

**YOUR BEST SOLUTION PARTNER  
LEADING IN INDUSTRIAL REFRIGERATION**



# **ERKASIS**

**ENGINEERING REFRIGERATION COMPANY**



**FROZEN  
STORAGE**



**COLD  
STORAGE**



**SHOCK FREEZING &  
COOLING**



**PROCESS  
COOLING**



**RIPPENING  
ROOMS**



**ATMOSPHERE  
CONTROL ROOM**



**POTATOES - ONION  
STORAGE**



**ICE RINK**



**MOBILE  
COLD  
STORAGE**



**ICE  
MACHINE**



**FAST  
COOLING**



**TAILOR-MADE**

# ERKASIS FOR QUALITY SERVICES

## OUR COMPANY

**ERKASIS Engineering Refrigeration Industry and Trade Inc.** It was established in 2012 as a project and contracting company to operate in the field of Industrial Refrigeration, especially on central refrigeration systems with ammonia (NH<sub>3</sub>) and carbon dioxide (CO<sub>2</sub>).

In a short time, we became one of the well-known and reputable company in the industry with successful prestigious projects. With the increasing project potential, we are improving day by day and continuing to provide qualified service to our customers.

Erkasis has built an international reputation for designing, manufacturing, installing, and servicing industrial refrigeration and cooling systems to exact specifications and standards.

**Our Collaborative Approach Produces Innovations** that consistently deliver improved operational key competitiveness.



# WE ARE ON THREE CONTINENTS

ERKASIS in many countries; has signed many projects covering design, purchasing, installation, testing and commissioning processes, and it is getting stronger day by day, especially as an EPC Company offering **Custom Engineered Solutions** and **Turnkey Solutions**.

**We are proud to serve on three continents.  
We developed reliable cooling solutions in the following countries.**



- TURKEY
- RUSSIA
- UKRAINE
- UZBEKISTAN
- TURKMENISTAN
- AZERBAIJAN
- BRUNEI
- UAE
- IRAQ
- MAURITANIA
- TUNISIA
- SUDAN
- QATAR
- OMAN

Try our new Pumping Station Creator

# OUR VISION

To be a leading project and contracting company in Turkey that carries its customers to the future. To be a reliable company with a high reputation in the global market.

# OUR MISSION

To provide the highest quality engineering, service and project management services to satisfy our customers. To produce environmentally friendly and competitive project solutions for a sustainable world, to invest in our human resources.



**13.000 m<sup>2</sup>**  
PRODUCTION AREA



**+100**  
PRESTIGIOUS CUSTOMER



**+25**  
ENGINEER



**+85**  
TECHNICIAN

# OUR SOLUTIONS



01

ENGINEERING &  
DESIGN

02



PROJECT  
MANAGEMENT

03



INDUSTRIAL  
COOLING PLANT  
INSTALLATION

04



FACILITY  
BUSINESS  
SERVICES

05



PRESSURE  
VESSEL DESIGN AND  
MANUFACTURING

06



AFTER SALES  
SERVICES

07



ELECTRICAL PANELS  
DESIGN AND  
MANUFACTURING

08



ISOLATION  
SERVICES

09



AUTOMATION  
SERVICE  
SCADA/PLC

10



LEAK/GAS  
DETECTION  
SYSTEMS

11












HVAC SYSTEM  
DESIGN AND  
INSTALLATION



# CUSTOM ENGINEERED SOLUTIONS

Erkasis provides on-demand refrigeration solutions for kind of processing using natural refrigerants. Industries for which we develop reliable refrigeration solutions:

 Fruits and Vegetables	 Bakeries
 Meat and Poultry Processing	 Food Storage & Distribution
 Sea and Fish	 Other Foods
 Beverage	 Ice Skating Rinks
 Milk and Dairy Products	

## OUR KEY APPROACHES:

Generate profit by decreasing costs, with well-designed Refrigeration Systems. We consider following key approaches in designing of refrigeration system to ensure our custom engineered system meets all requirements and challenges.

