



General catalogue
ARKACOOOL MAJD
AIR CONDITIONING & REFRIGERATION CO.





ARKACOOOL

SHAPING THE FUTURE OF REFRIGERATION
SMART, SUSTAINABLE, AND BUILT
FOR A BETTER TOMORROW.

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ABOUT US

Founded in 2007, Majd Thermal & Refrigeration Group initially specialized in the supply, consulting, design, and commissioning of industrial cold storage and HVAC systems. Responding to the growing needs of the food and construction industries for high-quality, efficient products, in 2017 we expanded into manufacturing advanced refrigeration solutions.

Today, ArkaCool manufactures world-class, high-performance industrial cooling solutions, including cold storage rooms, ice makers, evaporators, condensers, and complete refrigeration units. Through continuous research and development, ArkaCool has established itself as one of the leading providers of refrigeration and HVAC systems in Iran.

We proudly export our products under the ArkaCool brand to neighboring countries including Iraq, UAE, Uzbekistan, Afghanistan, Armenia, Turkey, Azerbaijan, Oman, and Kyrgyzstan. Guided by our motto, "Quality, Technology, and Experience," we strive to earn the trust and satisfaction of our customers worldwide.



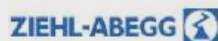
WHY ARKACOOOL

We specialize in innovative, high-quality refrigeration and air conditioning systems designed for efficiency, reliability, and performance. Our expert team provides complete support from product selection and installation to maintenance and after-sales service.

We design and manufacture advanced, eco-friendly refrigeration and air conditioning systems with a strong commitment to innovation and sustainability. Through continuous research, high-quality materials, and energy-efficient technologies, we aim to reduce environmental impact and create a greener industrial future.

At ARKACOOOL, innovation and sustainability go hand in hand. Every product — from condensers and evaporators to ice makers and complete refrigeration systems — is designed with cutting-edge engineering standards and advanced global technologies. We constantly monitor industry progress and apply modern design tools to ensure our systems remain efficient, reliable, and future-ready.

Environmental responsibility is at the heart of our work, as we strive to minimize pollution, conserve energy, and protect natural resources for a cleaner and more sustainable world..



»» OUR VISION AND MISSION

At **ArkaCool**,
every system we design is driven by a commitment to
energy efficiency and sustainable performance.

**MAJD Air Conditioning &
Refrigeration Co.**

OUR CORE VALUES

Engineered for Efficiency.
Committed to Sustainability

1

VISION

To be recognized as the leading provider of innovative and high-quality refrigeration and HVAC solutions in Iran and the region, setting new standards for performance, reliability, and sustainability.

2

MISSION

design, manufacture, and supply industrial refrigeration and cooling systems that meet global standards, ensuring energy efficiency, high performance, and customer satisfaction. We are committed to continuous improvement, technological innovation, and supporting the growth of national industry.

3

CORE VALUES

Quality:

Delivering products that meet the highest international standards.

Innovation:

Embracing advanced technology and continuous R&D to improve solutions.

Experience:

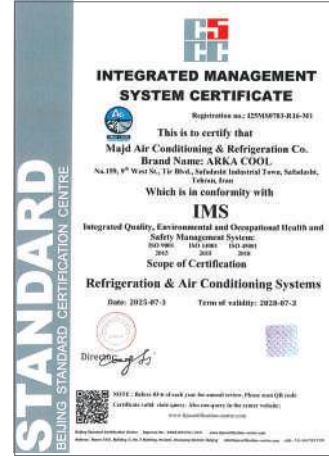
Leveraging years of technical expertise and hands-on knowledge.

Customer Satisfaction:

Building trust through reliable, efficient, and tailored solutions.

Sustainability:

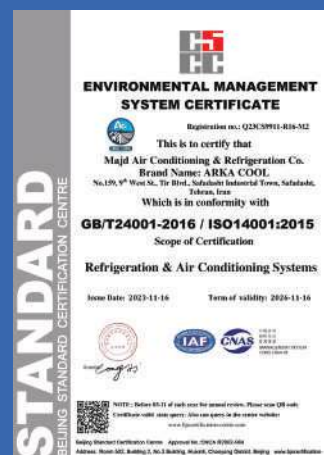
Promoting energy-efficient and environmentally responsible products.



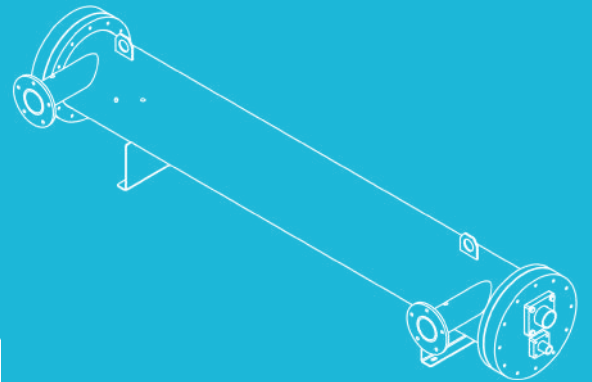
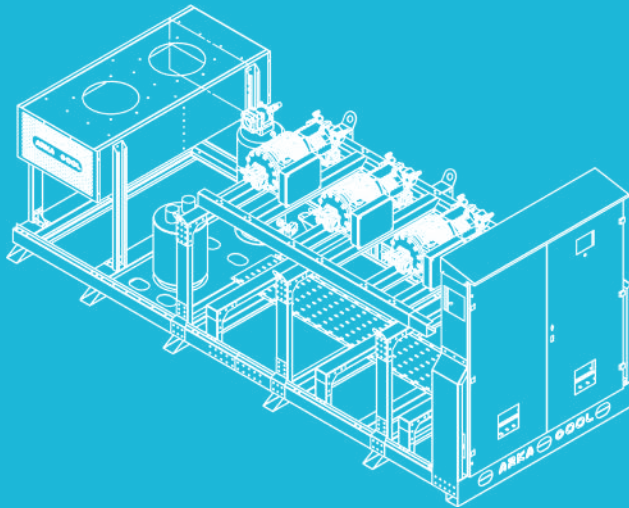
CERTIFICATES & STANDARDS

At ArkaCool, quality is more than a promise — it's a standard. We operate under internationally recognized quality management systems to ensure that every product meets the highest levels of performance, reliability, and safety. Our commitment to excellence drives us to continually improve our production processes, enhance energy efficiency, and comply with global environmental and safety standards.

