



Master Flo ES&C Choke Valve

Optimized back pressure control for salt water disposal applications

Master Flo's External Sleeve & Cage (ES&C) valve technology provides superior performance, controllability, and cavitation control across many demanding water handling and back pressure control systems. This Master Flo valve is specifically engineered to optimize efficiencies, extend equipment life, reduce operating costs, and protect personnel and the environment.

Key Features & Benefits

Superior Serviceability

- Simplified maintenance with no special tools required.
- Quick servicing with a unique floating alignment retention sleeve.
- Modular 3-piece trim design (external sleeve, cage, and seat) for fast and cost-effective repairs.

Precise Controllability

- Patented Equal% trim design for accurate flow control across all operating ranges.
- Precisely manage flow rates and pressures to reduce velocities, cavitation, and erosion, while ensuring valve and equipment longevity and efficiency.
- Optimal deadband control (~30% of travel), enhancing system stability and responsiveness.

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Exceptional Performance & Reliability

- Highest FL recovery factor to maximize pressure recovery and minimize the risk of cavitation.
- Industry leading "Class 5" shut-off capability ensures superior sealing, flow stability, system efficiency, and pump protection.
- Master Flo's superior process control and isolation, combined with high quality cavitation resistant materials, isolates the damaging effects and protects vulnerable equipment and piping, reduces noise, vibration, and downtime.



Technical Highlights

Valve Design

- External Sleeve & Cage (ES&C) design ensures high resolution and control, while isolating internal cavitation, safeguarding downstream piping and components.
- Class 5 shut-off (ANSI/FCI 70-2): Provides high-performance sealing and leak prevention under all conditions.

Trim and Material

- Modular 3-piece trim (external sleeve, cage, seat): Facilitates rapid inspection and replacement, significantly reducing downtime.
- Floating retention sleeve alignment: Automatically adjusts internal components for consistently precise sealing, high internal tolerances, and minimal bypass flow.
- Wide selection of durable material options (Stainless Steel, Stellite, Carbide coating): Tailored for high corrosion and erosion resistance.

Maintenance Efficiency

- No specialty tools or complex procedures required—standard hand tools suffice, making field servicing simple and efficient.
- Elimination of threaded, wetted parts reduces corrosion risks and simplifies assembly/disassembly.

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Less Cavitation, Longer Lifespan

- High FL recovery factor effectively minimizes cavitation risk, enhancing valve durability and system integrity.
- Patented Equal% trim design maintains precise control, reducing flow velocity and extending the lifespan of internal components.

[Contact us today to learn more or to request a quote.](#)

Why choose the Master Flo ES&C Valve?

Master Flo's ES&C choke valves provide unmatched reliability, significantly lower total lifecycle costs, and ensure optimal performance in challenging Salt Water Disposal environments. Our technology protects your critical infrastructure, ensuring your systems remain operational, efficient, and safe.

