

# PREDCO ULTRA SEAL

## WATER CLOSET CONNECTOR

U.S. PATENT NO. 5,291,619

CANADIAN PATENT PENDING

### *READ INSTRUCTIONS BEFORE STARTING INSTALLATION*

#### **GENERAL INFORMATION**

The water closet to drain connection is without question the most complex joint in the sanitary system because of the many pipe materials, fittings, closet flanges, fixtures and installation variations that are possible in any given installation.

☼ The water closet riser pipe can be either 3 inch or 4 inch. Predco Ultra Seal is available in 2 sizes - Part No. 3 for 3 inch risers and Part No. 4 for 4 inch risers.

☼ The water closet riser pipe can be of many different piping materials: Extra Heavy (XH), Service Weight (SV), No Hub (NH), Hubless Cast Iron Soil Pipe, Schedule 40 (DWV), P.V.C., and A.B.S., 3.25 (Thin Wall) P.V.C., Copper or Schedule 40 Steel. Each of these piping materials have dimensional variations in their manufacturing process that must be considered. Predco Ultra Seal is designed with a unique four groove system that permits the installer to adjust the fitting to accommodate the allowable manufacturing tolerance of all of the listed piping materials. The only piping material that sometimes is found in a sanitary drainage system that Ultra Seal will not accommodate is lead pipe, because there is not enough strength in the wall of lead pipe wall to adequately compress the gasket.

☼ Closet flanges are available in either a 3 inch or a 4 inch size. Closet flanges also come in a variety of materials and design. ~~Predco Ultra Seal will work with all known closet flanges that are in compliance with the applicable material standards.~~ Predco's Ultra Seal will not work on an offset flange or a 4x3 closet flange when it is installed as a street fitting where the outside spigot of the closet flange is joined to the inside of the 4 inch water closet riser pipe.

Predco Ultra Seal will accommodate closet flanges that are a maximum of 7/16 inch above the finished floor or as much as 1 inch below finished floor.

☼ Water closets are allowed some dimensional variations by the governing material standard. Predco Ultra Seal will accommodate water closets manufactured in compliance with A.S.M.E. A112.19.2M:-1990 Standard on Vitreous China Plumbing Fixtures. Predco Ultra Seal is designed with a water-way that is at least as big as the water-way of the water closet and larger than the water-way of low consumption fixtures. It does not restrict or reduce the flow.

☼ Predco Ultra Seal water closet connector is water and gas tight when installed according to the manufacture's installation instructions. Predco Ultra Seal can not be blown out or destroyed by a "Plumbers Helper" (plunger) and will withstand far greater pressures than the test pressure of the sanitary drainage system as required by the plumbing codes.

