Installation of Two-Way and Three-Way Globe Valves

(Failure to adhere to these instructions will void warranty. Please read carefully.)

WARNING: DO NOT LIFT Globe Valve by linkage or actuator. This may cause permanent damage.

SAFETY:

EXTREME CAUTION SHOULD BE USED when depressing the gear release on the actuator. If the control valve is under pressure this could cause the override handle to move rapidly towards the open or closed position, which COULD CAUSE BODILY INJURY.

MOUNTING:
All motorized Globe Valves should be mounted with stems vertically oriented whenever possible. This will prevent any possible leakage from dripping onto the actuator. The pipe in which the globe valve is to be placed should be supported properly in order to allow for the weight of the complete valve assembly when installed. In higher temperature applications it may be necessary to tilt the actuator over on its side to reduce heat exposure, but do not exceed 90 degrees on its side. (When tilting the actuator/linkage, do not orient the valve such that the actuator is facing down or up - only sideways).

INSULATION:
The control valves should be well insulated after installation. The purpose for thoroughly insulating the valve is to maintain the valve actuator within its ambient temperature limits, as high temperature or excess condensation will cause premature failure. The body of the valve should be wrapped completely with an insulation type wrap, and the pipe insulation should be brought up to (but not tightly against) the valve stem on each side. On high temperature hot water or steam installations, it may be necessary to place an aluminum or metal wrap around the insulation at the control valve, with a notch cut out at the valve stem. This will decrease the radiant heat through the insulation to which the actuator is subjected.

LOCATION:
The control valve should be located so that the actuator is not placed immediately adjacent to the heating or cooling coil. The coil at full load may radiate enough heat to raise the actuator above its ambient temperature limit. The control valve should not be located outside without a weathershield enclosure. When mounting the control valve inside a building make sure that it is not located under a strainer, trap or clean-out location of any type, or in any location where leakage could occur onto the actuator, as this could damage the actuator. If it is necessary to mount the control valve in one of these locations, an enclosure should be used. For all outdoor applications, a weathershield must be used as well as "GLM" linkages specifically purchased for outdoor applications (special sealing is provided upon request). DEI offers various types of enclosures for its control valve assemblies. Please contact the factory for information.

LINKAGE TEMPERATURE RATINGS:
If the steam inlet pressure is 30 PSI or higher, or if the temperature of the fluid is 274°F or higher, -"XL" legs must be used.
Ball and Globe Valve Flow Patterns

Three-Way Diverting Ball Valve

\[ \text{NOTE: View is from top of assembly, ports are marked. On 1/2" valves, port A is the limited Cv port, unless specified otherwise.} \]

Three-Way Mixing Globe Valve

\[ \text{AB = Barber-Colman bodies} \]
\[ \text{(C) = Landis & Gyr Powers bodies} \]

Three-Way Diverting Globe Valve

\[ \text{AB = Screwed Barber-Colman bodies} \]
\[ \text{(L) = Flanged Barber-Colman bodies} \]

Two-Way Globe Valves: flow in direction of arrow cast into body
stem up = OPEN
stem down = CLOSED

Two-Way Ball Valves: flow in either direction
Piping Diagram for Three-Way Diverting Ball Valve

Note: See Ball Valve Installation Guide for specific information

Piping Diagram for Three-Way Mixing Globe Valve

Note: See Globe Valve Installation Guide for specific information