Flowrox Control Valves

For Demanding Duties

Flowrox control valves are designed for demanding control applications in which conventional valves encounter problems with turbulence and wear. Controllability can be further improved with conical sleeves (reduced ported for the exact Cv required) or smart positioners. Elastic sleeves have been applied for improved wear resistance.

Each valve can be sized and optimized for the optimal control range, to limit wear and velocity and also to prevent cavitation from occurring in the control valve.

Flowrox control valve sizing is based on international IEC60534 standard (harmonized with ANSI/ISA S75 standards). The valve flow coefficient Cv defines the control valve flow capacity i.e. the valve size (diameter).

The optimal control range of the Flowrox valve is between 10-50 % of opening. Flowrox offers the accurate control and the longest service life time in the most demanding slurries.

Flowrox has a control valve sizing program to ease your work.

Control valve's flow coefficient Cv - and thus the valve size - is a result of process conditions.

$$C_v = \frac{Q}{N_1 F_P F_R}\sqrt{\frac{G}{\Delta p}}$$

Q = Flow rate (m3/h)
G = Specific gravity (-)
Δp = Pressure drop over the valve (bar)
N1 = Numerical constant (SI or US units)
FP = Piping geometry factor (-)
FR = Reynolds number factor (-)

Control valve sizing and selection is result from process conditions. Namely, flow rate range, slurry specific gravity (s.g.) and pressure difference over the valve defines the valve flow coefficient range (Cv), for which a control valve is sized and selected.

Customer benefits

Cost-effective

=

Reliable operation

+

Predictive maintenance

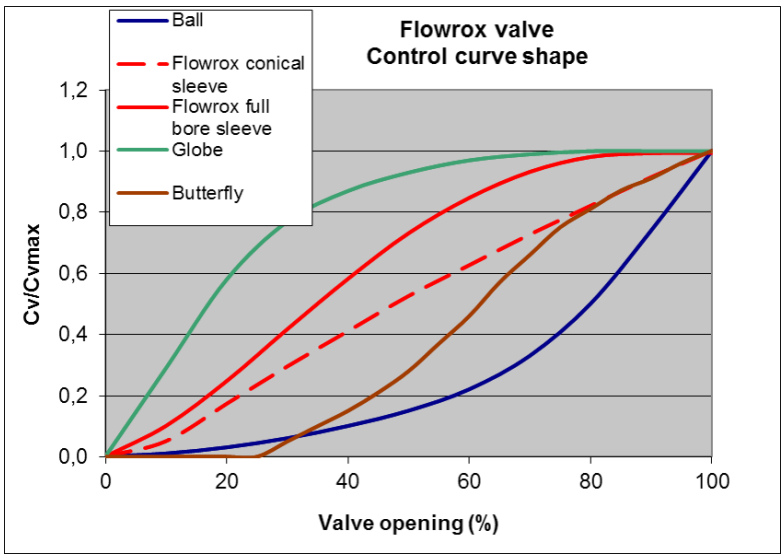
+

Sizing program helps to choose the correct valve

+

Equipment optimized to your process

Use the Flowrox valve sizing program and ease your job!



Structure alternatives

Flowrox control valve actuator is equipped with a positioner. The standard signals for various actuators are as follows:

For Pneumatic Actuators
Electro-pneumatic (AK), input signal 4 – 20 mA, HART Communication
Pneumatic (AN), input signal 0.2 – 1 bar
Can also be accomplished with integrated 4-20 mA module inside the pneumatic actuator.

For Hydraulic Actuators
Electro-hydraulic (HP), input signal 4- 20 mA

For Electric Actuators
Electronic (EO), input signal 4 – 20 mA

Flowrox Oy was the first pinch valve manufacturer in the world to get awarded the ISO9001:2000 Quality Certificate in 1997. Flowrox valves also meet the ANSI/ISA Pinch valve standard ANSI/ISA 75.10.02.

For Cv tables of conical sleeves and large diameters, contact your nearest Flowrox representative (www.flowrox.com).

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