Press System Copper Fittings

PRESS FITTINGS FOR PLUMBING AND MECHANICAL APPLICATIONS

JOB NAME	**CONTRACTOR**
JOB LOCATION	**WHOLESALER**
ENGINEER	**STREAMLINE PRS™ REP**

PRODUCT DESCRIPTION:

Streamline PRS™ mechanical press copper fittings for use in plumbing or mechanical applications. Available sizes ranging from 1/2" to 4" in diameter. Product is designed to join ASTM B88 (Types K, L, M) hard-drawn copper tube (1/2" to 4") and soft copper tube (1/2" to 1-1/4").

Integral leak featured design, allows for quick and easy identification of connections which have not been pressed prior to putting the system in operation.

Streamline PRS™ mechanical press fittings are compatible with most common pressing tools and jaws.

50 – Year Limited Warranty

MATERIAL:

Streamline PRS™ components in a mechanical press copper fitting are: UNS C12200 Copper / C69300 low-lead brass for the body, EPDM o-ring, silicone o-ring lubrication, and stainless steel grip ring with a nylon spacer (2-1/2"-4" only).

KEY SPECIFICATIONS:

Streamline PRS™ shall conform to material requirements of ASME B16.22, ASME B16.51, or ASME B16.18. Performance criteria of Streamline PRS™ mechanical press copper fittings shall conform to IAPMO PS-117 or ASME B16.51.

INSTALLATION:

Streamline PRS™ fittings are approved for installations in both above and below ground applications, as allowed by local code. Product installation shall comply with the latest applicable building codes for the local jurisdiction and manufacturer's instructions.

REFERENCES:

NSF/ANSI 61	Drinking Water System Components
NSF/ANSI 372	Lead Content Compliance
IAPMO PS-117	Press and Nail Connection
ASME B16.51	Copper and Copper Alloy Press-Connect Pressure Fittings
UPC	Uniform Plumbing Code
CSA TIL-MSE-13	

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MUELLER STREAMLINE CO.

TOOLS & INSTALLATION GUIDELINES

TOOL & JAW COMPATIBILITY

1/2" — 2"

Milwaukee M12 Tool w/Compact Jaws 1/2" — 1-1/4"
Milwaukee M18 Tool w/Standard Jaws 1/2" — 2"
NIBCO Mini Tool w/Mini Jaws 1/2" — 1"
NIBCO Standard Tool w/Standard Jaws 1/2" - 2"
REMS Mini Tool w/Mini Jaws 1/2" — 1-1/4"
REMS Standard Tools w/Standard Jaws 1/2" — 2"
Ridgid Compact Tools w/Compact Jaws 1/2" — 1-1/4"
Ridgid Standard Tools w/Standard Jaws 1/2" — 2"
Rothenberger Compact Tool w/Compact Jaws 1/2" — 1"
Rothenberger Standard Tools w/Standard Jaws 1/2" — 2"
Klauke UPA Tool w/Standard Jaws 1/2" — 2"
Klauke MAP Tool w/Mini Jaws 1/2" — 1-1/4"

2-1/2" — 4"

Milwaukee M18 Tools w/Rings & Ring Jaw
REMS Standard Tools w/Rings & Z5 Adapter Tong
Ridgid Standard Tools w/ Rings & V2 Actuator Jaw

DISTANCE BETWEEN JOINTS PRESSING NEAR AN EXISTING PRESS CONNECTION

MINIMUM DISTANCE BETWEEN STREAMLINE PRS™ JOINTS		
TUBE DIAMETER	MINIMUM DISTANCE REQUIRED	
NOMINAL INCH	INCH	MM
1/2"	—	—
3/4"	—	—
1"	—	—
1-1/4"	7/16"	10
1-1/2"	5/8"	15
2"	3/4"	20
2-1/2"	5/8"	15
3"	5/8"	15
4"	5/8"	15

SOLDERING OR BRAZING NEAR AN EXISTING PRESS CONNECTION

The installer should take precautions to keep the press connection cool. These methods may include 1) wrapping the press connection with a cold wet cloth, 2) fabricating solder connections prior to installing the press fitting, or 3) applying spray-type cooling gels.

