

*Refta*<sup>®</sup>

Production catalogue

Unique Cooling Solutions

ESTABLISHED IN 1994  
30 M TURNOVER  
**30 YEARS OF EXPERIENCE**  
PARTNERS IN  
**28+ COUNTRIES**

**2 FACTORIES**  
260+ EMPLOYEES  
22 000 SQUARE METERS  
OF PRODUCTION AREA

## UNIQUE PRODUCTS

Refra is recognized as one of the most flexible manufacturers in the market. The non-standard, fully adaptive manufacturing sector is able to produce exceptional products that are fully tailored to the customer's needs.

## | About us

Founded in 1994, Refra is a well-known manufacturer of refrigeration and air conditioning equipment in Europe today. Distinguished by a highly complex and unique offer of refrigeration products, the company can design and manufacture non-standard products, fully customized and completed according to customer requirements.

Over the course of 30 years in operation, Refra has firmly established itself as a prominent leader in the European refrigeration market, overseeing the successful execution of numerous intricate projects.

### Unique Cooling Solutions

At Refra, we go beyond the ordinary. Our highly skilled team of refrigeration engineers, sales managers and manufacturing craftsmen specialize in designing and manufacturing non-standard air conditioning and refrigeration equipment, fully customized to meet the unique needs and challenges of each client. Whether you require a customized cooling system or innovative environmentally friendly refrigeration equipment, we're dedicated to delivering solutions that stand out from the rest.

### We Can Make It Simple

It is our promise to simplify the complex industry of refrigeration for our clients. We understand that navigating the nuances of cooling technology can be overwhelming. That's why we're here to simplify the process. Our expertise and dedication mean that you can rely on us to provide straightforward, efficient, and user-friendly cooling solutions. We are your partners in making the complex simple.





# | Go Green!

With a strong emphasis on environmental responsibility and sustainable practices Refra is leading the way in reducing global warming and embracing natural cooling technology.

Our commitment to a better tomorrow drives us to engineer cutting-edge systems that provide our customers with the tools to make a positive impact on the planet. We use certified components and pay meticulous attention to safety, performance and

efficiency of our refrigeration equipment – all while prioritizing sustainable and ecological features.

As we witness the growing demand for CO2 and Hydrocarbon refrigeration systems, we are inspired to push the boundaries of innovation and develop technologically advanced refrigeration solutions. **At Refra, we envision a future where all of our products are powered by natural refrigerants, contributing to a world that's not just cooler, but also greener.**