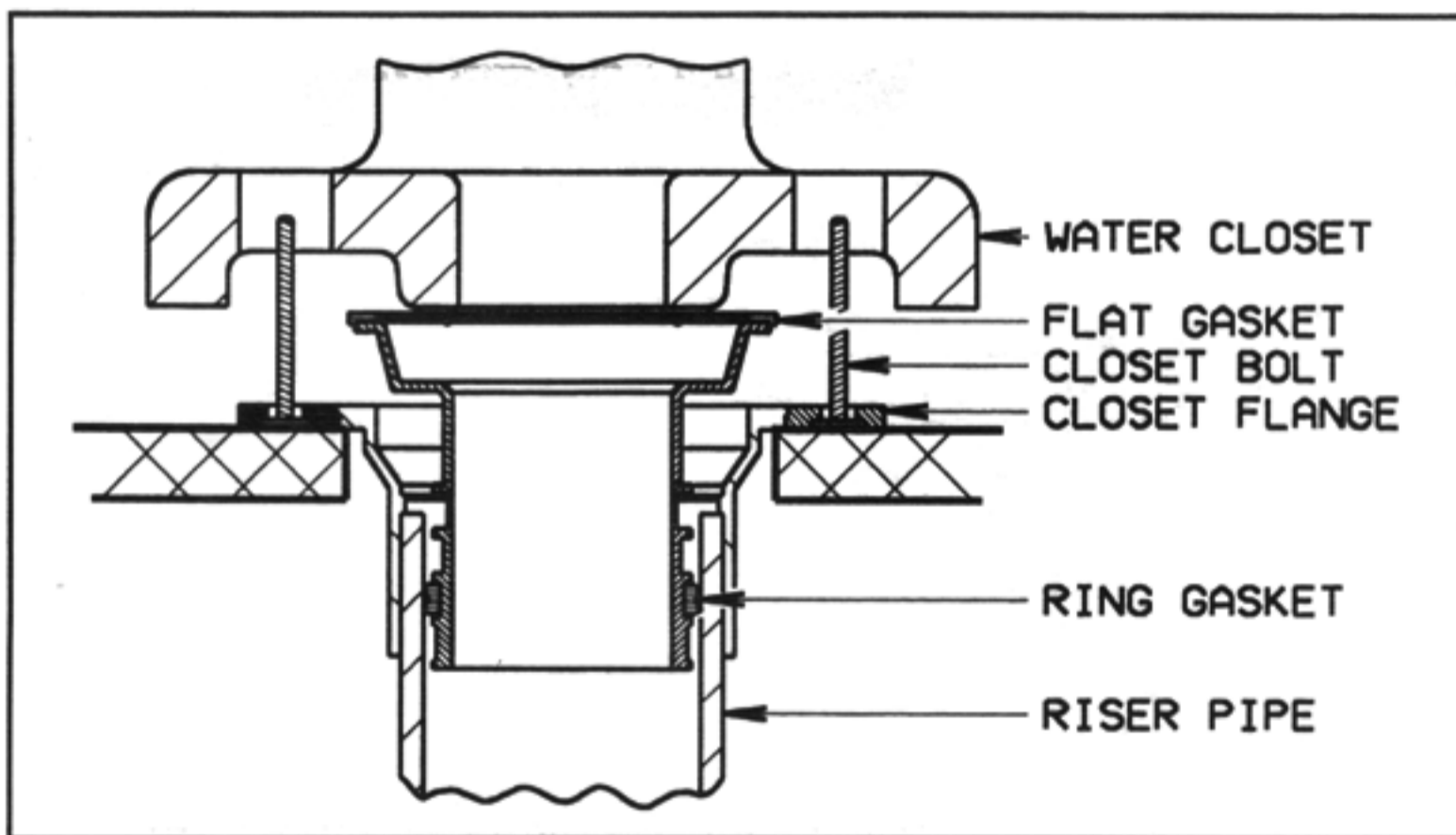
☼ Predco Ultra Seal will accommodate some movement that takes place between the fixture, the floor and the drainage system without losing its seal. Predco Ultra Seal will also accommodate some misalignment of the water closet riser pipe.

☼ Predco Ultra Seal is designed for floor mounted, floor outlet and wall outlet, flush tank and flushometer water closets.

☼ Predco Ultra Seal is reusable.

## **PREPARATION**

- 1. You must have the correct size Predco Ultra Seal connector. Part No. 3 is for a 3" riser pipe, Part No. 4 is for a 4" riser pipe.**
- 2. If the water closet has been previously installed with a wax ring or putty, clean the wax or putty from the closet flange and fixture.**
- 3. Examine the closet flange. If the ring is cracked or broken it must be replaced or repaired. A proper installation can not be made with a broken closet flange. Most closet flanges can be repaired with a "spanner flange" that is available from your plumbing supply source.**
- 4. It is recommended that the closet flange be securely fastened to the floor.**
- 5. It is recommended that you use 5/16" solid brass closet bolts. Steel bolts and coated steel bolts rust out because of the high moisture conditions.**
- 6. If you are reinstalling an older water closet or you are not sure if the water closet conforms to A.S.M.E. A112.19.2M-1990 you can test as follows: press the end of the Predco Ultra Seal over the outlet horn of the water closet. If the outlet horn penetrates through the flat gasket than it is okay to use.**
- 7. Check for uneven floors (so that the water closet will not rock) by placing the water closet in position without the Predco Ultra Seal in place. If you can rock the fixture, shim as necessary until the fixture is stable.**
- 8. Ream pipe to remove burrs. The installation of the Predco Ultra Seal will be much easier.**



