SERVICE FITTINGS



Mueller Co. offers a variety of proven service connections to fit most pipe and tubing used in today's service lines. These connections include the Mueller 110[®] Compression Connection,

Mueller Pack Joint Connection, Mueller INSTA-TITE[®] Connection, Mueller GRIP Connection, copper flare connection and several types of threaded connections.

The Mueller 110 Compression Connection offers high resistance to pull-out, fast installation, and a visual means to check for proper tightness. This connection is available on most Mueller valves and stops in sizes from 3/4" to 2", and for CTS tubing or IPS pipe.

All service brass will comply with AWWA C-800. Components in contact with potable water will also comply with latest requirements of the Federal Safe Drinking Water Act.

Mueller 110[®] Compression Connection Features

- Nut corrosion resistant cast bronze ASTM B62 (85- 5-5-5). Bottoms out on shoulder of coupling to give quick visual indication of proper tightening.
- Two Designs conductive compression connection fits type "K" copper tubing and CTS O.D. PE plastic tubing. A separate design fits IPS PE plastic pipe. Recommended stainless steel liners for plastic tubing and pipe available.
- Conductor Spring provides metal-to-metal contact between copper tubing and fitting for electrical conductivity.
- □ **Gasket** compresses concave gripper band and seals against fitting body, pipe and nut. Uniform pressure is applied around the concave gripper, forcing each outer edge to grip the pipe for pull-out resistance .

- Entire Gasket is enclosed to resist cold flow & creep.
- Fluorocarbon Coating on inside surface of nut reduces tightening effort and avoids gasket
- Pressure Rating The pressure holding capability of the Mueller 110 Compression Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).
- Gripper Band is stainless steel and overlaps itself so no gasket material can get underneath.



Rev. 3-15 Shaded area indicates changes

Mueller[®] INSTA-TITE[®] Connection



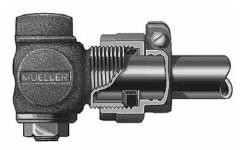
- Body is cast from corrosion resistant Low Lead bronze in compliance with AWWA C-800.
- □ **Large Wrench Flats** provide generous gripping area for tightening connections to valve bodies.
- Two Designs are available to fit either CTS O.D. PE plastic tubing or IPS PE plastic pipe.
- Simple Design eliminates flaring, heating ,threading, cementing, and nut tightening. Liners (inserts) are not required.

- Pressure Rating The pressure holding capability of the Mueller INSTA-TITE Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).
- O-Ring between the connection housing and the tubing or pipe creates a positive seal. Any increase in pressure, up to the maximum rating of the PE tubing or pipe, increases the sealing force.
- Mueller INSTA-TITE Connection is used on polyethylene (PE) pipe or tubing only.
- Grip Ring is made from a high strength plastic and is designed to allow easy installation of the pipe or tubing while providing high resistance to pullout.
- □ **Color Coded** grip ring, RED for CTS O.D. and WHITE for IPS, aids in proper selection and use.



Copper Flare Connection

- Pressure Rating The pressure holding capability of the Mueller Copper Flare Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).
- Mueller[®] Copper Flare Connection is for use on type "K" copper tubing.
- Convex Surface in nut opposes convex surface on body to provide a line contact, assuring greater pullout resistance and a dependable seal.
- Extra Long Skirt on copper flare nut provides added support to tubing and reduces possibility of leaks.



Connection - Meets all applicable parts of AWWA C800

Mueller Co. - was instrumental in introducing the copper

flare connection to the water industry as an alternative to

standard.

the old lead connections.

- Nut corrosion resistant cast bronze ASTM B62 (85-5-5-5).
- Gasket compressed against the fitting and pipe outer surface by tightening of nut. Not interchangeable with the Mueller 110 Compression Connection gasket.

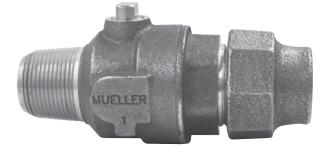
Pack Joint Connection

- Mueller PACK JOINT Connection available in three styles: for type "K" copper and PE tubing (CTS), for IPS PE (PEP) and PVC pipe.
- 3/4" & 1" CTS Nut/Gasket Are Interchangeable with comparable size of Mueller 110[®] Compression Connections nut/gasket assembly CTS only. (Note that 1-1/2" and 2" CTS components and all sizes of IPS components are NOT interchangeable.)
- Pressure Rating The pressure holding capability of the Mueller Pack Joint Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).



Mueller[®] Grip Compression Connection

The Mueller[®] Grip Compression Connection is a stab connection with large wrench flats. It is available in CTS and IPS. Products can be ordered by adding a "G" in front of an existing compression connection Part Number (EX: B25008N to G25008N).

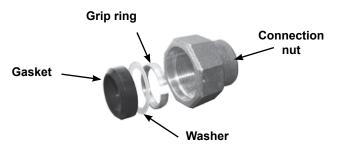


- Pressure Rating -The pressure holding capability of the Mueller Grip Compression Connection is designed to be greater than that of the valve or fitting on which it is used (only in potable water distribution applications complying with AWWA standards).
- □ **Gasket** compressed against the fitting and pipe outer surface by tightening of nut.

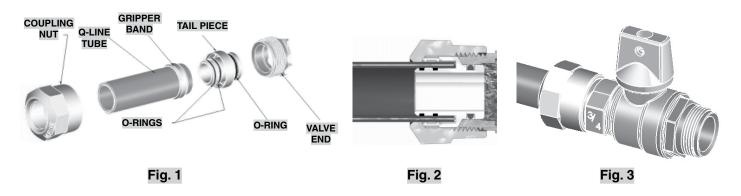


- Mueller Grip Compression Connection available for type "K" copper and PE tubing (CTS) and IPS PE pipe.
- Interchangeable with 110[®] CTS Compression Connection in 3/4" - 1" or CTS Pack Joint in 3/4" - 2".
 IPS with 3/4" and 1" PEP Pack Joint.
- **Nut** corrosion resistant cast bronze.

Size	Kit	Grip ring	Washer	Gasket	Connection nut
3/4" CTS	682861	312919	311692	537881	537838
1" CTS	682862	312920	311695	537882	537839
1-1/2" CTS	682863	312921	538107	537883	537840
2" CTS	682864	312922	538108	538109	537841
3/4" IPS	683023	313094	313695	311869	538320
1" IPS	683024	313095	312122	313098	538321



Mueller KITEC[®] Compression Connection



Grip Joint kits





Rev. 4-14 Shaded area indicates changes



Two Part Union Copper flare nut x female copper flare thread

H-15405N

3/4"	1"
------	----

1-1/2"



Straight three part union Copper flare nut-both ends

2"

H-15400N

1/2"	5/8"	5/8" x 1/2"	5/8" x 3/4"	3/4"	3/4" x 1/2"
3/4" x 1"	1"	1-1/4"	1-1/4' x 1"	1-1/2"	2"

1"



Eighth bend three part union Copper flare nut-both ends

H-15522N

3/4"



Eighth bend coupling

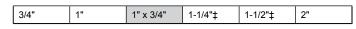
Copper flare nut x F.I.P.



H-15455N

3/4"

Quarter bend coupling Copper flare nut x F.I.P.



1" ±



Straight coupling Copper flare nut x M.I.P.

H-15425N

1/2"‡	1/2" x 3/4"		5/8" x 3/4"	3/4"	5/8" x 1/2"	3/4" x 1/2"
3/4" x 1"	1"	1" x 3/4"	1" x 1-1/4"‡	1-1/4"	1-1/2"	2"



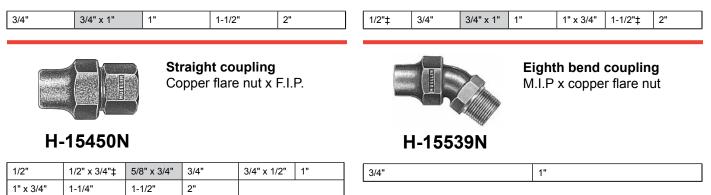
H-15525N

Quarter bend three part union Copper flare nut-both ends



Quarter bend coupling Copper flare nut x M.I.P.

