# Fittings & Tubing



### **MINIMATIC® FITTINGS**

- Barb Connectors p. 182
- Elbow Barb Fittings\_\_\_\_\_p. 183
- #10-32 Branch Tees\_\_\_\_\_p. 183
- Cross Fittings p. 184
- Nipples and Couplings\_\_\_\_p. 184
- *L, T, X Fittings* p. 184
- #10-32 Run Tee\_\_\_\_\_p. 183
- NPT to Barb Connectors p. 184
- Pipe Reducers\_\_\_\_p. 187
- Screw Plugs p. 184
- Bulkhead Fittings p. 184
- Compression Fittings\_\_\_\_p. 187



# STAINLESS STEEL PUSH-QUICK FITTINGS

- High corrosion and chemical resistance
- Ideal for high temperature applications
- Tubing sizes 5/32" to 3/8"
- Large variety of thread sizes

p. 185



# PLASTIC RESIN PUSH-QUICK FITTINGS

- Provide higher flow capability
- For use with flexible hose and stiff tubing
- 9 tubing and 10 thread sizes
- · Choose from over 25 unique styles

p. 186



# QUICK-CONNECT ASSEMBLIES

- Easy connection in tight spaces without disconnecting tubing
- Includes check valve to close when disconnected

p. 187



## **ACCESSORIES**

- Terminal Blocks
- Manifolds
- Mufflers
- Hose Clamps
- Fittings Kits

p. 187



## **HOSE & TUBING**

- Vinyl, polyurethane, and silicone
- Single, dual, and ribbon styles
- Choose from a large variety of sizes and colors

p. 188

# MINIMATIC® FITTINGS

#### **BARB CONNECTORS**

	Part No.	Barb (I.D.)	Material
#3-56 Male to 1/16" Barb 1/8" Hex	11750-2	1/16"	Brass
#10-32 Male to Single Barb, 1/4" Hex	11752-5 11752-8 11752-4 CT2 CT3	1/16" 3/32" 1/8" 1/16" 3/32"	Brass Brass Brass ENP Brass ENP Brass
#10-32 Male to Multi-Barb, 1/4" Hex	CT4 11752-2 11752-3 11752-1	1/8" 1/16" 1/8" 1/8"	ENP Brass Brass Brass Brass
#10-32 Male to Barb, 1/4" Hex (Capt. O-Rings)	11792-5 11792-8 11792-4	1/16" 3/32" 1/8"	Brass Brass Brass
#10-32 Male to Barb, 5/16" Hex (Capt. O-Rings)	11782-5-ENP 11782-4-ENP	1/16″ 1/8″	ENP Brass ENP Brass
#10-32 Male Flush to Barb	12841 12843 12842	1/16" 3/32" 1/8"	Brass Brass Brass
#10-32 Male to Barb	15045* *Not to be used a	1/8" s a constant rot	Brass ation junction

Minimatic barb fittings provide a flexible, easy alternative to ferrule and push-to-connect design fittings. Electroless nickel plating provides corrosion resistance in applications involving high moisture. Nitrile gasket included with #10-32 threads except when ordered in bulk.

- In stock and ready to ship
- Low cost
- Miniature size provides low profile
- Holds to the burst pressure of polyurethane hose
- Low leak potential

	Part No.	Barb (I.D.)	Material
#10-32 Female to Barb	CF2 CF3 CF4	1/16" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass
□ Barb-to-Barb	C22 C32 C42 C33 C43 C44	1/16-1/16" 1-16-3/32" 1/16-1/8" 3/32-3/32" 3/32-1/8" 1/8-1/8"	ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass
1/8" NPT Male Swivel	15055*	1/8″	Brass
Male NPT Flush Fitting	12844 12845 Requires t	1/4" (1/8 NPT) 1/4" (1/4 NPT) thread sealant.	Brass Brass

All barbs are noted in I.D.

