



TRIDENT E SERIES



AUTOMATIC ELECTRIC SELF-CLEANING SCREEN FILTER

Up to **600 m³/h**
Max. Flow Rate

80-500 µm
Filtration Degree

10 bar
Max. Operating Pressure

Less than 1%
Backwash Water
Consumption

1.6 bar (23 psi)
Min. Operating Pressure

Up to **12,000 cm²**
Filter Area

AD 2000
Design Code

Max. Temp
65°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 and Agricultural water applications.

Filtersafe filters can deal with the most challenging filtration situations. That's why we are one of the top global filtration manufacturers worldwide.

- o High-End Agriculture Sector
- o Aquaculture Sector
- o Industrial Filtration
- o Municipal Water Treatment
- o Other Industrial Needs



Industrial Process Water Installation



Pre-Filtration for Water Treatment

Reliable Filtration Durable Filters

Filtersafe brings you unrivaled value, effectiveness and durability. Our filters effectively remove high volumes of TSS and organic matter. The variety of our filter series provides functionality for a range of applications:

Typical Installations Includes:

- o Surface water Intake for irrigation
- o Protection for drip & sprinkler systems
- o Aquaculture & fish ponds
- o Prefiltration for cooling tower water
- o Wastewater treatment plants
- o Seawater filtration

With numerous global support hubs and two strategically placed manufacturing facilities, Filtersafe provides fast and reliable service in pre- and post-sales situations.

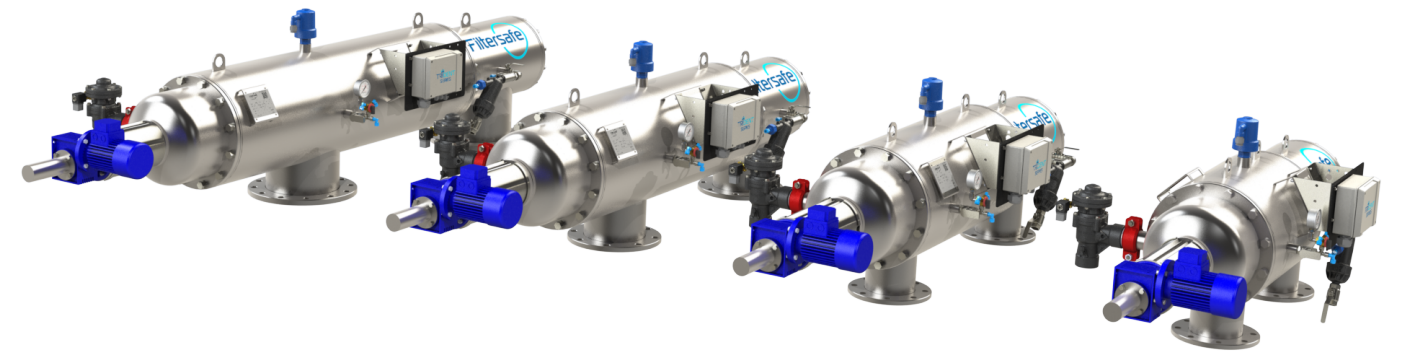


Nozzles Protection (De-Dusting) for Mining

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The Filtersafe Trident E Automatic Screen filters are durable and reliable with a large preliminary screen that is ideal for situations with challenging water and low pressure requirements, such as Greenhouses, Drip Irrigation, or other Industrial and Municipal needs with high loads of TSS. The Trident E provides an uninterrupted supply of clean filtered water even during the flushing cycle.

- ✓ Full 316 Stainless Steel Construction
- ✓ nozzleX Patented Proximity Nozzles + 4 Layer smartweave Sintered Screen = EVERCLEAR Automatic Self-Cleaning Process
- ✓ Large Preliminary Screen Protection for Direct Primary Water Sourcing
- ✓ Horizontal and Vertical Models Available
- ✓ Ideal for Low Pressure
- ✓ The Filters are Plug & Play
- ✓ High Flow & Large Filtration Area
- ✓ Failsafe NC Flush Valve



