INSTRUCTION

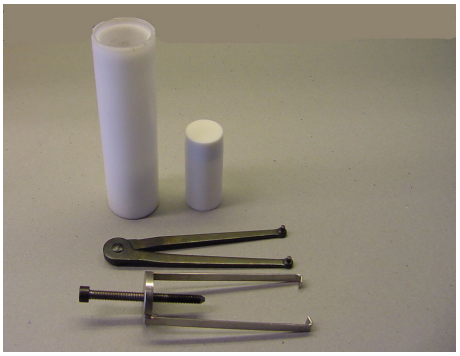
Shaft Seal
APP 5.1 - 10.2

180R9090

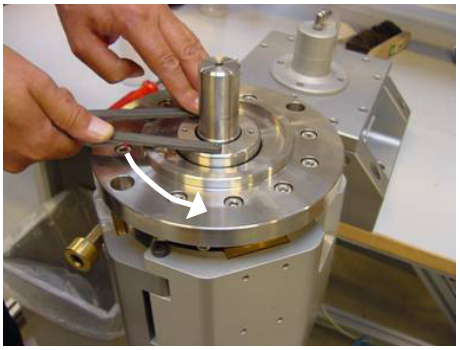
This document covers the instructions for changing the shaft seal on the axial piston pumps APP 5.1-10.2.

Note: It is essential that the pump is serviced in conditions of absolute cleanliness.

Tools provided:



1. Unscrew the seal retaining ring counterclockwise and remove it.



2. Unscrew the 8 screws in the mounting flange.

3. Carefully remove the flange from the casing.

4. Wet the shaft and shaft seal with clean (filtered) soap-water.

5. Carefully remove the shaft seal assembly using the shaft-seal extractor supplied. The extractor must fit underneath the shaft seal.

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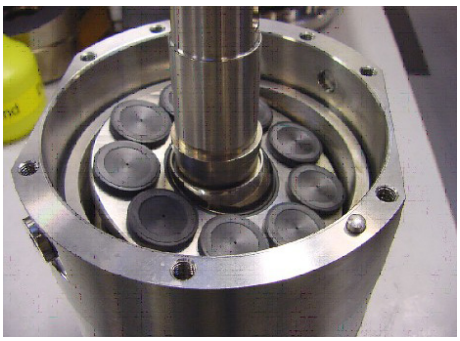
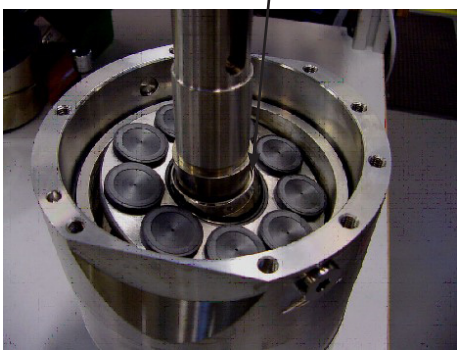
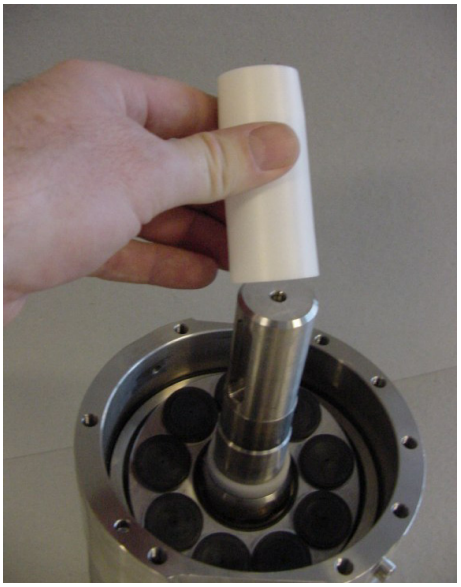
6. Ensure that no dirt has entered into the pump.
IMPORTANT: If loose particles are observed, the pump must be dismantled and thoroughly cleaned with clean (filtered) water.



