HUBER Solution for Semi-Centralized Wastewater Treatment and Reuse

Settlements, villages and suburbs can not always be connected to centralized sewer systems and treatment plants; pumping stations and transfer pipelines are cost-prohibitive. For settlements with up to 5,000 inhabitants we have developed our semi-central HUBER Solution.

Within the settlement the municipal and industrial wastewater is collected treated in a compact plant. The arriving wastewater is first mechanically pre-treated in a **HUBER Complete Plant** with integrated fine screen and grit/grease chamber. After intermediate storage for flow and freight balancing, it is treated full-biologically in a compact HUBER BioMem® membrane bio-reactor. For higher wastewater loads we use our **HUBER Vacuum Rotation Membrane VRM® Bioreactor**. Our ultrafiltration membranes retain all solids and bacteria. Activated sludge growing in the reactor is supplied with oxygen by air diffusion.

The permeate effluent is of excellent quality, complies with the European Bathing Water Directive and can be reused as service water or discharged into sensitive waters.

Washed and compacted screenings are disposed of as solid waste. Since the biomass growing in the bio-reactor is aerobically stabilized, surplus sludge can be land applied as fertilizer and for soil improvement. We provide our small **Screw Press** for sludge dewatering.

**Systems concept**

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

**Benefits**

Advantages of the semi-centralized HUBER Solution:
Good value due to use of standardized components

- Minimized construction work for very compact plants
- Low operation costs
- Retainage of all solids and bacteria by our ultra-filtration membranes
- Discharge of high-quality effluent even into sensitive waters
- **Wastewater reuse** as service water (e.g., for irrigation, toilet flushing, laundering, air conditioning)
- Reliable operation with optional remote monitoring and control (HUBER Operation Control, HOC)
- Responsive, dependable and preventive HUBER Service

**Case Studies**

- **MBR Wastewater treatment plant for a labour camp in Saudi Arabia**

**Products**

- **HUBER Complete Plant ROTAMAT® Ro5**
- **HUBER Micro Strainer ROTAMAT® Ro9**
- **HUBER Screw Press Q-PRESS®**
- **HUBER Membrane Filtration VRM®**

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