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## "Tank version" of HUBER Heat Exchanger RoWin



The HUBER Heat Exchanger RoWin is unique of its kind. The wastewater heat exchanger brilliantly combines excellent heat transfer and automatic surface cleaning. A screw ensures automatic removal of sediments. The RoWin heat exchanger can therefore be used for any sort of wastewater, though municipal wastewater is certainly the most frequent application. The 'raw material' wastewater is taken directly from the sewer or downstream of the mechanical treatment stage on the WWTP.

But the thermal energy contained within the wastewater does not get lost on a WWTP. Although the wastewater is in contact with cold ambient air in several tanks, it is on the other hand heated in some processes. It can therefore be assumed that the clarified water has a relatively high temperature when discharged into the receiving water body.

Due to the biological treatment stage a certain minimum temperature is required in the inlet to a wastewater treatment works, In the outlet, however, a low temperature is even desired as the introduction of heat into the receiving water system considerably contributes to eutrophication. Unlimited heat extraction at the outlet of a WWTP is therefore no problem. The extraction of energy from wastewater in the inlet to a wastewater treatment plant is therefore a solution that suggests itself.

The HUBER Heat Exchanger RoWin is of course able to fulfil also this task. But a sediments removal screw seems out of place not only from the point of view of an expert. If the WWTP effluent is utilised, it can be done without a removal screw.

Even if the WWTP effluent meets all required parameters related to the substances contained, it cannot be excluded that heat transfer is impaired by sediments on the heat exchanger pipes. The automated cleaning system of the RoWin heat exchanger is therefore kept.

In contrast to municipal wastewater upstream of a sewage treatment works, its effluent flows on a higher geodetic level so that it is unnecessary to lift the level, which would be energy and cost-intensive. For optimal utilisation of the potential energy contained within the wastewater flow the best position where to install the heat exchanger is in the outlet channel of the sewage treatment works.

As the height of a module and the number of modules are variable, it is possible to install the RoWin either in an existing or suitably designed tank or channel so that no additional installation space is required.

Screwable covers ensure on the one hand that legal safety standards are met and guarantee on the other hand easy access for maintenance and repair. The cooling water circuit to the heating station can be installed frost-proof and hidden to the eye to supply the heat pump with eco-friendly, free energy.

Municipalities can in this way save considerable energy costs that are necessarily involved when heating digestors or supplying social buildings with conventional energy. Approximately 10 kW heat energy per litre per second can be generated when using HUBER products.

**HUBER DO BRASIL SOLUÇÕES EM TRATAMENTO DE ÁGUA E EFLUENTES LTDA**

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