



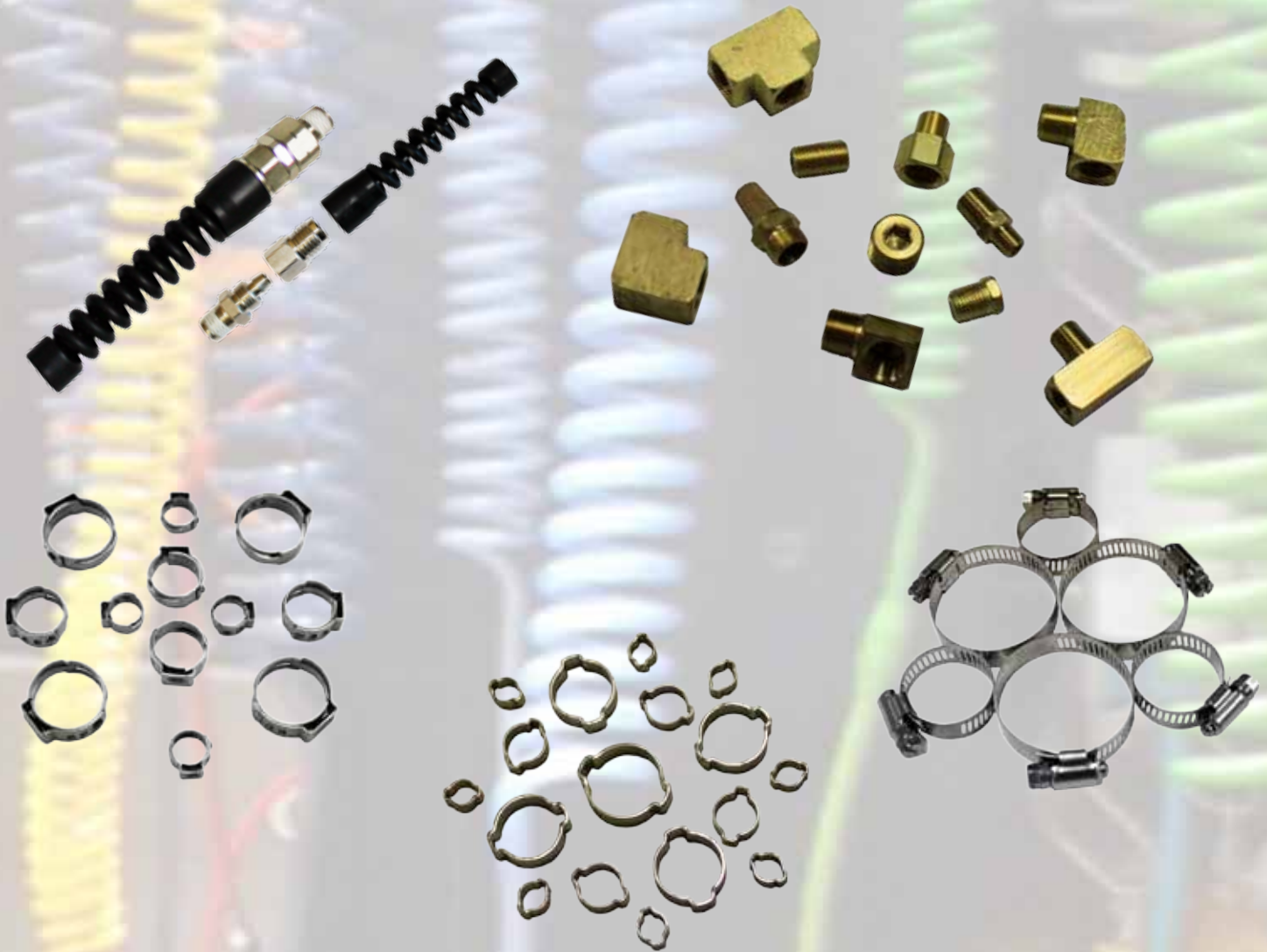
**MANUFACTURERS OF PRECISION-MADE  
POLYURETHANE SPIRAL HOSE & TUBING**



**ADVANCED  
TECHNOLOGY**

**Catalog # 02/15**

# **Fittings & Clamps**



**PO Box 335 12740 State Route 4 Milford Center, Ohio 43045-0335 USA**  
**Phone: 937.349.4055 Fax: 937.349.4155**  
**E-mail: [info@atp4pneumatics.com](mailto:info@atp4pneumatics.com) [www.atp4pneumatics.com](http://www.atp4pneumatics.com)**

ATP has tested products from around the globe to find the highest quality, best valued Push-To-Connect fitting line & brass fitting adaptors to offer our customers for use with our USA manufactured Surethane™ polyurethane, Nylochem™ nylon 12, and Value-Tube LLDPE tubing. In order to provide our customers both outstanding delivery and service, ATP is committed to maintaining a large inventory including the majority of all models and sizes available on our shelves. Please also check out our manufactured Tubing, Spiral Recoil, and Push-To-Connect Fitting products available in our online catalogs at [www.atp4pneumatics.com](http://www.atp4pneumatics.com).

**“Quality Products at Competitive Prices” awaits you with ATP!**

### General Information

Most brass fittings have a temperature range of -65°F to 250°F. They can be used on copper, brass, aluminum, plastic, and welded steel. Note: Compression fittings are not recommended for steel tubing.

