

# **HUBER Band Screen CenterMax**®

Maximum separation efficiency through reliable screening

- Maximum retention of fibres and hair
- ► Operating reliability for membrane bioreactors
- ► Especially for narrow channels and high throughputs
- ► High separation efficiency

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#### The situation

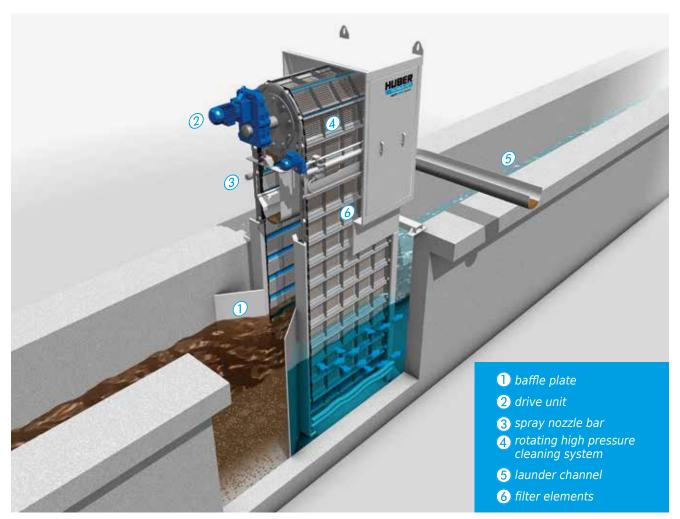
SMechanical pretreatment is required for both municipal and industrial wastewater in order to remove coarse materials and separate floating, settling and suspended solids. Depending on the method of wastewater treatment that is applied, the mechanical pretreatment system must fulfil different requirements in terms of separation efficiency.

At the same time, it is necessary to ensure that the requested throughput requirements are met under the given site conditions (channel depth, channel width, etc.).

# The solution: HUBER Band Screen CenterMax®

The HUBER Band Screen CenterMax® is available in different designs and suitable for numerous applications of solids-liquid separation.

The screen can be equipped with a mesh, perforated plate or a folded perforated plate (Star design), according to the specific application requirements.



HUBER Band Screen CenterMax®.

### **Design and function**

Whilst the wastewater flows into the open front side of the screen and out through the screening elements on the left and right side (viewed in flow direction), solids are retained on the inner surface of the screening elements leading to gradual blinding of the surface, which has an impact on the level difference in the channel. Cleaning of the filter elements starts at a defined water level in the channel upstream of the screen. The filter elements start to circulate, thus transporting the screenings upwards and out of the channel.

In the upper part of the screen a spray nozzle bar sprays water onto the surface of the filter element from outside to remove the solids from the surface and flush them into an internal trough installed in the upper part of the screen from where the screenings are discharged by gravity. The screenings are usually treated further in a HUBER Wash Press WAP® (see separate brochure).

#### CenterMax® pp

HUBER Band Screen CenterMax® with perforated plate, perforations from 1 to 10 mm.

High separation efficiency and retention of fibres and hair.

**Typical applications for 1 and 2 mm perforation:** Protection of hollow-fibre membrane filtration plants

#### Typical applications for 3 mm perforation:

Protection of plate membrane filtration plants

#### CenterMax® Star

HUBER Band Screen CenterMax $^{\circ}$  with folded perforated plate, perforations 1 / 1.5 / 2 mm.

Increased screen surface for higher throughputs.

High separation efficiency and retention of fibres and hair.

#### **Typical applications:**

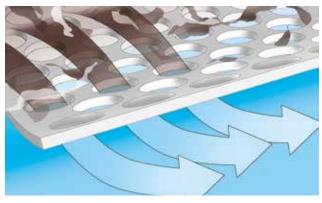
Protection of membrane filtration plants

#### CenterMax® for high volumes of wastewater

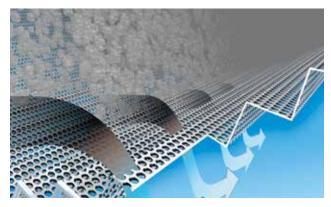
- ▶ Inlet works of water power plants
- ▶ River water and seawater extraction
- ► Seawater desalination plants
- ▶ Cooling water treatment
- ▶ Process water treatment



For deep channels with high water levels for high flow rates.



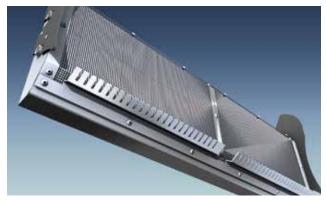
Perforated plate for high separation efficiency and at the same time high hydraulic capacity.



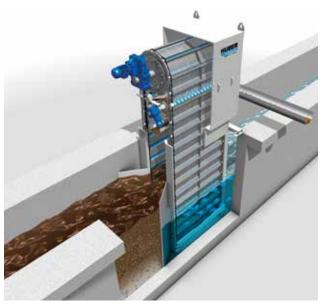
Folded perforated plate Star with increased screen surface.



The special sealing system ensures that no unscreened wastewater passes the HUBER Band Screen CenterMax®.



Special tines ensure that coarse long-fibre material is reliably carried along, thus ensuring the optimal transport and removal of screenings.



Depending on the specific conditions of the application, a brush can optionally be integrated for the preventive cleaning of the filter elements.



Star-type filter elements (folded perforated plate) for maximum stability and an increased throughput.

## The applications at a glance

- ▶ Industrial and municipal applications
- Primary and secondary treatment stage
- ▶ Protection of membrane plants
- ► Screening in the inlet to power plants
- ▶ Treatment of cooling water circuits
- ► Ultra-fine screen for the reduction of COD / AFS in existing plants (load reduction in the bio-system)
- ► Surface and river water screening

#### **Technical data**

- ▶ 4 sizes (chamber openings)
- ▶ Width of filter elements: 600 2400 mm
- ► Maximum screen length: 10,000 mm (longer lengths available on request)
- ▶ Perforated plate: 1 10 mm
- ▶ Star-type perforated plate: 1 2 mm
- ► Mesh: 0.5 1 mm
- ► Completely made of stainless steel, pickled in an acid bath

#### The user's benefits

- High throughput capacity maximum separation efficiency
- ► Also suitable for narrow channels
- ► Economically dimensioned channel and machine
- ▶ Low life-cycle costs
- ► Easy maintenance and operation
- Maximum corrosion protection through stainless steel design and acid treatment in a pickling bath