

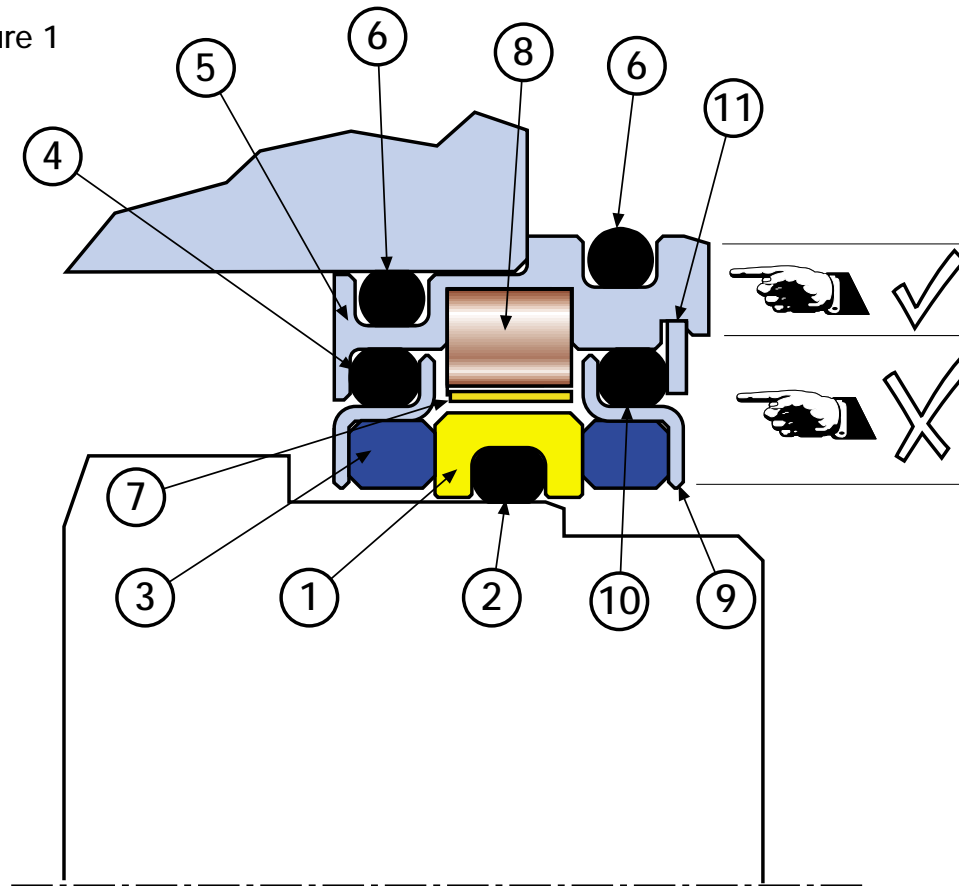
**GB SIX POINT Installation Guideline for Rotating Equipment.**

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.

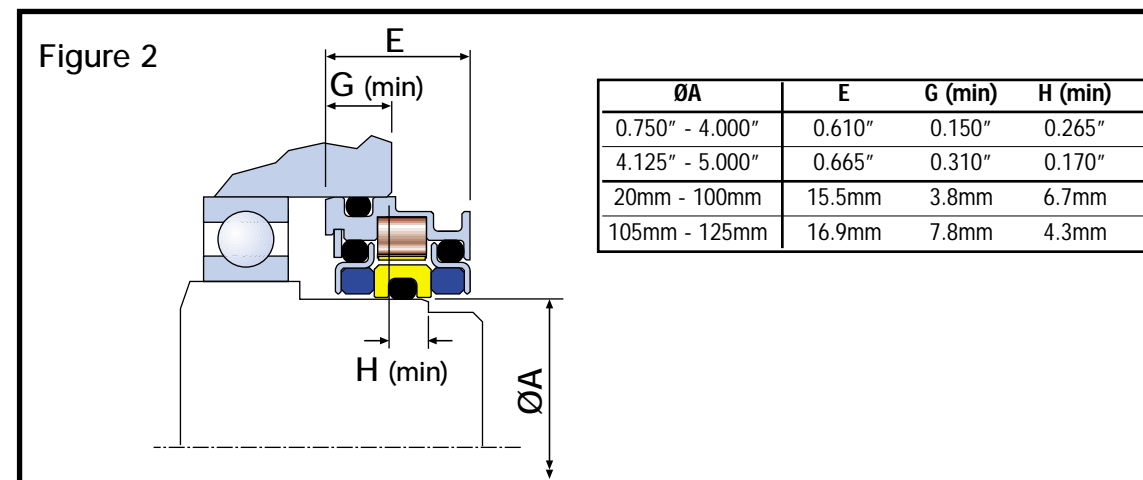
- **LASER ALIGN SHAFT AND COUPLING**
- **ISOLATE ALL BEARINGS WITH MAGTECTA™ BEARING PROTECTORS**
- **USE SYNTHETIC BEARING LUBRICANT WHERE EVER POSSIBLE HOWEVER CHECK THE SEALED FLUID COMPATIBILITY FIRST!!!**
- **FIT A CARTRIDGE SEAL AND SYSTEM.**
- **ENSURE PUMP HYDRAULICS STABLE.**
- **REMOVE ANY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

