HUBER TECHNOLOGY
WASTE WATER Solutions

Solutions for your Water Intake Projects

- Ensure successful projects based on proven technologies in harmony with nature
- Comprehensive one-stop solutions from experts with global expertise
- Customer support across the entire project life cycle

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Safe water abstraction requires high-quality screening machines

Water is a prerequisite for human life and nature. Without water there is no life and no economic progress. Rising population figures in conurbations as well as current development trends in industry, commerce and agriculture lead to increasingly demanding challenges in the safe supply of water. More and more surface waters is being extracted and exploited as a resource to meet growing demands.

Saltwater accounts for 97% of the Earth's total water reserves. Seawater has already become an essential source of water consumption in some regions of the world. About one percent of the world's population covers its daily needs with desalinated seawater. Especially in the Middle East, North Africa, Australia and South America, seawater desalination plants provide vital drinking and irrigation water in addition to process water for industry. This share will increase significantly in the coming decades as a result of a growing world population and increasing water shortages.

As water is increasingly being recovered from rivers and seas and as pollution levels in these are increasing at the same time, the removal of pollutants by means of mechanical cleaning using screens and coarse and fine screening machines is coming increasingly into focus. The choice of the mechanical water treatment stages determines the stability of subsequent process steps and thus the economic efficiency and safety of the entire plant.

The application-specific selection of the right machines and number of treatment stages is decisive for the quality of the end product and the cost-effective operation of the plant, be it for

- use as cooling water in thermal power plants
- the operation of hydroelectric power plants
- use as process water in industrial plants, chemical plants and refineries
- use as raw water for drinking water supply and sea-water desalination
- use for irrigation in agriculture and parks.

River and sea water abstraction applications.

HUBER delivers comprehensive solutions for safe, cost-effective and effective water abstraction

Plant operators need durable equipment for water abstraction. HUBER supplies the appropriate screening machines, designed for a long service life and continuous, low-maintenance operation.

Our integrated development approach as well as the perfect matching of mechanical and electrical components on the one hand and the optimal integration into the overall structure on the other hand enable us to optimise the purification of the extracted water and the life cycle of your plant.

Depending on the requirements, we manufacture the machines in different stainless steel grades. For installations that come into contact with seawater, we supply cathodic corrosion protection. Likewise, our water abstraction solutions incorporate relevant fish protection concepts. This includes specially shaped filter elements for belt screens with integrated fish recirculation as well as fish monitoring approaches and fish scaring systems. In addition to mechanical screens, we supply project-specific shut-off devices for mechanical-hydraulic control and for maintenance work. This is supplemented by technical equipment for handling the separated screenings.

In addition to design, manufacture, installation and commissioning, our service portfolio includes the complete after-sales service, including the supply of spare parts and system maintenance. If site conditions change, we also adapt the existing plant equipment.

We focus on:

- Economic efficiency through standardised solutions as well as innovative, compact and modular designs
- Reliability through the use of proven technologies tested and manufactured according to HUBER‘s high standards
- Environmental friendliness through oil-free and fishfriendly system concepts and resource-saving production with a long service life
- Depending on the application and installation situation, various coarse and fine screening systems are available

Implementation of projects even in difficult-to-access locations.

HUBER Grab Screen TrashLift

- Used as first stage in water abstraction for bulky coarse screenings
- Cable operated grab screen
- Prevents sedimentation in the channel as the screen design provides for removal of debris from close to the bottom of the channel
- Bar spacings: ≥ 20 mm
- Installation angle: 70 – 90°
- Channel widths up to 4 m
- Channel depths up to 30 m

HUBER Coarse Screen TrashMax®

- Used as the first treatment stage of water abstractions for the removal of bulky materials such as flotsam, debris and rubble
- Innovative combination of a front-cleaned and back-cleaned screen in one unit
- High operational reliability combined with high abstraction and discharge capacity of the screen rakes
- Compact design allows for space-saving installation
- Bar spacings: ≥ 20 mm
- Installation angle: 80°
- Channel widths up to 4 m
- Channel depths up to 20 m

HUBER Multi-Rake Bar Screen RakeMax®

- Used as first treatment stage in water abstractions with high demands on solids discharge capacity The RakeMax® can also be used as a fine screen.
- Low-wear construction
- Bar spacings: ≥ 2 mm
- Installation angle: 50 – 85°
- Channel widths up to 4 m
- Channel depths up to 18 m

HUBER Band Screen CenterMax®

- Used as second treatment stage in water abstractions with high throughput rates
- No carry-over of screenings to the clean water side
- Highly robust for low-maintenance operation
- Perforated plate / mesh size: 1 – 10 mm
- Installation angle: 90°
- Channel widths up to 4 m
- Channel depths up to 18 m

HUBER Band Screen DualMax®

- Used as second treatment stage in water abstractions with high throughput rates
- No carry-over of screenings to the clean water side
- Highly robust for low-maintenance operation
- Reduced turbulent flow at the machine outlet enables shorter channels and cost optimisation of the overall structure
- Optional installation of particularly fish-friendly filter elements
- Perforated plate / mesh size: 1 – 10 mm
- Installation angle: 90°
- Channel widths up to 6 m
- Channel depths up to 18 m

HUBER Band Screen DiscMax®

- Used as second treatment stage in water abstraction with high fish protection requirements
- No carry-over of screenings to the clean water side
- Compact design allows for space-saving installation even in existing plants and shorter channels
- Quick and easy installation due to self-supporting frame
- Perforated plate / mesh size: 1 – 10 mm
- Installation angle: up to 90°
- Channel widths up to 3.5 m
- Channel depths up to 25 m

Research & development

For generations, the name HUBER has stood for well-founded research and development work for the protection of the valuable natural resource water.

