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Sistema HUBER ThermWin® para recuperación de energía térmica del agua residual



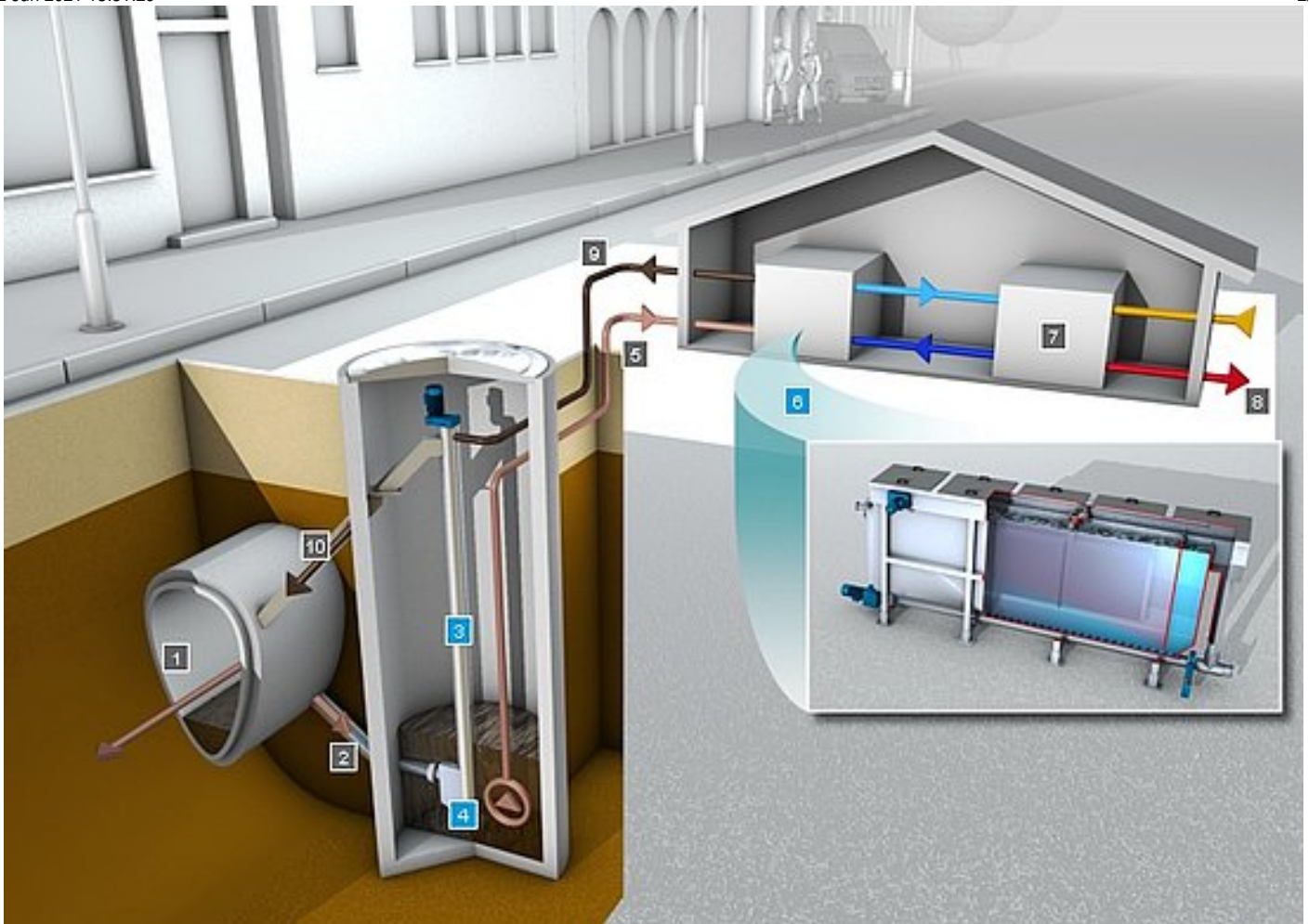
Beneath our streets we find an energy source that we have so far ignored. Municipal sewage contains thermal energy; its temperature is generally between 10 and 20°C, all year round. This temperature permits economical operation of heat pumps for the heating of nearby buildings (e.g. nursery homes, schools, gymnasiums, swimming pools). The only challenge is how best to extract heat from sewage.

Manufacturers are busily developing sewer pipes with integrated heat exchangers; but then we would need new sewer construction. There are special heat exchangers that can be installed on the inverts of existing sewers; but this is only possible in large diameter sewers, and heat transfer is impeded by fouling layers on the surface of such heat exchangers; not only is installation of such heat exchangers difficult and expensive, but also their service and maintenance.

We have developed our own **HUBER Solution ThermWin** for heat recovery from sewage:

We withdraw sewage from the sewer, screen it, pump it through above-ground [Heat Exchangers](#), and then return it back into the sewer. Because we screen and pump the sewage, we can use compact and cost-effective heat exchangers, wherein we generate a well-defined and turbulent flow for efficient heat transfer. For screening we use a Vertical Screw Screen [HUBER Pumping Stations Screen ROTAMAT® RoK4](#) that is compact and lifts the screenings through its vertical auger. Returned sewage flushed the lifted screenings over a chute back into the sewer.

[Conceptos](#)



Plano esquemático que muestra los diferentes elementos del intercambiador de calor colocados en el colector del alcantarillado:
 Haga click sobre la imagen para obtener una visión interactiva detallada con información adicional y otros links.

Ventajas

VENTAJAS DE NUESTRO SISTEMA HUBER THERMWIN:

- Instalación rápida y sencilla.
- Rápida implantación y utilización, intercambiador de calor compacto, fácil mantenimiento, ecológico.
- Respetuoso con el medioambiente debido a la reducción de emisiones de CO₂.
- No depende de los combustibles fósiles.
- Independiente con respecto a geometría de los colectores de la red de alcantarillado.
- Alta rentabilidad comparada con cualquier otra solución convencional.

Casos prácticos

- [Calentado y enfriado con aguas residuales: el Museo de la Historia de Baviera recibirá un sistema ThermWin® de HUBER SE](#)
- [Aprovechamiento del calor perdido de las aguas residuales generadas in situ - Informe práctico utilizando el ejemplo de la residencia de ancianos Hofmatt/Suiza](#)
- [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](#)
- [Economic efficiency of heat recovery from wastewater](#)

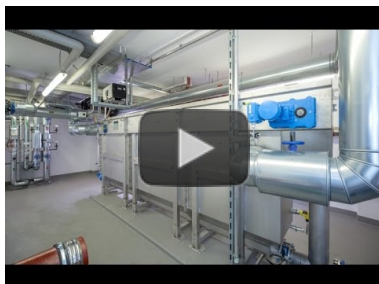
Downloads

Video



Video: HUBER Solution ThermWin® for Heat Recovery from Sewers

<https://www.youtube.com/watch?v=tmifKb2QhLk>



Video: Waste water heat recovery - reuse of process heat

<https://www.youtube.com/watch?v=JLLsLvEGFH8>

Productos

- [Energía del agua residual](#)
- [HUBER Intercambiador de calor RoWin](#)
- [HUBER Tamiz para pozos de bombeo ROTAMAT® RoK4](#)

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