H-15530N



NOTE: Sizes shown above represent normal size of fitting. When two sizes are given, the first is size of copper flare nut and second is size of threaded end. ‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.



Shaded area indicates change Rev. 8-15

O		Eighth bend coupling Swivel nut with female copper flare thread x copper flare nut					Eighth bend coupling Swivel nut with female Mueller [®] Coupling thread x copper flare nut					
H-1	5064N					H-1	5486N					
3/4"	1"		1-1/2"		2"	3/4"			1"			
0			Swivel	nut with flare thr	coupling female ead x copper	0	h		Swivel Muellei	e r bend c nut with r Couplin flare nut	female g thread x	
H-1	5069N					H-1	5491N					
3/4"	1"	3/4"	x 1"	1-1/2"	2"	1/2" x 3/4"	5/8" x 3/4"	3/4"		3/4" x 1"	1"	
0	Eighth bend coupling Swivel nut with female increasing I.P. thread (this thread is one size larger than nominal size of fitting) x copper flare nut		0			Female	n t coupli e copper flare nut	flare thread	x			
H-1	5471N					H-1	5062N					
3/4"			1" <i>‡</i>			3/4"x1"	1"x3/4	."		1"x1-1/4'		
0	Quarter bend coupling Swivel nut with female increasing I.P. thread (this thread is one size larger than nominal size of fitting) x copper flare nut			0			Female	bend co e copper flare nut	flare thread	x		
H-1	5476N					H-1	5063N					
3/4"			1"			3/4"	1"		1-1/2	•	2"	

Note: Sizes shown above represent nominal size of fitting. When two sizes are listed, the first is the size of threaded end and the second is size of copper flare nut. ‡Requires minimum ordering quantity. Contact MUELLER Customer Center for minimum order requirements and availability.



Rev. 4-14 Shaded area indicates changes

	Quarter bend coupling Female copper flare thread x copper flare nut	O D D C Straight coupling Female Mueller® Coupling thread x copper flare nut					
H-15068N		H-15480N					
3/4" 1" 1	"x3/4" 1-1/4" 1-1/2" 2"	1/2"x 3/4"5/8"x 3/4"	3/4" 3/4" x 1"1" 1" x 3/4				
H-15465N	Straight coupling Female increasing I.P.thread (this thread is one size larger than nominal size of fitting) x copper flare nut	O I I I I I I I I I I I I I I I I I I I	Eighth bend coupling Female Mueller Coupling thread x copper flare nut				
3/4"	1-1/2"‡	1/2"x3/4" 5/8"x3/4" 5/	8" x 1" 3/4" 3/4"x1" 1" 1"x3/4"				
	Eighth bend coupling Female increasing I.P. thread (this thread is one size larger than nominal size of fitting) x copper flare nut		Quarter bend coupling Female Mueller Coupling thread x copper flare nut				
H-15470N		H-15490N					
3/4" 1"	1-1/4" 1-1/2" 2"	1/2"x3/4" 5/8"x3/4"	3/4" 1" 1"x3/4"				
	Quarter bend couplingFemale increasing I.P. thread(this thread is one size largerthan nominal size of fitting) xcopper flare nut		Quarter bend coupling Internal swivel connection for 110 compression or pack joint CTS x copper flare nut				
H-15475N		H-15551N					
3/4" 1"	1-1/2" 2"	3/4"	1"				
	Straight coupling Female copper flare thread x M.I.P. thread		Straight coupling Female copper flare thread x F.I.P. thread				
H-15098N	,	H-15082N					
3/4"	1"	3/4" 1"	1-1/2" 2"				

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are listed, the first is the size of the threaded end and the second is size of copper flare nut. ‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability.



Shaded area indicates change Rev. 3-16

	0		Eighth bend cou Swivel nut with fe strong (XS) lead f x copper flare nut	male extra lange thread	
H-15506N		H-1551	6N		
1/2" 1/2" x 3/4" 5/8"	" x 3/4" 3/4" 3/4" x 5/8"	5/8" x 3/4"	3/4"	2"	
	Straight coupling Female extra strong (XS) lead flange thread x copper flare nut	O		Straight coupling Female double ex (XXS) lead flange copper flare nut	tra strong
H-15505N		H-1551	0N		
	8" 5/8" x 3/4" 3/4" 1/4" x 1" 1-1/2" 2"	5/8" x 3/4"	3/4"	2"	
	O	U-LL-S	Quarter bend co Female extra stro lead flange thread flare nut	ng (XS)	
H-15515N		H-1551	3N		
5/8" x 3/4" 3/4"	1"	1/2"x3/4" 5/8"x	3/4" 3/4	" 1"‡	1"x3/4"
Quarter bend coupling Female extra strong (XS) lead flange thread x copper flare nut (pre-1920)		0		Eighth bend cou Female double ext (XXS) lead flange copper flare nut	ra strong
H-15513-03N		H-1552	1N		
1"x3/4"		1/2" x 3/4"		3/4"	

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of lead flange end and second is size of copper flare nut. ‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.



COPPER FLARE TOOLS AND MISCELLANEOUS EQUIPMENT

Rev. 9-17 Shaded area indicates changes

Copper flare connection optional equipment

Copper flare nut	Solid copper disc Used with regular copper flare nut to shut off line.	Brass cap Used with regular copper flare nut to shut off line. Fits on copper flare spud to cap off line.		
CATALOG NUMBER: H-15430	CATALOG NUMBER: H-15535	CATALOG NUMBER: H-15540N		
1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	1/2" 3/4" 1" 1-1/4" 1-1/2" 2"	3/4" 1" 1-1/2" 2"		
Flaring tool Used to make 45° flare on type "K" copper tubing.	Drilled flaring tool Used to make 45° flare on type "K" copper tubing without shutting off water drilled to exhaust water at right angle to tubing.	copper tubing to remove burrs prior		
CATALOG NUMBER: H-18000	CATALOG NUMBER: H-18005	CATALOG NUMBER: N/A		
1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2"	3/4" 1"	1/2" 3/4" 1"		
Brass Hammer Solid brass head with	Note: When using any strik- ing tool, safety eye protection must be worn. Inspect ham-	Copper Gasket		
10" wooden handle. Weight 2-3/4 lb. CATALOG NUMBER: H-18025	mer and tools for any damage after each use and repair or replace if mushrooming or chipping is evident. Re Fe as Va us	eplacement gasket to be used inside emale Copper Service Thread when esembling Fitting onto a Corporation alve/Stop. Gasket is intended for single se only and must be replaced if Fitting is sassembled or reused.		

SERVICE FITTINGS WITH MUELLER 110[®] COMPRESSION CONNECTION



Shaded area indicates change Rev. 10-14

Mueller 110 Conductive Com-

pression Connection for CTS

O.D.* tubing x F.I.P. thread

Straight coupling



H-15403N

Straight three part union Mueller 110[®] Conductive Compression Connection for CTS O.D.* tubing-both ends

1/2"	1/2"x3/4"	5/8"x3/4"	5	/8"	3/4"	1"	
1"x3/4"	1-1/4"	1-1/4"x1"		1-'	1/2"	1-1/2"x1"	2"



H-15404N

E-15409N

H-15413N

3/4"x1"

1"

3/4"

3/4"**

1"

Straight coupling Mueller 110 Conductive Compression Connection for CTS O.D.* tubing x M.I.P. thread

Straight three part union

Mueller 110[®] Compression

1"x3/4"

Connection for IPS PE*

pipe-both ends

Straight coupling

Mueller 110 Conductive

Compression Connection for

CTS O.D. tubing x Pack Joint Connection for IPS PE pipe **Note: 3/4" size only may also be used

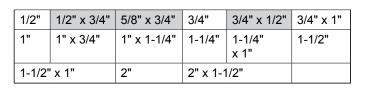
Straight Female coupling

Swivel x 110 CTS Conductive

Compression Connection for

Mueller Coupling Thread

1/2"‡	1/2" x 3/4"	5/8" x 3/4"	3/4"	3/4" x 1/2"	3/4" x 1"
1"	1" x 3/4"	1-1/4"	1-1/4" x 1"		1-1/2"
1-1/2" x 1"		1-1/2" x 2"	1" x 2"	2"	2" x 1-1/2"





H-15451N

Straight coupling Mueller 110 Compression Connection for IPS PE* pipe x M.I.P. thread

H-15429N

3/4"

3/4"



Straight coupling three part union Mueller 110 Conductive Compression Connection for CTS O.D.* tubing x 110 Compression Connection for IPS PE* pipe

1"x3/4"

1"x3/4"

3/4" 3/4"x1

H-15409N



1"

Straight coupling Mueller 110 Compression Connection for IPS PE* pipe x F.I.P. thread

H-15454N

1" 1"x3/4"



Straight coupling

1"

Mueller 110 Conductive Compression Connection for CTS O.D. tubing x copper flare nut

H-15079N

3/4"

1"x3/4"

*See chart on page 6.11 for tubing and pipe that may be used with these connections.

on PVC

1"

CTS O.D.

