



PWL ProCat Rake Screen

Chain Driven Rake Screen for Mechanical Cleaning of Waste Water

- High throughput due to triangular profiles and inclination of screen
- High capture rate due to static construction of screen (no relative movement)
- Openings 1 mm up to 50 mm
- High discharge rate and capacity
- Robust towards grit and rubble
- One active screening area only – low flow resistance
- No use of spray water
- No brushes
- Individual exchange of scraper blades from the front side
- Maintenance-free within the underwater area
- Hygienic encapsulation

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Function

The PWL ProCat rake screen is designed as wedgewire screen. It combines the advantages of continuous belt screen systems with functional mechanics and an unmovable screening surface. The screen is mounted to the ProCat frame and can be dismantled. The inclination angle depending on individual requirements is between 36° (ProCat L) and 75° (ProCat I) being the reason for the high hydraulic throughput capacities of the screen.

The waste water flows through the wedgewire screen made of flow-enhanced stainless steel triangular profiles. The retained screenings are directly picked-up at the channel bottom by revolving scraper blades and, then, continuously scraped off and conveyed to the discharge area. In the discharge area there is a scraper mechanism which moves the screenings from the scraper blades **without the use of brushes and spray water**.

Design

Within the self-supporting stainless steel frame the revolving conveyor chains as well as the units for reverse, tension and drive are arranged. The screening surface which is inclined by 36°-75° is a separate, exchangeable unit bolted to the machine frame. **The complete ProCat incl. screen can be swiveled out of the channel.**

The scraper blades are mounted to the revolving conveyor chains. If necessary, position and number of blades may be adapted according to requirements from the front side. Guiding rails avoid drifting of scraper blades.

The screen surface is continuously cleaned by the revolving scraper blades and the screenings are transported to the discharge area. The scraper mechanism – driven by the revolving conveying chains – moves the screenings from the scraper blades. **Therefore, as a matter of design, carry-over of screenings to the underwater side is impossible.**





Requirements

- Mechanical cleaning of municipal and industrial waste waters
- Water intake from surface waters
- Sludge sieving at waste water treatment plants

Fields of Application

- Municipal and industrial WWTP
- Pulp & paper
- Abattoirs
- Food industry
- Recycling industry
- Power plants

ProCat Types

- ProCat fine screen, wedgewire openings 1-10 mm, wedgewire made of conical profiles, scraper blades toothed from 3 mm upwards
- ProCat coarse screen, wedgewire openings 15-50 mm, grate made of rectangular profiles, bars can be removed separately
- ProCat in tank for above-ground installation, inclination of screen 50°
- ProCat in PWL MODULAR Combi units
- Channel widths from 500 to 2200 mm



PWL ProCat Rake Screen

PWL Interval-Wash-Compactor IWW

This screening washing press downstream to the PWL Pro-Cat rake screen is the reliable solution for treatment of screenings. Numerous reference plants attest the trouble-free co-operation of the ProCat and the IWW. Screenings weight can be reduced on average by approx. 75 %.

- No unnecessary crushing of screenings
- Brushless cleaning of screening surface
- Integrated pre-compaction zone/separate wash chamber

Function

The screenings are discharged directly or via a conveying device from the screen into the infeed hopper of the washer.

After a pre-compaction the screenings are conveyed by a spiral into the washing chamber. Here, they are washed in the water flow by a patented procedure without any mechanical devices. **Service water of mechanically pre-cleaned waste water can be used as wash water.**

After the washing process the screenings arrive at the compaction zone where they are compacted and discharged. The detachable organics are returned into the channel together with the wash water. As an option, the discharge pipe with integrated adjustable compaction zone can be equipped with a hygienic encapsulation.



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