### Working Pressures

Working pressures vary by type and size of tubing used, and style of fitting. However, based on .032 wall copper tubing, the pressures may range as follows depending on size:

CONNECTION TYPE	WORKING PRESSURE
Flare (1/8" to 3/4")	600 to 3,000 PSI
Compression	100 to 400 PSI
Iron Pipe	Up to 1,200 PSI
PEX Tubing	Up to 150 PSI
Polyethylene Tubing	Up to 80 PSI

### Fitting Thread Size Comparison Chart

SIZE	FLARE	COMPRESSION	PIPE
1/8	5/16-24	5/16-24	1/8-27
3/16	3/8-24	3/8-24	—
1/4	7/16-20	7/16-24	1/4-18
5/16	1/2-20	1/2-24	—
3/8	5/8-18	9/16-24	3/8-18
7/16	11/16-16	5/8-24	—
1/2	3/4-16	11/16-20	1/2-14
5/8	7/8-14	13/16-18	—
3/4	1-1/16-14	1-18	3/4-14
7/8	1-1/4-12	1-1/8-18	—
1	1-3/8-12	—	1-11-1/2

### LIMITED WARRANTY

Advanced Technology Products expressly excludes all warranties, guarantees and representations, expressed or implied, including but not limited to warranties of merchantability, material, workmanship, design and suitability for a specified or intended purpose. Products shall be free from defects in material and workmanship for a period of one (1) year after shipment. If the product purchased is defective in any way during the one (1) year period, please contact ATP for an RGA number to return the product. No unauthorized returns will be accepted. Ship product prepaid to ATP for a full evaluation. If the product is found to be defective, ATP will repair or replace the product at no charge to the customer at ATP's sole discretion.

## Index

### Nickel Plated Brass Fittings for Polyurethane Recoil Hose & Tubing

Male Rigid	P 5
Male Swivel	P 5

### Pipe Fitting

Male Close Nipple	P 6
Male Hex Nipple	P 6
Male Hex Nipple Reducer	P 6
Male Long Nipple	P 6-7
Female Coupling	P 7
Female Reducer Coupling	P 7

### Elbow

Male Elbow	P 8
Street Elbow	P 8
Female Union Elbow	P 8

### Tee

Male Branch Tee	P 9
Union Tee	P 9

### Bushing

Bushings	P 10
Male x Female Equal	P 10
Male x Female Reducing	P 10

### Plug

Hex-Head Plug	P 11
Countersunk Hex-Head Plug	P 11

### Hose Barb Fitting

Hose Mender	P 12
Hose Barb	P 12

### Oetiker Clamp

Stepless® Ear Clamps Product Group 167	P 13
2-Ear Clamps Product Group 101	P 13

### SAE Type Mini Worm Gear Clamp

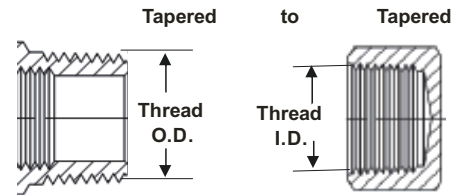
### Brass Muffler/Silencer

Sintered Bronze Muffler	P 15
Brass/Wire Mesh Muffler	P 15
Plastic/Felt Muffler	P 15

# Thread Technical Data

## National Pipe Thread Taper (NPT)

Is a U.S. standard for tapered threads used on threaded pipes and fittings. In contrast to straight threads that are found on a bolt, a taper thread will pull tight and therefore make a fluid-tight seal.

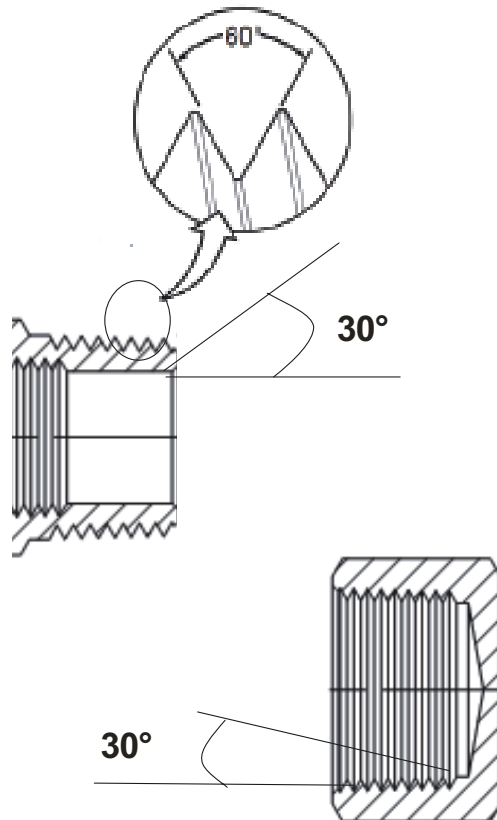


## NPT vs. BSP

NPT and BSP threads are not compatible due to the differences in their thread forms, and not just the fact that most sizes have a different pitch. NPT threads have a  $60^\circ$  included angle and have flattened peaks and valleys; BSP threads have a  $55^\circ$  included angle and have rounded peaks and valleys.

NPT and BSP thread pitches (threads per inch, TPI) are listed side. To determine pitch, use a thread gauge or count the number of threads that fall into a 1" span. Metric threads are usually specified in actual pitch, e.g., 1.5mm, 2.0mm, etc. This is the actual length of each thread, peak to peak. Although the term "pitch" is universally used, loosely, to describe threads per inch, the actual pitch of a 1/4BSP fitting is really 1/19 inch, or 0.0526 inches.

**WARNING: Never, never try to mate a BSP fitting with an NPT or NPS fitting if the pressure holding capability is at all critical.**



# Thread Technical Data

## British Standard Pipe Thread (BSPT)

*Known as "R" thread*

BSPT is similar to NPT except for one important difference. The angle across the flanks of is 55 degrees instead of 60 degrees as it is for NPT. Thus an NPT male will fit into a BSPT fitting or vice versa but they will not seal. This is a popular fitting in China and Japan but is rarely used in North America. Thread sealant is needed to seal the male and female fitting together.

