

We Feature TUF- TITE Products!!



Riser can be order in the following:

- 20", 24", and 30" diameters,
- 6" and 12" riser heights, and
- dome or flat lids.

Note: concrete risers are available for traffic loading.



Tee Baffles

- 4" or 6" Diameters,
- 14" or 18" Lengths,
- With or without Effluent Filters, and
- Solid Deflectors.



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.

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.

How It Performs

CAST-A-SEAL meets or exceeds all requirements of the following Specifications and/or Test Methods:

ASTM C 923
ASTM C 1244
ASTM C 1478
ASTM C 1644 (CAS 402)
ASTM F 2510

May be protected under one or more of the following U. S. Patents: 5529312, 6676136, 7028972

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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).
- 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.



Submittal Specification

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

CAST-A-SEAL meets and/or exceeds the requirements of the following specifications:

- ASTM C 923 *Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals*
- ASTM C 1478 *Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes and Laterals*
- ASTM F 2510 *Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures and Corrugated High Density Polyethylene Drainage Pipes*
- ASTM C 1244 *Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test*
- ASTM C 1644 *Standard Specification for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and Pipes (CAS 402)*

TYPICAL TEST RESULTS for CAST-A-SEAL (as in ASTM C 923 and C 1478)			
Test	ASTM Test Method	Test Requirements	Typical Result
CHEMICAL RESISTANCE; 1N SULFURIC ACID and 1N HYDROCHLORIC ACID	D 534, AT 22°C FOR 48 HRS	NO WEIGHT LOSS NO WEIGHT LOSS	NO WEIGHT LOSS NO WEIGHT LOSS
TENSILE STRENGTH	D 412	1200 PSI, MIN.	2100 PSI
ELONGATION AT BREAK	D 412	350%, MIN.	525%
HARDNESS	D 2240 (SHORE A DUROMETER)	±5 FROM THE MANUFACTURER'S SPECIFIED HARDNESS	<2
ACCELERATED OVEN-AGING	D 573, 70± 1°C FOR 7 DAYS	DECREASE OF 15%, MAX. OF ORIGINAL TENSILE STRENGTH, DECREASE OF 20%, MAX. OF ELONGATION	-13% TENSILE CHANGE, -14% ELONGATION CHANGE
COMPRESSION TEST	D 395, METHOD B, AT 70°C FOR 22 HRS	DECREASE OF 25%, MAX. OF ORIGINAL DEFLECTION	13%
WATER ABSORPTION	D 471 IMMERSE 0.75 BY 2-IN. SPECIMEN IN DISTILLED WATER AT 70°C FOR 48 hrs	INCREASE OF 10%, MAX. OR ORIGINAL BY WEIGHT	3.50%
OZONE RESISTANCE	D 1171	RATING 0	PASS
LOW-TEMP. BRITTLE POINT	D 746	NO FRACTURE AT -40°C	PASS
TEAR RESISTANCE	D 624, METHOD B	200 LBF/IN. (MIN.)	450 LBF/IN.

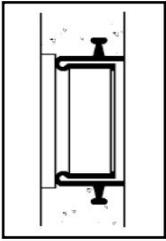
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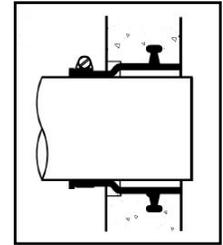
Casting Position

Finished Product



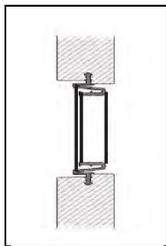
CAST-A-SEAL® 402

- Applications include septic tanks and other on-site treatment tanks, grease interceptors, cisterns, vaults, dosing tanks, and manholes.
- Pipe diameters from 1-1/4" - 6" PVC (32 - 150 mm).
- Straight-wall mandrels available for 2-1/2" - 6" (64 - 150 mm) walls, with bolted or magnetic attachment.



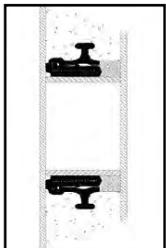
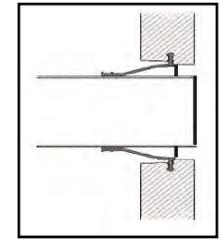
CAST-A-SEAL® 964

- Designed specifically for connecting 4" and 6" (100 and 150 mm) pipe to manholes or other precast concrete structures.
- Available with or without a closed face.
- Patented design allows easy replacement of connector if it is damaged or if pipe changes.
- Mandrel and casting ring are available for 48" x 5" (1200 x 125 mm) standard manhole with bolt attachment.



