

Accessories

Numatics, Inc.

system QR3000

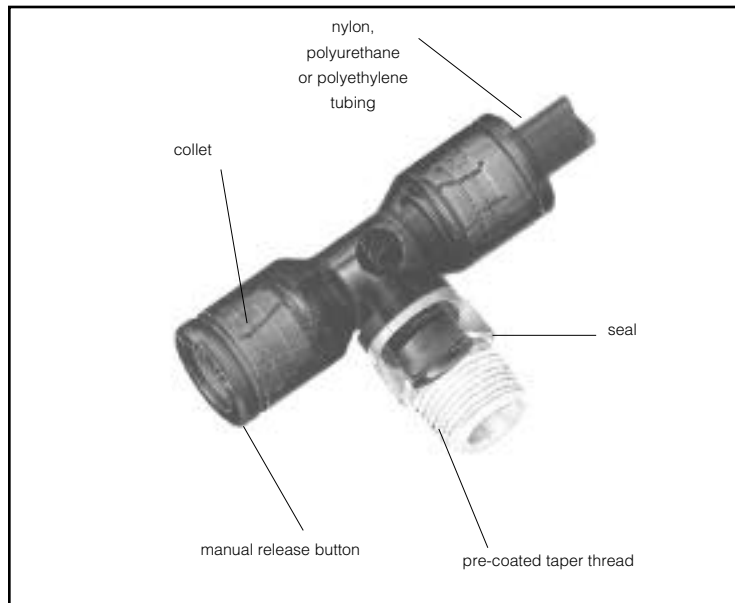
principle of operation:

The Numatics QR3000 push to connect fitting system is easy to operate. Simply push in the tubing until it can go no further. Holding and sealing is accomplished instantaneously.

To disconnect, first de-press the manual release button, then pull the tubing out of the fitting.

features:

- more than 1 Billion fittings are in service.
- it is offered in 2 forms
 - fractional inch tube to NPT and 10-32 UNF thread forms
 - metric tube to BSP Tapered or Parallel form
- in response to continuing demand and new applications, we are constantly expanding and improving our product range.



The QR3000 fitting is supplied complete with green manual release buttons and pre-applied thread sealant. 3rd generation NPT, BSPT, BSPP, 10-32 and M5 threads are nickel plated.

The green button may be replaced with buttons of another color.



1969

First Generation

The concept of instant fitting - instant connection and disconnection; no tools required.



1985

Second Generation

Use of a new material: a High Resistance polymer- increasing mechanical performance.



TODAY

Third Generation

Optimization of all performances and miniaturization of the entire product range

working specifications

The reliability of our product is dependent on the tube being used and the component materials of the fitting.

2nd Generation:	Fractional Inch Sizes: 1/8", 3/16", 1/2" Metric Sizes: 14mm
• working Pressure:	Maximum 250 psi
• working Temperature:	Maximum 160°F
3rd Generation:	Fractional Inch Sizes: 5/32", 1/4", 5/16", 3/8", Metric Sizes: 4mm, 6mm, 8mm, 10mm, 12mm
• working Pressure:	28Hg-275 PSI at ambient temperature
• working Temperature:	Maximum 175°F
• suitable Fluids :	Compressed air only. Lubricated or nonlubricated. For liquids or other types of compressed gases, please consult us.
• many different types of tubing can be used	Nylon, Polyurethane, Polyethylene
• materials of Construction	Brass (2nd Generation) • nickel plated brass (3rd Generation) • black body - glass filled nylon • o-ring seal - buna Nitrile • button - polypropylene • thread sealant • sealing washers - nylon
All 3rd Generation fittings are silicone free.	

For further information, please consult us.

Numatics has a policy of continual product development and reserves the right to change dimensions or specifications without prior notification.

advantages

QR3000 push-to-connect fittings

optimum
flow

immediate
seal

instantaneous
connection and
disconnection

use of many
different types
of tubing

• OPTIMUM FLOW

Full Flow: The gripping and sealing of the fitting is achieved using the outside diameter of the tube without deformation, compact yet no restriction in flow.

• IMMEDIATE SEAL

QR3000 3rd generation seals both in static and dynamic applications

• Automatic Seal:

The tube seal provides a positive seal on the O.D. of the tube. NPT and BSPT threads are supplied with preapplied thread sealant.

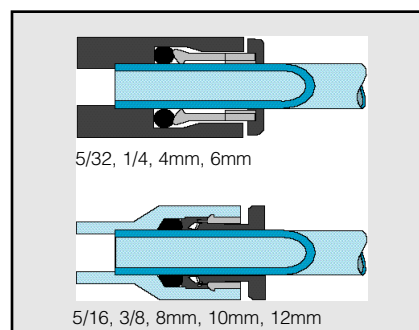
- 10/32 and M5 versions utilize a nylon washer or o-ring to seal the connection.

• INSTANTANEOUS CONNECTION/DISCONNECTION

Tubing is connected or disconnected without the use of any special tools.

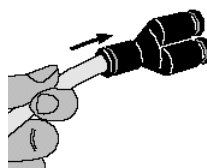
Fittings come standard with a green release button. Release buttons are available in several colors to enable color coding of circuits.

- semi rigid nylon tube from 1/8" to 1/2" O.D. and 4mm to 14mm O.D.
- polyurethane tube from 5/32" to 1/2" O.D. and 4mm to 12mm O.D.
- polyethylene tube from 1/8" to 1/2" O.D.



to connect

to disconnect



Simply push the tubing until it can go no further. Holding and sealing is accomplished instantaneously.

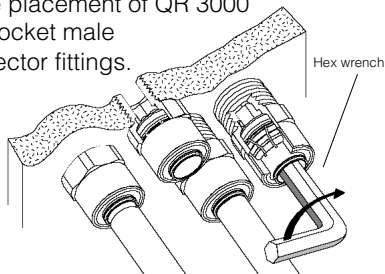


First depress the manual release button, then pull the tubing out of the fitting.

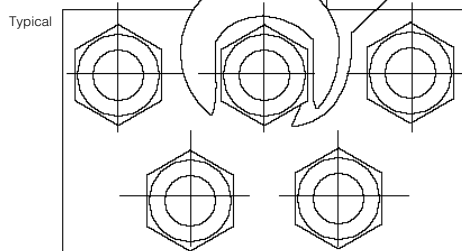
Type of fitting	Average time each connection (in Seconds)	Possible connections per hour
QR 3000	3 Sec.	1200
Typical plastic tube	12 Sec.	300
Typical compression	19 Sec.	180
Typical flare	49 Sec.	73

Space Saving Characteristics of the QR 3000

Close placement of QR 3000 hex socket male connector fittings.

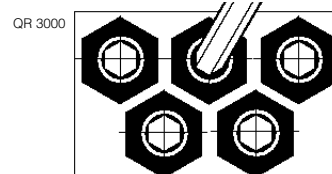


Comparison of typical and QR 3000 fittings



Straight Male Spacing

The drawing below shows the close spacing of male fittings.



Tee / Elbow Spacing

The drawing on this page shows how quick and easy it is to orient the QR 3000 Instant Fitting

- Rotation of fitting to desired position
- Close placement of fittings for minimum space requirements.

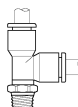
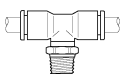
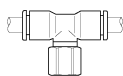


Tube O.D.	Pipe thread NPT	TEES OR ELBOWS		STRAIGHT MALE FITTINGS	
		QR 3000 spacing	Typical fitting spacing	QR 3000 spacing	Typical fitting spacing
1/8	1/16	.512	1.181	.540	.795
1/8	1/8	.512	1.181	.540	.795
5/32	1/8	.512	1.181	.540	.795
3/16	1/8	.512	1.181	.540	.795
1/4	1/4	.670	1.400	.690	1.010
5/16	1/4	.670	1.400	.690	1.010
3/8	1/4	.900	2.010	.900	1.420
1/2	3/8	1.060	2.170	1.040	1.630

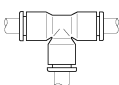
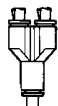
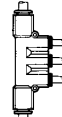
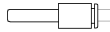
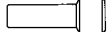
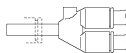
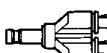
the complete range of QR3000 push to connect fittings

fractional inch tubing to N.P.T. and 10-32 U.N.F.

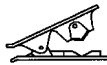
push-in fittings — tube to male or female n.p.t.

QR3175/ 3115 page A-6 	QR3171 page A-6 	QR3148 page A-6 	QR3103 page A-6 	QR3109 page A-7 	QR3129 page A-7 	QR3108 page A-7 	QR3118 page A-8 
QR3018 page A-8 	QR3014/ 3114 page A-9 	QR3009 page A-9 	QR3008 page A-9 				

tube-to-tube fittings and accessories: plug-in fittings

QR3106 page A-10 	QR3102 page A-10 	QR3104 page A-10 	QR3140 page A-10 	QR3144 page A-11 	QR3304 page A-11 	QR3156 page A-12 	QR3332 page A-12 
QR3186 page A-13 	QR3166 page A-14 	QR3168 page A-14 	QR3126 page A-14 	QR3142 page A-15 	QR3143 page A-15 	QR3120 page A-15 	

tubing and accessories

QR3330 page A-16 	Nylon 11 page A-17 	Low Density page A-18 	Poly 95 page A-19 	QRCLIP page A-20 	QR300071 page A-20 		
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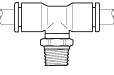
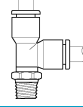
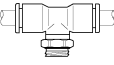
n.p.t. to b.s.p. adaptors

QR0121 page A-21 	QR0164 page A-21 	QR0167 page A-21 					
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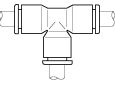
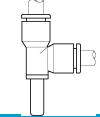
the complete range of QR3000 push to connect fittings

metric tube to BSP and M5 threads

push-in fittings - tapered (with pre-coating) parallel and metric (with washer)

QR3175 page A-22 	QR3101 page A-22 	QR3114 page A-23 	QR3148 page A-23 	QR3158 page A-23 	QR3109 page A-24 	QR3129 page A-24 	QR3199 page A-24 	QR3169 page A-25 
QR3108 page A-26 	QR3103 page A-26 	QR3198 page A-26 						

tube to tube fittings and accessories: plug-in fittings

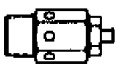
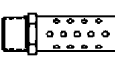
QR3106 page A-27 	QR3106 page A-27 	QR3102 page A-27 	QR3104 page A-27 	QR3140 page A-28 	QR3144 page A-28 	QR3304 page A-29 	QR3183 page A-29 	QR3156 page A-29 
QR3332 page A-29 	QR3166 page A-30 	QR3168 page A-30 	QR3126 page A-30 	QR3142 page A-31 	QR3143 page A-31 	QR3120 plastic page A-31 	QR3170 page A-31 	QR3330 page A-32 

tubing and accessories

Metric Poly 95 page A-33 	QRCLIP page A-34 	QR300071 page A-34 						
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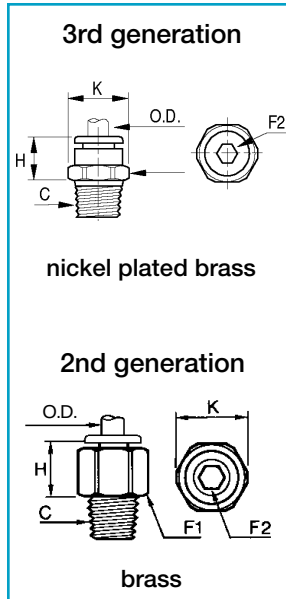
the complete accessory line from Numatics

Valves, silencers, flow controls and Numatrol fittings & tubing

SEV page A-35  quick exhaust valve	OA22-1 page A-35  shuttle valve	MV page A-36  metering valve	A1MN page A-36  speed control muffler	B1MN page A-36  breather vent silencer	M1MN/FN page A-37  metal air silencer	P0MN page A-38  porous bronze air silencer	FCRN page A-39  right angle flow control	1FC1 page A-40  inline flow control
2FC1K page A-40  inline flow control	FC2 page A-40  inline flow control	FC3 page A-40  inline flow control	134 page A-41  Numatrol fittings	135 page A-42  Numatrol tubing				

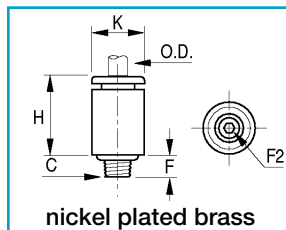
threaded fittings

QR3175/3115 tube to male NPT



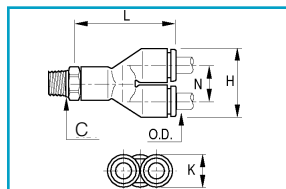
O.D. TUBE	C NPT	numatics	Previous QR Part Number	F1	F2	H	K	oz
1/8	1/16	QR3175 53 08	3115 53 08	7/16	7/64	.59	.51	.35
1/8	1/8	QR3175 53 11	3115 53 11	7/16	7/64	.49	.51	.35
1/8	1/4	QR3175 53 14	3115 53 14	9/16	7/64	.39	.65	.53
5/32	1/8	QR3175 04 11	3115 54 11	11mm	2.5mm	.34	.47	.35
5/32	1/4	QR3175 04 14	3115 54 14	14mm	2.5mm	.28	.59	.53
3/16	1/8	QR3175 55 11	3115 55 11	7/16	1/8	.61	.51	.67
3/16	1/4	QR3175 55 14	3115 55 14	9/16	5/32	.59	.65	.81
1/4	1/8	QR3175 56 11	3115 56 11	11mm	2.5mm	.34	.47	.63
1/4	1/4	QR3175 56 14	3115 56 14	14mm	4mm	.37	.59	.74
1/4	3/8	QR3175 56 18	3115 56 18	18mm	4mm	.30	.77	.99
5/16	1/8	QR3175 08 11	3115 58 11	13mm	5mm	.79	.55	.63
5/16	1/4	QR3175 08 14	3115 58 14	14mm	5mm	.66	.59	.74
5/16	3/8	QR3175 08 18	3115 58 18	18mm	5mm	.46	.77	.99
3/8	1/8	QR3175 60 11	3115 60 11	16mm	5/32	.894	.689	1.02
3/8	1/4	QR3175 60 14	3115 60 14	16mm	9/32	.807	.689	1.02
3/8	3/8	QR3175 60 18	3115 60 18	18mm	9/32	.689	.767	1.41
3/8	1/2	QR3175 60 22	3115 60 22	22mm	9/32	.61	.945	2.61
1/2	1/4	QR3115 62 14		7/8	1/4	1.00	1.01	2.29
1/2	3/8	QR3115 62 18		7/8	5/16	1.00	1.01	2.43
1/2	1/2	QR3115 62 22		7/8	3/8	1.00	1.01	2.29

