Energy-saving and ecological CO₂ power packs
The energy-efficient power pack for medium and low temperature refrigeration applications

Using full refrigeration capacity and saving costs with the natural refrigerants

TectoRack refrigeration system has been optimally designed to meet the requirements of supermarkets, discounters, convenience stores and other refrigeration systems with medium and low temperature refrigeration capacity.

The turnkey solution for indoor and outdoor installation contains all relevant CO₂ refrigeration components including a high-quality controller system and heat recovery - integrated in a highly compact, space-saving housing. This ensures flawless operation from the very beginning including easy installation and maintenance. Choose the scope of sound insulation based on the application and installation situation.

Thanks to the smart and compact design, with TectoRack you can replace the traditional machine room. The compact indoor version without sound installation requires just one euro-pallet space (820x1250 mm).

Take advantage of these benefits

- Several years of international experience in the field of transcritical CO₂ systems
- System solutions for all areas of application
- High degree of hermetic sealing
- Short delivery times
- TÜV-compliant system technology
Technical specifications - TectoRack S

- 45 - 75 kW SR /
  0 - 14.5 kW FR
- Up to 3 MT compressors (one with frequency inverter)
- Up to 2 LT compressors (optionally one with frequency converter)
- 60 bar medium pressure receiver, 75 liter
- Switchboard included – completely tested
- Pipeline connection at one point – minimum installation effort
- Possibility to demount the rack in 4 pieces on-site
- Minimum installation space – extremely compact

<table>
<thead>
<tr>
<th>TectoRack S Installation</th>
<th>Sound level reduction (dB(A))</th>
<th>Max. weight (ca. kg)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor installation, without sound enclosure</td>
<td>-</td>
<td>1150</td>
<td>900</td>
</tr>
<tr>
<td>Indoor installation, 50 mm sound enclosure</td>
<td>- 8</td>
<td>1500</td>
<td>920</td>
</tr>
<tr>
<td>Outdoor installation, 40 mm sound enclosure</td>
<td>- 8</td>
<td>1800</td>
<td>1040</td>
</tr>
<tr>
<td>Outdoor installation, 100mm sound enclosure</td>
<td>- 12</td>
<td>2100</td>
<td>1200</td>
</tr>
</tbody>
</table>

* plus 10 cm tube connections

<table>
<thead>
<tr>
<th>Cooling</th>
<th>Number of compressors</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium temperature</td>
<td>2-3</td>
<td>( Q_{0 \text{ min}} ) 45</td>
</tr>
<tr>
<td>Low temperature</td>
<td>0-2</td>
<td>0</td>
</tr>
</tbody>
</table>

Capacity \( t_{\text{GCoutlett,34 \degree C}, \ SR / FR = 8 \degree C / -32 \degree C} \)

![Image of TectoRack S]
- 45-160 kW SR / 0-27 kW FR
- Very easy to use (without complicating functions)
- Up to 4 MT compressors (optionally one with frequency inverter)
- Up to 3 LT compressors (optionally one with frequency inverter)
- 60 bar medium pressure receiver, 105-165 liter
- Switchboard included — completely tested
- Possibility to demount the rack in 3 pieces on-site

### Technical specifications - TectoRack M

<table>
<thead>
<tr>
<th>TectoRack M Installation</th>
<th>Collector size (litres)</th>
<th>Max. weight (ca. kg)</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 SR compressors</td>
<td>115</td>
<td>1300</td>
<td>1950 2430</td>
</tr>
<tr>
<td>4 SR (or 3) compressors</td>
<td>165</td>
<td>1700</td>
<td>1950 2860</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooling</th>
<th>Number of compressors</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium temperature</td>
<td>1 1</td>
<td>$Q_{min}$</td>
</tr>
<tr>
<td>Low temperature</td>
<td>1 1</td>
<td>1</td>
</tr>
</tbody>
</table>

Capacity $t_{CO2, in}=34^\circ C$, SR / FR = -8 °C / -32 °C
100 - 290 kW SR / 0 - 60 kW FR
- Up to 6 MT compressors (one with frequency inverter)
- Up to 5 LT compressors (optionally one with frequency inverter)
- 60 bar medium pressure receiver, 165 - 250 liter
- Switchboard included - completely tested
- Possibility to demount the rack in 2 pieces - on site
- Insulation of all “cold” parts
- Suction line filter for MT and LT

### TectoRack L

<table>
<thead>
<tr>
<th>Installation</th>
<th>Dimensions (mm)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depth (A)</td>
<td>Height (B)</td>
</tr>
<tr>
<td>3 SR + 0.2 FR</td>
<td>890</td>
<td>1995</td>
</tr>
<tr>
<td>4 SR + 0.3 FR</td>
<td>890</td>
<td>1995</td>
</tr>
<tr>
<td>5 SR + 0.4 FR</td>
<td>890</td>
<td>1995</td>
</tr>
<tr>
<td>6 SR + 0.5 FR</td>
<td>890</td>
<td>1995</td>
</tr>
</tbody>
</table>

### Cooling

<table>
<thead>
<tr>
<th></th>
<th>Number of compressors</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$Q_{min}$</td>
</tr>
<tr>
<td>Medium temperature</td>
<td></td>
<td>3 - 6</td>
</tr>
<tr>
<td>Low temperature</td>
<td></td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

Capacity $t_{supply} = 34 \, ^\circ C$, MT / LT = -8 °C / -32 °C
TectoRack S
- Heat recovery circuit 1 into water with plate heat exchanger and 3-directional bypass valve
- Heat recovery circuit 2 into water with plate heat exchanger and 3-way bypass valve for on-site installation
- Insulation against heat loss (warm side)
- Receiver min. level control
- Frequency inverter LT-compressor (one)
- Weather enclosure - with or without sound insulation
- Second high- and medium pressure valve
- Standstill cooling unit (on-site installation)

TectoRack M
- Heat recovery circuit 1 into water with plate heat exchanger and 3-way bypass valve
- Heat recovery circuit 2 against water with plate heat exchanger and 3-way bypass valve for on-site installation
- Insulation against heat loss (warm side)
- Receiver min. level control
- Frequency inverter LT compressor (one)
- Weather enclosure - with or without sound insulation
- Second high- and medium pressure valve
- Standstill cooling unit (on-site installation)

TectoRack L
- Heat recovery circuit 1 into water with plate heat exchanger and 3-way bypass valve
- Heat recovery circuit 2 into water with plate heat exchanger and 3-way bypass valve
- Improvement of heating capacity - gas cooler bypass
- Insulation against heat loss (warm side)
- Heat exchanger for superheating and subcooling (optional)
- Receiver min. level control
- Frequency inverter LT compressor (one)
- Suction design pressure increase up to 60 bar MT and LT
- Heat pump and air conditioning features
- Parallel compression and ejectors EVALIFT
- Second high- and medium pressure valve
- Standstill cooling unit (on-site installation)