**GASKETS** Designed for use with #10-32 threads

	Material	Part No.	0.D.	I.D.
0	Nitrile	11761-2	0.240	0.150
	FKM	11761-8	0.240	0.150
	Nylon	11761-4	0.307	0.192
	EPDM	11761-7	0.240	0.150

## MINIMATIC® FITTINGS

#### **ELBOW BARB FITTINGS**

	Part No.	Barb (I.D.)	Material
#10-32 Male to Barb	CTO-2 CTO-3 CTO-4	1/16" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass
#10-32 Male to Barb Universal	UT0-2 UT0-3 UT0-4	1/16" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass
Universal #10-32	UTO-F		ENP Brass
#10-32 Male to Barb Swivel	ST0-2 ST0-3 ST0-4	1/16" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass
1/8″ NPT Male to Barb Swivel	SP0-2 SP0-3 SP0-4	1/16" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass

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Part No.	Material
UTF-F	ENP Brass

#### **#10-32 BRANCH TEES**

#10 32 DIANCII IEES				
		Part No.	Barb (I.D.)	Material
	#10-32 Male to Barb	TT0-202 TT0-303 TT0-402 TT0-404	1/16" 3/32" 1/8"-1/16" 1/8"	ENP Brass ENP Brass ENP Brass ENP Brass
	#10-32 Male Universal	UTO-2002 UTO-3002 UTO-3003 UTO-4002 UTO-4003 UTO-4004	1/16" 1/16-3/32" 3/32" 1/8-1/16" 1/8-3/32" 1/8"	ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass
	#10-32 Male Universal	UTO-F0F	-	ENP Brass
	#10-32 Male Swivel	ST0-2002 ST0-3003 ST0-4004	1/16" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass
	1/8″ NPT Male Swivel	SP0-2002 SP0-3003 SP0-4004	1/6" 3/32" 1/8"	ENP Brass ENP Brass ENP Brass
	Barb-to-Barb	T22-2 T22-3 T22-4 T33-2 T33-3 T33-4 T44-2 T44-3 T44-4	1/16" 1/16 - 3/32 - 1/16" 1/16 - 1/8 - 1/16" 3/32 - 1/16 - 3/32" 3/32" 3/32 - 1/8 - 3/32" 1/8 - 1/16 - 1/8" 1/8 - 3/32 - 1/8" 1/8"	ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass

All barbs are noted in I.D.

**Hose/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/tubing you use. For air logic circuits, we recommend 1/16" ID for pilots and 1/8" ID for supplies and outputs.

**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.

**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.







# MINIMATIC® FITTINGS

## **CROSS FITTINGS**

		Part No.	Barb	Material
₫	Barb-to-Barb	X44-402	1/16" 1/16 - 1/8 - 1/16 - 1/8" 1/16 - 1/8 - 1/8 - 1/8" 3/32 - 1/16 - 3/32 - 1/16" 3/32" 3/32 - 1/8 - 3/32 - 1/8" 1/8"	ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass ENP Brass

L, T, X FITTINGS					
		Part No.	Porting	Material	
	#10-32 "X" Coupling	15002-5	Х	Brass	
	#10-32 to #10-32 Fittings	15002-2 15002-3 15002-4	L T X	Brass Brass Brass	
	Adjustable #10-32 <i>"</i> L" Fitting	15002-1	L	Brass and Stainless Steel	
	Adjustable #10-32 "T" Fitting	15002-6	T	Brass and Stainless Steel	
and the last	Miniature #10-32 Manifold Stud	12292	-	Stainless Steel	
	1/8" NPT to #10-32 Adapter Fittings	15090-1 15090-2 15090-3	L T X	Brass Brass Brass	

# **BULKHEAD FITTINGS**

	Part No.	External Thd.	Internal Thd.
Bulkhead Fittings	15027 15029-1 15029-2	#15/32-32 3/4-20 3/4-20	#10-32 1/8" NPT 1/4" NPT

# **#10-32 THREAD SCREW PLUGS**

Part No.		Material
11755 11755-ENP 11782-7-ENP 0035-2	Captivated O-Ring	Brass ENP Brass ENP Brass Stainless Steel

#### **#10-32 NIPPLES & COUPLINGS**

	Part No.	Material
#10-32 Male Nipple	15453	Stainless Steel
#10-32 Male Nipple	11999	Brass
#10-32 Female Hex Coupling	15004	Brass
#10-32 Extension Fitting	15010	Brass
#10-32 Swivel Fitting	15040	Brass
1/8" NPT Male to #10-32 Swivel Adapter	15060	Brass
1/8" NPT Female to #10-32 Swivel Adapter	15050	Brass

