

Laundry + Dry-cleaning Practices

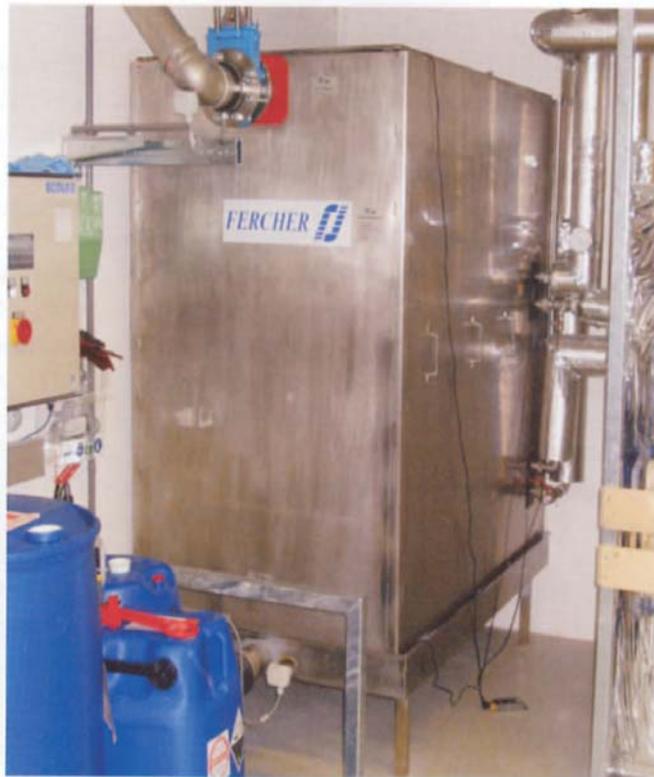
Fercher Moderne Energietechnik, Villach (Austria)

Double Savings

The wastewater heat exchanger Type Vesuv-S8 is the latest innovation by Fercher Moderne Energietechnik located in Villach in Austria. What is special about the installation is that it works with two heat exchange cycles. "Thereby, we have many more applications for heat recovery within the laundry", graduate engineer Josef Fercher, managing director of the company, explains. "This can help to save more energy within the operation."

The Fercher Wastewater Heat Exchanger Type Vesuv S-8 is already installed in the laundry of the nursing home in Dornbirn. "The installation uses two heat exchangers on the freshwater end", explains managing director Josef Fercher. "The primary cycle is the high temperature cycle that is used in the laundry for heating purposes. The secondary temperature cycle, on the other hand, is responsible for the soft water for the washing machines. It preheats the water", adds the managing director. "The secondary cycle re-uses water already cooled down in the primary cycle and is therefore run using the coldest available freshwater."

This is how it works: In the primary cycle, freshwater is pumped from the buffer tank by way of the circulation



The Fercher Wastewater Heat Exchanger Type Vesuv-S8 inside the laundry at the Dornbirn Nursing Home. The installation uses two heat exchanger cycles on the freshwater end.

pump through the Vesuv. Once warmed up it is let back into the buffer tank. The heating cycle circulates within the same buffer tank. Within the secondary cycle a circulation pump pumps cold water (around 15° C/59° F) from the soft water tank to the Vesuv Heat Exchanger. Then, the preheated warm water (about 30° C/86° F) flows back into the soft water tank and later to the laundry machines.

Each day around 16 to 20 cubic meter of wastewater accumulate at the laundry in Dornbirn. The wastewater temperature is about 60 to 90° C/140 to 194°. Interpolated Fercher assesses the energy savings due to the Vesuv for the laundry at the Dornbirn Nursing Home to be around 300,000 to 400,000 kWh per year. "This equals about 35,000 cubic meter heating gas or 35,000 liter heating oil per year" says Fercher.

Like the other Fercher Heat Exchangers, the Vesuv-S8 functions without pressure on the wastewater level. That means, wastewater flows over the so-called absorber plates. "This bans the danger of clogging", so the managing director. Further, according to Fercher, the film flow produces the largest possible surface und therefore optimizes the heat exchange between wastewater and freshwater.