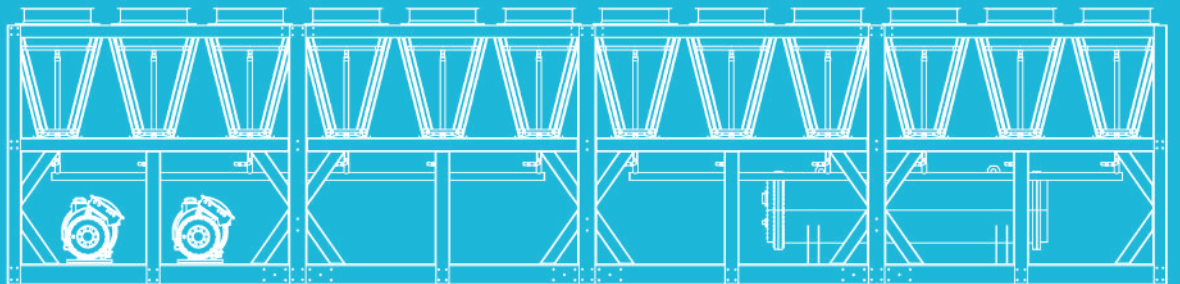


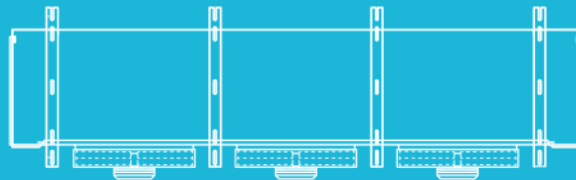
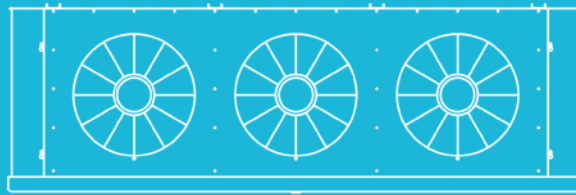
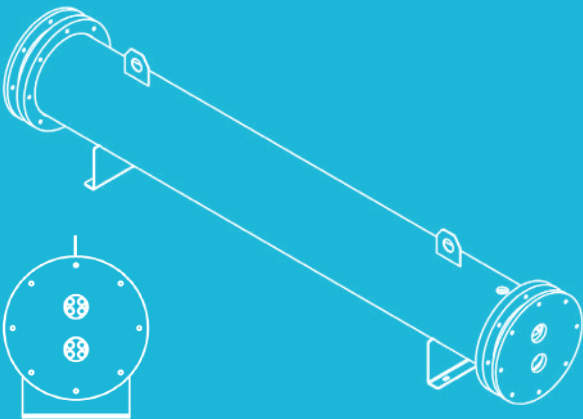
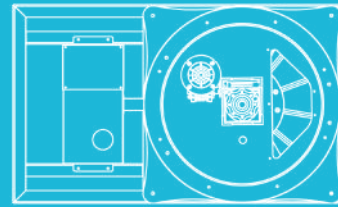
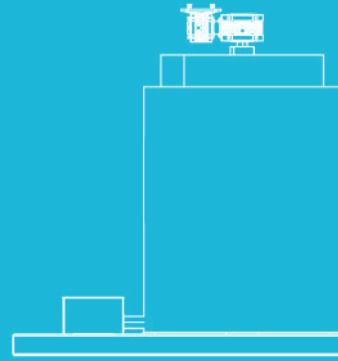
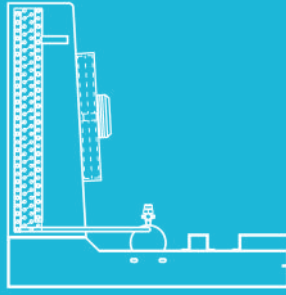
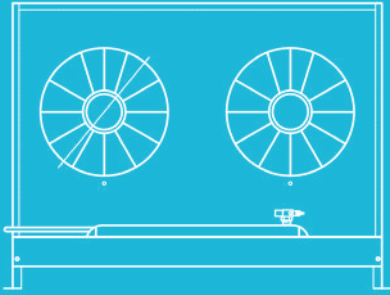


CERTIFIED QUALITY TRUSTED WORLDWIDE



ARKACOOOL PRODUCT





» ICE MAKER PACKAGE UNIT

Flake Type | Block Type

A complete, integrated, and reliable solution for ice production in a wide range of capacities. ARKACOOOL ice maker units are engineered to deliver durability, energy efficiency, and high-quality ice production suitable for various industrial and commercial

» FLAKE ICE MAKER

Designed for industrial-grade performance and high efficiency, flake ice machines produce thin, dry, and flexible ice flakes at low temperatures.

The system ensures consistent ice production with superior cooling capacity and minimal energy consumption.

» KEY FEATURES

Produces dry ice flakes at $^{\circ}\text{I}-\text{C}$

- » High ice quality with uniform thickness and excellent thermal conductivity
- » All stainless steel body and internal components for hygiene and corrosion resistance
- » Powerful refrigeration system for continuous operation
- » Eco-friendly refrigerants meeting modern environmental standards

» APPLICATIONS

Food Industry: preservation of meat, fish, shrimp, and perishable goods

Fisheries: ice production for storage and transportation of seafood

Chemical and Pharmaceutical Industries: temperature control in processing environments

Meat and Poultry Packaging Centers: maintaining freshness during storage and distribution



» BLOCK ICE MAKER

Block ice is produced by compressing flake ice under high pressure, resulting in dense and uniform ice blocks with superior durability.

» KEY FEATURES

- >> High-Density Ice Blocks – formed through controlled compression for maximum solidity and longer melting time.
- >> Excellent Uniformity – consistent ice structure ensures reliable cooling performance.
- >> Reduced Melting Rate – maintains ice integrity for extended periods during transport and storage.

PERFECT FLAKES.
Every time



Our chillers are designed with state-of-the-art technology to ensure stable, efficient, and economical cooling for a wide range of applications.

Chillers are central cooling systems that cool water or air and are widely used in HVAC systems, industrial processes, and large-scale facilities.

By integrating key components such as compressors, evaporators, and condensers, our chillers deliver precise and energy-optimized cooling performance.

Each chiller is fully assembled, wired, refrigerant-charged, and factory-tested before delivery — ready for immediate installation and operation at the customer's site.

All systems are designed to operate with internationally approved refrigerants and equipped with control and safety devices from leading global brands, ensuring reliability, efficiency, and long service life.

In the production of chillers — essential components in air conditioning and refrigeration systems — adherence to environmental principles and the use of eco-friendly technologies are of utmost importance.

