

GRADE REFRIGERATION

Discover the world of GRADE service For your continued success







WELCOME TO THE WORLD OF GRADE REFRIGERATION

Explore our cooling and heating products and services, the applications they suit, and the benefits of our world-class solutions.

GRADE Refrigeration combines extensive process knowledge and integrated heating and cooling expertise to deliver sustainable, energy-saving solutions for customers in the food, beverage, and other key industries throughout the whole MENA & Maghreb regions.

We play an important role in the decarbonization of production processes and other areas of the market. With a sustainable energy solutions platform – which includes a comprehensive portfolio of refrigeration and heating equipment and services – GRADE delivers the precise temperatures that our customers' operations require. Our proven technologies can provide you with integrated, high efficiency solutions that significantly reduce CO2 emissions and energy costs.

Explore the world of GRADE solutions and services designed to keep your company's critical cooling and heating systems running reliably and efficiently.



ABOUT US

GRADE is a joint venture between GRASSO and ADEAREST and is part of a leading global group in Industrial Refrigeration. We design, install, and maintain innovative heating and refrigeration solutions for our customers that have Industrial Refrigeration as an essential part of their daily business operations.



With a strong presence in the MENA and Maghreb markets, GRADE has established successful working relationships and partnerships with an ever-growing client base. We now have a portfolio of over 1,000 contracted clients across the regions from a variety of different sectors.

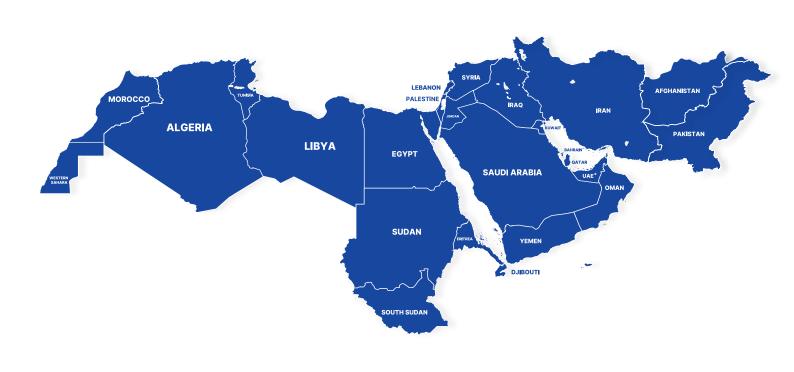
Our business philosophy is based on fostering long-term relationships with our customers, empowering our people to perform at the highest levels and continuously developing innovative and sustainable solutions in industrial heating and refrigeration.

Working with GRADE means partnering with a dedicated team of refrigeration experts. Our singular focus is to build, maintain, and improve customer performance throughout the full cycle of their plant and equipment.





GRADE REFRIGERATION ALWAYS CLOSE TO OUR CUSTOMERS



GRADE OFFICES & HANDLING TERRITORIES

GRADE EGYPT

Egypt Libya Sudan South Sudan Djibouti

Eritrea

GRADE JORDAN

Jordan Lebanon Syria

GRADE KUWAIT

Kuwait Qatar

GRADE MAGHREB

Morocco Algeria Tunisia

GRADE PAKISTAN

Pakistan Afghanistan

GRADE SAUDI

Saudi Arabia Bahrain

GRADE UAE

Iraq Oman Palestine Yemen

UAE*-ADEAREST



GRADE LIFE CYCLE SERVICE



We work alongside our customers in close partnership, supporting them throughout the full life cycle of their plant and equipment to ensure lasting business success.



Excellent equipment or plants are one thing, the right service is another. With several options of the innovative service concept "GRADE Service – For your continued success" GRADE customers are optimally being supported throughout the entire life cycle of their installed systems and components. From project engineering, installation, and commissioning to maintaining and improving the performance of the customer's plant and equipment.

GRADE LIFE CYCLE SERVICE



Getting you started

Right from the installation, our GRADE service teams will work with you to get the best out of your plant and its equipment

We start as we mean to go on, a supportive and committed partner for life. We plan and build around individual needs, sharing process knowledge, training staff and supporting operators to get you up and running and assure a smooth, seamless on-going service for optimum performance and safety.



Lifetime Services

The cost-efficient way of ensuring the safety and reliability

Keeping it running

Regular maintenance is not a cost, its an investment. By implementing corrective and preventive maintenance techniques, we ensure high performance, availability and quality as well as maximum life cycle time of your equipment and plant.

To ensure our customers benefit from continuous production for minimal down-time, we provide fast support, efficient maintenance and top quality spare parts whenever needed.

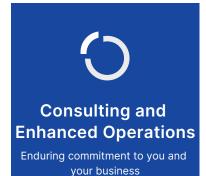


your investment

Constantly improving

At GRADE we will work with you to keep your equipment up to date and meeting your needs today as well as tomorrow.

