



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.





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 plating of Minimatic slip-on fittings provides corrosion resistance in applications involving high moisture, while enabling the fittings to retain their original, lustrous appearance. Buna-N gasket included with #10-32 threads except when ordered in bulk.







Features

- Single barb design for quick and easy positive seal
- Miniature size provides low profile
- Multiple configurations for every need
- Brass 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

CONNECTOR FITTINGS

C22  (2) 1/16" I.D. hose barb 0.656 1/4" sq.	C32  3/32" I.D. hose barb 0.684 1/4" sq. 1/16" I.D. hose barb	C33  (2) 3/32" I.D. hose barb 0.712 1/4" sq.
C42  1/16" I.D. hose barb 0.750 1/4" sq. 1/8" I.D. hose barb	C43  3/32" I.D. hose barb 0.762 1/4" sq. 1/8" I.D. hose barb	C44  0.875 1/4" hex. (2) 1/8" I.D. hose barb


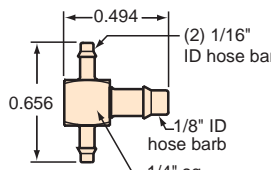

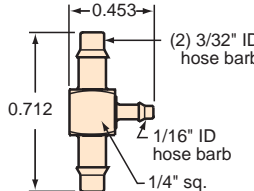

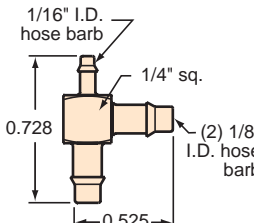

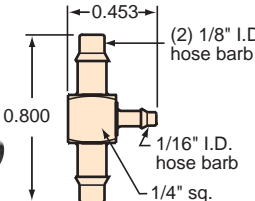

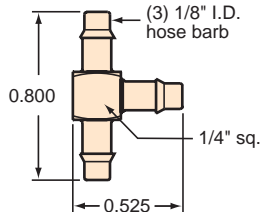

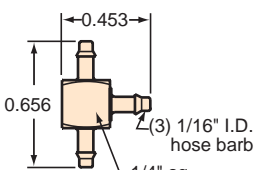

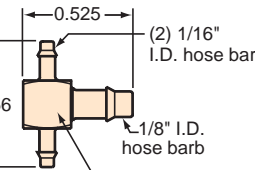

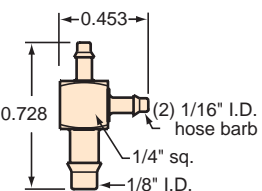

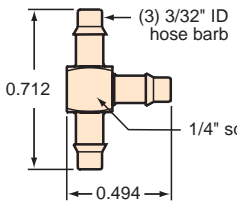

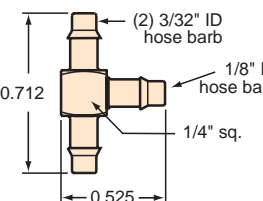

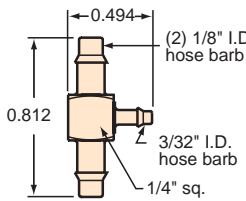
#10-32 to Hose Connectors

CT2 Gasket comes pre-installed  1/16" I.D. hose barb 0.468 1/4" hex. #10-32 thd.	CT3 Gasket comes pre-installed  3/32" I.D. hose barb 0.523 1/4" hex. #10-32 thd.	CT4 Gasket comes pre-installed  1/8" I.D. hose barb 0.562 1/4" hex. #10-32 thd.
CT0-2 Gasket included. Not installed  1/4" sq. 0.468 1/16" I.D. hose barb #10-32 thd.	CT0-3 Gasket included. Not installed  1/4" sq. 0.468 0.493 3/32" I.D. hose barb #10-32 thd.	CT0-4 Gasket included. Not installed  1/4" sq. 0.468 0.562 1/8" I.D. hose barb #10-32 thd.

MINIMATIC® SLIP-ON FITTINGS


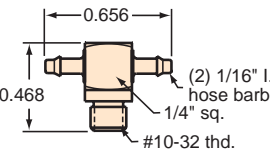

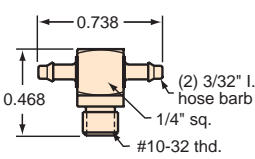

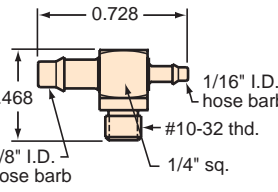

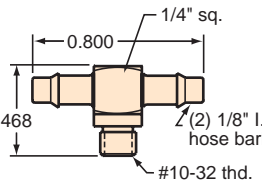

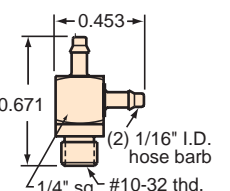

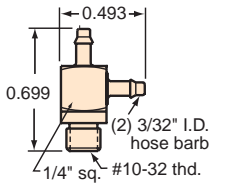

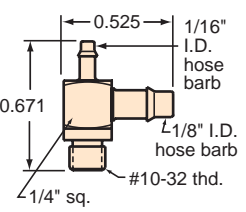

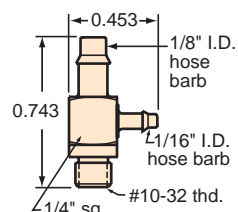

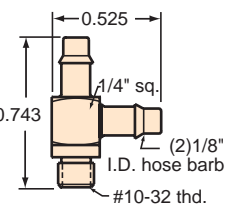


"T" FITTINGS

<p>T22-3</p> 	 <p>0.494 0.656 (2) 1/16" I.D. hose barb 1/8" I.D. hose barb 1/4" sq.</p>	<p>T33-2</p> 	 <p>0.453 0.712 (2) 3/32" I.D. hose barb 1/16" I.D. hose barb 1/4" sq.</p>		
<p>T42-4</p> 	 <p>1/16" I.D. hose barb 1/4" sq. 0.728 (2) 1/8" I.D. hose barb 0.525</p>	<p>T44-2</p> 	 <p>0.453 0.800 (2) 1/8" I.D. hose barb 1/16" I.D. hose barb 1/4" sq.</p>	<p>T44-4</p> 	 <p>0.800 (3) 1/8" I.D. hose barb 1/4" sq. 0.525</p>
<p>T22-2</p> 	 <p>0.453 0.656 (3) 1/16" I.D. hose barb 1/4" sq.</p>	<p>T22-4</p> 	 <p>0.525 0.656 (2) 1/16" I.D. hose barb 1/8" I.D. hose barb 1/4" sq.</p>	<p>T42-2</p> 	 <p>0.453 0.728 (2) 1/16" I.D. hose barb 1/4" sq. 1/8" I.D. hose barb</p>
<p>T33-3</p> 	 <p>0.712 (3) 3/32" I.D. hose barb 1/4" sq. 0.494</p>	<p>T33-4</p> 	 <p>0.712 (2) 3/32" I.D. hose barb 1/8" I.D. hose barb 1/4" sq. 0.525</p>	<p>T44-3</p> 	 <p>0.494 0.812 (2) 1/8" I.D. hose barb 3/32" I.D. hose barb 1/4" sq.</p>

#10-32 to "T" Fittings

Gasket: Buna-N gasket included (not installed)

