

Industrial Refrigeration Expertise Since 1969



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The World Below Zero

Welcome to ADEAREST

ADEAREST was founded in Abu Dhabi, UAE, in 1969 and has since developed into a powerhouse of technical know-how, offering solutions in the design, execution, and after-sales service of industrial refrigeration and heat transfer systems.

With over five decades of cooling expertise and more than 500 employees, ADEAREST has become the leading refrigeration service provider in the MENA region.

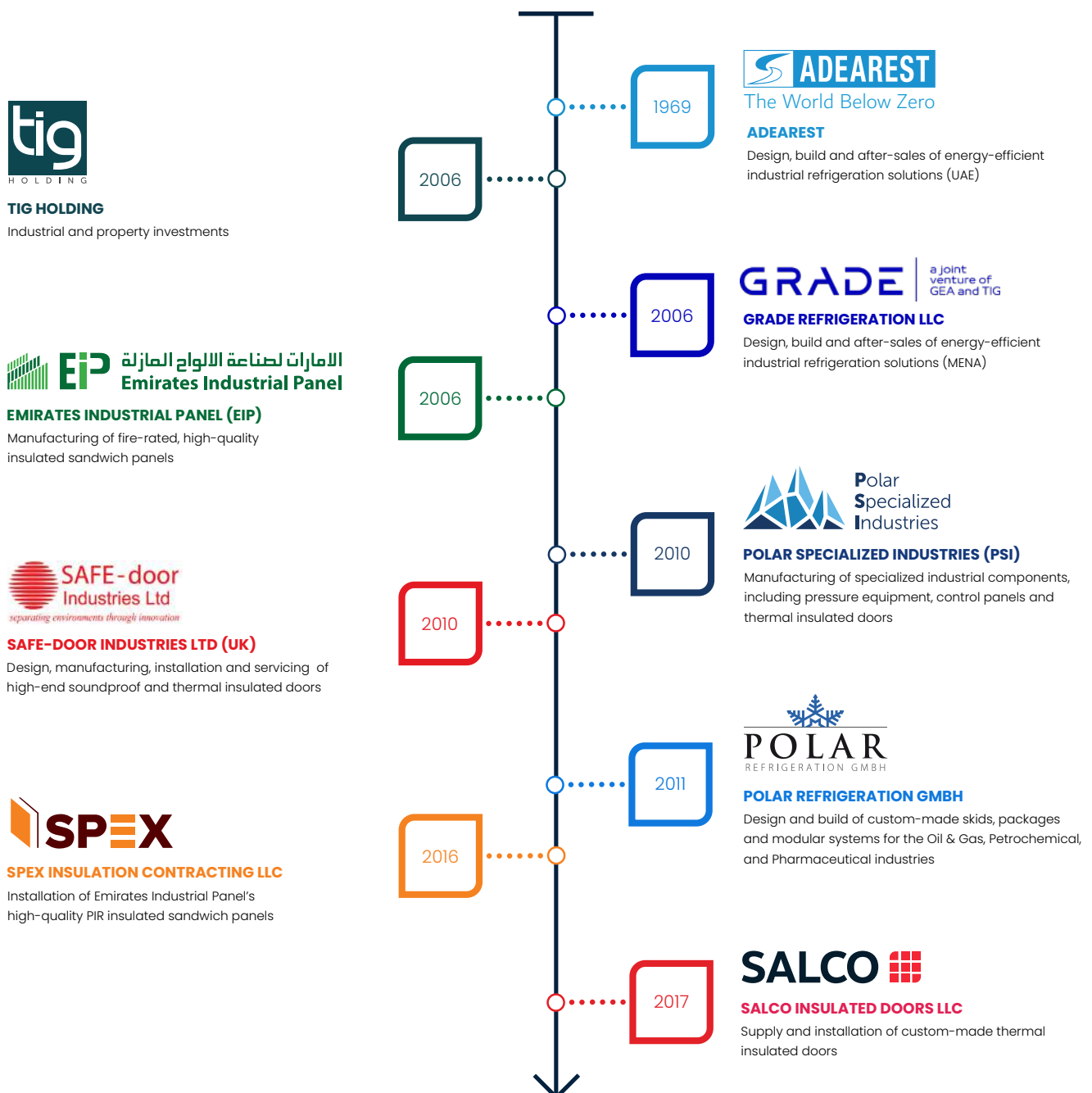