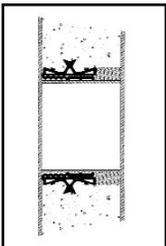
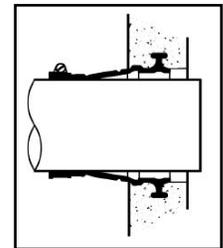
CAST-A-SEAL® 12-08

- Designed specifically for connecting 8" (200 mm) PVC to manholes or other precast concrete structures.
- Patented design allows easy replacement of connector if it is damaged or if pipe changes.
- Mandrel and casting ring are available for 48" x 5" or 60" x 6" (1200 x 125 mm or 1500 x 150 mm) standard manhole, with either bolt or magnetic attachment.



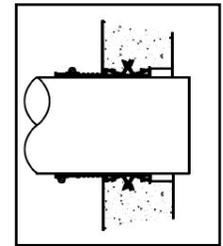
CAST-A-SEAL® 603

- Mid-range CAS connector for 8" - 18" (200 - 450 mm) PVC pipe.
- Mandrels and casting rings available for 8" - 18" (200 - 450 mm) PVC pipe connecting into 48" x 5" (1200 x 125 mm) manhole.
- Can also be used in straight-wall applications with walls as thin as 2-1/2" (64 mm).
- Casting tooling for straight-wall applications is easily fabricated from styrofoam, host pipe or steel ring.



CAST-A-SEAL® 802

- Available for pipe diameters from 18" (450 mm) up.
- Designed for sealing large diameter pipes entering straight-wall structures.
- Casting tooling is easily fabricated from styrofoam, host pipe or steel ring.
- Can be mortared in place in an existing structure or formed into poured-in-place projects.



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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 O.D. Inch (mm)	PIPE DESCRIPTION	PIPE OD RANGE Inch (mm)	CAST-A-SEAL PART	Straight-Wall Mandrels Inch (mm)	48 X 5 Man-hole Mandrels and Casting Rings
1.66 (42 mm)	1-1/4" PVC Sched 40	1.50 - 2.60 (38 - 66 mm)	CAS 402 - 2 Inch	2.5" - 6" Wall (64 - 150 mm)	---
1.90 (48 mm)	1-1/2" PVC Sched 40		CAS 402 - 2 Inch		---
2.38 (60 mm)	2" PVC Sched 40		CAS 402 - 2 Inch		---
3.50 (89 mm)	3" PVC Sched 40	3.30 - 3.60 (84 - 91 mm)	CAS 402, 402F, 964 - 4 Inch with 3" Adapter		48" ID x 5" CAS 964 only
4.21 (107 mm)	4" (100 mm) PVC SDR 35 ASTM C 3034	4.10 - 4.75 (105 - 121 mm)	CAS 402, 402F, 964 - 4 Inch		48" ID x 5" CAS 964 only
4.50 (114 mm)	4" (100 mm) PVC Sched 40	4.10 - 4.75 (105 - 121 mm)	CAS 402, 402F, 964 - 4 Inch		48" ID x 5" CAS 964 only
6.28 (160 mm)	6" (150 mm) PVC SDR35 ASTM D 3034	6.25 - 6.75 (159 - 171 mm)	CAS 402 or 964 - 6 Inch		48" ID x 5" CAS 964 only
6.50 (165 mm)	6" (150 mm) PVC Sched 40		CAS 402 or 964 - 6 Inch	48" ID x 5" CAS 964 only	
8.40 (213 mm)	8" (200 mm) PVC SDR35 ASTM D 3034	8.00 - 8.65 (203 - 220 mm)	CAS 12-08	None	48" ID x 5" 60" ID x 6"
8.40 (213 mm)	8" (200 mm) PVC SDR35 ASTM D 3034	8.15 - 8.78 (207 - 223 mm)	CAS 603	Customer-Supplied	Yes
10.50 (267 mm)	10" (250 mm) PVC SDR35 ASTM D 3034	10.25 - 10.88 (260 - 276 mm)	CAS 603	Customer-Supplied	Yes
12.50 (318 mm)	12" (300 mm) PVC SDR35 ASTM D 3034	12.25 - 12.88 (311 - 327 mm)	CAS 603	Customer-Supplied	Yes
15.30 (389 mm)	15" (375 mm) PVC SDR35 ASTM D 3034	15.05 - 15.68 (382 - 398 mm)	CAS 603	Customer-Supplied	Yes
18.70 (475 mm)	18" (450 mm) PVC SDR 35 ASTM D 3034	18.55 - 19.08 (471 - 485 mm)	CAS 603	Customer-Supplied	Yes
18.70 + (475 + mm)	Concrete, PVC, Ductile Iron, Truss, etc.	18.70 + (475 + mm)	CAS 802	Customer-Supplied	---