QR3171 tube to 10-32 UNF



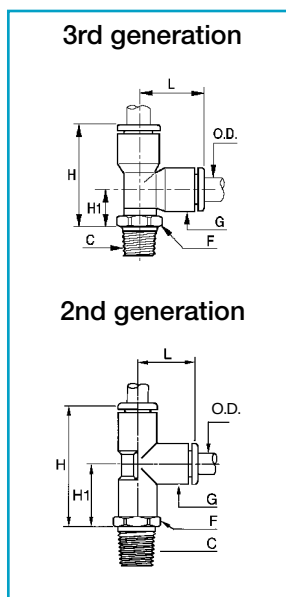
O.D. TUBE	C UNF	numatics	Previous QR Part Number	F	F2 (mm)	H	K	oz
1/8	10-32	QR3171 53 20			2	.55	.35	.17
5/32	10-32	QR3171 04 20	3171 54 20		2	.45	.55	.18
1/4	10-32	QR3171 56 20		0.16	2	.63	0.42	.19

QR3148 "Y" male NPT — tube



O.D. TUBE	C NPT	numatics	Previous QR Part Number	F	H	K	L	N	oz
5/32	1/8	QR3148 04 11	3148 54 11	10	1.22	.334	.688	.354	.35
5/32	1/4	QR3148 04 14	3148 54 14	14	1.24	.334	.688	.354	.63

QR3103 male run tee — tube to tube to male NPT



O.D. TUBE	C NPT/UNF	numatics	Previous QR Part Number	F	G	H	H1	L	oz
1/8	10-32	QR3103 53 20		7/16	.42	1.44	.72	.73	.46
1/8	1/16	QR3103 53 08		7/16	.42	1.48	.75	.73	.50
1/8	1/8	QR3103 53 11		7/16	.42	1.48	.75	.73	.53
5/32	10-32	QR3103 04 20	3103 54 20	8mm	.33	1.02	.45	.57	.21
5/32	1/8	QR3103 04 11	3103 54 11	11mm	.33	.93	.53	.57	.25
5/32	1/4	QR3103 04 14	3103 54 14	14mm	.33	.94	.37	.57	.28
3/16	1/8	QR3103 55 11		7/16	.43	1.48	.75	.73	.71
1/4	1/8	QR3103 56 11		11mm	.43	1.16	.45	.71	.32
1/4	1/4	QR3103 56 14		14mm	.43	1.12	.41	.71	.60
1/4	3/8	QR3103 56 18		18mm	.43	1.14	.43	.71	.65
5/16	1/8	QR3103 08 11	3103 58 11	11mm	.53	1.38	.49	.91	.56
5/16	1/4	QR3103 08 14	3103 58 14	14mm	.53	1.34	.45	.91	.67
5/16	3/8	QR3103 08 18		18mm	.53	1.36	.47	.91	.78
3/8	1/8	QR3103 60 11		15mm	.63	1.63	.60	1.04	2.30
3/8	1/4	QR3103 60 14		15mm	.63	1.63	.60	1.04	2.44
3/8	3/8	QR3103 60 18		18mm	.63	1.60	.55	1.04	2.44
3/8	1/2	QR3103 60 22		22mm	.63	1.63	.59	1.04	3.00
1/2	1/4	QR3103 62 14		7/8	.95	2.46	1.26	1.20	3.11
1/2	3/8	QR3103 62 18		7/8	.95	2.46	1.26	1.20	3.25
1/2	1/2	QR3103 62 22		7/8	.95	2.50	1.30	1.20	3.88

10-32 O-Ring replacement part number 31419

Shaded areas designate part numbers available from the 3rd Generation collection.

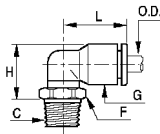
The 3rd generation hex is metric.

Dimensions are fractional inch unless otherwise noted.

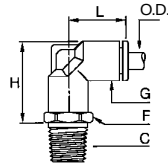
threaded fittings

QR3109 male elbow — tube to male NPT

3rd generation



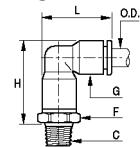
2nd generation



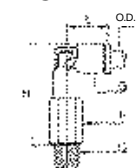
O.D. TUBE	C NPT/UNF	Previous QR Part Number	F	G	H	L	
1/8	10-32	QR3109 53 20	7/16	.42	.92	.73	.35
1/8	1/16	QR3109 53 08	7/16	.42	.96	.73	.35
1/8	1/8	QR3109 53 11	7/16	.42	.96	.73	.42
1/8	1/4	QR3109 53 14	9/16	.42	.96	.73	.67
5/32	10-32	QR3109 04 20	8mm	.33	.53	.55	.17
5/32	1/8	QR3109 04 11	11mm	.33	.53	.55	.21
5/32	1/4	QR3109 04 14	14mm	.33	.55	.55	.50
3/16	1/8	QR3109 55 11	7/16	.43	.96	.73	.56
1/4	10-32	QR3109 56 20	11mm	.43	.63	.71	.17
1/4	1/8	QR3109 56 11	11mm	.43	.67	.71	.21
1/4	1/4	QR3109 56 14	14mm	.43	.63	.71	.53
1/4	3/8	QR3109 56 18	18mm	.43	.65	.71	.62
5/16	1/8	QR3109 08 11	11mm	.53	.75	.91	.46
5/16	1/4	QR3109 08 14	14mm	.53	.71	.91	.53
5/16	3/8	QR3109 08 18	18mm	.53	.73	.91	.64
3/8	1/8	QR3109 60 11	15mm	.63	.91	1.08	1.89
3/8	1/4	QR3109 60 14	15mm	.63	.91	1.08	1.94
3/8	3/8	QR3109 60 18	18mm	.63	.87	1.08	2.12
3/8	1/2	QR3109 60 22	22mm	.63	.91	1.08	3.25
1/2	1/4	QR3109 62 14	7/8	.95	1.73	1.20	2.51
1/2	3/8	QR3109 62 18	7/8	.95	1.73	1.20	2.61
1/2	1/2	QR3109 62 22	7/8	.95	1.77	1.20	3.25

QR3129 extended male elbow — tube to male NPT

3rd generation



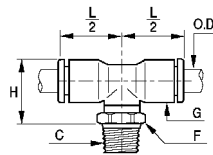
2nd generation



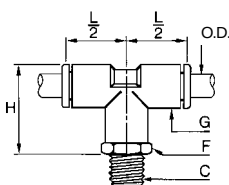
O.D. TUBE	C NPT	Previous QR Part Number	F	G	H	L	
5/32	1/8	QR3129 04 11	11mm	.33	.91	.75	.74
5/32	1/4	QR3129 04 14	14mm	.33	.93	.75	1.34
1/4	1/8	QR3129 56 11	11mm	.43	1.12	.93	1.31
1/4	1/4	QR3129 56 14	14mm	.43	1.08	.93	1.55
5/16	1/8	QR3129 08 11	13mm	.53	1.32	1.16	1.31
5/16	1/4	QR3129 08 14	14mm	.53	1.28	1.16	1.55
3/8	1/4	QR3129 60 14	17mm	.63	1.41	1.33	2.22
3/8	3/8	QR3129 60 18	18mm	.63	1.45	1.33	3.53

QR3108 male branch tee — tube to male NPT to tube

3rd generation



2nd generation



O.D. TUBE	C NPT/UNF	Previous QR Part Number	F	G	H	L/2	
1/8	10-32	QR3108 53 20	7/16	.42	.92	.73	.46
1/8	1/16	QR3108 53 08	7/16	.42	.96	.73	.50
1/8	1/8	QR3108 53 11	7/16	.42	.96	.73	.53
5/32	10-32	QR3108 04 20	8mm	.33	.71	.55	.20
5/32	1/8	QR3108 04 11	11mm	.33	.61	.55	.25
5/32	1/4	QR3108 04 14	14mm	.33	.63	.55	.28
3/16	1/8	QR3108 55 11	7/16	.43	.96	.73	.71
1/4	1/8	QR3108 56 11	11mm	.43	.67	.71	.32
1/4	1/4	QR3108 56 14	14mm	.43	.63	.71	.60
1/4	3/8	QR3108 56 18	18mm	.43	.65	.71	.71
5/16	1/8	QR3108 08 11	11mm	.53	.87	.91	.57
5/16	1/4	QR3108 08 14	14mm	.53	.83	.91	.67
5/16	3/8	QR3108 08 18	18mm	.53	.85	.91	.74
3/8	1/8	QR3108 60 11	15mm	.63	.99	1.04	2.30
3/8	1/4	QR3108 60 14	15mm	.63	.99	1.04	2.44
3/8	3/8	QR3108 60 18	18mm	.63	.95	1.04	2.44
3/8	1/2	QR3108 60 22	22mm	.63	.98	1.04	3.00
1/2	1/4	QR3108 62 14	7/8	.95	1.73	1.98	3.11
1/2	3/8	QR3108 62 18	7/8	.95	1.73	1.98	3.25
1/2	1/2	QR3108 62 22	7/8	.95	1.77	1.98	3.88

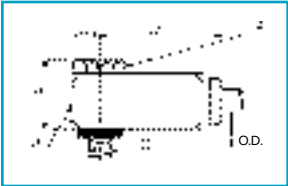


10-32 O-Ring replacement part number 31419
Shaded areas designate part numbers available from the 3rd Generation collection.

The 3rd generation hex is metric.
Dimensions are fractional inch unless otherwise noted.

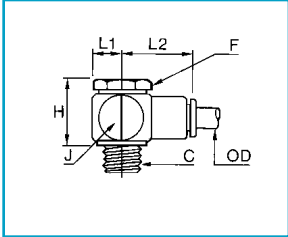
threaded fittings

QR3118 banjo – tube to 10-32 UNF



O.D. TUBE	C UNF		F	H	J	L1	L2	
1/8	10-32	QR3118 53 20	5/16	.53	3/8	.19	.85	.46
5/32	10-32	QR3118 54 20	5/16	.53	3/8	.19	.85	.46
1/4	10-32	QR3118 56 20	5/16	.53	1/2	.19	.87	.65

QR3018 banjo – tube to NPT



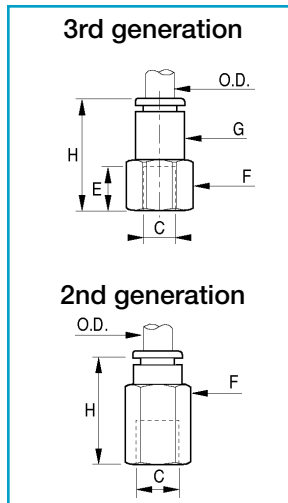
O.D. TUBE	C NPT		F	H	J	L1	L2	
5/32	1/8	QR3018 54 11	1/2	.77	.63	.32	.90	.67
1/4	1/8	QR3018 56 11	1/2	.78	.63	.36	.96	.74
1/4	1/4	QR3018 56 14	11/16	.78	.79	.42	1.02	.99
1/4	3/8	QR3018 56 18	7/8	.81	.98	.49	1.57	1.73
3/8	1/4	QR3018 60 14	7/8	.81	.98	.49	1.57	2.05
3/8	3/8	QR3018 60 18	7/8	.81	.98	.49	1.57	2.15

10-32 O-Ring replacement part number 31419
Shaded areas designate part numbers available from the 3rd Generation collection.
The 3rd generation hex is metric.
Dimensions are fractional inch unless otherwise noted.



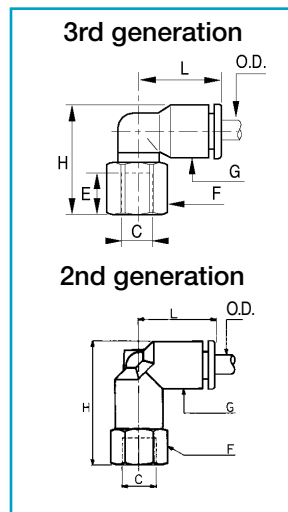
female threaded fittings

QR3014 straight female connector — tube to NPT



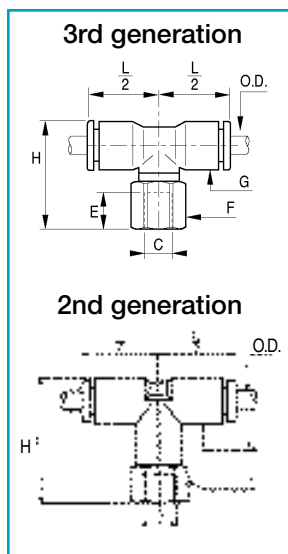
O.D. TUBE	C NPT		Previous QR Part Number	F	G	H	E	
1/8	1/8	QR3014 53 11	3114 53 11	9/16		1.06	.74	
1/8	1/4	QR3014 53 14	3114 53 14	11/16		1.26	1.13	
5/32	1/8	QR3014 04 11	3114 54 11	13mm	.32	.89	.37	.35
5/32	1/4	QR3014 04 14	3114 54 14	16mm	.32	1.06	.55	.56
3/16	1/8	QR3014 55 11	3114 55 11	9/16		1.06	.92	
3/16	1/4	QR3014 55 14	3114 55 14	11/16		1.26	1.27	
1/4	1/8	QR3014 56 11	3114 56 11	13mm	.42	.98	.37	.39
1/4	1/4	QR3014 56 14	3114 56 14	16mm	.42	1.16	.55	.56
5/16	1/8	QR3014 08 11	3114 58 11	13mm	.53	1.14	.37	.71
5/16	1/4	QR3014 08 14	3114 58 14	16mm	.53	1.32	.55	.95
3/8	1/4	QR3014 60 14	3114 60 14	16mm	.61	1.40	.55	2.50
3/8	3/8	QR3014 60 18	3114 60 18	22mm	.61	1.51	.65	2.58

QR3009 female elbow — tube to NPT



O.D. TUBE	C NPT		Previous QR Part Number	F	G	H	E	L	
1/8	1/8	QR3009 53 11		9/16	.42	1.21	.73	.42	
5/32	1/8	QR3009 04 11	3009 54 11	13mm	.33	.91	.37	.55	.40
5/32	1/4	QR3009 04 14	3009 54 14	16mm	.33	1.08	.55	.55	.45
1/4	1/8	QR3009 56 11		13mm	.43	1.02	.37	.71	.42
1/4	1/4	QR3009 56 14		16mm	.43	1.18	.55	.71	.49
5/16	1/8	QR3009 08 11	3009 58 11	13mm	.53	1.12	.37	.91	.66
5/16	1/4	QR3009 08 14	3009 58 14	16mm	.53	1.28	.55	.91	.69
3/8	1/4	QR3009 60 14		16mm	.63	1.52	.55	1.04	.81
1/2	3/8	QR3009 62 18		7/8	.95	2.17	1.20	3.25	

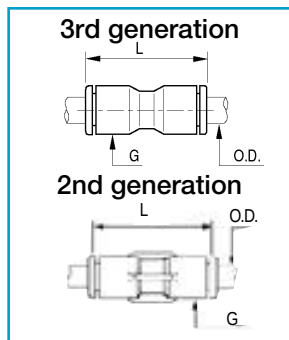
QR3008 female branch tee — tube to NPT



O.D. TUBE	C NPT		Previous QR Part Number	F	G	H	E	$\frac{L}{2}$	
1/8	1/8	QR3008 53 11		9/16	.42	1.21	.73	.53	
5/32	1/8	QR3008 04 11	3008 54 11	13mm	.33	.91	.37	.55	.40
5/32	1/4	QR3008 04 14	3008 54 14	16mm	.33	1.08	.55	.55	.45
1/4	1/8	QR3008 56 11		13mm	.43	1.02	.37	.71	.42
1/4	1/4	QR3008 56 14		16mm	.43	1.18	.55	.71	.49
5/16	1/8	QR3008 08 11	3008 58 11	13mm	.53	1.24	.37	.91	.66
5/16	1/4	QR3008 08 14	3008 58 14	16mm	.53	1.40	.55	.91	.69
3/8	1/4	QR3008 60 14		16mm	.63	1.60	.55	1.04	2.44
1/2	3/8	QR3008 62 18		7/8	.95	2.17	1.20	3.25	