- Making profit by reducing the cost
- Improve all over efficiency
- Reduce maintenance costs
- Reduce power consumption
- Reduced downtime
- Lower environmental impact

# OUR SERVICES



## MECHANICAL ENGINEERING

- Ammonia, CO2 and Glycol Refrigeration Plants
- Cooling Process Design for Manufacturing Plant
- Discover New Innovative Ways to Improve Energy Efficiency
- Heat Recovery Systems
- Design and Manufacture of Pressure Vessels to Meet Exact Standards Designs and Manufacturing Customized Process Piping Systems, and Packaged Units
- Designs and Manufacturing Customized Quick Freezers



## ELECTRIC & AUTOMATION ENGINEERING

- Design and Programming of SCADA, PLC, and HMI Control Systems
- Design of Low Voltage Panels such as MDP, MCC, PLC Panels
- Design of Compressor Control Panels that can Integrating Frick, Grasso, Mycom, Sabroe, York Compressors etc.
- Design and Programming of Gas Detection & Warning System based on PLC Technology Instrumentation Such as Flowmeters, Pressure Sensors, Temperature Sensors etc.
- Design of Power, Control, and Communication Cables
- Design of Other Works Like Earthing, Lightning, Lighting Works, etc.



## INSTALLATION SERVICES

- Compressor, Pressure Vessel, Chiller, Condenser Installation Works
- Pump Station Installation Works
- Heat Exchanger Installation Works
- Pipe, Valve and Plumbing So On Installation Works
- Pressure Vessels and Pipes Insulation Works
- MDB, MCC, PLC Control Panel, Local Control Boxes etc. Assemblies and Installations
- Instrument Installation Works Such as Pressure, Temperature Sensors etc.
- Power, Control, and Communication Cables Wiring and Routing Works, Earthing, Lightning, Lighting Works, etc.



