

PRS COPPER PRESS FITTINGS CATALOG

> **C** COPPER

> > PR PRESS

PM

PLBG/MECH

MUELLER STREAMLINE CO.

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# **Streamline**

## PRS COPPER PRESS FITTINGS



Streamline® PRS Copper Press Fittings are the trusted, quality solution to flameless copper joining for plumbing and mechanical applications.

- Broad offering of 350+ fittings
- Available in diameters ranging from 1/2" 4"
- Extensive offering of reducing tees
- Leak detection feature helps identify un-crimped connections
- Compatible with most common pressing tools and jaws in the market
- EPDM (Ethylene Propylene Diene Monomer) seals are factory-installed & lubricated
- Packaged in common industry quantities
- Meets lead-free and drinking water requirements of NSF
- Connections can be made wet or dry for quick repairs on existing systems

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## WHY STREAMLINE® PRS COPPER PRESS FITTINGS?

Press technology is growing in use as installers seek alternative methods due to skilled labor constraints and other factors. Its common piping system applications today range from those in new commercial building construction, to MRO factory maintenance, to retrofit and remodel of existing flow control systems. Since the first design was patented, there have been a number of important evolutionary modifications. These improvements have been focused on providing greater ease of installation and on increasing the reliability of modern press technology.

Streamline® PRS Copper Press Fittings build upon these advancements and continue the quest of

improved joint design, increased holding power, and greater reliability. With patented design improvements and rigorous testing requirements, we are confident that we have accomplished all of these objectives.

We understand that press tool and jaw sets are an expensive investment for the contractor and inventory item for wholesalers. Therefore, we focused on improvements to the seal mechanics, rather than the basic design of the fitting. With our design, Streamline® PRS Copper Press Fittings are compatible with most tools and jaws on the market, making it easy for the end user.

**Streamline** 

## SURE PRS<sup>™</sup> SEAL TECHNOLOGY



**O-RING INSIDE FITTING** 

- Available in 1/2" 2" fitting designs.
- Proprietary EPDM O-ring seal with circumferential leak path.
- Leak detection helps identify un-pressed connections at multiple points of the fitting hub.



**DUOBITE™ GRIP RING** 

- Available in 2-1/2" 4" fitting designs.\*
- Dual rows of matching stainless steel teeth provide maximum joint strength.
- Stainless steel teeth "bite" into the tube when the joint is pressed.

\*2 ½" – 4" connections are inherently "leak detecting". Before pressing, fittings are loose on the tube, allowing for water/air flow to help identify un-pressed connections.

GRIP RING DETAIL



# **TOOLS & JAW COMPATIBILITY**

Using the performance requirements outlined in ASME B16.51, and in-house testing requirements in conjunction with operational instructions provided by various tool and jaw manufacturers, the tools and jaws listed below are compatible with Streamline® PRS Copper Press Fittings.

It is important to follow the specific manufacturer's guidelines for best use and practice and for required and periodic maintenance of both the tool and jaws used in copper press systems. Failure to do so may void the tool and jaw manufacturers' warranties and cause improper pressing of fittings.

For additional information regarding manufacturers' tools and/or jaw sets, refer to the individual websites of the specific manufacturer. Individual tool and jaw manufacturers recommended maintenance and calibration schedules vary. Be sure to follow the instructions specific to the brand of tool and jaw set being used.

## 1/2" - 1"

• NIBCO Mini Tool w/Mini Jaws

## 1/2" - 1-1/4"

- Milwaukee M12 Tool w/Compact Jaws
- DeWalt 20V MAX\* Compact Press Tool w/ Compact Jaws
- REMS Mini Tool w/Mini Jaws

## 1/2" - 2"

- Milwaukee M18 FORCE LOGIC<sup>™</sup> Tool w/Standard Jaws
- NIBCO Standard Tool w/Standard Jaws
- REMS Standard Tools w/Standard Jaws
- Ridgid Standard Tools w/Standard Jaws

2-1/2" - 4"

- Milwaukee M18 FORCE LOGIC™ Tools w/Rings & Ring Jaw
- DeWalt 20V MAX\* Tool w/ Rings & Actuator
- REMS Standard Tools w/Rings & Z5 Adapter Tong

- Rothenberger Compact Tool w/Compact Jaws
- Ridgid Compact Tools w/Compact Jaws
- Klauke MAP Tool w/Mini Jaws
- Rothenberger Standard Tools w/Standard Jaws
- Klauke UPA Tool w/Standard Jaws
- DeWalt 20V Max Tool w/Standard Jaws
- Hilti Press Tool NPR 32-A22
- Ridgid Standard Tools w/ Rings & V2 Actuator Jaw
- Hilti Press Rings & Actuator

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# **APPLICATIONS**

Streamline<sup>®</sup> PRS Copper Press Fittings are designed to be joined with ASTM B88 seamless copper water tube (K, L, & M) in residential and commercial plumbing and mechanical systems. Listed below are common applications approved for Streamline<sup>®</sup> PRS Copper Press Fittings.

TYPES OF SERVICE	COMMENTS	PRESSURE	TEMPERATURE	COMPATIBLE WITH EPDM SEAL
Fluids/Water Potable				
Hot and Cold Water	_	300 PSI	32°F to 250°F	$\checkmark$
Rainwater / Grey Water	_	300 PSI	-20°F to 250°F	~
Hydronic Heating	Up to 50% Ethylene Glycol or Propylene Glycol solution	300 PSI	-20°F to 250°F	~
Cooling Water	Up to 50% Ethylene Glycol or Propylene Glycol solution	300 PSI	-20°F to 250°F	<b>~</b>
Low-Pressure Steam	_	UP TO 5 PSI	248°F	$\checkmark$
Fuel, Oil and Lubricant				
Ethanol	Pure Grain Alcohol	200 PSI	_	<b>~</b>
Non-Medical Gases				
Compressed Air	Less than 25mg/m³ oil content	200 PSI	Up to 140°F	¥
Oxygen - O <sub>2</sub> (non medical)	Keep oil and fat free/non-liquid $\rm O_2$	140 PSI	Up to 140°F	~
Nitrogen - N <sub>2</sub>	_	200 PSI	Up to 140°F	<b>~</b>
Argon	Welding Use	200 PSI	Up to 140°F	~
Hydrogen - H <sub>2</sub>	_	125 PSI	Up to 140°F	~
Vacuum	_	Max 29.2 inches of Mercury	Up to 140°F	<b>~</b>
Carbon Dioxide - $CO_2$	Dry	_	Up to 140°F	~

Contact Customer Service for information on applications not listed and applications outside the temperature and pressure ranges listed above.

Fluids containing hydrocarbon-based oils are not compatible with the EPDM seal.



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## **PRS COPPER** PRESS FITTINGS



Streamline® PRS Copper Press Fittings are for use in plumbing and mechanical applications. Product is designed to join ASTM B88 hard-drawn copper tube (Types K, L, M) from 1/2" to 4" and soft (annealed) copper tube up to 1-1/4".

## **OPERATING PARAMETERS:**

- Operating Pressure: 300 PSI CWP max
- Operating Temperature Range: -20°F 250°F

## **ADVANTAGES:**

- Fast, flameless, and easy to use
- Permanent connections
- Size range from 1/2" to 4"
- Large selection of fittings
- Consistent professional appearance
- Less equipment required
- Environmentally friendly system
- Compatibility of fittings and tools

## **APPROVALS & CERTIFICATIONS:**

- ASME B16.51
- NSF/ANSI 372
- IAPMO PS-117 • NSF/ANSI 61
- CSA
- ABS

## **APPROVED SYSTEMS:**

- Potable water
- Hydronic heating (w/ glycol)

- Non-medical gases (140 PSI max)
- Low pressure steam (up to 5 PSI)
- Vacuum (Max 29.2 inches of Mercury Up to 140°F)

#### WARRANTY:

Streamline® PRS Copper Press Fittings carry a 50-year limited warranty against defects in material and workmanship.

# COPPER

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PR PRESS







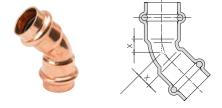




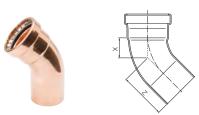
- Chilled water
- Compressed air (200 PSI max)



#### **45° ELBOW • SMALL** P X P

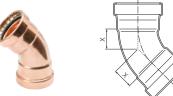


#### 45° ELBOW • STREET • LARGE FTG X P

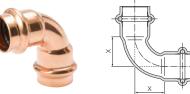


Item No. D	Diameter	Approx Wt		Master Qty	Dimensions (in.)	ltem No.	Diameter	Approx Wt		Master Qty	Dimensi	ons (in.)
					X							z
PF 03026	1/2″	0.10	10	400	0.28	PF 03363	2-1/2"	1.57	1	18	1.30	3.23
PF 03034	3/4"	0.15	10	200	0.37	PF 03368	3"	2.32	1	12	1.57	3.50
PF 03044	1″	0.21	5	140	0.45	PF 03373	4"	3.96	1	6	2.07	4.59
PF 03050	1-1/4″	0.30	1	70	0.51							
PF 03055	1-1/2″	0.58	1	40	0.59							
PF 03059	2″	0.82	1	25	0.79							