TUBE DIAMETER NOMINAL INCH	SOLDERING		BRAZING	
	MINIMUM DISTANCE		MINIMUM DISTANCE	
	INCH	MM	INCH	MM
1/2"	1-1/2"	38	4-1/2"	114
3/4"	2-1/4"	57	6-3/4"	172
1"	3"	76	9"	229
1-1/4"	3-3/4"	95	11-1/4"	286
1-1/2"	4-1/2"	114	13-1/2"	343
2"	6"	153	18"	457
2-1/2"	7-1/2"	191	22-1/2"	572
3"	9"	229	27"	686
4"	12"	305	36"	915

PRESSING NEAR AN EXISTING SOLDERED OR BRAZED CONNECTION

TUBE DIAMETER NOMINAL INCH	MINIMUM DISTANCE	
	INCH	MM
1/2"	1/4"	7
3/4"	1/4"	7
1"	7/16"	11
1-1/4"	7/16"	11
1-1/2"	5/8"	16
2"	3/4"	19
2-1/2"	1/4"	7
3"	1/4"	7
4"	1/4"	7

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APPROVED APPLICATIONS FOR 1/2" TO 4" STREAMLINE PRS™:

Types of Service	Comments	Pressure	Temperature	Compatible with EPDM Seal
FLUIDS/WATER POTABLE				
Hot and Cold Water	—	200 PSI	32°F to 250°F	√
Rainwater / Grey Water	—	200 PSI	-20°F to 250°F	√
Chilled Water	Ethylene Glycol / Propylene Glycol	200 PSI	-20°F to 250°F	√
Hydronic Heating	Ethylene Glycol / Propylene Glycol	200 PSI	-20°F to 250°F	√
Cooling Water	Up to 50% Ethylene Glycol or Propylene Glycol solution	200 PSI	-20°F to 250°F	√
Low-Pressure Steam	—	UP TO 15 PSI	248°F	√
FUEL, OIL AND LUBRICANT				
Ethanol	Pure Grain Alcohol	200 PSI	—	√
GASES				
Compressed Air	Less than 25mg/m^3 oil content	200 PSI	Up to 140°F	√
Oxygen - O_2 (non medical)	Keep oil and fat free/non-liquid O_2	140 PSI	Up to 140°F	√
Nitrogen - N_2	—	200 PSI	Up to 140°F	√
Argon	Welding Use	200 PSI	Up to 140°F	√
Hydrogen - H_2	—	125 PSI	Up to 140°F	√
Vacuum	—	Max 29.2 inches of Mercury	Up to 140°F	√
Carbon Dioxide - CO_2	Dry	—	Up to 140°F	√

STREAMLINE PRS™ RECOMMENDED PRESSURE TESTING:

Unpressed connections are located by pressurizing the system with air or water. When testing with water the proper pressure range is 15 PSI to 50 PSI maximum. Leak testing with air can be dangerous at high pressures. When testing with compressed air the proper pressure range up to 15 PSI maximum. Following a successful leak test, the system may be pressure tested up to 200 PSI if required by local code requirements or project specifications.

SPECIFICATION LANGUAGE:

Press Fitting: Shall conform to material requirements of ASME B16.22, ASME B16.51, or ASME B16.18. Performance criteria of mechanical pressed copper fittings shall conform to IAPMO PS-117 or ASME B16.51

a. Operating pressure: 200 PSI CWP Max
b. Temperature range: -20°F to 250°F
c. EPDM sealing element, factory installed

-OR-

Mechanical pressed copper fittings. Jointing piping similar to Mueller Industries Streamline PRS™, Viega ProPress, or approved equal may be used.

