

CRANEFRIGOR[™]

Air conditioning units for industrial applications



frigortec.com



FrigorTec: innovative and reliable refrigeration technology

Since our foundation, we have earned an excellent reputation worldwide and are considered a synonym for excellent refrigeration technology. With decades of experience and modern technology, we offer both standard cooling units and customised solutions. Our daily work is driven by an uncompromising focus on quality, innovation and close customer relationships.

The success story of CRANEFRIGOR™ climate control units began in 1961. Today, CRANEFRIGOR™ offers a wide range of climate control units, specifically developed for cranes used in high-temperature industries and container terminals – Made in Germany!

To this day, our units are developed and manufactured at our headquarters in Amtzell, Germany. In addition, we have our own subsidiaries in the USA, Singapore, France, India and Austria, as well as an international network of competent partners. This enables us to offer our customers a comprehensive sales and service network worldwide. We are aware of our responsibility towards the environmental consciousnes and are committed to minimize our ecological footprint through sustainable production methods and energy-efficient products. The use of the most modern refrigerants in all our air-conditioning units, ensures not only the highest performance standards but also an excellent environmental record.





The first CRANEFRIGOR unit Expansion of the CRANEFRIGOR series (1985)

Further internationalisation CRANEFRIGOR Delivery of the 5,000th unit 2010

FrigorTec units in over 75 countries



Production and Quality

Quality - a matter of course for us!

Only air conditioning units that can endure the harshest conditions will stand the test of time and guarantee our long-term success. That is why we focus on employing qualified staff who continuously enhance their skills. Our technical department is made up of engineers specialising in physical technology, building and air-conditioning technology, process engineering and electrical engineering. In our production team, we exclusively employ skilled professionals, such as electricians and mechatronics technicians with expertise in refrigeration technology. Using premium materials and components from leading manufacturers, they manufacture reliable airconditioning units that meet the highest standards.

FrigorTec technical centre

Every unit undergoes a stringent quality check in our in-house technical centre after production. During an extensive multi-hour test run, we rigorously test their safety functions, measure their performance and meticulously assess their manufacturing quality.

Certifications

FrigorTec has been certified in accordance with DIN ISO 9001 for many years. This internationally recognised quality management standard demonstrates our commitment to delivering products and services of the highest quality. As part of regular certification audits, we verify our processes in many areas, including quality assurance, risk management, customer focus and continuous improvement.

Furthermore, because our units are TÜV-tested at our factory, additional testing at the installation site is usually not necessary.

As an authorised economic operator and AEO-certified company, we enjoy simplified customs procedures for all exports. In 2009, we became the first company in Baden-Württemberg to receive operational certification under Section 6 of the Chemical Climate Protection Ordinance (ChemKlimaschutzV).



Founding of FrigorTec LP, USA Over 10,000 systems produced FrigorTec systems in over 100 countries

Founding of FrigorTec Asia, Singapore Continuous improvement

HIGH-TEMPERATURE INDUSTRIES



Industrial air-conditioning units for crane cabins, electrical rooms and control cabinets

Our air-conditioning units for high-temperature industries create optimal working conditions in crane cabins and ensure a safe room temperature for delicate power and control electronics. These globally proven devices are specifically designed and engineered for these demanding environments. Whether configured as a compact or split version, all FrigorTec units are characterised by their robust construction and high-quality materials and components.

In metal production and processing plants, high temperatures place a significant strain on both the operating personnel and the crane electronics. CRANEFRIGOR™ units are designed to operate within a temperature range from -40°C to +90°C, ensuring smooth and safe operation.

Extremely high and corrosive dust levels pose enourmous challenges to all components, which FrigorTec air-conditioning units are, of course, designed to handle. For example, they feature robust housings, highquality coatings, customised fin spacing on heat exchangers, large industrial filters and durable fans.



Operating temperature range -40°C to +90°C

Nominal cooling performance up to 70 kW

Operating voltages 50/60 Hz, 220 to 690 V up to 14,000 m³/h

FrigorTec provides solutions for all EOT cranes, e.g.

- Charging cranes
- Ladle cranes
- Scrap cranes
- Slab and billet cranes
- Coil and sheet handling cranes
- Coking plant cranes
- Woodyard cranes
- Mining cranes
- Paper industry cranes



Air flow rate



Air-conditioning units for crane cabins		Air-conditioning
Nominal cooling performance	up to 13 kW	Nominal cooling
Heating output	up to 9 kW	Heating output
Air flow rate, free blowing	up to 2,000 m³/h	Air flow rate, free
Air-conditioning units for electrical rooms		Fresh air and Ov
Nominal cooling performance	up to 70 kW	G2, G3, M5, F7, I
Heating output	up to 13 kW	Chemical filter

tioning units for control cabinets

Nominal cooling performance	up to 30 kW
Heating output	up to 12 kW
Air flow rate, free blowing	up to 7,000 m³/h

and Overpressure Filtration Units

M5, F7, HEPA filter

Active carbon filter



Air flow rate, free blowing

Cooling Air / water



Option Filter solutions

up to 14,000 m³/h

Option ATEX



Quality management ISO 9001:2015 and CE, UL, CSA

PORT FACILITIES



Industrial air-conditioning units for crane cabins and electrical rooms (STS, RMG, ASC, RTG, etc.)

