CPRTS312-1/8	5/16" OD	1/8 NPT	0.2	2.0	0.9	9/16	0.5
CPRTS312-1/4	5/16" OD	1/4 NPT	0.4	2.2	0.9	9/16	0.5
CPRTS312-3/8	5/16" OD	3/8 NPT	0.4	2.2	0.9	11/16	0.5
CPRTS375-1/8	3/8" OD	1/8 NPT	0.2	2.4	1.1	11/16	0.7
CPRTS375-1/4	3/8" OD	1/4 NPT	0.4	2.5	1.1	11/16	0.7
CPRTS375-3/8	3/8" OD	3/8 NPT	0.4	2.6	1.1	11/16	0.7
CPRTS375-1/2	3/8" OD	1/2 NPT	0.5	2.7	1.1	7/8	0.7
CPRTS500-1/4	1/2" OD	1/4 NPT	0.2	2.6	1.1	7/8	0.8
CPRTS500-3/8	1/2" OD	3/8 NPT	0.4	2.7	1.1	7/8	0.8
CPRTS500-1/2	1/2" OD	1/2 NPT	0.5	2.8	1.1	7/8	0.8

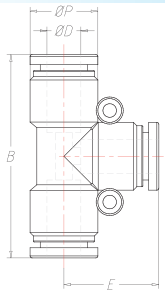


Female Branch Tee



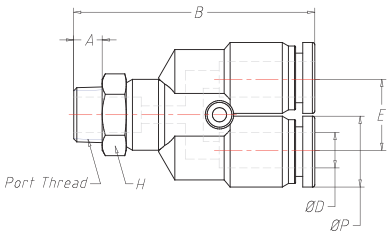
Part Number	Tube ØD	Thread Size	A	B	E	H	ØP
CPFBT156-1/8	5/32" OD	1/8 NPT (F)	0.2	1.4	0.9	9/16	0.4
CPFBT156-1/4	5/32" OD	1/4 NPT (F)	0.3	1.4	1	11/16	0.4
CPFBT250-1032	1/4" OD	10-32 UNF (F)	0.1	1.5	0.8	9/16	0.5
CPFBT250-1/8	1/4" OD	1/8 NPT (F)	0.2	1.5	0.9	9/16	0.5
CPFBT250-1/4	1/4" OD	1/4 NPT (F)	0.3	1.5	1	11/16	0.5
CPFBT250-3/8	1/4" OD	3/8 NPT (F)	0.4	1.5	1.1	7/8	0.5
CPFBT312-1/8	5/16" OD	1/8 NPT (F)	0.2	1.7	1	9/16	0.5
CPFBT312-1/4	5/16" OD	1/4 NPT (F)	0.3	1.7	1.2	11/16	0.5
CPFBT312-3/8	5/16" OD	3/8 NPT (F)	0.4	1.7	1.2	7/8	0.5
CPFBT375-1/8	3/8" OD	1/8 NPT (F)	0.4	2.2	1.4	7/8	0.7
CPFBT375-1/4	3/8" OD	1/4 NPT (F)	0.3	2.2	1.3	11/16	0.7
CPFBT375-3/8	3/8" OD	3/8 NPT (F)	0.4	2.2	1.4	7/8	0.7
CPFBT375-1/2	3/8" OD	1/2 NPT (F)	0.5	2.2	1.4	7/8	0.7
CPFBT500-1/2	1/2" OD	1/2 NPT (F)	0.5	2.3	1.5	7/8	0.8

Union Tee



Part Number	Tube ØD	B	E	ØP
CPT156	5/32" OD	1.4	0.7	0.4
CPT250	1/4" OD	1.5	0.7	0.5
CPT312	5/16" OD	1.7	0.9	0.5
CPT375	3/8" OD	2.2	1.1	0.7
CPT500	1/2" OD	2.3	1.5	0.8

