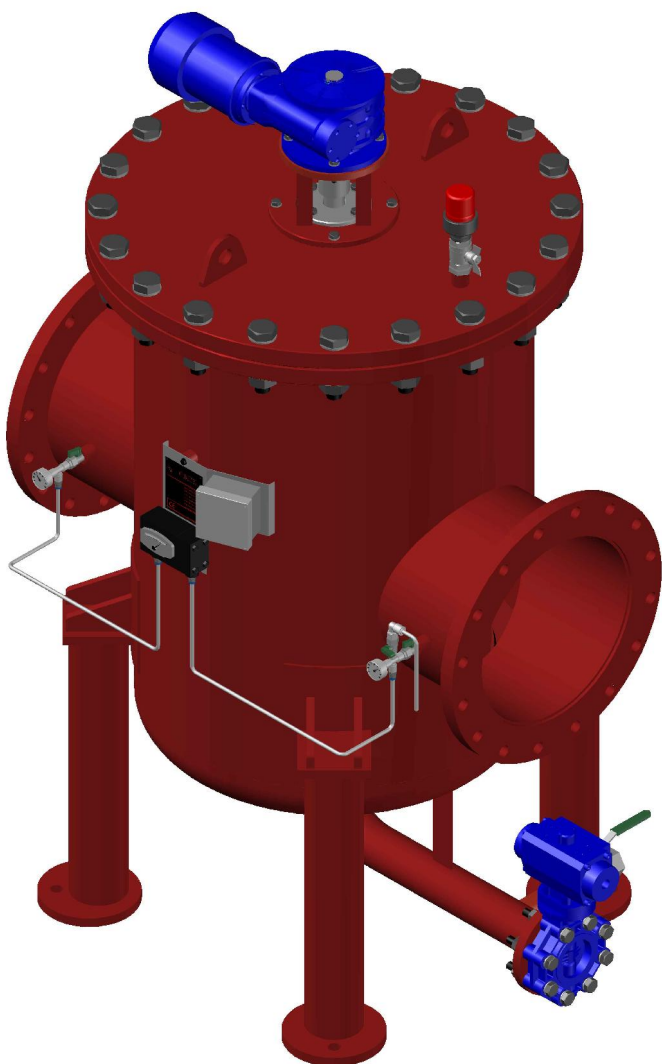


MAP Automatic Strainers In-Line Series

flow rate	filtration degrees	inlet / outlet diameters	min. operating pressure
up to 4.500 m³/h (19.800 gpm)	5.000–200 micron	up to DN800 (32")	1 bar (15 psi)

Heavy Duty Automatic Filter For High Dirt Loads



features:

- Heavy duty filter for high dirt loads of suspended solids and high flow rates
- Special design for removal of big size particles, such as leafs, sticks, nylon, etc.
- Carbon steel and stainless steel manufacturing material options. Special alloys up on request
- No interruption of downstream flow during flushing
- Production for sea water applications with corrosion resist materials
- Available in ASME Section VIII Division 1 design with "U" Stamp
- Exceptionally high filtration area & flow per unit
- ASME / Exd / Exe design, available on request
- Self lubricating bearings
- Applications: Membrane Protection, Municipal Water, Industrial Water, Oil & Gas and Irrigation, Sea Water Intakes

How Does MAP Filters Work?

General

Timex MAP Automatic Filters are perfect solutions to protect the main process lines from heavy dirt loads and big particles. Timex MAP Series consist of heavy duty filters with an electric self-cleaning mechanism. The MAP Series range in flow rates up to 4.500 m³/h, with screens designed ranging from 5.000 - 200 micron filtration degree. Inlet/Outlet flanges are available up to 32" diameter.

Filtration Process

Raw water enters the inside of Timex patented "cross screen" cylinder from the filter's inlet and flows through the screen to the filter's outlet. The gradual dirt building up on the inner screen surface causes a filter cake to develop with a corresponding increase in the pressure differential across the screen. A pressure differential switch senses the pressure differential when it reaches the preset value or after a preset time has elapsed, the cleaning process begins.

