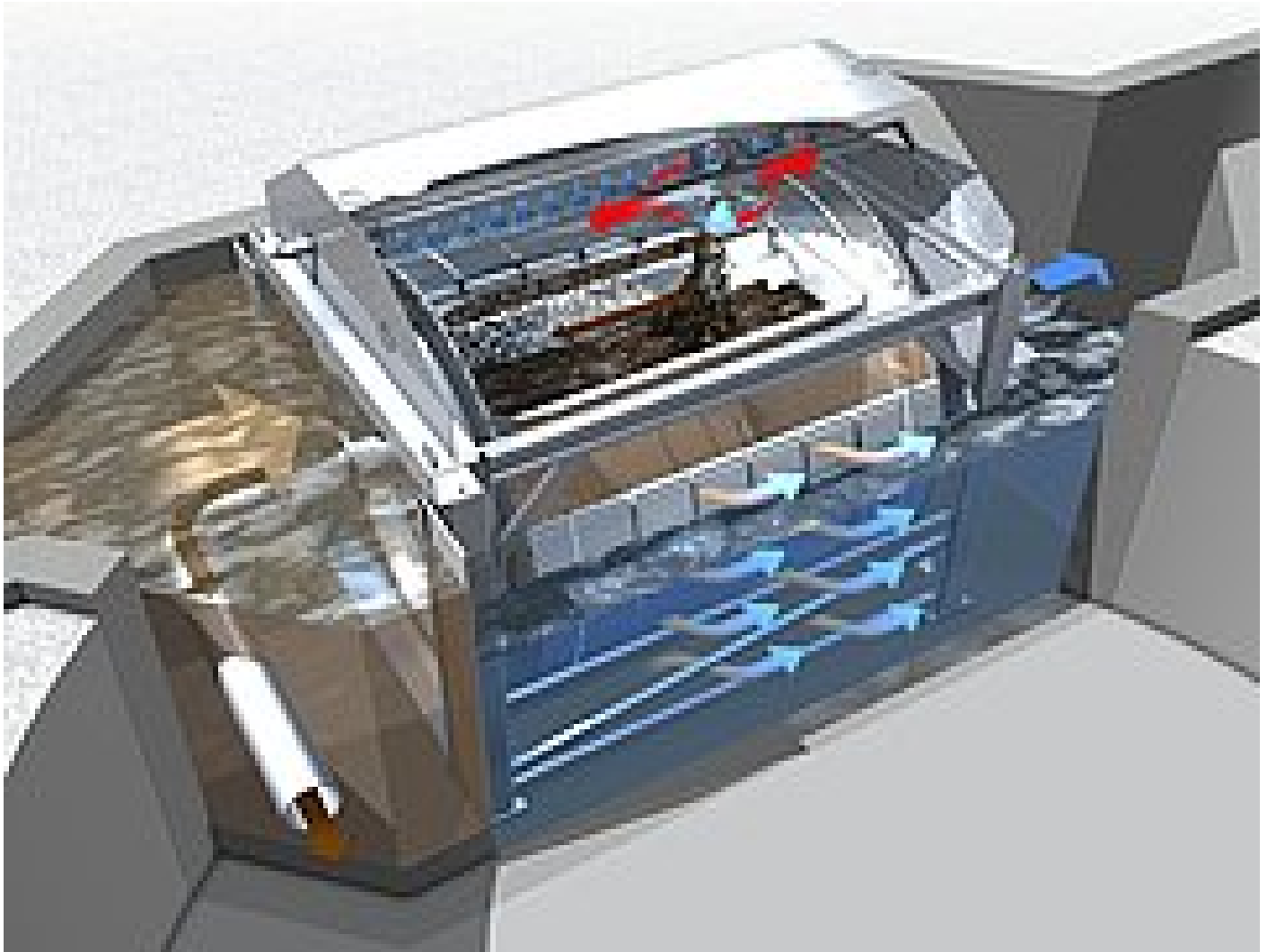


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System drawing of a HUBER Drum Screen LIQUID

The HUBER screens have a long tradition. The well-proven ROTAMAT® machines have successfully been installed all over the world since more than 30 years. To meet the ever changing requirements and the various site conditions, HUBER has continuously further developed its wastewater screening products. A result of this development process are the products of the ROTAMAT® family as well as the well-known STEP SCREEN® units and the screens of the MAX-family. The demand of the market for ever improved separation efficiency and at the same time higher throughput capacities was the incentive for HUBER to develop the HUBER Drum Screen LIQUID.

