

GBX Series – Brazed Plate Heat Exchangers

Staying cool under high pressure

The new GBX Series copper brazed plate heat exchanger is designed to operate consistently up to 650 psi while offering a maximum variety of circuit possibilities. Operating with the non-ozone depleting refrigerant R410A the new GBX product range offers an optimized corrugation pattern in the wave fields of the heat exchanger plates as well as further improvements to the inlet and outlet openings.

Our brazed plate heat exchangers are used in a variety of applications:

- heat pump heating and hot water production
- evaporators and air conditioning
- process cooling systems
- refrigerant evaporators
- sub-coolers and condensers
- other refrigerant-to-liquid and high-pressure applications



Features and benefits



Safety Chamber™

Our patented Safety Chamber™ absorbs the stress from thermal shock and pressure pulsations that would damage other brazed plate heat exchangers. When overloaded, encapsulated contact points around the ports take up the forces and stretch, protecting against internal leaks and premature failure. A GEA PHE Systems exclusive safety feature.



Expansion Metering Distributor™

GEA PHE Systems provides a well proven direct Expansion Metering Distributor™ essential for evaporator, heat pump and subcooler applications. The distributor provides precise metering of refrigerant to the channel plates over a wide range of operating conditions while assuring complete evaporation and optimum oil return. Our solutions are factory integrated into the stainless steel heat-transfer plate pack for superior performance.



Robust Plate Design

This special plate design by GEA PHE Systems, the Rolled Edge Lock System™, guarantees a consistent braze joint at the plate overlap and results in a stronger and more leak-proof heat exchanger. The contact points, extended and larger in design, provide stronger braze joints between the plates, thus guaranteeing high heat exchanger strength.



Full-Flow System™

Originally developed by GEA PHE Systems, every new plate design is now equipped with the Full-Flow System™. This unique flow system insures continuous flow around the port area to prevent freezing and also feeds the working fluid equally over the channel to guarantee maximum use of the heat transfer area. Additional protection and performance from GEA PHE Systems.

GBX Series: Technical data

Plate material: Stainless steel AISI 316 / 1.4401

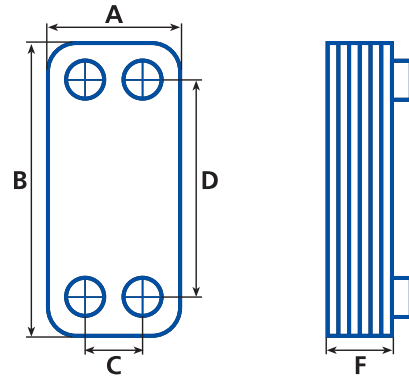
Brazing material: Copper

Performance: up to 650 psig at 350°F (45 bar at 176°C)

Third party approval: UL listed

optional ASME, CRN, CSA, PED (CE), KHK, other on request

Features:



STANDARD DIMENSIONS										
Model	A		B		C		D		F	
	in	mm	in	mm	in	mm	in	mm	in	mm
GBX 108	3.3	84	7.8	196	1.5	39	6.0	153	0.48 + 0.093xN	12.2 + 2.36xN
GBX 220	3.5	90	12.9	328	1.7	43	11.0	279	0.51 + 0.093xN	13.0 + 2.35xN
GBX 240	3.5	90	18.3	464	1.7	43	16.3	415	0.47 + 0.091xN	12.0 + 2.30xN
GBX 412	4.5	124	12.2	310	2.7	69	10.0	253	0.48 + 0.093xN	12.2 + 2.36xN
GBX 520	5.0	124	20.3	516	2.8	72	18.1	460	0.48 + 0.093xN	12.2 + 2.36xN
GBX 720	9.8	249	20.3	516	6.5	165	17.0	432	0.48 + 0.093xN	12.2 + 2.36xN
GBX 720-2C	9.8	249	20.3	516	6.5	165	17.0	432	0.48 + 0.093xN	12.2 + 2.36xN

TECHNICAL DATA							
Model	Net Weight		Volume		Flow Rate		Max
	lbs	kg	gal/ch	l/ch	gpm	m ³ /h	Plates
GBX 108	5.42 + 0.12xN	2.46 + 0.05xN	0.007	0.025	15	4	50
GBX 220	3.66 + 0.18xN	1.66 + 0.08xN	0.012	0.046	25	6	50
GBX 240	5.09 + 0.31xN	2.31 + 0.14xN	0.019	0.070	25	6	50
GBX 412	13.88 + 0.32xN	6.30 + 0.15xN	0.017	0.065	70	20	120
GBX 520	22.72 + 0.56xN	30.31 + 0.25xN	0.026	0.100	70	20	120
GBX 720	56.28 + 1.02xN	25.53 + 0.46xN	0.061	0.230	200	50	200
GBX 720-2C	64.76 + 1.02xN	29.37 + 0.46xN	0.061	0.230	200	50	200

Notes: GBX720-2C fluid connector "D" dimension is on center line

N = number of plates

ch = channel

Mass flow rate is based on water 16ft/s (5m/s)

The specifications contained in this printing are intended only to serve the nonbinding description of our products and services are not subject to guarantee. Binding specifications, especially pertaining to performance data and suitability for specific operating purposes, are dependent upon the individual circumstances at the operation location and can, therefore, only be made in terms of precise requests.

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