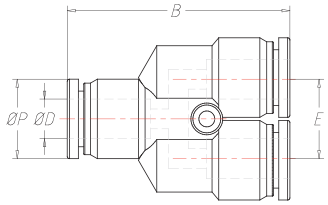
Male Y, Swivel



Part Number	Tube ØD	Thread Size	A	B	E	H	ØP
CPYS156-1032	5/32" OD	10-32 UNF	0.1	1.5	0.4	7/16	0.4
CPYS156-1/8	5/32" OD	1/8 NPT	0.2	1.6	0.4	7/16	0.4
CPYS156-1/4	5/32" OD	1/4 NPT	0.4	1.8	0.4	9/16	0.4
CPYS250-1032	1/4" OD	10-32 UNF	0.1	1.6	0.5	1/2	0.5
CPYS250-1/8	1/4" OD	1/8 NPT	0.2	1.7	0.5	1/2	0.5
CPYS250-1/4	1/4" OD	1/4 NPT	0.4	1.8	0.5	9/16	0.5
CPYS250-3/8	1/4" OD	3/8 NPT	0.4	1.9	0.5	11/16	0.5
CPYS312-1/8	5/16" OD	1/8 NPT	0.2	1.8	0.5	9/16	0.5
CPYS312-1/4	5/16" OD	1/4 NPT	0.4	1.9	0.5	9/16	0.5
CPYS312-3/8	5/16" OD	3/8 NPT	0.4	2.0	0.5	11/16	0.5
CPYS375-1/8	3/8" OD	1/8 NPT	0.2	2.4	0.7	11/16	0.7
CPYS375-1/4	3/8" OD	1/4 NPT	0.4	2.5	0.7	11/16	0.7
CPYS375-3/8	3/8" OD	3/8 NPT	0.4	2.5	0.7	11/16	0.7
CPYS375-1/2	3/8" OD	1/2 NPT	0.5	2.6	0.7	7/8	0.7
CPYS500-1/4	1/2" OD	1/4 NPT	0.2	2.5	0.8	7/8	0.8
CPYS500-3/8	1/2" OD	3/8 NPT	0.4	2.7	0.8	7/8	0.8
CPYS500-1/2	1/2" OD	1/2 NPT	0.4	2.8	0.8	7/8	0.8

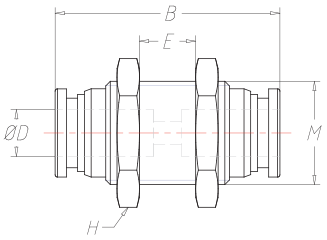
Union Y

Part Number	Tube ØD	B	E	ØP
CPY156	5/32" OD	1.9	0.4	0.4
CPY250	1/4" OD	1.4	0.5	0.5
CPY312	5/16" OD	1.5	0.5	0.5
CPY375	3/8" OD	1.9	0.7	0.7
CPY500	1/2" OD	2.0	0.8	0.8



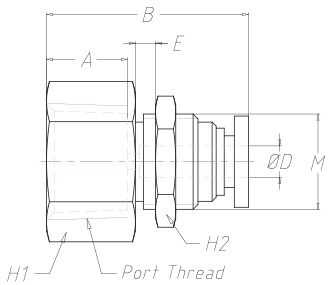
Union Bulkhead

Part Number	Tube ØD	B	E	H	M
CPBU125	1/8" OD	1.1	0.3	9/16	M12X1.0
CPBU156	5/32" OD	1.1	0.3	9/16	M12X1.0
CPBU250	1/4" OD	1.2	0.3	11/16	M14X1.0
CPBU312	5/16" OD	1.4	0.4	3/4	M16X1.0
CPBU375	3/8" OD	1.7	0.5	7/8	M20X1.0
CPBU500	1/2" OD	1.8	0.6	1	M22X1.0



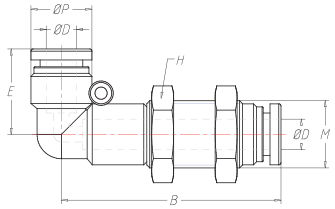
Female Bulkhead

Part Number	Tube ØD	Thread Size	A	B	E	H1	H2	M
CPFBU156-1/8	5/32" OD	1/8 NPT (F)	0.3	0.9	0.1	9/16	9/16	M12
CPFBU156-1/4	5/32" OD	1/4 NPT (F)	0.4	1.0	0.1	11/16	9/16	M12
CPFBU250-1/8	1/4" OD	1/8 NPT (F)	0.3	0.9	0.2	11/16	11/16	M14
CPFBU250-1/4	1/4" OD	1/4 NPT (F)	0.4	1.1	0.2	11/16	11/16	M14
CPFBU250-3/8	1/4" OD	3/8 NPT (F)	0.4	1.1	0.2	11/16	11/16	M14
CPFBU375-1/4	3/8" OD	1/4 NPT (F)	0.4	1.3	0.3	1	1	M20
CPFBU375-3/8	3/8" OD	3/8 NPT (F)	0.4	1.3	0.3	1	1	M20
CPFBU375-1/2	3/8" OD	1/2 NPT (F)	0.5	1.4	0.3	1	1	M20

