REPLACEMENT FLANGE PROCEDURES FOR HIGH LIFT FLANGE TEST & WELDING PLUGS

Curtiss Wright EST Group recommends removal of most components to inspect parts for wear/damage and to protect O-rings during the flange replacement procedure.

½" – 1" Flange Sizes (refer to Figure 1.)

- 1. Remove Hex Nut & Jam Nut from bottom of Shaft.
- 2. Remove Bottom Washer, Seal, and Washer from Shaft.
- 3. Remove the Compression Tubes.
- 4. Remove the Flange Assembly.
- 5. Lubricate O-ring groove inside the new Flange Assembly, lubricate the new O-ring, and install into new Flange Assembly if not already pre-installed.
- 6. Install new Flange Assembly onto Shaft taking care not to damage the O-ring on threads.
- 7. Install the Compression Tubes.
- 8. Install first Washer, Seal, and Bottom Washer. Note: The washers must be placed on the Shaft so that the serrated (non-smooth) surface of the washer contacts the Seal.
- 9. Install Jam Nut onto Shaft as far as possible. Install Hex Nut and wrench tighten Hex Nut against Jam Nut.
- 10. Plug is ready for testing.

1-1/4" - 3" Flange Sizes (refer to Figure 2.) and 4" Flange Size (refer to Figure 3.)

- 1. Remove Hex Nut & Jam Nut from Shaft.
- 2. Remove Seal and both O-ring Washers from Shaft, taking care not to damage either O-rings in the ID of washers.

 Note: Inspect the O-rings and replace if worn or damaged
- 3. Lubricate both O-rings in ID of washers with O-ring Lube.
- 4. Remove the Compression Tubes.
- 5. Remove the Flange.
- 6. Lubricate O-ring groove and the new O-ring and install into new Flange, if not already pre-installed.
- 7. Install new Flange onto Shaft taking care not to damage the O-ring on threads.
- 8. Install the Compression Tubes.
- Carefully install one O-ring Washer onto Shaft. Note: The O-ring Washer must be placed on the Shaft so that the serrated (non-smooth) surface of the Washer contacts the Seal.
- 10. Install Seal and second O-ring Washer. Note: The O-ring Washer must be placed on the Shaft so that the serrated (non-smooth) surface of the Washer contacts the Seal.
- 11. Install Jam Nut onto Shaft as far as possible. Install Hex Nut and wrench tighten Hex Nut against Jam Nut.
- 12. Plug is ready for testing.

6 - 24" Flange Size (refer to Figure 4.)

- 1. Remove Hex Nuts, Hardened Washers, and Compression Tubes from Flange.
- 2. Remove the Flange and Outer Pipe Support from the Shafts and Lower Support Assembly.
- 3. Remove Socket Head Cap Screws from the Outer Pipe Support. Remove the Outer Pipe Support from the Flange. Note: Inspect the Flange O-ring and Interior O-rings, and replace if worn or damaged.
- 4. Lubricate the Flange O-ring groove and the Flange O-ring and install the Flange O-ring into the Flange O-ring groove.
- 5. Use the Socket Head Cap Screws to install the Outer Pipe Support into the back of the new Flange, ensuring proper O-ring fit.
- 6. Slide the new Flange and Outer Pipe Support onto the Shafts and into the Lower Support Assembly.
- 7. Install the Compression Tubes, the Hardened Washers, and the Hex Nuts.
- 8. Plug is ready for testing.

Questions? Contact EST Group Customer Service at any of the following locations.



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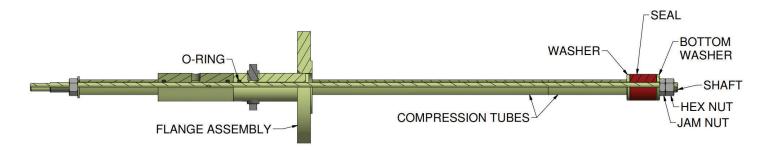


Figure 1: ½" - 1" Flanges

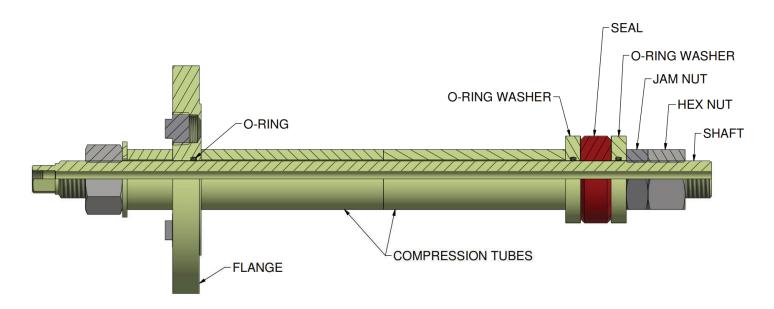


Figure 2: 1-1/4" - 3" Flanges

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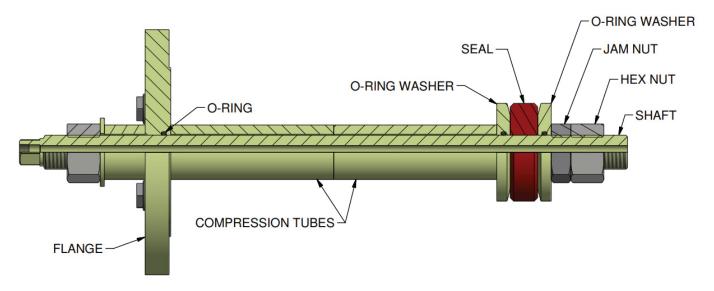


Figure 3: 4" Flange

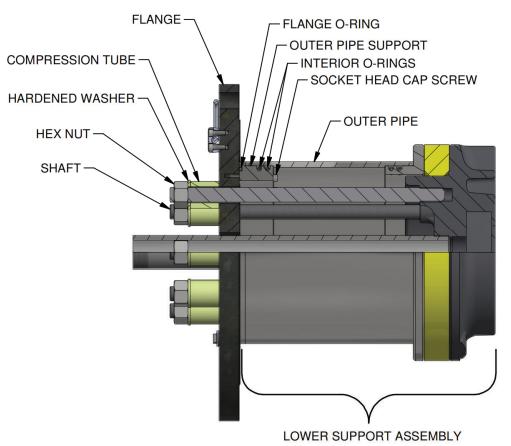


Figure 4: 6-24" Flange

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