



Industrial Multimedia Filters

Unit flow rates from 70 to 785 gpm

Standard Features

- Designed for heavy industrial applications
- Pre-engineered and pre-assembled units
- 3 media layers - anthracite, silica sand, garnet
- Steel pressure vessels at 100-psig rating
- Tank interiors sandblasted and epoxy lined
- Tank exteriors sandblasted and epoxy coated
- Vessel access may include manhole in upper head
- Structural steel legs for rigid and safe support
- PVC internal distribution (hub-radial, header-lateral)
- Schedule 80 PVC piping manifolds
- Cast iron body butterfly valves with stainless steel discs, double acting pneumatic actuators
- Differential pressure switch
- Inlet/outlet pressure gauges & sample valves
- AB Micrologix PLC, Maple Systems operator interface, flow indication, alarms
- Nema 4 enclosure



FILTER SPECIFICATIONS

Model Number	Flow Rates in GPM			Pipe Size Inches	Tank Size (inches) Diameter x SS	Media Cubic Feet	Ship Weight Approx. Lbs.
	Service	Peak	Backwash				
MMF-360	70	100	100	2.5	36 x 60	18	4000
MMF-420	100	140	140	3	42 x 60	24	5000
MMF-480	125	180	180	3	48 x 60	32	6500
MMF-540	160	230	230	4	54 x 60	40	8500
MMF-600	200	300	300	4	60 x 60	50	10500
MMF-720	280	420	420	4	72 x 60	70	15000
MMF-840	385	560	560	6	84 x 60	95	20000
MMF-960	500	750	750	6	96 x 60	125	26000
MMF-1080	635	950	950	6	108 x 60	160	35500
MMF-1200	785	1150	1150	8	120 x 60	200	45000

Filter Performance

Filtration of turbidity is one of the simplest water conditioning processes, but often one of the most difficult to achieve. Two factors must be considered: the amount of turbidity to be removed and the size range of particles to be removed.

With typical feedwaters of less than 30 NTU of turbidity the multimedia filters will, on the average, provide filtration down to a minimum NTU value of 1.0 and particulate size on the range of 5-10 microns.

When operated in typical applications multimedia filters can remove turbidity to levels suggested in the top chart; when operated at constant design service flow rates multimedia filters can have run lengths suggested in the bottom chart.

Filters are susceptible to peak and varying conditions, such as increased flow demand on parallel operating units when one of the units is removed from service for backwash. Effluent turbidity leakages under peak and varying conditions must be addressed and evaluated for each application.

Turbidity Removal	
Service Flow gpm/ft ²	Typical Turbidity Removal (%)
15	70
12	80
10	90
8	96

Service Run Length (Approx hrs)			
gpm/ft ²	2 NTU	3 NTU	10 NTU
15	30	13	6
12	35	15	8
10	45	18	9
8	60	25	13

NTU (Nephelometric Turbidity Unit)

Standard Options

- Interconnecting piping for multiple units
- ASME code pressure vessels
- Skid mounting on structural steel open frame
- Welded Sch 40 carbon steel piping
- Separate backwash inlet connection
- 3" X 12" sight glass window
- Manual valves and manual operated backwash
- Air scouring backwash system
- Media trap
- Nema 4X enclosure
- Turbidity analyzer

Custom Engineered Equipment

ISS can custom engineer and manufacture any size multimedia filter to meet the varied and specific requirements of industrial, municipal and agricultural applications.

Please call us if you need a customized filter design with a specific vessel size or material, interior lining, exterior coating, piping material, valve type, instrumentation package, vessel access, or system configuration.

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