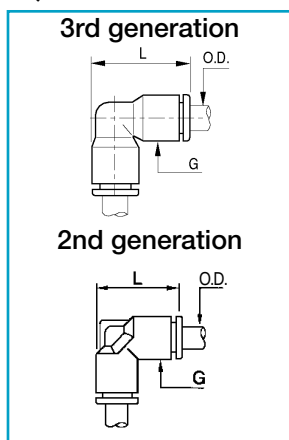
tube to tube fittings

QR3106 union — tube to tube



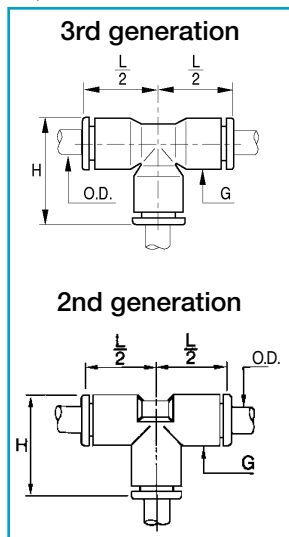
O.D. TUBE		Previous QR Part Number	G	L	
1/8	QR3106 53 00		.42	1.45	.21
5/32	QR3106 04 00	3106 54 00	.33	.98	.07
3/16	QR3106 55 00		.43	1.26	.28
1/4	QR3106 56 00		.43	1.16	.14
5/16	QR3106 08 00	3106 58 00	.53	1.50	.25
3/8	QR3106 60 00		.63	1.65	.95
1/2	QR3106 62 00		.95	1.92	1.16

QR3102 union elbow — tube to tube



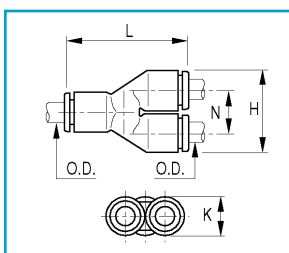
O.D. TUBE		Previous QR Part Number	G	L	
1/8	QR3102 53 00		.42	.93	.21
5/32	QR3102 04 00	3102 54 00	.33	.75	.07
3/16	QR3102 55 00		.43	.95	.28
1/4	QR3102 56 00		.43	.93	.14
5/16	QR3102 08 00	3102 58 00	.53	1.16	.25
3/8	QR3102 60 00		.63	1.33	.95
1/2	QR3102 62 00		.95	1.67	1.23

QR3104 tee — tube to tube to tube



O.D. TUBE		Previous QR Part Number	G	H	$\frac{L}{2}$	
1/8	QR3104 53 00		.42	.93	.73	.35
5/32	QR3104 04 00	3104 54 00	.33	.75	.57	.14
3/16	QR3104 55 00		.43	.94	.73	.42
1/4	QR3104 56 00		.43	.93	.73	.49
5/16	QR3104 08 00	3104 58 00	.53	1.16	.91	.32
3/8	QR3104 60 00		.63	1.33	1.015	1.48
1/2	QR3104 62 00		.95	1.67	1.20	2.08

QR3140 "Y" — tube to tube

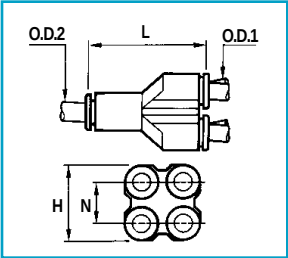


O.D. TUBE		Previous QR Part Number	H	K	L	N	
5/32	QR3140 04 00	3140 54 00	.69	.34	1.12	.35	.14
5/16	QR3140 08 00		1.10	.53	1.77	.57	.46
3/8	QR3140 60 00		1.30	.63	2.09	.67	.52

Shaded areas designate part numbers available from the 3rd Generation collection.
The 3rd generation hex is metric.
Dimensions are fractional inch unless otherwise noted.

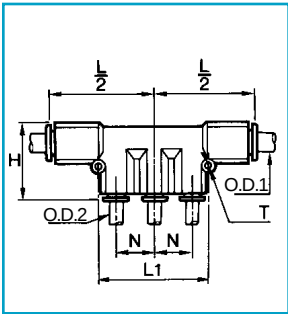
tube to tube fittings

QR3144 double "Y" — tube to tube



O.D.1 TUBE	O.D.2 TUBE	numatics®	H	L	N	
5/32	1/4	QR3144 54 56	.87	1.47	.43	1.1
5/32	5/32	QR3144 04 04	.86	1.40	.43	1.1

QR3304 multiple tee with mounting holes

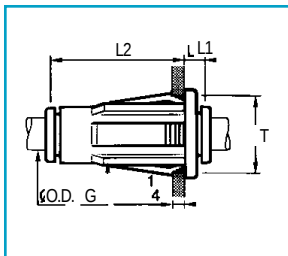


O.D.1 TUBE	O.D.2 TUBE	numatics®	H	L1	$\frac{L}{2}$	N	T	
1/4	5/32	QR3304 56 54	1.04	1.42	1.38	.43	.13	.81
1/4	1/4	QR3304 56 56	1.18	1.86	1.56	.55	.17	1.0

Numatics has a variety of plug-in accessories. Please refer to pages A-16 thru A-20.

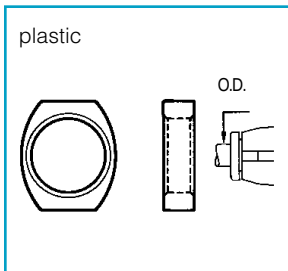
plug-in bulkhead fitting

QR3156 plug-in bulkhead union — tube to tube



O.D. TUBE	numatics	G	L1	L2	T MIN	
5/32	QR3156 04 00	.83	.26	1.08	.62	.25
1/4	QR3156 56 00	.93	.26	1.24	.75	.39
5/16	QR3156 58 00	1.02	.30	1.28	.87	.53
3/8	QR3156 60 00	1.34	.30	1.63	1.12	1.09
1/2	QR3156 62 00	1.44	.30	1.71	1.25	1.34

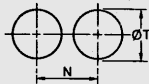
QR3332 demounting tool for removing pop-in bulkhead



O.D. TUBE	numatics	
5/32	QR3332 54 01	.14
1/4	QR3332 56 01	.14
5/16	QR3332 58 01	.18
3/8	QR3332 60 01	.28
1/2	QR3332 12 01	.32

Required hole dimension.

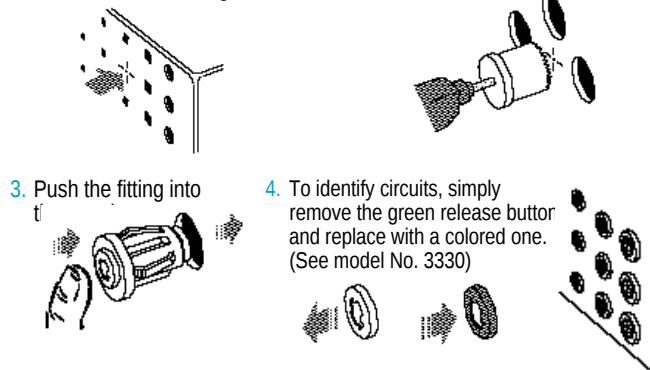
Minimum centers between fittings.



O.D.	5/32"	1/4"	5/16"	3/8"	1/2"
ØT	mm 15.87	19.05	22.22	28.57	31.75
	in 5/8"	3/4"	7/8"	1 1/8"	1 1/4"
N	mm 22.5	25.5	27.5	34	38
ØT : +0.3 - 0.1					

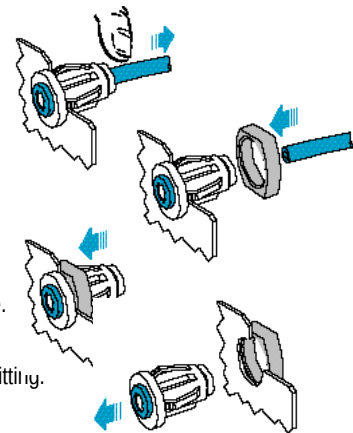
INSTALLATION

1. Mark out the mounting hole.
2. Drill hole in panel.



REMOVAL

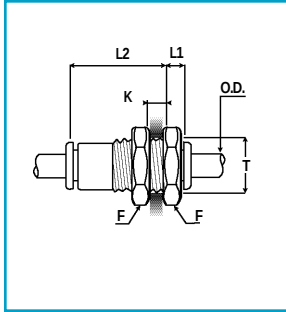
1. Disconnect the tube.
2. Put the removal tool on the fitting.
3. Push the tool over the fitting to the bulkhead face.
4. Simply remove the fitting.



Numatics has a policy of continual product development and reserves the right to change dimensions or specifications without prior notification.

bulkhead

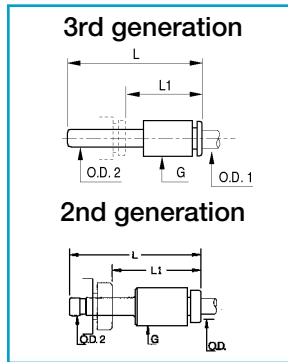
QR3186 bulkhead union — tube to tube



O.D. TUBE		F	K MAX	L1	L2	T MIN	
1/8	QR3186 53 00	9/16	.26	.25	1.07	.51	.67
5/32	QR3186 54 00	9/16	.26	.25	.99	.51	.67
3/16	QR3186 55 00	9/16	.26	.25	1.07	.51	1.23
1/4	QR3186 56 00	11/16	.28	.25	1.18	.59	1.02
5/16	QR3186 58 00	13/16	.28	.29	1.18	.71	1.16
3/8	QR3186 60 00	1	.47	.29	1.55	.91	2.96
1/2	QR3186 62 00	1-1/8	.51	.29	1.65	1.02	3.60

plug-in fittings and multiple tee

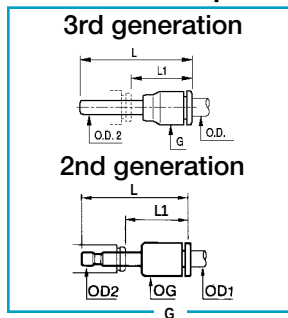
QR3166 reducer



O.D. TUBE	O.D.2	numatics®	Previous QR Part Number	G	L	L1	
1/8	5/32	QR3166 53 04	3166 53 54	.43	1.79	.13	.11
1/8	3/16	QR3166 53 55		.43	1.79	1.22	.13
1/8	1/4	QR3166 53 56		.40	1.37	1.22	.15
5/32	3/16	QR3166 04 55	3166 54 55	.335	1.48	.826	.21
5/32	1/4	QR3166 04 56	3166 54 56	.335	1.48	.905	.25
5/32	5/16	QR3166 04 08	3166 54 58	.335	1.48	.748	.32
5/32	3/8	QR3166 54 60		.40	1.63	.66	.39
3/16	1/4	QR3166 55 56		.43	1.44	.60	.25
3/16	5/16	QR3166 55 08	3166 55 58	.43	1.79	1.06	.23
3/16	1/4	QR3166 55 56		.43	1.79	1.22	.25
1/4	5/16	QR3166 56 08	3166 56 58	.43	1.61	.89	.53
1/4	3/8	QR3166 56 60		.43	1.61	.81	.35
1/4	1/2	QR3166 56 62		.63	1.97	.98	.38
5/16	3/8	QR3166 08 60	3166 58 60	.53	1.93	1.12	.53
5/16	1/2	QR3166 08 62	3166 58 62	.63	2.01	1.02	.53
5/16	1/2	QR3166 60 62		.63	2.01	1.04	.53

* See below

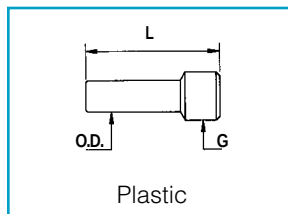
QR3168 expander



O.D. TUBE	O.D.2	numatics®	Previous QR Part Number	G	L	L1	
1/4	1/8	QR3168 56 53		.43	1.61	.965	.28
1/4	5/32	QR3168 56 04	3168 56 54	.43	1.61	1.14	.32
1/4	3/16	QR3168 56 55		.807	1.61	1.00	.32

* See below

QR3126 plug

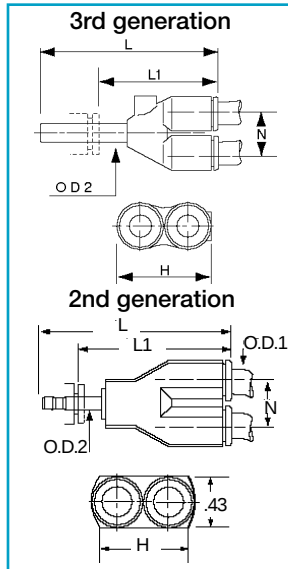


O.D. TUBE	numatics®	Previous QR Part Number	G	L	
1/8	QR3126 53 00		.20	1.06	.04
5/32	QR3126 04 00		.25	1.06	.04
3/16	QR3126 55 00		.30	1.06	.05
1/4	QR3126 56 00	3126 56 00 85	.38	1.06	.04
5/16	QR3126 58 00		.40	1.50	.07
3/8	QR3126 60 00		.48	1.50	.07
1/2	QR3126 62 00		.60	1.50	.08

Shaded areas designate part numbers available from the 3rd Generation collection.
The 3rd generation hex is metric.
Dimensions are fractional inch unless otherwise noted.

plug-in fittings and multiple tee

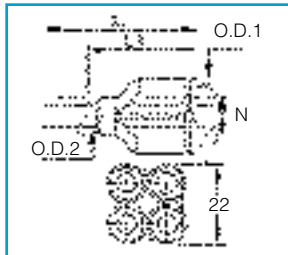
QR3142 plug-in "Y" — male-tube



O.D.1 TUBE	O.D.2 TUBE		H	L	L1	N	
1/8	1/8	QR3142 53 00	.866	1.693	0.794	.452	.29
5/32	5/32	QR3142 04 00	.87	1.57	1.09	.45	.32
5/32	1/4	QR3142 54 56	.87	1.75	0.98	.43	.46

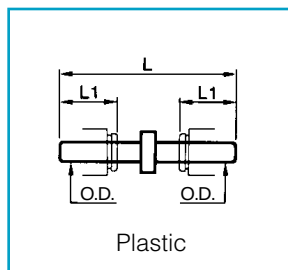
* See below

QR3143 multiple plug-in "Y" — male tube



O.D.1 TUBE	O.D.2 TUBE		L	L1	N	
5/32	1/4	QR3143 04 06	1.88	1.10	.43	.95
5/32	5/16	QR3143 04 08		1.81	1.13	.43

QR3120 double male union



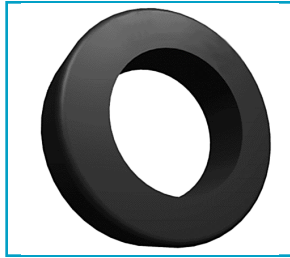
O.D. TUBE		Previous QR Part Number	L	L1	
5/32	QR3120 04 00	3120 54 00 85	1.36	.47	.04
3/16	QR3120 55 00 85		1.24	.57	.07
1/4	QR3120 56 00	3120 56 00 85	1.52	.57	.05
5/16	QR3120 08 00	3120 58 00 85	1.61	.73	.07
3/8	QR3120 60 00	3120 60 00 85	2.03	.81	.09

* 3rd generation accessories can be used with either 3rd generation or 2nd generation fittings. 2nd generation accessories can ONLY be used with 2nd generation fittings.

tubing and accessories

QR3330 manual release buttons 3rd generation

O.D. TUBE	white	black	green	red	blue	yellow	
1/8	QR3330 53 00	QR3330 53 01	QR3330 53 02	QR3330 53 03	QR3330 53 04	QR3330 53 05	.04
5/32	QR3330 04 00	QR3330 04 01	QR3330 04 02	QR3330 04 03	QR333004 04	QR3330 04 05	.04
3/16	QR3330 55 00	QR3330 55 01	QR3330 55 02	QR3330 55 03	QR3330 55 04	QR3330 55 05	.04
1/4	QR3330 56 00	QR3330 56 01	QR3330 56 02	QR3330 56 03	QR3330 56 04	QR3330 56 05	.04
5/16	QR3330 08 00		QR3330 08 02	QR3330 08 03	QR333008 04	QR3330 08 05	.04
3/8	QR3330 60 00		QR3330 60 02	QR3330 60 03	QR3330 60 04	QR3330 60 05	.04
1/2	QR3330 62 00	QR3330 62 01	QR3330 62 02	QR3330 62 03	QR3330 62 04	QR3330 62 05	.04



Numatics manual release buttons are supplied in package quantities of 100.

