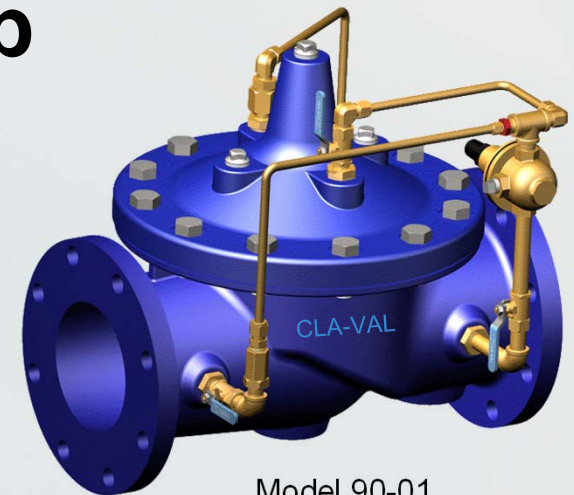


Retrofitting Pressure Reducing Valves

2016 Clean and Safe Drinking Water Workshop



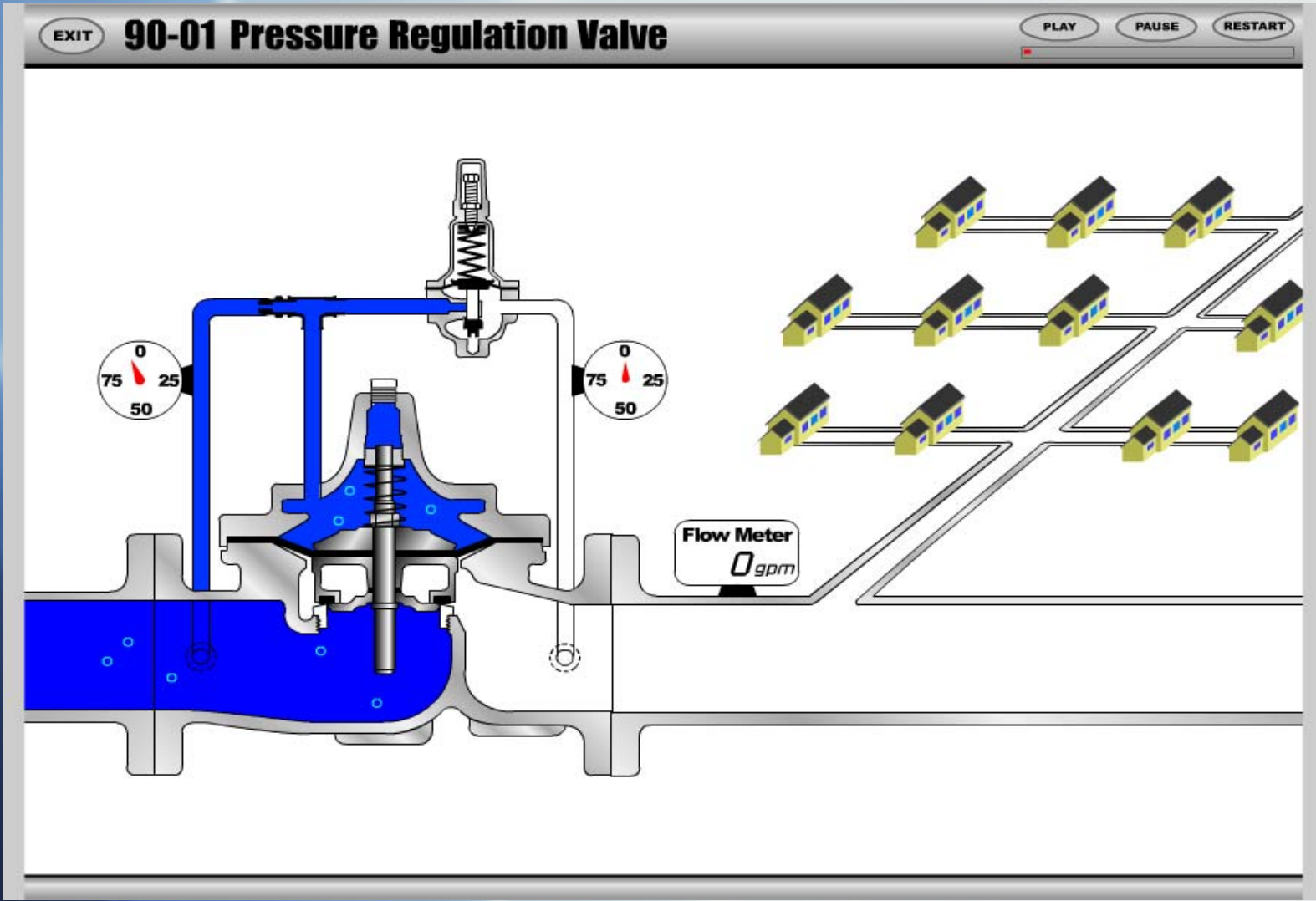
Automatic Control Valves

Retrofitting Pressure Reducing Valves

Goal:

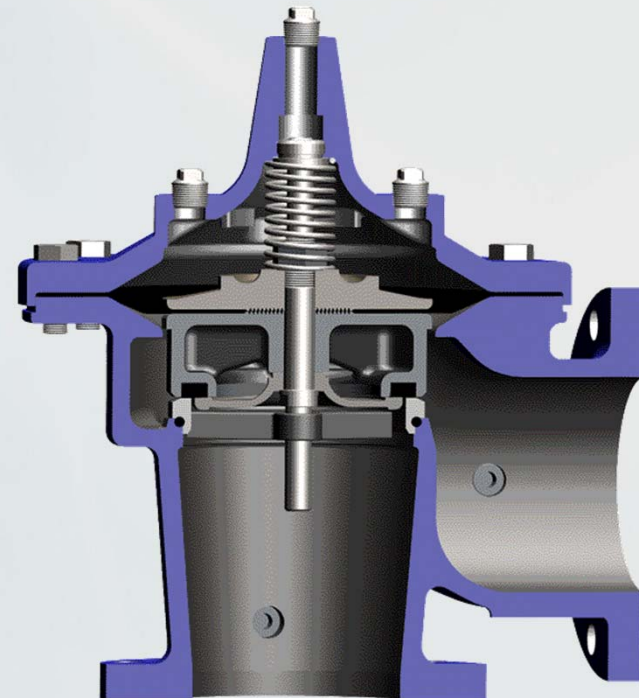
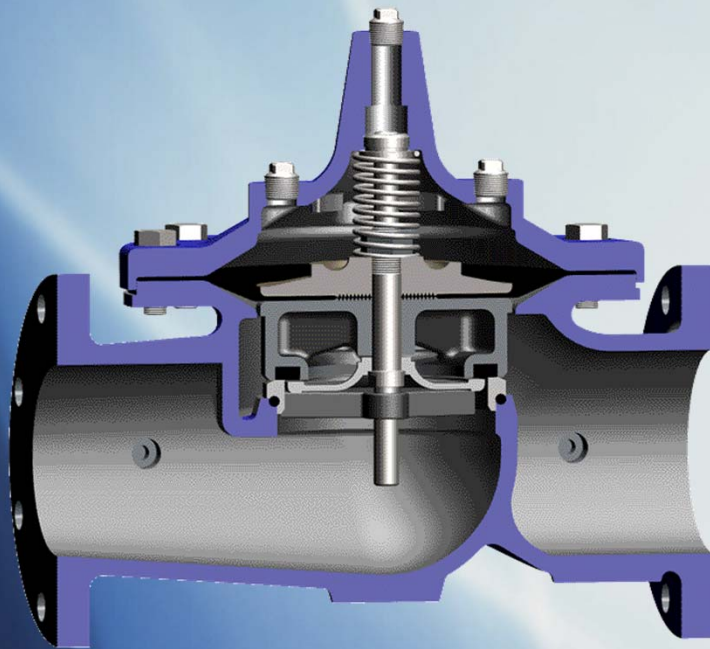
To understand how Pressure Reducing Valves function and to provide valve options to make operating and servicing them easier.





