



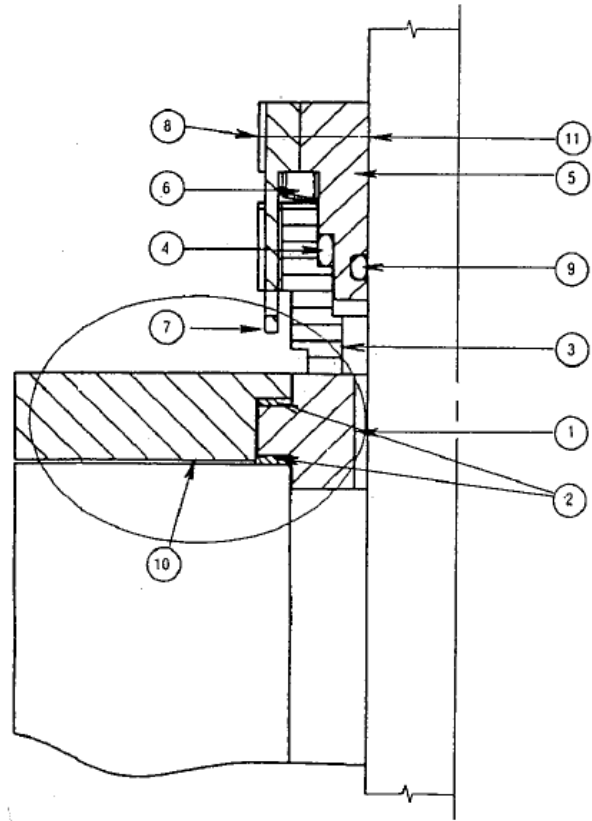
**Installation of John crane Type 32 Mechanical Seal**

**1. General**

Be sure to read all instructions carefully before installing seal.

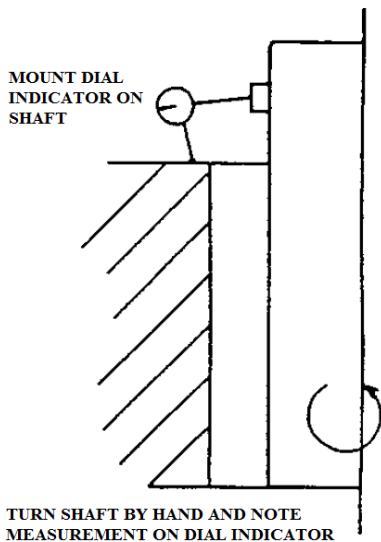
The John crane Type 32 Seal is a precision product. To assure satisfactory operation, handle seal with care. Take particular caution to see that the lapped sealing faces are not scratched or marred.

- Part name
- 1- Mating Ring
  - 2- Gaskets
  - 3- Primary Ring
  - 4- O-Ring
  - 5- Retainer
  - 6- Springs
  - 7- T-bar
  - 8- Socket Head Cap Screw
  - 9- O-Ring
  - 10- Gland
  - 11- Set Screw