TIG Group of Companies

Turnkey Solutions in Industrial Cooling & Beyond

From its roots in 1969 with the establishment of ADEAREST, the TIG group companies have become the go-to choice for comprehensive industrial cooling solutions, leveraging in-house expertise to provide turnkey solutions.

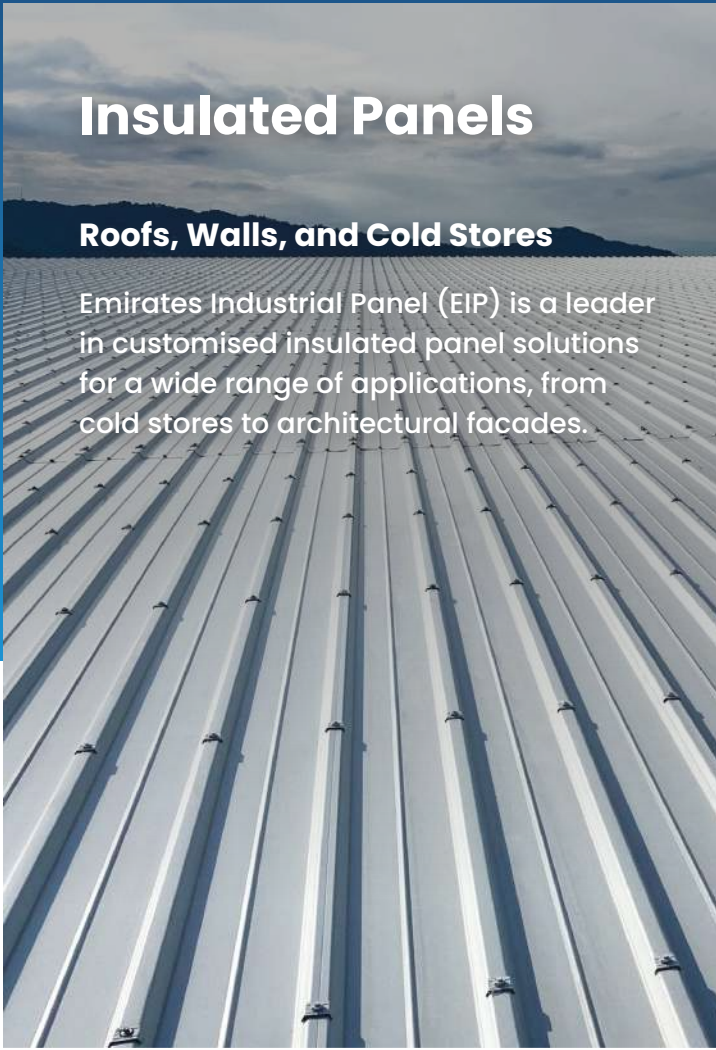
ADEAREST and our sister companies offer a one-stop solution for industrial refrigeration projects. From engineering design and component manufacturing to installation and after-sales support, our integrated approach streamlines the entire process.



