Bray Controls Commercial Division
13788 West Road, Suite 200A
Houston, Texas 77041

BCDSales@Bray.com
Phone: 1-888-412-2729
www.braycommercialdivision.com
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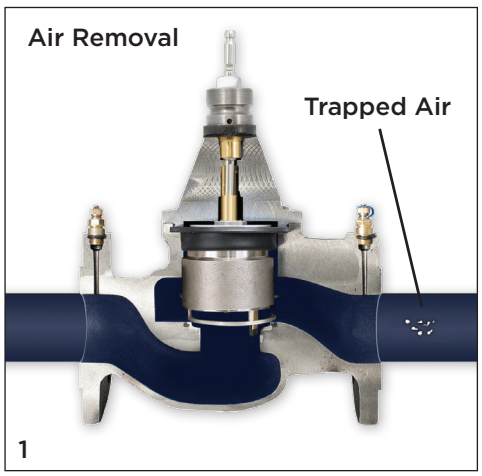
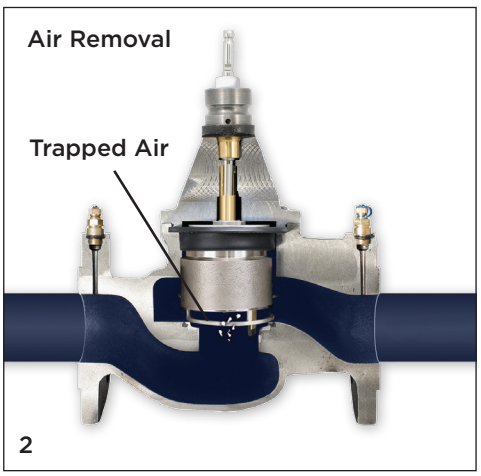
Simple Set Max™ — Application Guide

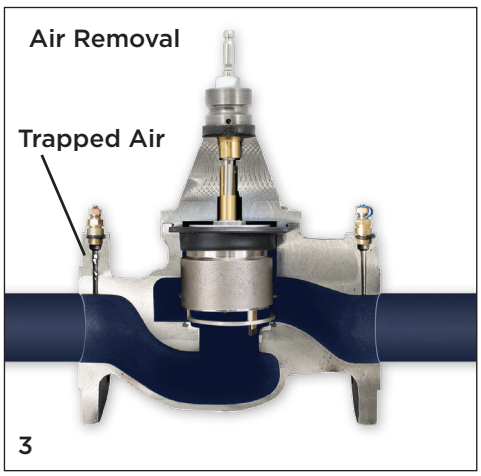
Trapped Air Extraction In Pressure Independent Valves

During the normal operation of hydronic systems, pressure independent valves may trap air in the pressure balancing part 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. There are simple procedures for removing this trapped air in the Simple Set Max™ pressure independent valves.

To vent trapped air, the valve needs to be cycled closed, wait 10-15 seconds, and 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. 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 of 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.







Piping in Parallel

To achieve flows larger than specified valve capacity, it is recommended to connect two valves in parallel leading to a common manifold. The valves should be connected so that they utilize one common control signal in parallel (2-10 VDC) and the two valves will control the flow in an identical pattern. The resulting flow will be double, controlled by an individual valve. The alternative of using a split signal will be less stable, result in less accurate flow and likely feedback signal errors.