ECO_2Rack | CO_2 compressor rack

- Large maintenance access.
- Custom design.

Rack of single or double suction CO_2 compressors in transcritical cycle, or in subcritical cycle condensed by glycol or refrigerant. **ECO_2Rack** condensing units can be built in various combinations of 2 or 3 compressors to offer a total cooling capacity of 50 to 300 kW.

Features

- Construction in galvanised sheet steel structure with epoxy paint.
- Sets of up to 3 CO_2 compressors equipped with rotalock valves.
- Inverter capacity control per compressor group.
- Particulate separator and CO_2 filter.
- Oil separator and accumulator with oil filter and electronic injection per compressor.
- Medium pressure CO_2 receiver (PS: 60 bar) with double safety valve led to the outside.
- Economiser - liquid CO_2 subcooler.
- Refrigeration circuit made of copper tube, equipped with filter drier.
- Instrumentation panel with pressure gauges and load taps.
- Integrated control and power panel with electronic control unit for compressor management and electronic valves.
- Emergency unit for CO_2 maintenance.

Subcrítical ECO_2Rack

- Up to triple stainless steel plate cascade condenser with double or triple electronic expansion valve.
- PS: 52 bar.

Transcritical ECO_2Rack

- Set of transcritical CO_2 compressors and set of compressors in parallel. Inverter drive in one compressor of each set.
- Double pressure control valve.
- Pressure regulating valve with medium pressure relief.
- Internal economiser exchanger.
- PS: 120 bar. Variable speed EC axial motor fans.

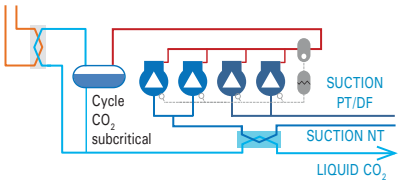
Options

- Hot gas heat recovery unit for DHW production by means of stainless steel plate heat exchanger with automatic bypass valve.
- Hot gas heat recovery unit for heating by means of stainless steel plate heat exchanger.
- Emergency unit for CO_2 maintenance.

Single or double suction subcritical cycle

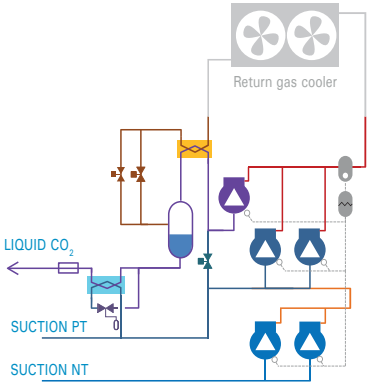
A low-temperature subcritical CO_2 condensing units can be combined in cascade with a water or glycol condensing circuit.

The double suction makes it possible to incorporate the refrigeration production of very negative temperature services (deep-freezing) or even positive temperature services.



Transcritical cycle with parallel compression

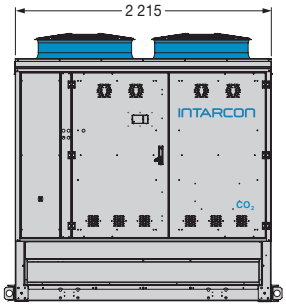
The transcritical cycle with parallel compression improves energy efficiency at high ambient temperatures.

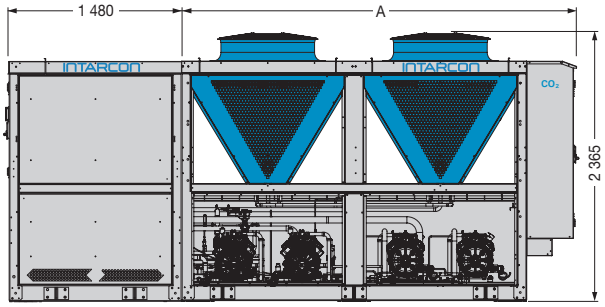


Standard design pressures (PS)

High pressure:	120 bar
Liquid line:	52 bar
Suction positive temp.:	45 bar
Suction negative temp.:	30 bar

ECO_2Watt dimensions

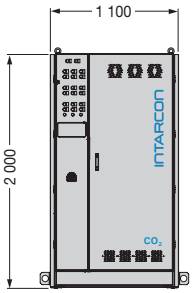


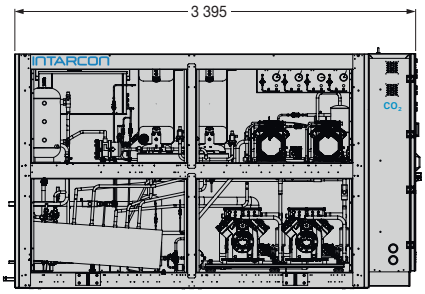


Dimensions (mm)	A
1 series	1 901
2 series	3 377
3 series	4 853
4 series	6 329
5 series	7 380

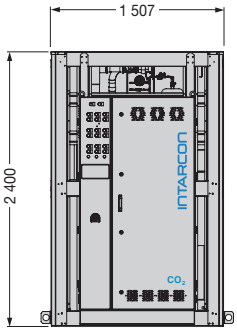
ECO_2Rack dimensions

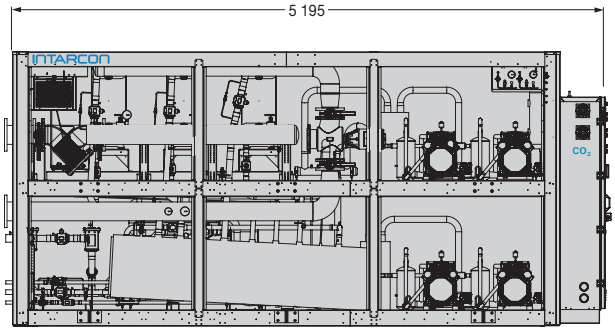
1 series





2 series





Dimensions in mm.