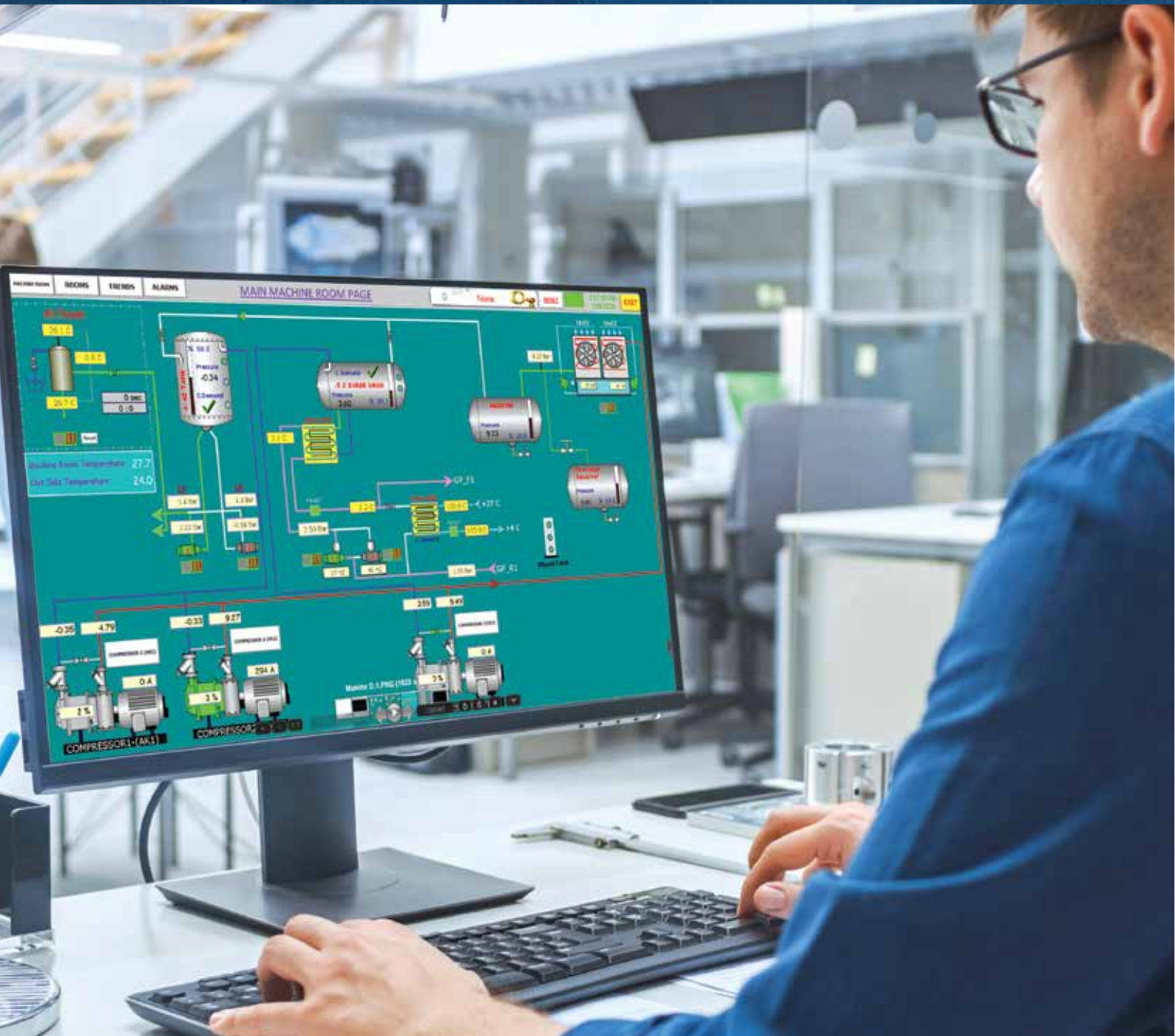
## AFTER SALES SERVICES

- Service-on-Demand
- Maintenance Contracts
- Facility Management
- Plant Modifications
- Spare Parts
- Upgrades of Control Units
- Upgrade of Electrical and Mechanical Drawings
- Plc Modifications and Maintenance
- Equipment Upgrades and Expansion
- Training and Troubleshooting
- Test & Commissioning

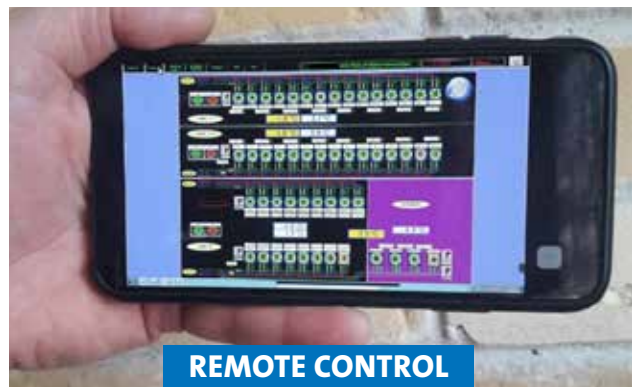
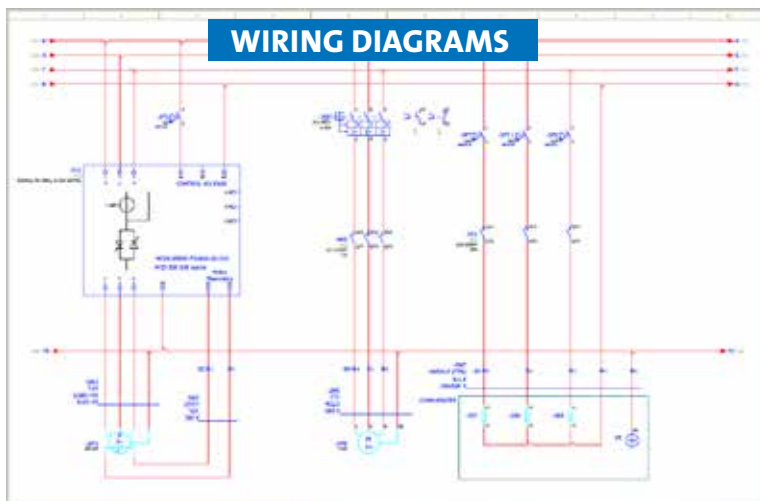
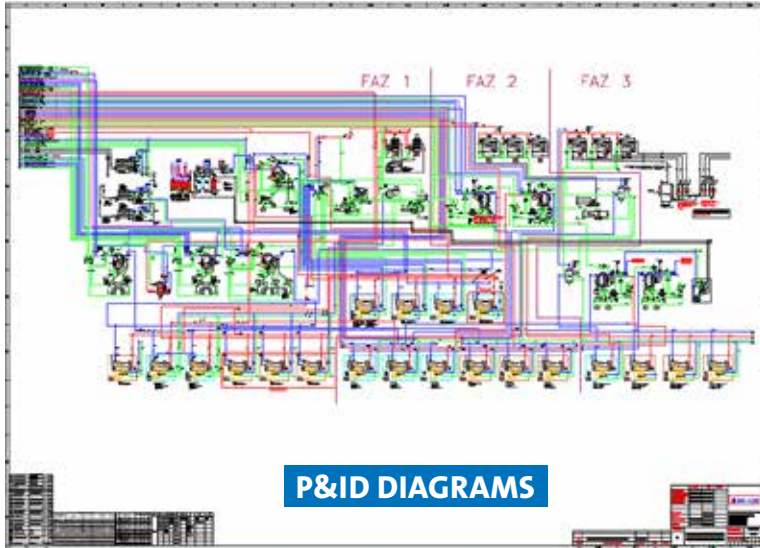
# EFFECTIVE TAILOR-MADE SOLUTIONS TO UNPARALLEL CHALLENGES

