



PRESS FITTINGS FOR PLUMBING AND MECHANICAL APPLICATIONS

JOB NAME	CONTRACTOR
JOB LOCATION	WHOLESALE
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 | |

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

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:

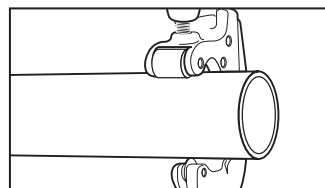
Press Fitting: Shall conform to material requirements of ASME B16.22, ASME B16.51, or ASME B16.18. Performance criteria of mechanical pressed copper fittings shall conform to IAPMO PS-117 or ASME B16.51

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

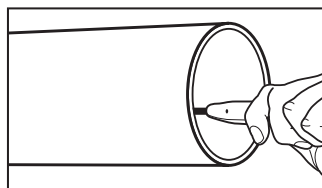
-OR-

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

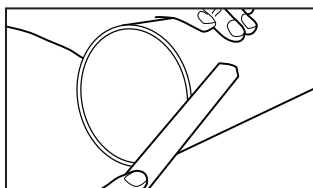
Installation Instructions (1/2" - 2")



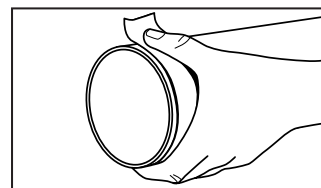
1. Cut tube square using a tube cutter or fine tooth saw.



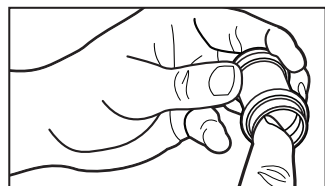
2. Deburr tube ID using a deburring tool.



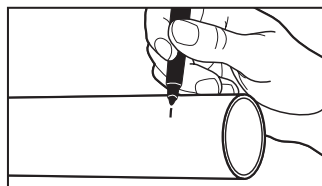
3. Deburr tube OD using half round file.



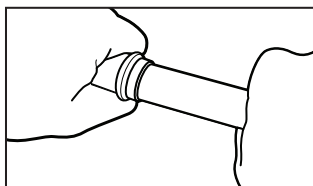
4. Sand tube with OD sand cloth. Tube surface should be free of indentation, scratches, and deformations.



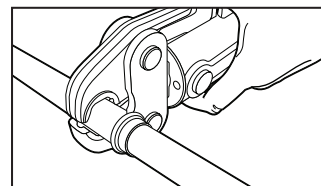
5. Check fitting bead to ensure seal is present. Do not use any type of oil lubrication.



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.



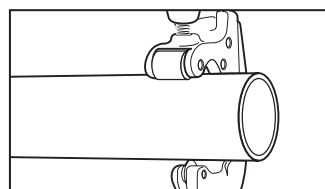
8. Place press tool at a right angle over fitting bead. Start the pressing process. Please see specific tool manufacturer for tool instruction.

Streamline PRS Fitting Insertion Depth Chart (1/2" - 2")

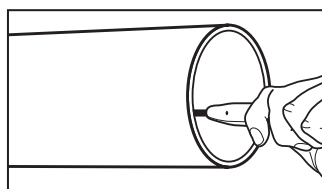
Tube Size	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
Insertion Depth	3/4"	7/8"	7/8"	1"	1-7/16"	1-9/16"

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

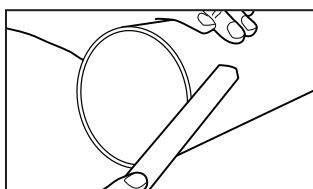
Installation Instructions (2-1/2" - 4")



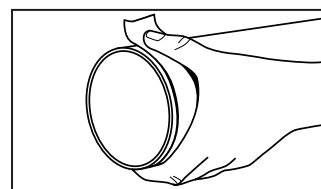
1. Cut tube square using a tube cutter or fine tooth saw.



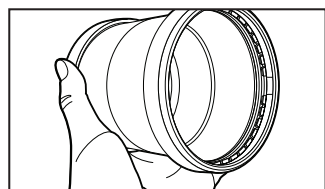
2. Deburr tube ID using a deburring tool.



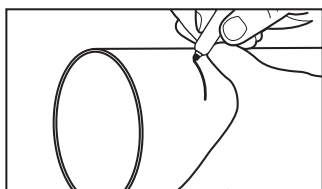
3. Deburr tube OD using half round file.