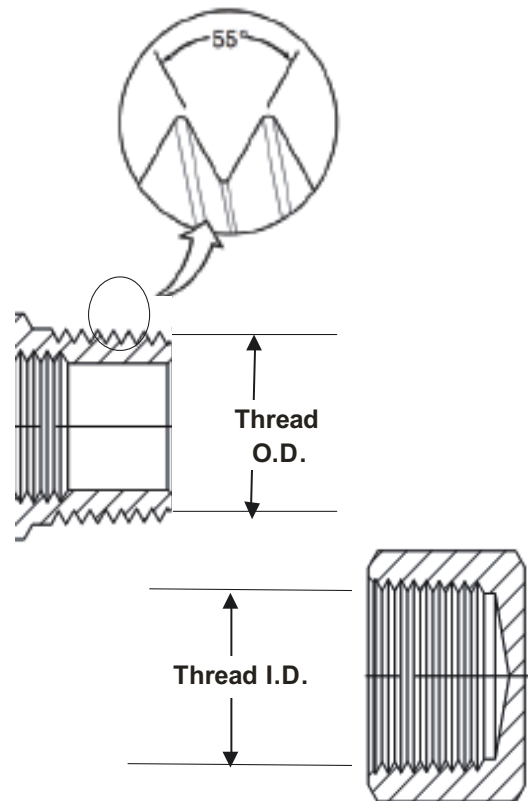
*\* Thread pitch (thread per inch, TPI)*

Inch Size	Pitch (Thread/Inch)	
	NPT	BSP
1/8	27	28
1/4	18	19
3/8	18	19
1/2	14	14
5/8	--	14
3/4	14	14
1	11 1/2	11

## British Standard Parallel Pipe (BSPP)

*Known as "G" thread*

BSPP is most popular in the UK, Europe, Asia, Australia, New Zealand and South Africa. It is a parallel thread fitting that uses a bonded seal ring to do the sealing. This bonded ring seal is sandwiched in-between a shoulder on the male fitting and the face of the female fitting and is squeezed in place. BSPP pressure gauges have a longer male thread and use a copper crush washer that is squeezed in between the bottom of the male fitting and the bottom of the female BSPP hole forming a pressure tight seal. No thread sealant is needed to form a seal.



## Male Rigid



	New Part No.	Old Part No.	Hose size ID x OD	Thread Size
NPT	H316-2MSBR	H316-2M	3/16" x 5/16"	1/4" NPT
	H14-2MSBR	H14-2M	1/4" x 3/8"	1/4" NPT
	H14-3MSBR	H14-3M	1/4" x 3/8"	3/8" NPT
	H2164-3MSBR	H2164-3M	21/64" x 1/2"	3/8" NPT
	H2164-4MSBR	H2164-4M	21/64" x 1/2"	1/2" NPT
	H38-3MSBR	H38-3M	3/8" x 9/16"	3/8" NPT
	H1332-3MSBR	H1332-3M	13/32" x 5/8"	3/8" NPT
	H1332-4MSBR	H1332-4M	13/32" x 5/8"	1/2" NPT
	H12-4MSBR	H12-4M	1/2" x 3/4"	1/2" NPT
BSPT	H4-1MSBR	H4-1M	4 x 6 mm	1/8" BSPT
	H4-2MSBR	H4-2M	4 x 6 mm	1/4" BSPT
	H5-1MSBR	H5-1M	5 x 8 mm	1/8" BSPT
	H5-2MSBR	H5-2M	5 x 8 mm	1/4" BSPT
	H5-3MSBR	H5-3M	5 x 8 mm	3/8" BSPT
	H6-2MSBR	H6-2M	6 x 9 mm	1/4" BSPT
	H6-3MSBR	H6-3M	6 x 9 mm	3/8" BSPT
	H6.5-2MSBR	H6.5-2M	6.5 x 10 mm	1/4" BSPT
	H6.5-3MSBR	H6.5-3M	6.5 x 10 mm	3/8" BSPT
	H8-2MSBR	H8-2M	8 x 12 mm	1/4" BSPT
	H8-3MSBR	H8-3M	8 x 12 mm	3/8" BSPT
	H11-3MSBR	H11-3M	11 x 16 mm	3/8" BSPT
	H11-4MSBR	H11-4M	11 x 16 mm	1/2" BSPT
	H16-4MSBR	H16-4M	16 x 21 mm	1/2" BSPT

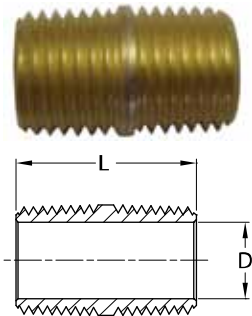
## Male Swivel



	New Part No.	Old Part No.	Hose size ID x OD	Thread Size
NPT	H316-2MUSBR	H316-2MU	3/16" x 5/16"	1/4" NPT
	H14-2MUSBR	H14-2MU	1/4" x 3/8"	1/4" NPT
	H14-3MUSBR	H14-3MU	1/4" x 3/8"	3/8" NPT
	H2164-2MUSBR	H2164-2MU	21/64" x 1/2"	1/4" NPT
	H2164-3MUSBR	H2164-3MU	21/64" x 1/2"	3/8" NPT
	H2164-4MUSBR	H2164-4MU	21/64" x 1/2"	1/2" NPT
	H38-3MUSBR	H38-3MU	3/8" x 9/16"	3/8" NPT
	H1332-3MUSBR	H1332-3MU	13/32" x 5/8"	3/8" NPT
	H1332-4MUSBR	H1332-4MU	13/32" x 5/8"	1/2" NPT
	H12-4MUSBR	H12-4MU	1/2" x 3/4"	1/2" NPT
BSPT	H5-1MUSBR	H5-1MU	5 x 8 mm	1/8" BSPT
	H5-2MUSBR	H5-2MU	5 x 8 mm	1/4" BSPT
	H6-2MUSBR	H6-2MU	6 x 9 mm	1/4" BSPT
	H6.5-2MUSBR	H6.5-2MU	6.5 x 10 mm	1/4" BSPT
	H6.5-3MUSBR	H6.5-3MU	6.5 x 10 mm	3/8" BSPT
	H8-3MUSBR	H8-3MU	8 x 12 mm	3/8" BSPT
	H11-4MUSBR	H11-4MU	11 x 16 mm	1/2" BSPT

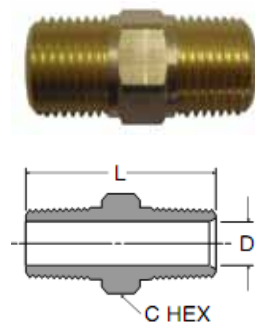
Call for availability for Female Rigid & Female Swivel fittings!

