

PLATE HEAT EXCHANGER

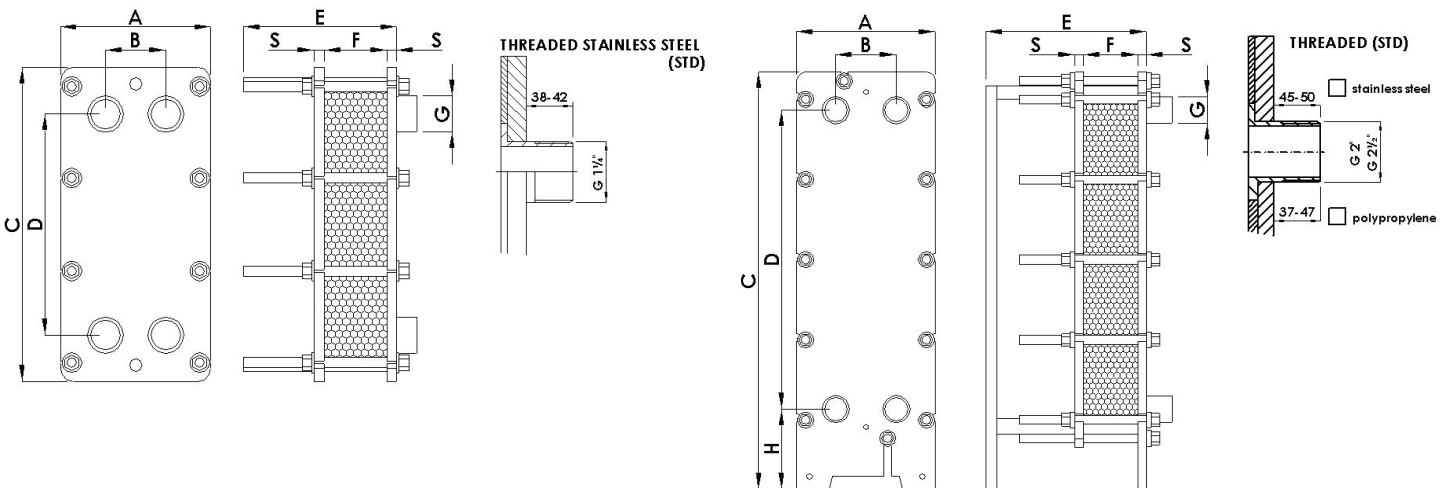
Cost-effective heat management solution. Whether it is for heating or cooling their efficient operation saves energy, reducing costs and minimising environmental impact.



FEATURES

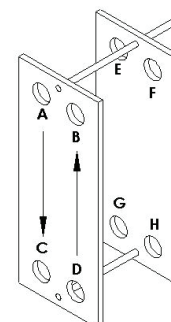
- High overall heat transfer coefficient
- Compact design gives maximum surface area to material volume without compromising mechanical robustness
- High performance with low hold-up volume
- Versatile, modular design
- Plate and gasket materials available to suit most fluid types
- Easy dismantling for rapid cleaning
- Short lead-time custom build service

TECHNICAL DRAWINGS



MATERIALS	
FRAME	P 335 NH
PLATES	Titanium
GASKETS	EPDM Max 150°C
HOT SIDE CONNECTIONS	Stainless Steel
COLD SIDE CONNECTIONS	Stainless Steel
BOLTS N.8 M12	A 193 B7

