

## BAR SCREEN - DCV-R 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-R range of screens is a heavy design which removes coarse suspended solids from waste water.

This kind of screens can be used for many applications :

- ✓ -> pumping and lifting stations (irrigation, flood control, rain sewerage network)
- ✓ -> water intakes (cooling water for power plants and refineries)
- ✓ -> hydro power plants
- ✓ -> municipal waste water treatment plants
- ✓ -> drinking water plants
- ✓ -> industrial water processing

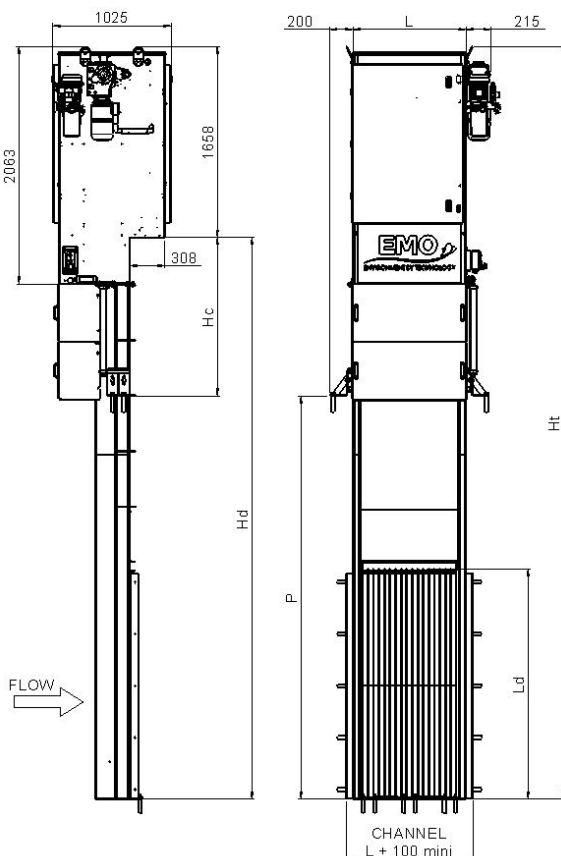
Among the several screens technologies on the market, key difference is the possibility to drive the rake into the grid hydraulically, or pneumatically, or electrically.

The cable operated screen has many advantages over other technologies :

- > no critical mechanical parts in the water
- > the rake is opened in front of the bar rack by means of the central cable to catch bigger screenings,
- > the lifting capacity per cycle is very high
- > the rake can stop and open at any position along the downwards movement which is a big advantage in case of storm, flood ... conditions)



### Technical data

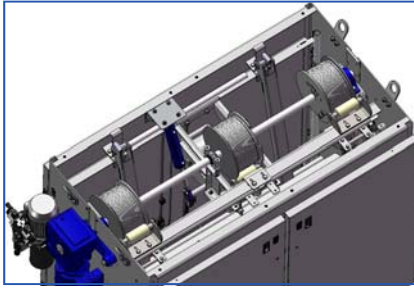


Description	Position	Dimensions (mm)	Dimensions (mm)
Discharge height from channel bottom	Hd	10500	17000
Total length	Ht	12160	18660
Overall width	L	780 - 1080 ( $\Delta = 100$ )	1180 - 2080 ( $\Delta = 100$ )
Grid height	Ld	500 - 3000 ( $\Delta = 500$ )	500 - 3000 ( $\Delta = 500$ )
Channel depth	P	9500	16000
Discharge height from operation floor Channel depth	Hc	9900	16400

Other dimensions available upon request.



## Operating principle

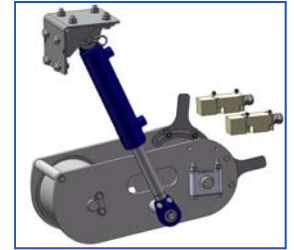


**Head of the screen** with mechanical components (jacks\_end limit switches, driving shaft, rake lift, cable slackness).

The DCV-R is fitted with 3 cables : one on each side for the upwards and downwards movement of the rake, and one central cable for the closing and opening of the rake.

The cables roll and unroll on multigroove drums to allow longer life time. In the home position, the rake is located at the top. When cycle starts, the rake opens and starts to move downwards on the guiding rails. When the slack cable sensor is actuated, the rake closes to penetrate inside the bars and catch the screenings. Usually, the rake closes at the bottom of the position on the descent to catch floating materials.

The screening is lifted inside the bucket, created by the rake, the rake holder and sliding against the dead plate (or concrete wall). When reaching the top, the screenings are discharged by means of ejector actuated by jacks and fall down directly into container or conveying system for an efficient operation and screening removal, the water speed through the screen should not exceed 1 m/s.



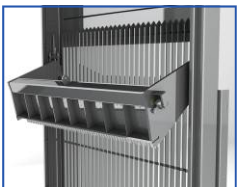
With hydraulic jack



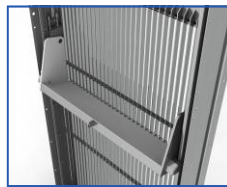
With pneumatic jack



With electrical motoreducer



Downwards movement  
Rake opened



Upwards movement  
Rake closed

## Installations

