WP Series – Brazed Plate Heat Exchangers

Designed to work under pressure

GEA PHE Systems WP Series of brazed plate heat exchangers are precision made right down to the minutest detail. Using advanced CAD/CAM technology we design and produce the plates and pressing tools ourselves. Plates are pressed and stacked on automated press-lines and computer controlled furnaces closely monitor the brazing processes. All units are subjected to intensive pressure and leak testing before leaving the factory and we aim for shortest delivery times on all orders.

Our brazed plate heat exchangers are used in a variety of applications:

- heating and hot water production
- radiant floor heating
- snow melting equipment
- refrigerant evaporators
- sub-coolers and condensers
- oil coolers plus many other refrigerant-to-liquid, liquid-to-liquid and air-to-liquid applications. In short – they're precision-made to work under pressure.

Features and benefits

Safety Chamber™

Our patented Safety Chamber™ absorbs the stress from thermal shock and pressure pulsations that would damage other brazed plate heat exchangers. When overloaded, encapsulated contact points around the ports take up the forces and stretch, protecting against internal leaks and premature failure. A GEA PHE Systems exclusive safety factor.

Delta Injection™ for Advanced Evaporator - AE line

A GEA PHE Systems patented Delta Injection™ refrigerant distribution system is specially developed for evaporator applications. It provides precise metering of refrigerant to the channels, guaranteeing the highest evaporator performance. The Delta Injection™ is fully integrated into the stainless steel heat-transfer plate.

Robust Plate Design

This special plate design by GEA PHE Systems, the Rolled Edge Lock System™, guarantees a consistent braze joint at the plate overlap and makes for stronger and more leak-proof heat exchanger. The contact points, extended and larger in design, result in stronger braze joints between the plates, thus guaranteeing high heat exchanger strength.

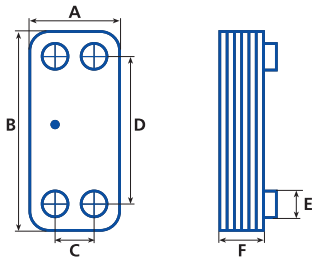
Full-Flow System™

Originally developed for the nickel brazed plate heat exchangers (NP Series), every new plate design is now equipped with the Full-Flow System™. This unique flow system insures continuous flow around the port area to prevent freezing and also feeds the working fluid equally over the channel to guarantee maximum use of the heat transfer area. Additional protection and performance from GEA PHE Systems.

WP Series: Technical data

Plate material: Stainles steel AISI 316 / 1.4401
Brazing material: Copper
Performance: up to 30 bar, 195°C
Third party approval: PED (CE), TÜV, ASME, UL, CSA. KHK, other on request

Features:



Option:

Extended Corrosion Resistance – XCR line

GEA PHE Systems´XCR models feature increased resistance to corrosion using higher quality stainless steel plate material. Well suited for harsh environments, chlorine-loaded media such as swimming pool, spa heaters and ground source heat pumps.

Copper brazed stain-less steel	Advanced Evaporator – AE	A	B	C	D	E	F N = number of plates	Weight N = number of plates	Volume	Max. flowrate water	Max. no. plates
Type		Standard dimensions (mm)						(kg)	(liter/ch)	(m3/h)	
WP 1	–	74	204	40	170	15	7,7+2,30xN	0,70+0,050xN	0,025	4	50
WP 2	–	90	231	43	182	20	10,65+2,35xN	1,10+0,060xN	0,030	6	50
WP 22	–	90	328	43	279	20	10,65+2,35xN	1,30+0,080xN	0,046	6	50
WP 24	–	90	464	43	415	20	9,7+2,30xN	2,04+0,140xN	0,070	6	50
WP 3	–	124	173	73	120	25	13,0+2,35xN	1,20+0,060xN	0,030	10	50
WP 4	- AE	124	335	73	281	25	10,7+2,30xN	1,60+0,130xN	0,065	10	100
WP 530	- AE	124	532	73	478	25	9,7+2,25xN	1,76+0,210xN	0,100	10	100
WP 5	- AE	124	532	73	478	25	10,7+2,30xN	2,00+0,240xN	0,100	10	100
WP 7	- AE	271	532	200	460	40	11,15+2,35xN	9,60+0,540xN	0,230	27	150
WP 8	- AE	271	532	161	421	65	11,15+2,35xN	10,0+0,540xN	0,221	70	260
WP 9	- AE	271	802	161	690	65	11,15+2,35xN	11,5+0,800xN	0,399	70	260
WP 10	- AE	386	875	237	723	100	20,65+2,35xN	39,5+1,250xN	0,600	160	360
WP 10L	- AE	386	875	237	723	100	23,0+2,35xN	39,5+1,250xN	0,600	160	360
Extended WP Series technical data											
WP 112	–	74	192	40	154	15	9,0+2,30xN	0,46+0,044xN	0,024	4	60
WP 418	–	127	282	84	239	20	9,0+2,05xN	1,35+0,118xN	0,055	6	50
WP 420	–	127	282	68	223	32	9,0+2,76xN	1,35+0,118xN	0,076	10	100
WP 525	–	118	525	69	476	25	7,5+2,76xN	2,55+0,210xN	0,120	10	100
WP 757	–	281	543	198	460	60	11,5+2,65xN	13,2+0,500xN	0,310	27	160
WP 760	–	257	519	138	416	80	13,5+3,45xN	12,6+0,400xN	0,410	70	130
WP 910	–	318	783	225	690	65	14,0+2,54xN	20,0+0,853xN	0,480	70	200

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