

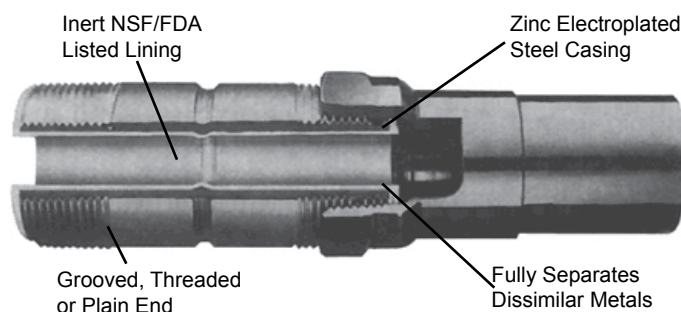


Precision Plumbing Products

"Specify with Confidence - Install with Pride"

ClearFlow®

www.pppinc.net



| Dimensions: | | | | | | |
|---------------------|-----------------|---------------|--------------------------|------------------------------|---------------|-----------------------------|
| Part No. | Pipe Inches(mm) | | Max.Wk. Press. PSI (kpa) | Dimen. End to End Inches(mm) | Units Per Box | Approx. Wgt. Each Lbs. (kg) |
| | Nom. Size | Actual Size | | | | |
| Threaded x Threaded | | | | | | |
| 19100P | 1/2 (15) | 0.840 (16,7) | 300 (2065) | 3 (76) | 25 | 0.2 (0,1) |
| 19125P | 3/4 (20) | 1.050 (26,9) | 300 (2065) | 3 (76) | 25 | 0.2 (0,1) |
| 19145P | 1 (25) | 1.315 (33,4) | 300 (2065) | 4 (102) | 25 | 0.3 (0,3) |
| 19155P | 1 1/4 (32) | 1.660 (42,4) | 300 (2065) | 4 (102) | 10 | 0.3 (0,3) |
| 19165P | 1 1/2 (40) | 1.900 (48,3) | 300 (2065) | 4 (102) | 10 | 0.8 (0,3) |
| 19175P | 2 (50) | 2.375 (60,3) | 300 (2065) | 4 (102) | 10 | 1.0 (0,5) |
| 19180P | 2 1/2 (60) | 2.875 (73,0) | 300 (2065) | 6 (152) | 6 | 1.6 (0,7) |
| 19185P | 3 (80) | 3.500 (88,9) | 300 (2065) | 6 (152) | 6 | 2.0 (0,9) |
| 19195P | 4 (100) | 4.500 (114,3) | 300 (2065) | 6 (152) | 6 | 4.5 (2,0) |
| Grooved x Threaded | | | | | | |
| 19146P | 1 (25) | 1.315 (33,4) | 300 (2065) | 4 (102) | 25 | 0.3 (0,2) |
| 19156P | 1 1/4 (32) | 1.660 (42,4) | 300 (2065) | 4 (102) | 10 | 0.6 (0,3) |
| 19166P | 1 1/2 (40) | 1.900 (48,3) | 300 (2065) | 4 (102) | 10 | 0.8 (0,3) |
| 19176P | 2 (50) | 2.375 (60,3) | 300 (2065) | 4 (102) | 10 | 1.0 (0,5) |
| 19181P | 2 1/2 (65) | 2.875 (73,0) | 300 (2065) | 6 (152) | 6 | 1.6 (0,7) |
| 19186P | 3 (80) | 3.500 (88,9) | 300 (2065) | 6 (152) | 6 | 2.0 (0,9) |
| 19196P | 4 (100) | 4.500 (114,3) | 300 (2065) | 6 (152) | 6 | 4.5 (2,0) |

NEW

| | | | | | | |
|--------------------------|------------|---------------|------------|---------|----|-----------|
| Grooved x Grooved | | | | | | |
| 19200P | 2 (50) | 2.375 (60,3) | 300 (2065) | 4 (102) | 25 | 1.0 (0,5) |
| 19201P | 2 1/2 (65) | 2.875 (73,0) | 300 (2065) | 6 (152) | 6 | 1.6 (0,7) |
| 19202P | 3 (80) | 3.500 (88,9) | 300 (2065) | 6 (152) | 6 | 2.0 (0,9) |
| 19203P | 4 (100) | 4.500 (114,3) | 300 (2065) | 6 (152) | 6 | 4.5 (2,0) |

