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Huber Technology Middle East



Home ■ Products ■ Energy from Wastewater

HUBER Heat Exchanger RoWin



- Modular design
- Developed especially to be used with wastewater and sludge
- Not easily affected by coarse and floating material
- Odour-tight
- Low maintenance requirements
- Self-cleaning

The HUBER RoWin Heat Exchanger consists of a welded stainless steel construction in which horizontal pipe modules are arranged in parallel. The pipe modules are made of stainless steel to achieve maximum heat transfer efficiency. The pre-screened wastewater flows through the heat exchanger and, via the compactly arranged pipes, gives off its thermal energy to the cooling water.

Due to the specific chemicalbiological properties of wastewater a biofilm is developed over time on the heat transfer surfaces that significantly impairs heat transfer. Preventive cleaning of the heat transfer surfaces therefore is applied to ensure the maximum heat transfer capacity is permanently maintained. Sediments and solids settling on the tank floor are removed by a screw conveyor and returned to the sewer along with the cooled wastewater.

The HUBER RoWin Heat Exchanger is available, as required, with an outer insulation for particularly exposed sites. Installed above ground, the system offers the benefits of easy maintenance and operation. Due to its modular design the HUBER RoWin Heat Exchanger can be tailored to suit specific site requirements. In combination with a heat pump up to several hundred kilowatts of thermal output can be generated, depending on the unit size. With the optimal combination of both systems municipalities or industrial enterprises can cover up to 80 % of the heat required from wastewater as energy source.

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Benefits

- large heat exchange area at small footprint
- timed preventive cleaning
- automatic sediments discharge
- space-saving construction due to effective pre-screening
- modular design
- covers a big range of mass flows
- only little cooling-down of the wastewater necessary (dT = 2K)
- high heat transmission coefficient

Downloads

Brochure: HUBER Heat Exchanger RoWin [pdf, 390 KB]

Case Studies

- Heating without fuel with HUBER ThermWin: cold local heating network in Schallstadt (Baden-Württemberg)
- Energy input to the heating instead of sewage: Technische Hochschule Mittelhessen, a university of applied science, uses HUBER ThermWin for heating and cooling with wastewater
- World's largest project for energy recovery from wastewater
- Sustainable heat recovery for wellness oasis
- HUBER SE supplies ThermWin® system for heating and cooling with wastewater at a museum
- Wastewater heat utilisation and reuse of process heat at Munich university hospital "Klinikum rechts der Isar"
- Use of heat from locally generated sewer wastewater: case study old-age home Hofmatt, Switzerland
- RoWin for a win-win: Various application possibilities for heat recovery
- Thermal heat from sewers: Bavarian Energy Award 2012 in the category Energy Concepts and Initiatives goes to HUBER SE!
- Energy from wastewater the HUBER RoWin Heat Exchanger is becoming increasingly popular
- Leukerbad in Switzerland uses HUBER Heat Exchanger for heat recovery from thermal spa wastewater
- Three HUBER projects for wastewater heat recovery in Switzerland
- Heat recovery from raw sewage
- First HUBER ThermWin plant for wastewater heat recovery in Switzerland
- Energy recovery from filtrate water on WWTPs
- "Tank version" of HUBER Heat Exchanger RoWin
- Economic efficiency of heat recovery from wastewater
- Reducing the discharge temperatures of industrial wastewater treatment plants utilisation concepts for excess heat

Design Sketch





HUBER Heat Exchanger RoWin

HUBER Heat Exchanger as tank version RoWinB

Media

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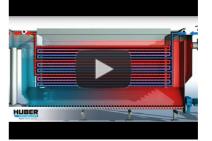




Video: HUBER Heat Exchanger RoWin in a ThermWin® Solution https://www.youtube.com/watch? v=tmifKb2QhLk



Video: Waste water heat recovery reuse of process heat https://www.youtube.com/watch? v=JLLsLvEGFH8



Animation: HUBER Wastewater Heat Exchanger https://www.youtube.com/watch? v=WTGBvgoUgjM

More products of this group: Energy from Wastewater

HUBER Pumping Stations Screen ROTAMAT® RoK4

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