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.

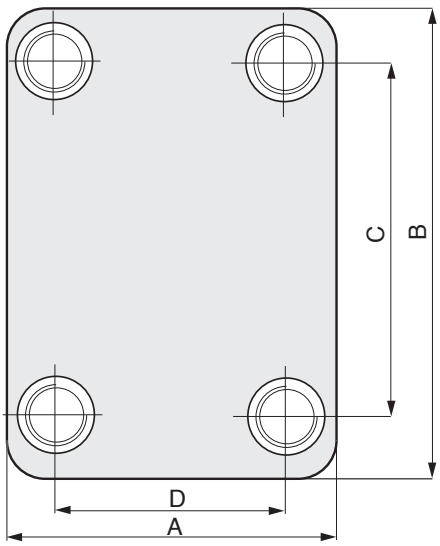
Compact Brazed Plate Heat Exchangers

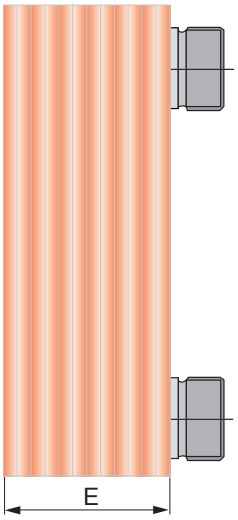
Specifications

Materials : Plates and Connections: AISI 316L Stainless Steel, Braze: 99.9% Copper

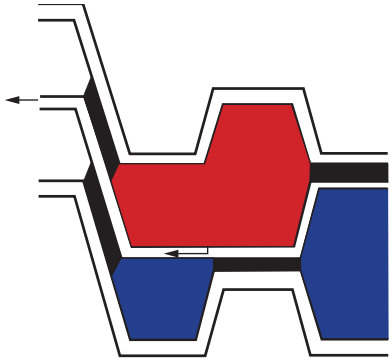
Operating Conditions : Max. Operating Pressure: 450psig, 150 psig (“E” Models), 362 psig (“DW” models)
Max. Operating Temperature: 350ºF

Approvals: c UL us LISTED ASME (available option)





Dimensions



Double Wall

Single Wall

Model	Threaded Connections (inch) NPT	Sweeted Connection (inch)	Dimensions (inch) A	B	C	D	E	Empty Weight lbs	Plates
TTP1-14E	3/4	7/8	2.9	8.0	6.7	1.6	1.6	3.1	14
TTP1-20E	3/4	7/8	2.9	8.0	6.7	1.6	1.6	3.8	20
TTP1-30E	3/4	7/8	2.9	8.0	6.7	1.6	1.6	4.9	30
TTP3-14	1	1 1/8	4.9	12.2	10.0	2.7	1.6	5.5	14
TTP3-16	1	1 1/8	4.9	12.2	10.0	2.7	1.8	6.2	16
TTP3-30	1	1 1/8	4.9	12.2	10.0	2.7	3.1	11.7	30
TTP3-36	1	1 1/8	4.9	12.2	10.0	2.7	3.6	14.0	36
TTP4-10	1	1 1/8	5.1	13.3	11.1	2.9	1.3	6.6	10
TTP4-14	1	1 1/8	5.1	13.3	11.1	2.9	1.6	7.8	14
TTP4-24	1	1 1/8	5.1	13.3	11.1	2.9	2.5	10.8	24
TTP4-30	1	1 1/8	5.1	13.3	11.1	2.9	3.0	12.6	30
TTP4-50	1	1 1/8	5.1	13.3	11.1	2.9	4.8	18.6	50
TTP4-70	1	1 1/8	5.1	13.3	11.1	2.9	6.6	24.6	70
TTP7-20	2	2 1/8	11.1	21.4	18.1	7.8	2.5	51.0	20
TTP7-24	2	2 1/8	11.1	21.4	18.1	7.8	2.9	55.4	24
TTP7-30	2	2 1/8	11.1	21.4	18.1	7.8	3.6	62.0	30
TTP7-40	2	2 1/8	11.1	21.4	18.1	7.8	4.6	73.0	40
TTP7-50	2	2 1/8	11.1	21.4	18.1	7.8	5.7	84.0	50
TTP7-60	2	2 1/8	11.1	21.4	18.1	7.8	6.7	95.0	60
TTP7-100	2	2 1/8	11.1	21.4	18.1	7.8	10.9	139.0	100
TTP7-120	2	2 1/8	11.1	21.4	18.1	7.8	12.9	161.0	120
TTP7-150	2	2 1/8	11.1	21.4	18.1	7.8	16.1	194.0	150