Automatic Control Valves

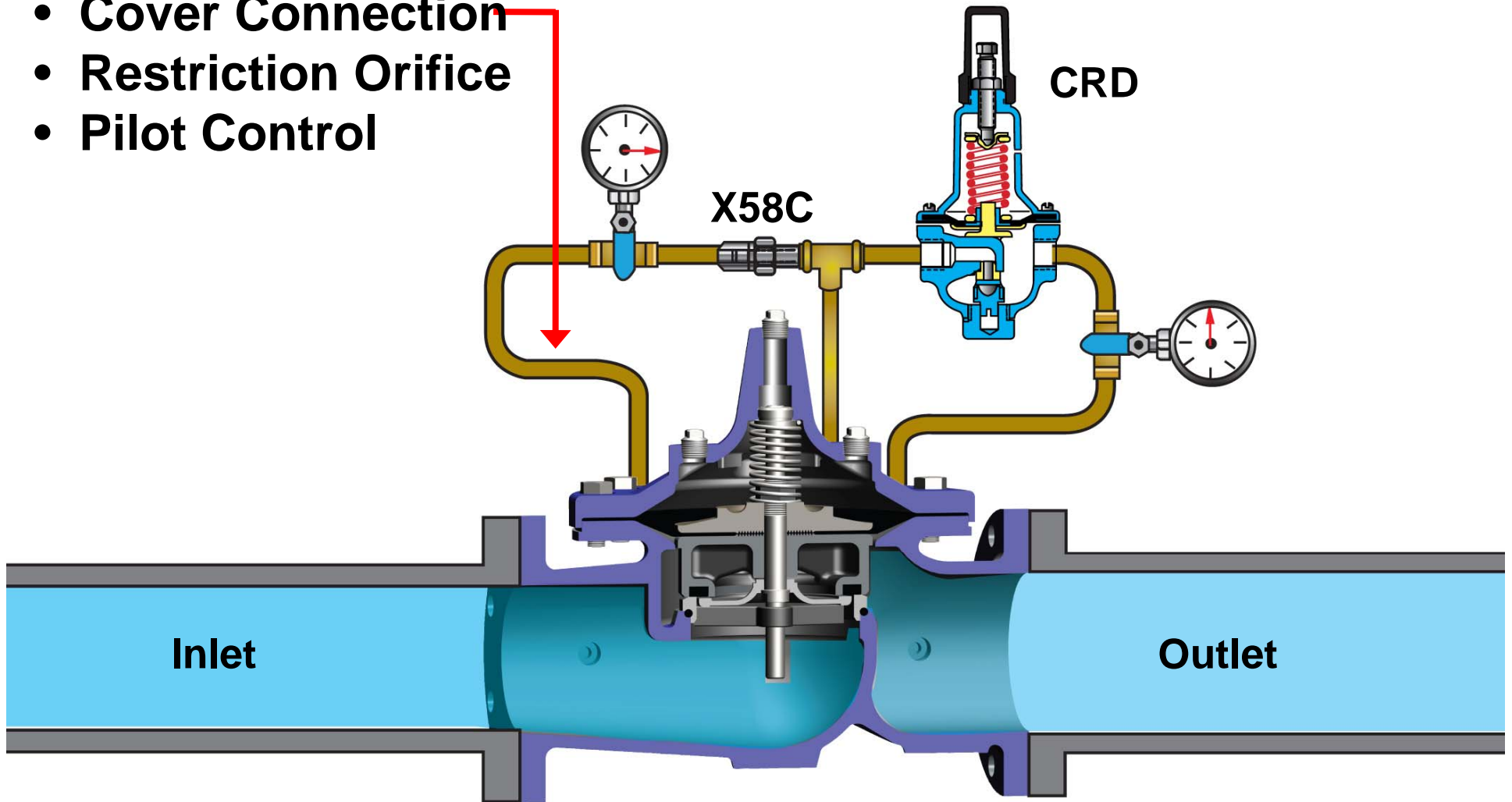
Globe and Angle Pattern



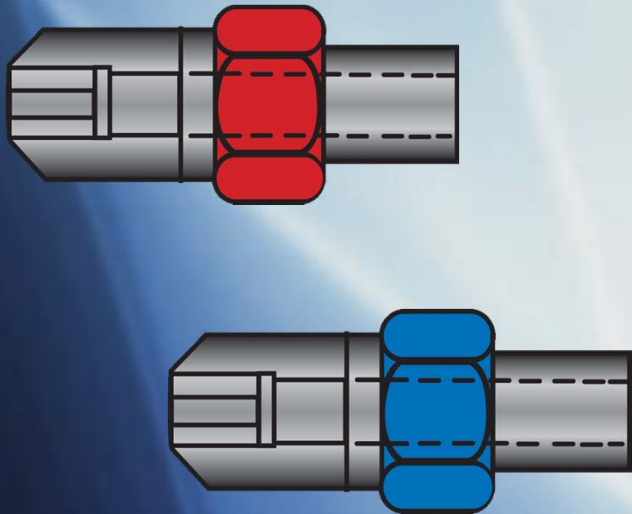
Automatic Control Valves

90 Series Pressure Reducing Valve

- **Cover Connection**
- **Restriction Orifice**
- **Pilot Control**



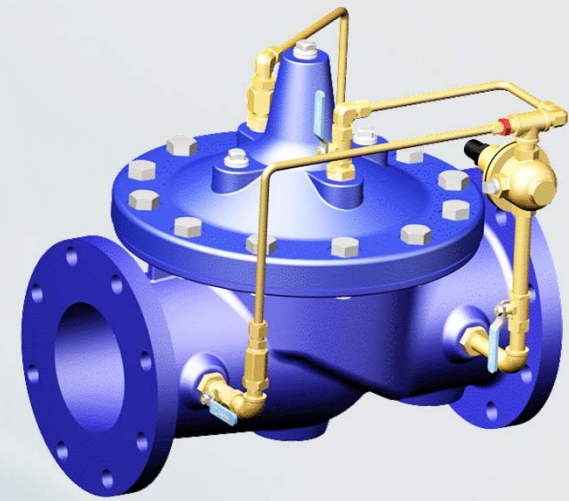
X58C Restrictors



- Large orifice stained **RED** – 1/8" Valves 4" and larger
- Small orifice stained **BLUE** – 3/32" Valves 3" and smaller.