#### **45° ELBOW • LARGE** P X P



#### **90° ELBOW • SHORT RADIUS • SMALL** P X P



	V						1.	-1	
			Dimensions (in.)	Item No.				Master Qty	
			Х						x
1.74	1	16	1.30	PF 02722	1/2″	0.12	10	350	0.75
2.27	1	12	1.57	PF 01634	3/4"	0.18	10	180	0.75
4.11	1	6	2.07	PF 01647	1″	0.28	5	100	1.22
				PF 02084	1-1/4″	0.35	1	55	1.22
				PF 02085	1-1/2″	0.63	1	35	1.24
				PF 02086	2″	1.07	1	18	2.05



2-1/2"

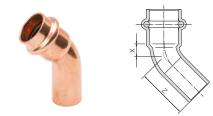
3″

4"

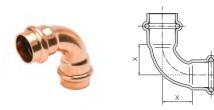
PF 03063

PF 03067

PF 03073



## 90° ELBOW • LONG RADIUS • SMALL P X P



Item No. Diameter		Approx Wt Lbs / Pc		Master Qty			Item No.	Diameter	Approx Wt		Master Qty	
		Lbs / Pc			ox x z						Х	
PF 03326	1/2″	0.09	10	450	0.28	1.10	PF 02722	1/2″	0.12	10	350	0.75
PF 03334	3/4"	0.15	10	260	0.37	1.32	PF 02734	3/4"	0.20	10	180	1.30
PF 03344	1″	0.20	5	140	0.45	1.44	PF 02747	1″	0.29	5	100	1.30
PF 03350	1-1/4″	0.28	1	70	0.51	1.67	PF 02055	1-1/4″	0.40	1	55	1.65
PF 03355	1-1/2"	0.56	1	40	0.59	2.13	PF 02063	1-1/2″	0.79	1	35	2.01
PF 03359	2"	0.80	1	25	0.79	2.48	PF 02072	2"	1.21	1	18	2.52

PR

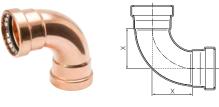
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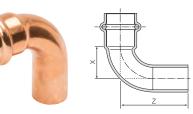
PRESS

**Streamline** 

90° ELBOW • LONG RADIUS • LARGE P X P

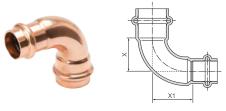


#### 90° ELBOW • LONG RADIUS • STREET • SMALL FTG X P

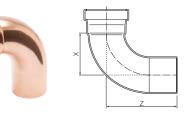


Item No.	Diameter	Approx Wt		Master Qty	Dimensions (in.)	ltem No.	Diameter	Approx Wt		Master Qty	Dimensi	ions (in.)
				Pcs / Box								
PF 02082	2-1/2"	2.10	1	12	2.99	PF 02822	1/2″	0.11	10	400	0.75	1.57
PF 02092	3″	2.10	1	9	3.58	PF 02834	3/4"	0.19	10	200	1.02	2.01
PF 02095	4"	5.62	1	4	4.74	PF 02847	1″	0.27	5	100	1.30	2.28
						PF 02350	1-1/4″	0.41	1	55	1.65	2.83
						PF 02355	1-1/2″	0.76	1	35	2.01	3.52
						PF 02359	2″	1.16	1	20	2.52	4.15

90° ELBOW • LONG RADIUS REDUCING • SMALL PXP

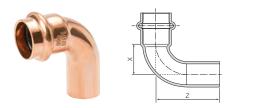


#### 90° ELBOW • LONG RADIUS • STREET • LARGE FTG X P



ltem No.	Diameter								ltem No.	Diameter			Master Qty		
		Lbs / Pc	Pcs / Bag	Pcs / Box	Х	X1			Lbs / Pc	Pcs / Bag		Х	Z		
PF 02736	3/4" x 1/2"	0.19	15	240	1.02	1.26	PF 02363	2-1/2"	2.05	1	14	2.99	5.00		
PF 02749	1" x 3/4"	0.30	10	120	1.30	1.56	PF 02368	3"	3.04	1	9	3.58	5.58		
							PF 02395	4"	5.70	1	4	4.74	7.05		

#### 90° ELBOW • SHORT RADIUS • STREET • SMALL FTG X P



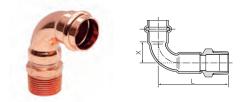
Item No.	Diameter			Master Qty			
				Pcs / Box	Х	Z	
PF 01654	3/4"	0.16	10	200	0.75	2.01	
PF 02344	1″	0.27	5	100	1.22	2.28	
PF 02384	1-1/4″	0.35	1	55	1.22	2.84	
PF 02385	1-1/2″	0.64	1	35	1.24	3.52	
PF 02386	2"	1.05	1	20	2.05	4.15	

**PRS COPPER PRESS FITTINGS** 

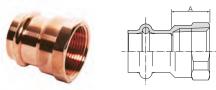
PR PRESS



90° ELBOW • MALE • SMALL P X MPT

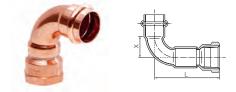


#### **ADAPTER • FEMALE • SMALL** P X FPT



Item No. Diameter				Master Qty			Item No.		Approx Wt			Dimensions (in.)
		Lbs / Pc				L X				Pcs / Bag		Α
PF 01506	1/2″	0.23	5	200	2.82	0.75	PF 01231	1/2″	0.10	10	300	0.70
PF 01531	3/4"	0.39	5	120	3.36	1.02	PF 01246	3/4"	0.17	10	150	0.87
PF 01558	1″	0.60	1	65	3.76	1.30	PF 01263	1″	0.25	10	180	0.89
PF 01593	1-1/4″	0.81	1	45	4.41	1.65	PF 01271	1-1/4″	0.35	1	80	0.96
PF 01631	1-1/2"	1.42	1	25	5.22	2.01	PF 01279	1-1/2"	0.53	1	55	1.02
PF 01679	2"	2.12	1	15	5.98	2.52	PF 01287	2″	0.78	1	40	1.06

#### 90° ELBOW • FEMALE • SMALL P X FPT



#### **ADAPTER • FEMALE • LARGE** P X FPT

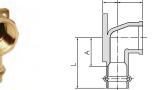




Item No. Diameter		Approx Wt					Item No.		Approx Wt		Master Qty	Dimensions (in.)
			Pcs / Bag			Х						Α
PF 01507	1/2″	0.23	5	200	2.65	0.75	PF 01296	2-1/2"	1.25	1	36	1.30
PF 01532	3/4"	0.37	5	120	3.24	1.02	PF 01297	3″	1.85	1	24	1.54
PF 01559	1″	0.55	1	60	3.57	1.30						
PF 01594	1-1/4″	0.74	1	45	4.13	1.65						
PF 01632	1-1/2″	1.34	1	25	4.95	2.01						
PF 01680	2″	1.98	1	15	5.67	2.52						

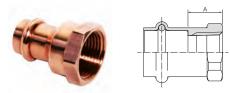
90° ELBOW • DROP EAR • SMALL P X FPT





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COPPER

PR PRESS

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PLBG/MECH

**Streamline** 

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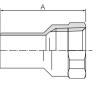
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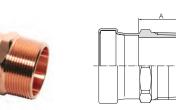
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#### ADAPTER • FEMALE • STREET • SMALL FTG X FPT





#### **ADAPTER • MALE • LARGE** P X MPT



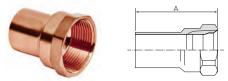
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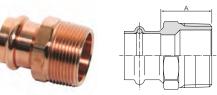
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Item No.	Diameter			Master Qty	
PF 15310	1/2″	0.09	5	250	1.59
PF 01546	3/4"	0.15	5	150	1.90
PF 01563	1″	0.23	1	110	1.96
PF 01571	1-1/4″	0.32	1	100	2.17
PF 01579	1-1/2"	0.49	1	55	2.63
PF 01587	2"	0.75	1	40	2.84

#### **ADAPTER • FEMALE • STREET • REDUCING • SMALL** FTG X FPT



#### ADAPTER • MALE • REDUCING • SMALL P X MPT



ADAPTER • MALE • STREET • SMALL

Item No.	Diameter	Approx Wt		Master Qty	Dimensions (in.)	Item No.	Diameter			Master Qty	
					А						
PF 01534	1/2" x 3/4"	0.15	5	160	1.87	PF 01132	1/2" x 3/8"	0.09	10	300	0.71
PF 01547	3/4" x 1/2"	0.15	5	160	1.81	PF 01130	1/2" x 3/4"	0.19	10	180	0.97
PF 01564	1" x 3/4"	0.15	5	250	1.77	PF 01147	3/4" x 1/2"	0.17	10	180	0.90
						PF 01145	3/4" x 1"	0.30	10	200	1.20
						PF 01164	1" x 3/4"	0.24	10	180	0.92
						PF 01162	1" x 1-1/4"	0.45	10	100	1.23
						PF 01172	1-1/4" x 1"	0.35	1	95	1.10
						PF 01170	1-1/4" x 1-1/2"	0.59	1	75	1.30
						PF 01180	1-1/2" x 1-1/4"	0.59	1	55	1.19
						PF 01178	1-1/2" x 2"	1.01	1	40	1.75
						PF 01188	2" x 1-1/2"	0.92	1	40	1.42

FTG X MPT

PF 01196

PF 01199

PF 01150

2-1/2"

3″

4″

1.62

2.23

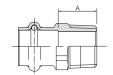
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#### ADAPTER • MALE • SMALL P X MPT