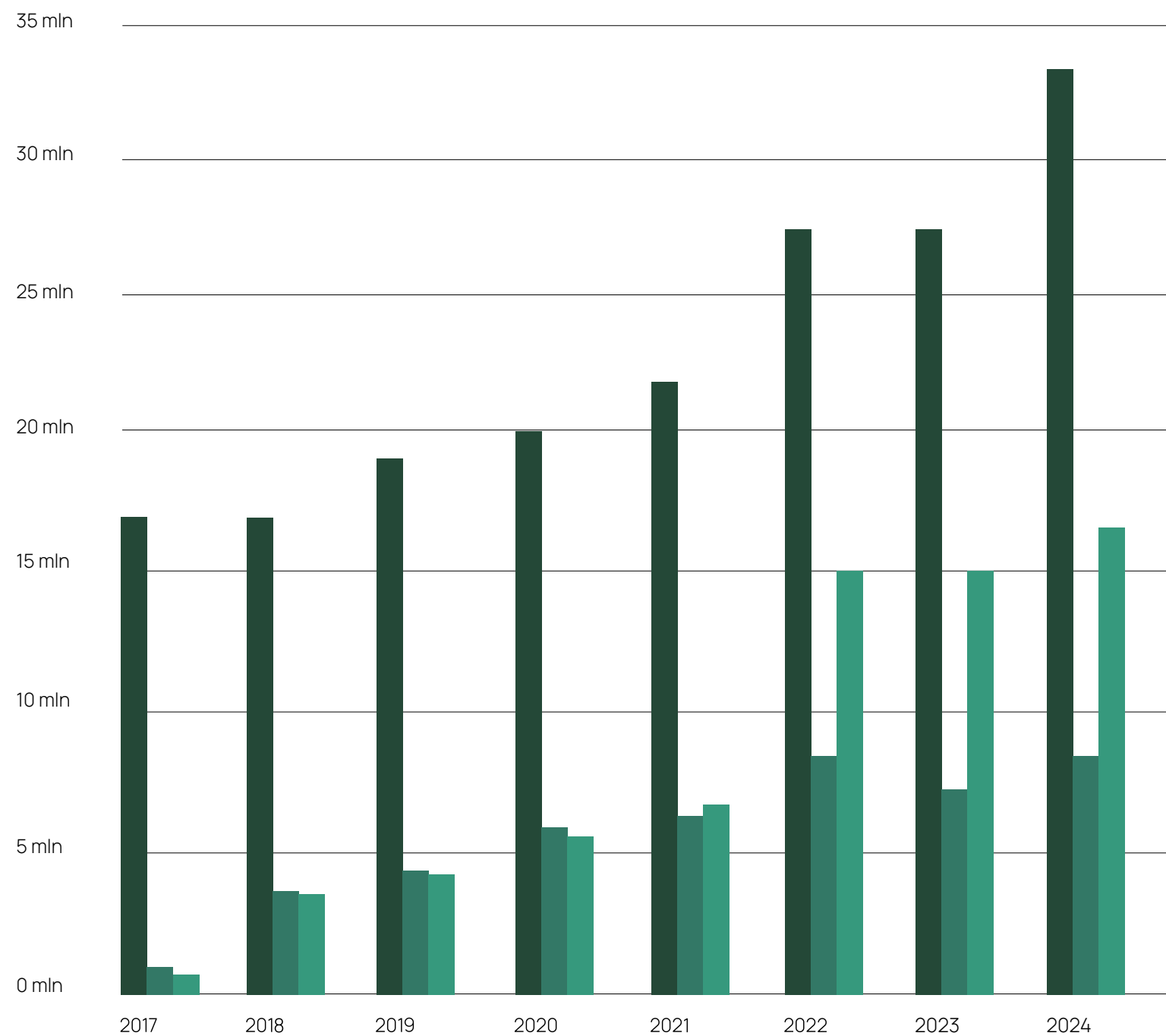
R290

R744

R1270

 **We are on a mission to make a positive impact in the refrigeration industry since 2011** – that's when Refra became a pioneering company with an unwavering commitment to environmental sustainability and started producing refrigeration equipment with natural refrigerants.