Every day, countless goods are processed in port facilities and container terminals across the globe. Consequently, the equipment used in these environments must operate flawlessly - 24/7, even in challenging conditions. CRANEFRIGOR™ air-conditioning units for port operations are specifically designed for this purpose, ensuring smooth and uninterrupted operations.

CRANEFRIGOR[™] crane air-conditioning units can be configured as split or compact versions and are designed to be shock-resistant and exceptionally robust. They are manufactured exclusively using highquality components, some of which are treated with special coatings. This ensures reliable operation for many years, even for units exposed to extreme shocks, frequent vibrations and highly salty air.

High humidity in electrical rooms, especially in coastal areas or tropical climates, can lead to corrosion and defects in crane electronics. For this reason, FrigorTec crane air-conditioning units can optionally monitor the humidity level and automatically dehumidify the air as necessary.

FrigorTec provides solutions for all common crane types, e.g.

- Ship-to-shore (STS)
- Rail-mounted gantry (RMG)
- Automated stacking cranes (ASC)
- Rubber-tyred gantry (RTG)









Operating temperature range -40°C to +90°C

Nominal cooling performance up to 90 kW

Operating voltages

Air flow rate 50/60 Hz, 220 to 690 V up to 16,000 m³/h



Air-conditioning units for electrical rooms

Nominal cooling performance	up to 90 kW
Heating output	up to 25 kW
Air flow rate, free blowing	up to 16,000 m³/h

Air-conditioning units for crane cabins

Nominal cooling performance	up to 12 kW
Heating output	up to 7 kW
Air flow rate, free blowing	up to 2,500 m³/h



Cooling

Air / water



Option Filter solutions



Option
ATEX



Quality management ISO 9001:2015 and CE, UL, CSA

SPECIAL SOLUTIONS



Tailor-made air-conditioning solutions for demanding operating conditions

In numerous industries, standard solutions are simply inadequate - particularly when dealing with extreme operating conditions. That is why we offer customised solutions for cooling units, tailored precisely to your requirements. Every industry and site comes with its own set of technical challenges. With over 60 years of experience, we can create the ideal solution to meet your needs.

From control rooms in the steel industry subjected to high temperatures to paper mills with exceptionally high humidity, and from chemical plants that require highly efficient air filters to offshore applications where equipment must withstand salty air and intense vibrations - our cooling units are designed to endure the harshest conditions.

Alongside our custom solutions, we also offer tailor-made special solutions for OEM partners. And our involvement does not end upon delivery of the units: we guarantee worldwide support and are always on hand to provide assistance - no matter where your systems are in use.

FrigorTec provides special solutions, e.g. for

- Steel industry
- Paper mills
- Chemical plants/oil industry
- Mining industry
- Offshore applications
- Electrolysis
- OEM partners



Operating temperature range -40°C to +90°C

Nominal cooling performance up to 90 kW

Operating voltages 50/60 Hz, 220 to 690 V up to 16,000 m³/h

Air flow rate



Air-conditioning units built to your specifications e.g. battery coolers, chillers, water-cooled systems, heat pumps

With our large inventory of refrigeration components and our experienced R&D team, we can develop a perfectly tailored system for your specific application.

We are a reliable OEM partner – whether for individual units or small or large series!



Cooling

Air / water



Option Filter solutions

Option S ATEX



Quality management ISO 9001:2015 and CE, UL, CSA

HIGHLIGHTS CRANEFRIGOR™

Optional configuration as a redundant system







Optimal air distribution and high air flow rate



FrigorTec Smart Control (FSC)

The FrigorTec Smart Control FSC allows monitoring and management of the air-conditioning units and can be easily integrated into the respective control systems.

Advantages of FrigorTec Smart Control:

- Remote control
- Monitoring and Remote maintenance
- Temperature regulation
- Humidity regulation
- Comfort mode
- Pressure monitoring
- Redundant operation
- SIEMENS
 SIMATIC HMI

 Image: state s
- Network connection
- Predictive maintenance

Configurable as a split or compact unit

Reliable cooling at ambient temperatures up to 90°C

FRIGOR

Protected against leaks – even when subjected to strong vibrations – thanks to robust pipe connections and industrial-grade frames

High corrosion resistance through special coatings

Special filters for high dust loads

Additional Options:

- Stainless Steel Housing
- Fresh air and Overpressure Filtration Units

FRIGORSTEC

• Dehumidification mode

Long service life, minimal downtime, low maintenance – ensuring quick amortisation



FrigorTec After Sales Service

"Solving problems quickly and professionally", that is the aim of our after sales service team. With our wide range of services, efficient processes and genuine parts, we do everything we can to ensure your quipment operates reliably – so you can focus on your core business!

Our services include:

- · Work at heights
- Work in high-temperature industries
- On-site assembly
- Commissioning
- Maintenance services
- Repairs with original parts
- Leak tests in accordance with EU regulations
- Online shop www.frigortec-shop.com
- 24/7/365 emergency phone service

Smart Service

If your FrigorTec unit is equipped with an optional modem, we can remotely analyse your equipment once you have granted us temporary access.

Your advantages:

- Quick fault localisation
- Remote assistance
- Timely updates
- Analysis of system condition and efficiency

Online information portal

For each of our units, we create a device-specific information page. To access this information online, simply scan the QR code located on the unit. This ensures you have all the essential information at your fingertips – without the need for archiving and always in the most up-to-date version.

The available information includes:

- Operating instructions
- Electrical diagrams
- Device certificates
- Test reports
- Specific spare parts lists





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