By integrating sustainable design practices and advanced manufacturing techniques, the environmental impact of chiller production and operation can be significantly reduced, contributing to a cleaner and more responsible future for the cooling industry.

Smart Chillers. Sustainable Performance



» TOWARD A GREENER AND MORE SUSTAINABLE FUTURE

- >> **Use of Eco-Friendly Refrigerants:** minimizing environmental impact and ensuring compliance with global sustainability standards.
- >> **Reduced Noise Emission:** advanced acoustic insulation and vibration control for quieter operation.
- >> **Optimized Energy Consumption:** smart design and component selection for maximum efficiency and lower power usage.
- >> **Use of Recyclable Materials:** promoting a circular economy and reducing industrial waste.
- >> **Design and Manufacturing for Extended Service Life:** ensuring reliability, durability, and reduced replacement frequency.
- >> **Optimized Maintenance and Care:** simplified service access and long-term performance stability.
- >> These approaches enable the HVAC and refrigeration industry to move toward a greener, cleaner, and more sustainable future..



**SMART
CHILLERS.**
Sustainable
Performance

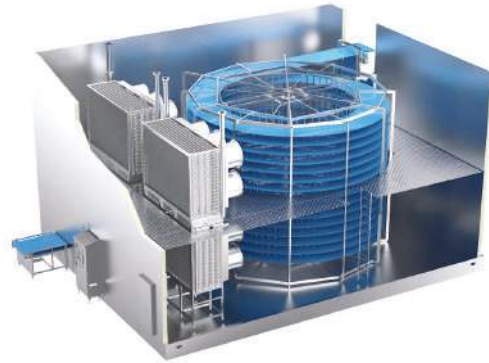


» (IQF) SYSTEM

The IQF system freezes individual products separately in the shortest possible time. Through this advanced process, products are frozen uniformly and at exceptionally high speed, maintaining their original quality and freshness.

» ADVANTAGES

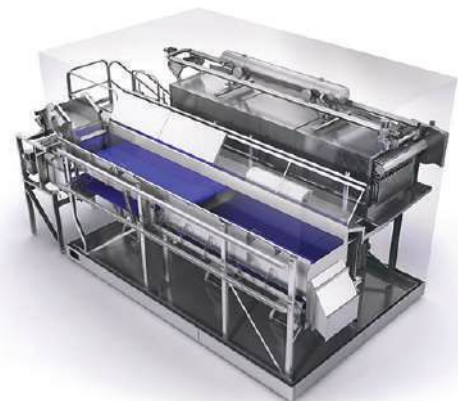
- >> Ultra-fast freezing process
- >> Prevents product clumping
- >> each piece remains completely separate
- >> Preserves quality, color, texture, and nutritional value
- >> Optimized energy consumption
- >> highly efficient refrigeration performance
- >> Extended product shelf life
- >> Reduces manual labor through automated handling and freezing operation Applications
- >> Fruit and vegetable processing industries
- >> Frozen ready-meal production
- >> Seafood, poultry, and meat packaging plants
- >> Canning factories, protein industries, and food export operations

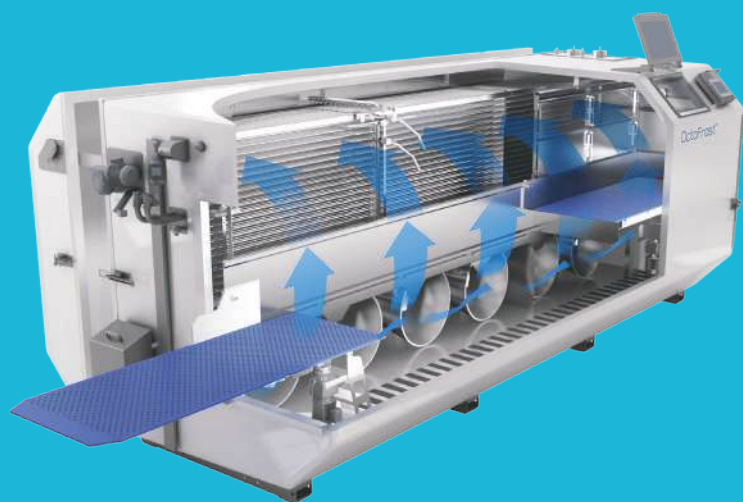


» APPLICATIONS

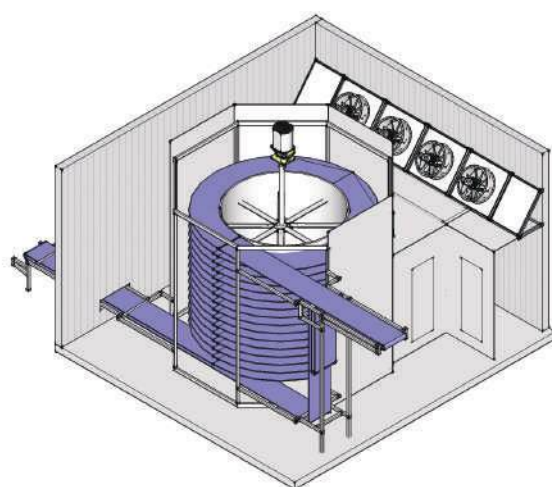
- >> Fruit and vegetable processing industries
- >> Frozen ready-meal production
- >> Seafood, poultry, and meat packaging plants
- >> Canning factories, protein industries, and food export operations

IQF { **TUNNEL TYPE BELT FREEZER (IQF TUNNEL FREEZER)**
SPIRAL FREEZER (IQF SPIRAL SYSTEM)





**POWERFUL COOLING WITH
MINIMAL ENERGY CONSUMPTION**



Advanced IQF systems for rapid and uniform freezing

Comparison of Tunnel and Spiral Belts

FEATURES	STRAIGHT / TUNNE	SPIRAL
BELT TYPES	Straight line	Path Spiral
REQUIRED SPACE	Larger (horizontal)	Smaller (vertical)
CAPACITY	High	Medium to High
MAINTENANCE & CLEANING	Easier	More complex

» SEAWATER ICE MAKER

An excellent solution for coastal regions, fishing industries, and applications that require ice production from seawater sources.

» KEY FEATURES

- » Corrosion-resistant design, ideal for marine and saline environments
- » High operational efficiency
- » Energy-saving performance
- » Environmentally friendly refrigerants
- » Heavy-duty industrial construction for long-term durability in marine conditions

The ArkaCool Seawater Ice Maker is an ideal solution for reliable ice production under harsh environmental and saline conditions — the perfect choice for those who value quality, durability, and continuous performance.



