



SMC

MULTI RAKED BAR SCREEN

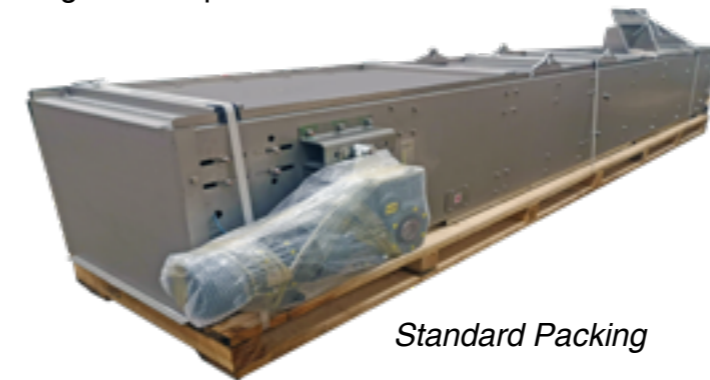


SMC - THE UNIT

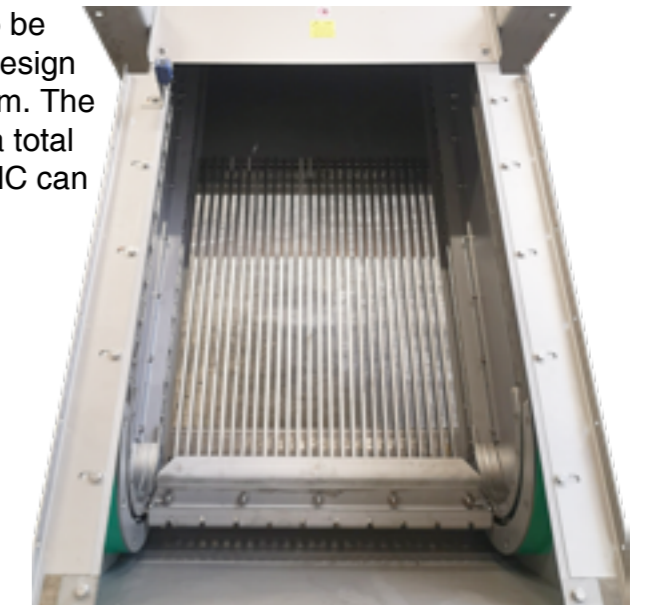
SMC - MULTI RAKED BAR SCREEN is a coarse screen which represents the best solution as a first stage of filtration in a state-of-the-art waste water treatment plant. It is a vertical bar screen with the purpose of separating suspended solids from the effluent. This uses rakes which are moved by motorized chains which allow you to clean the screening area and transport the collected material in the unloading area to the channel.



The SMC can be adapted to any civil work or can also be supplied in tank. The standard installation is 75 °, its design allows for fine or coarse shielding, from 3 mm to 30 mm. The width can vary between 300 and 3500 mm and have a total length of over 20,000 mm. In addition, the Fluiteco SMC can manage flows up to 7.000m³ / h.



Standard Packing



Filtration detail

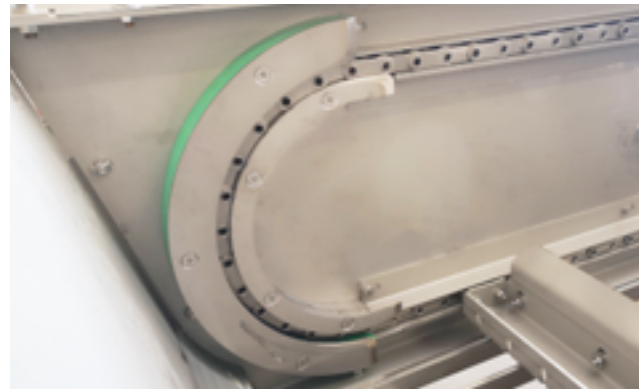
FEATURES

Fluiteco design is identified in the following points:

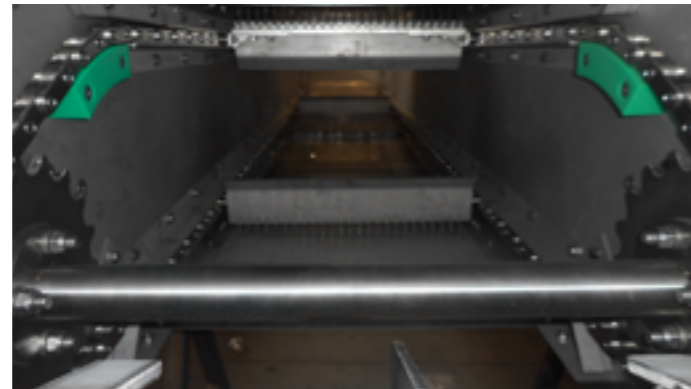
- 1 - Entirely in stainless steel;
- 2 - No toothed crowns on the underside, but steel guides; these in combination with a roller chain ensures that there are no impediments given by the screenings and therefore not to the movement of the rake;
- 3 - Rockshield with the purpose of protecting the screen bars;
- 4 - Mechanical torque limiter and / or limit switch;
- 5 - Clean rake
- 6 - Accessible greasing points