Insulated Panels

Roofs, Walls, and Cold Stores

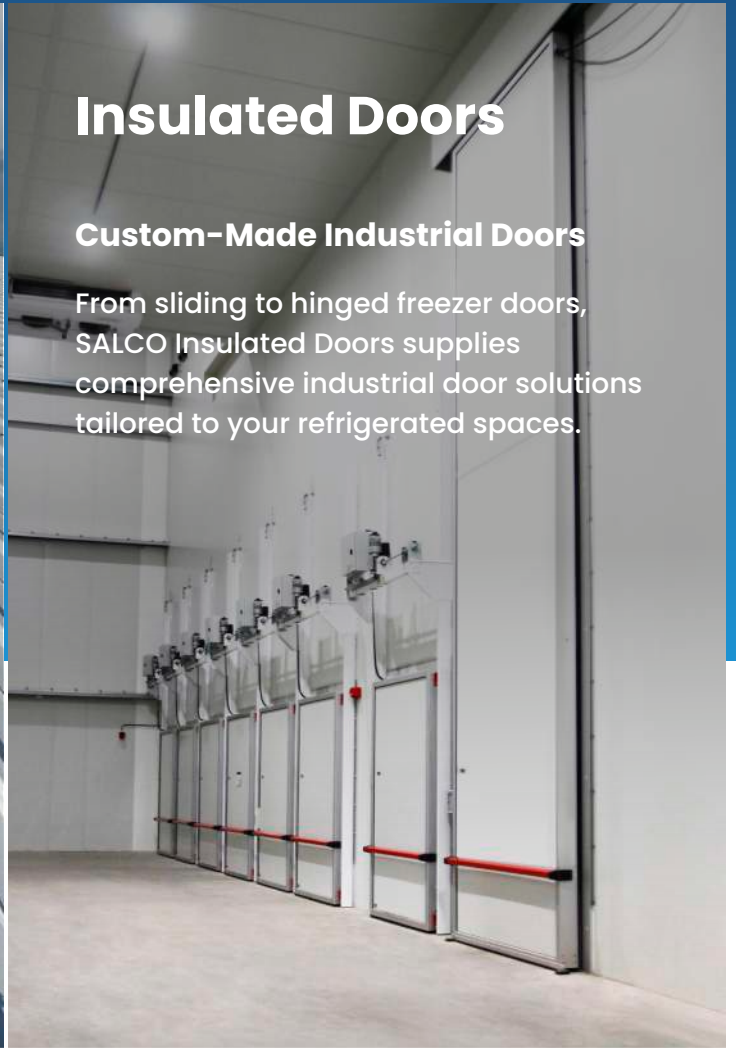
Emirates Industrial Panel (EIP) is a leader in customised insulated panel solutions for a wide range of applications, from cold stores to architectural facades.



Insulated Doors

Custom-Made Industrial Doors

From sliding to hinged freezer doors, SALCO Insulated Doors supplies comprehensive industrial door solutions tailored to your refrigerated spaces.



Prefabrication Solutions

Equipment for Specialised Industries

Polar Specialized Industries (PSI) manufactures and assembles specialised components for the Oil & Gas, Petrochemical, and Refrigeration sectors. Its facility in KEZAD, Abu Dhabi houses the fabrication of large industrial equipment for local and global applications. This includes pressure vessels, skids, control panels, and more.



Market Applications

The UAE's Pioneer in Industrial, Semi-Industrial & Commercial Refrigeration

ADEAREST's main target applications include cold storage & logistics, petrochemical processing, oil & gas fields, processing plants, and leisure & recreation.

- **Cold Storage Warehousing & Logistics**

Cutting-edge refrigeration solutions for ambient stores, chiller rooms, and freezer rooms.
Standard and customized refrigerated containers are available for short-term rental & sale.

- **Fruits & Vegetables**

Our controlled-atmosphere storage coolers & ethylene control systems ensure freshness.

- **Dairy**

Cooling technology tailored for milk pasteurisation to yogurt and ice cream production.

- **Beverages**

Energy-efficient systems for beverage processing, featuring scalable capacity.

- **Processing Plants**

Cooling systems that include chillers, air handling units, & condensers for food processing.

- **Petrochemical, Oil & Gas**

Chillers and skids for oil & gas, petrochemical, and chemical/pharmaceutical processes, supporting separation, compression, and heat exchange operations.

- **Marine**

Cooling systems for vessels, ensuring reliable cooling in harsh maritime environments.

- **Leisure & Recreation**

Specialised refrigeration systems for leisure and recreation facilities, including indoor ski domes, snow parks, ice rinks, and penguin habitats.

