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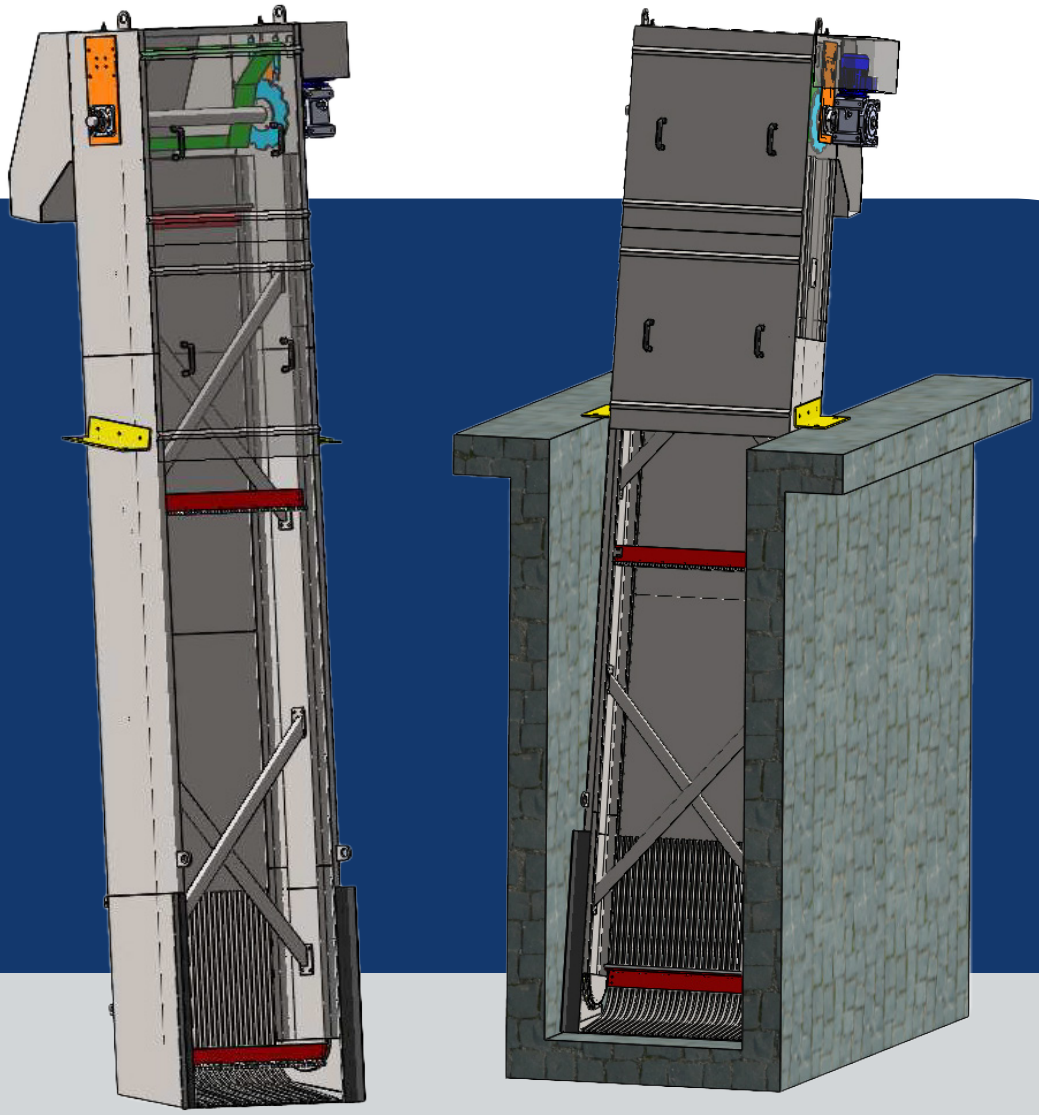

Automatic Chain Bar Screen

Manufacturing water treatment solutions.