PURE ICE,
perfect per



» APPLICATIONS

» **Fishing Industry:** Preserving fish and other marine products under optimal temperature conditions.

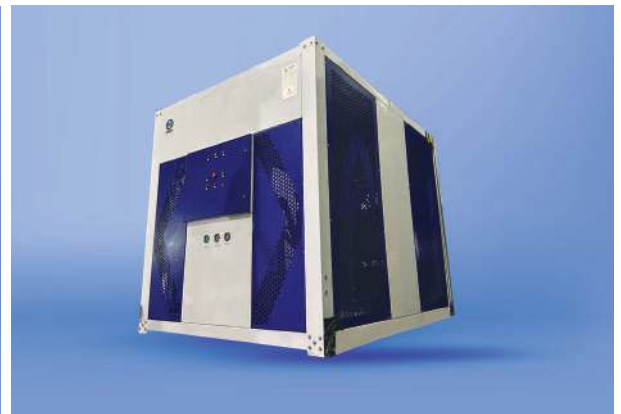
» **Food Industry:** Used in processing and cold storage of food and beverages.

» **Agriculture:** Cooling agricultural products and produce.

» **Coastal Projects:** Designed for areas where ice production from seawater is required.



formance





» WATER-COOLED CONDENSER (SHELL & TUBE TYPE)

A water-cooled condenser is a type of heat exchanger designed to condense refrigerant vapor into liquid form using water as the cooling medium.

This model is particularly suitable for environments where water resources are readily available.

It is a highly efficient and economical option, manufactured in two standard configurations based on customer requirements:

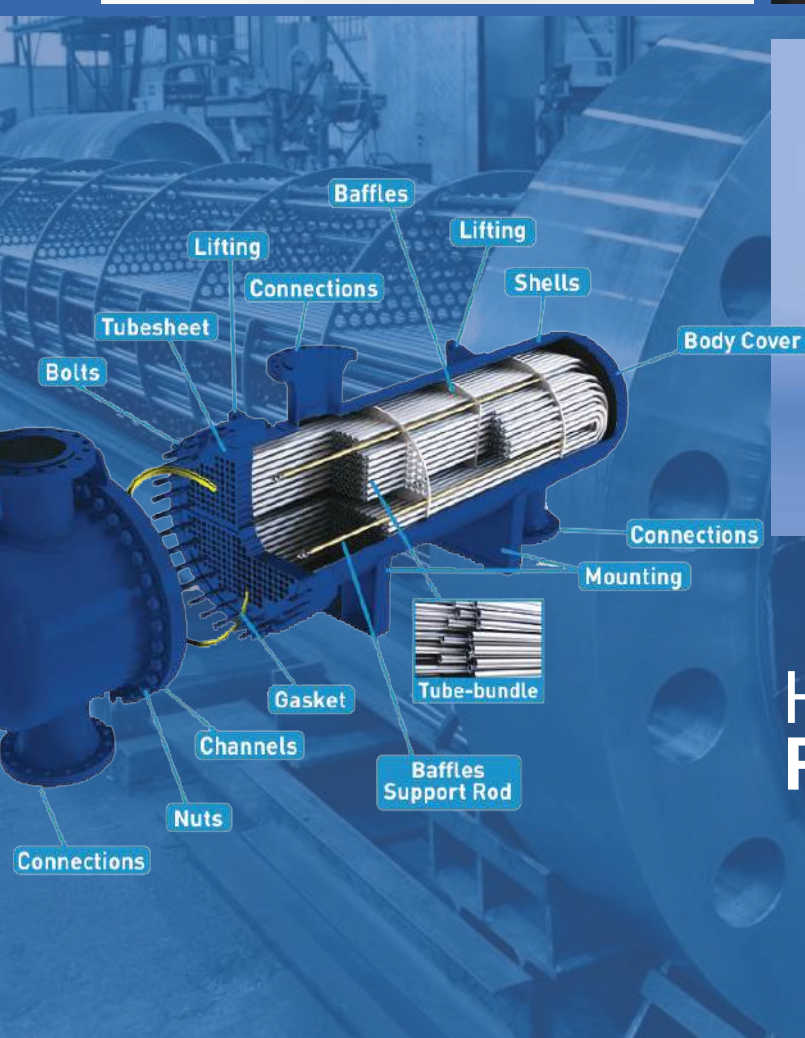
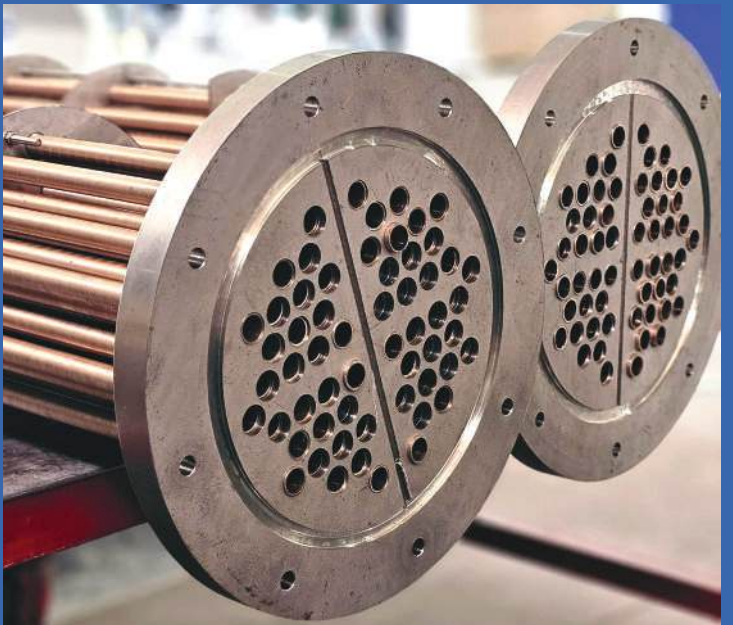
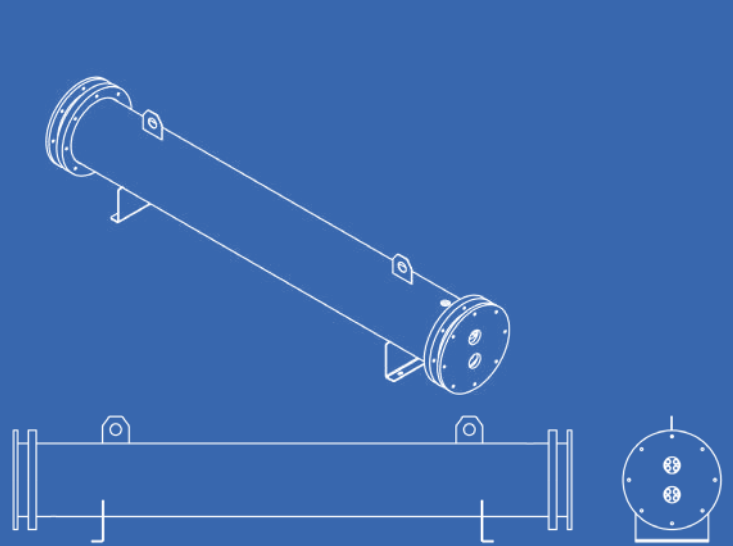
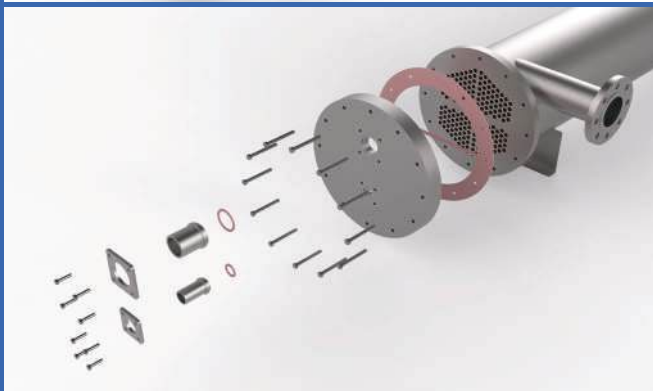
- » Cu-Ni tubes with stainless steel shell
- » Copper tubes with carbon steel shell

