Huber Technology (Pty) Ltd, South Africa

HUBER TECHNOLOGY
WASTE WATER Solutions



# HUBER Solutions for the Pulp and Paper Industry

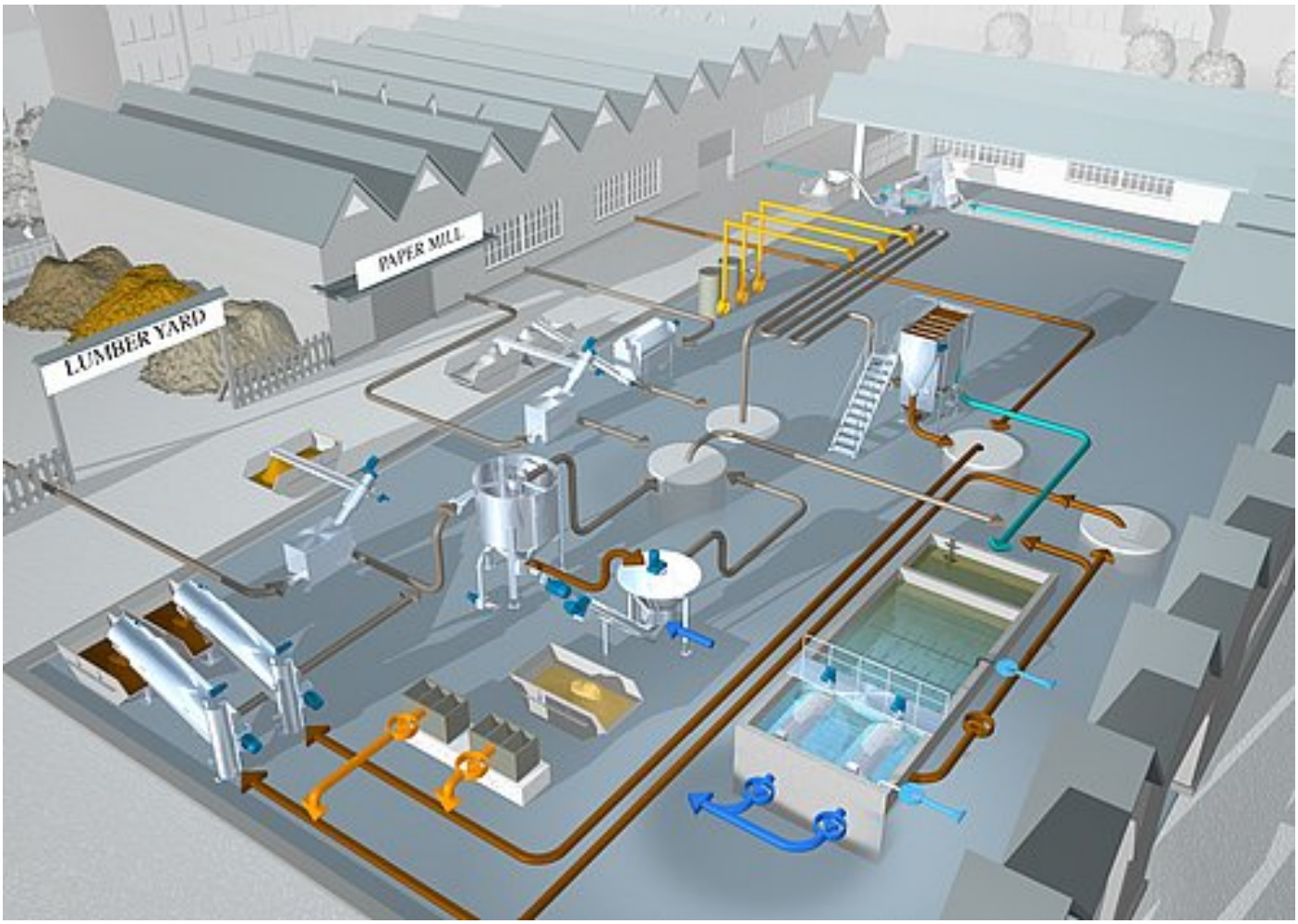
High amounts of fresh water are needed for the production processes in paper and pulp industries, with a high environmental impact and the result of enormous costs. It is therefore getting more and more important to treat wastewater and return it to the process.