‡Requires minimum ordering quantity. Contact MUÉLLER Customer Service Center for minimum ordering requirements and availability.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER 110 Compression Connection and second is size of threaded end.



SERVICE FITTINGS WITH MUELLER 110[®] COMPRESSION CONNECTION

Rev. 1-17 Shaded area indicates changes

Quarter bend coupling Mueller 110 Conductive Compression Connection for CTS O.D.* tubing x F.I.P. threadH-15533N			ļ	-15526	Mue Com CTS	rter bend ur Iller 110 Con Ipression Co O.D.* tubing	ductive nnection for	
3/4"	3/4" x 1" 1"	1" x 3/4" 1-1/2"	2"	3/4"	1"	1" x 3/4"	1-1/2"	2"
Eight bend coupling Mueller 110 [®] Conductive Compression Connection for CTS O.D.* tubing - both ends					Mue Com	It bend unio Iller 110 Con Ipression Co O.D.* tubing	ductive	
H	-15528N			ŀ	1-15534	IN		
3/4"		1"		3/4"		1"		
	Quarter bend coupling Mueller 110 Conductive Compression Connection for CTS O.D.* tubing x M.I.P. thread				R	Mue Com	O.D. * tubi	nductive onnection for
H	-15531N			ŀ	1-15529	N		
3/4"	3/4" x 1" 1	" 1-1/2"	2"	3/4"		1"		
Quarter bend union Internal swivel connection for 110 compression or pack joint CTS x Mueller 110 Conductive Compression Connection for CTS 0.D.* tubing) []) 1-15481	Ferr x Mu Com CTS	ueller 110 Co pression Co 0.D.* tubing	Coupling thread inductive innection for	
3/4"		1"		1/2"x3/4	." 5/8	"x3/4" 3/	4"	1"

*See chart on page 6.11 for tubing and pipe that may be used with these connections.

SERVICE FITTINGS WITH MUELLER 110® COMPRESSION CONNECTION



Shaded area indicates change Rev. 10-17

О H-1	5487N	Eight bend coupling Mueller 110 [®] Conductive Compression Connection Type K x swivel nut with female Mueller coupling thread	(С	0	5512		Straight co Mueller 110 Compressio CTS O.D.* t Extra Strong flange threa	Conductive n Connectio ubing x Dou I (XXS) lead	n for ble
3/4"		1"	3/4	."				1"		
O H-1	5067N	Quarter bend coupling Mueller 110 [®] Conductive Compression Connection for CTS O.D.* tubing x female copper flare thread		H	-1:	072		Straight co Mueller 110 Connection x female cop	Compression	pipe
3/4"		1"	3/4	."				1"		
О H-1	5076N	Quarter bend coupling Mueller 110 Conductive Compression Connection for CTS O.D. * tubing x swivel nu with female copper thread)	0	5509		Straight co Mueller 110 Compressio for CTS O.D strong (XS)	Conductive n Connectio .* tubing x E	n Extra
3/4"	1"x3/4"	' 1"	1/2	2" x 3/	/4"	5/8"	x 3/4"**	3/4" 1	" x 3/4"	1"
О H-1	5492N	Quarter bend coupling Mueller 110 Conductive Com- pression Connection for CTS O.D. * tubing x swivel nut with female Mueller coupling thread		Н	-1:	5077		Straight co Mueller 110 Compressio CTS O.D.* IPS PE Con	Conductive n Connectio tubing x fem	n for
3/4"		1"	1"							
О [H-1	5075N	Eighth bend coupling Mueller 110 Conductive Compression Connection for CTS O.D. * tubing x swivel nut with female copper thread			-1:	5071	0	Straight co Mueller 110 Compressio CTS O.D.* t copper flare	Conductive n Connectio ubing x fema	n for
3/4"	1"	1-1/2" 2"	1/2	2" 5	5/8"	3/4"	1/2" x 5/		3" 3/4" x 1"	1"
			1"	x 3/4'	'		1" x 1-1/	/4" 1-1/4"		2"
*See chart on n	age 6.11 for tubing and	pipe that may be used with these connections								

*See chart on page 6.11 for tubing and pipe that may be used with these connections. ** When two sizes are given, first is size of lead flange thread and second is size of MUELLER 110 Compression Connection.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER 110 Compression Connection and second is size of threaded end.



MUELLER 110[®] COMPRESSION CONNECTION INFORMATION

Rev. 9-17 Shaded area indicates changes

Tubing, pipe and liners used with Mueller 110 Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches	Liner part number
1/2" CTS	Type "K" copper	0.622 - 0.628	0.045 - 0.053	-	-
2/41 070	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
3/4" CTS	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	504281
1" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
1 015	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	504385
1 1/4" CTC	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
1-1/4" CTS	Polyethylene	1.370 - 1.380	0.153 - 0.168	1.034 - 1.074	505142
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
1-1/2 013	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
2" CTS	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	506141
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SIDR-7; IPS polyvinylchloride (PVC) per ASTM D1785



Mueller 110 Compression Connection Replacement Parts

Size	Gakset part number†	Connection nut
1/2" CTS	681516	147542
3/4" CTS	581949	507831
1" CTS	581951	507835
1-1/4" CTS	581953	507843
1-1/2" CTS	581955	507847
2" CTS	581957	507851
3/4" IPS	89599	508826
1" IPS PE	89788	508827



Gasket assembly



Nut

†Gasket and gripper band assembly

Adapter Nut for pre-1976 style Mueller 110 Compression Connection for CTS tubing

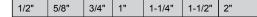
Kit includes one standard Gasket (same used with current style 110 connections) and a special Nut that adapts to the older style connection threads on the fittings. It is installed in the same way as the current style connection (Gasket conductor spring should be toward fitting body).

Size	Connection kit	
3/4" CTS	682552	M BORRA
1" CTS	682551	



Copper Gasket

Replacement gasket to be used inside Female Copper Service Thread when assembling Fitting onto a Corporation Valve/Stop. Gasket is intended for single use only and must be replaced if Fitting is disassembled or reused. CATALOG NUMBER: H-15053



SERVICE FITTINGS WITH MUELLER[®] PACK JOINT CONNECTION



Shaded area indicates change Rev. 1-17

P-	15403N	Straight three part union Mueller Pack Joint Connection for CTS O.D.* tubing- both ends		9-15533N	Muelle Conne	er bend cou r Pack Joint ction for CT x F.I.P. threa	S O.D.*
3/4" 1"	1" x 3/4" 1-1/4	4" 1-1/2" 1-1/2 x 1" 2"	3/4"		x 3/4" 1	-1/2"	2"
P-1	15528N	Eighth bend union Mueller Pack Joint Connection for CTS O.D.* tubing - both ends	P	-15428N	Muelle Conne	ht coupling r Pack Joint ction for CT x M.I.P. thre	S O.D.*
3/4"		1"	1/2"	3/4"	3/4" x 1/2"	5/8" x 3/4"	3/4" x 1"
3/4		1	1/2	1-1/4"	1" x 3/4"	1-1/4" x 1"	1-1/2"
			' 1-1/2" x		2"	2" x 1-1/2"	1-1/2
P-	15526N	tubing - both ends	P	-15531N	tubing	x M.I.P. thre	ad
3/4"	1" 1">	k 3/4" 1-1/2" 2"	3/4"	3/4" x 1" 1"	1" x 3/4"	1-1/2"	2"
		Straight coupling Mueller Pack Joint Connection for CTS O.D.* tubing x F.I.P. thread	C		Female	e r bend cou e Mueller Co x PJ for CT	oupling
(]	P-15451N 4" x 1" 1" 1" x 3	6/4" 1-1/2" 2" 2" x 1-1/2"	F 1/2" x 3/4	-15493N 4" 3/4	n	1"	
		Eighth bend coupling Mueller Pack Joint Connection for CTS O.D. * tubing x F.I.P. thread	C		Female thread	bend coup e Mueller Co x PJ for .D.* tubing	
P-'	15534N		P	-15485N			
3/4"	1"	1" x 1-1/4"	1"				

*See chart on page 6.15 for tubing and pipe that may be used with these connections.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER Pack Joint Connection and second is size of threaded end.

