

# DualPac® 2212

# Installation Instructions

### **EQUIPMENT PREPARATION**

#### **IMPORTANT:**

Follow all plant procedures and equipment manufacturer safety practices throughout the installation process. Read all instructions prior to installation.

- Remove old packing from stuffing box. Stuffing box should be free of any old packing residue, solids, and corrosion left from the process.
- Inspect the pump sleeve. The sleeve should be in good condition and free of excessive wear, corrosion or pitting for optimum packing service life.
- 3. Clean the packing gland and gland follower. Remove burrs, corrosion or any residual material which would impede insertion into the stuffing box.
- 4. Calculate the packing cross section:
  - Measure the shaft sleeve diameter (or locate and measure a packing mandrel, an old packing sleeve or a piece of wood the same diameter as the shaft sleeve).

- b. Measure the stuffing box bore.
- c. Cross section = (Bore ID Stem OD)  $\div$  2.
- 5. Wrap the packing around the packing mandrel and mark at one complete ring.
- 6. Remove packing from the mandrel.
- 7. Before cutting rings determine which material you want facing the shaft, then cut rings using a  $0^{\circ}$  butt cut.
- 8. Each ring should be cut for the arrangement required for the application. The typical arrangement would be (3) primary sealer rings (shown in Figure 1 with White meta-aramid facing the shaft), (1) top end ring, and (1) bottom end ring (shown in Figure 2).

## (See Figure 3 for stuffing box arrangement)

Additional rings may be required to pack the stuffing box. After each ring is cut wrap them around the mandrel to check fit before proceeding to installation.

Figure 2 - End Ring

Figure 1 - Primary Sealer

White Meta-Aramid

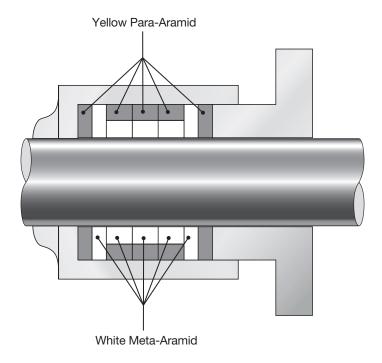
Yellow Para-Aramid

CAUTIONS

These instructions are general in nature. It is assumed that the installer is familiar with mechanical packing and with the plant requirements for the successful use of mechanical packing. If in doubt, get assistance from someone in the plant that is familiar with the product, or delay the installation until a packing representative is available.

All necessary auxiliary arrangements for successful operation (heating, cooling, flushing) as well as safety devices must be employed. These decisions are to be made by the user. The decision to use this or any other Chesterton product in a particular service is the customer's responsibility.

Figure 3 - Primary Sealer (SHOWN WITH 3 PRIMARY SEALER RINGS AND 2 END RINGS)



# INSTALLATION

- 9. Install each ring of packing by inserting it into the stuffing box and, using the packing gland, pushing it in as far as the packing gland will allow.
- 10. Use a Chesterton 176 tamping tool to firmly seat each ring in the bottom of the stuffing box.
- 11. Stagger all ring joints 90°, at a minimum.
- 12. Repeat steps 9 through 11 until all rings are installed or stuffing box is filled.
- Install packing gland and gland flange such that the gland pilots into the stuffing box and sits evenly against the packing set.
- 14. Finger-tighten bolts until gland is snug against packing, verifying gland and packing gland flange are perpendicular and square to the shaft.

- 15. Use a feeler gauge to make sure that the gland is not touching the shaft (gland/shaft contact will generate excess heat and cause equipment wear and/or damage).
- 16. Take-up gland nuts finger tight. Break in slowly. 100 to 200 drops per minute leakage at the start, adjust (see note) until leakage is approximately 20 to 60 drops per minute. Lower leakage may be achieved depending on the application and condition of the stuffing box.

NOTE: Adjust packing gland gradually one flat at a time, no more than one adjustment every 15 minutes. Never permit box to heat up. Be sure gland adjustments are applied evenly.

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