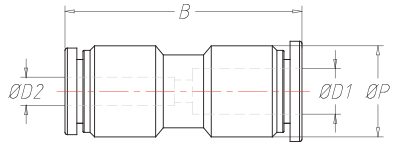


Elbow Bulkhead

Part Number	Tube ØD	B	E	H	M	ØP
CPEUB156	5/32" OD	1.7	0.7	9/16	M12	0.4
CPEUB250	1/4" OD	1.8	0.7	11/16	M14	0.5
CPEUB312	5/16" OD	2.1	0.9	3/4	M16	0.5
CPEUB375	3/8" OD	2.5	1	7/8	M20	0.7

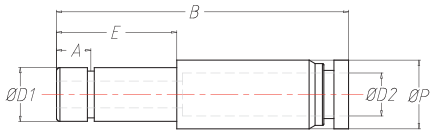


Reducer



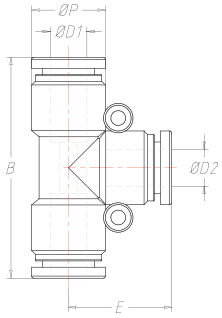
Part Number	ØD1	ØD2	B	ØP
CPRU250-156	1/4”	5/32”	1.3	0.5
CPRU312-250	5/16”	1/4”	1.5	0.5
CPRU375-312	3/8”	5/16”	1.8	0.7
CPRU500-375	1/2”	3/8”	1.8	0.8

Stem Reducer



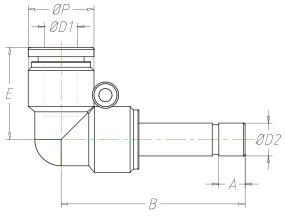
Part Number	ØD1	ØD2	A	B	E	ØP
CPSR250-156	1/4”	5/32”	0.2	1.6	0.6	0.3
CPSR312-250	5/16”	1/4”	0.2	1.7	0.7	0.4
CPSR375-312	3/8”	5/16”	0.3	1.8	0.9	0.5
CPSR500-375	1/2”	3/8”	0.3	2.1	0.9	0.6

Reducing Tee



Part Number	ØD1	ØD2	B	E	ØP
CPRT250-156	1/4”	5/32”	1.4	0.7	0.5
CPRT312-250	5/16”	1/4”	1.7	0.9	0.5
CPRT375-312	3/8”	5/16”	2.1	1.1	0.7
CPRT500-375	1/2”	3/8”	2.2	1.5	0.8

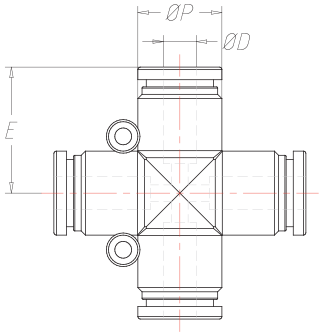
Tube to Stem Elbow Reducer



Part Number	ØD1	ØD2	A	B	E	ØP
CPTSER250-156	5/32”	1/4”	0.2	1.2	0.7	0.4
CPTSER312-250	1/4”	5/16”	0.2	1.4	0.7	0.5
CPTSER375-312	5/16”	3/8”	0.3	1.6	0.9	0.5
CPTSER500-375	3/8”	1/2”	0.3	1.8	1	0.7

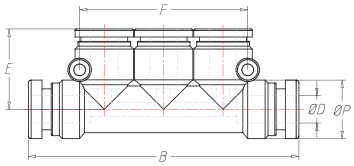
Union Cross

Part Number	Tube ØD	E	ØP
CPX156	5/32” OD	0.6	0.4
CPX250	1/4” OD	0.7	0.5
CPX312	5/16” OD	0.8	0.5
CPX375	3/8” OD	1.1	0.7
CPX500	1/2” OD	1.1	0.7



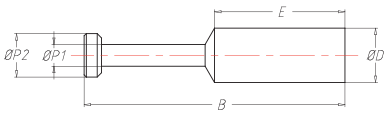
Union Branch

Part Number	Tube ØD	B	E	F	ØP
CPUB156	5/32” OD	2.2	0.7	1.4	0.5
CPUB250	1/4” OD	2.5	0.7	1.6	0.5
CPUB312	5/16” OD	3.1	0.9	1.9	0.7
CPUB375	3/8” OD	3.7	1.1	2.3	0.8



