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FAIRFIELD SERVICE COMPANY

Providing excellence in Service, Product, and Value in our efforts to support the Water, Wastewater, and Material Conveyance industries since 1978.

FINE SCREENS



PERFOGATOR-I (TRAVELING WATER SCREEN)



STREAM GUARD



PERFOGATOR-II (PERFORATED SCREEN)

Salient Features

- ▶ Heavy weight steel construction
- ▶ For big discharge heights and deep channels.
- ▶ For high flow rates.
- ▶ Lifting of screenings at lowest level possible.
- ▶ Minimize maintenance in the channel.
- ▶ Reliable equipment life.
- ▶ Screening down to 1 mm.



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PERFOGATOR-I (TRAVELING WATER SCREEN)

Perfogator-I is the industry standard for raw water intake installations. Industrial facilities use these screens when adjacent to a water source. Perfogator-I have been the industry standard for over 100 years, ensuring clean, debris-free raw water flow into the intake structure. These screens protect machinery and other channels within the facility.

Perfogator-I manufactured by Fairfield Service Company are the most cost efficient means of screening as compared to other traditional mechanical bar screens. Their simple yet robust design is tailored to meet the specific requirements of raw water intake protection.

Screens are installed vertically in concrete channels prior to entering the raw water pumping facility. Debris is captured in the upstream side of the ascending screen panels. It is then removed by water spray before the return run of the screen panels, descending on the down side of the screen.

Perfogator-I consist of :

▶ **Wire Screen Panels**

Panels usually have square clear opening and fabricated of galvanized steel wire attached to steel angle frames by means of steel clamp bars and galvanized steel bars. Screen panels can also be fabricated of stainless steel wire.

▶ **Sealing Strips**

Adjustable sealing strips will be used at basket ends on the vertical flights. No other clearance space in the boot or elsewhere which will constitute a water passage, whether between moving parts or between moving and stationary parts.

▶ **Water Sprays Assembly**

Water spray assembly with multiple nozzles is furnished to spray the full width of the screen panels and wash debris from the screen into a discharge trough. An electric solenoid operated valve is furnished to actuate the water spray system when the screen machinery is operating.

▶ **Screen Chain Sprockets**

▶ **Shaft**

▶ **Bearings**

▶ **Frame**

▶ **Head Enclosure**

▶ **Drive Assembly**

▶ Technical Data

- ▶ Standard channel width from 3 to 10 feet.
- ▶ Channel depth 50 ft.
- ▶ The velocity of the water flow to the screen can be approximately 1 to 2 feet per second.
- ▶ Approximate screen chain speed 10 feet per minute.

▶ Applications

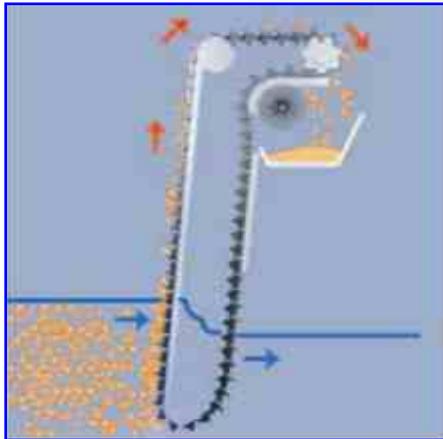
- ▶ Sewage treatment
- ▶ Pumping stations
- ▶ Sea & ocean water intake filtration
- ▶ Fossil fuel generation facilities
- ▶ Thermal power plants





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STREAM GUARD



► Description

Fairfield's STREAM GUARD is a heavy duty, fully automatic self-cleaning filter screen.

The screen is capable of presenting a clean filtration surface to the oncoming liquid stream at all times during continuous operation. In addition, the screen is capable of intermittent operation in order to form a mat for maximum trash removal.

The screen provides dual filtration. It will stop the debris in two stages; first it will stop big debris at the teeth level; and secondly it will stop small debris at shaft level in order to minimize compaction of the captured debris and increasing head loss through the units. The screen has clear spacing from 1 to 15 mm.

