



LEVIATHAN SERIES

AUTOMATIC BRUSH FILTERS



Up to **8,000 m³/h**
Max. Flow Rate

200-6,000 µm
Filtration Degree

100%
Screen Cleaning

Less than 1%
Backwash Water
Consumption

1 bar (14.7 psi)
Min. Operating Pressure

Up to **80,000 cm²**
Filter Area

AD 2000 PV
Design Code

Max. Temp
60°C

ENGINEERED FILTRATION.

Filtersafe



ENGINEERED FILTRATION

With over three decades of experience in automatic water filtration, Filtersafe filters are equipped not only with state-of-the-art patented technology, but also the know-how to successfully integrate our solutions in industrial water applications.

Filtersafe filters can deal with the most challenging filtration solutions. That's why we are one of the top global suppliers for process automation worldwide.

- Oil & Gas Sectors
- Power & Energy Sector
- Water Reclamation & Desalination
- Municipal Water Treatment
- High-End Agriculture
- Other Industrial Needs



High-End Agricultural Project



Skid Packages

Reliable Filtration Durable Filters

Filtersafe brings you unrivaled value, effectiveness and durability. Our filters effectively remove high volumes of TSS and organic matter. We are able to manufacture filtration systems in skid format, and can also supply with stand-by functionality for:

- **Typical Installations Includes:**
- Prefiltration for cooling tower water
- Intake water from surface water for irrigation
- Mining
- Metallurgical industries
- Aquaculture & Fish ponds
- Wastewater treatment plants
- Seawater filtration

With several global support hubs and two strategically placed manufacturing facilities, Filtersafe provides fast and reliable service in presale and post sale situations.



Pre-Treatment Project

LEVIATHAN SERIES

- ✓ **Multi-Purpose Filtration Solution.** Optimized for industrial, municipal and agricultural applications.
- ✓ **Huge filtration area in small footprint.**
- ✓ **Minimal line pressure needed for operation.**
- ✓ **Continual operation - No down time when flushing.**
- ✓ **Robust design with a single moving part means minimal maintenance.**
- ✓ **Highly effective cleaning with over 99.2% Recovery Rate and full screen recovery.**
- ✓ **P.V. Design according to: AD2000 Merkblatt.**
- ✓ **Rubber lining on request!**

Custom Features:

- Skid Mounting - for plug & play and mobility.
- Rubber Lined - for seawater and chemical applications
- Horizontal Orientation - for customized installations
- ATEX & IECEx hazardous area compliance upon request

International and National Design Codes Compatibility

Filtersafe builds when required to ASME & PED standards and can comply with any international specifications or requirements.



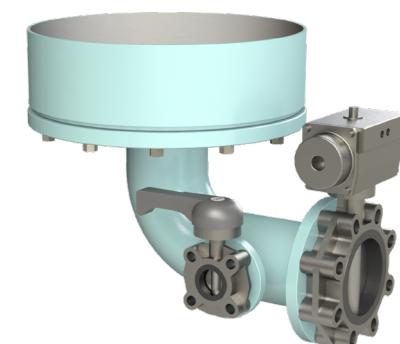
Elegant and Robust Design



Durable Screen Design



A Single Moving Part



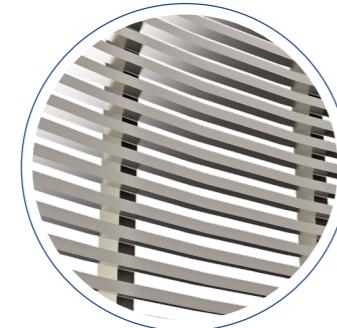
Lower Chamber Traps Heavy Particles

OUR TECHNOLOGY

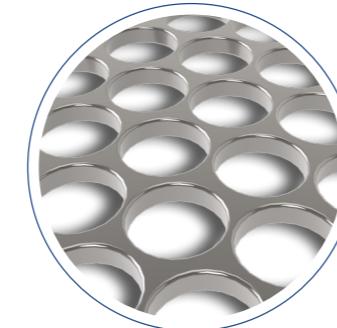
The Filtersafe Leviathan Automatic Brush filters are reliable filters that work hard for you, designed for near zero maintenance. The filters are available with either wedge-wire or perforated screens. Both options use a heavy-duty, highly-durable brush for cleaning high loads of suspended solids with continuous operation.



