MINIMATIC® FITTINGS



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For ease in construction of pneumatic logic control and fluid power systems, you will find in the Clippard line an extensive choice of useful fittings. Clippard fittings are designed for the greatest flexibility, practical usefulness and for savings in time,

cost and space.

Why Clippard Miniature Fluid Power Fittings?

While others were thinking about large fittings, Clippard was thinking big about smaller fittings. Smaller valves and cylinders created the need for smaller fittings. Clippard was the first to develop ports utilizing the #10-32 thread. This thread has become an industry standard in the marketplace. Because of their compact size, #10-32 fittings when properly gasketed and/or sealed with anaerobic sealant, can withstand pressures well beyond those required for pneumatic applications.

All Clippard fittings are made to the same high standards as our valves and cylinders. Precision machining and finishing processes insure that all fittings are held to the tightest tolerances. What does this mean to you? It means quality... quality that leads to ease in assembly, and consistent, trouble free performance.

Clippard precision fittings will save you time, space, and money when designing versatile, productive, trouble free, pneumatic circuits. Our endless variety of fittings insure that you find just the right "fit" when plumbing pneumatic circuits or assemblies. These fittings are small in size but large in performance, allowing for streamlining of pneumatic assemblies and eliminating the need for larger, more expensive, cumbersome fittings.

Options

Clippard brass fittings come standard with a bright chromate finish for added corrosion resistance. Most brass fittings are also available with nickel plating. Clippard slip-on fittings come standard with electroless nickel plating. Some fittings are also available with metric threads. Refer to each item in the catalog for available options.

To order a brass fitting with the nickel plating option, add a -NP following the catalog fitting number. To order a fitting with the M5 metric thread option, add a -M5 following the catalog fitting number.

PUSH-QUICK FITTINGS



Clippard Push-Quick Fittings provide a simple method of connecting pneumatic components to each other and system piping. They are designed for use with both flexible hose and stiff tubing made of nylon, urethane, polyethylene or polypropylene.

Push-Quick Fittings generally provide higher flows than

barbed fittings. The Push-Quick fitting allows full flow through the hose/tubing I.D. with no smaller orifice required as in barb fittings. The chart shows the comparison between barb and push in fittings for various tubing/hose sizes. Push-Quick Fittings are available in five sizes for 1/8", 5/32", 6 mm, 1/4" and 3/8" O.D. tubing. The 5/32" fittings may also



Installation of Tubing into fitting

be used with 4 mm O.D.

tubing.

- 1. Slowly push a clean and perpendicularly cut tubing into the fitting until it comes to a dead stop.
- 2. Pull the tubing back gently until the Gripper Ring of the fitting grips onto the tubing and has a good seal.

Removal of Tubing from fitting

- 1. Push in evenly on the two long oval sides of the Release Button.
- 2. Pull out the tubing while keeping the Release Button depressed.
- 3. To reuse the tubing; cut off the lodged portion of the previously used tubing evenly and perpendicularly.

Installation of Pipe Fittings with Pre-Applied sealant

- 1. Tighten fitting by hand, then turn it 2 or 3 turns with a wrench until it reaches the desired torque listed.
- 2. If the fitting is used and the sealant coating is not in good condition, apply Teflon® sealant tape to the threads.

Durometer (Hardness) Scale

Shore A	5060 70	80 90 100
Shore D	20	30 40 50 60 70 80



* 6 mm size fittings have a green release button

Thread Size	#10-32	1/8" NPT, R1/8	1/4" NPT, R1/4	3/8" NPT	1/2" NPT
Torque lb ft.	1.0 - 1.5	5.0 - 6.5	8.5 - 10.0	16.0 - 17.5	20 - 21.5

Tubing Material	Polyurethane	Polyethylene	Polypropylene	Nylon
Specified Size	+/- 0.005"	+/- 0.004"	+/- 0.004"	+/- 0.004"
Hardness (Durometer)	Shore A85 or higher	Shore D 44 or higher	Shore D 44 or higher	Shore D 44

see pages 313 through 318 for hose and tubing

Pressure Range: 0 - 150 psig @ 130° F

Vacuum: 0 - 29.5 in Hg

Temperature Range: 32 - 140° F

Media: Air, Non-corrosive water

Tube Pull Out Force: 20 lb. @ 75° F (non-pressurized)

Burst Pressure: 350 psig @ 75° F

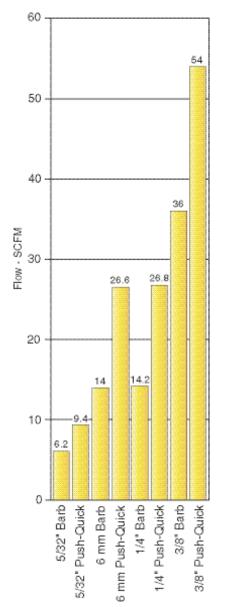
Materials: Body - Plastic Resin

Metal Stud - Nickel Plated Brass

Gripper Ring - Stainless Steel

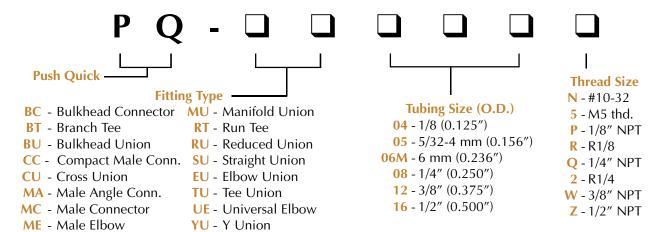
Seals - Buna N

Barb vs Push-Quick Fittings Flow Comparison @ 100 psig





Push-Quick Fittings



	eaded Fittings	(EW)					3	TENT	
		Male Compact Connector	Male Connector	Male Elbow	Run Tee	Branch Tee	Universal Elbow	Male Angle Connector	Bulkhead Connector
Tube	Thread	CC	MC	ME	RT	ВТ	UE	MA	BC
1/8″	#10-32	PQ-CC04N		PQ-ME04N				PQ-MA04N	
	1/8" NPT	PQ-CC04P		PQ-ME04P	0.0 000.00		50 1155	PQ-MA04P	
- / #	#10/32	PQ-CC05N	PQ-MC05N	PQ-ME05N	PQ-RT05N	PQ-BT05N	PQ-UE05N	PQ-MA05N	
5/32"	M5 thd.		PQ-MC055	PQ-ME055	PQ-RT055	PQ-BT055	PQ-UE055	PQ-MA055	
(4 mm)	., .	PQ-CC05P	PQ-MC05P	PQ-ME05P	PQ-RT05P	PQ-BT05P	PQ-UE05P	PQ-MA05P	PQ-BC05P
	R1/8		PQ-MC05R	PQ-ME05R	PQ-RT05R	PQ-BT05R	PQ-UE05R	PQ-MA05R	PQ-BC05R
	1/4" NPT		PQ-MC05Q	PQ-ME05Q					
	M5 thd.		PQ-MC06M5	PQ-ME06M5	PQ-RT06M5	PQ-BT06M5	`	PQ-MA06M5	
6 mm*	R1/8		PQ-MC06MR	PQ-ME06MR	PQ-RT06MR	PQ-BT06MR		PQ-MA06MR	-
	R1/4		PQ-MC06M2	PQ-ME06M2	PQ-RT06M2	PQ-BT06M2	`	PQ-MA06M2	PQ-BC06M2
	#10-32	PQ-CC08N	PQ-MC08N	PQ-ME08N	PQ-RT08N	PQ-BT08N	PQ-UE08N	PQ-MA08N	
1/4"	1/8" NPT	PQ-CC08P	PQ-MC08P	PQ-ME08P	PQ-RT08P	PQ-BT08P	PQ-UE08P	PQ-MA08P	PQ-BC08P
	1/4" NPT	PQ-CC08Q	PQ-MC08Q	PQ-ME08Q	PQ-RT08Q	PQ-BT08Q	PQ-UE08Q	PQ-MA08Q	PQ-BC08Q
	3/8" NPT		PQ-MC08W	PQ-ME08W				PQ-MA08W	
	1/8" NPT		PQ-MC12P	PQ-ME12P	PQ-RT12P	PQ-BT12P		PQ-MA12P	
3/8"	1/4" NPT	PQ-CC12Q	PQ-MC12Q	PQ-ME12Q	PQ-RT12Q	PQ-BT12Q	PQ-UE12Q	PQ-MA12Q	PQ-BC12Q
	3/8" NPT	PQ-CC12W	PQ-MC12W	PQ-ME12W	PQ-RT12W	PQ-BT12W	PQ-UE12W	PQ-MA12W	PQ-BC12W
	1/4" NPT		PQ-MC16Q	PQ-ME16Q				PQ-MA16Q	
1/2"	3/8" NPT		PQ-MC16W	PQ-ME16W				PQ-MA16W	
	1/2" NPT		PQ-MC16Z	PQ-ME16Z				PQMA16Z	

^{* 6} mm size fittings have a green release button.

Note: Fittings with pipe thread (NPT), R1/8 and R1/4 are supplied with pre-applied sealant.

Push-Quick Fittings

Male Elbow - ME



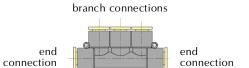
Non- Threaded Port Fittings		Wales of the same	e e					
Tube Size	Straight Union SU	Reduced Union RU	Elbow Union EU	Tee Union TU	Y Union YU	Cross Union CU	Bulkhead Union BU	Manifold Union MU**
1/8"	PQ-SU04			PQ-TU04		PQ-CU04		
5/32" (4 mm)	PQ-SU05	PQ-RU0504	PQ-EU05	PQ-TU05	PQ-YU05	PQ-CU05	PQ-BU05	PQ-MU0504
6 mm*	PQ-SU06M	PQ-RU06M05	PQ-EU06M	PQ-TU06M	PQ-YU06M	PQ-CU06M	PQ-BU06M	PQ-MU06M05
1/4"	PQ-SU08	PQ-RU0804 PQ-RU0805	PQ-EU08	PQ-TU08	PQ-YU08	PQ-CU08	PQ-BU08	PQ-MU0805
3/8"	PQ-SU12	PQ-RU1208	PQ-EU12	PQ-TU12	PQ-YU12	PQ-CU12	PQ-BU12	PQ-MU1208
1/2"	PQ-SU16	PQ-RU1612	PQ-UE16	PQ-TU16	PQ-YU16		PQ-BU16	

* 6 mm size fittings have a green release button.