Additionally, upon request, condensers can be manufactured for seawater applications, using materials resistant to corrosion and saline environments.

» FEATURES AND TECHNICAL SPECIFICATIONS

- » Precision manufacturing using CNC machining to ensure optimal tolerances and reliability.
- » Use of seamless tubes for enhanced mechanical strength and durability.
- » Finned copper tubes to maximize the heat transfer coefficient.
- » Tube expansion into tube sheets performed with hydraulic expanding machines for superior sealing and contact efficiency.
- » Ideal for industrial refrigeration systems and high-capacity cooling applications.
- » Easy inspection, maintenance, and servicing access.
- » Designs are continuously updated in compliance with the latest global standards and cooling technologies.





Heat Transfer,
Perfected



» AIR-COOLED CONDENSER

The air-cooled condenser is a key component in industrial refrigeration and HVAC systems, designed to reduce the temperature of refrigerant gas and condense it into liquid form using ambient air.

This unit is widely used across industries such as HVAC, petrochemical, food processing, and pharmaceuticals for various cooling and condensation processes.

It is an ideal alternative to water-cooled condensers in areas with limited water resources.

Equipped with high-performance fans and optimized coil design, the air-cooled condenser ensures efficient airflow over the coil surfaces, achieving effective heat dissipation.

This system offers an energy-efficient and environmentally friendly cooling solution.

» TECHNICAL FEATURES

- » Triangular fin-and-tube arrangement for increased heat exchange surface area.
- » High heat transfer coefficient for rapid refrigerant condensation and cycle efficiency.
- » Integrated receiver and two Rotolock valves for easy maintenance and service.
- » Standard fan collar design to enhance airflow and fan performance.
- » Coil cleaning and double-stage degreasing for improved thermal efficiency.
- » Advanced CNC machinery used in coil manufacturing for precision and durability.
- » Dual-stage pressure testing at 400 psi and 250 psi to ensure reliability and leak-free operation.
- » Aerodynamic side panel design to prevent airflow disruption and optimize cooling performance.

Developed through expertise and innovation, our **air-cooled condensers** redefine reliability in industrial





» SHELL AND TUBE WATER-COOLED EVAPORATOR

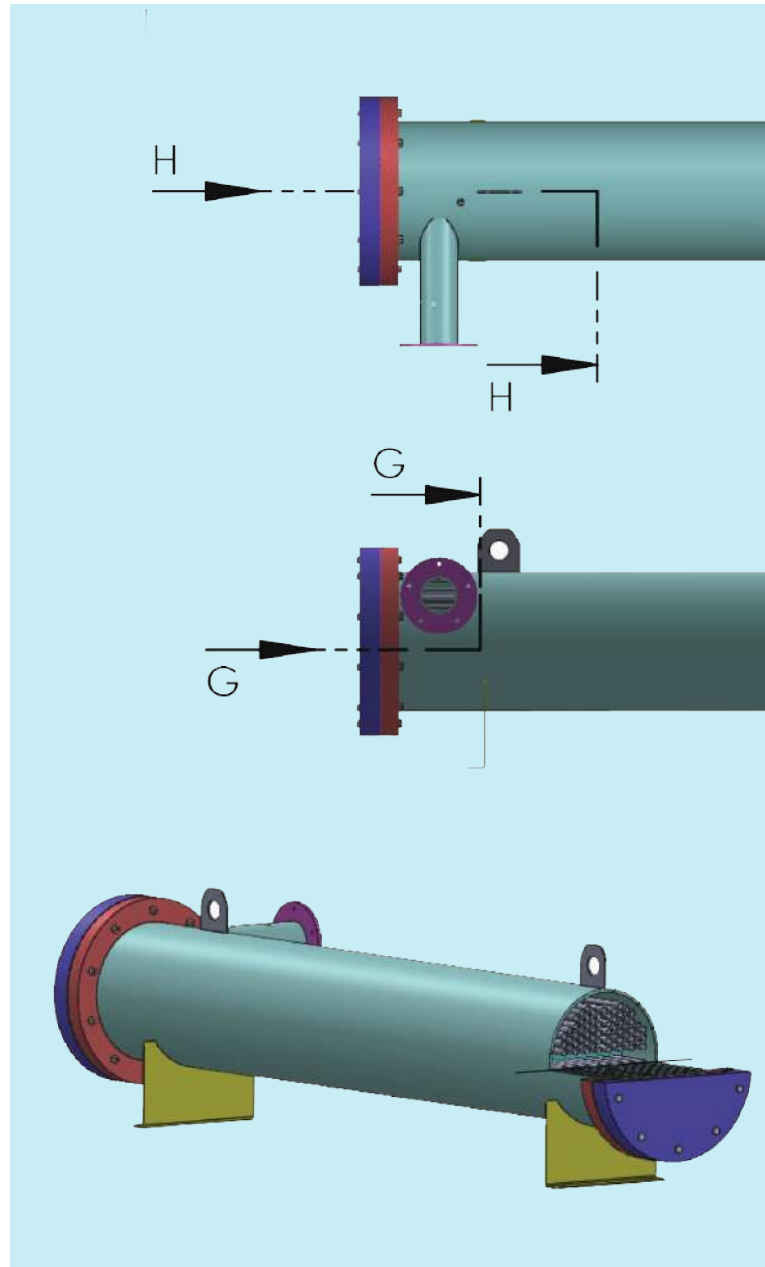
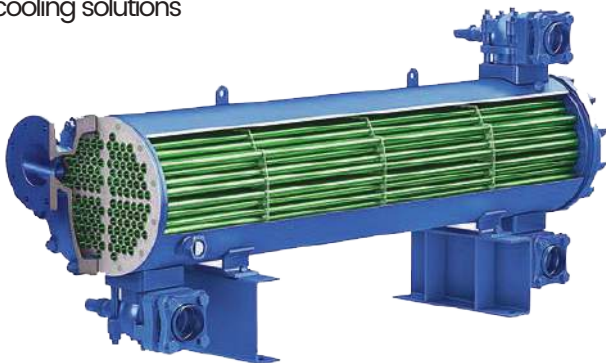
The shell and tube water-cooled evaporator is a vital component in industrial refrigeration and cooling systems.

