AQUA INDUSTRIAL GROUP

ELECRO ENGINEERING

TEMPERATURE CONTROL 14/12

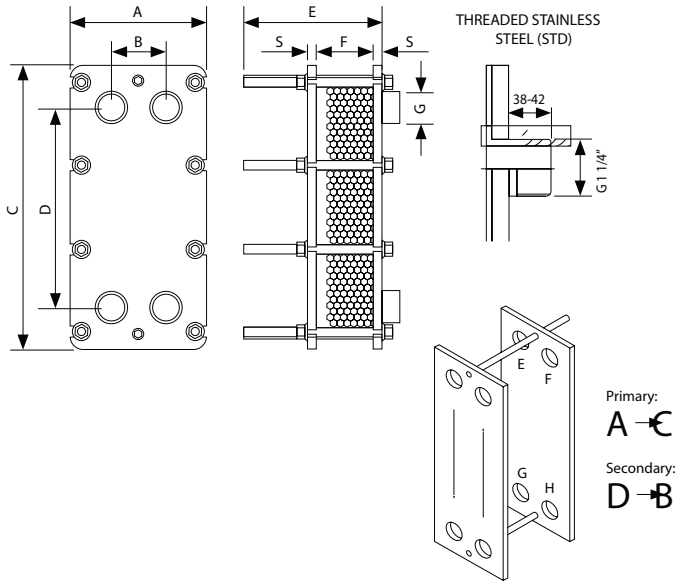
PLATE HEAT EXCHANGER

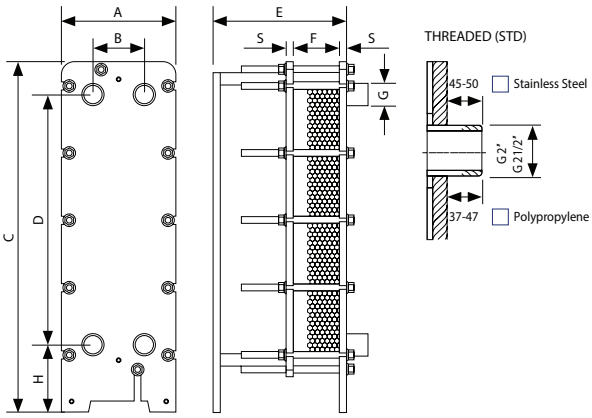
Cost effective heat management solution. Whether it is for heating or cooling their efficient operation saves energy, reducing costs and minimising environmental impact.

Technical 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

Dimensions





TEMPERATURE CONTROL

DIMENSION mm	A	B	C	D	E	F	G	H	S
PHE30-TI	204	86	490	381	291	151.05	DN 32	0	14/12
PHE50-TI	312	140	963	690	447	66.5	DN 65	185	20/20
PHE80-TI	312	140	963	690	447	87.5	DN 65	185	20/20
PHE100-TI	204	86	490	381	116	39.75	DN32	0	14/12
PHE140-TI	204	86	490	381	116	50.35	DN32	0	14/12
PHE180-TI	204	86	490	381	141	66.25	DN32	0	14/12
PHE240-TI	204	86	490	381	191	92.75	DN32	0	14/12
PHE290-TI	204	86	490	381	191	103.35	DN32	0	14/12
PHE330-TI	204	86	490	381	241	129.85	DN32	0	14/12
PHE370-TI	204	86	490	381	291	140.45	DN32	0	14/12
PHE410-TI	204	86	490	381	291	151.05	DN32	0	14/12
PHE450-TI	312	140	963	690	447	66.5	DN65	185	20/20
PHE500-TI	312	140	963	690	447	87.5	DN65	185	20/20
PHE550-TI	312	140	963	690	447	94.5	DN65	185	20/20
PHE610-TI	312	140	963	690	447	101.5	DN65	185	20/20
PHE670-TI	312	140	963	690	447	115.5	DN65	185	20/20
PHE730-TI	312	140	963	690	447	122.5	DN65	185	20/20
PHE780-TI	312	140	963	690	447	129.5	DN65	185	20/20
PHE820-TI	312	140	963	690	447	136.5	DN65	185	20/20