Figure 1



ITEM	DESCRIPTION	MATERIAL
1	Rotary Seal Face	Tungsten Carbide
2	Rotary Elastomer	Viton® / Aflas® / EPR / Kalrez®
3	Stationary Seal Face Assy	Ant.Car-S/S
4	Stationary Elastomer	Viton® / Aflas® / EPR / Kalrez®
5	Outer Body	Stainless Steel
6	Outer Body Elastomer	Viton® / Aflas® / EPR / Kalrez®
7	Shroud	Phosphor Bronze
8	Magnet	Metal
9	Stationary Seal Face Assy	Ant.Car-S/S
10	Stationary Elastomer	Viton® / Aflas® / EPR / Kalrez®
11	Circlip	Stainless Steel

Figure 2



**GB Pre-Installation Checks.**

- Shaft Outside Diameter is within tolerance  $\pm 0.002''$  ( $\pm 0.05\text{mm}$ )
- Shaft run out  $< 0.004''$  (0.1mm) T.I.R.
- Shaft end float  $< 0.005''$  (0.13mm).
- There are no sharp edges over which the seal 'O' Ring (2) and 'O' Ring (6) must pass. Break all sharp edges. Pay special attention to keyways, shaft steps and housing bore edges.
- Clean and degrease the shaft and housing bore.
- Check that the o-ring (2) position sits on a unmarked area of the shaft.
- Housing bore is nominal size  $\pm 0.001''$  ( $\pm 0.025\text{mm}$ ).
- Ensure shaft surface finish is better than  $32\mu''$  CLA ( $0.8\mu\text{m Ra}$ ) at elastomer position 2 & 6.

**Installation instructions.**

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

- Ascertain which orientation the MagTecta™ is to be installed in. If it is to be installed in the normal (standard radial cross section) orientation follow point 2 until the shoulder on the outer body (item 5) is contacting the face of the bearing housing plate, as shown in figure 1. If the MagTecta™ is to be installed in reverse (larger radial cross section) orientation it must be installed within the dimensional envelope shown in figure 2.
- Press the MagTecta™ 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.
- Slide the seal and housing plate assembly into the running position, on the shaft. Avoid using grease on the shaft.
- Secure the housing plate onto the bearing chamber.
- Assemble rest of equipment in final running position.
- Fill the bearing housing with an appropriate fluid, to the OEM/suppliers recommended fluid level.
- Spin the shaft by hand. Listen and feel for any shaft binding, etc.

**Do not use grease for the shaft or housing o-rings. The o-rings provide seal face anti-rotation and/or drive. A greased surface is not recommended.**

**The MagTecta™ has an in-built pressure relief system in the housing. If pressure builds up in the housing then some fluid may escape thereby relieving the pressure. This is typical, especially on high fluid level applications. It is however preferable if the OEM bearing chamber vent is employed for all installations.**

**MagTecta™ seals are a one piece cartridge design. Do not dis-assemble the unit as this will void any product warranty.**

**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 MagTecta™ into the pump housing plate.**

**DECLARATION OF INCORPORATION**

This Mechanical seal must not be put into service until the relevant machinery into which it is incorporated has been declared to be in conformity with the provisions of the Machinery Directive.

C.J. Rea  
Managing Director,  
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**MAGTECTA™**  
Double Seal Bearing Protector

**INSTALLATION INSTRUCTIONS**



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