Branch Tee - BT

** The first size listed in the part number are the end connections, the second size listed are the branch connections.

Run Tee - RT



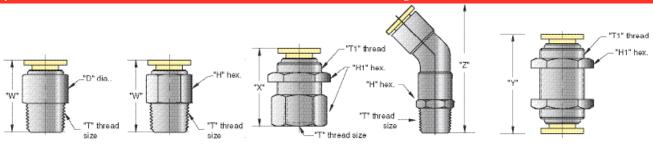
Universal Elbow - UE

R" - "A" -	_"H"	0.125	"C"-	"R"	0."H" "A" "T"	125	"A"	"V"	"C"	"T"
Tubing Size	Thread Size "T"	"A"	"B"	"C"	"E"	"H"	"R"	"S"	"U"	"V"
1/8"	#10-32	0.722"		0.410"	0.328"	7/16"	0.900"			
1/8"	1/8" NPT	0.722"		0.410"	0.328"	7/16"	0.980"			
5/32"	#10-32	0.722"	0.656"	0.410"	0.328"	7/16"	0.900"	0.820"	0.440"	5/16"
5/32"	M5 x 0.8	0.722"	0.656"	0.410"	0.328"	10 mm	0.900"	0.831"	0.449"	8 mm
5/32"	1/8" NPT	0.722"	0.656''	0.410"	0.328''	7/16"	0.980''	0.920''	0.570"	7/16"
5/32"	R1/8	0.722"	0.656"	0.410"	0.328"	10 mm	0.980"	0.921"	0.563"	10 mm
5/32"	1/4" NPT	0.722"	0.656"	0.410"	0.328"	7/16"	1.130"			
6 mm	M5 x 0.8	0.830"	0.740"	0.524"	0.370"	12 mm	1.030"	0.953"	0.500"	12 mm
6 mm	R1/8	0.830''	0.740"	0.524"	0.370"	12 mm	1.100"	0.976''	0.587"	12 mm
6 mm	R1/4	0.830"	0.740"	0.524"	0.370"	14 mm	1.140"	1.059"	0.654"	14 mm
1/4"	#10-32	0.840''	0.740"	0.524"	0.370"	1/2"	1.030"	0.940''	0.480''	1/2"
1/4"	1/8" NPT	0.840''	0.740"	0.524"	0.370"	1/2"	1.100"	0.990"	0.600"	1/2"
1/4"	1/4" NPT	0.840''	0.740"	0.524"	0.370"	9/16"	1.230"	1.120"	0.740"	9/16"
1/4"	3/8" NPT	0.840''	0.740"	0.524"	0.370"	11/16"	1.290"			
3/8"	1/8" NPT	1.100"	0.944"	0.720"	0.472"	11/16"	1.350"			
3/8"	1/4" NPT	1.100"	0.944''	0.720"	0.472"	11/16"	1.470"	1.320"	0.800''	11/16"
3/8"	3/8" NPT	1.100"	0.944"	0.720"	0.472"	11/16"	1.160"	1.550"	0.900"	11/16"
1/2"	1/4" NPT	1.160"		0.850"	0.570"	7/8"	1.550"			
1/2"	3/8" NPT	1.160"		0.850"	0.570"	7/8"	1.580"			
1/2"	1/2" NPT	1.160"		0.850"	0.570"	7/8"	1.670"			



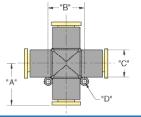
PUSH-QUICK FITTINGS NON-THREADED PORTS

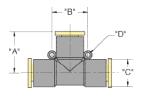
Compact Connector - CC Male Connector - MC Bulkhead Connector - BC Male Angle Connector - MA Bulkhead Union - BU

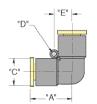


Tubing Size	Thread Size "T"	"D"	"H"	"H1"	"T1"	"W"	"X"	"Y"	"Z"
1/8"	#10-32	0.410"			7/16"	0.880"			
1/8"	1/8" NPT	0.410"			7/16"	0.860"			
5/32"	#10-32	0.410"	7/16"		7/16"	0.890"	0.820"	0.440''	5/16"
5/32"	M5 x 0.8		10 mm		10 mm	0.900"	0.830"	0.450"	8 mm
5/32"	1/8" NPT	0.410"	7/16"	5/8"	7/16"	0.840"	0.920"	0.570"	7/16"
5/32"	R 1/8		10 mm	14 mm	10 mm	0.840"	0.920"	0.563"	10 mm
5/32"	1/4" NPT				7/16"				
6 mm	M5 X 0.8		12 mm		12 mm	0.950"	0.953"	0.500"	12 mm
6 mm	R 1/8		10 mm	17 mm	12 mm	0880"	0.976"	0.587"	12 mm
6 mm	R 1/4		14 mm	17 mm	14 mm	0.875"	1.059"	0.654"	14 mm
1/4″	#10-32	0.470"	1/2"		1/2"	0.913"	0.940"	0.480"	1/2"
1/4"	1/8" NPT	0.470"	1/2"	3/4"	1/2"	0.913"	0.990"	0.600"	1/2"
1/4"	1/4" NPT	0.530"	9/16"	3/4"	9/16"	0.965"	1.120"	0.740"	9/16"
1/4"	3/8" NPT		11/16"		11/16"	0.965"			
3/8"	1/8" NPT		11/16"		11/16"	1.280"			
3/8"	1/4" NPT	0.670"	11/16"	15/16"	11/16"	1.342"	1.320"	0.800''	11/16"
3/8"	3/8" NPT	0.670"	11/16″	15/16"	11/16"	1.241"	1.320"	0.900''	11/16"
1/2"	1/4" NPT		7/8"		7/8"	1.380"			
1/2"	3/8" NPT		7/8"		7/8"	1.320"			
1/2"	1/2" NPT		7/8"		7/8"	1.320"			

Tee Union - TU Elbow Union - EU Straight Union - SU **Cross Union - CU**





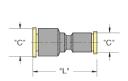


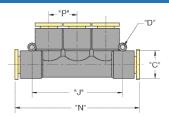


Reduced Union - RU

Manifold Union - MU

Y Union - YU





	- "F""D"
"G"	, c
	"M"

Tubing Size	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"J"	"K"	"L"	"M"	"N"	"P"
1/8"	0.710	0.560	0.420	0.080					1.240				
5/32-4 mm	0.722	0.656	0.410	0.125	0.328	0.512	0.517	1.608	1.239	1.230	1.318	2.312	0.531
6 mm	0.830	0.740	0.524	0.125	0.370	0.568	0.531	1.608	1.500	1.367	1.495	2.435	0.531
1/4"	0.840	0.740	0.524	0.125	0.370	0.604	0.531	1.608	1.500	1.666	1.495	2.435	0.531
3/8"	1.100	0.944	0.720	0.125	0.472	0.740	0.720	1.850	1.851	1.666	2.017	2.312	0.531
1/2"	1.130	1.120	0.850	0.100	0.570	0.780	0.840		1.810	1.810	2.070		

PUSH-QUICK FITTINGS



Push-Quick Fitting Adapters

Clippard offers a variety of accessories that are designed for use with Push-Quick Fittings. These include special #10-32 threaded adapters in both male (p/n 11674) and female (p/n 11675) thread configurations and adapters that can be used to plug a Push-Quick fitting.

The threaded adapters insert into Push-Quick Fittings and provide either a male or female thread that can be used to mount any Clippard product with a #10-32 threaded inlet. This allows the direct attachment of the product to a Push-Quick Fitting without hoses or additional fittings.

Part Dash #	Tubing Size	"D"	"H"	"L"	"M"	"N"
- 05	5/32"	0.312"	1/4"	0.993"	0.962"	1.212"
- 08	1/4"	0.312"	1/4"	1.003"	0.972"	1.222"
- 12	3/8"	0.437"	3/8"	1.143"	1.112"	1.362"

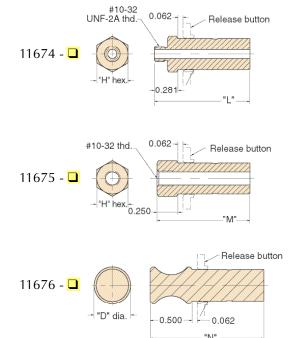


Figure 1 shows an MAV-3 3-Way Valve connected to a PQ-RT05P Run Tee using a 11674-05 Adapter. In this example, the Run Tee is connected to a 1/8" NPT supply pipe.

Figure 2 shows an IND-1M-WH Pressure Indicator connected to a PQ-TU08 Tee Union using a 11675-08 Adapter. If one of the branches of a Push-Quick Fitting is to be used as a temporary pressure gauge port, the 11676 series of Plugs can be used when the gauge is not in place. Plugs may also be used if Push-Quick Fitting branches are intended for future additions to the circuit, but have no current need.

Figure 3 shows a PQ-CU Cross Union with one branch plugged with a 11676-08 Plug.





NEW! Push-Quick Fittings with Quick-Connect Ports Available

New Quick-Connect fittings are available which combine the quick, easy functionality of the Push-Quick series with the flexibility and security of the Quick-Connect series.

See page 307 for complete details.

Clippard Minimatic

MINIMATIC® SLIP-ON FITTINGS



Minimatic slip-on fittings provide a flexible, easy alternative to ferrule and push-to-connect design fittings.

Clippard Minimatic slip-on fittings are designed to be used with Clippard urethane hose. The flexibility and strength of urethane hose and the compact design of the fittings are ideal for pneumatic applications where convenience and size are considerations. The Minimatic slip-on fitting used with Clippard urethane hose will provide a leak free connection that will hold well beyond the working pressure of the hose without the need for additional clamps.

Minimatic slip-on fittings are available

in a wide variety of configurations in a number of styles including tee, connectors, crosses, swivel, and universal. Barb sizes can be mixed on the same fitting for applications requiring multiple tubing sizes. The electroless nickel

Features

- Single barb design for quick and easy positive seal
- Miniature size provides low profile
- Multiple configurations for every need
- Electroless nickel plating
- Available with 1/16", 3/32" or 1/8" hose barb
- Available with #10-32 thread and 1/8" NPT
- Holds to the burst pressure of polyurethane hose

Material: Brass electroless nickel plated

Gasket: Buna-N gasket included with #10-32 threads except when ordered in bulk

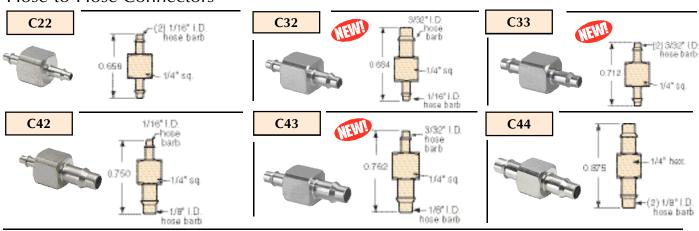
CONNECTOR FITTINGS

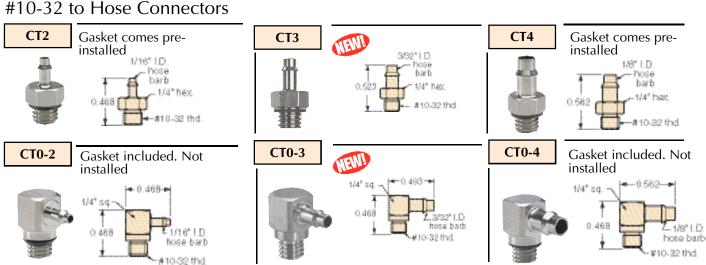
retain their original, lustrous appearance.

