TIMEX
Filtration & Water Systems

Micro Drum Filters

flow rates	filtration degrees	water for cleaning	minimum operating pressure
up to **4000 m³/h**	**10000 - 10** micron	less than **1**% of the total flow	Atmospheric pressure

features:

- Filtration without flow interruption
- Filtration degree from 10 micron to 10000 micron
- Manufacturing programme 1 m³/h - 4000 m³/h
- No need for pressure
- Available in stainless steel 304, 316, Duplex SS, Super Duplex SS & Polyproylene
- Very low water loss
- Applications : Water and waste water treatment , water supply systems, irrigation, cooling towers, pre-filtration systems, manufacturing, industry, aquaculture

General Specifications

Working Principle

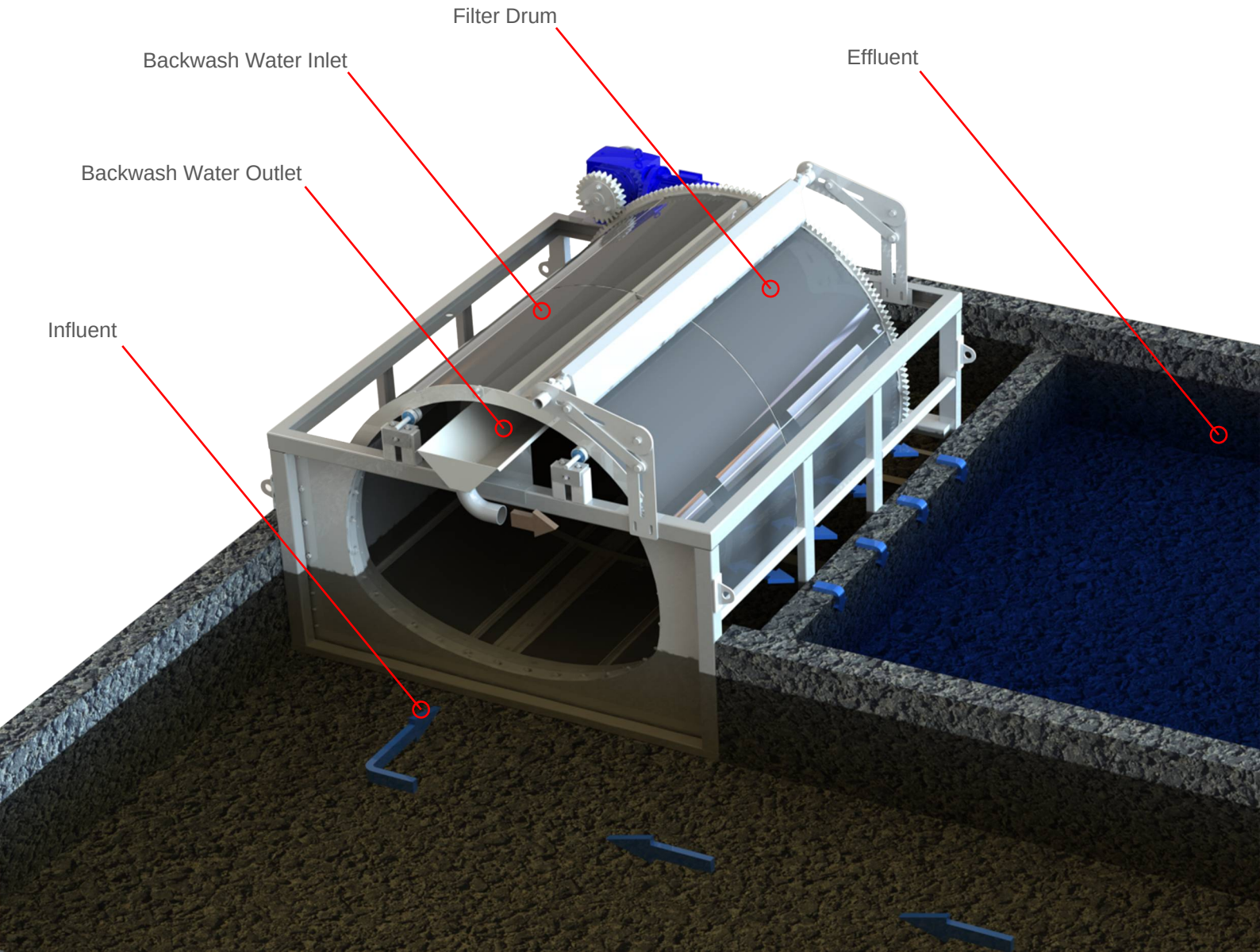
TIMEX MDF Micro Drum Filters are mechanical self cleaning filters. Water or process liquid flow gravity fed from the inside to the outside of the slowly rotating filter drum. The solids and contamination will stick to the inner surface of the drum. In the rotating movement the parts are back flushed with the help of built in high pressure spray nozzles and collected in a tray.This action avoids the breaking down of soft organic particles and enhances the filtration efficiency.

The Filtering and Flushing Process

Water to be filtered enters the inside of the drum. The water is filtered through the drum's filter screen. The difference in water level inside/outside the drum provides the driving force the sieveng. Solids are trapped on the filter screen and lifted to the backwash area by the rotation of the drum. The drum rotation is intermittent or continuous depending on the type of the control. Water from rinse nozzles is sprayed from the outside of the filter screen. The rejected material is washed out of the filter screen into the sludge tray. Rejected sludge flows together with water out of the filter using gravity.