Working closely with clients, ERKASIS teams apply unmatched project development experience to fully understand and satisfy clients refrigeration challenges.

Wherever unique refrigeration needs exist, in multiple industries and in varying environments around the globe, clients trust ERKASIS expertise.



# MECHANICAL, ELECTRICAL AND AUTOMATION DESIGN BY EXPERT ENGINEERING TEAM



ERKASIS

EVAPORATOR ODALAR SAYFASI

50K ODASI 100.0 C

ISTASYON-1 -22.0 C

ISTASYON-2 -22.4 C

ISTASYON-3 -23.8 C

ISTASYON-4 -24.4 C

**AUTOMATION SOLUTION - SCADA**

# FLEXIBLE SOLUTIONS FOR DIFFERENT APPLICATIONS





## PRODUCT COOLING

- Cooling Tunnels
- Quick Cooling Rooms
- Milk and Dairy Cooling
- Ice Making Machines
- Product Check In-Check Out/ Shipping Areas



## SHOCK FREEZING ROOMS

- Shock Freezing Tunnels
- Quick Freezing Tunnels
  - Spiral Tunnels
  - Direct Tunnels
- Pizza/Bread/Pasta etc.
- Meat
- Finished Product



## COLD & FROZEN STORAGE

- Air Cooling for Warehouses
- Long Term Storage Areas
- Fruit and Vegetable Warehouses
- Ripening Rooms (Banana, Avacado etc.)
- Product Check In-Check Out/ Shipping Areas
- Central Atmosphere Rooms



# PRODUCT COOLING

Product cooling is simply the removal of heat from a product following a manufacturing or grading process.

Product cooling is generally done by passing air or fluid (usually water) at low temperatures over the surface of the product, like food products-fresh fruit or vegetable, a liquid, milk or drink, etc. while maintaining required air humidity.

The heat energy within the product is transferred to the surrounding air or water, which in turn is cooled by the refrigeration system.

After cooling the product is transferred to the next destination.



# PRODUCT COOLING

Erkasis designs and builds tailored solutions for its customers, considering the product type, capacity and region where the production or storage is located.

## APPLICATIONS:

- Cooling Tunnels
- Quick Cooling Rooms
- Milk and Dairy Cooling
- Ice Making Machines
- Slaughter Houses
- Product Check In-  
Check Out/  
Shipping Areas



# SHOCK FREEZING ROOMS

Cooling of foods, freezing of food effectively reduces the activity of microorganisms and enzymes. Thus retarding product deterioration.

In addition, crystallization of water reduces the amount of liquid water in food items and inhibits microbial growth (Heldman 1975).

In order for freezing operations to be cost-effective, refrigeration equipment should fit the specific requirements of the particular freezing application.



# SHOCK FREEZING ROOMS

The design of such refrigeration equipment requires estimation of the cooling and freezing times of foods and beverages, as well as the corresponding refrigeration loads.

ERKASIS design and built shock rooms for its customers as turnkey.

## APPLICATIONS:

- Shock Room
- Quick Freezing Tunnels
  - Spiral Freezers
  - Direct Tunnel Freezers
- Pizza/Bread/Pasta etc.
- Fruit, Vegetables, Meat
- Finished Product (Ready to Eat)



# COLD & FROZEN STORAGE

All components from pumps and pits to controls and monitoring modules-are built for easy setup and installation. The parts integrate perfectly to save expensive time onsite and feature user-friendly interfaces and pre-configured control modes for easy commissioning.