QR3000 fittings are supplied **standard, with green manual release buttons** for easy disconnect.

REMOVABLE on 1/8, 5/32, 1/4, 3/16, and 1/2 sizes, these release buttons help for the **identification** of circuits:

Replace the green release button with a button of another color. On 5/16 and 3/8 sizes, colored buttons fit over the green release button.

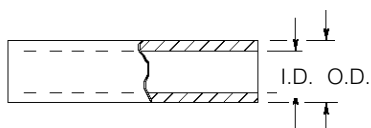
6 colors are available which allow a color coding to be used on circuits, in association with the tubes of the same color.

tubing and accessories

Fractional nylon 11 tubing



For fractional tube clips, see page A-20.



Size Inches or MM	Working Pressure (PSI)			
	@75°F	@100°F	@125°F	@150°F
1/8x.093	225	168	133	125
5/32x.106	275	200	169	160
3/16x.138	225	158	120	113
1/4x.180	250	183	160	140
5/16x.232	220	170	141	121
3/8x.275	220	165	148	128
1/2x.375	200	145	133	125

application

Flexible nylon tubing used for air and lubrication lines, instrumentation and process lines for chemicals and solvents. Contact factory for specific applications.

features

Has excellent resistance to a wide range of chemicals including petroleum products, soaps, salt solutions and bases.

specifications

Temperature Range: -60° to 200° F

O.D.	I.D.	QRTN	Wall	Min. Burst (PSI)	Min. Bend Radius	Coil/Reel Length (Feet)
1/8	.093	QRTN12__	.017	1000	3/8"	100' Coil 500'-1000' Reel
5/32	.106	QRTN16__	.025	1000	1/2"	100' Coil 500'-1000' Reel
3/16	.138	QRTN19__	.024	1000	5/8"	100' Coil 500'-1000' Reel
1/4	.180	QRTN25__	.035	1000	1"	100' Coil 500'-1000' Reel
5/16	.232	*QRTN31__	.040	1000	1 1/4"	100' Coil 500'-1000' Reel
3/8	.275	QRTN38__	.050	1000	1 1/2"	100' Coil 500'-1000' Reel
1/2	.375	*QRTN50__	.062	1000	2"	100' Coil 500' Reel

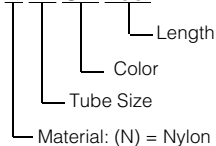
available colors

Natural (NA), Black (BK), Red (RD), Green (GN), Blue (BU), Yellow (YW)

how to order

Complete the model number with the desired tube color and length.

P/N Example: QRT N 12 GN 100'

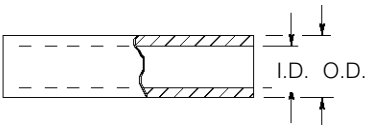


tubing and accessories

fractional low density polyethylene tubing



For fractional tube clips, see page A-20.



application

Low density polyethylene tubing has a wide range of uses including waterlines, beverage tubing, air lines, instrumentation, plus uses in industrial, agricultural and chemical applications.

features

Good chemical resistance to alkalis, dilute acid, ammonia gas, ammonium hydroxide, brine water and most aqueous solutions of metallic salts.

specifications

Natural compound meets the Food and Drug Administration Code of Federal Regulations, Title 21, Part 177.1520(c) 2.1 for a resin which may not be processed for use involving contact with human food.

Temperature Range: -60° to 175° F

O.D.	I.D.	QRTE	Wall	Min. Burst (PSI)	Min. Bend Radius	Coil/Reel Length (Feet)
1/8	.062	QRTE12__	.020	400	1"	100' Coil 500'-1000' Reel
5/32	.106	QRTE16__	.025	400	1"	100' Coil 500'-1000' Reel
1/4	.170	QRTE25__	.040	400	1"	100' Coil 500'-1000' Reel
5/16	.188	QRTE31__	.062	600	1 1/8"	100' Coil 500' Reel
3/8	.250	QRTE38__	.062	400	1 1/4"	100' Coil 500' Reel
1/2	.375	QRTE50__	.062	300	2 1/2"	100' Coil 250' Reel

available colors

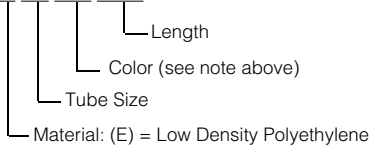
Natural (NA), Black (BK), Red (RD), Green (GN), Blue (BU), Yellow (YW)

* NOTE: 5/32 is not available in yellow, 5/16 is not available in green or yellow.)

how to order

Complete the model number with the desired tube color and length.

P/N Example: QRT E 12 GN 100'

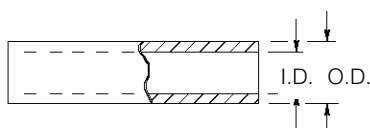


tubing and accessories

fractional polyurethane 95 tubing



For fractional tube clips, see page A-20.



application

Polyurethane tubing is ideal for compressed air systems and vacuum applications

features

Has excellent abrasion resistance and shape retention while working in high humidity and low temperatures. Withstands salt water. Ages well. Good vibration absorption. Excellent tear resistance.

specifications

Temperature Range: -4° to 160° F

O.D.	I.D.	QRTU	Wall	Min. Burst (PSI)	Min. Bend Radius	Coil/Reel Length (Feet)
1/8	.066	QRTU12_	.031	800	1"	100' Coil 500'-1000' Reel
5/32	.093	QRTU16_	.031	600	1"	100' Coil 500'-1000' Reel
3/16	.107	QRTU19_	.062	400	1"	100' Coil 500'-1000' Reel
1/4	.160	QRTU25_	.045	400	1 1/8"	100' Coil 500'-1000' Reel
5/16	.216	QRTU31_	.062	400	1 1/8"	100' Coil 500' Reel
3/8	.250	QRTU38_	.062	400	1 1/4"	100' Coil 500' Reel
1/2	.320	QRTU50_	.062	400	1 1/2"	100' Coil 250' Reel

available colors

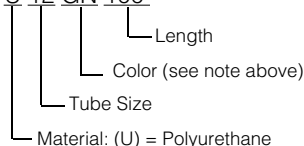
Clear (CL), Black (BK), Red (RD), Green (GN), Blue (BU), Yellow (YW)

NOTE: 3/16 is available in clear and black only.

how to order

Complete the model number with the desired tube color and length.

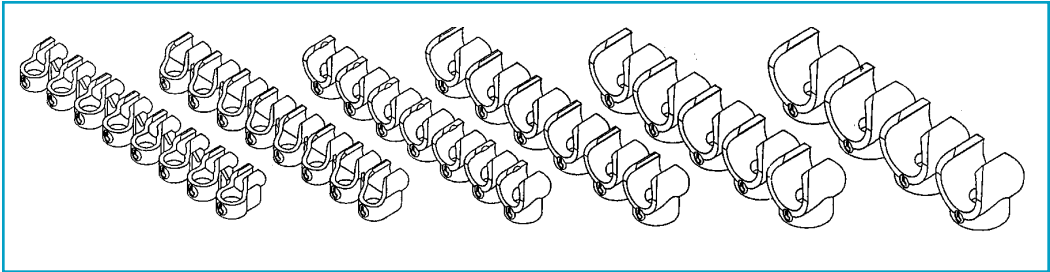
P/N Example: QRT U 12 GN 100'



Size Inches or MM	Tolerance inches	Working Pressure (PSI)				Weight lbs/100'
		@75°F	@100°F	@125°F	@150°F	
1/8x1/16	±.005	233	186	151	117	0.5
5/32x3/32	±.005	176	141	114	88	0.7
3/16x.107	±.005	148	118	96	74	1.5
1/4x.160	±.005	148	118	96	74	1.5
5/16x.216	±.005	133	106	86	67	3.9
3/8x1/4	±.005	147	117	95	73	3.4
1/2x.320	±.005	140	112	91	70	5.1

tubing and accessories

QRCLIP tubing clips 3rd generation



Product Range

6 models including 3 to clip either tubing or Numatics QR3000 3rd generation fittings as follows:

PART NUMBER	number of clips per strip	tube size to clip	QR3000 3g fitting to clip	number of clips per box (min. order qty.)
CLIP 0400	8 clips	4mm (5/32)	—	5
CLIP 06 00	8 clips	6mm (1/4, 3/16)	—	5
CLIP 08 00	7 clips	8mm (5/16)	4mm (5/32)	5
CLIP 10 00	6 clips	10mm (2/8)	6mm (1/4)	5
CLIP 12 00	5 clips	12mm (1/2)	—	5
CLIP 14 00	4 clips	14mm	8mm (5/16)	5

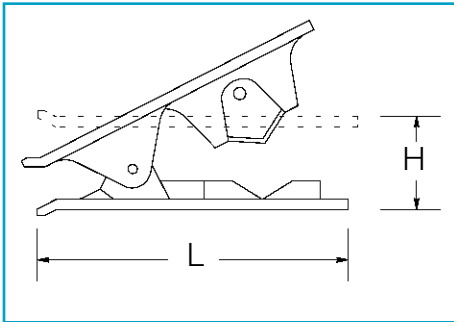
Characteristics of the new clip

Material: Black Nylon 12

Mounting Screw: At least one self-tapping screw per clip is provided in each package. Same screw for all clip sizes (9.5mm length).

Quantity of screws per box: 20 minimum to 40 maximum.

QR300071 tube cutter



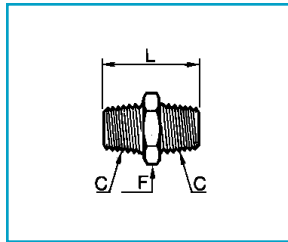
This tool will cut all plastic tubes (e.g. nylon, teflon, polyurethane, braided polyethylene, soft rubber, etc.) from 1/8" to 1/2" diameter inclusive. It is designed to give a clean cut at right angles to tube axis. A spring maintains the cutter in the closed position. Replacement blades are available.

Model No.	Height	Length
QR3000 71 00	.98	3.11

Blades No.: **QR3000 71 05** (Sold in packages of two)

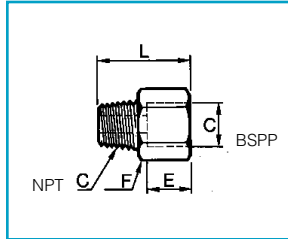
brass adaptors

QR0121 double male adaptors — NPT to BSPT



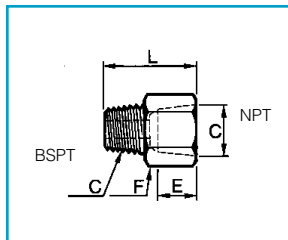
C NPT	C BSPT	numatics®	F	L	
1/8	1/8	QR0121 11 10	.43	.75	.32
1/4	1/4	QR0121 14 13	.55	1.06	.74
3/8	3/8	QR0121 18 17	.67	1.10	.88
1/2	1/2	QR0121 22 21	.87	1.42	1.8
3/4	3/4	QR0121 28 27	1.06	1.57	3.1

QR0164 male/female adaptors — NPT to BSPP



C NPT	C BSPP	numatics®	E	F	L	
1/8	1/8	QR0164 11 10	.30	.55	.79	.53
1/4	1/4	QR0164 14 13	.43	.67	1.08	.99
3/8	3/8	QR0164 18 17	.45	.87	1.12	1.5
1/2	1/2	QR0164 22 21	.59	1.06	1.44	2.8
3/4	3/4	QR0164 28 27	.65	1.26	1.52	3.9

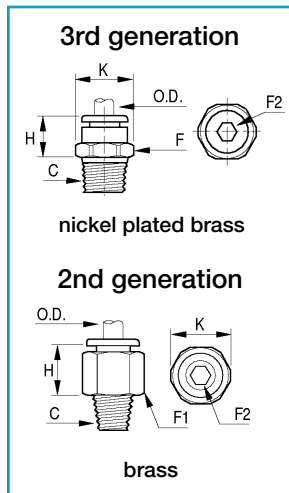
QR0167 male/female adaptors — BSPT to NPT



C BSPT	C NPT	numatics®	E	F	L	
1/8	1/8	QR0167 10 11	.31	.55	.83	.56
1/4	1/4	QR0167 13 14	.45	.67	1.12	1.0
3/8	3/8	QR0167 17 18	.47	.87	1.16	1.6
1/2	1/2	QR0167 21 22	.61	1.06	1.48	3.0
3/4	3/4	QR0167 27 28	.67	1.26	1.56	4.2

