

## **TT2 Series Valve Maintenance Instructions**

Kit Contents: Nylon Lock Nut Washer Piston Upper Gland Lower Gland Stem Assembly Alignment Pin Alignment Pin Insert Material Safety Data Sheet Instruction Sheet Inside Piston O-ring (size 006) Outside Piston O-ring (size 016) 2 - Outside Gland O-ring (size 016) 2 - Inside Gland O-ring (size 007) Stem Vent O-ring (size 009) 2 - Communication O-rings (size 007 for TT2 bodies, size 006 for T2 bodies) Lubricant

WARNING: Before servicing any installed valve, you must:

- depressurize system
- cycle valve

WARNING: Residual material may be left in the valve and system.

**NOTE:** It is important to refer to the exploded view drawing while following the maintenance instructions.

## DISASSEMBLY

- 1. Loosen and remove cover plate cap screws. Set aside for later use.
- 2. Remove cover plate. Double acting assembles, verify cover seal o-ring is in place on underside of the cover plate. Normally closed assemblies, remove actuator spring. Set aside for later use.
- 3. Loosen and remove the nylon lock nut and discard.
- 4. Remove washer, inside piston o-ring, and piston (with outside piston o-ring). Discard.
- 5. Pull out the alignment pin and alignment pin insert. Discard.
- 6. Pull on stem to remove stem assembly, lower gland, upper gland, gland o-rings, and stem vent o-ring from body. All components except body may be discarded.
- 7. Remove communication o-rings from the side of the body. Discard.

## **REASSEMBLY**

NOTE: Size 006 O-rings are the smallest, Size 016 the largest provided in kit.

- 1. Slide stem vent o-ring (size 009) onto stem.
- 2. Lube the two outside gland o-rings and the outside piston o-ring (all size 016) and slide into outer grooves of lower gland, upper gland, and piston.
- 3. Slide lower gland onto stem assembly.
- 4. Lube the two inside gland o-rings (both size 007) and slide over stem assembly.
- 5. Slide upper gland onto the stem assembly until it contacts lower gland.
- 6. Slide stem assembly into the main bore of the body. For TT2B1's & TT2B2's, align o-rings on bottom of stem with the two orifices on bottom of bore. For TT2B3's & TT2B4's, align o-ring on bottom of stem with orifice closest to actuator inlet side of valve.
- 7. Slide pin insert into alignment pin. Slide pin assembly into the alignment pin bore of body, with pin insert head first.
- 8. Lube the inside piston o-ring (size 006) and slide into piston counter bore.
- 9. Slide piston, o-ring facing up, over stem assembly until it rests on stem shoulder.
- 10. Slide washer over stem until it contacts the inside piston o-ring.
- Thread nylon lock nut onto stem assembly and torque with a maximum of 4 in•lbs (0.45 N•m).
  DO NOT OVERTORQUE. Verify that the nylon lock nut has contacted the washer.
- Place an actuator spring into main bore if required. Double acting valve no spring, uses a cover seal o-ring placed on underside of cover plate. Normally closed valve standard spring. High pressure normally closed valve one standard spring & one smaller diameter spring.
- 13. Install cover plate and cap screws. Torque cap screws to 30 in•lbs (3.4 N•m).
- 14. Place the two communication o-rings (for TT2 bodies size 007; for T2 bodies size 006) in the o-ring grooves on the side of the body.