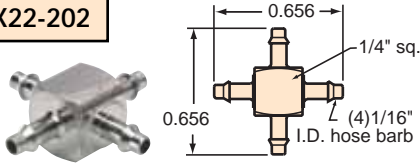
<p>TT0-202</p> 	 <p>0.656 0.468 (2) 1/16" I.D. hose barb 1/4" sq. #10-32 thd.</p>	<p>TT0-303</p> 	 <p>0.738 0.468 (2) 3/32" I.D. hose barb 1/4" sq. #10-32 thd.</p>	<p>TT0-402</p> 	 <p>0.728 0.468 1/16" I.D. hose barb #10-32 thd. 1/8" I.D. hose barb 1/4" sq.</p>
<p>TT0-404</p> 	 <p>1/4" sq. 0.800 0.468 (2) 1/8" I.D. hose barb #10-32 thd.</p>	<p>TT2-2</p> 	 <p>0.453 0.671 (2) 1/16" I.D. hose barb 1/4" sq. #10-32 thd.</p>	<p>TT3-3</p> 	 <p>0.493 0.699 (2) 3/32" I.D. hose barb 1/4" sq. #10-32 thd.</p>
<p>TT2-4</p> 	 <p>0.525 1/16" I.D. hose barb 0.671 1/8" I.D. hose barb 1/4" sq. #10-32 thd.</p>	<p>TT4-2</p> 	 <p>0.453 1/8" I.D. hose barb 0.743 1/16" I.D. hose barb 1/4" sq. #10-32 thd.</p>	<p>TT4-4</p> 	 <p>0.525 1/4" sq. 0.743 (2) 1/8" I.D. hose barb #10-32 thd.</p>



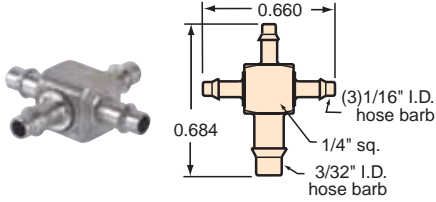
MINIMATIC® SLIP-ON FITTINGS

"X" FITTINGS

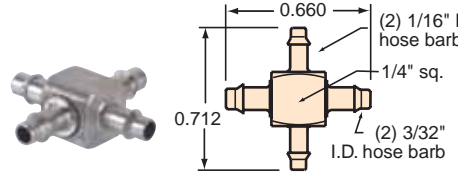
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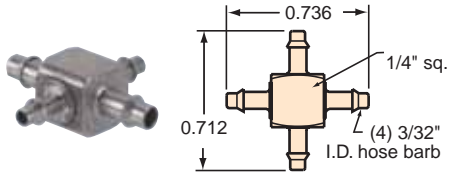
X32-202



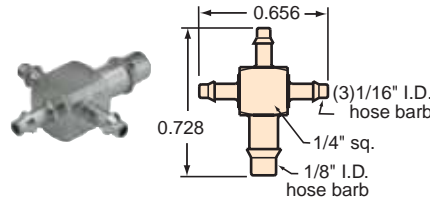
X33-202



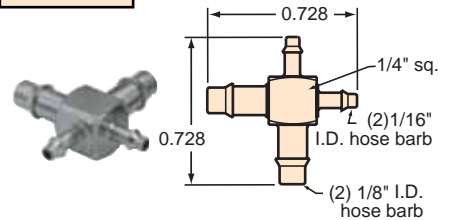
X33-303



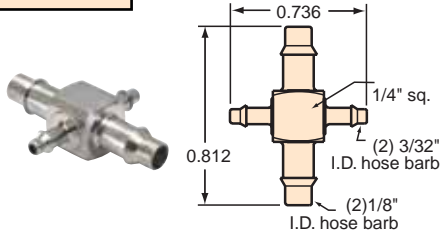
X42-202



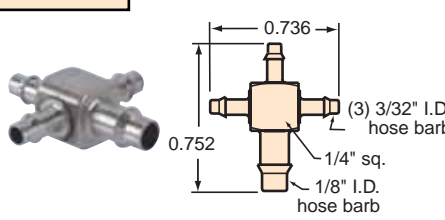
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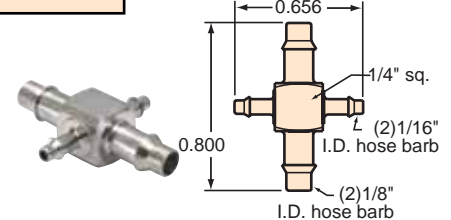
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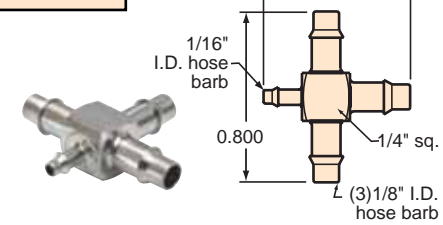
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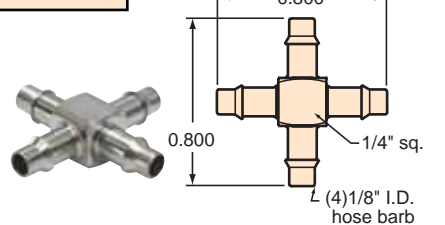
X44-202



X44-402



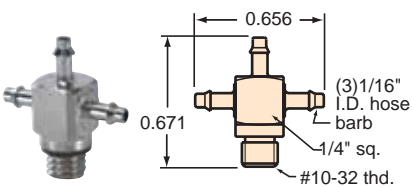
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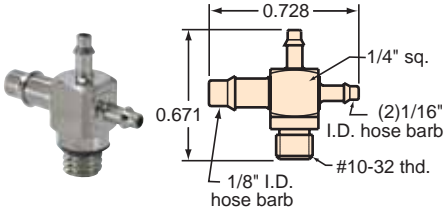
#10-32 to Hose "X" Fittings

Gasket: Buna-N gasket included (not installed)

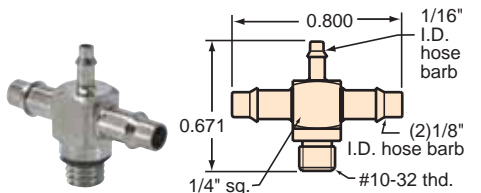
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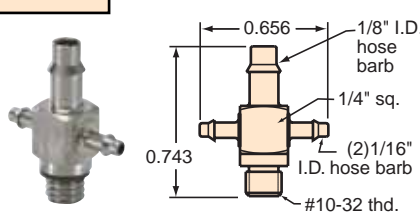
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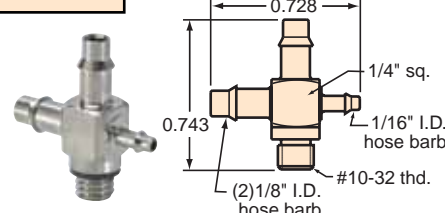
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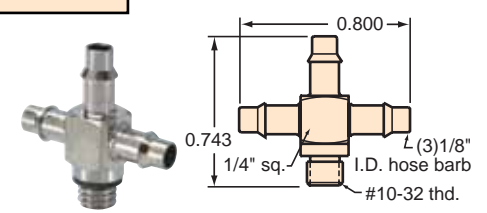
XT4-202



