

Home HUBER Report Reliable protection of membrane plants with HUBER Perforated Plate Screen ROTAMAT® STAR liquid

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Several HUBER ROTAMAT® screens installed directly in the channel of the STP

USA keep relying on HUBER when it comes to screening wastewater upstream of membrane plants

The HUBER fine screens for the protection of downstream membrane plants have a long tradition in the USA. Due to continued further development we have been able to offer our customers tailored solutions for membrane screening and implement machines for a variety of different applications.

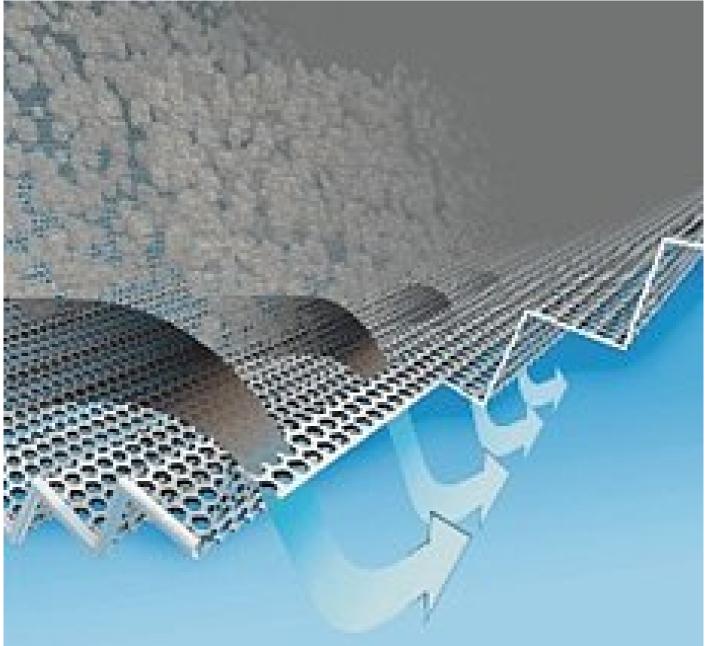
Our screens were also selected recently for the project Morgantown where they will protect Evoqua's Memcor hollow fibre membranes. Morgantown is a city and county seat of the Monongalia County in the north of the US state West Virginia. The town was founded in 1810 and is situated on the Monongahela River, near the border to Pennsylvania. Due to the rapidly developing infrastructure and associated additional loads arriving on the sewage treatment plant Morgantown, the wastewater treatment on site had to be adapted to cope with increased flows and to meet also the EPA standards. Three years passed from the first contact until order placement. Finally, HUBER USA managed to receive the order for the complete mechanical pretreatment equipment including the membrane screens.

Commissioning of the machines is scheduled for mid of 2018:

- HUBER STEP SCREEN® SSV, the well-proven inlet screen
- HUBER Wash Press WAP® units for screenings treatment
- HUBER Coanda Grit Washer RoSF4 for grit classification and separation of organic matter from grit
- HUBER Perforated Plate Screen ROTAMAT® STAR liquid for membrane screening
- HUBER Micro Strainer ROTAMAT® Ro9 to treat the fine screenings from the membrane screen

Reliable protection of the membrane plants with HUBER Perforated Plate Screen ROTAMAT® STAR liquid

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Innovative STAR design for increased throughput capacities of up to 30%

We had to meet several specific customer requirements with our machines to be installed for the protection of the hollow fibre membranes:

- Reliable separation of disturbing material
- Space-saving installation downstream of the primary settling tank
- Easy removal and transport of the separated fine screenings
- Downstream treatment of the fine screenings

Three HUBER Perforated Plate ROTAMAT® STAR liquid screens were finally selected, two for parallel operation and one as standby unit. The throughput capacity per unit is 608 l/s. The fine screenings from each machine flow through gravity lines into a central pipeline through which they are flushed to a pump sump. From this pump sump, the water-solids mix is pumped to two HUBER Micro Strainer ROTAMAT® Ro9 units. The micro strainers are installed approx. 6 m above the fine screen. Due to its unique and special design the HUBER Perforated Plate ROTAMAT® STAR liquid screen can be installed at a small inclination angle. This, in addition to the 30% larger screening surface of the screen basket provided by the innovative STAR design, makes it possible to achieve very high throughputs. Moreover, the separated screenings can be passed on to further treatment as a water-solids mix without the need for an additional discharge screw. A great advantage of this solution is that the screenings do not have to be treated in the machine but can be treated centrally even at a distant location. Extra screw conveyors that would need a lot of space are therefore not necessary.

This concept has already been implemented in many installations around the world and this project will be the first of this kind in the USA. It is a very interesting and economical system for projects where space-saving solutions combined with high throughputs and maximum freedom of planning are required for the treatment of screenings.

Related Products:

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- HUBER Rotary Drum Fine Screen / Perforated Plate Screen ROTAMAT® Ro2 / RPPS / STAR
- Ultra Fine Screens

Related Solutions:

■ HUBER Solutions for Mechanical Pre-Treatment

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