

Thank You for Attending Our October Webinar:

Linear Globe vs Rotary Control Valves



Your Host

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Featured Speaker

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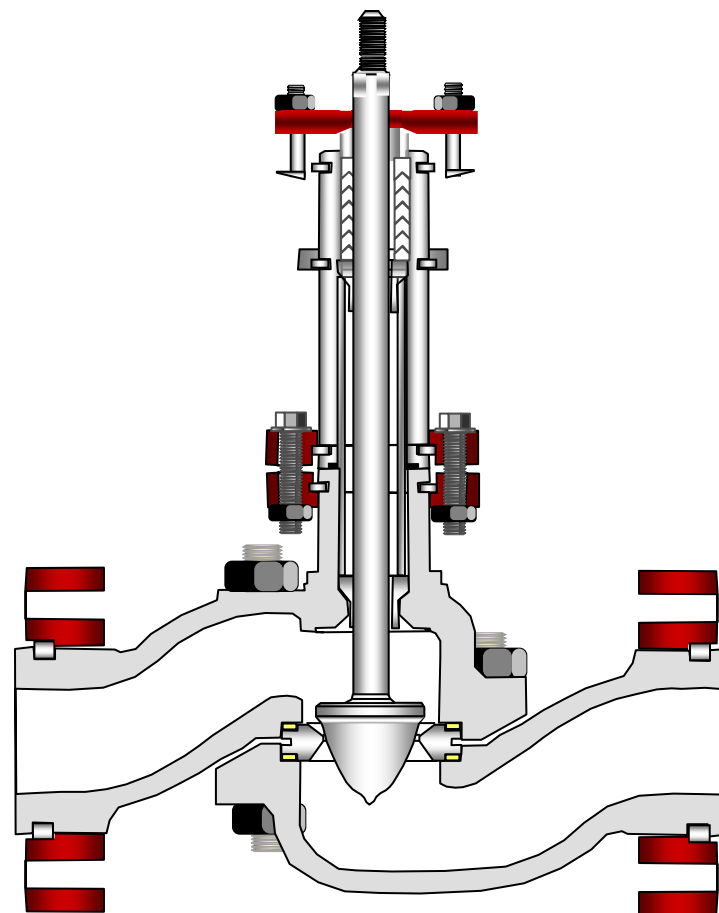
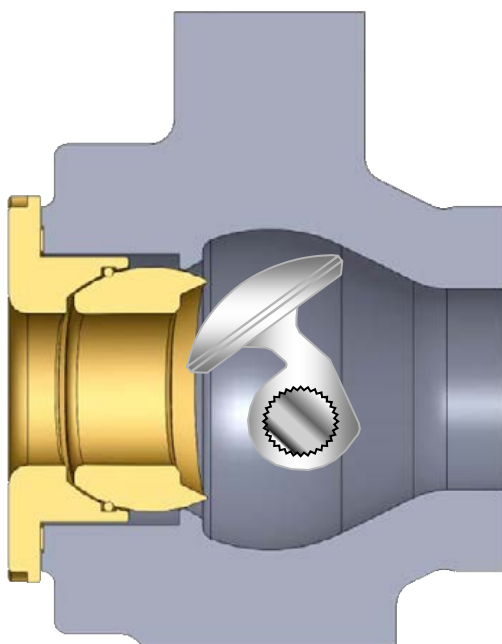


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RCV vs Globe

An alternate approach to control valve selection





Nothing New (refineries)

- More capacity per valve size.
- Better packing life than a linear packing box on a globe.
- Good recovery in moderate pressure drop situations.



