

Brazed Plate Heat Exchangers

Description

Model BPX brazed plate heat exchangers offer the highest level of thermal efficiency and durability in a compact, low cost unit. The corrugated plate design provides very high heat transfer coefficients, resulting in a more compact design. The unit's stainless steel plates are vacuum brazed together to form a durable, integral piece that can withstand high pressure and temperature.

The BPX heat exchangers offer a compact design compared to shell and tube exchangers

- 1/6 the size of shell and tube
- 1/5 the weight of shell and tube
- 1/8 the liquid required of shell and tube
- 1/3 to 1/5 of the surface area required

BPX units are ideal for a wide variety of hydronic applications such as:

- Radiant Floor Heating
- Domestic Water Heating
- Snow melt Systems
- Swimming Pool Heating

Operating Data

Design pressure 435 psi (30 bar)
 Design temperature 450°F (232°C)
 Plates Stainless Steel
 Braze Material Copper
 Connections From 1/2 inch to 4 inch
 Capacity Up to 800 GPM
 Construction Codes .UL, CRN, ASME Code Stamp Option



Radiant Floor Heating

Selection Schedule Basis

Boiler Side: Water 180°F supply, 160°F return
 Radiant Floor Side: Water 120°F supply, 100°F return

Model Number	Heat Exchanger BTU/Hr	Boiler Side		Radiant Floor Side	
		Flow GPM	Pressure Drop PSI	Flow GPM	Pressure Drop PSI
BP400-10	60,000	6.2	8.6	6.1	5.9
BP400-20	125,000	12.9	7.9	12.6	6.8
BP400-30	175,000	18.0	7.1	17.7	6.5
BP400-40	225,000	23.2	7.3	22.7	6.9
BP411-20	350,000	36.1	6.3	35.3	5.6
BP411-30	500,000	51.5	7.4	50.5	7.1

Larger Models are Available Upon Request

Snow Melt Application

Selection Schedule Basis

Boiler Side: Water 180°F supply, 160°F return
 Snow Melt Side: 40% P. G. 130°F supply, 100°F return

Model Number	Heat Exchanger BTU/Hr	Boiler Side		Snow Melt Side	
		Flow GPM	Pressure Drop PSI	Flow GPM	Pressure Drop PSI
BP400-10	60,000	6.2	8.7	4.3	3.5
BP400-20	125,000	12.9	8.2	8.9	4.2
BP400-30	175,000	18.0	7.8	12.5	4.2
BP400-40	225,000	23.2	8.4	16.1	4.6
BP412-20	250,000	25.8	8.4	17.9	4.0
BP412-30	350,000	36.0	7.7	25.0	3.9
BP412-40	450,000	46.4	8.1	32.1	4.2
BP412-50	500,000	51.5	7.6	35.7	4.0

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Domestic Water Heating

Selection Schedule Basis

Boiler Side: Water 180°F supply, 130°F return
 Domestic Water Side: Water 50°F supply, 140°F return

Model Number	Heat Exchanger BTU/Hr	Boiler Side		Domestic Water Side	
		Flow GPM	Pressure Drop PSI	Flow GPM	Pressure Drop PSI
BP400-10	60,000	2.5	1.6	1.3	0.3
BP400-20	150,000	6.2	2.1	3.3	0.6
BP400-30	225,000	9.3	2.2	5.0	0.7
BP400-40	350,000	14.4	3.4	7.8	1.0
BP410-30	400,000	16.5	4.9	8.9	1.4
BP411-30	500,000	20.6	7.6	11.1	2.2

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