We safeguard our customers investment by constantly looking ahead through modernizing or upgrading of equipment and optimizing to meet changing needs and new market demands. We are always working to increase production efficiency and ensure peak performance.



Together with you

By integrating the latest automation and control solutions we boost your output and efficiency, minimize resource use and the need for manual intervention.

Commitment to our customers and their business means investing in their objectives, their risk and their future success. We work in ever closer collaboration, providing on going systems audits and on-site support, in order to generate improved performance through innovative new service models.



Getting you started

COMMISSIONING & STARTUP OF INDUSTRIAL REFRIGERATION & HEATING EQUIPMENT

GRADE provides a broad scope of expertise to help ensure that your refrigeration & heating equipment operates reliably from day one. Our skilled GRADE experts apply their extensive experience to support commissioning & startup in the most effective way for safety, reliability and top-quality performance.



By working together with GRADE specialists you can be sure that your GEA equipment is installed, tested and operating within design parameters and maintained in accordance with your operational requirements.

GRADE commissioning & startup services lead to a smooth project handover and quick resolution of technical issues. Installation-specific training for both operators and service technicians can be provided.

Comprehensive commissioning reports include as-fitted control parameters, details of any specific adjustments made and a full record of operating conditions.

Start off on a solid footing with your new equipment and maximize its longevity and performance with GRADE Service.



Keep it running

EQUIPMENT REPAIRS & FIELD SERVICES FOR INDUSTRIAL COOLING & HEATING

When you need a fast response to get your industrial refrigeration equipment back up and running, GRADE experts provide your business with reliable, first-class field service and repairs when you need them most.

You can rely on our experienced GEA experts to quickly diagnose any issue, giving you peace of mind that the very best remedial action will be taken.





We support you with root-cause analysis to ensure any repair is effective and always with a focus to prevent reoccurrence. If parts are required, our spare parts team offers you a fast turnaround to minimize any disruption to your business.

GRADE's experienced service experts are dedicated to repairing your equipment and installation to the highest safety and functional standards to maximize the availability and reliability of your process.

Contact GRADE today to learn more about how GRADE can support you with equipment repairs and field services for your industrial cooling and heating systems.



Keep it running

INDUSTRIAL REFRIGERATION PLANT AND EQUIPMENT MAINTENANCE AGREEMENTS

Since every plant is unique, our GRADE experts assess your maintenance needs and ensure that a tailored GRADE Maintenance, Supervisory or Operational Contract package is developed to optimize the performance and longevity of your cooling and heating systems.



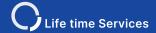
GRADE aims to develop and maintain long-term customer partnerships based on trust. We recognize the importance of working alongside our customers, supporting them throughout the full life cycle of their plant and equipment to ensure lasting business success.

Customers benefit from a selection of tailored maintenance and operational packages to ensure safety, reliability and efficiency are prioritized and always delivered with invaluable care and support by local GRADE experts.

GRADE service agreements offer a premium level of maintenance, which includes all the benefits typically covered in a standard maintenance contract and allows customers to include additional, tailored services to meet their specialized plant and operational requirements.

GRADE operation contracts assure customers of optimal plant operation throughout the life cycle of their equipment. Pre-planned, scheduled maintenance visits provide peace of mind by giving customers the confidence that their critical maintenance tasks will be completed, resulting in less downtime and enhanced longevity and performance of their equipment.

Contact us today to learn how GRADE can work with you to develop an optimal maintenance package for your plant and equipment.



Keep it running

SPARE PARTS FOR GEA COMPRESSORS, COMPRESSOR PACKAGES, HEAT PUMPS, CHILLERS AND MORE

Genuine original spare parts for industrial heating and refrigeration systems provide peace of mind by ensuring your valuable equipment continues to operate reliably, efficiently and safely.



We understand the importance of minimizing equipment downtime of your process-critical refrigeration & heating systems. That is why our dedicated spare parts teams are your go-to resource for fast, responsive original spare parts service, delivered where and when you need them.

While imitation spare parts may on occasion seem like a good alternative, they will almost certainly perform inadequately and will reduce the reliability and efficiency of your equipment. This increases your total cost of ownership and, in some cases, results in equipment damage or catastrophic failure without warning.

Only original spare parts are manufactured and tested to meet specific equipment design specifications and each high-quality part comes with the full support and warranty of GRADE.



Constantly improving

CONDITION-BASED MONITORING FOR INDUSTRIAL REFRIGERATION & HEATING EQUIPMENT

GRADE's proactive maintenance approach to maintaining process-critical components including compressors, heat pumps and chillers



Traditional interval-based maintenance can be viewed as 'reactive' with a greater margin for error due to the fact it relies on refrigeration technicians performing a series of equipment health checks at a particular 'moment in time'.

