

Bodine Right-Angle Motor Seal Replacement

SOP Number	52004
Revision Number	0
Revision Date	May 23, 2022
Purpose	To provide a procedure to replace the seals on a Bodine right-angle gearmotor.
Scope	This procedure applies to the below right-angle Bodine gearmotors installed on Chemtech Services, Inc. distillation systems: Model 4534, Type 42A5FEPM-5N Model 4134, Type 42A5BEPM-5N Model 2274, Type 42R6BFPP-5N
Referenced Documents	N/A
Materials and Equipment	CTS Bodine Right-Angle Motor Seal Kit 5/16" wrench or driver with 5/16" socket driver Flathead screwdriver Hammer
Definitions	<u>Shaft seal</u> : lip seal included in the CTS Bodine Right-Angle Motor Seal Kit <u>O-ring</u> : square profile O-ring included in the CTS Bodine Right-Angle Motor Seal Kit

Seal Replacement Procedure

1. Using the screwdriver and hammer, remove the key from the motor shaft.
2. Using the wrench or driver, remove the four (4) bolts from the shaft-side plate.



3. Remove the plate from the motor and shaft.

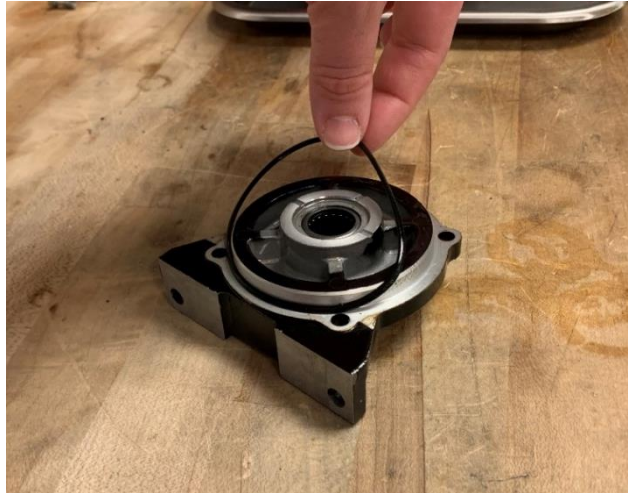


4. Using the flathead screwdriver, remove the shaft seal from the plate. This may require a vice to hold the plate in place if the shaft seal is tight. Discard the used shaft seal.



5. Replace the shaft seal:
 - a. Wipe out any debris in the shaft-seal cavity.
 - b. Insert the new shaft seal spring-side down.
 - c. Press the shaft seal into place first using hands.
 - d. Tap the shaft seal into place using the hammer. Continue tapping in the shaft seal until the face is flush with the face of the motor plate. A large socket may assist in pressing in the shaft seal straight and flat.

6. Replace the square O-ring on the opposite face of the motor plate:
 - a. Remove the used O-ring and discard.
 - b. Insert the new O-ring. Ensure the O-ring is not twisted and the faces of the O-ring are flush against the faces of the motor plate.



7. Check the gear oil level within the pump. The oil level should be high enough that the teeth of both gears are wetted by the oil. The level in the photo to the right is ideal, do not overfill.



8. Reinstall the motor plate on the shaft side and tighten the four (4) bolts. Reinstall the key onto the motor shaft.
9. Repeat steps 2, 3, 6 and 8 to replace the square O-ring on the motor plate opposite the shaft.
10. Rotate the motor shaft by hand to ensure the gears are mated and functioning properly.
11. Reinstall the key onto the motor shaft, gently tap into place with the hammer.

Revision History

Revision	Date	Changes
0	May 23, 2022	Initial Release