The drive mechanism is protected from the trash streams in order to insure that the screens run smoothly without jamming. The driving force is transmitted to clean, trash free components to avoid mistracking or binding. Also there are no auxiliary cleaning devices which cause trash to be dropped into the interior of the filtration belt.

► The Benefits of Stream Guard at a glance:

- **Functional principle:**
A Submerged curved 1/2 inch thick Stainless Steel rail is provided at the foot of the screen.
- **Cost Effectiveness:**
No submerged bearing and rollers,
No additional drive for Brush
- **Cleaning:**
Self cleaning brush mechanism
& spray water (optional)
- **Protection against corrosion:**
Manufactured from stainless steel treated in pickling bath. (If Required)
- **Take up Teeth Mechanism**
The Hook like shape of the teeth effectively prevents the screened material from dropping



► Technical Data:

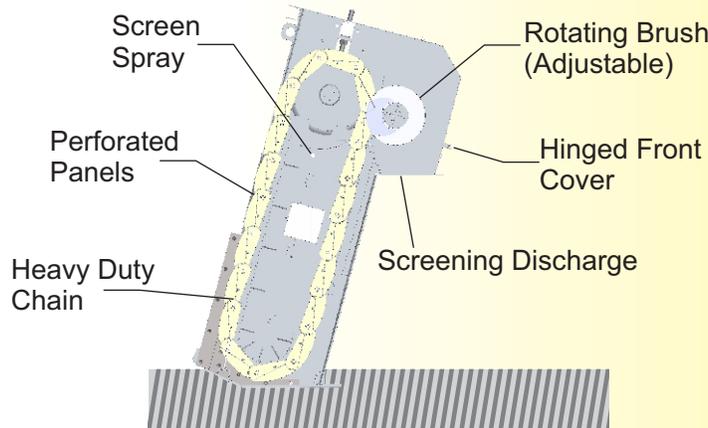
- Channel Width (Max): 10 ft
- Channel Depth (Max): 25 ft
- Filtering Gap: 1,3,5,10,15,mm etc.
- Inclination referred to horizontal 60°, 70°, 80°
- The teeth are made of plastic material (nylon) & Stainless Steel is also available
- Material of frame can be Stainless Steel or Galvanized Steel & Carbon Steel if required .
- Capacity of one unit is up to 50 MGD



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PERFOGATOR-II (PERFORATED SCREEN)

The Perfogator-II fine screen works on same principle as that of our stream guard unit. Water flows through perforated L shaped panels while debris are captured on the face of the element. The L shaped panels form a continuous belt which transports the debris to the discharge point where they are cleaned from panels by brushes and spray jet (optional). The debris are then discharged through the discharge chute.



NO BOTTOM SPROCKET

► The Benefits of Perfogator-II

► Functional principle:

A Submerged curved 1/2 inch thick Stainless Steel rail is provided at the foot of the screen.

► Cost Effectiveness:

No submerged bearing and rollers,
No additional drive for Brush

► Cleaning:

Adjustable self cleaning brush mechanism & spray water (optional)

► Protection against corrosion:

Manufactured from stainless steel treated in pickling bath.

► 90° bent plate mechanism

Bent plates are easily replaceable. This will effectively prevent the debris from dropping

► Separation efficiency:

High separation efficiency due to 90° bent type perforated plates

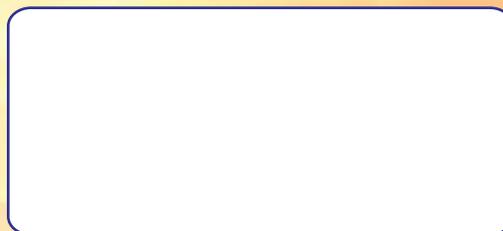
► Technical Data:

- Channel Width (Max): up to 10 ft.
- Channel Depth (Max): 36 ft
- Filtering Gap: 3, 6, 10 mm
- Inclination referred to horizontal : 50° to 75°
- Perforated plates are made of stainless steel
- Material of frame can be Stainless Steel, Galvanized Steel or Carbon Steel.

FAIRFIELD SERVICE COMPANY IS MBE CERTIFIED.

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Water & Wastewater Treatment Equipment