plating of Minimatic slip-on fittings provides corrosion resistance in

applications involving high moisture, while enabling the fittings to

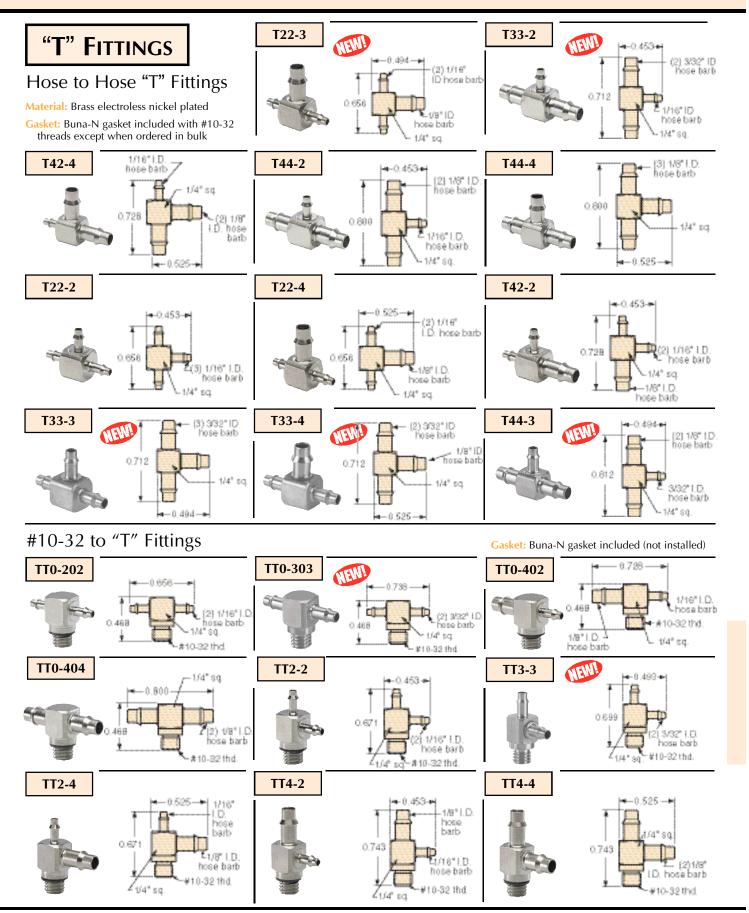
Hose-to-Hose Connectors





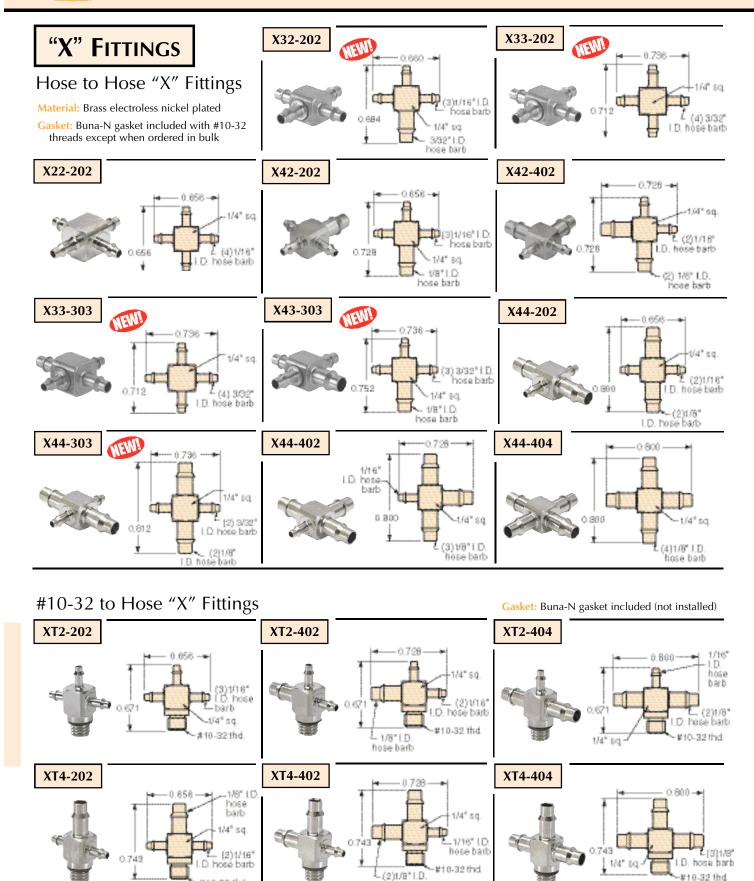
MINIMATIC® SLIP-ON FITTINGS





Clippard Minimatic

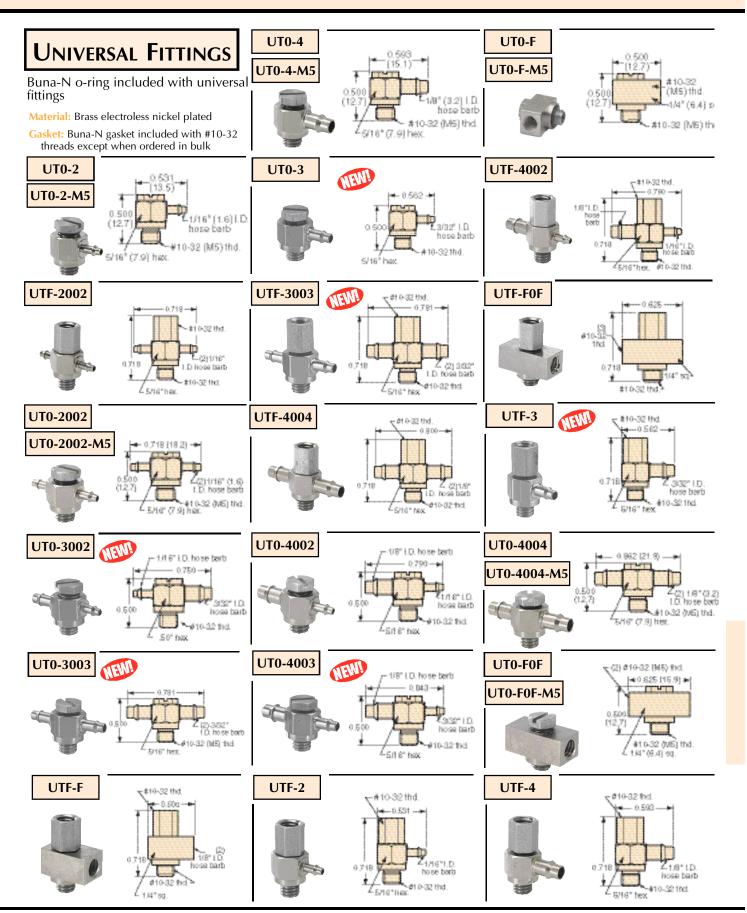
MINIMATIC® SLIP-ON FITTINGS



#10-32 thd.

MINIMATIC® SLIP-ON FITTINGS





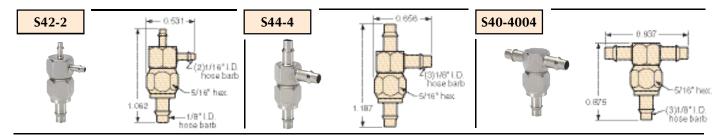
Clippard Minimatic

MINIMATIC® SLIP-ON FITTINGS

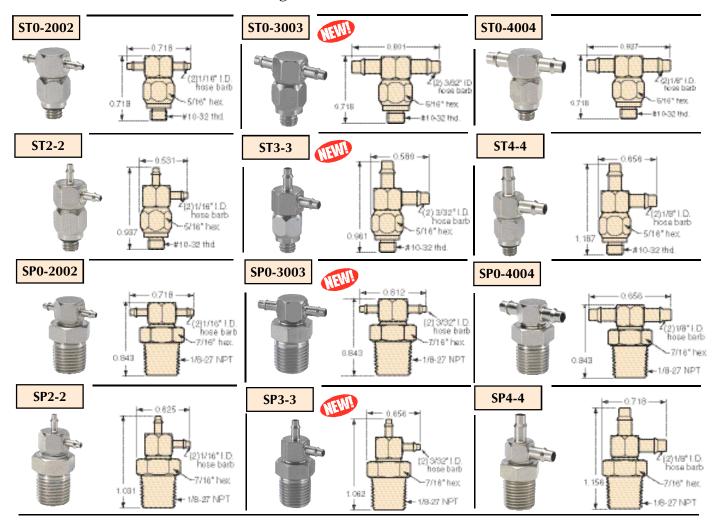
SWIVEL FITTINGS

Hose to Hose Swivel "T" Fittings

Material: Brass electroless nickel plated
Gasket: Buna-N gasket included with #10-32
threads except when ordered in bulk



#10-32 to Hose Swivel "T" Fittings

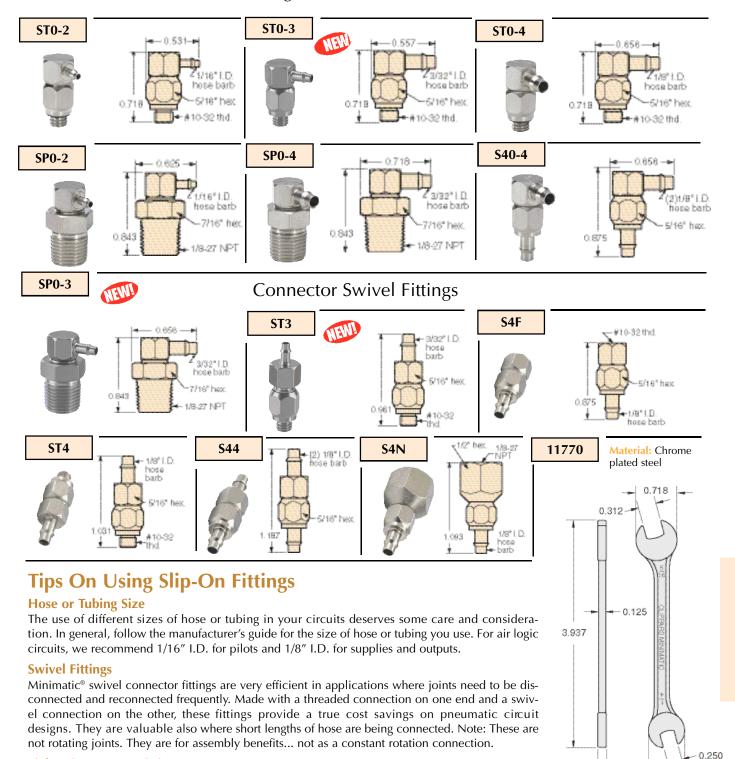


Tip Most Clippard #10-32 threaded fittings require no more than 9 inch pounds of torque to seal. We recommend that this force not be exceeded.

MINIMATIC® SLIP-ON FITTINGS



#10-32 to Hose Swivel "L" Fittings



Tightening #10-32 Fittings

TIGHTEN WITH CARE. Often a "finger tight" connection between Clippard fittings with an aerobic sealant is all that is required. When using a gasket, most Clippard #10-32 threaded fittings require no more than 9 inch pounds of torque to seal. We recommend that this force not be exceeded. Use wrench #11770 with a 1/4" and 5/16" open-end.