Self-Cleaning Process

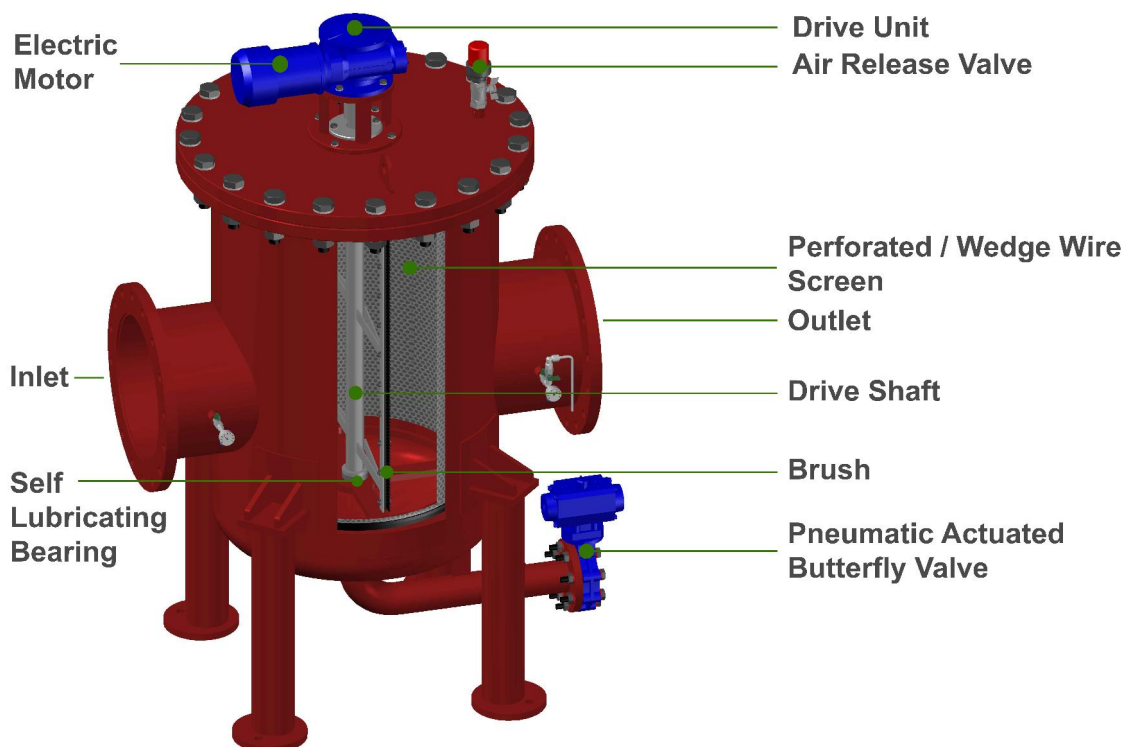
Cleaning of the filter is carried out by a brush system. The exhaust valve opens and drive unit starts to rotate the stainless steel / nylon brushes, which sweep the inner surface of the cylindrical screen. The particles trapped on the screen are dislodged by the brushes and flushed out the exhaust valve. During the self-cleaning process, filtered water continues to flow. Self-cleaning process is adjustable related to the dirt load.

Control System

The control system comprises of a pressure differential switch that senses the pressure differential across the screen and sends a signal to the control board when it reaches a pre-defined value (usually 0,5 bar / 7 psi), or when the predefined time elapsed the control board initiates the self-cleaning process.

The filter begins a self-cleaning cycle under any one of the following conditions;

- 1- Receiving a signal from the pressure differential switch.
- 2- Time interval parameter set at control board.
- 3- Manual start.



MAP-80 & 100 / MAP-125 & 150 / MAP-200 & 250

Technical Specifications (flow data at 1.500 micron, average water quality)

Filter Type	MAP-80	MAP-100	MAP-125	MAP-150	MAP-200	MAP-250
General Data *						
Maximum Flow Rate	45 m ³ /h (198 gpm)	70 m ³ /h (308 gpm)	110 m ³ /h (484 gpm)	160 m ³ /h (705 gpm)	280 m ³ /h (1.233 gpm)	440 m ³ /h (1.937 gpm)
Inlet / Outlet Diameter	DN80 (3")	DN100 (4")	DN125 (5")	DN150 (6")	DN200 (8")	DN250 (10")
	DIN2576, PN10, Flanged (ASME B16.5 150# SO.RF Flanged)					
Standard Filtration Degrees	Perforated screen 5.000, 3.500, 3.000, 2.500, 2.000, 1.500, 1.000 micron Wedge Wire screen 800, 500, 300, 200 micron					
Minimum Working Pressure	1 bar (15 psi)					
Maximum Working Pressure	10 bar (150 psi) Upper pressure ratings upon request					
Filtration Area	3.100 cm ² (480 in ²)		4.500 cm ² (700 in ²)		7.250 cm ² (1.120 in ²)	
Weight [empty]	180 kg (397 lb)	183 kg (403 lb)	202 kg (445 lb)	208 kg (459 lb)	330 kg (728 lb)	345 kg (761 lb)

