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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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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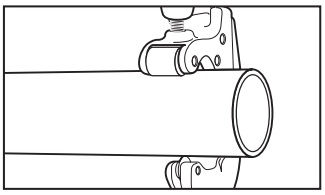
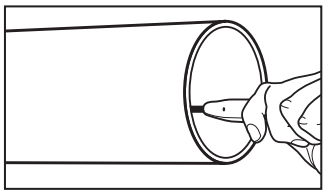
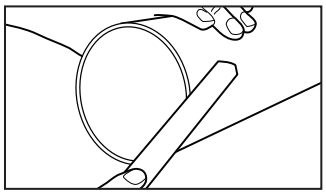
Installation Instructions (1/2" - 2")



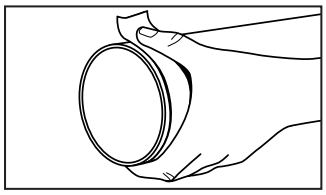
1. Cut tube square using a tube cutter or fine tooth saw.



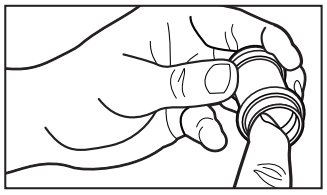
2. Deburr tube ID using a deburring tool.



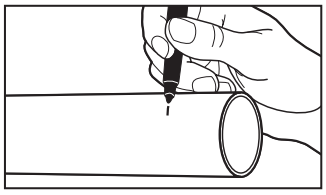
3. Deburr tube OD using half round file.



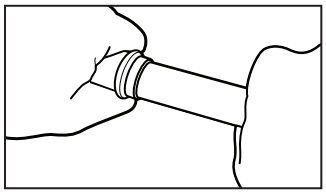
4. Sand tube with OD sand cloth. Tube surface should be free of indentation, scratches, and deformations.



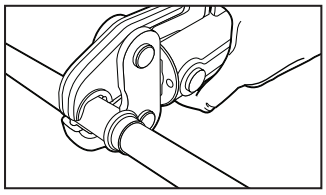
5. Check fitting bead to ensure seal is present. Do not use any type of oil lubrication.



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.

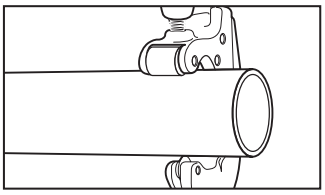


8. Place press tool at a right angle over fitting bead. Start the pressing process. Please see specific tool manufacturer for tool instruction.

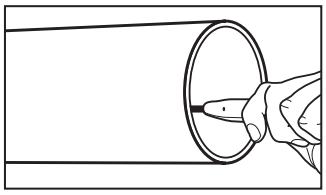
Streamline PRS Fitting Insertion Depth Chart (1/2" - 2")						
Tube Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Insertion Depth	3/4"	7/8"	7/8"	1"	1-7/16"	1-9/16"

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

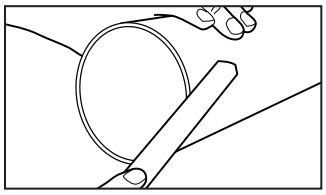
Installation Instructions (2-1/2" - 4")



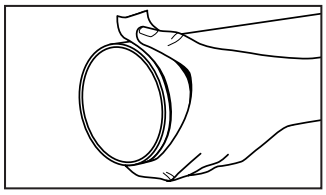
1. Cut tube square using a tube cutter or fine tooth saw.



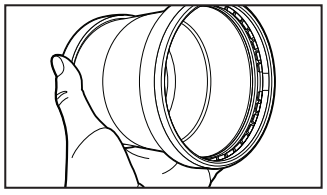
2. Deburr tube ID using a deburring tool.



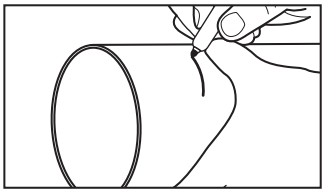
3. Deburr tube OD using half round file.



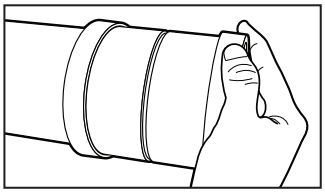
4. Sand tube with OD sand cloth. Tube surface should be free of indentation, scratches, and deformations.



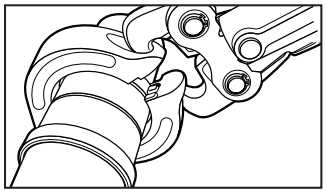
5. Check fitting ends to ensure seal, grip ring and nylon spacer are present Do not use any type of oil lubrication.