0.625

0.281

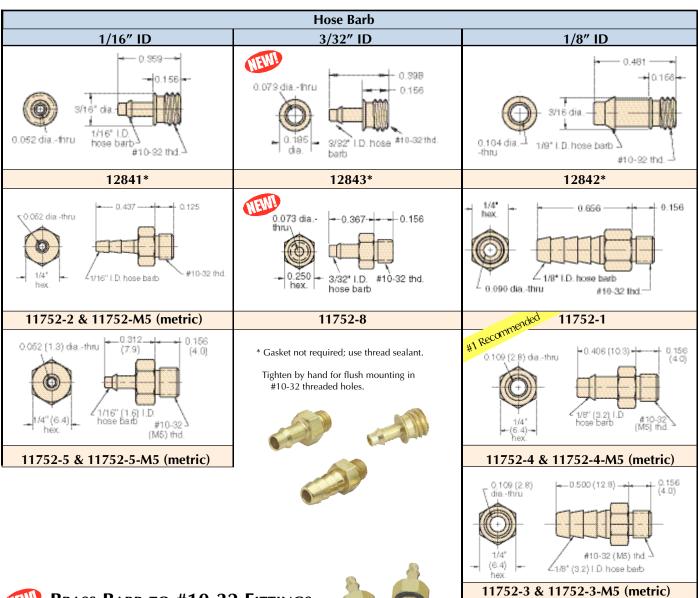


Brass Barb to #10-32 Fittings

Material: Brass

Gasket: Buna-N furnished in package only Replacement 11761-2

Options: (-NP), (-M5 on 11752-2, 11752-3, 11752-4 and 11752-5)

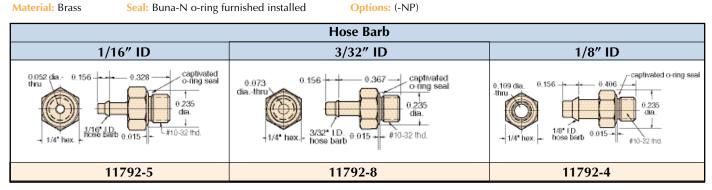




BRASS BARB TO #10-32 FITTINGS WITH CAPTIVATED O-RINGS



Options: (-NP)



BRASS BARB TO PIPE FITTINGS



Material: Brass

Thread: Standard Pipe Thread

Options: (-NP)









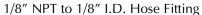
External	Hose Barb(s)								
Thread	1/16" ID	3/32" ID	1/8" ID	1/4" ID					
1/16" NPT Thread (5/16" Hex.)	0.490	0.710	0.800						
	1CJ2	1CJ3	1CJ4 11924-2						
1/8" NPT Thread (7/16" Hex.)	0.740	0.773	0.860	5/32* hex0.625-					
	2CP2	2CP3	2CP4 11924-1*	12844					
1/4" NPT Thread (9/16" Hex.)	0.770	0.804	0.890	5/32" hex0.625 -					
	4CQ2	4CQ3	4CQ4	12845					
3/8" NPT Thread (11/16" Hex.)	0.890	0.929	1.020	*Also available with G1/8 thread. Add -MG to the part number.					
	6CW2	6CW3	6CW4						
1/2" NPT Thread (13/16" Hex.)	1.020	1.054	1.140						
	8CZ2	8CZ3	8CZ4						

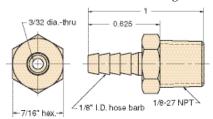
- - -



BRASS BARB FITTINGS

11924-1





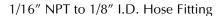
Material: Brass
Thread: 1/8" NPT

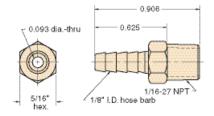
Use: Joins standard pipe to 1/8" I.D. hose

Options: (-NP), (-MG)



11924-2





Material: Brass

Thread: 1/16" NPT

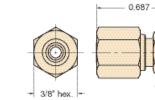
Use: Joins standard pipe to 1/16" I.D. hose

Options: (-NP)



11923

1/16" NPT to 1/8" I.D. Hose Fitting



Material: Brass
Thread: #10-32

+0.156

#10-32 thd.

For Tubing: 3811-1 copper 3814-2 nylon

Options: (-NP)

Features: One piece ferrule and nut for fast, easy

insertion of tube

Replacement Ferrule & nut #15155





Clippard's reputation of building jigs, fixtures and machines as well as modifying existing machines to improve productivity is carried on in its well equipped machine shop. New product prototypes are crafted by experienced engineers and machinists.

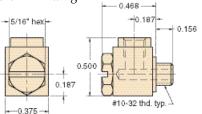
MINIMATIC® X T L FITTINGS



15002-1



Adjustable "L" Fitting



Material: Brass body, stainless steel stud

Stud: Stainless steel hex head with screwdriver slot (12292)

Thread: #10-32

Seals: Buna-N o-ring furnished

Use: Permits port to be aimed 360° in one plane, then secured by tightening screw. Also useful in connecting and disconnecting hose in hard-to reach locations.

Options: (-NP)

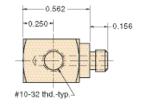


15002-2



"L" Fitting





Material: Brass

Thread: #10-32

Gasket: Buna-N furnished in package only

Use: Allows ports to be brought out 90° to the side. For exact positioning use thread sealant

Options: (-NP)

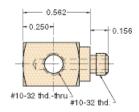


15002-3



"T" Fitting





Material: Brass

Thread: #10-32

Gasket: Buna-N furnished in package only

Use: Like the "L" fitting, except ports out both sides. For precise positioning use thread sealant

Options: (-NP)

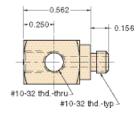


15002-4



"X" Fitting





Material: Brass

Thread: #10-32

Gasket: Buna-N furnished in package only

Use: May be used as a miniature manifold, or "L" or "T" fitting by plugging unused ports with screw plug 11755. For precise positioning use thread sealant

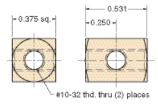
Options: (-NP)



15002-5



"X" Coupling



Material: Brass

Thread: #10-32

Use: Ideal as small manifold.

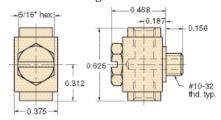
Options: (-NP)



15002-6



Adjustable "T" Fitting



Material: Brass

Thread: #10-32

Stud: Stainless steel hex head with screwdriver slot (12292)

Seals: Buna-N o-ring furnished

Use: Permits ports to be aimed in any direction 360° in one plane then secured by tightening screw. Also useful for connecting or disconnecting hose in tight spots.

Note: Same dimensions as 15002-1 "L" fitting, except length, which is 5/8"

Options: (-NP)

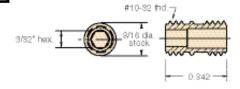




MINIMATIC® CONNECTOR FITTINGS

15453

Male #10-32 Coupling



Material: Stainless steel

Thread: #10-32

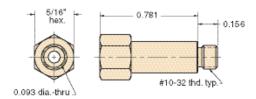
Seals: Loctite necessary

Use: Excellent for a surface to surface connection of

female #10-32 products

15010

#10-32 Extension Fitting



Material: Brass

Thread: #10-32

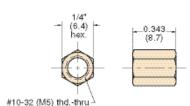
Gasket: Buna-N furnished

Use: To provide extension for convenience in assembling components

Options: (-NP)

15004

#10-32 Female Hex Coupling



Material: Brass

Thread: #10-32 tapped (M5)

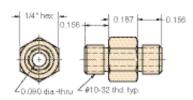
Use: For coupling two #10-32 (M5) male fittings

Options: (-NP), (-M5)



11999

#10-32 Male Connector



Material: Brass

Thread: #10-32 both ends

Gaskets: Buna-N 2 furnished

Use: For coupling cylinders directly to valves, and many

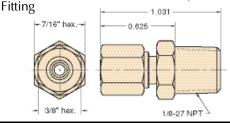
other coupling arrangements

Options: (-NP)



3810-1

1/8" NPT to 1/8" O.D. Tube Compression



Material: Brass

Thread: 1/8" NPT

Use: Joins standard size pipe to 3811-1 copper or

3814-2 nylon tubing

Replacement Ferrule & Nut: 15155

Options: (-NP)

Features: One piece ferrule and nut for fast, easy

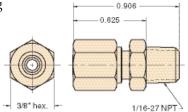
insertion of tube



3810-2



I/16" NPT to 1/8" O.D. Tube Compression Fitting



Material: Brass

Thread: 1/16" NPT

Use: Joins standard size pipe to 3811-1 copper or

3814-2 nylon tubing

Replacement Ferrule & Nut: #15155

Options: (-NP)

Features: One piece ferrule and nut for fast, easy

insertion of tube



BRASS FITTINGS



SWIVEL FITTINGS

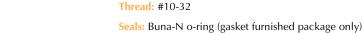
Minimatic[®] swivel connector fittings are very efficient in applications where joints need to be disconnected and reconnected frequently. Made with a threaded connection

on one end and a swivel connection on the other, these fittings provide a true cost savings on pneumatic circuit designs. They are valuable also where short lengths of hose are being connected.

Note: These are not rotating joints. They are assembly benefits . . . not to be used as a constant rotation junction.

15040

#10-32 Swivel Fitting



Use: Allows connection to rotate for tightening in confined spaces

-1/8" I.D. hose barb

Note: Used for positioning not for rotary connector

Options: (-NP)

Material: Brass



15045

#10-32 to 1/8" I.D. Hose Swivel Fitting

Material: Brass Thread: #10-32

Seals: Buna-N o-ring (gasket furnished package only)
Use: Allows connection to rotate for tightening in confined spaces

Hose Barb: 1/8" I.D. hose

Note: Used for positioning not for rotary connector

Options: (-NP)





1/8" NPT to #10-32 Swivel Adapter

0.902

#10-32 thd

Material: Brass

Thread: #10-32 and tapped for 1/8-27 NPT

Seals: Buna-N o-ring (gasket furnished package only)

Use: Allow connection to rotate for tightening in confined spaces

Note: Used for positioning not for rotary connector

Options: (-NP)





1/8" NPT to 1/8" I.D. Hose Swivel Fitting

0.843

1/8* I.D. hose barb 0.778 - 0.437 hex.

Material: Brass
Thread: 1/8-27 NPT
Seals: Buna-N o-ring

Use: Allows connection to rotate for tightening in confined spaces

Hose Barb: 1/8" I.D. hose

Note: Used for positioning not for rotary connector

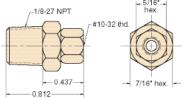
Options: (-NP)



15060



1/8" NPT to #10-32 Swivel Adapter



Material: Brass

Thread: 1/8-27 NPT male and #10-32 tapped

Seals: Buna-N o-ring

Use: Allows connection to rotate for tightening in confined spaces.

Note: Used for positioning not for rotary connector

Options: (-NP)



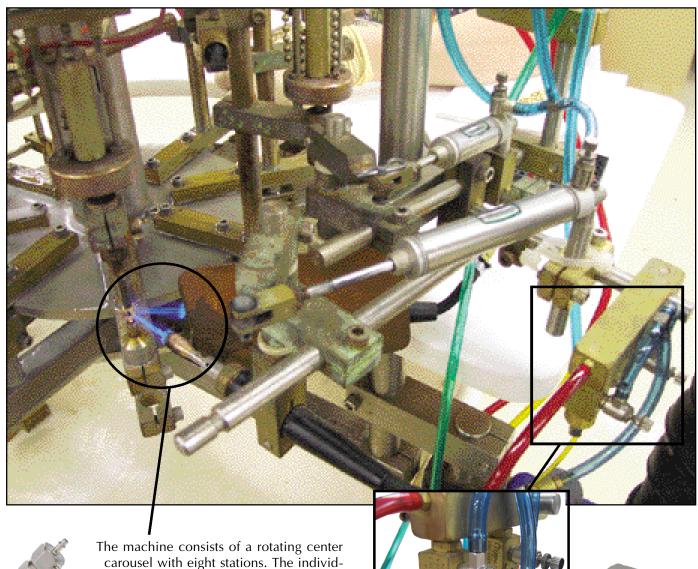


Clippard Slip-on Fitting Assembly

This semi-automatic rotary solder machine was designed and built in-house for the Clippard slip-on fitting product line. Incorporated into the design are Clippard modular valves, stainless steel cylinders, brass valves, flow controls, slip-on fittings, hose and super structure providing framework, control, indexing and parts handling.