ClearFlow® fittings protect your plumbing system through an exclusive steel-to-plastic design that establishes an effective dielectric waterway. The ClearFlow® line of dielectric fittings separates dissimilar metals in the electrolyte (waterway) eliminating the local galvanic cell. In addition, ClearFlows® metal-to-metal joint design maintains external electrical continuity, thereby preventing stray current corrosion. This feature becomes critical when stray current is present due to intentional or non-intentional grounding of direct current (DC) sources, e.g. phone systems and appliances. ClearFlow® fittings are designed to meet the requirements of ASTM standard F1545 for continuous use at temperatures up to +225°F (- +5°F) and for pressures up to 300psi, and will achieve a dielectric waterway in all potable water and appropriate HVAC applications. ClearFlow® is listed by IAPMO/UPC and SBCCI PST & ESI. Test results comparing ClearFlow® fittings with several other connections are provided on the opposite side.



elster
Perfection



ClearFlow® DIELECTRIC WATERWAY FITTINGS

Test results:

A test was conducted by Pittsburgh testing Laboratory to determine a ClearFlow® fitting's ability to reduce the current flow that causes internal corrosion in a waterway system. This current flow exists when dissimilar metals are exposed to an electrolyte(water) and is directly proportional to the rate at which corrosion occurs. The test fittings were installed between a piece of copper tubing and galvanized steel pipe. The current flow across these fittings was measured and recorded.

Fittings tested:

Sample #1 ¾"x3" ClearFlow® connector Part No. 19125

Sample #2 ¾"x 3" galvanized pipe nipple

Sample #3 ¾" insulated dielectric union

Sample #4 ¾" x 2" insulated coupling

Four test samples:

Sample #1 A 12" section of copper tubing was connected to a copper sweat ¾" NPT adapter, Plexiglas test insulator, galvanized coupling, a ¾"x 3" ClearFlow® Connector, and a 12" section of galvanized steel pipe.

Sample #2 A 12" section of copper tubing was connected to a copper sweat ¾" NPT adapter, Plexiglas test insulator, galvanized coupling, a ¾"x 3" ClearFlow® Connector, and a 12" section of galvanized steel pipe.

Sample #3 A 12" section of copper tubing was connected to a ¾" insulated dielectric union and a 12" section of galvanized pipe.

Sample #4 A 12" section of copper tubing was connected to a ¾"x 2" insulated coupling and a 12" section of galvanized pipe.

The test equipment used was a Micronta digital multimeter, #22-191 that is sensitivity rated at 20,000 VDC.

Test procedures:

After each test sample was assembled, a plastic cap was installed on the copper tubing. Each sample was filled with 70°F tap water. One lead of the multimeter was connected to the copper tubing. The other lead was connected to the galvanized pipe. A current reading was taken for each sample.

The results:

| | | |
|-----------|--|----------|
| Sample #1 | (ClearFlow® Dielectric Waterway Connectors): | 0.066 ma |
| Sample #2 | (Galvanized Pipe Nipple): | 0.345 ma |
| Sample #3 | (Insulated Dielectric Union): | 0.441 ma |
| Sample #4 | (Insulated Coupling): | 0.209 ma |

NOTE: Certified results of these tests are available upon request.

Test data/results and listings:

The facts and test data reported herein have been certified by Pittsburgh Testing Laboratory and collected by Elster Perfection Corporation engineers in our own laboratories. Similar testing on ClearFlow® type fittings have been certified by Heron Testing Labs, Inc. Also, the corrosion protection effects of ClearFlow® type fittings have been proved in tens of millions of water heaters. We have been supplying these fittings world wide to water heater manufacturers for more than 20 years. Variations of ClearFlow® fittings are used in appliances listed by the following agencies: The American Gas Association (A.G.A.) Laboratories; Underwriters Laboratories (U.L.); and The Canadian Gas Association (C.G.A.).

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