ITEM	DESCRIPTION	MATERIAL
1	LabTecta <sup>®</sup> 66 Rotary	Phosphor Bronze
2	Outboard Rotor O-Ring	FKM
3	Arknian™ Shut Off Device	Compound Elastomer
4	Arknian™ Energizer	FKM
5	Face Shield	Composite Material
6	Stator Housing	Phosphor Bronze
7	Stator Housing O-Ring	FKM
8	Inboard Rotor O-Ring	FKM
9	Internal Rotary	Phosphor Bronze
10	Internal Rotary O-Ring	FKM
11	Face Shield	Composite Material
12	Setting Clip	Plastic





## INSTALLATION INSTRUCTIONS



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# Mechanical Seals are Machinery Elements for ATEX 2014/34/EU & IECEx equipment. Documentation availabl on request.

#### **Pre-Installation Checks.**

- (i) Shaft Outside Diameter is within tolerance  $\pm$  0.002" ( $\pm$ 0.05mm)
- (ii) Housing bore is nominal size ±0.001" (±0.025mm).
- (iii) Shaft run out < 0.010" (0.25mm) T.I.R.
- (iv) Shaft end float < 0.010" (0.25mm).
- (v) Seal chamber face runout (shaft squareness relative to mounting face)  $<\!0.5\,\mu\text{m/mm}\,(0.0005\,\text{in./in})$  of seal chamber bore diameter.
- (vi) There are no sharp edges over which the seal 'O' Ring (2,8) and 'O' Ring (7) must pass. Break all sharp edges. Pay special attention to keyways, shaft steps and housing bore edges.
- (vii) Clean and degrease the shaft and housing bore.
- (viii) Lightly grease the shaft and shaft 'O' Ring (2,8) with the lubricant provided (P-80 lubricant ONLY)
- (ix) Check that the o-ring (2,8) position sits on a unmarked area of the shaft.
  (x) Ensure shaft & housing surface finish is better than 32µ" CLA (0.8µm Ra) at elastomer position 2, 7 & 8.

#### Installation instructions.

The following installation instructions may vary, depending on the equipment configuration. Therefore use them as a guideline only.

- Press the LabTecta®66 seal into the bearing housing plate. This plate is typically separate to the bearing housing. Note: Use a hydraulic press if available. The force from the press should be concentric to the plate bore. Avoid using grease on the housing. Always position outlet ports 'x' and 'y' at the 6 o'clock position as shown.
- 2. Slide the seal and housing plate assembly into the running position, on the shaft.
- 3. Secure the housing plate onto the bearing chamber.
- 4. Assemble rest of equipment in final running position.
- Remove setting clips (12)
- Fill the bearing housing with an appropriate fluid, to the OEM/suppliers recommended fluid level.
- 7. Spin the shaft by hand. Listen and feel for any shaft binding, etc.

Use the provided lubricant (P-80 ONLY) to grease the shaft and shaft 'O' Rings (2,8)

Do not hit the seal. The outer housing is a slight interference fit with the nominal housing bore. If in doubt, use a press to install the LabTecta®66 into the equipment housing plate.

### The following installation guide is applicable to all types of rotating equipment however is specifically focused at PUMPS.

In AESSEAL® experience, following this guideline will prolong your equipment life.

- LASER ALIGN SHAFT AND COUPLING
- USE SYNTHETIC BEARING LUBRICANT WHERE EVER POSSIBLE HOWEVER CHECK THE SEALED FLUID COMPATIBILITY FIRST!!!
- FIT A CARTRIDGE SEAL AND SYSTEM.
- ENSURE PUMP HYDRAULICS STABLE.
- REMOVE ANY PIPE STRAIN.



All metallic components are widely recyclable. Once the seal has reached the end of its life, it should be disposed of in accordance with local regulations and with due regard to the environment.