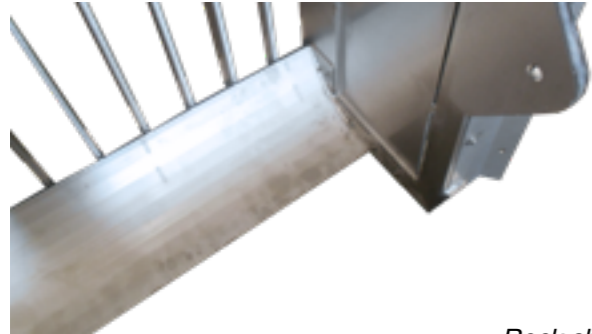
DETAILS & ACCESSORIES



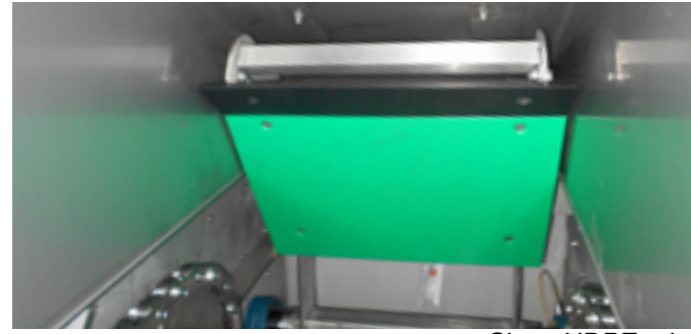
No toothed crowns, but steel guides



Toothed crowns to move chains / combs



Rock shield



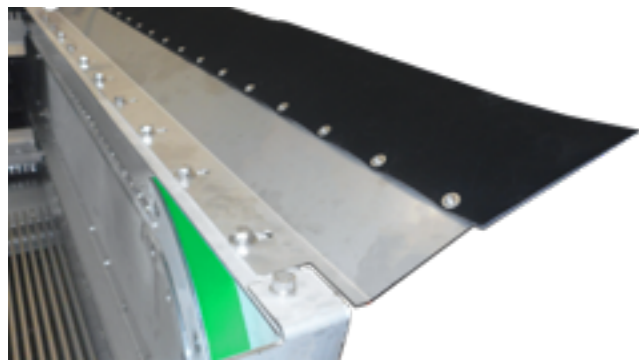
Clean HDPE rake



Electronic limit switch torque limiter



Mechanical torque limiter



Channel adaptation strip



Grease points for bearings



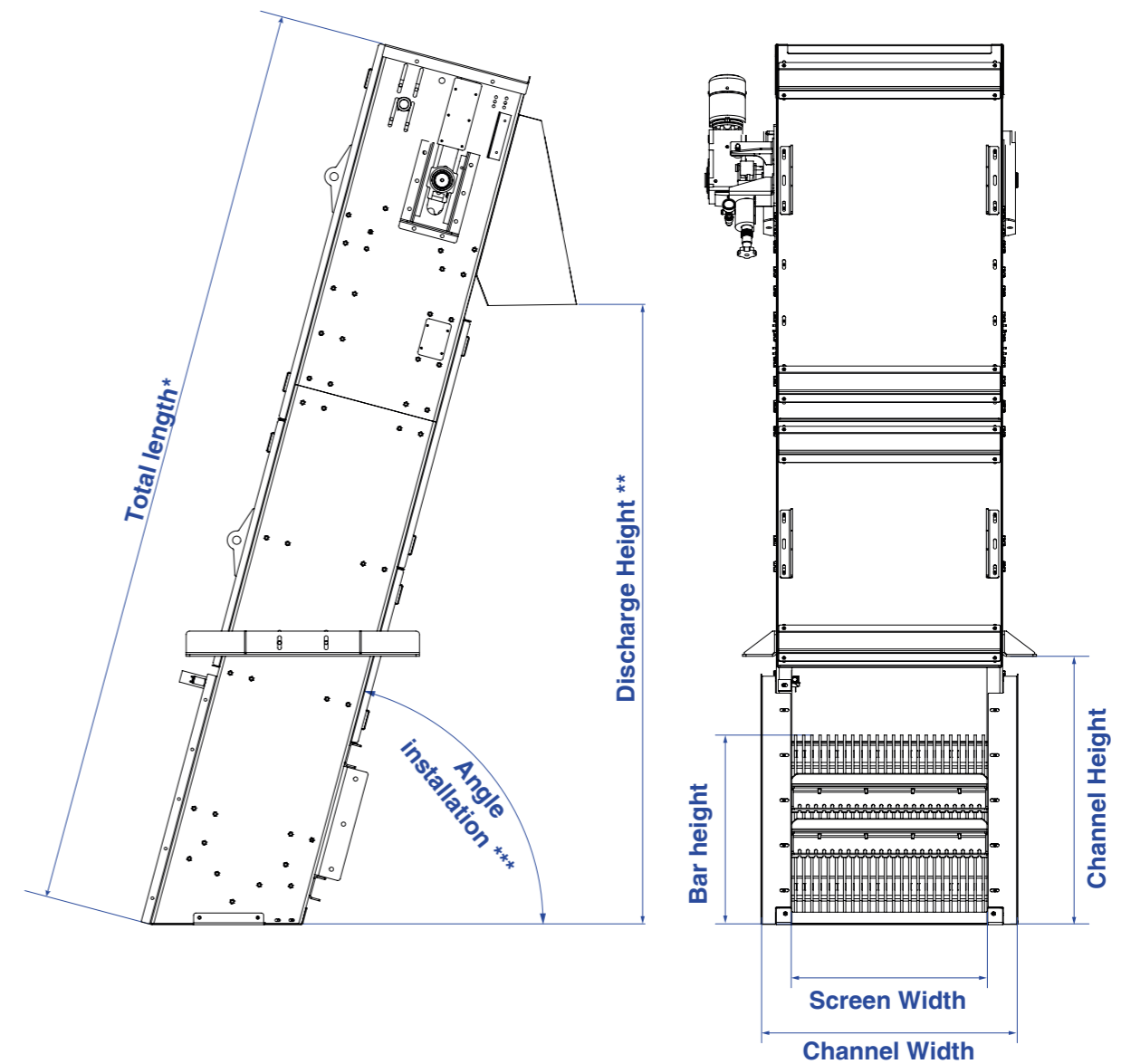
Interchangeable rakes



Mustache limit switch - Comb counter

STANDARD SIZE

MODEL	SMC04	SMC06	SMC08	SMC10	SMC12	SMC14	SMC16	SMC18	SMC20
Channel width (mm)	400	600	800	1000	1200	1400	1600	1800	2000
* Total Length (mm)	3350	3350	3350	3550	3550	3550	3550	3550	4050
** Discharge Height (mm)	2300	2300	2300	2500	2500	2500	2500	2500	3000
* Total Width (mm)	370	570	770	970	1170	1340	1540	1740	1940
Bar Height (mm)	600	600	600	800	800	800	800	800	1300
* Number of Rakes (n°)	2	2	2	2	2	2	2	2	2
*** Installation angle	75°	75°	75°	75°	75°	75°	75°	75°	75°



Outlet and side supports for fixing the unit to the channel always included.