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

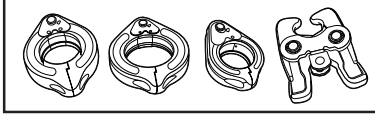


7. Turn slightly while sliding press fitting onto tube. Slide all the way to insertion mark and make contact with stop.



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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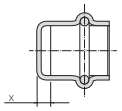
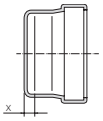
CAP • SMALL
P



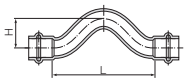
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 07012	1-1/4"	0.11	0.15	1	77727
PF 07013	1-1/2"	0.12	0.28	1	77732
PF 07014	2"	0.13	0.41	1	77737

CAP • LARGE
P



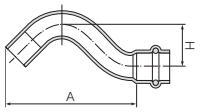
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 07015	2-1/2"	0.33	0.68	1	20833
PF 07016	3"	0.33	0.97	1	20843
PF 07018	4"	0.39	1.67	1	20848

COUPLING • CROSS OVER • SMALL
P x P



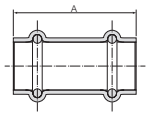
Item No.	Diameter	H	L	Wgt.	Inner	Viega No.
PF 02535	1/2"	1.10	3.62	0.24	10	77742
PF 02583	3/4"	1.34	4.57	0.41	10	77747

COUPLING • CROSS OVER • STREET • SMALL
FTG x P



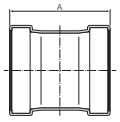
Item No.	Diameter	A	H	Wgt.	Inner	Viega No.
PF 12535	1/2"	2.93	0.94	0.23	10	-
PF 12583	3/4"	4.43	1.28	0.37	10	-

COUPLING • NO STOP • SMALL
P x P



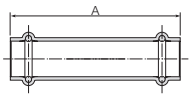
Item No.	Diameter	A	Wgt.	Inner	Viega No.
PF 01903	1/2"	1.93	0.07	10	78172
PF 01905	3/4"	2.36	0.13	10	78177
PF 01906	1"	2.34	0.17	5	78182
PF 01907	1-1/4"	2.58	0.23	1	78187
PF 01908	1-1/2"	3.39	0.44	1	78192
PF 01909	2"	3.70	0.61	1	78197

COUPLING • NO STOP • LARGE
P x P



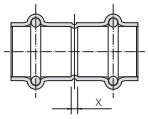
Item No.	Diameter	A	Wgt.	Inner	Viega No.
PF 01910	2-1/2"	3.54	1.08	1	20743
PF 01911	3"	3.86	1.45	1	20748
PF 01913	4"	4.49	2.42	1	20753

COUPLING • NO STOP • EXTENDED • SMALL
P x P



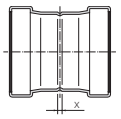
Item No.	Diameter	A	Wgt.	Inner	Viega No.
PF 01950	1/2"	2.95	0.13	5	79005
PF 01952	3/4"	3.35	0.20	5	79010
PF 01955	1"	3.74	0.30	5	79015
PF 01956	1-1/4"	4.13	0.38	1	79020
PF 01957	1-1/2"	4.72	0.70	1	79025
PF 01958	2"	5.31	0.94	1	79030

COUPLING • STAKED STOP • SMALL
P x P



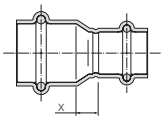
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 10145	1/2"	0.24	0.07	10	78047
PF 10146	3/4"	0.39	0.13	10	78052
PF 10147	1"	0.39	0.17	5	78057
PF 10148	1-1/4"	0.39	0.23	1	78062
PF 10149	1-1/2"	0.47	0.44	1	78067
PF 10150	2"	0.47	0.61	1	78072

COUPLING • STAKED STOP • LARGE
P x P



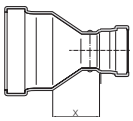
Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 10151	2-1/2"	0.16	1.08	1	20728
PF 10152	3"	0.16	1.45	1	20733
PF 10154	4"	0.16	2.42	1	20738

COUPLING • REDUCING • SMALL
P x P



Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 01036	3/4" x 1/2"	0.39	0.12	10	78147
PF 01051	1" x 1/2"	0.53	0.16	10	15603
PF 01049	1" x 3/4"	0.43	0.15	5	78152
PF 01060	1-1/4" x 1/2"	0.71	0.20	1	-
PF 01058	1-1/4" x 3/4"	0.53	0.24	1	15593
PF 01056	1-1/4" x 1"	0.52	0.23	5	78157
PF 01069	1-1/2" x 1/2"	0.91	0.37	1	-
PF 01067	1-1/2" x 3/4"	0.75	0.39	1	18473
PF 01065	1-1/2" x 1"	0.71	0.37	1	15588
PF 01064	1-1/2" x 1-1/4"	0.37	0.39	1	78162
PF 01079	2" x 1/2"	1.28	0.55	1	-
PF 01077	2" x 3/4"	1.10	0.54	1	18468
PF 01075	2" x 1"	1.14	0.50	1	15608
PF 01074	2" x 1-1/4"	1.02	0.52	1	22328
PF 01073	2" x 1-1/2"	0.78	0.57	1	78167

COUPLING • REDUCING • LARGE
P x P



Item No.	Diameter	X	Wgt.	Inner	Viega No.
PF 01086	2-1/2" x 1"	1.54	0.99	1	20685
PF 01085	2-1/2" x 1-1/4"	1.69	0.99	1	20690
PF 01084	2-1/2" x 1-1/2"	1.50	1.08	1	20695
PF 01083	2-1/2" x 2"	1.12	1.15	1	20700
PF 01095	3" x 1-1/2"	1.89	1.57	1	20705
PF 01094	3" x 2"	1.50	1.58	1	20710
PF 01093	3" x 2-1/2"	1.16	1.73	1	20715
PF 10111	4" x 2"	2.30	2.46	1	20720
PF 10110	4" x 2-1/2"	1.95	2.66	1	20725
PF 10109	4" x 3"	1.61	2.79	1	20730