Double Wall

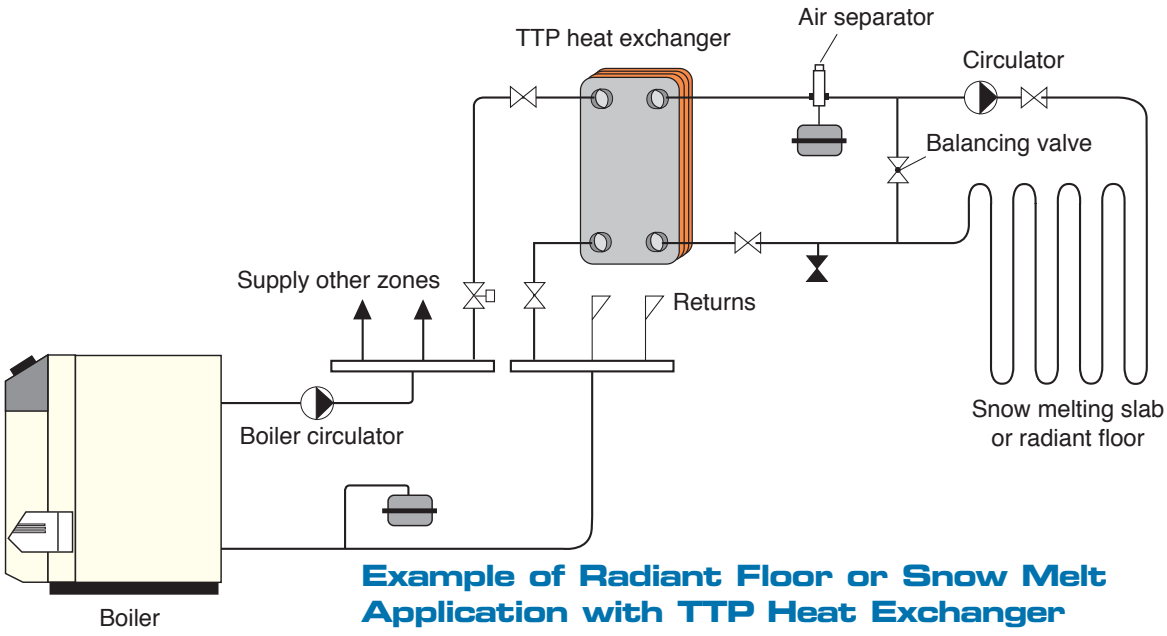
For extra protection against leakage a special double wall system is available. The heat exchanger consists of two stainless steel plates instead of one, which significantly reduces the chance of fluid contamination.

For double wall application, contact ACV - Triangle Tube’s Technical Support Department for sizing assistance.

Model	Threaded Connections (inch) NPT	Solder Connection (inch)	Dimensions (inch) A	B	C	D	E	Empty Weight lbs
TTP5-8DW	1	1 1/8	4.9	20.8	18.8	2.9	1.0	9.2
TTP5-14DW	1	1 1/8	4.9	20.8	18.8	2.9	1.6	12.8
TTP5-20DW	1	1 1/8	4.9	20.8	18.8	2.9	2.1	16.4
TTP5-30DW	1	1 1/8	4.9	20.8	18.8	2.9	3.0	22.4
TTP5-50DW	1 1/4	1 3/8	4.9	20.8	18.8	2.9	4.8	34.4
TTP5-60DW	1 1/4	1 3/8	4.9	20.8	18.8	2.9	7.5	52.4
TTP5-100DW	1 1/4	1 3/8	4.9	20.8	18.8	2.9	9.3	64.4