Our Patented Technologies

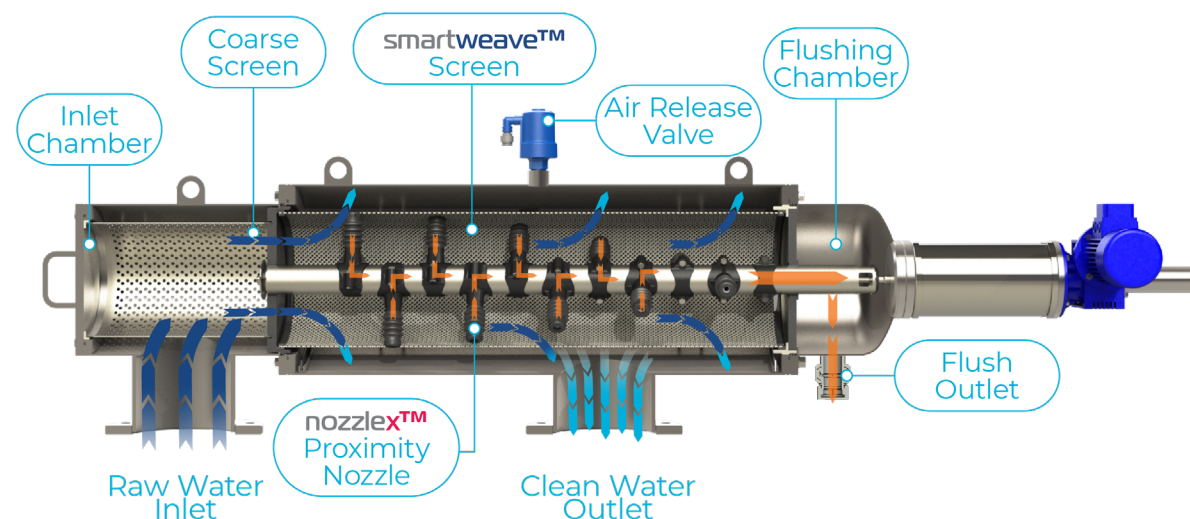
	+		=	
smartweave™		nozzleX®		EVERCLEAR™
high performance filtration screens:		self-cleaning cycle for maximum removal efficiency:		An unparalleled automatic filtration cycle.
<ol style="list-style-type: none"> 1. Multi-layered sintered structure 2. Enhanced strength & durability 3. Available in 316L, 904L, SMO254 		<ol style="list-style-type: none"> 1. Self balancing cleaning nozzle 2. High Efficiency clean 3. Zero screen wear + reduced nozzle wear 4. Low pressure operation 		

TRIDENT E SERIES

Operation and Control of our Filter

Cleans While In Operation

1. The cleaning is initiated by either differential pressure (DP) build-up across the **smartweave™** fine screen when it's dirty, by a timer, or by manual flush which is controlled by an external PLC controller.
 2. The cleaning cycle starts by opening the flush valve, allowing water from the clean side of the screen to reverse back through the screen surface at high velocity, dislodging entrapped particles off the screen to the **nozzlex** cleaning nozzles and expelled from the filter.
 3. The cleaning mechanism is rotated by a drive motor and moved laterally with the cleaning nozzles to completely clean the screen. The filter remains online during the cleaning process allowing for a continuous flow of clean filtered water downstream without any interruption.
- All settings determined by controller. Cleaning cycle initiation possible via preselected DP level, specific time, or combination of both. Length of flush is customizable.



Robust Controllers

Our controllers automatically manage the flushing of your Trident E filters.

- Quick & intuitive setup
- Wide voltage range.
- Useful hard-wire interface for customer monitoring and operation.

Optional:

- Modbus TCP (Ethernet) communication interface for detailed system monitoring.

Choose between the Unitronics Jazz! controller that can control up to 4 filters and the Siemens LOGO! controller for a Cost-effective solution for stand-alone applications.

