**CAST-A-SEAL**

**PIPE TO MANHOLE & TANK CONNECTOR**

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**What It Is**

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.

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**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.

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**Why It’s Better**

- 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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**Where To Use**

- Manholes
- Wet wells
- Square pump and lift stations
- Stormwater structures
- On-site treatment structures
- Junction chambers
- Grease interceptors

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CAST-A-SEAL
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-inches (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.

Product Performance

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
### CAST-A-SEAL SELECTION GUIDE

**PVC PIPE OD**
- 1.66” - 6.50”........CAS 402
- 3.5” - 6.5”..............CAS 964
- 8.40” .................CAS 12-08
- 8.40” - 18.70” ...CAS 603
- 18.70 + ..................CAS 802

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

### 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.