

Power Generation – Long Distance Heating (Geothermal) Protection of Heat Exchangers, Pumps and System

Customer:

WVI-Wärmeversorgung Ismaning GmbH & Co. KG was founded in 2011 and belongs to the municipality of Ismaning nearby Munich, Germany.

Background:

Distance heating – also known as district heating – is a collective urban heating system. District heating replaces the old individual boilers typically found in the basement of buildings as part of a heating distribution system. Today, it can also produce cooling solutions - for air conditioning systems, for example - thanks to absorption machines. In the future, the district heating facilities will be set up to use renewable energy. By employing scalable technology, district heating is not dependent on any particular type of energy; it can be created through an energy mix comprising natural gas, incineration of household waste, solar power, geothermal energy or even biomass (wood, vegetable oils, biogas).

Description of the solution:

For this application a BOLLFILTER Automatic Type 6.18 is the ideal way to protect heat exchangers, house transfer stations, pumps, long distance pipes and the complete system from potential blocking or damage from solids.

The district heating is a closed circuit and separated from the thermal water via heat exchangers.

BOLLFILTER protects the system against the solids from the pipelines (down to 50µm) which will be automatically removed. The decision was taken to install two BOLLFILTERs Automatic Type 6.18 DN 250 at an operational pressure of 8 bar and a capacity of 385m³/hour. The defined grade of filtration is 80 micron.

Advantages and added value for the customer:

The water quality has improved substantially due to the performance of the BOLLFILTER Automatic Type 6.18, which has reduced the contamination in the system to a minimum. It has gained in thermal output and therefore improved the operability and regeneration of the system. Installing a BOLLFILTER Automatic for solid removal extended the life time of the system.

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System:

BOLLFILTER Automatic Type 6.18 DN250



Heating plant Ismaning



Filter in parallel operation, with isolation



Filter in operation