

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, 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.

## MUELLER 110® Compression Connection Features

- ❑ **BODY AND NUT** - corrosion resistant cast bronze ASTM B62 (85- 5-5-5).
- ❑ **NUT** - bottoms out on shoulder of coupling to give quick visual indication of proper tightening.
- ❑ **FLUOROCARBON COATING** - on inside surface of nut reduces tightening effort and avoids gasket distortion.
- ❑ **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.
- ❑ **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).
- ❑ **ENTIRE GASKET** - is enclosed to resist cold flow and creep.
- ❑ **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 .
- ❑ **GRIPPER BAND** - is stainless steel and overlaps itself so no gasket material can get underneath.



Rev. 8-04

### Copper flare nut



CATALOG NUMBER: **H-15430**

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
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### Solid Copper disc

Used with regular copper flare nut to shut off line.



CATALOG NUMBER: **H-15535**

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
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### Brass cap

Fits on copper flare spud to cap off line.



CATALOG NUMBER: **H-15540**

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
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### Flaring Tool



Used to make 45° flare on type "K" copper tubing.

CATALOG NUMBER: **H-15430**

3/4"	1"
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### Drilled Flaring



Used to make 45° flare on type "K" copper tubing without shutting off water-drilled to exhaust water at right angle to tubing.

CATALOG NUMBER: **H-18005**

3/4"	1"
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### Reamer



Used to ream the inside of type "K" copper tubing to remove burrs prior to flaring.

CATALOG NUMBER: **H-18010**

3/4"	1"
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### Brass Hammer

Solid brass head with 10" wooden handle. Weight 2-3/4 lb.

CATALOG NUMBER: **H-18025**



**Note: When using any striking tool, safety eye protection must be worn. Inspect hammer and tools for any damage after each use and repair or replace if mushrooming or chipping is evident.**

## 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 O.D. 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	504281
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	504385
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	506141

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



Liner

## MUELLER 110 Compression Connection replacement parts

Size	Gasket part number †	Connection nut
3/4" CTS	581949	507831
1" CTS	581951	507835



Liner Gasket



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
1" CTS	682551



## 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 O.D. 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
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

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



Liner

## MUELLER Pack Joint Connection Kit

Size	Connection kit
3/4" CTS	681921
1" CTS	681922
1-1/2" CTS	681923
2" CTS	681924



Connection Kit  
(includes Pack Joint, Gasket and Washer)

# 6A.6



# MUELLER® INSULATED METER COUPLINGS AND EQUIPMENT INFORMATION

Rev. 9-09 Shaded area indicates changes



Insulated straight coupling  
Lock nut\* x MUELLER 110®  
Compression Connection for  
CTS O.D. tubing \*\*

**N-34218**



Insulated straight coupling  
Lock nut\* x MUELLER® Pack  
Joint Connection for CTS O.D.  
tubing \*\*

**P-34218**

Catalog size	5/8" x 3/4"	5/8" x 3/4" x 3/4"	1"
Meter size	5/8"	5/8" x 3/4", 3/4"	1"
Thread size	3/4"	3/4"	1"

Catalog size	5/8" x 3/4"	5/8" x 3/4" x 3/4"	1"
Meter size	5/8"	5/8" x 3/4", 3/4"	1"
Thread size	3/4"	3/4"	1"

\* For use with Mueller Iron Meter Yokes (Page 8B.1).

\*\* See chart on page 6A.7 for tubing and pipe that may be used with these connections.



Insulated straight meter coupling  
Integral insulator in tailpiece-  
tailpiece machined inside and  
outside

**H-10871\*\*\***

M.I.P. x meter swivel nut

Catalog size	5/8" x 3/4" x 3/4"	5/8"	1"	1"	1"
Meter size	5/8" x 3/4", 3/4"	5/8"	1"	1"	1"
Length	2"	2-1/2"	1-5/8"	2-1/8"	2-5/8"
Option	-00	-	-01	-02	-

\*\*\* This meter coupling uses nylon as an insulator but is not based on the same insulation design used on other items in this section.

## MUELLER® Drilling and Tapping Machine equipment required to install Insulated corporation valves

Stop or Valve Size (Nominal)	3/4" CTS	1" CTS	2"
<b>Combined Drill and Tap Size --See Section 1 For Part Numbers</b>	3/4"	1"	2"
<b>B-101/B-100 inserting tool†</b>	681722	681724	-
Nut	501892	526587	-
<b>A-3 inserting tool†</b>	681722	681724	-
Nut	501892	526587	-
<b>Maximum allowable size drill or shell cutter - see section 2 for part numbers</b>	AWWA I.P.	11/16"	7/8"
	CC (AWWA taper)	11/16"	15/16"
<b>E-5 machine adapter nipple - must be used with 502938</b>	528723	528724	-
<b>D-5 machine adapter nipple - must be used with 502938</b>	528723	528724	-
<b>E-5 machine adapter for insulated corp must be used with 502938</b>	-	-	682649
<b>D-5 machine adapter for insulated corp must be used with 502938</b>	-	-	682649

†Includes nut and shank. Ordering one 3/4" 681722 inserting tool and one 1" 681725 extracting tool will enable user to insert and/or extract both sizes and styles of Insulated Ball Valves by switching the nuts and shanks.

MUELLER Meter Couplings are manufactured and tested in accordance with ANSI/AWWA C800.

# INSULATED STRAIGHT COUPLINGS

**Mueller Co.**

# 6A.5

Shaded area indicates changes Rev. 8-04



**N-35403**

Insulated straight service fitting  
MUELLER 110® Compression  
Connection CTS O.D. tubing\*  
**both ends**  
Sizes Available: 3/4", 1"



**P-35403**

Insulated straight service fitting  
MUELLER® Pack Joint  
Connection CTS O.D. tubing\*  
**-both ends**  
Sizes Available: 3/4", 1"



**N-35451**

Insulated straight service fitting  
**Inlet:** F.I.P. thread  
**Outlet:** MUELLER 110  
Compression Connection CTS  
O.D. tubing \*  
Sizes Available: 3/4", 1"



**P-35451**

Insulated straight service fitting  
**Inlet:** F.I.P. thread  
**Outlet:** MUELLER Pack Joint  
Connection CTS O.D. tubing\*  
Sizes Available: 3/4", 1"



**N-35428**

Insulated straight service fitting  
**Inlet:** M.I.P. thread  
**Outlet:** MUELLER 110  
Compression Connection CTS  
O.D. tubing \*  
Sizes Available: 3/4", 1"



**P-35428**

Insulated straight service fitting  
**Inlet:** M.I.P. thread  
**Outlet:** MUELLER Pack Joint  
Compression Connection CTS  
O.D. tubing \*  
Sizes Available: 3/4", 1"



**N-35071**

Insulated straight service fitting  
**Inlet:** Female copper flare thread  
(adapts to flare connection end)  
**Outlet:** MUELLER 110  
Compression Connection CTS  
O.D. tubing \*  
Sizes Available: 3/4", 1", 1"x3/4"



**P-35071**

Insulated straight service fitting  
**Inlet:** Female copper flare thread  
(adapts to flare connection end)  
**Outlet:** MUELLER Pack Joint  
Compression Connection CTS O.D.  
tubing \*  
Sizes Available: 3/4", 1", 1" x 3/4"



**N-35062**

Insulated straight service fitting  
**Inlet:** Female copper flare thread  
(adapts to flare connection end)  
**Outlet:** Copper flare nut \*  
Sizes Available: 3/4", 3/4"x1", 1"



**N-30077**

Insulated straight service fitting  
F.I.P. thread **both ends**  
Sizes Available: 3/4", 1"

\* See charts on page 6A.7 for tubing and pipe that may be used with MUELLER 110, Pack Joint connections and for flare connection accessories.  
†First size is female copper flare thread, second size is outlet.