# **NPT TO BARB CONNECTORS**

	Part No.	Thread	Material
1/16" Barb to Male NPT	1CJ2 2CP2 4CQ2	1/16" 1/8" 1/4"	Brass Brass Brass
3/32" Barb to Male NPT	1CJ3 2CP3 4CQ3	1/16" 1/8" 1/4"	Brass Brass Brass
1/8" Barb to Male NPT	1CJ4 2CP4 4CQ4	1/16" 1/8" 1/4"	Brass Brass Brass
1/8" Barb to 1/8" Male NPT	11924-1	1/8"	Brass

All barbs are noted in I.D.

#### **PUSH-QUICK FITTINGS**

#### **STAINLESS STEEL**

Constructed of high grade 316 stainless steel, these durable fittings provide a simple push-pull method of connecting pneumatic components to each other and system piping. Push-Quick fittings allow full flow through the hose/tubing I.D. with no smaller orifice required as in barb fittings. They are designed for use with both flexible hose and stiff tubing made of nylon, polyurethane, polyethylene or polypropylene. Many styles and sizes are available.

#### For more information, visit clippard.com/link/ss-pq

**Medium** Air, inert gas, water, liquid, or oil

 Pressure Range
 0 to 250 psig @ 75°F

 Vacuum
 0 to 29.5" Hg

 Tube Pull-Out Force @ 75°
 1/8" - 5/32": >10 lb.;

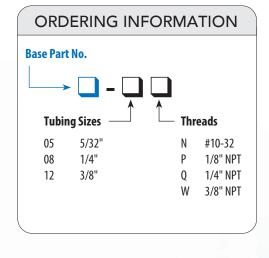
 (non-pressurized)
 1/4" - 1/2": >20 lb.

**Temperature Range** 5 to 230°F

Materials 316 stainless steel, FKM seals

- Provides high corrosion and chemical resistance
- FDA approval for use in food environments
- Ideal for high temperature applications
- · Small, compact design
- Complete selection of hose and tubing available online at clippard.com

Threaded Fitting	s	Non-Threaded Fit	tings
Female Connectors PQS-FC		Straight Unions PQS-SU	
Male Connectors PQS-MC		Reduced Unions PQS-RU	
Bulkhead Connectors PQS-BC		Elbow Unions PQS-EU	
Male Elbows PQS-ME		Tee Unions PQS-TU	
Run Tees PQS-RT		Bulkhead Unions PQS-BU	
Branch Tees PQS-BT		Stem Couplers PQS-SC	









<sup>\*</sup>See **clippard.com/link/ss-pq** for specific part numbers and ordering information

## **PUSH-QUICK FITTINGS**

#### **PLASTIC RESIN**

Push-quick fittings provide a simple method of connecting pneumatic components to each other and system piping. They provide higher flows than barbed fittings and are designed for use with flexible hose or stiff tubing made of nylon, urethane, polyethylene or polypropylene. The 5/32" fittings may be used with 4 mm O.D. tubing.

# For more information, visit clippard.com/link/pq

 Pressure Range
 0 - 150 psig @ 130°F

 Vacuum
 0 to 29.5" Hg

 Temperature Range
 32 to 140°F

Media Air or non-corrosive water

Tube Pull Out Force 1/8" - 5/32": >10 lb.;

1/4" - 1/2": >20 lb. @ 75° (non pressurized)

# ORDERING INFORMATION Base Part No. Tubing Sizes Threads

	<b>T</b>	<b>↑</b>	
Tubin	g Sizes —	Thre	ads
04	1/8"	N	#10-32
04M	4 mm	5	M5
05	5/32"	6	M6
06M	6 mm	P	1/8" NPT
08	1/4"	R	R1/8
M80	8 mm	Q	1/4" NPT
10	5/16"	2	R1/4
12	3/8"	W	3/8"
16	1/2"	3	R3/8
		Z	1/2" NPT

