Before installation these instructions must be read fully and understood.

**GENERAL**

The intent of these instructions is to acquaint the user with the storage, installation and operation of this product. Please read these instructions carefully before installation.

This safety valve should only be used in accordance with the applicable operating instructions and within the application specifications of the purchase order. This valve has been tested and adjusted at the factory. Contact the factory or an authorized representative before making any changes to the settings.

**INSTALLATION**

- Many valves are damaged when first placed in service because of failure to clean the connection properly when installed. Before installation, flange faces or threaded connections on both the valve inlet and the vessel and/or line on which the valve is mounted must be cleaned thoroughly of all dirt and foreign material. Because foreign materials that pass into and through safety valves can damage the valve, the systems on which the valves are tested and finally installed must also be inspected and cleaned. New systems in particular are prone to containing foreign objects that get trapped inadvertently during construction and will destroy the seating surface when the valve opens. The system should be cleaned thoroughly before the safety valve is installed.
- The gaskets used must be dimensionally correct for the specific flanges. The inside diameters must clear the safety valve inlet and outlet openings fully so that the gasket does not restrict flow.
- For flanged valves, draw down all connection studs or bolts evenly to avoid possible distortion of the valve body. For threaded valves, do not apply a wrench to the valve body. Use the flats provided on the inlet bushing.
- Safety valves are intended to open and close within a narrow pressure range. Valve installations require accurate design both as to inlet and discharge piping. Refer to International, National and industry standards for guidelines.

**SAFETY PRECAUTIONS**

- When the safety valve is under pressure never place any part of your body near the outlet of the valve.
- The valve outlet and any separate drains should be piped or vented to a safe location.
- Always wear proper safety gear to protect hands, head, eyes, ears, etc. any time you are near pressurized valves.
- Never attempt to remove the safety valve from a system that is pressurized.
- Never make adjustments to or perform maintenance on the safety valve while in service unless the valve is isolated from the system pressure. If not isolated properly from the system pressure, the valve may open inadvertently, resulting in serious injury.
- Remove the safety valve prior to performing any pressure testing of the system. It is recommended that valves with welded inlets be tested hydrostatically using hydrostatic test plugs and caps supplied with the valves.
- The safety of lives and property often depends on the proper operation of the safety valve. The valve must be maintained according to appropriate instructions and must be tested and reconditioned periodically to ensure correct function.
- For further information including adjustment, maintenance, cleaning, lapping and detail illustrations, obtain the appropriate Installation, Operation and Maintenance Instructions. These may be requested from the factory or are available on our website.
Because cleanliness is essential to the satisfactory operation and tightness of a pressure relief valve, precautions should be taken during storage to keep out all foreign material. Inlet and outlet protectors should remain in place until the valve is ready to be installed in the system. Take care to keep the valve inlet absolutely clean. It is recommended that the valve be stored indoors in the original shipping container away from dirt and other forms of contamination.

Safety valves must be handled carefully and never subjected to shocks. Rough handling may alter the pressure setting, deform valve parts and affect seat tightness and valve performance adversely. The valve should never be lifted or handled using the lifting lever. When it is necessary to use a hoist, the chain or sling should be placed around the valve body and bonnet in a manner that will ensure that the valve is in a vertical position to facilitate installation.

Inlet piping
Connect this valve as directly and close as possible to the vessel being protected. The valve should be mounted vertically in an upright position either directly on a nozzle from the pressure vessel or on a short connection fitting that provides a direct, unobstructed flow between the vessel and the valve. Installing a safety valve in other than this recommended position will affect its operation adversely. The valve should never be installed on a fitting having a smaller inside diameter than the inlet connection of the valve.
Discharge piping
Discharge piping should be simple and direct. A 'broken' connection near the valve outlet is preferred wherever possible. All discharge piping should be run as directly as is practicable to the point of final release for disposal. The valve must discharge to a safe disposal area.
Discharge piping must be drained properly to prevent the accumulation of liquids on the downstream side of the safety valve. The weight of the discharge piping should be carried by a separate support and be braced properly to withstand reactive thrust forces when the valve relieves. The valve should also be supported to withstand any swaying or system vibrations.

Fittings or pipe having a smaller inside diameter than the valve outlet connections must not be used.

If the valve is discharging into a pressurized system be sure the valve is a 'balanced' design. Pressure on the discharge of an 'unbalanced' design will affect the valve performance and set pressure adversely.
The bonnets of balanced bellows safety valves must always be vented to ensure proper functioning of the valve and to provide a telltale in the event of a bellows failure. Do not plug these open vents. When the fluid is flammable, toxic or corrosive, the bonnet vent should be piped to a safe location.

Set pressure verification testing should be performed in accordance with instructions in the applicable Installation, Operation and Maintenance Instructions.

NOTE
Service technicians are available to assist with your installation or other field problems.
Call your nearest authorized representative (details can be found at Emerson.com/FinalControl).

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