

**TECHNICAL DESCRIPTION**  
**CRANEFRIGOR™ TH**

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**Figure**

**CRANEFRIGOR™ TH**

The CRANEFRIGOR™ TH cooling unit was developed for reliable and long-term operation under extreme ambient conditions as in steel works, paper factories and foundries. Thanks to its robust structure, a reliable operation is ensured even with heavy shocks.

The CRANEFRIGOR™ series of crane air conditioning units ensure a reliable and efficient production process.

## General description

| <b><i>Scope of delivery</i></b>                                                                                                                                                                                                                                                          | <b><i>Your benefits!</i></b>                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Refrigerant</b> <ul style="list-style-type: none"> <li>Ecological refrigerant</li> <li>Low greenhouse warming potential</li> </ul>                                                                                                                                                    | <ul style="list-style-type: none"> <li>Sustainable operation</li> </ul>                                                                                                                                                                                                                                                        |
| <b>Compressor</b> (made by Bizer) <ul style="list-style-type: none"> <li>Semi-hermetically sealed construction</li> <li>Suction-gas-cooled motor</li> <li>Self-regulating oil sump heater</li> </ul>                                                                                     | <ul style="list-style-type: none"> <li>Low maintenance</li> <li>No risk of overheating</li> <li>Ensures lubrication during the start</li> <li>Very good availability of spare parts worldwide</li> </ul>                                                                                                                       |
| <b>Liquefier</b> <ul style="list-style-type: none"> <li>Cathodic dip coating</li> </ul>                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>High corrosion resistance</li> <li>Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load</li> <li>Shorter maintenance intervals due to smooth surface</li> </ul>                                                                      |
| <b>Liquefier fan</b> <ul style="list-style-type: none"> <li>Norm motors in industrial construction with coupled fan wheel</li> </ul>                                                                                                                                                     | <ul style="list-style-type: none"> <li>Powerful</li> <li>Long runtimes</li> <li>Very good availability of spare parts worldwide</li> </ul>                                                                                                                                                                                     |
| <b>Evaporator</b> <ul style="list-style-type: none"> <li>Cathodic dip coating</li> <li>Cleaning opening / Inspection opening</li> </ul>                                                                                                                                                  | <ul style="list-style-type: none"> <li>High corrosion resistance</li> <li>Shorter maintenance intervals due to special adapted spacing between blades even with extreme dust load</li> <li>Shorter maintenance interval due to smooth surface. Soiling is easily recognized and simple to clean through the opening</li> </ul> |
| <b>Circulating air fan</b> <ul style="list-style-type: none"> <li>AC radial fan, industrial construction</li> </ul>                                                                                                                                                                      | <ul style="list-style-type: none"> <li>Powerful</li> <li>Long runtimes</li> </ul>                                                                                                                                                                                                                                              |
| <b>Air filter</b> <ul style="list-style-type: none"> <li>Large-area frame filter</li> <li>Filter class COARSE 90%</li> </ul>                                                                                                                                                             | <ul style="list-style-type: none"> <li>Effective filter with long service life</li> <li>Easy to replace and clean</li> </ul>                                                                                                                                                                                                   |
| <b>Condensation water separation</b> <ul style="list-style-type: none"> <li>Drip tray made of stainless steel</li> <li>Hose connection for condensation</li> <li>Siphon in condensate line</li> </ul>                                                                                    | <ul style="list-style-type: none"> <li>No corrosion of the tray</li> <li>Defined condensation drainage</li> <li>Avoids the drawing in of contaminated ambient air</li> </ul>                                                                                                                                                   |
| <b>Control and power cabinet</b> <ul style="list-style-type: none"> <li>Completely wired, according to VDE</li> <li>Temperature control by thermostat</li> <li>Operational and fault signal outputs</li> <li>Powder-coated RAL 7035</li> <li>Optional stainless steel version</li> </ul> | <ul style="list-style-type: none"> <li>The CRANEFRIGOR™ is ready for connection; at the site, you only have to connect the power supply</li> <li>Color scheme with high corrosion protection</li> </ul>                                                                                                                        |
| <b>Casing</b> <ul style="list-style-type: none"> <li>Robust, welded construction</li> <li>Primed and powder-coated in RAL 3004</li> <li>Other colors or stainless-steel version optional</li> </ul>                                                                                      | <ul style="list-style-type: none"> <li>Long service life</li> <li>Attractive colour scheme with high corrosion protection</li> </ul>                                                                                                                                                                                           |
| <b>Quality assurance</b> <ul style="list-style-type: none"> <li>Leakage test</li> <li>Function test in our plant's test facility</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>Operational reliability</li> <li>Easy commissioning on site</li> </ul>                                                                                                                                                                                                                  |

