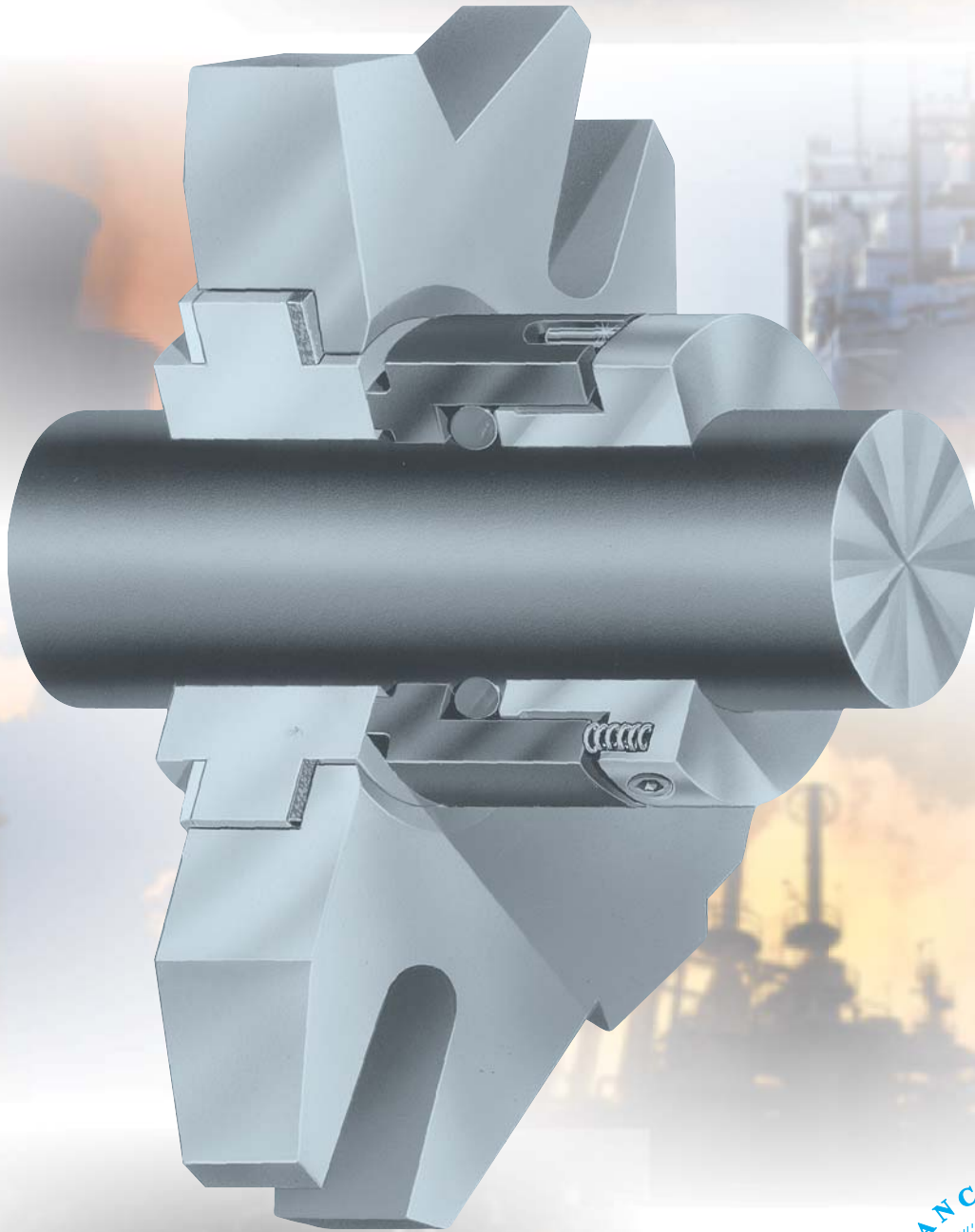


# Model 505

Single Outside Mechanical Seal

Unsurpassed in Corrosion Sealing



[www.advancedsealing.com](http://www.advancedsealing.com)

# ASI Model 505

The ASI Model 505 seal has been engineered to operate in more corrosive environments. ASI's design has no metal components in the fluid, eliminating the need for expensive, exotic metals. This seal is inherently resistant to corrosives, and is normally compatible with any process liquid where carbon and ceramic can be used. The seal is mounted outside of the stuffing box where it can be seen. Since it is not hidden from view, installation, inspection and maintenance are a snap.