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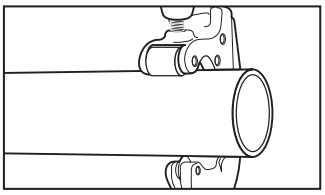
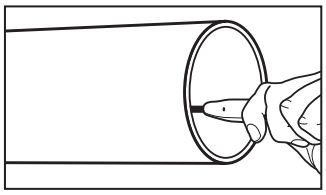
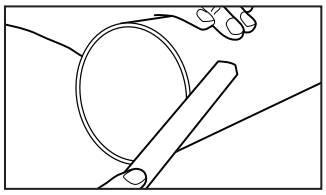
Installation Instructions (1/2" - 2")



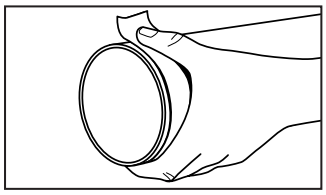
1. Cut tube square using a tube cutter or fine tooth saw.



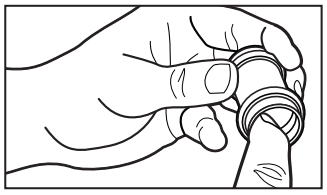
2. Deburr tube ID using a deburring tool.



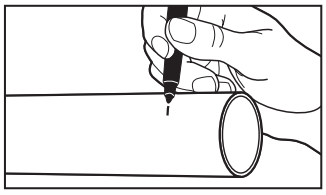
3. Deburr tube OD using half round file.



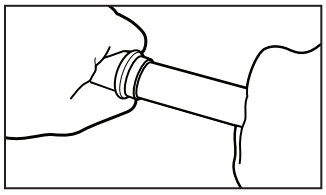
4. Sand tube with OD sand cloth. Tube surface should be free of indentation, scratches, and deformations.



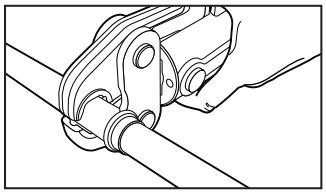
5. Check fitting bead to ensure seal is present. Do not use any type of oil lubrication.



6. Mark tube to proper fitting insertion depth (see Insertion Depth Chart below).



7. Turn slightly while sliding press fitting onto tube. Slide all the way to insertion mark and make contact with stop.

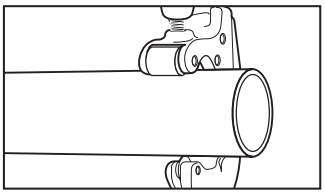


8. Place press tool at a right angle over fitting bead. Start the pressing process. Please see specific tool manufacturer for tool instruction.

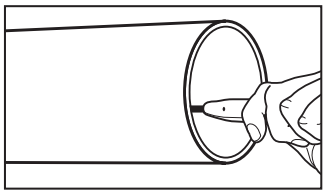
Streamline PRS Fitting Insertion Depth Chart (1/2" - 2")						
Tube Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Insertion Depth	3/4"	7/8"	7/8"	1"	1-7/16"	1-9/16"

Streamline PRS fittings must be connected with approved press tool.
Please see specific tool manufacturer for tool instruction.

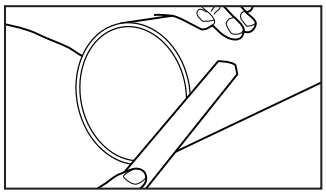
Installation Instructions (2-1/2" - 4")



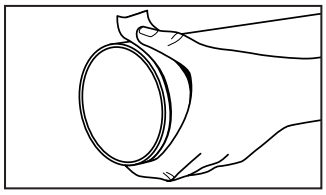
1. Cut tube square using a tube cutter or fine tooth saw.



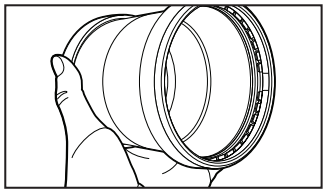
2. Deburr tube ID using a deburring tool.