## **TO INSTALL**

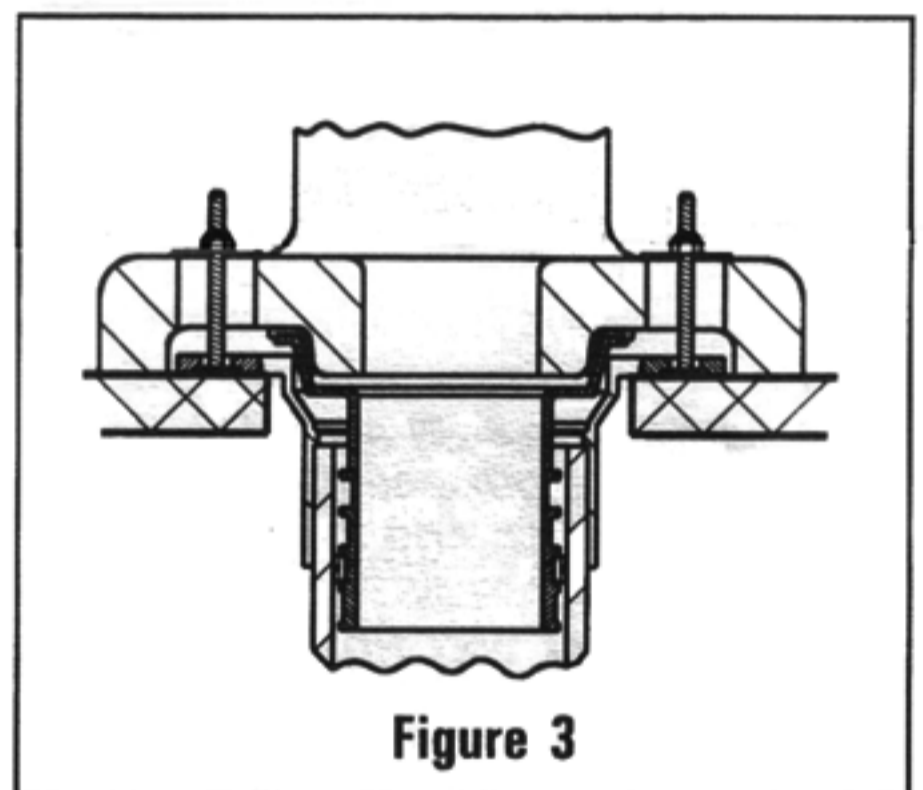
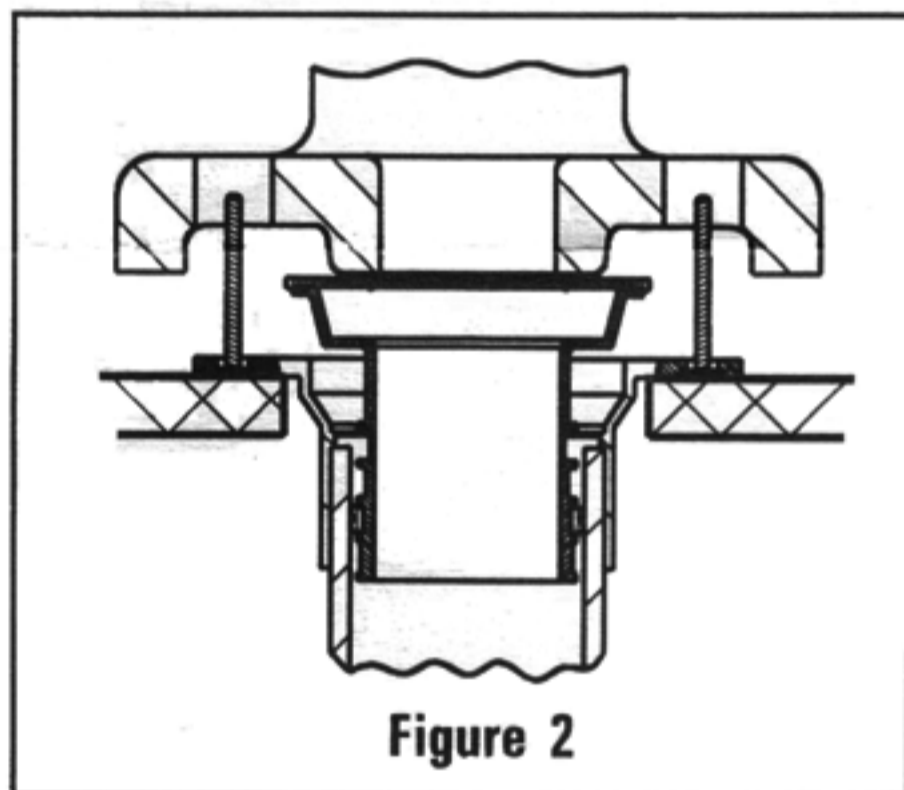
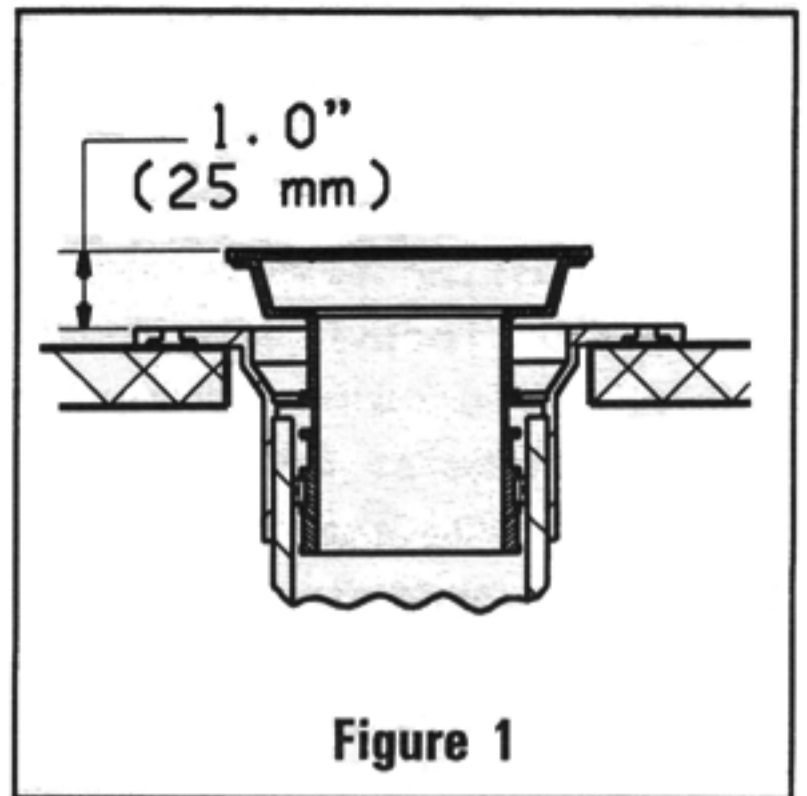
- 1. Lubricate the inside of the riser pipe and ring gasket of the Predco Ultra Seal. Soap and water or liquid detergent is an adequate lubricant.**
- 2. Place the Predco Ultra Seal into the riser pipe using both hands and a twisting motion (Figure 1). The ring gasket must be compressed against the inside of the riser pipe to make a gas and water tight seal. If the Ultra Seal installs with little or no effort, remove it and move the ring gasket to the next lower groove and repeat installation. If the Predco Ultra Seal can not be inserted, move the ring gasket to the next higher groove.**