The situation

Mechanical pretreatment is required for both municipal and industrial wastewater in order to remove coarse materials and separate floating, settling and suspended solids.

Depending on the method of wastewater treatment that is applied, the mechanical pretreatment system must fulfil different requirements in terms of separation efficiency. Special plants which operate according to the MBR principle put the highest demands on the mechanical pretreatment system as all coarse material needs to be removed.

A cost-efficient solution must not only achieve the requested separation results, it must also provide high throughput capacities combined with maximum operating reliability.

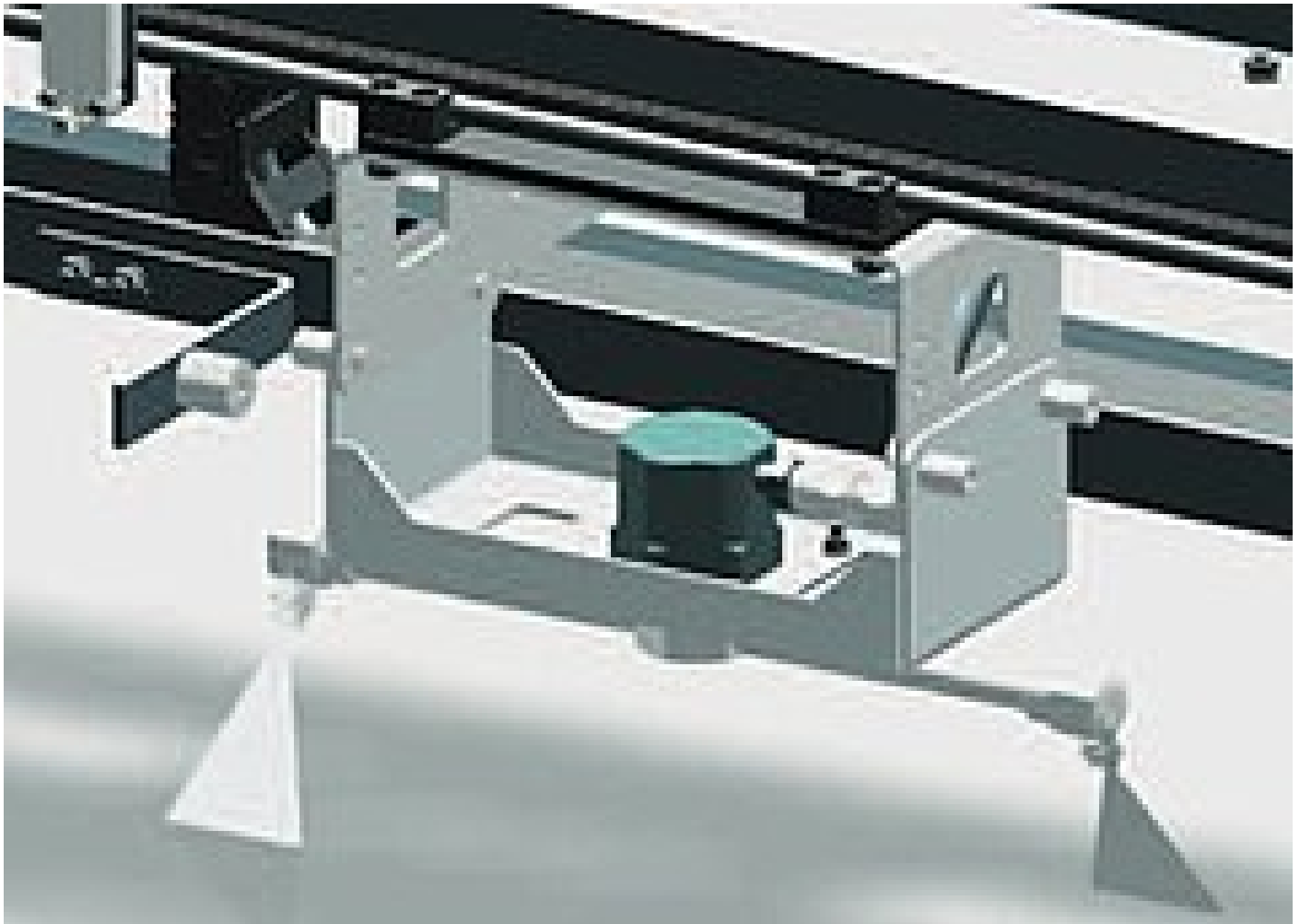
Our solution: HUBER Drum Screen LIQUID

The HUBER Drum Screen LIQUID is a machine that is available in different designs and suitable for numerous applications of solids-liquid separation. Depending on the specific application requirements the horizontal drum is covered with a mesh, wedge wire or perforated plate.

Function principle

The characteristic feature of the HUBER Drum Screen LIQUID is its screen basket which is horizontally installed in the channel or in a tank. The wastewater to be treated flows through the basket from inside to outside. Whilst the wastewater flows through the open front into the screen basket, solids are retained within the drum. A special sealing between the channel and the front-end screen basket opening prevents unscreened wastewater from passing through the screen basket. The solids settling on the drum surface lead to gradual blinding of the surface. As a result, the water level upstream of the screen rises. When the predefined maximum water level has been reached, the screen basket starts to rotate slowly around its axis to clean its surface. At its crown a spray nozzle bar sprays water onto the drum surface from outside to remove the solids and flush them into a trough inside the drum basket from where the screenings are discharged by gravity. The screenings can optionally be pumped to a higher level.