# **Plastic Plugs**

May be used to plug a push-quick fitting port for later use

Part No.	Description	
PQ-PG04	1/8" O.D. Tube	
PQ-PG05	5/32" O.D. Tube	
PQ-PG06M	6 mm O.D. Tube	
PQ-PG08	1/4" O.D. Tube	
PQ-PG10	5/16" O.D. Tube	
PO-PG12	3/8" O.D. Tube	

Threaded Fittings Female Connectors	
PQ-FC	
Male	
Connectors	
PQ-MC	WILLIAM
Male Compact	
Connectors PO-CC	
PŲ-CC	will (in the second
Bulkhead	
Connectors PQ-BC	
Male Angle	A
Connectors	
PQ-MA	WIII.
Y Connectors	l Maria
PQ-YC	
Female	
Elbows PQ-FE	
TQ-TL	La Carte Carte
Male	
Elbows PQ-ME	MIIIIM
T Q-IVIL	
Extended	
Elbows PQ-EE	
	WIII (E
Universal Elbows	100
PQ-UE	
Stack	<u> </u>
<b>Elbows</b> PQ-SE	
TQ-JE	
Run	7-5
Tees PQ-RT	000
Branch	
Tees	
PQ-BT	
Manifold Mounts	
MOUIICS	

Non-Threaded Fit	tings
Straight Unions PQ-SU	(3=6)
Reduced Unions PQ-RU	
Elbow Unions PQ-EU	
Tee Unions PQ-TU	
Y Unions PQ-YU	
Cross Unions PQ-CU	
Manifold Unions PQ-MU	واللك
Bulkhead Unions PQ-BU	
Reduced Branches PQ-RB	
Elbow Reducers PQ-ER	
Tube Reducers PQ-TR	
Plug-In Elbows PQ-PE	
Tee Reducers PQ-TR	
Stem Reducers PQ-SR	
Stem Couplers PQS-SC	

# **ACCESSORIES**

#### MINIATURE TERMINAL BLOCKS



Part No.	# of Ports
15028-4	4
15028-6	6
15028-8	8
15028-10	10

# **BRASS MUFFLERS**





Part No.	Description
15080	1/8" NPT Brass Muffler
15070	#10-32 ENP Brass
	Muffler



Part No.	Ext. Thread
11130-N	#10-32
11130-P	1/8" NPT
11130-Q	1/4" NPT
11130-W	3/8" NPT
11130-Z	1/2" NPT

# MQC-2S

#### **QUICK CONNECTS**

Medium Air, Oil & Water Seals Nitrile Pressure Range 0 to 300 psig **Air Flow** 85 I/min @ 50 psig;

160 I/min @ 100 ps	ia	
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Part No.	Description
MQC-2S	QC Assembly, 1/8" Barb to #10-32 Male
MQC-3A	QC Assembly, 1/8" Barb to #10-32 Female
MQC-V2	Valve Body, #10-32 Male
MQC-V3	Valve Body, #10-32 Female Thread
MQC-VP	Valve Body, 1/8-27 NPT
MQC-FS	Hose Connector, 1/8" Barb
MQC-F2S	Hose Connector, 1/16" Barb
MQC-FT	Hose Connector, #10-32 Female Thread

# **MANIFOLDS**





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**HOSE CLAMPS** 



Part No.	Description
MAN-12	12-Port Brass
MRM-6	6-Port Rotary

Part No.	Material
5000-4	Brass Use with VYH1-0804 hose
5000-2	Zinc-Plated Steel

# **FITTINGS KITS**

For the ulitmate in convenience, have a selection of helpful fittings available for



every need. Keeping a supply on hand can save money and time, allowing projects, prototypes, circuits and repairs to be finished quickly and avoiding delays. Comes with plastic case.

Part No.	Description	Material
17555-SF1	Barb Fittings Kit	ENP Brass
17555	Minimatic® Fittings Kit	Brass

#### **PIPE REDUCERS**

	Part No.	External Thd.	Internal Thd.	
Pipe Reducer Bushings	1CJF 2CPF 4CQF 2CPK 4CQK 4CQN	1/16" NPT 1/8" NPT 1/4" NPT 1/8" NPT 1/4" NPT 1/4" NPT	#10-32 #10-32 #10-32 1/16" NPT 1/16" NPT	
Pipe Reducer Bushing	15036	1/8" NPT	#10-32	

Will adapt standard pipe to fittings and Clippard miniature components. (-ENP) optional.

