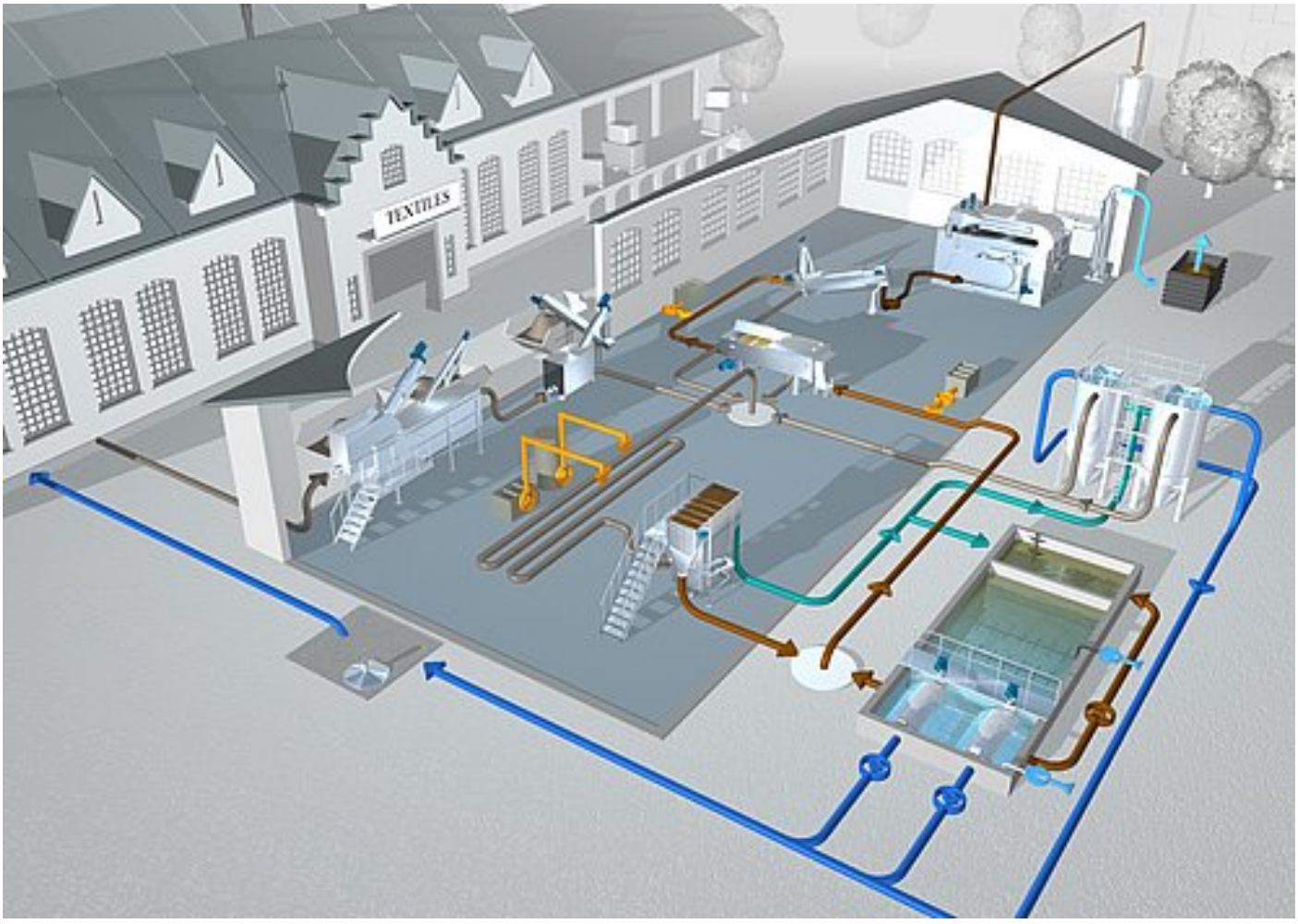
HUBER Solutions for the Textile and Leather Industry

Wastewater from the textile and leather industry contains many solids, particularly fibres or hair. Substantial amounts of sand and other mineral particles stem from raw material washing. The wastewater also contains colours and dyes and high BOD and COD freights. Heavy pollution surcharges must be paid for these freights. It is economical to reduce these freights on site, so that the pre-treated wastewater can be discharged into municipal sewers with no or minimal surcharges.

Requirements depend on type and size of the business, wastewater flow and freight. While small businesses must only remove solids, larger operations are usually required to reduce COD & BOD freights as well.

In many cases it is cost-effective to do more and minimize water, wastewater and waste costs. Due to high water consumption, it is often economical to treat the wastewater such, that it can be recycled as process water.

Systems concept



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

Process

The wastewater is mechanically pre-treated in a **HUBER Complete Plant ROTAMAT® Ro5** with integrated fine screen and grit chamber. The screenings are washed and compacted, the grit is classified and if applicable washed in our **HUBER Coanda Grit Washer RoSF4**, so that the sand can be recycled as building material. In order to remove hair and fibres, we further provide our Micro-Screen **HUBER Membrane Screen ROTAMAT® RoMem** with a mesh size between 0.5 and 1 mm.

After intermediate storage for flow and freight equalization, the wastewater is chemically conditioned. Type and dosage of the chemicals depend on the wastewater's composition and the requirements; we usually perform pilot tests. In any case we add polymers for flocculation. The chemically conditioned wastewater is treated in a **HUBER Dissolved Air Flotation Plant** (DAF). Fats and solids are

almost completely removed as flotate sludge. The BOD and COD freight is strongly reduced. The DAF effluent can be discharged into municipal sewers.

Where the wastewater is to be directly discharged into receiving waters, or where it is recycled as process water, we treat the wastewater further. One option is a **HUBER Membrane Filtration VRM®** bioreactor for full-biological treatment. The membranes retain all solids and bacteria. Alternatively, where the requirements are less stringent, we add flocculants and provide our **HUBER Sandfilter CONTIFLOW®** for chemo-physical treatment and polishing.

We reduce the amount of waste activated sludge from biological treatment and of flotate sludge with HUBER machines for **Sludge Thickening** and **Sludge Dewatering**. We can achieve further reduction with sludge drying by means of a **HUBER Belt Dryer BT**. Dried sludge can be used as fuel.

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

Products

- HUBER Belt Thickener DrainBelt
- HUBER Screw Press S-PRESS
- HUBER Belt Dryer BT
- HUBER Screw Conveyor Ro8 / Ro8 T
- Manhole Equipment

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