Plug

Part Number	ØD	B	E	ØP1	ØP2
CPP156	5/32” OD	1.1	0.5	0.1	0.1
CPP250	1/4” OD	1.2	0.6	0.1	0.2
CPP375	3/8” OD	1.6	0.8	0.1	0.4



Features

- Multiple porting options to accommodate plumbing requirements
- Meter out functionality, free flow in opposite direction
- Knurled knob or screwdriver slot adjustment
- Lighweight plastic or metal body
- Oval Release button eases tubing disconnection (CPFC Series Only)
- Compact size
- Thread sealant is standard on male threads (10-32 UNF features a captive o-ring)

Flow Controls

Port mounted flow controls are ideal for adjusting the speed of extension and retraction for virtually any actuator.

Most double acting applications are best served with meter-out style flow controls, which control the flow of exhaust air as it leaves the cylinder. By reducing the exhaust air flow rate, the flow control reduces the speed of travel of the cylinder rod.

Finely threaded stems allow the gradual adjustment of controlled flow to match system requirements.

Materials of Construction

CPFC Series
- Body: Polybutylene and nickel plated brass
- Needle: Nickel plated brass
- Seals: Buna-N
- Gripper Ring: Stainless Steel
- Collet (Release Button): Polyacetate
- Collar: Zinc Dichromate

FQPS Series
- Adjusting knob & thread: Brass (RoHS approved)
- Body: Thermoplastic polymer
- Seals: Buna-N
- Gripper Ring: Stainless Steel
- Collet (Release Button): Polyacetate
- Collar: Zinc Dichromate

FCP Series
- Banjo Connector: Chrome plated, zinc die cast
- Banjo Retaining Ring: Zinc plated steel
- Stem: High strength anodized aluminum alloy
- Adjusting Needle: Stainless Steel
- Seals: Buna-N

FQP Series
- Banjo Connector: Chrome plated, zinc die cast
- Banjo Retaining Ring: Zinc plated steel
- Stem: High strength anodized aluminum alloy
- Adjusting Needle: Stainless Steel
- Seals: Buna-N
- Collet: Acetal copolymer
- Gripping Teeth: Stainless Steel
- Collet Retainer (if applicable): Brass
- Locknut: 416 Stainless Steel

Flow Control Selection Chart

Composite Body Right Angle Flow Controls

Inline Flow Controls

Part Number	Tube ØD	Recessed Screwdriver Slot	Adjustment style Knurled knob	Knurled knob with lockout
CPFC250	1/4" OD			X
CPFC312	5/16" OD			X
CPFC375	3/8" OD			X

FQPS Series w/ Push to Connect Tubing Connection

Part Number	Tube ØD	Port Size	Recessed Screwdriver Slot	Adjustment style Knurled knob	Knurled knob with lockout
FQPS1	5/32" OD	10-32 UNF	X		
FQPS1K	5/32" OD	10-32 UNF			X
FQPS12	1/4" OD	10-32 UNF	X		
FQPS12K	1/4" OD	10-32 UNF			X
FQPS21	5/32" OD	1/8 NPT	X		
FQPS21K	5/32" OD	1/8 NPT			X
FQPS2	1/4" OD	1/8 NPT	X		
FQPS2K	1/4" OD	1/8 NPT			X
FQPS44	1/4" OD	1/4 NPT	X		
FQPS44K	1/4" OD	1/4 NPT			X
FQPS46K	3/8" OD	1/4 NPT			X