**MUELLER Service Couplings are manufactured and tested in accordance with ANSI/AWWA C800.**

# 6A.4



# INSULATED CURB BALL & METER VALVES

Rev. 8-04 Shaded area indicates changes



**N-35204**

Insulated MUELLER® 300™  
Ball Valve  
Copper Flare\* - **both ends**  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (N-35209-3)

Sizes Available: 3/4", 1"



**N-35209**

Insulated MUELLER® 300™  
Ball Valve  
MUELLER 110 Compression  
Connection for CTS O.D.  
tubing\* - **both ends**  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (N-35209-3)

Sizes Available: 3/4", 1", 2"



**P-35209**

Insulated MUELLER 300  
Ball Valve  
MUELLER® Pack Joint Con-  
nection for CTS O.D.  
tubing\* - **both ends**  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (P-35209-3)

Sizes Available: 3/4", 1"



**N-35172**

Insulated MUELLER 300  
Ball Valve  
**Inlet:** MUELLER 110  
Compression Connection for  
CTS O.D. tubing \*  
**Outlet:** F.I.P. thread  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (N-35172-3)

Sizes Available: 3/4", 1"



**P-35172**

Insulated MUELLER 300  
Ball Valve  
**Inlet:** MUELLER Pack Joint  
Connection for CTS O.D.  
tubing \*  
**Outlet:** F.I.P. thread  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (P-35172-3)

Sizes Available: 3/4", 1"



**N-35166**

Insulated MUELLER 300  
Ball Valve  
**Inlet:** Copper Flare Nut \*  
**Outlet:** F.I.P.  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (N-35166-3)

Sizes Available: 3/4", 1"



**N-30283**

Insulated MUELLER 300  
Ball Valve  
F.I.P. thread - **both ends**  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (N-30283-3)

Sizes Available: 3/4", 1"



**N-34351**

Insulated MUELLER  
Ball Meter Valve  
**Inlet:** Swivel Meter Nut  
**Outlet:** F.I.P.  
Quarter turn check - this valve  
may be ordered with 360 turn  
option by adding -3 to end of  
catalog number (N-34351-3)

Sizes Available: 3/4", 1"



**N-35163**

Insulated MUELLER 300  
Ball Valve  
MUELLER 110 Compression  
Connection for CTS O.D.  
tubing\* - **both ends**  
Quarter turn check and Minneapo-  
lis top thread - this valve may be  
ordered with 360° turn option by  
adding -3 to end of catalog number  
(N-35163-3)

Sizes Available: 3/4", 1"

\* See charts on page 6A.7 for tubing and pipe that may be used with MUELLER 110, Pack Joint connections and for flare connection accessories.

Rev. 9-09 Shaded area indicates changes

**N-35008**

Insulated MUELLER® 300™  
Corporation Ball Valve

**Inlet:** AWWA taper  
(MUELLER "CC") thread  
**Outlet:** MUELLER 110®  
Compression Connection for  
CTS O.D. tubing\*

Sizes Available: 3/4", 1", 2"

**N-35028**

Insulated MUELLER® 300™  
Corporation Ball Valve

**Inlet:** AWWA M.I.P. thread  
**Outlet:** MUELLER 110®  
Compression Connection for  
CTS O.D. tubing\*

Sizes Available: 3/4", 1"

**P-35008**

Insulated MUELLER 300  
Corporation Ball Valve

**Inlet:** AWWA taper  
(MUELLER "CC") thread  
**Outlet:** MUELLER® Pack  
Joint Connection for CTS O.D.  
tubing\*

Sizes Available: 3/4", 1"

**P-35028**

Insulated MUELLER 300  
Corporation Ball Valve

**Inlet:** AWWA M.I.P. thread  
**Outlet:** MUELLER® Pack Joint  
Connection for CTS O.D.  
tubing\*

Sizes Available: 3/4", 1"

**N-35000**

Insulated MUELLER 300  
Corporation Ball Valve

**Inlet:** AWWA taper  
(MUELLER "CC") thread  
**Outlet:** Copper flare nut\*

Sizes Available: 3/4", 1"

**N-35025**

Insulated MUELLER 300  
Corporation Ball Valve

**Inlet:** AWWA M.I.P. thread  
**Outlet:** Copper flare nut\*

Sizes Available: 3/4", 1"

**N-30045**

Insulated MUELLER 300  
Corporation Ball Valve

**Inlet:** AWWA taper  
(MUELLER "CC") thread  
**Outlet:** F.I.P.

Sizes Available: 3/4", 1", 2"

**N-30046**

Insulated MUELLER 300  
Corporation Ball Valve

**Inlet:** AWWA M.I.P. thread  
**Outlet:** F.I.P.

Sizes Available: 3/4", 1", 2"

**NOTE: See page 6A.6 for inserting tools and adapter nipples for these corporation valves.**

\* See charts on page 6A.7 for tubing and pipe that may be used with MUELLER 110, Pack Joint connections and for flare connection accessories.

**MUELLER Corporation Valves and Couplings are manufactured and tested in accordance with ANSI/AWWA C800.**

## MUELLER® Insulated Water Service Line Products

MUELLER Insulated Products are the simple, cost effective and reliable way to help address the problems associated with stray electrical currents on metallic water piping - either in new installations, or to retrofit existing lines.

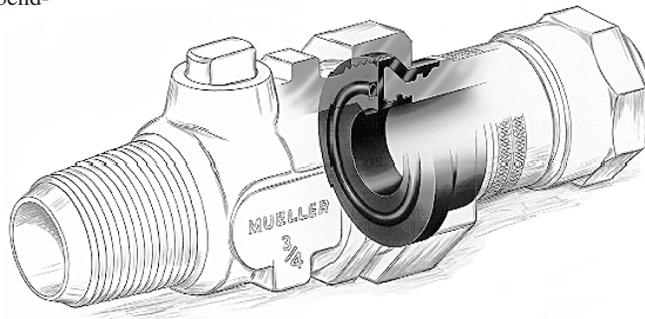
Insulated products are available for use in many different locations along the service line allowing a style to be selected which can help to control stray currents, yet minimizes the need for changes to system specifications, installation procedures, or training programs.

Mueller incorporates a nylon insulator that is structurally supported by specially shaped 85-5-5 brass parts. This results in a strong union that will withstand the mechanical forces and stresses encoun-

tered in water distribution systems, and that effectively stops the flow of electrical current at the point of installation.

