

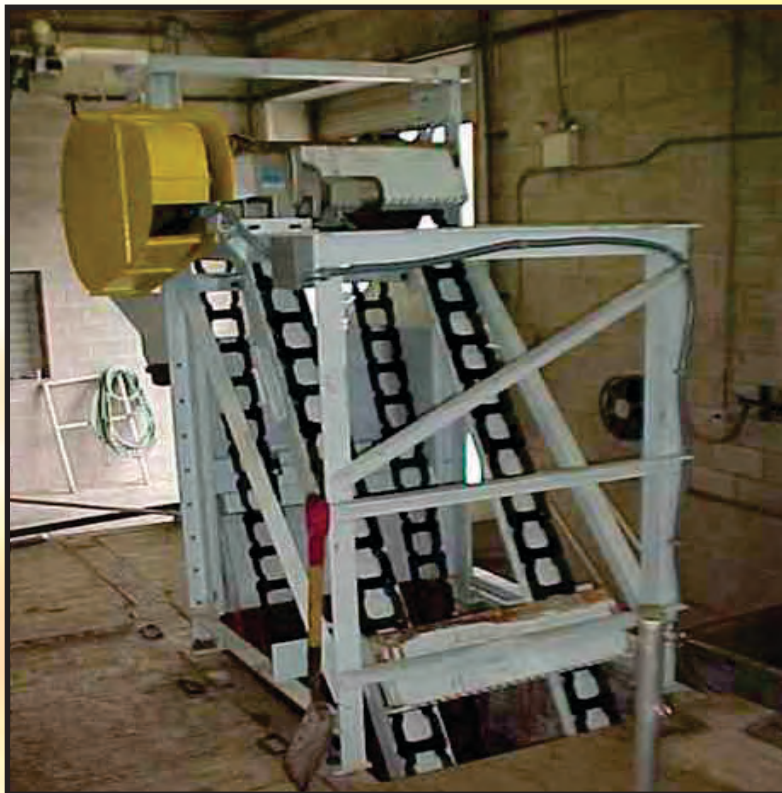
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FAIRFIELD SERVICE COMPANY

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

CATENARY

CHAIN OPERATED BAR SCREEN



- Used for heavy & varied debris load
- Low headroom structure
- Rugged & reliable with no submerged parts
- Maintenance can be performed without isolating and dewatering the channel

Water & Wastewater Treatment Equipment



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Fairfield's CANTENARY bar screen is the front clean front return configuration without sprockets, bearings or shafts below the water. The cleaning rakes descend on the upstream side of the bar rack, turn upward in a cantenary loop, without sprockets then engage the bar rack at the channel floor and ascend on the upstream side of the bar screen.

Fairfield provides mainly three types of frames under CANTENARY bar screen

► **CAT-01 - Regular Frame**

CAT-01 bar screen has a single shaft, is driven by a gear reducer coupled to the drive shaft by a roller chain and sprockets.

A shear pin sprocket mounted on the drive shaft provides the mechanical overload protection.

► **CAT-02 - 'A' Type Frame**

CAT-02 bar screen has a single shaft and is driven by a hollow shaft gear reducer, directly mounted on the drive shaft. In additional variable frequency drive can also be provided as per requirements.

A limit switch mounted on the upper structure near the gear reducer provides mechanical overload protection. When a mechanical overload occurs, the gear reducer rotation movement on the shaft is controlled by a calibrated spring and activates the limit switch, deactivating the electric motor at a selected load.

► **CAT-03 - Dual Shaft Frame**

CAT-03 bar screen has two shafts, one head shaft located near the trash ejector, and one drive shaft located at the back of the structure. They are driven by a gear reducer coupled to the drive shaft by a roller chain and sprockets.

A shear pin sprocket mounted on the drive shaft provides the mechanical overload protection.





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The CANTENARY bar screen consists of :

► **Bar Rack**

Bar rack will span the full width of the channel and extend above the maximum depth where it is bolted to the dead plate.

► **Dead Plate**

The dead plate is fabricated from steel, spans the full width of the screen and extends from top of the bar rack to the discharge hopper.

► **Cleaning Rakes**

Cleaning rakes are mounted between two matched strands of continuous chain and spaced on approximately 7' centers. Cleaning rakes are mounted to the screen chain by means of bolted attachments.

► **Rake Wiper**

The rake wiper is furnished at the discharge terminal and is of counterweight design. Wiper will automatically wipe the screenings from the rakes into the discharge hopper. The return movement of wiper blade is controlled by a hydraulic cylinder.

► **Drive Assembly**

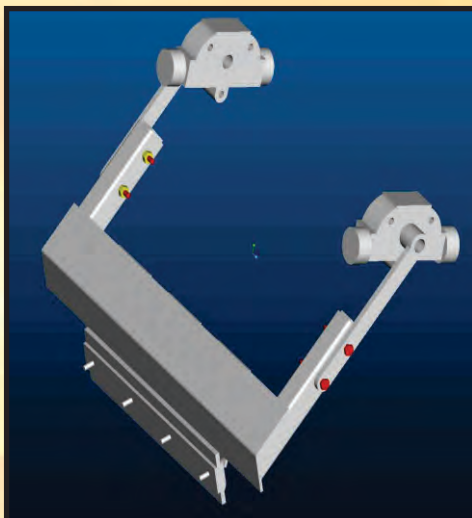
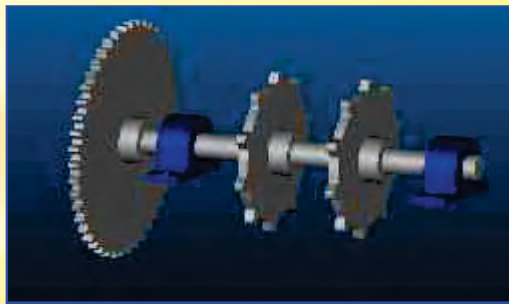
Drive will consist of motor type gear reducer with chain and sprocket connection to the drive shaft.

► **Screen Frame**

Frame is fabricated from structural steel with top and side chain track angles located above the channel. The frame is anchor bolted to the concrete at the operating floor elevations.

► **Benefits**

- No submerged mechanical parts
- Sturdy stainless steel design
- Less capital cost with easy Installation
- Stop switch facility
- More reliable operation
- Split design capability



► **Technical Data**

- Bar screen can be inclined from 15° to 45°
- Standard channel width from 2' to 30'
- Standard bar spacing is 4mm to 38mm.
- Five years limited warranty
- Other sizes available upon request

► **Applications**

- Municipal and industrial wastewater treatment plants
- Pulp & paper mills
- Surface water intake structures



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► A few examples from
our installations



CAT-01 Bar screen for
Marion County, Marion, OH



CAT-02 Bar screen installed at
Junction City, KY



CAT-01 Bar screen Installed at
Strawberry Hill, VA

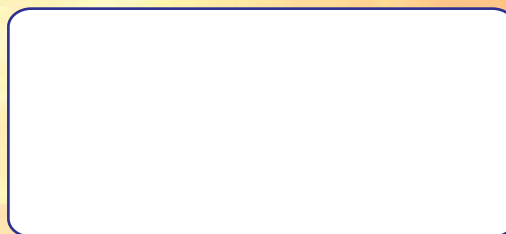


Control Panel

FAIRFIELD SERVICE COMPANY IS MBE CERTIFIED.

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