

Petersen® 145-Series Mechanical Inflatable Seal Test Plugs

INSTALLATION INSTRUCTIONS

Caution: To insure proper performance follow the below installation procedures.

Rated test and head pressures assume plug is inserted in a steel pipe with a wall strong enough to allow the setscrews (if so equipped) to achieve the required torque. Customer assumes full responsibility for assuring the ability of this plug to hold itself in other types of pipe against pressure using the setscrews provided on the plug. Setscrews can be used to center the plug in the pipe and hold it in place while the inflatable seal is expanded to the pipe wall. Tightening the setscrews may crack the pipe of materials such as tile, plastic, or concrete. This plug must be blocked or braced by other means when not used in pipelines capable of securing the plug with setscrews.

Hydrostatic (water) Test method should always be used to insure maximum safety.

Read and Understand All Instructions Before Use

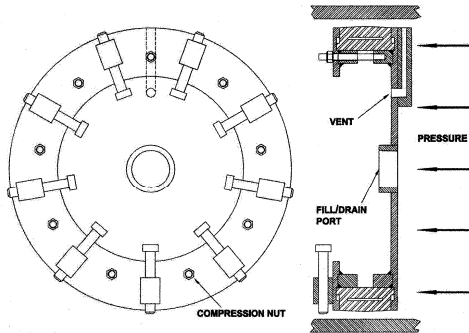
1. **IMPORTANT!** Read information on plug data tag. Plug is to be installed with solid back plate side against pressure, unless specifically quoted as a reverse pressure plug.
2. Inspect setscrews before each use and replace if necessary. **Dull, damaged, or clogged points will not hold rated pressure.** Remove all debris from pipe I.D. and wipe clean.
3. Install plug at location to be sealed. Position the vent at the highest point in the pipe and slightly inflate the seal until light seal contact is holding the plug in place.
4. Square the plug with the bore of the pipe by lightly tapping the plug face.
5. Extend all setscrews lightly to the I.D. of the pipe.
6. Inflate the seal to at least 50 psi over test pressure, but not over pressure on the plug data tag. For longer duration tests, or tests where maximum safety and reliability is required, maintain a monitored air supply to the plug's seal.
7. Tighten setscrews to required torque, using a criss-cross pattern. Use two or three stages to achieve required torque in order to keep plug square with pipe. **IMPORTANT:** Use a torque wrench to tighten the set screws. Do not expect the plug to hold the rated pressure if proper set screw torque cannot be assured.
8. Retorque all setscrews until all "take-up" due to stress relaxation is eliminated, and torque requirement is met.
9. **NOTE:** Plugs are rated for sch. 40 pipe or stronger. **Thin wall pipes must be supported by a pipe clamp on the O.D. of the pipe; the plug WILL NOT hold without adequate setscrew bite.** Contact Petersen if this is the case.
10. Petersen® Mechanical/Inflatable Seal test plug installation is now complete.

NOTE: Never inflate the sealing element unless it is mounted in a plug and inserted into the proper size pipe. Unconstrained inflation can rupture the seal.

NOTE: When installing in lined steel pipe (concrete, plastic, or other lining), the plug should be installed as above and then removed. The cup-point setscrews must then have the cup cleaned of the pipe lining material. Inspect the pipe to see that all of the setscrews have punched out a small piece of the lining material. The plug can then be re-installed in the same position, allowing the setscrews to register into the pipe wall. Inspect setscrew cup points after each use to insure that all debris is removed and that the edges are still sharp. Replace any dull or damaged setscrews.

Petersen Product Co. is not liable for damages resulting from improper use or application of this device. Read and understand all instructions before using this device. This product has been factory tested and guaranteed to the pressure stated on plug tag plate when installed and used correctly. Always consult the factory if there is any uncertainty.

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Removal Instructions

1. Insure that all pressure is released from both sides of plug.
2. Drain as much water as practical from pipe.
3. Remove all fittings, hoses, and pipes from the plug.
4. Depressurize the seal.
5. Progressively loosen the setscrews (if so equipped) in a criss-cross pattern until the plug is free, and remove it from the pipe.

Storage and Maintenance Instructions

1. Completely depressurize seal.
2. Remove mud and debris from plug (disassemble and rinse plug if necessary).
3. After the plug is clean and dry, remove all fasteners one at a time, lightly grease, and reinstall.
4. Store plug away from direct sunlight, as ultraviolet ray exposure will deteriorate the rubber seal. Store plug off the ground on wood blocking.