* Subject to filtration degree & water quality / Other flange standards are available upon request

Flushing Data **			
Exhaust Valve	DN40	DN40	DN50
	Pneumatic actuated butterfly valve (2-8 Bar pressurized air required)		
Flushing Cycle (min.)	15 seconds		
Reject Water Volume Per Flush Cycle	50 liter (13 gallon)	62 liter (16 gallon)	83 liter (22 gallon)
Minimum Flow For Flushing	12 m ³ /h (53 gpm)	15 m ³ /h (66 gpm)	20 m ³ /h (88 gpm)

** Other type actuated valves (electric, hydraulic, etc.) are available upon request

Control and Electricity ***			
Electric Motor	0,37 kW (0,5 Hp)	0,37 kW (0,5 Hp)	0,55 kW (0,75 Hp)
Rated Operating Voltage	380V AC, 3 phase, 50 Hz		
Current Consumption	1,7 Amp	1,7 Amp	2,1 Amp
Control Voltage	24 VAC / 50 Hz (Std Board) / 24 VDC (PLC Board)		

*** Control Board (Std or PLC) are available upon request

Construction Materials ****	
Filter Housing & Lid	Carbon Steel, epoxy coating inside & outside
Screen	Perforated or Wedge Wire 304
Cleaning Mechanism	Stainless Steel 304
Brush Frames/ Brushes	PVC / Nylon
Exhaust Valve	Epoxy coated cast iron, natural rubber or EPDM
Seals	Synthetic rubber, NBR

**** Other construction materials & coatings for corrosive use, are available upon request.

MAP-300 & 350 / MAP-400 & 450 / MAP-500

Technical Specifications (flow data at 1.500 micron, average water quality)

Filter Type	MAP-300	MAP-350	MAP-400	MAP-450	MAP-500
General Data *					
Maximum Flow Rate	630 m ³ /h (2.774 gpm)	780 m ³ /h (3.434 gpm)	1.130 m ³ /h (4.975 gpm)	1.410 m ³ /h (6.208 gpm)	1.780 m ³ /h (7.837 gpm)
Inlet / Outlet Diameter	DN300 (12")	DN350 (14")	DN400 (16")	DN450 (18")	DN500 (20")
	DIN2576, PN10, Flanged (ASME B16.5 150# SO.RF Flanged)				
Standard Filtration Degrees	Perforated screen 5.000, 3.500, 3.000, 2.500, 2.000, 1.500, 1.000 micron Wedge Wire screen 800, 500, 300, 200 micron				
Minimum Working Pressure	1 bar (15 psi)				
Maximum Working Pressure	10 bar (150 psi) Upper pressure ratings upon request				
Filtration Area	12.000 cm ² (1.860 in ²)		16.000 cm ² (2.480 in ²)		22.000 cm ² (3.410 in ²)
Weight [empty]	568 kg (1.252 lb)	582 kg (1.283 lb)	874 kg (1.927 lb)	911 kg (2.008 lb)	1681 kg (3.706 lb)

* Subject to filtration degree & water quality / Other flange standards are available upon request

Flushing Data **			
Exhaust Valve	DN65 Pneumatic actuated butterfly valve (2-8 Bar pressurized air required)	DN80	DN100
Flushing Cycle (min.)	25 seconds	25 seconds	45 seconds
Reject Water Volume Per Flush Cycle	210 liter (55 gallon)	280 liter (74 gallon)	750 liter (198 gallon)
Minimum Flow For Flushing	30 m ³ /h (132 gpm)	40 m ³ /h (176 gpm)	60 m ³ /h (264 gpm)

** Other type actuated valves (electric, hydraulic, etc.) are available upon request

Control and Electricity ***			
Electric Motor	0,55 kW (0,75 Hp)	0,75 kW (1 Hp)	1,5 kW (2 Hp)
Rated Operating Voltage	380V AC, 3 phase, 50 Hz		
Current Consumption	2,1 Amp	2,5 Amp	4 Amp
Control Voltage	24 VAC / 50 Hz (Std Board) / 24 VDC (PLC Board)		