Flow Control Selection Chart

Metal Body Right Angle Flow Controls

FCP Series with Female Threaded Pipe Connection

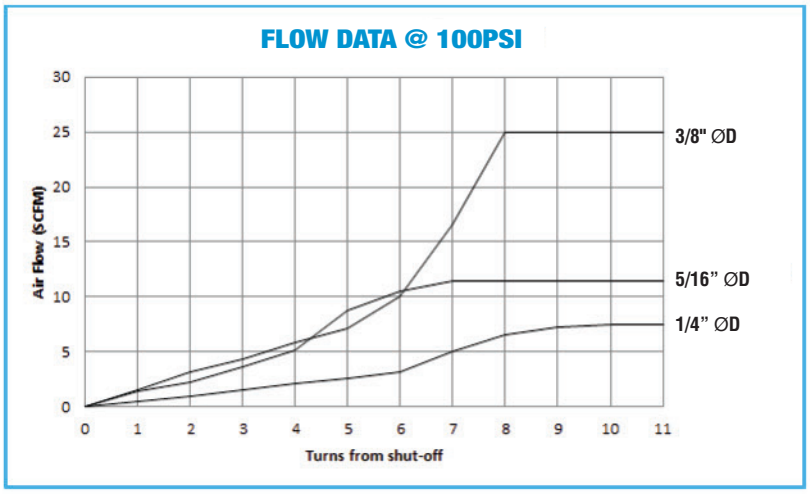
Part Number	Female Pipe Thread	Port Size	Recessed Screwdriver Slot	Adjustment style Knurled knob	Knurled knob with lockout
FCP1	10-32 UNF	10-32 UNF	X		
FCP1K	10-32 UNF	10-32 UNF		X	
FCP1L	10-32 UNF	10-32 UNF			X
FCP2	1/8 NPT	1/8 NPT	X		
FCP2K	1/8 NPT	1/8 NPT		X	
FCP2L	1/8 NPT	1/8 NPT			X
FCP4	1/4 NPT	1/4 NPT	X		
FCP4K	1/4 NPT	1/4 NPT		X	
FCP4L	1/4 NPT	1/4 NPT			X
FCP6	3/8 NPT	3/8 NPT	X		
FCP6K	3/8 NPT	3/8 NPT		X	
FCP6L	3/8 NPT	3/8 NPT			X
FCP8	1/2 NPT	1/2 NPT	X		
FCP8K	1/2 NPT	1/2 NPT		X	
FCP8L	1/2 NPT	1/2 NPT			X

FQP Series w/ Push to Connect Tubing Connection

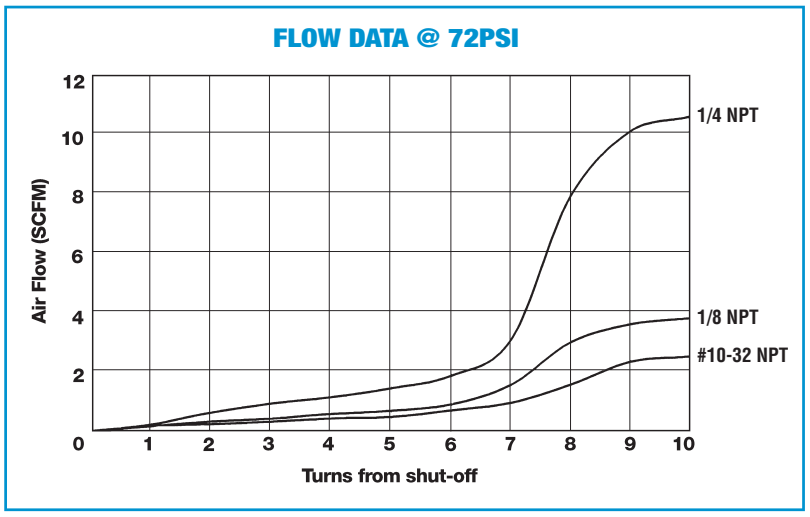
Part Number	Tube ØD	Port Size	Recessed Screwdriver Slot	Adjustment style Knurled knob	Knurled knob with lockout
FQP1	5/32” OD	10-32 UNF	X		
FQP1K	5/32” OD	10-32 UNF			X
FQP21	5/32” OD	1/8 NPT	X		
FQP21K	5/32” OD	1/8 NPT			X
FQP2	1/4” OD	1/8 NPT	X		
FQP2K	1/4” OD	1/8 NPT			X
FQP44	1/4” OD	1/4 NPT	X		
FQP44K	1/4” OD	1/4 NPT			X
FQP4	3/8” OD	1/4 NPT	X		
FQP4K	3/8” OD	1/4 NPT			X
FQP6	3/8” OD	3/8 NPT	X		
FQP6K	3/8” OD	3/8 NPT			X
FQP8	1/2” OD	1/2 NPT	X		
FQP8K	1/2” OD	1/2 NPT			X