The HUBER Wash Press WAP® liquid is available for further treatment of the separated screenings. The wash press dewateres the screenings prior to discharging them into a container. This reduces the load on the sludge treatment system.



Innovative high pressure cleaning

High pressure cleaning

For preventive drum cleaning an innovative automatic high pressure system can be integrated as an option. The spray nozzle head rotates automatically due to the water pressure and moves linearly along the full length of the screen basket to clean the complete basket very efficiently. Water demand and operator attendance are reduced to a minimum.

Reliable sealing

Every system is only as good as its sealing system in the inlet of the machine. A special PU sealing is therefore integrated in the HUBER Drum Screen LIQUID to ensure that no unscreened wastewater can pass through the screen and constant separation results are reliably met.

Maintenance-friendly chain drive

The HUBER Drum Screen LIQUID is equipped with a unique self-adjusting bearing unit with a chain drive. The bearing is water-lubricated and made of highly wear-resistant fibre composite material. The bearing can be replaced without dismounting the machine.

Technical data

The machine is completely made of stainless steel and pickled in an acid bath for optimal corrosion protection and minimised maintenance requirements. The compact unit can be supplied in a tank or installed directly in the channel.

The HUBER Drum Screen is available in 4 sizes for throughput capacities up to 10,000 m³/h wastewater.

- Drum diameter 2.2m
- Drum length up to 4m
- Perforated plate 1.5 - 3mm
- Perforations of Star design 1 - 2mm
- Mesh sizes 0.2 - 0.75mm
- Bar spacings 0.5 - 3mm

A tailored solution to suit any application:

- Industrial and municipal applications
- Primary and secondary treatment stage
- Protection of membrane plants
- Replacement for primary settlement tank
- Load reduction in the biological treatment system through reduction of COD / AFS
- Screening in the inlet to power plants
- Treatment of cooling water circuits
- Brewery wastewater
- River and sea outfall
- Surface and river water screening