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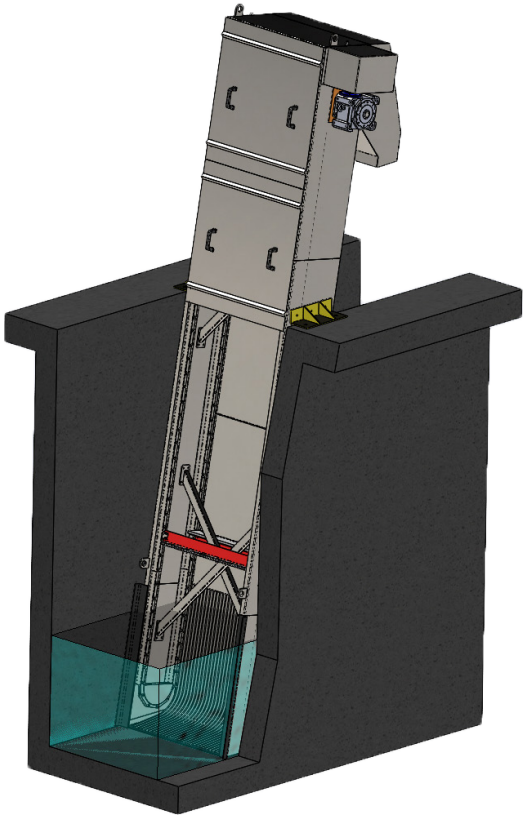
Automatic Chain Bar Screen

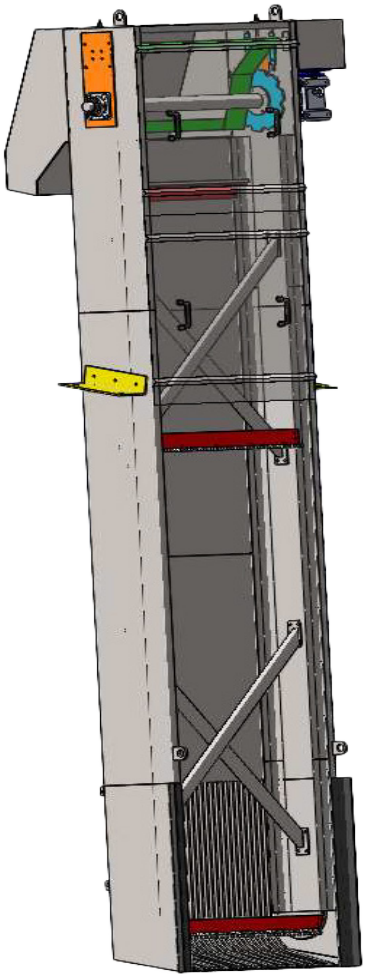
TYPE DCV

Manufacturing water treatment solutions.

The DCV chain bar screen is fully automatic and is used for the removal of solid waste from wastewater and industrial effluents. The principle of the DCV chain bar screen is to continuously screen the grid with a multitude of rakes mounted between two looped drive chains.

The rakes allow for the screening of small amounts of fine solids. The number of rakes is determined based on the effluents and flow rate, ensuring excellent grid cleaning with multiple passes in each screening cycle, unlike a standard bar screen which only makes a single pass per cycle.

