

## MECHANICAL BAR SCREEN - DCV series

Leader in the design and the manufacturing of sludge treatment systems for drinking water, waste water and sludge, EMO is present in 5 continents of the globe and holds more than 2500 recommendations to its credit since the company's creation in 1985.

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 ...

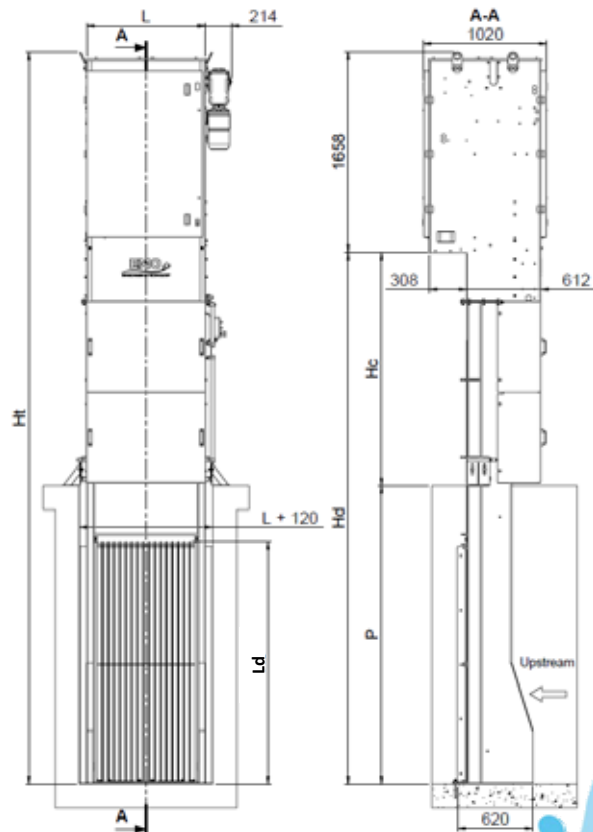
- ✓ Rake & cable driven screen
- ✓ Fineness of screening from 10 to 80 mm
- ✓ High capacities
- ✓ Low maintenance & small space constraints
- ✓ Material : stainless steel 304L (available in stainless steel 316L)
- ✓ Automatic operation
- ✓ Smart, sturdy & safe design



### Technical data

Description	Position	Dimensions (mm)
Discharge height from channel bottom	Hd	1600 - 11000
Total length	Ht	3260 - 12660
Overall width	L	480 - 980 ( $\Delta = 100$ )
Grid height	Ld	500 - 3000 ( $\Delta = 500$ )
Channel depth	P	600 minimum
Discharge height from operation floor Channel depth	Hc	1000 - 9800

Other dimensions available upon request.



## 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.

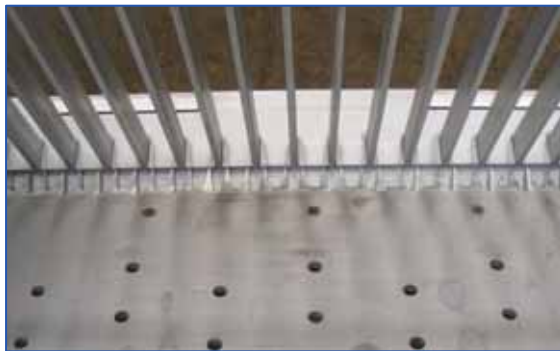
Four HDPE blocks fixed to the rake holder guarantee the perfect and parallel movement of the rake inside the guiding profiles.



Electrical control panel



Cable driven system



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.