Properties and Options

TIMEX MDF Micro Drum Filters are available in;
Tank type with or without lid, without tank, frame type, with pressure pipe and pump, variable rotation speed special applications.



Flexible and Modular Design

The modular design incorporates 7 different drum diameters from 0.5 m to 2.2 m with filter areas from 0.7 m^2 for the MDF-500 Series to 21 m^2 for the MDF-2200 Series. In total there are 18 different drum filter models depending upon requirements.

Tank Type

Frame Type
(Channel Type)
Open Inlet

Frame Type
(Channel Type)
Open Inlet with
Connection for Channel

Frame Type
(Channel Type)
Open Inlet with
Wing Walls

New Generation "DIRECT DRIVE" Technology

For a problem-free and long-lasting operation, TIMEX has developed the new generation "DIRECT DRIVE" technology.

Based on years of experience, TIMEX has developed a long-lasting, durable and robust "DIRECT-DRIVE" system, seeing that chain transmissions cannot provide the required strength in big Micro Drum Filter models.

Technical Specifications

Series	MDF-500	MDF-800	MDF-1200	MDF-1400	MDF-1600	MDF-2000	MDF-2200
General Data							
Models	501	801, 802, 804	1202, 1204	1402, 1404, 1406	1602, 1604, 1606	2002, 2004, 2006	2202, 2204, 2206
Types	Frame Type (Channel Type – with/without Lid), Tank Type (with/without Lid)						
Standard Filtration Degrees	Perforated screen 10.000, 5.000, 3.500, 3.000, 2.500, 2.000, 1.500, 1.000 micron Weavewire screen 800, 500, 300, 200, 100, 50, 40, 20, 10 micron						
Drive Motor Power	501; 0,25 kW	801; 0,37 kW 802; 0,75 kW 804; 1,10 kW	1202; 1,5 kW 1204; 1,5 kW	1402; 2,2 kW 1404; 2,2 kW 1406; 3 kW	1602; 2,2 kW 1604; 2,2 kW 1606; 3 kW	2002; 2,2 kW 2004; 2,2 kW 2006; 3 kW	2202; 2,2 kW 2204; 2,2 kW 2206; 3 kW
Pressure Pump Power	501; 0,55 kW	801; 0,55 kW 802; 0,75 kW 804; 0,9 kW	1202; 0,75 kW 1204; 0,9 kW	1402; 0,75 kW 1404; 0,9 kW 1406; 1,1 kW	1602; 0,75 kW 1604; 0,9 kW 1606; 1,1 kW	2002; 0,75 kW 2004; 0,9 kW 2006; 1,1 kW	2202; 0,75 kW 2204; 0,9 kW 2206; 1,1 kW
Drum Diamater	500 mm	800 mm	1200 mm	1400 mm	1600 mm	2000 mm	2200 mm
Drum Lenght	501; 500 mm	801; 500 mm 802; 1000 mm 804; 2000 mm	1202; 1000 mm 1204; 2000 mm	1402; 1000 mm 1404; 2000 mm 1406; 3000 mm	1602; 1000 mm 1604; 2000 mm 1606; 3000 mm	2002; 1000 mm 2004; 2000 mm 2006; 3000 mm	2202; 1000 mm 2204; 2000 mm 2206; 3000 mm
Filtration Area	501; 0,7 m^2	801; 1,2 m^2 802; 2,4 m^2 804; 4,8 m^2	1202; 4,2 m^2 1204; 8,4 m^2	1402; 4,4 m^2 1404; 8,8 m^2 1406; 13,2 m^2	1602; 4,8 m^2 1604; 9,6 m^2 1606; 14,4 m^2	2002; 6 m^2 2004; 12 m^2 2006; 18 m^2	2202; 7 m^2 2204; 14 m^2 2206; 21 m^2
Flow Rates	1 - 4000 m^3/h – each unit						
Design Temperature	0 – 70 ^0C (for Steel Constructions) 0 – 40 ^0C (for Polypropylene Construction)						
Level Sensor Type	Dry Contact Type (Level Transmitter Upon Request)						
Control Board	Relay Type (PLC Type Upon Request)						
Construction Materials							
Filter Housing & Lid	Stainless Steel 304, Stainless Steel 316, Duplex & Super Duplex Stainless Steel, Polypropylene			Stainless Steel 304, Stainless Steel 316, Duplex & Super Duplex Stainless Steel			
Screen	Stainless Steel 304, Stainless Steel 316, Duplex SS, Super Duplex SS, Polypropylene, Polyamid						
Back Flush Pipe & Nozzles	Stainless Steel 304, 316, Duplex SS, Super Duplex SS / Stainless Steel 304, 316 or ABS (PVC)						
Seals	Synthetic rubber, NBR						

Polypropylene Tank Type Micro Drum Filter

Special Fabrication Tank Type Micro Drum Filter

industry
Automotive, Aviation, Ballast treatment, Electronics, Food & Beverage; Mining, Oil & Gas, Petrochemical, Power Generation, Pulp & Paper

municipal
Potable Water, Waste Water, Desalination, Brackish Water, High rise buildings, Pre-filtration to Membranes

irrigation
Agriculture, Golf & Turf, Green Houses

aquaculture
Fish Farming, Recirculating Aquaculture Systems (RAS), Fish Processing Industry

Factory & Head Office

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