## Male Connector - Close Nipple



Part No.	Threads	L Length	Flow Dia. D
MCC01-01	1/8"	0.750"	0.281"
MCC02-02	1/4"	0.880"	0.375"
MCC03-03	3/8"	1.000"	0.500"
MCC04-04	1/2"	1.130"	0.625"
MCC06-06	3/4"	1.310"	0.750"

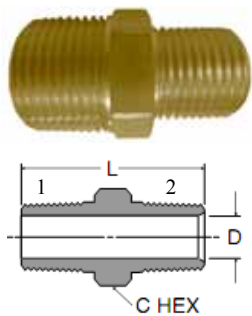
## Male Connector - Hex Nipple



Part No.	Threads	C Hex	L Length	Flow Dia. D
MC01-01	1/8"	7/16"	0.970"	0.220"
MC02-02	1/4"	9/16"	1.380"	0.314"
MC03-03	3/8"	11/16"	1.410"	0.440"
MC04-04	1/2"	7/8"	1.810"	0.564"
MC06-06*	3/4"	1-1/16"	1.810"	0.752"

\* = Non Stock Item

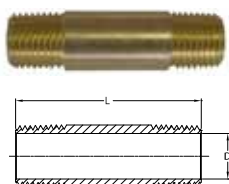
## Male Connector - Hex Nipple Reducer



Part No.	Threads 1	Threads 2	C Hex	L Length	Flow Dia. D
MC02-01	1/4"	1/8"	9/16"	1.190"	0.220"
MC03-01	3/8"	1/8"	11/16"	1.220"	0.220"
MC03-02	3/8"	1/4"	11/16"	1.410"	0.314"
MC04-02	1/2"	1/4"	7/8"	1.620"	0.314"
MC04-03	1/2"	3/8"	7/8"	1.620"	0.440"
MC06-04*	3/4"	1/2"	1-1/16"	1.800"	0.564"

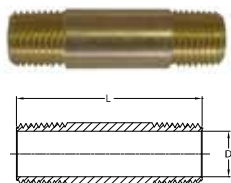
\* = Non Stock Item

## Male x Male Connector - Long Nipple



Part No.	Threads	L Length	Flow Dia. D
MCL01-15	1/8"	1.500"	0.250"
MCL02-15	1/4"	1.500"	0.375"
MCL03-15	3/8"	1.500"	0.500"
MCL04-15	1/2"	1.500"	0.625"

## (continues) Male x Male Connector - Long Nipple



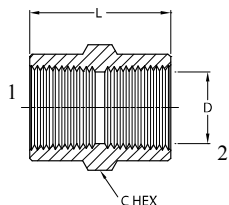
Part No.	Threads	L Length	Flow Dia. D
MCL01-20	1/8"	2.00"	0.250"
MCL02-20	1/4"	2.00"	0.375"
MCL03-20	3/8"	2.00"	0.500"
MCL04-20	1/2"	2.00"	0.625"
MCL01-25	1/8"	2.50"	0.250"
MCL02-25	1/4"	2.50"	0.375"
MCL03-25	3/8"	2.50"	0.500"
MCL04-25	1/2"	2.50"	0.625"
MCL01-30	1/8"	3.00"	0.250"
MCL02-30	1/4"	3.00"	0.375"
MCL03-30	3/8"	3.00"	0.500"
MCL04-30	1/2"	3.00"	0.625"



## Female Connector - Coupling

Part No.	Threads 1	Threads 2	C Hex	L Length	Flow Dia. D
FC01-01	1/8"	1/8"	9/16"	0.750"	0.339"
FC02-02	1/4"	1/4"	3/4"	1.120"	0.441"
FC03-03	3/8"	3/8"	7/8"	1.120"	0.517"
FC04-04	1/2"	1/2"	1-1/16"	1.500"	0.703"
FC06-06L*	3/4"	3/4"	1-3/8"	1.190"	0.906"

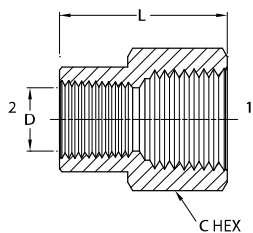
\* = Non Stock Item



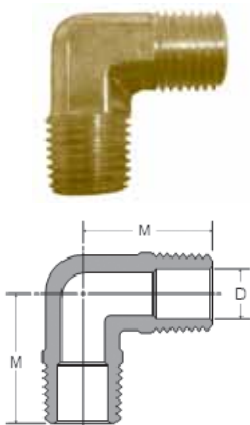
## Female Connector - Reducer Coupling

Part No.	Threads 1	Threads 2	C Hex	L Length	Flow Dia. D
FC02-01	1/4"	1/8"	3/4"	0.970"	0.339"
FC03-02	3/8"	1/4"	7/8"	1.160"	0.441"
FC04-02	1/2"	1/4"	1-1/16"	1.280"	0.441"
FC04-03	1/2"	3/8"	1-1/16"	1.380"	0.517"
FC06-03*	3/4"	3/8"	1-3/8"	1.320"	0.517"
FC06-04*	3/4"	1/2"	1-3/8"	1.190"	0.703"