Commissioning a plant



Conditions changed

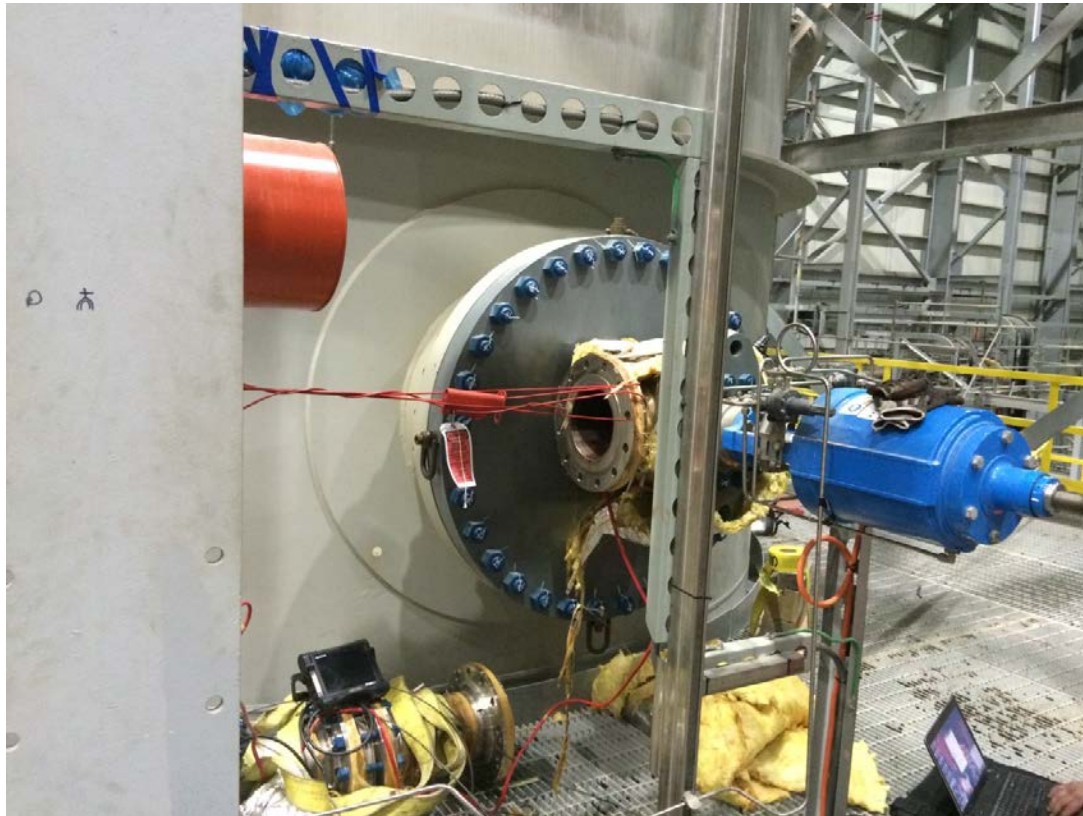


Year 1 = 25%

Year 2 = 60%

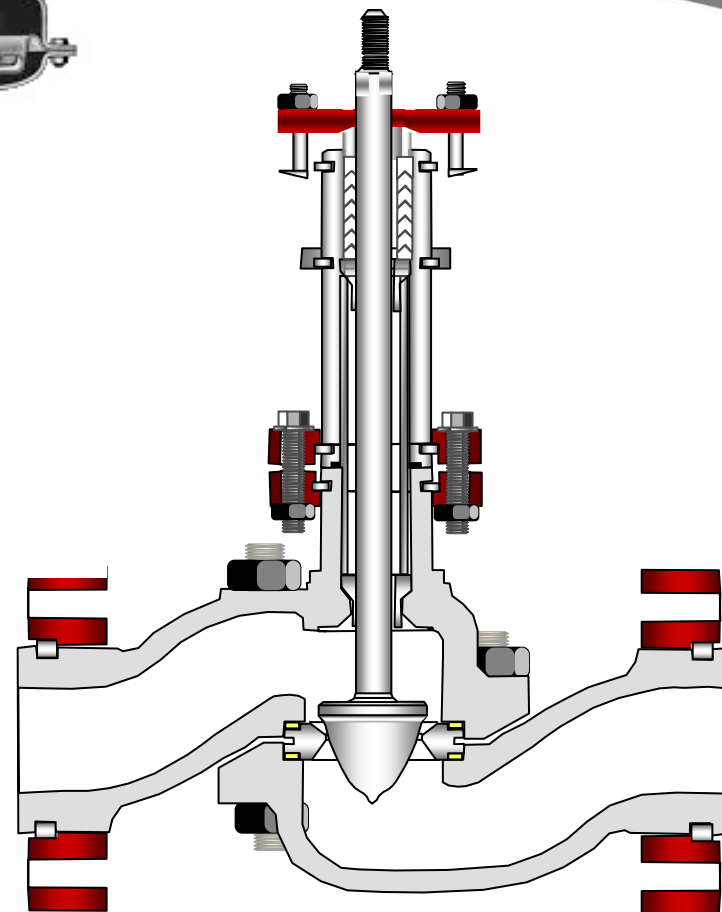
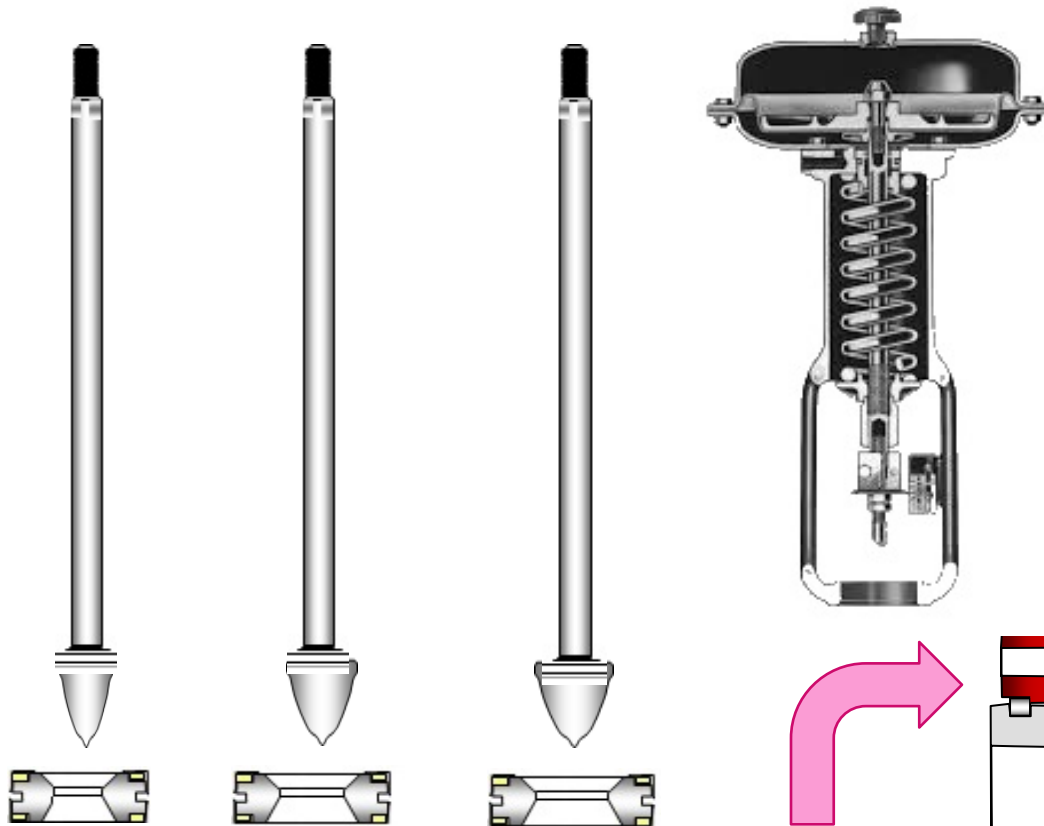
Year 4 = 100%

