

Dismantling the Pump



Pumps which convey hazardous liquids must be decontaminated before dismantling the pump. The appropriate personal protection equipment should be used.

Tools required: Torque wrench, Engineers pliers, Allen keys, spanners



1) Isolate the motor (1) from the power supply.

2) Disconnect the inlet and outlet connections.



Risk of contact with liquid being pumped.

3) Separate the pump head from the motor (1) by removing the fixing screws (6a).

4) Unscrew the clamp ring handle (8) by several turns and remove the clamp ring (7).

5) Remove the cover (18).

6) Unscrew the impeller locknut (22) (right hand thread) with the torque wrench and socket.

7) Slide the impeller (20) forward off the shaft (14) by maintaining an even pressure. Hitting the impeller can cause serious damage.

8) Remove the key (21) and (where fitted) the clearance shims (60) from the pump stub shaft (14). Keep the shims for re-use.

9) Remove the mechanical seal by twisting the spring clockwise with pliers and pulling off the shaft.

10) Remove the pump body screws (6b) and separate the pump body (51) from the bearing frame (50).

11) The seal seat (11) and seat ring (10) can now be inspected.

Reassembling the Pump

1) Fit the mechanical seal (9) (see page S2 for important fitting details).

2) Replace the clearance shims (60) (where fitted) and the key (21) onto the stub shaft (14).

3) Slide the impeller (20) onto the pump stub shaft.

4) Ensure that the mechanical seal spring is completely on the shaft and is not trapped between the shoulder of the shaft and impeller. (If trapped, the impeller will rub the cover).

5) Screw on the impeller locknut (22) (right hand thread) and tighten with the torque wrench to 80 Nm.

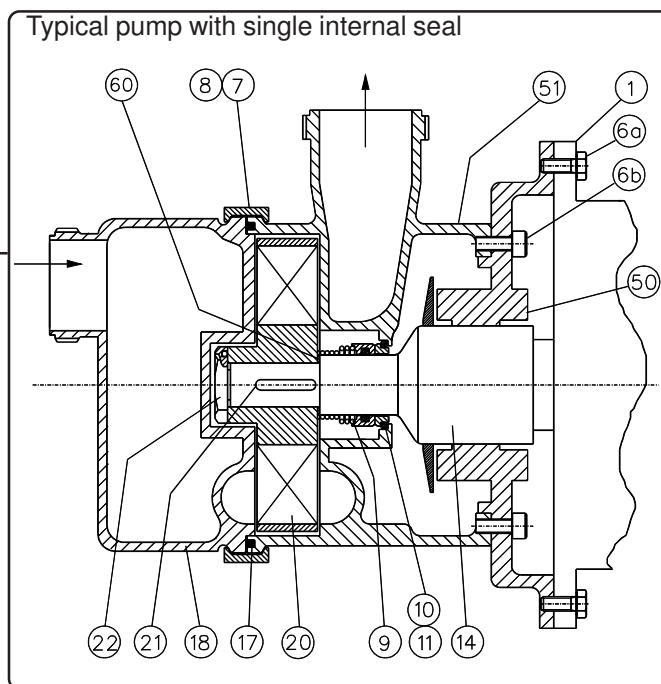
6) Refit the cover (18). Ensure that it locates on the pin protruding from the pump body (51).

7) Fit the clamp ring (7) into position and tighten the clamp ring handle (8), ensuring that the clamp ring is correctly located.

8) Put the motor (1) in a vertical position. Couple the pump head to the motor and tighten the fixing screws (6a).

9) Connect the inlet and outlet connections.

10) Before start-up, the pump should be filled with liquid to prime the pump and lubricate the seal faces, as dry running will cause overheating and may damage the mating surfaces.



Replacing the Seal - type T

ATTENTION

Mechanical seals are precision products. Installation should be carried out to the laid down procedure. Seals should be installed in a clean environment with particular care given to the lapped and polished seal faces.

Notes: - For information on the seal fitted in your pump, please refer to the data sheet.

Tools required: Diluted soft soap solution

Removing the old seal:

Dismantle the pump and seal as described on page S1.

Fitting the new seal:

See also items 2 - 10 **Reassembling the Pump** on page S1.

- 1) Ensure all components are clean. Any sharp edges on the shaft shoulder or keyway should be removed.
- 2) Locate the seal seat assembly (10,11) in the pump body (51). Fit the pump body (51) onto the bearing frame (50) and tighten the pump body screws (6b). Take care during assembly that the seal seat (11) does not contact the shaft (14) and become chipped.
- 3) Lubricate the pump shaft (14) with a very slight smear of diluted soft soap solution. **Never use mineral oil, grease, vaseline, etc, as it is not hygienic.**
- 4) Slide the seal unit (9) gently onto the shaft (14), taking particular care when passing the seal over the stepped shaft not to damage the bore of the seal faces.
- 5) Reassemble the pump as described on page S1.
- 6) Before start-up, the pump should be filled with liquid to prime the pump and lubricate the seal faces, as dry running will cause overheating and may damage the mating surfaces.