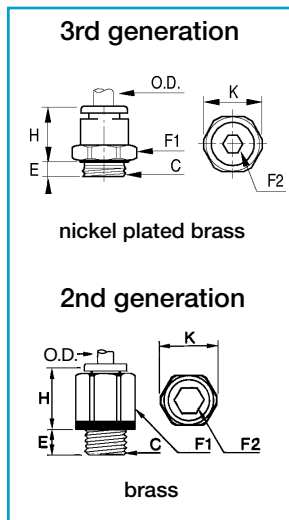
threaded fittings

QR3175 tube to male BSPT



O.D. TUBE	C BSPT	numatics®	F1	F2	H	K	oz
4	1/8	QR3175 04 10	10	3	9.5	11	.21
4	1/4	QR3175 04 13	14	3	6.5	15	.45
6	1/8	QR3175 06 10	10	4	11.5	11	.17
6	1/4	QR3175 06 13	14	4	8.5	15	.38
8	1/8	QR3175 08 10	13	5	20	14	.35
8	1/4	QR3175 08 13	14	6	17	15	.42
8	3/8	QR3175 08 17	17	6	13	18.5	.52
10	1/4	QR3175 10 13	16	7	20	17.5	.59
10	3/8	QR3175 10 17	17	8	16.5	18.5	.77
10	1/2	QR3175 10 21	21	8	14	23	1.1
12	1/4	QR3175 12 13	19	7	26.5	21	2.2
12	3/8	QR3175 12 17	19	9	24	21	2.4
12	1/2	QR3175 12 21	21	10	19.5	23	2.2
14	3/8	QR3175 14 17	22	9	28	24	2.0
14	1/2	QR3175 14 21	22	11	24.5	24	2.1

QR3101 male connector tube to BSPP or M5 thread



O.D. TUBE	C BSPP/M5	numatics®	F1	F2	E	H	K	oz
4	M5	QR3101 04 19	8	2.5	3.5	14	9	.10
4	1/8	QR3101 04 10	13	3	5	11.5	14	.24
4	1/4	QR3101 04 13	16	3	5.5	10.5	17.5	.38
6	M5	QR3101 06 19	10	2.5	3.5	16	11	.14
6	1/8	QR3101 06 10	13	4	5	13	14	.24
6	1/4	QR3101 06 13	16	4	5.5	12.5	17.5	.38
8	1/8	QR3101 08 10	13	5	5	21	14	.24
8	1/4	QR3101 08 13	16	6	5.5	19.5	17.5	.59
8	3/8	QR3101 08 17	20	6	5.5	18	22	.74
10	1/4	QR3101 10 13	16	7	5.5	23	17.5	.59
10	3/8	QR3101 10 17	20	8	5.5	16.5	22	.74
10	1/2	QR3101 10 21	24	8	7.5	18.5	26	1.1
12	1/4	QR3101 12 13	19	7	5.5	27.5	21	1.1
12	3/8	QR3101 12 17	20	9	5.5	27	21	1.2
12	1/2	QR3101 12 21	24	10	7	22.5	26	2.5
14	3/8	QR3101 14 17	22	9	8	30	24	1.9
14	1/2	QR3101 14 21	24	11	9.5	26.5	26	2.3

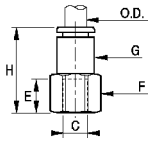
Shaded areas designate part numbers available from the 3rd Generation collection.

Numatics has a policy of continual product development and reserves the right to change dimensions or specifications without prior notification.

threaded fittings

QR3114 straight female connector tube to BSPP or M5 thread

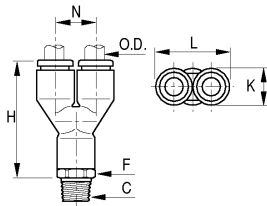
3rd generation



O.D. TUBE	C BSPP/M5	numatics®	E	F	H	oz
4	M5	QR3114 04 19	6.5	8	19.5	.176
4	1/8	QR3114 04 10	9.5	13	22.5	.352
4	1/4	QR3114 04 13	13.5	16	26.5	.564
6	1/8	QR3114 06 10	9.5	13	24.5	.388
6	1/4	QR3114 06 13	13.5	16	28.5	.564
8	1/8	QR3114 08 10	9.5	13	29	.705
8	1/4	QR3114 08 13	13.5	16	33	.952
10	3/8	QR3114 10 17	14	19	36	1.410
12	3/8	QR3114 12 17	14	19	40	3.245
12	1/2	QR3114 12 21	19.5	24	45.5	4.021

QR3148 "Y" tube to male BSPT

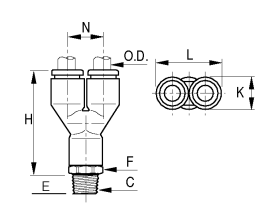
3rd generation



O.D. TUBE	C BSPT	numatics®	F	H	K	L	N	oz
4	1/8	QR3148 04 10	10	32.5	8.5	17.5	9	.352
4	1/4	QR3148 04 13	14	33	8.5	17.5	9	.634
6	1/8	QR3148 06 10	10	39.5	10.5	21.5	11	.423
6	1/4	QR3148 06 13	14	40	10.5	21.5	11	.670
8	1/8	QR 3148 08 10	13	56.5	13.5	28	14.5	1.164
8	1/4	QR3148 08 13	14	55.5	13.5	28	14.5	1.305

QR3158 "Y" tube to male BSPP thread

3rd generation



O.D. TUBE	C BSPP	numatics®	E	F	H	K	L	N	oz
4	M5	QR3158 04 19	3.5	8	32.5	8.5	17.5	9	.35
4	1/8	QR3158 04 10	5	13	32	8.5	17.5	9	.352
4	1/4	QR3158 04 13	5.5	16	32	8.5	17.5	9	.529
6	M5	QR3158 06 19	3.5	10	39.5	10.5	21.5	11	.39
6	1/8	QR3158 06 10	5	13	39	10.5	21.5	11	.493
6	1/4	QR3158 06 13	5.5	16	39	10.5	21.5	11	.670
8	1/8	QR3158 08 10	5	13	56	13.5	28	14.5	1.164
8	1/4	QR3158 08 13	5.5	16	55	13.5	28	14.5	1.375

All QR3000 fittings with parallel BSP and M5 threads are supplied complete with a pre-assembled nylon sealing washer. This permits the instant assembly of the fitting without preparation of the thread and provides a fixed assembled height to the fitting.

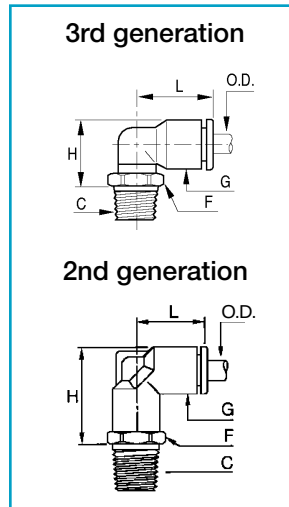
Shaded areas designate part numbers available from the 3rd Generation collection.



Dimensions are in millimeters unless otherwise noted.

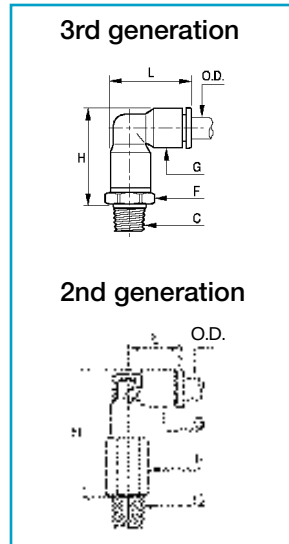
threaded fittings

QR3109 male elbow — tube to BSPT



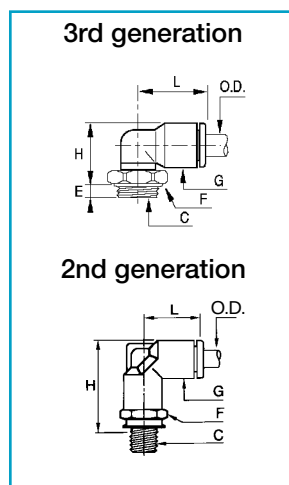
O.D. TUBE	C BSPT	numatics®	F	G	H	L	oz
4	1/8	QR3109 04 10	10	8.5	13.5	14	.211
4	1/4	QR3109 04 13	14	8.5	14	14	.493
6	1/8	QR3109 06 10	10	10.5	15.5	16	.211
6	1/4	QR3109 06 13	14	10.5	16	16	.529
8	1/8	QR3109 08 10	10	13.5	19	23	.458
8	1/4	QR3109 08 13	14	13.5	18	23	.529
8	3/8	QR3109 08 17	17	13.5	18	23	.634
10	1/4	QR3109 10 13	15	16	22	26.5	.564
10	3/8	QR3109 10 17	17	16	22	26.5	.670
10	1/2	QR3109 10 21	21	16	22	26.5	.670
12	1/4	QR3109 12 13	15	19	25	31	2.504
12	3/8	QR3109 12 17	17	19	25	31	2.610
12	1/2	QR3109 12 21	21	19	25	31	3.245
14	3/8	QR3109 14 17	24	25.5	51	33.5	3.209
14	1/2	QR3109 14 21	24	25.5	51	33.5	3.351

QR3129 extended male elbow — tube to BSPT



O.D. TUBE	C BSPT	numatics®	F	G	H	L	oz
4	1/8	QR3129 04 10	10	8.5	23	19	.740
4	1/4	QR3129 04 13	14	8.5	23.5	19	1.340
6	1/8	QR3129 06 10	10	10.5	27	22.5	1.305
6	1/4	QR3129 06 13	14	10.5	27.5	22.5	1.552
8	1/8	QR3129 08 10	13	13.5	33.5	29.5	.881
8	1/4	QR3129 08 13	14	13.5	32.5	29.5	.917
8	3/8	QR3129 08 17	17	13.5	33	29.5	1.234
10	1/4	QR3129 10 13	15	16	39.5	34.5	1.09
10	3/8	QR3129 10 17	17	16	39.5	34.5	1.446

QR3199 male elbow tube to BSPP or M5

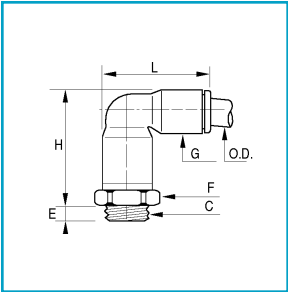


O.D. TUBE	C BSPP/M5	numatics®	E	F	G	H	L	oz
4	M5	QR3199 04 19	3.5	8	8.5	13.5	14	.105
4	1/8	QR3199 04 10	5	13	8.5	13	14	.246
4	1/4	QR3199 04 13	5.5	16	8.5	13	14	.423
6	M5	QR3199 06 19	3.5	8	10.5	15.5	16	.529
6	1/8	QR3199 06 10	5	13	10.5	15	16	.282
6	1/4	QR3199 06 13	5.5	16	10.5	15	16	.458
8	1/8	QR3199 08 10	4.5	13	13.5	20.5	23	.493
8	1/4	QR3199 08 13	5.5	16	13.5	18.5	23	.599
8	3/8	QR3199 08 17	5.5	20	13.5	18.5	23	.811
10	1/4	QR3199 10 13	5.5	16	16	23.5	26.5	1.022
10	3/8	QR3199 10 17	5.5	20	16	22	26.5	1.164
10	1/2	QR3199 10 21	7.5	24	16	22	26.5	1.269
12	1/4	QR3199 12 13	5.5	16	19	26.5	31	2.433
12	3/8	QR3199 12 17	5.5	20	19	25	31	2.433
12	1/2	QR3199 12 21	7	24	19	25	31	3.174
14	3/8	QR3199 14 17	8	24	25.5	53	33.5	3.06
14	1/2	QR3199 14 21	9.5	27	25.5	54	33.5	3.421

Shaded areas designate part numbers available from the 3rd Generation collection.

threaded fittings and banjos

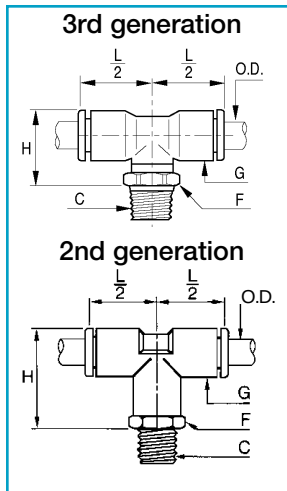
QR3169 extended male stud elbow, BSPP and M5 thread



O.D. TUBE	C BSPP/M5		E	F	G	H	L	
4	M5	QR3169 04 19	3.5	8	8.5	23	19	0.25
4	1/8	QR3169 04 10	5	13	8.5	23	19	0.32
4	1/4	QR3169 04 13	5.5	16	8.5	23	19	0.49
6	M5	QR3169 06 19	3.5	10	10.5	26.5	22.5	0.32
6	1/8	QR3169 06 10	5	13	10.5	26.5	22.5	0.42
6	1/4	QR3169 06 13	5.5	16	10.5	26.5	22.5	0.60
8	1/8	QR3169 08 10	4.5	13	13.5	35	29.5	0.88
8	1/4	QR3169 08 13	5.5	16	13.5	33	29.5	0.92
8	3/8	QR3169 08 17	5.5	20	13.5	33	29.5	1.23
10	3/8	QR3169 10 17	5.5	20	16	40.5	34.5	1.41

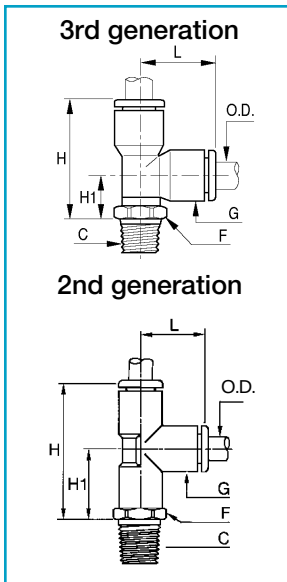
threaded fittings

QR3108 male branch tee — tube to BSPT



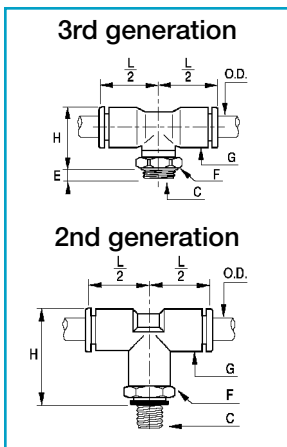
O.D. TUBE	C BSPT	numatics®	F	G	H	L/2	oz
4	1/8	QR3108 04 10	10	8.5	15.5	14	.246
4	1/4	QR3108 04 13	14	8.5	16	14	.529
6	1/8	QR3108 06 10	10	10.5	17.5	16	.317
6	1/4	QR3108 06 13	14	10.5	18	16	.599
8	1/8	QR3108 08 10	10	13.5	22	23	.564
8	1/4	QR3108 08 13	14	13.5	21	23	.670
8	3/8	QR3108 08 17	17	13.5	21	23	.705
10	1/4	QR3108 10 13	15	16	24	26.5	.740
10	3/8	QR3108 10 17	17	16	24	26.5	.846
10	1/2	QR3108 10 21	21	16	24	26.5	.987
12	1/4	QR3108 12 13	15	19	27	31	3.315
12	3/8	QR3108 12 17	17	19	27	31	3.245
12	1/2	QR3108 12 21	21	19	27	31	3.844
14	3/8	QR3108 14 17	24	25.5	51	33.5	3.985
14	1/2	QR3108 14 21	24	25.5	51	33.5	4.021

