

## **Press End In-Line Check Valve for Water Service**

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### **INTRODUCTION**

This instruction manual includes installation, operation, and maintenance information for press end in-line check valves for water service. Verify you have a water service valve by ensuring that the proper valve markings are on the valve, and that black EPDM o-rings are inside the press ends.

### **INSTALLATION**

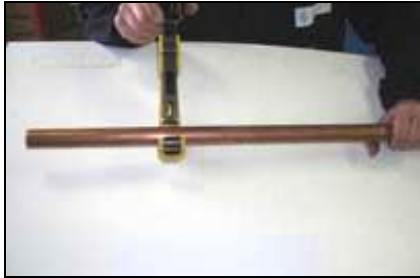
#### **WARNING**

To avoid personal injury to your self, fellow workers, or damage to property from release of process fluid, before installation:

- a. Shut off all operating lines to the valve site
  - b. Isolate the valve site completely from the process
  - c. Release process pressure
  - d. Drain the process fluid from the valve site
1. Before installing the valve, inspect the valve body port and associated equipment for any damage that may have occurred and for any foreign matter that may have collected in shipping or storage. Specifically, ensure that the o-ring seals in the press ends are present and undamaged. Make certain the body interior is clean.
  2. Before installing the valve, inspect the pipe line, making sure the pipe is free of foreign material and the ends are clean and have no burrs or pits that could cause leakage.
  3. Press end in-line check valves for water service are intended for water in the liquid state, **NOT STEAM**. Pressures should not exceed 200 PSI, and temperatures should not exceed 250°F.
  4. Press end in-line check valves for water service are designed to install on type K, L, or M copper tubing. Annealed (soft) copper tubing can be used on sizes 1/2" to 1-1/4" valves, however, for best possible fit and seal, drawn (hard) copper tubing from 1/2" to 2" is recommended. All copper tubing must be in compliance with ASTM B-88.
  5. The pipe/valve assembly must be free of tension before and after installation. Neither valve nor copper tubing is to be used as a means of support.
  6. Concealed valve and copper tubing are to be protected from puncture threats.
  7. Under no circumstances is the valve or copper tubing to be used as a grounding electrode for electrical systems.
  8. Inspection, testing, and purging of the installation shall be performed using applicable local codes.
  9. Press end in-line check valves are designed to flow in one direction only. The body is marked with an arrow indicating direction of flow. Be sure to install the valve with the arrow pointing in the direction of flow.
  10. Brass valves are not to be installed at or below ground level.

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### 11. Physical installation:



A. Cut copper tubing at right angles (using displacement type cutter or fine-toothed steel saw).



B. De-burr tubing on the inside and outside to prevent cutting of the valve's o-ring seals.



C. Check seal for correct fit. Do not use oils or lubricants. Use only the valve's black EPDM o-ring seals.



D. Turning slightly, slide press valve on to tubing to the fitting stop. Note: end of tubing must be fully inserted.



E. Using a marker, draw a line on the tubing where it enters the valve (marking the full insertion depth). Make sure that the arrow on the body is in the direction of flow.



F. Insert the appropriate jaw into the pressing tool and push in holding pin until it locks into place.



G. Open the jaw and place at right angles on the fitting. Visually check the insertion mark to ensure the tubing has not moved.



H. Start the pressing process and hold the trigger until the jaw has engaged the fitting.



I. After pressing, release the jaws and remove the tool. Do not attempt to adjust the valve on the pipe after pressing.

### 12. Before use, pressure-test the system in accordance with local codes.

### OPERATION

1. Press end in-line check valves are a process operated device. The valve will begin opening when upstream pressure is approximately 1/2 PSI higher than downstream pressure.
2. When upstream and down stream pressures equalize, or when downstream pressure is higher than upstream pressure, the valve will close.

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### **MAINTENANCE**

#### **WARNING**

To avoid personal injury to your self, fellow workers, or damage to property from release of process fluids, before performing any maintenance:

- a. Shut off all operating lines to the valve.
  - b. Isolate the valve completely from the process.
  - c. Release process pressure.
  - d. Drain the process fluid from the valve.
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1. Press end valves are not designed for rebuilding, nor is it economical to do so. If over time, the valve leaks, complete replacement is recommended.

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### **WARRANTY**

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