MANUFACTURING PORTABLE HYDRAULIC LIFTING EQUIPMENT FOR THE 21st CENTURY

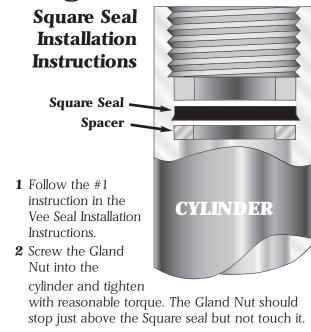


Seal Installation Instructions

Seal-in-Cylinder Design

Vee Seal Installation Instructions Fabric V Ring Rubber V Ring Rubber V Ring Male Adapter 1 When installing the seal(s), use a dull screw driver and go around outside edges of the seal forcing slightly inwards and downwards. Make sure the seal lips don't become cut or turned upwards by the cylinder threading. Pack the seal(s) and other items snuggly.

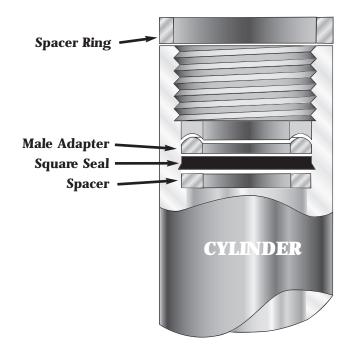
- **2** Screw in the gland nut until it is just off the top seal or barely touching it.
- **3** Insert shaft with a little oil on its end. While slowly turning the shaft, apply slight downwards pressure until the shaft is beyond the seal(s).
- **4** While still turning the shaft, slowly tighten the gland nut until you begin to feel a slight drag. **STOP**. Damage to the seals will result from over-tightening.
- **5** Follow the Air Bleeding Instructions before putting the cylinder into use.



3 Follow the #3 and #5 instructions in the Vee Seal Installation instructions.

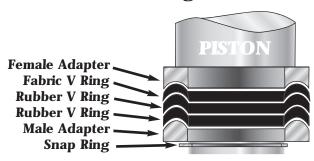
Conversion Installation Instructions for K-175 Hydraulic Repair Kit (Vee Seal to Square Seal)

- **1** Use these instructions only when converting from Vee seals to the Square seal. seals to the newer Square seal.
- **2** Follow the #1 instructions in the Vee Seal Installation Instructions
- **3** Slide the D125-11 Spacer Ring up onto the Gland Nut; and then screw the Gland Nut into the cylinder. Tighten with reasonable torque. The Gland Nut should stop just above the Male Adapter but not touch it.
- **4** Follow the #3 and #5 instructions in the Vee Seal Installation instructions.

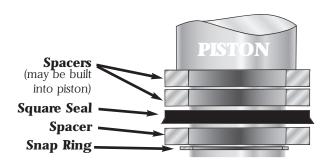


Seal-on-Piston Design

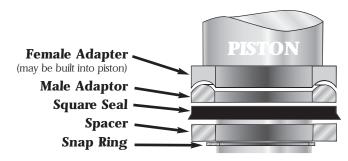
Vee Seal Configuration



Square Seal Configuration



Conversion Configuration (Vee Seal to Square Seal)



- **1** After installing the various items according to the appropriate configuration drawing above, spread a little hydraulic jack oil on all the items.
- **2** Insert the piston and seals into the top of the cylinder while slowly turning the shaft and applying a slight down-ward pressure. Make sure the seal lips don't curl upwards.
- **3** If seals snag, use a dull screw driver to push seal lips inwards. Keep working around seal pack until all seals are into the cylinder.
- **4** Push the piston down all the way into cylinder and put on the cylinder cap.