XT4-402



XT4-404

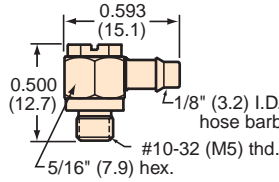


UNIVERSAL FITTINGS

Buna-N o-ring included with universal fittings

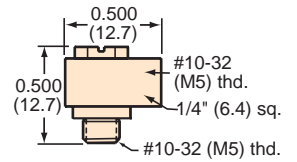
UT0-4

UT0-4-M5



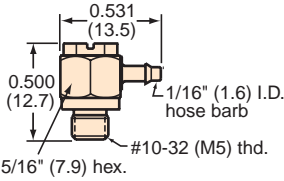
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UT0-F-M5

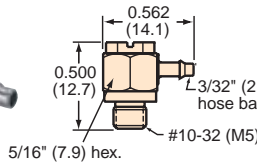


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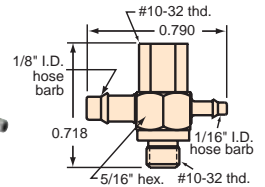
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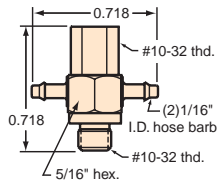
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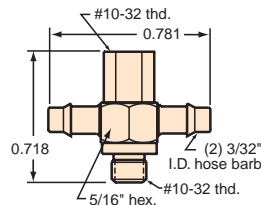
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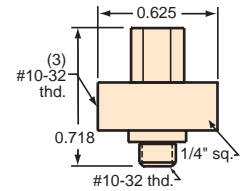
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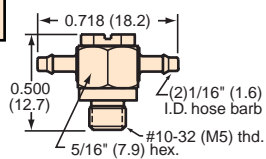


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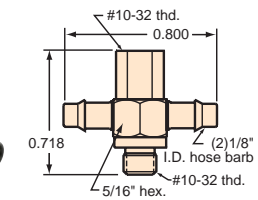


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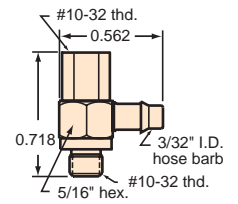
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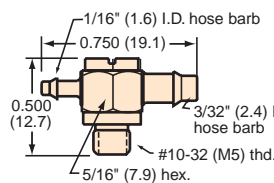
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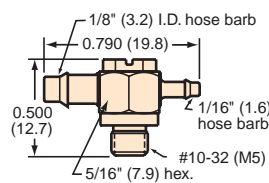
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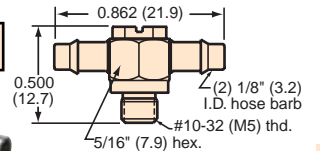
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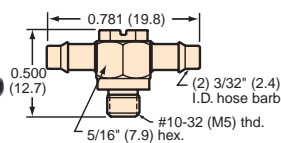
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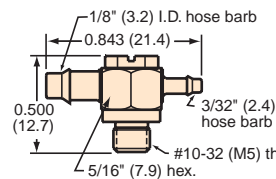
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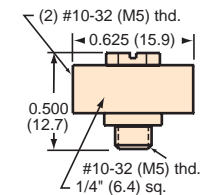
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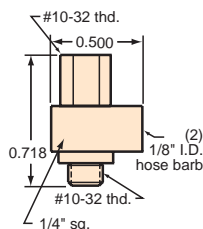
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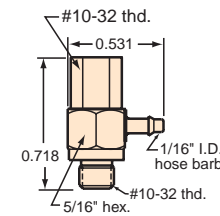
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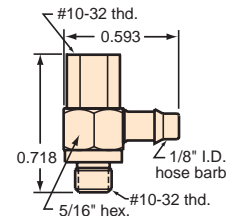
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UTF-2




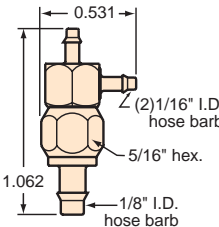

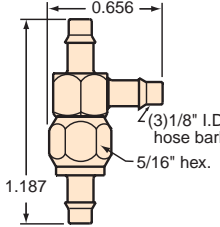

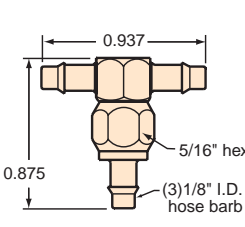
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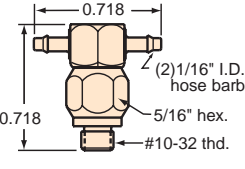

