

## PIPE TO MANHOLE & TANK CONNECTOR



Cast-A-Seal is a cast-in, flexible, watertight pipe-to-structure connector. Its design allows it to be placed into the structure formwork, and it is cast into the concrete when it is poured, eliminating the time and expense of forming or coring holes. The large keylock of Cast-A-Seal is embedded in the concrete, creating a watertight seal. After stripping, the Cast-A-Seal is unfolded to the outside of the structure and attached to the pipe with stainless steel take-up clamps.

### How It Works

- Specially developed synthetic rubber is continuously tested and lab-certified.
- The connector is cast into the concrete product when it is made.
- The large keylock assures a watertight seal between the connector and the concrete.
- Casting tooling is available for many sizes, or can be fabricated easily from host pipe or rolled steel rings.

### Where To Use

- Manholes
- Wet wells
- Square pump and lift stations
- Stormwater structures
- On-site treatment structures
- Junction chambers
- Grease interceptors
- Simple cast-in design eliminates extra time and expense of casting or coring holes.
- Can be used as outfall hole in most coring operations.
- Reliable boot-type design accommodates pipe deflection and movement without losing the seal.
- Available for pipe sizes from 1-1/4" to 72" (32 - 1800 mm)..



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## SUBMITTAL SPECIFICATIONS

A flexible pipe-to-manhole connector shall be employed in the connection of the sanitary and storm drain sewer pipe to precast manholes or poured-in-place structures. The connector shall be Cast-A-Seal® as manufactured by Press-Seal Corporation, Fort Wayne, Indiana, or approved equal. The connector shall be the sole element relied on to assure a flexible, watertight seal of the pipe to manhole. The connector shall consist of a rubber gasket and one or two external take-up clamp(s).

The rubber gasket element shall be constructed solely of synthetic or natural rubber, and shall meet or exceed the requirements of ASTM C 923.

For precast applications, the Cast-A-Seal® is secured to the structure as part of a monolithic pour. For cast-in-place applications, a secondary plant or field operation is required to grout the annular space. Non-shrink grout shall be placed around the entire keylock and shall maintain a minimum thickness of 1-inch (25 mm) between the rubber gasket and any existing or hardened concrete to permit proper consolidation around the gasket.

The external take-up clamp shall be constructed of Series 300 non-magnetic stainless steel and shall utilize no welds in its construction. The clamp shall be installed by torquing 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 stubs installed in connectors shall be restrained from movement per ASTM C 923.

The finished connection shall provide sealing to 13 psi (minimum), and shall accommodate deflection of pipe to 7 degrees (minimum) without loss of seal.

Vacuum testing shall be conducted in strict conformance with ASTM C 1244 prior to backfill. Other testing shall be conducted in strict conformance with the requirements of the connector manufacturer.

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Cast-A-Seal meets and/or exceeds all requirements of ASTM C 923, including physical properties of materials and performance testing. Performance testing includes:

- 13 PSI minimum in straight alignment
- 10 PSI at minimum 7° angle
- 10 PSI minimum under shear load of 150 lbs/in. pipe diameter
- ASTM C 923 - Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals
- ASTM C 1244 Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test
- ASTM C 1478 - Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes, and Laterals
- ASTM C 1644 Standard Specification for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and Pipes (CAS 402)
- ASTM F 2510 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures and Corrugated High Density Polyethylene Drainage Pipes



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## SELECTION GUIDE

PVC PIPE OD 1.66" - 6.50".....CAS 402

PVC PIPE OD 3.5" - 6.5".....CAS 964

PVC PIPE OD 8.40" .....CAS 12-08

PVC PIPE OD 8.40" - 18.70" ...CAS 603

PIPE OD 18.70 + .....CAS 802

PIPE DESCRIPTION	PIPE O.D. Inch (mm)	PIPE OD RANGE Inch (mm)	CAST-A-SEAL PART	Straight-Wall Mandrels Inch (mm)	48 X 5 Manhole Mandrels and Casting Rings	
1-1/4" PVC Sched 40	1.66" 42 mm	1.50" - 2.60" 38 - 66 mm	CAS 402 - 2 Inch	2.5" - 6" Wall (64 - 150 mm)	---	
1-1/2" PVC Sched 40	1.90" 48 mm		CAS 402 - 2 Inch		---	
2" PVC Sched 40	2.38" 60 mm		CAS 402 - 2 Inch		---	
3" PVC Sched 40	3.50" 89 mm	3.30" - 3.60" 84 - 91 mm	CAS 402, 402F, 964 - 4 Inch with 3" Adapter		48" ID x 5" CAS 964 only	
4" (100 mm) PVC SDR 35	4.21" 107 mm	4.10" - 4.75" 105 - 121 mm	CAS 402, 402F, 964 - 4 Inch		48" ID x 5" CAS 964 only	
4" (100 mm) PVC Sched 40	4.50" 114 mm	4.10" - 4.75" 105 - 121 mm	CAS 402, 402F, 964 - 4 Inch		48" ID x 5" CAS 964 only	
6" (150 mm) PVC SDR35	6.28" 160 mm	6.25" - 6.75" 159 - 171 mm	CAS 402 or 964 - 6 Inch		48" ID x 5" CAS 964 only	
6" (150 mm) PVC Sched 40	6.50" 165 mm		CAS 402 or 964 - 6 Inch		48" ID x 5" CAS 964 only	
8" (200 mm) PVC SDR35	8.40" 213 mm	8.00" - 8.65" 203 - 220 mm	CAS 12-08		None	48" ID x 5" 60" ID x 6"
8" (200 mm) PVC SDR35	8.40" 213 mm	8.15" - 8.78" 207 - 223 mm	CAS 603		Customer-Supplied	Yes
10" (250 mm) PVC SDR35	10.50" 267 mm	10.25" - 10.88" 260 - 276 mm	CAS 603	Customer-Supplied	Yes	
12" (300 mm) PVC SDR35	12.50" 318 mm	12.25" - 12.88" 311 - 327 mm	CAS 603	Customer-Supplied	Yes	
15" (375 mm) PVC SDR35	15.30" 389 mm	15.05" - 15.68" 382 - 398 mm	CAS 603	Customer-Supplied	Yes	
18" (450 mm) PVC SDR 35	18.70" 475 mm	18.55" - 19.08" 471 - 485 mm	CAS 603	Customer-Supplied	Yes	
Concrete, PVC, Ductile Iron, Truss, etc.	18.70 + 475 + mm	18.70" + 475 + mm	CAS 802	Customer-Supplied	---	

### OTHER PIPE SIZES and TYPES

The listing contains the sizes and types of pipe that can be used with CAST-A-SEAL Connectors.

Other pipe sizes and types can be connected with PSX:Direct Drive and/or PSX:Positive Seal.

For information on pipes not listed, please contact our Customer Service Department.

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