Technology allows us to move beyond the traditional reactive maintenance approach by implementing proactive measures, such as condition-based monitoring. Condition-based monitoring is a modern, proactive approach to improve the efficiency and reliability of refrigeration equipment, and importantly, to help plant operators optimize performance.

Continuous, or more frequent, monitoring of critical equipment helps to fill the gap between scheduled maintenance visits by refrigeration technicians meaning faults can be foreseen, inefficiencies can be promptly corrected, and unreliable or potentially unsafe operation can be mitigated at the source.

This means the optimal efficiency of the equipment is constantly monitored and will help to reduce unnecessary business operating costs.

Condition-based maintenance techniques, which deliver key benefits, include:

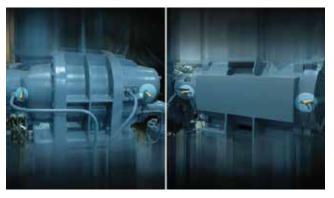
GRADE's proactive maintenance approach to maintaining process-critical components including compressors, heat pumps and chillers

Oil monitoring & analysis: There are many different substances which can cause oil contamination including wear metals, insolubles and general dirt or debris. Contaminated oil is likely to cause premature failure of components and will affect the performance of the compressor and the refrigeration system which could result in reduced efficiency.

Vibration monitoring & analysis: Monitoring vibration levels is key to early identification of problems or predicting failure of compressors, drive motors and other rotating equipment.

Vibration analysis is a more in-depth interrogation of the equipment using hand-held vibration measuring equipment to analyze the cause more accurately. Vibration analysis can be used in conjunction with monitoring or at a regular frequency to suit the equipment.





Laser alignment: Incorrectly aligned direct drive compressors will cause failure of the compressor and/or drive motor. Even simple misalignment has the potential to cause a shaft seal to fail and release refrigerant and oil. On ammonia systems this has the potential to be damaging to the process operation and the safety of personnel which is why this type of work should only be carried out by specialist refrigeration technicians. Often perceived as a one-off task at the commissioning stage, annual laser alignment is recommended to ensure compressor and motor operate safely and reliably.

Ammonia analysis: Checking the quality of ammonia refrigerant is especially important as a reduction in cooling capacity with rising energy costs can occur should the water content be too high. It is not uncommon for ammonia systems to 'function' with high water content, however it will cause many other problems including oil contamination leading to premature failure of components and increased operating costs. A simple refrigerant quality check once or twice a year could save a lot of money.

Thermography scans: This involves a comprehensive scan of all electrical control panels using an infrared camera. The objective is to identify any 'hot spots' within the control panel itself, focusing on all components and devices including the wiring. This should be carried out at least annually or at an increased frequency depending on the size of the electrical installation.



Constantly improving

COMPRESSOR SERVICE CENTERS FOR INDUSTRIAL REFRIGERATION EQUIPMENT

GRADE Compressor Service Center support is never far away. Our strategically located Service Centers enable us to provide industrial compressor and equipment rebuild services to ensure fast turnround times and minimize shipping costs. Our highly skilled technicians manage and perform rebuild services for swift turnaround of GEA's entire product range as well as those of other manufacturers.





Maximizing value and performance

Compressors are built to perform not for one, but for multiple lifetimes. GRADE compressor Service Center are specialized GEA repair workshops, to help you to get the most economic value out of your original investment. During a GEA compressor rebuild, GRADE Service Centers return end-of-life compressors to like-new condition. It's a great way to improve equipment productivity, efficiency, serviceability and safety at a significantly lower cost than buying a new compressor. The ability to incorporate engineering updates introduced after your equipment was first manufactured gives customers the option to upgrade optional features and technologies to current standards. This approach reduces cost, boosts productivity and enhances efficiency, while avoiding the larger capital investment required to purchase a new compressor. Every compressor rebuild includes a like-new warranty on all GEA original replaced parts.



Constantly improving

REPLACING INDUSTRIAL REFRIGERATION COMPRESSORS AND COMPONENTS

At GEA, we take pride in designing and manufacturing robust, efficient and reliable industrial compressors, compressor packages, chillers and heat pumps. Our customers can expect a lifetime of 25 years or more from their well-maintained GEA industrial refrigeration equipment.

Even with a comprehensive service and maintenance plan, all equipment has a finite lifetime, so what choices do you have when your industrial cooling & heating equipment starts to become less efficient, problematic or even unsafe? If investing capital in new equipment is not a preferred option, there are other choices available to keep your existing equipment running effectively, including replacement, upgrading and refurbishment of refrigeration & heating system compressors and components under the guidance of experienced GRADE specialists



A GEA compressor replacement gives new life and increased efficiency to this existing screw compressor package by another manufacturer, as illustrated by this before & after example. A GEA Omni control panel retrofit is also part of this equipment upgrade.