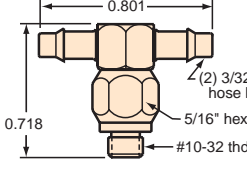

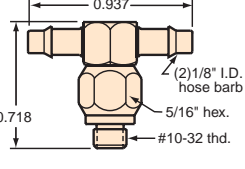

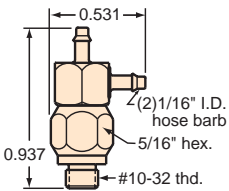

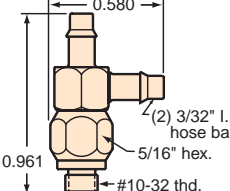

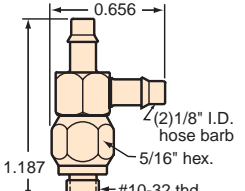

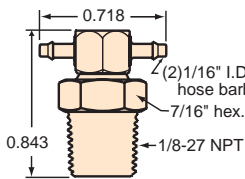

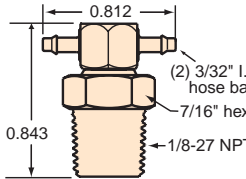

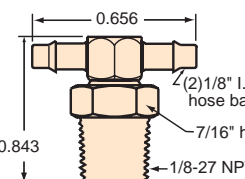

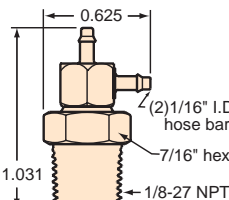

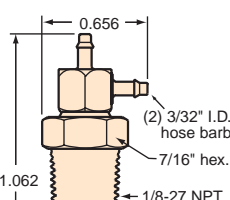

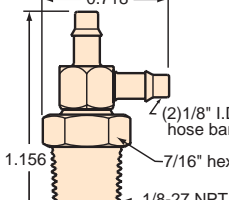


MINIMATIC® SLIP-ON FITTINGS

SWIVEL FITTINGS

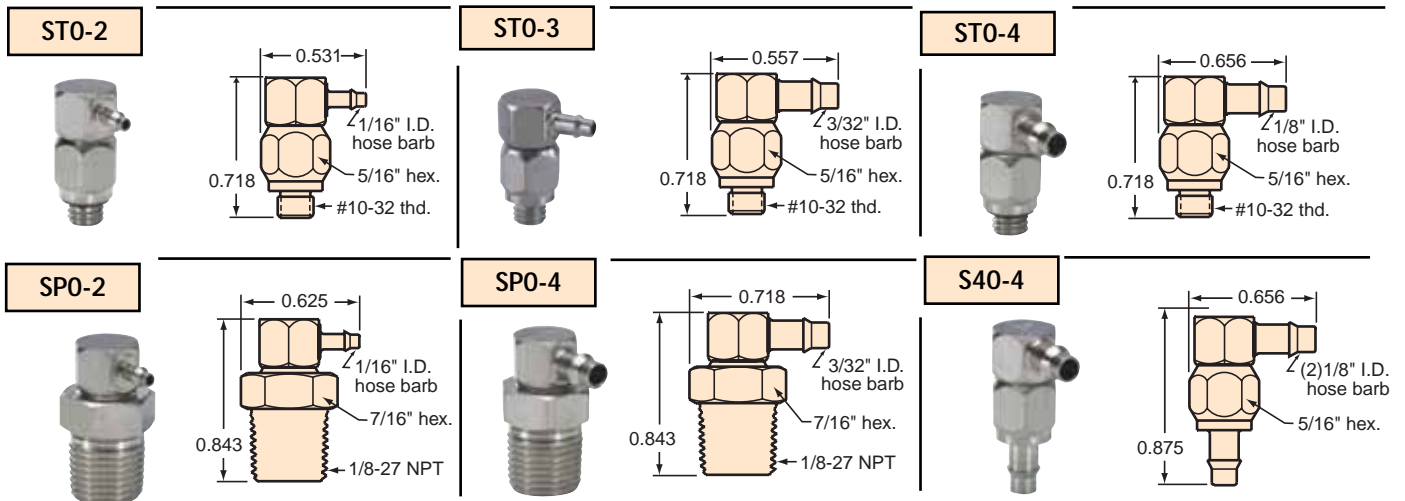
S42-2	  <p>0.531 1.062 2 (2) 1/16" I.D. hose barb 5/16" hex. 1/8" I.D. hose barb</p>	S44-4	  <p>0.656 1.187 2 (3) 1/8" I.D. hose barb 5/16" hex.</p>	S40-4004	  <p>0.937 0.875 5/16" hex. (3) 1/8" I.D. hose barb</p>
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#10-32 to Hose Swivel "T" Fittings

ST0-2002	  <p>0.718 0.718 2 (2) 1/16" I.D. hose barb 5/16" hex. #10-32 thd.</p>	ST0-3003	  <p>0.801 0.718 2 (2) 3/32" ID hose barb 5/16" hex. #10-32 thd.</p>	ST0-4004	  <p>0.937 0.718 2 (2) 1/8" I.D. hose barb 5/16" hex. #10-32 thd.</p>
ST2-2	  <p>0.531 0.937 2 (2) 1/16" I.D. hose barb 5/16" hex. #10-32 thd.</p>	ST3-3	  <p>0.580 0.961 2 (2) 3/32" I.D. hose barb 5/16" hex. #10-32 thd.</p>	ST4-4	  <p>0.656 1.187 2 (2) 1/8" I.D. hose barb 5/16" hex. #10-32 thd.</p>
SP0-2002	  <p>0.718 0.843 2 (2) 1/16" I.D. hose barb 7/16" hex. 1/8-27 NPT</p>	SP0-3003	  <p>0.812 0.843 2 (2) 3/32" I.D. hose barb 7/16" hex. 1/8-27 NPT</p>	SP0-4004	  <p>0.656 0.843 2 (2) 1/8" I.D. hose barb 7/16" hex. 1/8-27 NPT</p>
SP2-2	  <p>0.625 1.031 2 (2) 1/16" I.D. hose barb 7/16" hex. 1/8-27 NPT</p>	SP3-3	  <p>0.656 1.062 2 (2) 3/32" I.D. hose barb 7/16" hex. 1/8-27 NPT</p>	SP4-4	  <p>0.718 1.156 2 (2) 1/8" I.D. hose barb 7/16" hex. 1/8-27 NPT</p>

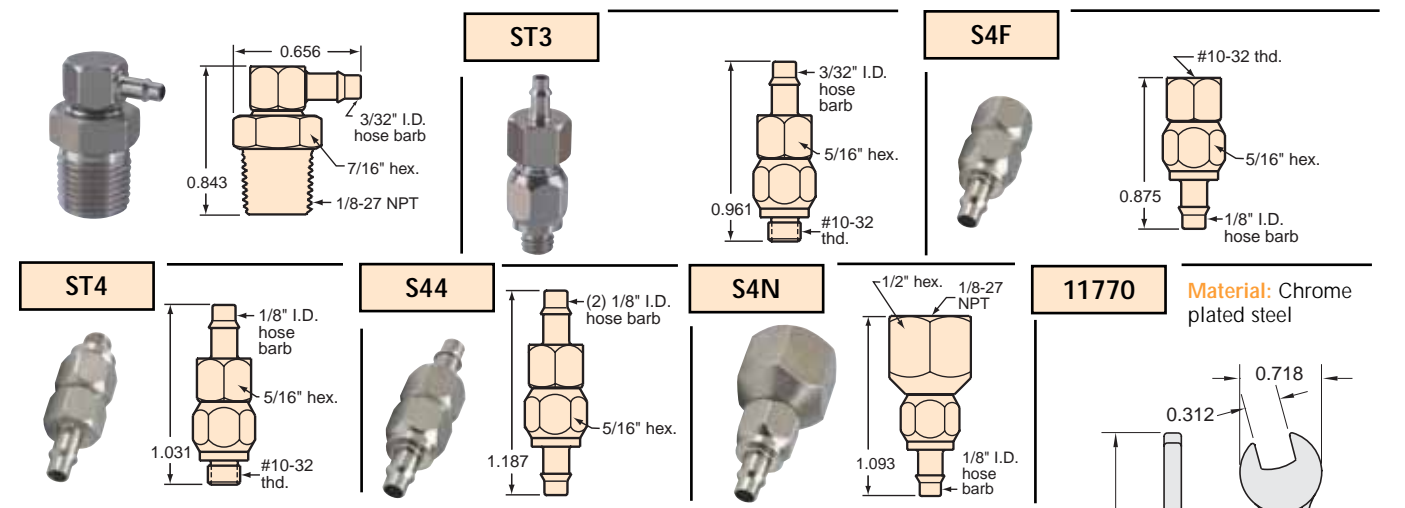
Tip Most Clippard #10-32 threaded fittings require no more than 9 inch pounds of torque to seal. We recommend that this force not be exceeded.

#10-32 to Hose Swivel "L" Fittings



SP0-3

Connector Swivel Fittings



Tips On Using Slip-On 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 the manufacturer's guide for the size of hose or tubing you use. For air logic circuits, we recommend 1/16" I.D. for pilots and 1/8" I.D. for supplies and outputs.

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 for assembly benefits... not as a constant rotation connection.

Tightening #10-32 Fittings

TIGHTEN WITH CARE. Often a "finger tight" connection between Clippard fittings with anaerobic 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.



