

Rev. 10-15 Shaded area indicates changes

### Mueller Drilling and Tapping Machine equipment required to install corporation valves having Mueller 110® Compression Connection outlet

Valve size (nominal) (If two numbers: Inlet x Outlet)		1/2"	3/4"		3/4"x1"		1"		1-1/2"	2"
Combined drill and tap size - see section 1 for part numbers		CTS	CTS	IPS PE	CTS	IPS PE	CTS	IPS PE	CTS	CTS
B-101/B-100 inserting tool		1/2"	3/4"				1"		1-1/2"	2"
A-3 inserting tool		680598	680600	680688	680601	680689	680601	680689	-	-
Maximum allowable size drill or shell cutter - see section 2 for part numbers	AWWA I.P.	7/16"	11/16"	11/16"	11/16"	11/16"	7/8"	7/8"	1-7/16**	1-3/4**
	CC (AWWA taper)	7/16"	11/16"	11/16"	11/16"	11/16"	15/16"	15/16"	1-7/16**	1-15/16**
Mega-Cut™/E-5 machine adapter nipple		63796	52019	508919	36750	508920	36750	508920	501949	508199
D-5 machine adapter nipple		37900	37902	508917	37903	508918	37903	508918	597644	507645
Tru-Cut/PL-2 machine adapter nipple for use on 1.125" max. wall PVC		-	507632	509050	507633	509051	507633	509051	-	-

\*Ball and ORI-CORP® Corporation valves IP and CC inlet: 1-7/8" maximum.

### 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	-	-
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
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 SDR-7; IPS polyvinylchloride (PVC) per ASTM D1785



Liner

### Mueller 110 Compression Connection replacement parts

Size	Kit	Gasket part number†	Connection nut
1/2" CTS		681516	147542
3/4" CTS	682600	581949	507831
1" CTS	682601	581951	507835
1-1/2" CTS	682602	581955	507847
2" CTS	682603	581957	507851
3/4" IPS PE	-	89599	508826
1" IPS PE	-	89788	508827

†Gasket and gripper band assembly



Gasket



Nut

### Corporation Valve Wrench



H-10048

For operating up to and including 1" corporation valves.

**Mueller® Drilling and Tapping Machine equipment required to install corporation valves having Mueller INSTA-TITE Connection outlets**

Valve size (nominal) (If two numbers: Inlet x Outlet)	3/4" CTS PE or IPS PE	3/4" x 1" CTS PE of IPS PE	1" CTS PE or IPS PE
<b>Combined drill and tap size - see section 1 for part numbers</b>	3/4"		1"
B-101/B-100 inserting tool	680600	680601	
A-3 inserting tool	-	-	680601
<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)		15/16"
Mega-Cut™/E-5 machine adapter nipple	52019	36750	
D-5 machine adapter nipple	37902	37903	
Tru-Cut/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	507632	507633	

**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	0.0871-0.879	0.097-0.107	0.0657-0.685
1" CTS PE		1.120-1.130	0.125-0.137	0.846-0.880
3/4" IPS PE		1.045-1.110	0.118-0.138	0.809-0.834
1" IPS 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 - PE SIDR-7

**Mueller INSTA-TITE Connection replacement parts**

Size	Gripper ring part number	O-ring part number
3/4" CTS PE	506325	506324
1" CTS PE	506327	506326
3/4" IPS PE	505885	505883
1" IPS PE	505886	505884



**Corporation Valve Wrench**

For operating up to and including 1" corporation stops and valves.



**Mueller INSTA-TITE Connection optional equipment 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 special beveling tool for CTS PE tubing and IPS PE pipe.



PART NUMBER: **H-18015** for 3/4" and 1" CTS tubing  
 PART NUMBER: **H-18017** for 3/4" and 1" IPS 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. 5-20 Shaded area indicates changes

### Mueller® Drilling and Tapping Machine equipment required to install corporation having Mueller Pack Joint Connection outlets

Valve size (nominal) (If two numbers: Inlet x Outlet)	1/2" CTS	3/4" CTS	IPS, PE, & PVC	3/4"x1" CTS	IPS, PE, & PVC	1" CTS	IPS, PE, & PVC	1-1/2" CTS	IPS & PE	IPS & PVC	2" CTS	IPS & PE	IPS & PVC
Combined drill and tap size - see section 1 for part numbers	CTS	3/4"			1"		1-1/2"			2"			
B-101/B-100 inserting tool	680598	680600	-	680601	680601	-	-	-	-	-	-	-	-
A-3 inserting tool	-	-	-	-	-	680601	-	680421	-	-	680422	-	-
Maximum allowable size drill or shell cutter - see section 2 for part numbers	AWWA I.P.	7/16"	11/16"	-	11/16"	-	7/8"	-	1-7/16"	1-7/16"	-	1-3/4"	1-3/4"
	CC (AWWA taper)	7/16"	11/16"	-	11/16"	-	15/16"	-	1-7/16"	1-7/16"	-	1-15/16"	1-15/16"
Mega-Cut™/E-5 machine adapter nipple	63796	52019	508919	36750	682256	36750	682256	501949	508199**	682257	508199	682258	682258
D-5 machine adapter nipple	37900	37902	508917	37903	682259	37903	682259	507644	507645**	682033	507645	682034	682034
Tru-Cut/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	-	507632	509050	507633	-	507633	-	-	-	-	-	-	-

\* Ball and ORI-CORP® Corporation valves IP and CC inlet: 1-7/8" maximum. \*\* Adapter is also used or 2" CTS 110