6.14



SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

Rev. 1-16 Shaded area indicates changes

С			Straight c Female M thread x F tubing	ueller Co		ATTEN			Straight co Mueller Pa for IPS PV 110 [®] Cond Connectior	ack Joint (C pipe x N uctive Co n for CTS	/lueller mpression O.D.*
1/2"x3/4	P-1548	/8"x3/4"	3/4"	1"		2"	/-1544	5N	tubing. 2 po wrench tite	c. const. A	Assembled
1/2 /0/4						2					
0			Straight of Mueller P Connectio both ender **Note: 3/4" si. on PVC	ack Joint on for IPS					Straight c Mueller Pa Connection - both end **Note: 3/4" siz with PVC	ack Joint n for IPS I Is	
	E-1540		4 4 / 4 !!	4.4.0	0"	1"	/-1540	1N x 3/4"**	1-1/2"	2"	
3/4"**	1"	1"x3/4"	1-1/4"	1-1/2"	2"	·	I	x 3/4 ***	1-1/2	2	
	-1544		Straight c Mueller P Connectio x Pack Jo CTS O.D. **Note: 3/4" si. PVC	ack Joint on for IPS int Conne tubing		0	/-1544	1N	Straight c Mueller Pa Connection x Pack Join CTS O.D.	ack Joint n for IPS	
3/4"**		3/4"**x1	"	1"		1"	1"x3/	4" 1-	·1/2" 1-	1/2"x3/4"	2"
E	E-1545		Straight of Mueller P Connectio F.I.P. threa **Note: 3/4" si on PVC	ack Joint on for IPS ad			/-1544	2N	Straight c Mueller Pa Connection x F.I.P. thre	ack Joint n for IPS	PVC* pipe
3/4"**	1"	1"x3/4"**	1-1/4"	1-1/2"	2"	1"	1"x3/4"	1-1/2"	1-1/2"x3/4"	1-1/2"x1"	2"
0			Straight c Mueller P Connectio	ack Joint on for IPS	PE* x	(t)			Straight c Mueller Pa Connection	ack Joint n for IPS	PVC* pipe
E	E-1542		M.I.P. thre **Note: 3/4" si. on PVC		lso be used	١	/-1544	0N	x M.I.P. thr	ead	

*See chart on page 6.15 for tubing and pipe that may be used with these connections. **Note: 3/4" size only may also be used on PVC

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER Pack Joint Connection and second is size of threaded end.

SERVICE FITTINGS WITH **MUELLER® PACK JOINT CONNECTION**



Shaded area indicates change Rev. 7-16

	Straight coupling Mueller Pack Joint Connection for CTS O.D.* tubing x female copper flare thread	0		Quarter bend Mueller Pack Connection for tubing x swifel copper thread	Joint
P-15071N		P-1	5076N		
3/4" 1" 1" x 3/4"	3/4" x 1" 1-1/2" 2"	3/4"	1"	1"	x 3/4"
O P-15075N	Eighth bend coupling Mueller Pack Joint Connection for CTS O.D.* tubing x swivel nut with female copper thread	P-1	5409N	for CTS O.D.*	loint Connection
3/4"	1"	3/4"		1"	
	Quarter bend coupling Mueller Pack Joint Connection for CTS O.D.* tubing x female copper flare thread			Straight coup Mueller Pack Connection for tubing x steel	Joint
P-15067N		P-1	5421N		
3/4"	1" x 3/4"**	3/4"	3/4"x1"	1"	1"x3/4"
	Quarter bend coupling Mueller Pack Joint Connection IPS PE pipe - both ends **Note: 3/4" size only may also be used with PVC			Quarter bend Mueller Pack Connection IP - both ends	Joint
E-15547N		V-1	5111N		
3/4"		1"	1-1/2	2"	2"

*See chart on page 6.15 for tubing and pipe that may be used with these connections. **Note: 3/4" size only may also be used on PVC NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of MUELLER Pack Joint Connection and second is size of threaded end.



MUELLER® PACK JOINT CONNECTION INFORMATION

Rev. 10-17 Shaded area indicates changes

Tubing, pipe and liners used with Mueller Pack Joint Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches	Liner part number
2/41 070	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
3/4" CTS	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	528704
4. 010	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
1" CTS	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	528705
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
1-1/2 CTS	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	528706
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
2.012	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	528707
	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
3/4" IPS	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
1" IPS	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-
1-1/4" IPS	Polyethylene	1.754 - 1.832	0.197 - 0.221	1.360 - 1.390	312787
	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
1-1/2" IPS	1-1/2" Sch. 40 PVC	1.894 - 1.906	0.145 - 0.165	-	-
	1-1/2" Sch. 80 PVC	1.894 - 1.906	0.200 - 0.224	-	-
	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
2" IPS	2" Sch. 40 PVC	2.369 - 2.381	0.154 - 0.174	-	-
	2" Sch. 80 PVC	2.369 - 2.381	0.218 - 0.244	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SIDR-7; IPS polyvinylchloride (PVC) per ASTM D1785



Liners used with Mueller PVC Pack Joint Connection for OD Controlled PE Pipe

Nominal size of connection	Material	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Length - inches	Liner part number
3/4" IPS	IPS PE OD controlled DR-9	1.046 - 1.054	0.772 - 0.820	2.00	313073
3/4 153	IPS PE OD controlled DR-11	1.046 - 1.054	0.816 - 0.864	2.00	313074
1" IPS	IPS PE OD controlled DR-9	1.310 - 1.320	.0978 - 1.028	2.125	313084
1 15	IPS PE OD controlled DR-11	1.310 - 1.320	1.030 - 1.080	1.84	505142
1-1/2" IPS	IPS PE OD controlled DR-9	1.894 - 1.906	1.412 - 1.484	3.00	538266
1-1/2 183	IPS PE OD controlled DR-11	2.369 - 2.381	2.082 - 2.047	3.20	538267
2" IPS	IPS PE OD controlled DR-9	1.894 - 1.906	1.496 - 1.560	3.00	538269
2 153	IPS PE OD controlled DR-11	2.369 - 2.381	1.885 - 1.949	3.20	538270

Mueller Pack Joint Connection Kit

Size	Connection Kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924
3/4" IPS PE	682377
1" IPS PE	682556
1-1/4" CTS	682556
1-1/2 IPS PE	682557
2" IPS PE	682558
3/4" IPS PVC	682377
1" IPS PVC	682553
1-1/2" IPS PVC	682554
2" IPS PVC	682555



Connection Kit (includes Pack Joint, Gasket and washer)

Copper Gasket

Replacement gasket to be used inside Female Copper Service Thread when assembling Fitting onto a Corporation Valve/ Stop. Gasket is intended for single use only and must be replaced if Fitting is disassembled or reused.