*** Control Board (Std or PLC) are available upon request

Construction Materials ****	
Filter Housing & Lid	Carbon Steel, epoxy coating inside & outside
Screen	Perforated or Wedge Wire 304
Cleaning Mechanism	Stainless Steel 304
Brush Frames/ Brushes	PVC / Nylon
Exhaust Valve	Epoxy coated cast iron, natural rubber or EPDM
Seals	Synthetic rubber, NBR

**** Other construction materials & coatings for corrosive use, are available upon request.

MAP-600 / MAP-700 / MAP-800

Technical Specifications (flow data at 1.500 micron, average water quality)

Filter Type	MAP-600	MAP-700	MAP-800
General Data *			
Maximum Flow Rate	2.540 m ³ /h (11.183 gpm)	3.460 m ³ /h (15.234 gpm)	4.500 m ³ /h (19.800 gpm)
Inlet / Outlet Diameter	DN600 (24") DIN2576, PN10, Flanged (ASME B16.5 150# SO.RF Flanged)	DN700 (28") DIN2576, PN10, Flanged (ASME B16.47-A 150# SO.RF Flanged)	DN800 (32")
Standard Filtration Degrees	Perforated screen 5.000, 3.500, 3.000, 2.500, 2.000, 1.500, 1.000 micron Wedge Wire screen 800, 500, 300, 200 micron		
Minimum Working Pressure	1 bar (15 psi)		
Maximum Working Pressure	10 bar (150 psi) Upper pressure ratings upon request		
Filtration Area	30.000 cm ² (4.650 in ²)	42.000 cm ² (6.510 in ²)	50.000 cm ² (7.750 in ²)
Weight [empty]	1.891 kg (4.169 lb)	2.980 kg (6.570 lb)	3.226 kg (7.112 lb)

* Subject to filtration degree & water quality / Other flange standards are available upon request

Flushing Data **			
Exhaust Valve	DN100 Pneumatic actuated butterfly valve (2-8 Bar pressurized air required)	DN150	DN150
Flushing Cycle (min.)	45 seconds		
Reject Water Volume Per Flush Cycle	875 liter (231 gallon)	1.470 liter (388 gallon)	1.750 liter (462 gallon)
Minimum Flow For Flushing	70 m ³ /h (308 gpm)	120 m ³ /h (528 gpm)	140 m ³ /h (616 gpm)

** Other type actuated valves (electric, hydraulic, etc.) are available upon request

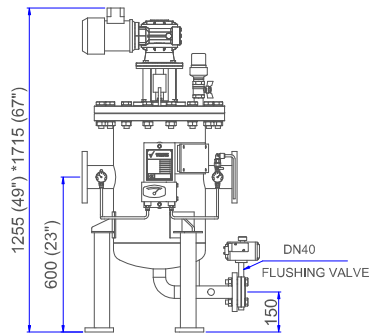
Control and Electricity ***			
Electric Motor	1,5 kW (2 Hp)	2,2 kW (3 Hp)	2,2 kW (3 Hp)
Rated Operating Voltage	380V AC, 3 phase, 50 Hz		
Current Consumption	4 Amp	5,5 Amp	5,5 Amp
Control Voltage	24 VAC / 50 Hz (Std Board) / 24 VDC (PLC Board)		

*** Control Board (Std or PLC) are available upon request

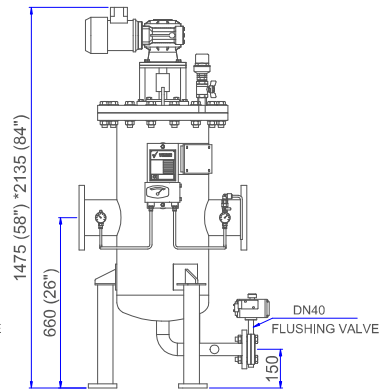
Construction Materials ****	
Filter Housing & Lid	Carbon Steel, epoxy coating inside & outside
Screen	Perforated or Wedge Wire 304
Cleaning Mechanism	Stainless Steel 304
Brush Frames/Brushes	PVC / Nylon
Exhaust Valve	Epoxy coated cast iron, natural rubber or EPDM
Seals	Synthetic rubber, NBR