QR3103 male run tee — tube to BSPT



O.D. TUBE	C BSPT	numatics®	F	G	H	H1	L	oz
4	1/8	QR3103 04 10	10	8.5	23.5	9	14.5	.246
4	1/4	QR3103 04 13	14	8.5	24	9.5	14.5	.352
6	1/8	QR3103 06 10	10	10.5	27.5	10	17.5	.317
6	1/4	QR3103 06 13	14	10.5	28	10.5	17.5	.599
8	1/8	QR3103 08 10	10	13.5	35	12	23	.564
8	1/4	QR3103 08 13	14	13.5	34	11	23	.670
8	3/8	QR3103 08 17	17	13.5	34	11	23	.705
10	1/4	QR3103 10 13	15	16	40.5	14	26.5	.740
10	3/8	QR3103 10 17	17	16	40.5	14	26.5	.846
10	1/2	QR3103 10 21	21	16	40.5	14	26.5	.987
12	1/4	QR3103 12 13	15	19	46.5	15.5	31	3.315
12	3/8	QR3103 12 17	17	19	46.5	15.5	31	3.245
12	1/2	QR3103 12 21	21	19	46.5	15.5	31	4.021
14	3/8	QR3103 14 17	24	25.5	71.5	38	33.5	3.985
14	1/2	QR3103 14 21	24	25.5	71.5	38	33.5	4.021

QR3198 male branch tee — tube to BSPP or M5

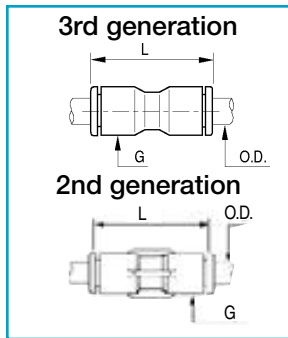


O.D. TUBE	C BSPP/M5	numatics®	E	F	G	H	L/2	oz
4	M5	QR3198 04 19	3.5	8	8.5	17.5	14	.14
4	1/8	QR3198 04 10	5	13	8.5	15	14	.28
4	1/4	QR3198 04 13	5.5	16	8.5	15	14	0.458
6	M5	QR3198 06 19	3.5	8	10.5	19.5	16	0.211
6	1/8	QR3198 06 10	5	13	10.5	17	16	.52
6	1/4	QR3198 06 13	5.5	16	10.5	17	16	.52
8	1/8	QR3198 08 10	4.5	13	13.5	23.5	23	.59
8	1/4	QR3198 08 13	5.5	16	13.5	21.5	23	.70
8	3/8	QR3198 08 17	5.5	20	13.5	21.5	23	.811
10	1/4	QR3198 10 13	5.5	16	16	26	26.5	.74
10	3/8	QR3198 10 17	5.5	20	16	24	26.5	.84
10	1/2	QR3198 10 21	7.5	24	16	24	26.5	1.375
12	1/4	QR3198 12 13	5.5	16	19	29	31	3.104
12	3/8	QR3198 12 17	5.5	20	19	27	31	2.857
12	1/2	QR3198 12 21	7	24	19	27	31	3.245
14	3/8	QR3198 14 17	8	24	25.5	53	32.5	3.8
14	1/2	QR3198 14 21	9.5	27	25.5	54	32.5	4.2

Shaded areas designate part numbers available from the 3rd Generation collection.

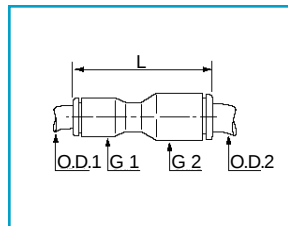
tube to tube fittings

QR3106 union — tube to tube



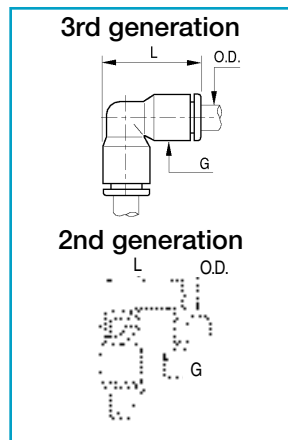
O.D. TUBE	numatics	G	L	
4	QR3106 04 00	8.5	25	.07
6	QR3106 06 00	10.5	28.5	.14
8	QR3106 08 00	13.5	38	.24
10	QR3106 10 00	16	42	.31
12	QR3106 12 00	19	50.5	.53
14	QR3106 14 00	25.5	53	1.5

QR3106 unequal union — tube to tube



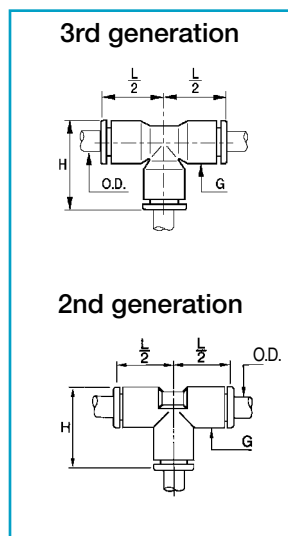
O.D.1 TUBE	O.D.2 TUBE	numatics	G1	G2	L	
4	6	QR3106 04 06	8.5	11	28	.282
4	8	QR3106 04 08	16	16	47	.352
6	8	QR3106 06 08	16	16	48	.423
6	10	QR3106 06 10	21	21	49	.634
8	10	QR3106 08 10	21	21	49	.705

QR3102 union elbow — tube to tube



O.D. TUBE	numatics	G	L	
4	QR3102 04 00	8.5	19	.07
6	QR3102 06 00	10.5	22.5	.14
8	QR3102 08 00	13.5	29.5	.24
10	QR3102 10 00	16	34.5	.52
12	QR3102 12 00	19	40.5	.60
14	QR3102 14 00	25.5	46.5	1.5

QR3104 tee — tube to tube

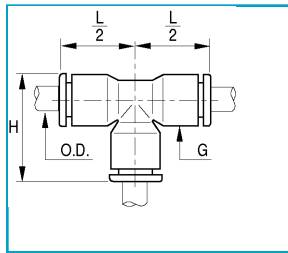


O.D. TUBE	numatics	G	H	$\frac{L}{2}$	
4	QR3104 04 00	8.5	19	14.5	.141
6	QR3104 06 00	10.5	22.5	17.5	.211
8	QR3104 08 00	13.5	29.5	23	.317
10	QR3104 10 00	16	34.5	26.5	.493
12	QR3104 12 00	19	40.5	31	.67
14	QR3104 14 00	25	26	33.5	2.363

Shaded areas designate part numbers available from the 3rd Generation collection.

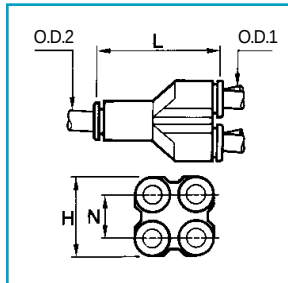
tube to tube fittings

QR3140 "Y" — tube to tube



O.D.1 TUBE	O.D.2 TUBE	numatics®	H	K	L	N	oz
4	4	QR3140 04 00	17.5	8.5	28.5	9	.14
4	6	QR3140 04 06	17.5	10.5	33	9	.18
6	6	QR3140 06 00	21.5	10.5	35	11	.25
6	8	QR3140 06 08	22.5	13.5	41	11.5	.67
8	8	QR3140 08 00	28	13.5	45	14.5	.46
8	10	QR3140 08 10	28	16	47	14.5	.53
10	10	QR3140 10 00	33	16	53	17	.71

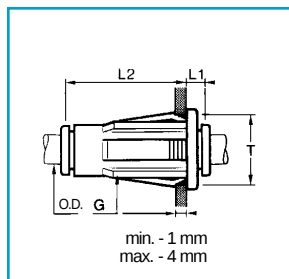
QR3144 double "Y" — tube to tube



O.D.1 TUBE	O.D.2 TUBE	numatics®	H	L	N	oz
4	6	QR3144 04 06	22	35.5	11	.952
4	4	QR3144 04 04	22	36	11	1.12

plug-in bulkhead fitting

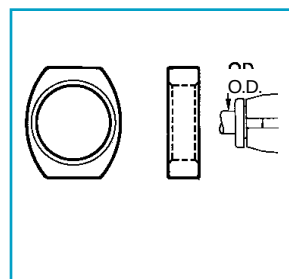
QR3156 plug-in bulkhead union



O.D. TUBE	numatics®	G	L1	L2	T MIN.	
4	QR3156 04 00	21	6.5	27.5	15.87	.25
6	QR3156 06 00	23.5	6.5	31.5	19.05	.39
8	QR3156 08 00	26	7.5	32.5	22.22	.53
10	QR3156 10 00	34	7.5	41.5	28.57	1.09
12	QR3156 12 00	36.5	7.5	43.5	31.75	1.34

Fittings are supplied complete with collar.

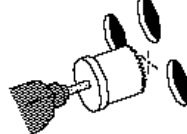
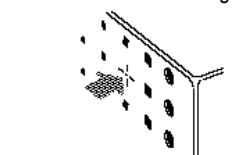
QR3332 demounting tool for bulkhead connectors



O.D. TUBE	numatics®	
4	QR3332 04 01	.14
6	QR3332 06 01	.14
8	QR3332 08 01	.18
10	QR3332 10 01	.28
12	QR3332 12 01	.32

INSTALLATION

1. Mark out the mounting hole.
2. Drill hole in panel.

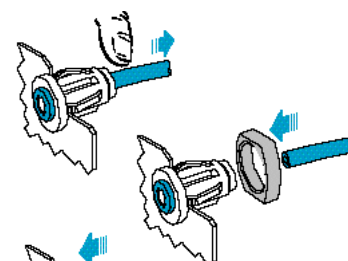


3. Push the fitting into the hole.
4. To identify circuits, simply remove the black release button and replace with a colored one. (See model No. 3330)

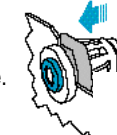


REMOVAL

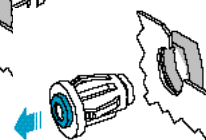
1. Disconnect the tube.
2. Put the removal tool on the fitting.



3. Push the tool over the fitting to the bulkhead face.

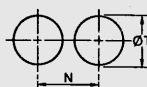


4. Simply remove the fitting.



Diameter of fixing hole.

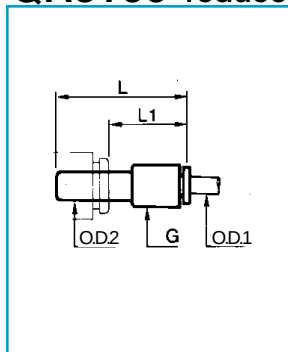
Minimum distance between fittings.



O.D.	4	6	8	10	12
ØT mm	15.87	19.05	22.22	28.57	31.75
in	5/8"	3/4"	7/8"	1-1/8"	1-1/4"
N mm	22.5	25.5	27.5	34	38
ØT : +0.3 - 0.1					

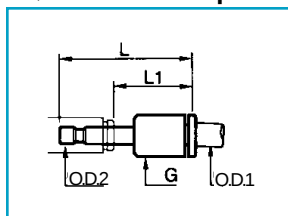
plug-in fittings and accessories

QR3166 reducer



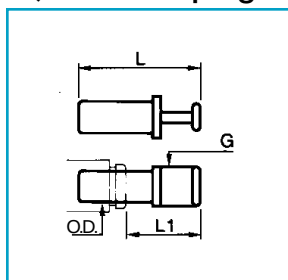
O.D.1 TUBE	O.D.2 TUBE	numatics®	G	L	L1	⚖
4	6	QR3166 04 06	12	39	22.5	.14
4	8	QR3166 04 08	8.5	37.5	19	.14
4	10	QR3166 04 10	12	44	22.5	.18
6	8	QR3166 06 08	10.5	37.5	20	.14
6	10	QR3166 06 10	14.5	44	22.5	.21
6	12	QR3166 06 12	14.5	46	23	.25
6	14	QR3166 06 14	14.5	48	23	.28
8	10	QR3166 08 10	13.5	49	28.5	.32
8	12	QR3166 08 12	13.5	49	24.5	.35
8	14	QR3166 08 14	17	48	23	.35
10	12	QR3166 10 12	21.5	56.5	33.5	.67
10	14	QR3166 10 14	21.5	58.5	33.5	.70
12	14	QR3166 12 14	23.5	58.5	33.5	.81

QR3168 expander



O.D.1 TUBE	O.D.2 TUBE	numatics®	G	L	L1	⚖
6	4	QR3168 06 04	10.5	35	23	.10

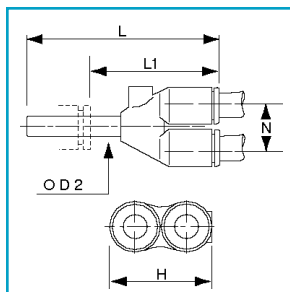
QR3126 plug



O.D. TUBE	numatics®	G	L	L1	⚖
4	QR3126 04 00	4	30	15.5	.035
6	QR3126 06 00	8	33	16.5	.035
8	QR3126 08 00	10	33	17.5	.070
10	QR3126 10 00	12	42	21	.10
12	QR3126 12 00	14	45	22	.14
14	QR3126 14 00	16	49	23.5	.18

plug-in fittings

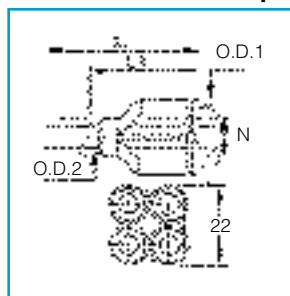
QR3142 "Y" — male tube



O.D.1 TUBE	O.D.2 TUBE		H	L	L1	N	
4	4	*QR3142 04 00	17.5	37	25	9	.15
4	6	*QR3142 04 06	17.5	38	25	9	.17

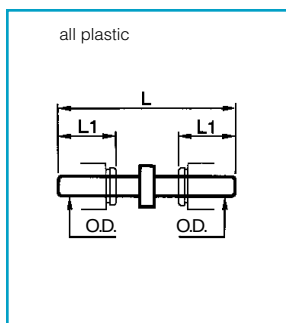
* Plastic

QR3143 multiple plug-in "Y" — male tube



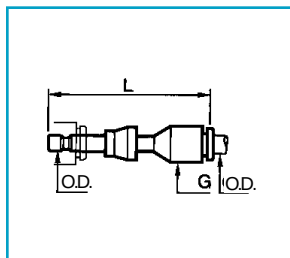
O.D.1 TUBE	O.D.2 TUBE		L	L1	N	
4	6	QR3143 04 06	48	34	8.5	.68
4	8	QR3143 04 08	48	34	8.5	.69

QR3120 double male union



O.D. TUBE		L	L1	
4	QR3120 04 00	1.36	.47	3.53
6	QR3120 06 00	1.52	.55	3.53
8	QR3120 08 00	1.61	.73	7.05
10	QR3120 10 00	2.03	.81	.11
12	QR3120 12 00	2.38	.90	.14
14	QR3120 14 00	2.54	.98	.18

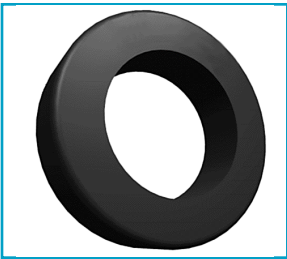
QR3170 one-handed disconnect fitting



O.D. TUBE		G	L	
4	QR3170 04 00	.45	1.87	.18

accessories

QR3330 manual release buttons



O.D. TUBE	white	black	green	red	blue	yellow	
4	QR3330 04 00	QR3330 04 01	QR3330 04 02	QR3330 04 03	QR3330 04 04	QR3330 04 05	3.53
6	QR3330 06 00	QR3330 06 01	QR3330 06 02	QR3330 06 03	QR3330 06 04	QR3330 06 05	3.53
8	QR3330 08 00	QR3330 08 01	QR3330 08 02	QR3330 08 03	QR3330 08 04	QR3330 08 05	3.53
10	QR3330 10 00	QR3330 10 01	QR3330 10 02	QR3330 10 03	QR3330 10 04	QR3330 10 05	3.53
12	QR3330 12 00	QR3330 12 01	QR3330 12 02	QR3330 12 03	QR3330 12 04	QR3330 12 05	3.53
14	QR3330 14 00	QR3330 14 01	QR3330 14 02	QR3330 14 03	QR3330 14 04	QR3330 14 05	3.53

Numatics manual release buttons are supplied in package quantities of 100.