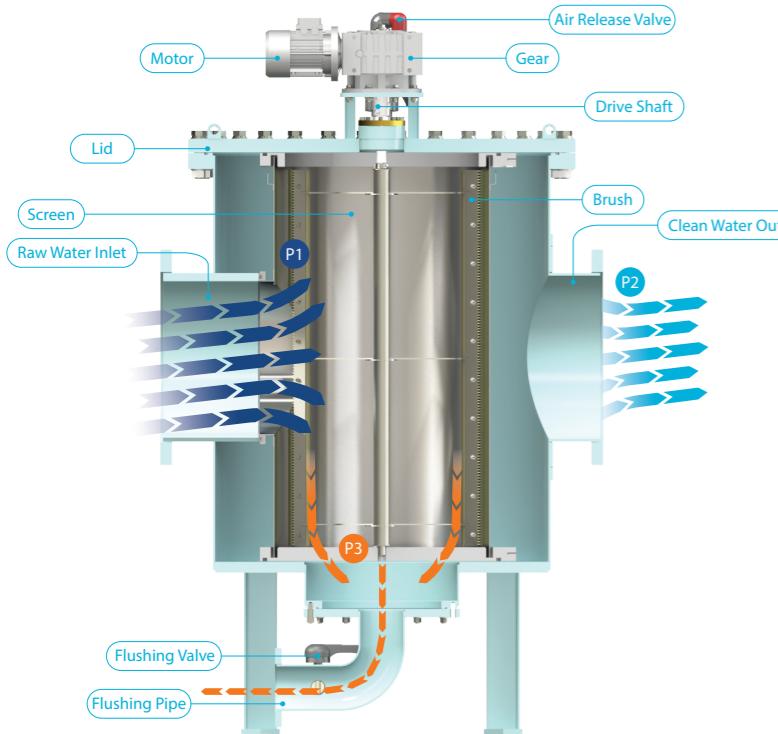
Brush Filter Cleaning



Wedgewire Screen



Perforated Screen



Cleans while in operation:

1. The wedge-wire or perforated screen traps solids and dirt.
2. As sediments and particles are trapped, pressure differential between the inlet and the outlet triggers the cleaning process.
3. The brushes rotate and removes all captured particles on the screen surface towards the open flushing valve.
4. The filter returns to its original state.

P1 Inlet pressure
P2 Outlet pressure
P3 Discharge pressure
P1 - P2 = ΔP across the screen
P1 - P3 = Pressure difference at the discharge point shall be at least 1 (bar)

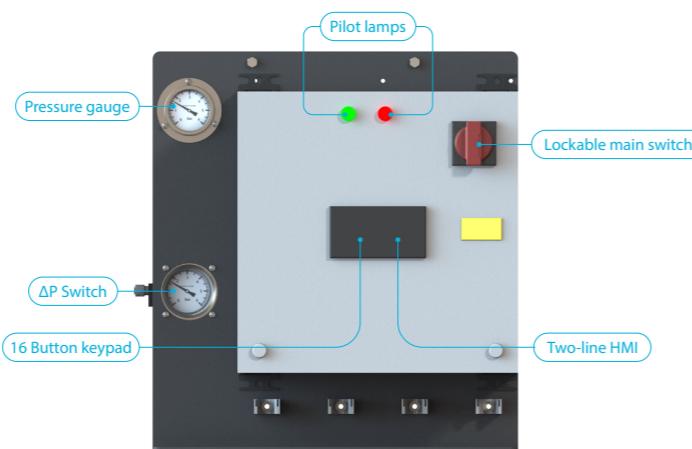
Main features for control board

- The power and control board, made with a high quality of design and materials.
- Siemens LOGO PLC-based control board or Unitronics based controller, with easy operation method.
- Useful hard-wire interface for customer monitoring and operation.

Optional

- Modbus TCP (Ethernet) communication interface for detailed system monitoring.
- Two analog input for system pressure operation and monitoring.

* Advanced control boards are available upon request.



