

Specialists In Liquid Level Indication**Tubular Gages****INSPECTION AND DELIVERY**

Upon receiving valves, check all components carefully for damage incurred in shipping. Confirm that valve model number and pressure temperature ratings (on nameplate) meet application specifications. Also confirm that the material is compatible with both process fluid and surrounding atmosphere for your application.

CAUTION: Jerguson gage valves are not be used for gaging lethal substances as defined by ASME Section VIII.

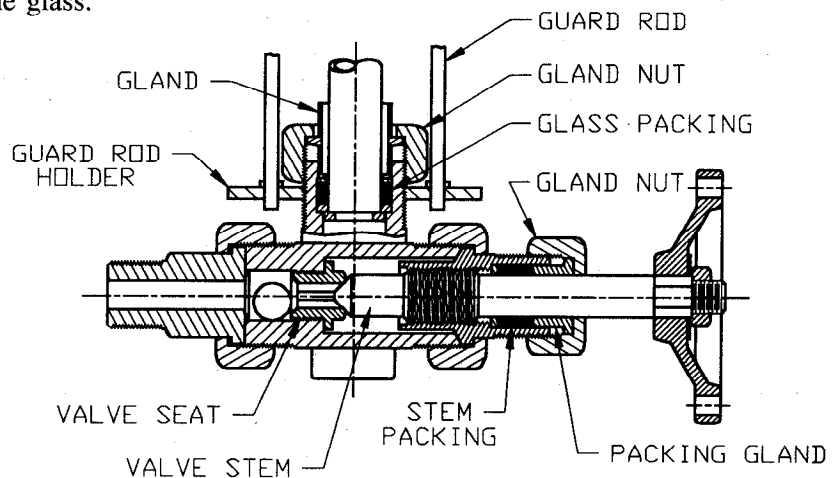
INSTALLATION

Fittings: The gage glass fittings (valves) are supplied as assembled units complete with holders for protectors specified. Before mounting each fitting to the vessel connection, remove the packing nut, packing gland and packing from the glass side. Mount each fitting to the vessel connection, paying particular attention to the alignment of the glass connections.

NOTE: Fittings with glass connections out of line will cause glass breakage. Connect drain cocks or other piping to the fitting before installing the glass.

Glass: To install the glass, first place a gland nut, gland and packing (in that order) on each end of the glass. (Note: If a plastic protector is being used, it must first be put over the glass). The glass is then inserted up into the stuffing box in the top fitting, centered over the stuffing box in the bottom fitting, and inserted into position.

With the glass in place, slide the packing into the stuffing box and engage the packing nut. Lift the glass slightly to prevent contact with the metal seat in the bottom fitting and tighten both packing nuts only enough to prevent leakage, but not so much that expansion or contraction of the glass is restricted.

**PROTECTORS (when specified)**

Guard Rods: Insert the end of the guard rod through the hole in the holder on the top fitting from the underside. The rod is then centered over the corresponding hole in the holder on the bottom fitting and dropped into place.

NOTE: Rod length equals center to center of fitting stems less 1-1/8".

Plastic Protector: Place the plastic protector over the glass before the packing nut, gland and packing are placed on the ends of the glass. Install the glass (see *Installation - Glass*) and adjust the plastic protector. Lock in position by means of two (2) machine screws.

OPERATING INSTRUCTIONS

Placing the Gage in Operation: Preheating of glass is required when used with hot liquid or steam. To minimize thermal shock, heat the glass slowly by opening the drain and carefully blowing down through the top fitting.

Close the drain and open top and bottom fittings slightly. This procedure will allow the liquid to rise to its proper level in the gage glass without a sudden surge which would close the automatic safety ball check (when supplied). When the liquid has stopped rising, the fittings must be fully opened to insure proper operation of the automatic ball check (when supplied).

CAUTION: Rapid opening of valves can cause glass breakage and/or possible injury to personnel.

CAUTION: While the valves are in operation, they must be in their fully open position. A partially open valve will prevent automatic ball checks from seating which could result in physical injury to personnel and loss of product.

MAINTENANCE

CAUTION: Prior to any disassembly of valves, first be sure that the valves are relieved of all internal pressure, and temperature is ambient, and has been drained and/or purged of any fluids. Failure to do this may result in a sudden release of pressure and/or physical injury to personnel.

CAUTION: When gage fails causing ball checks to seat, closing the valve will allow fluid to flow from vessel during that period when pin pushes ball off its seat and before stem has contacted seat, the operator could be hurt if not realizing what is happening or fires could result if hazardous liquids are involved.

To Replace Broken Glass: Shut off bottom and top fittings and open drain. Remove packing nut, gland, packing and broken pieces of glass from each fitting. Then open the top fitting slowly to blow out any remaining pieces. Next open the bottom fitting slowly to remove any remaining pieces from the bottom fitting. Install new glass as in original installation (see *Installation - Glass*).

CAUTION: Care should be taken when blowing out broken pieces of glass to prevent injury to operating personnel.

NOTE: The required length of replacement glass is equal to the center to center of the fitting stems less 1-3/8".

To Replace Stem Packing: Close fittings and drain the gage glass. Disengage packing gland nut and pull packing gland out of the stuffing box. Remove old packing and insert new. Put the packing gland and packing gland nut into position and tighten the nut. The gland nut should be tightened enough to stop leakage around the stem without causing excessive binding of the stem during operation.

To Replace the Seat: Remove the stem unit as above, and using a standard 5/8" socket wrench, remove the seat. Before replacing the seat apply lubricant (Molykote "G" or equivalent) to the threads, to prevent seizure of metals. The seat is then replaced and tightened well to prevent leakage. Replace the stem unit in the body and tighten the sleeve nut.