

APPLICATION TIPS' SUMMARY SHEET #2

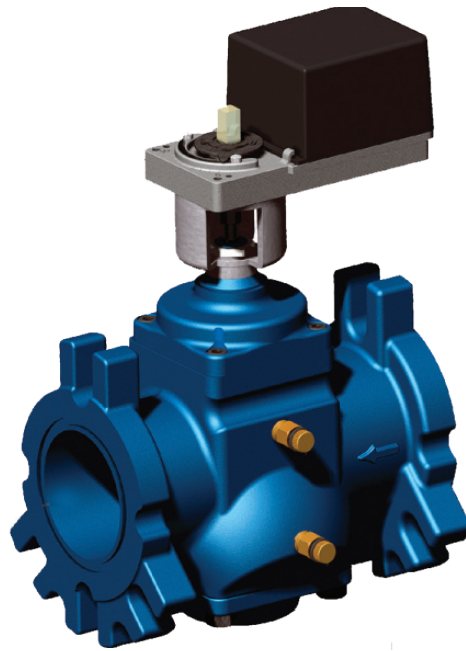
Hydronic Technology Solutions that *fit*

APPLICATION TIPS

Questions about this application?

Contact info@GriswoldControls.com or 949-559-6000

Air Removal in Pressure Independent Valves



A convenient way to bleed the air is to cycle the valve closed, wait 10-15 seconds, then open it. This exhausts air out of the diaphragm chamber and into the pipe where it can later rise to a high point for extraction. After performing this, the air should be moved from the valve into the system. In a building with several valves, it is most convenient to perform this from a central building automation control. We recommend sequentially closing one valve at a time to minimize the disruption to occupants. If the building is not occupied it is acceptable to cycle all the valves at once as long as there is a method in place to keep the system pressure differential to within the valve differential pressure range. Often this can be achieved with variable speed pumps using a differential pressure control.

All Pressure Independent valves trap air in the regulator section of the valve. If the air is not removed, one of the effects is a valve that may pulsate with a mild or violent shaking force. This is due to the compressibility of air which doesn't work well with pressure independent valves. The normal process of bleeding air from a system will not remove this air because the air is trapped within a chamber. Any time Pressure Independent valves are used, Griswold Controls valves as well as any other manufacturer's valves, a special process should be used to vent the air from the chamber.

In the event that vibration persists, the MVP products have a pressure response valve (PRV) for additional control over the regulator response time. It's a small needle valve located on the bottom of the valve at the center of a hex nut designed to control the response time of the valve as it corrects for pressure fluctuations. Screw the small needle valve clockwise to close. DO NOT over tighten as it is a small brass screw and can easily be damaged. Then open it about a 1/4 turn. This will slow down the response and should further suppress vibration.

Griswold Controls is
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Certified

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