PF PF PF PF

PF PF







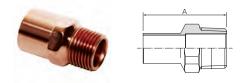
tem No.		Approx Wt		Master Qty	Dimensions (in.)	ltem No.	Diameter			Master Qty	
			Pcs / Bag		А				PCS / Bag		
= 01131	1/2″	O.11	10	300	0.89	PF 01431	1/2″	0.10	5	250	1.75
= 01146	3/4"	0.19	10	160	0.89	PF 01446	3/4"	0.17	5	160	2.02
= 01163	1″	0.28	10	160	1.06	PF 01463	1″	0.27	5	200	2.15
= 01171	1-1/4″	0.37	1	100	0.99	PF 01471	1-1/4″	0.41	1	100	2.44
= 01179	1-1/2"	0.63	1	50	1.19	PF 01479	1-1/2″	0.59	1	60	2.90
= 01187	2″	0.90	1	35	1.28	PF 01487	2″	0.89	1	40	3.15

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#### **ADAPTER • MALE • STREET REDUCING • SMALL** FTG X MPT



#### **COUPLING • CROSS OVER • SMALL** РХР

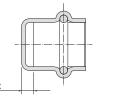


Item No.	Diameter	Approx Wt		Master Qty	Dimensions (in.)	Item No.	Diameter	Approx Wt Lbs / Pc	Inner Qty Pcs / Bag	Master Qty Pcs / Box	Dimensions (in.)	
		LDS / PC	PCS / Bag		A							L
PF 01434	1/2" x 3/4"	0.18	5	200	2.05	PF 02535	1/2″	0.21	10	200	0.94	3.33
PF 01447	3/4" x 1/2"	0.16	5	200	1.95	PF 02583	3/4"	0.39	10	100	1.28	4.84
PF 01464	1" x 3/4"	0.22	5	200	2.03							

#### **CAP • SMALL**

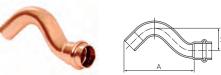
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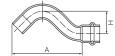




Item No.	Diameter	Approx Wt		Master Qty			
₽₽007	1/2″	0.05	10	450	0.10		
<b>B</b> F009	3/4″	0.08	10	450	O.11		
PF 07011	1″	0.10	5	250	O.11		
PF 07012	1-1/4″	0.15	1	100	O.11		
PF 07013	1-1/2″	0.28	1	80	0.12		
PF 07014	2"	0.41	1	55	0.13		

**COUPLING • CROSS OVER • STREET • SMALL** FTG X P

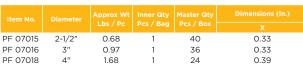




Dimensions (in.)	ltem No.		Approx Wt Lbs / Pc			Dimensions (in.)		
X						A	н	
0.10	PF 12535	1/2"	0.15	10	250	3.78	0.94	
O.11	PF 12583	3/4"	0.31	10	100	5.31	1.28	
0.11								

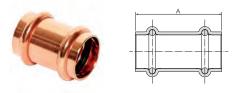






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**COUPLING • NO STOP • SMALL** РХР



ltem No.	Diameter	Approx Wt		Master Qty	
PF 01903	1/2″	0.08	10	450	1.50
PF 01905	3/4"	0.13	10	260	1.81
PF 01906	1″	0.16	5	170	1.81
PF 01907	1-1/4″	0.22	1	80	2.05
PF 01908	1-1/2″	0.46	1	50	2.83
PF 01909	2″	0.61	1	35	3.15

С COPPER

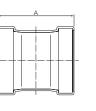
PR PRESS



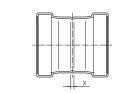
**Streamline** 

**COUPLING • NO STOP • LARGE** РХР





#### **COUPLING • STAKED STOP • LARGE** РХР



1

1

1

32

18

12

0.16

0.16

0.16

Item No.					
PF 01910	2-1/2"	1.09	1	32	3.54
PF 01911	3"	1.45	1	18	3.86
PF 01913	4"	2.43	1	12	4.49

#### COUPLING • NO STOP • EXTENDED • SMALL РХР

**COUPLING • REDUCING • SMALL** РХР

1.09

1.45

2.43

PF 10151

PF 10152

PF 10154

2-1/2"

3"

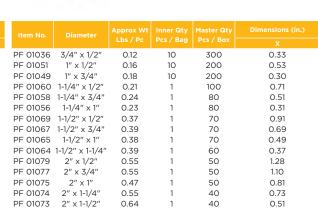
4"





Item No.	Diameter	Approx Wt		Master Qty		
PF 01950	1/2″	0.13	5	250	2.95	
PF 01952	3/4"	0.20	5	150	3.41	
PF 01955	1″	0.30	5	100	3.94	
PF 01956	1-1/4″	0.38	1	60	4.13	
PF 01957	1-1/2″	0.70	1	40	4.72	
PF 01958	2"	0.95	1	27	5.31	

**COUPLING • REDUCING • LARGE** 



#### **COUPLING • STAKED STOP • SMALL** РХР



PF 10145

PF 10146

PF 10147

PF 10148

PF 10149

PF 10150

1/2"

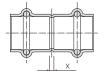
3/4"

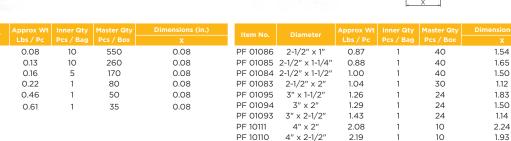
1″

1-1/4"

1-1/2"

2″





PF 10109

4" x 3"

2.33

1

10

1.54

РХР

PR PRESS



1.73

2.01

2.58

1.81

2.11

2.68

#### **FITTING REDUCER • SMALL** FTG X P

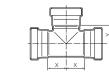




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**TEE • LARGE** 

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ltem No.	Diameter	Approx Wt		Master Qty	Itor	Item No.	em No. Diameter	Approx Wt	Inner Qty	Master Qty	
					Х						
PF 01326	3/4" x 1/2"	O.11	10	400	0.20	PF 40123	2-1/2"	2.49	1	10	
PF 01339	1" x 1/2"	0.13	10	300	0.41	PF 40152	3″	3.47	1	7	
PF 01337	1" x 3/4"	0.15	10	240	0.24	PF 40200	4″	6.15	1	4	
PF 01347	1-1/4" x 1/2"	0.17	5	180	0.59						
PF 01345	1-1/4" x 3/4"	0.20	5	170	0.47						
PF 01343	1-1/4" × 1"	0.19	5	150	0.24						
PF 01355	1-1/2" x 1/2"	0.27	5	130	0.79						
PF 01353	1-1/2" x 3/4"	0.28	1	70	0.61	TEE •	REDUC		SMAL	Ĺ	
PF 01351	1-1/2" x 1"	0.30	1	70	0.43	РХРХ	D				
PF 01350	1-1/2" x 1-1/4"	0.29	1	70	0.26	ГЛГЛ	F				
PF 01364	2" x 1/2"	0.45	1	50	1.16						
PF 01362	2" x 3/4"	0.46	1	50	0.97						

0.79

0.61

0.43

## FITTING REDUCER • LARGE

0.46

0.46

0.55

 $2'' \times 1''$ 

2" x 1-1/4"

FTG X P

PF 01360

PF 01359

PF 01358 2" x 1-1/2"



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40

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Item No.		Approx Wt Lbs / Pc	Inner Qty Pcs / Bag	Master Qty Pcs / Box	
		LDS / PC	PCS / Bag	PCS / BOX	
PF 01370	2-1/2" x 1"	0.80	1	40	1.36
PF 01369	2-1/2" x 1-1/4"	0.68	1	40	1.52
PF 01368	2-1/2" x 1-1/2"	0.80	1	40	1.32
PF 01367	2-1/2" x 2"	0.84	1	35	0.94
PF 01379	3" x 1-1/4"	0.97	1	25	1.91
PF 01378	3" x 1-1/2"	1.08	1	24	1.71
PF 01377	3" × 2"	1.11	1	24	1.32
PF 01376	3" x 2-1/2"	1.35	1	24	0.98
PF 01389	4" x 2"	1.93	1	12	2.11
PF 01388	4" x 2-1/2"	2.07	1	10	1.75
PF 01387	4" × 3"	2.25	1	10	1.42

#### **TEE • SMALL** PXPXP

	Approx Wt						
			Master Qty				
				X			
1/2″	0.21	10	200	0.67	0.49		
3/4"	0.35	10	120	0.81	0.55		
1″	0.51	5	70	0.89	0.79		
1-1/4"	0.66	1	45	0.96	0.83		
1-1/2"	1.22	1	25	1.10	1.10		
2″	1.73	1	15	1.30	1.34		
	3/4" 1" 1-1/4" 1-1/2"	1/2"         0.21           3/4"         0.35           1"         0.51           1-1/4"         0.66           1-1/2"         1.22	$\begin{array}{ccccccc} 1/2'' & 0.21 & 10 \\ 3/4'' & 0.35 & 10 \\ 1'' & 0.51 & 5 \\ 1-1/4'' & 0.66 & 1 \\ 1-1/2'' & 1.22 & 1 \end{array}$	1/2"         0.21         10         200           3/4"         0.35         10         120           1"         0.51         5         70           1-1/4"         0.66         1         45           1-1/2"         1.22         1         25	1/2"         0.21         10         200         0.67           3/4"         0.35         10         120         0.81           1"         0.51         5         70         0.89           1-1/4"         0.66         1         45         0.96           1-1/2"         1.22         1         25         1.10		