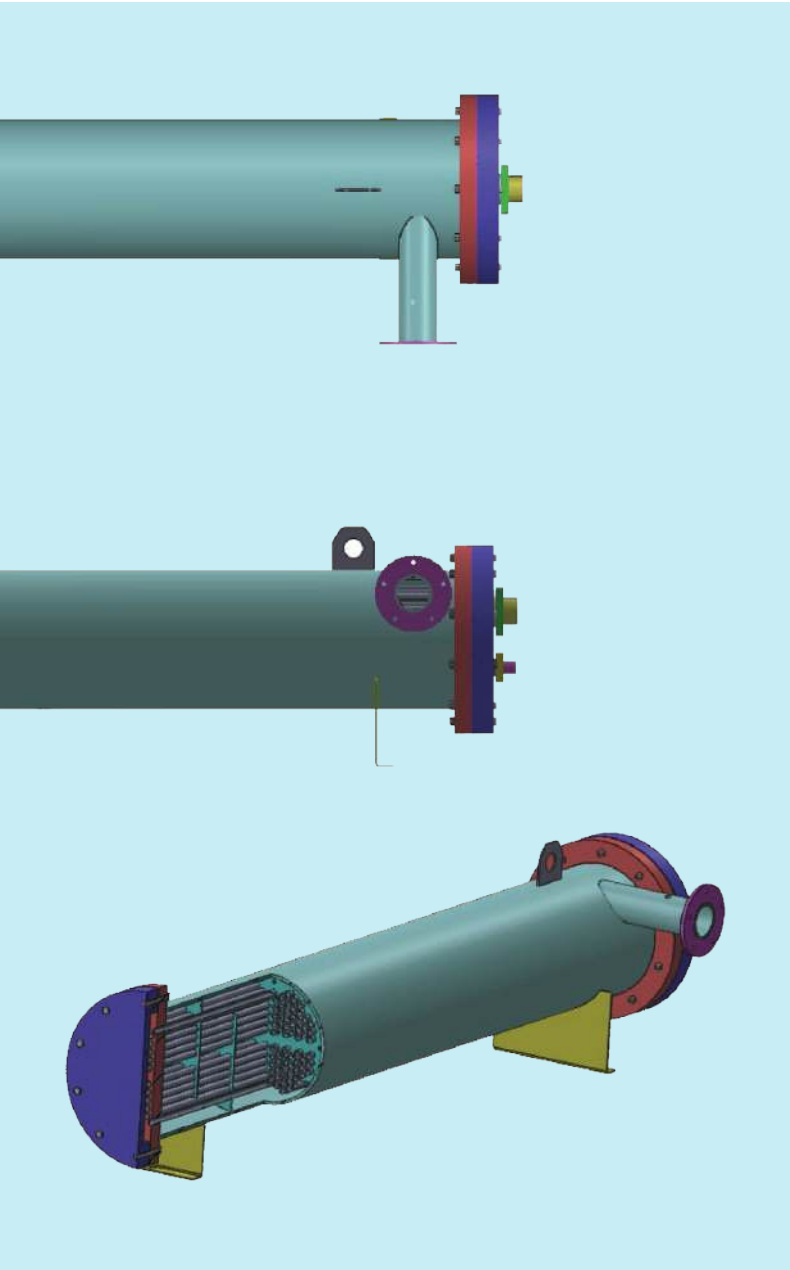
It serves as a key element in vapor-compression refrigeration cycles and water chillers, where it efficiently absorbs heat from water and transfers it to the refrigerant.

During this process, the liquid refrigerant evaporates as it absorbs heat from the water flowing through the tubes, producing chilled water for various cooling applications.

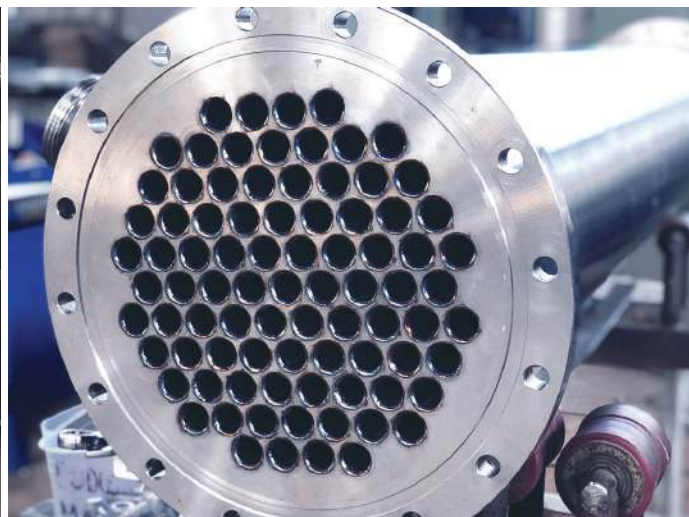
» TECHNICAL FEATURES

- » Designed to perform efficiently under low-temperature and variable-pressure conditions.
- » High heat transfer efficiency for optimal thermal performance.
- » Low energy consumption, ensuring cost-effective operation.
- » Ideal for applications requiring precise temperature control.
- » Available in stainless steel construction upon request.
- » Manufactured using advanced CNC machinery for precise tolerances.
- » Seamless copper tubes for enhanced reliability and heat transfer.
- » Tube expansion using automatic expander machines for leak-free operation.
- » Environmentally friendly design, supporting sustainable cooling solutions





Rugged ,
Reliable , Ready
Shell & Tube
Done Right





» AIR-COOLED EVAPORATOR

The air-cooled evaporator is an essential component in refrigeration and cooling systems, designed to absorb heat from the surrounding air and transfer it to the refrigerant for efficient cooling performance.