QR3000 fittings are supplied **standard, with black manual release buttons** for easy disconnect. Removable on 4mm and 6mm sizes, these release buttons help for the **identification** of the circuits:

Replace the black release button with a button of another color. On 8mm+ sizes, colored buttons fit over the black release button.

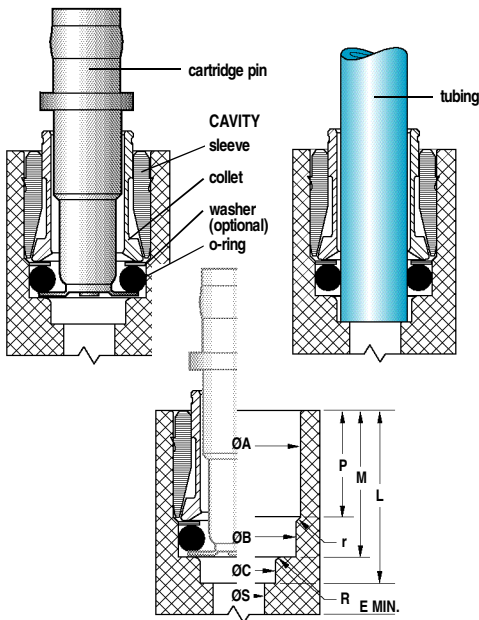
6 colors are available which allow a color coding to be used on circuits, in association with the tubes of the same color.

cartridges

cartridges for the integration of the QR3000 instant connection into components

Economy and compactness are two important benefits afforded by the application of Numatics cartridge inserts. The cartridge is made up of an outer sleeve, a slotted collet, washer and an o-ring assembled to a carrier pin. The carrier pin maintains the component assembly and acts as an insertion guide. This complete assembly is press fit into a cavity using a form tool. Once assembled, the carrier pin is discarded and the tubing is inserted.

Using cartridges offers application advantages not available with most threaded connectors. Please consult Numatics for specific information about these products and assembly data. We work closely with customers on cartridge applications as well as the manufacture of molded components with preassembled cartridges.



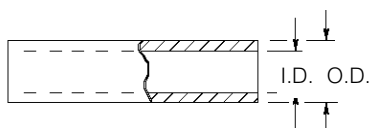
DIMENSIONS (in inches)										
O.D. SIZE	OA	OB	OC	OS	L	M	P	R	r	E MIN
	$+0.002$	$+0.002$	± 0.002		$+0.012$	$+0.010$	$+0.006$			
	-0.000	-0.000			-0.000	-0.000	-0.000			
4mm	.327	.283	.165	.130	.472	.386	.295	.016	.012	.039
5mm	.366	.327	.205	.146	.551	.433	.335	.020	.016	.039
6mm	.406	.366	.244	.157	.551	.433	.335	.020	.016	.059
8mm	.484	.445	.323	.236	.571	.461	.335	.024	.016	.059
10mm	.650	.606	.402	.315	.748	.630	.453	.028	.016	.059
12mm	.728	.685	.480	.394	.787	.669	.492	.031	.020	.079
14mm	.787	.728	.559	.472	.866	.709	.539	.031	.020	.079
1/8	.307	.244	.132	.079	.472	.378	.295	.016	.012	.039
5/32	.327	.283	.165	.130	.472	.386	.295	.016	.012	.039
3/16	.335	.307	.197	.138	.472	.386	.295	.016	.012	.039
1/4	.413	.382	.258	.177	.551	.433	.335	.020	.016	.059
3/8	.650	.583	.382	.295	.748	.630	.453	.028	.016	.059
1/2	.748	.709	.508	.394	.787	.669	.492	.031	.020	.079

tubing and accessories

metric polyurethane 95 tubing



For metric tube clips, see page A-34.



application

Polyurethane metric tubing is ideal for compressed air systems and vacuum (28"Hg.) applications. Our 95 durometer hydrolytically stable ether based compounds offer optimum strength and wall rigidity needed for most brands of metric push-to-connect fittings.

features

- Excellent memory
- High compression strength
- Low compression set
- Extreme flexibility
- Very kink resistant
- Low gas and vapor permeability
- Naturally transparent, yet easily colored
- Good resistance to fuels and oils
- Vacuum rating for all sizes + 28" Hg.

specifications

Temperature Range: -40° to 165° F

O.D.	I.D.	QRMU	Wall	Min. Burst (PSI)	Min. Bend Radius	Coil/Reel Length (Feet)
4	2.4	QRMU04_	.085	1800	14 mm	100' Box 400'-1000' Reel
6	4.0	QRMU06_	1.00	1200	21 mm	100' Box 500'-1000' Reel
8	5.0	QRMU08_	1.00	800	28 mm	100' Box 500' Reel
10	6.5	QRMU10_	1.25	800	35 mm	50' Box 500' Reel
12	8.0	*QRMU12_	1.50	800	45 mm	50' Coil 250' Reel

available colors

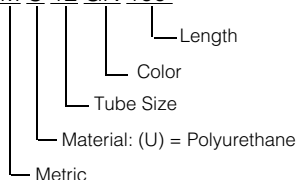
Black (BK), Red (RD), Green (GN), Blue (BU), Yellow (YW), White (YW)

NOTE: All colors are opaque.

how to order

Complete the model number with the desired tube color and length.

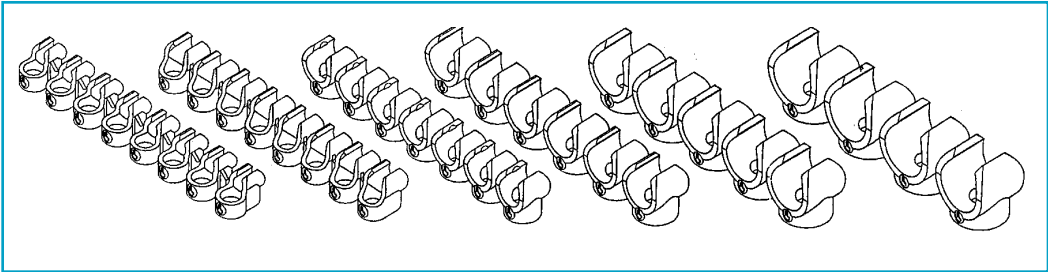
P/N Example: QRM U 12 GN 100'



Size Metric	Tolerance inches	Working Pressure (PSI)				Weight lbs/100'
		@ 75°F	@ 100°F	@ 125°F	@ 150°F	
4.0x2.4	±.005	120	97	70	50	0.7
6.0x4.0	±.005	127	93	60	50	1.3
8.0x5.0	±.005	147	117	87	80	2.6
10.0x6.5	±.005	143	120	90	67	3.9
12.0x8.0	±.005	120	93	80	57	5.3

tubing and accessories

QRCLIP tubing clips 3rd generation



Product Range

6 models including 3 to clip either tubing or Numatics QR3000 3rd generation fittings as follows:

PART NUMBER	number of clips per strip	tube size to clip	QR3000 3g fitting to clip	number of clips per box (min. order qty.)
CLIP 0400	8 clips	4mm (5/32)	—	5
CLIP 06 00	8 clips	6mm (1/4, 3/16)	—	5
CLIP 08 00	7 clips	8mm (5/16)	4mm (5/32)	5
CLIP 10 00	6 clips	10mm (2/8)	6mm (1/4)	5
CLIP 12 00	5 clips	12mm (1/2)	—	5
CLIP 14 00	4 clips	14mm	8mm (5/16)	5

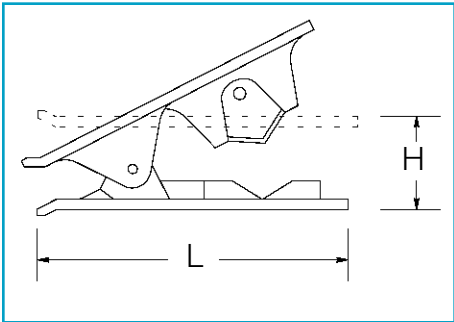
Characteristics of the new clip

Material: Black Nylon 12

Mounting Screw: At least one self-tapping screw per clip is provided in each package. Same screw for all clip sizes (9.5mm length).

Quantity of screws per box: 20 minimum to 40 maximum.

QR300071 tube cutter



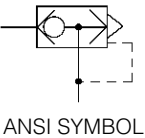
This tool will cut all plastic tubes (e.g. nylon, teflon, polyurethane, braided polyethylene, soft rubber, etc.) from 1/8" to 1/2" diameter inclusive. It is designed to give a clean cut at right angles to tube axis. A spring maintains the cutter in the closed position. Replacement blades are available.

Model No.	Height	Length
QR3000 71 00	.98	3.11

Blades No.: **QR3000 71 05** (Sold in packages of two)

Numatics valves

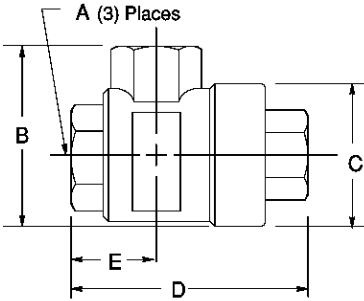
SEV quick exhaust valve



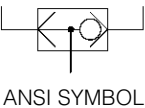
ports NPTF	SEV_AN	A	dimensions			
			B	C	D	E
1/8	SEV10AN	1/8	1.30	1.10	1.65	.55
1/4	SEV25AN	1/4	1.58	1.30	2.05	.71
1/2	SEV50AN	1/2	2.17	1.69	2.80	1.06

ports G tap	SEV__	A	dimensions (mm)			
			B	C	D	E
1/8	SEV10A	G1/8	33	28	42	14
1/4	SEV25A	G1/4	40	33	52	18
1/2	SEV50A	G1/2	55	43	71	27
3/4	SEV75	G3/4	74	64	90	42
1	SEV100	G1	88	80	108	48

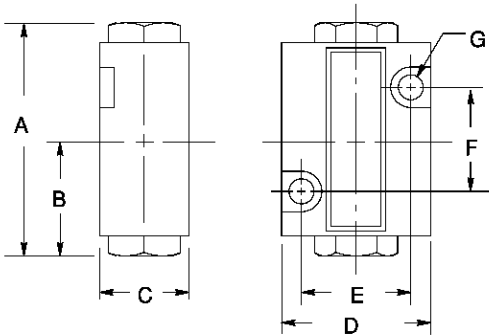
specifications
 Quick exhaust valve, line mounting
 Temperature Range: -40° to 165° F
 Pressure range: 3.9 to 145 PSI



OA22-1 shuttle valve



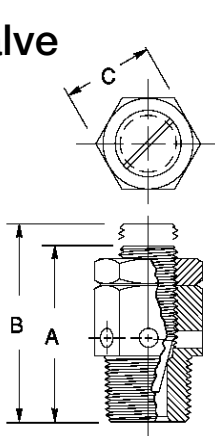
ports NPTF	OA22-1	A	B	C	D	E	F	G
1/8	OA22-1	1.93	.95	.75	1.26	.91	.87	.20



specifications
 Temperature Range: -4° to 194° F
 Pressure range: 3.9 to 145 PSI

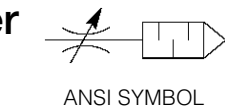
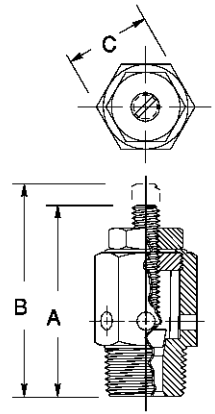
Numatics Silencers

MV metering valve



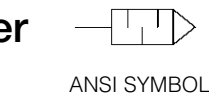
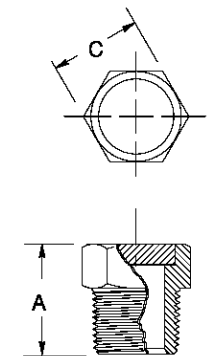
ports NPTF	MV__	Cv	dimensions		
			A	B	C
1/8	MV 05	.46	.90	1.09	.44
1/4	MV 10	.80	1.16	1.44	.50
1/4	MV 25	1.80	1.37	1.50	.69
3/8	MV 37	1.80	1.31	1.50	.69
1/2	MV 50	3.38	1.62	2.00	.87
3/4	MV 75	8.34	2.00	2.37	1.06
1	MV 100	8.34	3.00	3.50	1.37

A__MN speed control muffler



ports NPTF	A__MN	Cv	dimensions		
			A	B	C
1/8	A1MN	.35	1.12	1.31	.50
1/4	A2MN	.67	1.42	1.56	.63
3/8	A3MN	.90	1.47	1.63	.69
1/2	A4MN	1.35	1.75	2.00	.88
3/4	A5MN	1.67	2.00	2.38	1.06
1	A6MN	2.32	2.25	2.50	1.31

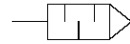
B__MN breather vent silencer



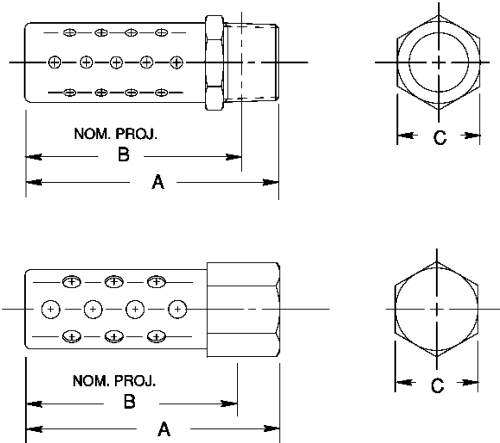
ports NPTF	B__MN	Cv	dimensions	
			A	B
1/8	B1MN	.44	.44	.44
1/4	B2MN	.65	.63	.56
3/8	B3MN	1.12	.75	.68
1/2	B4MN	1.77	.88	.88
3/4	B5MN	4.72	1.00	1.06
1	B6MN	7.30	1.31	1.31
1 1/4	B7MN	10.63	1.41	1.68
1 1/2	B8MN	12.72	1.50	2.0

