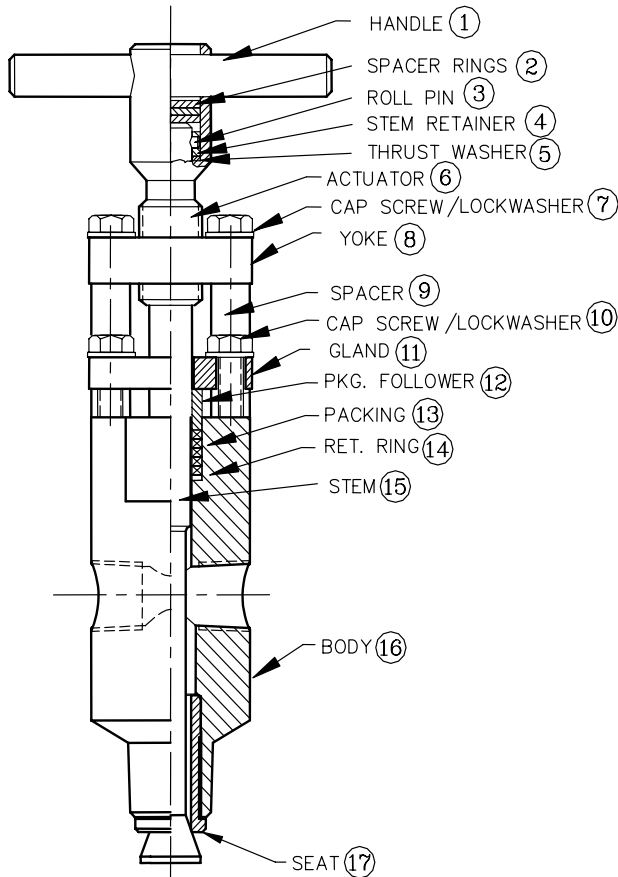




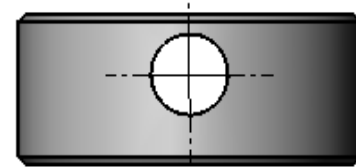
HEX VALVE

# Maintenance Instructions

## HS31 SAMPLE AND DRAIN VALVE



HANDLE SIDE



VALVE BODY

Figure 1. Stem Retainer (4)

- 5) Remove **actuator** (6) from **stem** (15) and **yoke** (8) by turning clockwise. **Thrust washer** (5) can remain in **actuator** (6).
- 6) Remove **cap screws** (7) and (10) to allow removal of **yoke** (8), **spacers** (9) and **gland** (11).
- 7) Remove **stem** (15) from **body** (16), then **packing follower** (12), **packing rings** (13), and **retaining ring** (14), noting the order each ring is placed in packing chamber to insure new packing is installed in same order. See figure 2.

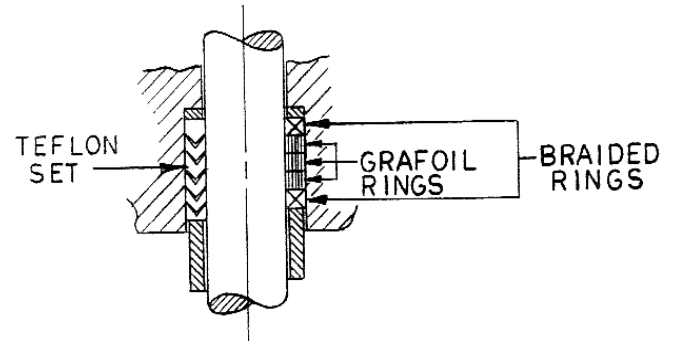


Figure 2. Packing Arrangement (13)

### Packing Disassembly

- 1) Remove the **handle** (1) by tapping through **actuator** (6) using hammer.
- 2) Remove the **spacer rings** (2) from inside the **actuator** (6) exposing the top of the **stem** (15).
- 3) Thread **actuator** (6) into **yoke** (8) by turning counterclockwise until the **roll pin** (3) and **stem retainer** (4) are visible in the **actuator** (6) handle hole.
- 4) Remove **roll pin** (3) from **stem** (15) and remove **stem retainer** (4). NOTE offset of pin hole in **stem retainer** (4). **Stem retainer** (4) must be reassembled in same orientation. See figure 1.

### Packing Reassembly

- 1) Inspect **stem** (15) and packing chamber bore. Replace **stem** (15) if damaged or shows evidence of corrosion in the area of the packing. Make sure **stem** (15) and bore are clean and free of packing or debris. Use solvent only to clean the **stem** (15) and packing chamber bore.
- 2) Lubricate the **stem** (15) in the packing area with an Anti-Seize compound such as "THRED-GARD".
- 3) Install the **stem** (15) in the **body** (16).

### Hex Valve

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# Maintenance Instructions

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## HS31 SAMPLE AND DRAIN VALVE

- 4) With the **handle** (1) removed from the **stem** (15), install the **retaining ring** (14) first onto the **stem** (15), followed by the rings of **packing** (13). **Packing rings** (13) should be pushed into the packing chamber one at a time with a blunt instrument or a cylinder that fits over the stem. **Do not use a screwdriver or knife.**
- 5) Slide the **packing follower** (12) over the **stem** (15). Install the **gland** (11) and hand tighten the two short **cap screws** (10).
- 6) Put the **yoke cap screw spacers** (7) in place, position the **yoke** (8), and loosely install the **cap screws** (7).
- 7) Thread the **actuator** (6) into the **yoke** (8) until the end of the stem is exposed through the handle hole. Make sure the **stem** does not bind, but rotates smoothly and is pushed against the **seat** (17).
- 8) Continue to reassemble using steps 1-4 above in reverse.
- 9) Tight all **cap screws** (7) and (10) when **stem** (15) and **handle** (1) assemble is complete and operates smoothly without binding.

### Packing Adjustment

- Loosen the **packing gland** (11) using the **cap screws** (10) and rotate the **stem** back and forth a few times before making any adjustments to packing compression.
- After tightening the **packing gland** (11) again rotate the **stem** (15) back and forth.