

EVAPORATORS  
SINGLE-PHASE  
CONDENSERS

# BIGBLOCK

# The power for HighCap applications

With BigBlock you can now use compact brazed heat exchangers (CBEs) in high-capacity applications that were once the sole preserve of shell-and-tube or rubber gasket heat exchangers. BigBlock is the ultimate proof of this, consisting of four different powerful high-capacity brazed heat exchangers, the S500T, VH500T, B500T and B439.

Developed for full strength, reliability and effortless performance, SWEP's BigBlock CBEs offer total effectiveness at high capacities. Use BigBlock CBEs where you need real muscle and minimal environmental impact.



## Wide capacity range, small footprint

Each BigBlock solution covers a wide capacity range.

- **Evaporators**

The BigBlock evaporators S500T and VH500T are designed for R134a and cover the 250-530 kW range, giving you ample headroom in tough applications.

- **Condensers**

The B500T is the BigBlock condenser, optimized for R134a and R407C/E and rated at a full 610 kW to combine must-have efficiency with flexible capacity.

- **Single-phase**

The single-phase B439 is the workhorse in the BigBlock stable, designed for use across a wide range of heating and industrial applications up to 160m<sup>3</sup>/h.

## Big solution for a small planet

BigBlock solutions are big on performance, but low on energy use and other environmental impacts. In the bigger picture, SWEP CBEs are part of an environmentally virtuous circle where less and less material is used more and more efficiently. It saves energy and costs and minimizes environmental impact all the way down the chain from ore extraction to processing, machining, transportation, installation and operation. Systems using SWEP CBEs need smaller, less expensive pumps and smaller quantities of media: clear financial and environmental savings compared with traditional competitors. Furthermore, SWEP's experience has enabled the new BigBlock S500T to be optimized for R134a. This is one of the modern refrigerants that are helping countries to comply with their Kyoto obligations but have been difficult to use efficiently – until now.





# BigBlock – the one-envelope solution

The BigBlock package is a flexible one-envelope solution for a wide range of needs, with no add-ons necessary. For total reliability in high-end applications, every product is thoroughly tested – brazing as well as materials – and has required third-party approvals alongside the excellent quality that has made SWEP a market leader. You can use BigBlock CBEs in applications such as flexible and reversible chillers, industrial heat pumps and process cooling.



**S500T** The S500T is the latest addition to SWEP's S-range of dedicated evaporators for the refrigerant R134a. The single-circuit S500T is optimized for use in chiller applications where high demands are imposed on the system. The S500T is an excellent choice in, for example, modular chillers for air conditioning in larger facilities such as sport centers and shopping malls. Other areas of use include various types of refrigeration applications, such as industrial heat pumps, and as a performance-boosting economizer in large systems.

**VH500T** SWEP has developed a new distribution system to enable the refrigerants R407C and R407E to be used in high-COP applications. The VH500T is optimized for both R407C and R407E in evaporator applications, and operates at very high efficiencies to meet the environmental demands that many markets impose today. The VH500T can be used in demanding chiller systems for cooling larger commercial areas such as train stations, supermarkets and other facilities. The VH500T is also suitable for reversible chiller systems and industrial heat pumps.

**B500T** The B500T has been designed to work extremely efficient at high capacities. It operates as a condenser in systems with the VH500T or S500T, which enables compact solutions in demanding chiller applications. The B500T is the natural choice as a condenser for modular chillers and industrial heat pumps using the S500T. The two CBEs together form an extremely compact system with a small footprint. The B500T is not only developed for R134a, but is also an excellent complement to the VH500T in high-efficiency systems with R407C or R407E.

**B439** The efficient B439 is designed as a single-phase CBE for use across a wide range of heating and industrial applications, where its ease of adaptation is an advantage. One typical application for the B439 is oil cooling in larger engines, e.g. in marine environments. The B439 is also suitable for district cooling systems. For example, in an indirect system where minimal energy losses are required, the B439 can be used as a pressure breaker to decrease the static pressure.



# Testing BigBlock solutions on the track

Thorough tests on the production track plus double inspections (part of SWEP's World Class Products and Services program) and all necessary third-party approvals qualify every single BigBlock CBE. Routine leak- and pressure-testing of individual CBEs are backed up by SWEP's laboratory facilities for testing the heat transfer capacity of single-phase and two-phase applications, flow distribution, strength, mechanical and thermal fatigue performance, etc.



## "One envelope" advantages

Every BigBlock solution fits one compact envelope, with all the savings and convenience that means. When you can standardize on sizes, you get easier design as well as simpler transportation and straightforward installation. If you need more capacity, simply specify more plates, which gives you a stepless increase in size. At only 304 mm wide, BigBlock CBEs are not only easy to fit into compact systems, e.g. chillers just 800 mm wide, but also easy to insulate and install in multiples.

## Tested for assured operation

To assure safe, reliable operation, every SWEP CBE is exhaustively tested throughout production. Rigorous leak- and pressure-testing ensure mechanical performance comfortably exceeds specification. And of course, third-party approvals are obtained where required.