[1]  
**Corrosion Resistant**

All wetted parts are eliminated; superior corrosion resistance is achieved without upgrading the metallurgy.

[2]  
**Simplicity of Design**

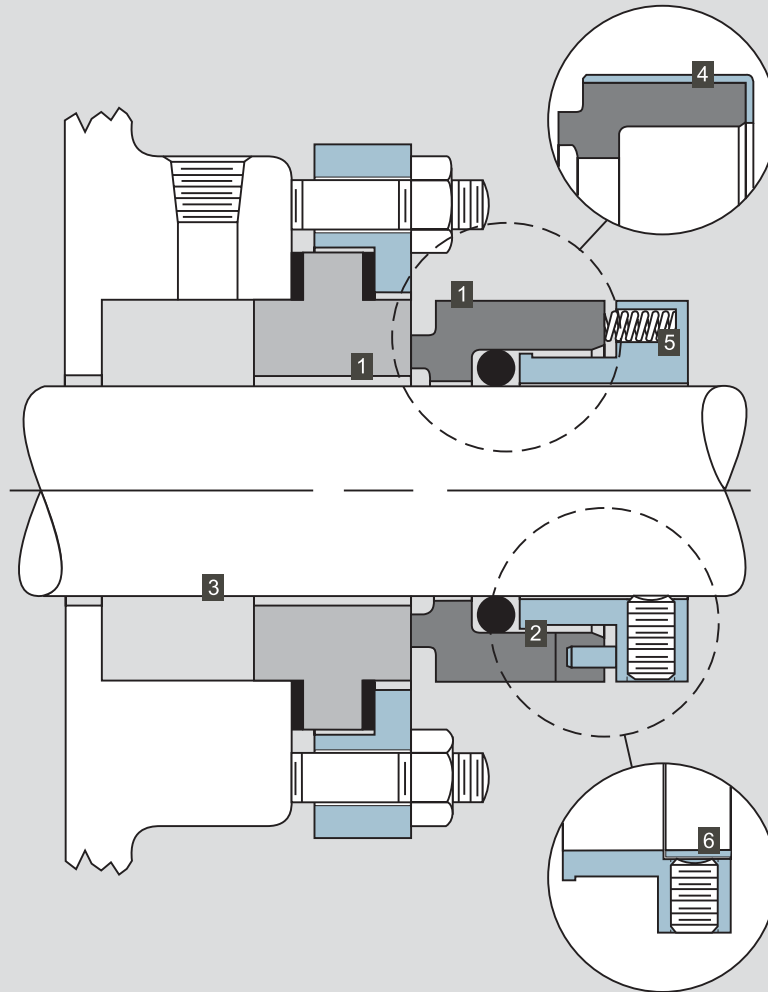
Seal can be assembled, repaired or dismantled without special equipment or tools.

[3]  
**No Shaft Modification**

Seal will install over standard straight shaft or packing sleeve.

**Repairability**

Repair kits available. Seal is restored to new condition. All worn surfaces are replaced with factory-fresh, not salvaged, repaired or exchanged parts.



[4]  
**Optional Metal Shroud**

Carbon encased with 316ss protects against the hazards of a face rupture.

[5]  
**Isolated Springs**

Springs are removed from the fluid and cannot clog from sedimentation in the pumpage.

[6]  
**Optional Compression Ring**

Compression ring allows seal installation over coated shaft or sleeve without equipment damage.

**Hydraulic Balance**  
Seals can operate at higher pressures without overheating, enhancing seal life and performance.

## 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-Viton®, EPDM or Aflas®  
(Other Materials May Be Specified)

## ADDITIONAL FEATURES:

### **NO INSTALLATION MEASUREMENTS-**

Mechanics are not required to make critical installation measurements in order to set the seal. The seal is preset at factory with assembly clips for automatic face setting.

