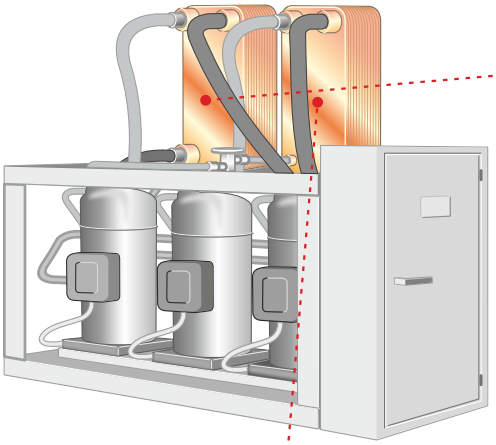
SWEP solutions for process chillers

SWEP
A DOVER COMPANY

Central water-cooled chiller



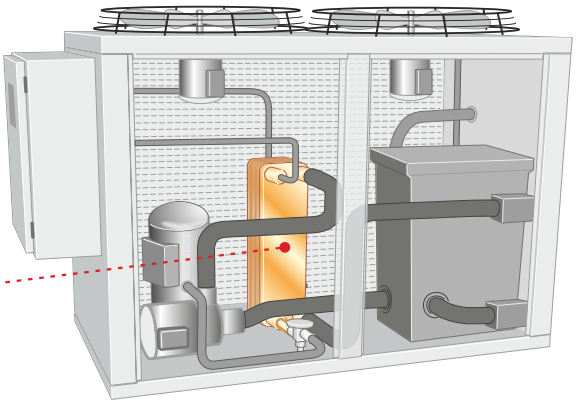
Condenser

- High thermal performance
  (for both full- and part-load conditions)
- Low pressure drop
- Low refrigerant hold-up volume
- Many models

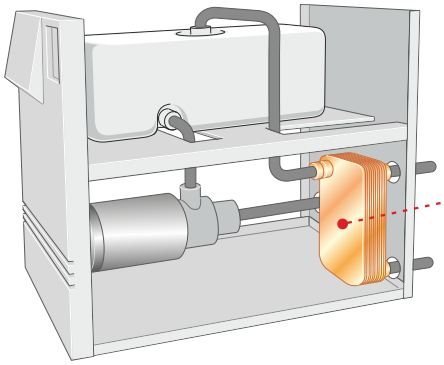
Evaporator

- High thermal performance
  (for both full and part load conditions)
- Low pressure drop
- Low refrigerant hold-up volume
- Choice of materials
- Many models

Portable air-cooled chiller



Indirect water cooling system

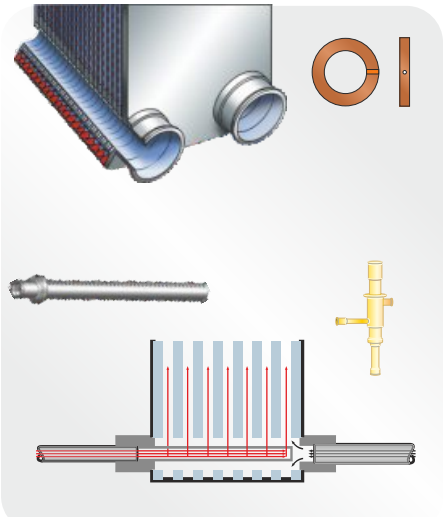


Single-phase

- High thermal performance
- Low pressure drop
- Compact and scalable design
- Choice of materials
- Many models

High performance across a wide variety of fluids

- BPHEs are the key to surpassing the new efficiency levels dictated by the Ecodesign directives for high-temperature process chillers. Even in the most severely regulated case (air-cooled chiller), our evaporators will operate at the temperature approaches you need to surpass the requirements for a well-dimensioned condenser across a range of refrigerants.
- Using clean process water is paramount in prolonging the lifecycle of all industrial components, and is strongly recommended for achieving optimal performance with BPHE technology.
- Our BPHEs are copper-brazed as standard. We also offer all-stainless and nickel as alternative brazing materials to meet the demands of corrosive fluids.
- Our BPHE distribution systems are optimized for a wide variety of refrigerants, systems solutions, and COP targets, under both full- and part-load conditions.

