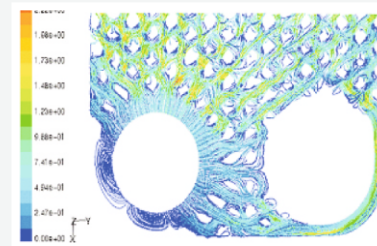


# A step towards a more efficient refrigeration industry

Air dryers, chillers, cascade heat pumps and refrigeration systems are typical examples of applications that operate more efficiently using brazed plate heat exchangers (BPHEs). The list of new applications is growing continuously, and today you will find SWEP BPHEs in virtually all kinds/sorts of applications in the global refrigeration market. Alongside the increase in the areas of use, there is also a rapid technological changeover to modern high-efficiency SWEP BPHEs where shell-and-tubes were previously used. Extensive research and development combined with effective use of CFD (Computational Fluid Dynamics) have enabled us to offer the market's most comprehensive range of condensers, desuperheaters, evaporators and subcoolers for all types of refrigeration applications. By using standardized components, we can cost-effectively mass customize the product precisely to your needs. We can always offer you more, thanks to our complete program of effective aids. SSP, the SWEP Software package that we have developed for dimensioning exchangers and dynamic drawing generation, is the soft way to get hard facts. Or why not do some in-depth reading in our refrigeration Handbook, the complete handbook for BPHE refrigeration applications? Contact one of our expert heat transfer consultants today to find out more about SWEP BPHEs and energy-saving solutions.



Simulation is one of the most important stages in the development of new and existing BPHEs. The ability to evaluate different plate patterns by simulating flow rate and directions offers great opportunities for improved functionality.



Each SWEP BPHE is delivered with full traceability and verified functionality. A SWEP BPHE is approved by leading independent international bodies, such as PED, UL, KHK and CSA.



Refrigeration applications

Our "Technical Handbook about refrigeration Applications" offers you every opportunity to broaden your competence, with first-class information about everything from basic heat transfer to gas boilers and district heating systems.

## Challenge efficiency

At SWEP, we believe our future rests on giving more energy than we take – from our planet and our people. That's why we pour our energy into leading the conversion to sustainable energy usage in heat transfer. Over three decades, the SWEP brand has become synonymous with challenging efficiency.

SWEP is a world-leading supplier of brazed plate heat exchangers for HVAC and industrial applications. With over 1,100 dedicated employees, carefully selected business partners, global presence with production, sales and heartfelt service, we bring a level of expertise and customer intimacy that's redefining competitive edge for a more sustainable future. SWEP is part of Dover Corporation, a multi-billion-dollar, diversified manufacturer of a wide range of proprietary products and components for industrial and commercial use.

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## Brazed plate heat exchangers for refrigeration applications
















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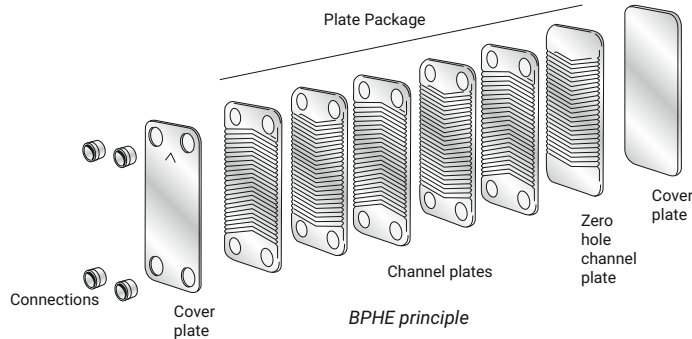
# A complete range of dedicated BPHEs for refrigeration applications

<b>X3T</b>		<b>X4T</b>		<b>5T</b>		<b>X8T</b>		<b>8T</b>		<b>10T</b>		<b>12</b>		<b>16</b>		<b>25T</b>		<b>30</b>		<b>35T</b>		<b>60</b>		<b>80</b>		<b>80AS</b>		<b>85</b>	
<b>Dimension</b>	54,4×119,5 mm 2.14×4.7 inch	<b>Dimension</b>	75×192,6 mm 2.95×7.58 inch	<b>Dimension</b>	76×193 mm 2.99×7.59 inch	<b>Dimension</b>	73×315 mm 2.87×12.4 inch	<b>Dimension</b>	72×310 mm 2.84×12.20 inch	<b>Dimension</b>	117/119×287/289 mm 4.61/4.68×11.31/11.37 inch	<b>Dimension</b>	117×287 mm 4.61×11.31 inch	<b>Dimension</b>	119×376 mm 4.69×14.8 inch	<b>Dimension</b>	117/119×524/526 mm 4.61/4.68×20.65/20.71 inch	<b>Dimension</b>	243×243 mm 9.59×9.59 inch	<b>Dimension</b>	243×393 mm 9.57×15.48 inch	<b>Dimension</b>	364×374 mm 14.34×14.74 inch	<b>Dimension</b>	119×526 mm 4.69×20.71 inch	<b>Dimension</b>	119×526 mm 4.69×20.71 inch	<b>Dimension</b>	119×526 mm 4.69×20.71 inch
<b>Weight</b>	0.11±0.016×(NoP-2) kg 0.24±0.035×NoP lb	<b>Weight</b>	0.26±0.040×NoP kg 0.58.4±0.089×NoP lb	<b>Weight</b>	0.6±0.044×NoP kg 1.4±0.1×NoP lb	<b>Weight</b>	0.53±0.075×NoP kg 1.16±0.165×NoP lb	<b>Weight</b>	0.9±0.07×NoP kg 2±0.2×NoP lb	<b>Weight</b>	1.4±0.09×NoP kg 3.1±0.2×NoP lb	<b>Weight</b>	1.7±0.116×NoP kg 3.2±0.3×NoP lb	<b>Weight</b>	1.5±0.114×NoP kg 3.8±0.3×NoP lb	<b>Weight</b>	2.1±0.17×NoP kg 4.6±0.4×NoP lb	<b>Weight</b>	5.88±0.180×NoP kg 12.96±0.397×NoP lb	<b>Weight</b>	6.7±0.336×NoP kg 15.4±0.7×NoP lb	<b>Weight</b>	13±0.47×NoP kg 28.7±1×NoP lb	<b>Weight</b>	2.62±0.164 (0.186)×NoP kg 5.78±0.362×NoP lb	<b>Weight</b>	2.09±0.164 (0.186)×NoP kg 4.61±0.362×NoP lb	<b>Weight</b>	2.09±0.137×NoP kg 4.60±0.301×NoP lb
<b>Max. NoP</b>	60	<b>Max. NoP</b>	100	<b>Max. NoP</b>	60	<b>Max. NoP</b>	60	<b>Max. NoP</b>	60	<b>Max. NoP</b>	140	<b>Max. NoP</b>	140	<b>Max. NoP</b>	140	<b>Max. NoP</b>	140	<b>Max. NoP</b>	300	<b>Max. NoP</b>	250	<b>Max. NoP</b>	300	<b>Max. NoP</b>	140	<b>Max. NoP</b>	140	<b>Max. NoP</b>	160