LEVIATHAN SERIES

Automatic Brush Filters | Technical Specifications

1 | GENERAL DATA

	LEVIATHAN 120 #LEV0120	LEVIATHAN 200 #LEV0200	LEVIATHAN 300 #LEV0300	LEVIATHAN 400 #LEV0400	LEVIATHAN 500 #LEV0500	LEVIATHAN 600 #LEV0600	LEVIATHAN 700 #LEV0700	LEVIATHAN 800 #LEV0800
Max Capacity** (m ³ /hr.)	1,080	1,800	2,700	3,600	4,500	5,400	6,300	7,200
Inlet/Outlet (Flanged)	14"	20"	24"	28"	32"	36"	By request	
Configuration	Online					Inline		
Filtration Degrees						200-6,000 μ m		
Cleaning Mechanism						Nylon Brush, type dependent on application*		
Min. Pressure						1 bar		
Pressure Rating						10 bar*		
Design Code						AD 2000 PV Design code*		
Power Supply						380-480 AC		
Weight (Dry) kg	470	1,340	2,300	2,300	3,410	3,610		
Weight (Wet) kg	740	2,300	4,200	4,500	6,160	6,940		
							Contact us for more information	

2 | OPERATION

Min. Flush Flow Rate	35 m ³ /h	45 m ³ /h	70 m ³ /h	125 m ³ /h	125 m ³ /h	125 m ³ /h	
Min. Flush Volume (@ 1bar)	0.25 m ³	0.32 m ³	0.88 m ³	1.57 m ³	1.57 m ³	1.57 m ³	
Flush Duration	25 sec.	25 sec.	45 sec.	45 sec.	45 sec.	45 sec.	
Flushing (Flanged)	3"	4"	6"	6"	6"	6"	Customized

3 | SCREEN DATA

Screen Area (cm ²)	12,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000
Filtration Medium	Wedge wire or Perforated, 1 layer							
Screen Material	316L, 904L, SDSS							

4 | CONTROL & ELECTRICITY

Motor	0.55 KW (0.75HP)	1.1 KW (1.5HP)	1.5 KW (2HP)	1.5 KW (2HP)	2.2 KW (3HP)	2.2 KW (3HP)	
Controller Type	Siemens PLC with HMI						
Control Voltage	24VDC						

5 | CONSTRUCTION MATERIALS

Body	Carbon steel
Internal Finish	Epoxy coating*
External Finish	Epoxy base coat + Polyurethane (Munsell 7.5 BG 7/2)
Internals	316L, composite materials
Seals	NBR/EPDM

*Other Equipment, Materials, Coatings, & Design Codes (including ASME) available upon request - According to any national or international standard.
**Dependent on filtration degree and water quality. Contact us for more information.

Contact Us for More Info:

sales@filtersafe.net | www.filtersafe.net

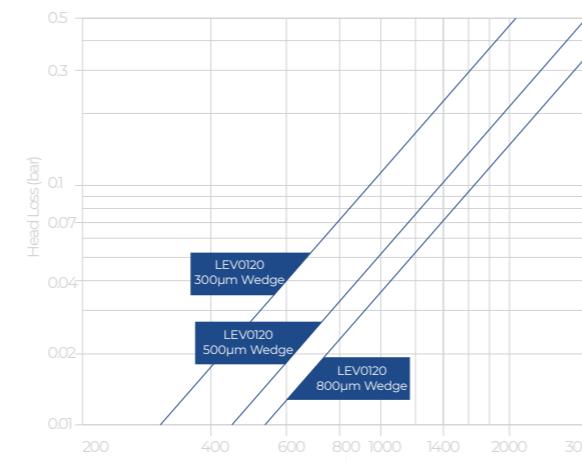
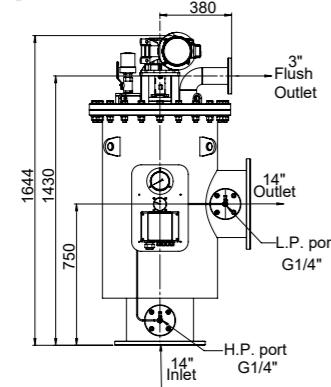
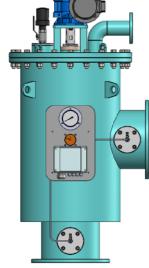
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LEVIATHAN SERIES