Special Applications

- Vertical Farming
- Machine Cooling
- Blast Freezing
- Banana Ripening
- Dehumidification
- Flake Ice Production



**Warehousing
& Logistics**



Fruits & Vegetables



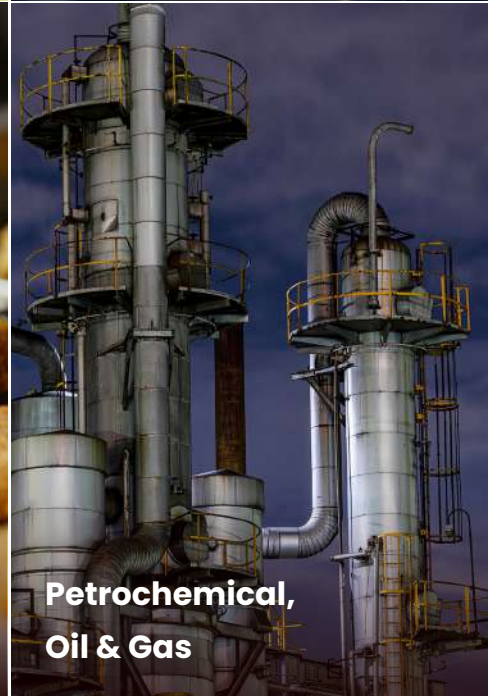
Dairy



Beverages



Processing Plants



**Petrochemical,
Oil & Gas**



Marine



Leisure & Recreation



Special Applications

Complete Project Lifecycle

From Concept to Completion

Comprehensive refrigeration solutions designed, engineered, and delivered for today's needs and tomorrow's standards.

1. Consultation & Concept Development

Every project begins with understanding your needs. This lays the foundation for a solution that's efficient, sustainable, and built to last.

2. Engineering & System Design

Our engineering team transforms concepts into detailed designs using advanced BIM modeling and coordination.

3. Equipment & Supply Procurement

We source & supply high-quality components from trusted global manufacturers, ensuring every system is built with reliable, energy-efficient equipment that meets project demands.

4. Installation & Commissioning

Our team handles full installation, system calibration, and functional testing. We ensure every refrigeration system operates exactly as designed and meets all performance criteria.

5. Control System & Automation

We design and integrate intelligent control panels and PLC systems to optimise refrigeration performance. Our solutions enable real-time monitoring and precise system control.

6. After-Sales Service & Maintenance

Our service team provides preventive maintenance, troubleshooting, and performance tuning to ensure reliable operation and maximise system life.

7. Spare Parts & Retrofit Support

We maintain a comprehensive inventory of spare parts and offer retrofit solutions to keep refrigeration systems running at peak efficiency.

Project Management

From start to finish, our project managers keep operations on track. They synchronize teams, timelines, and resources for high-quality results.



Consultation

A Team of Experts By Your Side from A – Z

ADEAREST works closely with clients from the very first stage, providing expert consultation to identify project requirements and recommend the most suitable refrigeration solutions.

Our team evaluates operational needs, site conditions, and system performance goals to ensure each project has a strong foundation. With technical expertise and transparency, we guide clients toward efficient, sustainable, and cost-effective solutions.

