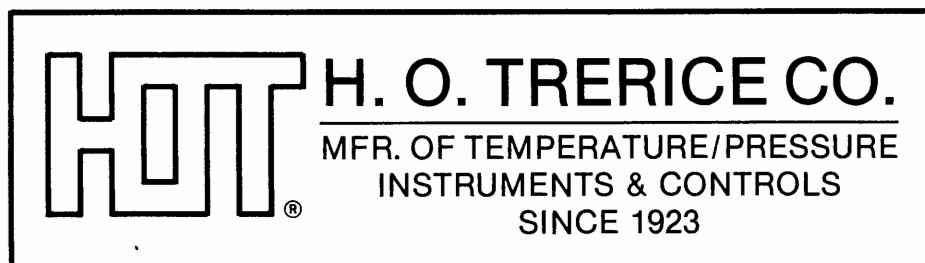
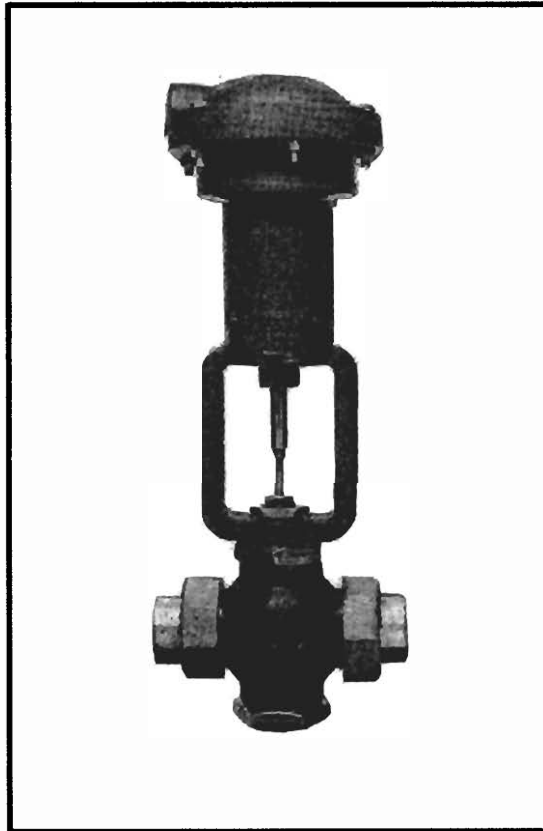


**INSTRUCTIONS
FOR
THE OPERATION, INSTALLATION AND
MAINTENANCE OF THE
NO. 921 PRESSURE REGULATOR**



12950 W. EIGHT MILE RD., OAK PARK, MI 48237
(313) 399-8000 FAX: 3133997246

Trerice

Installation And Maintenance Instructions

DESCRIPTION

The TRERICE No. 921 Pressure Regulator consists of a valve body assembled coupled to a spring loaded diaphragm actuator. The diaphragm top and spring components used depend upon the type of valve required and the conditions of use imposed by the demands of the system.

OPERATION

The controlled pressure is connected to and acts upon the diaphragm top which is opposed by the adjusting spring load. Pressure differentials occurring within the valve body produce an additional force which is transmitted to the valve stem. Proper spring adjustment is obtained when these forces are in equilibrium at the controlled pressure desired. Any change in the controlled pressure will then produce a change in this balance which will cause valve movement to correct this change and to regain and maintain the desired control pressure.

VALVE BODY ASSEMBLY

The valve construction may be single or double seated as required by the conditions of the installation. Use double seated valve when possible for greater capacity and less inner valve unbalance to be overcome. Use single seat if less than 1% leakage will be required due to periods of low flow usage downstream. Observe body pressure and temperature limits as listed for the body material in sales Catalog 150.

VALVE SIZING

To correctly size a pressure regulating valve for a particular application, refer to Catalog 150 or Trerice valve size computer. An over-size valve will change the flow being passed too rapidly resulting in erratic control. An undersize valve will remain wide open at times and yet will not pass enough flow to develop the desired downstream pressure. Life expectancy of the valve will be reduced by installing a larger size than necessary. The excessively high velocity of the flow thru the very small openings will cause rapid erosion of the seat trim and subsequent high leakage.

