

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



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



Our "Technical Handbook about Refrigerant 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.

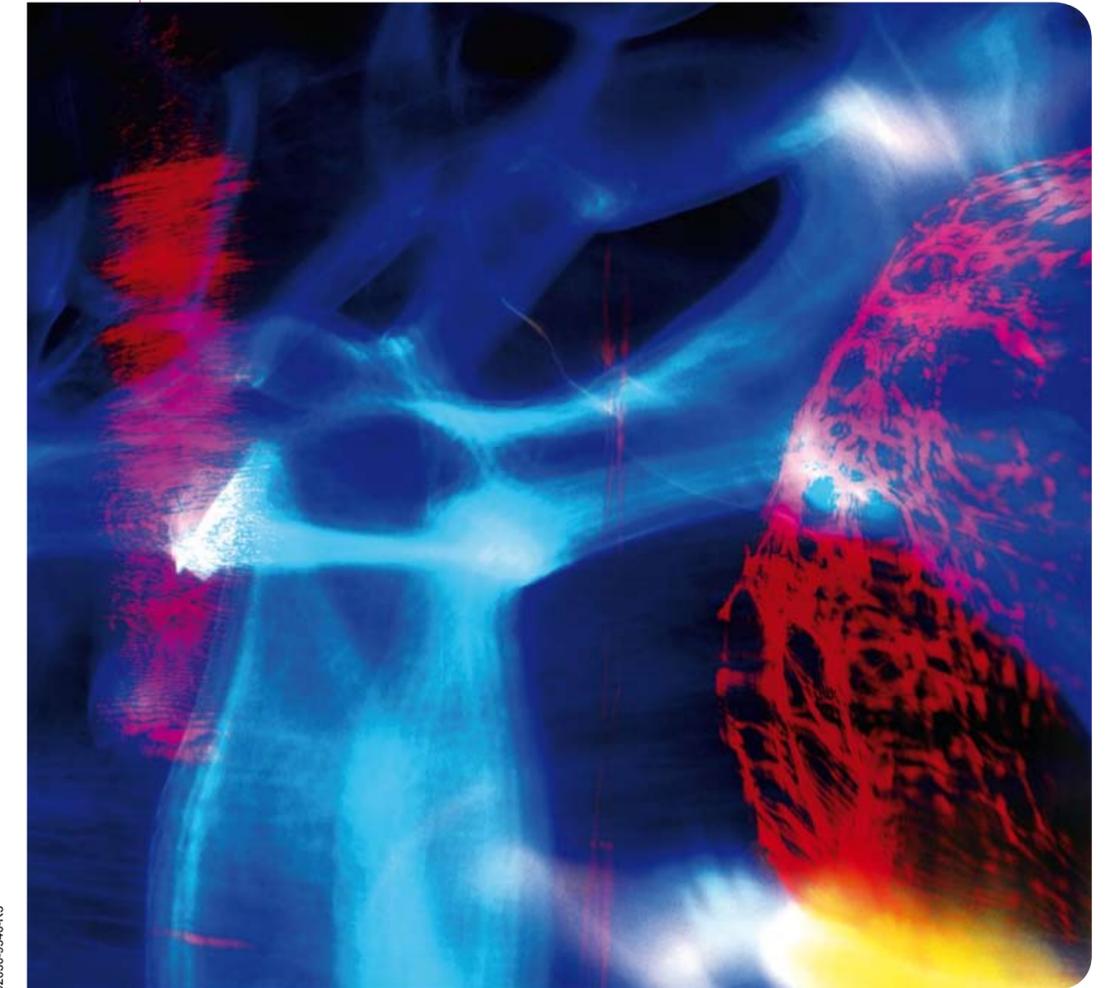
## A step towards a more efficient refrigerant industry

Air dryers, chillers, cascade heat pumps and refrigeration systems are typical examples of applications that operate more efficiently using compact brazed heat exchangers (CBEs). The list of new applications is growing continuously, and today you will find SWEP CBEs in virtually all kinds/sorts of applications in the global refrigerant market. Alongside the increase in the areas of use, there is also a rapid technological changeover to modern high-efficiency SWEP CBEs 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 refrigerant 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 Refrigerant Handbook, the complete handbook for CBE refrigerant applications? Contact one of our expert heat transfer consultants today to find out more about SWEP CBEs and energy-saving solutions.



SWEP is the world's leading supplier of compact brazed heat exchangers (CBEs). These products are used where heat needs to be transferred efficiently in air conditioning, refrigeration, heating and industrial applications. SWEP has annual sales of USD 250 million and is close to its customers, with representation in more than 50 countries and its own dedicated sales force in more than 20 countries. Highly efficient production units in Sweden, Switzerland, the USA, Malaysia, Slovakia and China enable SWEP to serve customers all over the world. SWEP is part of the global Dover Corporation, which is a multi-billion-dollar, NYSE-traded, diversified manufacturer of a wide range of proprietary products and components for industrial and commercial use.