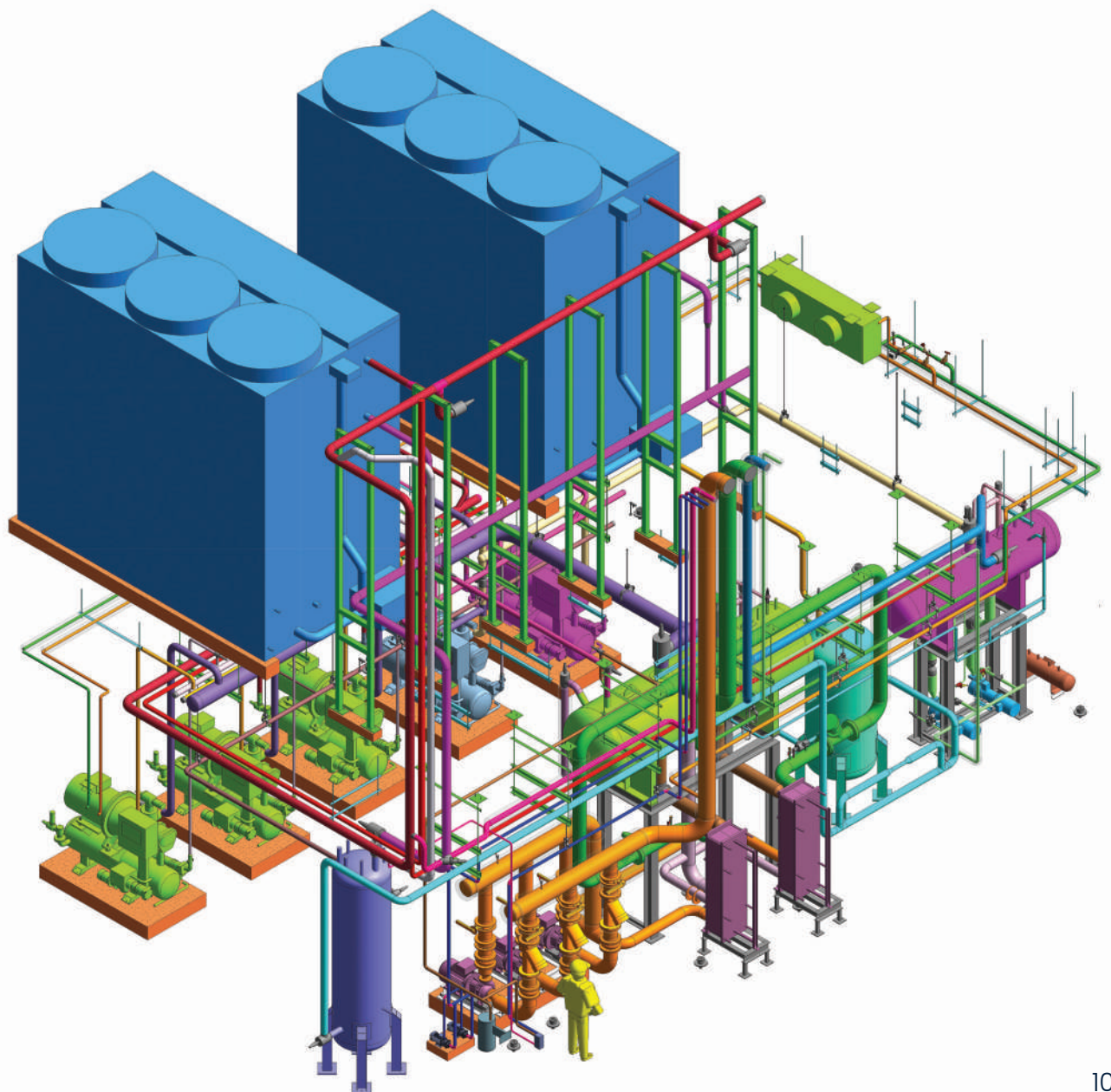


Design & Engineering

Over 5 Decades of Engineering Expertise

With a legacy of expertise in industrial refrigeration, we consistently deliver reliable solutions tailored to the region's most demanding industries.

ADEAREST engineering experts have extensive knowledge in the application of ammonia, carbon dioxide, hydrocarbon, and halocarbon refrigerants. Our team's experience includes advanced automation & control, SCADA, energy & water reduction, gas detection, condensation control, air & fluid flow balance, and advanced BIM/Revit modeling.



Prefabrication

Multiple Specialised Workshops Across the UAE

A significant part of our engineering solutions are transferred to our workshops across the UAE, including our sister company Polar Specialized Industries (PSI)'s facility in KEZAD. Our skilled staff perform closely monitored prefabrication activities, including:

- Valve Station Assembly
- Pump Station Assembly
- Electrical Pre-Wiring
- Mobile Cooling Container Fabrication
- Control Panel Fabrication
- Pressure Vessel Fabrication
- Skids & Commercial Rack System Fabrication
- Inspections, Pressure Testing, and more





Installation & Commissioning

Trusted for Hundreds of Major Installations

ADEAREST's team of experts handle every aspect of the installation process with precision and attention to detail, from the initial setup of compressors and condensers to the final configuration of HVAC-R systems.