### **MULTIPLE SPRINGS-**

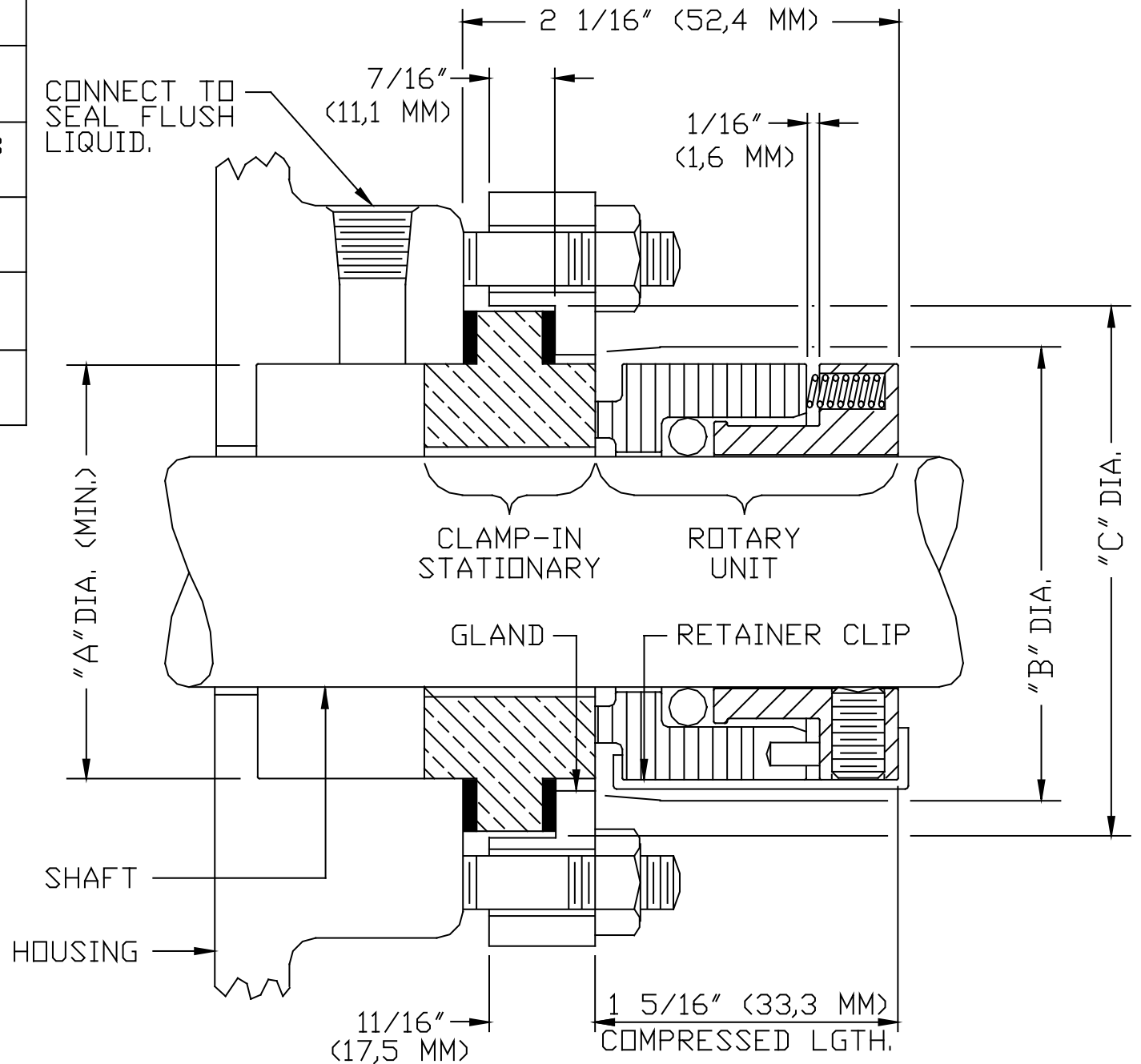
No uneven face wear. Heavy gauge Hastelloy® springs deliver uniform mechanical face load.

### **INTERCHANGEABLE-**

Seal will interchange with many other designs and can, in most instances, be used with existing stationaries and gland follower flanges.

