

# ***THERE ARE 3 WAYS TO SERVICE VALVES***

## **LUBRICANT MAINTENANCE**

Periodic application of lubricant to valves is the only recommended maintenance necessary under normal conditions. Lubrication is essential to the proper operation of the valve. The sealant, actually being the soft bearing seat of the valve, requires replacement when depleted due to flow media, operating temperatures, pressures and frequency of cycles.

Lubricant maintenance means injecting enough sealant into a valve to provide a sealant film between tapered plug and body to minimize sticking.

### **1 . MANUAL INJECTION**

Small lubricant sticks are for manual injection. Be sure to choose the proper Valve Sealant for the service considering line product, pressure and temperature.

#### ***HOW TO INJECT LUBRICANT MANUALLY:***

1. Remove valve lubricant screw.
2. Insert the correct size of valve sealant stick and place it into the stem.
3. Replace the fitting and screw down with a wrench until the sealant system is filled completely. This is determined by the resistance produced by the sealant pressure. Larger valves will require several sticks or tubes of sealant due to the capacity of their sealant systems.
4. Continue to add sealant until the plug lifts (sometimes with a hissing sound) indicating the sealant system is full. When the plug lifts, effort to turn the lubricating screw will be noticeably reduced.
5. If the plug fails to respond or continues to be difficult to turn, check with an authorized dealer.

### **CLIMAX FITTING AS A SEALANT SCREW**

The one piece Climax Fitting can also be used to maintain sealant pressure between mechanical injection periods if used as a sealant screw. After the valve is properly lubricated, remove the lubricant screw, insert another stick of sealant and screw the fitting down until the fitting threads are totally engaged in the stem. The fitting will then extend one or two inches, providing that much more sealant capacity in the stem. The additional sealant capacity can be used as an auxiliary reservoir for further lubrication. The valve can then be pressurized by screwing in the fitting as a sealant screw as explained. When the fitting is finally turned into the valve as far as it will go, it indicates additional sealant should be added.

**IMPORTANT: EXTREME CAUTION SHOULD BE TAKEN TO PREVENT ANY FOREIGN MATTER FROM ENTERING THE VALVE'S SEALANT SYSTEM.**

### **2. HAND GUN**

For installations with valves requiring frequent service, a hand operated 1699 High Pressure Hydraulic or the 10516 Screwprime Hand Gun is recommended. This gun permits speedier servicing and also prevents waste of sealant and over filling of valves.

## HOW TO INJECT SEALANT WITH A 1699 or 10516 HIGH PRESSURE HAND GUN:

1. Choose the proper sealant in "J" or "K" stick size for the Hand Gun.
2. Clean accumulated dirt from the top of the fitting before engaging the coupler.
3. Fit the gun's button head coupler over the fitting on the valve.  
CAUTION: Coupler should not be attached or detached while gun is under pressure.
4. Inject sealant by hand pumping the gun as long as the needle on the pressure gauge climbs steadily. This should be continued as long as the valve will take pressure and volume. At some high pressure point on the gauge, the needle will "drop-back" when the plug un-seats indicating a fully pressurized system. This point can also be felt when the pumping effort falls off. Additional pumping will not hold the gauge needle and injecting should be stopped at this point. The plug should then be turned to check the ease of operation. Additional sealant can then be injected to purge the line product or eliminate air in the system if necessary.

### 3. CLIMAX MODEL 10 GUN

Where a large number of valves are in service, the Climax Model 10 is recommended. It is filled by using bulk five (5) quart (4.7 Liters) sealant cans which are loaded directly into the Model 10. It is selfpriming, air operated and is designed to meet extensive field maintenance requirements.

## HOW TO INJECT SEALANT WITH A MODEL 10:

1. Choose the proper sealant in a five (5) quart (4.7 Liters) can and load it into the Model 10.
2. Attach the button head coupler.
3. Note the same procedure as Step 3 under Hand Gun Procedure.