For buried installations, the insulator and adjacent piping must be wrapped at least 3 feet in both directions from the insulator to prevent stray currents from traveling through the soil around the insulator. All wrapping should be in accordance with wrapping manufacturer's instructions; ANSI/AWWA C209 Standard for Cold-Applied Coatings for the exterior of special sections, connections, and fittings for steel water pipelines; and ANSI/AWWA C105/A21.5 Standard for Polyethylene Encasement for Ductile Iron Pipe Systems.

- ❑ NYLON INSULATOR - has high dielectric, compressive and impact strength. It is inert, and recommended for water service applications. Design capitalizes on nylon's superior strength under compression.
- ❑ 85-5-5 BRASS PARTS - designed to absorb tensile and bending forces from piping.
- ❑ INSULATOR SKIRT - is extra long to resist electrical bridging or shorting.
- ❑ CONVENIENCE AND RELIABILITY - the convenience of a union and an insulator in one product. Reliability proven by more than 30-years use of similar Mueller design in natural gas distribution industry.



- ❑ BEVELED FLANGE - increases compressive bearing area for added strength. Design assures reliable seal between nylon and 85-5-5 brass tailpiece.
- ❑ O-RING SEAL - is retained in groove if tailpiece is removed to prevent O-ring loss; assures positive seal in union.

**6.32**

**Mueller Co.**

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Rev. 8-04



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Brass plug - Machine inserted\*  
AWWA taper  
(MUELLER "CC") thread

**H-10034**

1/2"‡	5/8"	3/4"	1"	1-1/4"‡	1-1/2"	2"
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Brass plug\*\* - Square head with  
AWWA taper  
(MUELLER "CC") thread

**H-10033**

1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"
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Brass plug - Machine inserted\*  
I.P. thread

**H-10037**

3/4"‡	1"‡	1-1/4"‡	1-1/2"‡	2"‡	2-1/2"‡
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Brass plug- Square head with  
I.P. thread

**H-10035**

1/2"‡	3/4"	1"	1-1/4"‡	1-1/2"‡	2"‡
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Brass bushing  
Male AWWA taper  
(MUELLER "CC") thread x  
female AWWA taper  
(MUELLER "CC") thread

**H-10036**

1"x3/4"	1-1/2"x1"	2"x3/4"	2"x1"	2"x1-1/2"
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Brass Bushings

- 47162** 1-1/4" MIP x 1" FIP
- 47163** 2" MIP x 3/4" FIP
- 47164** 2" MIP x 1" FIP
- 47165** 1" MIP x 3/4" FIP
- 47168** 1-1/2" MIP x 3/4" FIP
- 47169** 1-1/2" MIP x 1" FIP
- 47172** 2" MIP x 1-1/2" FIP

\*Nominal size.

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

## Tubing, pipe and liners used with MUELLER® Pack Joint Connections

Nominal size of connection	Material*	Tubing or pipe O.D. range - inches	Tubing or pipe O.D. 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
	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
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	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
1-1/2" IPS	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
	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	-	-
2" IPS	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
	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



Liner

## 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



Connection Kit  
(includes Pack Joint,)

# MUELLER 110® COMPRESSION CONNECTION INFORMATION



# 6.29

Shaded area indicates changes Rev. 9-09

## 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 O.D. 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	-	-
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	504281
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	504385
1-1/4" CTS	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
	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	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
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	506141
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
	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
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	1" Sch. 40 PVC	1.310-1.320	0.133-0.153	-	-
	1" Sch. 80 PVC	1.310-1.320	0.179-0.200	-	-

\*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	Gasket 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
1" CTS	682551



# 6.28



# "Y" BRANCH CONNECTIONS

Rev. 8-04



**H-15342**

Two branch

**\*Inlets:** Copper flare nut

**\*Outlet:** F.I.P. thread

1"x2"



**H-10070**

Two branch-short body

**Inlets:** M.I.P. thread

**Outlet:** M.I.P. thread

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 "Y" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.**

# "Y" BRANCH CONNECTIONS

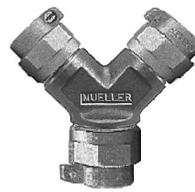
Shaded area indicates changes Rev. 9-09



**H-15343**

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

3/4"x1"	1"x1-1/2"	1"x2"
---------	-----------	-------



**P-15343**

Two branch-short body  
**\*Inlets:** MUELLER® Pack Joint Connection for CTS O.D.\*\* tubing  
**\*Outlet:** MUELLER Pack Joint Connection for CTS O.D.\*\* tubing

3/4"x1"	1"x1-1/2"
---------	-----------



**H-15347**

Two branch-short body  
**\*Inlets:** MUELLER 110® Conductive Compression Connection for CTS O.D.\*\* tubing  
**\*Outlet:** M.I.P. thread

3/4"x1"	1"	1"x1-1/2"	1"x2"
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**P-15347**

Two branch-short body  
**\*Inlets:** MUELLER® Pack Joint Connection for CTS O.D.\*\* tubing  
**\*Outlet:** M.I.P. thread

3/4"x1"	1"x1-1/2"
---------	-----------



**H-15341**

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

3/4"x1-1/2" ‡	1"x1-1/4" ‡	1"x1-1/2" ‡	1"x2"
---------------	-------------	-------------	-------



**H-15340**

Two branch  
**\*Inlets:** Copper flare nut  
**\*Outlet:** Copper flare nut  
 Three branch

3/4"	3/4"x1"	1"x1-1/4"	1"x1-1/2"
------	---------	-----------	-----------



**H-15346**

**\*Inlets:** Copper flare nut  
**\*Outlet:** M.I.P. thread  
 Three branch

3/4"x1-1/2" ‡	1"x1-1/2"	1"x2"
---------------	-----------	-------



**H-15350**

Four branch  
**\*Inlets:** Copper flare nut  
**\*Outlet:** Copper flare nut

3/4"x2" ‡	1"x2"
-----------	-------



**H-15351**

Four branch  
**\*Inlets:** Copper flare  
**\*Outlet:** M.I.P. thread

3/4"x2" ‡	1"x2"
-----------	-------



**H-15345**

**\*Inlets:** Copper flare nut  
**\*Outlet:** Copper flare nut

3/4"x1-1/2" ‡	1"x1-1/2"	1"x2"
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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.

MUELLER "Y" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.

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.

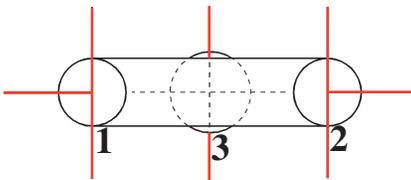
Valve/fitting catalog number: \_\_\_\_\_

Valve options (eg: handles): \_\_\_\_\_

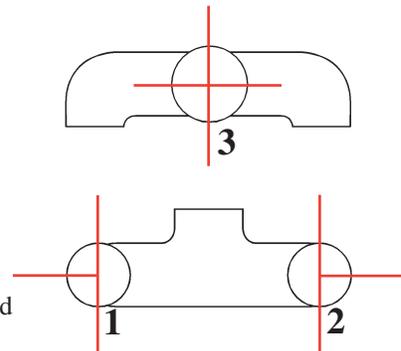
If angle valves are needed: Draw an arrow head on the end of the red line at each of the appropriate positions to show the direction the angle valve outlet should point. If ordering inline valves: Draw an arrow head to show the direction the valve head (cap) or access cover should point.

