

## Lackeby Heat exchanger

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**Sludge/Water**



**Data Sheet**

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## General

Heat exchanger sludge/water from Lackeby Products combine innovative thinking and 40 years' experience in this sector. This unit has been developed to meet special requirements for the heating or cooling of sludge. The unique patented design provides a compact heat exchanger with minimal maintenance needs.

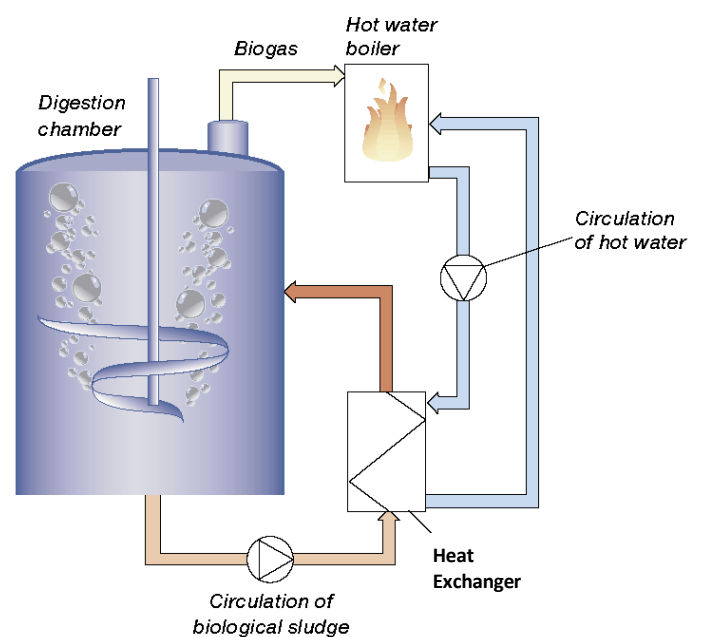


## Technical features

- Unique design specifically for sludge
- Patented turning chamber
- Compact unit that is easy to install
- Simple inspection and maintenance
- High heat transfer
- Large throughput area

## Process benefits

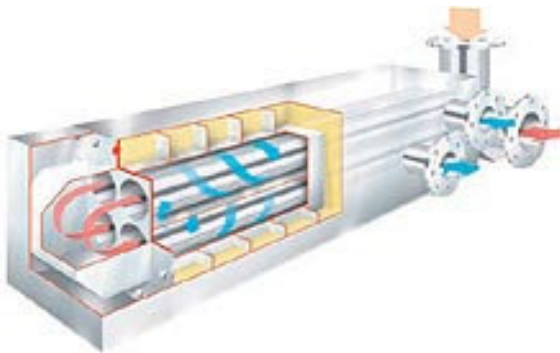
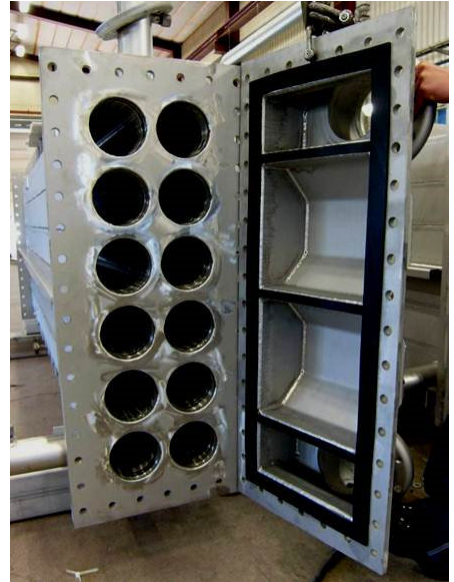
- Enhances efficiency of digestion and hygienisation
- Makes maintenance easy
- Eliminates problems with too multiple flanges and loose connections
- Equalises temperature profile of sludge
- Reduces pressure losses
- Minimises risk of clogging



## Function

Lackeby Products produces heat exchangers sludge/water based on a modular principle with circular sludge channels, which means the design can be adapted to each plant's unique conditions. The channels provide a large throughput area that keeps pressure loss low and minimises the risk of clogging. Each level of sludge channels is surrounded by a rectangular water circuit, in which water for heating/cooling flows in the opposite direction to the sludge.

The unique patented open turning chamber contributes to a compact design that is simple to install. Inspection, disassembly and maintenance are made easy because the turning chambers are mounted on a common flange. The turning chambers provide even higher heat transfer by equalising the sludge's temperature profile. Based on a modular principle and patented turning chambers, the compact design delivers low running costs. This makes heat exchangers from Lackeby Products a good investment.



