# WS WATERSTOP

## PIPE TO MANHOLE & TANK CONNECTOR

## Where To Use

- Manholes
- Wet wells
- Square pump and lift stations
- Storm water structures
- On-site treatment structures
- Junction chambers
- Grease interceptors
- Round, arch and elliptical pipes

| ORDERING INFORMATION | |
|---|---|
| PIPE SIZE | WS SERIES WATERSTOP PROFILE |
| 1.5” - 3” (38 - 75 mm) | WS-20 |
| 4”-6” (100 - 150 mm) | WS-25 |
| 8” - 144” (200 - 3658 mm) | WS-30 |
| **All WS Series WATERSTOPS are made to order. Simply call our Customer Service Department with pipe OD and quantity** | |

## What It Is

The WS Series Waterstop is a rubber ring that is compressed around the pipe using stainless steel clamps for connecting pipes to manhole structures.

It is then either grouted into an existing structure or has a new structure poured around the pipe with the Waterstop already attached. And helps control infiltration and exfiltration between the connector and the pipe.

## How It Works

- Stainless steel clamps secure the connector to the pipe.
- The connector is placed to follow the arc of the manhole wall and the stainless steel clamp is placed straight across the confinement area.
- The pipe is placed in position and grouted in place using non-shrink patching compound OR
- The pipe is placed in position in the formwork and the structure is poured around it.

## Why It’s Better

- The best alternative to solely using mortar joint compound.
- Adaptable to a variety of field and installation conditions.
- Can be installed with existing, new or poured-in-place structures.
- Nearly unlimited possibilities for pipe size, style or type.
- The hole size required is 4” to 6” larger than the pipe OD.

WS-30 Waterstops can be purchased for elipitical and arched pipe in a wide range of sizes.





**Phone:** 800-348-7325
**Fax:** (260) 436-1908

**PRESS-SEAL CORPORATION**
*Protecting Our Planet’s Clean Water Supply*
ISO 9001: Registered • Version 02.09.22.8.50

Email: sales @press-seal.com
Web: www.press-seal.com

# WS WATERSTOP
## SUBMITTAL SPECIFICATIONS



Waterstop Grout Ring for Concrete, PVC, Ductile Iron and Other Exterior Smooth Wall Pipes Entering Structures:

1. A Waterstop Grout Ring shall be employed in the connection of storm water pipes and other non-watertight applications to precast concrete or poured-in-place structures to control infiltration and exfiltration and to meet the requirements of ASTM D 2321 Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications, Section 7.10-Manhole Connections.

2. The Waterstop connector shall consist of a rubber gasket and an external take up clamp to secure the Waterstop to the pipe before grouting or pouring in place. The rubber Waterstop shall be constructed solely of synthetic or natural rubber and shall meet and or exceed the physical property requirements of ASTM C923, ASTM C 1478, and ASTM F 2510.

3. Minimum thickness of the cross section shall be 0.30-inches (7.6mm) and a minimum of 3-inches (76.2mm) in length. The Key lock portion shall extend into the concrete a minimum of 1.5-inches (38mm) to provide an adequate anchorage for mortar. Non-shrink grout shall be placed around the entire Waterstop and maintain a minimum thickness of 2-inches (50mm) between the rubber gasket and any existing or hardened concrete to permit proper consolidation around the Waterstop connection.

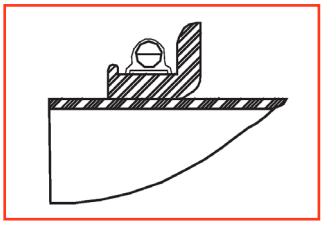
4. The external take-up clamp shall be constructed of Series 300 non-magnetic stainless steel and shall utilize no welds in its construction.

5. Selection of the proper size Waterstop and any in field testing requirements shall be in strict conformance with the recommendations of the Waterstop manufacturer. The Waterstop Grout Ring shall be WS-30 Series Waterstop as manufactured by Press-Seal Corporation of Fort Wayne, Indiana or approved equal.