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.**

# "U" BRANCH CONNECTIONS



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

**H-15364**

3/4"x3/4"x13-1/2" ‡	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"		



**Inlet:** F.I.P. thread  
**Outlet:** M.I.P. thread straight line

**H-15365**

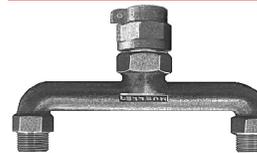
3/4"x3/4"x7-1/2"	1"x3/4"x6-1/2"	1"x1"x7-1/2"
1-1/4"x3/4"x13-1/2"		



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

**H-15367**

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



**Inlet:** Pack Joint Connection for PVC tubing  
**Outlet:** M.I.P. thread straight line with 7-1/2" Center  
 Two piece factory assembled

**V-15361**

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

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

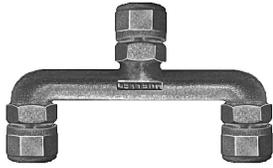
‡Requires minimum ordering quantity. Contact MUELLER Customer Service Center for minimum ordering requirements and availability.

\* 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.

**MUELLER "U" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.**

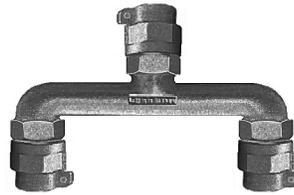
Rev. 8-04 Shaded area indicates changes



**H-15373**

**Inlet:** MUELLER® 110®  
Conductive Compression  
Connection for CTS O.D.\*  
tubing  
**Outlets:** MUELLER 110  
Conductive Compression  
Connection for CTS O.D.\*  
tubing straight line

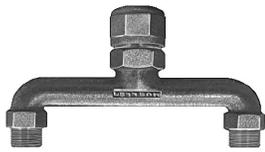
1"x3/4"x7-1/2"	1-1/2"x3/4"x7-1/2" ‡
----------------	----------------------



**P-15373**

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

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



**H-15363**

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

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



**P-15363**

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

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



**H-15369**

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

1"x3/4"x7" ‡
--------------



**H-15360**

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

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



**H-15362**

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

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"	



**H-15368**

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

3/4"x3/4"x7" ‡	1"x3/4"x7" ‡
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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 "U" Branch Connections are manufactured and tested in accordance with ANSI/AWWA C800.**

# SERVICE TEES



# 6.23

Shaded area indicates changes Rev. 9-09



**H-15391**

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

3/4"	1"	2"x2"x1"
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**H-15393**

Service tee  
 MUELLER 110 Conductive  
 Compression Connection for CTS  
 O.D.\* tubing x 110 Conductive  
 Compression Connection for CTS  
 O.D.\* tubing x Inside CC thread

2"x2"x3/4"	2"x2"x1"
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**H-15382**

Service tee  
 Copper flare nut x M.I.P. thread  
 x copper flare nut

3/4"±
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**H-15384**

Service tee  
 M.I.P. thread x M.I.P.  
 thread x copper flare nut

3/4"±
-------



**H-15380**

Service tee  
 Copper flare nut-**all ends**

1/2"±	3/4"	3/4"x3/4"x1"	1"	1"x3/4"x3/4"
1"x1"x1/2"±	1"x1"x3/4"	1-1/4"±	1-1/4"x 1-1/4"x3/4"±	1-1/4"x1-1/4"x1"±
1-1/2"	1-1/2"x 1-1/2"x3/4"±	1-1/2"x 1-1/2"x1"	2"	2"x2"x3/4"± 2"x2"x1"



**H-15386**

Service tee  
 Copper flare nut x copper  
 flare nut x M.I.P. thread

3/4"	3/4"x3/4"x1"
------	--------------



**H-10097**

Service tee  
 F.I.P. thread - **all ends**

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



**H-15387**

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

3/4"	3/4"x3/4"x1"	1"
------	--------------	----



**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. 9-09 Shaded area indicates changes



**H-15381**

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

3/4"	3/4"x3/4"x1"	1"	1"x1"x3/4"	1-1/2"x1-1/2"x3/4"
1-1/2"x1-1/2"x1"		1-1/2"x1-1/2"x1-1/2"		2"x2"x3/4"
2"x2"x1"		2"x2"x2"		



**P-15381**

Service tee  
 MUELLER Pack Joint  
 Connection for CTS O.D.\*  
 tubing-**all ends**

3/4"	3/4"x3/4"x1"	1"	1"x1"x3/4"	1-1/2"	2"
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**H-15444**

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

3/4"
------



**E-15444**

Service tee  
 MUELLER Pack Joint  
 Connection for IPS PE\*  
 tubing-**all ends**

3/4"
------



**H-15385**

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

3/4"	1"	1"x1"x3/4"
------	----	------------



**P-15385**

Service tee  
 M.I.P. thread x M.I.P. thread x  
 MUELLER Pack Joint  
 Connection for CTS O.D.\* tubing

3/4"	3/4"x3/4"x1"	1"
------	--------------	----



**H-15392**

Service tee  
 F.I.P. thread x F.I.P. thread x  
 MUELLER 110 Conductive  
 Compression Connection for  
 CTS O.D.\* tubing

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



**P-15393**

Service tee  
 F.I.P. thread x F.I.P. thread x  
 MUELLER Pack Joint  
 Connection for CTS O.D.\*  
 tubing

3/4"	1" ‡
------	------



**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.

**MUELLER Service Tees are manufactured and tested in accordance with ANSI/AWWA C800.**

# SERVICE FITTINGS WITH LEAD FLANGE CONNECTION



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

**H-10050**

1/2"‡	1/2"x3/4"‡	5/8"x3/4"	3/4"	1"	1-1/2"
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Straight coupling  
Extra strong (XS) lead flange  
coupling x M.I.P. thread

**H-10051**

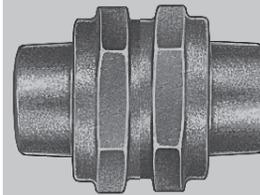
5/8"x3/4"	3/4"
-----------	------



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

**H-10054**

3/4"‡
-------



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

**H-10052**

5/8"
------

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

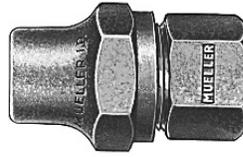
NOTE: Sizes shown above represent nominal size of fitting. When two sizes are given, first is size of lead flange coupling and second is size of threaded connection.



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

**H-15402**

3/4"
------



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

**H-15452**

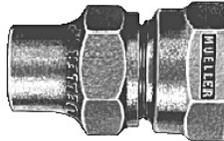
3/4" ‡	1" ‡
--------	------



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

**H-15427**

3/4"
------



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

**H-15467**

3/4"
------



Copper flare nut I.P.  
threaded

**H-15432**

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.

**MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.**

# SERVICE FITTINGS WITH HOSE CLAMP RIBBED INSERT TYPE CONNECTION



**H-12200**

Straight coupling Ribbed insert connection for IPS PE pipe (includes 2 stainless steel hose clamps) x female copper flare thread

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



**H-12215**

Straight coupling Ribbed insert connection for IPS PE pipe (includes 2 stainless steel hose clamps) x F.I.P. thread

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



**H-12203**

Straight coupling Ribbed insert connection for IPS PE pipe (hose clamps NOT included) x female copper flare thread

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



**H-12218**

Straight coupling Ribbed insert connection for IPS PE pipe (hose clamps NOT included) x F.I.P. thread

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



**H-12210**

Straight coupling Ribbed insert connection for IPS PE pipe (includes 2 stainless steel hose clamps) x M.I.P. thread

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



**504030 - 3/4" Size**  
**504031 - 1" Size**

Stainless steel hose clamp for 3/4" pipe-  
PART NUMBER : 504030  
Stainless steel hose clamp for 1" pipe-  
PART NUMBER: 504031



**H-12213**

Straight coupling Ribbed insert connection for IPS PE pipe (hose clamps NOT included) x M.I.P. thread

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

NOTE: Sizes shown above represent nominal size of fitting.  
MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

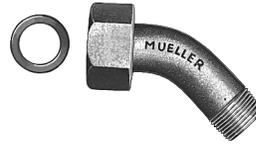
## SERVICE FITTINGS WITH THREADED CONNECTIONS



Straight 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

**H-10094**

3/4"
------



Eighth bend coupling  
Swivel nut with female MUELLER® Coupling thread x M.I.P. thread

**H-10022**

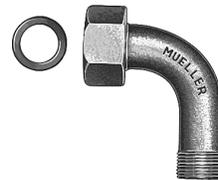
5/8"	3/4"	1"
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Quarter bend coupling  
Swivel nut with female increasing I.P. thread (this thread is one size larger than the nominal size of the fitting) x M.I.P. thread

**H-10096**

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



Quarter bend coupling  
Swivel nut with female MUELLER Coupling thread x M.I.P. thread

**H-10023**

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



Straight coupling  
Compression connection with set screw for use on steel pipe x M.I.P. thread

**H-15423-10**

3/4"	1"‡
------	-----



Straight coupling  
Compression connection with set screw (drilled for wire seal) for use on steel pipe x F.I.P. thread

**H-14233-10**

3/4" *	1"‡
--------	-----



Straight coupling  
Compression connection for use on steel pipe x F.I.P. thread

**H-14232**

3/4"‡ *
---------



Straight coupling  
Compression connection with set screw for use on steel pipe x F.I.P. thread

**H-14233**

3/4" *	1"‡
--------	-----



Quarter bend coupling  
MUELLER Coupling thread  
M.I.P. thread - **both ends**

**H-15538**

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



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

**H-10076**

3/4"	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.

**MUELLER Service Fittings are manufactured in accordance with ANSI/AWWA C800.**

## 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 - SDR-7

## MUELLER INSTA-TITE Connection replacement parts

Size	Gripper ring part number†	O-Ring part number
3/4" CTS PE (red gripper)	506325	506324
1" CTS PE (red gripper)	506327	506326
3/4" IPS PE (white gripper)	505885	505883
1" IPS PE (white gripper)	505886	505884



## 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**

Rev. 8-04 Shaded area indicates changes



Straight union  
MUELLER INSTA-TITE  
Connection for CTS O.D.\*  
PE tubing-both ends

**H-15406**

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



Straight union  
MUELLER INSTA-TITE  
Connection for IPS\* PE  
pipe- both ends

**H-15408**

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



Straight coupling  
MUELLER INSTA-TITE  
Connection for CTS O.D.\*  
PE tubing x M.I.P. thread

**H-15424**

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



Straight coupling  
MUELLER INSTA-TITE  
Connection for IPS\* PE  
pipe x M.I.P. thread

**H-15426**

3/4"	3/4"x1"	1"
------	---------	----



Straight coupling  
MUELLER INSTA-TITE  
Connection for CTS O.D.\*  
PE tubing x F.I.P. thread

**H-15457**

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



Straight coupling  
MUELLER INSTA-TITE  
Connection for IPS\* PE  
pipe x F.I.P. thread

**H-15456**

3/4"	3/4"x1"	1"
------	---------	----



Straight coupling  
MUELLER INSTA-TITE  
Connection for CTS O.D.\*  
PE tubing x female copper  
flare thread

**H-15074**

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



Straight coupling  
MUELLER INSTA-TITE  
Connection for IPS\* PE  
pipe x female copper flare  
thread

**H-15073**

3/4"	3/4"x1"	1"
------	---------	----



Quarter bend coupling  
MUELLER INSTA-TITE  
Connection for IPS\* PE  
pipe- both ends

**H-15464**

1"
----

\* 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.

# MUELLER<sup>®</sup> PACK JOINT CONNECTION INFORMATION



# 6.15

Shaded area indicates changes Rev. 8-04

## 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 O.D. 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
	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
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	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
1-1/2" IPS	Polyethylene	2.05 - 2.141	0.230 - 0.258	1.590 - 1.625	529116
	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	-	-
2" IPS	Polyethylene	2.637 - 2.742	0.295 - 0.330	2.047 - 2.082	529117
	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



Liner

## 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



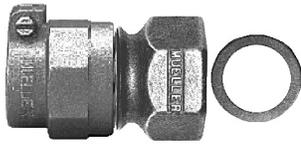
**Connection Kit**  
(includes Pack Joint, Gasket and washer)

# 6.14



# SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

Rev. 9-09 Shaded area indicates changes



**P-15071**

Straight coupling  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing x female copper  
flare thread

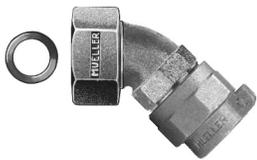
3/4"	1"	1"x3/4"	1-1/2"	2"
------	----	---------	--------	----



**P-15076**

Quarter bend coupling  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing x swivel nut with  
female copper thread

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



**P-15075**

Eighth bend coupling  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing x swivel nut with female  
copper thread  
\*\*Note: 3/4" size only may also be used on PVC

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



**P-15409**

Straight three part union  
MUELLER Pack Joint  
Connection for CTS O.D.  
tubing x 110 Compression  
Connection for IPS PE\*  
pipe

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



**P-15067**

Quarter bend coupling  
MUELLER Pack Joint Con-  
nection for CTS O.D.\* tubing  
x female copper flare thread  
\*\*Note: 3/4" size only may be used on  
PVC

1"x3/4"***
------------

\*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.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800

# SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

**Mueller Co.**

# 6.13

Shaded area indicates changes Rev. 9-09



**E-15404**

Straight coupling MUELLER Pack Joint Connection for IPS PE pipe - **both ends**  
\*\*Note: 3/4" size only may also be used on PVC

3/4"***	1"	1"x3/4"	1-1/2"	1-1/4"	2"
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**V-15401**

Straight coupling MUELLER Pack Joint Connection for IPS PVC pipe - **both ends**  
\*\*Note: 3/4" size only may also be used on IPS PE

1"x3/4"***
------------



**E-15443**

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

3/4"***	3/4"***x1"	1"
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**V-15441**