PLC	# Of Filters	Voltage	Communication
Unitronics Jazz	1-4	3 phase 190 – 480V, 50/60Hz + PE	Modbus TCP (Ethernet)
Siemens LOGO!	1	3 phase 190 – 415V + Neutral. 50/60Hz + PE	Modbus TCP (Ethernet)

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Technical Specifications

1 | GENERAL DATA

	Trident 4800E #TRE0048	Trident 7200E #TRE0072	Trident 9600E #TRE0096	Trident 12000E #TRE0120
Max Capacity** (m ³ /hr.)	180	280	400	600
Inlet/Outlet**	4"-6" Flange	6"-8" Flange	8"-10" Flange	10"-12" Flange
Configuration	Horizontal	Horizontal	Horizontal	Horizontal
Filtration Degrees	80-500 µm			
Cleaning Mechanism	Patented nozzlex Proximity nozzle			
Min. Pressure	1.5 bar			
Pressure Rating	10 bar*			
Design Code	AD 2000 Merkblatt			
Power Supply	380/415 VAC : 3 PH 50 HZ			
Weight (Dry) kg	140	180	200	230
Weight (Wet) kg	230	350	400	470

2 | OPERATION

Min. Flush Flow Rate (5 m ³ /hr. per nozzle)*	17.5 m ³ /hr	24.5 m ³ /hr	38.5 m ³ /hr	49 m ³ /hr
Min. Flush Volume (@ 1bar)	131 L	184 L	289 L	368 L
Flush Duration	27 sec.			
Flushing	2" Victaulic			
No. of Nozzles	5	7	10	12

3 | SCREEN DATA

Screen Area (cm ²)	4,800	7,200	9,600	12,000
Filtration Medium	smartweave™ 4-layer sintered weaved screen fine filter, protected by coarse 6mm Pre screen			
Screen Material	AISI 316L			

4 | CONTROL & ELECTRICITY

Motor	1,500 Rpm, 0.18 Kw (MS 6324) For B5/63, 0.5-0.65 Amp.			
Controller Type	Unitronics Jazz / Siemens LOGO!			
Control Voltage	24VDC			

5 | CONSTRUCTION MATERIALS

Body	AISI 316L			
Internal & External Finish	Passivation & Pickling			
Internals	NBR, PPH, POM-C, PP, PVC, AISI 316			
Seals	NBR			

* Dependent on filtration degree, water quality and inlet size. Contact us for more information.

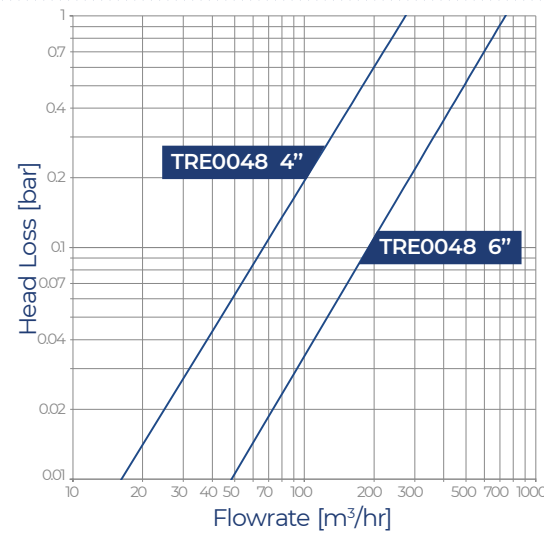
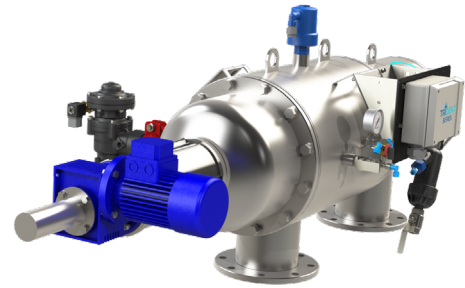
** Other Equipment & Materials are available on request.