Over the years, we have installed numerous specialised systems that feature humidity control, ethylene control, carbon dioxide control systems, and other project-specific cooling applications. Our diverse portfolio ranges from commercial refrigeration systems to industrial systems with capacities of 40 MW and beyond.







LS COMPRESSOR K80

Siemens SIMATIC HMI

Overview

LS K800
Temperat: -33.9 °C
Running: 50%
Capacity: 1200 A (1200 ton)
Running: 100%

Operating Data

Parameter	Value	Unit	Alarm
Suction Pressure	1.00 bar	bar	OK
Subcooled Suction	-10.0 °C	°C	OK
Subcooled	17.0 °C	°C	OK
Suction Superheat	1.00 bar	bar	OK
Discharge Pressure	1.00 bar	bar	OK
Subcooled Discharge	42.0 °C	°C	OK
Subcooled	14.0 °C	°C	OK
Discharge Superheat	1.00 bar	bar	OK
Oil Pressure	1.00 bar	bar	OK
Oil Differential Pressure	1.00 bar	bar	OK
Oil Differential Pressure diff	1.00 bar	bar	OK

Control Parameters

25/10/2023 9:00:23 AM

 **ADEAREST**
The World Below Zero

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GEA

CE

Made in Germany

Model: GEA G8000 M 20A-100

Serial No: 17201

Weight: 2000 kg

Refrigerant: R404A

Refrigerant Charge: 1000 kg

Refrigerant Type: R404A

Refrigerant Purity: 100%

Service Team

Dedicated to Keeping Your Systems Running Smoothly

At ADEAREST, we understand the critical importance of maintaining refrigeration systems for optimal performance, reliability, and efficiency. Our dedicated service team ensures your systems run flawlessly, delivering everything from routine maintenance to 24/7 on-demand repair services.

Service Manager

Oversees and directs service workflow.

Service Supervisors

Coordinate inspections, scheduling, and technician work.

Service Engineers

Handle advanced troubleshooting and repair oversight.

Service Technicians

Execute routine maintenance & respond to service calls.

Plant Operators

Monitor systems around the clock.

Service Coordinators

Arrange client coordination, scheduling, and offer preparation.



Specialised Services

High-end Detection & Monitoring Tools

Through precision diagnostics, expert overhauls, and proactive maintenance programs, ADEAREST provides specialised services that safeguard system performance, prevent downtime, and support long-term operational efficiency.

Compressor Overhaul

ADEAREST has a dedicated service workshop, fully equipped to receive different types and brands of compressors for dismantling, inspection, and diagnosis. In this facility, we service and completely overhaul various compressors using genuine parts.

Refrigerant Detection

This is an essential system that indicates refrigeration leaks as low as 1 PPM (Part Per Million).