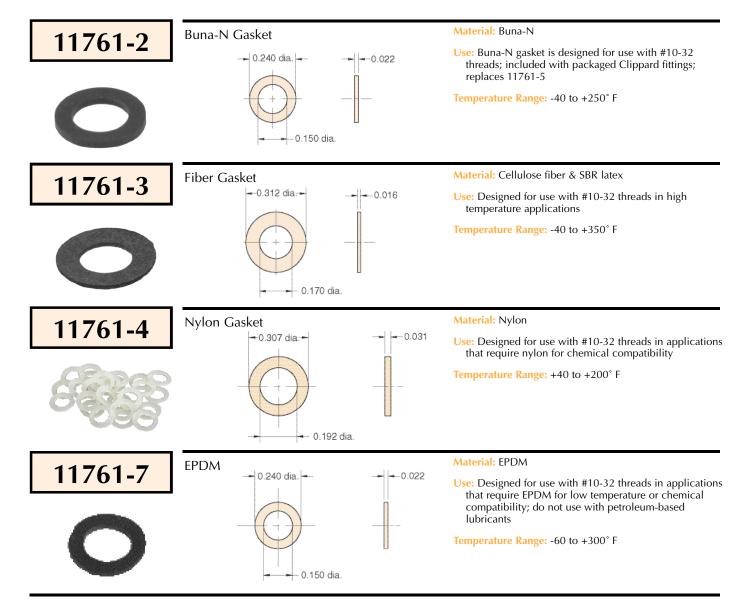
The machine consists of a rotating center carousel with eight stations. The individual components of each slip-on fitting are loaded into clamp fixtures mounted on the carousel. The carousel indexes to each of the process stations: load, heat, cool, quench, and unload. The control and timing of the machine is accomplished using Clippard modular valves and brass limit

valves. Each clamp fixture has its own control circuit for manual and automatic control. Sensors are also incorporated at each clamp fixture to sense the presence of a part.



The heat station uses MFC-3AK2's to meter propane, while PAV-2's turn the propane on and off. In addition, the torches are connected to cylinders so they are able to rotate for the heat cycle.

GASKETS Clippard



Gasket Tips

Gaskets are recommended for use with Clippard fittings. They provide snug, dependable seals without extra effort or materials. The most popular gasket for static sealing of #10-32 threads is the 11761-2 Buna-N Gasket. This gasket is included with packaged fittings and comes installed on a variety of Minimatic® slip-on fittings. Overtightening fittings with gaskets may have a tendency to extrude the gasket. While this may be a concern, the actual sealing is being accomplished by a small piece of the gasket at the base of the threads.

Sealants

There are a number of brands of anaerobic sealants that may be used with Clippard fittings. Anaerobic sealants are applied wet and harden when no longer exposed to air. their proper use results in a very effective, low cost seal. There are several alternate sealing methods:

- 1. sealant alone
- 2. gasket alone
- 3. home alone (just kidding)
- 4. gasket and sealant combination

The first two methods will provide adequate sealing for normal air pressures. When extra resistance to vibration is necessary or a permanent orientation of the fitting is required, use of the combination of both gasket and sealant is recommended.

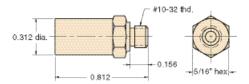


ADAPTER FITTINGS

Material: Brass Thread: M2.5 - 0.45 (3-56 US equiv.) Use: Threads into Clippard subminiature cylinder; fits 1/16" I.D. hose 11750-2 11749-2 -0.1250.062 I.D. hose barb -0.187---0.062 0.046 dia.-thru 1/8" #3-56 thd. typ. #3-56 thd 0.250 hex. 11749-1 11749-3 -0.125-0.187 sq. 0.187 sq. #3-56 thd. #3-56 thd. typ. --0.250--- 0.250 -

15070





Material: Nickel plated brass body sintered stainless steel muffler (60 micron)

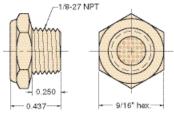
Thread: #10-32

Gasket: Buna-N furnished

Use: To muffle exhausts for quiet system operation

15080

1/8" NPT Muffler



Material: Solid brass body; sintered stainless steel insert (100 micron)

Thread: 1/8" NPT

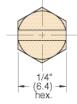
Use: To muffle exhaust for quiet system operation

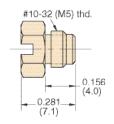
Options: (-NP)



11755

#10-32 Screw Plug





Material: Brass

Thread: #10-32 (M5)

Gasket: Buna-N furnished package only

Use: For plugging unused ports in manifolds, air lines and other devices

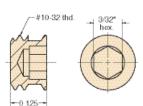
Options: (-NP), (-M5)



0035-2

#10-32 Headless Screw Plug





Material: Stainless Steel screw plug

Thread: #10-32

Use: For plugging unused ports in manifold, air lines and other devices that require a flush surface plug; use 3/32 Allen hex wrench to install

Note: Thread sealant recommended

PIPE REDUCER BUSHINGS



Material: Brass

Use: Will adapt standard pipe to fittings and Clippard miniature components

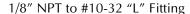
Option: (-NP)

External			Inter	nal Thread		
Thread	#10-32	#10-32	1/16" NPT	1/8" NPT	1/4" NPT	3/8" NPT
1/16" NPT Thread (5/16" Hex.)		0.468 typ.				
		1CJF				
1/8" NPT Thread (7/16" Hex.)	0.250 typ.	0.531 typ.				
	15036*	2CPF	2CPK			
1/4" NPT Thread (9/16" Hex.)		0.562 typ.				
		4CQF	4CQK	4CQN		
3/8" NPT Thread (11/16" Hex.)		0.887 typ.				
		6CWF	6CWK	6CWN	6CWY	
1/2" NPT Thread		0.812 typ.				
(13/16" Hex.)					لانسنها	



ADAPTER & BULKHEAD FITTINGS

15090-1

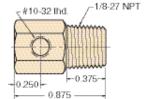


Material: Brass

Thread: 1/8" NPT to #10-32







Use: To provide connections between the two thread sizes with mounting convenience

Options: (-NP)



15090-2

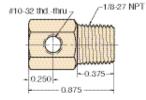
1/8" NPT to #10-32 "T" Fitting

Material: Brass

Thread: 1/8" NPT to #10-32







Use: To provide connections between the two thread sizes with extra mounting convenience

Options: (-NP)



15090-3

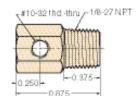
1/8" NPT to #10-32 "X" Cross Fitting

Material: Brass

Thread: 1/8" NPT to #10-32







Use: To provide connections between the two thread sizes; can be used as a miniature manifold

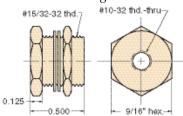
Options: (-NP)

Material: Brass



15027

#10-32 Bulkhead Fitting



Thread: #10-32 tapped both ends

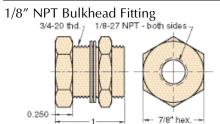
Locking Nut: 9/16" furnished with 2 steel lockwashers

Use: Provides rigid connection thru panels or bulkheads up to 1/4" thick; use with any Clippard #10-32 threaded fitting or connector

Options: (-NP)



15029-1



Material: Brass

Thread: O.D. - 3/4 - 20, I.D. 1/8" NPT

Locking Nut: 7/8" hex furnished with 2 steel lockwashers

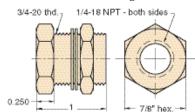
Use: Provides rigid connection thru panels or bulkheads up to 1/2" thick

Options: (-NP)



15029-2

1/4" NPT Bulkhead Fitting



Material: Brass

Thread: O.D. - 3/4 - 20, I.D. 1/4" NPT

Locking Nut: 7/8" hex furnished with 2 steel lockwashers

Use: Provides rigid connection thru panels or bulkheads up to 1/2" thick

Options: (-NP)







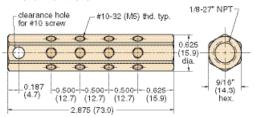
MANIFOLDS



MAN-12



12-Port Manifold



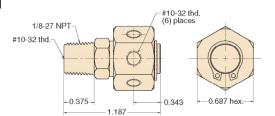
Thread: Tapped ports: 1/8" standard pipe tapped inlet Mounting: 13/64" diameter mounting hole

Use: May be mounted on jigs, fixtures or machinery to provide up to 12 convenient #10-32 outlets from one standard 1/8" pipe connection; may be used any Clippard #10-32 fittings, quick connects and many other devices; unused ports can be plugged with screw plug 11755 (1111)

Options: (-NP)

MRM-6

6-Port Rotary Manifold



Material: Brass and stainless steel

Thread: 1/8" NPT for inlet is also tapped #10-32; outlet consists of 6 ports tapped #10-32

Seals: Buna-N o-ring furnished Working Range: 250 psig max. Air Flow: 5.9 scfm @ 50 psig

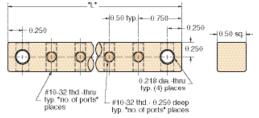
Use: May be used either as a rotary joint or as a stationary manifold; ideal for distributing air or liquid from center column onto a rotary index table; unused ports may be plugged with screw plug 11755 and gasket

Low RPM applications

15028-□

Miniature Terminal Blocks

X to be replaced with: 4, 6, 8, 10



Material: Anodized aluminum

Thread: #10-32 tapped ports

Mounting: With two 7/32: diameter mounting holes

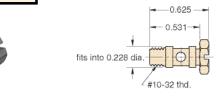
Use: To help organize connections in circuit boxes, control panels and machine piping; cross drilled mounting holes permit mounting of "T" in any direction; use screw plug 11755 to plug unused ports

Model #	# of Ports	Α	L
15028-4	4	2 1/2"	3"
15028-6	6	3 1/2"	4"
15028-8	8	4 1/2"	5"
15028-10	10	5 1/2"	6"

12292

15028-4 pictured above

Miniature Manifold Stud



Material: Stainless steel

Thread: #10-32

5/16" hex.

