

FlatPlate® DW Series – Brazed Plate Heat Exchangers

The Right Solution for Potable Water Isolation.

The FlatPlate DW Series Brazed Plate Heat Exchanger is a double-wall vented heat exchanger for isolating potable water in the safest possible manner. It is designed to meet local, state and provincial codes for double separation of potable water from boiler water, other non-potable fluids or refrigerants.

Your benefits include:

- Peace of Mind. Any leak from one side is vented to the outside, eliminating cross-contamination of fluids. It complies with code requirements and is UL-listed and CRN-registered as standard, with optional ASME U-Stamp.
- Durability. The DW features full-thickness plates (not the half-thickness used in other designs).
- High Performance. The DW is rated at 450psig design pressure. Unlike other solutions that are limited to 150psig, the DW's higher pressure rating makes it more versatile for demanding applications.
- Greater Value. As much as 60% smaller in size and weight for the same performance, it is easier to install, saving money both in purchase price and installation cost.



Features and benefits



XP High Pressure Option on the 10x20 size.

Special construction enables the DW-XP to handle the higher operating pressures associated with R410a applications. Thicker front and back cover plates extend the pressure range up to an operating pressure of 650 psig (45 barg). Result? Reach for the DW-XP when designing for R410a.



Verifiable Vented Leak Path

Two vent holes are designed into the DW Series to provide leak indication. If a plate breach or failure ever occurs the fluid will leak from these vents, indicating a problem and preventing cross-contamination of fluids. This positive leak detection design is unique to GEA, protected by US Patent # 5,462,113 and patents in UK, Germany, Sweden France, China and Australia.



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.

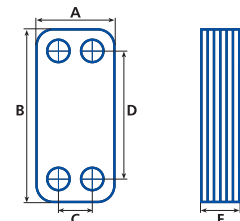
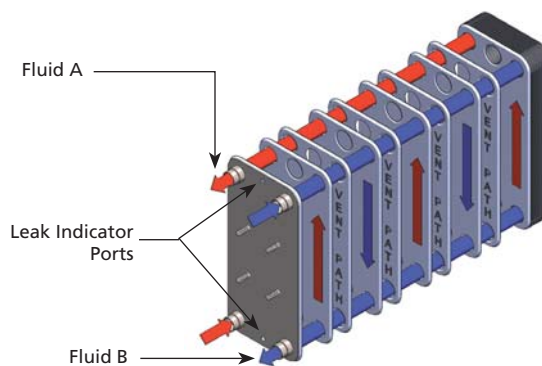


Full-Flow System™

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.

How does the DW Series work?

- The DW Series is an ingenious design, whereby two heat transfer plates are separated by a vent path.
- Fluid A (shown in red) is separated from Fluid B (shown in blue) by this double wall air gap, thus providing a complete separation of the fluids and cross-contamination protection.
- Any leakage through the plate passes into the vent path, leaking to the outside through the Leak Indicator Ports (on the 10 x 20 size) or through the gaps in the bottom of the heat exchanger.



FlatPlate® DW Series: Technical Data

Materials and Construction

- **Plate Material:** 316L Stainless Steel
- **Brazing Material:** Copper as standard. Nickel-Chrome optional on 10x20.

Third Party Approvals

- UL-listed and CRN-registered as standard
- Optional: ASME, CSA, CE -European PED.

Performance

- **Maximum Working Temperature:** 350°F (177°C)
- **Minimum Metal Temperature:** -320°F (-195°C)

Maximum Standard Design Pressure:

- DW 4 and 5: 360 psig (25 barg)
- DW 10 x 20: 450 psig (31 barg)
- DW-XP 10 x 20: 650 psig (45 barg)

Standard Dimensions											
Model and Nominal Size	A		B		C		D		F		
	In	mm	In	mm	In	mm	In	mm	In	mm	
DW 4	5.1"	130	13.3"	338	2.9"	74	11.1"	282	0.40 + (0.0088 x N)	10.16 + (2.24 x N)	
DW 5	5.1"	130	21.0"	533	2.9"	74	18.8"	478	0.40 + (0.0088 x N)	10.16 + (2.24 x N)	
DW 10" x 20"	9.8"	249	20.3"	516	6.5"	165	17.6"	432	0.475 + (0.090 x N)	64.76 + (1.02 x N)	

Technical Data								
Model and Nominal Size	Net Weight		Volume		Flow Rate		Max Plates	
	Pounds	Kilograms	gal/ch	l/ch	gpm	m³/h		
DW 4	3.6 + (0.30 x N)	1.63 + (0.14 x N)	0.017	0.065	70	20	120	
DW 5	6.0 + (0.48 x N)	2.72 + (0.22 x N)	0.026	0.10	70	20	120	
DW 10" x 20"	36.8 + (1.05 x N)	16.7 + (0.48 x N)	0.061	0.23	200	50	218	

Notes:

- N = Number of Plates
- ch = channel
- Mass flow rate is based on water at 16 ft/s (5 m/s)

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