

# ***Apollo International***

## **Ball Valves**

### **94A & 95A SERIES**

### **94ALF & 95ALF LEAD FREE SERIES**

### **FORGED BRASS BALL VALVES**

### **INSTALLATION, OPERATION, & MAINTENANCE GUIDE**

#### **INSTALLATION**

The Apollo International Ball valves are bi-directional. They may be installed in vertical or horizontal pipe runs without regard to flow direction and without regard to stem orientation.

Note: Valves must be installed in piping systems that comply with the applicable portions the ASME B31 standards. Special considerations must be taken with respect to pipe line expansions and contractions and the media expansion and contractions within the piping system.

#### **Threaded End Valves**

Pipe connection to be threaded into these valves should be accurately threaded, clean and free of foreign material or metal shavings. PTFE pipe tape is recommended for use as the pipe joint sealant. Two wrenches must be used when making up pipe joints to these valves. Apply one wrench on the valve end closest to the pipe joint being tightened and the other wrench to the pipe to prevent transmitting torque through the valve body joint. Typical pipe make-up is 1-1/2 turns after installing the pipe hand-tight.

#### **Solder End (Sweat In) Valves**

*Caution: Use only solders with melt points below 500°F.*

*Caution: Valves should only be soldered in the fully open position.*

A Soldering LF Materials reference video is available on the Apollo LF web page at the following Link: [www.apollovalves.com/lead\\_free](http://www.apollovalves.com/lead_free)

During soldering, the mid-portion of the valve body should not exceed 300°F. This can be monitored using Tempilstik® or an infra-red temperature sensor. Depending on the fuel selected and the

orientation of the installation it may be necessary to wrap the valve body with wet rags or employ other heat absorbing techniques. The flame must be directed away from the valve body, concentrated on the solder cup. The cup should be heated evenly. Once one of the joints is complete, the valve should be allowed to cool until "cool to the touch" before beginning the second joint. After soldering, it may be necessary to adjust the stem packing due to temperatures involved. See Regular Maintenance.

<u>Fuel</u>	<u>Flame temp w/Oxygen</u>
Propane	5122°F(2828°C)
Propylene	5245°F(2896°C)
MAPP Gas	5389°F(2976°C)
Acetylene	5720°F(3160°C)

***Warning!** Excessive heat input will damage the body seal resulting in leaks at the valve body joint. In extreme cases, seats and stem packing may also be damaged.*

#### **OPERATION**

The valve handle is marked showing proper rotation direction for "ON" and "OFF" positions. Rotation is clockwise for "OFF" (closed) and counterclockwise for "ON" (open).

#### **MAINTENANCE**

##### **Regular Maintenance**

Under normal conditions, scheduled maintenance should not be required. In the event of a stem packing leak, normal stem packing wear can be compensated for by tightening the packing gland nut. There are two nuts on the stem. The top nut retains the lever. The packing nut is the lower nut on the stem. (Wrench part number H380700 is available to ease this operation.) The top nut and the lever may need to be removed for easy access to the packing nut. Tighten the packing nut clockwise in 1/8 turn increments until observed leakage stops. Reinstall the handle and handle nut or retighten the handle nut as appropriate.

##### **Major Repair**

Spare parts are not available for these series of valves. In the case of valve through-leakage, body joint leaks, or stem leaks that cannot be adjusted out, the valve must be replaced.