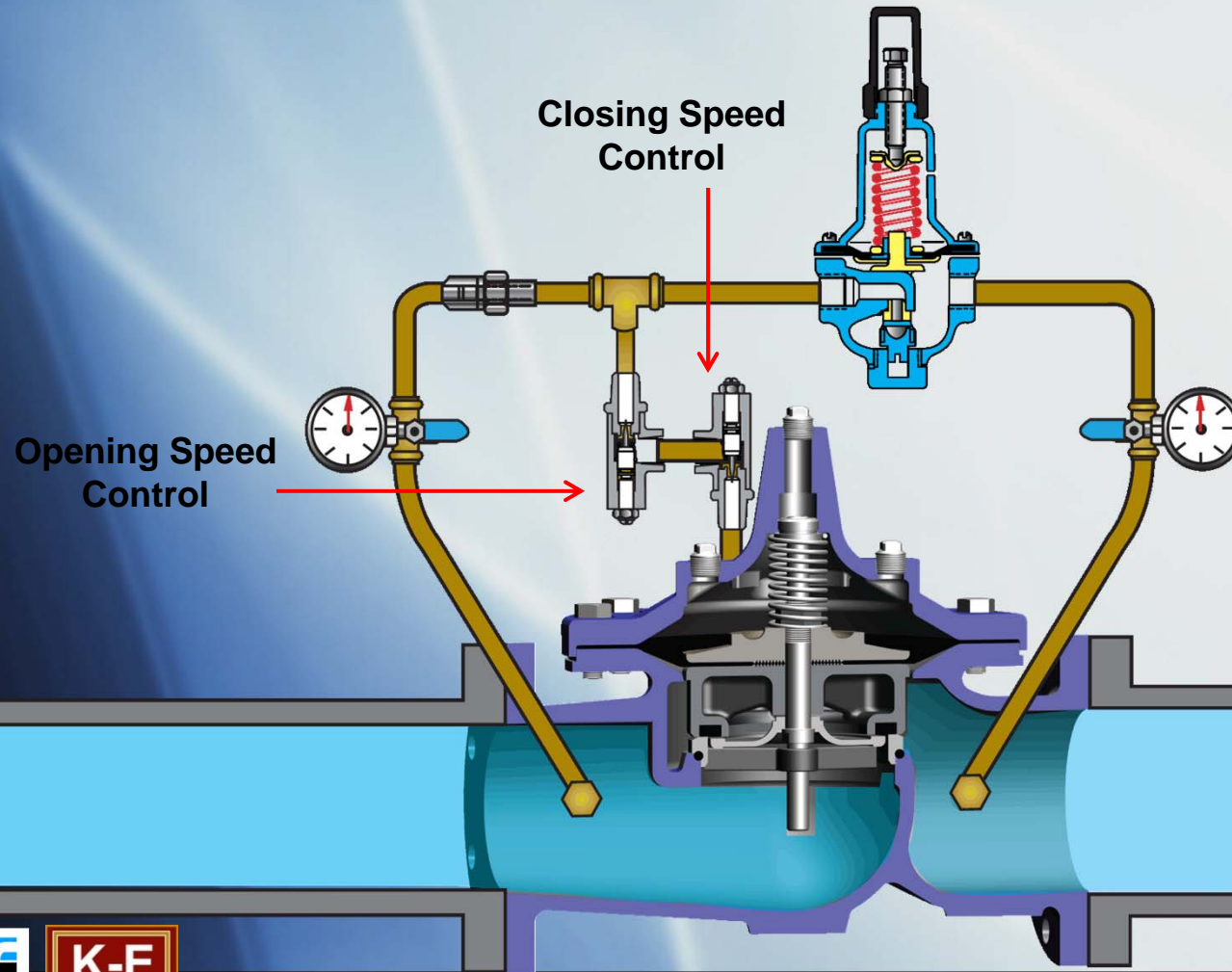
Available Pilot & Tubing Materials

- Low Lead Brass
- 316 Stainless Steel
- Braided Stainless Steel
- Monel



Automatic Control Valves

PRV with Speed Controls and Gauges

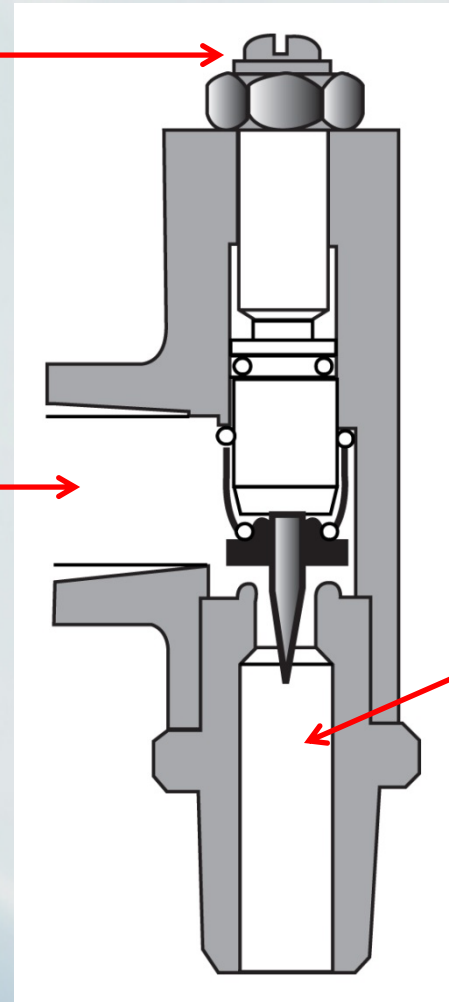


CV Speed Controls – Opening and Closing



Adjust Clockwise to
Decrease valve
speed.