Item No.	Diameter	Approx Wt	Inner Qty	Master Qty	Dime	ensions	(in.)
				Pcs / Box	Х	X1	Y
PF 04047	1/2" x 1/2" x 3/4"	0.32	10	140	0.83	0.83	0.55
PF 04067	1/2" x 1/2" x 1"	0.72	5	60	2.28	2.28	0.80
PF 04043	3/4" x 1/2" x 1/2"	0.28	10	150	0.61	0.77	0.55
PF 04041	3/4" x 1/2" x 3/4"	0.33	5	120	0.81	0.89	0.55
PF 04033	3/4" x 3/4" x 1/2"	0.29	10	140	0.61	0.61	0.55
PF 04065	3/4" x 3/4" x 1"	0.77	5	60	2.11	2.11	0.79
PF 04062	1" x 1/2" x 3/4"	0.44	5	80	0.81	1.00	0.71
PF 04061	1" x 1/2" x 1"	0.48	5	80	0.89	1.22	0.79
PF 04058	1" x 3/4" x 1/2"	0.51	5	100	0.69	0.77	0.79
PF 04056	1" x 3/4" x 3/4"	0.43	5	100	0.81	0.96	0.71
PF 04055	1" x 3/4" x 1"	0.48	5	70	0.89	1.10	0.80
PF 04051	1" x 1" x 1/2"	0.41	5	100	0.69	0.69	0.79
PF 04049	1" x 1" x 3/4"	0.45	5	80	0.81	0.81	0.71
PF 04082	1" x 1" x 1-1/4"	1.02	1	35	2.42	2.42	0.83
PF 04083	1-1/4" x 1/2" x 1-1/4"	0.81	1	40	0.96	2.66	0.83
PF 04081	1-1/4" x 3/4" x 1/2"	0.65	1	50	0.47	2.05	0.83
PF 04080	1-1/4" x 3/4" x 3/4"	0.73	1	50	0.61	2.19	0.83
PF 04079	1-1/4" x 3/4" x 1"	0.78	1	50	0.69	2.26	0.83
PF 04078	1-1/4" x 3/4" x 1-1/4"	0.85	1	40	0.96	2.54	0.83
PF 04076	1-1/4" x 1" x 1/2"	0.65	1	50	0.47	1.81	0.83
PF 04075	1-1/4" x 1" x 3/4"	0.70	1	45	0.61	1.95	0.83
PF 04074	1-1/4" x 1" x 1"	0.75	1	50	0.69	2.03	0.83
PF 04073	1-1/4" x 1" x 1-1/4"	0.84	1	40	0.96	2.30	0.83
PF 04071	1-1/4" x 1-1/4" x 1/2"	0.45	1	60	0.47	0.47	0.83
PF 04070	1-1/4" x 1-1/4" x 3/4"	0.50	1	55	0.61	0.61	0.83
PF 04069	1-1/4" x 1-1/4" x 1"	0.57	1	50	0.69	0.69	0.83
PF 40244	1-1/2" × 1/2" × 1-1/2"	1.48	1	25	1.10	3.39	1.10
PF 40238	1-1/2" x 3/4" x 3/4"	1.04	1	30	0.63	2.74	1.10
PF 04098	1-1/2" x 1" x 3/4"	1.08	1	30	0.63	2.56	1.10
PF 04097	1-1/2" x 1" x 1"	1.15	1	30	0.75	2.68	1.10
PF 04095	1-1/2" x 1" x 1-1/2"	1.46	1	25	1.10	3.03	1.10
PF 04093	1-1/2" x 1-1/4" x 3/4"	1.11	1	35	0.63	2.38	1.10
PF 04092	1-1/2" x 1-1/4" x 1"	1.18	1	30	0.75	2.50	1.10
PF 04091	1-1/2" x 1-1/4" x 1-1/4"	1.24	1	30	0.96	2.72	1.16
PF 04088	1-1/2" × 1-1/2" × 1/2"	0.75	1	40	0.47	0.47	1.08
PF 04087	1-1/2" x 1-1/2" x 3/4"	0.84	1	35	0.63	0.63	1.10
PF 04086	1-1/2" x 1-1/2" x 1"	0.92	1	35	0.75	0.75	1.10
PF 04085	1-1/2" x 1-1/2" x 1-1/4"	1.06	1	30	0.96	0.96	1.16
PF 40249	2" × 1/2" × 2"	2.11	1	15	1.30	4.11	1.34
PF 40248	2" x 3/4" x 2"	2.12	1	15	1.30	3.92	1.34

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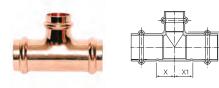
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PR PRESS

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**Streamline** 

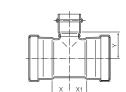
TEE • REDUCING • SMALL (CONTINUED) РХРХР



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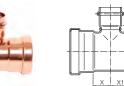
РХРХР

TEE • REDUCING • LARGE (CONTINUED)



ltem No.	Diameter	Approx Wt		Master Qty	Dime	ensions	(in.)	Item No.	Diameter	Approx Wt	Inner Qty	Master Qty	Dim	ensions	(in.)
			Pcs / Bag	Pcs / Box	Х	X1	Y				Pcs / Bag	Pcs / Box	Х	X1	Y
PF 40247	2" x 1" x 1"	1.61	1	20	3.29	0.85	1.34	PF 40147	3" x 3" x 1"	2.23	1	12	1.10	1.10	1.85
PF 40245	2" x 1" x 2"	2.09	1	15	1.30	3.74	1.34	PF 40148	3" x 3" x 1-1/4"	2.33	1	12	1.24	1.24	2.09
PF 40117	2" x 1-1/4" x 1-1/4"	1.73	1	20	0.89	3.15	1.34	PF 40149	3" x 3" x 1-1/2"	2.55	1	10	1.34	1.34	2.09
PF 40113	2" x 1-1/2" x 3/4"	1.70	1	20	0.75	2.83	1.34	PF 40150	3" x 3" x 2"	2.75	1	10	1.61	1.61	2.09
PF 40112	2" x 1-1/2" x 1"	1.73	1	20	0.85	2.93	1.34	PF 40151	3" x 3" x 2-1/2"	3.09	1	7	1.77	1.77	2.07
PF 40111	2" x 1-1/2" x 1-1/4"	1.83	1	20	0.89	2.97	1.34	PF 40204	4" x 3" x 2"	6.97	1	4	5.49	1.63	2.66
PF 40110	2" x 1-1/2" x 1-1/2"	1.97	1	16	1.08	3.17	1.34	PF 40206	4" x 3" x 3"	7.85	1	4	2.11	5.96	2.70
PF 40109	2" x 1-1/2" x 2"	2.19	1	16	1.30	3.39	1.34	PF 40191	4" x 4" x 1/2"	3.41	1	8	0.87	0.87	2.42
PF 40107	2" x 2" x 1/2"	0.99	1	25	0.49	0.49	1.26	PF 40192	4" x 4" x 3/4"	3.48	1	8	1.02	1.02	2.39
PF 40106	2" x 2" x 3/4"	1.20	1	25	0.75	0.75	1.34	PF 40193	4" x 4" x 1"	3.60	1	8	1.14	1.14	2.38
PF 40105	2" × 2" × 1"	1.28	1	23	0.85	0.85	1.34	PF 40194	4" x 4" x 1-1/4"	3.83	1	5	1.28	1.28	2.66
PF 40104	2" x 2" x 1-1/4"	1.33	1	20	0.89	0.89	1.34	PF 40195	4" x 4" x 1-1/2"	4.00	1	6	1.38	1.38	2.66
PF 40103	2" x 2" x 1-1/2"	1.53	1	16	1.08	1.08	1.34	PF 40196	4" x 4" x 2"	4.25	1	6	1.63	1.63	2.66
								PF 40197	4" x 4" x 2-1/2"	4.74	1	4	1.87	1.87	2.64
								PF 40198	4" x 4" x 3"	5.15	1	4	2.11	2.11	2.70

**TEE • REDUCING • LARGE** PXPXP





**TEE • FEMALE • SMALL** P X P X FPT



Item No.	Diameter	Approx Wt			Dimensions (in.)			
		Lbs / Pc		Pcs / Box	Х	X1	Y	
PF 40222	2-1/2" x 3/4" x 2-1/2"	3.34	1	10	1.73	5.20	1.81	
PF 40221	2-1/2" x 1" x 2-1/2"	3.33	1	10	1.73	5.06	1.81	
PF 40220	2-1/2" x 1-1/4" x 2-1/2"	3.35	1	8	1.73	5.22	1.81	
PF 40138	2-1/2" x 1-1/2" x 2"	3.10	1	10	1.59	4.90	1.83	
PF 40137	2-1/2" x 1-1/2" x 2-1/2"	3.47	1	8	1.73	5.04	1.81	
PF 40135	2-1/2" x 2" x 3/4"	2.54	1	15	0.98	3.90	1.56	
PF 40134	2-1/2" x 2" x 1"	2.60	1	15	1.10	4.02	1.59	
PF 40132	2-1/2" x 2" x 1-1/2"	2.89	1	12	1.34	4.29	1.83	
PF 40131	2-1/2" x 2" x 2"	3.06	1	10	1.59	4.53	1.83	
PF 40130	2-1/2" x 2" x 2-1/2"	3.43	1	10	1.73	4.65	1.81	
PF 40129	2-1/2" x 2-1/2" x 1/2"	1.52	1	18	0.87	0.87	1.52	
PF 40128	2-1/2" x 2-1/2" x 3/4"	1.64	1	18	0.98	0.98	1.56	
PF 40127	2-1/2" x 2-1/2" x 1"	1.70	1	16	1.10	1.10	1.59	
PF 40126	2-1/2" x 2-1/2" x 1-1/4"	1.79	1	15	1.24	1.24	1.83	
PF 40125	2-1/2" x 2-1/2" x 1-1/2"	1.92	1	12	1.34	1.34	1.83	
PF 40124	2-1/2" x 2-1/2" x 2"	2.13	1	12	1.59	1.59	1.83	
PF 40179	3" x 3/4" x 3"	4.68	1	6	2.01	6.00	2.11	
PF 40178	3" × 1" × 3"	4.68	1	7	2.01	5.81	2.11	
PF 40181	3" x 1-1/4" x 3"	4.69	1	6	2.01	6.06	2.11	
PF 40174	3" x 1-1/2" x 3"	4.72	1	6	2.01	5.85	2.11	
PF 40164	3" x 2" x 2"	4.12	1	9	1.61	5.06	2.09	
PF 40165	3" x 2" x 2-1/2"	4.38	1	8	1.77	5.22	2.07	
PF 40167	3" x 2" x 3"	4.75	1	6	2.01	5.45	2.11	
PF 40157	3" x 2-1/2" x 2"	4.24	1	8	4.72	1.61	2.09	
PF 40158	3" x 2-1/2" x 2-1/2"	4.60	1	6	1.77	4.88	2.07	
PF 40159	3" x 2-1/2" x 3"	4.95	1	6	2.01	5.12	2.11	
PF 40145	3" x 3" x 1/2"	2.07	1	15	0.87	0.87	1.79	
PF 40146	3" x 3" x 3/4"	2.14	1	12	1.00	1.00	1.80	