Applications

Radiant Floor or Snow Melt



Example of Radiant Floor or Snow Melt Application with TTP Heat Exchanger

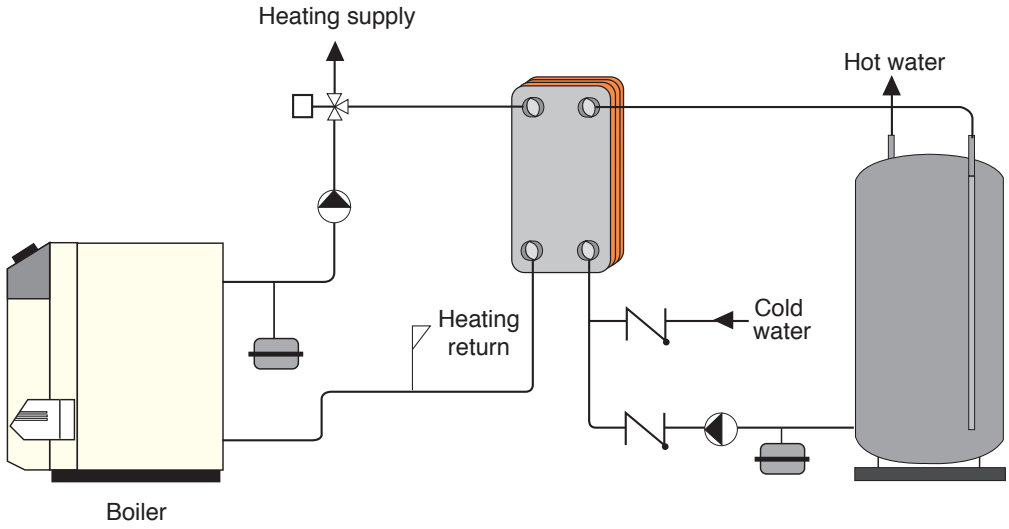
Model	Btu/Hr Supplied	Boiler GPM	Pressure Drop PSI Boiler	Radiant/ Snowmelt GPM	Pressure Drop PSI Radiant/Snowmelt
TTP1-14E	25,000	2.6	0.5	2.5	0.4
TTP1-14E	30,000	3.1	0.8	3.0	0.6
TTP1-14E	35,000	3.6	1.1	3.5	0.9
TTP1-14E	40,000	4.1	1.4	4.0	1.1
TTP1-14E	45,000	4.6	1.8	4.5	1.4
TTP1-14E	50,000	5.2	2.3	5.0	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	23.2	8.8	22.7	7.0

Boiler (180ºF- 160ºF) - Radiant (100ºF - 120ºF)

- The sizing given includes only a general overview of sizing applications available. For additional or more detailed sizing parameters contact your local ACV - Triangle Tube Distributor or ACV - Triangle Tube Technical Support Department.
- The sizing given does not account for any glycol solution used in a snowmelt application.

Domestic Hot Water

TTP Heat exchanger's compact size and light weight will reduce the time required to heat domestic water by 50% over conventional heat exchangers.



Example of TTP Heat Exchanger Combined with Storage Tank

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	250	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
TTP3-40	300,000	30.0	3.4	6.7	0.2	452	402
TTP7L-24	350,000	36.0	4.6	7.8	0.1	518	468
TTP7L-24	400,000	41.0	4.0	8.9	0.1	584	534
TTP7M-40	450,000	46.0	3.9	10.0	0.1	650	600
TTP7M-40	500,000	51.2	4.9	11.1	0.2	716	666

Boiler Water Supply: 180°F - Domestic Inlet Temperature: 50°F

- The sizing given includes only a general overview of sizing applications available. For additional or more detailed sizing parameters contact your local ACV - Triangle Tube Distributor or ACV - Triangle Tube Technical Support Department

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