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## INSTALLATION INSTRUCTIONS DTP Seal

### Pre-installation Checklist

1. Do not remove seal from protective packaging until equipment has been inspected and all necessary repairs have been made.
2. Visually inspect shaft/sleeve over which seal is to be installed. If shaft/sleeve is worn, check to determine if points of wear are located in an area where the o-ring or setscrews are mounted. If these areas are free from wear, the old shaft/sleeve may be used. The sleeve should have a minimum 1/32" chamfer and all burrs and sharp edges removed that might damage o-ring. Check actual shaft/sleeve O.D., and make sure it falls within tolerances indicated on assembly drawing.
3. Check for excessive radial and axial shaft movement. Maximum run out is .003" T.I.R.; maximum shaft deflection is .005" diametral; and maximum end play is .005". If movement exceeds recommended tolerances, check for bent shaft or bad bearing conditions and correct. Contact SEPCO Engineering if (due to equipment characteristics) corrections cannot be made.
4. If pump is equipped with sleeve, replace o-ring or gasket seal to prevent leakage.
5. Compare actual stuffing box dimensions with those shown on assembly drawings. Do not attempt to install mechanical seal if actual dimensions do not fall within tolerances.

### Installation Procedure

1. Remove seal from protective packaging.
2. Lubricate seal sleeve o-ring with silicon based lubricant provided. Do not use petroleum-based lubricants.
3. Slide seal assembly over the shaft/sleeve and back to the first obstruction. Care should be taken to prevent forces from being exerted against the gland (item #9) when sliding the sleeve o-ring (item #14) over the end of the pump shaft/sleeve. Rotating the pump shaft by hand while pushing against the inboard end of the seal sleeve (item #1) will help compress the o-ring to facilitate installation.
4. Thread tape and install flush fittings into connections on gland.
5. Install stuffing box and impeller.
6. Slide seal assembly into position against stuffing box face and finger tighten gland nuts only.

***Steps 7 through 12 should be completed only after equipment has been installed on-line and all final adjustments have been made.***

7. Recheck to insure the gland nuts are finger tight.
8. In an opposing sequence, torque gland nuts uniformly 2 to 3 flats only. DO NOT OVERTIGHTEN.
9. For seal sizes up to 2-5/8" uniformly tighten all the cup point setscrews with the 1/8" Allen wrench provided with the seal. Use the 3/16" Allen wrench provided with seal sizes larger than 2-5/8". Then loosen and remove the (3) socket head cap screws and assembly clips. Firmly snug the dog point setscrews with the 3/32" Allen wrench provided.

***Note: If an impeller adjustment is required, loosen the dog point setscrews 1/4 turn only and reinstall assembly clips and socket head cap screws. Loosen the cup point setscrews and make required axial adjustments. Repeat step 9.***

10. Rotate shaft by hand to insure it rotates freely. Do not attempt to start equipment if binding or rubbing occurs.
11. Connect environmental controls as per AY9019A or A2037B.
12. Open all flush lines and regulate. Open suction and discharge valve and start equipment.

If you need further assistance, please call our Engineering Department at: 1-800-633-4770