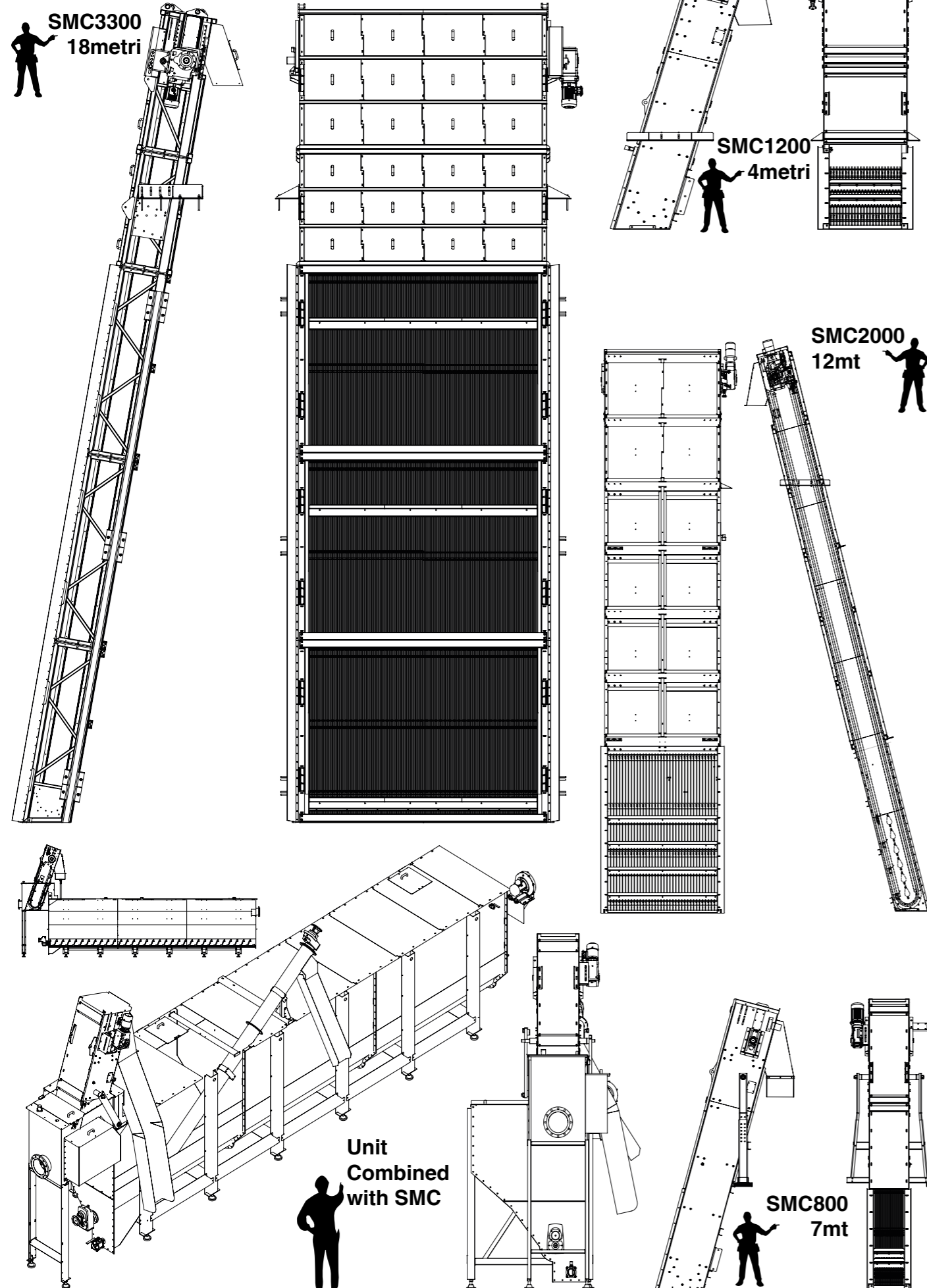
* For every 1000 mm of additional height of the unit, an additional rake is provided included (maximum total number of rakes 6).

** From the bottom of the canal

*** Standard inclination



PROJECT EXAMPLES



SMC OPERATING LOGIC

It can be controlled in Pause and Work or with level probes that activate and / or deactivate the unit. The level probes can be ultrasonic or with rods, these work with n° 2 levels: minimum and work n° 2 levels, optional is the emergency / overflow level; they can work by level difference (this involves a probe upstream and downstream of the machine). Therefore, the work logics can be the following: By filling or by level difference.

Filling (recommended)

The effluent loaded with screening meets the filtration of the SMC and when this is blocked, the water level in the channel rises, reaching the working level of the probe, this causes the SMC to start moving the rakes. During the work the filtration is cleaned and consequently the level in the channel is reduced; when it drops below the minimum level it will switch off, but with a settable delay.

Difference in level

It includes 2 ultrasound probes, one upstream and one downstream of the SMC. If the difference between these two exceeds 10%, the machine is activated and when it falls below this, it switches off with a settable delay.

General functions

If the unit does not activate for a settable period of time (20 minutes recommended), it will perform a work cycle of 1 minute (settable time). This is because the effluent can be low but still full of screenings that clog the machine and could also overload it, creating potential damage to the machine itself.

The emergency level (Optional on request) is a state in which the machine overflows, this happens because the filtration is blocked abnormally or when the flow is higher than that with which the machine was sized. In this state the unit must stop.

There is a limit switch that acts as an electronic torque limiter and is positioned above the motor bracket. This is activated when the motor undergoes a sharp twist, usually given by something blocking the rake. When this is activated, the machine will stop instantly.

The mechanical torque limiter has the same function as the electronic one, the difference is that it works by means of a piston connected between the gearmotor and the support bracket. If the engine undergoes a sudden rotation, it will compress the oil inside the piston so as to raise the pressure measured by a sensor, this will send a signal to the panel which will stop the machine. The whisker sensor is used to ensure that the comb does not stop at the bottom of the grill, but outside the water level, therefore at each shutdown (excluding emergencies) the comb must stop after having energized the whisker switch.

CONTROL PANEL



Each pretreatment plant and each of its machines must be managed by a control panel for this reason Fluiteco provides ad hoc solutions for each combination and / or system of machines.



INSTALLATIONS & PROCESSING