**RIPENING ROOMS FOR GREEN FOOD**



**BANANA RIPENING**

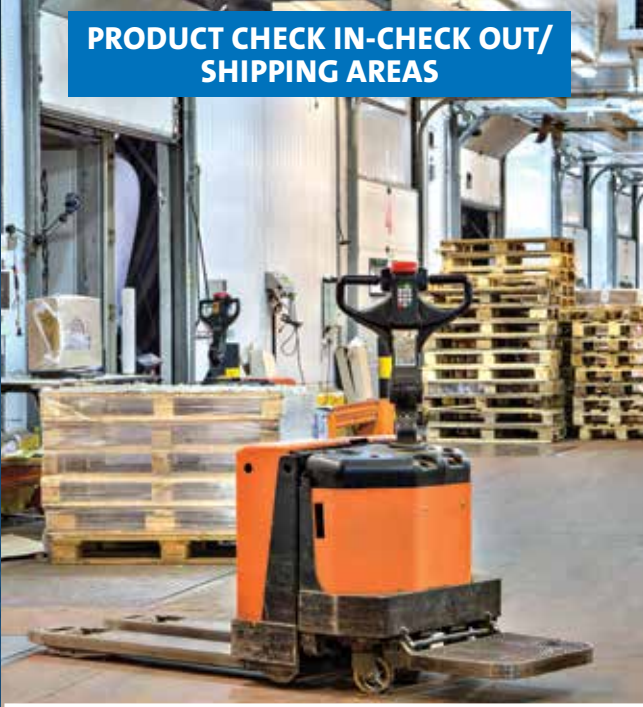


**FRUIT AND VEGETABLE WAREHOUSES**



**SEAFOOD FROZEN STORAGE**

**PRODUCT CHECK IN-CHECK OUT/  
SHIPPING AREAS**



**LONG TERM STORAGE AREAS**



**AIR COOLING WAREHOUSES**



**PRODUCT CHECK IN-CHECK OUT/  
SHIPPING AREAS**



**Project:** NH3 Refrigeration System in Beypiliç Poultry Production Plant  
**Location:** Bolu, Turkey



- Freshsan Frozen Food Factory
- Forty Softdrink Company
- Migros Retailing - Supermarket Chain Storage
- Unilever Margarin Factory
- Bounty Meat Production Factory
- Cyanzen Broiler Chicken Slaughterhouse
- SMS Food Romania
- Yıldız Holding/Ülker

**Project:** NH3-CO2 Cascade Refrigeration System in Food Production Plant  
**Location:** Bursa, Turkey



SALMAN TURİZM ANTREPO

# RELIABLE PARTNER FOR YOUR PROJECT

Erkasis is an engineering company complying with international standards for in the safe and sustainable design, installation and operation of ammonia and other natural refrigerant systems in every project.

