



# PRESS-SEAL GASKET CORPORATION

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## TEST REPORT

<b>Product:</b>	<b>PSX:Direct Drive Flexible Pipe-to-Manhole Connector</b>
<b>Size:</b>	48-Inch Diameter
<b>Date:</b>	Tests: October 12 & 14, 2005; Report: October 21, 2005
<b>Staff:</b>	Ron W. Neuhaus and Michael R. Miller
<b>Qualified Specifications:</b>	ASTM C 923: <i>Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals</i> And ASTM C 1478: <i>Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes, and Laterals</i>

**Purpose of Tests:** These tests were conducted to demonstrate conformance of the Subject connector with the performance requirements of the referenced specifications.

**Test Materials and Methods:** *Note: Due to the size of the product being tested, the test methods were performed as follows:*

1. In all tests, the concrete test vessel was an 8-foot section of class 5 concrete pipe.
2. In all tests, the test pipe section was a rolled steel ring with inlet and outlet fittings.
3. In all tests, the axial alignment of the two test pieces was between zero and seven degrees.
4. In the shear test, the shear load was induced immediately adjacent to the connector, and was applied to the inside diameter of the test pipe, rather than the outside diameter.

The tests were performed using two 48-inch diameter PSX:Direct Drive flexible pipe-to-manhole connectors installed into an eight-foot section of concrete pipe. The connectors were first clamped to an 18-inch section of 53-inch diameter steel tubing that had fittings inserted to allow introduction of hydrostatic pressure between the connectors and to permit removal of air and measurement of hydrostatic pressure. A schematic representation is shown below (see Figs. 1 and 2).

**Test Results:** Three separate tests were performed. First, the assembly was pressurized to 13-psi in straight alignment and this pressure was held for 10 minutes with no leaks observed. Second, a shear load of 150 lbs/inch pipe diameter (>7000 lbs/f) was induced immediately adjacent to the connector. The sheared assembly (see Fig. 3) was pressurized to 10-psi and this pressure was held for 10 minutes with no leaks observed. Finally, using a fork truck and sling, the pipe section was displaced at an angle of 7-degrees to the centerline axis of the pipe and secured in place. The assembly (see Fig. 4) was again pressurized to 10-psi and held for 10 minutes with no leaks observed.

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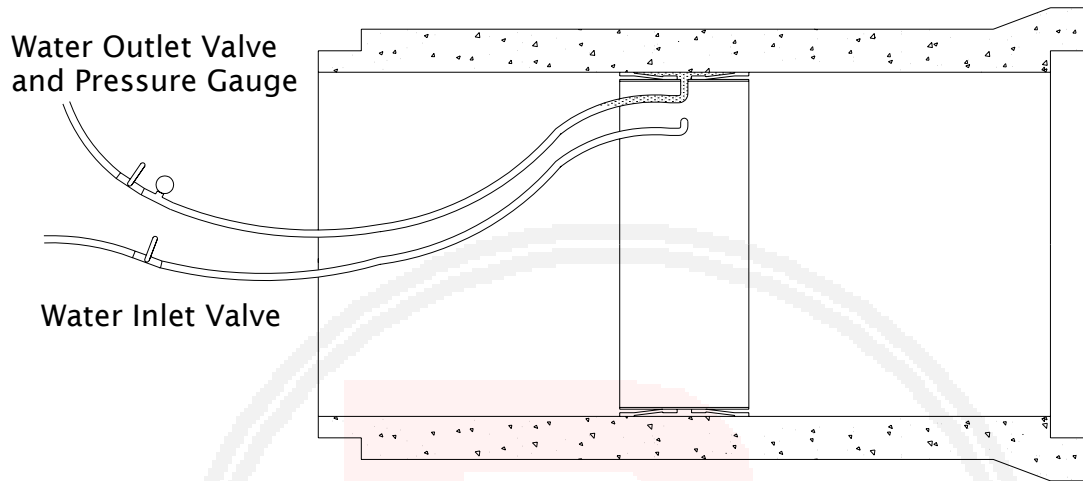
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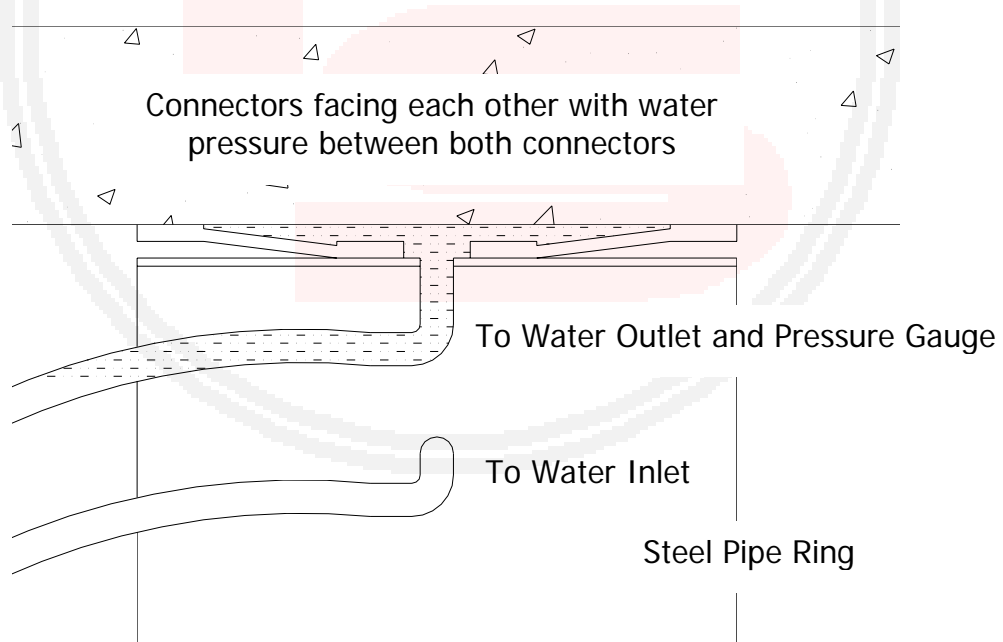