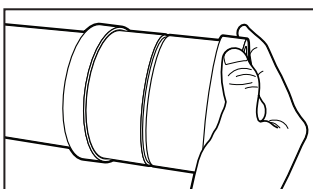
4. Sand tube with OD sand cloth. Tube surface should be free of indentation, scratches, and deformations.



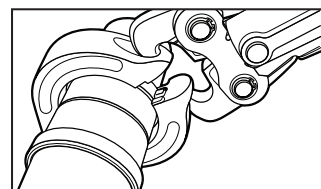
5. Check fitting ends to ensure seal, grip ring and nylon spacer are present. Do not use any type of oil lubrication.



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.

TESTING INSTRUCTIONS FOR FITTINGS WITH LEAK DETECTION

Pressure Testing

When installing Streamline PRS™ 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™ fittings come with a leak detection feature. The following procedures allow installers to detect un-pressed fittings in a system under pressure prior to concealment.

Leak Testing with Air

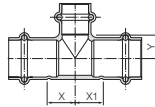
1. When the system, or portion of the system, is installed and isolated, pressurize to 15 PSI maximum using dry clean air, carbon dioxide or nitrogen charge
2. The system should stabilize over the next several hours and the pressure should be monitored with a pressure gauge.
3. If the pressure has dropped, add more pressure to bring the system back up to the 15 PSI desired initial test level. Bleed off excess pressure.
4. 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.
5. Leaks are 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.
6. 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

1. When the system, or portion of the system, is installed and isolated, 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.
3. 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.
4. 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 are easily identified by leaking water.
6. 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.

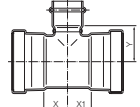
Once either testing procedure has been completed and verified, water/air pressure can be increased to the working pressure design of the system, not to exceed the maximum rated pressure.

