

1765

Installation Instructions

PUMPS

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, 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) $\text{Cross section} = (\text{Bore ID} - \text{Stem OD}) \div 2$.
5. Wrap the packing around the packing mandrel and mark at one complete ring.
6. Remove packing from mandrel. **Note:** wrap packing with transparent tape before cutting to prevent it from unraveling.
7. Skive or Butt cut the packing as shown in **Figures 1 and 2**.
8. Use the first-cut ring of packing to measure and cut additional rings as required to pack the stuffing box. After each ring is cut wrap them around mandrel to check fit before proceeding to installation.

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. Repeat steps 9 and 10 as many times as necessary to fill the stuffing box staggering all ring joints 90°, at a minimum.
12. Install packing gland and gland follower; tighten gland bolts to a snug load.
13. Back off on gland load and loosen gland bolts until gland moves freely.
14. Finger-tighten bolts until gland is snug against packing.
15. 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).
16. Some manufacturers recommend pre-heating the equipment. Follow the manufacturer's instructions and vent pump casing. Ensure gland nuts are still snug. Start the pump.
17. After starting the equipment, adjust the gland bolts to achieve an acceptable leakage rate. Adjustments should be made gradually; no more than one adjustment every 15 minutes.

NOTE: During break-in the packing may smoke or steam slightly. The packing gland may get hotter than normal. This condition should revert to normal after the first four hours of operation.

Figure 1.
SKIVE CUT

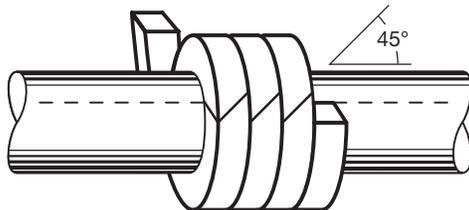
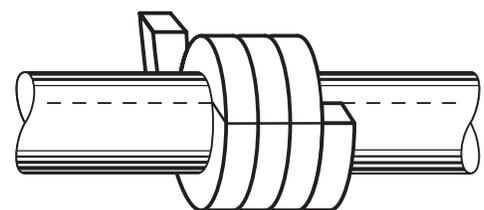


Figure 2.
BUTT CUT



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.



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860 Salem Street
Groveland, MA 01834 USA
Telephone: 781-438-7000 Fax: 978-469-6528
www.chesterton.com

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