These evaporators are widely used in cold storage rooms, food processing industries, and commercial refrigeration systems to ensure precise and uniform temperature control.

» TECHNICAL FEATURES

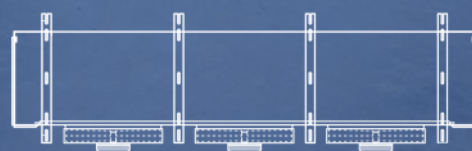
- » High-efficiency fin-and-tube heat exchanger design for superior heat transfer.
- » Optimized air distribution for uniform cooling and temperature stability.
- » Energy-efficient fans ensuring low noise and reduced power consumption.
- » Durable and corrosion-resistant construction suitable for harsh environments.
- » Easy access for maintenance and cleaning.
- » Available in various configurations to meet specific cooling capacity requirements.
- » Compatible with environmentally friendly refrigerants.





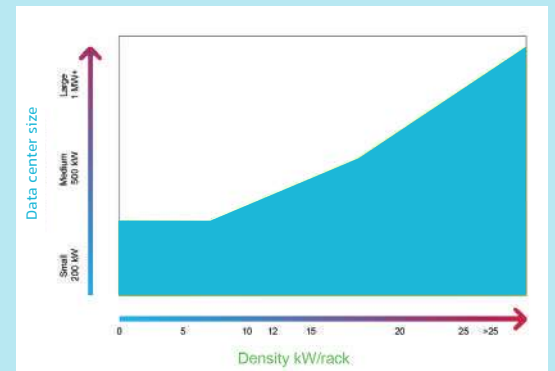
APPLICATIONS

- » Industrial and commercial cold rooms
- » Food storage and processing facilities
- » Pharmaceutical and logistics centers
- » Freezing and cooling tunnels

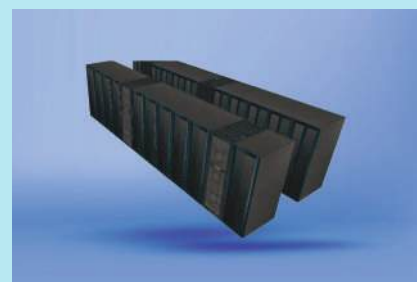


ArkaCool InRow

Cooling the Future of Data Centers



By adopting a close-coupled and focused cooling approach, the InRow system ensures maximum energy efficiency, minimal cooling delay, and high operational reliability for modern data centers.



» INROW COOLING SYSTEM



The InRow cooling system is an advanced and highly efficient solution designed to deliver targeted, precise, and reliable cooling for data centers and server rooms. This modern technology provides direct cooling to heat sources—such as IT racks—minimizing thermal lag and ensuring maximum energy efficiency.

» TECHNICAL FEATURES

- » Close-coupled cooling – delivers cooling directly at the heat source
- » Reduced energy consumption through optimized airflow and short air paths
- » Precise temperature and humidity control for stable IT operation
- » Modular and scalable design for easy expansion and maintenance
- » Ideal for high heat density environments and mission-critical applications

» AVAILABLE MODELS

- » **InRow DX:** Equipped with an independent compressor and refrigerant cycle.
- » **InRow CW:** Connected to a chilled-water circuit for high-capacity cooling.
- » **InRow RC:** Integrated with intelligent humidity control and heat recovery technology.



» REFRIGERATION RACK SYSTEM

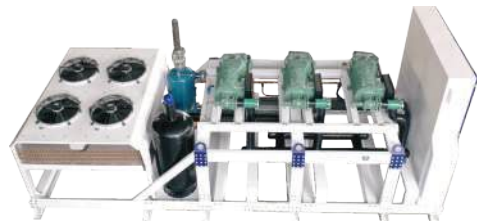
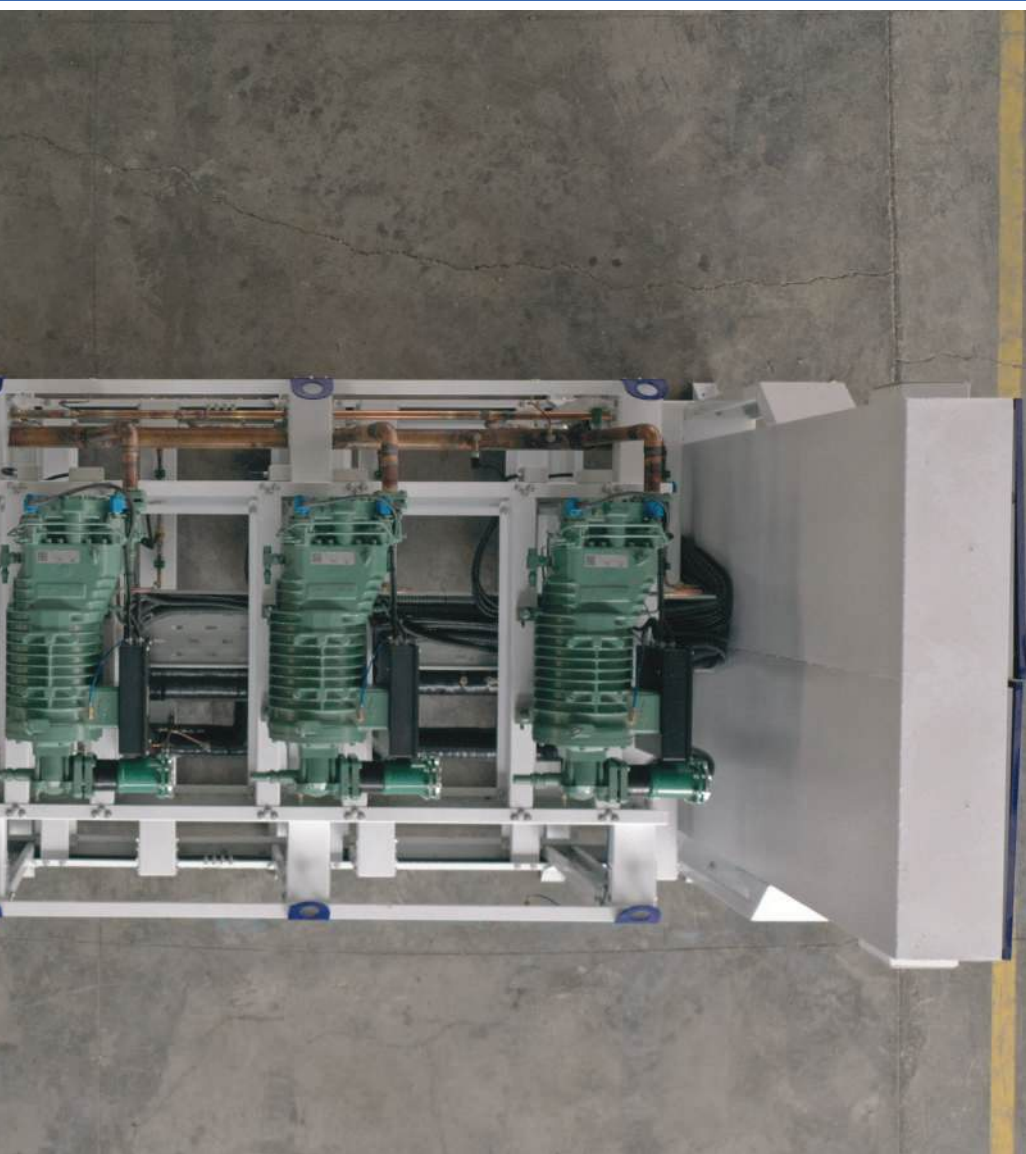
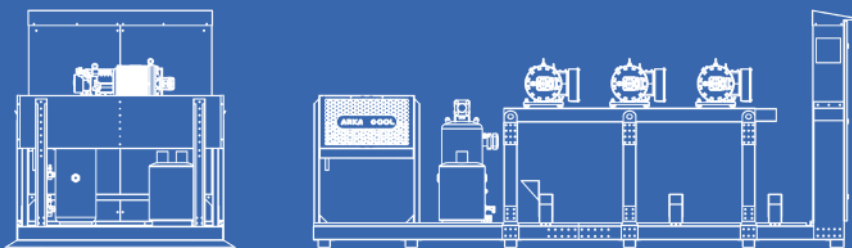
Refrigeration rack systems are among the most advanced technologies in the refrigeration and cooling industry.

