

# Installation Instructions



**SMI™**

AESSEAL Marine plc, Unit 4 Venlo Industrial Estate, Knowles Street, Bradford, West Yorkshire, BD4 6HA, UK

Tel: +44 (0) 1274 720775 Fax: +44 (0) 1274 729022

Email: seals@first4seals.com - Web: www.first4seals.com

Copyright © 2019 AESSEAL Marine plc - Reference Issue • 2INST-SMI-05

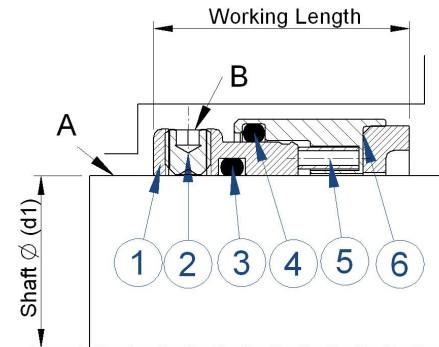


## WARNING

Extreme care must be taken to ensure safe operation of equipment.

If in doubt seek expert advice. For Technical Support:

Email: technical@first4seals.com Telephone: +44 (0)1274 720775.



ITEM	DESCRIPTION
1	INNER BARREL
2	DRIVE SCREW
3	STATIC O-RING
4	DYNAMIC O-RING
5	SPRING
6	OUTER BARREL ASSY

IMPERIAL SHAFT SIZE (d1)	WORKING LENGTH
0.750" – 1.375"	1.280"
1.500" – 2.500"	1.319"
2.625" – 4.000"	1.437"

METRIC SHAFT SIZE (d1)	WORKING LENGTH
19mm – 35mm	32.5mm
38mm – 63mm	33.5mm
65mm – 100mm	36.5mm

### Pre-Installation:

- ✓Check shaft diameter (d1) is in tolerance: Imperial Shafts +/- 0.002"  
Metric Shafts +0 / -0.05mm
- ✓Check shaft run out is in tolerance: <0.005" (0.13mm).
- ✓Check shaft end float is in tolerance: <0.005" (0.13mm).
- ✓Check shaft (ref. A) for sharp edges to ensure no damage to secondary seal during installation.

### Installation:

- ✓Ensure seal parts are kept as clean as possible and protected from damage.
- ✓Mark shaft directly underneath the lapped stationary surface on which the rotary face will run.
- ✓Disassemble equipment to allow access into the stuffing box and shaft area where the seal will be fitted.
- ✓Using the mark on the shaft, add the seal Working Length and mark the shaft again to locate where the back of the seal will be positioned.
- ✓Apply suitable lubricant to shaft.
- ✓Position back of seal at second mark.
- ✓Tighten ALL fixing screws onto shaft equally (ref. B).
- ✓Reassemble stuffing box.
- ✓Remove protective coating from seal faces.
- ✓Position gland follower, including the stationary face, on to stuffing box face ensuring concentricity to shaft and fully tighten.
- ✓Check for shaft binding or rubbing by rotating the shaft slowly by hand.
- ✓If fouling occurs, remove the seal, check shaft and start installation again.
- ✓If problem persists contact first4seals.
- ✓Ensure pump is primed before operation.

### 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.