

MECHANICAL BAR SCREEN – DCV series

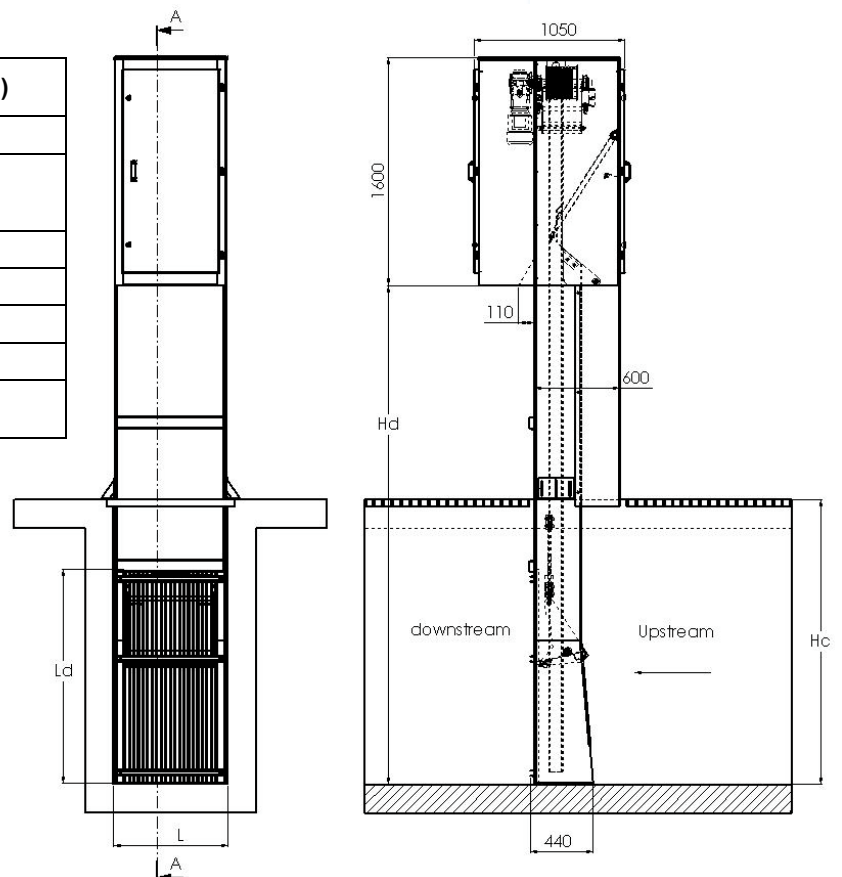
The DCV bar screen is a mechanical fully automatic screen used for liquid/solid separation in the pre-treatment stage of wastewater treatment plants, pumping station ...

- Rake & cable driven screen
- Fineness of screening from 10 to 80 mm
- High capacities
- Low maintenance & small space constraints
- Material : stainless steel 304L (available in stainless steel 316L)
- Automatic operation
- Smart, sturdy & safe design



Technical data

Description	Position	Dimensions (mm)
Overall height		3200 - 11600
Discharge height from channel bottom	Hd	1600 - 10000
Overall width	L	480 - 1380
Grid height	Ld	1000 minimum
Frame thickness		600
Channel depth	Hc	1000 - 7600
Discharge height from operation floor		600 minimum



Operating principle

This vertical screen is operated by a single cable driven by one gearmotor.

The automatic screen starts and stops according to the effluent upstream level (level sensor) or by timer clock.

In the stop position (upper position of the rake), the cable is tensioned and perfectly vertical – 0° deflexion angle.

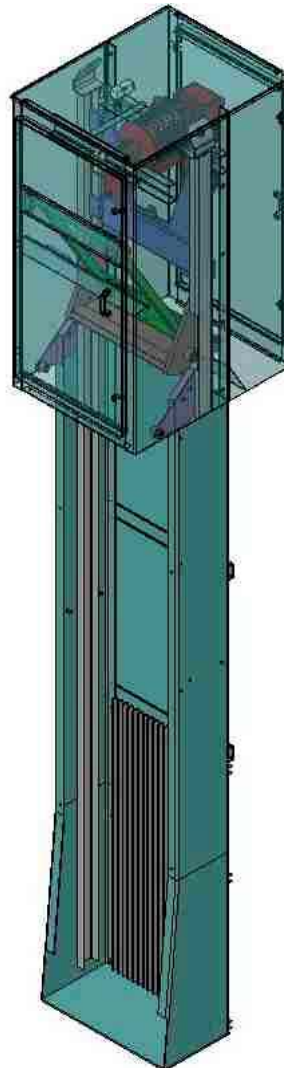
When starting, the rake leaves its upper position to move downwards to the bottom of the screen.

The cable unrolls from the drum.

The rake is fixed to a rake holding system which is guided on both sides by U shape stainless steel profiles. Four HDPE blocks fixed to the rake holder guarantee the perfect and parallel movement of the rake inside the guiding profiles.



Electrical control panel



Cable driven system



Rake



Grid bars



Position limit switches

The rake is fixed to the holder by means of self lubricating rings. The sides of the rake are made of 20 mm thick stainless steel plates to use the weight of the rake to help the downwards movement.

Two lateral HDPE covered rollers also guide the rake inside the rails.

When reaching the bottom of the channel, the rake is stops. The contact with the bottom rake shall plate is by means of a special shape rubber seal inserted in the rake to avoid excessive wear and noise.

The cable drive motor continues to unroll the cable until cable gets slack. When the slack detection device is actuated (inductive sensor), cable drive motor direction is inverted in order to lift back the rake.

The rake pivots and moves in between the bars of the screen.

The wastes are trapped by the rake against the grid. The rake moves upwards and reaches the waste ejector. The ejector, mounted on two ball bearings, pushes the screenings out of the rake outside the screen frame into a conveyor or container.