In these systems, multiple compressors, condensers, and other refrigeration components are assembled into a centralized unit that operates simultaneously to provide continuous cooling and ice production.

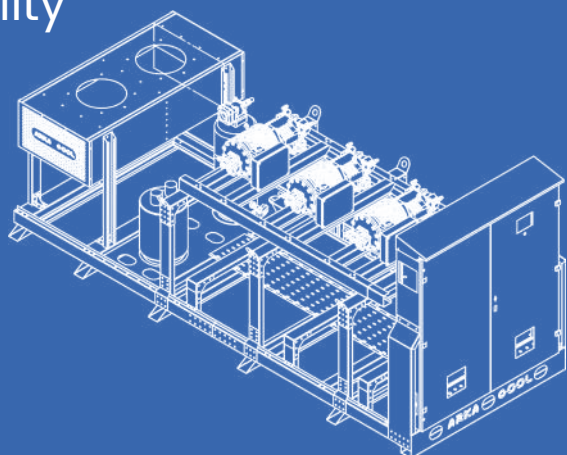
These racks form an integrated refrigeration platform specifically designed for use in various industrial processes and large-scale HVAC systems.

By utilizing the latest cooling technologies and intelligent energy management, refrigeration rack systems deliver precise and stable cooling performance in industrial, commercial, and even residential applications.





Arkacool,
Where performance meets
responsibility





» LOGISTICS, TRANSPORTATION, AND PRODUCT DELIVERY

To ensure the safe and efficient dispatch and transportation of purchased goods, the following procedures must be strictly observed:

- » Based on the official invoice and production order, a warehouse dispatch authorization is issued prior to shipment.
- » Depending on the type of product and applicable transportation standards, the most suitable vehicle or transportation method is selected, ensuring:



- » Adequate and standardized loading space



- » Vehicles in optimal technical condition to guarantee safe delivery



- » Consideration of the product's sensitivity and coordination for the use of trailers or trucks

equipped with air-suspension systems.

- » Delivery of goods is strictly conditional upon the issuance of an official waybill (bill of lading).
- » Shipments without a valid waybill, verbal confirmation, or phone authorization will not be released under any circumstances.
- » Each waybill must clearly state ArkaCool as the shipper and the customer as the consignee, including full and accurate delivery details.
- » All loading operations are carried out by the company's logistics department in accordance with internal safety and quality standards.
- » Loading hours are from 10:00 to 12:00 and 14:30 to 16:45 on business days.



Every shipment meets **ARKACOO** quality standards

If transportation is arranged by the buyer, the customer must coordinate with the engineering and logistics teams to ensure the selected vehicle meets the required technical and safety standards. If the vehicle fails to meet these standards, loading will not be permitted.

When the vehicle is provided by the buyer, the driver must present an official authorization letter verified and signed by the purchaser.

Without such authorization, the dispatch note and release permit will not be issued.

All goods are loaded in full compliance with international loading and safety standards.

Therefore, any damage or loss resulting from driver negligence, poor road conditions, or accidents is not the responsibility of ArkaCool.

PRODUCT WARRANTY

All products manufactured by Majd Refrigeration Co., including chillers, rack systems, condensers, evaporators, and other cooling equipment, are covered by a -21month warranty starting from the activation date of the serial number stated on the official warranty card.

The use of this warranty is valid only when accompanied by a valid purchase invoice and in accordance with the terms and conditions outlined in the warranty policy.

Our warranty guarantees product reliability, consistent performance, and complete customer satisfaction throughout the warranty period.

Customers are required to present the official warranty card, matching the information stated on the proforma invoice (company or authorized distributor), in order to benefit from warranty services.

The warranty covers only manufacturing defects and faults in original parts, as verified and confirmed by Majd Refrigeration's technical experts.

Damages caused by fire, electrical fluctuations, improper installation, poor maintenance, or servicing by unauthorized personnel are not covered under this warranty.

If any of the above-mentioned conditions are identified during inspection by our technical team, the product will lose its warranty eligibility, and the customer shall bear all costs related to transportation, spare parts, labor, and service.

Warranty cards that lack proper registration details or authentication will be considered invalid.



ARKACOOOL

INNOVATIVE COOLING SOLUTIONS DESIGNED
FOR PERFORMANCE, EFFICIENCY,
AND A **GREENER PLANET.**





ARKACOOOL
WHERE SCIENCE
MEETS EXPERIENCE



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