

# FLUID COOLING | Brazed Plate BPCH Series

## STAINLESS STEEL CONSTRUCTION

### Features

- Stacked Plate
- Stainless Steel
- Copper Brazed
- Oil to Water Applications
- High Performance
- Compact Design
- Water Chilling
- Lower Refrigerant Charge
- Specifically Designed for DX Water Chilling Applications from 1 to 40 Tons
- Unique DX Distribution Tube Assures Proper Gas Distribution and Peak Performance
- Type 316 Stainless Steel Plates
- Copper Brazed (Optional Nickel Brazing Compound)
- Optional Foot Mounting Bracket
- Optional Nickel/Chrome Brazed Construction



WATER COOLED BPCH

### Ratings

**Maximum Working**

**Temperature** 350° F at 450 psi\*

**Maximum Working Pressure** 450 psi\*\*

**Test Pressure** 600 psi

\*Maximum working temperature can increase with derating of working pressure.

\*\*Maximum working pressure can increase with a derating of working temperature.

Pressure rating is for copper brazed only.

### Materials

**Plate Material** 316L Stainless Steel

**Braze Material** Copper – Standard  
Nickel/Chrome – Optional

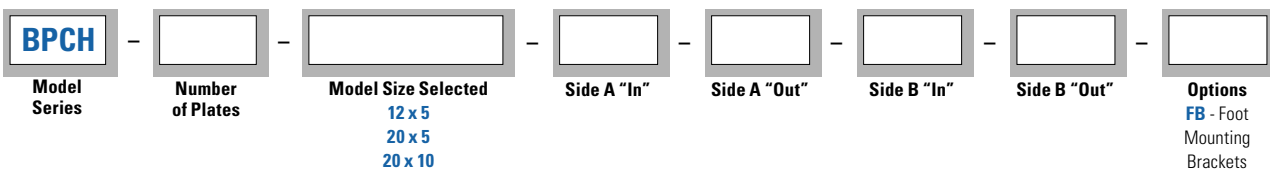
**Stud Bolts** 304 Stainless Steel

**Front and Back Pressure Plates**  
304 Stainless Steel

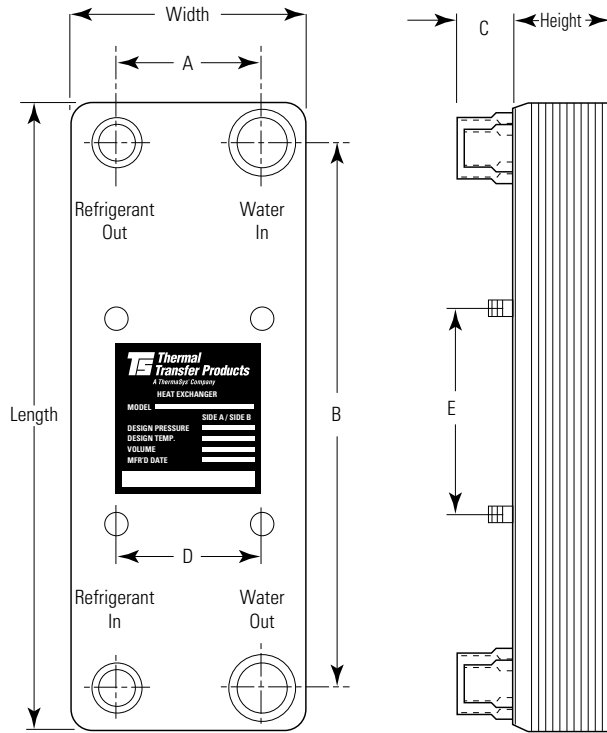
**Connectors** 304 Stainless Steel

**Foot Mounting Brackets** 304 Stainless Steel

## How to Order



# Dimensions



Model	D	E
12 x 5	2.5"	3.5"
20 x 5	2.5"	5.5"
20 x 10	4.0"	5.5"

Model	Stud Bolts
12 x 5	Optional 3/8 - 16 x 7/8"L
	Optional 2 - 5 Tons
20 x 5	Standard 7.5 - 15 Tons 3/8 - 24 x 7/8"L
20 x 10	Standard 1/2 - 13 x 7/8"L

Connection Type	C Dimension
1/2, 5/8, 7/8 ID Sweat & 3/4" NPT	1.125"
1-1/8 ID Sweat & 1" NPT	1.250"
1-3/8 ID Sweat & 1-1/4" NPT	1.375"
1-5/8 ID Sweat & 1-1/2" NPT	1.500"
2-1/8 ID Sweat & 2" NPT	1.750"
2-5/8 ID Sweat & 2-1/2" NPT	2.000"

## Waterside Pressure Drop

Model	2 GPM/ton	2.4 GPM/ton	3 GPM/ton
BPCH 1A thru BPCH 5A	.8 PSI	1.6 PSI	1.9 PSI
BPCH 2 thru BPCH 5	2.7 PSI	3.8 PSI	5.6 PSI
BPCH 7-1/2 thru BPCH 15B	2.7 PSI	3.9 PSI	5.7 PSI
BPCH 10 thru BPCH 40	2.6 PSI	3.8 PSI	5.9 PSI

## 12" x 5" Models

Model	Tons	Width	Length	Height	A	B	Refrig Out	Refrig In	Water	Wt (lbs)
BPCH 1A	1	4.9	12.2	1.3	2.7	9.9	5/8 ID - 7/8 ID	5/8 ID - 7/8 ID	7/8 ID	5
BPCH 1-1/2A	1.5			6						
BPCH 2A	2			8						
BPCH 3A	3			10						
BPCH 4A	4			12						
BPCH 5A	5			14						

## 20" x 5" Models

Model	Tons	Width	Length	Height	A	B	Refrig Out	Refrig In	Water	Wt (lbs)
BPCH 1-1/2	2	5.0	20.3	1.1	2.8	18.1	5/8 ID - 7/8 ID	5/8 ID - 7/8 ID	7/8 ID	8
BPCH 2	3			9						
BPCH 2-1/2	2.5			10						
BPCH 3	3			12						
BPCH 3-1/2	3.5			13						
BPCH 4	4			14						
BPCH 5	5			16						
BPCH 7-1/2	7.5			22						
BPCH 10B	10			28						
BPCH 12B	12.5			34						
BPCH 15B	15			40						

## 20" x 10" Models

Model	Tons	Width	Length	Height	A	B	Refrig Out	Refrig In	Water	Wt (lbs)
BPCH 10	10	9.8	20.3	2.6	6.5	17.0	1-3/8 ID	7/8 ID	1-5/8 ID	34
BPCH 12	12.5			40						
BPCH 15	15			45						
BPCH 20	20			57						
BPCH 25	25			68						
BPCH 30	30			81						
BPCH 35	35			92						
BPCH 40	40			104						

Notes: Nominal tons – 12,000 BTUH per ton, 54°F EWT, 44°F LWT, 35°F Evap. Temp., 10°F Superheat, 2.4 gpm per ton, R-22. For Glycol, special fluids or design conditions other than listed above, please contact the factory for special computer selection. \*Add .75" to height of refrigerant in connection.