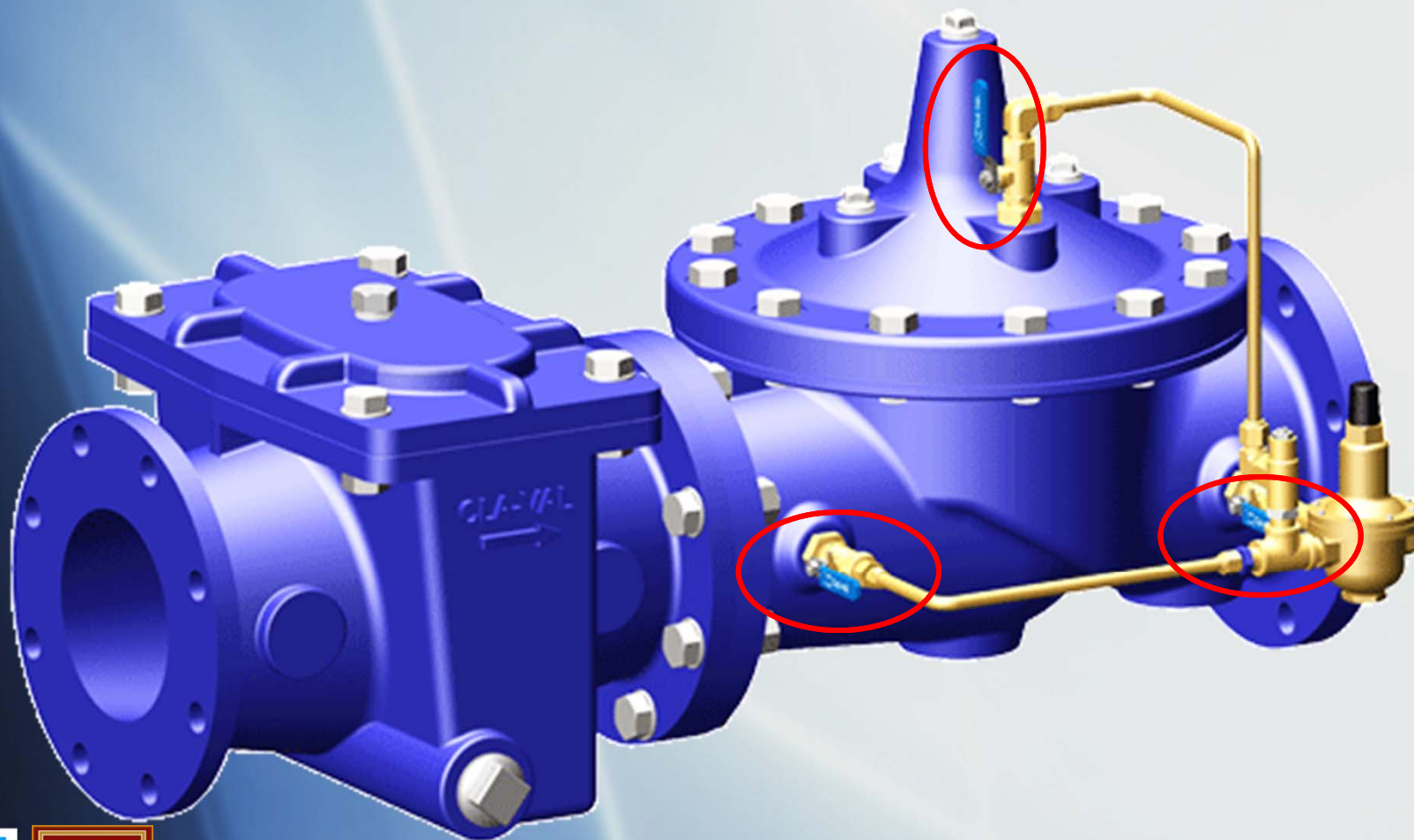
Restricted Flow
Port



Non-Restricted
Port



90-01H with CK2 Isolation Valves



Automatic Control Valves

90-01 PRV with Gauges



X141 Gauges



Automatic Control Valves



PRV Body Connection

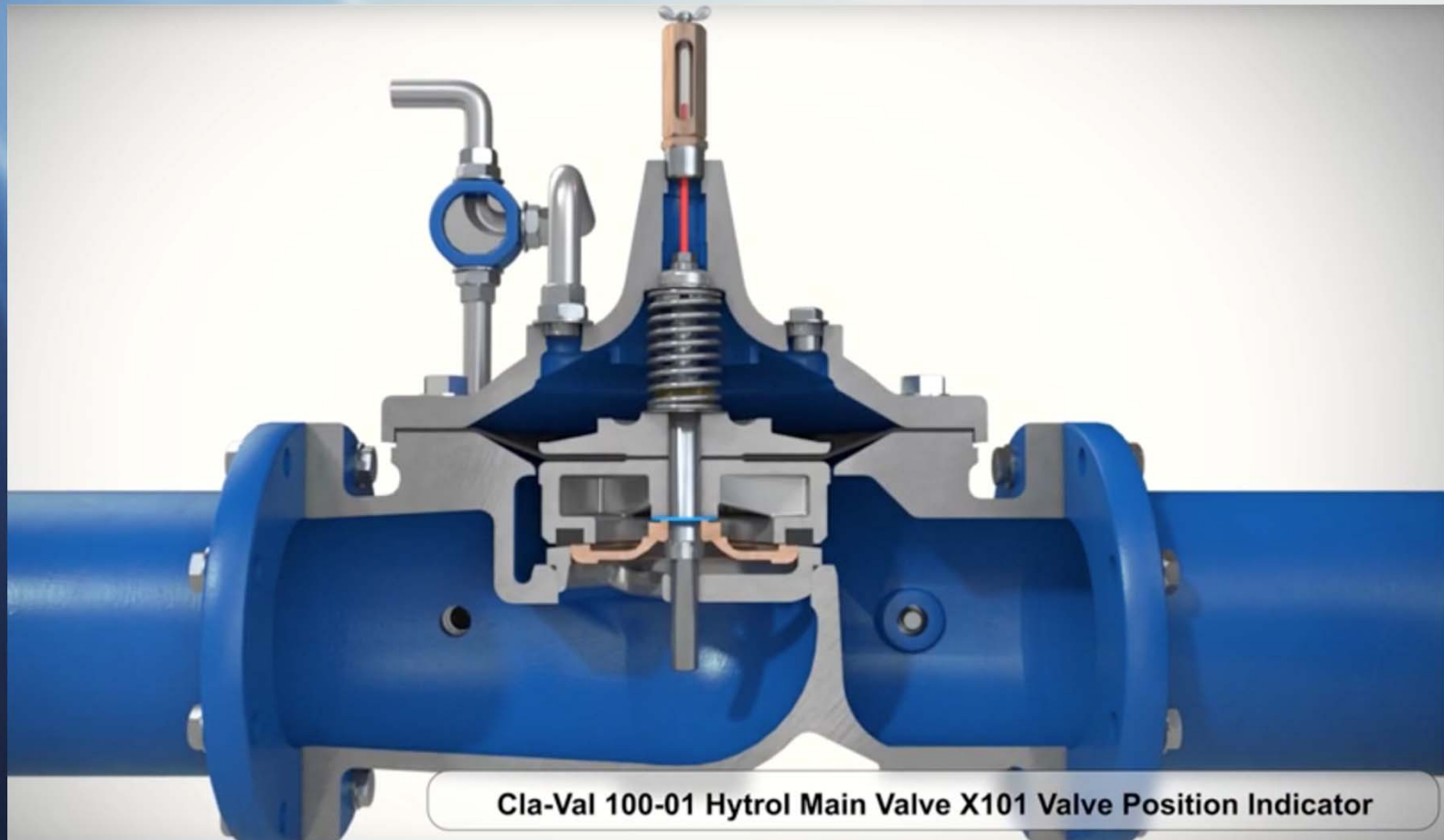


X101 Position Indicator



Automatic Control Valves

Main Valve with X101 Position Indicator



Automatic Control Valves

X101AR Valve Position Indicator with Air Release Feature



Automatic Control Valves



X144 e-Flow Meter and X145 E-Display



Patent Pending

The self-contained X144 e-FlowMeter can be installed in the inlet tappings on either side of a Cla-Val Automatic Control Valve.