Numatics Silencers

M Series metal air silencers



ANSI SYMBOL



NPTF male

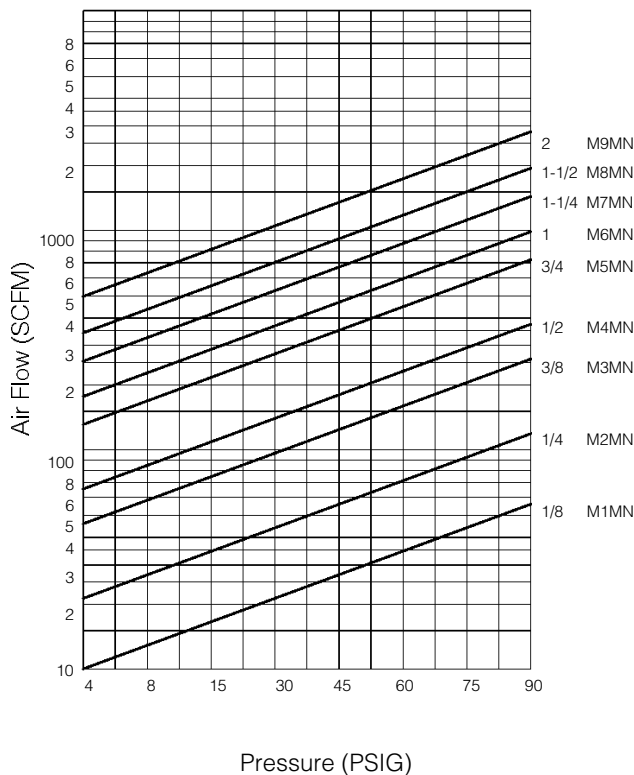
threads NPTF	M_MN	Cv	dimensions		
			A	B	C
1/8	M1MN	1.17	1.38	1.22	.44
1/4	M2MN	2.54	1.75	1.53	.56
3/8	M3MN	5.08	2.25	2.00	.69
1/2	M4MN	7.32	2.72	2.41	.88
3/4	M5MN	13.87	3.16	2.81	1.06
1	M6MN	19.53	3.88	3.47	1.31
1 1/4	M7MN	28.32	4.50	4.16	1.69
1 1/2	M8MN	38.09	5.00	4.59	2.00
2	M9MN	52.73	5.50	5.06	2.38

NPTF female

threads NPTF	M_FN	Cv	dimensions		
			A	B	C
1/8	M1FN	1.17	1.38	1.22	.50
1/4	M2FN	2.54	1.75	1.53	.62
3/8	M3FN	5.08	2.25	2.00	.75
1/2	M4FN	7.32	2.72	2.41	.94

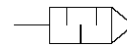
NPTF metric male

metric threads tapered	M_MB	Cv	dimensions		
			A	B	C
1/8	M1MB	1.17	1.38	1.22	.44
1/4	M2MB	2.54	1.75	1.53	.56
3/8	M3MB	5.08	2.25	2.00	.69
1/2	M4MB	7.32	2.72	2.41	.88
3/4	M5MB	13.87	3.16	2.81	1.06
1	M6MB	19.53	3.88	3.47	1.31

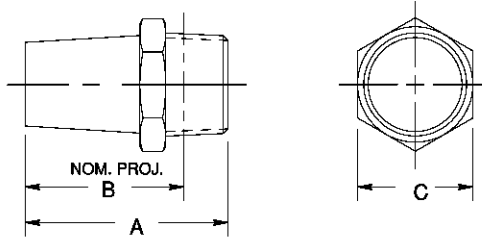


Numatics Silencers

P Series porous bronze air silencer



ANSI SYMBOL

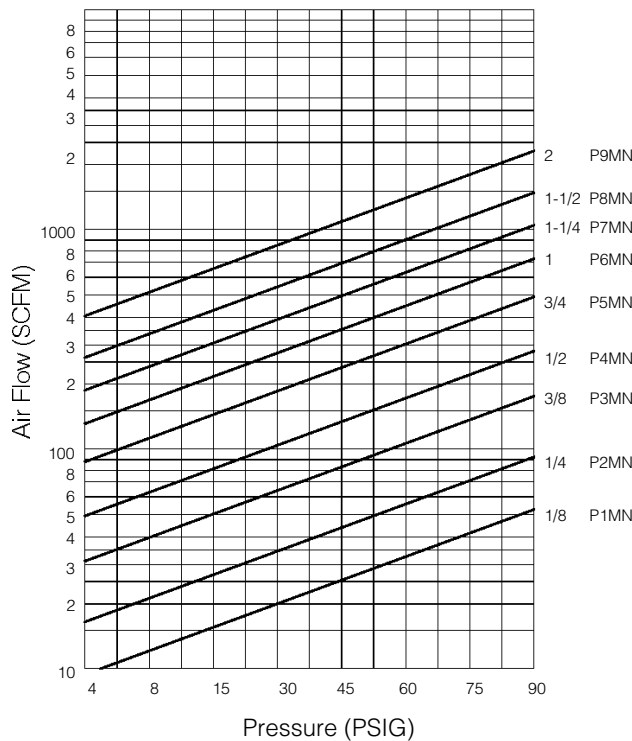


NPTF male

threads NPTF	P_MN	Cv	dimensions		
			A	B	C
10-32	P0MN	.23	.75	.62	.38
1/8	P1MN	1.07	.84	.69	.44
1/4	P2MN	1.78	1.20	.97	.56
3/8	P3MN	2.30	1.45	1.20	.69
1/2	P4MN	5.66	1.89	1.58	.88
3/4	P5MN	9.67	2.12	1.78	1.06
1	P6MN	14.06	2.84	2.44	1.31
1 1/4	P7MN	20.51	3.44	3.00	1.69
1 1/2	P8MN	29.10	4.00	3.56	2.00
2	P9MN	44.92	4.75	4.31	2.38

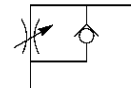
metric male

metric threads tapered	P_MB	Cv	dimensions		
			A	B	C
M5	POMB	.23	.75	.62	.38
1/8	P1MB	1.07	.84	.69	.44
1/4	P2MB	1.78	1.20	.97	.56
3/8	P3MB	2.30	1.45	1.20	.69
1/2	P4MB	5.66	1.89	1.58	.88
3/4	P5MB	9.67	2.12	1.78	1.06
1	P6MB	14.06	2.84	2.44	1.31



Numatics Flow Controls

FCRN and FCTN right angle flow controls



ANSI SYMBOL



features

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

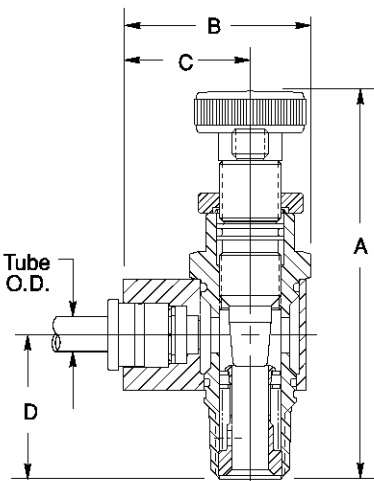
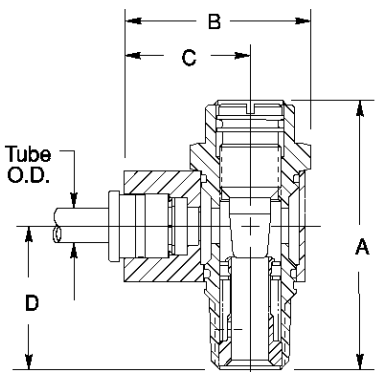
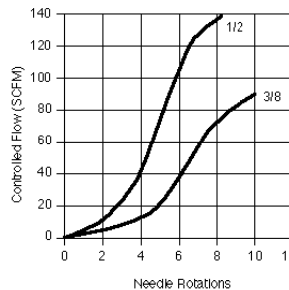
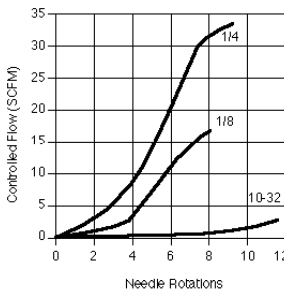
specifications

Temperature Range: 0° to 160° F

Maximum Operating Pressure: 175 PSIG (12 bar)

materials of construction

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



standard flow control

(with and without push-in fitting)

ports NPTF	without push-in	with push-in	tube O.D.	Cv non-metered	dimensions			
					A	B	C	D
10-32	0FCRN	0FPRN4 0FPRN5	1/8 5/32	.06	.89	.62	.43	.69
1/8	1FCRN	1FPRN8 1FPRN5	1/4 5/32	.34	1.46	.98	.65	1.00
1/4	2FCRN	2FPRN8 2FPRN12	1/4 3/8	.67	1.78	1.28	.91	1.03
3/8	3FCRN	3FPRN12 3FPRN16	3/8 1/2	1.85	2.23	1.45	1.02	1.30
1/2	4FCRN	4FPRN12 4FPRN16	3/8 1/2	2.84	2.82	1.84	1.28	1.40

knob adjust flow control

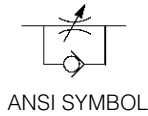
(with and without push-in fitting)

ports NPTF	without push-in	with push-in	tube O.D.	Cv non-metered	dimensions			
					A	B	C	D
10-32	0FCTN	0FPTN4 0FPTN5	1/8 5/32	.06	1.21	.62	.43	.69
1/8	1FCTN	1FPTN8 1FPTN5	1/4 5/32	.34	2.21	.98	.65	1.00
1/4	2FCTN	2FPTN8 2FPTN12	1/4 3/8	.67	2.50	1.28	.91	1.03
3/8	3FCTN	3FPTN12 3FPTN16	3/8 1/2	1.85	3.23	1.45	1.02	1.30
1/2	4FCTN	4FPTN12 4FPTN16	3/8 1/2	2.84	3.96	1.84	1.28	1.40

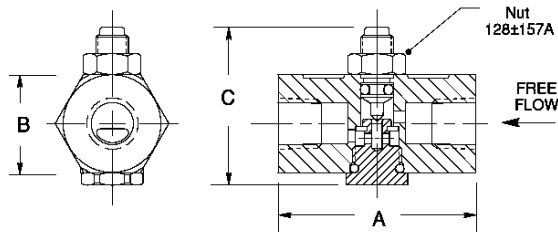


Numatics Flow Controls

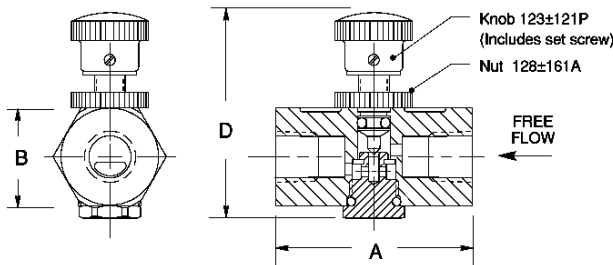
1FC1 and 2FC1 inline flow controls



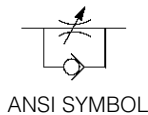
ports NPTF	without knurled knob	with knurled knob	Cv	dimensions			
				A	B	C	D
1/8	1FC1	1FC1K	.22	1.50	.75	1.08	1.66
1/4	2FC1	2FC1K	.22	1.50	.75	1.08	1.66



Optional Knurled Knob (suffix K)

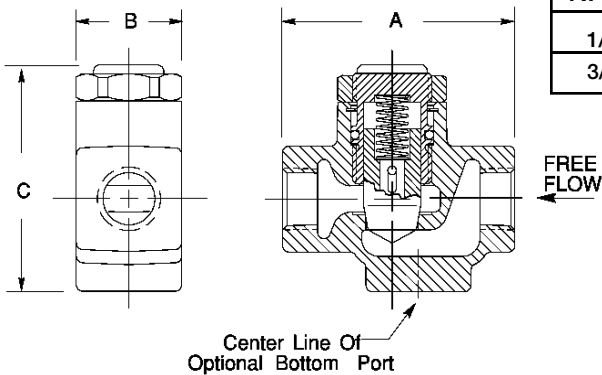


FC2 and FC3 inline flow controls



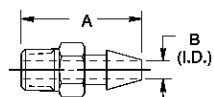
ports NPTF	without bottom port	with bottom port	Cv	dimensions		
				A	B	C
1/4	2FC2	2FC2B	2.3	2.34	1.06	2.21
3/8	3FC2	3FC2B	2.7	2.34	1.06	2.21

ports NPTF	without bottom port	with bottom port	Cv	dimensions		
				A	B	C
1/2	4FC3	4FC3B	6.0	3.28	1.50	3.17
3/4	5FC3	5FC3B	7.5	3.28	1.50	3.17



Numatrol Fittings

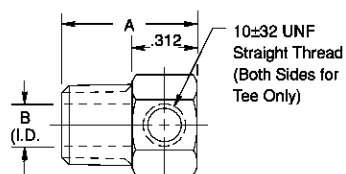
connector



tube to male thread

thread	134-	tube O.D.-I.D.	Hex	A	B	qty.
1/8 NPTF	134-223	1/4-1/8	.438	.84	.109	25/bag
10-32	134-224	1/4-1/8	.250	.62	.109	25/bag
10-32	134-236	1/4-1/8	.250	.54	.047	25/bag

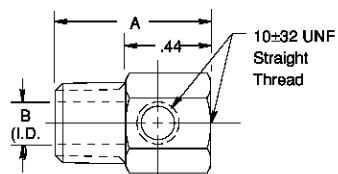
elbow and branch tee (male to female thread)



male to female thread

thread	134-	Hex	A	B	qty.
elbow					
1/8 NPTF	134-225	.438	.70	.203	15/bag
10-32	134-226	.375	.54	.109	15/bag
branch tee					
1/8 NPTF	134-227	.438	.70	.203	10/bag
10-32	134-228	.375	.54	.109	10/bag

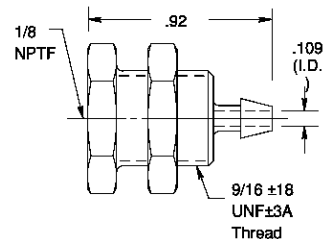
run tee (male to female thread)



male to female thread

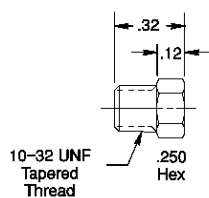
thread	134-	Hex	A	B	qty.
10-32	134-233	.375	.68	.84	10/bag
1/8 NPTF	134-234	.438	.84	.203	10/bag

bulkhead adapter (1/4 tube to 1/8 NPTF female thread)



bulkhead	134-	qty.
	134-238	1/bag

plug



plug	129-	qty.
	129-127	5/bag

how to order Numatrol fittings

Fittings are packaged in specific quantities—see “qty.” column in each corresponding chart. Order the total quantity required, making certain to order in even multiples.

Numatrol tubing

polyurethane tubing for Numatrol series



features

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

The highly flexible tubing allows easy "push-in" connections and neat installation with sharp bends possible in less than one inch. Many Numatrol II installations that previously required the use of nylon tubing for high pressure, clamp functions for example, can now be easily accomplished with this new tubing.

O.D.	I.D.	135-	length
1/4	1/8	135-124	1000' roll
1/4	1/8	135-125	100' roll
1/8	1/8	135-127	1000' roll
1/8	1/8	135-126	100' roll

For tube cutter, see page A-34.
For fractional tube clips, see page A-34.

Tubing Temperature/Pressure Specifications