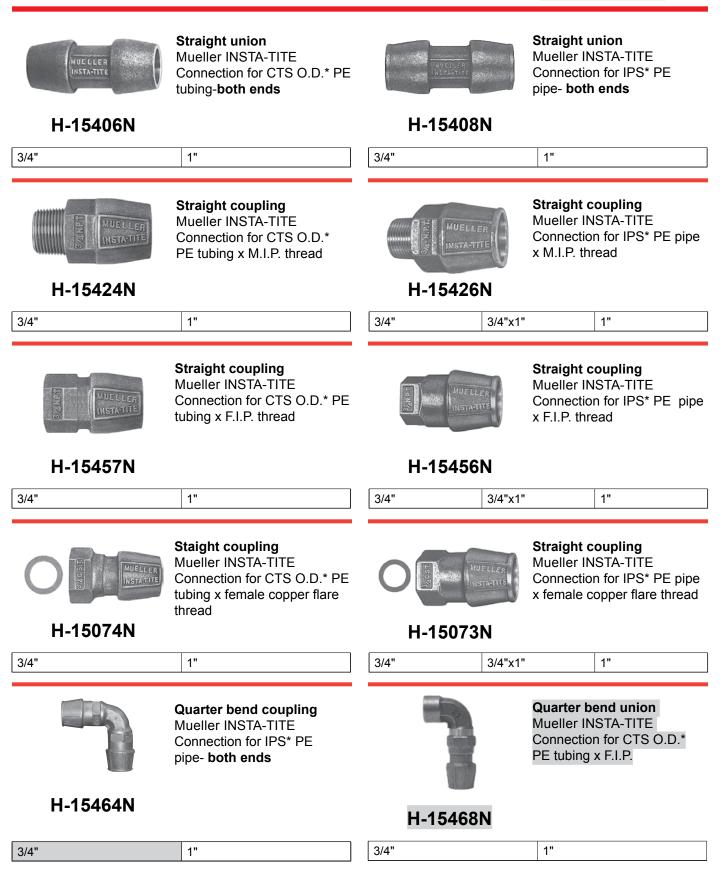
CATALOG NUMBER: H-15053

 1/2"
 5/8"
 3/4"
 1"
 1-1/4"
 1-1/2"
 2"

SERVICE FITTINGS WITH MUELLER® INSTA-TITE® CONNECTION



Shaded area indicates change Rev. 3-16



* See chart on page 6.17 for tubing and pipe that can be used with these connections.

NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of threaded end and second is size of MUELLER INSTA-TITE Connection.



SERVICE FITTINGS WITH MUELLER® INSTA-TITE® CONNECTION

Rev. 3-16 Shaded area indicates changes



Quarter bend union Mueller INSTA-TITE Connection for CTS O.D.* PE tubing x M.I.P.

H-15473N

3/4"

1"

MUELLER[®] INSTA-TITE[®] CONNECTION INFORMATION



Shaded area indicates change Rev. 9-17

Polyethylene PE Tubing and pipe used with Mueller INSTA-TITE Connections

Nominal size of connection	Material	Tubing or pipe O.D. range (in.)	Tubing or pipe wall thickness range (in.)	Tubing or pipe I.D. range (in.)
3/4" CTS PE	Polyethylene PE	0.871-0.879	0.097-0.107	0.657-0.685
1" CTS PE	Polyethylene PE	1.120-1.130	0.125-0.137	0.846-0.880
3/4" IPS PE	Polyethylene PE	1.045-1.110	0.118-0.138	0.809-0.834
1" IPS PE	Polyethylene PE	1.329-1.399	0.150-0.170	1.029-1.059

CTS polyethylene (PE) per ASTM D-2737 - SDR-9 IPS polyethylene (PE) per ASTM D-2239 - SIDR-7

IPS polyethylene (PE) per ASTM D-2239 - SIDR-7

Mueller INSTA-TITE Connection replacement parts

Size	Gripper ring part number	O-ring part number
3/4" CTS PE (red gripper)	506325	606324
1" CTS PE (red gripper)	506327	506326
3/4" IPS PE (white gripper)	505885	505883
1" IPS PE (white gripper	505886	505884



Gripper ring

O-ring

Optional tools for use with Mueller INSTA-TITE Connections

Pipe beveling tool

To assure proper installation, the end of the pipe or tubing must be properly beveled before it is inserted into the Mueller INSTA-TITE Connection. Mueller Co. offers a special beveling tool for both CTS PE tubing and IPS PE pipe.



PART NUMBER: **H-18015** for 3/4" and 1" CTS PE tubing PART NUMBER: **H-18017** for 3/4" and 1" IPS PE pipe

Pipe removal tool

Pipe or tubing may be removed from the Mueller INSTA-TITE Connection using special removal tools. Use one tool for 3/4" size connection and two tools for 1" size.

PART NUMBER: 506336



Copper Gasket

Replacement gasket to be used inside Female Copper Service Thread when assembling Fitting onto a Corporation Valve/Stop. Gasket is intended for single use only and must be replaced if Fitting is disassembled or reused.

CATALOG NUMBER: H-15053

1	/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
				-			_







Rev. 9-15 Shaded area indicates changes

SERVICE FITTINGS WITH THREADED CONNECTIONS

O [] [] H-10094N	Straight couplingSwivel nut with femaleincreasing I.P. thread (thisthread is one size larger thanthe nominal size of the fitting)x M.I.P. thread.		MUELLER 10022N	Eighth bend coupling Swivel nut with female Mueller [®] Coupling thread x M.I.P. thread
3/4"		5/8"	3/4"	1"
O	Quarter bend coupling Swivel nut with female increasing I.P. thread (this thread is one size larger than the nominal size of the fitting) x M.I.P. thread.	0 (H-1	10023N	Quarter bend coupling Swivel nut with female Mueller Coupling thread x M.I.P. thread
3/4" 1" 1	-1/4" ‡ 1-1/2" 2"	5/8"	3/4"	1"
	Eighth bend coupling Swivel nut with female Mueller [®] Coupling I/S I.P. thread x M.I.P outlet			Straight coupling Compression connection with set screw for use on steel pipe x M.I.P. thread
H-10095N		H-15	423-10N	
1-1/2"	2"	3/4"		1" ‡
	Straight coupling Compression connection with set screw (drilled for wire seal) for use on steel pipe x F.I.P. thread			Straight coupling Compression connection for use on steel pipe x F.I.P. thread
H-14233-10N		H -1	14232N	
3/4"	1" <i>‡</i>	3/4" ± *		
	Straight coupling Compression connection with set screw for use on steel pipe x F.I.P. thread			Quarter bend coupling Mueller Coupling thread M.I.P. thread - both ends
H-14233N		H-1	15538N	

* Both ends of coupling are 3/4" size.

‡ Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability. NOTE: Sizes shown above represent nominal size of fitting.

SERVICE FITTINGS WITH THREADED CONNECTIONS



H-15541N

1"

3/4"

Shaded area indicates change Rev. 4-16

2"

Quarter bend coupling

90 degree elbow

1-1/2"

F.I.P. thread x F.I.P. thread



Eighth bend coupling F.I.P. thread x **both ends**

H-10076N

3/4"



Quarter bend coupling F.I.P. thread x M.I.P. thread 90 degree elbow

H-15542N

	3/4"	1"	1-1/2"	2"
1				

1"

* Both ends of coupling are 3/4" size.

‡ Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum order requirements and availability. NOTE: Sizes shown above represent nominal size of fitting.

6.22



SERVICE FITTINGS WITH HOSE CLAMP RIBBED INSERT TYPE CONNECTION

Rev. 10-17 Shaded area indicates changes

H-12200N	Straight coupling Ribbed insert connection for IPS PE pipe (includes 2 stainless steel hose clamps) x female copper flare thread	H-12215N	Straight coupling Ribbed insert connection for IPS PE pipe (includes 2 stainless steel hose clamps) x F.I.P. thread
3/4"	1"	3/4"	1"
	Straight coupling Ribbed insert connection for IPS PE pipe (hose clamps NOT included) x female copper flare thread		Straight coupling Ribbed insert connection for IPS PE pipe (hose clamps NOT included) x F.I.P. thread
H-12203N	1"	H-12218N	1"
3/4"	1	3/4*	1"
0 H-12210N	Straight coupling Ribbed insert connection for IPS PE pipe (includes 2 stainless steel hose clamps) x M.I.P. thread	504030 - 3/4"	Stainless steel hose clamp for 3/4" pipe- PART NUMBER : 504030 Stainless steel hose clamp for 1" pipe- PART NUMBER: 504031
3/4" 3/4" x	1" 1"	504031 - 1"	
H-12213N	Straight coupling Ribbed insert connection for IPS PE pipe (hose clamps NOT included) x M.I.P. thread		
3/4"	1"		

Copper Gasket

Replacement gasket to be used inside Female Copper Service Thread when assembling Fitting onto a Corporation Valve/Stop. Gasket is intended for single use only and must be replaced if Fitting is disassembled or reused.