Performance Data

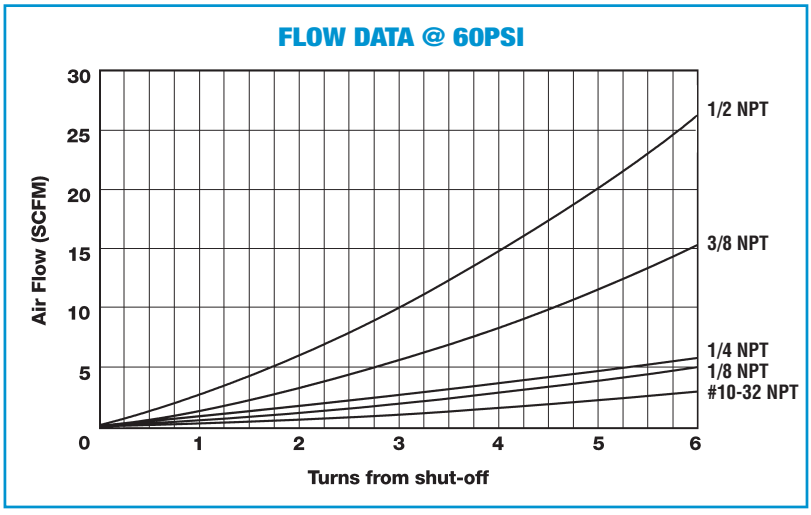
CPFC Series



FQPS Series

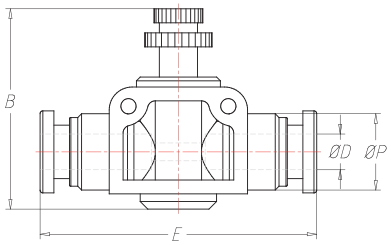


FQP & FCP Series



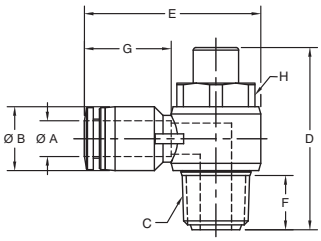
Composite Body Flow Controls

Inline Flow Control



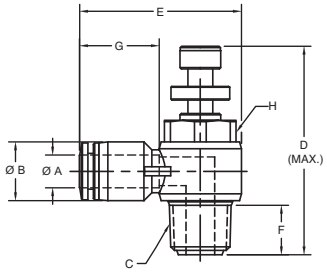
Part Number	Tube ØD	B	E	ØP
CPFC250	1/4" OD	1.6	1.8	0.5
CPFC312	5/16" OD	2.0	2.4	0.7
CPFC375	3/8" OD	2.1	2.9	0.8

FQPS Recessed Adjustment



Part Number	A Tube ØD	B	C	D	E	F	G	H
FQPS1	5/32" OD	.41	10-32 UNF	.91	.99	.14	.64	5/16
FQPS12	1/4" OD	.49	10-32 UNF	.91	1.31	.14	.69	5/16
FQPS2	1/4" OD	.49	1/8 NPT	1.24	1.26	.31	.69	7/16
FQPS21	5/32" OD	.41	1/8 NPT	1.24	1.20	.31	.64	7/16
FQPS44	1/4" OD	.49	1/4 NPT	1.46	1.41	.39	.69	19/32

FQPS Knob Adjustment



Part Number	A Tube ØD	B	C	D (min)	D (max)	E	F	G	H
FQPS1K	5/32" OD	.41	10-32 UNF	1.07	1.19	.99	.14	.64	5/16
FQPS12K	1/4" OD	.53	10-32 UNF	1.11	1.18	1.05	.14	.60	5/16
FQPS2K	1/4" OD	.51	1/8 NPT	1.40	1.56	1.18	.31	.60	7/16
FQPS21K	5/32" OD	.41	1/8 NPT	1.37	1.58	1.20	.31	.64	7/16
FQPS44K	1/4" OD	.49	1/4 NPT	1.57	1.80	1.41	.39	.69	19/32
FQPS46K	3/8" OD	.70	1/4 NPT	1.64	2.00	1.62	.50	.90	14mm

Needle Valves

We offer a range of Needle Valves, allowing for controlled flow of both the air intake and exhaust through the same valve. A needle valve can control a double acting cyinder's extension and retraction by controlling the volume of air entering the cylinder and the volume of air leaving the cylinder.

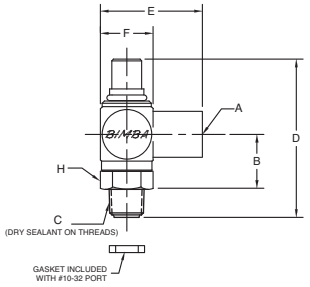
For additional dimensional information, reference FQP Recessed Adjustment Flow Controls on page 17 For example, reference FQP1 for QNV1 dimensions.

