



HIGH-PERFORMANCE PIPE-TO-MANHOLE CONNECTOR

What It Is

PSX: Direct Drive is a high-performance flexible pipe-to-manhole connector that offers easy installation and long-term performance in one convenient product. Whether you're core or cast your holes, PSX:Direct Drive fits right into your production methods, ready to seal your toughest applications every time.



How It Works

- PSX:Direct Drive has superior materials and technology
- Specially developed synthetic rubber is continuously tested and lab-certified
- Power Sleeve made from tempered Series 304 stainless steel
- Installation Mechanism made from Series 304 stainless steel
- Installation Mechanism is infinitely adjustable
- Installation tools are calibrated and certified
- Take-up clamps made from Series 304 stainless steel with lock-adjusting screws



Why It's Better

- Installs quickly and easily from outside the manhole
- Requires no retightening or adjustment
- All stainless-steel components
- No plastic parts to crack or break
- Accurately compensates for hole size variation
- Available for pipes from 1/2" to 48" OD
- Additional torque and multiple adjusters on larger diameters
- Use in manholes, wet wells, pump and lift stations, stormwater structures, on-site treatment structures, grease interceptors, or any application requiring a flexible watertight connector

How It Performs

PSX:Direct Drive meets or exceeds all requirements of the following Specifications and/or Test Methods:

- ASTM C 1155
- ASTM C 1155
- ASTM C 1155
- ASTM F 1155

Protected by one or more of the following patents: 6,888,888; 6,888,889; 6,888,890

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PRESS-SEAL GASKET CORPORATION

Protecting Our Planet's Clean Water Supply

Press-Seal Gasket is an ISO 9001:2008 and ISO 14001:2004 Registered Company

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Summary Specification

A watertight flexible pipe-to-manhole connector shall be employed in the connection of the sanitary sewer and/or stormwater pipe to precast manholes or other structures.

The connector shall be PSX:DIRECT DRIVE as manufactured by Press-Seal Gasket Corporation, Fort Wayne, Indiana or approved equal.

The connector assembly shall be the sole element relied on to assure a flexible watertight seal of the pipe to the structure. The connector shall consist of a rubber gasket, an internal expansion sleeve and one or more external compression take-up clamps. Approved materials for the connector shall be natural or synthetic rubber and Series 304 non-magnetic stainless steel. No plastic components shall be permitted.

The rubber gasket element shall be constructed solely of synthetic or natural rubber and shall meet/exceed the requirements of ASTM C 923, and shall have a minimum tensile strength of 1000 PSI. Minimum thickness of the cross-section shall be 1/4 inches.

The internal expansion sleeve components shall be made of Series 304 non-magnetic stainless steel and shall utilize no welds in their construction.

Installation shall be performed using a calibrated installation tool available from the connector manufacturer. Installation of the sleeve shall require no retightening after the initial installation.

The external compression take-up clamps shall be constructed of Series 304 non-magnetic stainless steel and shall utilize no welds in its constructions. The clamps shall be installed by turning the adjusting screw using a torque-setting wrench available from the connector manufacturer.

Selection of the proper size connector for the manhole and pipe requirement and installation thereof shall be in strict conformance with the recommendations of the connector manufacturer. Any dead end pipe stops installed in connectors shall be restrained from movement per ASTM C 923.

The finished connection shall provide sealing to 10 psi minimum and shall accommodate deflection of pipe to 10 degrees minimum without loss of seal.

Vacuum testing shall be conducted in strict conformance with ASTM C 923 prior to backfill. Other testing shall be conducted in strict conformance with the requirements of the connector manufacturer.

PRODUCT PERFORMANCE

PSX:Direct Drive meets and/or exceeds all requirements of ASTM C 923 including physical properties of materials and performance testing. Performance testing includes:

- 100 psi minimum in straight alignment
- 100 psi at minimum angle
- 100 psi minimum under shear load of 100 lbs/in' pipe diameter

PSX:Direct Drive meets and/or exceeds the following specifications:

- ASTM C 923 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals
- ASTM C 923 Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes and Laterals
- ASTM F 1055 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures and Corrugated High Density Polyethylene Drainage Pipes
- ASTM C 923 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure Vacuum Test

TYPICAL TEST RESULTS for PSX:Direct Drive (as in ASTM C 923 and C 1478)

Test	ASTM Test Method	Test Requirements	Typical Result
CHEMICAL RESISTANCE IN SULFURIC ACID and 10% HYDROCHLORIC ACID	D 1533 AT 100°C FOR 168 HRS	NO WEIGHT LOSS NO WEIGHT LOSS	NO WEIGHT LOSS NO WEIGHT LOSS
TENSILE STRENGTH	D 1533	1000 PSI MIN	1000 PSI
ELONGATION AT BREAK	D 1533	100% MIN	100%
HARDNESS	D 1533 SHORE A DUROMETER	70 FROM THE MANUFACTURER'S SPECIFIED HARDNESS	70
ACCELERATED OXIDATION-AGING	D 1533 100°C FOR 168 HRS	DECREASE OF 10% MAX' OF ORIGINAL TENSILE STRENGTH DECREASE OF 10% MAX' OF ELONGATION	-10% TENSILE CHANGE -10% ELONGATION CHANGE
COMPRESSION TEST	D 1533 METHOD B AT 100°C FOR 168 HRS	DECREASE OF 10% MAX' OF ORIGINAL DEFLECTION	100%
WATER ABSORPTION	D 1533 IMMERSE 1/2" BORE SPECIMEN IN DISTILLED WATER AT 100°C FOR 168 hrs	INCREASE OF 10% MAX' OR ORIGINAL BORE WEIGHT	1/2"
MOISTURE RESISTANCE	D 1533	RATING 1	PASS
LOW-TEMPERATURE BRITTLE POINT	D 1533	NO FRACTURE AT -100°C	PASS
TEAR RESISTANCE	D 1533 METHOD B	100 LBF/IN' MIN	100 LBF/IN'

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