CATALOG NUMBER: H-15053

NOTE: Sizes shown above represent nominal size of fitting.

SERVICE FITTINGS WITH I.P. THREADED COPPER FLARE CONNECTION



Shaded area indicates change Rev. 4-14



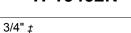
Straight three part union I.P. threaded copper flare nut -both ends

H-15402N



Straight coupling I.P. threaded copper flare nut x F.I.P. thread

H-15452N



3/4"

3/4"



Straight coupling I.P. threaded copper flare nut x M.I.P. thread

H-15427N



Straight coupling

1" ‡

I.P. threaded copper flare nut x female increasing I.P. thread (this thread is one size larger than nominal size of fitting)

H-15467N

3/4"



Copper flare nut I.P. threaded

H-15432N

3/4"	1"

FOR OTHER FLARE CONNECTION OPTIONAL EQUIPMENT, SEE PAGE 6.7

‡ Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability. NOTE: Sizes shown above represent nominal size of fitting. 6.24



SERVICE FITTINGS WITH LEAD FLANGE CONNECTION

Rev. 10-16 Shaded area indicates changes



H-10050N

Straight coupling Extra strong (XS) lead flange coupling x F.I.P. thread

Straight coupling Extra strong (XS) lead flange coupling x M.I.P. thread

H-10051N

1/2"‡ 1/2"x3/4"‡ 5/8"x3/4" 5/8" x 1/2" 3/4" 1" 1-1/2"

5/8"x3/4"		

3/4"



H-10054N

Straight coupling Extra strong (XS) lead flange coupling -**both ends**



Straight coupling

Double extra strong (XXS) lead flange coupling x F.I.P. thread

H-10052N

3/4" ‡		1/2"	5/8"	3/4"
--------	--	------	------	------

‡ Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability. NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of lead flange coupling and second is size of threaded connecion.

SERVICE TEES



2"

Shaded area indicates change Rev. 1-15



H-15381N

Service tee Mueller 110 Conductive Compression Connection for CTS O.D.* tubing-all ends



P-15381N

3/4"

3/4"

3/4" x 3/4" x 1"

Service tee

Mueller Pack Joint Compression Connection for CTS O.D.* tubing-**all ends**

1-1/2"

3/4"	3/4" x 3/4" x 1"	1"	1" x 3/4" x 3/4"	1" x 1" x 3/4"
1-1/2" x	: 1-1/2" x 3/4"	1-1	/2" x 1-1/2" x 1"	1-1/2" x 1-1/2" x 1-1/2"
2" x 2" x 3/4"		2" x 2" x 1"		2" x 2" x 2"

			3/4"		
1-1/2" x	1-1/2" x 1"	2" x 2	" x 3/4"	2" x 2" x ′	1"

1"



H-15444N

H-15385N

Service tee Mueller 110 Conductive Compression Connection for IPS* PE tubing-all ends



Service tee

1" x 1" x

Mueller Pack Joint Connection for IPS PE* tubing-all ends

E-15444N



Se M

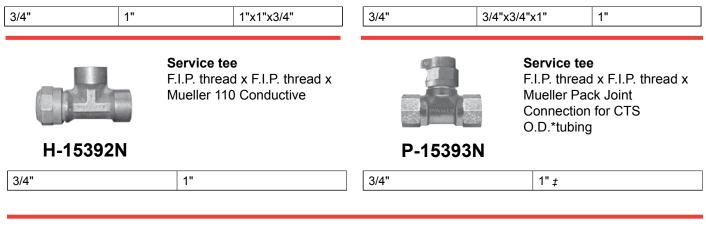
Service tee M.I.P. thread x M.I.P. thread x Mueller 110 Conductive Compression Connection for CTS O.D.* tubing



Service tee

M.I.P. thread x M.I.P. thread x Mueller Pack Joint Connection for CTS O.D.* tub

P-15385N





Service tee sizing - sizes of ends are listed in the order shown above - when all three end sizes are the same, only one size is listed.

‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.
* See page 6.29 for tubing that can be used with this connection.



Rev. 4-14 Shaded area indicates changes

Rev. 4-14 Shaueu area Inuica					
H-15391N 3/4"	Service tee Mueller 110 Conductive Compression Connection for CTS O.D.* tubing x 110 Conductive Compression Connection for CTS O.D.* tubing x F.I.P. thread	H-1 2"x2"x3/4"	5393N	Compre for CTS Conduc Connec	110 Conductive ssion Connection O.D.* tubing x 110 tive Compression tion for CTS O.D.* Inside CC thread
	Service tee Copper flare nut x M.I.P. thread x copper flare nut			Service M.I.P. th copper f	read x M.I.P. thread x
H-15382N		H-'	15384N		
3/4" ‡		3/4" ‡			
	Service tee Copper flare nut - all ends				tee flare nut x copper : x M.I.P. thread
H-15380N		H-′	15386N		
1/2"‡ 3/4" 3/4" x 3/4" x 1" 1-1/4" x 1-1/4" x 3/4"‡ 1-1/2" x 1-1/2" x 1" 2"	1" 1" x 3/4" x 3/4" 1" x 1" x 3/4" 1-1/4"‡ 1-1/4" x 1-1/4" x 1"‡ 1-1/2" 1-1/2" x 1-1/2" x 3/4"‡ 2" x 2" x 3/4"‡ 2" x 2" x 1"	3/4"	3/4"x3	/4"x1"	1"
H-10097N	Service tee F.I.P. thread - all ends	H -1	5387N	Compre for CTS Conduc Connec	tee 110 Conductive ssion Connection O.D.* tubing x 110 tive Compression tion for CTS O.D.* MI.P. thread
1"		3/4"	3/4"x3	/4"x1"	1"
H-15399N		1	3	ends are shown a end size	tee sizing - sizes of listed in the order bove - when all three s are the same, only is listed.
3/4"	1"				

SERVICE TEES

‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability. * See page 6.29 for tubing that can be used with this connection.

"U" BRANCH CONNECTIONS



Shaded area indicates change Rev. 3-16



H-15373N

3/4"x3/4"x7-1/2"

1-1/2"x3/4"x7-1/2"±

Connection for CTS O.D.* tubing **Outlets:** Mueller 110 Conductive Compression Connection for CTS O.D.* tubing straight line

Conductive Compression

Inlet: Mueller® 110®



Inlet: MUELLER Pack Joint Connection for CTS O.D.* tubing Outlets: MUELLER Pack Joint Connection for CTS O.D.* tubing straight line

P-15373N

1"x3/4"x7-1/2"



Inlet: Mueller 110 Conductive Compression Connection for CTS O.D.* tubing **Outlets:** M.I.P. thread straight line

1"x3/4"x5-1/4"

H-15363N

3/4"x3/4"x7-1/2"	1"x3/4"x6-1/2"	1"x3/4"x7-1/2"
1"x3/4"x13-1/2"	1"x1"x7-1/2"	1-1/2"x3/4"x7-1/2"
1-1/2"x1"x7-1/2"		

1"x3/4"x7-1/2"



Inlet: Mueller[®] Pack Joint Connection for CTS O.D.* tubing **Outlets:** M.I.P. thread straight line

P-15363N

3/4"x3/4"x7-1/2"	1"x3/4"x6-1/2"	1"x3/4"x7-1/2"
1"x3/4"x13-1/2"	1"x1"x7-1/2"	1"x1"x13-1/2"
1-1/2"x3/4"x7-1/2"	1-1/2"x1"x7-1/2"	



1"x3/4"x7"±

Inlet: Mueller 110 Conductive Compression Connection for CTS O.D.* tubing Outlets: M.I.P. threads right angle



Inlet: Copper flare nut Outlets: Copper flare nut straight line

H-15360N

	4"x3/4"x10"	1"x3/4"x5-1/4"
1"x3/4"x10"		



H-15362N

Inlet: Copper flare nut Outlets: M.I.P. thread straight line



Inlet: Copper flare nut **Outlets:** M.I.P. thread right angle

H-15368N

1"x3/4"x7" ‡

 3/4"x3/4"x7"
 3/4"x3/4"x7-1/2"
 3/4"x3/4"x13-1/2"

 1"x3/4"x6-1/2"
 1"x3/4"x7"
 1"x3/4"x7-1/2"

 1"x3/4"x13-1/2"
 1"x3/4"x7-1/2"
 1"x3/4"x7-1/2"

NOTE: Inline or Angle valves with fip threads can be added to any U Branch with MIP Ends

‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

* See page 6.29 for tubing that can be used with this connection.