Straight coupling MUELLER Pack Joint Connection for IPS PVC pipe x Pack Joint Connection for CTS O.D. tubing

1"	1"x3/4"	1-1/2"	1-1/2"x3/4"	2"
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**E-15454**

Straight coupling MUELLER Pack Joint Connection for IPS PE\* x F.I.P. thread  
\*\*Note: 3/4" size only may also be used on PVC

3/4"***	1"	1"x3/4"***	1-1/4"	1-1/2"	2"
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**V-15442**

Straight coupling MUELLER Pack Joint Connection for IPS PVC\* pipe x F.I.P. thread

1"	1"x3/4"	1-1/2"	1-1/2"x3/4"	1-1/2"x1"	2"
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**E-15429**

Straight coupling MUELLER Pack Joint Connection for IPS PE\* x M.I.P. thread  
\*\*Note: 3/4" size only may also be used on PVC

3/4"***	3/4"***x1"	1"	1"x3/4"	1-1/4"	1-1/2"	2"
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**V-15440**

Straight coupling MUELLER Pack Joint Connection for IPS PVC\* pipe x M.I.P. thread

1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
----	---------	--------	-----------	----



**V-15445**

Straight coupling MUELLER Pack Joint Connection for IPS PVC pipe x MUELLER 110® Conductive Compression Connection for CTS O.D.\* tubing, 2 pc. const. Assembled wrench tite.

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 Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800**

# 6.12



# SERVICE FITTINGS WITH MUELLER® PACK JOINT CONNECTION

Rev. 9-09 Shaded area indicates changes



Straight three part union  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing- **both ends**

**P-15403**

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
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Quarter bend coupling  
MUELLER Pack Joint  
Connection for CTS  
O.D.\* tubing x F.I.P.  
thread

**P-15533**

3/4"	1"	1-1/2"	2"
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Eighth bend union  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing - **both ends**

**P-15528**

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



Straight coupling  
MUELLER Pack Joint  
Connection for CTS  
O.D.\* tubing x M.I.P.  
thread

**P-15428**

3/4"	1"	1"x3/4"	1-1/2"	1-1/2"x1"	2"
------	----	---------	--------	-----------	----



Quarter bend union  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing - **both ends**

**P-15526**

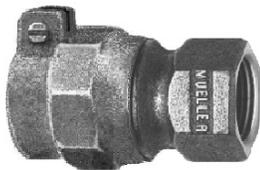
3/4"	1"	1-1/2"	2"
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Quarter bend coupling  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing x M.I.P. thread

**P-15531**

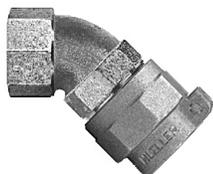
3/4"	1"	1-1/2"	2"
------	----	--------	----



Straight coupling  
MUELLER Pack Joint  
Connection for CTS O.D.\*  
tubing x F.I.P. thread

**P-15451**

3/4"	3/4"x1"	1"	1"x3/4"	1-1/2"	2"	2"x1-1/2"
------	---------	----	---------	--------	----	-----------



Eighth bend coupling  
MUELLER Pack Joint  
Connection for CTS O.D. \*  
tubing x F.I.P. thread

**P-15534**

3/4"	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.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

# MUELLER 110<sup>®</sup> COMPRESSION CONNECTION INFORMATION



# 6.11

Shaded area indicates changes Rev. 9-09

## 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 O.D. 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	-	-
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	504281
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	504385
1-1/4" CTS	Type "K" copper	1.371 - 1.379	0.060 - 0.070	-	-
	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	-	-
	Polyethylene	1.619 - 1.631	0.181 - 0.199	1.221 - 1.269	506139
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	506141
3/4" IPS	Polyethylene	1.045 - 1.110	0.118 - 0.138	0.809 - 0.834	505141
	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
1" IPS	Polyethylene	1.329 - 1.399	0.150 - 0.170	1.029 - 1.059	505142
	1" Sch. 40 PVC	1.310-1.320	0.133-0.153	-	-
	1" Sch. 80 PVC	1.310-1.320	0.179-0.200	-	-

\*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	Gasket 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
1" CTS	682551

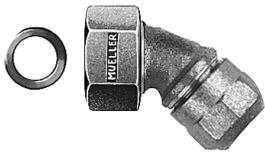


# 6.10



# SERVICE FITTINGS WITH MUELLER 110® COMPRESSION CONNECTION

Rev. 9-09 Shaded area indicates changes



Eight bend coupling  
MUELLER 110® Conduc-  
tive Compression Connection  
Type K x female MUELLER  
coupling thread

**H-15487**

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



Straight coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing x Dou-  
ble Extra Strong (XXS) lead  
flange thread

**H-15512**

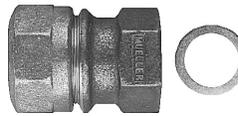
3/4"	1"
------	----



Quarter bend coupling  
MUELLER 110® Conductive  
Compression Connection for  
CTS O.D.\* tubing x female  
copper flare thread

**H-15067**

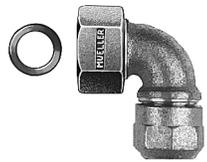
3/4"	
------	--



Straight coupling  
MUELLER 110 Compression  
Connection for IPS PE\* pipe  
x female copper flare thread

**H-15072**

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



Quarter bend coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D. \* tubing x swivel nut  
with female copper thread

**H-15076**

3/4"	1"x3/4"	1"
------	---------	----



Straight coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing x Extra  
strong (XS) lead flange thread

**H-15509**

5/8"x3/4"***	3/4"	1"
--------------	------	----



Quarter bend coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D. \* tubing x swivel nut  
with female MUELLER  
coupling thread

**H-15492**

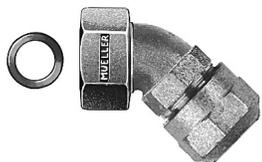
3/4"	1"
------	----



Straight coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing x female  
IPS PE Connection

**H-15077**

1"	
----	--



Eighth bend coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D. \* tubing x swivel  
nut with female copper  
thread

**H-15075**

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



Straight coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing x female  
copper flare thread

**H-15071**

1/2"	3/4"	3/4"x1"	1"	1"x3/4"	1-1/4"
1"x1-1/4"	1-1/2"	2"			

\*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 Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.**

# SERVICE FITTINGS WITH MUELLER 110<sup>®</sup> COMPRESSION CONNECTION

**Mueller Co.**

**6.9**

Shaded area indicates changes Rev. 9-09



Quarter bend coupling  
MUELLER 110<sup>®</sup> Conductive  
Compression Connection for  
CTS O.D.\* tubing x F.I.P.  
thread

**H-15533**

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



Quarter bend union  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing **-both ends**

**H-15526**

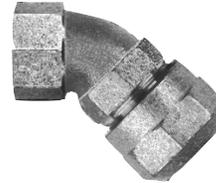
3/4"	1"	1-1/2"	2"
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Eighth bend union  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing **-both ends**

**H-15528**

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



Eighth bend coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D. \* tubing x F.I.P.  
thread