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)

Hose Barb		
1/16" ID	3/32" ID	1/8" ID
12841*	12843*	12842*
11752-2 & 11752-M5 (metric)	11752-8	11752-1
	<p>* Gasket not required; use thread sealant. Tighten by hand for flush mounting in #10-32 threaded holes.</p>	<p>#1 Recommended</p>
11752-5 & 11752-5-M5 (metric)		11752-4 & 11752-4-M5 (metric)
		11752-3 & 11752-3-M5 (metric)

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

Material: Brass

Seal: Buna-N o-ring furnished installed

Options: (-NP)

Hose Barb		
1/16" ID	3/32" ID	1/8" ID
11792-5	11792-8	11792-4

BRASS BARB TO PIPE FITTINGS

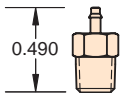
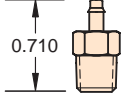
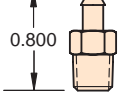
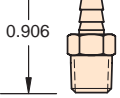
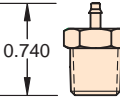
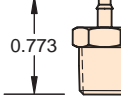
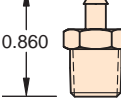
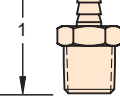
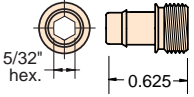
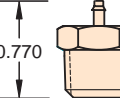
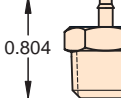
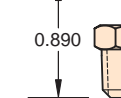
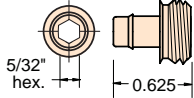
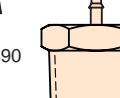

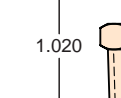
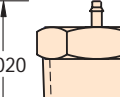
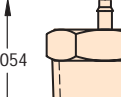
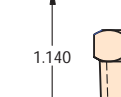


Material: Brass

Thread: Standard Pipe Thread

Options: (-NP)



External Thread	Hose Barb(s)				
	1/16" ID	3/32" ID	1/8" ID		
1/16" NPT Thread (5/16" Hex.)	 0.490	 0.710	 0.800	 0.906	
Part No.	1CJ2	1CJ3	1CJ4	11924-2	
1/8" NPT Thread (7/16" Hex.)	 0.740	 0.773	 0.860	 1	 5/32" hex. 0.625
Part No.	2CP2	2CP3	2CP4	11924-1*	12844
1/4" NPT Thread (9/16" Hex.)	 0.770	 0.804	 0.890		 5/32" hex. 0.625
Part No.	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.
Part No.	6CW2	6CW3	6CW4		
1/2" NPT Thread (13/16" Hex.)	 1.020	 1.054	 1.140		
Part No.	8CZ2	8CZ3	8CZ4		

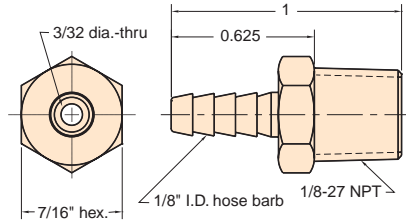


BRASS BARB FITTINGS

11924-1



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



Material: Brass

Thread: 1/8" NPT

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

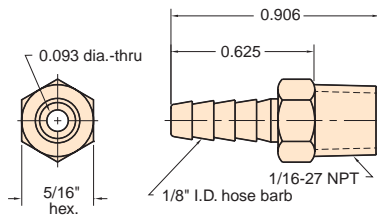
Options: (-NP), (-MG)



11924-2



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



Material: Brass

Thread: 1/16" NPT

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

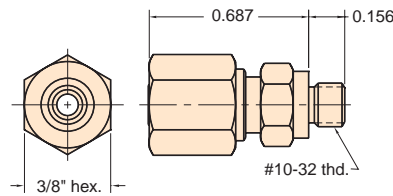
Options: (-NP)



11923



#10-32 to 1/8" O.D. Tube Compression Fitting



Material: Brass

Thread: #10-32

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

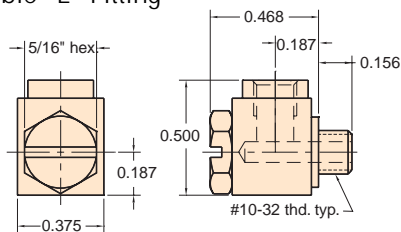


Clippard's reputation of building jigs, fixtures and machines as well as modifying existing machines to improve productivity is carried on in its well equipped machine shop. New product prototypes are crafted by experienced engineers and machinists.

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.

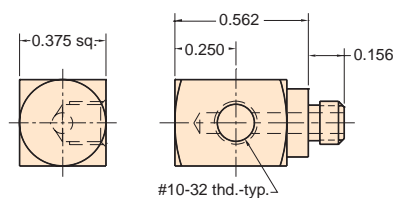
Options: (-NP)



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

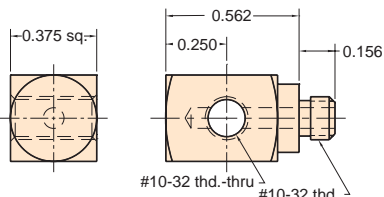
Options: (-NP)



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

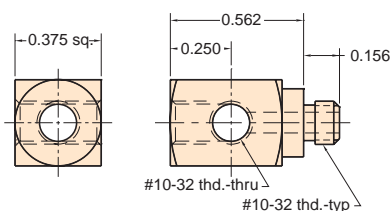
Options: (-NP)



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

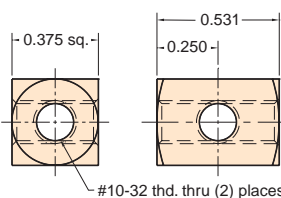
Options: (-NP)



15002-5



"X" Coupling



Material: Brass

Thread: #10-32

Use: Ideal as small manifold.

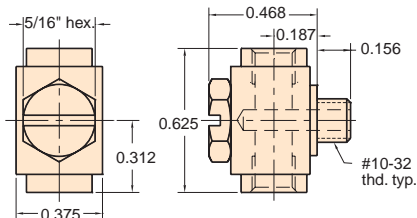
Options: (-NP)



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)



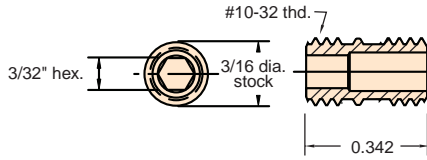


MINIMATIC® CONNECTOR FITTINGS

15453



Male #10-32 Coupling



Material: Stainless steel

Thread: #10-32

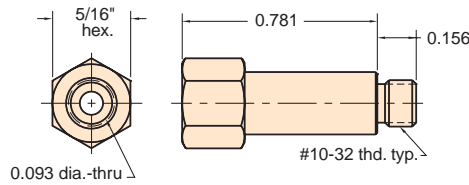
Seals: Loctite necessary

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

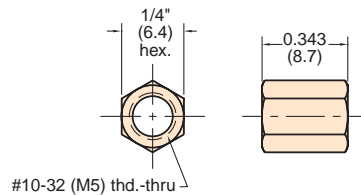
Use: To provide extension for convenience in assembling components

Options: (-NP)

15004



#10-32 Female Hex Coupling



Material: Brass

Thread: #10-32 tapped (M5)

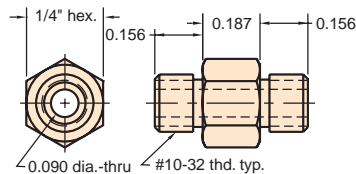
Use: For coupling two #10-32 (M5) male fittings

Options: (-NP), (-M5)

11999



#10-32 Male Connector



Material: Brass

Thread: #10-32 both ends

Gaskets: Buna-N 2 furnished

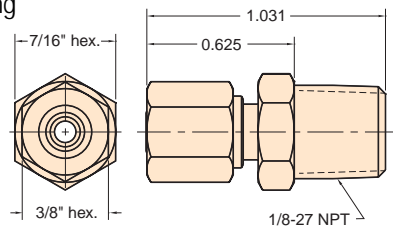
Use: For coupling cylinders directly to valves, and many other coupling arrangements

Options: (-NP)