7. Scrap the old spacer (if black) and place the new white spacer on top of the retaining ball.



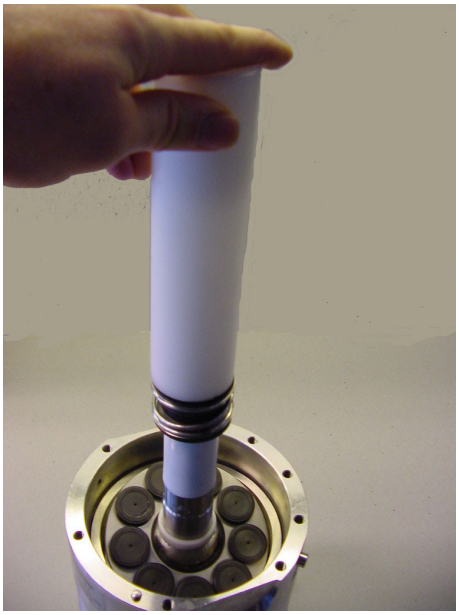
8. Fit the hollow bush (torpedo) onto the shaft.



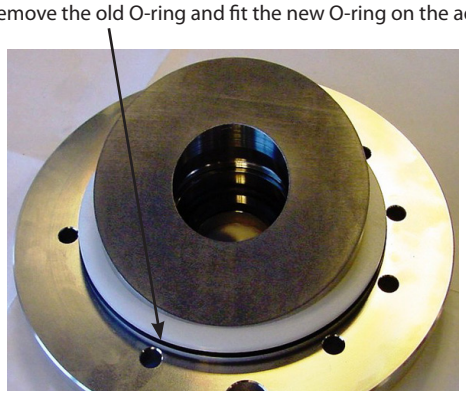
9. Thoroughly wet the torpedo, shaft and replacement shaft seal with plenty of soap. **Do not use silicone grease.**

10. Slide the new shaft seal over the torpedo with the carbon seal face pointing upwards (see also drawing on last page).
IMPORTANT: Be careful not to damage the carbon seal face on the shaft seal.

11. Use the plastic assembly tool provided, **large diameter pointing downwards**, to press the seal home against the shoulder of the spacer.

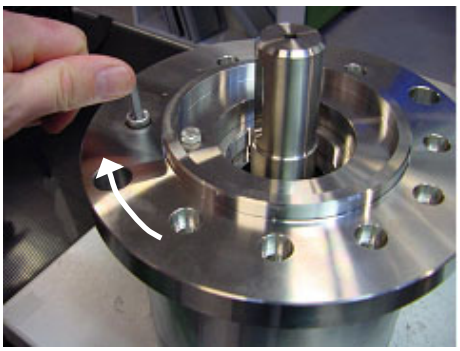


12. Remove the old O-ring and fit the new O-ring on the adapter.



13. Place the guide pin in the casing. Position the combined flange and swash plate onto the guide pin and press it gently, by hand, into the casing.
Ensure not to squeeze the O-ring.

14. Screw the 8 screws into the flange and the casing. T**o prevent cold welding, lubricate the threads on the 8 screws with grease**, screw them into the pump and tighten by hand. Use Molykote® D paste from Dow Corning or Klüber UH1 84-201 from Klüber lubrication.



15. Remove the ceramic ring from the seal retaining ring.

16. **Wet the parts with clean (filtered) soap-water.**

17. Push the new ceramic ring into the retaining ring, using the plastic tool provided.

Make sure the face with the rubber seal is positioned against the shoulder in the retaining ring (see drawing on last page).

18. Remove the old O-ring and fit the new one on the retaining ring (see also drawing on last page).

19. **To prevent cold welding, lubricate the thread and O-ring on the retaining ring with grease**, screw it into the pump and tighten it by hand.
Use Molykote® D paste from Dow Corning or Klüber UH1 84-201 from Klüber lubrication.

20. Remount the retaining ring and tighten by hand.

21. Tighten the retaining ring to a torque of 60 ± 5 Nm using the tool provided.