

# Style 47 Dielectric Waterway

## PRODUCT DESCRIPTION



Style 47-GT  
Grvd. End X Thrd.



Style 47-TT  
Thrd. X Thrd.



Clearflow® Dielectric Waterway fittings create a dielectric waterway by insulating the inside of the metal casing, thus inhibiting the internal formation of galvanic local cell corrosion between the dissimilar metals in the presence of water.

By essentially eliminating galvanic local cell and stray current problems, Clearflow Dielectric Waterway fittings continuously provide the most effective corrosion protection possible in any waterway system connection.

Clearflow fittings use materials which meet the requirements of ASTM F-492-77. Clearflow fittings are designed for continuous use at temperatures up to 230°F (110°C) and pressures up to 300 psi (2065 kPa).

Style 47-GT and 47-TT are NSF Listed in accordance with ANSI/NSF 61, up to 180°F (82°C) for potable water service. Style 47-GG is UL Classified in accordance with ANSI/NSF 61, up to 180°F (82°C) for potable water service.

### Varied Styles

Clearflow Dielectric Waterways provide a transition from steel (IPS) pipe to copper (CTS) pipe with varied end preparations.

Style 47-GT connects a threaded (IPS) copper adapter to a grooved steel system. The threaded by threaded Style 47-TT connects the threaded copper adapter to a FPT component.

The new Style 47-GG provides a direct transition from grooved copper (CTS) to grooved end steel (IPS) without any other adapters. This allows easy integration of Victaulic grooved end copper systems into steel systems. This is significant for retrofit, expansion or direct connection to dissimilar metals equipment.

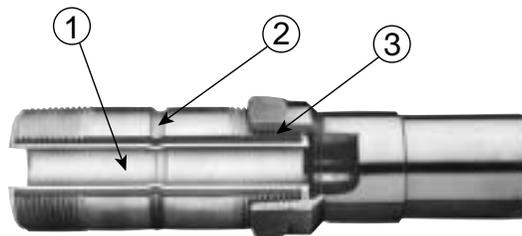
\*Clearflow is a registered trademark of Perfection Corp.



2 - 3" (50 - 80 mm)    4 - 8" (100 - 200 mm)

Style 47-GG  
Grvd. End Steel (IPS) to Grooved  
Copper (CTS) Transition Fitting

## MATERIAL SPECIFICATIONS



1. Inert, non-corrosive thermoplastic lining (NSF/FDA listed)
2. Patented ring-groove locks the steel casing to the thermoplastic lining, or molded liner with identifying roll marking on casing.
3. Zinc electroplated casing, threaded in accordance with American National Pipe Thread - Tapered (ANSI A1.20.1)

**Body (Styles GT and TT):** Steel pipe to ASTM A-53, zinc electroplated.

**Body (Style GG):**

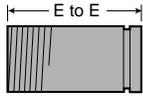
**2 - 3" (50 - 80 mm) Sizes:** Ductile iron conforming to ASTM A-395, grade 65-45-15, and ASTM A-536, grade 65-45-12, zinc electroplated

**4 - 8" (114,3 - 219,1 mm) Sizes:** Steel pipe to ASTM A-53, zinc electroplated.

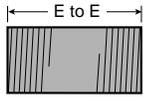
**Liner:** LTHS high temperature stabilized polyolefin polymer (virgin polypropylene)

## DIMENSIONS

### Styles 47-GT and 47-TT



**Style 47-GT**  
Grooved X Threaded

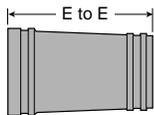


**Style 47-TT**  
Threaded X Threaded

Pipe Size		Max. Work. Press. PSI/kPa	End to End Inches/mm	Units Per Box	Aprx. Wgt. Each Lbs./kg
Nominal Diameter Inches/mm	Actual Outside Dia. Inches/mm				
<b>Grooved X Threaded</b>					
1	1.315	300	4.00	25	0.3
25	33,7	2065	102		0.2
1 1/4	1.660	300	4.00	10	0.6
32	42,4	2065	102		0.3
1 1/2	1.900	300	4.00	10	0.8
40	48,3	2065	102		0.3
2	2.375	300	4.00	10	1.0
50	60,3	2065	102		0.5
2 1/2	2.875	300	6.00	6	1.6
65	73,0	2065	152		0.7
3	3.500	300	6.00	6	2.0
80	88,9	2065	152		0.9
3 1/2	4.000	300	6.00	6	2.3
90	101,6	2065	152		1.1
4	4.500	300	6.00	6	4.5
100	114,3	2065	152		2.0

