



GRISWOLD CONTROLS[®]

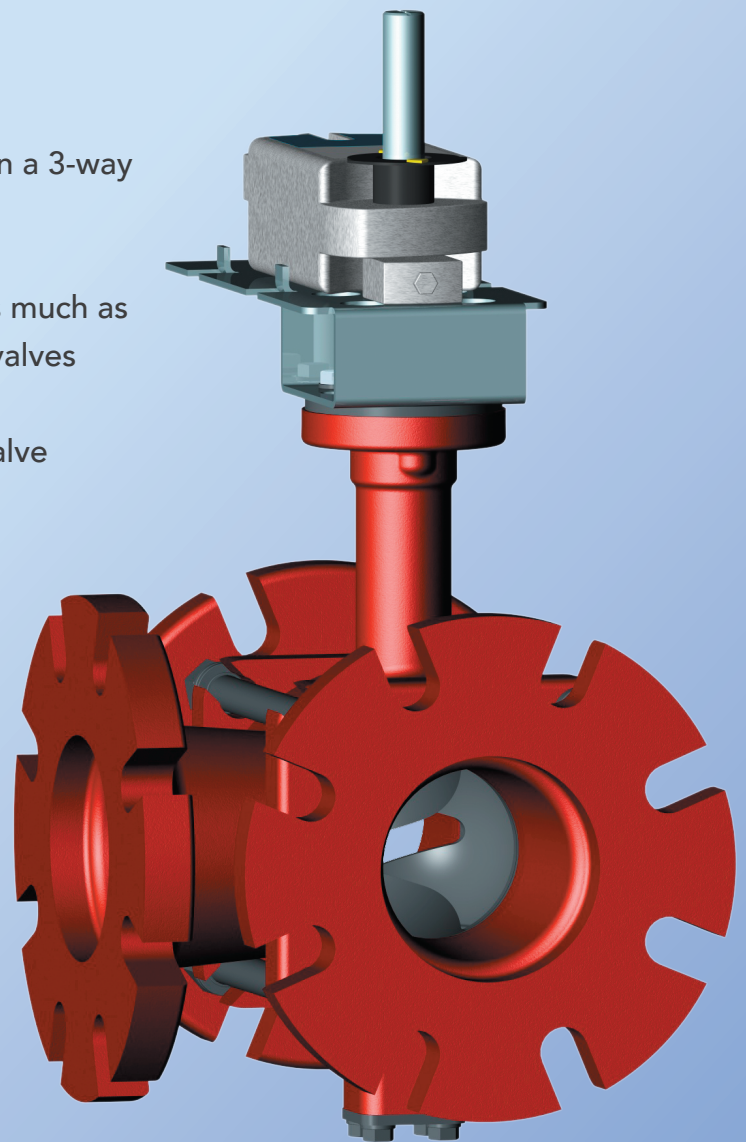
A FlowCon International/Griswold Controls LLC. Company

GRISWOLD CONTROLS' 4" TO 6" FLANGED UNIMIZER[®]

BETTER-THAN GLOBE VALVE PERFORMANCE AT BETTER-THAN BUTTERFLY VALVE PRICE!

FEATURES:

- List price for a 3-way Valve is 45-50% lower than a 3-way Butterfly valve
- Allows for Low Torque Actuators resulting in as much as 30-50% lower actuator costs than comparable valves
- Deeper equal percentage curve than a globe valve
- Eliminates overflow problems associated with 3-way valves
- Valves have five or six Cvs, allowing for an exact match to the pressure drop requirements, thereby improving the valve's authority in the system
- 2-way and 3-way valves have a true equal percentage flow characteristic to coil

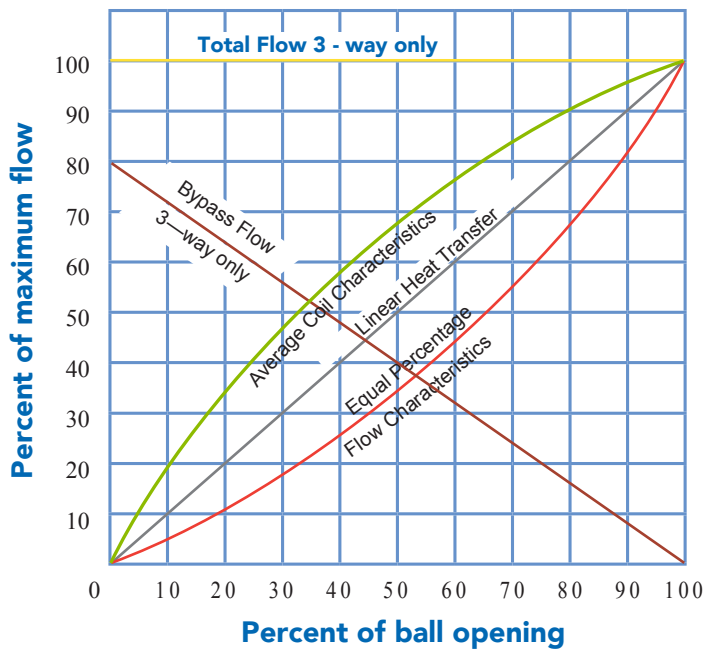


Absolute Control. **Optimized Efficiency.**

Equal Percentage Flow



Equal movements of the valve stem at any point of the flow range change the existing flow an equal percentage regardless of the existing flow. As you can see in the graph below, our valve (red curve) mirrors the equal percentage characteristic of the coil (green curve), resulting in linear heat transfer.



efficiently because it is being controlled according to design. The linear heat transfer of our 3-way Unimizer® actuated control valve means an end to fluctuating comfort conditions normally present with all other 3-way valves. Temperature adjusts smoothly and subtly to meet changing load conditions.

No More Overflow Problems with 3-Way Valves

Total flow is the sum of the bypass flow and the coil flow. Overflow occurs if the total flow exceeds the flow required for the system. In modulating applications, other 3-way valve manufacturers' total flow exceeds the coil flow by 10% to 20%. Griswold Controls' 3-way Unimizer® actuated control valve solves overflow problems by having the coil and bypass streams flow simultaneously through the ball. The total flow in the middle of modulation (flowing to both coil and bypass) is equal to the total flow to the coil or bypass only.

When a coil overflows, the system is either using too much pump or starving other locations and pumping too much means money is being wasted.

80% Bypass Cv Keeps System Running to Design for 3-way Valves

Systems are designed for a specific pressure drop across the coil. When a 3-way valve is in full bypass mode, the system loses this coil pressure drop. It is important to have a low bypass Cv to allow the bypass to compensate with a higher pressure drop. When the bypass Cv is lower than the coil Cv, there will always be enough pressure drop in bypass mode.

True Equal Percentage Flow Provides Linear Heat Transfer

Linear heat transfer means the relationship between valve opening percentage and increase in heat transfer is linear. Temperature control is functioning

True Equal Percentage Flow

True equal percentage flow means temperature adjusts smoothly, without major changes that send building occupants running for the thermostat. When the thermostat setting stays in place, the owner saves energy and money!