

Compact Brazed Plate Heat Exchangers



Domestic Hot Water, Snow melting, Hydro Air, Radiant floor,...

Superior Design

TTP brazed plate heat exchangers consist of as many as 150 pattern-embossed stainless steel plates. The plates are brazed together, with every second plate turned 180° to create two separate flow channels with two mediums in counter current. The design of the plates creates a high turbulence resulting in an outstanding heat transfer. The result is a highly efficient heat exchanger that utilizes all the material in the heat transfer process.

Customer Support and Service

When you choose a TTP heat exchanger, you gain access to the TTP software package - a sophisticated computer program that will select the optimum heat exchanger for your particular application.

Non Corrosive

The plates are made of stainless, acid-resistant steel, with 99.9% pure copper and brazed, which ensures a very high resistance to corrosion.

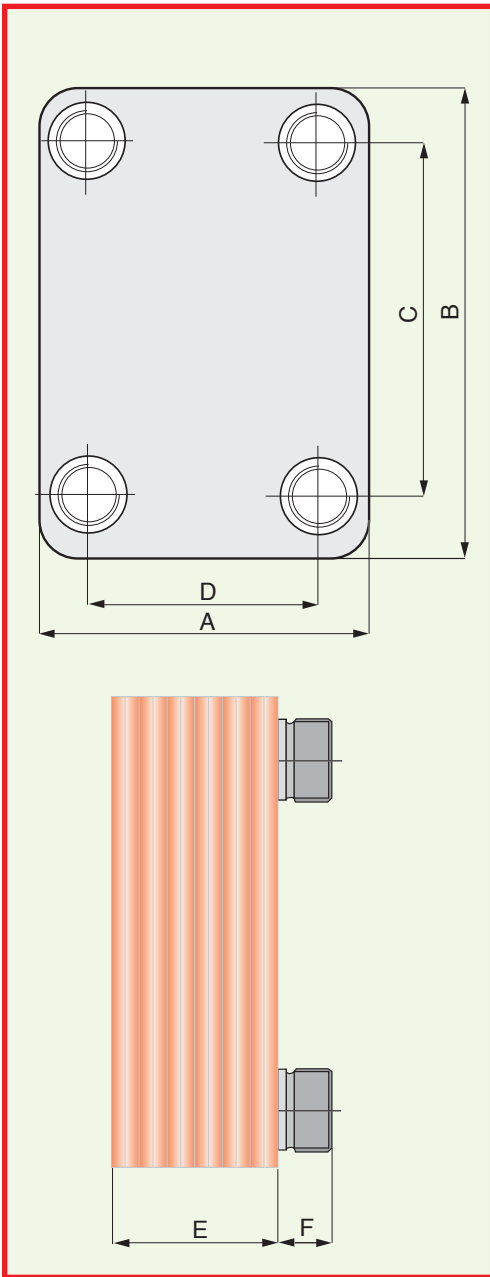
Self Cleaning

The TTP heat exchanger operates with a turbulent flow, even at low velocities, creating a self cleaning, self descaling design that resists scaling.

The TriangleTube logo, featuring a stylized triangle with blue, red, and green segments, followed by the text 'TriangleTube' in a bold, sans-serif font.

