



**Ex** Mechanical Seals are Machinery Elements for ATEX 2014/34/EU & IECEx equipment. Documentation available on request.

**Pre-Installation Checks.**

- (i) Ensure the diameter of the shaft is the correct size within a tolerance +/- 0.050mm.
- (ii) Ensure the total shaft run-out is under 0.25mm.
- (iii) Ensure the shaft end float is +/- 6mm.
- (iv) The angular misalignment between the shaft and the housing (at the isolator position) should be less than 1/4°.
- (v) Seal chamber face runout (shaft squareness relative to mounting face) <0.5 µm/mm (0.0005 in./in) of seal chamber bore diameter.
- (vi) Ensure there are no sharp edges over which the isolator o-rings must pass.
- (vii) If the bearing lubrication method is oil, ensure there is sufficient drain-back to sump.

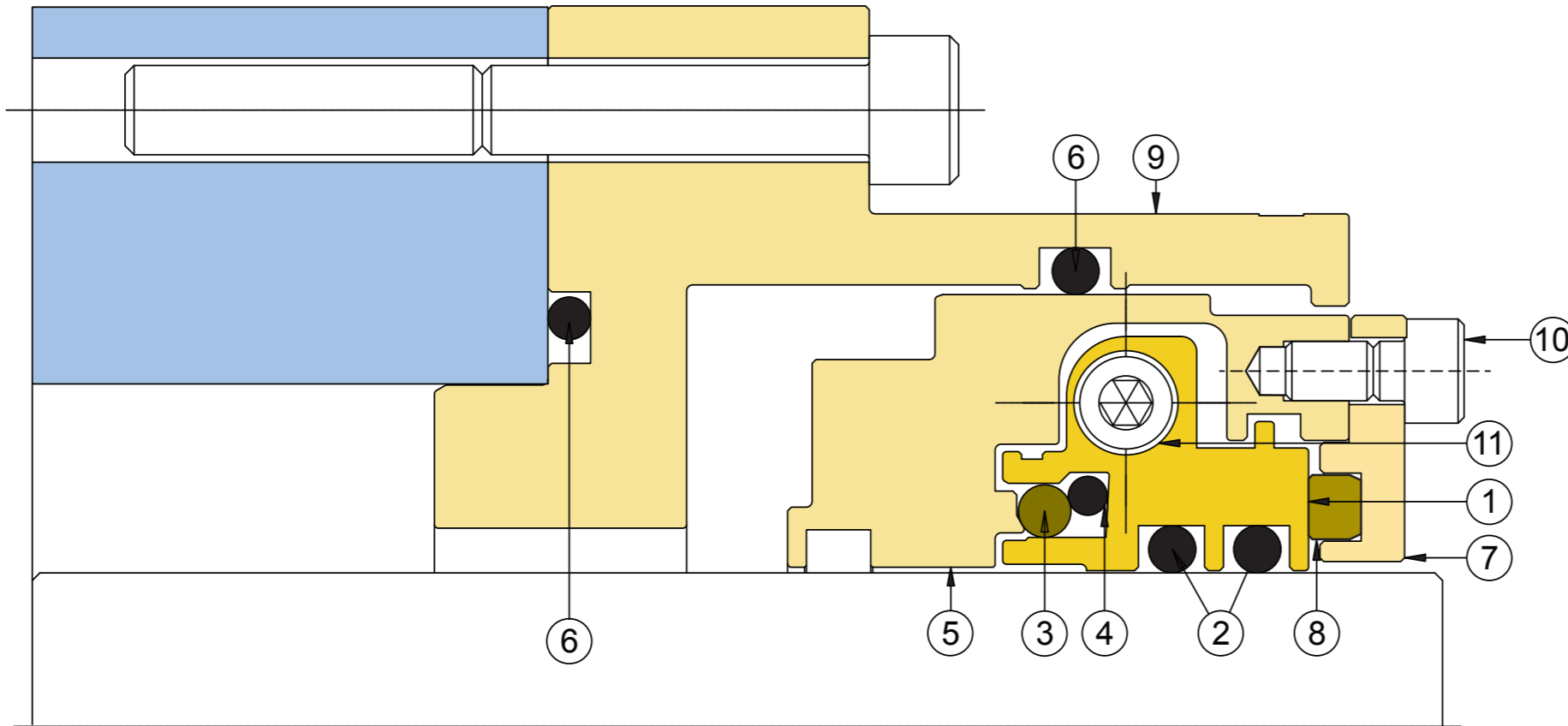
**Installation instructions.**

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

**Please Note: the Labtecta RDS AX is supplied fully-assembled in order to aid understanding of its assembly. All metalwork items should be separated prior to installation.**