#### **COMPRESSION FITTINGS**

	Part No.	<b>Tube</b> (0.D.)	Material
#10-32 to Tube Fittings with Capt. O-Rings	11923 15160	1/8" 1/16"	Brass Brass
NPT to Tube Fittings	3810-1 3810-2	1/8" 1/16"	Brass Brass

#### **GASKETS** Designed for use with #10-32 threads

	Material	Part No.	0.D.	I.D.	
0	Nitrile FKM Nylon EPDM	11761-2 11761-8 11761-4 11761-7	0.240 0.240 0.307 0.240	0.150 0.150 0.192 0.150	

# **HOSE & TUBING**

Polyurethane tubing offers a wider range of chemical compatibility than vinyl, may be used at much higher temperatures, and does not require clamps when used with barb fittings. 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.

ciose connections, anow a				рg.			50' Roll	500' Roll
Туре	0.D.	I.D.	Bend Radius	Working Range	Part No.	Colors	Len	gth
	5/32"	3/32"	3/8"	0 to 105 psig @ 100° F (max. 120° F)	URT1-0503-□ □	● - BKS ※ - CLT ※ - BLT	-050	-500
Ether Based 95A Durometer	1/4"	0.160"	1/2"		URT1-0805-□ □	<ul><li></li></ul>	-050	-500
Polyurethane	3/8"	1/4"	7/8"		URT1-1208-□ □	● - BKS ※ - CLT ※ - BLT ※ - GNT ※ - RDT	-050	-500
	0.065"	0.030"	-		SIH1-0201-NAS-		-005	-500
	3/32"	1/32"	-	04.20.	SIH1-0301-NAS-		-005	-500
	1/8"	1/16"	-	0 to 30 psig	SIH1-0402-NAS-		-005	-500
Medical/Laboratory Grade Silicone	3/16"	1/16"	-		SIH1-0602-NAS-	Clear	-005	-500
didde sincone	1/4"	1/8"	-	0 to 20 psig	SIH1-0804-NAS-		-005	-500
	5/16"	3/16"	-		SIH1-1006-NAS-		-005	-500
	3/8"	1/4"	-		SIH1-1208-NAS-		-005	-500
	1/8"	1/16"	1/4"	0 to 14 maio	SFG1-0402-NAS-		-005	-500
Sanitary Food Grade Silicone	1/4"	1/8"	1/4"	0 to 14 psig	SFG1-0804-NAS-	Clear	-005	-500
	3/8"	1/4"	3/4"	0 to 9 psig	SFG1-1208-NAS-□		-005	-500
	1/8"	1/16"	3/8"	0 to 105 psig @ 70° F (max. 60 psig @ 80° to 100° F)	VYH1-0402-CLT-□	Clear		
80A Durometer Vinyl	1/4"	1/8"	3/4"		VYH1-0804-CLT-□		-050	-500
85A Durometer Polyurethane	1/8"	1/16"	3/16"	0 to 105 psig @ 100°F (max. 120°F)	URH1-0402-□□	● - BKS ● - BRS ※ - CLT ※ - BLT	-050	-500
	1/4"	1/8"	3/8"		URH1-0804-□□	ॐ - GNT ॐ - RDT ॐ - YLT	-050	-500
	1/8"	1/16"	3/16"	0 to 105 psig @ 100°F (max. 120°F)	URH8-0402-02T-050	All (ribbon)	-050	_
85A Durometer Polyurethane Ribbon	1/4"	1/8"	3/8"		URH8-0804-02T-050		-050	_
85A Durometer Twin Molded Polyurethane	1/4"	1/8"	3/8"	0 to 105 psig @ 100°F (max. 120°F)	URH2-0804-015-	Black & gray	-050	-500

To order, add color selection and roll length to the end of the number. **Example:** URT1-0503-BLT-050

**Color Key** Solid: ■ Black (BKS) ■ Brown (BRS)

Translucent: 

Blue (BLT) 

Clear (CLT) 

Green (GNT) 

Red (RDT) 

Yellow (YLT)