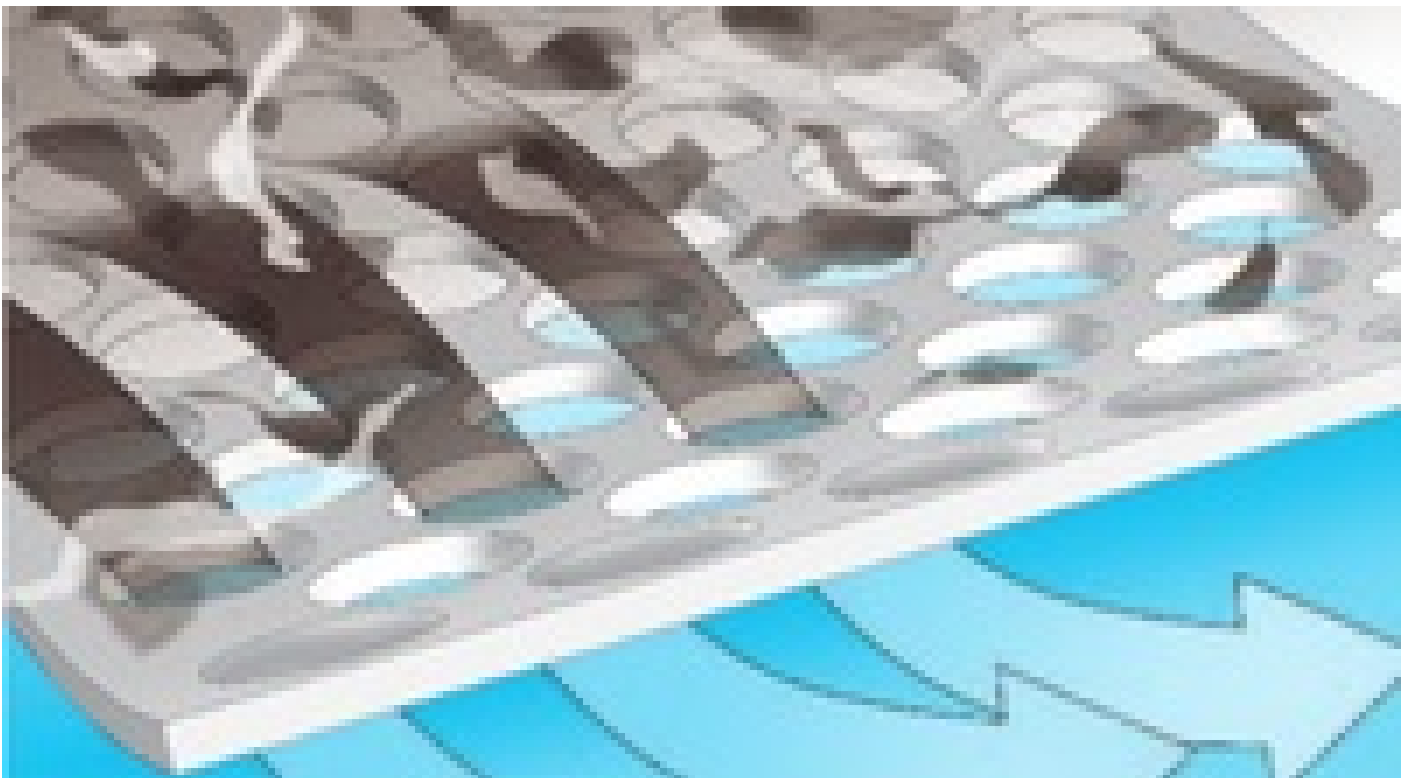