Autoclave Level Control



Aux Steam, Water – etc.



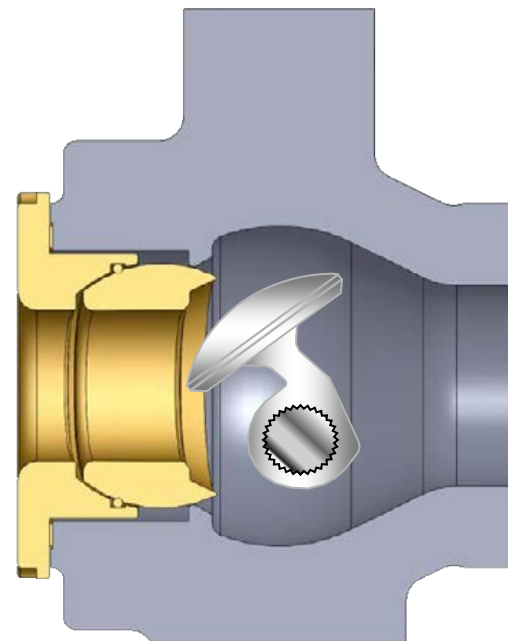
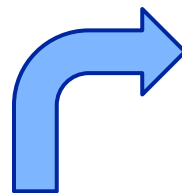
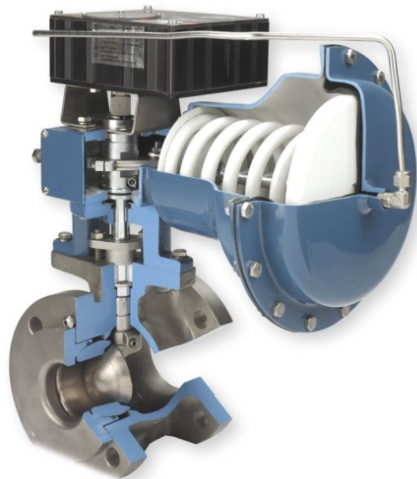


(1.0)	(1.62)	(2.0)	Full (2.62)
31	52	78	104

Year 1 = 25%

Year 2 = 60%

Year 4 = 100%



.2	.5	Full	High
30	75	150	185

Year 1 = 25%

Year 2 = 60%

Year 4 = 100%

Valves in the RCV Class



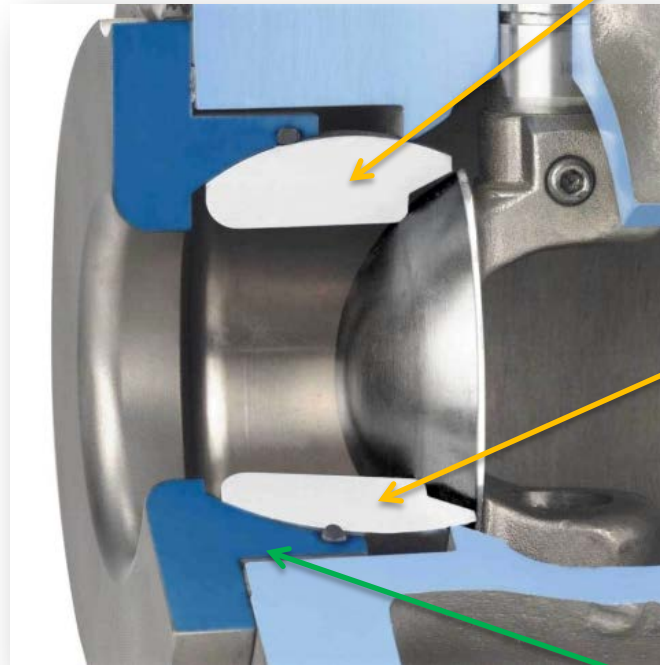
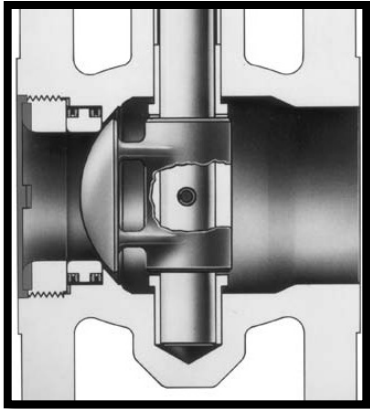
Camflex



