

Some photographs of **Filternox**® Automatic Self Cleaning Filter applications having a successful performance in automotive, iron/steel, food, energy, plastics, textile, leather, chemical, mining, metallurgy, wood-working, agricultural irrigation and all other industries in addition to municipalities, residences and hotels domestic, potable and irrigation water systems.



Superior Characteristics

- Completely stainless steel
- Uninterrupted filtration during back-flush
- Filtration in pressurized lines
- Filtration under all temperatures and pressures
- Large filtration area
- 100% back-flush efficiency
- 10-80 seconds back-flush period
- Minimum water consumption during backflushing
- Easy installation and maintenance
- Operation without extra energy
- Negligible head loss
- Non disposable filter elements

Application Areas

- Cooling water
- Condense water
- Well water
- Sea, lake, river water
- Sugar juice
- White water
- Potable water
- Irrigation water
- Use of wastewater for irrigation
- Recreation areas, gardens, landscape irrigation
- Baby mussels filtration
- Golf course irrigation
- Filtration of other liquids

We are proudly presenting **Filternox**® filters developed by Turkish engineers. **Filternox**® filters, with their stainless steel structure, large filtration area and other superior characteristics will provide you better performance than similar devices and your management cost will decrease noteworthy.

Thank you for preferring our product and we hope you enjoy using your **Filternox**® for long years.

Filternox®
AUTOMATIC SELF - CLEANING FILTER

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Filternox®
AUTOMATIC SELF - CLEANING FILTER

COMPLETELY STAINLESS STEEL

LARGE FILTRATION AREA

the solution
in filtration

EASY INSTALLATION AND MAINTENANCE

INOX

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Filternox®

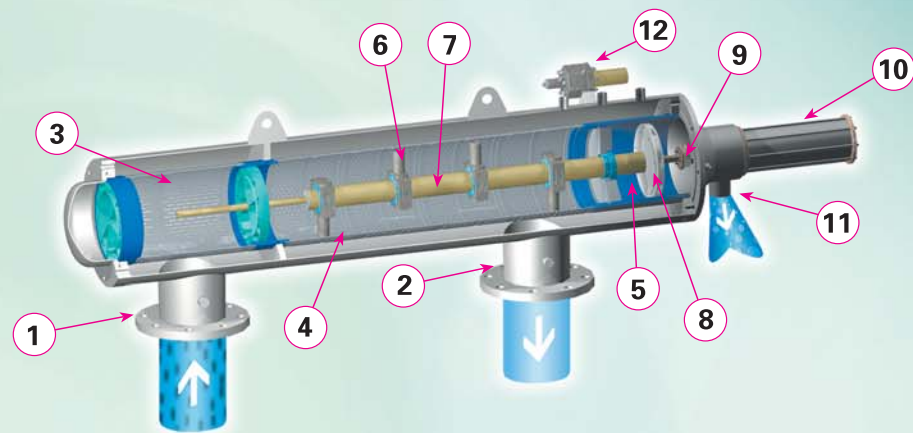
AUTOMATIC SELF - CLEANING FILTER

Efficient filtration from 3000 down to 15 microns

ANTEL Treatment Systems Construction Industry & Commerce Co., Inc., by deriving from its own experiences and researches in environmental technology and with ANTEL Research & Development engineers has developed Automatic Self-Cleaning filters and has introduced them into the market under registered **Filternox®** trade mark. **Filternox®** Automatic Self-Cleaning Filters, physically filtrate suspended solids, particles, macroorganisms and other solid state contaminants and by protecting industrial systems and equipment, modern agricultural irrigation systems, water systems and by preventing mechanical corrosion, amortize their cost in a short time.

Filternox® Automatic Self-Cleaning Filters, with their stainless steel structure, large filtration area, hydraulic pressure operation without requiring any additional power, automatic back-flush system, installation and maintenance ease and unlimited flow-rate have superior characteristics compared to competitive devices. **Filternox®** filters by providing much higher performance under more favorable conditions, find applications in many different areas in industries and agriculture as well as in sea water, well water and surface water filtration.