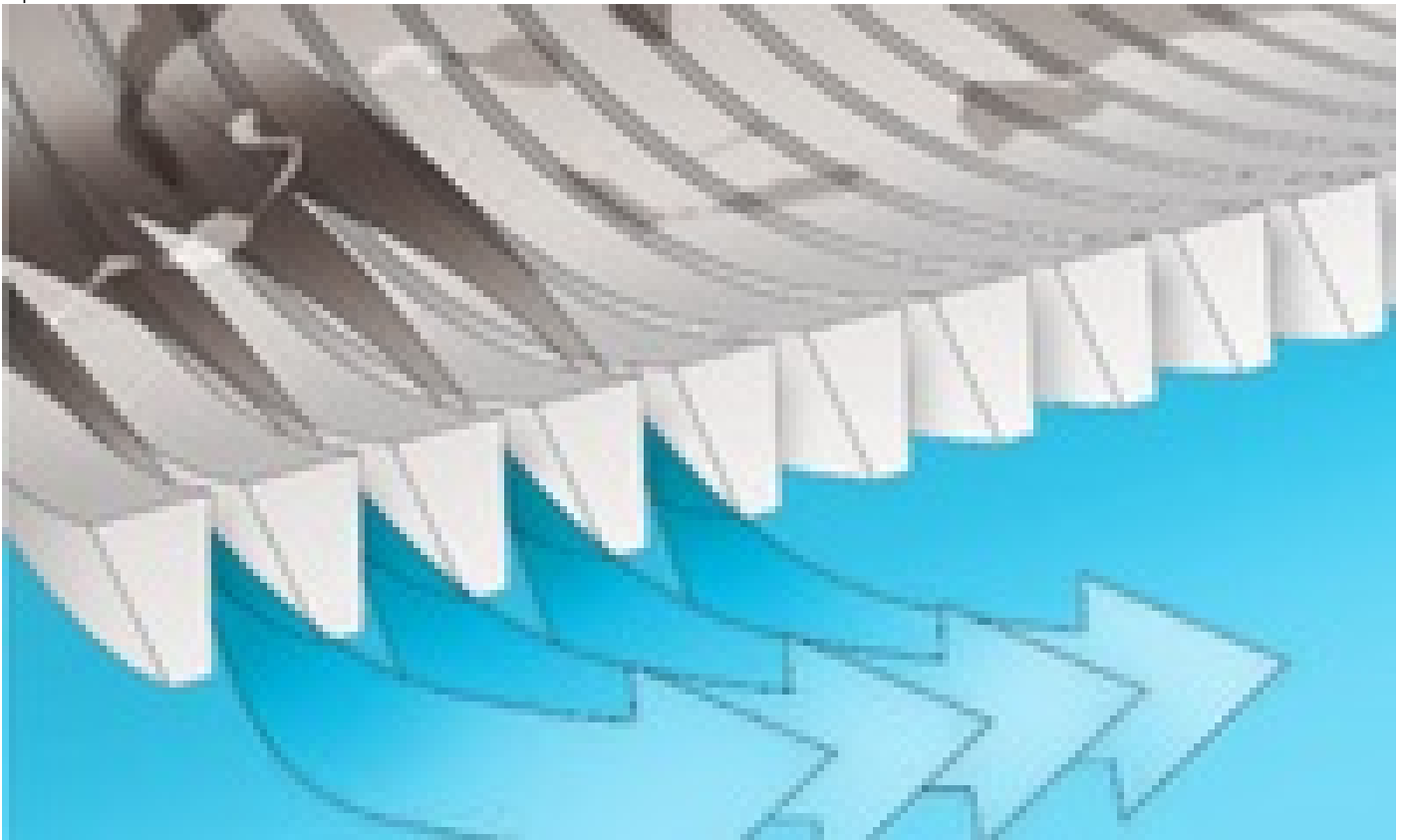
The benefits are obvious