V500

RCV

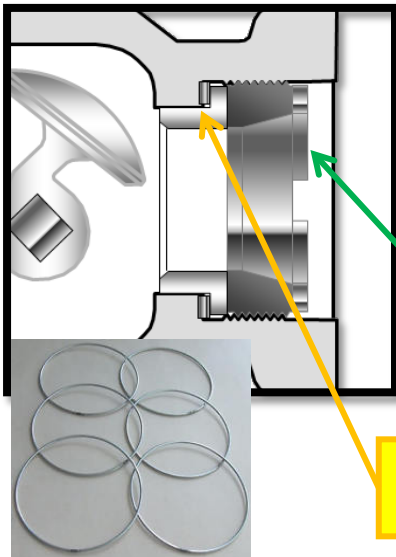
No shims



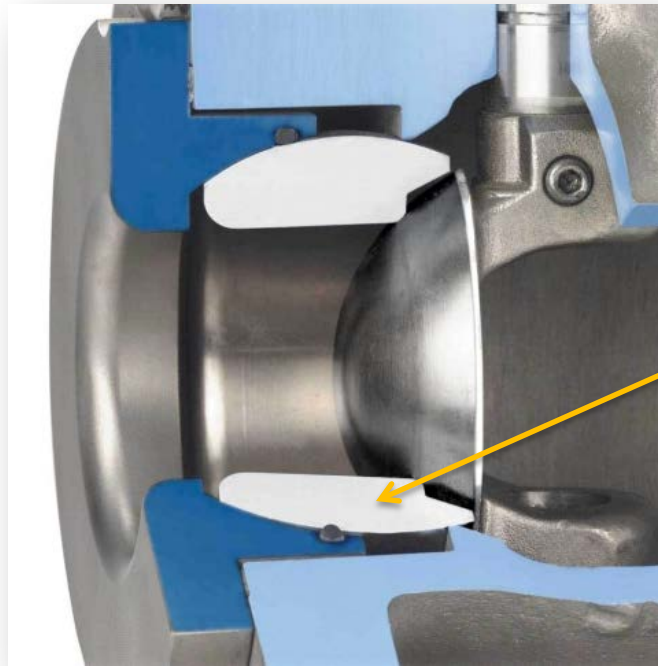
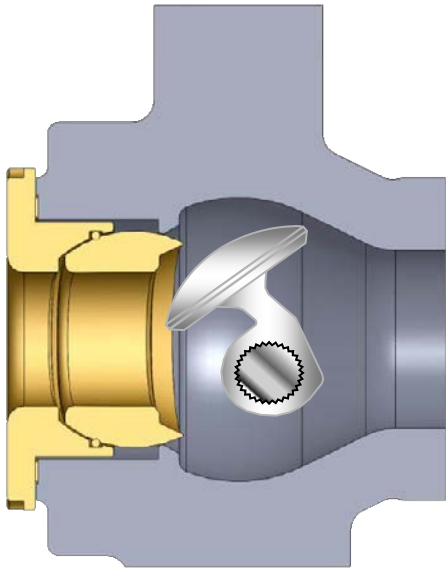
Clamped in retainer

