



With an [external digester heating](#) , it can be ensured a heating and cooling of the substrate in an extremely compact and service friendly way.

The system can be delivered pre-assembled , so it must be connected to the site only with the product and service side.

On request, the complete measurement and control technology is offered with.

The modules can be insulated with PU panels.

### Advantages

**The corrugated M- Tube heat exchanger has many advantages, especially when compared to heating coils in the digester**

- separate unit that can be checked at any time and quickly serviced
- low-maintenance heat exchanger completely removable (removable inner tube)
- no replacement parts needed
- with one heater, it is possible, by switching the substrate circles, to heat / cool several fermenters
- no on-site assembly
- clearly defined interfaces
- available with control panel
- 24 hour service / remote maintenance

- by space-saving design it is possible to install the heat exchangers in a frame (indoor) as well as in a container (outdoor)
- compact , modular design. Easily extendable by a modular principle
- due to corrugation of the heat exchanger, there is a higher turbulence, which results to a better heat transfer and reduces / prevents fouling (self cleaning)
- due to the higher power in comparison with conventional heat exchangers, less area , and thus requires less material
- every system is produced to customer specification
- with CIP-connections
- with insulation
- long life, since the heat exchanger are made of stainless steel (AISI 304/316 and higher)