*Hastelloy is a trademark of Hayes Int'l, Inc., Viton is a trademark of DuPont, Aflas is a trademark of Asashi Glass Co., Ltd.*

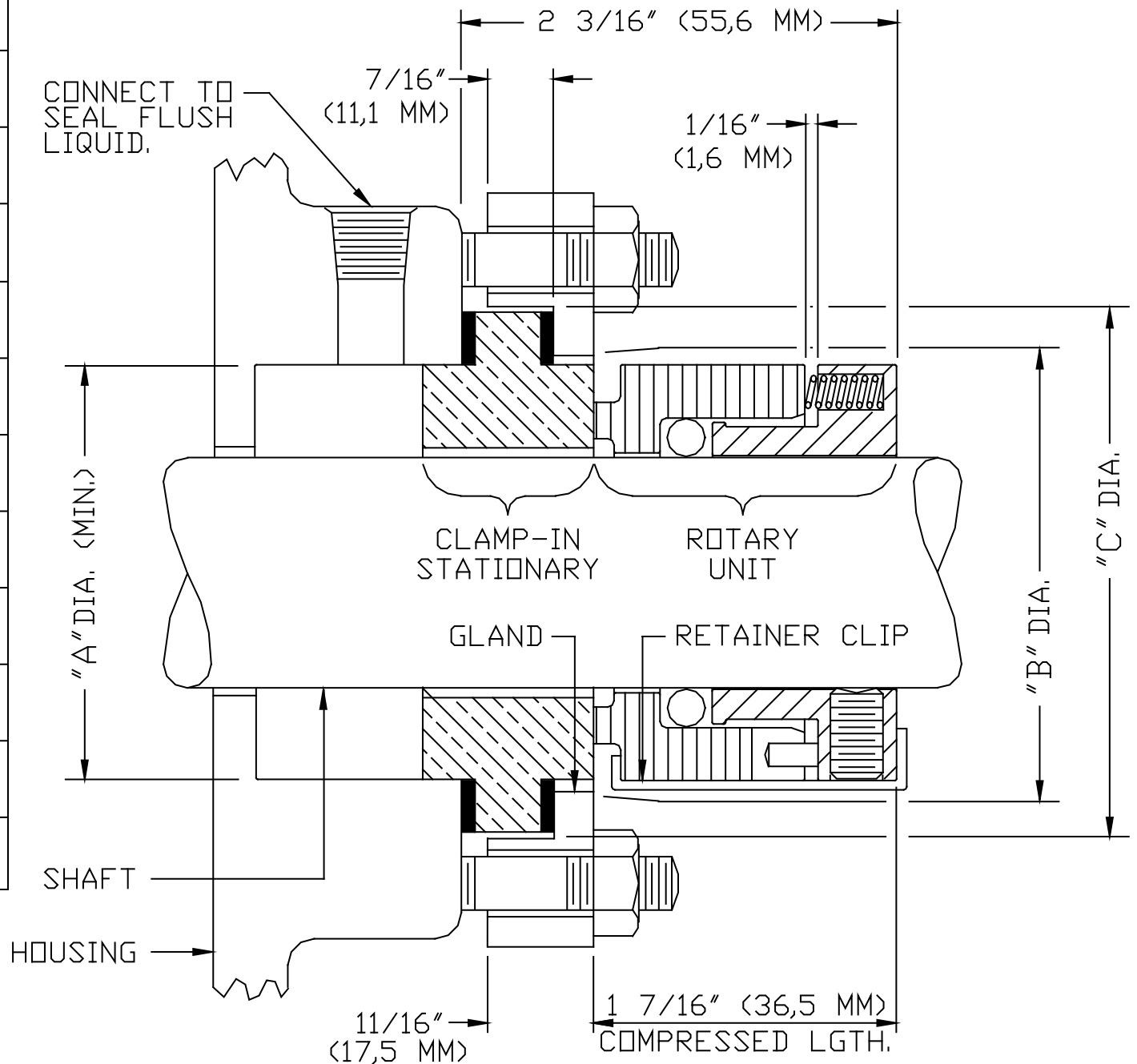
SIZE	"A"	"B"	"C"
1" 25 MM	1.625 41,3	1.66 42,2	2.15 54,6
1 1/8" 28 MM	1.750 44,5	1.78 45,2	2.28 57,9
1 3/16" 30 MM	1.812 46,0	1.84 46,7	2.50 63,5
1 1/4" 32 MM	1.875 47,6	1.91 48,5	2.40 61,0
1 3/8" 35 MM	2.000 50,8	2.03 51,6	2.41 61,2