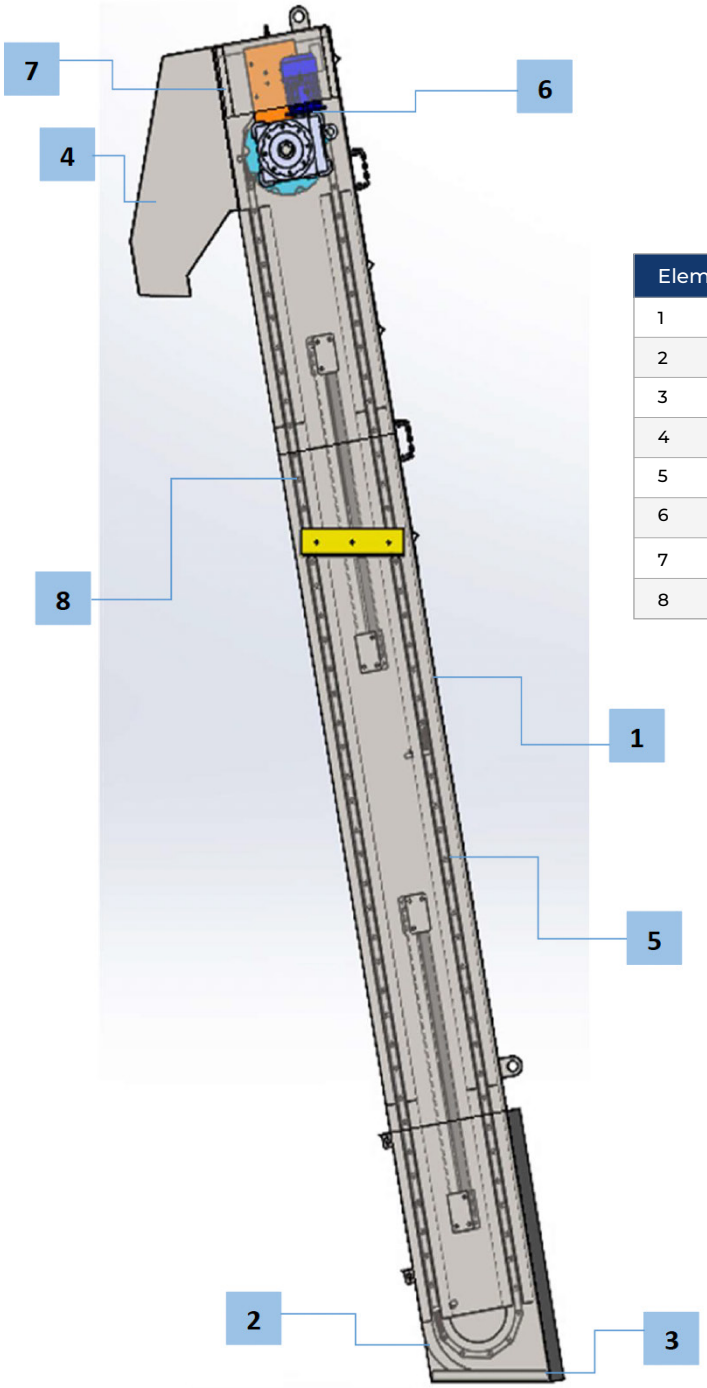




Its stable and robust structure involves two interconnected sides. This design arrangement means it can adapt to new and/or existing channels. After being lifted, the screened waste is discharged either directly into a bin or into a transport or compaction screw.

Designation	Characteristic
Frame width	450 to 1500 mm
Discharge height	Until 15000 mm
Overflow	AVAL
Inclination	75° to 90°
Clearance	5 to 50 mm
Maximum flow rate	8000 m3/h
Construction	Stainless steel 304L or 316L

Nomenclature



Element	Designation
1	FRAME
2	FIXED GRID WITH JOINT
3	APPROACH RECEPTACLE
4	WASTE DISCHARGE HOPPER
5	SCRAPING RAKES
6	GEAR MOTOR
7	GEAR MOTOR COVER
8	CHAIN

Operating Principle

The operation of the automatic DCV chain bar screen is ensured by:

- Detection of head loss (ΔH, system to be implemented using ultrasonic probes, upstream/downstream level of the bar screen, with delay).
- Detection of the clock cycle.
- On command from the automation system.

The main advantage of this type of bar screen is the reliability of its simple construction with few wearing parts.

The rakes are assembled on two chains without additional moving parts. The chains are driven between two sprockets, with the upper sprocket being motor-driven and the lower sprocket being driven. The chains are guided along their path by rollers to prevent sway and maintain contact with the grid and scraping plate to lift all rejects.

At the end of the lifting process, an automatic mechanical ejector ensures thorough cleaning of each rake.

The number of scraping rakes depends on the application type, and the time between each scraping is specified. Due to its simplicity, maintenance of this bar screen involves only:
- Greasing the two drive chains and upper bearings.
- Adjusting chain tension using the integrated tensioner.

Site web:
www.aqua-plus.ma

E-mail:
contact@aqua-plus.ma

Suivez-nous sur:
@aquaplus.maroc