- Economical channel/machine sizing
- Low life-cycle costs
- Easy maintenance and operation
- Automatic, rotating high pressure system with a very low water consumption (0.25 l/s)
- For channel or tank installation
- Maximum corrosion protection through stainless steel design and acid treatment in a pickling bath

Model variations of the HUBER Drum Screen LIQUID:

Wedge wire: Drum Screen LIQUID ww

- Wedge wire sizes 0.5 / 1 / 2 / 3 mm
- Solids retention up to 10,000 m³/h per machine
- Typical applications: Mechanical pretreatment on sewage treatment plants, industrial solids-liquid separation

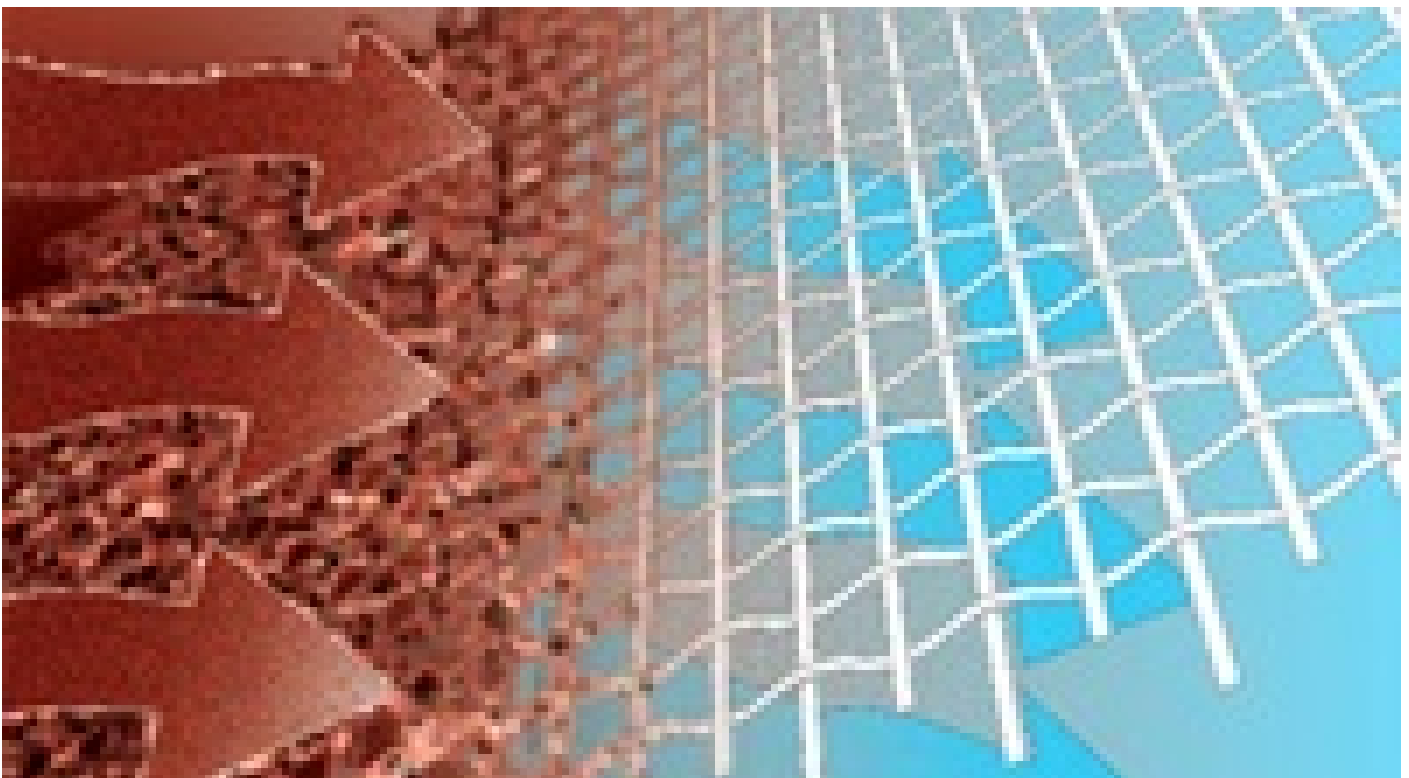
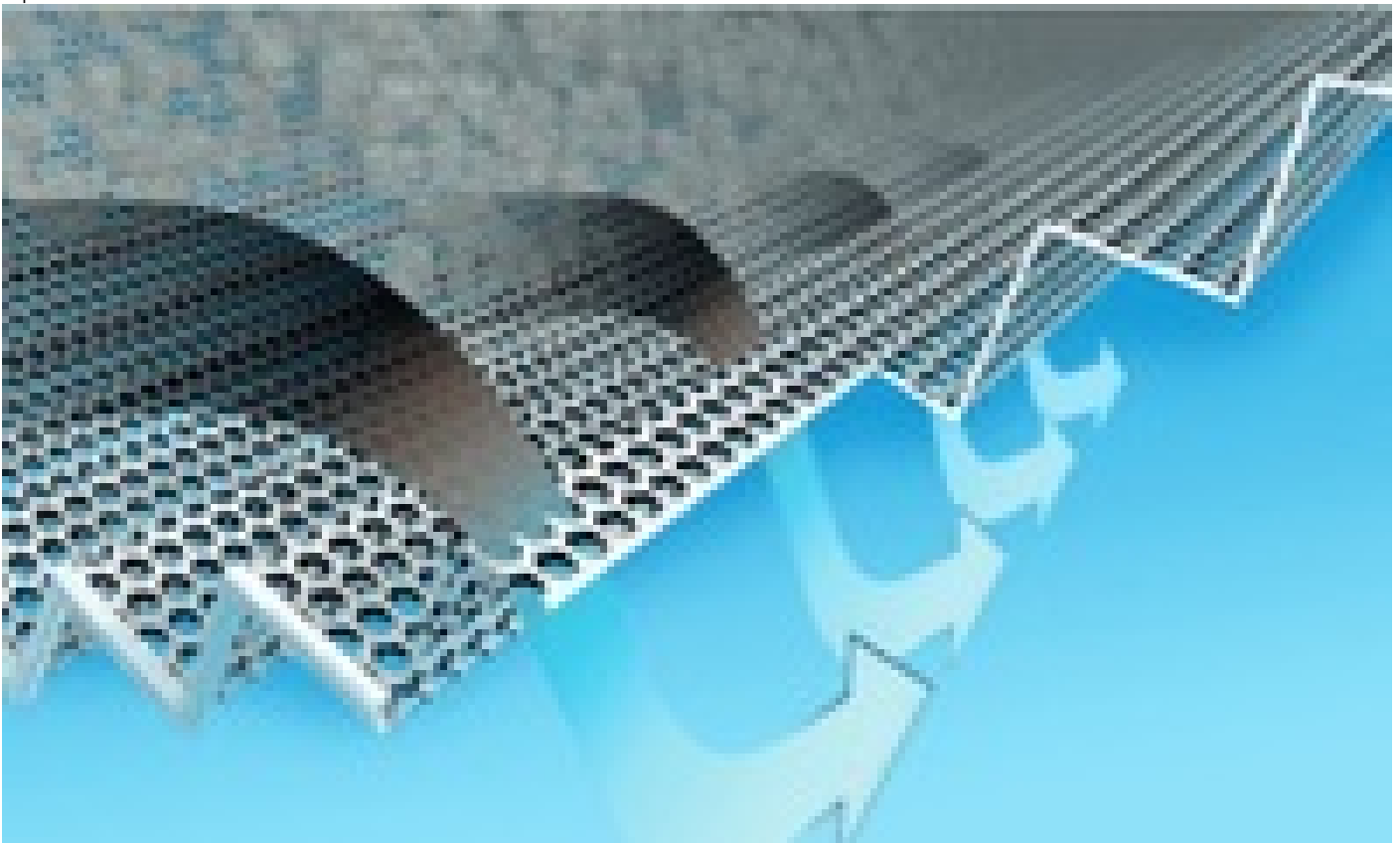


Perforated plate: Drum Screen LIQUID pp

- Perforations 1.5 / 1 / 2 / 3 mm
- High separation efficiency and retention of fibres and hair
- Typical applications: Protection of membrane filtration plants

Folded perforated plate: Drum Screen LIQUID Star

- Perforations 1 / 1 / 1.5 / 2 mm
- Increased screen surface for higher throughputs, high separation efficiency and retention of fibres and hair
- Typical applications: Protection of membrane filtration plants



Fine mesh fabric: Drum Screen LIQUID Mesh

- Mesh sizes from 0.2 up to 0.75 mm
- Maximum separation efficiency and reduction of COD and BOD by 20 – 40%
- Typical applications: Load reduction in the preliminary treatment stage, replacement for primary settlement tank, sea and river outfall applications

Related Products:

- [HUBER Drum Screen LIQUID](#)

Related Solutions:

- [HUBER Solutions for Removal of very fine Solids by Micro-Screening and Filtration](#)

- [HUBER Solutions for Mechanical Pre-Treatment](#)

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