\* = Non Stock Item

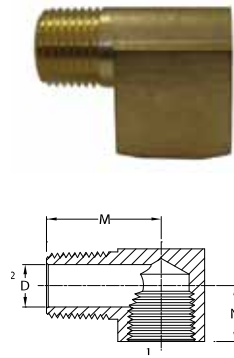






## Male Connector - Male Elbow

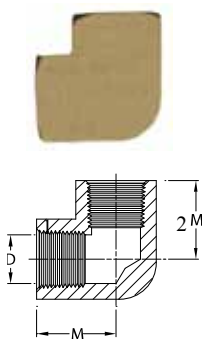
Part No.	Threads	M	Flow Dia. D
ML01-01	1/8"	0.71"	0.220"
ML02-02	1/4"	0.90"	0.312"
ML03-03	3/8"	1.09"	0.408"
ML04-04	1/2"	1.41"	0.502"



## Street Elbow

Part No.	Threads 1	Threads 2	M	N	Flow Dia. D
STL01-01	1/8"	1/8"	0.66"	0.48"	0.22"
STL02-02	1/4"	1/4"	0.91"	0.72"	0.34"
STL03-03	3/8"	3/8"	0.97"	0.78"	0.41"
STL04-04	1/2"	1/2"	1.25"	1.03"	0.56"
STL06-06*	3/4"	3/4"	1.39"	1.10"	0.75"

\* = Non Stock Item

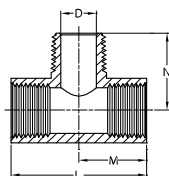


## Female Union Elbow

Part No.	Threads 1	Threads 2	M	Flow Dia. D
FL01-01	1/8"	1/8"	0.55"	0.339"
FL02-02	1/4"	1/4"	0.78"	0.441"
FL03-03	3/8"	3/8"	0.84"	0.571"
FL04-04	1/2"	1/2"	1.07"	0.703"



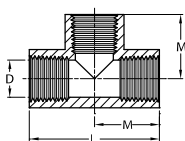
## Male Branch Tee



Part No.	Threads	M	N	L Length	Flow Dia. D
FBT01-01	1/8"	0.53"	0.66"	1.060"	0.220"
FBT02-02	1/4"	0.76"	0.91"	1.520"	0.314"
FBT03-03	3/8"	0.84"	0.97"	1.680"	0.440"
FBT04-04	1/2"	1.09"	1.25"	2.180"	0.564"
FBT06-06*	3/4"	1.16"	1.38"	2.320"	0.752"

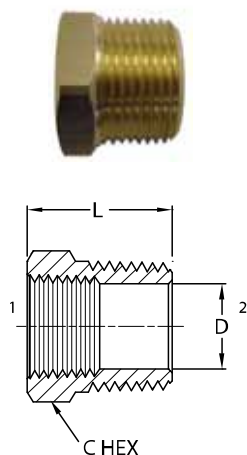
\* = Non Stock Item

## Union Tee



Part No.	Threads	M	L Length	Flow Dia. D
FT01-01	1/8"	0.53"	1.060"	0.339"
FT02-02	1/4"	0.76"	1.520"	0.441"
FT03-03	3/8"	0.84"	1.680"	0.571"
FT04-04	1/2"	1.07"	2.140"	0.703"

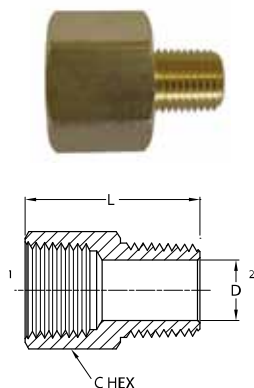
## Bushings



Part No.	Threads 1	Threads 2	C Hex	L Length	Flow Dia. D
BU02-01	1/8"	1/4"	9/16"	0.750"	0.339"
BU03-01	1/8"	3/8"	11/16"	0.750"	0.339"
BU04-01	1/8"	1/2"	7/8"	1.000"	0.339"
BU06-01*	1/8"	3/4"	1-1/8"	1.000"	0.339"
BU03-02	1/4"	3/8"	3/4"	0.750"	0.441"
BU04-02	1/4"	1/2"	7/8"	1.000"	0.441"
BU06-02*	1/4"	3/4"	1-1/8"	1.000"	0.441"
BU04-03	3/8"	1/2"	7/8"	1.000"	0.571"
BU06-03*	3/8"	3/4"	1-1/8"	1.000"	0.571"
BU06-04*	1/2"	3/4"	1-1/8"	1.000"	0.703"
BU08-04*	1/2"	1"	1-3/8"	1.310"	0.703"
BU08-06*	3/4"	1"	1-3/8"	1.310"	0.906"

\* = Non Stock Item

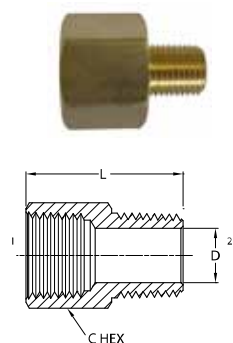
## Male x Female Connector - Equal



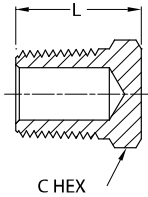
Part No.	Threads 1	Threads 2	C Hex	L Length	Flow Dia. D
MFC01-01	1/8"	1/8"	9/16"	0.880"	0.220"
MFC02-02	1/4"	1/4"	3/4"	1.250"	0.314"
MFC03-03	3/8"	3/8"	7/8"	1.250"	0.440
MFC04-04*	1/2"	1/2"	1-1/16"	1.660"	0.564"
MFC06-06*	3/4"	3/4"	1-3/8"	1.690"	0.752"

\* = Non Stock Item

## Male x Female Connector - Equal & Reducing



Part No.	Threads 1	Threads 2	C Hex	L Length	Flow Dia. D
MFC02-01	1/4"	1/8"	3/4"	1.060"	0.220"
MFC03-01	3/8"	1/8"	7/8"	1.100"	0.220"
MFC03-02	3/8"	1/4"	7/8"	1.250"	0.314"
MFC04-02*	1/2"	1/4"	1"	1.470"	0.314"
MFC04-03	1/2"	3/8"	1-1/16"	1.470"	0.440"
MFC06-03*	3/4"	3/8"	1-3/8"	1.500"	0.440"
MFC06-04*	3/4"	1/2"	1-3/8"	1.690"	0.564"