**H-15534**

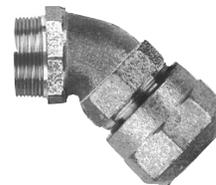
3/4"	1"
------	----



Quarter bend coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D.\* tubing x M.I.P.  
thread

**H-15531**

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



Eighth bend coupling  
MUELLER 110 Conductive  
Compression Connection for  
CTS O.D. \* tubing x M.I.P.  
thread

**H-15529**

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



Quarter bend union  
Internal swivel connection for  
110 compression or pack joint  
CTS x MUELLER 110 Conduc-  
tive Compression Connection for  
CTS O.D.\* tubing

**H-15550**

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

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

**MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.**

# 6.8



# SERVICE FITTINGS WITH MUELLER 110® COMPRESSION CONNECTION

Rev. 5-11 Shaded area indicates changes



**H-15403**

Straight three part union  
MUELLER 110® Conductive  
Compression Connection for  
CTS O.D.\* tubing-**both ends**

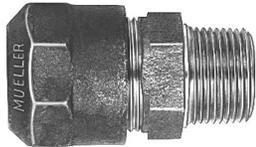
1/2"	1/2"x3/4"	5/8"x3/4"	3/4"	1"	1"x3/4"
1-1/4"	1-1/4"x1"	1-1/2"		1-1/2"x1"	2"



**H-15451**

tive Compression Connection  
for CTS O.D.\* tubing x F.I.P.  
thread  
Eighth bend coupling  
MUELLER 110 Conductive

1/2"	3/4"	3/4"x1"	1"	1"x3/4"	1"x1-1/4"
1-1/4"	1-1/4"x1"	1-1/2"	1-1/2"x1"	2"	2"x1-1/2"



**H-15428**

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

1/2"‡	3/4"	3/4"x1"	1"	1"x3/4"	1-1/4"
1-1/4"x1"	1-1/2"	1-1/2"x1"	1-1/2"x2"	2"	2"x1-1/2"



**H-15429**

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

3/4"	1"	1"x3/4"
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**H-15404**

Straight three part union  
MUELLER 110® Compression  
Connection for IPS PE\*  
pipe-**both ends**

3/4"	1"	1"x3/4"
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**H-15409**

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

3/4"	3/4"x1"	1"	1"x3/4"
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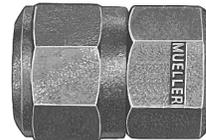


**E-15409**

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 on PVC

3/4"***	3/4"x1"	1"	1"x3/4"
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**H-15454**

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

3/4"	1"	1"x3/4"
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**H-15413**

Straight Female MUELLER  
Coupling Thread x 110 CTS  
Conductive Compression  
Connection for CTS O.D.

1"
----

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

‡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 MUELLER 110 Compression Connection and second is size of threaded end.

MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.

# COPPER FLARE TOOLS AND MISCELLANEOUS EQUIPMENT

## Copper flare connection optional equipment

### Copper flare nut



CATALOG NUMBER: **H-15430**

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
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### Solid copper disc



Used with regular copper flare nut to shut off line.

CATALOG NUMBER: **H-15535**

1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
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### Brass cap



Fits on copper flare spud to cap off line.

CATALOG NUMBER: **H-15540**

3/4"	1"	1-1/2"	2"
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### Flaring tool



Used to make 45° flare on type "K" copper tubing.

CATALOG NUMBER: **H-18000**

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

CATALOG NUMBER: **H-18005**

3/4"	1"
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### Reamer



Used to ream the inside of type "K" copper tubing to remove burrs prior to flaring.

CATALOG NUMBER: **H-18010**

1/2"	3/4"	1"
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### Brass Hammer

Solid brass head with 10" wooden handle. Weight 2-3/4 lb.



CATALOG NUMBER: **H-18025**

**Note: When using any striking tool, safety eye protection must be worn. Inspect hammer and tools for any damage after each use and repair or replace if mushrooming or chipping is evident.**

# 6.6



# SERVICE FITTINGS WITH COPPER FLARE CONNECTIONS

Rev. 9-09 Shaded area indicates changes



Straight union  
Extra strong (XS) lead  
flange coupling x copper  
flare nut

**H-15506**

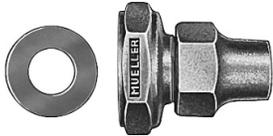
5/8"x3/4"	3/4"
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Eighth bend coupling Swivel  
nut with female extra strong  
(XS) lead flange thread x  
copper flare nut

**H-15516**

5/8"x3/4"	3/4"	1"
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Straight coupling Female  
extra strong (XS) lead  
flange thread x copper flare  
nut

**H-15505**

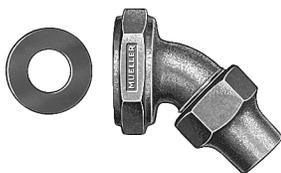
1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"
1"x3/4"	1-1/4"x1"	1-1/2"	2"	



Straight coupling Female  
double extra strong (XXS)  
lead flange thread x copper  
flare nut

**H-15510**

5/8"x3/4"	3/4"
-----------	------



Eighth bend coupling  
Female extra strong (XS)  
lead flange thread x copper  
flare nut

**H-15515**

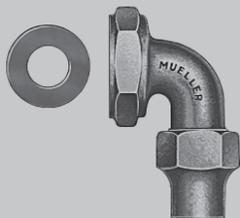
1/2"x3/4" ‡	5/8"x3/4"	3/4"	1"
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Quarter bend coupling  
Female extra strong (XS)  
lead flange thread x copper  
flare nut

**H-15513**

1/2"x3/4"	5/8"x3/4"	3/4"	1" ‡
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Quarter bend coupling  
Female extra strong (XS)  
lead flange thread x copper  
flare nut

**H-15513-03**

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

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.

**MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800**

# SERVICE FITTINGS WITH COPPER FLARE CONNECTION

Shaded area indicates changes Rev. 9-09



Quarter bend coupling  
Female copper flare thread x  
copper flare nut

**H-15068**

3/4"	1"	1"x3/4"	1-1/4" ‡	1-1/2"	2"
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Straight coupling Female  
MUELLER® Coupling  
thread x copper flare nut

**H-15480**

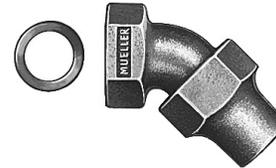
1/2"x 3/4"	5/8"x 3/4"	3/4"	3/4" x 1"	1"	1" x 3/4"
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Straight coupling Female  
increasing I.P. thread (this  
thread is one size larger than  
nominal size of fitting) x  
copper flare nut

**H-15465**

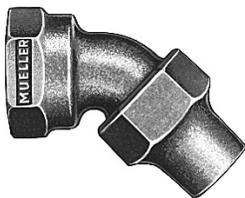
3/4"	1-1/2" ‡	2" ‡
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Eighth bend coupling  
Female MUELLER Cou-  
pling thread x copper flare  
nut

**H-15485**

1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"	1"x3/4"
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Eighth bend coupling Female  
increasing I.P. thread (this  
thread is one size larger than  
nominal size of fitting) x  
copper flare nut

