

STAR - Seal System For Cylinders

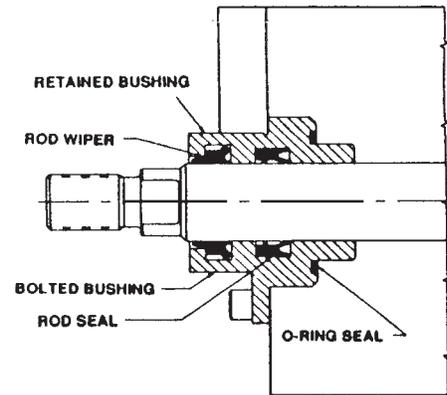
This kit contains Miller's new STAR seal system. The STAR seal system is designed for use with air or petroleum based fluids having operating temperatures up to 200° F.

Step 1. If bushing is held by a tie rod retainer, remove tie rod nuts and retainer. For bolted design, remove socket head cap screws only. Remove the bushing assembly from the cylinder. Remove the existing rod wiper, rod seal and o-ring using care not to damage sealing surfaces in the bushing. Discard these three seals. Remove any dirt, chips etc. from bushing cavity in cylinder head, inspect and polish out any nicks or scratches in the piston rod with 400 emery cloth.

Step 2. Apply some grease to bushing I.D. and new seals. Apply sufficient grease to o-ring to hold it in the groove. Install o-ring, rod seal and wiper in the bushing as shown in the cross sectional view of the bushing assembly.

Step 3. For convenience, extend piston rod partially.

Step 4. A. Slip bushing assembly over the piston rod using care to prevent damage to the seals by the piston thread or wrench flats. Some resistance will be experienced and will need to be overcome.



B. Insert the bushing assembly into the counterbore of the cylinder head.

C. If bolted bushing is used, socket head cap screws are to be torqued to the figures below..

Piston Rod Diameter	Cap Screw Size	Torque
5/8"	10-32 x 3/8	76 in/lbs
1" thru 3 1/2"	1/4-28 x 5/8	180 in/lbs
4" thru 10"	5/16-24 x 1	360 in/lbs

D. If retainer held bushing is used, reinstall retainer and tie rod nuts (retorque tie rod nuts to values shown in catalog).

Sealed to Assure Reliability