**ASI** ADVANCED SEALING

INSTALLATION, MODEL  
505, S SERIES

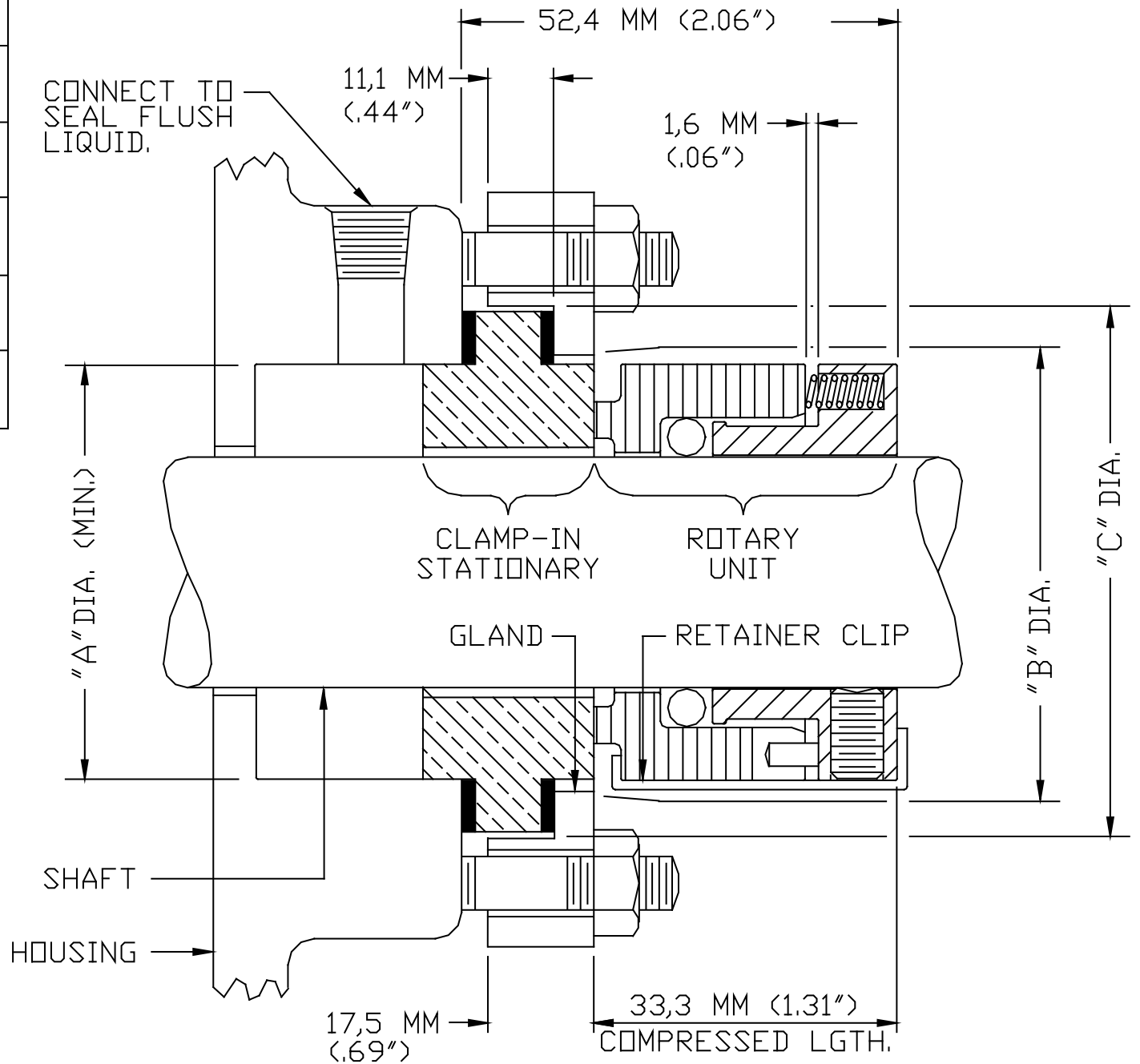
SIZE	"A"	"B"	"C"
1 7/16"	2.250 57,2	2.28 57,9	2.78 70,6
1 1/2" 38 MM	2.250 57,2	2.28 57,9	2.78 70,6
1 5/8" 40 MM	2.375 60,3	2.41 61,2	2.90 73,7
1 3/4" 45 MM	2.498 63,4	2.53 64,3	3.15 80,0
1 7/8" 48 MM	2.623 66,6	2.65 67,3	3.28 83,3
2" 50 MM	2.748 69,8	2.78 70,6	3.47 88,1
2 1/8"	2.873 73,0	2.90 73,7	3.78 96,0
2 1/4" 55 MM	2.998 76,1	3.03 77,0	3.90 99,1
2 3/8" 60 MM	3.060 77,7	3.09 78,5	3.94 100,1
2 1/2"	3.248 82,5	3.28 83,3	4.15 105,4
2 5/8" 65 MM	3.373 85,7	3.40 86,4	4.28 108,7



