

# GBS Series - Brazed Plate Heat Exchangers

# Strong types, variable sizes

You attach great importance to flexible sizes and sophisticated technology? Then the GBS plate heat exchangers from the EcoBraze product line by GEA PHE Systems should be your choice. These brazed all-rounders are ideally suited for applications of any size – pressure-resistant up to 30 bar and up to ±200°C! This brings quality, economic efficiency and excellent thermal performance to your operations.

#### 17 sizes can be used worldwide in the following fields:

- Heating / service water systems
- Floor heating
- Sub-coolers and condensers
- **Economizers**
- Refrigerant evaporators
- Oil coolers and many more industrial applications

To sum it up: The GBS Series enables a wide range of applications at an excellent price/performance ratio.



### Features and benefits

#### Safety Chamber™

Our patented Safety Chamber<sup>™</sup> 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 factor.



# Delta Injection™ for Advanced Evaporator - AE line

A GEA PHE Systems patented Delta Injection™ refrigerant distribution system is specially developed for evaporator applications. It provides precise metering of refrigerant to the channels, guaranteeing the highest evaporator performance. The Delta Injection™ is fully integrated into the stainless steel heat-transfer plate.

**Robust Plate Design** 

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



# Full-Flow System™

Every new plate design is now equipped with the Full-Flow System<sup>™</sup>. 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.

## GBS Series - Technical data

Plate material: Stainless steel AISI 316 / 1.4401

Brazing material: Copper

Performance: Up to 30 bar at ±200°C

Third party approval: PED (CE), TÜV, further certifications upon request

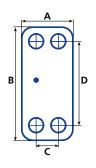
Features:

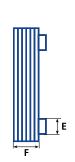












| Stainless steel,<br>copper-brazed | Advanced<br>Evaporator<br>AE | А   | В   | С        | D       | E        | F<br>N = Number of<br>plates | Mass<br>N = Number of<br>plates | Volume     | Max. water<br>flow rate | Max.<br>number of<br>plates |
|-----------------------------------|------------------------------|-----|-----|----------|---------|----------|------------------------------|---------------------------------|------------|-------------------------|-----------------------------|
| Туре                              |                              |     | :   | Standard | dimensi | ons (mm) |                              | (kg)                            | (liter/ch) | (m³/h)                  |                             |
| GBS 100                           | -                            | 74  | 204 | 40       | 170     | 15       | 8.0+2.23xN                   | 0.70+0.050xN                    | 0.025      | 4                       | 50                          |
| GBS 200                           | -                            | 90  | 231 | 43       | 182     | 20       | 10.0+2.24xN                  | 1.10+0.060xN                    | 0.030      | 6                       | 50                          |
| GBS 220                           | -                            | 90  | 328 | 43       | 279     | 20       | 10.0+2.22xN                  | 1.30+0.080xN                    | 0.046      | 6                       | 50                          |
| GBS 240                           | -                            | 90  | 464 | 43       | 415     | 20       | 10.0+2.20xN                  | 2.04+0.140xN                    | 0.070      | 6                       | 50                          |
| GBS 300                           | -                            | 124 | 173 | 73       | 120     | 25       | 10.0+2.22xN                  | 1.20+0.060xN                    | 0.030      | 10                      | 50                          |
| GBS 400                           | AE                           | 124 | 335 | 73       | 281     | 25       | 9.5+2.24xN                   | 1.60+0.130xN                    | 0.065      | 10                      | 100                         |
| GBS 418                           | -                            | 127 | 282 | 84       | 239     | 20       | 9.0+2.05xN                   | 1.35+0.118xN                    | 0.055      | 6                       | 50                          |
| GBS 420                           | -                            | 127 | 282 | 68       | 223     | 32       | 9.0+2.76xN                   | 1.35+0.118xN                    | 0.076      | 10                      | 100                         |
| GBS 500                           | AE                           | 124 | 532 | 73       | 478     | 25       | 9.5+2.23xN                   | 1.76+0.210xN                    | 0.100      | 10                      | 100                         |
| GBS 525                           | -                            | 118 | 525 | 69       | 476     | 25       | 7.5+2.76XN                   | 2.55+0.210xN                    | 0.120      | 10                      | 100                         |
| GBS 700L                          | -                            | 271 | 532 | 200      | 460     | 40       | 11.0+2.29xN                  | 9.60+0.540xN                    | 0.230      | 27                      | 150                         |
| GBS 700M                          | AE                           | 271 | 532 | 200      | 460     | 40       | 11.0+2.25xN                  | 9.60+0.540xN                    | 0.230      | 27                      | 150                         |
| GBS 757                           | -                            | 281 | 543 | 198      | 460     | 60       | 11.5+2.65xN                  | 13.2+0.500xN                    | 0.310      | 27                      | 160                         |
| GBS 760                           | -                            | 257 | 519 | 138      | 416     | 80       | 13.5+3.45xN                  | 12.6+0.400xN                    | 0.410      | 70                      | 130                         |
| GBS 800                           | AE                           | 271 | 532 | 161      | 421     | 65       | 11.5+2.34xN                  | 10.0+0.540xN                    | 0.221      | 70                      | 260                         |
| GBS 900                           | AE                           | 271 | 802 | 161      | 690     | 65       | 11.3+2.31xN                  | 11.5+0.800xN                    | 0.399      | 70                      | 260                         |
| GBS 910                           | -                            | 318 | 783 | 225      | 690     | 65       | 14.0+2.54xN                  | 20.0+0.853xN                    | 0.480      | 70                      | 200                         |
| GBS 1000H                         | AE                           | 386 | 875 | 237      | 723     | 100      | 20.3+2.31xN                  | 39.5+1.250xN                    | 0.600      | 160                     | 360                         |

The specifications contained in this printing unit are intended only to serve the non-binding description of our products and services and 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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**GEA Heat Exchangers** 

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