Can be installed in any existing Cla-Val Control Valve.



Automatic Control Valves



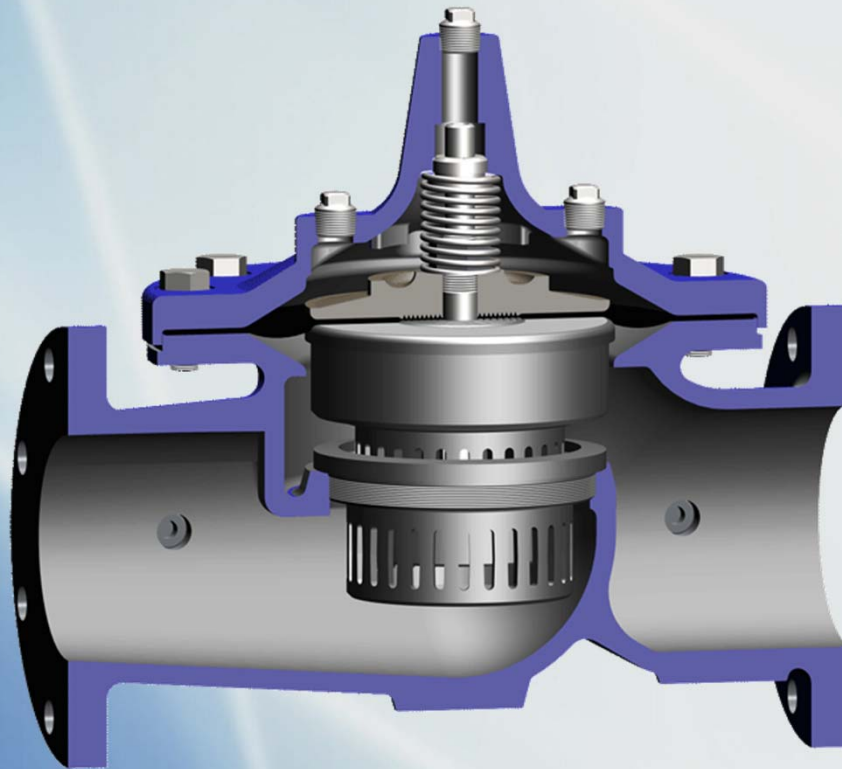
Three Simple Assemblies



Valve Body & Seat
Assembly

Automatic Control Valves

Cavitation Solutions for PRVs



Automatic Control Valves

Cavitation Damage



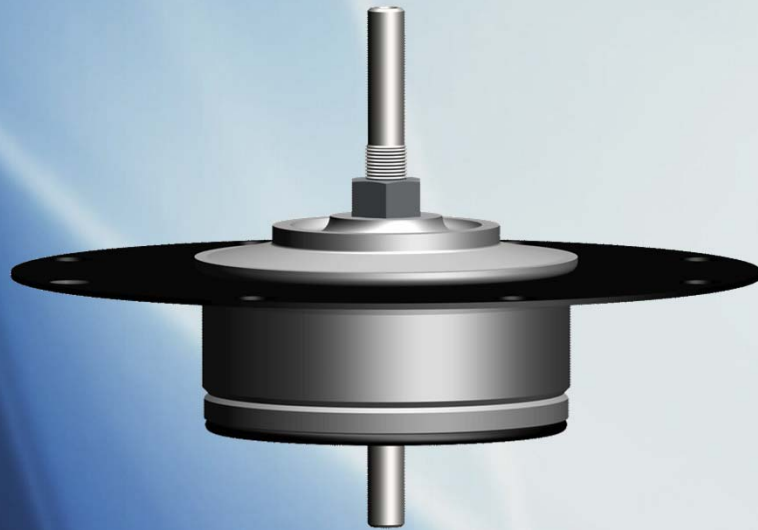
Cavitation on Main Body



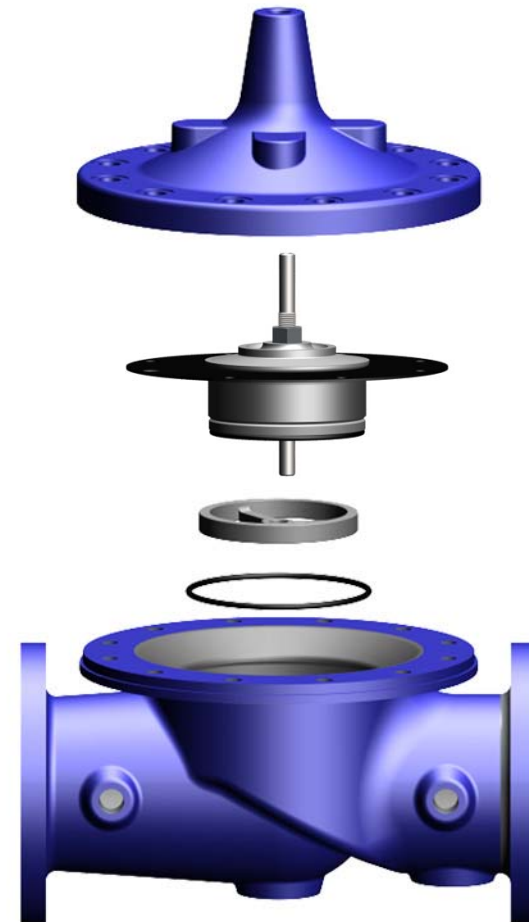
Cavitation Damage on Disc Retainer



One Moving Part Inside the Valve



