



Using valuable potentials sensibly: thermal oil heater

- For outputs from 50 kW to over 20 MW
- Flexible design for individual requirements
- Designed for different fuels



NESS
THE PROCESS
HEAT COMPANY

Practically oriented, energy-efficient and convincing

All NESS products are thermodynamically optimised. All fuel is valuable and using it to its maximum is the modern maxim.

Therefore high efficiency, durability and excellent transfer of the heat to the thermal transfer oil are typical for all NESS systems.

In generously-sized combustion chambers the flame can burn out completely which means emissions are very low. High-quality fireproof materials, with long lifetime and low heat capacity, make an emergency power supply unnecessary. The modular heater construction permits

individual temperature spreading in accordance with the application process, wherein the admissible supply temperature can be increased depending on the application and heat transfer oil from 320 °C to 400 °C. The specially-designed pipe coil inside the NESS heater guarantees low-stress thermal expansion.

The WEH/WEV product line from NESS.

Well-thought: two concentric pipe coils with large heat-exchange surface provide optimum thermal transfer and high efficiency in com-

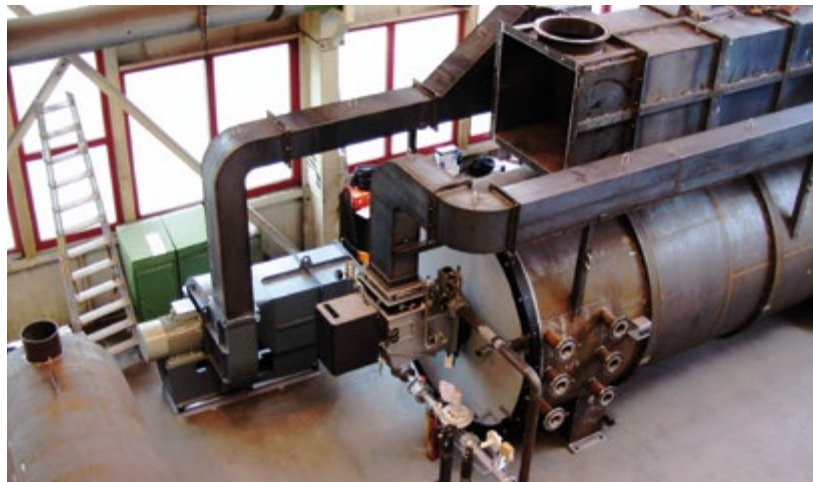
act, horizontal or vertical design. Effective: by means of the optimum design we achieve high energy efficiency through the product range, which can be further increased for example by optional air pre-heaters.

The standard version of the WEH/WEV series is the ideal first choice for the requirements profiles of low-contaminating fuels. Cleaning and maintenance can be carried out via the removable heater front wall. A further advantage: flexible installation options offered by the horizontal or vertical designs.

For many of our customers NESS systems are the benchmark. But our progress is no accident. With individual planning and high-quality product equipment we implement systems with convincing maximum efficiency and excellent operating reliability. The picture shows a heavy oil-fired WEH 16000 in production.



WEH 8000 with combustion air pre-heater for particularly high efficiency.



Stricter requirements can be met thanks to a flexible range of optional accessories: steam or compressed air lances enable cleaning even during operation without major dismantling.

The combustion chamber is accessed through a manhole in the boiler bottom or on the back wall.

A separating/reversing chamber with extraction equipment allows the use of powdery fuels – ideal for operating with ash containing heavy fuel oil or pulverised brown coal.

Naturally all NESS systems are fitted with modern and reliable safety equipment.

The deciding factor.

There is a huge difference between the best and the very best solution. Listening more closely, looking more carefully and the ability to make innovative leaps.

Outstanding solutions are never accidental. They are always the result of intensive engagement with the task at hand.



Fuels and furnace types

- Fuel oil extra light (diesel), heavy fuel oil
- Natural gas and LPG, process gases
- Wood sander dust
- Wood particles, wood chips
- Brown coal dust
- Combination of different fuels
- Special furnaces for special fuels

Vertical gas-fired WEV 4000 heater. System installation perfectly orientated to the customer's circumstances: compact, space-saving and highly-efficient.

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NESS system accessories – exemplary in every detail

Optimally-matched service and accessory packages complete the outstanding range of technical deliverables for our thermal oil heaters.



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All information is without obligation,
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- Pump stations with single or multiple pumps (operation and standby)
- Systems for the removal of light-ends during operation
- High-temperature filter systems for the removal of solids from the heat transfer oil even at high medium temperatures
- Automatic inert gas extinguishing systems
- Computer-based controls and operating systems
- Nitrogen blanketing
- Air pre-heater
- Economizers
- Secondary heating and cooling systems
- Flue gas cleaning equipment
- Heat storage systems for charging processes
- Automatic complete system control with sequential heater switching and automatic peak load/standby control
- Indirectly-heated steam and hot water generators



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