### Options packages:

| <i><b>Material order no.</b></i> | <i><b>Scope of delivery</b></i>                                                               | <i><b>Your benefits!</b></i>                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 807 474                          | <b>Options packages “Comfort”</b><br>Comfort controller FTC-E (installed in electronics room) | <ul style="list-style-type: none"> <li>• Digital actual and setpoint display at the regulator</li> <li>• Mode selector switch On / Off / Ventilation</li> </ul>                                                                                                                                                                                                                                              |
| 807 483                          | Vibration dampers                                                                             | <ul style="list-style-type: none"> <li>• Reduction structure-borne noise</li> </ul>                                                                                                                                                                                                                                                                                                                          |
| 807 488                          | <b>Option package “Heater”</b><br>Air heater with temperature monitor                         | <ul style="list-style-type: none"> <li>• Comfortable room temperature</li> <li>• Frost protection even at standstill or during maintenance work</li> </ul>                                                                                                                                                                                                                                                   |
| 807 492                          | <b>Options packages “Operational reliability”</b><br>High ambient temperature                 | <ul style="list-style-type: none"> <li>• Operational reliability during brief increased ambient temperature</li> </ul>                                                                                                                                                                                                                                                                                       |
| 807 496                          | Low outside temperature                                                                       | <ul style="list-style-type: none"> <li>• Cooling during outside temperature <math>\leq +60^{\circ}\text{F}</math> (<math>\leq 15^{\circ}\text{C}</math>)</li> </ul>                                                                                                                                                                                                                                          |
| 807 498                          | Output control                                                                                | <ul style="list-style-type: none"> <li>• Increased service life during fluctuating thermal loads</li> </ul>                                                                                                                                                                                                                                                                                                  |
| 807 503                          | <b>Options packages “Corrosion protection”</b><br>Corrosion protection package 1              | <ul style="list-style-type: none"> <li>• Multiple-coated pipes</li> </ul>                                                                                                                                                                                                                                                                                                                                    |
| 807 508                          | Corrosion protection package 2                                                                | <ul style="list-style-type: none"> <li>• Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti</li> <li>• Multiple-coated pipes</li> </ul>                                                                                                                                                                                                                                          |
| 807 513                          | <b>Option package “Custom”</b><br>Customer-specific version                                   | <p>Special requirements of a company can be realized, such as:</p> <ul style="list-style-type: none"> <li>• Custom voltages / Network configurations</li> <li>• Heat exchanger version (fully copper, blade spacing and thickness)</li> <li>• Control cabinet heater, conductor identification</li> <li>• Special coatings</li> <li>• UL-/CSA-conforming unit version</li> <li>• Protection class</li> </ul> |
| 807 518                          | <b>Options packages “Accessories”</b><br>Assembly accessories according to specification      | <ul style="list-style-type: none"> <li>• Air duct, holding devices, refrigerating accessories</li> </ul>                                                                                                                                                                                                                                                                                                     |
| 807 524                          | Spare parts according to specification                                                        | <ul style="list-style-type: none"> <li>• Spare part package</li> </ul>                                                                                                                                                                                                                                                                                                                                       |

**Plant packages:**

| <i><b>Material order no.</b></i> | <i><b>Scope of delivery</b></i>                                                              | <i><b>Your benefits!</b></i>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8807 561                         | <b>Plant packages “Overpressure / Fresh air”</b><br>Fresh air supply on the device           | <ul style="list-style-type: none"> <li>• Filtered fresh air supply, air volume not adjustable</li> <li>• Filtered fresh air supply, adjustable air volume</li> <li>• Creation of overpressure in the room to be cooled; less dust comes in</li> <li>• Long filter service life due to fully automatic shaking function</li> <li>• Filtered fresh air supply, adjustable air volume</li> <li>• Creation of overpressure in the room to be cooled; less dust comes in</li> </ul> |
| 807 562                          | Filter/Overpressure unit FT15                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 807 563                          | Self-cleaning filter/overpressure unit FS10                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 807 565                          | <b>Plant package “Condensation evaporator”</b><br>Condensation evaporator KVV                | <ul style="list-style-type: none"> <li>• No damage due to dripping condensation</li> <li>• No additional power supply necessary</li> <li>• Overload protection</li> </ul>                                                                                                                                                                                                                                                                                                      |
| 807 566                          | <b>Plant package “SMART Control”</b><br>Superordinate controller FrigorTec Smart Control FSC | <ul style="list-style-type: none"> <li>• Cyclic switching over for redundant systems</li> <li>• Digital display of pressures and temperatures</li> <li>• Optional regulation of the room pressure by filter/overpressure unit</li> <li>• Optional display of the relative room humidity</li> </ul>                                                                                                                                                                             |

## Technical specifications TH:

### Performance data

Cooling performance is included customized in the offer

**Nominal cooling performance:** 55.5 kW | 189,375 btu/h

- At 80 °F (27 °C) room temperature, 52 % rel. room air humidity  
95 °F (35 °C) ambient temperature
- Refrigerant R134a / R513A

**Nominal cooling performance:** 50.0 kW | 170,610 btu/h

- At 80 °F (27 °C) room temperature, 52 % rel. room air humidity  
95 °F (35 °C) ambient temperature
- Refrigerant R450A

**Heating capacity** 3.0 to 9.0 kW | 10,235 btu/h to 30,710 btu/h  
Wide heating power on request

**Air flow volume:** 7,000 m<sup>3</sup>/h | 4,120 cfm

### Cooling mode

- Depending on compressor size
- Depends on the option packages and version of heat exchanger

Temperature range R134a +15 °C to +70 °C | +60 °F to +160 °F  
With option package "low outside temperature" -25 °C to +70 °C | -15 °F to +160 °F

Temperature range R513A +15 °C to +70 °C | +60 °F to +160 °F

With option package "low outside temperature" -25 °C to +70 °C | -15 °F to +160 °F

Temperature range R450A +15 °C to +85 °C | +60 °F to +185 °F  
With option package "low outside temperature" -25 °C to +85 °C | -15 °F to +185 °F

- More extreme temperatures upon request

### Heating mode

Temperature range -25 °C to +30 °C | -15 °F to +85 °F

### Sizes and weight

Weight approx. 1,475 kg | 3,250 lb  
Dimensions type, see dimension sheet

### Operating voltage

Further operating voltages upon request 3 ph / 400 V / 50 Hz  
3 ph / 460 V / 60 Hz

### Refrigerant

GWP (global warming potential) R134a / R513A / R450A  
1430 / 631 / 605

Filling quantity / CO2 equivalent depends on the unit version

Subject to technical change.