3810-1



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



Material: Brass

Thread: 1/8" NPT

Use: Joins standard size pipe to 3811-1 copper or 3814-2 nylon tubing

Replacement Ferrule & Nut: 15155

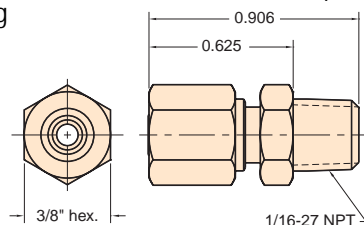
Options: (-NP)

Features: One piece ferrule and nut for fast, easy insertion of tube

3810-2



1/16" 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

SWIVEL FITTINGS

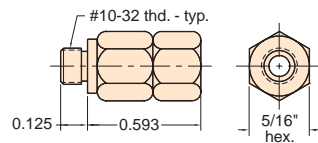
Minimatic® swivel connector fittings are very efficient in applications where joints need to be disconnected and reconnected frequently. Made with a threaded connection on one end and a swivel connection on the other, these fittings provide a true cost savings on pneumatic circuit designs. They are valuable 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



Material: Brass

Thread: #10-32

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

Use: Allows connection to rotate for tightening in confined spaces

Note: Used for positioning not for rotary connector

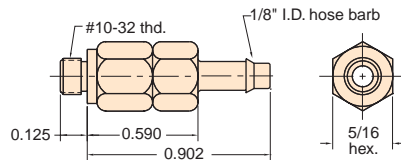
Options: (-NP)



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

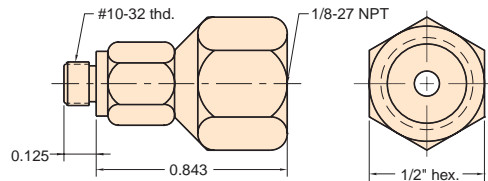
Options: (-NP)



15050



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



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

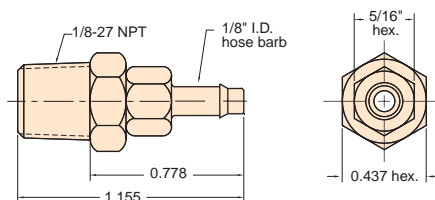
Options: (-NP)



15055



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



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

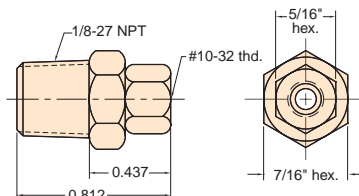
Options: (-NP)



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

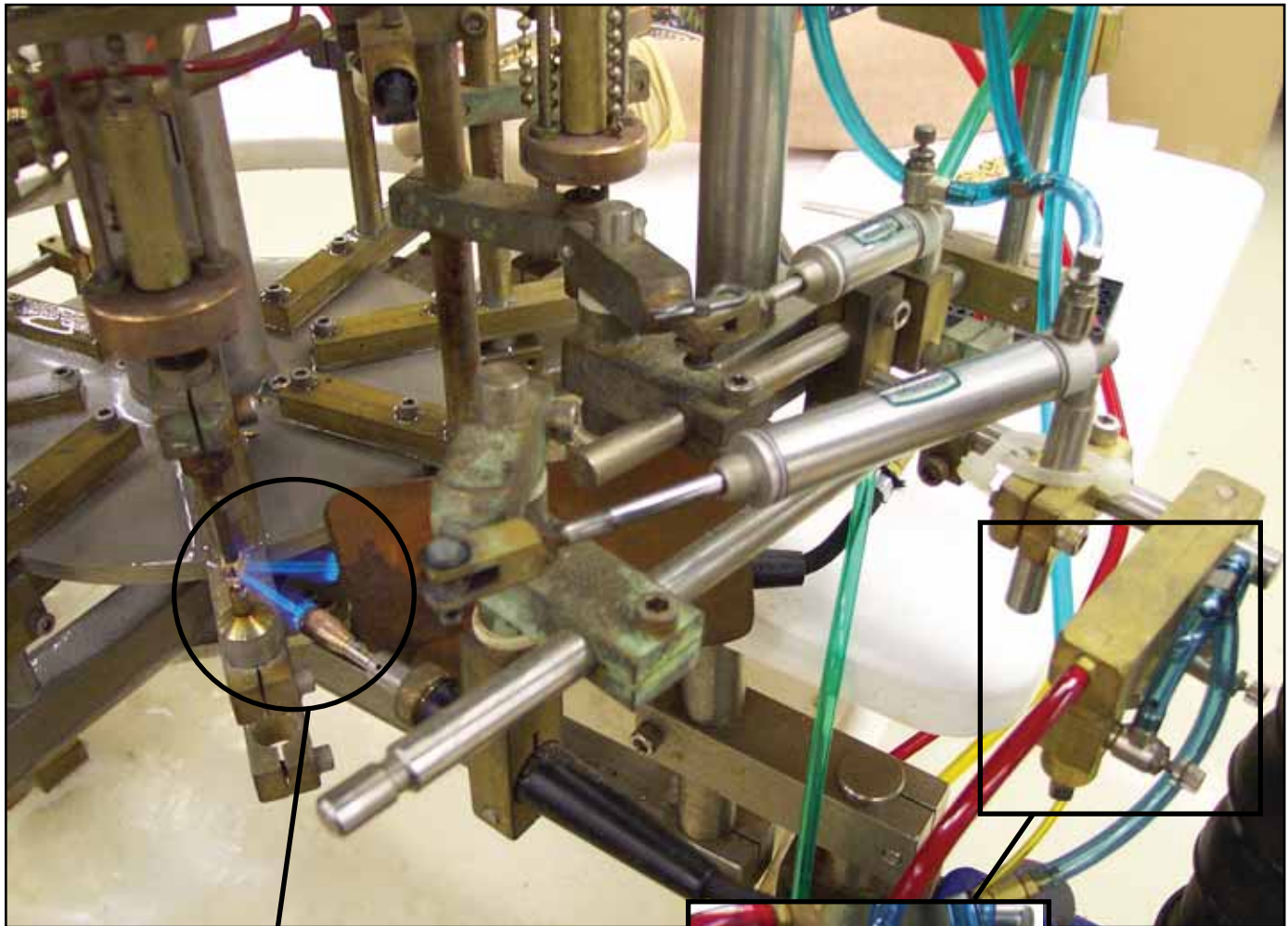
Options: (-NP)





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.



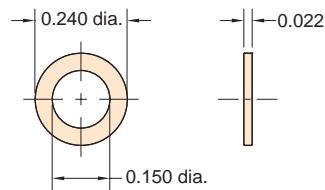
The machine consists of a rotating center carousel with eight stations. The individual components of each slip-on fitting are loaded into clamp fixtures mounted on the carousel. The carousel indexes to each of the process stations: load, heat, cool, quench, and unload. The control and timing of the machine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



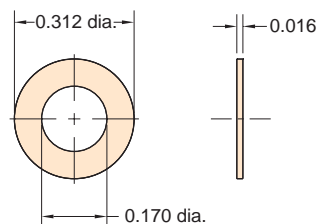
The heat station uses MFC-3AK2's to meter propane, while PAV-2's turn the propane on and off. In addition, the torches are connected to cylinders so they are able to rotate for the heat cycle.