Part Number	Tube Size	Port Size	Cv
QNV1	5/32" OD	10-32 UNF	.09
QNV1K	5/32" OD	10-32 UNF	.09
QNV2	1/4" OD	1/8 NPT	.21
QNV2K	1/4" OD	1/8 NPT	.21
QNV44	1/4" OD	1/4 NPT	.44
QNV44K	1/4" OD	1/4 NPT	.44
QNV6	3/8" OD	3/8 NPT	.73
QNV6K	3/8" OD	3/8 NPT	.73

Metal Body Flow Controls

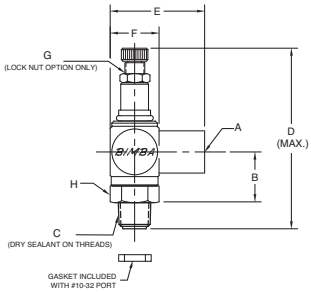
FCP Recessed Adjustment

Part Number	A	B	C	D	E	F	H
FCP1	10-32 UNF	.50	10-32 UNF	.42	.91	.47	7/16
FCP2	1/8 NPT	.58	1/8 NPT	1.7	1.12	.62	9/16
FCP4	1/4 NPT	.75	1/4 NPT	2.35	1.36	.75	11/16
FCP6	3/8 NPT	.80	3/8 NPT	2.46	1.63	.97	7/8
FCP8	1/2 NPT	.97	1/2 NPT	3.16	2.12	1.25	1-1/8



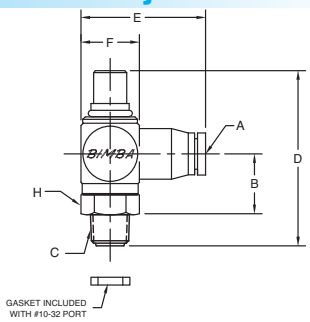
FCP Knob Adjustment

Part Number	A	B	C	D (knob)	D (lock nut)	E	F	G (lock hex)	H
FCP1K (knob) FCP1L (lock nut)	10-32 UNF	.50	10-32 UNF	1.75	1.80	.91	.47	1/4	7/16
FCP2K (knob) FCP2L (lock nut)	1/8 NPT	.58	1/8 NPT	2.12	2.14	1.12	.62	11/32	9/16
FCP4K (knob) FCP4L (lock nut)	1/4 NPT	.75	1/4 NPT	2.87	2.89	1.36	.75	7/16	11/16
FCP6K (knob) FCP6L (lock nut)	3/8 NPT	.80	3/8 NPT	3.02	3.02	1.63	.97	9/16	7/8
FCP8K (knob) FCP8L (lock nut)	1/2 NPT	.97	1/2 NPT	3.89	3.89	2.12	1.25	5/8	1-1/8



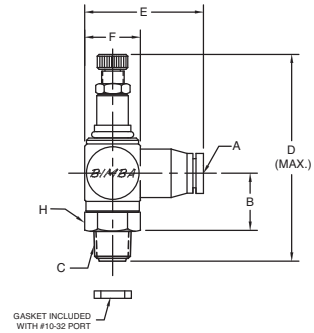
FQP Recessed Adjustment

Part Number	A Tube ØD	B	C	D	E	F	H
FQP1	5/32" OD	.5	10-32 UNF	1.42	1.00	.47	7/16
FQP2	1/4" OD	.58	1/8 NPT	1.70	1.24	.62	9/16
FQP21	5/32" OD	.58	1/8 NPT	1.70	1.21	.62	9/16
FQP4	3/8" OD	.75	1/4 NPT	2.34	1.46	.75	11/16



