

HYDRAULIC SCREENS RCH

Subvertical Chain Screens



MACHINE DESCRIPTION

The **RCH** screens, made by **R.E.M.**, are hydraulic bar screens made of a fixed part and a mobile part. The fixed part is 15° inclined off the vertical and includes the supporting frame, the side frame and the bars. The mobile part is made of a mobile rake comb actuated by a hydraulic cylinder and a gear. The rake comb travels up/downwards driven by an hydraulic motor and sprocket. The hydraulic screens model **RCH** are made:

- by a fixed structure and a mobile one.
- by an hydraulic pump.

The fixed part consists of the steel structure formed by the bottom plate, side rails, bars grilling, dump continuation of bars, discharge chute and on rails, comb cleaning device and the upper beam. The fixed part is inclined at 15 degrees to the vertical.

The mobile part is composed by a steel trolley on which are mounted the comb and the associated hydraulic cylinder for the handling. An hydraulic cylinder, flanged to the upper beam, provides for the translation of the trolley comb along the side guides. The power unit is composed of a steel tray complete with electric motor and all the hydraulic equipment and electromechanical necessary for the hydraulic movement of the unit. The volume of the unit and the components on board varies according to the size and No. of machines to be moved.

WORKING LOGIC FOR SUBVERTICAL HYDRAULIC SCREENS RCH

The hydraulic bar screens **RCH** are composed by these the following parts:

- Bar screen
- Supporting frame
- Rake comb and support
- Comb scraper
- Hydraulic unit
- Hydraulic motor
- Hydraulic cylinder
- Hose drum

Once at the bottom of the screen the comb turns 90 degrees and inserts its teeth in between the bars. The motor starts rotating in reverse and lifts the comb and the trapped screenings upwards. In the bottom part bars are curved to follow the teeth path while entering the screen.

This configuration avoid any blockage of hard hits on the comb.

Minimum spacing between the bars is 12 mm (½") but smaller apertures are available using a perforated screen, with brushes. The screen would be removable for maintenance and replacement. Available materials of construction are: painted carbon steel, galvanized carbon steel, AISI304 stainless steel and AISI316 Stainless steel.



OPERATING FLOW FOR HYDRAULIC BAR SCREENS RCH

The hydraulic function of the hydraulic screen is to clean automatically the substances retained by the grill bars. The cleaning of the bars takes place via a cleaner comb mounted on a cart, and the comb is driven by one or two hydraulic cylinders (according to the unit model) which, at the end of descent, engrave to comb a rotation that follows the particular form of the grill bars.

The rotation causes the teeth of the comb come gradually in the bars at the same time conveying the bottom material towards the same and then pick it up and drag it down to the drain. The comb is mounted on a carriage that moves up and down along the side guides of the machine.

Such movement is guaranteed by a hydraulic system, comprising a double-acting hydraulic cylinder fixed to the upper beam and anchored to the trolley comb.

When the trolley comes down the rotating comb is open (parallel to the bars). The point of discharge, an oscillating blade, scrapes and cleans the comb downloading the material on the slide fixed.

The rotary comb rotates on self lubricating bushings fitted onto flanged steel pins to cart and easily detachable. The cart can be removed completely from the machine for repair. The rollers are self-lubricating materials.



MAIN FEATURES FOR THE HYDRAULIC BAR SCREENS RCH

The hydraulic bar screens **RCH** have the following characteristics:

1. Standard execution in st. st. AISI 304/AISI 316.
2. No mechanical element in direct contact with the product transported.
3. Low speed - No blocking or clogging even when extracting fibrous material.
4. High yields.
5. Possibility to discharge in dumpsters or other equipment.
6. Extremely easy to transport materials even of difficult composition.
7. Maximum versatility, high processing outputs.

STANDARD DIMENSION DATA FOR THE HYDRAULIC BAR SCREENS RCH

Here we provide some information of a technical nature for this type of screens.

RCH MODELS	RCH50	RCH70	RCH100	RCH130	RCH160	RCH180	RCH200	RCH240	RCH280
LENGHT - mm	VARIABLE DEPENDING ON CHANNEL DEPTH								
WIDTH - mm	500	700	1000	1300	1600	1800	2000	2400	2800
Discharge Height	1500 - 10000 mm (AFTER 3000 mm A DISCHARGE CHUTE IS SUGGESTED)								
Bar Pack Height	VARIABLE DEPENDING ON CHANNEL DEPTH AND TYPE OF MATERIAL TO SCREEN								
INCLINATION	ALLOWED ANGLE OF INSTALLATION MAX. 75°								
COMB DRUMS	No.1	No.1	No.1	No.1	No.2	No.2	No.2	No.2	No.2
POWER KW	1,5 kW	1,5 kW	1,5 kW	1,5 kW	2,2 kW	2,2 kW	2,2 kW	2,2 kW	2,2 kW

n.b.: the manufacturer may modify some dimensions or sizes without prior information

ATTENTION THE MACHINE HERE DESCRIBED CAN BE USED IN THE INCLINATED POSITION UP TO A MAX. OF 75°

MATERIAL: SCREENINGS**Fabricated parts material:**

*Stainless Steel AISI304 / *Stainless Steel AISI316

Panels material:

*Stainless Steel AISI304 / *Stainless Steel AISI316