11761-2

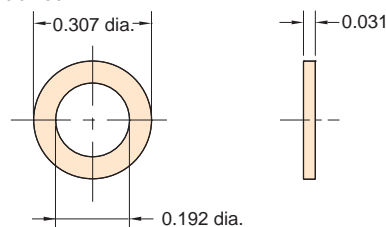
Buna-N Gasket

**Material:** Buna-N**Use:** Buna-N gasket is designed for use with #10-32 threads; included with packaged Clippard fittings; replaces 11761-5**Temperature Range:** -40 to +250° F**11761-3**

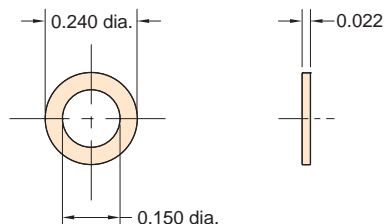
Fiber Gasket

**Material:** Cellulose fiber & SBR latex**Use:** Designed for use with #10-32 threads in high temperature applications**Temperature Range:** -40 to +350° F**11761-4**

Nylon Gasket

**Material:** Nylon**Use:** Designed for use with #10-32 threads in applications that require nylon for chemical compatibility**Temperature Range:** +40 to +200° F**11761-7**

EPDM

**Material:** EPDM**Use:** Designed for use with #10-32 threads in applications that require EPDM for low temperature or chemical compatibility; do not use with petroleum-based lubricants**Temperature Range:** -60 to +300° F

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. 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.



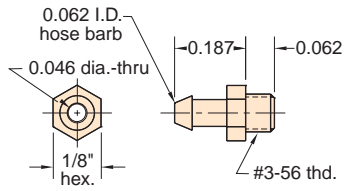
ADAPTER FITTINGS

Material: Brass

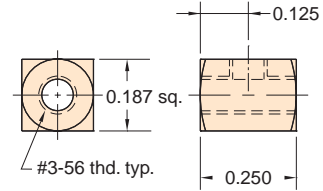
Thread: M2.5 - 0.45 (3-56 US equiv.)

Use: Threads into Clippard subminiature cylinder; fits 1/16" I.D. hose

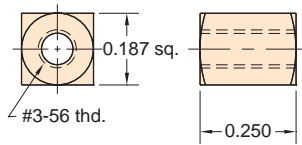
11750-2



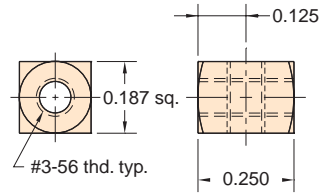
11749-2



11749-1

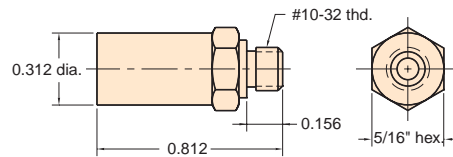


11749-3



15070

#10-32 Muffler



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

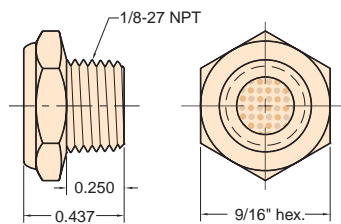
Thread: #10-32

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)

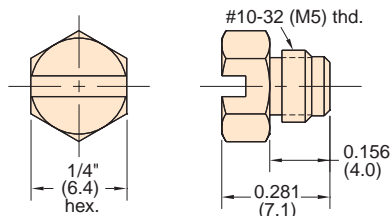
Thread: 1/8" NPT

Use: To muffle exhaust for quiet system operation

Options: (-NP)

11755

#10-32 Screw Plug



Material: Brass

Thread: #10-32 (M5)

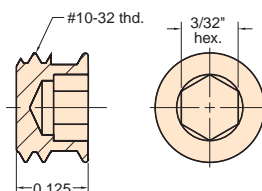
Gasket: Buna-N furnished package only

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


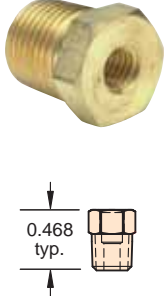




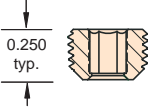
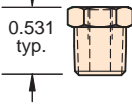

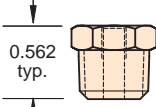


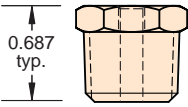
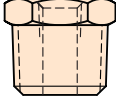
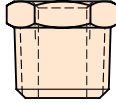
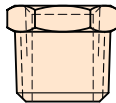
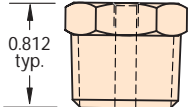
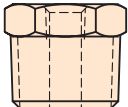
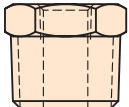
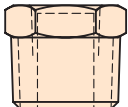
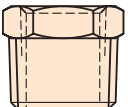
PIPE REDUCER BUSHINGS



Material: Brass

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

Option: (-NP)

External Thread	Internal Thread					
	#10-32	#10-32	1/16" NPT	1/8" NPT	1/4" NPT	3/8" NPT
1/16" NPT Thread (5/16" Hex.)						
Part No.		1CJF				
1/8" NPT Thread (7/16" Hex.)						
Part No.	15036*	2CPF	2CPK			
1/4" NPT Thread (9/16" Hex.)						
Part No.		4CQF	4CQK	4CQN		
3/8" NPT Thread (11/16" Hex.)						
Part No.		6CWF	6CWK	6CWN	6CWY	
1/2" NPT Thread (13/16" Hex.)						
Part No.		8CZF	8CZK	8CZN	8CZY	8CZD

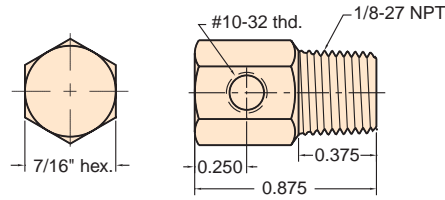


ADAPTER & BULKHEAD FITTINGS

15090-1



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



Material: Brass

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

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

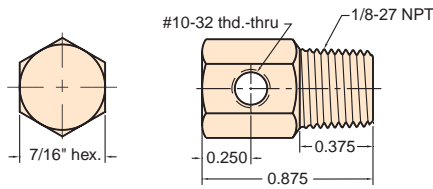
Options: (-NP)



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

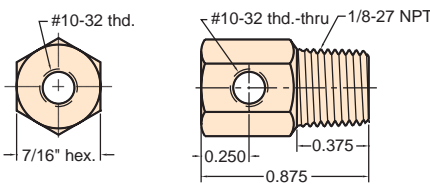
Options: (-NP)



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

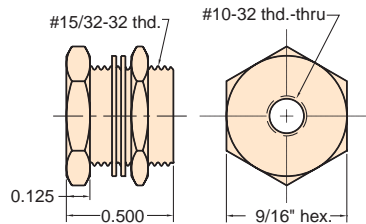
Options: (-NP)



15027



#10-32 Bulkhead Fitting



Material: Brass

Thread: #10-32 tapped both ends

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

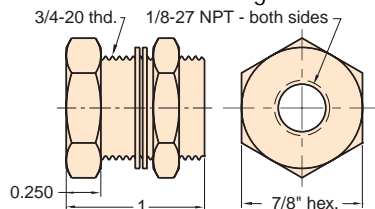
Use: Provides rigid connection thru panels or bulkheads up to 1/4" thick; use with any Clippard #10-32 threaded fitting or connector



