



Precision Plumbing Products

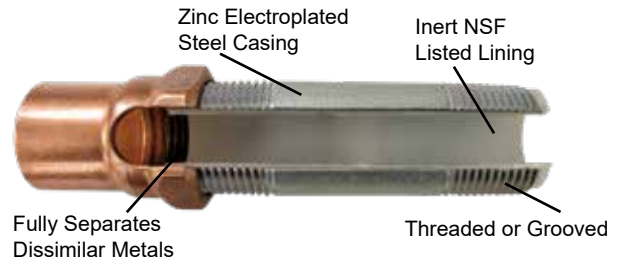
"Specify with Confidence - Install with Pride"

LEAD FREE

Precision Dielectric Waterway® Fittings



Threaded x Threaded Series



Precision Dielectric Waterway® fittings protect your plumbing system through an exclusive steel-to-plastic design that establishes an effective dielectric waterway.

The Precision Dielectric Waterway® line of dielectric fittings separates dissimilar metals in the electrolyte (waterway) eliminating the local galvanic cell. In addition, Precision Dielectric Waterway® 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.

Our Precision Dielectric Waterway® fittings are able to reduce the current flow that causes internal corrosion in a waterway system. This current flow exists when dissimilar metals are exposed to

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						
PDW-500TT	1/2 (15)	0.840 (16,7)	300 (2065)	3 (76)	25	0.2 (0,1)
PDW-750TT	3/4 (20)	1.050 (26,9)	300 (2065)	3 (76)	25	0.2 (0,1)
PDW-1000TT	1 (25)	1.315 (33,4)	300 (2065)	4 (102)	25	0.3 (0,3)
PDW-2000TT	2 (50)	2.375 (60,3)	300 (2065)	4 (102)	10	1.0 (0,5)

an electrolyte (water) and is directly proportional to the rate at which corrosion occurs.

Precision Dielectric Waterway® 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. Precision Dielectric Waterway® is listed by IAPMO/UPC.

Meets BABAA Build American Buy America Act and American Iron and Steel. Made in the USA, and assembled at our ISO 9001 and ISO 14001 certified-green factory in Portland, Oregon.



Precision Plumbing Products

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DIELECTRIC WATERWAY FITTINGS

Test results:

A test was conducted by Pittsburgh testing Laboratory to determine a dielectric waterway connector 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 $\frac{3}{4}$ "x3" dielectric waterway connector
- Sample #2 $\frac{3}{4}$ "x 3" galvanized pipe nipple
- Sample #3 $\frac{3}{4}$ " insulated dielectric union
- Sample #4 $\frac{3}{4}$ " x 2" insulated coupling

Four test samples:

- Sample #1 A 12" section of copper tubing was connected to a copper sweat $\frac{3}{4}$ " NPT adapter, Plexiglas test insulator, galvanized coupling, a $\frac{3}{4}$ "x 3" dielectric waterway connector, and a 12" section of galvanized steel pipe.
 - Sample #2 A 12" section of copper tubing was connected to a copper sweat $\frac{3}{4}$ " NPT adapter, Plexiglas test insulator, galvanized coupling, a $\frac{3}{4}$ "x 3" dielectric waterway connector, and a 12" section of galvanized steel pipe.
 - Sample #3 A 12" section of copper tubing was connected to a $\frac{3}{4}$ " insulated dielectric union and a 12" section of galvanized pipe.
 - Sample #4 A 12" section of copper tubing was connected to a $\frac{3}{4}$ "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 (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

Test data/results and listings:

Note: These results are a reference to a prior study recommending usage of dielectric fittings. The corrosion protection effects of Precision Dielectric Waterway type fittings have been proved in tens of millions of water heaters. We have been supplying fittings world wide to water heater manufacturers for more than 20 years.



JL Industries, inc.

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