We develop and test our new technical solutions at our headquarters in Berching. To adapt our innovations to the specific requirements of our customers all around the world, we carefully test our products additionally on our customers' sites.

Demonstration projects and the research we do, frequently in close cooperation with renowned research institutes, ensure that our machines and plants work reliably in practice. As a pioneer HUBER has introduced various patented innovations to the market and is selling them successfully all over the world.

Analyses in our laboratory.

First-class manufacturing quality ensures smooth, long-lasting system operation

Our innovative strength, state-of-the-art production at the highest level, and the outstanding expertise, extensive experience and craftsmanship of our employees enable us to meet our own high quality standards and those of our customers.

More than half of our highly qualified employees work in production and service. With their specialist knowledge and many years of experience, they ensure that the concepts we develop are implemented perfectly: from the selection of the best materials and precise production with state-of-the-art machines to internal quality control and professional assembly on site.

As early as 1996, we decided to implement a certified quality management system according to the international EN ISO 9001 standards. Since then, we have been working consistently on the continuous improvement of our internal processes.

In production, we focus on resource conservation. The principle here is to avoid the consumption of materials, including stainless steel and water, and to close cycles. As part of the surface treatment, our screens and screening machines undergo acid treatment in a full immersion pickling plant. This increases the longevity of our machines. The pickling plant is state-of-the-art in terms of pickling technology with subsequent wastewater treatment. The pickle is treated in a regeneration plant and then reused. In this way, we ensure that no pickling acid has to be disposed of, but remains in the cycle.

Our customers can check the progress of their orders directly at our factory at any time.

Production at Berching.

HUBER has been a partner to its customers for generations

For generations, we have cultivated partnerships with industrial and municipal customers and offer them a comprehensive range of services for the entire value chain – from engineering to commissioning and maintenance as well as modernisation.

We are in close contact with other stakeholders such as national and international authorities and research institutes in order to facilitate new approaches for the careful and sustainable use of water as a resource. The system solutions developed in this way combine requirements for:

- Maximum safety and high availability
- Long service life and continuous further development
- Proven solutions and innovative technology
- Clear standards and maximum flexibility

HUBER employees for three generations.

Success stories

HUBER has supplied numerous solutions for new plants and the modernisation of existing plants worldwide. On six continents, high-quality screening machines ensure smooth water abstraction and reliably protect downstream plants from damage caused by dirt and other impurities.

Mogi das Cruzes / Brazil

- Complete solution from HUBER (mechanical and electrical equipment)
- Compact plant concept with low maintenance requirements
- Efficient removal of algae and coarse material
- Fast project implementation in close coordination with the customer
- Fields of application: Drinking water production
- 2 x HUBER Multi-Rake Bar Screen RakeMax®
- Commissioned in 2019

Scheiding River / South Africa

- Timely installation in cooperation with local partners
- Robust low-maintenance machines that efficiently protect the pumps for the irrigation canal system from contamination
- High reliability over many years of operation
- Fields of application: irrigation canal for agriculture
- 3 x HUBER Multi-Rake Bar Screen RakeMax®
- Commissioned in 2007

Batam / Indonesia

- Complete solution from HUBER (mechanical and electrical equipment)
- Robust, low-maintenance machines that reliably remove various pollutants including coarse debris from the water
- Improved flood protection by avoiding blockages of water channels due to increased waste generation in the rainy season are avoided
- Rapid installation due to the use of pre-assembled machines
- Fields of application: water supply for households, commerce and industry
- Several HUBER Coarse Screen TrashMax® units
- Commissioning of the first machines in 2016

Schwandorf / Germany

- Modernisation of a coarse screening plant with custom-fit integration into the existing plant system
- Small, compact, low-maintenance screening machine
- Supply of Nabaltec AG and Waste Recovery Association Schwandorf with process and cooling water
- Fields of application: process and cooling water recovery for chemical plants
- 2 x HUBER Multi-Rake Bar Screen RakeMax®
- Commissioned in 2012

Schongau / Germany

- Complete solution from HUBER
- Combination of coarse and fine screening
- Optimised plant concept with perfect integration into the construction of the overall structure
- Fields of application: cooling and process water extraction for the power plant
- 1 x HUBER Multi-Rake Bar Screen RakeMax® and 1 x HUBER Belt Screen EscaMax®
- Commissioned in 2014

Bozhou Chengnan / China

- Easy installation due to pre-assembly; machines were lifted directly into the channel
- Project-specific design that takes into account the customer‘s specific requirements
- Low-maintenance operation with high throughput
- Fields of application: Drinking water production
- 2 x HUBER Band Screen CenterMax®
- Commissioned in 2020

Cairns / Australia

- Retrofit into an existing channel with high sediment and sand input
- Robust machine that runs reliably even under high sediment loads
- Perfect integration into an existing overall plant that is operated remotely monitored in the rainforest
- Fields of application: Drinking water production
- 1 x HUBER Belt Screen EscaMax®
- Commissioned in 2020

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Subject to technical modification | 0.1 / 3 – 4.2024 – 5.2022