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*Fig. 1 - Cross-Section Schematic of General Test Set-Up*

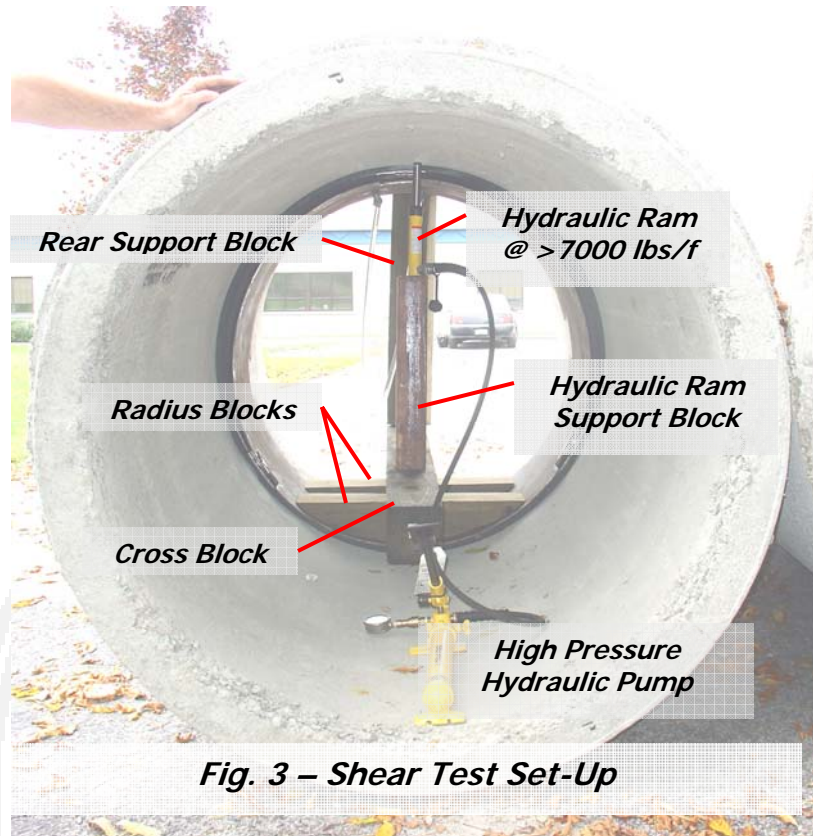


*Fig. 2 - Detail of Cross-Section Schematic of General Test Set-Up*



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**Conclusion:** The PSX:Direct Drive Flexible Pipe-to-Manhole Connector in 48-inch diameter has successfully passed the test requirements (as amended above) of ASTM C 923 and ASTM C 1478.

Respectfully submitted,

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