Model 500
Single Inside Mechanical Seal
Quality, Versatility and Economy

www.advancedsealing.com
The ASI Model 500 seal is a universal design specifically engineered to eliminate the most common causes of mechanical seal failures: shaft or sleeve fretting corrosion, spring or bellows clogging (due to vapor leakage), seal face distortion caused by thermal cycling and overheating of sealing faces.

**MATERIALS OF CONSTRUCTION**

**METAL PARTS**
- Standard Metal Parts- 316ss
- Standard Springs- Hastelloy® C
- Standard Set Screws- 316ss
  (Other Materials May Be Specified)

**FACE MATERIALS**
- Rotary Face- High Quality Carbon Graphite
  (Other Materials May Be Specified)

**SECONDARY SEALS**
- Standard O-ring Materials- Fluorocarbon, EPDM or Atlas®
  (Other Materials May Be Specified)

**ADDITIONAL FEATURES:**

**DOUBLE SEAL INSTALLATION:**
Provides lost cost, hydraulically balanced double seal configuration with a non-clogging inboard rotary unit.

**COMPACT DESIGN:**
Permits use in smaller ANSI pumps without equipment modification, including those with 5/16" cross section stuffing boxes.

**INTERCHANGEABLE:**
Seal will interchange with many other designs and can, in most instances, be used with existing stationaries and gland follower flanges.
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INSTALLATION INSTRUCTIONS FOR MODEL 500

EQUIPMENT PREPARATION:
A. Do not remove seal parts from protective packaging until equipment has been inspected and repaired.
B. Disassemble and clean equipment. Radius end of shaft or sleeve to help start seal shaft o-ring. Remove any burrs or marks which may cut o-rings. If sleeve shows signs of wear, check to determine if points of wear are located in an area where either the shaft o-ring or the set screws are mounted on the sleeve. If these two areas are free from wear, the old sleeve may be used.
C. If the impeller is adjustable, check and set before installation of seal.
D. Dial indicate shaft or sleeve. Maximum allowable runout is .003" (0,08 mm) T.I.R. Allowable end play is .010" (0,25 mm). If excessive movement is observed, check for bent shaft or bad bearings and correct.
E. Chemical compatibility between the materials of construction of the mechanical seal and the product must be established. If materials of construction are not compatible, do not attempt to install seal. If compatibility cannot be established, consult factory for assistance.

INSTALLATION FOR SINGLE-ENDED PUMPS: (USING CLAMP-IN SEAT)
1. Reinstall pump stuffing box.
2. Apply bluing to shaft or sleeve at a point directly under the stuffing box.
3. Scribe sleeve or shaft to show location of stuffing box.
4. Remove stuffing box.
5. Scribe a second mark 1 7/16" (36,5 mm) back from first scribe mark.
6. Carefully remove seal from package.
7. Insert stationary clamp-in seat into seal gland and slide gland, seat and gaskets onto shaft toward bearing housing.
8. Lubricate seal shaft o-ring with silicone grease provided. DO NOT USE PETROLEUM BASED LUBRICANTS.
9. Install seal rotary unit onto shaft. A slight twisting action will help compress the o-ring over the end of the shaft.
10. Slide seal rotary unit over the shaft, locating the rear of the seal over the scribe mark (see note #5) which should be located 1 7/16" (36,5 mm) back from stuffing box face.
11. Tighten set screws. Screws should be set evenly and not overtightened.
12. Reinstall stuffing box and impeller.
13. Place gland and stationary seat assembly over gland studs. Slide stationary seat up to a point where it is in contact with the rotary seal face. At this point, when seal faces are just touching, there should be 1/8" (3,2 mm) between the face of the stuffing box and the gasket on the gland.
14. Finger tighten gland nuts evenly. Then, in an opposing sequence, tighten gland nuts two to three flats (just enough to compress gasket).
15. Reinstall and open flush connections.

INSTALLATION FOR DOUBLE-ENDED PUMPS: (USING CLAMP-IN SEAT)
1. Carefully remove seal from package.
2. Lubricate seal shaft o-ring with silicone grease provided. DO NOT USE PETROLEUM BASED PRODUCTS.
3. Install seal rotary unit onto shaft. A slight twisting motion will help compress the o-ring over the end of the shaft.
4. Insert stationary clamp-in seat into seal gland and slide gland, seat and gaskets onto shaft towards stuffing box.
5. After all seal parts have been assembled loosely on rotary element, install pump bearings making any final impeller and/or bearing adjustments.
6. Set rear of rotary unit at the installation mark, 1 7/16" (36,5 mm) from the stuffing box face. Tighten set screws. At this point, when seal faces are just touching, there should be 1/8" (3,2 mm) between the face of the stuffing box and the gasket on the gland.
7. Care should be taken to make a new head gasket for the pump. The gasket should protrude over the edge of the stuffing box face by a minimum of 1/16" (1,6 mm) and should not touch rotary element.
8. Carefully reassemble pump casing, taking care not to hit the seal.
9. Cut gasket protrusions flush with stuffing box with a razor or sharp knife.
10. Pull up seal gland on studs. Finger tighten gland nuts evenly. Then, in an opposing sequence, tighten gland nuts two to three flats (just enough to compress gasket).
11. Reinstall and open all flush connections.