Models

PROCESS DATA (HOT SIDE)	PHE 30-TI	PHE 50-TI	PHE 80-TI	PHE 100-TI	PHE 140-TI	PHE 180-TI	PHE 240-TI	PHE 290-TI	PHE 330-TI	PHE 370-TI	PHE 410-TI
TEMP(IN)°C	90	90	90	90	90	90	90	90	90	90	90
TEMP(OUT)°C	70	70	70	70	70	70	70	70	70	70	70
FLOW RATE (M/H)	1.3	2.2	3.5	4.52	6.20	7.88	10.71	12.70	14.70	16.38	18.33
PRESSURE DROP (KPA)	11.8	17.71	20.17	22.11	25.54	24.50	25.04	26.62	25.55	27.18	29.57

PROCESS DATA (COLD SIDE)	PHE 30-TI	PHE 50-TI	PHE 80-TI	PHE 100-TI	PHE 140-TI	PHE 180-TI	PHE 240-TI	PHE 290-TI	PHE 330-TI	PHE 370-TI	PHE 410-TI
TEMP(IN)°C	20	20	20	20	20	20	20	20	20	20	20
TEMP(OUT)°C	35	35	35	35	35	35	35	35	35	35	35
FLOW RATE (M/H)	1.37	2.88	4.61	5.88	8.07	10.26	13.94	16.54	19.13	21.32	23.86
PRESSURE DROP (KPA)	23.08	34.62	39.37	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	52.46	52.46	52.46
HEAT EXCHANGES (KW)	30	50	80	102	140	178	242	287	332	370	414

CONSTRUCTION DATA	PHE 30-TI	PHE 50-TI	PHE 80-TI	PHE 100-TI	PHE 140-TI	PHE 180-TI	PHE 240-TI	PHE 290-TI	PHE 330-TI	PHE 370-TI	PHE 410-TI
HEAT TRANSFER AREA (M)	0.24	0.336	0.528	0.624	0.816	1.104	1.584	1.776	2.256	2.448	2.640
OVER SURFACING (%)	230.23	213.69	218.89	121.48	118.57	126.71	133.98	128.42	139.15	136.47	132.69
OVERALL K SERVICE(W/MC)	2381.54	2835.17	2886.72	3114.33	3268.79	3071.85	2910.78	3078.84	2803.80	2879.64	2987.76
FOULING F (MC/KW)	0	0	0	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	0.5	0.5	0.5
OVERALL K CLEAN(W/MC)	7864.68	8893.54	9205.40	6897.51	7144.68	6964.29	6813.72	7032.83	6705.26	6809.54	6952.19
WEIGHT EMPTY (KG)	23.65	24.04	24.82	29	30	32	35	36	39	40	41
WEIGHT FULL (KG)	24.26	24.85	26.04	30.778	32.346	34.698	38.618	40.186	44.106	45.674	47.242
VOLUME HOT SIDE (L)	0.306	0.408	0.612	0.714	0.918	1.224	1.734	1.938	2.448	2.652	2.856
VOLUME COLD SIDE (L)	0.306	0.408	0.612	0.714	0.918	1.224	1.734	1.938	2.448	2.62	2.856
NO. SERIES PASS HOT SIDE	1	1	1	1	1	1	1	1	1	1	1
NO. SERIES PASS COLD SIDE	1	1	1	1	1	1	1	1	1	1	1
NO. PARALLEL PASSES HOT SIDE	1	1	1	7	9	12	17	19	24	26	28
NO. PARALLEL PASSES COLD SIDE	1	1	1	7	9	12	17	19	24	26	28

Models

PROCESS DATA (HOT SIDE)	PHE 450-TI	PHE 500-TI	PHE 550-TI	PHE 610-TI	PHE 670-TI	PHE 730-TI	PHE 780-TI	PHE820-TI
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/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)	PHE 450-TI	PHE 500-TI	PHE 550-TI	PHE 610-TI	PHE 670-TI	PHE 730-TI	PHE 780-TI	PHE 820-TI
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/H)	25.70	29.04	31.46	35.06	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 EXCHANGES (KW)	446	504	546	609	672	735	777	819

CONSTRUCTION DATA	PHE 450-TI	PHE 500-TI	PHE 550-TI	PHE 610-TI	PHE 670-TI	PHE 730-TI	PHE 780-TI	PHE 820-TI
HEAT TRANSFER AREA (M)	2.873	3.887	4.225	4.563	5.239	5.577	5.915	6.253
OVER SURFACING (%)	95.43	114.26	114.95	112.11	116.59	114.10	114.62	115.09
OVERALL K SERVICE(W/MC)	2957.66	2470.38	2462.15	2542.82	2443.82	2510.93	2502.74	2495.42
FOULING F (MC/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/MC)	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

TEMPERATURE CONTROL

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