Item No.		Approx Wt		Master Qty		
PF 01512	1/2″	0.24	5	150	1.04	0.57
PF 01538	3/4"	0.32	5	80	1.18	0.71
PF 01569	1″	0.74	5	60	2.75	0.89
PF 01607	1-1/4″	0.94	1	40	3.04	0.96
PF 01644	1-1/2″	1.64	1	20	3.90	1.10

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#### **TEE • FEMALE • REDUCING • SMALL** P X P X FPT





ltem No.	Diameter	Approx Wt	Inner Qty	Master Qty	Dimens	ions (in.)	ltem No.	Diameter	Approx Wt		Master Qty	Dimensi	ons (in.)
		Lbs / Pc		Pcs / Box		Х					Pcs / Box	Α	L
PF 02577	3/4" x 3/4" x 1/4"	0.36	5	120	1.89	0.61	PF 08003	1/2″	0.31	1	144	1.38	2.87
PF 01539	3/4" x 3/4" x 1/2"	0.39	5	100	1.18	0.59	PF 08004	3/4″	0.48	1	60	1.31	3.22
PF 01570	1" x 1" x 1/2"	0.47	5	80	2.37	0.69	PF 08005	1″	0.73	1	32	1.91	3.27
PF 01572	1" x 1" x 3/4"	0.60	5	70	2.61	0.81	PF 11205	1-1/4″	0.93	1	28	1.92	3.27
PF 01613	1-1/4" x 1-1/4" x 1/2"	0.56	1	60	2.41	0.47	PF 11206	1-1/2"	1.20	1	24	2.59	3.27
PF 02654	1-1/4" x 1-1/4" x 3/4"	0.69	1	50	2.72	0.61	PF 11207	2"	1.92	1	16	2.37	3.27
PF 01645	1-1/2" x 1-1/2" x 1/2"	0.83	1	40	2.67	0.47							
PF 02673	1-1/2" x 1-1/2" x 3/4"	0.95	1	35	3.00	0.63							
PF 01699	2" x 2" x 1/2"	1.06	1	25	2.85	0.49							
PF 02706	2" x 2" x 3/4"	1.28	1	20	3.24	0.75							

#### **TEE • FEMALE • REDUCING • LARGE** PXPXFPT



#### **UNION • FEMALE • SMALL** P X FPT

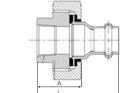


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ltem No.		Approx Wt		Master Qty	Dimens	ions (in.)	Item No.	Diameter			Master Qty		
				Pcs / Box	L1	Х				Pcs / Bag		А	L
PF 02727	2-1/2" x 2-1/2" x 3/4"	1.67	1	18	2.37	0.98	PF 11422	1/2″	0.21	1	192	0.90	2.05
PF 02718	3" x 3" x 3/4"	2.27	1	13	2.61	1.00	PF 11423	3/4"	0.43	1	90	0.90	2.86
PF 02729	4" x 4" x 3/4"	3.55	1	8	3.20	1.02	PF 11424	1″	0.62	1	48	0.83	2.82
							PF 11425	1-1/4″	0.84	1	28	1.20	3.06
							PF 11426	1-1/2″	1.04	1	24	1.69	3.02
							PF 11427	2″	1.52	1	16	1.50	3.24

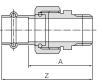
#### **UNION • DIELECTRIC** P X FPT





#### UNION • MALE • SMALL P X MPT





ltem No.	Diameter	Approx Wt		Master Qty	Dimensi	ions (in.)	Item No.	Diameter	Approx Wt		Master Qty	Dimensi	ions (in.)
			Pcs / Bag							Pcs / Bag		Α	Z
PF 11503	1/2″	0.76	1	50	1.20	2.48	PF 11210	1/2″	0.28	1	144	1.67	2.78
PF 11504	3/4"	0.91	1	40	1.22	2.68	PF 11211	3/4"	0.49	1	60	1.77	3.38
PF 11505	1″	1.24	1	30	1.10	2.70	PF 11212	1″	0.77	1	32	2.20	3.76
PF 11506	1-1/4″	1.23	1	30	1.20	2.91	PF 11213	1-1/4″	1.01	1	28	2.20	3.80
PF 11507	1-1/2"	2.17	1	15	1.32	3.47	PF 11214	1-1/2"	1.32	1	24	2.87	3.77
PF 11508	2"	2.89	1	10	1.44	3.79	PF 11215	2"	1.97	1	16	2.56	4.56

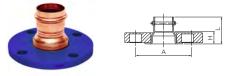
С COPPER

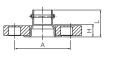
> PR PRESS

PM

**Streamline** 

#### **FLANGE • SMALL** P X FLANGE

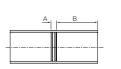






**SHORTCUTS**<sup>™</sup>

FTG X FTG

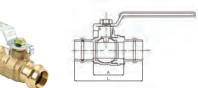


	Item No.	Item No.	Diameter							Item No.	Diameter			Master Qty		
				Pcs / Bag	Pcs / Box	Α	н				Lbs / Pc	Pcs / Bag		А	В	
	PF 02933	1″	2.34	1	14	3.11	1.78	2.68	SC04001	1/2″	0.05	10	1000	0.125	0.839	
	PF 03806	1-1/4″	2.94	1	14	3.50	1.80	2.82	SC06001	3/4″	0.10	10	500	0.125	1.050	
	PF 03907	1-1/2″	3.13	1	7	3.88	1.78	3.19	SC10001	1″	0.13	10	100	0.125	1.010	
	PF 02980	2″	4.50	1	4	4.76	1.86	3.44	SC12001	1-1/4″	0.222	5	75	0.438	1.163	
									SC14001	1-1/2"	0.383	5	75	0.625	1.521	
									SC20001	2″	0.643	5	50	0.750	1.647	
									SC24001	2-1/2"	0.952	1	30	0.625	1.800	
									SC30001	3"	1.412	1	20	0.625	1.999	
									SC40001	4"	2.566	1	15	0.625	2.277	

FLANGE • LARGE P X FLANGE



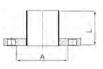
#### **BALL VALVE • PRESS • SMALL** РХР



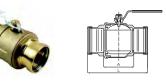
Item No.	Diameter			Master Qty			(in.)	Item No.	Diameter			Master Qty		
		Lbs / Pc	Pcs / Bag				L				Pcs / Bag			
PF 02746	5 2-1/2"	6.29	1	4	5.51	1.57	3.26	117-723PV	1/2″	0.40	10	120	1.30	2.72
PF 02802	2 3″	7.53	1	3	6.30	1.38	3.23	117-724PV	3/4″	0.77	10	60	1.50	3.31
PF 01940	) 4"	11.76	1	3	7.28	1.51	3.68	117-725PV	1″	1.04	6	48	1.73	3.62
								117-726PV	1-1/4″	1.52	4	24	1.93	3.98
								117-727PV	1-1/2"	2.18	4	24	2.13	4.96
								117-728PV	2"	4.08	2	12	2.80	5.95

FLANGE FTG X FLANGE





#### **BALL VALVE • PRESS • LARGE** РХР



item No.	Diameter			Master Qty	Dimensi	ons (in.)	Item No Diameter	Diameter	am No Diameter			Master Qty		
			Pcs / Bag		Α	L						А	L	
PF 12980	2″	6.50	1	1	4.75	6.00	117-729PV	2-1/2"	8.31	1	6	4.25	7.56	
PF 12746	2-1/2"	7.40	1	1	5.50	6.00	117-730PV	3″	12.13	1	3	4.41	8.23	
PF 12802	3″	8.50	1	1	6.00	6.00	117-731PV	4"	16.44	1	3	3.82	8.66	
PF 11940	4"	12.70	1	1	7.50	6.00								

PR PRESS

## PRS COPPER PRESS FITTINGS



# **INSTALLATION INSTRUCTIONS**

Installer shall be qualified, licensed within the jurisdiction, and familiar with the installation of copper press systems. The following list of items are needed for the installation of Streamline<sup>®</sup> PRS Copper Press Fittings:

Streamline® PRS Copper Press Fitting(s)
Approved copper press tool and jaw

• Tube cutter or fine tooth saw

- Half-round file
- Sand cloth
- Streamline depth gauge or ruler/other measuring device
- Permanent marker

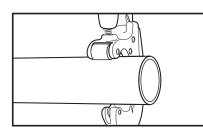
Deburring tools

Copper tube

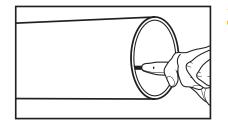


Installation instruction video is available on Mueller Streamline Co.'s YouTube Channel.