Threaded retainer

Shims required

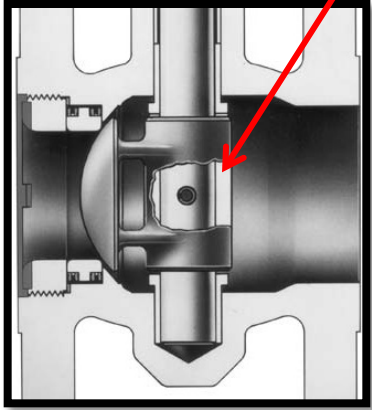


RCV

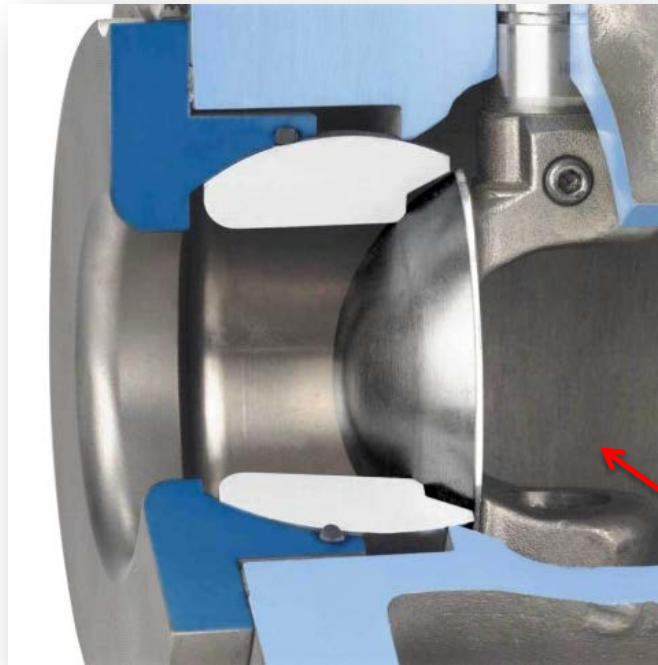


Easy maintenance – drop in seats

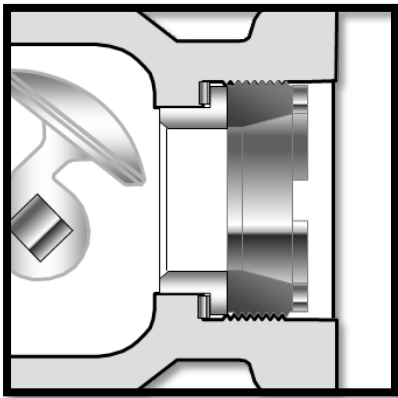
Cross-over shaft



RCV

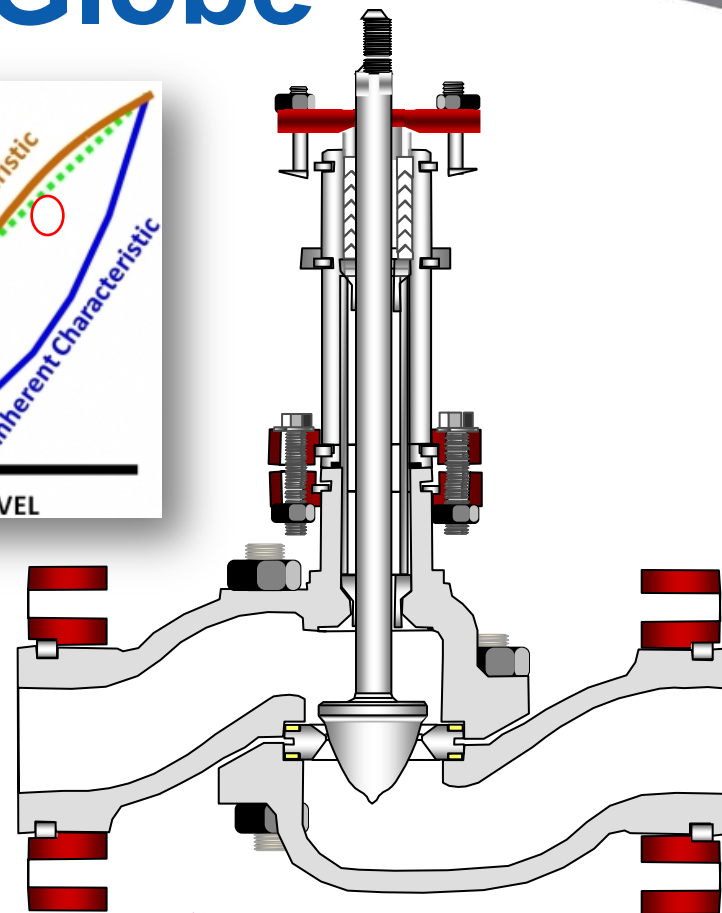
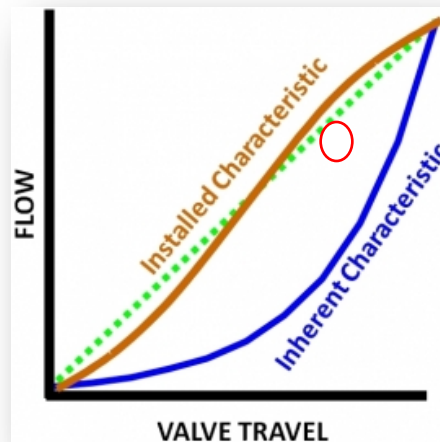
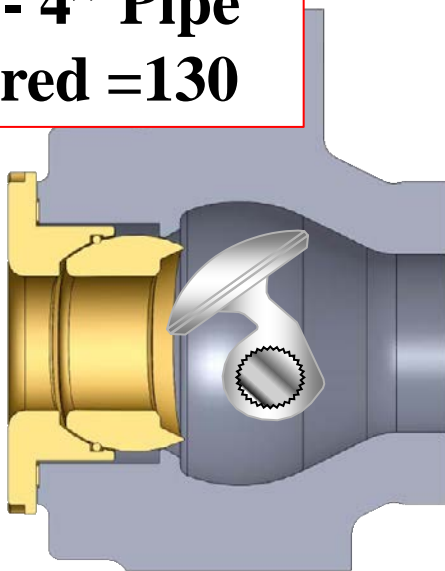