## General safety instructions



To prevent accidents, the installation, connection and commissioning may only be carried out by authorized and qualified personnel.



### Note:

- When installed in open air, the filter must be protected from frost.
- Insulation of the Heat exchanger is done with 80 mm mineral wool.

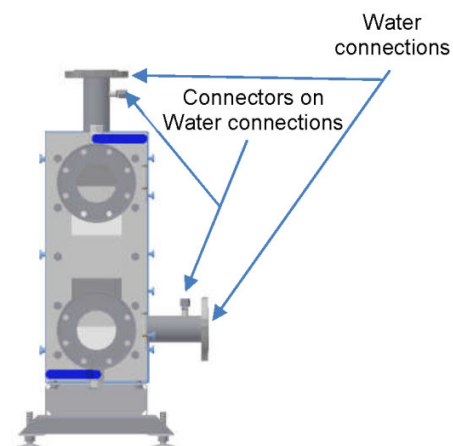
## Product-details

**Sludge/Water connections:** Pressure class PN10 (PN 16 on request), Type Loose flange acc. DIN 2642

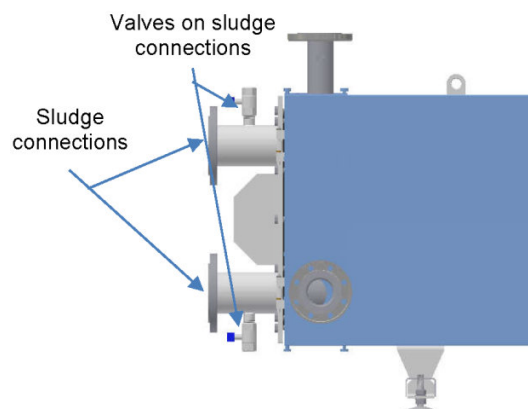
	-1x	-2x	-3x	-4x
HSW 40-	DN50/DN50	DN65/DN50	DN65/DN50	DN100/DN50
HSW 50-	DN50/DN50	DN65/DN50	DN80/DN50	DN100/DN65
HSW 65-	DN65/DN50	DN100/DN65	DN100/DN65	DN125/DN65
HSW 80-	DN80/DN65	DN100/DN65	DN150/DN80	DN150/DN80
HSW 100-	DN100/DN80	DN125/DN80	DN150/DN100	DN200/DN100
HSW 125-	DN125/DN80	DN150/DN80	DN200/DN100	DN200/DN100
HSW 150-	DN150/DN100	DN200/DN100	DN250/DN150	DN250/DN150
<b>Material</b>	<b>EN 1.4404</b>	<b>EN 1.4162</b>	<b>EN 1.4301</b>	<b>Hot galvanized</b>
Sludge pipes	S	---	O	---
Other wetted parts	O	S	O	---
Cladding	O	---	S	---
Supports	O	O	S	---
Sludge connections	S	---	---	---
Sludge flanges & valves	S	---	---	---
Water connections	S	---	---	---
Water flanges & valves	S	---	---	---
Screw joint inlet- & turn chambers	O	---	---	S
Screw joint others	S	---	---	O

S = Standard    O = Optional

Remark: Connection sizes might be changed to a greater size in order to avoid high pressure losses.



**Weld connector on water connections**  
Outside thread acc. AVI 5208, DN 15



**Valves on sludge connection**  
Ball, inside thread acc. AVI 1396, PN63, DN 25

## Installation

The heat exchanger is designed and dimensioned for counter current flow. The incoming water flow connection shall be opposite to the sludge inlet. If both inlet flows are connected to the upper connections the heat exchanger will achieve less heat transfer capacity.

Care should be taken to relieve any stresses that could be transported to the heat exchanger from the piping connected to the heat exchanger.

## GEFA Certification

### ISO 9001 - OHSAS 18001 - ISO 14001

Zusätzlich zum Qualitätsmanagementsystem **ISO 9001** hat die GEFA Processtechnik GmbH jetzt auch für die Bereiche Arbeitsschutz (**OHSAS 18001**) und Umweltmanagement (**ISO 14001**) ein sichtbares Zeichen:



Die **OHSAS 18001** und **ISO 14001** Zertifizierungen sind weltweit anerkannte Standards mit dem Fokus auf Personenschutz, Arbeitssicherheit, Gesundheitsvorsorge und Umweltschutz.