



Plate & Shell Heat Exchangers



Chemical & Process Industries

Vahterus Plate & Shell (PSHE) Heat Exchangers combine the benefits of traditional heat exchangers. Utilising a fully welded plate pack within a strong shell construction makes Vahterus

PSHE the most compact, thermally efficient and cost effective heat transfer solution for many applications in the Chemical & Process industries.



Vahterus provides solutions for many heat transfer needs. We have considerable experience with heat transfer technology and continually invest in Research & Development.

High quality, consistent and reliable products are a matter of principle to us.

Compact & Effective

Vahterus PSHE combines the benefits of Plate & Frame and Shell & Tube heat exchangers. PSHE can either be described as a fully welded, high integrity plate heat exchanger, with no gaskets; or a generic alternative to Shell & Tube, approx. 25% of the footprint, displaying both space and weight benefits.

Benefits of PSHE

- No Gaskets or Brazing
- High Integrity / Total Containment
- Strong and Safe Construction
- Unique Protection and Resistance to Thermal and Pressure Cycling
- Thermally Efficient
- Compact and Low Weight
- Flexible Construction
- Proven, Reliable Technology
- Low Fouling
- Minimal Maintenance Requirement
- Close Approach Temperatures



Technical Specification

Maximum Heat Transfer Area

- 2 000 m²/exchanger

Mechanical Design

- Full vacuum to 150 bar possible
- -164 to +899°C

Quality Systems:

- ISO 9001:2000
- EN ISO 3834-2
- PED Module B+D
- ASME U Stamp
- OHSAS 18001
- ISO 14001



Approvals:

- PED
- ASME U Stamp & R Stamp
- SELO, China
- AD-2000 HPO
- Germanischer Lloyd
- Lloyd's Register
- R.I.N.A
- ABS Europe Ltd.
- Bureau Veritas
- DNV
- MKE South Korea

Materials:

Shell:	Plates:
• AISI 316	• AISI 316L
• St 35.8/1 / P235GH	• Titanium, Grade 1
• P265GH	• C22
• P355NL2	• C276
• EN 1.4547, SMO254	• Nickel 201
• EN 1.4539, 904L	• EN 1.4547, SMO254
	• EN 1.4539, 904L
	• EN 1.4462, Duplex
	• other materials on request

Main Data:

	Area/plate, m ²	Plate side nozzles, DN	Shell side nozzles, DN
PSHE 2	0.032	25	20-80
PSHE 3	0.076	50	25-250
PSHE 4	0.15	80	25-300
PSHE 5	0.26	100	25-350
PSHE 6	0.35	125	25-500
PSHE 7	0.46	150	25-500
PSHE 9	0.80	200	25-700
PSHE 14	1.55	300	25-1000
PRHE 12	1.00	200	25-1000



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