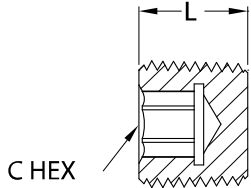


## Hex-Head Plug

Part No.	Threads	C Hex	L Length
HHP01	1/8"	7/16"	0.560"
HHP02	1/4"	9/16"	0.747"
HHP03	3/8"	11/16"	0.780"
HHP04	1/2"	7/8"	0.970"
HHP06*	3/4"	1-1/16"	1.054"

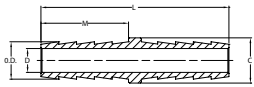
\* = Non Stock Item

## Countersunk Hex-Head Plug



Part No.	Threads	C Hex	L Length
RHP01*	1/8"	3/16"	0.300"
RHP02	1/4"	1/4"	0.460"
RHP03	3/8"	5/16"	0.460"
RHP04	1/2"	3/8"	0.610"
RHP06*	3/4"	9/16"	0.620"

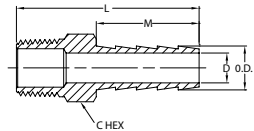
\* = Non Stock Item



## Hose Mender

Part No.	Hose I.D.	C Dia.	L Length	M	O.D.	Flow Dia. D
HM14-00	1/4"	7/16"	2.000"	0.97"	0.290"	0.187"
HM516-00	5/16"	9/16"	2.000"	0.97"	0.353"	0.250"
HM38-00	3/8"	11/16"	2.000"	0.97"	0.415"	0.281"
HM12-00	1/2"	7/8"	2.000"	0.97"	0.530"	0.375"
HM34-00*	3/4"	1-1/16"	2.000"	0.97"	0.790"	0.562"

\* = Non Stock Item



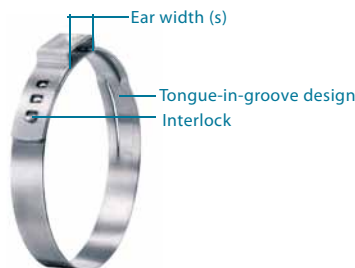
## Hose Barb

Part No.	Hose I.D.	Pipe Thread	C Hex	L Length	M	O.D.	Flow Dia. D
HBM14-01	1/4"	1/8"	7/16"	1.540"	0.97"	0.290"	0.187"
HBM14-02	1/4"	1/4"	9/16"	1.720"	0.97"	0.290"	0.187"
HBM14-03	1/4"	3/8"	11/16"	1.770"	0.97"	0.290"	0.187"
HBM516-01*	5/16"	1/8"	7/16"	1.540"	0.97"	0.353"	0.250"
HBM516-02*	5/16"	1/4"	9/16"	1.720"	0.97"	0.353"	0.250"
HBM516-03*	5/16"	3/8"	11/16"	1.770"	0.97"	0.353"	0.250"
HBM38-01	3/8"	1/8"	7/16"	1.540"	0.97"	0.415"	0.281"
HBM38-02	3/8"	1/4"	9/16"	1.720"	0.97"	0.415"	0.281"
HBM38-03	3/8"	3/8"	11/16"	1.770"	0.97"	0.415"	0.281"
HBM38-04	3/8"	1/2"	7/8"	1.970"	0.97"	0.415"	0.281"
HBM12-02	1/2"	1/4"	9/16"	1.720"	0.97"	0.530"	0.375"
HBM12-03	1/2"	3/8"	11/19"	1.770"	0.97"	0.530"	0.375"
HBM12-04	1/2"	1/2"	7/8"	1.970"	0.97"	0.530"	0.375"
HBM12-06*	1/2"	3/4"	1-1/16"	1.980"	0.97"	0.530"	0.375"
HBM58-03*	5/8"	3/8"	11/16"	1.770"	0.97"	0.645"	0.468"
HBM58-04*	5/8"	1/2"	7/8"	1.970"	0.97"	0.645"	0.468"
HBM58-06*	5/8"	3/4"	1-1/16"	1.980"	0.97"	0.645"	0.468"
HBM34-04*	3/4"	1/2"	7/8"	1.970"	0.97"	0.790"	0.562"
HBM34-06*	3/4"	3/4"	1-1/16"	1.980"	0.97"	0.790"	0.562"
HBM1-06*	1"	3/4"	1-1/16"	2.180"	1.17"	1.020"	0.750"
HBM1-08*	1"	1"	1-3/8"	2.360"	1.17"	1.020"	0.750"