**** Other construction materials & coatings for corrosive use, are available upon request.

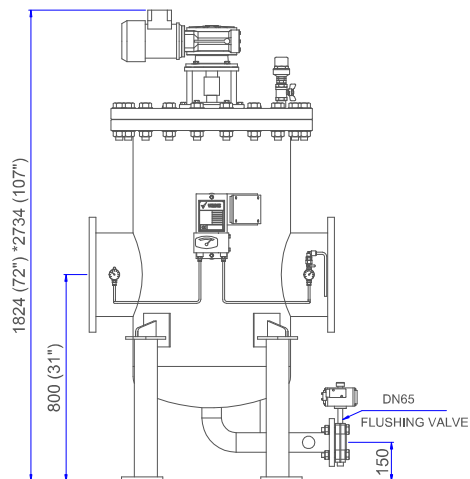
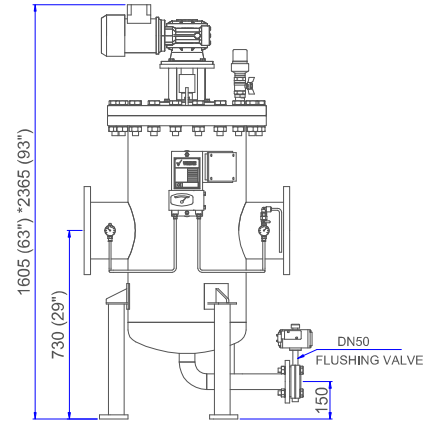
MAP-80 & MAP-100



