



# BRAZED PLATE HEAT EXCHANGERS FOR HIGH-PRESSURE CO<sub>2</sub> COOLING APPLICATIONS

SWEP provides a complete range of reliable and compact brazed plate heat exchangers (BPHE's) that are designed for optimal performance under extreme pressure. Our range of BPHE's are designed to operate at high pressures in CO<sub>2</sub> cooling applications. The range is optimized for environmentally friendly CO<sub>2</sub> systems and provides energy savings, reliability and a lowered footprint.

#### Benefits:

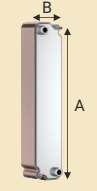
- CO<sub>2</sub> refrigerants fulfill legislative requirements as they are non-toxic and non-flammable.
- CO<sub>2</sub> refrigerants are an economical alternative to other refrigerants.
- Excellent performance in tap water heating, in supermarket freezing and heat recovery.
- CO<sub>2</sub> is the most efficient refrigerant in the low temperature systems.

# BRAZED PLATE HEAT EXCHANGERS FOR HIGH-PRESSURE CO<sub>2</sub> COOLING APPLICATIONS

Our ranges of high pressure brazed plate heat exchangers are designed to operate at high pressures in CO<sub>2</sub> cooling applications. The range is optimized for CO<sub>2</sub> systems and provides energy savings, reliability and lowered footprint.

**U-class**  
For applications operating up to 140 bar at 135°C. Suitable for use as a gas cooler, evaporator, economizer, and oil cooler in CO<sub>2</sub> transcritical applications.


B9



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	140 bar (2.030 PSIG)	48 bar (653 PSIG)
Max working pressure at 225°C	110 bar (2.030 PSIG)	38 bar (653 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	207 bar	72 bar

A: 378.7 mm (14.91") B: 78.7 mm (3.1")

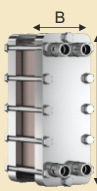
B17



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	129 bar (2.030 PSIG)	99 bar (1.740 PSIG)
Max working pressure at 225°C	104 bar (2.030 PSIG)	80 bar (1.740 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	200 bar	153 bar

A: 377 mm (14.84") B: 119.5 mm (4.7")


B16DW



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	140 bar (2.030 PSIG)	140 bar (2.030 PSIG)
Min temperature	-10°C (14°F)	-10°C (14°F)
Max temperature	150°C (302°F)	150°C (302°F)
Test pressure	200 bar	200 bar

A: 377 mm (16.42") B: 119.5 mm (6.28")


B18



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	129 bar (2.030 PSIG)	99 bar (1.740 PSIG)
Max working pressure at 225°C	104 bar (2.030 PSIG)	80 bar (1.740 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	200 bar	153 bar

A: 377 mm (14.84") B: 119.5 mm (4.7")

B185




Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	131 bar (2.030 PSIG)	96 bar (1.450 PSIG)
Max working pressure at 225°C	115 bar (2.030 PSIG)	84 bar (1.450 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	226 bar	166 bar

A: 452 mm (16.74") B: 203 mm (8")

**R-class**  
For applications operating up to 95 bar at 100°C. Suitable for use as a gas cooler, evaporator, economizer, cascade operations and oil cooler in CO<sub>2</sub> trans-critical applications

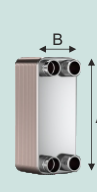
BDW16DW-SC-R



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	90 bar Not UL approved	70 bar
Max working pressure at 225°C	76 bar Not UL approved	57 bar
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	139 bar	109 bar

A: 377 mm (14.84") B: 119.5 mm (4.7")


12H



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	56 bar (650 PSIG)	56 bar (650 PSIG)
Max working pressure at 225°C	44 bar (650 PSIG)	44 bar (650 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	88 bar	88 bar

A: 287 mm (11.29") B: 117 mm (4.6")

25H




Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	56 bar (650 PSIG)	56 bar (650 PSIG)
Max working pressure at 225°C	44 bar (650 PSIG)	44 bar (650 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	88 bar	88 bar

A: 524 mm (20.62") B: 117 mm (4.6")

**D-class**  
For applications operating at 60 bar up to 100°C. Suitable for use as an evaporator, condenser, suction gas heat exchanger and for cascade operations.


120TH



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	52 bar (650 PSIG)	52 bar (650 PSIG)
Max working pressure at 225°C	45 bar (650 PSIG)	45 bar (650 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	81 bar	81 bar

A: 525 mm (20.66") B: 243 mm (9.56")

400H



Working conditions	Inner circuit	Outer circuit
Max working pressure at 135°C	52 bar (650 PSIG)	52 bar (650 PSIG)
Max working pressure at 225°C	45 bar (650 PSIG)	45 bar (650 PSIG)
Min temperature	-196°C (-320.8°F)	-196°C (-320.8°F)
Max temperature	225°C (437°F)	225°C (437°F)
Test pressure	81 bar	81 bar

A: 694 mm (27.32") B: 304 mm (11.96")

**E-class**  
For sub-critical applications operating at 56 bar up to 100°C. Suitable for use as an evaporator, condenser, and for cascade operations.

PSIG values are related to UL.  
All products in the CO<sub>2</sub> range are PED approved.