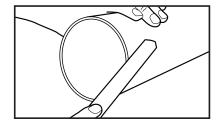
## INSTALLATION INSTRUCTIONS -1/2'' - 2''



- Cut tube square using a tube cutter or fine tooth saw.
- Do not use a worn or damaged tube cutter because it can damage the tube and compromise the installation.
- Care should be taken to avoid cutting the tube in a way that puts incise marks inside the press fitting.
- When cutting soft (annealed) tubing, do not rush or be too aggressive as this could force the tube out of round.

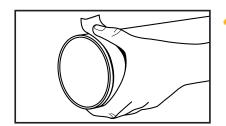


- Deburr tube ID using a deburring tool.
  - Use a cone tool or pen reamer to clean up internal edges, ensuring the inside diameter is smooth and free of sharp edges.



Deburr tube OD using half round file.

- Outside edges can also be deburred with a cone tool
  - It is critical to visually inspect and feel the end of the tube, as any sharp edges can damage the seals



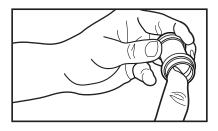
Sand tube OD with sand cloth. Tube surface should be free of indentation, scratches, & deformations.

- An abrasive pad such as Scotch-Brite™ medium-grade (maroon) can also be used
- Any imperfections on the ends of the tube where the fitting would cover could inhibit joint integrity should be cleaned.
- The surface of the tube end should appear bright and shiny, and scratches and other defects will be more easily recognized.
- If tube is oval or out of round, then re-round with appropriate sizing tool.
- If any surface or roundness issues cannot be corrected, then cut off that portion of tube and restart the process at a new piece of tube.

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## **INSTALLATION INSTRUCTIONS**

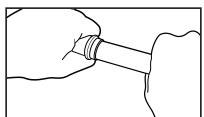
### INSTALLATION INSTRUCTIONS CONTINUED

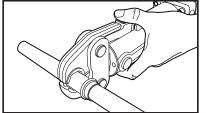


Check fitting bead to ensure seal is present. Do not use any type of oil lubrication.
Inspect for obvious damage such as nicks or tears. If the O-ring appears to be damaged, is out of position, or missing- do not use the fitting and use a new one.
Fittings should remain in bag until ready to use to avoid any dirt or debris from

getting in the system if possible.

- Mark tube to proper fitting insertion depth (see Insertion Depth Chart below).
  If following the insertion depth chart use a ruler or other measuring device to measure the correct insertion depth, marking with a permanent marker.





- Turn slightly while sliding press fitting onto tube. Slide all the way to insertion mark & make contact with stop.
  - Careful alignment of tube with fitting during insertion is critical to performance of the joint.
  - The insertion mark may go slightly into the fitting or may extend up to 1/4" beyond the end of the cup. If the insertion mark is more than 1/4" beyond the edge of the fitting, then the tube is not fully inserted.
  - If the tube is difficult to insert into the fitting, remove the fitting from the tube to make sure the seals are still seated in the groove.
- Place press tool at a right angle over fitting bead. Start the pressing process. Please see specific tool manufacturer for tool instruction.
  - Inspect the jaw at the start of project and periodically during the project for build up or debris.
  - Before pressing, visually inspect that the inserted tube has remained in place and is still at the correct insertion depth as indicated by the depth mark.
- 9 Mark joint site with an "X" once crimping process is complete to verify that the connection has been pressed.

Streamline <sup>®</sup> PRS C	opper Pre	ss Fitting I	nsertion D	epth Char	t (1/2" to 2	")
Tube Size (OD)	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″

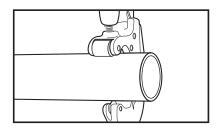
Streamline" PRS Copper Press Fittings must be connected with approved press tool. Please see specific tool manufacturer for tool instruction.

Streamline\* PRS Copper Press Fittings Recommended Pressure Testing: Low-pressure air or water testing can be useful to assist in identifying any un-pressed connections. Leak testing with air can be dangerous at high pressures. When testing with compressed air the proper pressure range is 5 PSI to 15 PSI maximum. When testing with water the proper pressure range is 15 PSI to 50 PSI maximum. Following a successful leak test, the system may be pressure tested with air – recommended at 100 PSI up to a maximum 150 PSI – or with water – recommended at 200 PSI up to a maximum of 450 PSI – as required by local code requirements or project specifications.

## **INSTALLATION INSTRUCTIONS**

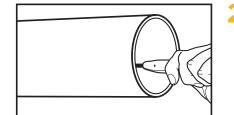
Strenmline .

## INSTALLATION INSTRUCTIONS - 2-1/2" - 4"

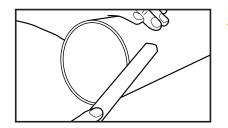


Cut tube square using a tube cutter or fine tooth saw.

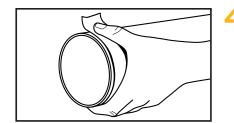
- Do not use a worn or damaged tube cutter because it can damage the tube and compromise the installation.
- Care should be taken to avoid cutting the tube in a way that puts incise marks inside the press fitting.
- When cutting soft (annealed) tubing, do not rush or be too aggressive as this could force the tube out of round.



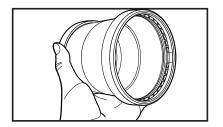
- Deburr tube ID using a deburring tool.
  - Use a cone tool or pen reamer to clean up internal edges, ensuring the inside diameter is smooth and free of sharp edges.



- Deburr tube OD using half round file.
- Outside edges can also be deburred with a cone tool
- It is critical to visually inspect and feel the end of the tube, as any sharp edges can damage the seals



- Sand tube OD with sand cloth. Tube surface should be free of indentation, scratches, & deformations.
  - An abrasive pad such as Scotch-Brite™ medium-grade (maroon) can also be used
  - Any imperfections on the ends of the tube where the fitting would cover could inhibit joint integrity should be cleaned.
  - The surface of the tube end should appear bright and shiny, and scratches and other defects will be more easily recognized.
  - If tube is oval or out of round, then re-round with appropriate sizing tool.
  - If any surface or roundness issues cannot be corrected, then cut off that portion of tube and restart the process at a new piece of tube.

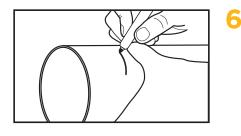


- Check fitting ends to ensure seal, grip ring and nylon spacer are present. Do not use any type of oil lubrication.
  - Inspect for obvious damage such as nicks or tears. If the O-ring appears to be damaged, is out of position, or missing- do not use the fitting and use a new one.
  - Fittings should remain in bag until ready to use to avoid any dirt or debris from getting in the system if possible.

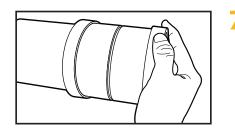
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## **INSTALLATION INSTRUCTIONS**

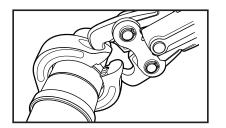
### INSTALLATION INSTRUCTIONS CONTINUED



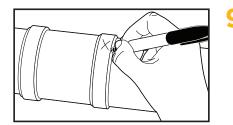
Mark tube to proper fitting insertion depth (see Insertion Depth Chart below).
If following the insertion depth chart use a ruler or other measuring device to measure the correct insertion depth, marking with a permanent marker.



- Turn slightly while sliding press fitting onto tube. Slide all the way to insertion mark & make contact with stop.
- Careful alignment of tube with fitting during insertion is critical to performance of the joint.
- The insertion mark may go slightly into the fitting or may extend up to 1/4" beyond the end of the cup. If the insertion mark is more than 1/4" beyond the edge of the fitting, then the tube is not fully inserted.
- If the tube is difficult to insert into the fitting, remove the fitting from the tube to make sure the seals are still seated in the groove.



- Place press-ring at a right angle over fitting bead & check for proper engagement. Start the pressing process. See specific tool manufacturer for tool instruction.
- Inspect the jaw at the start of project and periodically during the project for build up or debris.
- Before pressing, visually inspect that the inserted tube has remained in place and is still at the correct insertion depth as indicated by the depth mark.



Mark joint site with an "X" once crimping process is complete to verify that the connection has been pressed.

Streamline® PRS Press Fitting Insertion Depth Chart (2-1/2" to 4")							
Tube Size (OD) Insertion Depth	2-1/2" 1-3/4"	3" 1-7/8"	4" 2-1/8"		low all instructions could affect joint/system integrity and mage. Call Customer Service at <b>1-800-FITTING</b> if you have sistance.		
Streamline® PRS Coppe approved press tool. Ple tool instruction.	-			67 67 FR	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.		

Streamline\* PRS Copper Press Fittings Recommended Pressure Testing: Low-pressure air or water testing can be useful to assist in identifying any un-pressed connections. Leak testing with air can be dangerous at high pressures. When testing with compressed air the proper pressure range is 5 PSI to 15 PSI maximum. When testing with water the proper pressure range is 15 PSI to 50 PSI maximum. Following a successful leak test, the system may be pressure tested with air – recommended at 100 PSI up to a maximum 150 PSI – or with water – recommended at 200 PSI up to a maximum of 450 PSI – as required by local code requirements or project specifications.