15029-1



1/8" NPT Bulkhead Fitting



Material: Brass

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

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

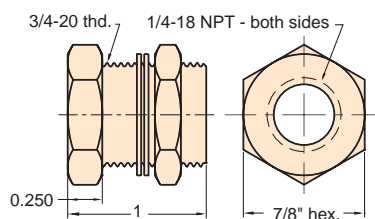
Use: Provides rigid connection thru panels or bulkheads up to 1/2" thick



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

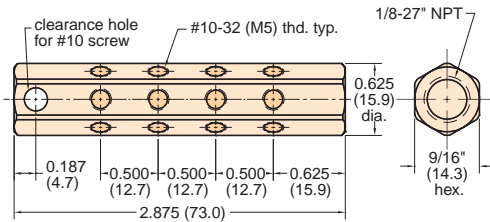
Use: Provides rigid connection thru panels or bulkheads up to 1/2" thick



MAN-12



12-Port Manifold



Material: Brass

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 with any Clippard #10-32 fittings, quick connects and many other devices; unused ports can be plugged with screw plug 11755

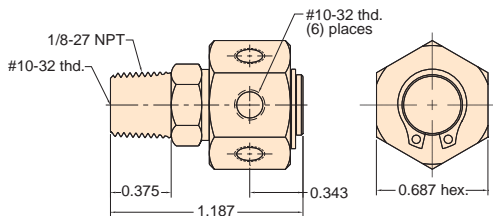
Options: (-NP)



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

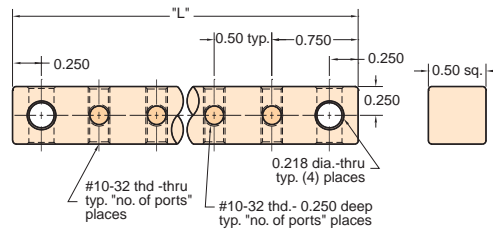
Low RPM applications

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

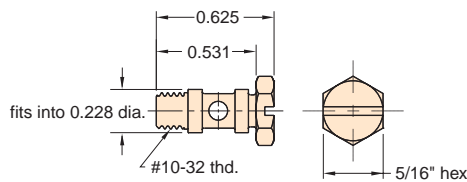
Model #	# of Ports	A	L
15028-4	4	2 1/2"	3"
15028-6	6	3 1/2"	4"
15028-8	8	4 1/2"	5"
15028-10	10	5 1/2"	6"

15028-4 pictured above

12292



Miniature Manifold Stud



Material: Stainless steel

Thread: #10-32

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:

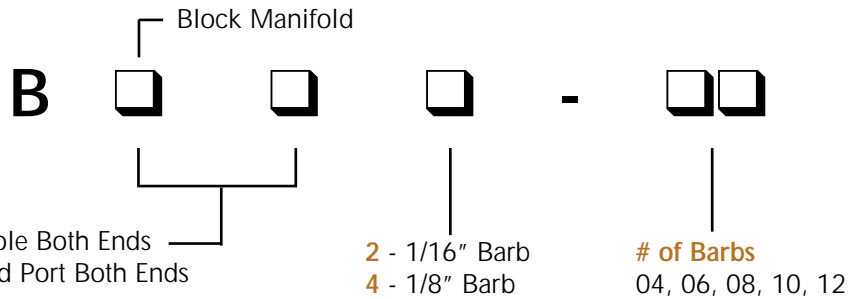
1/16" I.D. for pilots

1/8" I.D. for supplies and outputs



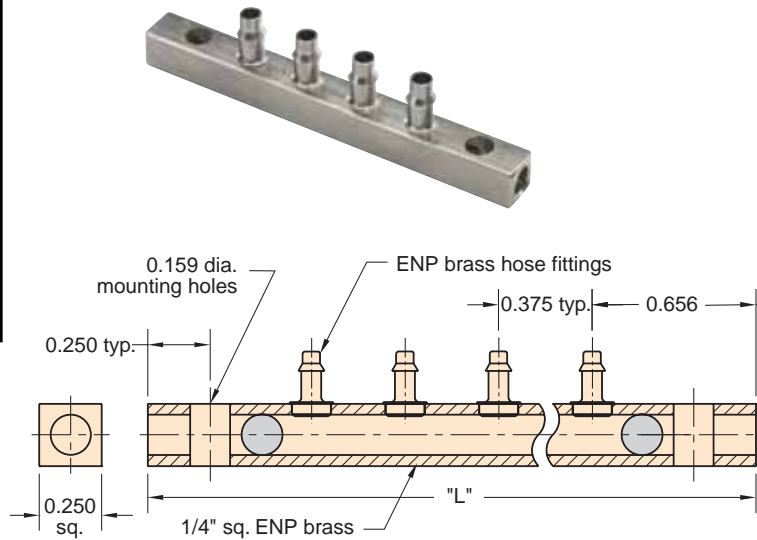
MANIFOLDS

B□□□-□□

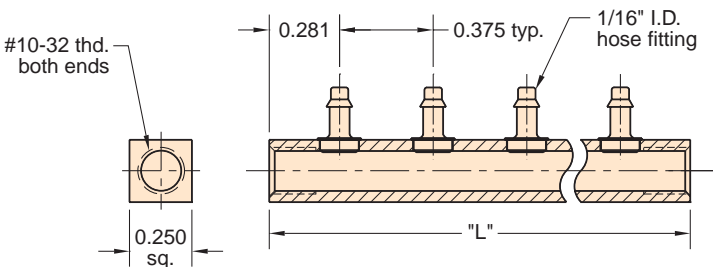


Part #	# of Stations	Fitting Size
BHH2-04	4	1/16" I.D. Hose Barb
BHH2-06	6	
BHH2-08	8	
BHH2-10	10	
BHH2-12	12	
BHH4-04	4	1/8" I.D. Hose Barb
BHH4-06	6	
BHH4-08	8	
BHH4-10	10	
BHH4-12	12	

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	1/16" I.D. Hose Barb
BTT2-06	6	
BTT2-08	8	
BTT2-10	10	
BTT2-12	12	
BTT4-04	4	1/8" I.D. Hose Barb
BTT4-06	6	
BTT4-08	8	
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.



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



- UTO-FOF (T) Universal M #10-32 to F #10-32
- UTO-F (L) Universal M #10-32 to F #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
- X22-202 1/16" I.D. Hose X
- 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
- T44-4 1/8" I.D. Hose T
- 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
- CT4 1/8" I.D. Hose to M #10-32
- Inline Swivel Connectors
 - S44 1/8" I.D. Hose to 1/8" I.D. Hose
 - ST4 1/8" I.D. Hose to M #10-32
 - S4F 1/8" I.D. Hose to F #10-32

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
- STO-4004 Swivel 1/8" I.D. Hose T with M #10-32
- Clippard 1/4" & 5/16" Wrench 11770
- Gasket 11761-2
- Hose Samples



MINIMATIC® FITTINGS KITS

17555

Minimatic Fittings Kit



- #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

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

17555-QC1

Minimatic Quick Connect Kit



- 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

Contains:

- 1/8" I.D. T Connector T44-4
- Panel Mount #10-32 F Cap MJQC-CPF
- Panel Mount 1/8" I.D. Hose Cap MJQC-CPB