

# DualPac™ 2211

## Installation Instructions

### EQUIPMENT PREPARATION

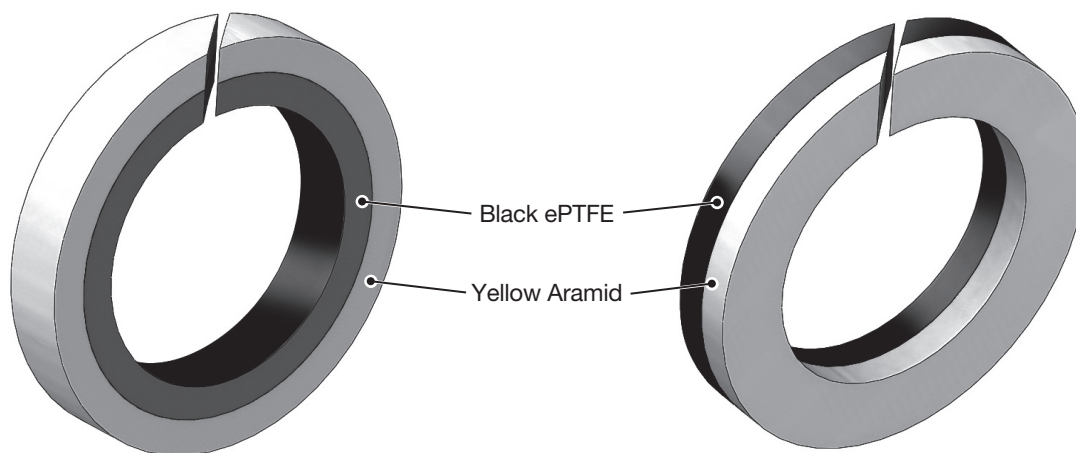
**IMPORTANT:** Follow all plant procedures and equipment manufacturer safety practices throughout installation process. Read all instructions prior to installation.

1. Remove old packing from stuffing box. Stuffing box should be free of any old packing residue, solids and corrosion left from the process.
2. Inspect pump sleeve. 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:
  - a. 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) ÷ 2.
5. Wrap the packing around the packing mandrel and mark at one complete ring.
6. Remove packing from mandrel.
7. Before cutting rings determine which style packing you want facing the shaft, then cut rings using a 45° skive cut.
8. Each ring should be cut with the arrangement required for each application. Typical arrangement would be (3) primary sealer rings (shown in Figure 1 with Black ePTFE 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 mandrel to check fit before proceeding to installation.

**Figure 1 – Primary Sealer** (SHOWN WITH Black ePTFE SEALING SHAFT) **Figure 2 – End Ring**

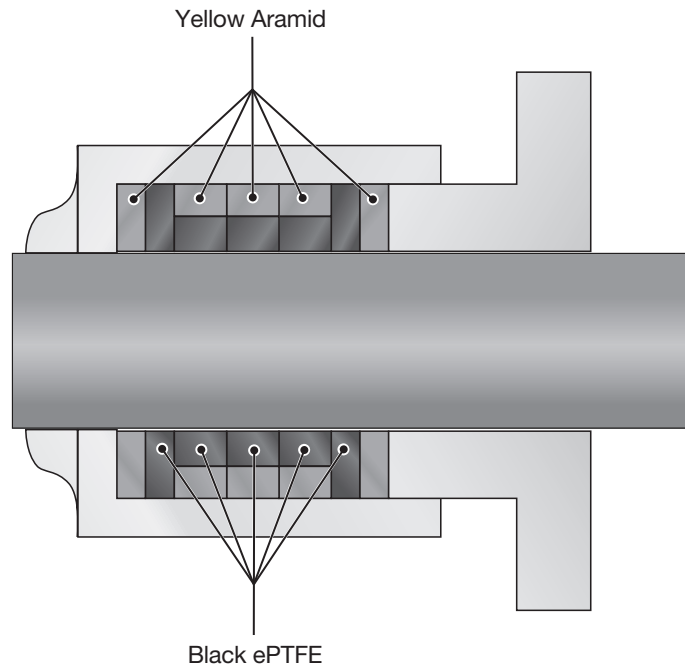


### CAUTIONS

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. Stagger all ring joints 90°, at a minimum.
11. Use a Chesterton 176 tamping tool to firmly seat each ring in the bottom of the stuffing box.
12. Repeat steps 9 through 11 until all rings are installed or stuffing box is filled.
13. Install packing gland and gland follower; tighten gland bolts to a snug load.
14. Back off on gland load and loosen gland bolts until gland moves freely.
15. Finger-tighten bolts until gland is snug against packing.
16. Use a feeler gage 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).
17. Take-up gland nuts finger tight. Break in slowly. 100 to 200 drops per minute leakage at 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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