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# **TESTING AND LEAK DETECTION**

### **PRESSURE TESTING**

When installing Streamline® PRS Copper Press Fittings, it is recommended to perform a leak test in order to locate any un-pressed fittings. To assist in making that testing more reliable, Streamline® PRS Copper Press Fittings come with a leak detection feature. The following procedures assist installers in detecting un-pressed fittings in a system under pressure prior to concealment.

## LEAK TESTING WITH AIR

- When the system, or portion of the system, is installed and isolated, slowly pressurize to 15 PSI maximum using dry clean air, carbon dioxide or nitrogen charge
- The system should stabilize over the next several hours and the pressure should be monitored with a pressure gauge.
- If the pressure has dropped, add more pressure to bring the system back up to the 15 PSI desired initial test level. Bleed off excess pressure.
- Allow time for complete system stabilization. If upon inspection the system pressure has dropped below 15 PSI test level, there is likely an un-pressed fitting leaking.
- Leaks may be easily identified either by use of commercial leak test solution or soap and water mixture, which will form bubbles identifying an un-pressed leak point.
- Once any un-pressed connection has been tested and repaired, repeat the testing process until 15 PSI pressure is maintained for 24 hours or for the duration of time and pressure specified by local authority codes.

## LEAK TESTING WITH WATER

- When the system, or portion of the system, is installed and isolated, slowly pressurize to 50 PSI maximum using clean potable water.
- 2. The system should stabilize over the next several hours and the pressure should be monitored with a pressure gauge.
- If the pressure has dropped, add more pressure to bring the system back up to the 50 PSI desired initial test level. Bleed off excess pressure.
- Allow time for complete system stabilization. If upon inspection the system pressure has dropped below 50 PSI test level, there is likely an un-pressed fitting leaking.
- 5. Leaks may be easily identified by leaking water.
- Once any un-pressed connection has been tested and repaired, repeat the testing process until 50 PSI pressure is maintained for 24 hours or for the duration of time and pressure specified by local authority codes.

Once either testing procedure has been completed and verified, water/air pressure can be increased to the working pressure design of the system, not to exceed the maximum rated pressure.

The leak detection feature may assist with, but does not guarantee the detection of un-pressed connections.

**. Strenmline** 

#### **TUBE SELECTION**

Streamline<sup>®</sup> PRS Copper Press Fittings are designed to be joined with ASTM B88 (Types K, L, M) hard-drawn copper tube (1/2'' - 4'') and soft copper tube (1/2'' - 1-1/4'').

Copper tubing made to ASTM B88 may contain surface imperfections, which are specifically defined and allowed by the standard. This product is handled and stored multiple times before reaching the actual point of installation, potentially leading to further scratches, nicks or dents. ASTM B88 copper tube was designed for joining with solder and braze alloys - both of which are excellent gap-fill materials.

Those who specify and/or install press systems must be aware of the inherent trade-offs that accompany the decision to utilize press technology and o-ring seals. Installers should recognize surface scratches and deep incise marks (identification stamping) on the tube and avoid placing o-ring seals directly over these surface irregularities in order to reduce the risk of leaks. Sanding and cleaning the surface may or may not eliminate this concern.

## STORAGE AND HANDLING

Streamline® PRS Copper Press Fittings are packaged in polybags to keep them clean and free from debris. While unlikely to be needed, the polybag also serves to keep fittings and o-ring seals together in the event that one were to be dislodged in transit. Prior to installation, it is highly recommended that a thorough visual inspection of the fittings be performed. Fittings should be handled with care and opened just prior to use, to ensure their cleanliness.

The tubing and fittings should be carefully handled during shipment and unloaded with reasonable care. Protect the stored product from moisture and dirt. Elevation above grade and away from concrete is desirable.

In the event press fittings are dropped, exercise the utmost care in visually inspecting them to assure.

### **TOOLS & JAWS**

Installer shall be qualified and licensed within the jurisdiction, and familiar with the installation of copper press joint systems.

Streamline® PRS Copper Press Fittings shall be installed using the proper tool, jaws, actuator, and rings as instructed by the respective press fitting and press tool manufacturer.

## UNDERGROUND BURIAL

Streamline® PRS fittings are approved for underground installation in accordance with the latest applicable building codes for the state and local jurisdiction. In addition, underground joints should be wrapped in 3MTM ScotchrapTM Tape 50, Shurtape® PW100 or a comparable impermeable coating system designed to protect joints from moisture, debris, corrosion and other soil stresses. When the system is embedded in concrete, tubing must be covered a minimum of 3/4" and installation must comply with IBC Section 1906.3 or UBC Section 1906.3, as applicable.

## SEAL LUBRICATION

If additional seal lubrication is required, silicon or non-petroleum based lubricants must be used. Do not use any type of oil lubrication.

## DIELECTRIC UNION INSTALLATION — JOINING DISSIMILAR METALS

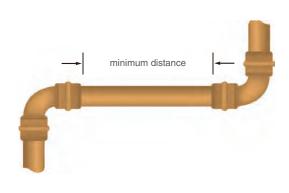
Dielectric unions are only intended for use in the connection of copper to galvanized or bare carbon steel or other ferrous alloys as appropriate. Insulating components within the dielectric union prevent these dissimilar metals from making physical contact, which provides substantial corrosion protection. Dielectric unions are not necessary for integrating stainless steel components into copper water systems as quality stainless alloys are already compatible with copper and copper alloys. This is why stainless steel balls can be used in brass ball valves with no adverse effects. Failure to follow appropriate means for isolating dissimilar metals can lead to rapid corrosion and serious system issues.



## **DISTANCE BETWEEN JOINTS**

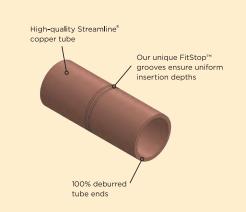
Mechanical joint pressing causes some degree of deformity to the tubing. To prevent leaks, minimal distances between press joints are set forth in the table below.

TUBE DIAMETER	MINIMUM DISTA	NCE REQUIRED
OD INCH	INCH	мм
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





ShortCuts<sup>™</sup> help piping system installers make faster, more economical, and more reliable press connections with minimum required spacing between joints. ShortCuts eliminate complexity and guesswork while providing installers with confidence and more uniform press connections.







# SOLDER OR BRAZING NEAR AN EXISTING PRESS CONNECTION

To ensure proper sealing of the soldered/brazed joint and the press connection, a minimum distance between the two connections must be maintained.

When soldering near a Streamline® PRS Copper Press Fittings connection, the installer must remain at least three tube diameters away from the connection to prevent damage to the sealing element of the press fitting. When brazing, the installer must remain at least nine tube diameters away from the 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.

	MINIMUM DISTANCE						
TUBE DIAMETER (NOMINAL INCH)	SOLDI	ERING	BRAZ	ZING			
	INCH	ММ	INCH	ММ			
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

The minimum distance required when pressing connections near an existing brazed joint is two pipe diameters. To ensure proper sealing of both the soldered and press connections, minimum spacing between connections must be maintained. Always make sure there is no residual solder or other debris on the tubing to be inserted into the Streamline\* PRS Copper Press Fittings

	MINIMUM DISTANCE						
TUBE DIAMETER (NOMINAL INCH)	SOLDE	RING	BRAZING				
	INCH	ММ	INCH	MM			
1/2″	1/4″	7	1″	25			
3/4"	1/4″	7	1-1/2″	38			
1″	7/16″	11	2"	51			
1-1/4″	5/8″	11	2-1/2"	64			
1-1/2″	3/4″	16	3"	76			
2"	1/4″	19	4"	102			
2-1/2"	1/4″	7	5″	127			
3"	1/4″	7	6″	152			
4"	1/4″	7	8″	203			

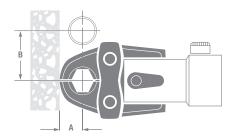
## **INSTALLATION GUIDELINES**

Strenmline

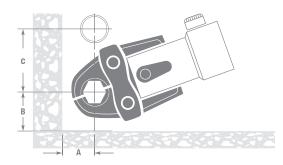
## **PRESSING SPACE LIMITATIONS**

Press tool and jaw sets can be difficult to get into some tighter spaces. In these instances it is recommended that, when possible, to preassemble product away from these space restricted areas. These assemblies can then be installed to minimize the potential for improper alignment of the pressing tools and jaws. For most press joints, use of the press tools and jaws will not pose spatial issues. The following guidelines are recommended for standard installations.