Automatic Brush Filters | Dimensions and Headloss

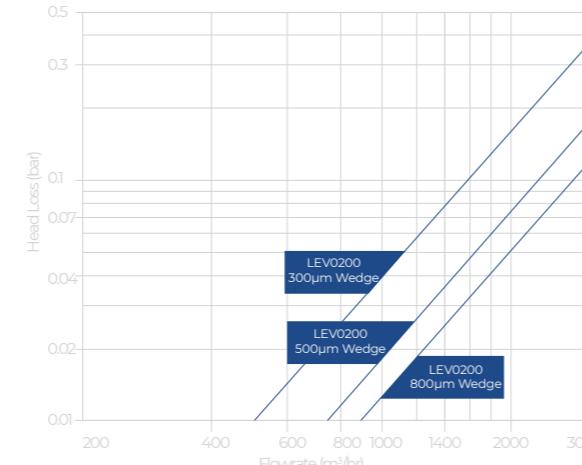
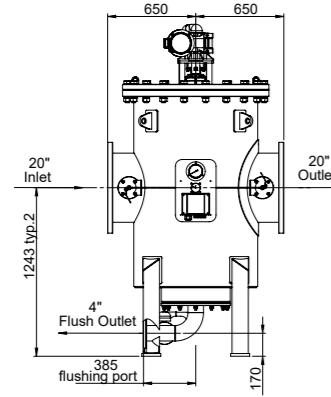
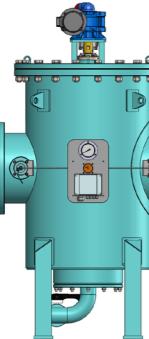
LEVIATHAN 120

#LEV0120



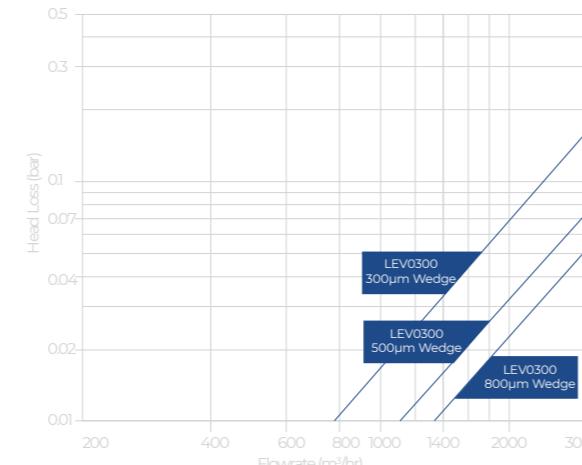
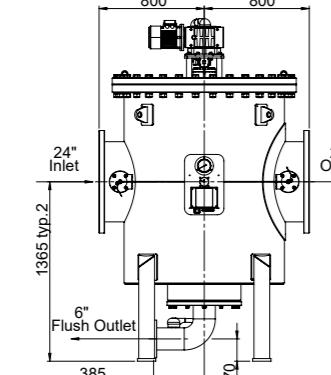
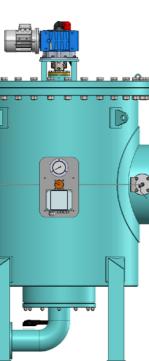
LEVIATHAN 200

#LEV0200



LEVIATHAN 300

#LEV0300

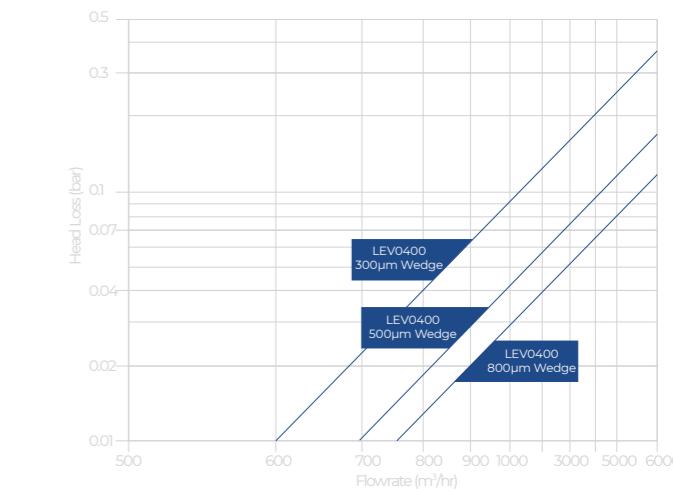
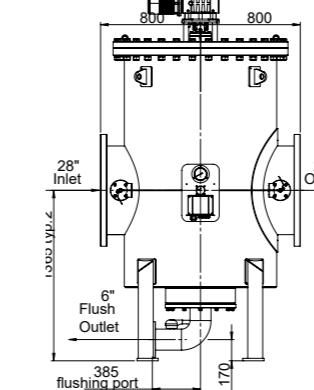
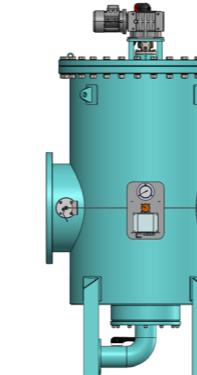


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Automatic Brush Filters | Dimensions and Headloss

