



Brazed Plate Heat Exchangers

SOLUTION OUTLINE

FILE NO: 113.11 DATE: JANUARY 2021 SUPERSEDES: 113.11 DATE: JULY 2020 Paraged Plate Heat exchangers are an efficient and economical solution for heat transfer between two fluids in a system. They consist of a number of specially corrugated metal plates, brazed together.

APPLICATION FRIENDLY

Armstrong ABX and ABD Brazed Plate heat exchangers are designed for use in a wide range of applications, including:

Radiant floor heating

Heat recovery

Snow melting

District heating

Domestic hot water heating

Steam condensing

Swimming pool heating

Refrigeration

Heat pumps

As boiler accessories

Smaller liquid-to-liquid applications

Pressure break

INSTALLATION ADVANTAGE

Armstrong (ABX,ABD) Brazed Plate Heat Exchangers are very compact for installation in tight spaces. All connections are on the same plane to make installation easy. These units are durable and light, so they are suited for all kinds of applications requiring heat exchangers.

SPACE SAVINGS

Due to their high heat transfer capabilities, Armstrong Brazed Plate heat exchangers are substantially smaller in size than other heat transfer devices, yet provide the same or better performance.

Plate heat exchangers save up to 75% of the floor area, and up to 85% of the floor length required for Shell & Tube heat exchangers.

The smallest Brazed plate units measure only $7.64"\times 3.15"(194~mm\times 80~mm)$ Models with 10 plates are only 1.29" (32.766 mm) thick.



ENERGY EFFICIENCY

Armstrong ABX and ABD Brazed Plate Heat Exchangers deliver the highest efficiency and heat transfer rates by flowing the two media in opposite directions (countercurrent) in a highly turbulent fashion.

OCCUPANT COMFORT

Brazed Plate heat exchangers react more rapidly to changes in system demand. The turbulent flow design prevents scaling on the plates, so the heat exchanger continues to react quickly even as the equipment ages.

LOWEST SOLUTION COST

The ABX and ABD offers multiple plate sizes for the optimum heat transfer in any given application. Brazing seals the plates together, so no gaskets are required. The brazed design and anti-scaling flow design reduce maintenance costs.

LONG EQUIPMENT LIFE

ABX and ABD Brazed Plate heat exchanger plates are made from 304 and 316 stainless steel respectively to provide improved corrosion resistance.

Brazed Plate heat exchangers are easy to size and install. Most models are available in stock.

TECHNICAL DATA

ABX - CONSTRUCTION

Max. Working Pressure: Copper Braze: 435 PSI

Fluid Temperature: Maximum: 392°F (200°C)

Minimum: -148°F (-100°C)

Materials of Construction: Plates: 316 ss

Braze: Copper Connection: 304 ss Optional: Nickel

ABD - DOUBLE WALL CONSTRUCTION

Max. Working Pressure: Copper Braze: 650 PSI

Fluid Temperature : Maximum: 385 °F (196.1 °C)

Minimum: -148°F (-100°C)

Materials of Construction: Plates: 316 ss

Braze: Copper Connection: 316 ss Optional: Nickel

| MODEL | MAX. FLOW RATE-GPM(L/s) | CONN SIZE | HEIGHT in (mm) | WIDTH in (mm) | MAX LENGTH** in (mm) | MAX. NO OF PLATES | WEIGHT** lbs (kgs) |
|--------|----------------------------|--------------|-------------------|---------------|--------------------------|----------------------|-----------------------------|
| ABX030 | 30 (2) | 0.75 | 7.64 (194) | 3.15 (80) | 0.39+0.09N (10+2.25N) | 60 | 2.0+0.11N (0.8+0.05N) |
| ABX050 | 100 (6) | 1.00 | 12.00 (305) | 4.20 (106) | 0.49+0.09N (12.5+2.4N) | 120 | 4.0+0.3N (1.5+0.14N) |
| ABX095 | 120 (6) | 1.00 | 20.40 (518) | 4.20 (106) | 0.49+0.09N (12.5+2.4N) | 120 | 7.0+0.5N (3.1+0.22N) |
| ABX205 | 200 (12) | 2.00 | 20.79 (528) | 9.69 (246) | 0.51+0.09N (13+2.4N) | 220 | 16.0+1.1N (7.2+0.52N) |
| ABX400 | 395 (25) | 3.00 | 29.56 (751) | 12.63 (321) | 0.62+0.09N (16+2.33N) | 200 | 69.18+1.77N (31.38+0.805N) |
| ABX600 | 660 (42) | 4.00 | 37.20 (945) | 14.76 (375) | 0.94+0.09N (24+2.38N) | 200 | 137.65+2.71N (62.44+1.230N) |
| ABD055 | 60 (4) | 1.00 | 13.07 (332) | 11.06 (281) | 0.51+0.095N (12.95+2.4N) | 100 | 4.0+0.3N (1.8+0.135N) |
| ABD100 | 85 (5) | 1.00 | 20.83 (529) | 18.81 (478) | 0.51+0.095N (12.95+2.4N) | 200 | 4.4+0.6N (2+0.125N) |

NOTE

^{*} ASME Standard and CRN (ON, AB, BC, QC, SK) optional for all the above products

^{**}N = Number of plates

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ARMSTRONG FLUID TECHNOLOGY

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