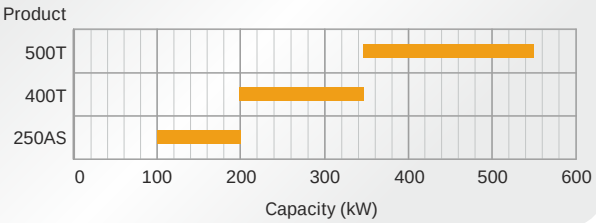


Recommendations and quick selections

- Always consider the conductivity of the fluids. Low conductivity demands all-stainless or nickel-brazed construction.
- The recommended shear stress is more than 50 Pa for applications with a risk of fouling, and we recommend a filter to remove particles >1 mm.
- The recommended pressure drop in distribution devices for evaporators is more than 1 bar.

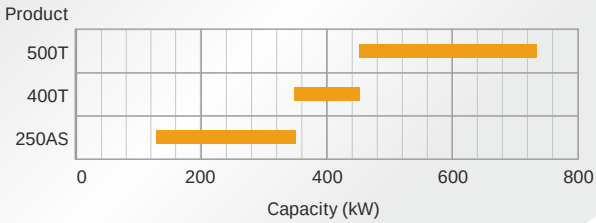
Evaporator (direct water-cooled chiller)

Circuit	Primary	Secondary
Fluid	R134a	Water
T_{evap} (°C/°F)	10/50	–
T_{sh} (K/°F)	5/9	–
T_{in} (°C/°F)	12/53.6	20/68
T_{out} (°C/°F)	15/59	15/59
dP (kPa/psi)	50/7.25	50/7.25



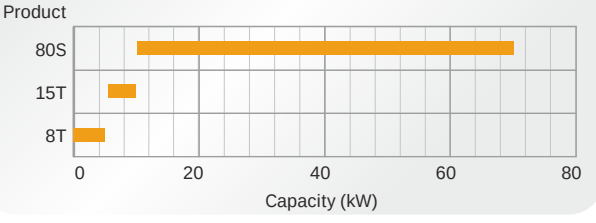
Condenser (direct water-cooled chiller)

Circuit	Primary	Secondary
Fluid	R134a	Water
T_{cond} (°C/°F)	40/104	–
T_{sc} (K/°F)	2/3.6	–
T_{in} (°C/°F)	70/158	30/86
T_{out} (°C/°F)	38/59	35/95
dP (kPa/psi)	50/7.25	50/7.25



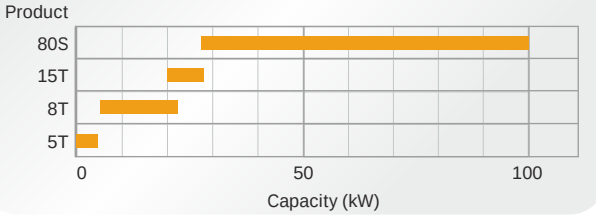
Evaporator (direct air-cooled chiller)

Circuit	Primary	Secondary
Fluid	R134a	DI/Water
T_{evap} (°C/°F)	10/50	–
T_{sh} (K/°F)	5/9	–
T_{in} (°C/°F)	10/50	20/68
T_{out} (°C/°F)	15/59	15/59
dP (kPa/psi)	50/7.25	30/4.35



Liquid water cooler (indirect system)

Circuit	Primary	Secondary
Fluid	Water	DI/Water
T_{in} (°C/°F)	25/77	38/100
T_{out} (°C/°F)	34/93	30/86
dP (kPa/psi)	20/2.9	20/2.9



Entrepreneurship for the future

What started with two Swedish entrepreneurs in a garage in 1983 is now a global corporation with approx. 1000 employees, five manufacturing facilities, and a production capacity of more than three million BPHEs every year. The founders were pioneers taking a chance with a technology they believed in, and to which they dedicated their passion, creativity, and personal commitment. This spirit is still present in today's SWEP, making us keep pushing the borders of what is possible. Driven by the conviction that our products are part of a sustainable future, we challenge efficiency, and we challenge our partners to do the same.

Our owners

Our owner Dover Corporation is a multi-billion dollar global producer of innovative equipment, specialty systems, and value-added services for industrial products.

- More than 50 independent companies
- Customers in more than 100 countries
- dovercorporation.com

DOVER®

Core production competences

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 1,000 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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