Clear Flow path

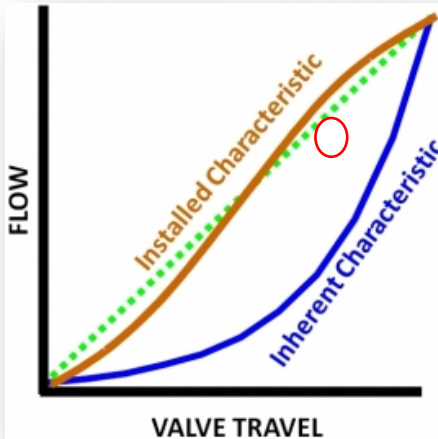


3" RCV vs 3" Globe

SCH 40 - 4" Pipe
Cv required =130

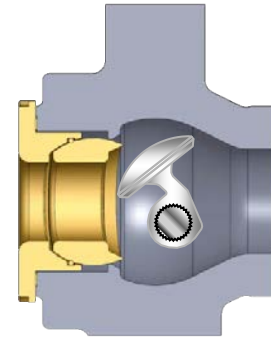


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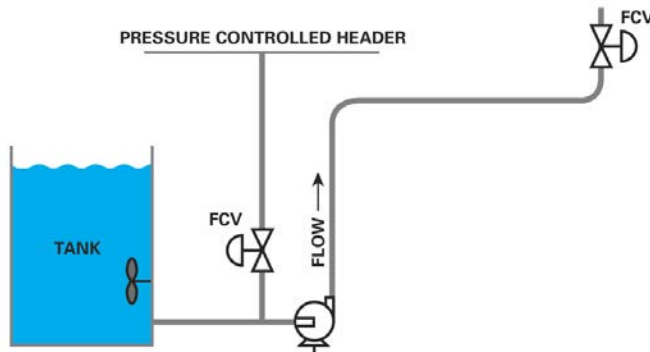


RCV

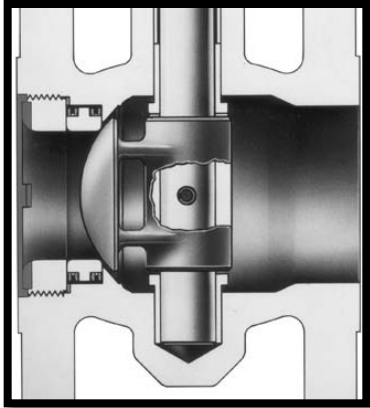
Control



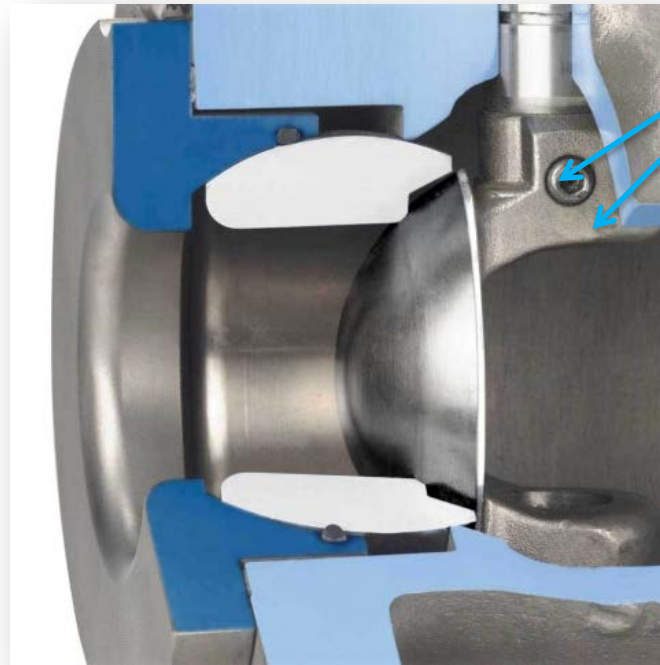
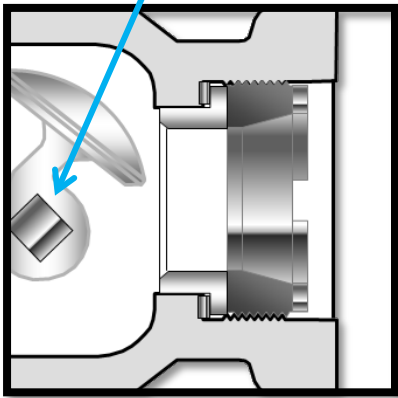
1. Friction: Very low.
2. Hysteresis Dead band:
Repeatable throttling
accuracy of $\pm 0.5\%$ over
the entire range:



RCV

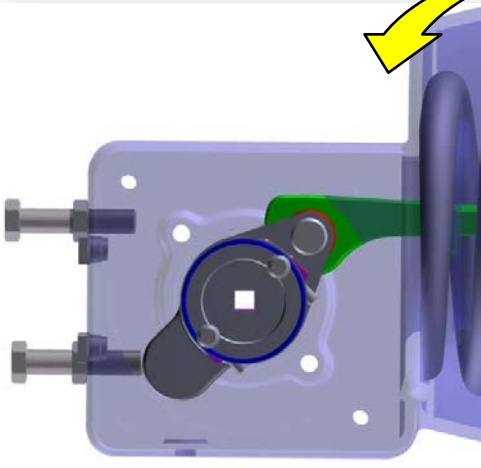


Square

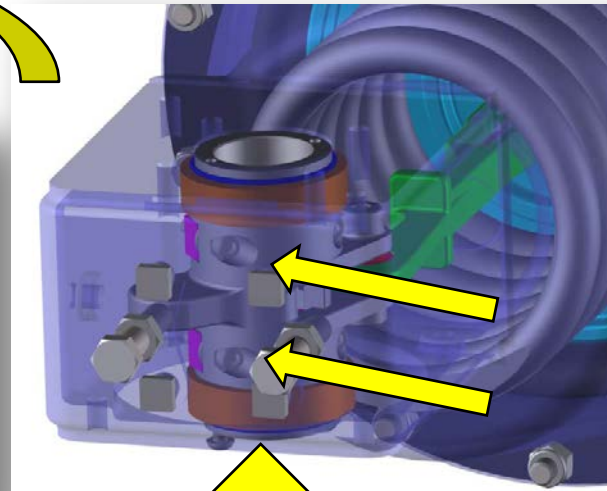
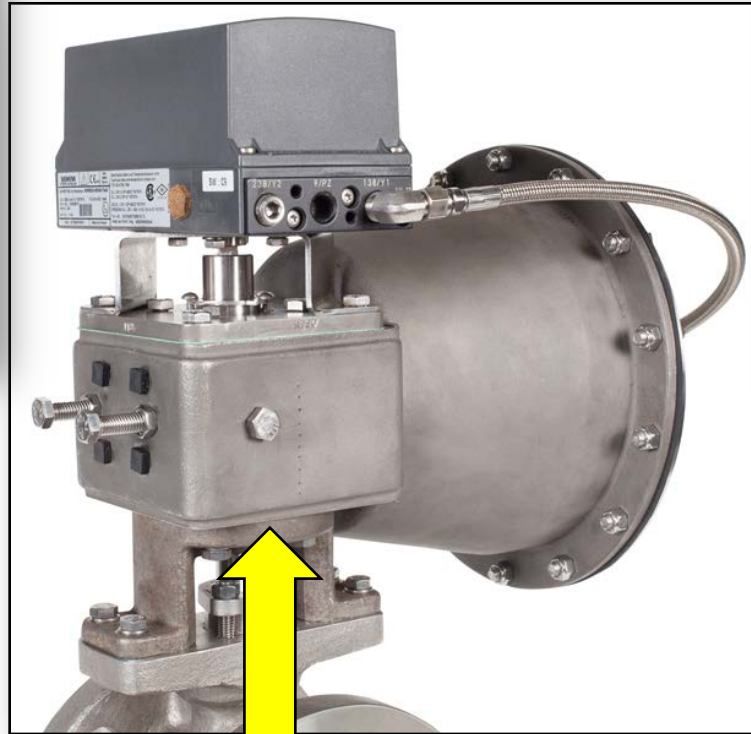