\* = Non Stock Item

# OETIKER® Stepless® Ear Clamps & 2 Ear Clamps

# ATP



**Narrow band:** concentrates transmission of clamping force, less weight

**Stepless over 360°:** uniform compression or uniform surface pressure

**Clamp ear:** compensates for component tolerances, adjustable surface pressure

**Dimple:** increases clamping force, spring-effect compensates for changes in diameter due to thermal expansion

**Specially formed strip edges:** reduced risk of damage to parts being clamped

**Material:** 167 Stainless Steel, Material no. 1.4301/UNS S30400

**Bag qty:** 100

Part No.	Nom. Tube Size	Range (mm) Close-Open	Range (inch) Close-Open
16700001	1/4	5.8 - 7.0	.228 - .276
16700002	1/4	6.8 - 8.0	.268 - .315
16700003	5/16	7.0 - 8.7	.276 - .343
16700004	3/8	7.8 - 9.5	.307 - .374
16700005	25/64	8.3 - 10.0	.327 - .394
16700006	13/32	8.8 - 10.5	.346 - .413
16702492	27/64	9.2 - 10.9	.362 - .429
16700007	7/16	9.6 - 11.3	.378 - .445
16700008	29/64	10.1 - 11.8	.398 - .465
16700009	15/32	9.8 - 12.3	.386 - .484
16702493	1/2	10.3 - 12.8	.406 - .504
16700010	1/2	10.8 - 13.3	.425 - .524
16700011	17/32	11.3 - 13.8	.445 - .543
16700012	35/64	11.5 - 14.0	.453 - .551
16700013	9/16	12.0 - 14.5	.472 - .571
16700014	37/64	12.3 - 14.8	.484 - .583
16700015	19/32	12.8 - 15.3	.504 - .602
16700016	5/8	13.2 - 15.7	.520 - .618
16702494	5/8	13.7 - 16.2	.539 - .638
16700017	11/16	14.5 - 17.0	.571 - .669
16700020	23/32	15.3 - 18.5	.602 - .728
16702498	3/4	16.6 - 19.8	.654 - .780
16700024	25/32	17.8 - 21.0	.701 - .827
16700026	7/8	19.4 - 22.6	.764 - .890
16700029	15/16	20.9 - 24.1	.823 - .949
16700033	1	23.9 - 27.1	.941 - 1.067
16700035	1-1/8	25.4 - 28.6	1.000 - 1.126
16700037	1-5/32	26.9 - 30.1	1.059 - 1.185



**2-Ear version:** extended clamping range

**Compact one-piece clamp:** for robust, secure connections

**Clamp ear:** fast and simple installation, visible deformation provides evidence of proper closure

**Deburred edges:** reduced risk of damage to parts being clamped

**Material:** 101 Steel, Material no. 1.0338/SAE 1008/1010, zinc-plated

**Bag qty:** 100

Part No.	Nom. Tube Size	Range (mm) Close-Open	Range (inch) Close-Open
10100000	5/32	3.1 - 4.1	.122 - .161
10100001	11/64	3.5 - 4.5	.137 - .177
10100002	3/16	3.4 - 5	.133 - .196
10100004	1/4	5 - 7	.196 - .275
10100008	5/16	7 - 9	.275 - .354
10100011	3/8	8.1 - 11	.318 - .433
10100016	1/2	10.8 - 13	.425 - .511
10100019	9/16	12.5 - 15	.492 - .590
10100022	19/32	14 - 17	.551 - .669
10100024	5/8	15 - 18	.590 - .708
10100027	3/4	16.2 - 20	.637 - .787
10100029	13/16	18 - 22	.708 - .866
10100030	7/8	19 - 23	.748 - .905
10100032	15/16	21 - 25	.826 - .984
10100034	1	22.5 - 27	.885 - 1.06
10100035	1-1/16	24 - 28	.944 - 1.10
10100037	1-1/8	26.3 - 31	1.03 - 1.22
10100041	1-5/16	29.3 - 34	1.15 - 1.33
10100043	1-7/16	32 - 37	1.25 - 1.45
10100045	1-1/2	35 - 40	1.37 - 1.69
10100047	1-5/8	37.6 - 43	1.48 - 1.69
10100049	1-3/4	40.6 - 46	1.59 - 1.81



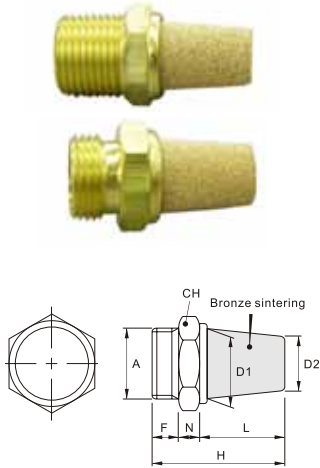
# SAE Type Mini “M” Series - 5/16” Wide Worm Gear Clamps

# ATP



Part No.	Range in decimals (in)		Bag qty
MM4-100	0.25	0.63	100
MM4-10	0.25	0.63	10
MM5-100	0.31	0.91	100
MM5-10	0.31	0.91	10
MM10-100	0.56	1.06	100
MM10	0.56	1.06	10
MM12-100	0.50	1.25	100
MM12-10	0.50	1.25	10
MM16-100	0.50	1.50	100
MM16-10	0.50	1.50	10
MM20-100	0.75	1.75	100
MM20-10	0.75	1.75	10
MM24-100	1.00	2.00	100
MM24-10	1.00	2.00	10
MM4SS-100	0.25	0.63	100
MM4SS-10	0.25	0.63	10
MM5SS-100	0.31	0.91	100
MM5SS-10	0.31	0.91	10
MM10SS-100	0.56	1.06	100
MM10SS-10	0.56	1.06	10
MM12SS-100	0.50	1.25	100
MM12SS-10	0.50	1.25	10
MM16SS-100	0.50	1.50	100
MM16SS-10	0.50	1.50	10
MM20SS-100	0.75	1.75	100
MM20SS-10	0.75	1.75	10
MM24SS-100	1.00	2.00	100
MM24SS-10	1.00	2.00	10
MMF4SS-100	0.25	0.63	100
MMF4SS-10	0.25	0.63	10
MMF5SS-100	0.31	0.91	100
MMF5SS-10	0.31	0.91	10
MMF10SS-100	0.56	1.06	100
MMF10SS-10	0.56	1.06	10
MMF12SS-100	0.50	1.25	100
MMF12SS-10	0.50	1.25	10
MMF16SS-100	0.50	1.50	100
MMF16SS-10	0.50	1.50	10
MMF20SS-100	0.75	1.75	100
MMF20SS-10	0.75	1.75	10
MMF24SS-100	1.00	2.00	100
MMF24SS-10	1.00	2.00	10