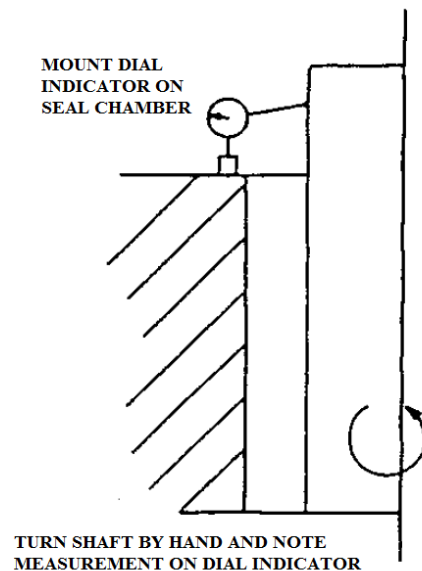


**2. Preparing the Equipment**

**A. Determine squareness of seal housing face to shaft (.031" T.I.R. maximum)**



**B. Measure shaft runout (.010" T.I.R. max.)**

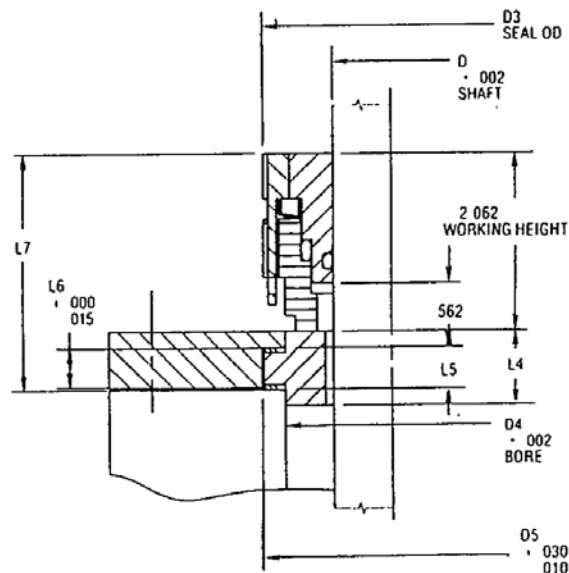




## Installation of John crane Type 32 Mechanical Seal

### 3. Installing the Seal (cont.)

- A. Place the mating rings and gaskets in position.
  1. Smooth shiny face of mating ring facing outward.
  2. White Teflon gasket between flange and mating ring.
  3. Paper gasket between mating ring and gland plate.
- B. Bolt the gland plate to the face of the housing and tighten bolts finger tight.
- C. Tighten gland plate by tightening bolts alternately until secure. Increase torque by not more than 5 ft-lbs per bolt at one time. Over tightening bolts can overstress mating ring causing it to crack or break.
- D. Lubricate the O-ring on inside of primary ring (rotating ring) with silicone grease.
- E. Clean seal faces with rubbing alcohol, making sure faces are free of any dirt and grease.
- F. Place a piece of masking tape over shaft keyway to protect o-ring from being cut by edges of keyway.
- G. Slide complete assembly onto shaft.
- H. Compress seal to proper working height (see diagram below).
- I. Tighten set screws on retainer to shaft (see table on page 03 of 03).





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### Installation of John crane Type 32 Mechanical Seal

Seal Sizes	D	D3	D4	D5	L4	L5	L6	L7	Set Screw Size	Torque Value For Set Screws (Inch/Lbs.)
1.000	1.000	2.500	1.875	2.281	1.000	.500	.468	2.718	1/4-20 x 1/2" long	80 (160 max.)
1.125	1.125	2.625	2.000	2.406	1.000	.500	.468	2.718	1/4-20 x 1/2" long	80 (160 max.)
1.250	1.250	2.750	2.125	2.656	1.000	.500	.468	2.750	1/4-20 x 1/2" long	80 (160 max.)
1.375	1.375	2.875	2.250	2.781	1.000	.500	.468	2.750	1/4-20 x 1/2" long	80 (160 max.)
1.500	1.500	3.000	2.500	3.031	1.000	.500	.468	2.750	1/4-20 x 1/2" long	80 (160 max.)
1.625	1.625	3.125	2.625	3.156	1.000	.500	.468	2.750	1/4-20 x 1/2" long	80 (160 max.)
1.750	1.750	3.250	2.750	3.281	1.000	.500	.468	2.875	1/4-20 x 1/2" long	80 (160 max.)
1.875	1.875	3.375	2.875	3.531	1.000	.625	.468	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.000	2.000	3.500	3.125	3.871	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.125	2.125	3.625	3.125	3.906	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.250	2.250	3.750	3.375	4.031	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.375	2.375	3.875	3.500	4.156	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.500	2.500	4.000	3.625	4.281	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.625	2.625	4.125	3.750	4.406	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.750	2.750	4.250	3.875	4.531	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
2.875	2.875	4.375	4.000	4.656	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
3.000	3.000	4.500	4.065	4.718	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
3.125	3.125	4.625	4.250	4.906	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
3.250	3.250	4.750	4.375	5.031	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
3.375	3.375	4.875	4.500	5.156	1.000	.625	.593	2.875	1/4-20 x 1/2" long	80 (160 max.)
3.500	3.500	5.000	4.625	5.281	1.000	.625	.593	2.875	5/16-24 x 1/2" long	160 (240 max.)
3.625	3.625	5.125	4.750	5.406	1.000	.625	.593	2.875	5/16-24 x 1/2" long	160 (240 max.)
3.750	3.750	5.250	4.875	5.531	1.000	.625	.593	2.875	5/16-24 x 1/2" long	160 (240 max.)
3.875	3.875	5.375	5.000	5.656	1.000	.625	.593	2.875	5/16-24 x 1/2" long	160 (240 max.)
4.000	4.000	5.500	5.250	5.906	1.000	.625	.593	2.875	5/16-24 x 1/2" long	160 (240 max.)

#### 4. Before Starting Unit

- A. Check unit at coupling for proper alignment of the driver or motor.
- B. Complete assembly of unit. Turn shaft by hand to insure free rotation.
- C. Insure before start-up that all personnel and assembly equipment have been moved to a safe distance so there is no contact with rotating parts on the agitator, seal coupling, or motor.