Splined and pinned

Coupling Assembly



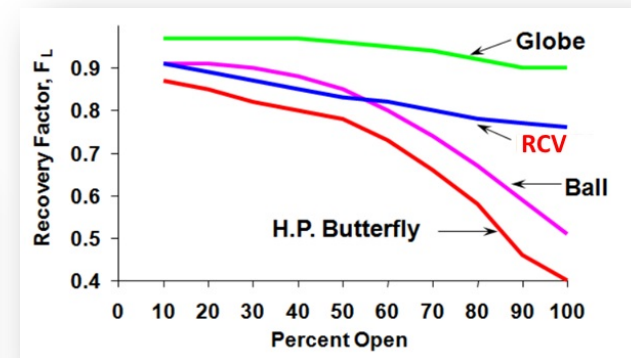
SolidsWorks™



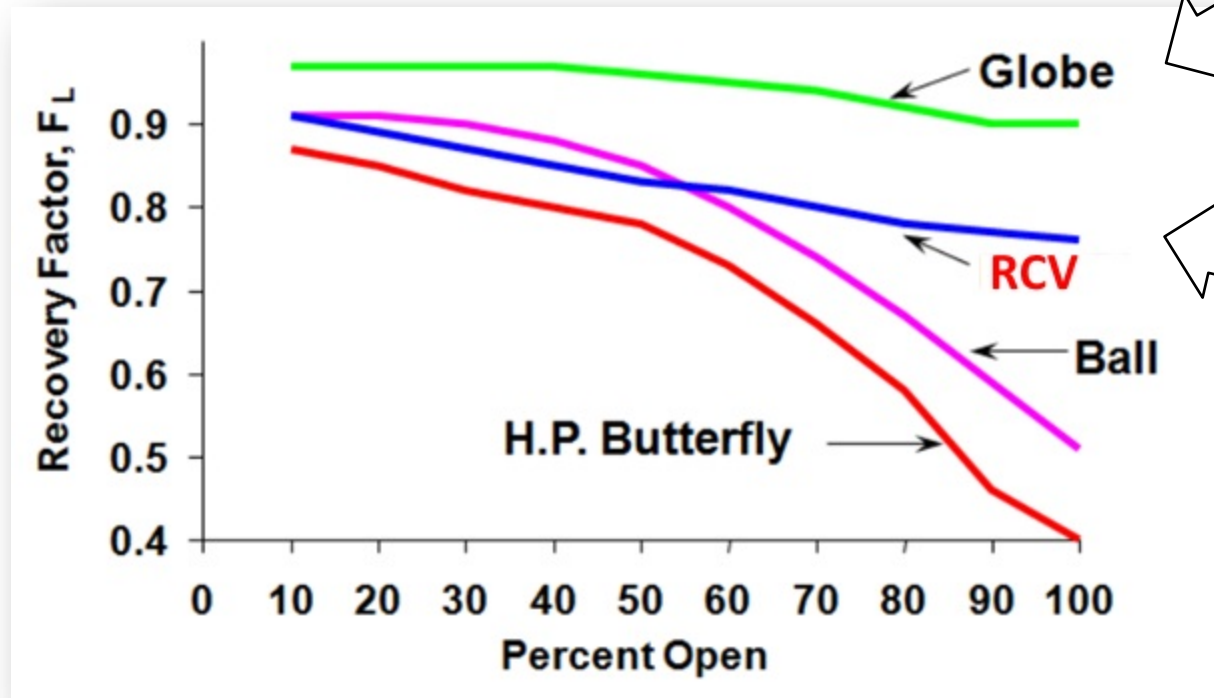
 **DeZURIK**
APCO | HILTON

Why use the RCV

- Higher Cv or capacity per size than a globe.
 - Use a smaller RCV in place of a larger globe \$\$\$
- Easier to change trims than a globe (*one orbital seat vs. plug and seat*)
- *Excellent Control*
- *Good recovery factor*



FI, Recovery

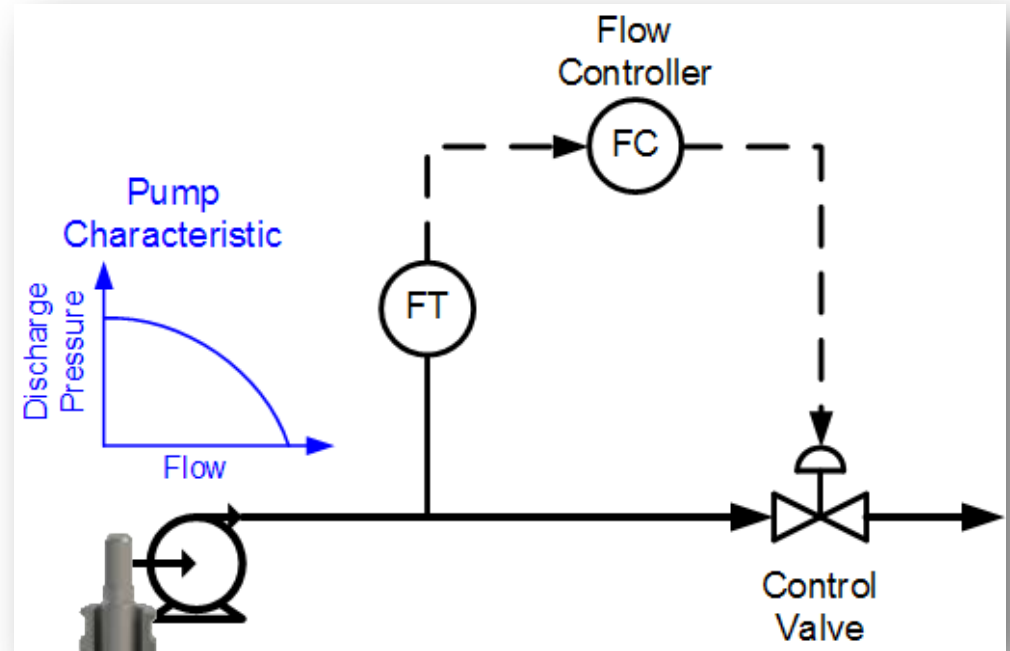


Case Study #1

- $P1 = 347$ psia
- $P2 = 100$ psia
- $T = 100^\circ\text{F}$
- Flow = 500 gpm
- 3" Sch. 40 Pipe

Cv Required = 32

Cavitation





RCV vs Globe

An alternate approach to control valve selection – *try it first*



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