1. Fit the split rotary o-rings (item 2) around the shaft. Use the glue (supplied) to join the ends, ensuring an accurate match is achieved.
2. Fit the first half of the rotary component (item 1) around the shaft, ensuring that the rotary o-rings align in the o-ring grooves. Ensure the face groove in the rotary faces the equipment housing.
3. Fit the second half of the rotary around the shaft, ensuring the rotary o-rings align in the o-ring grooves.
4. Secure both rotary halves together using the screws (item 11) provided, ensuring they are not over-tightened.
5. Cut the energiser o-ring (item 4) with a sharp knife. Wrap it around the shaft and use the glue to join the ends, ensuring an accurate match is achieved.
6. Fit the energiser o-ring into the bottom of the face groove in the rotary assembly, after applying a small amount of silicon grease.
7. Fit the shutoff o-ring (item 3) around the shaft and use the glue to join the ends, ensuring an accurate match is achieved.
8. Fit the shutoff o-ring into the same face groove as the energiser o-ring, after applying a small amount of silicon grease.
9. Position the first half of the body (item 5) over the rotary assembly and rotate it to the lower half of the shaft.
10. Position the second half of the body over the rotary assembly. Align the pins in both halves of the body and secure together using the screws (item 11) provided, ensuring they are not over-tightened. **Important Note:** the top half of the body can be identified by the two pins in its OD.
11. Fit the first half of the cover plate and bush insert (items 7 and 8) over the shaft and rotate to the lower half of the shaft. Secure the cover plate to the body using the screws (item 10) provided.
12. Fit the second half of the cover plate and bush insert (items 7 and 8) over the shaft and match it up to the first half. Secure the cover plate to the body using the screws provided.
13. Cut the body o-ring (item 6) with a sharp knife. Wrap it around the body and use the glue to join the ends, ensuring an accurate match is achieved.
14. Position the first half of the flanged adaptor (item 9) over the lower half rotary/body/cover plate assembly, ensuring the body o-ring sits into the groove on the ID of the adaptor.
15. Position the second half of the flanged adaptor over the rotary/body/cover plate assembly. Align the slots in this half of the adaptor with the pins in the OD of the body. Secure the adaptor together using the screws (item 11) provided, ensuring they are not over-tightened. **Important Note:** the top half of the flanged adaptor can be identified by slots in the face to align with the pins in the OD of the body.
16. Cut the adaptor o-ring (item 6) with a sharp knife. Wrap it around the shaft and glue the ends together. Fit the o-ring into the face groove on the adaptor.
17. Ensuring the shaft is well-coated with the lubricant provided, slide the Labtecta assembly up to the face of the bearing chamber. Align the adaptor with the mounting holes in the bearing chamber/end plate and secure into position.
18. Set the rotary/body/cover plate assembly into its correct starting position on the shaft by ensuring it protrudes from the flanged adaptor by the width of the cover plate (0.150").
19. Assemble the rest of equipment into its final running position.
20. Spin the shaft by hand. Listen and feel for any shaft binding.

**Recycling symbol:** 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.



# LabTecta®66RDS-AX

## Flange Mounted Arrangement

### INSTALLATION INSTRUCTIONS

ITEM	DESCRIPTION	MATERIAL
1	LabTecta®66RDS-AX rotary details	Phosphor Bronze
2	O-ring	FKM
3	O-ring	FKM
4	O-ring	FKM
5	LabTecta®66RDS-AX body flange mtd	Phosphor Bronze
6	O-ring	FKM
7	LabTecta®66RDS-AX cover plate	Phosphor Bronze
8	LabTecta®66RDS-AX bush insert	Bronze filled PTFE
9	LabTecta®66RDS-AX adaptor	Phosphor Bronze
10	Socket head cap screw	316 SS
11	Socket set caphead screw	316 SS



**AESSEAL plc**  
 Mill Close, Bradmarsh Business Park  
 Rotherham, S60 1BZ, ENGLAND  
 tel: +44 (0) 1709 369966  
 email: enquiries@aes seal.info  
 www.aes seal.com