Seals: Buna-N o-ring and gasket furnished

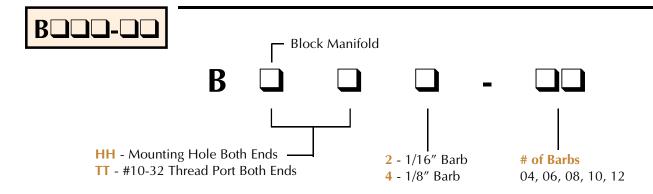
Use: This hollow, cross-drilled stud is useful for connecting specially made manifolds to multiple ports of valves or cylinders, eliminating need for external fittings with hose

Tips On Using Minimatic® Fittings

Hose or Tubing Size

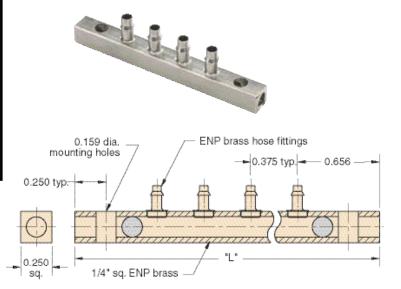
The use of different sizes of hose or tubing in your circuits deserves some care and consideration. In general, follow this guide for the size of hose or tubing you use.

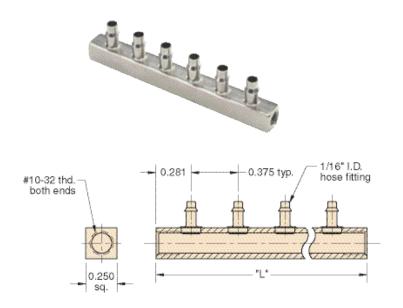
For air logic circuits, we recommend: 1/16" I.D. for pilots 1/8" I.D. for supplies and outputs



Part #	# of Stations	Fitting Size	
BHH2-04	4		
BHH2-06	6		
BHH2-08	8	1/16" I.D. Hose Barb	
BHH2-10	10		
BHH2-12	12		
BHH4-04	4		
BHH4-06	6		
BHH4-08	8	1/8" I.D. Hose Barb	
BHH4-10	10		
BHH4-12	12		

The BHH series has mounting holes for #6 screws at each end. One of the stations must be used as the air supply to the manifold.





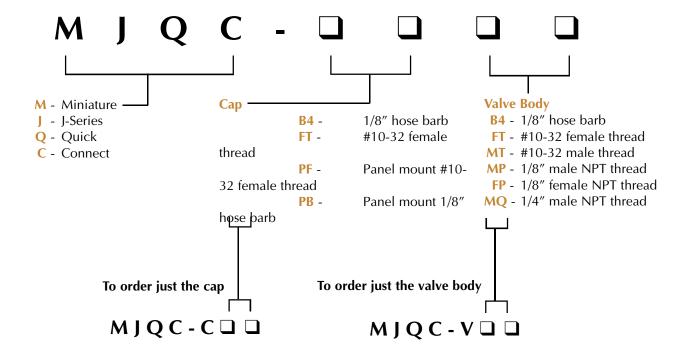
Part #	# of Stations	Fitting Size
BTT2-04	4	
BTT2-06	6	
BTT2-08	8	1/16" I.D. Hose Barb
BTT2-10	10	
BTT2-12	12	
BTT4-04	4	
BTT4-06	6	
BTT4-08	8	1/8" I.D. Hose Barb
BTT4-10	10	
BTT4-12	12	

The BTT series has #10-32 holes at each end for inline mounting. One end may be used as the air supply to the manifold and the other end plugged.

MINIMATIC® J-SERIES QUICK CONNECT



The Minimatic J-Series quick connect consists of two component parts that are joined to form the complete connector. The valve body contains a 2-way spring-loaded poppet valve that is generally connected to the main air supply. When the poppet is not depressed, the air supply is shut-off by this valve. The Cap contains a valve depressor that when assembled to the valve body, depresses the poppet allowing air to flow from the main supply to circuitry or equipment downstream. Valve body & cap assemblies contain both components.



STANDARD CATALOG PARTS					
Assembly Cap Only Valve Body Only					
MJQC-B4B4	MJQC-CB4	MJQC-VB4			
MJQC-B4MP	MJQC-CFT	MJQC-VFT			
MJQC-MPB4	MJQC-CMP	MJQC-VFP			
MJQC-PBB4	MJQC-CPB	MJQC-VMP			
MJQC-PFB4	MJQC-CMQ	MJQC-VMQ			



MINIMATIC® J-SERIES QUICK CONNECT

VALVE BODY & CAP ASSEMBLIES

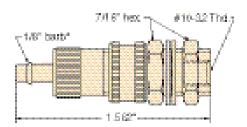
*1/8 Barb - fits 1/8" I.D. hose. Ideal for use with Clippard 3814-6 polyurethane hose.

FEATURES

- High flow of 14 scfm @ 100 psig
- Space saving attractive miniature design
- Wide variety of connectors
- · Adds convenience to equipment and circuits
- Brass body, electroless nickel plated
- Non-corrosive Delrin[®] poppet
- Fills the gap between clumsy, large quick connects and smaller quick connects with less flow
- Buna-N seals, positive shut off
- Positive threaded connection, stays connected
- Medium: air, oil, and water
- Working Pressure: 0-150 psig max.

MJQC-PFB4

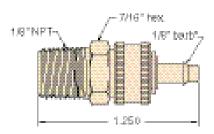
Combination of MJQC-VB4 & MJQC-CPF



(Supplied with mounting nut and two washers)



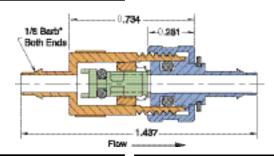
Combination of MJQC-VMP & MJQC-CB4



Minimatic® J-Series quick connect fittings are very compact yet provide a high flow of 14 scfm @ 100 psig. The electroless nickel plated brass body is available with #10-32 threads (M or F), 1/8" NPT threads (M or F), 1/4" NPT threads (M) or a 1/8" hose single barb configuration that is ideal for use with Clippard 3814-6 polyurethane hose.

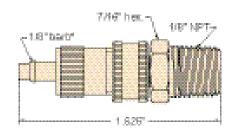
MJQC-B4B4

Combination of MJQC-VB4 & MJQC-CB4



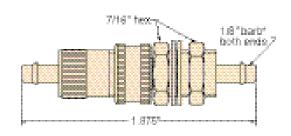
MJQC-MPB4

Combination of MJQC-VB4 & MJQC-CMP



MJQC-PBB4

Combination of MJQC-VB4 & MJQC-CPB



(Supplied with mounting nut and two washers)

MINIMATIC® J-SERIES QUICK CONNECT FITTINGS



CAPS

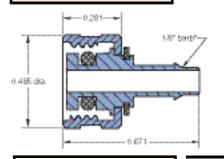
Caps with open flow path

Minimatic J-Series quick connect fittings are ideal for use in jigs, fixtures, feeding devices, logic control circuitry and automatic or semi-automatic machinery. Assembly is simple, and the tightening of the knurled cap assures a positive, leakproof, high pressure connection that will stay connected.

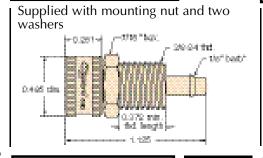
*1/8 barb - fits 1/8'' I.D. hose. Ideal for use with Clippard 3814-6 polyurethane hose.



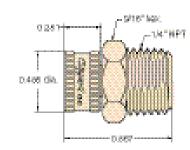
MJQC-CB4



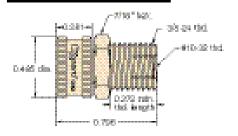
MJQC-CPB



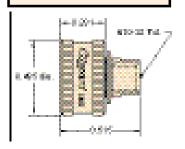
MJQC-CMQ



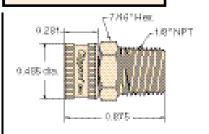
MJQC-CPF



MJQC-CFT



MJQC-CMP



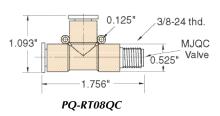
NEW! Push-Quick Fittings with MJQC Quick-Connect Port

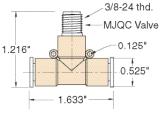


- Serves as an easy connection point for temporary functions/circuitry
- Quickly test for air flow
- Easy connection to valves, cylinders, hose, etc.
- Check air pressure via a gauge
- Use as a dump valve/vent

These new 1/4" fittings combine the quick, easy Push-Quick functionality with the flexibility and security of the Quick-Connect series with no circuit interruption. MJQC Quick-Connect Caps (ordered separately above) attach to the threaded port allowing for a variety of uses.

Part No. Description
PQ-RT08QCRun T with 3/8-24 Thread
PQ-BT08QCBranch T with 3/8-24 Thread





PQ-BT08QC

MINIMATIC® J-SERIES QUICK CONNECT

VALVE BODIES

Valve bodies with shut-off valve

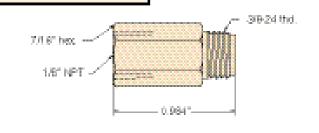
Minimatic J-Series quick connect fittings are very compact yet provide a high flow of 14 scfm @ 100 psig. The electroless nickel plated brass body is available with #10-32 threads (M or F), 1/8" NPT threads (M or F), 1/4" NPT threads (M) or a 1/8 hose single barb configuration that is ideal for use with Clippard 3814-6 polyurethane hose.

*1/8 Barb - fits 1/8" I.D. hose. Ideal for use with Clippard 3814-6 polyurethane hose.



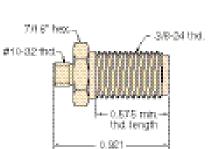
MJQC-VB4 3/8-24 thd. 1.000 Flow

MJQC-VFP

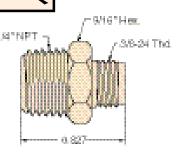


MJQC-VMT

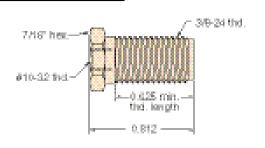
Supplied with mounting nut and two washers



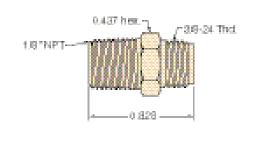
MJQC-VMQ



MJQC-VFT



MJQC-VMP



MINIMATIC® QUICK CONNECT



MQC-2S



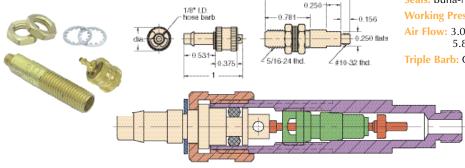
Type: One way check quick connect assembly of valve body MQC-V2 and hose connector MQC-F

Material: Body- brass, Stem- brass

Seals: Buna-N

Working Pressure: 0 to 300 psig Air Flow: 3.0 scfm @ 50 psig 5.8 scfm @ 100 psig

Triple Barb: Order #MQC-2



MQC-3S



Quick Connect Assembly

Flow

Type: One way check quick connect assembly of valve body MQC-V3 and hose connector MQC-F

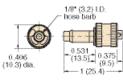
Material: Body- brass, Stem- brass

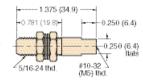
Seals: Buna-N

Working Pressure: 0 to 300 psig Air Flow: 3.0 scfm @ 50 psig 5.8 scfm @ 100 psig

Triple Barb: Order #MQC-3 or MQC-3-M5 (metric)



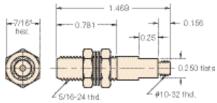




1.468

MOC-V2





Material: Brass

Thread: #10-32 male

Mounting: In panel or bracket to 1/4" thick with two 7/16" mounting nuts and lockwashers furnished; also screws directly into operative unit or manifold

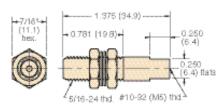
Seals: Buna-N

Use: For connection with external shut-off to external hose, use hose connectors: MQC-F, MQC-FT, MQC-F2

Options: (-NP)







Material: Brass

Thread: Tapped #10-32

Mounting: In panel or bracket to 1/4" thick with two 7/16" mounting nuts and lockwashers furnished; like MQC-V2, but end is tapped #10-32 instead of threaded

Seals: Buna-N

Use: For connection with external shut-off to external hose, use hose connectors: MQC-F, MQC-FT, MQC-F2

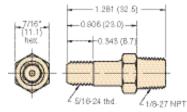
Options: (-NP), (-M5)



MQC-VP







Material: Brass

Thread: 1/8" NPT base; 5/16-24 body

Use: For connection with external shut-off to external hose, use hose connectors: MQC-F, MQC-FT, MQC-F2

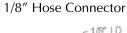
Seals: Buna-N

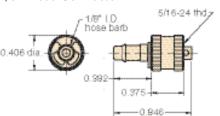
Options: (-NP), (-MR), (-MG)



MINIMATIC® QUICK CONNECT

MQC-FS





Material: Brass

Thread: I.D. of knurled end screws onto male end of valve bodies

For Use With: 1/8" I.D. Vinyl, Buna-N or braided hose Installation: Simply push hose onto barbed end and secure with hose clamp # 5000-1, 5000-2 or 5000-1A.

