KASAG LANGNAU

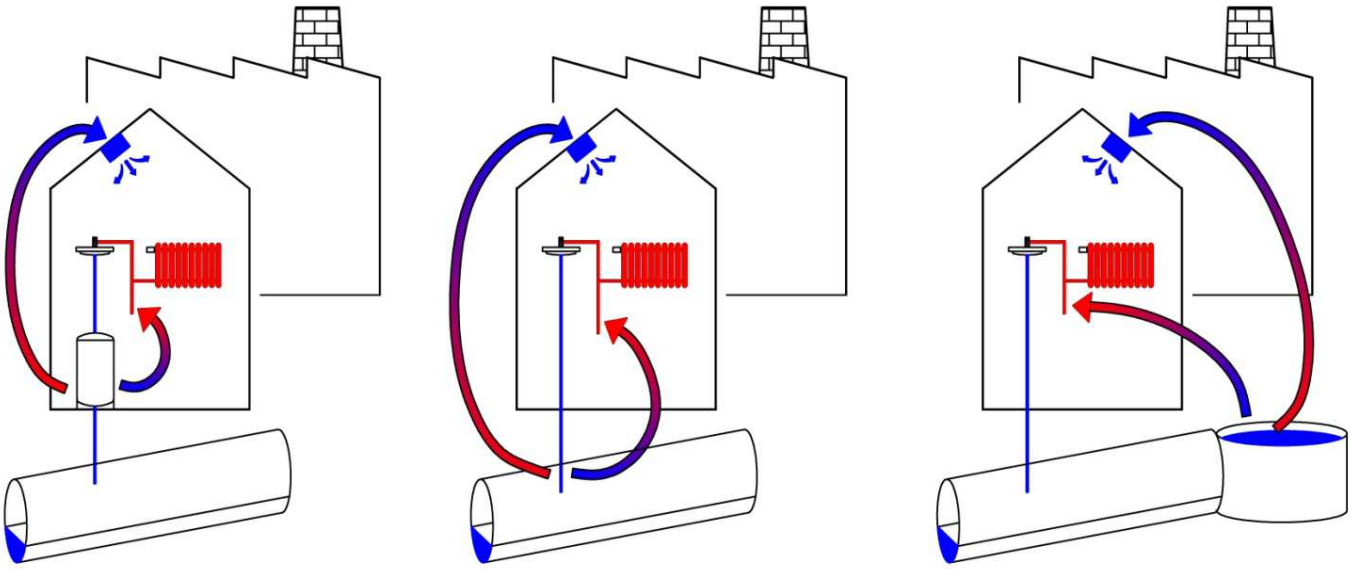
Heat exchanger solutions to recover energy from water, sewage and process heat

Using energy for heating and cooling

Water, sewage and industrial processes hold major energy potentials which can be exploited by means of special heat exchangers. The sources of renewable energy can be enormous. Ten percent of all buildings could be heated, for example, with the heat available in sewers. Compared with conventional oil heating, this technology permits to reduce the emission of CO_2 by up to 60%.

Where sewage containing solids is concerned, layout and design of the heat exchangers are the decisive variables for the transfer of heat. Different solutions are called for depending on requirements and to match the overall system.

Rising energy prices make investments in the area of renewable energies very sensible also from a commercial point of view.



Energy recovery from the point of occurrence right down to the sewage works

Energy utilization in buildings: communal sewage, industrial waste water, process heat

The sewage arising from buildings in surges is collected in a retention volume and exploited energetically for heating and cooling purposes by means of heat exchangers. For continuous discharges and process heat no retention volume is necessary. It is ideal to draw advantage from this energy potential at the point where it arises. The decisive parameter hereby is to ensure the transfer of heat in the heat exchanger. This requires special solutions. Application areas are multiple family dwellings, groups of residential buildings, communal buildings, hotels, swimming bath, thermal bath and industry.

Energy utilization in the sewer: communal sewage, industrial waste water

The sewage in sewers is an ideal energy source for the heating and cooling of buildings. Based on long experience, sewage quantities of more than 10 l/s and a temperature level above 10°C are the minimum requirements for this form of energy recovery. In the implementation, heat exchangers are fitted in sewers of the most varied cross-section geometries or the waste water passes through an external heat exchanger.

Energy utilization in sewage works: sewage

Sewage treatment plants have a big energy potential, be it to cover the own need for energy or to heat and cool buildings in the vicinity. The energy is ideally recovered at the exit from the sewage works. If heat is extracted from the purified water, this lowers the temperature level and benefits both man and eco system.

Heat exchanger solutions

KASAG LANGNAU AG offers individual heat exchanger solutions from the idea over the implementation right to acceptance testing. Motivated specialists in Sales, Project Management, Engineering, Manufacture and Quality Control accompany our customers from the quotation right to the quality-oriented finalization of the project meeting specific requirements.

Swiss Quality – our standard

Products

ISO 9001:2000
ISO 3834-2
SVTI
AD-2000 (PED)
China Stamp (A2)
ASME (U-Stamp)

KASAG LANGNAU

KASAG LANGNAU AG has been planning, manufacturing and installing heating and cooling equipment for many years. We draw from special know-how and experience in heat exchangers for water, sewage, process heat and all sorts of liquids containing solids. Our performance spectrum comprises the layout, design and manufacture of the heat exchangers including the necessary piping to the heat pump our plant requiring the energy.

KASAG LANGNAU AG offers the following heat exchanger solutions, among others:

Energy utilization in buildings

- Double-tube heat exchangers for sewage and process heat
- Pipe bundle heat exchangers for sewage and process heat
- Heat exchangers with automatic cleaning and retention volume for sewage quantities arising in cyclic mode

Energy utilization in the sewer

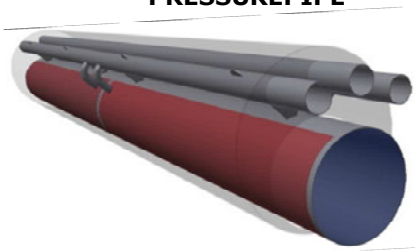
- Sewer heat exchangers installed in the sewer with pipes located at top or bottom
- Sewer heat exchangers integrated in concrete elements or shapes
- Buried or above-ground pressure-tube heat exchangers
- Buried or above-ground sewage-pipe heat exchangers
- Double-pipe heat exchangers for sewer sewage pumped off without prior screening

Energy utilization in the sewage works

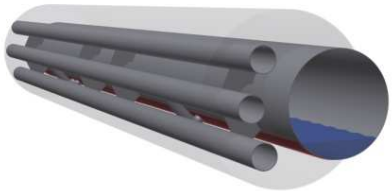
- Sewer heat exchangers installed in the sewer after the sewage works
- Buried or above-ground pressure-tube heat exchangers
- Buried or above-ground sewage-pipe heat exchangers
- Double-pipe heat exchangers for sewage water and sludge
- Pipe bundle heat exchangers for sewage with low contamination
- Plate heat exchangers installed in the sedimentation tanks

KASAG$_{CLEAN}$

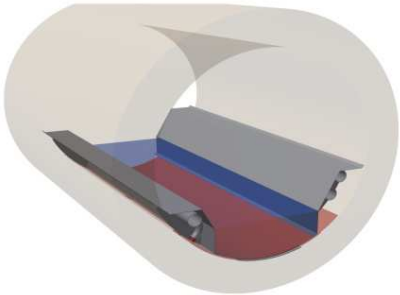
KASAG$_{PRESSUREPIPE}$



KASAG$_{GRAVITYTUBE}$



KASAG$_{SEWER}$



KASAG$_{DOUBLE}$

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