TriangleTube

Specifications



Model	Threaded Connections (inch) NPT	Dimensions (inch)						Empty Weight lbs
		A	B	C	D	E	F	
TTP1-14E*	3/4	2.88	8.0	6.56	1.63	1.6	0.75	3.00
TTP1-20E*	3/4	2.88	8.0	6.56	1.63	2.1	0.75	3.85
TTP1-30E*	3/4	2.88	8.0	6.56	1.63	3.0	0.75	5.00
TTP3-14	1	4.66	6.5	4.75	2.88	1.6	0.75	4.50
TTP3-20	1	4.66	6.5	4.75	2.88	2.1	0.75	5.25
TTP3-40	1	4.66	6.5	4.75	2.88	3.9	0.75	7.80
TTP4-14	1	4.66	12.8	11.00	2.88	1.6	0.75	7.20
TTP4-24	1	4.66	12.8	11.00	2.88	2.5	0.75	9.75
TTP4-30	1	4.66	12.8	11.00	2.88	3.0	0.75	11.30
TTP4-50	1	4.66	12.8	11.00	2.88	4.8	0.75	16.50
TTP7-20	2	10.34	20.63	18.13	7.88	2.1	2.5	38.50
TTP7-24	2	10.34	20.63	18.13	7.88	2.5	2.5	44.00
TTP7-30	2	10.34	20.63	18.13	7.88	3.0	2.5	52.00
TTP7-40	2	10.34	20.63	18.13	7.88	3.9	2.5	65.00
TTP7-50	2	10.34	20.63	18.13	7.88	4.8	2.5	78.00
TTP7-60	2	10.34	20.63	18.13	7.88	5.7	2.5	92.00

*Economic version - maximum working pressure: 150 psig
TTP7 Series is available up to 150 plates.

Materials

Plates and connections: AISI 316 Stainless Steel Solder: Copper 99.9%

Operating Conditions

Max. working pressure: 450psig - Max. working temperature: 365°F

Approvals



Underwriters Laboratory
CSA - CANADA

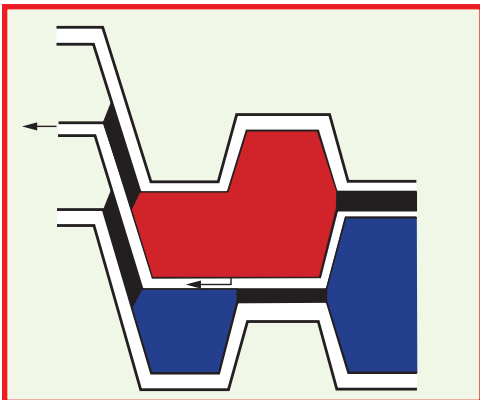


ASME (upon request)

Insulation

Each unit can be insulated. Specifications available upon request.

Double Wall



For extra protection against leakage a special double wall system is available. The heat exchanger consists of two stainless steel plates instead of one, which significantly reduces the chance of fluid contamination.

For double wall application, contact Triangle Tube for sizing assistance.