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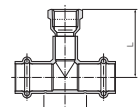
Item No.	Diameter	X	X1	Y	Wgt.	Inner	Viaga No.
PF 04047	1/2" x 1/2" x 3/4"	0.83	0.83	0.55	0.32	10	77382
PF 04067	1/2" x 1/2" x 1"	2.28	2.28	0.80	0.72	5	15493
PF 04043	3/4" x 1/2" x 1/2"	0.61	0.77	0.55	0.28	10	77392
PF 04041	3/4" x 1/2" x 3/4"	0.81	0.89	0.55	0.33	5	77397
PF 04033	3/4" x 3/4" x 1/2"	0.61	0.61	0.55	0.29	10	77402
PF 04065	3/4" x 3/4" x 1"	2.11	2.11	0.79	0.77	5	77407
PF 04062	1" x 1/2" x 3/4"	0.81	1.00	0.71	0.44	5	22263
PF 04061	1" x 1/2" x 1"	0.89	1.22	0.79	0.48	5	94767
PF 04058	1" x 3/4" x 1/2"	0.69	0.77	0.79	0.51	5	77417
PF 04056	1" x 3/4" x 3/4"	0.81	0.96	0.71	0.43	5	77422
PF 04055	1" x 3/4" x 1"	0.89	1.10	0.80	0.48	5	77427
PF 04051	1" x 1" x 1/2"	0.69	0.69	0.79	0.41	5	77432
PF 04049	1" x 1" x 3/4"	0.81	0.81	0.71	0.45	5	77437
PF 04082	1" x 1" x 1-1/4"	2.42	2.42	0.83	1.02	1	15488
PF 04083	1-1/4" x 1/2" x 1-1/4"	0.96	2.66	0.83	0.81	1	22253
PF 04081	1-1/4" x 3/4" x 1/2"	0.47	2.05	0.83	0.65	1	22243
PF 04080	1-1/4" x 3/4" x 3/4"	0.61	2.19	0.83	0.73	1	22258
PF 04079	1-1/4" x 3/4" x 1"	0.69	2.26	0.83	0.78	1	22268
PF 04078	1-1/4" x 3/4" x 1-1/4"	0.96	2.54	0.83	0.85	1	22248
PF 04076	1-1/4" x 1" x 1/2"	0.47	1.81	0.83	0.65	1	22238
PF 04075	1-1/4" x 1" x 3/4"	0.61	1.95	0.83	0.70	1	94762
PF 04074	1-1/4" x 1" x 1"	0.69	2.03	0.83	0.75	1	14568
PF 04073	1-1/4" x 1" x 1-1/4"	0.96	2.30	0.83	0.84	1	-
PF 04071	1-1/4" x 1-1/4" x 1/2"	0.47	0.47	0.83	0.45	1	94757
PF 04070	1-1/4" x 1-1/4" x 3/4"	0.61	0.61	0.83	0.50	1	77452
PF 04069	1-1/4" x 1-1/4" x 1"	0.69	0.69	0.83	0.57	1	77447
PF 40244	1-1/2" x 1/2" x 1-1/2"	1.10	3.39	1.10	1.48	1	-
PF 40238	1-1/2" x 3/4" x 3/4"	0.63	2.74	1.10	1.04	1	-
PF 04098	1-1/2" x 1" x 3/4"	0.63	2.56	1.10	1.08	1	79660
PF 04097	1-1/2" x 1" x 1"	0.75	2.68	1.10	1.15	1	15458
PF 04095	1-1/2" x 1" x 1-1/2"	1.10	3.03	1.10	1.46	1	15463
PF 04093	1-1/2" x 1-1/4" x 3/4"	0.63	2.38	1.10	1.11	1	22233
PF 04092	1-1/2" x 1-1/4" x 1"	0.75	2.50	1.10	1.18	1	15453
PF 04091	1-1/2" x 1-1/4" x 1-1/4"	0.96	2.72	1.16	1.24	1	15483
PF 04088	1-1/2" x 1-1/2" x 1/2"	0.47	0.47	1.08	0.75	1	15448
PF 04087	1-1/2" x 1-1/2" x 3/4"	0.63	0.63	1.10	0.84	1	77462
PF 04086	1-1/2" x 1-1/2" x 1"	0.75	0.75	1.10	0.92	1	77467
PF 04085	1-1/2" x 1-1/2" x 1-1/4"	0.96	0.96	1.16	1.06	1	77472
PF 40249	2" x 1/2" x 2"	1.30	4.11	1.34	2.11	1	-
PF 40248	2" x 3/4" x 2"	1.30	3.92	1.34	2.12	1	-
PF 40247	2" x 1" x 1"	3.29	0.85	1.34	1.61	1	-
PF 40245	2" x 1" x 2"	1.30	3.74	1.34	2.09	1	-
PF 40117	2" x 1-1/4" x 1-1/4"	0.89	3.15	1.34	1.73	1	15518
PF 40113	2" x 1-1/2" x 3/4"	0.75	2.83	1.34	1.70	1	15513
PF 40112	2" x 1-1/2" x 1"	0.85	2.93	1.34	1.73	1	15498
PF 40111	2" x 1-1/2" x 1-1/4"	0.89	2.97	1.34	1.83	1	15508
PF 40110	2" x 1-1/2" x 1-1/2"	1.08	3.17	1.34	1.97	1	15503
PF 40109	2" x 1-1/2" x 2"	1.30	3.39	1.34	2.19	1	22228
PF 40107	2" x 2" x 1/2"	0.49	0.49	1.26	0.99	1	15538
PF 40106	2" x 2" x 3/4"	0.75	0.75	1.34	1.20	1	94777
PF 40105	2" x 2" x 1"	0.85	0.85	1.34	1.28	1	94772
PF 40104	2" x 2" x 1-1/4"	0.89	0.89	1.34	1.33	1	77487
PF 40103	2" x 2" x 1-1/2"	1.08	1.08	1.34	1.53	1	77482