DESIGN DATA	
TEMPERATURE °C	-10/100
PRESSURE Bar	10
TEST PRESSURE Bar	14.3



Primary:
A → C

Secondary:
D → B

SPECIFICATIONS

	PHE100-TI	PHE140-TI	PHE180-TI	PHE240-TI	PHE290-TI	PHE330-TI	PHE370-TI	PHE410-TI
PROCESS DATA (HOT SIDE)								
TEMP (IN) °C	90	90	90	90	90	90	90	90
TEMP (OUT) °C	70	70	70	70	70	70	70	70
FLOW RATE (M ³ /H)	4.52	6.20	7.88	10.71	12.70	14.70	16.38	18.33
PRESSURE DROP (KPA)	22.11	25.54	24.50	25.04	26.62	25.55	27.18	29.57
PROCESS DATA (COLD SIDE)								
TEMP (IN) °C	20	20	20	20	20	20	20	20
TEMP (OUT) °C	35	35	35	35	35	35	35	35
FLOW RATE (M ³ /H)	5.88	8.07	10.26	13.94	16.54	19.13	21.32	23.86
PRESSURE DROP (KPA)	42.19	48.65	46.48	47.13	49.91	47.51	50.36	54.59
DELTA T LOG. MEAN (°C)	52.46	52.46	52.46	52.46	52.46	52.46	52.46	52.46
HEAT EXCHANGED (kW)	102	140	178	242	287	332	370	414
CONSTRUCTION DATA								
HEAT TRANSFER AREA (M ²)	0.624	0.816	1.104	1.584	1.776	2.256	2.448	2.640
OVERSURFACING (%)	121.48	118.57	126.71	133.98	128.42	139.15	136.47	132.69
OVERALL K SERVICE (W/M ² °C)	3114.33	3268.79	3071.85	2910.78	3078.84	2803.80	2879.64	2987.76
FOULING F (M ² °C/kW)	0	0	0	0	0	0	0	0
PLATES THICKNESS (MM)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
OVERALL K CLEAN (W/M ² °C)	6897.51	7144.68	6964.29	6810.72	7032.83	6705.26	6809.54	6952.19
WEIGHT EMPTY (KG)	29	30	32	35	36	39	40	41
WEIGHT FULL (KG)	30.778	32.346	34.698	38.618	40.186	44.106	45.674	47.242
VOLUME HOT SIDE (L)	0.714	0.918	1.224	1.734	1.938	2.448	2.652	2.856
VOLUME COLD SIDE (L)	0.714	0.918	1.224	1.734	1.938	2.448	2.652	2.856
NO. SERIES PASS HOT SIDE	1	1	1	1	1	1	1	1
NO. SERIES PASS COLD SIDE	1	1	1	1	1	1	1	1
NO. PARALLEL PASSES HOT SIDE	7	9	12	17	19	24	26	28
NO. PARALLEL PASSES COLD SIDE	7	9	12	17	19	24	26	28
DIMENSIONS (MM)								
A (WIDTH)	204	204	204	204	204	204	204	204
B (CONNECTION INTERAXIS)	86	86	86	86	86	86	86	86
C (HEIGHT)	490	490	490	490	490	490	490	490
D (CONNECTION INTERAXIS)	381	381	381	381	381	381	381	381
E (LENGTH FOR STD PN)	116	116	141	191	191	241	291	291
F (TIGHTENING)	39.75	50.35	66.25	92.75	103.35	129.85	140.45	151.05
G (CONNECTION SIZE)	DN 32	DN 32	DN 32	DN 32	DN 32	DN 32	DN 32	DN 32
H (HEIGHT CONNECTIONS)	0	0	0	0	0	0	0	0
S (FRAME PLATES THK)	14/12	14/12	14/12	14/12	14/12	14/12	14/12	14/12

	PHE450-TI	PHE500-TI	PHE550-TI	PHE610-TI	PHE670-TI	PHE730-TI	PHE780-TI	PHE820-TI
PROCESS DATA (HOT SIDE)								
TEMP (IN) °C	90	90	90	90	90	90	90	90
TEMP (OUT) °C	70	70	70	70	70	70	70	70
FLOW RATE (M ³ /H)	19.74	22.31	24.17	26.96	29.75	32.54	34.40	36.25
PRESSURE DROP (KPA)	23.28	21.45	21.85	22.51	23.26	22.72	23.21	23.73
PROCESS DATA (COLD SIDE)								
TEMP (IN) °C	20	20	20	20	20	20	20	20
TEMP (OUT) °C	35	35	35	35	35	35	35	35
FLOW RATE (M ³ /H)	25.70	29.04	31.46	35.09	38.72	42.35	44.77	47.19
PRESSURE DROP (KPA)	50.06	45.73	46.43	47.64	48.88	47.53	48.36	49.24
DELTA T LOG. MEAN (°C)	52.46	52.46	52.46	52.46	52.46	52.46	52.46	52.46
HEAT EXCHANGED (kW)	446	504	546	609	672	735	777	819
CONSTRUCTION DATA								
HEAT TRANSFER AREA (M ²)	2.873	3.887	4.225	4.563	5.239	5.577	5.915	6.253
OVERSURFACING (%)	95.43	114.26	114.98	112.11	116.59	114.10	114.62	115.09
OVERALL K SERVICE (W/M ² °C)	2957.66	2470.38	2462.15	2542.82	2443.82	2510.93	2502.74	2495.42
FOULING F (M ² °C/kW)	0	0	0	0	0	0	0	0
PLATES THICKNESS (MM)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
OVERALL K CLEAN (W/M ² °C)	5780.09	5293.03	5293.03	5393.57	5293.03	5375.97	5371.40	5367.30
WEIGHT EMPTY (KG)	150	155	156	158	161	163	164	166
WEIGHT FULL (KG)	157.85	165.20	167.65	170.10	175.00	177.45	179.90	182.35
VOLUME HOT SIDE (L)	3.825	5.100	5.525	5.950	6.800	7.225	7.650	8.075
VOLUME COLD SIDE (L)	3.825	5.100	5.525	5.950	6.800	7.225	7.650	8.075
NO. SERIES PASS HOT SIDE	1	1	1	1	1	1	1	1
NO. SERIES PASS COLD SIDE	1	1	1	1	1	1	1	1
NO. PARALLEL PASSES HOT SIDE	9	12	13	14	16	17	18	19
NO. PARALLEL PASSES COLD SIDE	9	12	13	14	16	17	18	19
DIMENSIONS (MM)								
A (WIDTH)	312	312	312	312	312	312	312	312
B (CONNECTION INTERAXIS)	140	140	140	140	140	140	140	140
C (HEIGHT)	963	963	963	963	963	963	963	963
D (CONNECTION INTERAXIS)	690	690	690	690	690	690	690	690
E (LENGTH FOR STD PN)	447	447	447	447	447	447	447	447
F (TIGHTENING)	66.5	87.5	94.5	101.5	115.5	122.5	129.5	136.5
G (CONNECTION SIZE)	DN 65	DN 65	DN 65	DN 65	DN 65	DN 65	DN 65	DN 65
H (HEIGHT CONNECTIONS)	185	185	185	185	185	185	185	185
S (FRAME PLATES THK)	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20