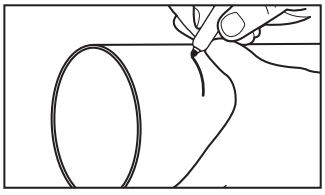
3. Deburr tube OD using half round file.



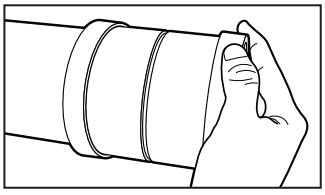
4. Sand tube with OD sand cloth. Tube surface should be free of indentation, scratches, and deformations.



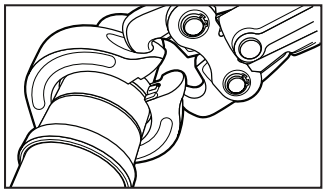
5. Check fitting ends to ensure seal, grip ring and nylon spacer are present Do not use any type of oil lubrication.



6. Mark tube to proper fitting insertion depth (see Insertion Depth Chart below).

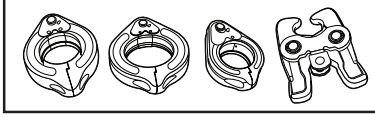


7. Turn slightly while sliding press fitting onto tube. Slide all the way to insertion mark and make contact with stop.



8. Place press-ring at a right angle over fitting bead and check for proper engagement. Start the pressing process. Please see specific tool manufacturer for tool instruction.

Streamline PRS Fitting Insertion Depth Chart (2-1/2" - 4")			
Tube Size	2-1/2"	3"	4"
Insertion Depth	1-3/4"	1-7/8"	2-1/8"



Large diameter (2-1/2" – 4") Streamline PRS fittings must be connected with approved press tool and press-rings. Please see specific tool manufacturer for tool instruction.

⚠ WARNING

Failure to follow all instructions could affect joint/system integrity and may lead to property damage. Call Customer Service at 1-800-FITTING if you have any questions or need assistance.

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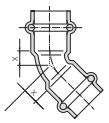
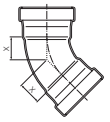
MUELLER STREAMLINE CO.

45° ELBOW • SMALL
P x P



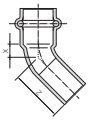
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 03026	1/2"	0.31	0.08	10	77607
PF 03034	3/4"	0.37	0.15	10	77023
PF 03044	1"	0.45	0.21	5	77028
PF 03050	1-1/4"	0.51	0.29	1	77033
PF 03055	1-1/2"	0.59	0.58	1	77038
PF 03059	2"	0.79	0.81	1	77043

45° ELBOW • LARGE
P x P



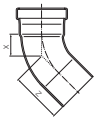
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 03063	2-1/2"	1.30	1.74	1	20653
PF 03067	3"	1.57	2.27	1	20658
PF 03073	4"	2.07	4.10	1	20663

45° ELBOW • STREET • SMALL
FTG x P



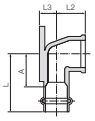
Item No.	Diameter	X	Z	Wgt.	Inner	Viega No.
PF 03326	1/2"	0.31	1.25	0.08	10	77637
PF 03334	3/4"	0.37	1.32	0.15	10	77053
PF 03344	1"	0.45	1.44	0.20	5	77058
PF 03350	1-1/4"	0.51	1.67	0.28	1	77063
PF 03355	1-1/2"	0.59	2.13	0.56	1	77068
PF 03359	2"	0.79	2.48	0.80	1	77073

45° ELBOW • STREET • LARGE
FTG x P



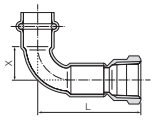
Item No.	Diameter	X	Z	Wgt.	Inner	Viega No.
PF 03363	2-1/2"	1.30	3.23	1.56	1	20668
PF 03368	3"	1.57	3.66	2.32	1	20673
PF 03373	4"	2.07	4.41	3.95	1	20678