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Item No.	Diameter	X	X1	Y	Wgt.	Inner	Viaga No.
PF 40222	2-1/2" x 3/4" x 2-1/2"	1.73	5.20	1.81	3.34	1	20684
PF 40221	2-1/2" x 1" x 2-1/2"	1.73	5.06	1.81	3.33	1	20689
PF 40220	2-1/2" x 1-1/4" x 2-1/2"	1.73	5.22	1.81	3.35	1	20694
PF 40138	2-1/2" x 1-1/2" x 2"	1.59	4.90	1.83	3.10	1	-
PF 40137	2-1/2" x 1-1/2" x 2-1/2"	1.73	5.04	1.81	3.47	1	20699
PF 40135	2-1/2" x 2" x 3/4"	0.98	3.90	1.56	2.54	1	20704
PF 40134	2-1/2" x 2" x 1"	1.10	4.02	1.59	2.60	1	20709
PF 40132	2-1/2" x 2" x 1-1/2"	1.34	4.29	1.83	2.89	1	22283
PF 40131	2-1/2" x 2" x 2"	1.59	4.53	1.83	3.06	1	22278
PF 40130	2-1/2" x 2" x 2-1/2"	1.73	4.65	1.81	3.43	1	20714
PF 40129	2-1/2" x 2-1/2" x 1/2"	0.87	0.87	1.52	1.52	1	22303
PF 40128	2-1/2" x 2-1/2" x 3/4"	0.98	0.98	1.56	1.64	1	22298
PF 40127	2-1/2" x 2-1/2" x 1"	1.10	1.10	1.59	1.70	1	22293
PF 40126	2-1/2" x 2-1/2" x 1-1/4"	1.24	1.24	1.83	1.79	1	22288
PF 40125	2-1/2" x 2-1/2" x 1-1/2"	1.34	1.34	1.83	1.92	1	20803
PF 40124	2-1/2" x 2-1/2" x 2"	1.59	1.59	1.83	2.13	1	20688
PF 40179	3" x 3/4" x 3"	2.01	6.00	2.11	4.68	1	20719
PF 40178	3" x 1" x 3"	2.01	5.81	2.11	4.68	1	20724
PF 40181	3" x 1-1/4" x 3"	2.01	6.06	2.11	4.69	1	20729
PF 40174	3" x 1-1/2" x 3"	2.01	5.85	2.11	4.72	1	20727
PF 40164	3" x 2" x 2"	1.61	5.06	2.09	4.12	1	20732
PF 40165	3" x 2" x 2-1/2"	1.77	5.22	2.07	4.38	1	20734
PF 40167	3" x 2" x 3"	2.01	5.45	2.11	4.75	1	20739
PF 40157	3" x 2-1/2" x 2"	4.72	1.61	2.09	4.24	1	20744
PF 40158	3" x 2-1/2" x 2-1/2"	1.77	4.88	2.07	4.60	1	20749
PF 40159	3" x 2-1/2" x 3"	2.01	5.12	2.11	4.95	1	20754
PF 40145	3" x 3" x 1/2"	0.87	0.87	1.79	2.07	1	20759
PF 40146	3" x 3" x 3/4"	1.00	1.00	1.80	2.14	1	22323
PF 40147	3" x 3" x 1"	1.10	1.10	1.85	2.23	1	22308
PF 40148	3" x 3" x 1-1/4"	1.24	1.24	2.09	2.33	1	22313
PF 40149	3" x 3" x 1-1/2"	1.34	1.34	2.09	2.55	1	20798
PF 40150	3" x 3" x 2"	1.61	1.61	2.09	2.75	1	20698
PF 40151	3" x 3" x 2-1/2"	1.77	1.77	2.07	2.68	1	20703
PF 40204	4" x 3" x 2"	5.49	1.63	2.66	6.97	1	20774
PF 40206	4" x 3" x 3"	2.11	5.96	2.70	7.85	1	20784
PF 40191	4" x 4" x 1/2"	0.87	0.87	2.42	3.41	1	20788
PF 40192	4" x 4" x 3/4"	1.02	1.02	2.39	3.48	1	20793
PF 40193	4" x 4" x 1"	1.14	1.14	2.38	3.60	1	20794
PF 40194	4" x 4" x 1-1/4"	1.28	1.28	2.66	3.83	1	20795
PF 40195	4" x 4" x 1-1/2"	1.38	1.38	2.66	4.00	1	20808
PF 40196	4" x 4" x 2"	1.63	1.63	2.66	4.25	1	20713
PF 40197	4" x 4" x 2-1/2"	1.87	1.87	2.64	4.74	1	20718
PF 40198	4" x 4" x 3"	2.11	2.11	2.70	5.15	1	20723

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Item No.	Diameter	L	X	Wgt.	Inner	Viaga No.
PF 01512	1/2"	2.08	0.67	0.30	5	79580
PF 01538	3/4"	2.45	0.81	0.51	5	79595
PF 01569	1"	2.75	0.89	0.74	5	-
PF 01607	1-1/4"	3.04	0.96	0.94	1	-
PF 01644	1-1/2"	3.90	1.10	1.64	1	-