



# PRESS-SEAL GASKET CORPORATION

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## Test Report

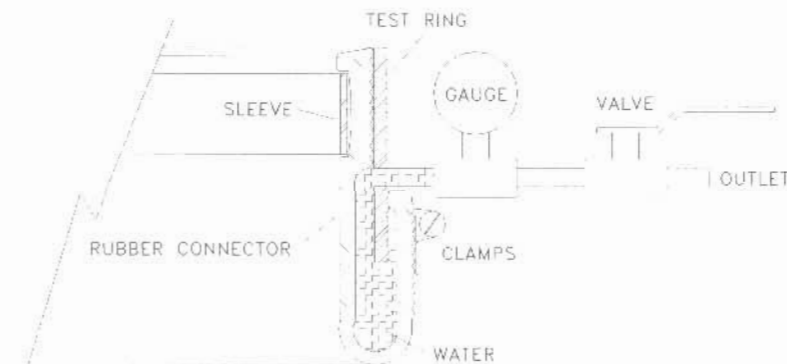
### PSX:Direct Drive 8" Pipe-to-Manhole Connector

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**Purpose of Test:** This test was performed to measure performance of 8-inch diameter PSX:Direct Drive in terms of its ability to hold hydrostatic pressure in a steel test ring.

**Test Materials:** The test was performed using a PSX:Direct Drive Rubber connector fabricated from 50-durometer PS528 profile and cut and spliced to fit snugly into an 8-inch steel test ring. The steel ring was modified to have a pressure inlet and a pressure outlet/pressure gauge fittings to permit hydrostatic pressure to be introduced against the area of the connector which would normally face the outside of the manhole. The clamp section of the gasket was stretched over the OD of the steel ring and sealed to this OD with multiple clamps to complete the confined area. Thus, the stainless steel PSX:Direct Drive sleeve was pressurized as if the hydrostatic pressure were on the exterior of the manhole, and the clamps were pressurized as if the hydrostatic pressure were on the inside of the manhole.



CROSS-SECTIONAL VIEW OF TEST APPARATUS

(ADDITIONAL INLET NOT SHOWN)

*This testing apparatus provides for rapid concept testing of sleeves and adjusters, but is not meant to supplant actual proof testing of the product in a concrete structure as required by ASTM C 923. Therefore, the results below should be viewed as supplementary only and are supported by additional testing, reported elsewhere, which was performed in full conformance with the Specification.*

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The 8-inch PSX:Direct Drive sleeve was similar to that tested previously, other than the ends were straightened slightly to reduce initial bending loads on the adjuster and the oversleeve was modified slightly to obtain a consistent circular form to the sleeve and oversleeve assembly when placed into the connector and ring.

The adjuster used was the standard 3/8-16 adjuster used in all sizes through 16-inch. For installation, a open-ended "speed" wrench was used with no torque reference applied. Installation instructions were to "snug it up in the hole until it's installed". Despite the vagary of this instruction, the installer felt confident of when this point had been reached, using only tactile feedback.

**Test Method and Results:** After assembly of the test apparatus, the outlet vent was opened and the inlet tap was partially opened. When air was removed from the system, both taps were closed. The outlet vent was closed and the inlet tap was opened slightly.

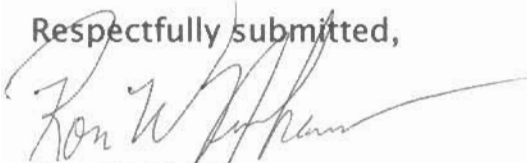
Pressure was slowly raised in the connector until 10 psi was reached and continued until 13 psi was reached and continued to be raised slowly system failure occurred.

The system reached 22.5 psi and the clamps restraining the rubber sleeve against the OD of the test ring slipped off the edge of the test ring, resulting in loss of system pressure.

At no point in this test was any leakage or failure of the PSX:Direct Drive sleeve noted. The failure resulted from clamp failure. Failure of the clamps in this type of test is not unexpected, as they were exposed to pressure in the direction opposite from that seen in actual use.

**Conclusion:** The PSX:Direct Drive 8-inch connector documented herein has demonstrated hydrostatic performance in excess of that required in ASTM C 923. This was accomplished using a standard wrench and simple instructions. The actual performance limits of this sleeve cannot be determined due to failure of other system components, but clearly appears to exceed the requirements of ASTM C 923, with test limits and caveats as noted above.

Respectfully submitted,



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