General Operating Principles



As the water enters into filter inlet **1**, it is prefiltered through the coarse screen **3** to prevent large particles entry that will damage the fine screen and internal parts.

Then water passes into the second filtration section that contains multi-layer fine screen **4**. This screen is protected by a robust coarse mesh that also provides a prefiltration. While water passes through the fine screen towards the outlet **2** the particles within the water accumulates on the inside surface of the fine screen and produce a dirt layer. The dirt layer itself will act as a filter and collect much smaller particles than the stainless steel screen. The difference between the filter inlet pressure and the outlet pressure is called the differential pressure (ΔP).

As the dirt layer builds up on the screen, and when it is thick enough to cause a certain differential pressure value the flush cycle is started. At a preset value, back-flush control unit **12** opens flushing discharge valve **9** and a strong back-flush stream that goes off to the atmosphere via drainage pipe **11** occurs. That flow creates a suction effect in front of the nozzles **6** and sweeps the dirt collected on the fine screen.

The dirty water sucked from the fine screen surface flows through the collector pipe **7** and the hydraulic turbine **8** and impels a rotary movement of the dirt collector while going off the drainage pipe. At the same time the drop of the pressure in the hydraulic turbine **5** and drainage of piston **10** forces the dirt collector into an axial movement. This turning and axial movements together create a helical movement that enables the suction nozzles to sweep the entire screen area.

When backflushing is completed, a second flushing cycle is automatically triggered by pushing the collector assembly to its original position and the filter remains ready for the next flushing cycle. The combined flush cycle takes 10-60 seconds depending to the model. During backflushing the filtration process is not interrupted.

For models equipped with automatic self-cleaning coarse screen, the automatic valve which can be adjusted by timer or differential pressure opens automatically, and the dirt layer accumulated on the coarse screen is scraped off by hydraulic current and is discharged.

To choose a model consult **Filternox®** experts. ANTEL-**Filternox®** reserves the rights to modify any of the technical information in this brochure without prior notification.

Models

Uninterrupted filtration in pressurized pipelines!

Filternox® Automatic Self-Cleaning SFH and SPT models are without coarse screen, they are convenient for low flow applications such as local irrigation systems and secondary filtration for irrigation.

Filternox® SFH-SPT models are also suitable for industrial plants and domestic applications with low flow use.

Filternox® Automatic Self-Cleaning Filters, with their stainless steel structure, hydraulic pressure operation without requiring any additional power, automatic self-cleaning system, installation and maintenance ease provide the final and permanent solution.

Economical Models



SFH

SPT

Uninterrupted filtration in all fields!

Filternox® PFH models are standard piston type, and their inlet-outlet range varies from 4" to 10" and their capacity range varies 100 m³/h our to 400 m³/hour.

Filternox® PFH models with their special stainless steel mesh provide larger filtration area compared to competitive devices.

Filternox® PFH models, with their stainless steel structure, hydraulic pressure operation without requiring any additional power, manual coarse screen and automatic self-cleaning fine screen provide better performance in all industrial applications as well as in irrigation and water treatment fields.

Standart Models With Piston



PFH

Smallest space, larger filtration!

Filternox® TWIN and TRIPLET models have multiple fine screen modules with one inlet and outlet and they are ideal for high flow rates and high dirt loads. Their inlet and outlet range varies from 6" to 16" and their capacity range varies from 200 m³/h to 1500 m³/h in one unit.

Filternox® TWIN and TRIPLET models render possible the installation without need of collector on the big diameter pipelines.

Models With Large Filtration Area



TWIN

TRIPLET

Two stage filtration in one filter unit! With rust proof body, ideal and permanent solution for sea water and surface water filtration!

Filternox® OPTIMIST and KATAMARAN models with extra automatic self-cleaning system for coarse screen besides automatic self-cleaning fine screen enable to make two-stage filtration in one filter unit.

Automatic self-cleaning **Filternox®** OPTIMIST and KATAMARAN models, provide the final and permanent solution for sea, lake and river water filtration.

Models With Extra Automatic Self-Cleaning



OPTIMIST

KATAMARAN

FINE SCREEN RANGE														
Micron	15	30	40	50	80	100	120	150	200	300	400	800	1500	3000