Laser Alignment for Compressors

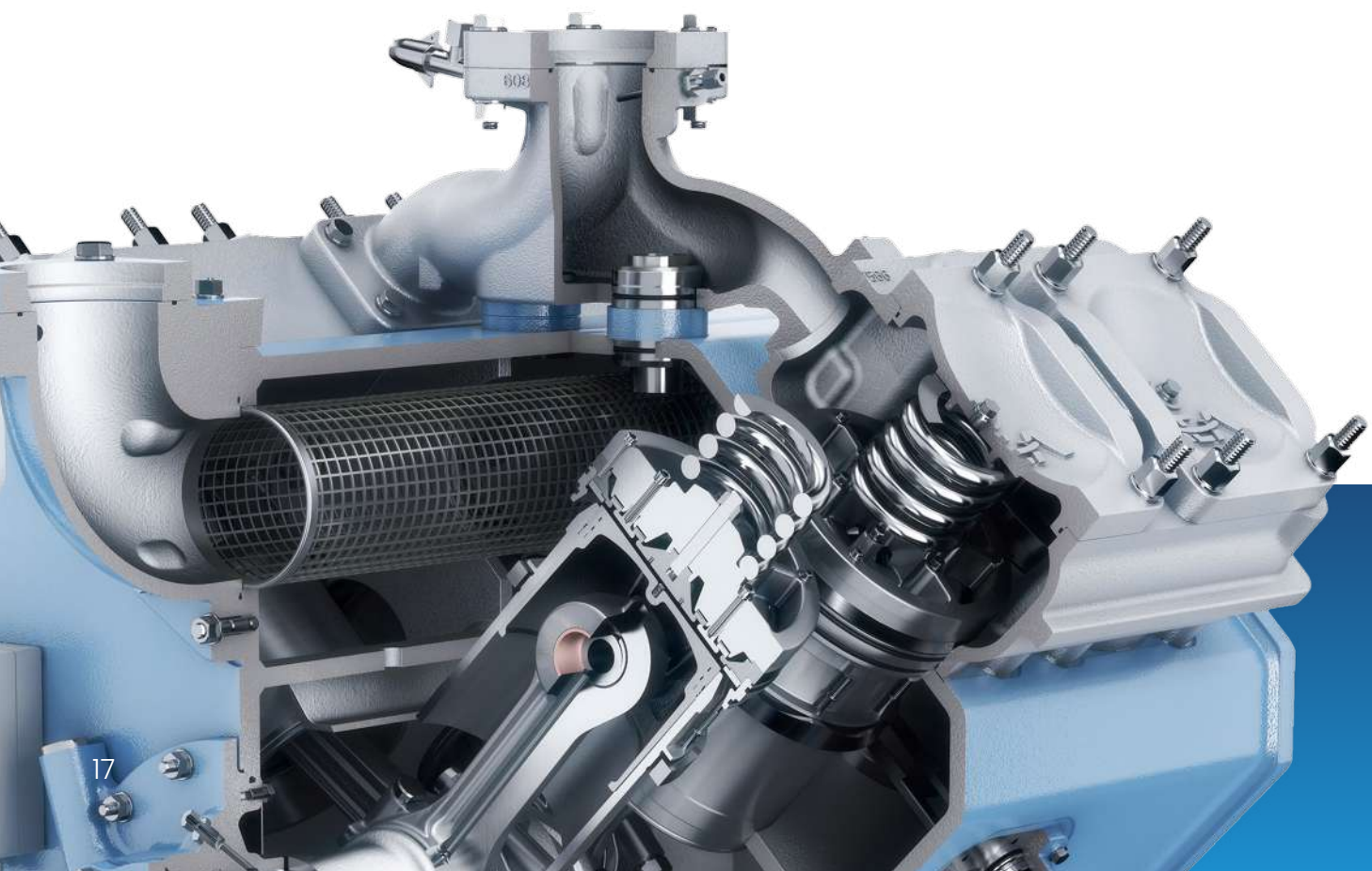
Laser alignment reduces vibration, which is the main cause of excessive wear & tear in both compressors & motors.

Vibration Analysis

This important analysis is used to detect the early precursors to machine failure.

Oil Analysis

We offer an analysis of your compressor oil's acidity, aluminium content, and more.



Sensor Calibration

Our team carries out temperature and pressure transmitter calibrations upon request.

Ammonia Drying

Ammonia contaminated with water raises operational costs and stimulates corrosion. Dryers eliminate water from the refrigerant circuit, even when the plant is operating.

Thermal Imaging

This is used to identify potential damage in electrical and mechanical installations.

Portable PU Foam Injection & Aluminium Cladding Services

ADEAREST's onsite technical experts offer insulation repair and recladding services.



Service Packages

Service packages are customizable to client requirements, offering a range of services from full-time operators and inspection visits to consumables such as compressor oil and filters.