**NOTE: Predco Ultra Seal is shipped with the ring gasket in the groove to fit the vast majority of pipes. It is only when the pipe is at the upper or lower end of the manufactures tolerance that the ring gasket must be moved. The one exception is when the 3" (3.25 O.D.) P.V.C. pipe is encountered, the ring gasket must be moved up one groove.**

**3. Position the top of the Predco Ultra Seal 1" above the top of the closet flange or finished floor - which ever is highest - (Figure 1).**

**4. Install closet bolts. Carefully position water closet bowl above assembly, engaging the closet bolts in the slots at the base of water closet (Figure 2).**

**5. Carefully lower the water closet until it is in contact with the floor. Install the washers and nuts on the closet bolts. Tighten nuts enough to prevent movement of the water closet (Figure 3).**



**NOTE: 3" RISER PIPE ILLUSTRATED**

### **TO REMOVE AND REUSE PREDCO ULTRA SEAL**

If it becomes necessary to remove the Predco Ultra Seal from its installed position, grasp with fingers and rock back and forth while pulling up. **DO NOT** use a screw driver or prying tool as damage can result.

To Restore Flat Gasket To Its Original Condition For Reuse. When the Predco Ultra Seal has been installed for a period of time and removed, the flat gasket will have taken on a "set" around the discharge outlet of the water closet. The flat gasket can be restored to its original shape by placing it in hot water for approximately 10 minutes, remove from water and place flat gasket end down on a flat surface until cool.

## **PREDCO ULTRA SEAL LIMITED WARRANTY**

PREDCO warrants this product against all defects in workmanship or materials for a period of one (1) year and will replace any defective product returned to PREDCO within that period of time. PREDCO makes no other representation or warranties, whether oral or written, expressed or implied. Failure to follow the installation instructions provided by PREDCO will void this limited warranty.

Any implied warranties, including the implied warranties of **MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE**, are limited to the duration of this written warranty. PREDCO shall not in any case be liable for special, incidental, economic or consequential damages. Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This written warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

### ***PREDCO ULTRA SEAL WATER CLOSET CONNECTOR FEATURES***

- \* ***POSITIVE SEAL - GAS AND WATER TIGHT***
- \* ***REUSABLE***
- \* ***FLEXIBLE - ACCOMMODATES FIXTURE AND STRUCTURE MOVEMENT***
- \* ***WILL SEAL TO CLOSET FLANGE BELOW FLOOR LEVEL***
- \* ***WORKS ON ALL WEIGHTS OF CAST IRON SOIL PIPE, SCHEDULE 40 (DWV), P.V.C., A.B.S., 3.25 (THIN WALL) P.V.C, COPPER AND STEEL***
- \* ***HEAT RESISTANT***
- \* ***SEAL WILL NOT BE DAMAGED BY PLUNGER OR CLEANING TOOLS***
- \* ***EASY TO INSTALL - NOT MESSY LIKE OTHER METHODS***
- \* ***RELIABLE P.V.C. CONSTRUCTION***
- \* ***ONLY TWO SIZES - 3 INCH AND 4 INCH***

#### ***PREDCO ULTRA SEAL WILL NOT WORK ON:***

- \* ***OFFSET CLOSET FLANGE***
- \* ***4x3 CLOSET FLANGES USED AS STREET FITTING WHERE OUTSIDE OF SPIGOT IS JOINED TO INSIDE OF 4" PIPE***
- \* ***LEAD RISER PIPE - BECAUSE THERE IS NOT ENOUGH STRENGTH TO ADEQUATELY COMPRESS THE RING GASKET***

# **PREDCO**

**PLUMBING RESEARCH ENGINEERING AND DEVELOPMENT COMPANY**

**PHONE: 800 323-6188**

**FAX #: 800 323-6189**