INSTALLATION

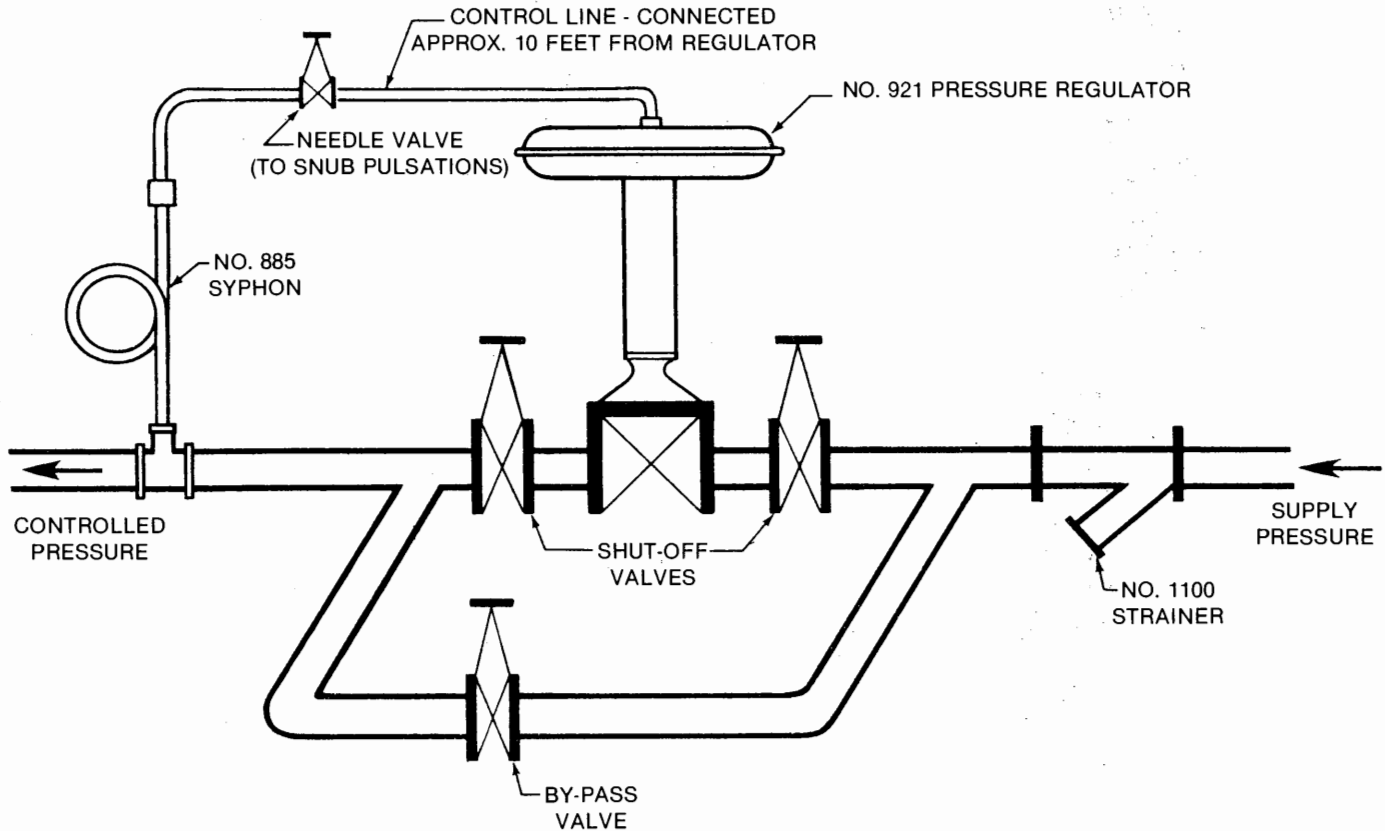
A three valve by-pass line around the reducing valve is recommended to permit isolating the valve from the flow during any periods of inspection or maintenance that may be required. A strainer should be installed just ahead of the reducing valve to protect it from dirt, scale or foreign matter which could interfere with the proper seating of the valve. A pressure sensing line must be connected from the diaphragm chamber to the controlled pressure at a location of low turbulence. This sensing line, on a steam service application, must entrap and hold enough condensate to avoid any possible contact of live steam upon the diaphragm. A needle valve in this sensing line may be used to damp out any pulsations that may occur. Install the pressure reducing valve in a vertical position on horizontal piping with the flow arrow on the body corresponding with the direction of flow thru the pipe line. Blow out all pipe lines thoroughly to eliminate all foreign material from the system. Apply pipe thread compound only on external (male) threads.

CAUTION

Before starting system flow, adequate safety valves or relief valves must be in place, to protect the diaphragm chamber from dangerous over pressure during any misuse or malfunction condition.

Trerice

Installation And Maintenance Instructions



INSTALLATION OF TRERICE NO. 921 PRESSURE REGULATOR CONTROLLING REDUCED PRESSURE

PRESSURE REDUCING VALVE

START UP AND ADJUSTMENT

When installation is complete as specified and downstream units are prepared to receive flow, close the by-pass valve and slowly open both supply valves. As pressure develops downstream, observe the reading at which the pressure reducing valve stem travels to close the valve. To increase this pressure, turn the hex adjusting nut at the yoke end of the spring barrel counter clockwise as viewed from the valve body; and to reduce the controlled pressure turn the spring holder clockwise.

If cycling or pulsations of the valve stem should occur, restrict the flow through the sensing line with a needle valve to damp out the surges. Be positive the needle valve is never fully closed.

BACK PRESSURE RELIEF VALVE

A different valve action and construction is required for this service. When so supplied, the sensing pressure control line must be connected to the upstream pressure. As pressure upstream develops, observe the pressure at which the valve stem travels to open the valve, and adjust spring to obtain balance as required.

MAINTENANCE

It is advisable to periodically inspect the valve stem and packing, and to clean and oil the stem where it travels through the packing material. Tighten the packing nut only as required to stop leakage and no more, since freedom of motion here is essential. Do not tolerate leakage through packing since erosion will only increase the leakage.

SERVICE

If you are unable to obtain operation of the regulator, we suggest you contact the nearest Trerice representative as listed on the back of this manual. If service is required the regulator should be returned to the factory for thorough inspection and testing.