### Tubeing, pipe and liners used with MUELLER Pack Joint Connection

Nominal size of connection	Material*	Tubeing or pipe O.D. range - inches	Tubeing or pipe wall thickness range - inches	Tubeing 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	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
	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 tubeing 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

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

Nominal size of connection	Material	Tubeing or pipe O.D. range - inches	Tubeing 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
	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
	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
	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
	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



PVC PEP Corp stop caps  
Use with PEP/PVC nut to seal off line  
**V15535** for PVC PJ end  
**E15535** for PEP PJ end



3/4"	1"	1-1/4"	1-1/2"	2"
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**Mueller® Drilling and Tapping Machine equipment required to install corporation valves having copper flare connection outlet**

Valve size (nominal) (If two numbers: Inlet x Outlet)	1/2"	1/2"x3/4"	5/8"x3/4"	3/4"	3/4"x1"	1"	1-1/4"	1-1/2"	2"	
Combined drill and tap size - see section 1 for part numbers	1/2"	1/2"	5/8"	3/4"	3/4"	1"	1-1/4"	1-1/2"	2"	
B-101/B-100 inserting tool	680598	680600	680600	680600	680601	680601	-	-	-	
A-3 inserting tool	-	-	-	-	-	680601	680602	88640	88641	
Maximum allowable size drill or shell cutter - see section 2 for part numbers	AWWA I.P.	7/16"	7/16"	9/16"	11/16"	11/16"	7/8"	1-1/8"	1-7/16"	1-3/4"
	CC (AWWA taper)	7/16"	7/16"	9/16"	11/16"	11/16"	15/16"	1-3/16"	1-7/16"	1-15/16"
Mega-Cut™/E-5 machine adapter nipple	63796	52019	52019	52019	36750	36750	682256	501947	508201	
D-5 machine adapter nipple	37900	37902	37902	37902	37903	37903	682259	37905	37906	
Tru-Cut/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	-	-	-	507632	507633	507633	-	-	-	

\* Ball and ORI-CORP® Corporation valves IP and CC inlet: 1-7/8" maximum.

**I.P. thread copper flare connection optional equipment**

**I.P. thread copper flare nut**

This connection thread is one size larger than the copper tubing to be flared.

CATALOG NUMBER:  
**H-15432**



3/4"	1"
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**Solid copper disc**

Used with regular copper flare nut to shut off line.

CATALOG NUMBER:  
**H-15535N**



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

Cap off line

**H-15540N**

Copper flare thread



3/4" *	1" *	1-1/2"	2"
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**H-15545N**

CTS 110 thread

1-1/2"	2"
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\* 3/4" and 1" CTS 110 has copper flare thread

**Flaring Tool**

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

CATALOG NUMBER:  
**H-18000**



1/2"	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**



**Compression to Flare Push-in-Bushing**

CATALOG NUMBERS:

3/4" - 682332    1" - 682333



**Corporation Valve Wrench**

For operating up to and including 1" corporation and valves.

CATALOG NUMBER:

**H-10048**



**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 evident.**

Rev. 6-11 Shaded area indicates changes

### MUELLER Drilling and Tapping Machine equipment required to install corporation valves having MUELLER Grip Compression Connection outlet

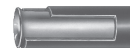
Valve size (nominal) (If two numbers: Inlet x Outlet)	3/4"	3/4" x 1"	1"	1-1/2"	2"	3/4"	3/4"x1"	1"	
	CTS	CTS	CTS	CTS	CTS	IPS PE	IPS PE	IPS PE	
Combined drill and tap size - see section 1 for part numbers	3/4"	3/4"	1"	1-1/2"	2"	3/4"		1"	
B-101/B-100 inserting tool	680600	680601	680601	-	-	680688	680602	680602	
A-3 inserting tool	-	-	680601	680421	680422	-	-	680602	
Maximum allowable size drill or shell cutter - see section 2 for part numbers	AWWA I.P.	11/16"	11/16"	7/8"	1-7/16"	1-3/4"	11/16"	11/16"	7/8"
	CC (AWWA taper)	11/16"	11/16"	15/16"	1-7/16"	1-15/16"	11/16"	11/16"	15/16"
Mega-Cut™/E-5 machine adapter nipple	52019	36750	36750	501949	508199	508919	682256	682256	
D-5 machine adapter nipple	37902	37903	37903	507644	507645	508917	682259	682259	
Tru-Cut/PL-2 machine adapter nipple for use on 1.125" max. wall PVC	507632	507633	507633	-	-	509050	682290	682290	

\*Ball and ORI-CORP® Corporation valves IP and CC inlet: 1-7/8" maximum.

### 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
1-1/4" 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	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

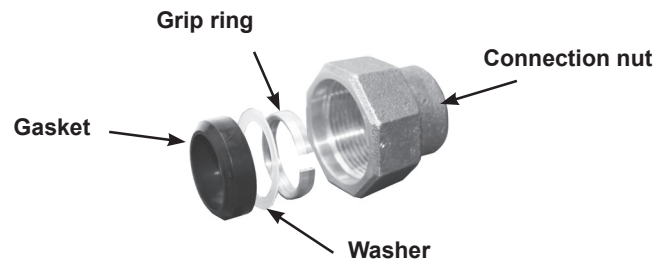
\*Type "K" soft copper tubing per ASTM B88; CTS polyethylene (PE) per ASTM D-2737 - SDR-9  
IPS polyethylene (PE) per ASTM D-2239 - PE SIDR-7



Liner

### 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
1-1/4" CTS	683024	313095	312122	313098	538321
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



### Corporation Valve Wrench

For operating up to and including 1" corporation valves.



H-10048