## 1/2" - 2" PRESSING WITH STANDARD JAWS - CLEARANCE REQUIREMENTS

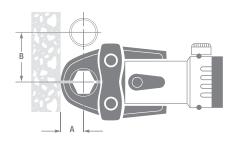


TUBE			B MINIMUM		
DIAMETER					
1/2	3/4	19	1-5/8	41	
3/4	7/8	22	2-1/8	54	
1	1	26	2-1/2	64	
1-1/4	1-1/8	29	2-7/8	73	
1-1/2	1-3/4	45	3-1/2	89	
2	2	51	4-3/8	111	

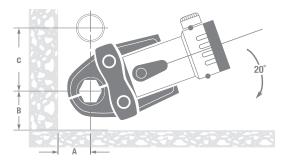


TUBE			B MIN		C MINIMUM	
DIAMETER						
1/2	7/8	23	1-3/8	35	2-1/2	64
3/4	1	26	1-1/2	38	2-1/2	64
1	1-1/8	29	1-3/4	45	3	76
1-1/4	1-1/4	32	2-1/4	57	3-1/8	80
1-1/2	1-7/8	48	1-1/2	64	3-3/4	95
2	2-1/8	54	3-1/8	80	5	127

## 1/2" - 1-1/4" PRESSING WITH COMPACT JAWS - CLEARANCE REQUIREMENTS



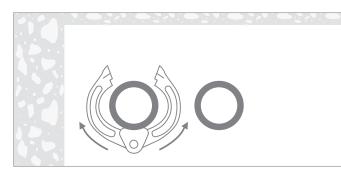
TUBE	A MIN		B MINIMUM		
DIAMETER					
1/2	3/4	19	2	51	
3/4	7/8	22	2-3/8	60	
1	7/8	26	2-5/8	67	
1-1/4	1-1/8	28	3-1/8	85	



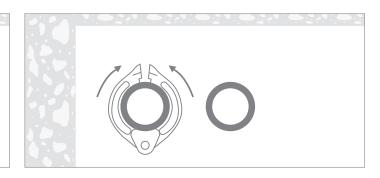
TUBE			B MIN			
DIAMETER						
1/2	7/8	23	1-3/8	35	2-1/2	64
3/4	1	26	1-1/2	38	2-3/4	70
1	1-1/8	29	1-5/8	41	3	76
1-1/4	1-5/8	39	2-1/8	53	3-3/8	85

Streamline

## 2-1/2" - 4" PRESSING WITH PRESS RINGS - CLEARANCE REQUIREMENTS

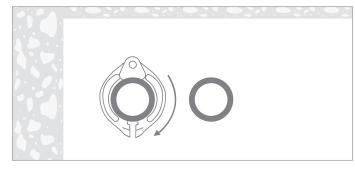


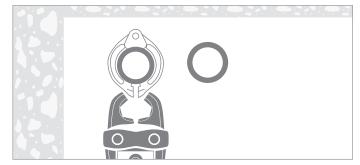
Wrap the press ring around the press fitting with the opening facing away from you.





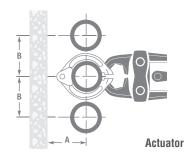
**2** Close the press ring tight around the fitting



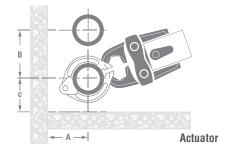


- Rotate the press ring until the actuator jaw receptacle 3 is facing toward you.
- Properly insert actuator jaw and begin the 4 pressing procedure.

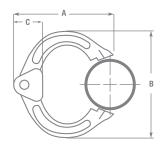
## PROCEDURE FOR LAYING THE COPPER PRESS RING AROUND THE STREAMLINE PRS FITTING WITH MINIMUM SPACE REQUIREMENTS



TUBE DIAMETER		B INCH (MM)
2-1/2	4-1/8 (105)	6 (152)
3	4-3/8 (111)	7 (178)
4	5 (127)	8 (203)



TUBE DIAMETER			
2-1/2	4-1/8	6	4-1/2
	(105)	(152)	(114)
3	4-3/8	7	4-7/8
	(111)	(178)	(124)
4	5	8	5-3/4
	(127)	(203)	(146)



TUBE DIAMETER	A INCH (MM)	B INCH (MM)	C INCH (MM)
2-1/2	6-3/16	6-15/16	2-7/16
	(157)	(176)	(62)
3	7-7/16	8-13/16	2-7/16
	(189)	(224)	(62)
4	8-1/16	10-7/16	2-7/16
	(205)	(265)	(62)

## FAQs



- What are Streamline<sup>®</sup> PRS Copper Press Fittings rated for regarding pressure and temperature?
   300 PSI over a temperature range of -20° F to 250° F.
- For what types of applications are Streamline<sup>®</sup> PRS Copper Press Fittings approved? Residential and commercial plumbing and mechanical systems.
- 3. For what types of media are Streamline<sup>®</sup> PRS Copper Press Fittings designed?

Hot and cold domestic water, potable drinking and cooking water, condenser and chilled water, and water glycol mixtures of ethylene or propylene glycol up to 50% at 200° F.

4. What products are included in the Streamline® PRS Copper Press Fittings offering?

Copper fittings in sizes 1/2" to 4" including couplings, elbows, tees, caps, adapters, fitting reducers, unions and flanges.

5. What tubing can be used with Streamline® PRS Copper Press Fittings?

K, L, and M hard drawn copper water tube (1/2" to 4") and soft (annealed) copper tube (1/2" to 1-1/4".)

6. What is the warranty for Streamline<sup>®</sup> PRS Copper Press Fittings?

50-year limited warranty.

7. How long will the EPDM seal last in Streamline<sup>®</sup> PRS Copper Press Fittings?

The EPDM seal carries the same warranty as the fitting in which it is installed - 50 years.

8. What performance tests were performed on Streamline® PRS Copper Press Fittings?

Certification to IAPMO PS-117 and ASME B16.51 requires the following tests: hydrostatic burst strength, unrestrained hydrostatic pressure, dynamic torque, static torque, bending, vacuum pressure, cyclic pressure, vibration and thermocycling.

9. What pressing tools can be used with Streamline® PRS Copper Press Fittings?

Most pressing tools on the market can be used, but always refer to the Tool & Jaw Compatibility information on page 6.

 Can a Streamline<sup>®</sup> PRS connection be re-crimped? Yes. However, for 1/2" to 2" joints, the pressing jaws must be

positioned on the same hex flats as the original crimp.
11. Are Streamline<sup>®</sup> PRS Copper Press Fittings approved

II. Are Streamline<sup>®</sup> PRS Copper Press Fittings approved for use underground?

Yes, in accordance with local plumbing codes.

- Are Streamline<sup>®</sup> PRS Copper Press Fittings lead free? Yes. They have been tested and are certified to NSF/ANSI-61 and NSF/ANSI-372.
- 13. Are Streamline<sup>®</sup> PRS Copper Press Fittings' seals lubricated?

The seals are lubricated as part of the manufacturing process when they are inserted into the press fittings.

14. Can Streamline<sup>®</sup> PRS Copper Press Fittings be installed in a system subject to freezing?

Care should always be taken when installing any system in severe freezing conditions. Systems exposed to freezing conditions should be protected per local plumbing codes.



## **15.** Can Streamline<sup>®</sup> PRS Copper Press Fittings be installed in tight spaces?

Yes, as long as there is sufficient clearance around each joint to allow for the pressing tool and jaw to crimp without interference.

- 16. What does EPDM stand for? Ethylene-Propylene Diene Monomer
- 17. How far away from a Streamline® PRS Copper Press connection can another fitting be soldered or brazed? See Solder or Brazing Near an Existing Press Connection information on page 27.
- 18. How far away from a soldered or brazed joint can a Streamline<sup>®</sup> PRS Copper Press Fitting be installed? See Pressing Near an Existing Soldered or Brazed Connection information on page 27.
- 19. How close together can two Streamline<sup>®</sup> PRS connections be pressed?

See Minimum Distance Between Joints for distance between press fittings on page 26.

20. What are the most common errors made when installing Streamline<sup>®</sup> PRS Copper Press Fittings?

Not adequately deburring the end of the tubing, and not inserting the tube far enough into the press fitting.

#### 21. Can Streamline® PRS Copper Press Fittings be installed in a refrigeration system?

No. The EPDM seals are not compatible with refrigerants, and the pressure rating of the system is not sufficient for many refrigerant gases.

## 22. How can the system be pressure tested to ensure that all fittings are pressed?

A two-stage pressure test using air and then water that is explained in detail on page 24.

#### 23. How do I know if I missed a joint?

All Streamline<sup>®</sup> PRS Copper Press Fittings are designed with leak-before-press technology that helps identify unpressed joints.

## 24. Can Streamline<sup>®</sup> PRS Copper Press Fittings be painted?

Streamline<sup>®</sup> PRS fittings may be painted if desired for color identification. Proper care must be taken to avoid any oil-based paints from pooling inside the fitting ends.

## 25. Can Streamline<sup>®</sup> PRS Copper Press Fittings be pressed onto plastic coated tube?

Plastic coating would need to be removed to allow joint to be made on bare, prepped tube. Completed joint should be wrapped in 3M<sup>™</sup> Scotchrap<sup>™</sup> Tape 50, Shurtape<sup>®</sup> PW100 or a comparable impermeable coating system designed to protect joints from moisture, debris, corrosion and other soil stresses.

#### 26. What is the recycled content in Streamline® PRS fittings?

The post-consumer recycled content is 5%. The Pre-consumer recycled content is 35%.



Streamline<sup>®</sup> is the preferred and specified brand of industry professionals around the world. Why? They know that since 1930, Streamline<sup>®</sup> products have been designed for trouble-free performance and manufactured to the highest standards. From tubing and fittings to valves and more, Streamline<sup>®</sup> offers a suite of quality products to support a broad range of piping systems and applications. Streamline<sup>®</sup> Your System, and get the confidence that only comes when a solution is designed to work together.

- Plumbing Supply Systems
- High-Pressure CO2 Systems
- Industrial/Process Systems
- Hydronic Heating Systems
  - Well & Pump Systems
  - Underground Service Lines

- Drain, Waste, & Vent Systems
- Air Conditioning Systems
- Refrigeration Systems
- Mechanical & Steam Systems
- LP/Natural Gas Systems

## **MUELLER STREAMLINE CO.**

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