As the wastewater and sludge to be treated originate from different production processes, they require specific treatment to ensure their as complete as possible conditioning and reuse. HUBER offers tailored overall solutions from one source:

- Coarse Material Separation
- Fiber Material Recovery
- Grit Separation
- Process Water Treatment
- Biological Wastewater Treatment
- Sludge Treatment

Disposal of removed solids and sludge becomes ever more costly. Retained paper fibres can be recycled into the production. Removed sludge is dewatered and disposed of, e.g. by incineration as solid waste.

## Systems concept




*Click on the image to get a detailed, interactive view with additional information and links.*

## Process

Surface water for use as process water flows through a **HUBER Multi-Rake Bar Screen RakeMax®** that removes debris and other disturbing solids. The screenings are washed, dewatered and compacted in our **HUBER Wash Press WAP®**.

Wastewater from lumberyards contains solids, such as wood chips, that we remove with our **HUBER Fine Screen ROTAMAT® Ro1** . The screen simultaneously washes, dewaters and compacts the screening, so that they can be incinerated as solid waste. Then we

remove soil, sand and grit with a **HUBER Circular Grit Chamber HRSF** and separate mineral and organic solids in our **HUBER Grit Washer RoSF4**. The washed and dewatered sand and grit is reusable as construction material.

Wastewater from the production that is highly polluted with organics flows for mechanical pre-treatment through our **HUBER Rotary Drum Screen** with rotating wedge wire. This screen usually has a wedge wire spacing of 1 mm.

Wastewater from the production that contains many fibres is pumped through our **HUBER Rotary Drum Screen RoMesh®**. This screen is made of a wire mesh with a mesh size between 0.2 and 1 mm. After chemical conditioning we remove remaining very fine fibres and other solids in a **HUBER Dissolved Air Flotation Plant HDF** (DAF). The DAF effluent can be discharged into the municipal sewer.

For further full-biological treatment we provide a **HUBER Membrane Filtration VRM®** Bio-Reactor. Its effluent can be directly discharged into receiving waters. The permeate effluent is of outstanding, contains neither solids nor bacteria, and can be recycled as process water.

Fibre sludge from the production and fibre-containing flotate sludge (primary sludge) are dewatered in our **HUBER Screw Press** and then recycled back into the production. Waste activated sludge (secondary sludge), consisting of biomass generated by biological treatment, is dewatered in another Screw Press. This sludge cake is preferably supplied to a biogas plant, in order to increase its gas production.

When we implement our solutions, we also provide our well-proven HUBER stainless steel components, e.g. **Screw Conveyors**, **Manhole Covers** and **Stairways, Platforms and Guardrails**.

## Case Studies

- ROTAMAT® Screw Press RoS 3 – an international success in paper industry applications

## Downloads

Brochure: Wastewater treatment in pulp & paper industry [pdf, 1.35 MB]

## Photos

## Products

- HUBER Multi-Rake Bar Screen RakeMax®
- HUBER Fine Screen ROTAMAT® Ro1
- HUBER Rotary Drum Fine Screen / Perforated Plate Screen - ROTAMAT® Ro2 / RPPS / STAR
- HUBER Drum Screen RoMesh®
- STEP SCREEN®s
- HUBER Screenings Wash Press WAP®
- HUBER Circular Grit Trap HRSF
- HUBER Coanda Grit Washing Plant RoSF4
- HUBER Screw Press S-PRESS
- HUBER Screw Conveyor Ro8 / Ro8 T
- Manhole Covers

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