90° ELBOW • DROP EAR • SMALL
P x FPT



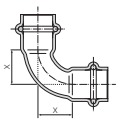
Item No.	Diameter	A	L	L2	L3	Wgt.	Inner	Viega No.
PF 01508	1/2"	0.94	1.88	0.90	0.85	0.21	5	79190
PF 02581	3/4"	1.12	2.02	1.05	1.06	0.29	5	79195

90° ELBOW • FEMALE • SMALL
P x FPT



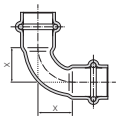
Item No.	Diameter	L	X	Wgt.	Inner	Viega No.
PF 01507	1/2"	1.71	0.76	0.18	5	79525
PF 01532	3/4"	2.16	1.04	0.31	5	79540
PF 01559	1"	2.55	1.31	0.40	5	79550
PF 01594	1-1/4"	3.02	1.65	0.68	1	79560
PF 01632	1-1/2"	3.42	2.55	0.97	1	79565
PF 01680	2"	4	2.61	1.63	1	79570

90° ELBOW • SHORT RADIUS • SMALL
P x P



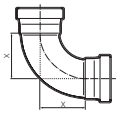
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 01634	3/4''	0.75	0.18	10	77022
PF 01647	1''	1.22	0.28	5	77027
PF 02084	1-1/4''	1.22	0.35	1	77032
PF 02085	1-1/2''	1.24	0.63	1	77037
PF 02086	2''	2.05	1.07	1	77042

90° ELBOW • LONG RADIUS • SMALL
P x P



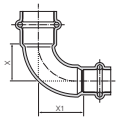
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 02722	1/2"	0.72	0.11	10	77317
PF 02734	3/4"	1.04	0.21	10	77322
PF 02747	1"	1.32	0.27	5	77327
PF 02055	1-1/4"	1.65	0.40	5	77332
PF 02063	1-1/2"	2.00	0.70	5	77337
PF 02072	2"	2.62	1.10	1	77342

90° ELBOW • LONG RADIUS • LARGE
P x P



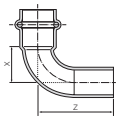
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 02082	2-1/2"	2.99	2.09	1	20623
PF 02092	3"	3.62	2.10	1	20628
PF 02095	4"	4.74	5.61	1	20633

90° ELBOW • LONG RADIUS • REDUCING • SMALL
P x P



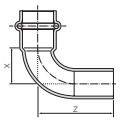
Item No.	Diameter	L3	X	X1	Wgt.	Inner	Viega No.
PF 02736	3/4" x 1/2"		1.02	1.26	0.19	15	77325
PF 02749	1" x 3/4"		1.30	1.54	0.30	10	77330

90° ELBOW • SHORT RADIUS • SMALL
P x FPT



Item No.	Diameter		X	Z	Wgt.	Inner	Viega No.
PF 01654	3/4''		0.75	2.01	0.17	10	77052
PF 02344	1''		1.22	2.28	0.27	5	77057
PF 02384	1-1/4''		1.22	2.84	0.35	1	77062
PF 02385	1-1/2''		1.24	3.52	0.64	1	77067
PF 02386	2''		2.05	4.15	1.03	1	77072

90° ELBOW • LONG RADIUS • STREET • SMALL
FTG x P



Item No.	Diameter	X	Z	Wgt.	Inner	Viega No.
PF 02822	1/2"	0.75	0.82	0.11	10	77347
PF 02834	3/4"	1.04	1.14	0.21	10	77352
PF 02847	1"	1.29	1.34	0.29	5	77357
PF 02350	1-1/4"	1.65	1.73	0.41	1	77362
PF 02355	1-1/2"	2.00	2.08	0.73	1	77367
PF 02359	2"	2.56	2.56	1.13	1	77372
PF 02363	2-1/2"	2.99	5.00	2.05	1	20638
PF 02368	3"	3.62	5.75	3.03	1	20643
PF 02395	4"	4.74	7.17	5.68	1	20648