

# SOFTWARE AVAILABLE FROM WEB SITE

The software interface displays a table of parameters for a heat exchanger design. Below the table is a thermodynamic cycle diagram for a refrigeration system. The diagram shows the refrigerant's state through various stages: Sub-Cooling, Sensible Heat Rejected at Condenser, Latent Heat Rejected at Condenser, Superheat Sensible Heat Rejected at Condenser, Evaporation (Refrigeration Effect), and Work Done by Compression. The diagram also labels the Liquid Refrigerant and Superheated Vapour Refrigerant phases.

**PFHE - S&T - BPHE**



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### ONDA CAN DEVELOP CUSTOMIZED PRODUCTS ON REQUEST

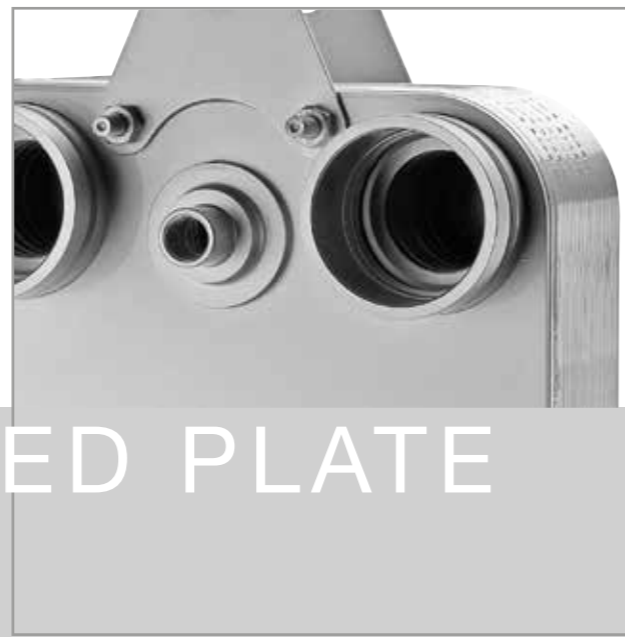
Thanks to its flexibility and a lean manufacturing process, Onda S.p.A. can manufacture special products, developed together with the customers. Both thermal and mechanical design may be carried out according to specific customer needs. Special finned exchanging tubes, designed and developed by Onda, are available too. **Materials:** Titanium, Copper Nickel, Superduplex, Copper, Stainless steel, Carbon steel. **Special coating available** **Pressure:** up to 100 bar **Temperature:** from -57 °C to 250 °C **Overall dimensions:** outside diameter up to 2,3m, length up to 13m **Weight:** up to 25t



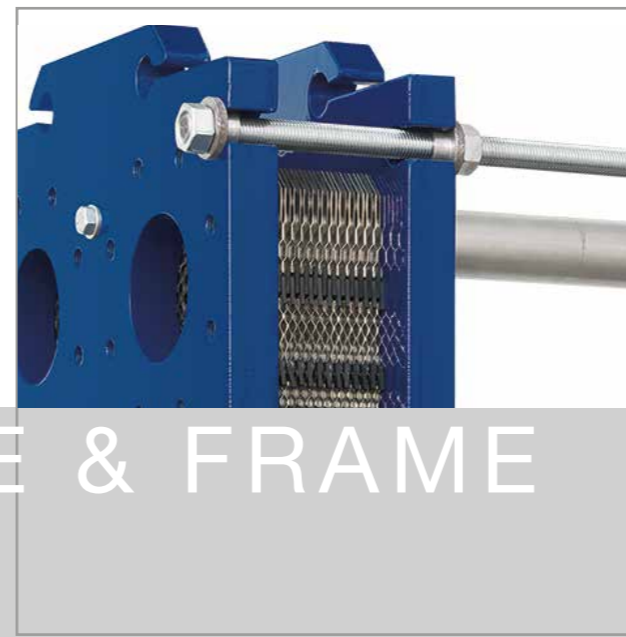


Onda manufactures a complete range of air heat exchangers.

- Air Coolers up to 180 kW
- Unit Coolers up to 180 kW
- Axial Condensers with a capacity between 5 and 2400 kW
- Liquid Coolers & Dry Coolers with capacities from 5 to 1800 kW offering the following options:
  - -V- Design
  - Up to 20 fans
  - Max. length up to 13 m.



With the wide range of 15 different models of braze plate heat exchangers, Onda has the answer for any application, coming both from refrigeration field (evaporation and condensation of freon from 10 to 750 kW) and from HVAC field for heating, sanitary water and air conditioning applications.



The range of gasket plate & frame heat exchangers is available in different models and dimensions. It always offers the best solution for all main heat exchange applications, like HVAC, Industry, Cogeneration, District Cooling & Heating.



Onda can manufacture S&T heat exchangers in different sizes and for different applications. In addition to the typical evaporators and condensers for HVACR, including the flooded evaporators, Onda has now the technical know-how and the production capacity to build big vessels (with shell diameter up to 2,3 m, and overall length above 10 m) suitable for several industrial and naval installations.

# AIR HEAT EXCHANGERS

# BRAZED PLATE

# PLATE & FRAME

# SHELL & TUBE



**HVL-CVN** Condensers  
**MVL-FVN-PFVN** Dry-coolers



**CND** Condensers  
**FND - PFND** Dry-coolers



**CLV** Condensers  
**FLV-PFLV** Dry-coolers



**E - A**  
Industrial air and unit coolers



**FN-PFN**  
Dry-coolers



**FLV** Adiabatic liquid coolers



**ED - AD**  
Dual discharge air and unit coolers



**ET**  
Blast Freezer



**EC - AC**  
Centrifugal air and unit coolers



**S606 - S606M**   **S424** dual circuit   **S404 - S404M**   **S222** dual circuit   **S202 - S202M**   **S182 - S182M**   **S101**



**S82 - S82M**   **S62**   **S22**   **S16**   **S12 - S12M**   **S09**   **S07**   **S06**



**GT025**   **GT022**   **GT021**   **GT015 / GP015**   **GT012**



**GG010 / GM010**   **GG009**   **GG008**   **GG007**   **GG006**   **GG005**   **GG003**



**HC - CEV - CEO** Hermetic condenser   **RL RL-V** Liquid receivers   **OVS** Oil separators   **BPR** BHE with receiver   **OIL** Oil coolers



**M - SM** Sea water condenser   **C - L - R - B - HPC - LVC** Shell & tube condensers   **LSE - SSE** Straight tubes evaporators for New refrigerant low GWP   **MPE - LPE - HBE - HPE** Shell & tube evaporators



**Modules** (assembled evaporator & condensers)   **WT - WTK** Water storage for evaporators



**FLT - FLS**  
Flooded evaporators

# ADVANCED HEAT EXCHANGERS