

TECHNICAL DESCRIPTION
CRANEFRIGOR™ TD

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Figure

CRANEFRIGOR™ TD

The CRANEFRIGOR™ TD 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

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

Options packages:

Material order no.	Scope of delivery	Your benefits!
807 468	Options packages “Comfort” Comfort controller FTC-K (installed in cabin) incl. regulation of cooling performance by hot-gas bypass	<ul style="list-style-type: none"> • Digital actual and setpoint display at the regulator • Mode selector switch On / Off / Ventilation • Air volume can be set in 3 stages • Minimal temperature fluctuations in the cabin
807 474	Comfort controller FTC-E (installed in electronics room)	<ul style="list-style-type: none"> • Digital actual and setpoint display at the regulator • Mode selector switch On / Off / Ventilation
807 481	Vibration dampers	<ul style="list-style-type: none"> • Reduction structure-borne noise
807 486	Option package “Heater” Air heater with temperature monitor	<ul style="list-style-type: none"> • Comfortable room temperature • Frost protection even at standstill or during maintenance work
807 490	Options packages “Operational reliability” High ambient temperature	<ul style="list-style-type: none"> • Operational reliability during brief increased ambient temperature
807 494	Low outside temperature	<ul style="list-style-type: none"> • Cooling during outside temperature <+60 °F (<15 °C)
807 798	Output control	<ul style="list-style-type: none"> • Increased service life during fluctuating thermal loads
807 501	Options packages “Corrosion protection” Corrosion protection package 1	<ul style="list-style-type: none"> • Multiple-coated pipes
807 506	Corrosion protection package 2	<ul style="list-style-type: none"> • Housing / Plate parts made of high-quality stainless steel 1.4571 / AISI 316Ti • Multiple-coated pipes
807 511	Option package “Custom” Customer-specific version	<p>Special requirements of a company can be realized, such as:</p> <ul style="list-style-type: none"> • Custom voltages / Network configurations • Heat exchanger version (fully copper, blade spacing and thickness) • Control cabinet heater, conductor identification • Special coatings • UL-/CSA-conforming unit version • Protection class
807 516	Options packages “Accessories” Assembly accessories according to specification	<ul style="list-style-type: none"> • Air duct, holding devices, refrigerating accessories
807 521	Spare parts according to specification	<ul style="list-style-type: none"> • Spare part package

Plant packages:

Material order no.	Scope of delivery	Your benefits!
8807 559	Plant packages "Overpressure / Fresh air" Fresh air supply on the device	<ul style="list-style-type: none"> • Filtered fresh air supply, air volume not adjustable • Filtered fresh air supply, adjustable air volume • Creation of overpressure in the room to be cooled; less dust comes in • Long filter service life due to fully automatic shaking function • Filtered fresh air supply, adjustable air volume • Creation of overpressure in the room to be cooled; less dust comes in
807 562	Filter/Overpressure unit FT15	
807 563	Self-cleaning filter/overpressure unit FS10	
807 565	Plant package "Condensation evaporator" Condensation evaporator KVW	<ul style="list-style-type: none"> • No damage due to dripping condensation • No additional power supply necessary • Overload protection
807 566	Plant package "SMART Control" Superordinate controller FrigorTec Smart Control FSC	<ul style="list-style-type: none"> • Cyclic switching over for redundant systems • Digital display of pressures and temperatures • Optional regulation of the room pressure by filter/overpressure unit • Optional display of the relative room humidity

Technical specifications TD:

Performance data

Cooling performance is included customized in the offer

Nominal cooling performance: 24.5 kW | 83,600 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: 22.0 kW | 75,057 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: 2,500 m³/h | 1,470 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. 660 kg | 1,455 lbs
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.