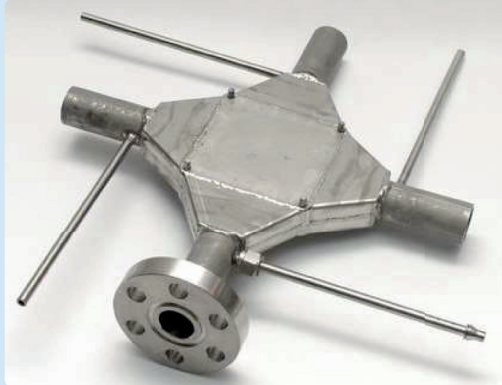


# High Temperature Heat Exchanger



(left) Heat exchanger EBZ-HX-05 in cross flow design  
(right) Heat exchanger in special design

## APPLICATION

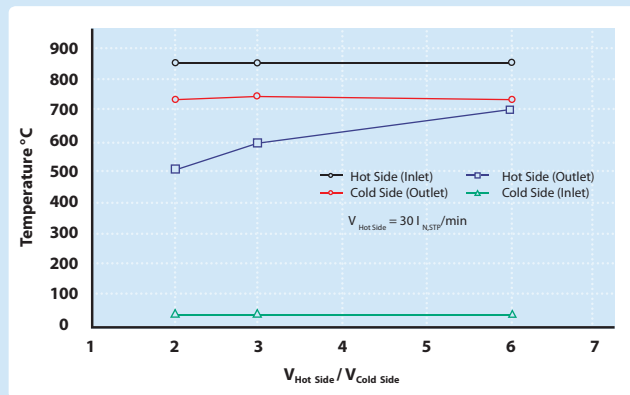
- fuel cell systems
- reforming units
- production of synthetic gases
- waste heat recovery
- air / gas - preheater

## KEY FEATURES

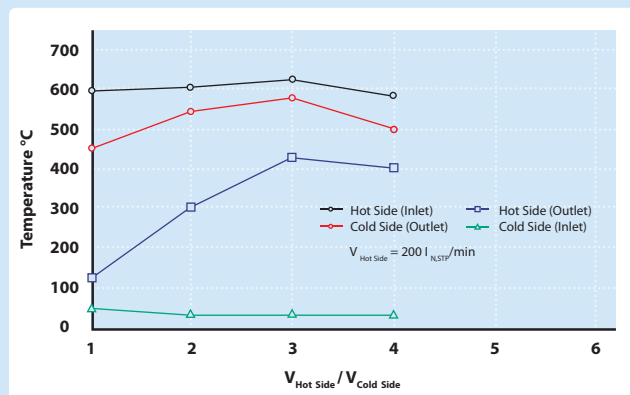
- compact counter-flow, co-flow or cross-flow design
- maximum temperatures up to 950 °C
- standard products: 0.3 kW / 0.5 kW / 1 kW / 3 kW / 5 kW
- heat transfer capacity up to 15 kW
- pipe connections according to customer demand
- very low pressure losses

## OPTIONAL

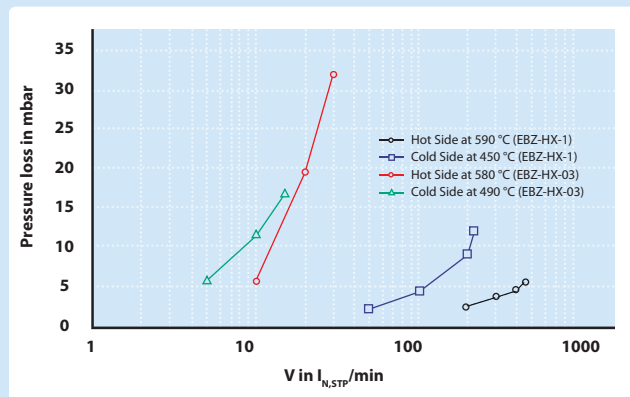
- pipe-in-pipe and tube bundle design
- materials for corrosive fluids
- geometry adjustment on customer demand
- space-saving due to internal redirections
- integration with other EBZ modules
- other sizes on request



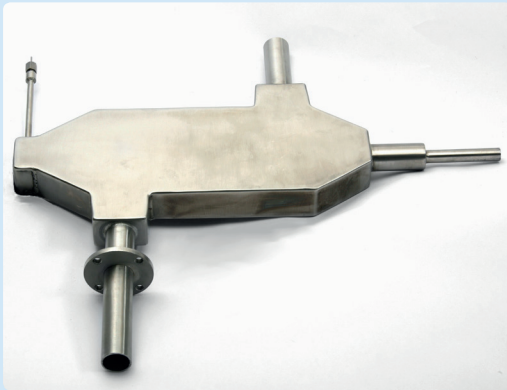
Performance of EBZ-HX-03



Performance of EBZ-HX-1



Pressure losses of EBZ-HX-03 and EBZ-HX-1



EBZ-HX-3

Type (Examples)	T <sub>max</sub> (°C)	Heat transfer capacity (kW)	L / B / Height (mm)
EBZ-HX-03	950	0.3	100 / 60 / 25
EBZ-HX-05	950	0.5	160 / 75 / 30
EBZ-HX-1	950	1.0	280 / 150 / 55
EBZ-HX-3	950	3.0	230 / 150 / 35
EBZ-HX-5	950	5.0	300 / 160 / 50

Examples of heat exchangers

**EXAMPLE OF APPLICATION**

- Plate heat exchanger in counter-flow design
- Maximum inlet temperature: 850 °C
- Designed heat transfer capacity: 3 kW
- Task: air preheating for electrical gas heater
- Dimensions: 400 mm × 130 mm × 40 mm

**FLUIDIC DATA (FLUID 1)**

Gas composition [Vol.-%]:

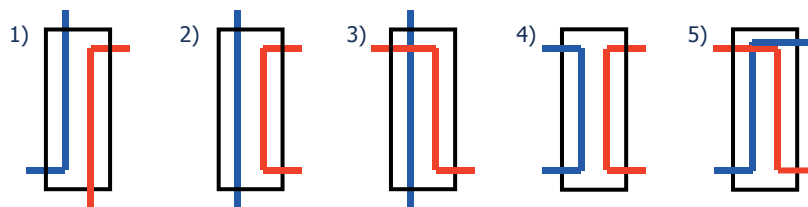
Temperature [°C]:	Inlet	Outlet	Maximal pressure loss [mbar]:
Inlet pressure [bar(g)]:	Max. / min. flow rates [l <sub>N,STP</sub> /min]:		

**FLUIDIC DATA (FLUID 2)**

Gas composition [Vol.-%]:

Temperature [°C]:	Inlet	Outlet	Maximal pressure loss [mbar]:
Inlet pressure [bar(g)]:	Max. / min. flow rates [l <sub>N,STP</sub> /min]:		

**POSITION OF INLET AND OUTLET OF COOLING WATER:**



**FLOW DIRECTION:**

co-flow design:	counter-flow design:	cross-flow design:
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**ADDITIONAL INFORMATION (maximum available space, additional operating points, ...)**