NOTE: Sizes shown above represent nominal size of end connections. First is size of inlet, second is size of outlets, and third is center-to-center dimension between outlets.

6.28



"U" BRANCH CONNECTIONS

Rev. 4-17 Shaded area indicates changes



Inlet: M.I.P. thread Outlets: M.I.P. thread straight line

H-15364N

3/4"x3/4"x13-1/2"‡	3/4"x1"x5-1/4"	1"x3/4"x5-1/4"
1"x3/4"x6-1/2" ‡	1"x3/4"x7-1/2"	1"x3/4"x8"
1"x3/4"x13-1/2"	1"x1"x7-1/2"	1"x1"x13-1/2"

ROLLERI	

Inlet: F.I.P. thread Outlets: M.I.P. thread straight line

H-15365N

3/4"x3/4"x13-1/2"‡	3/4"x1"x5-1/4"	1"x3/4"x5-1/4"
1"x3/4"x6-1/2" ‡	1"x3/4"x7-1/2"	1"x3/4"x8"
1"x3/4"x13-1/2"	1"x1"x7-1/2"	1"x1"x13-1/2"

3/4"x3/4"x7-1/2"	1"x3/4"x6-1/2"	1"x3/4"x7-1/2"
1"x3/4"x13-1/2"	1"x3/4"x13-1/2"	1"x3/4"x14"
1"x1"x7-1/2"	1-1/4"x3/4"x13-1/2"	1-1/2"x3/4"x7-1/2"
1-1/2"x1"x7-1/2"		



NOTE: Inline or Angle valves with fip threads can be added to any U Branch with MIP Ends

#Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability. * See page 6.29 for tubing that can be used with this connection.

NOTE: Sizes shown above represent nominal size of end connections. First is size of inlet, second is size of outlets, and third is center-to-center dimension between outlets.



Mueller Co. has the capability to supply "U" Branches with virtually any combination of end connections, including styles with any standard Mueller valve or fitting attached to one or more of the connections. Use the illustrations below to sketch what is needed. Label each of the three positions with the type/size of connection (eg: MUELLER 110 Connection, M.I.P., etc.), and type/size valve/fitting to be attached if applicable. Best availability will result by selecting a standard "U" Branch from the preceding page, however special configurations may be available.

_____ Enter catalog number of standard "U" branch, otherwise mark the appropriate illustration below to show important dimensions of the special "U" branch you require, such as distance between outlets. Position #1 Type/size connection:

Check this box if nothing is to be attached at position #1, otherwise provide the following information.
 Valve/fitting catalog number:
 Valve options (eg: handles):

Position #2 Type/size connection:

Check this box if nothing is to be attached at position #2, otherwise provide the following information.
 Valve/fitting catalog number:
 Valve options (eg: handles):

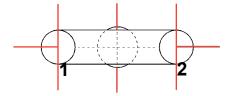
Position #3 Type/size connection: _____

Check this box if nothing is to be attached at position #3, otherwise provide the following information.
 Valve/fitting catalog number:
 Valve options (eg: handles):

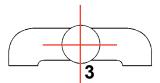
If angle valves are needed: Draw an arrow head on the end of the red line at each of the appropriate positions to show the direction the angle valve outlet should point. If ordering inline valves: Draw an arrow head to show the direction the valve head (cap) or access cover should point.

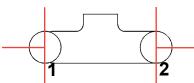
Note: Although the arrow lines are shown in the 12, 3, 6 and 9 o'clock positions, which are most common and preferred, other angles can be ordered. If some other angle is required, draw in your own arrow line and mark the angle in degrees referenced to the centerline of the "U" branch body.

Straight line "U" branch viewed from outlet end



Right angle "U" branch - top right illustration: viewed from inlet end; bottom right illustration: viewed from outlet end





There are three possible locations where a special fitting can be attached: at outlets 1 and 2, or inlet 3.

FAX this page to Mueller Customer Service (217) 425-7537. A representative will contact you to discuss availability submitting this page does not constitute placing an order.



6.30



Rev. 4-14 Shaded area indicates changes

H-15343N	Two branch-short body *Inlets: Mueller 110 [®] Conductive Compression Connection for CTS O.D.** tubing *Outlet: Mueller 110 Conductive Compression Connection for CTS O.D.** tubing	P-153		Connection for tubing * Outlet: Muel Connection for tubing	er® Pack Joint r CTS O.D.** ler Pack Joint r CTS O.D.**
3/4"x1" 1"	1"x1-1/2" 1"x2"	3/4"x1"	1"	1"x1-1/2"	1"x2"
H-15347N	Two branch-short body *Inlets: Mueller 110 [®] Conductive Compression Connection for CTS O.D.** tubing *Outlet: M.I.P. thread	P-153	47N	Two branch-s *Inlets: Muell Connection fo tubing *Outlet: M.I.F	er Pack Joint r CTS O.D.**
3/4"x1" 1"	1"x1-1/2" 1"x2"	3/4"x1"	1"	1"x1-1/2"	1"x2"
Two branch *Inlets: Copper flare nut *Outlet: M.I.P. threadH-15341N		Two branch *Inlets: Copper *Outlet: Copper H-15340N			
3/4"x1-1/2"‡ 3/4"x1-1/4"‡	1"x1-1/4"‡ 1"x1-1/2" 1"x2"	3/4"	3/4"x1"	1"x1-1/4"	1"x1-1/2"
Three branch *Inlets: Copper flare nut *Outlet: M.I.P. thread		H-153	FON	Four branch *Inlets: Copp *Outlet: Copp	
H-15346N	1/2" 1"x2"	П-133 3/4"х2" <i>‡</i>	501	1"x2"	
3/4"x1-1/2 ± 1"x1-1/2" 1"x2" Image: Second system Four branch *Inlets: Copper flare *Outlet: M.I.P. thread H-15351N Herein and the second system		H-153	45N	*Inlets: Copp *Outlet: Copp	
3/4"x2" ‡	1"x2"	3/4"x1-1/2 ±	1"x1-	1/2" 1	"x2"

NOTE: Minimum length of copper tubing "gooseneck" is: 3/4" size-30", 1" size-40".

‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

*Inlets and outlet can be reversed.

**See page 6.29-6.30 for tubing that can be used with this connection.





Shaded area indicates change Rev. 2-15

Two branch-short body

*Inlets: M.I.P. thread

*Outlet: M.I.P. thread



Two branch *Inlets: Copper flare nut *Outlet: F.I.P. thread

H-15342N

1"x2"



Two branch - Short body *Inlets: Solder joint *Outlet: Mueller 110[®] Conductive Compression Connection for CTS O.D.** tubing

H-15344N

1"x1-1/2"

.

1"x2"



H-10070N

Two branch

Inlets: Mueller INSTA-TITE Connection for IPS PE pipe *Outlet: Mueller INSTA-TITE Connection for IPS* PE pipe

H-15353N

3/4"x1"

3/4"x1"



Two branch *Inlets: Mueller 110[®] Conductive Compression Connection for IPS PE pipe *Outlet: Mueller 110 Conductive Compression Connection for IPS PE pipe

H-15354N

3/4"x1"

NOTE: Minimum length of copper tubing "gooseneck" is: 3/4" size-30", 1" size-40".

‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

*Inlets and outlet can be reversed.

**See page 6.29 for tubing that can be used with this connection.



MUELLER 110[®] COMPRESSION CONNECTION INFORMATION

Rev. 4-14 Shaded area indicates changes

Tubing, pipe and liners used with Mueller 110 Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches	Liner part number
1/2" CTS	Type "K" copper	0.622 - 0.628	0.045 - 0.053	-	-
2/41 070	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
3/4" CTS	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	504281
4" 0 7 9	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
1" CTS	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	504385
1-1/4" CTS	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
1-1/4 015	Polyethylene	1.370 - 1.380	0.153 - 0.168	1.034 - 1.074	505142
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
1-1/2 013	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
2" CTS	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	506141
	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
3/4" IPS	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
1" IPS	1" Sch. 40 PVC	1.310-1.320	0.133-0.153	-	-
	1" Sch. 80 PVC	1.310-1.320	0179-0.200	-	-

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 - PE SIDR-7; IPS polyvinylchloride (PVC) per ASTM D1785

Mueller 110 Compression Connection Replacement Parts

Size	Gakset part number †	Connection nut
1/2" CTS	681516	147542
3/4" CTS	581949	507831
1" CTS	581951	507835
1-1/4" CTS	581953	507843
1-1/2" CTS	581955	507847
2" CTS	581957	507851
3/4" IPS	89599	508826
1" IPS	89788	508827



Liner

Gasket assembly



Nut

†Gasket and gripper band assembly

Adapter Nut for pre-1976 style Mueller 110 Compression Connection for CTS tubing

Kit includes one standard Gasket (same used with current style 110 connections) and a special Nut that adapts to the older style connection threads on the fittings. It is installed in the same way as the current style connection (Gasket conductor spring should be toward fitting body).

3/4" CTS 682552	Size	Connection kit	
1" CTC C02551	3/4" CTS	682552	A Second
1 615 682551	1" CTS	682551	

MUELLER® PACK JOINT CONNECTION INFORMATION



Shaded area indicates change Rev. 2-15

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches	Liner part number
0/41 070	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
3/4" CTS	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	528704
4" 070	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
1" CTS	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	528705
	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
1-1/2" CTS	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	528706
01 070	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
2" CTS	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	528707
	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
3/4" IPS	3/4" Sch. 40 PVC	1.046 - 1.054	0.113 - 0.133	0.780 - 0.828	509759
	3/4" Sch. 80 PVC	1.046 - 1.054	0.154 - 0.174	0.698 - 0.746	509760
	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
1" IPS	1" Sch. 40 PVC	1.310 - 1.320	0.133 - 0.153	-	-
	1" Sch. 80 PVC	1.310 - 1.320	0.179 - 0.200	-	-
1-1/4" IPS	Polyethylene	1.754 - 1.832	0.197 - 0.221	1.360 - 1.390	312787
	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
1-1/2" IPS	1-1/2" Sch. 40 PVC	1.894 - 1.906	0.145 - 0.165	-	-
	1-1/2" Sch. 80 PVC	1.894 - 1.906	0.200 - 0.224	-	-
	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
2" IPS	2" Sch. 40 PVC	2.369 - 2.381	0.154 - 0.174	-	-
	2" Sch. 80 PVC	2.369 - 2.381	0.218 - 0.244	_	-

Tubing, pipe and liners used with Mueller[®] Pack Joint Conections

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9; IPS polyethylene (PE) per ASTM D-2239 -PE SIDR-7 ;IPS polyvinylchloride (PVC) per ASTM D1785



Liners used with Mueller PVC Pack Joint Connection for OD Controlled PE Pipe

Nominal size of connection	Material	Tubing or pipe O.D. range - inches	Tubing or pipe I.D. range - inches	Length - inches	Liner part number
3/4" IPS	IPS PE OD controlled DR-9	1.046 - 1.054	0.772 - 0.820	2.00	313073
3/4 123	IPS PE OD controlled DR-11	1.046 - 1.054	0.816 - 0.864	2.00	313074
1" IPS	IPS PE OD controlled DR-9	1.310 - 1.320	.0978 - 1.028	2.125	313084
1 153	IPS PE OD controlled DR-11	1.310 - 1.320	1.030 - 1.080	1.84	505142
1-1/2" IPS	IPS PE OD controlled DR-9	1.894 - 1.906	1.412 - 1.484	3.00	538266
1-1/2 153	IPS PE OD controlled DR-11	2.369 - 2.381	2.082 - 2.047	3.20	538267
2" IPS	IPS PE OD controlled DR-9	1.894 - 1.906	1.496 - 1.560	3.00	538269
2 195	IPS PE OD controlled DR-11	2.369 - 2.381	1.885 - 1.949	3.20	538270

MUELLER Pack Joint Connection Kit

Size	Connection Kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924
3/4" IPS PE	682377
1" IPS PE	682556
1-1/2 IPS PE	682557
2" IPS PE	682558
3/4" IPS PVC	682377
1" IPS PVC	682553
1-1/2" IPS PVC	682554
2" IPS PVC	682555





MUELLER[®] GRIP COMPRESSION CONNECTION INFORMATION

Rev. 4-16 Shaded area indicates changes

Tubing, pipe and liners used with Mueller Grip Compression Connection

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe wall thickness range - inches	Tubing or pipe I.D. range - inches	Liner part number
3/4" CTS	Type "K" copper	0.872 - 0.878	0.061 - 0.069	-	-
	Polyethylene	0.871 - 0.879	0.097 - 0.107	0.657 - 0.685	528704
1" CTS	Type "K" copper	1.121 - 1.129	0.061 - 0.069	-	-
	Polyethylene	1.120 - 1.130	0.125 - 0.137	0.846 - 0.880	528705
1-1/2" CTS	Type "K" copper	1.621 - 1.630	0.067 - 0.077	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	528706
2" CTS	Type "K" copper	2.120 - 2.130	0.076 - 0.090	-	-
	Polyethylene	2.119 - 2.131	0.236 - 0.260	1.599 - 1.659	528707
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142

*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9 IPS polyethylene (PE) per ASTM D-2239 - PE SIDR-7



Grip Joint kits

Size	Kit	Grip ring	Washer	Gasket	Connection nut
3/4" CTS	682861	312919	311692	537881	537838
1" CTS	682862	312920	311695	537882	537839
1-1/2" CTS	682863	312921	538107	537883	537840
2" CTS	682864	312922	538108	538109	537841
3/4" IPS	683023	313094	313695	311869	538320
1" IPS	683024	313095	312122	313098	538321

Grip ring Connection nut Gasket

PIPE PLUGS AND BUSHING



Shaded area indicates change Rev. 3-16

Brass plug - Machine inserted* AWWA taper (Mueller "CC") thread	Brass plug** - Square head with AWWA taper (Mueller "CC") thread			
H-10034N	H-10033N			
1/2"‡ 5/8" 3/4" 1" 1-1/4" ‡ 1-1/2" 2"	1/2" 5/8" 3/4" 1" 1-1/4" 1-1/2" 2"			
Brass plug - Machine inserted* I.P. thead	Brass plug - Square head with I.P. thread			
H-10037N	H-10035N			
3/4" ‡ 1" ‡ 1-1/4" ‡ 1-1/2" ‡ 2" ‡ 2-1/2" ‡	1/2" ‡ 3/4" 1" 1-1/4" ‡ 1-1/2" ‡ 2" ‡			
Brass bushing Male AWWA taper (Mueller "CC") thread x female AWWA taper (Mueller "CC") threadH-10036N1"x3/4"1-1/2"x1"2"x2/4"2"x1"2"x2-1/2"	Arrow Arrow <th< th=""></th<>			
Adapter with Slip Coupling F.I.P. x PVC slip coupling H-700065E	Adapter with Slip Coupling F.I.P. x PVC slip coupling H-700066E			
3/4"x1-1/2"	1"x1-1/2"			

*Nominal size.

‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.



Rev. 3-16 Shaded area indicates changes



Reliable Connections[™]

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