*** Available in DIN PN10/16, British standard BSTD/E, ANSI B16.5 150PSI. For additional standards contact us.

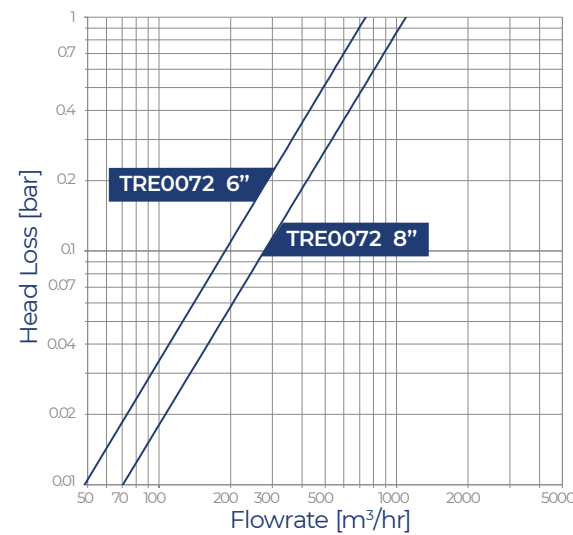
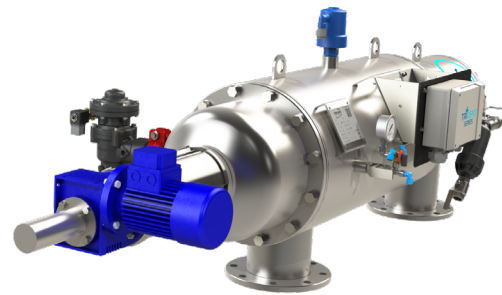
TRIDENT E SERIES

Dimensions and Headloss

Trident 4800E #TRE0048



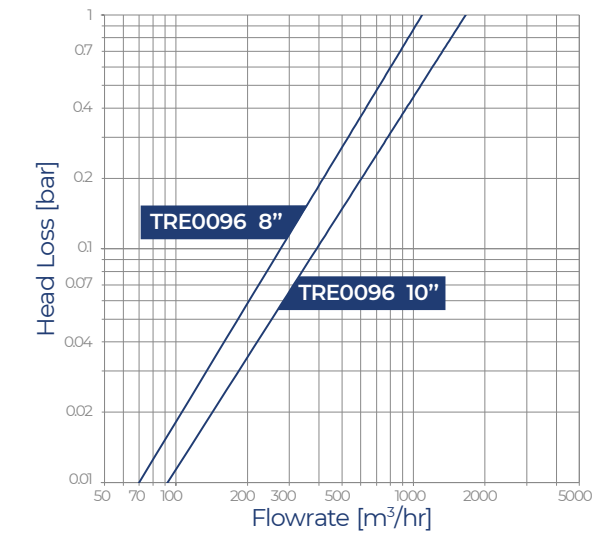
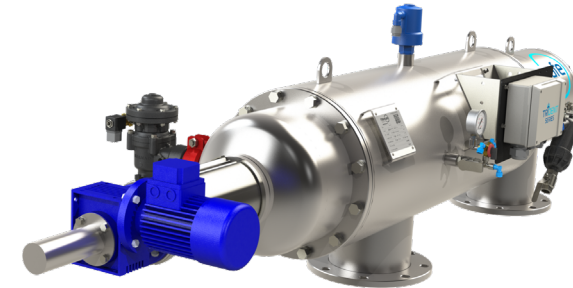
Trident 7200E #TRE0072



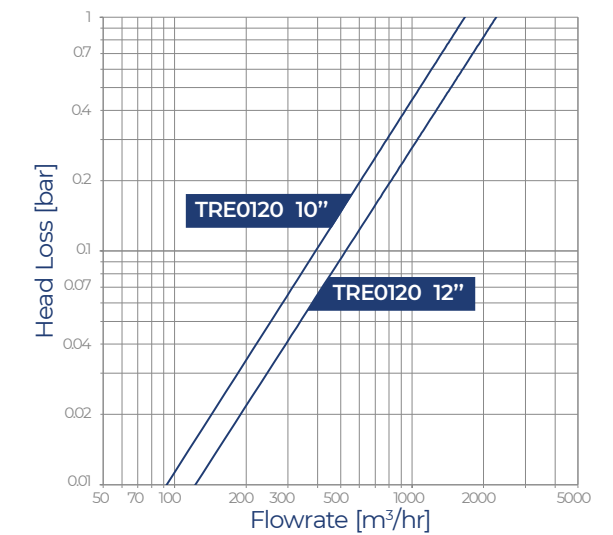
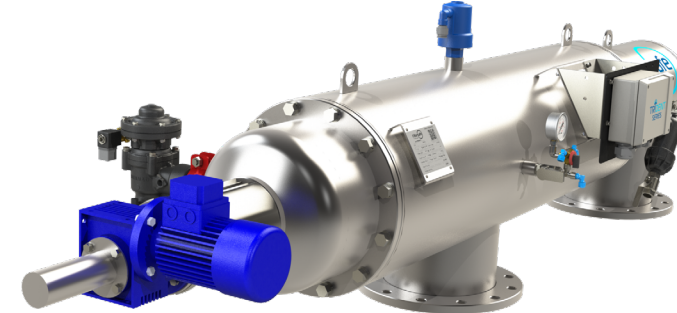
TRIDENT E SERIES