It is possible to improve efficiency, reliability and safety whether updating major components such as compressors or ancillary items, like valves, which are integral to both reliable operation and equipment serviceability of industrial heating and cooling systems. Ancillary items often need to be replaced sooner than the major components.

In addition to routine replacement and emergency servicing of components, opportunities to upgrade and modernize your system are also available.

A proactive component-replacement plan will identify equipment, big or small, entering its end-of-life stage as well as components that are no longer available or supported.

Our GRADE experts will work with you to ensure your system's continued sustainability and efficiency, so you enjoy peace of mind, maximum system uptime and extended equipment longevity.

Contact us today to learn how GRADE Refrigeration LLC can support your business with a proactive approach to taking care of your industrial refrigeration & heating equipment.



Together with you

TECHNICAL SUPPORT FOR INDUSTRIAL COOLING AND **HEATING SYSTEMS**

With a network of GRADE experts throughout the whole MEA and Maghreb region at your service, we understand availability of technical support for your equipment and installations is key to ensuring optimum performance and customer satisfaction.

GRADE technical support begins at the design stage of a project with expert advice to ensure the right equipment and solutions are selected. Support from GRADE design experts also ensures your full compliance with the latest standards and safety regulations.

Once your equipment is installed, GRADE support continues with expert testing, commissioning and startup services to fully optimize the performance of your equipment from the outset. Thereafter, GEA technical support is available to provide you with expert advice on correct operation, service and maintenance requirements as well as spare-part selection.

The combined know-how and knowledge of GRADE's technical support network ensures speedy resolution of any issues that may arise based on expert investigation and root-cause analysis. GRADE also provides advice and solutions aimed at upgrading and modernizing your equipment, with a focus on improving efficiency.





Together with you

INDUSTRIAL REFRIGERATION TRAINING

Job-relevant courses to enhance technical skills and safety knowledge – screw & piston compressors, compressor packages, controls, heat pumps, chillers and more.





GRADE offers industrial refrigeration training courses to enhance product knowledge, technical skills and safety practices on a variety of equipment including screw & piston compressors, compressor packages and control panels.

Our GRADE refrigeration experts provide high-level training by sharing their in-depth knowledge and experiences with GEA equipment which will help you to maintain and improve the reliability and efficiency of your installation.

GRADE training can be tailored to suit your individual requirements. Whatever your role, we can support you by improving your skills and know-how through interactive classroom and hands-on learning which will help you to optimize the longevity of your refrigeration system equipment and reduce your total cost of ownership.

Contact us for any technical assistance you require — whenever you need it.





Responsibility

We care for people and planet.

Integrity

We walk our talk.

Diversity

We value our differences.

Passion

We love what we do.

Excellence

We deliver outstanding work.

HEAD OFFICE - UNITED ARAB EMIRATES GRADE Refrigeration LLC

P.O. Box 69619, Industrial Area 15, Al Nakheel St. Sharjah United Arab Emirates

Tel: +971 6 5343808

sales@grasso-adearest.com service@grasso-adearest.com

EGYPT GRADE Refrigeration Egypt LLC P.O. Box 3007, Block 20014 First Industrial Zone, El Obour City, Cairo, Egypt

Tel: +202 4 4893565

JORDAN GRADE Refrigeration LLC

P.O. Box 3388, Amman 11953 Al Bakri Commercial Complex, Bldg No. 111, Office No. 506, Wasfi Attal St., Amman, Jordan Tel: +962 6 554 2797 KUWAIT GRADE Kuwait Est. For Air Conditioning & Refrigeration

Equipment and Contracting
P.O. Box 1176 Hawally 32012

Al Muthanna Street, Al Badri Complex,

Floor No. 4, Office No. 10,

Hawally, Kuwait Tel: + 965 2266 3027

MOROCCO GRADE Refrigeration Maghreb SAS

Green Works, Immeuble C, Bureau C42-6ieme etage, Bouskoura-Casablanca, Morocco

Tel: +21 266 287 3080

PAKISTAN
GRADE Refrigeration Pakistan Pvt. Ltd

P.O. Box 54810 3rd Floor, Plaza #19, Sector - A Phase - 6C, DHA, Lahore, Pakistan Tel: +92 423 7180014 SAUDI ARABIA GRADE Refrigeration and Contracting Est.

P.O.Box 5426 Riyadh 11422, King Abdul Aziz District, Salah Al Deen. Al-Aubi St. opposite to Riyadh Air Base, Riyadh, Saudi Arabia

Tel: +966 11 4721017