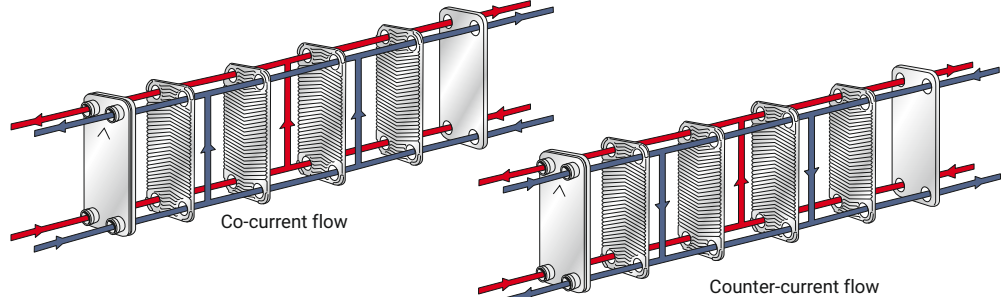
<b>85AS</b>		<b>120T</b>		<b>D190</b>		<b>FI190</b>		<b>200T</b>		<b>250AS</b>		<b>D300</b>		<b>400T</b>		<b>D400</b>		<b>500T</b>		<b>D500</b>		<b>D650</b>	
<b>Dimension</b>	119×526 mm 4.69×20.71 inch	<b>Dimension</b>	243×525 mm 9.50×20.65 inch	<b>Dimension</b>	202×525 mm 7.95×20.67 inch	<b>Dimension</b>	202×524 mm 7.95×20.65 inch	<b>Dimension</b>	243×525 mm 9.57×20.67 inch	<b>Dimension</b>	202×620 mm 7.95×24.41 inch	<b>Dimension</b>	243×525 mm 9.57×20.67 inch	<b>Dimension</b>	304×694 mm 11.98×27.34 inch	<b>Dimension</b>	304×694 mm 11.98×27.34 inch	<b>Dimension</b>	304×980 mm 11.98×38.59 inch	<b>Dimension</b>	304×980 mm 11.98×38.59 inch	<b>Dimension</b>	365,6×744,6 mm 14.39×29.31 inch
<b>Weight</b>	2.09±0.137×NoP kg 4.60±0.301×NoP lb	<b>Weight</b>	10±0.374×NoP kg 22±0.8×NoP lb	<b>Weight</b>	6,19±0.285×NoP kg 13.64±0.628×NoP lb	<b>Weight</b>	6,45±0.289×NoP kg 14.22±0.637×NoP lb	<b>Weight</b>	20±0.400×NoP kg 45.5±0.882×NoP lb	<b>Weight</b>	8.40±0.337×NoP kg 18.52±0.743×NoP lb	<b>Weight</b>	7.75±0.331×NoP kg 17.08±0.730×NoP lb	<b>Weight</b>	17±0.6 (0.63)×NoP kg 37.5±1.3×NoP lb	<b>Weight</b>	15.4±0.58×NoP kg 34±1.3×NoP lb	<b>Weight</b>	21±0.96×NoP kg 44.1±2.1×NoP lb	<b>Weight</b>	20±0.93 (0.96)×NoP kg 44.1±2.1×NoP lb	<b>Weight</b>	14,6±0.939×NoP kg 32.2±2.070×NoP lb
<b>Max. NoP</b>	140	<b>Max. NoP</b>	250	<b>Max. NoP</b>	190	<b>Max. NoP</b>	140	<b>Max. NoP</b>	250	<b>Max. NoP</b>	300	<b>Max. NoP</b>	346	<b>Max. NoP</b>	300	<b>Max. NoP</b>	282	<b>Max. NoP</b>	300	<b>Max. NoP</b>	294	<b>Max. NoP</b>	346

## The concept

In principle, a BPHE is constructed as a plate package of corrugated channel plates between front and rear cover-plate packages. The cover plate packages consist of sealing plates, blind rings and cover plates. During the vacuum-brazing process, a brazed joint is formed at every contact point between the base and the filler material.



The fluids can pass through the heat exchanger in different ways. For parallel flow BPHEs, there are two different flow configurations: co-current or counter-current.



There are several different versions of the channel plate packages. The right illustration is just one example.

