

## Product Portfolio

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### Dry Expansion Evaporators

- Cooling capacity from 50 to 2500 kW
- U-bundle and 1 pass counter-current layout available
- Up to 4 refrigerant circuits; up to 50 bar design pressure
- State of the art internally finned tubes
- Inlet two-phase distributor guarantees good performance even at lower partial loads
- Optimized water flow due to 'squared' cross section, solid construction of the tube bundle



### Flooded & Spray Evaporators

- Cooling capacities up to 10 MW (~3000 RT)
- Up to 54" shell diameter and 10 m length (current manufacturing capability)
- Approach temperature as low as 0.5 K, achievable with the high performing tubes from Wieland and thanks to our 30 years old know-how in the manufacturing of flooded evaporators
- Spray technology: up to 70% refrigerant saving, easier oil recovery, free volume for liquid storage
- No risk of liquid entrainment thanks to the dedicated design of the suction gas distributor
- Several tube types, materials (Cu-DHP, CuNi or stainless steel), diameters and lengths are available



### Condensers

- Heat rejections from 50 kW to 12 MW; approach temperature as low as 0.5 K
- Several tube types, OD and lengths available; CuNi & titanium for marine or special constructions
- Different TEMA configurations and water side layouts available
- Heat recovery (total or partial) configuration available



### Custom design, pre-assembled units

- Personalized drawings of water cooled pre-assembled units
- Dedicated design for special projects
- The Wieland Provides Team will work closely with client's technical department to support during the design phase.
- A variety of innovative products will satisfy any requirement of the project: oil separators, vertical evaporators, evapo-condensers, economizers, flash tanks, suction accumulators, liquid receivers, etc.



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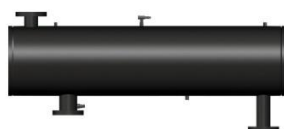
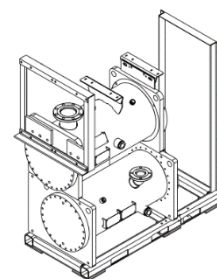
### Compact heat exchangers

- Flooded/spray evaporator CSF and flooded condenser CCF
- Up to 350 kW cooling capacity, 1 K approach temperature
- Very low refrigerant charge; ideal with oil-free system
- Low footprint, ideal for modular design (in-series or parallel)
- Internal subcooler guarantees superheating at suction and additional subcooling at liquid line



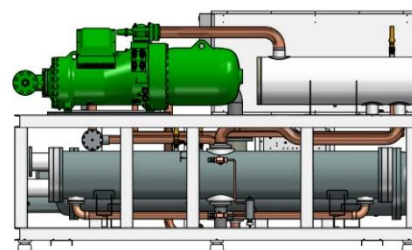
### Compact S&T

- S&T flooded evaporator and flooded condenser
- Up to 350 kW cooling capacity, 1 K approach temperature
- Modular and scalable design
- Optimized footprint to pass through an industrial door
- Dedicated design for oil-free centrifugal compressor



### Horizontal oil separators

- High efficiency oil separator with 2 steps separation
- Capacity up to 1500 kW
- Oil separators will be delivered with flanges, sleeves for hot gas outlet
- Higher possibility to fit it into the assembly



### Vertical oil separators

- Different efficiency: 2 or 3 stages of separation
- Capacity up to 1250 kW
- Oil carry over less than 500 ppm
- With meshpad and built-in reservoir, combined version with coalescent filters for the highest efficiency
- Available models:  $\varnothing 324$ ,  $\varnothing 508$ ,  $\varnothing 610$ ,  $\varnothing 711$  mm shell diameter

