

Magnetically Coupled Strainer

High Flow MCS-500

Mechanically
Cleaned
Permanent
Media

The MCS-500's magnetically coupled actuation eliminates the need for dynamic seals. This technology provides quick and easy access for maintenance, reduces potential leaks, and requires few moving parts while providing a long service life.



Environmentally Sustainable Design

FEATURES

- No dynamic seals
- Minimal purge for low waste operation
- Easy in-line installation
- Continuous 24/7 operation
- Maintenance-friendly design means lower labor costs
- Eco-friendly. No bags to purchase, change, or landfill
- 316 stainless steel vessel

OPTIONS

- Multi-station configuration
- EPT/EPDM or FPM (Viton®)
- Advanced programmable microprocessors
- ASME Code units
- Automatic pressure transmitters
- Purge welding
- Air bleed capability
- 304 stainless steel controller enclosure
- Gauge ports: 1/4"

The MCS-Series is engineered to conserve valuable process water while protecting costly equipment from debris. It offers minimal purge volumes in fresh water applications—allowing you to save on the cost of make up liquids, chemical treatment, and heating energy.

Featuring fast cleaning magnetically coupled actuation, this design offers an optimized configuration to help improve and reduce costly maintenance and downtime. In addition, this actuation method eliminates the need for cover thru-holes and their associated seals.

TYPICAL APPLICATIONS

- paper coatings • pcc/gcc slurries • phenolic resins • petroleum based greases • ethanol processing
- cip fluids (sodium hydroxide) • hot fry oils • starch • lime slurries • curtain coaters • nutraceuticals
- machining coolants • adhesives • paint • ink • chocolate • edible oils • detergents • tallow

EATON

Powering Business Worldwide



The actuation piston and cleaning disc are coupled by powerful rare earth magnets—a simple design that delivers tremendous benefits by eliminating the need for shaft or external drive seals.

MCS-500 Magnetically Coupled Strainer

HIGH FLOW MCS-500 SPECIFICATIONS

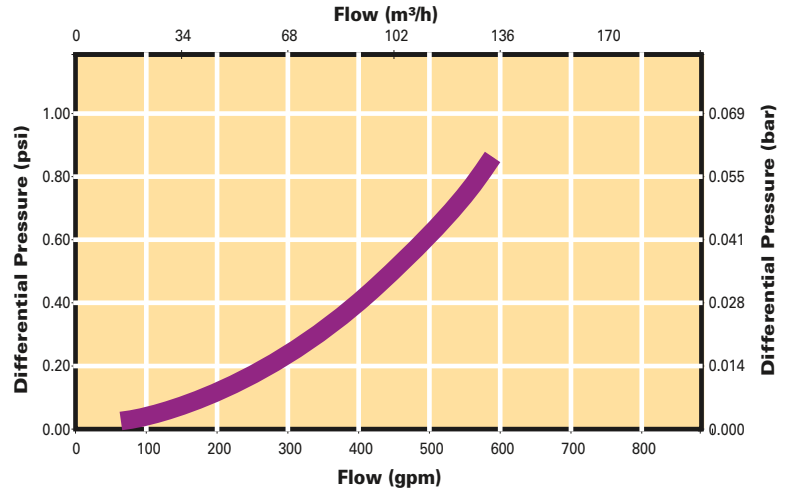
Approx Weight	350 lbs (159 kg)
Service Height	66 in (1,676 mm)
Flow Rate at 100 µm	30-180 gpm (6.8-40 m³/h)
Flow Rate, max.	500 gpm (114 m³/h)
Operating Pressure	30-150 psi (2-10.5 bar)
Operating Temperature, max.	180 °F (82 °C)
Viscosity	Water/water-like fluids
Standard Retention*	150–1,100 microns
Vessel Material	316 Stainless Steel
Elastomers	EPT/EPDM or FPM (Viton®)
Process Connections	6 in 150# Flanged / DN 200 Flanged
Purge Connection	1 ½ in NPT / 1 ½ in BSPT
Air for Actuator Drive (Clean, dry, non lubricated air)	80 psi (5.5 bar) min. - 116 psi (8 bar) max. 5.0 cfm (141.5 l/min)
Electrical for Controllers	115 VAC or 230 VAC 50/60 Hz
Semi-Auto Voltage	24 VAC, 115 VAC, 230 VAC 24 VDC 115/230 VAC

*Tighter retentions available. Please call for more information.



Up to eight MCS units can be configured into a multiplex system for high volume requirements

MCS-500 Flow Rates



Slotted Wedge Wire Strainer Element Options

Inch	Micron	Mesh	% Open Area
.002	50	325	6
.003	75	200	9
.004	100	150	12
.006	150	100	17
.007	180	80	19
.008	200	70	21
.009	230	60	23
.015	380	40	33
.024	600	30	44
.030	700	20	50
.045	1140	15	60



Additional retentions available, consult Eaton.

Viton® is a registered trademark of E. I. du Pont de Nemours and company.

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