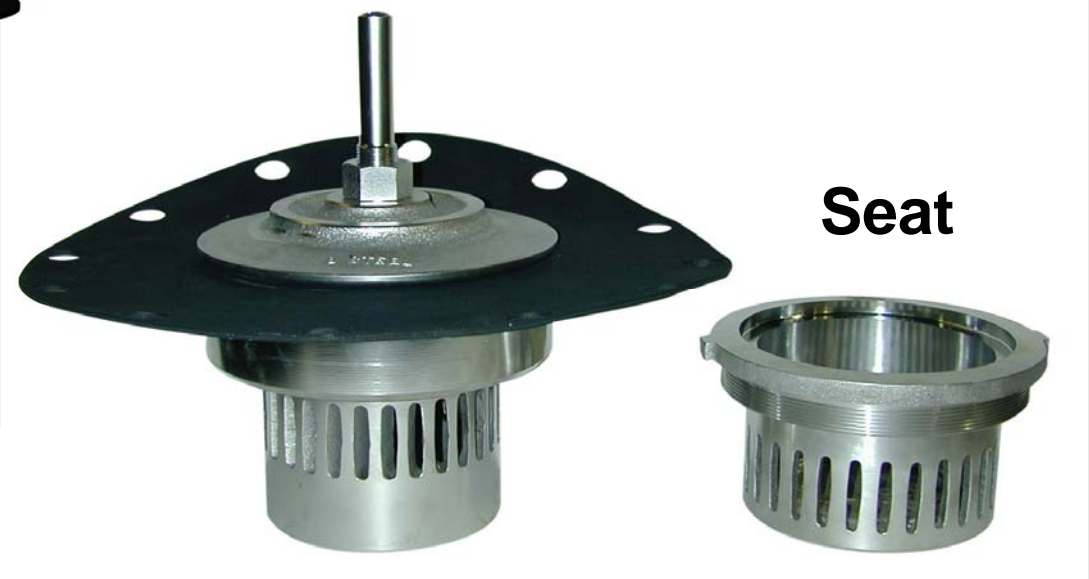
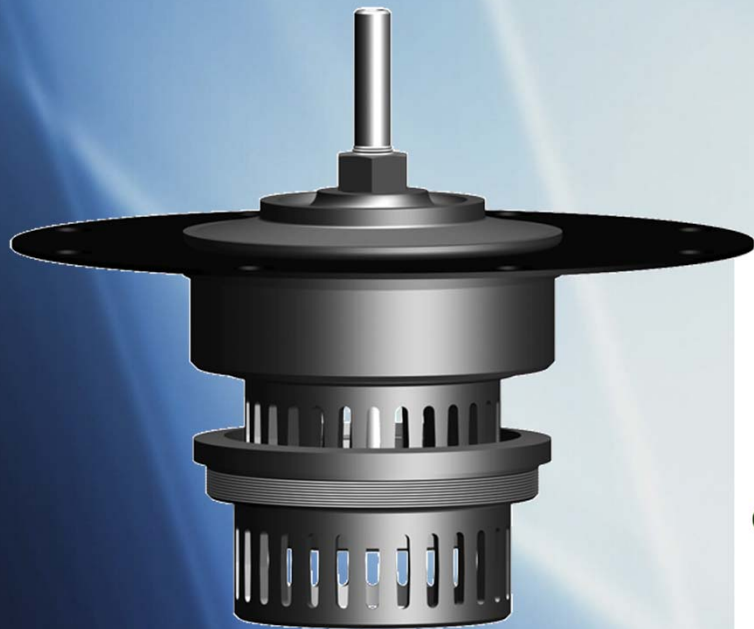
**Disc & Diaphragm
Assembly**



Automatic Control Valves



100-01 KO Anti-Cavitation Components



Disc Guide

Automatic Control Valves



Pressure Reducing Valve Chamber Design and Operation

Thank you!

For further information or questions please
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[Email: Sales@Kemtag.com](mailto:Sales@Kemtag.com)

Todd Elliott 506-852-4004



Automatic Control Valves