

HWT-SH 20231122 dt.docx

**ECO-FRIENDLY**  
**DOUBLE TUBE SAFETY HEAT EXCHANGER**  
**HWT-SH**

**SUITABLE FOR UP TO 30% H<sub>2</sub> FEED INTO THE GAS NETWORK**

## Double tube safety heat exchanger

- Heat exchanger in welded steel construction
- For preheating or cooling of gases
- 100% separation of the two media, even if a room leaks through a leakage space between the two media
- Pipe in pipe system – The outer pipe has an inner finning, which results in a metallic connection of > 50% through hydraulic expansion of the inner pipe and thus ensures excellent heat transfer.
- Suitable for natural gas, related fuel gases, water and non-aggressive gases
- Straight passage tube bundles with fix tube sheets
- Version horizontal or vertical
- Media routing as 1/1-way or 2/2-way countercurrent flow

## Benefits

- No mixture of the media in case of any leakage
- Suitable for up to 30% H<sub>2</sub> feed into the gas network
- Welded or flanged tube covers available
- Customised design with free nozzle position, selectable gas rail axis, etc.
- Tube bundle complete or heat exchanger tubes only optionally available in stainless steel

## Functional description

- Compensation for the Joule/Thompson effect by the heat exchanger – upstream of the gas pressure regulator
- Optimised heat transfer with adapted baffles
- Automated welding in of the bundle tubes

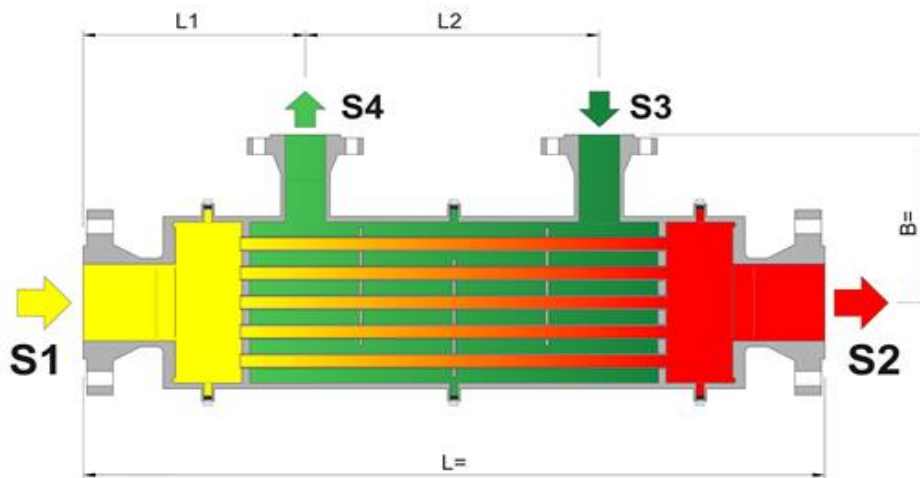
## Design and calculation

- Design in accordance with PED2014/68/EU, EN13445, AD2000; with CE marking
- Optional design in accordance with ASME Section VIII, with/without U-stamp, further specific country codes
- Continuous application of ISO9001 with regularly audited quality system
- TEMA design applicable as standard
- NACE design possible as an option
- Process-engineering design in accordance with own adapted calculation programmes
- Optimised design of the diameters of the pipe bundle tubes according to the intended use
- Low temperature and maximum pressure design available according to customer requirements
- Preliminary examination/construction testing, material testing, non-destructive material testing in accordance with the standard
- Customer-specific acceptance requirements optionally selectable, e.g. helium leak test
- Acceptance by experts such as TÜV, Lloyd, etc., also by a customer expert

## Optional accessories

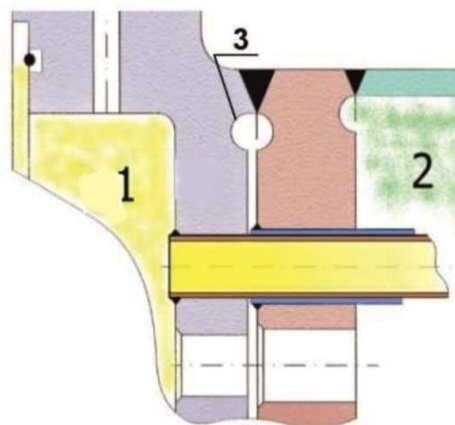
- Pressure safety valves for gas and water, pressure gauges, thermometers
- Drain and vent valves for gas and water
- Temperature control of the natural gas outlet temperature, also with control cabinet
- Blanking discs, insulation
- Special coating for corrosive atmosphere possible as an option

## Standard Design



S1, S2      Gas Inlet / Outlet;  
 S3, S4      Hot water Inlet / Outlet

## Detail Leakage room



- 1 Tube side (standard wise gas)
- 2 Shell side (standard wise water)
- 3 Leakage room (filled with nitrogen 1 bar) for monitoring the pressure and leakage control

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Anfrageblatt

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