## Sintered Bronze Muffler



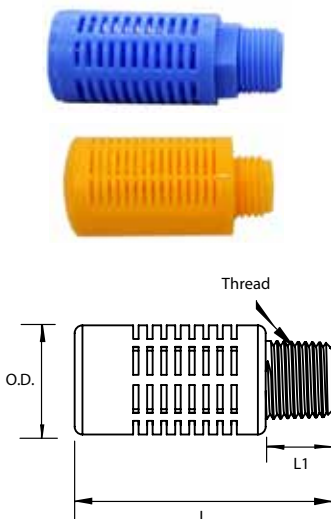
Part No.	A	CH	D1	D2	F	H	L	N
SBM01	1/8 NPT	0.472"	0.315"	0.276"	0.236"	0.945"	0.551"	0.158"
SBM02	1/4 NPT	0.669"	0.472"	0.394"	0.315"	1.181"	0.709"	0.158"
SBM03	3/8 NPT	0.709"	0.551"	0.433"	0.354"	1.378"	0.827"	0.197"
SBM04	1/2 NPT	0.945"	0.748"	0.591"	0.393"	1.732"	1.102"	0.236"
SBM-M5	M5	8mm	5mm	4mm	5mm	20mm	12mm	3mm
SBM01-PT	1/8 BSPT	12mm	8mm	7mm	6mm	24mm	14mm	4mm
SBM02-PT	1/4 BSPT	16mm	12mm	10mm	8mm	30mm	18mm	4mm
SBM03-PT	3/8 BSPT	18mm	14mm	11mm	9mm	35mm	21mm	5mm
SBM04-PT	1/2 BSPT	24mm	19mm	15mm	10mm	44mm	28mm	6mm

## Brass/Wire Mesh Muffler



Part No.	A	CH	F	L	N
BWM-01	1/8 NPT	0.472"	0.236"	0.472"	0.158"
BWM-02	1/4 NPT	0.669"	0.315"	0.591"	0.158"
BWM-03	3/8 NPT	0.748"	0.354"	0.669"	0.197"
BWM-04	1/2 NPT	0.945"	0.393"	0.728"	0.236"
BWM-M5	M5	8mm	5mm	9.5mm	3mm
BWM-01-PT	1/8 BSPT	12mm	6mm	12mm	4mm
BWM-02-PT	1/4 BSPT	16mm	8mm	15mm	4mm
BWM-03-PT	3/8 BSPT	18mm	9mm	17mm	5mm
BWM-04-PT	1/2 BSPT	24mm	10mm	18.5mm	6mm

## Plastic/Felt Muffler



Part No.	Body Color	Thread	O.D.	L1	L
PFM01	Blue	1/8 NPT	0.551"	0.335"	1.299"
PFM02	Blue	1/4 NPT	0.669"	0.394"	1.673"
PFM03	Blue	3/8 NPT	0.866"	0.591"	2.146"
PFM04	Blue	1/2 NPT	1.023"	0.669"	2.697"
PFM01-PT	Yellow	1/8 BSPT	14mm	8.5mm	33mm
PFM02-PT	Yellow	1/4 BSPT	17mm	10mm	42.5mm
PFM03-PT	Yellow	3/8 BSPT	22mm	15mm	54.5mm
PFM04-PT	Yellow	1/2 BSPT	26mm	17mm	68.5mm



At ATP, we have developed the latest technology in tubing, spiral recoil & straight hoses, fittings and pneumatic accessories. In keeping with current market demands, our products offer ergonomics and safety advancements to help support assembly and automation applications.



#### Tubing - PTFE, FEP & Nylon

Only the highest-quality materials go into manufacturing our tubing. Over 50 stock sizes and 12 stock colors in both fractional and metric dimensions. Different Compounds and hardness are available upon request.



#### Spiral Recoil Hoses

Techniblu™, Technithane™ and our industry exclusives—the “Strong™” and “Strong-Plus™.” A tighter coil ID gives our Strong hoses better memory retention. The “Plus” is a lightweight, ergonomic, hose whip providing surface protection and operator comfort. Custom models are our specialty.



#### Technibond®

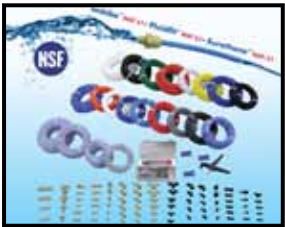
Thermally-bonded, polyurethane tube groupings available in straight and spiral configurations. Wire can be added to carry electric. Custom configurations welcome with no minimum quantities.

**New & Improved!**



#### ARMOR-AIR™ Contractors Air Hose

This upgraded hose has been formulated with a lighter clear blue color to allow a better view of contaminants. The redesigned bend restrictors and nickel plated fittings allow for more longevity, while providing a more professional look and feel. Lightweight, flexible, and much more abrasion-resistant than traditional rubber air hoses makes Armor-Air™ a must have for any compressed air application.



#### Beverage Fittings and Tubings

Our Surethane™ polyurethane tubing and Imbibe™ linear low density polyethylene tubing are NSF certified to 51 and 61 respectively for food, beverage & potable water markets.



#### Weld Tubing

Polyurethane tubing covered with a flame-resistant layer. Meets UL94V0 rating. Designed for robotic welding and other severe-service applications. Can be bonded & spiraled.



#### Oetiker® Clamps

The Oetiker® Clamp creates a spring effect when the hose material expands or contracts in response to thermal or mechanical influences such as temperature, vibration, etc. Single ear, double ear and stepless in both carbon steel and stainless steel.



#### Technifit™ Push-To-Connect Fitting

All are made to extremely tight tolerances and work with ATP tubing to eliminate leaks. Our variety of fittings represents a large selection of the most common models, sizes and materials. Additional models and sizes are available as special order.



#### Quick Disconnect Couplings

Available in low pressure, steel, brass and stainless for pneumatic applications. Several models of safety couplings are also available from stock.



#### Free Angle® Swivel Fitting

The rubber boot has been replaced by an exclusive steel cover giving it a much longer service life. Our two rotation points make this superior to the imitators. The ergonomic, patented 360° circular rotation and 45° angled rotation makes this fitting indispensable for air tool and assembly applications.



#### Blow Guns

ATP offers a wide variety of blow guns ranging from an economical safety blow gun to rugged high end ultra quiet blow guns, all available with various interchangeable nozzles.



#### Hose & Cable Balancers

Durable cases and high-quality internal components make up our balancers. Ideal for workstation ergonomics.

Viton® is a registered trademark of the E.L. DuPont Co.