**H-15470**

3/4"	1"	1-1/4"	1-1/2"	2"
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Quarter bend coupling  
Female MUELLER  
Coupling thread x copper  
flare nut

**H-15490**

1/2"x3/4"	5/8"x3/4"	3/4"	1"	1"x3/4"
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Quarter bend coupling  
Female increasing I.P. thread  
(this thread is one size larger  
than nominal size of fitting) x  
copper flare nut

**H-15475**

3/4"	1"	1-1/2"	2"
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Quarter bend coupling  
Internal swivel connection  
for 110 compression or  
pack joint CTS x copper  
flare nut

**H-15551**

3/4"	1"
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Straight coupling Female  
copper flare thread x M.I.P.  
thread

**H-15098**

3/4"	1"
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Straight coupling Female  
copper flare thread x F.I.P.  
thread

**H-15082**

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

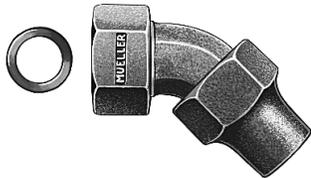
**MUELLER Service Fittings are manufactured in accordance with ANSI/AWWA C800.**

# 6.4



# SERVICE FITINGS WITH COPPER FLARE CONNECTION

Rev. 9-09 Shaded area indicates changes



Eighth bend coupling  
Swivel nut with female  
copper flare thread x cop-  
per flare nut

**H-15064**

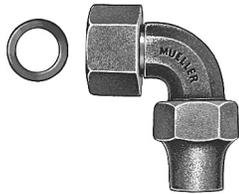
3/4"	1"
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Eighth bend coupling  
Swivel nut with female  
MUELLER® Coupling  
thread x copper flare nut

**H-15486**

1/2"x3/4"	5/8"x3/4"	3/4"	1"
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Quarter bend coupling  
Swivel nut with female  
copper flare thread x cop-  
per flare nut

**H-15069**

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



Quarter bend coupling  
Swivel nut with female  
MUELLER Coupling  
thread x copper flare nut

**H-15491**

1/2"x3/4"	5/8"x3/4"	3/4"	1"
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Eighth bend coupling  
Swivel nut with female  
increasing I.P. thread (this  
thread is one size larger  
than nominal size of fit-  
ting) x copper flare nut

**H-15471**

3/4"	1"‡
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Straight coupling Female  
copper flare thread x cop-  
per flare nut

**H-15062**

3/4"x1"	1"x3/4"	1"x1-1/4"
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Quarter bend coupling  
Swivel nut with female  
increasing I.P. thread (this  
thread is one size larger  
than nominal size of fit-  
ting) x copper flare nut

**H-15476**

3/4"	1"
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Eighth bend coupling  
Female copper flare thread  
x copper flare nut

**H-15063**

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

**MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800.**

# SERVICE FITTINGS WITH COPPER FLARE CONNECTION

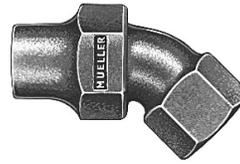
Shaded area indicates changes Rev. 8-04



Two Part Union  
Copper flare nut x female  
copper flare thread

**H-15405**

3/4"	1"	1-1/2"	2"
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Eighth bend coupling  
Copper flare nut x F.I.P.

**H-15455**

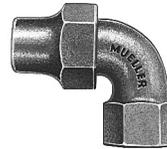
3/4"	1" ‡
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Straight three part union  
Copper flare nut—both ends

**H-15400**

1/2"	3/4"	3/4"x1"	1"	1-1/4"	1-1/4"x1"	1-1/2"
2"						



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

**H-15460**

3/4"	1"	1-1/4" ‡	1-1/2" ‡	2"
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Eighth bend three part union  
Copper flare nut—both ends

**H-15522**

3/4"	1"
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Straight coupling  
Copper flare nut x M.I.P.

**H-15425**

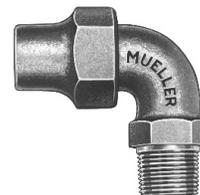
1/2" ‡	1/2"x3/4"	3/4"	3/4"x1/2"	3/4"x1"	1"
1"x3/4"	1"x1-1/4" ‡	1-1/4"	1-1/2"	2"	



Quarter bend three part union  
Copper flare nut—both ends

**H-15525**

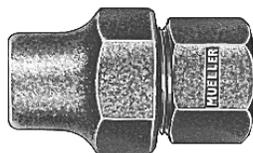
3/4"	1"	1-1/2"	2"
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Quarter bend coupling  
Copper flare nut x M.I.P.

**H-15530**

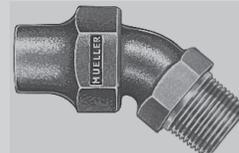
1/2" ‡	3/4"	1"	1"x3/4"	1-1/2" ‡	2"
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Straight coupling  
Copper flare nut x F.I.P.

**H-15450**

1/2"	1/2"x3/4" ‡	3/4"	3/4"x1/2"	1"	1"x3/4"	1-1/4"	1-1/2"	2"
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Eighth bend coupling M.I.P.  
x copper flare nut

**H-15539**

3/4"	1"
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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.

**MUELLER Service Fittings are manufactured and tested in accordance with ANSI/AWWA C800**

Rev. 4-01

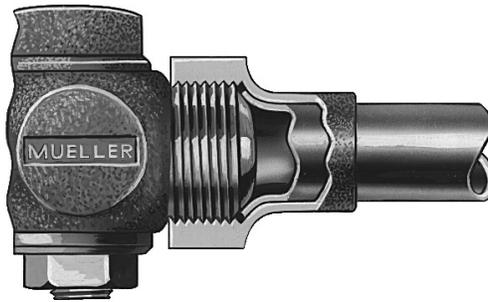
### MUELLER® INSTA-TITE® Connection

- ❑ BODY - is cast from corrosion resistant bronze ASTM B62 (85-5-5-5).
- ❑ 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.
- ❑ 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.
- ❑ 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).
- ❑ 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.



- ❑ CONNECTION MEETS - all applicable parts of AWWA C800 standard.
- ❑ MUELLER CO. - was instrumental in introducing the copper flare connection to the water industry as an alternative to the old lead connections.
- ❑ 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).

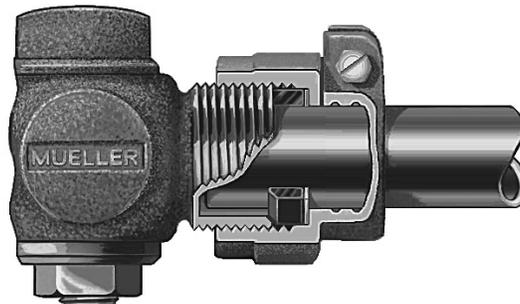
### Copper Flare Connection



- ❑ 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.

- ❑ 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.
- ❑ MUELLER PACK JOINT CONNECTION- available in three styles: for type "K" copper and PE tubing (CTS), for IPS PE (PEP) and PVC pipe.

### Pack Joint Connection



- ❑ 3/4" & 1" CTS NUT/GASKET ASSEMBLY ARE INTERCHANGABLE - 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).