Dimensions and Headloss

Trident 9600E #TRE0096

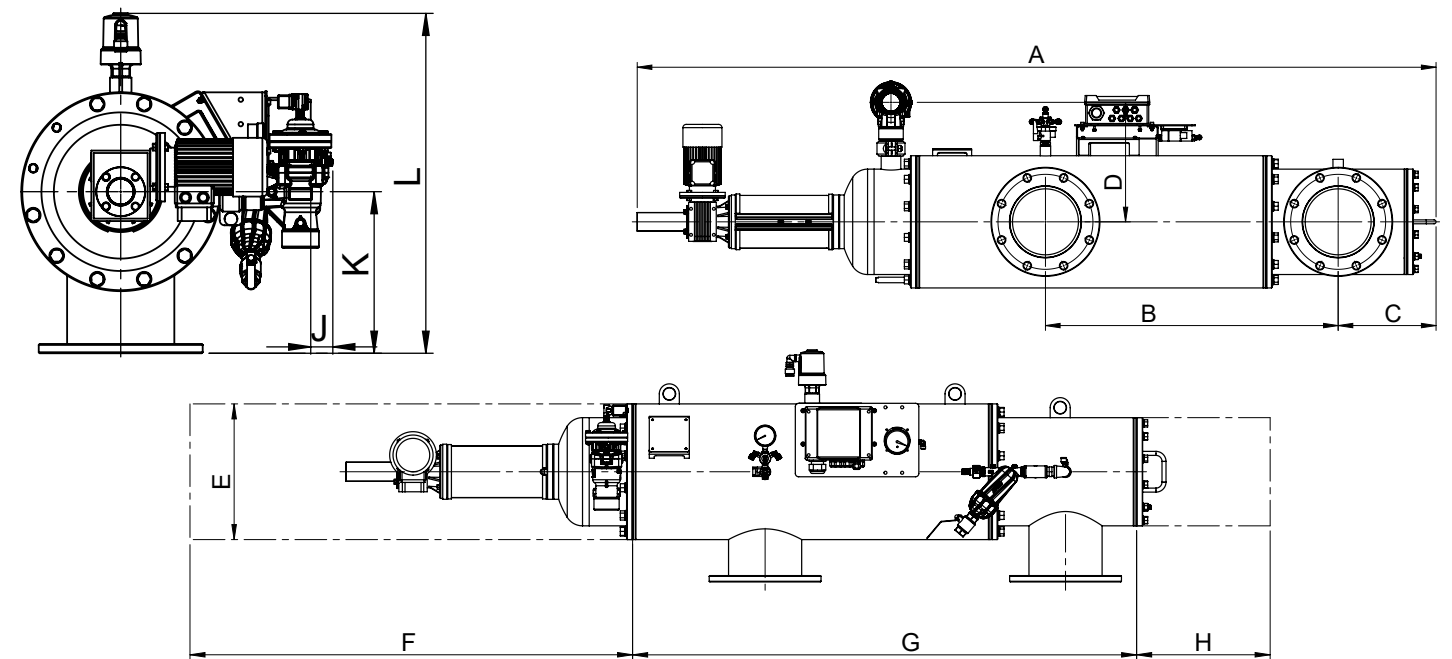


Trident 12000E #TRE0120



MODEL	DIMENSIONS (mm.)										
	A	B	C	D	E	F	G	H	J	K	L
Trident 4800E #TRE0048	1,905	620	283	367	406	924	956	400	821	330	694
Trident 7200E #TRE0072	2,182	900	254	367	406	1,501	1,235	400	821	330	694
Trident 9600E #TRE0096	2,456	900	301	367	406	1,326	1,510	400	821	330	694
Trident 12000E #TRE0120	2,831	1,100	311	367	406	1,601	1,885	400	821	330	694

The tolerance is +-3 mm



Contact Us for More Info:

sales@filtersafe.net | www.filtersafe.net

DOC-00561



● 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



www.filtersafe.net



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