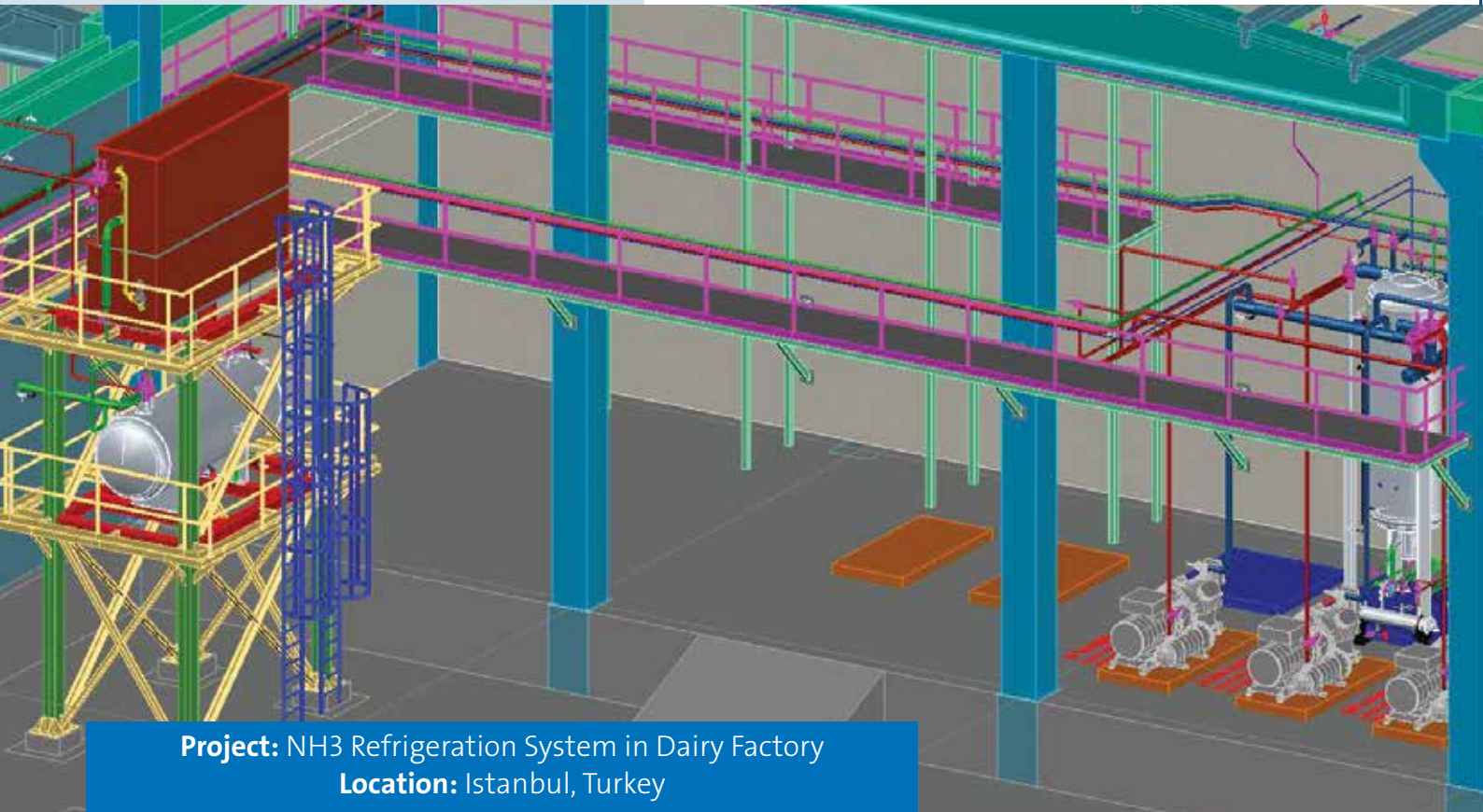
International standards are the key to create a better world through the safe and sustainable use of natural refrigerants.



# REFERENCE PROJECT

Erkasis offers refrigeration solutions specially designed for broad-spectrum, innovative and technology-based companies, with the following references.

- Design, construction, test and commissioning of the “NH<sub>3</sub>-CO<sub>2</sub> Cascade Refrigeration System” for new factory pipe and fittings works,
- **Solution Partners:** Bitzer, Baltimore, Danfoss, Vahterus, Hermetic, Schneider



# REFERENCE PROJECTS

Erkasis offers refrigeration solutions specially designed for broad-spectrum, innovative and technology-based companies, with the following references.

- Alpedo Ice Cream Factory
- Besler Food Margarine Factory
- Beypilic - Chicken Slaughterhouse
- Blandna Milk Food and Meat Factory
- Katrin Banana Storage
- Contec Gıda Romania
- Danone Fresh Daily Products Factory
- Erpilic - Chicken Slaughterhouse
- Meat and Milk Authority - National Meat and Milk Board

**Project:** NH<sub>3</sub>-CO<sub>2</sub> Cascade Refrigeration System in Algida Ice Cream Factory  
**Location:** Istanbul, Turkey



# REFERENCE PROJECTS

Erkasis offers refrigeration solutions specially designed for broad-spectrum, innovative and technology-based companies, with the following references.

**Project:** Kulynychi Bakery Factory, NH<sub>3</sub> Refrigeration System  
**Location:** Kharkiv, Ukrayna



# AFTER SALES SOLUTIONS

We provide 24/7-hour emergency repair service, parts & equipment sales, and overhauls of screw compressors such as, Bitzer, Frick, Je&Hall, Gram, Grasso, Howden, Mycom, Sabroe SRMTec, Refcomp, Vilter, York etc.



All our overhaul services is performed in-house by our experienced technicians.

Spare part shaft seal, filters oil filters, coalescer filters are in our stock for urgent support for our clients.

## After Sales Services

- Service-on-Demand
- Maintenance Contracts
- Facility Management
- Plant Modifications
- Spare Parts
- Upgrade of Electrical and Mechanical Drawings
- PLC Modifications and Maintenance
- Equipment Upgrades and Expansion Training and Troubleshooting
- Test & Commissioning





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