

Laser-Welded Plate Heat Exchanger Type XPS

XPS heat exchangers consist of corrugated, round metal plates which are welded together to a plate pack and fitted into cylindrical shells.

Materials

Plate Materials	Shell Materials
Austenitic steels, e.g.: + 1.4404 / AISI 316L + 1.4539 / AISI 904L	Ferritic steels, e.g.: + 1.0305 / St. 35.8 + 1.0425 / P265 GH / AISI 516 Gr65
Nickel materials, e.g.: + 2.4068 / AISI N02201	Fine-grain steels, e.g.: + 1.0566 / P355 NL1
Nickel alloys, e.g.: + 2.4602 / Alloy C-22 + 2.4819 / Alloy C-276	Austenitic steels, e.g.: + 1.4301 / AISI 304 + 1.4404 / AISI 316L
Titan materials, e.g.: + 3.7025 / AISI B265 Gr1	Nickel alloys, e.g.: + 2.4602 / Alloy C-22

Flow directors are made from plate materials as well. No elastomers are used in XPS heat exchangers. Fully welded units are absolutely gasket-free. The standard configuration of openable heat exchangers is with graphite tanged steel flat-ring gaskets.

Dimensions

	XPS 50	XPS 100	XPS 150	XPS 200	XPS 300
S1, S2	3/4" - 4"	1" - 10"	2" - 14"	2" - 28"	2" - 24"
P1, P2	2"	4"	6"	8"	12"
Ø [mm]	360	610	890	1.100	1.400
L [mm]	from 150 (depending on number of plates and design pressure) to 2.400				
Area [m²]	1.5 to 30	max 100	max 320	max 500	max 700

Plate material with a thickness from 0.6 to 1.25 mm is used. All sizes can be delivered with H-, L- or G-plates. Liquid hold-up varies from 3 to 1,000 litres per pressure chamber.

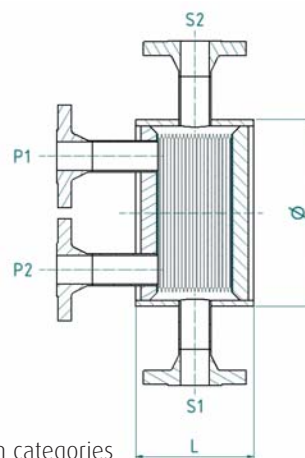
Operating parameters

The maximum parameters depend on the size of the unit, the materials used and the thickness of the material.

Operating Pressure: -1 to 150 bar (g)
 Operating Temperature: -200 to 500°C
 Dynamic Viscosity: up to 8,000 mPa s

Approvals

According to PED, XPS heat exchangers are classified as pressure vessels in categories I - IV. The conformity assessment is according to module G. Before delivery, an individual design and pressure test is carried out for each unit. Some designs are delivered with a type-examination certificate.



XPS type
100 size
- 120 number of plates
H plate profile
/
41 passes (plate side and shell side)