Service Parts

Choose From a Wide Range of Spare Parts & Consumables

Our team of experts are ready to assist you in selecting the right spare parts for your requirements. Whether you need guidance on compatible refrigerants or recommendations for compressor oil, we are here to ensure you make informed decisions.

Spare Parts

Our diverse stock of refrigeration and electrical spare parts means clients can count on quick availability and reliable delivery when it matters most.

Refrigerants

- Ammonia filled in various cylinder sizes
- Fluorinated refrigerants
- Other refrigerants upon inquiry

Coolants

We offer these for applications requiring effective heat transfer & freeze protection:

- Mono-ethylene glycol
- Mono-propylene glycol (food grade)
- Tyfoxit

Lubrication Oils

ADEAREST has developed premium quality lubrication oils for rotary screw and reciprocating refrigeration compressors.

Both are available in our local stock:

- Polar N68 mineral oil
- Polar P68 hydro-treated oil



Emergency Service

A 24/7 Rapid Response System for Your Peace of Mind

ADEAREST takes pride in providing exceptionally fast refrigeration service in the UAE.

- Our service teams are on standby at all times, ready to attend to emergency calls.
- Skilled technicians are also strategically positioned across the emirates to reduce response time.



Quality Assurance

Quality is Paramount in Everything We Do

At ADEAREST, our focus on delivering results is deeply rooted in our processes.

With robust QA/QC and QMS processes, as well as a strong focus on safety & training, we ensure that our solutions exceed expectations.

Quality Assurance (QA)

We implement in-house QA procedures tailored to codes, standards, and client specifications. Internal checks ensure that work is carried out as intended, minimising the risk of defects going undetected.

Quality Control (QC)

ADEAREST applies operational techniques and thorough inspections to verify that codes, standards, and client specifications are met at every stage of construction.

Quality Management System (QMS)

We emphasise the responsibility of every employee to complete tasks correctly the first time. Our constructive work environment encourages adherence to best practices and continuous improvement.



Certifications

Ensuring Safety, Quality, and Compliance

ADEAREST is dedicated to ensuring the well-being of our employees, the quality of our products, and our commitment to industry standards.



PQAL & UKAS-Certified ISO Standards

ISO 9001:2015 – Quality Management System

Ensures consistent delivery of high-quality products and services through robust quality controls.

ISO 14001:2015 – Environmental Management System

Demonstrates our commitment to sustainable operations and environmental responsibility.

ISO 45001:2018 – Health & Safety Management System

Reflects our dedication to a safe and healthy workplace.



ASME-U & ASME-U2 Certification

ADEAREST's sister company, Polar Specialized Industries (PSI), complies with the rigorous pressure equipment standards of the ASME Boiler and Pressure Vessel Code.



National Board (NBBI) R & NB Stamps

Certified by the National Board of Boiler and Pressure Vessel Inspectors, PSI holds the "R" Stamp for the repair & alteration of pressure equipment, and the "NB" Stamp for the registration of newly fabricated pressure vessels.



Certified ADNOC Vendor

ADEAREST is a registered and certified vendor with ADNOC, meeting stringent standards for quality and reliability in service delivery.

Sustainable Cooling

Delivering a Greener Future in Refrigeration

We are committed to offering sustainable solutions in the refrigeration industry, addressing the environmental impact associated with traditional refrigerants.

Natural Refrigerants

ADEAREST prioritises the use of natural refrigerants with zero ozone depletion potential (ODP) and global warming potential (GWP).

Low-Emission Systems

Minimised refrigerant leakage & emissions with QC, regular maintenance, and leak detection programs.

Energy Efficiency

Systems that utilise advanced control strategies, optimised configurations, and energy-saving technology.

Eco-Friendly Technologies

Advanced refrigeration cycles and heat recovery systems to minimize waste.

Training & Education

Hands-on training sessions & educational material to keep clients informed.

Collaboration & Advocacy

We collaborate with industry partners, governmental agencies, & environmental organizations to drive change towards a more sustainable future for refrigeration.







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