**ASI** ADVANCED SEALING

INSTALLATION,  
MODEL 505, M SERIES

SIZE	"A"	"B"	"C"
25 MM .984"	41,3 1.625	42,2 1.66	54,6 2.15
28 MM 1.102"	44,5 1.750	45,2 1.78	57,9 2.28
30 MM 1.181"	46,0 1.812	46,7 1.84	63,5 2.50
32 MM 1.260"	47,6 1.875	48,5 1.91	61,0 2.40
35 MM 1.378"	50,8 2.000	51,6 2.03	61,2 2.41



ADVANCED SEALING

INSTALLATION, MODEL  
505, S SERIES

## INSTALLATION INSTRUCTIONS FOR MODEL 505

### 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:

1. Remove seals parts from protective packaging, keeping seal faces clean. Do not lubricate seal faces. Do not remove retainer clips.
2. Lubricate seal o-ring with silicone grease provided. DO NOT USE PETROLEUM BASED LUBRICANTS.
3. Carefully slide seal rotary unit over end of shaft or sleeve, taking care not to cut o-ring. A slight twisting action will help compress o-ring. Slide rotary back to first obstruction, do not remove retainer clips.
4. Place stationary seat and stuffing box gasket against stuffing box face. Apply second gasket provided to outer portion of stationary seat.
5. Place gland plate and stationary seat over gland studs.
6. Finger tighten gland nuts evenly. Then, in an opposing sequence, tighten gland nuts two to three flats (just enough to compress gasket).
7. Install impeller.
8. Make any final impeller and/or bearing adjustments.
9. Slide seal rotary up to stationary seat and touch the two seal faces together, making certain seal is compressed with clips.
10. Tighten set screws. Screws should be set evenly and not overtightened.
11. Remove retainer clips.
12. Reassemble remaining pump parts.
13. Install pump on line, making certain that seal flush connection is attached.

### INSTALLATION FOR DOUBLE-ENDED PUMPS:

1. Remove seals parts from protective packaging, keeping seal faces clean. Do not lubricate seal faces. Do not remove retainer clips.
2. Insert stationary clamp-in seat into seal gland and slide gland, seat and gaskets onto shaft towards stuffing box.
3. Lubricate seal shaft o-ring with silicone grease provided. DO NOT USE PETROLEUM BASED LUBRICANTS.
4. Install seal rotary unit onto shaft. A slight twisting action will help compress the o-ring over the end of the shaft. Do not remove retainer clips or tighten set screws.
5. After all seal parts have been assembled loosely on rotary element, install pump bearings making any final impeller and/or bearing adjustments.
6. 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).
7. Carefully reassemble pump casing, taking care not to hit the seal.
8. Cut gasket protrusions flush with the stuffing box face using a razor or sharp knife.
9. 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).
10. Tighten set screws. Screws should be set evenly and not overtightened.
11. Remove retainer clips.
12. Reassemble remaining pump parts.
13. Install pump on line, making certain that seal flush connections are attached and open.