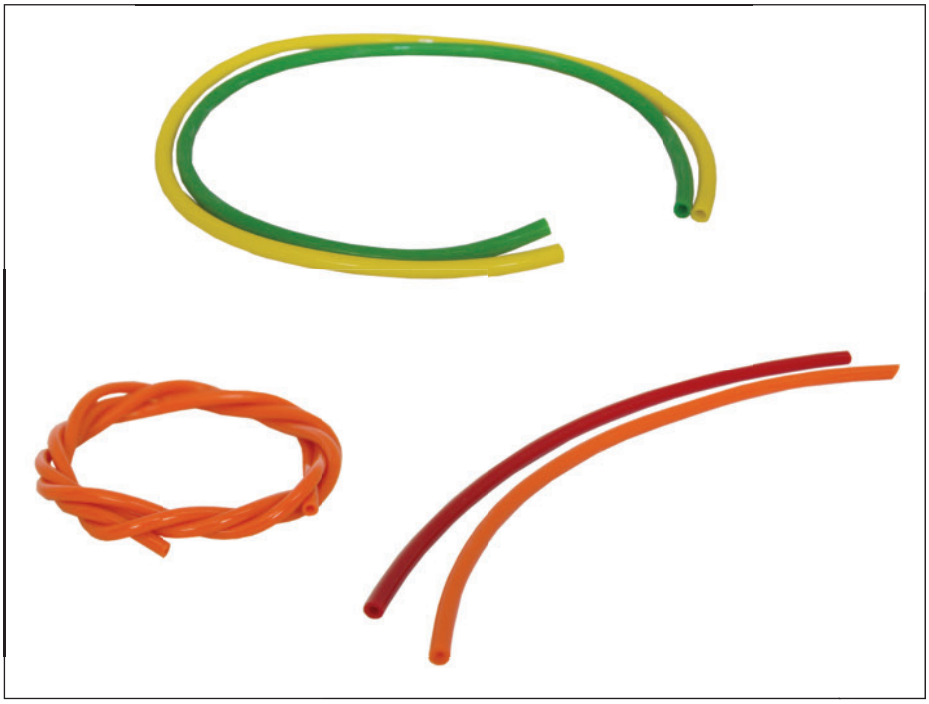
FQP Knob Adjustment

Part Number	A Tube ØD	B	C	D (max)	E	F	H
FQP1K	5/32" OD	.5	10-32 UNF	1.71	1.00	.47	7/16
FQP2K	1/4" OD	.58	1/8 NPT	2.12	1.24	.62	9/16
FQP21K	5/32" OD	.58	1/8 NPT	2.12	1.21	.62	9/16
FQP4K	3/8" OD	.75	1/4 NPT	2.91	1.46	.75	11/16



Features

- Variety of colors available to color code lines in an application
- Several sizes to accommodate Pneumadyne push-in fittings
- Highly flexible with excellent memory
- Vacuum to 28" Hg
- Kink resistant



95A Polyurethane Tubing

Recommended for use with push-in fittings, Pneumadyne's 95A durometer polyurethane tubing is available in a variety of colors to fit application requirements.

This extremely flexible and kink resistant tubing is ether-based and has excellent memory. The tubing can be bent and stretched in a circuit but will always return to its original shape.

Performance Data

Temperature Range: -40° to 160°F
Vacuum: to 28" Hg
Media: Air or Fluid Compatible with Polyurethane
Diameter Tolerances: 1/8 - 9/16: +/-.005
3/4: +/-.007
Metric: +/-.127 mm

95A durometer polyurethane tubing is a slightly harder compound than other durometers which increases wall rigidity to enable it to work with most brands of push-in fittings. It offers outstanding toughness and significantly higher working pressures, yet sacrifices very little flexiblity.

Temperature consideration: Thermoplastic tubing is affected by temperature. Careful consideration must be given to the reduced pressure capabilities of tubing as temperatures are increased.

Product Number Diagram

95A Polyurethane Tubing

PU250F-0

Product Line
PU = Polyurethane

Tube OD
125 = 1/8 OD
156 = 5/32 OD (4mm)
250 = 1/4 OD
375 = 3/8 OD
500 = 1/2 OD
8 = 8 mm (5/16 OD)

Durometer
F = 95A

Color
0 = Clear
2 = Black
3 = Red
4 = Blue
5 = Green
6 = Yellow
7 = Orange
27 = Transparent Blue
28 = Transparent Yellow

95A Polyurethane Tubing

Part Number	Tube ØD	Tube ID	Durometer	Working Pressure psi at 75 F	Standard Colors	Package
PU-125F-*	1/8" OD	1/16	95A	225	0,2,3,4,5,6,7	250' Box
PU-156F-*	5/32" OD	3/32	95A	210	0,2,3,4,5,6,7	100' Box
PU-250F-*	1/4" OD	1/8	95A	265	0,2,3,4,5,6,7,27	100' Box
PU-375F-*	3/8" OD	.245	95A	170	0,2,3,4,5,6,8,9,27,28	100' Box
PU-500F-*	1/2" OD	.320	95A	175	0,2	50' Bag
PUM-8F-*	8mm	5mm	95A	190	0,2	100' Bag

Tube Cutter

Part Number	Description
TC-1000	Tube Cutter
TCR	Blade Replacement

Precision cutter makes quick, clean and square cuts on all plastic tubing materials.

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