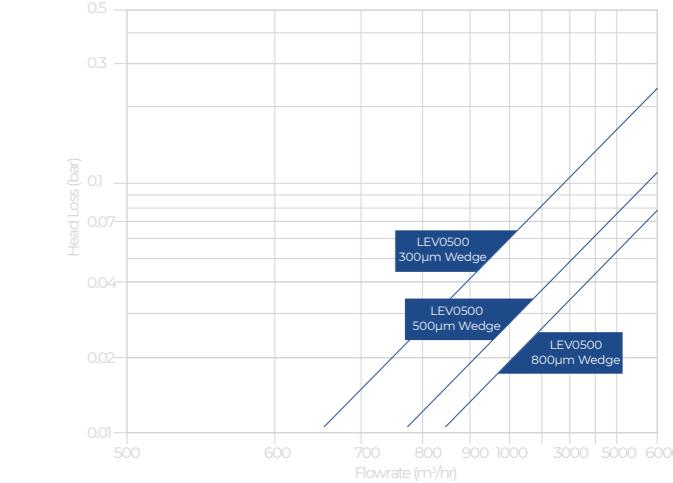
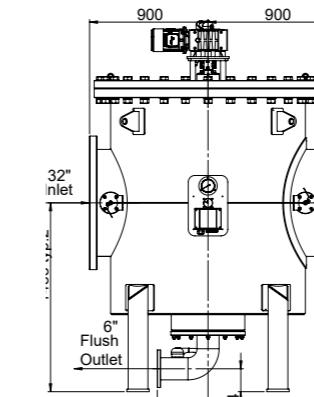
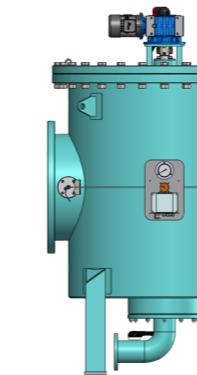
LEVIATHAN 400

#LEV0400



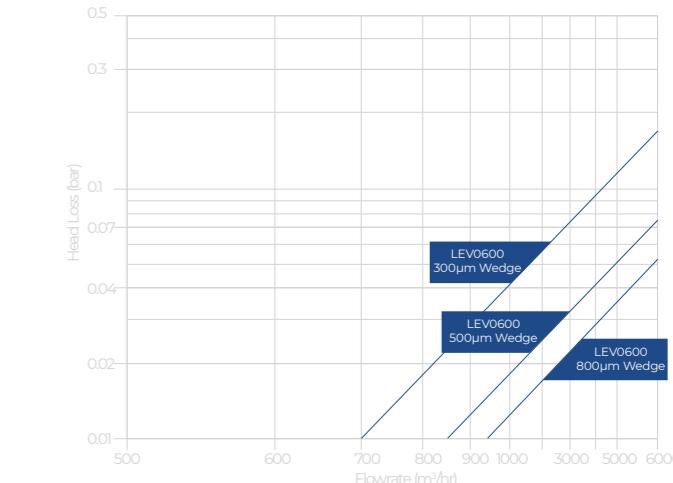
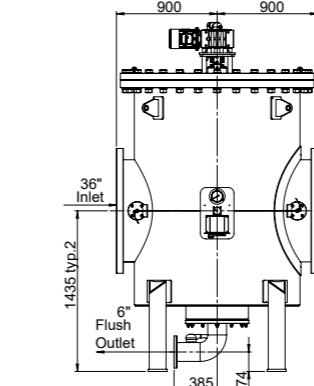
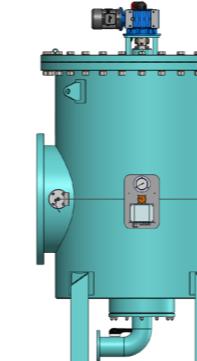
LEVIATHAN 500

#LEV0500



LEVIATHAN 600

#LEV0600



LEVIATHAN 700

#LEV0700

Contact Us for More Info:

LEVIATHAN 800

#LEV0800

Contact us at sales@filtersafe.net for more information



● OUR HEADQUARTERS

Our flagship factory. The 4,000 m² building contains our regional sales offices, R&D facilities and manufacturing and assembly plant. The facility is capable of handling very large volumes of production with an incredibly fast lead time.

sales@filtersafe.net

ASIA

● HONG KONG

Our Hong Kong manufacturing and assembly plant produces our entire line of products to the region, and is supported by a world-class steel fabrication facility.

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● Filtersafe Offices

● Filtersafe Manufacturing Facilities



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