Heating Applications

For typical snow melt applications

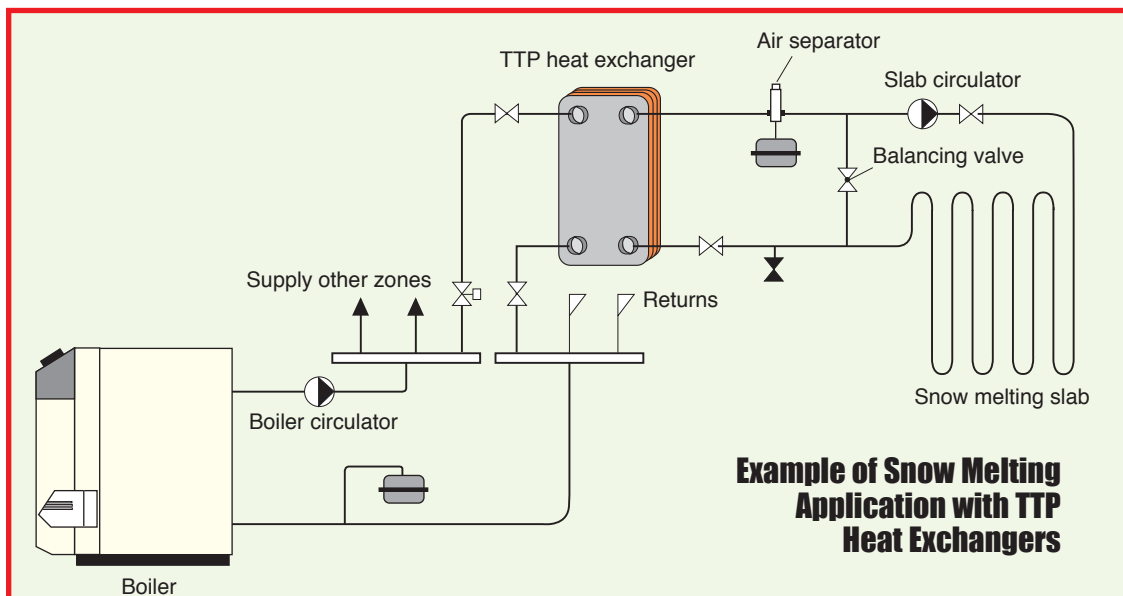
Model	Btu/Hr Supplied	Boiler GPM	Pressure Drop PSI Boiler	Snow Melt GPM	Pressure Drop PSI Snow Melt
TTP1-14E	25,000	2.7	0.7	1.7	0.2
TTP1-14E	30,000	3.1	1.0	2.1	0.3
TTP1-14E	35,000	3.6	1.4	2.4	0.5
TTP1-14E	40,000	4.1	1.8	2.8	0.6
TTP1-14E	45,000	4.6	2.3	3.1	0.8
TTP1-20E	50,000	5.1	1.4	3.5	0.6
TTP1-20E	60,000	6.1	2.0	4.2	0.8
TTP1-30E	70,000	7.2	1.6	4.9	0.7
TTP1-30E	80,000	8.2	2.1	5.6	0.9
TTP1-30E	90,000	9.2	2.6	6.3	1.2
TTP3-20	100,000	10.2	1.9	7.0	0.7
TTP3-40	125,000	12.8	0.6	8.7	0.3
TTP3-40	150,000	15.4	0.8	10.4	0.4
TTP3-40	175,000	18.0	1.1	12.2	0.6
TTP3-40	200,000	20.5	1.5	13.9	0.7
TTP3-40	225,000	23.0	1.9	15.7	0.9
TTP3-40	250,000	25.6	2.3	17.4	1.1
TTP3-40	275,000	28.2	2.8	19.2	1.4
TTP3-40	300,000	30.7	3.4	20.9	1.6
TTP3-40	350,000	35.8	4.6	24.4	2.2
TTP7-24	400,000	40.1	4.0	27.9	1.3
TTP7L-24	450,000	46.2	3.9	31.2	2.5
TTP7L-30	500,000	51.3	3.7	34.7	1.7