<b>Threaded X Threaded</b>					
1/2	0.840	300	3.00	25	0.2
15	21,3	2065	76		0.1
3/4	1.050	300	3.00	25	0.2
20	26,7	2065	76		0.1
1	1.315	300	4.00	25	0.3
25	33,7	2065	102		0.2
1 1/4	1.660	300	4.00	10	0.6
32	42,4	2065	102		0.3
1 1/2	1.900	300	4.00	10	0.8
40	48,3	2065	102		0.3
2	2.375	300	4.00	10	1.0
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3	3.500	300	6.00	6	2.0
80	88,9	2065	152		0.9
3 1/2	4.000	300	6.00	6	2.3
90	101,6	2065	152		1.1
4	4.500	300	6.00	6	4.5
100	114,3	2065	152		2.0

### Style 47-GG



**Style 47-GG**  
Grooved X Grooved

#### Grooved X Grooved Grooved End Steel to Grooved Copper Transition

Nominal Diameter	Pipe Size – Inches/millimeters		Maximum Work. Press. PSI/kPa	End to End Inches/mm	Units Per Box	Aprx. Wgt. Each Lbs./kg
	Actual Outside Diameter					
	Steel (IPS)	Copper (CTS)				
2	2.375	2.125	300	4.19	10	1.3
50	60,3	54,0	2065	106		0,6
2 1/2	2.875	2.625	300	6.19	6	3.3
65	73,0	66,7	2065	157		1,5
3	3.500	3.125	300	6.19	6	4.5
80	88,9	79,4	2065	157		2,0
4	4.500	4.125	300	6.19	6	5.8
100	114,3	104,8	2065	157		2,6
5	5.563	5.125	300	6.19	1	7.8
125	141,3	130,2	2065	157		3,5
6	6.625	6.125	300	6.19	1	10.1
150	168,3	155,6	2065	157		4,6
8	8.625	8.125	300	6.19	1	15.0
200	219,1	206,4	2065	157		6,8

## PRODUCT TESTING

### Pittsburgh Testing Laboratory Certified Tests and Results:

A test was conducted 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 by Pittsburgh Testing Laboratory.

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 m

##### Sample #2:

(Galvanized Pipe Nipple): 0.345 ma

##### Sample #3:

(Insulated Dielectric Union): 0.441 ma

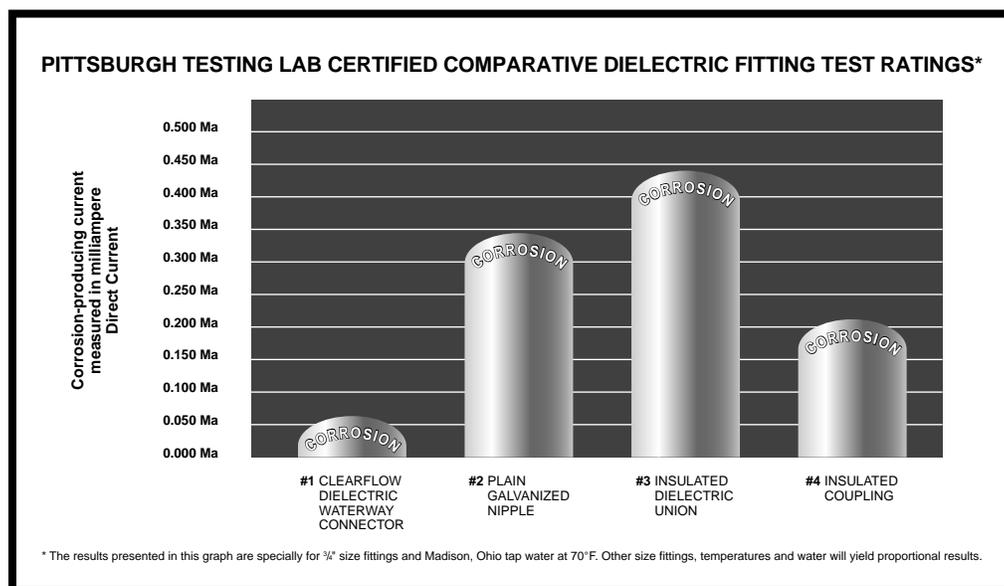
##### Sample #4:

(Insulated Coupling): 0.209 ma

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

### Dielectric Waterway Fittings Test Data and Results:

The facts and test data reported in this submittal have been certified by Pittsburgh Testing Laboratory and collected by Perfection Corporation engineers in their own laboratories. Similar testing on Clearflow-type fittings with equal results have been certified by Herron Testing Labs, Inc. For more complete information, contact Victaulic.



This product shall be manufactured by Victaulic Company. All products shall be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.