Seals: Buna-N Options: (-NP)

Triple Barb: Order #MQC-F

1/16" Hose Connector

1/16" I.D.

0.76B

Material: Brass

Thread: I.D. of knurled end screws onto male end of valve bodies

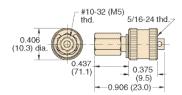
For Use With: Subminiature 3814-5 1/16" ID vinyl hose Installation: Simply push hose onto barbed end and secure with slip-over hose clamp furnished

Seals: Buna-N Options: (-NP)

Triple Barb: Order #MQC-F2



#10-32 (M5) Tapped Connector



Material: Brass

Thread: Outlet is tapped #10-32 or M5 Metric. I.D. of knurled end screws onto male end of valve bodies: MQC-V2, MQC-V3, MQC-VP

Mounting: Outlet mounts with #10-32 (M5) short coupling #11999

Seals: Buna-N

Options: (-NP), (-M5)



When assembling #10-32 threaded fittings with gaskets, turn the fitting in until the gasket contacts the surface. Then give the fitting less than a 1/4 turn to achieve a good seal.

MINIMATIC® FITTINGS KIT

UTO-F (L)





For the ultimate in convenience, have a selection of helpful fittings available for every need. Keeping a supply of fittings on hand can save money and time, allowing projects, prototypes, circuits, and repairs to be finished quickly and avoiding delays.

These Minimatic fittings kits contain a variety of the most commonly used fittings and quick connects. The kit saves time ordering and additional parts or replacements can be ordered at any time. Each kit comes in a sturdy plastic case.

17555-SF1

Minimatic Slip-on Fittings Kit



Contains:

• STO-4004

Gasket 11761-2Hose Samples

Contains:	
• CTO-2	Connector L 1/16" I.D. Hose to M #10-32
• UTO-2	Universal L 1/16" I.D. Hose to M #10-32
• STO-2	Swivel L 1/16" I.D. Hose to M #10-32
• CTO-4	Connector L 1/8" I.D. Hose to M #10-32
• UTO-4	Universal L 1/8" I.D. Hose to M #10-32
• STO-4	Swivel L 1/8" I.D. Hose to M #10-32
• TTO-202	Connector 1/16" I.D. Hose T with M #10-32
• UTO-2002	Universal 1/16" I.D. Hose T with M #10-32
• STO-2002	Swivel 1/16" I.D. Hose T with M #10-32
• TTO-404	Connector 1/8" I.D. Hose T with M #10-32
• UTO-4004	Universal 1/8" I.D. Hose T with M #10-32

Clippard 1/4" & 5/16" Wrench 11770

Swivel 1/8" I.D. Hose T with M #10-32

 UTF-F (T) Universal M #10-32 to F #10-32 UTF-FOF (X) Universal M #10-32 to F #10-32 Inline Connectors C44 1/8" I.D. Hose to 1/8" I.D. Hose C42 1/8" I.D. Hose to 1/16" I.D. Hose C22 1/16" I.D. Hose to 1/16" I.D. Hose • T22-4 1/8" I.D. Hose T to 1/16" I.D. Hoses • T44-2 1/16" I.D. Hose T to 1/8" I.D. Hoses X44-404 1/8" I.D. Hose X 1/16" I.D. Hose X X22-202 • SPO-4 1/8" M NPT to L 1/8" I.D. Hose • SPO-2 1/8" M NPT to L 1/16" I.D. Hose • SPO-4004 1/8" M NPT to T 1/8" I.D. Hose • SPO-2002 1/8" M NPT to T 1/16" I.D. Hose • T22-2 1/16" I.D. Hose T 1/8" I.D. Hose T • T44-4 XT4-404 1/8" I.D. Hose X with M #10-32 XT2-202 1/16" I.D. Hose X with M #10-32 CT2 1/16" I.D. Hose to M #10-32 1/8" I.D. Hose to M #10-32 CT4

Inline Swivel Connectors

S44

ST4

S4F

UTO-FOF (T) Universal M #10-32 to F #10-32

Universal M #10-32 to F #10-32

1/8" I.D. Hose to 1/8" I.D. Hose

1/8" I.D. Hose to M #10-32

1/8" I.D. Hose to F #10-32

17555

Minimatic Fittings Kit



Contains:

• 1/8" NPT to #10-32 L	15090-1
• #10-32 L Fitting	15002-2
• #10-32 Screw Plug	11755
• #10-32 to 1/16" I.D. Hose Fitting	11752-2

• #10-32 Extension Fitting	15010
• 1/8" M NPT to 1/8" I.D. Hose Adapter	11924-1
 Adjustable #10-32 L Fitting 	15002-1
• #10-32 X Fitting	15002-4
• Female #10-32 Hex Connector	15004
• #10-32 M to 1/8" I.D. Hose with Swivel	15045
• 1/4" M NPT to #10-32 F Adapter	15006-3
• 1/8" NPT to #10-32 T	15090-2
• #10-32 T Fitting	15002-3
#10-32 M Short Coupling	11999
• #10-32 to 1/8" I.D. Hose Fitting	11752-3
 Gasket 	11761-2
 12 Port Manifold 	MAN-12
 Clippard 1/4" & 5/16" Wrench 	11770
• 1/8" M NPT to #10-32 F Adapter	15006-1

17555-QC1

Minimatic Quick Connect Kit



Contains:

1/8" I.D. T Connector
 Panel Mount #10-32 F Cap
 Panel Mount 1/8" I.D. Hose Cap
 MJQC-CPB

• 3/8-24 Nuts 0107-48 Lockwasher 0302-43 • 1/8" F NPT Valve MJQC-VFP • 1/4" M NPT Valve MJQC-VMQ • 1/8" M NPT Valve MJQC-VMP • 1/8" M NPT Cap MJQC-CMP • 1/4" M NPT Cap MJQC-CMQ • 1/8" I.D. Hose Valve MJQC-VB4 Panel Mount #10-32 F Valve MJQC-VFT Panel Mount #10-32 M Valve MJQC-VMT • #10-32 F Cap MJQC-CFT • 1/8" I.D. Hose Cap MJQC-CB4 Gasket 11761-2

Hose Samples

Clippard 1/4" & 5/16" Wrench 11770
#10-32 M to 1/8" I.D. CT4
UTO-4 UTO-4004



hose $\ \ \bar{n}$: a flexible tube for conveying gases or fluids

tubing $\t^t(y)$ u-bing \t^n : a stiff material in the form of a tube used for conveying gases or fluids

Do you use a garden tube?

The answer to the question of whether to call it a tube or a hose rests on a fine line, one many people have gotten tangled up in. In both definitions it clearly states that a tube and a hose are used for conveying fluids, yet sometimes one word seems to fit the situation (and the application) better than the other. So remember...

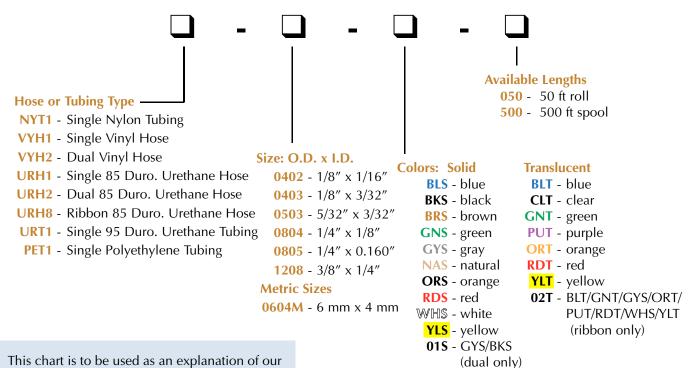
It's a hose when it's flexible and a tube when it's not.

Clippard offers a variety of miniature hose and tubing from copper and nylon tubing to flexible urethane, vinyl and Buna-N hose. The chart below lists these products and their available colors and lengths.

ordering system. See individual listings following

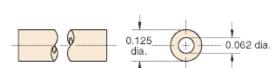
this page for sizes and colors available.





3811-1-RL

1/8" O.D. Copper Tubing



Material: High pressure copper

Working Pressures: to 2,500 psig

Static Burst Pressure: over 10,000 psig

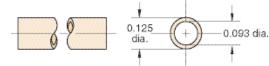
Lengths Available: 50 feet Use With: Ferrule tubing connectors #'s: 3810-1

3810-2 11923

NYT1-0403-CLT-U

3/32" I.D. Nylon Tubing (Former Part No. 3814-2)





Material: Semi-flexible nylon tubing

Color: Clear / Translucent Working Range: to 250 psig

Static Burst Pressure: Approx. 1,000 psig Use With: Ferrule tubing connectors: 11923 3810-1

3810-2

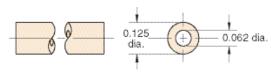
Forming: May be formed into sharp corners with heat

Lengths Available: 50 and 500 feet

VYH1-0402-CLT-[

1/16" I.D. Vinyl Hose (Former Part No. 3814-5)





Type: Flexible, durable vinyl plastic hose

Working Range: 0 to 105 psig at 70°F maximum 60 psig

at 80°F or above (max. temp. 100°F)

Use With: Hose fittings: 11752-2 and clamp 5000-4

0.062 dia. Bend Radius: 3x hose dia. Color: Translucent: Clear

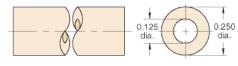
Lengths Available: 50 and 500 feet

Consult factory for custom colors

1/8" I.D. Vinyl Hose (Former Part No. 3814-1)



YH1-0804-CLT-



Working Range: 0 to 105 psig at 70°F maximum 60 psig at 80°F or above (max. temp. 100°F

Use With: Hose fittings: 11752-1, 11752-3 and 11924

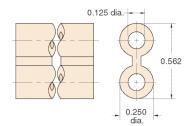
Hose clamps: 5000-2 Bend Radius: 3x hose dia. Color: Translucent: Clear Lengths Available: 50 and 500 feet

Consult factory for custom colors

YH2-0804-GYS-□



1/8" I.D. Twin Vinyl Hose (Former Part No. 3814-3)



Type: Flexible, durable vinyl plastic hose, but two hoses molded together, one side has rib entire length for identification

Color: Solid: Gray/Gray Use Clamp: 5000-1

Working Range: 0 to 150 psig at 70°F maximum 60 psig at 80°F or above (max. temp. 100°F)

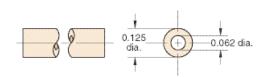
Use: Ideal for feeding supply in on one line and out on the other, reduces labor; makes neat assembly; may be

parted with any sharp cutting edge Lengths Available: 50 and 500 feet



URH1-0402-□-□

1/16" I.D. Polyurethane Hose (Former Part No. 3814-7)



Working Range: 0 to 105 psig at 100°F Maximum 120°F

Static Burst Pressure: Over 500 psig at 70°F

Color: Solid: Black, brown, white, gray, orange
Translucent: Clear, blue, green, red, yellow

Lengths Available: 50 and 500 feet

Note: In normal application hose clamps are not required with hose when used with Clippard hose barb fittings

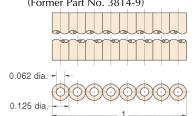
Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, clear will be furnished.