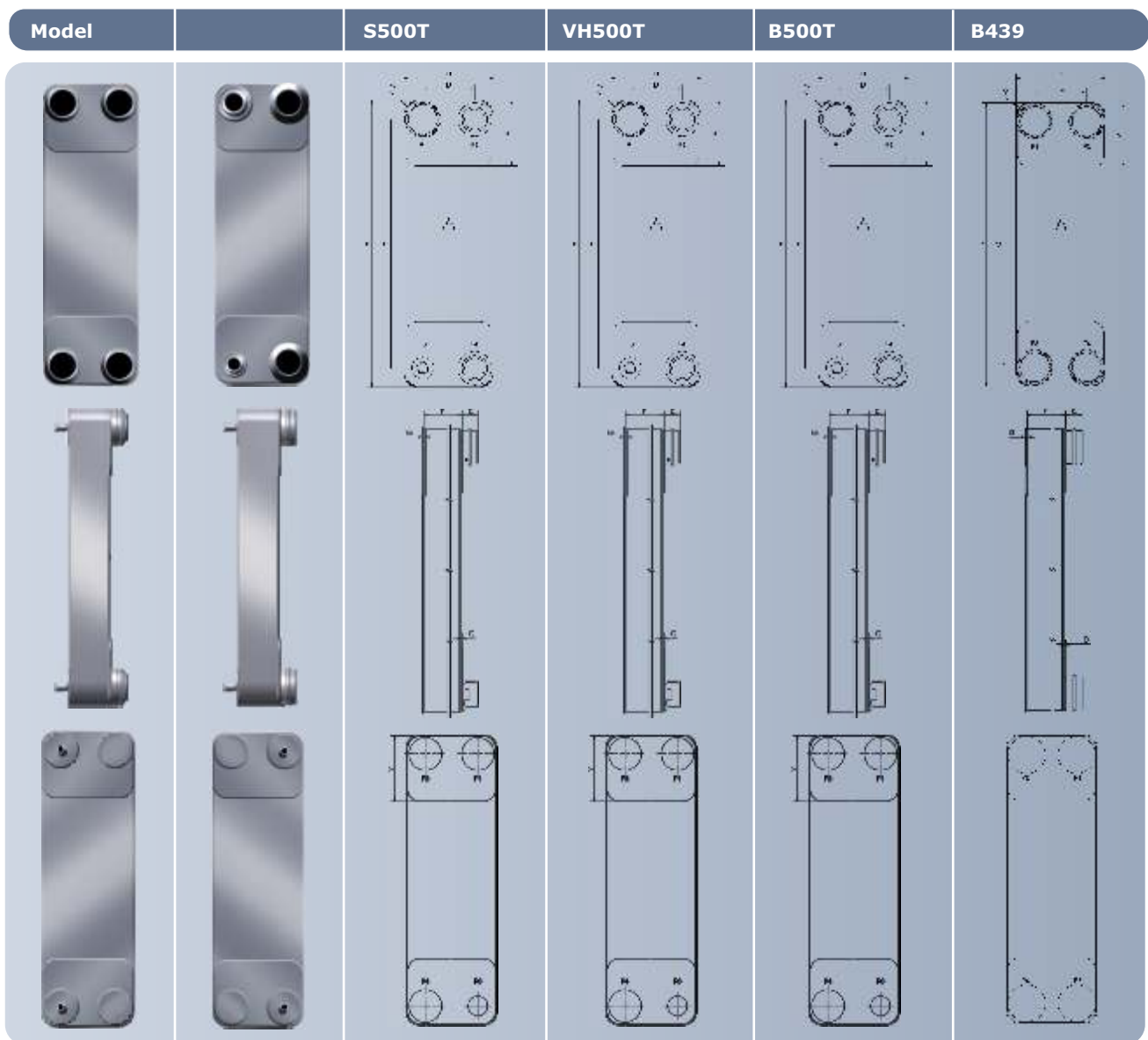
## Right from the start

Performance that gives total confidence is built into every SWEP CBE, right from the start. Years of practical experience and CBE expertise enable SWEP to conceive, develop and manufacture CBEs based on established technology and using proven materials.

## A soft way to get hard facts

SWEP can easily identify the optimal CBE solution for your application using its dimensioning software, SSP CBE. Advanced calculation models use your input data to calculate an exact specification for your particular model. If you prefer, you can do the calculations yourself. Simply download SSP CBE free from [www.swep.net](http://www.swep.net).

You can learn more about SWEP and its products at [www.swep.net](http://www.swep.net), where you can also find your local SWEP representative.



<b>Length</b>	979 (984*)	979 (984*)	979 (984*)	979 (984*)
<b>Width</b>	304 (309*)	304 (309*)	304 (309*)	304 (309*)
<b>PP-formula</b>	12+2.29×NoP	12+2.29×NoP	12+2.29×NoP	12+2.29×NoP
<b>Port size (F3,F1,F2,F4)</b>	60+3×100	60+3×100	60+3×100	4×100
<b>Max NoP</b>	360	360	360	360
<b>Standard connection height</b>	27/54 mm	27/54 mm	27/54 mm	27/54 mm
<b>Pressure</b>	25 bar	25 bar	25 bar	25 bar
<b>Available connections</b>	Contact SWEP	Contact SWEP	Contact SWEP	Contact SWEP

<b>Range</b>	Evaporator	Evaporator	Condenser	Single-phase
<b>Refrigerant/Media</b>	R134a	R407C/R407E	R407C/E, R134a	Water/Water-Oil
<b>Capacity</b>	250-500 kW	250-530 kW	610 kW	160m³/h
<b>Main application</b>	chiller/refrigerant	chiller/refrigerant	chiller/refrigerant	heating/industrial

\* Included deep drawn edge

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 160 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.



## EXPECT A CHANGE

SWEP International AB  
Box 105, SE-261 22 Landskrona, Sweden  
Tel +46 418 40 04 00, Fax +46 418 292 95  
[www.swep.net](http://www.swep.net)