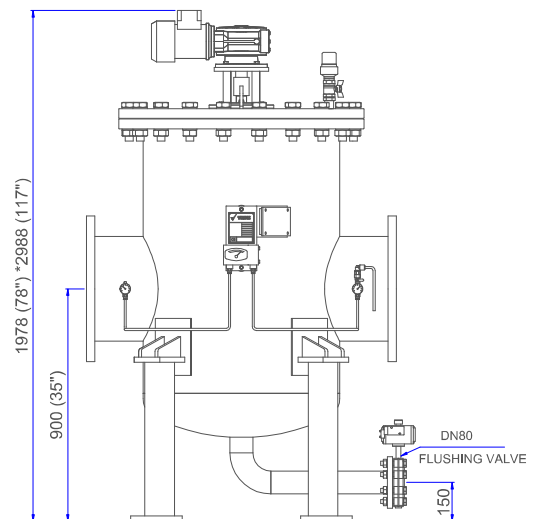
MAP-125 & MAP-150



MAP-200 & MAP-250

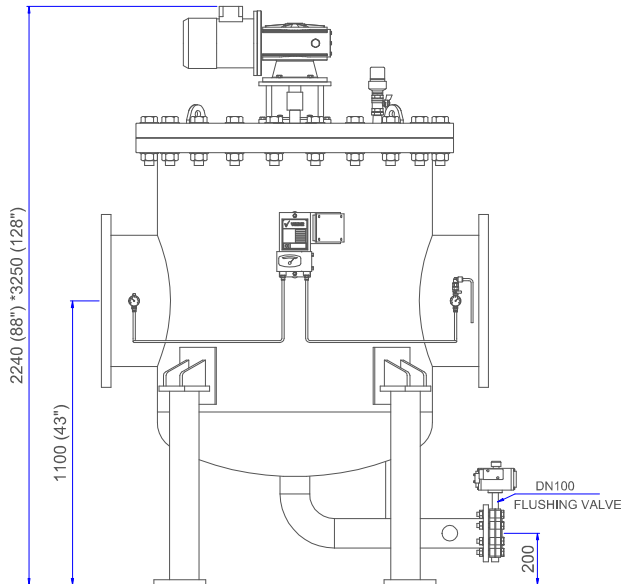


MAP-300 & MAP-350

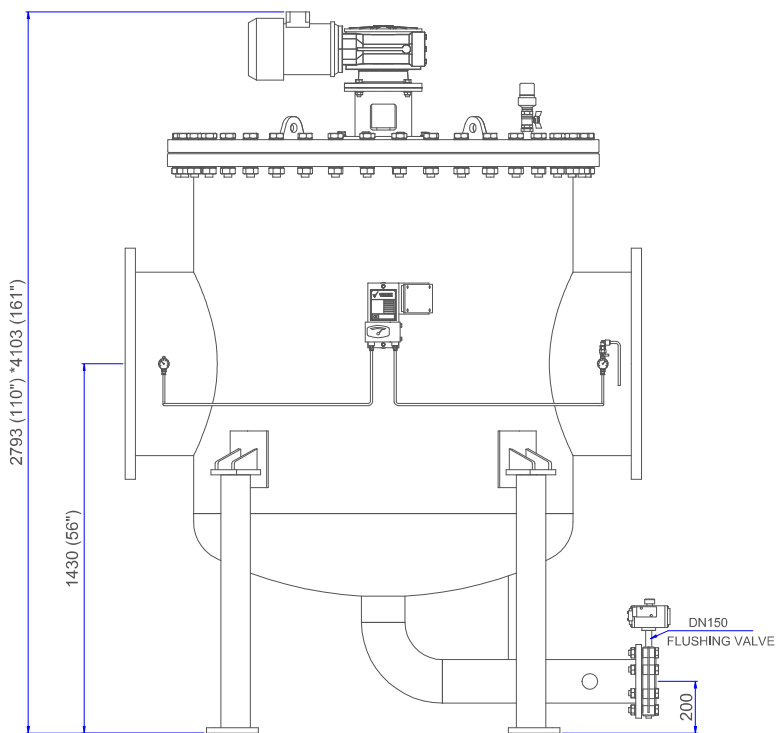
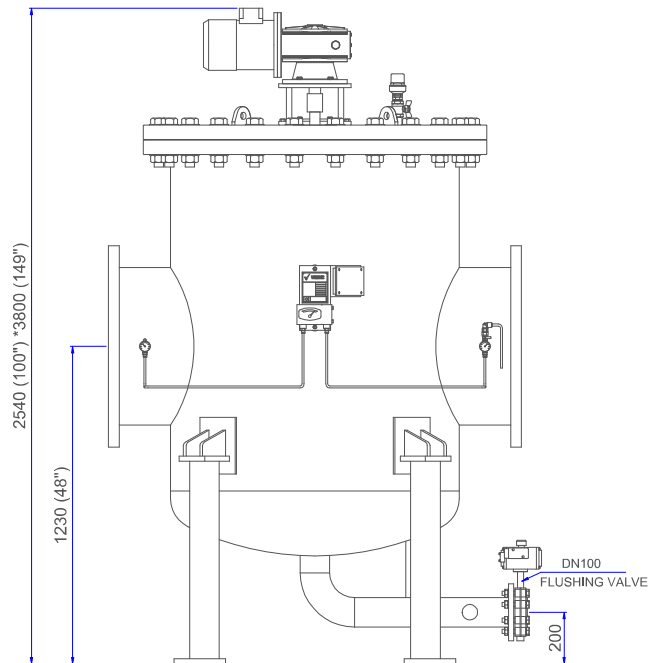


MAP-400 & MAP-450

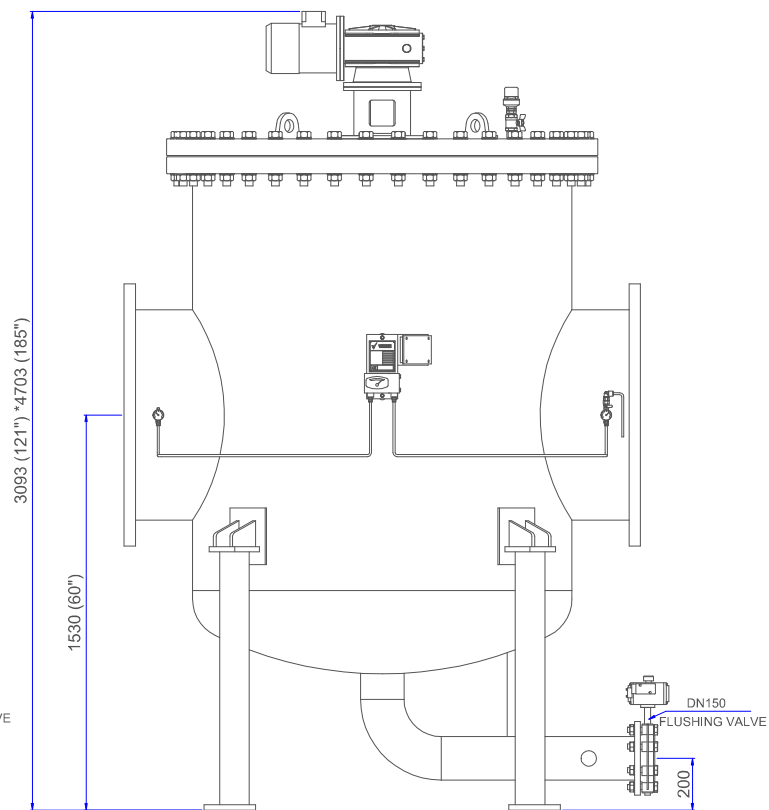
MAP-500



MAP-600



MAP-700



MAP-800



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,
Aquaculture, Green Houses

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