URH8-0402-02T-050

1/16" I.D. Polyurethane Ribbon Hose

(Former Part No. 3814-9)



Type: Flexible, durable urethane hose

Working Range: 0 to 105 psig at 100°F maximum 120°F

Static Burst Pressure: Over 500 psig at 70°F

Color: Solid: Gray, white

Translucent: Blue, green, orange, purple, red, yellow

Lengths Available: 50 feet

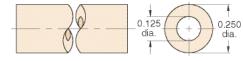
Note: In normal application, hose clamps are not required with hose when used with Clippard hose barb fittings

URH1-0804-□-□

1/8" I.D. Polyurethane Hose

(Former Part No. 3814-6)





Working Range: 0 to 105 psig at 100°F Maximum 120°F Static Burst Pressure: Approximately 425 psig at 70°F Color: Solid: Black, brown, white, gray, orange

Color: Solid: Black, brown, white, gray, orang Translucent: Clear, blue, green, red, yellow

Lengths Available: 50 and 500 feet

Bend Radius: 2x hose dia.

Note: In normal application hose clams are not required with hose when used with Clippard hose barb fittings

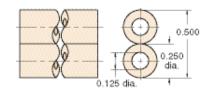
Note

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, clear will be furnished.

URH2-0804-01S-

Twin 1/8" I.D. Polyurethane Hose (Former Part No. 3814-13)





Working Range: 0 to 105 psig at 100°F

Static Burst Pressure: Approximately 425 psig at 70°F

Color: Solid: Gray and black combination Lengths Available: 50 and 500 feet

Bend Radius: 2x hose dia.

Use: Ideal for feeding supply in on one line and out on the other; reduces labor; makes neat assembly; may be parted with any sharp cutting edge

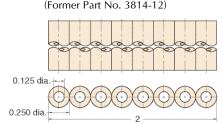
Note: In normal application, hose clamps are not required with 3814-13 hose when used with Clippard hose barb fittings

URH8-0804-02T-050

1/8" I.D. Polyurethane Ribbon Hose

/Г...... D...t.N.





Type: Flexible, durable urethane hose

Working Range: 0 to 105 psig at 100°F maximum 120°F

Static Burst Pressure: Over 500 psig at 70°F

Color: Solid: Gray, white

Translucent: Blue, green, orange, purple, red, yellow

Lengths Available: 50 feet

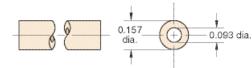
Note: In normal application, hose clamps are not required with hose when used with Clippard hose barb fittings



URT1-0503-□-□

5/32" O.D. 95D Urethane Tubing Flexible, durable ether based tubing





Working Range: 0 to 105 psig at 100°F Maximum 120°F

Static Burst Pressure: Over 500 psig at 70°F

Color: Solid: Black, gray, orange, red, white

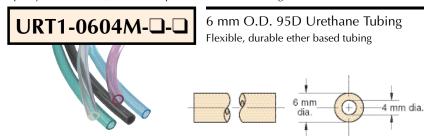
Translucent: Blue, clear, green, red, yellow

Lengths Available: 50 and 500 feet

Note: Designed for use with push-in fittings.

Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, clear will be furnished.



Working Range: 0 to 105 psig at 100°F Maximum 120°F

Static Burst Pressure: Over 450 psig at 70°F

Color: Solid: Black

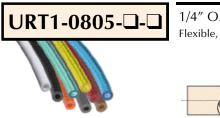
Translucent: Blue, clear, green, red

Lengths Available: 50 and 500 feet

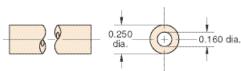
Note: Designed for use with push-in fittings.

Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, clear will be furnished.



1/4" O.D. 95D Urethane Tubing Flexible, durable ether based tubing



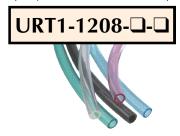
Working Range: 0 to 105 psig at 100°F Maximum 120°F

Static Burst Pressure: Over 450 psig at 70°FColor: Solid: Black, gray, orange, red, white Translucent: Blue, clear, green, red, yellow

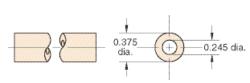
Lengths Available: 50 and 500 feet **Note:** Designed for use with push-in fittings.

Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, clear will be furnished.



3/8" O.D. 95D Urethane Tubing Flexible, durable ether based tubing



Working Range: 0 to 105 psig at 100°F Maximum 120°F

Static Burst Pressure: Over 440 psig at 75°F

Color: Solid: Black

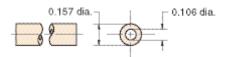
Translucent: Blue, clear, green, red
Lengths Available: 50 and 500 feet
Note: Designed for use with push-in fittings.

Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, clear will be furnished.



5/32" O.D. Polyethylene Tubing Linear low density tubing



Working Range: 0 to 105 psig at 100°F Maximum 120°F

Static Burst Pressure: Over 540 psig at 75°F

Colors: Solid: Black or Natural Lengths Available: 50 and 500 feet

Bend Radius: 1/2"

Note: Designed for use with push-in fittings.

Note:

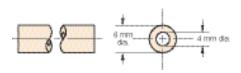
Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, natural will be furnished.





6 mm O.D. Polyethylene Tubing

Linear low density tubing



Working Range: 0 to 105 psig at 100°F Maximum 120°F Static Burst Pressure: Approximately 560 psig at 75°F

Colors: Solid: Black or Natural Lengths Available: 50 and 500 feet

Bend Radius: 1 1/4"

Note: Designed for use with push-in fittings

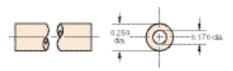
Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, natural will be furnished.



1/4" O.D. Polyethylene Tubing

Linear low density tubing



Working Range: 0 to 105 psig at 100°F Maximum 120°F Static Burst Pressure: Approximately 480 psig at 75°F

Colors: Solid: Black or Natural Lengths Available: 50 and 500 feet

Bend Radius: 1 1/4"

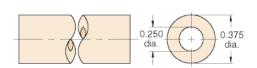
Note: Designed for use with push-in fittings

Note:

Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, natural will be furnished.



3/8" O.D. Polyethylene Tubing Linear low density tubing



Working Range: 0 to 105 psig at 100°F Maximum 120°F Static Burst Pressure: Approximately 600 psig at 75°F

Colors: Solid: Black or Natural Lengths Available: 50 and 500 feet

Bend Radius: 2"

Note: Designed for use with push-in fittings

Notes

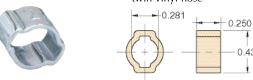
Specify color on order, and use full product number (including code letters for color) as shown in Price List. If no color is specified, natural will be furnished.

5000-1

Quick Set Hose Clamps

Type: Zinc plated steel

Use: 5000-1 with Buna N hose twin vinyl hose



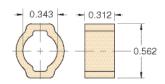
5000-1A

Quick Set Hose Clamps

Type: Zinc plated steel

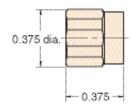
Use: 5000-1A with braided hose





5000-2

Reusable Hose Clamps



0.437



Material: Brass, self-threading, reusable

Use With: 11765 Buna-N hose 3814- vinyl hose and

Clippard hose fittings

Installation: Slip sleeve over hose, push onto fitting, then screw into place; tighten with wrench

Options: (-NP)



Press-On Hose Clamp 5000-4

0.031 - 60.125 die

Material: Brass, press-on hose clamp

Use: for 3814-5 hose 1/16 I.D. vinyl

Installation: Simply place hose clamp over hose with flange end out; then press hose partially onto fitting, then slide clamp back toward fitting to secure

Options: (-NP)



Polyethylene vs Vinyl vs **Polyurethane**

Polyurethane offers a wider range of chemical compatibility than Vinyl, it may be used at much higher temperatures and clamps are not needed when used with barb fittings. Linear low density polyethylene offers a lower cost alternative to polyurethane and superior environmental stress crack resistance over polyethylene. standard polyurethane and polyethylene are FDA approved.

Typical Hose & Tubing Bend Radii

When using hose or tubing, care should always be taken to avoid sharp bends to prevent compressing the inside diameter of the hose or tubing and restricting flow. For extremely close connections, allow a short loop of hose to avoid crimping.

Clippard H	I.D.	O.D.	Min. Bend Radius	
3811-1	Copper Tube	1/16"	1/8"	3 x dia.
NYT1-XXX	Nylon Tubing	3/32"	1/8"	3 x dia.
VYH1-XXX	Vinyl Hose	1/16"	1/8"	3 x dia.
VYH1-XXX	Vinyl Hose	1/8"	1/4"	2 x dia.
VYH2-XXX	Dual Vinyl Hose	1/8"	1/4"	2 x dia.
URH1-XXX	85 Duro. Urethane Hose	1/16"	1/8"	2 x dia.
URH8-XXX	Ribbon 85 Duro. Urethane	1/16"	1/8"	-
URH1-XXX	85 Duro. Urethane Hose	1/8"	1/4"	2 x dia.
URH2-XXX	Dual 85 Duro. Urethane	1/8"	1/4"	3 x dia.
URH8-0804-XXX	Ribbon 85 Duro. Urethane	1/8"	1/4"	-
URT1-0503-XXX	95 Duro. Urethane Tubing	3/32"	5/32"	3 x dia.
URT1-0604M-XXX	95 Duro. Urethane Tubing	4 mm	6 mm	2 x dia.
URT1-0805-XXX	95 Duro. Urethane Tubing	0.160"	1/4"	2 x dia.
URT1-1208-XXX	95 Duro. Urethane Tubing	0.245"	3/8"	3 x dia.
PET1-0503-XXX	Polyethylene Tubing	0.106"	5/32"	3 x dia.
PET1-0604M-XXX	Polyethylene Tubing	4 mm	6 mm	5 x dia.
PET1-0805-XXX	Polyethylene Tubing	0.170"	1/4"	5 x dia.
PET1-1208-XXX	Polyethylene Tubing	1/4″	3/8"	5 x dia.