## Compact brazed heat exchangers For refrigerant applications



92000-9540-R3



[www.swep.net](http://www.swep.net)



# A complete range of dedicated CBEs for refrigerant applications

<b>B5</b>		<b>Dimension</b> 72 x 187 mm 2.84 x 7.45 in	<b>Weight</b> 0,6+0,044xNoP kg 1,4+0,1xNoP lb	<b>Max NoP</b> 60
<b>B8</b>		<b>Dimension</b> 72 x 310 mm 2.84 x 12.20 in	<b>Weight</b> 0,9+0,07xNoP kg 2+0,2xNoP lb	<b>Max NoP</b> 60
<b>B10T V10T</b>		<b>Dimension</b> 117/119 x 287/289 mm 4.61/4.68 x 11.31/11.37 in	<b>Weight</b> 1,4+0,09xNoP kg 3,1+0,2xNoP lb	<b>Max NoP</b> 140
<b>B12</b>		<b>Dimension</b> 117 x 287 mm 4.61 x 11.31 in	<b>Weight</b> 1,7+0,116xNoP kg 3,2+0,3xNoP lb	<b>Max NoP</b> 140
<b>B15</b>		<b>Dimension</b> 72 x 465 mm 2.84 x 18.32 in	<b>Weight</b> 1,3+0,106xNoP kg 2,9+0,2xNoP lb	<b>Max NoP</b> 60
<b>B25T V25T</b>		<b>Dimension</b> 117/119 x 524/526 mm 4.61/4.68 x 20.65/20.71 in	<b>Weight</b> 2,1+0,17xNoP kg 4,6+0,4xNoP lb	<b>Max NoP</b> 140
<b>B35 V35</b>		<b>Dimension</b> 243 x 393 mm 9.57 x 15.48 in	<b>Weight</b> 6,7+0,336xNoP kg 15,4+0,7xNoP lb	<b>Max NoP</b> 250
<b>B50</b>		<b>Dimension</b> 243 x 525 mm 9.57 x 20.62 inch	<b>Weight</b> 13,8+0,43xNoP kg 34,2+0,9xNoP lb	<b>Max NoP</b> 280
<b>B57</b>		<b>Dimension</b> 243 x 693 mm 9.57 x 27.30 in	<b>Weight</b> 16,0+0,565xNoP kg 35,3+1,2xNoP lb	<b>Max NoP</b> 280
<b>B60</b>		<b>Dimension</b> 364 x 374 mm 14.34 x 14.74 in	<b>Weight</b> 13+0,47xNoP kg 28,7+1xNoP lb	<b>Max NoP</b> 300
<b>B80 V80 P80 Q80</b>		<b>Dimension</b> 119 x 526 mm 4.69 x 20.72 in	<b>Weight</b> 2,1+0,17 (0,186) xNoP kg 4,6+0,4xNoP lb	<b>Max NoP</b> 140
<b>B120T P120T V120T</b>		<b>Dimension</b> 243 x 525 mm 9.50 x 20.65 in	<b>Weight</b> 10+0,374xNoP kg 22+0,8xNoP lb	<b>Max NoP</b> 250
<b>B200T V200T P200T</b>		<b>Dimension</b> 243 x 525 mm 9.50 x 20.65 in	<b>Weight</b> 10,7+0,37xNoP kg 23,6+0,8xNoP lb	<b>Max NoP</b> 250
<b>DB200 DV200 DP200</b>		<b>Dimension</b> 243 x 525 mm 9.57 x 20.69 in	<b>Weight</b> 10,9+0,42xNoP kg 24+0,9xNoP lb	<b>Max NoP</b> 202
<b>B400T V400T P400T S400T VH400T</b>		<b>Dimension</b> 304 x 694 mm 11.98 x 27.34 in	<b>Weight</b> 17+0,6 (0,63)xNoP kg 37,5+1,3xNoP lb	<b>Max NoP</b> 300
<b>DB400 DS400 DV400 DP400</b>		<b>Dimension</b> 304 x 694 mm 11.98 x 27.34 in	<b>Weight</b> 15,4+0,58xNoP kg 34+1,3xNoP lb	<b>Max NoP</b> 282
<b>B500T S500T VH500T</b>		<b>Dimension</b> 304 x 980 mm 11.98 x 38.59 in	<b>Weight</b> 21+0,96xNoP kg 43,6+2,1xNoP lb	<b>Max NoP</b> 300
<b>DB500 DS500</b>		<b>Dimension</b> 304 x 980 mm 11.98 x 38.59 in	<b>Weight</b> 20+0,93 (0,96)xNoP kg 44,1+2,1xNoP lb	<b>Max NoP</b> 294

## The concept

In principle, a CBE 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.

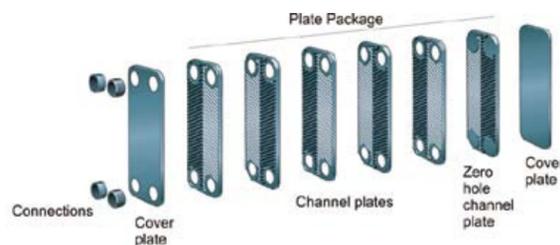


Figure 1. CBE principle

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



There are several different versions of the channel plate packages. Below is one example.

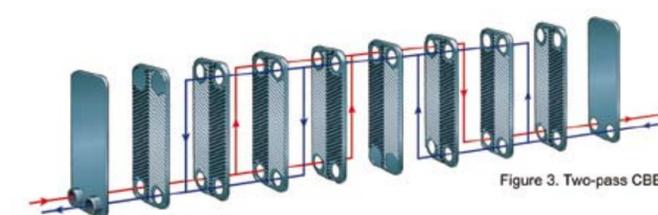


Figure 3. Two-pass CBE