PVC D 3034 PVC pipes produced to ASTM D 3034 specification standards up through 18" ID size

PVC Schedule 40 PVC pipes produced to ASTM D 1785 or ASTM D 2665 specification standards

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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ConSeal™ CS-102

Butyl Rubber Sealant



Butyl Rubber Sealant for All Precast Concrete Structures - Meets ASTM C-990

Applications

For concrete joints in: Manholes, Concrete Pipe, Vaults, Box Culverts, Septic Tanks, and Vertical Panel Structures. **Not intended for use in expansion joints or joints that move.**

Sealing Properties

- Provides permanently flexible watertight joints.
- Low to high temperature workability: 30°F to 120°F (-1°C to +48°C)
- Rugged service temperature: -30°F to +200°F (-34°C to +93°C)
- Excellent chemical and mechanical adhesion to clean dry surfaces.
- Greater cohesive and adhesive strengths.
- Sealed joints will not shrink, harden or oxidize upon aging.
- Controlled flow resistance for application ease.
- No priming normally necessary. When confronted with difficult installation conditions, such as wet concrete or temperatures below 40°F (4°C), priming the concrete will improve the bonding action. Consult Concrete Sealants for the proper primer to meet your application.

Hydrostatic Strength

ConSeal CS-102 meets the hydrostatic performance requirement as set forth in ASTM C-990 section 10.1 (Performance requirement: 10psi for 10 minutes in straight alignment – in plant, quality control test for joint materials.)

Specifications

ConSeal CS-102 meets or exceeds all of the requirements of Federal Specification SS-S-210 (210-A), AASHTO M-198B, and ASTM C-990-91.

Physical Properties

Description

Description	Spec	Required	CS-102
Color			Black
Specific Gravity, 77°F	ASTM D71	1.15-1.50	1.25
Ductility, 77°F	ASTM D113	5.0 min.	10
Penetration, cone 77°F (25°C), 150 gm, 5 sec.	ASTM D217	50-100 mm	55-60 mm
Penetration, cone 32°F (0°C), 150 gm, 5 sec.	ASTM D217	40 mm min.	40-65 mm
Flash Point, C.O.C., °F	ASTM D92	350°F min.	450°F
Fire Point, C.O.C., °F	ASTM D92	375°F min.	475°F

Don't Just Seal It, ConSeal It!

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Concrete Sealants, Inc. 9325 State Route 201 ■ Tipp City, OH 45371 ■ P.O. Box 176 ■ New Carlisle, OH 45344
P. 937.845.8776 **F.** 937.845.3587 **Toll Free** 800.332.7325 ■ www.conseal.com



ConSeal™ CS-102

Butyl Rubber Sealant



Butyl Rubber Sealant for All Precast Concrete Structures - Meets ASTM C-990

Chemical Composition

Description

	Spec	Required	CS-102
Hydrocarbon plastic content % by weight	ASTM D297	50% min.	51%
Inert mineral filler % by weight	AASHTO T111	30% min.	35%
Volatile Mater % by weight	ASTM D6	2% max.	1.2%
Non-extractable, carbon-based material			12.8%
Recycled Content, % by weight			
Post Consumer:			8.41%
Post Industrial:			10.85%

Immersion Testing

30-Day Immersion Testing: No visible deterioration when tested in 5% Caustic Potash, 5% Hydrochloric Acid, 5% Sulfuric Acid, and 5% saturated Hydrogen Sulfide.

One Year Immersion Testing: No visible deterioration when tested in 5% Formaldehyde, 5% Formic Acid, 5% Sulfuric Acid, 5% Hydrochloric Acid, 5% Sodium Hydroxide, 5% Hydrogen Sulfide, and 5% Potassium Hydroxide.

Limited Warranty

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Concrete Sealants, Inc. 9325 State Route 201 ■ Tipp City, OH 45371 ■ P.O. Box 176 ■ New Carlisle, OH 45344
P. 937.845.8776 F. 937.845.3587 Toll Free 800.332.7325 ■ www.conseal.com