For typical floor heating applications

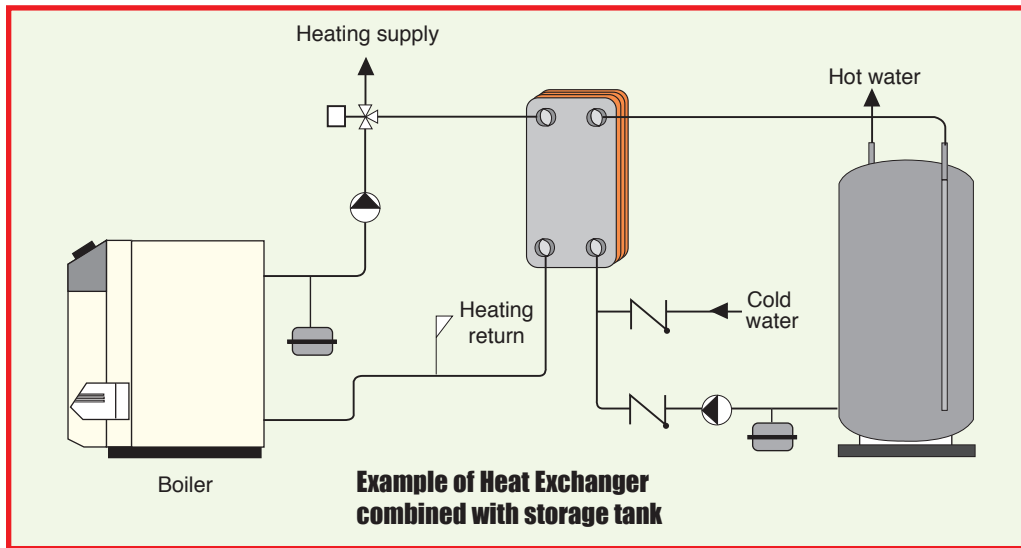
Model	Btu/Hr Supplied	Boiler GPM	Pressure Drop PSI Boiler	Radiant GPM	Pressure Drop PSI Radiant
TTP1-14E	25,000	2.6	0.5	2.5	0.4
TTP1-14E	30,000	3.1	0.8	3.0	0.6
TTP1-14E	35,000	3.6	1.1	3.5	0.9
TTP1-14E	40,000	4.1	1.4	4.0	1.1
TTP1-14E	45,000	4.6	1.8	4.5	1.4
TTP1-14E	50,000	5.2	2.3	5.0	1.7
TTP1-14E	55,000	5.7	2.8	5.5	2.1
TTP1-14E	60,000	6.2	3.4	6.0	2.5
TTP1-14E	65,000	6.7	4.0	6.5	2.9
TTP1-14E	70,000	7.2	4.6	7.0	3.4
TTP3-20	100,000	10.3	1.6	10.1	1.3
TTP3-20	125,000	12.9	2.6	12.6	2.1
TTP3-20	150,000	15.5	3.8	15.2	3.0
TTP3-20	175,000	18.8	5.2	17.7	4.1
TTP3-20	200,000	20.6	6.9	20.2	5.5
TTP3-20	225,000	23.6	8.8	22.7	7.0

20° temp. rise (100°-120°) boiler (180°-160°)

**30° temp. rise (100°-130°) boiler (180°-160°)
30% glycol on snow melt side**



Domestic Hot Water



The compact size and light weight will reduce the time required to heat domestic water by 50% over conventional heat exchangers.

Performance

Model	Btu/Hr Supplied	Boiler Cir. Flow Rate GPM	Pressure Drop PSI Boiler	GPM Domestic Hot Water @ 90° Temp. Rise	Pressure Drop PSI Domestic	Performance GPH with 50 gal Storage Tank 90° rise	
						1st Hour	Continuous Flow
TTP1-14E	40,000	4.1	1.8	0.9	0.1	103	53
TTP1-14E	45,000	4.6	2.3	1.0	0.1	110	60
TTP1-14E	50,000	5.1	2.9	1.1	0.1	117	67
TTP1-14E	55,000	5.6	3.5	1.2	0.1	123	73
TTP1-20E	60,000	6.1	2.0	1.3	0.1	130	80
TTP1-20E	70,000	7.2	2.8	1.6	0.1	143	93
TTP1-20E	75,000	7.7	3.3	1.7	0.1	150	100
TTP1-20E	80,000	8.2	3.7	1.8	0.1	157	107
TTP1-30E	90,000	9.2	2.6	2.0	0.1	170	120
TTP1-30E	100,000	10.2	3.3	2.2	0.1	183	133
TTP1-30E	110,000	11.3	3.9	2.5	0.2	197	147
TTP3-20	120,000	12.3	2.7	2.7	0.1	210	160
TTP3-20	130,000	13.1	3.2	2.9	0.1	223	173
TTP3-20	150,000	15.4	4.4	3.4	0.2	256	200
TTP3-40	200,000	20.5	1.5	4.5	0.1	317	267
TTP3-40	250,000	25.6	2.4	5.6	0.1	383	333

Boiler water supply: 180° - Domestic inlet temperature: 50°



One Triangle Lane • Blackwood NJ 08012

p 856.228.8881 f 856.228.3584 www.triangletube.com

2009-21 WTT- Revised 10/26/10

