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Complete Plants



Multifunctional plants for reliable and complete wastewater pre-treatment

For reasons of operational safety the first step of sewage treatment works is generally mechanical wastewater pre-treatment to prevent operational problems, such as blockages, wear, or silting.

Complete wastewater pre-treatment includes:

- Fine screening
- Screenings treatment
- Grit separation
- Grit classification
- Separation and removal of fat and grease

We developed and supplied our first ROTAMAT® Complete Plant during the 1980s. Since then hundreds of consulting engineers and operators have selected and installed our Complete Plants because of their reliable operation, low maintenance and low space requirements.

Our Complete Plants have been continuously improved and additional models and sizes were launched to give operators the optimum solution for their specific requirements.

Planning and installation of our Complete Plants is not only quick and easy, but also saves considerable construction costs.

- [HUBER Complete Plant ROTAMAT® Ro5](#)
- [HUBER Complete Plant Hydro Duct ROTAMAT® Ro5 HD](#)
- [HUBER Coanda Complete Plant ROTAMAT® Ro5 C](#)

Downloads

 [Brochure: HUBER Complete Plant ROTAMAT® Ro5](#) [pdf, 307 KB]
Further information

 [Brochure: ROTAMAT® Complete Plant with Hydro-Duct Ro 5HD](#) [pdf, 190 KB]
Further information

 [Brochure: COANDA Complete Plant Ro 5C](#) [pdf, 172 KB]
Further information

Details

1. Fine screening

Depending on the specific conditions and data, such as peak flow, screenings load and grit load, one of the following screens is selected:

- [HUBER Fine Screen ROTAMAT® Ro1](#): Bar spacing 6 or 10 mm
- [HUBER Rotary Drum Fine Screen ROTAMAT® Ro2 / RPPS](#): Bar spacing 1 - 6 mm
- [HUBER Micro Strainer ROTAMAT® Ro9](#): Bar spacing 1 - 6 mm
- [HUBER Belt Screen EscaMax®](#): Perforation 1 - 10 mm
- [HUBER Fine Screen STEP SCREEN® SSF](#): Slot width 3 / 6 mm

2. Screenings treatment

- All ROTAMAT® Screens above include a screenings press. Screenings washing with (optional) dewatering and compaction. Solids concentration of screenings is up to 45 % DS.
- For our STEP SCREEN® SSF and Belt Screen EscaMax® a separate HUBER Screenings Wash Press WAP® is usually installed behind. Solids concentration of screenings, depending on the WAP type used is up to 50 % DS.

3. Grit separation

The grit channels of our ROTAMAT® Complete Plants are designed in accordance with international standards or the customer's specific requirements. The grit channels are available as aerated or optionally unaerated units. The selection of the grit channel type (aerated or unaerated) depends on various criteria, such as the storm/dry weather flow ratio or whether further grit treatment systems are planned.

4. Grit removal and discharge

The settled grit is collected from the bottom of the grit channel with a horizontal grit screw. An inclined grit screw conveys, agitates and dewateres the collected grit. The classified grit slides from the upper end of the inclined screw into a RoSF 4/t Grit Washer.

5. Grease separation and removal (optional)

Separation of fats and grease is only available when used with aerated grit channels. The grease is collected in a separate chamber with the partition between the grit trap chamber and grease chamber consisting of a slotted scum board. In contrast to many competitors, the floating fats and oils are skimmed off the water surface with a paddle scraper that is slowly pulled with a stainless steel rope. The paddle is shaped so that it removes virtually all floating matter from the grease trap. Anaerobic degradation of fat and grease, and therewith odor nuisance, is thus prevented.