

This guide contains instructions on how to replace a D seal on a C+100 pump. This process should be completed once a year or when leaking or damage occurs.

Caution:

Handle the rotating seal with care. The carbon seal is easily damaged.



1. Disconnect or lock out the power to the pump.
2. Disconnect any hoses or piping from the pump and drain any liquid.
3. Loosen the two wing nuts (1A).
4. Turn the casing (1) 30 degrees clockwise to disengage the tabs and pull it forward off of the pump adapter.
5. Center the impeller pin (24) in the shaft (6) and then remove the impeller (2).
6. Remove the impeller pin (24) from the shaft (6) and put it in a safe place.
7. Remove the backplate (11) to expose the seal assembly.
8. Remove the carbon seal (80), o-ring (80B), high-pressure backup ring, cup (80A), and spring (80C).

Note: The high pressure back up ring is optional so you may not have one. It is not shown in the diagram below.

9. Clean and inspect the sealing surface on the backplate (11). If it is damaged, replace it or have it faced at a machine shop.

Caution: Do not try to sand or file the surface.

10. To re-assemble the pump first loosen the shaft collar screw (92A) this will allow the shaft to move backwards.
11. Assemble the seal by putting together the carbon seal (80), o-ring (80B), optional backup ring, cup (80A), and spring (80C). Put a little sanitary lubricant on the o-rings before installing them. Do not get lubricant on the face of the carbon seal (80).
12. Slide the seal assembly onto the shaft, the whole seal must be put together on the shaft taking care that the groove of the cup is directed to the pin of the shaft. This keeps the o-ring correctly positioned inside the carbon seal.
13. Reinstall the backplate, impeller, and casing and tighten the casing nuts (1A).
14. Push the shaft forward to compress the seal spring fully, making sure that the groove still aligns with the shaft pin. Release the shaft 1/16".
15. Tighten the shaft collar screw (92A).
16. Turn the shaft by hand to make sure there are no binding or metal parts touching.