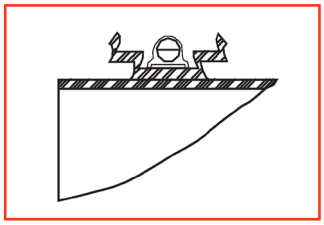
## Product Performance

WS Series WATERSTOPs meet or exceed the material physical property requirements only of the following specifications:

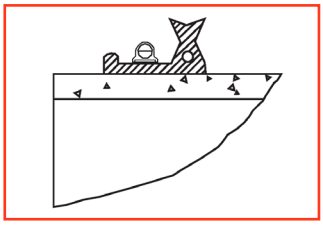
- ASTM C 923 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals
- ASTM C 1478 Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes, and Laterals
- ASTM F 2510 Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures and Corrugated High Density Polyethylene Drainage Pipes



WS-20
(1.5 - 3” Pipe)



WS-25
(4-6” Pipe*)



WS-30
(8-144” Pipe)



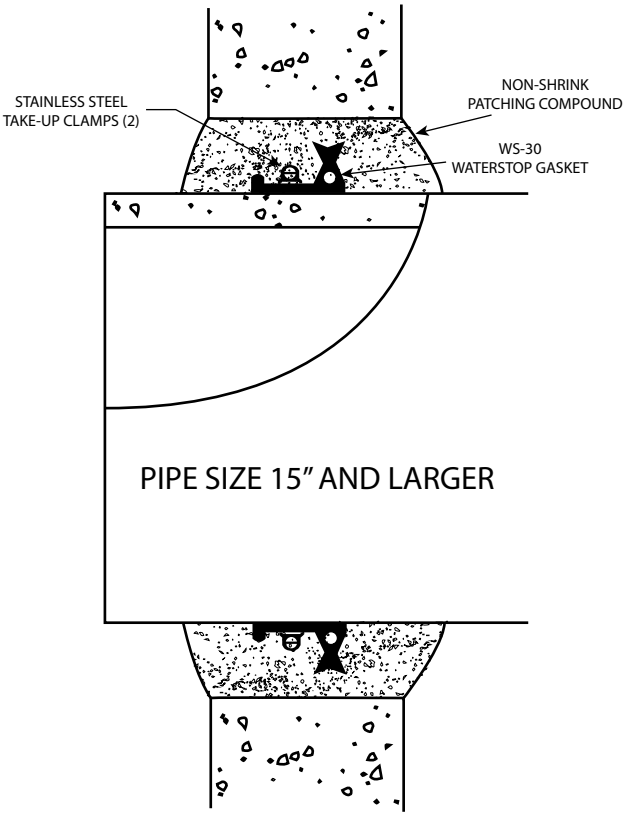
**Phone:** 800-348-7325
**Fax:** (260) 436-1908

**PRESS-SEAL CORPORATION**
*Protecting Our Planet’s Clean Water Supply*
*ISO 9001: Registered • Version 02.09.22.8.50*

Email: sales @press-seal.com
Web: www.press-seal.com

# WS WATERSTOP
## INSTALLATION INSTRUCTIONS

1. Clean pipe section thoroughly for at least 3 - 4 feet from insertion end.
2. Position WS-30 Waterstop on pipe so that it will be completely within the plane of the manhole wall. Always place WS-30 Waterstop so that it is in a straight plane across the pipe.
3. Attach take-up clamp(s) and stagger screw(s) of clamp around the groove of WS-30 Waterstop so that take-up pressure will be equalized. Make sure that clamp is completely in the groove. Using a torque ratchet or torque wrench, gradually tighten screw(s) of clamp to 60 lbs/inch torque.
4. **DO NOT OVER TIGHTEN. A SCREWDRIVER WILL NOT TIGHTEN CLAMPS ADEQUATELY.**
5. Prepare the structure opening by cleaning it thoroughly and applying a high-quality bonding agent to the opening.
6. Insert pipe into structure opening. Make sure that WS-30 is fully within the plane of the structure walls. Adjust pipe to line and grade.




- ***If mortaring in place***, carefully apply and compact non-shrink grout around WS-30 Waterstop and between pipe and opening, taking care to fill all voids.
- ***If pouring in place***, use concrete of sufficient slump to permit complete flow around pipe and WS-30 Waterstop. Thoroughly vibrate all around pipe and WS-30 Waterstop to complete compaction and to release any trapped air.

- Allow concrete or mortar to cure fully before testing or backfilling is begun.
- If system is to be tested, testing should be completed prior to backfilling, following all recommendations and requirements of the test system manufacturer.
- Use proper bedding and backfill materials and techniques so that pipe deflection and deformation is minimized.
- Any pipe stubs installed in the manhole must be positively restrained from movement.





**Phone:** 800-348-7325
**Fax:** (260) 436-1908
**PRESS-SEAL CORPORATION**
*Protecting Our Planet's Clean Water Supply*
*ISO 9001: Registered • Version 02.09.22.8.50*
Email: sales @press-seal.com
Web: www.press-seal.com