

Fisher® Cavitation Control for Dirty Service



Severe Service



EMERSON[™]
Process Management

Fisher® Cavitation Control for Dirty Service

Severe flow conditions.

Cavitation with entrained particulate create a challenging, severe condition for a control valve. If the control valve does not perform as required, your facility could experience unscheduled downtime. Entrained particulate can shorten control valve life by plugging the cage and causing material erosion of the plug, cage, and seat. Cavitation leads to unacceptable noise and vibration. Damage to control valve trim also occurs.

Introducing four Fisher® cavitation control technologies ideal for dirty service applications: the NotchFlo™ DST control valve, Dirty Service Trim (DST), DST-G control valve, and 461 angle valve. These technologies allow entrained particulate to pass, while resisting cavitation damage in severe liquid flow conditions.

In addition, Fisher Cavitrol™ III trim with improved sealing technologies is available for power applications where plug tip erosion and seal wear are issues.

No force-fit solutions. The right technology for your need.

Working at your side, your local Emerson Process Management application expert can help you select and implement the best Fisher technology for your specific application. There are no force-fit solutions. Our expert recommendations are based on your specific challenges and our application experience. The broad Fisher product line of dirty service technologies allows you to choose the right technology.

Typical dirty service, cavitating applications.

Fisher technologies are proven in severe flow conditions such as catalyst fines in refineries, magnetite in power plants, and sand in oil production. Additional applications include:

- Oil and Gas Production - Water injection pump recirculation. Produced/wastewater injection well control. Separator letdown. Chemical injection pump bypass.
- Refining - Contactor letdown. Rich and lean amine pump spillback. Pump spillback/recirculation. Various high- and low-pressure separator letdown.
- Power/Cogeneration - Boiler feed pump recirculation. Desuperheater spray water control. Feedwater start-up regulator. Superheater bypass.

Whatever your need, wherever you are.

Wherever your facility is located, Fisher control valves are fully supported. Emerson has the most extensive global network of field specialists of any supplier. For additional information on Fisher cavitation control for dirty service, go to www.FisherSevereService.com or contact an Emerson Process Management sales office.

NotchFlo™ DST Control Valve

has trim that utilizes a series of notched flow restrictions and expansions to control the pressure drop of the fluid. The large, notched plug allows up to ½-inch (12 mm) particulate to flow through the trim without plugging.

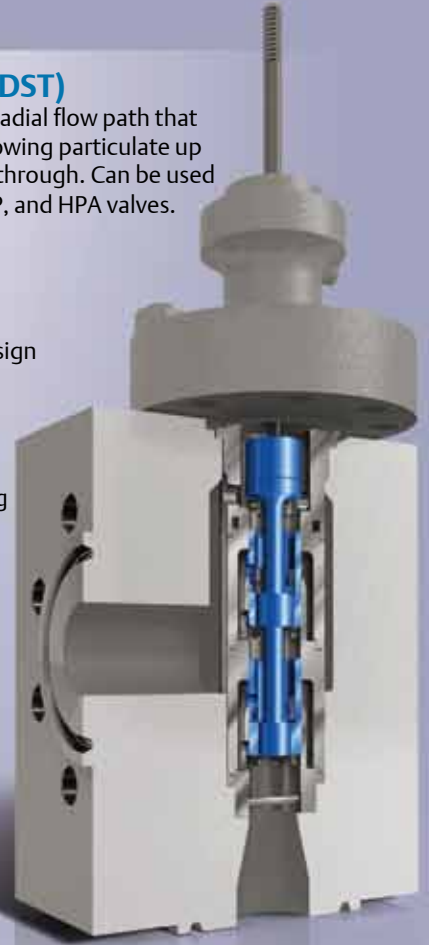
- 3, 4, or 6-stage trim
- Class 300 - 1500 globe body
- Class 300 - 2500 angle body
- NPS 1 - 8
- Flow-up design
- 4200 psi (290 bar) pressure drop limit
- Power/cogeneration, oil and gas production, gas processing, and refining



Dirty Service Trim (DST)

uses a combined axial and radial flow path that features large openings allowing particulate up to ¾-inch (19 mm) to pass through. Can be used in easy-e™, EH, EHA, EW, HP, and HPA valves.

- 2, 3, 4, 5 or 6-stage trim
- Globe or angle body
- Class 300 - 2500
- NPS 1 - 16
- Flow-down or flow-up design
- 4200 psi (290 bar) pressure drop limit
- Power/cogeneration, oil and gas production, gas processing, and refining



DST-G Control Valve

has a multi-stage trim design. It is used in outgassing services where dissolved gases leave the liquid form due to a reduction in pressure. Outgassing is characterized by two-phase flow at the outlet of the valve. The fluid may also contain entrained particulate.

- Multi-stage trim
- Angle body
- Class 150 - 2500
- NPS 1 - 12
- Flow-down design
- 2500 psi (175 bar) pressure drop limit
- Gas processing and refining
- Expanded body cavity

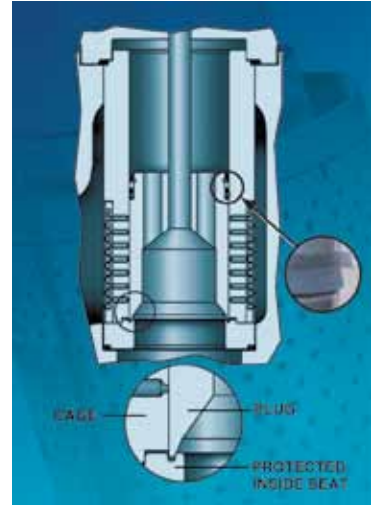
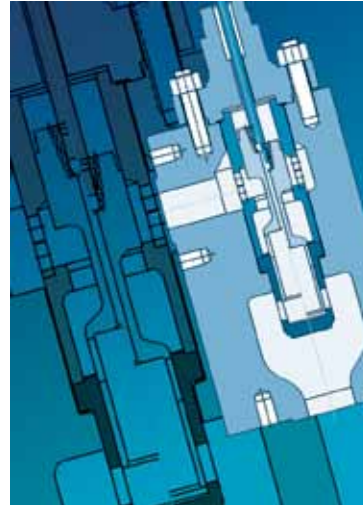


461 Sweep-Flo Angle Valve

can be used in severe service applications where the fluid may have small particulate, addressing plug-tip erosion. The 461 features a venturi-type throat, which is useful where high pressure drops and flashing might exist.

- Sweep-Flo angle body
- Class 150 - 2500
- NPS 2x3, 3x4, 4x6, and 6x8
- Flow-down design
- Gas processing and refining





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