# Sales chart



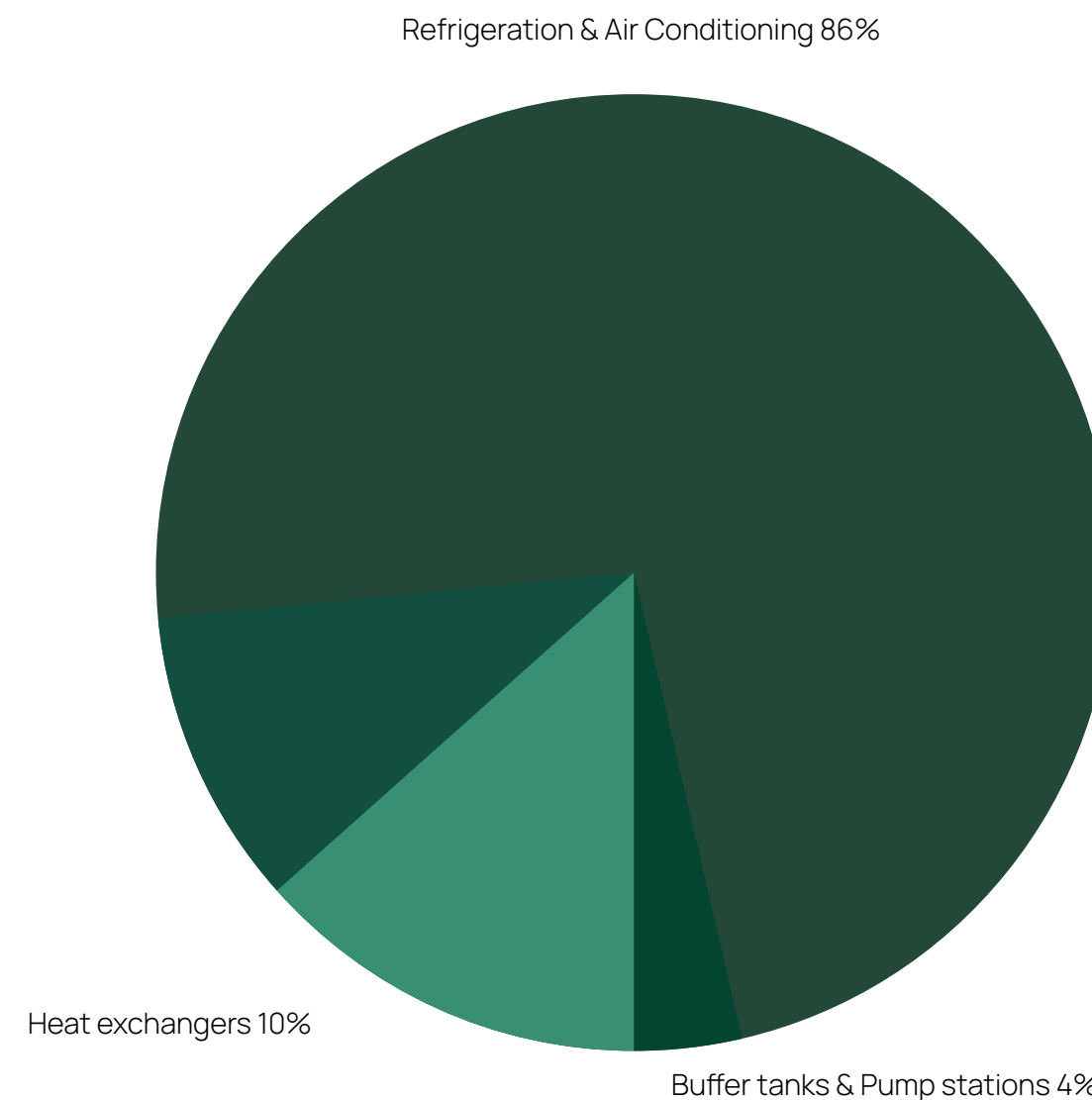
Refra maintains stable revenue growth and increases turnover each year. The growth is visible both in the total annual turnover.



# High quality product

With long-term experience, the company's employees can offer impeccable dedication to customers, the most efficient solutions and the highest quality equipment. Refra produces not only unique original refrigeration products, but also other types of refrigeration and heating systems. Our products are suitable for a wide range of applications and can serve a wide variety of premises.

# Variety of products



# | Best quality parts

Refra units are manufactured using world-renowned, high-quality components, ensuring exceptional reliability, performance, and durability in every product we deliver. Using high-quality components is essential because it guarantees the reliability and longevity of our units, reducing the risk of malfunctions and minimizing maintenance costs. These toptier parts contribute to the overall performance, energy efficiency, and safety of the equipment, ensuring that our customers receive solutions that meet the highest industry standards.

SIEMENS



Danfoss

wilo



ebmpapst



ABB



wieland

# | ATMO Approved

At Refra, sustainability is at the core of everything we do. Leveraging natural refrigerants like Propane and CO2 has been a driving force behind our efforts to minimize carbon emissions and enhance energy efficiency. Receiving the ATMOApproved Label was an honor and a testament to our unwavering commitment to environmental innovation and climate-friendly solutions.

Getting this certification is not just about recognition; it's about holding ourselves accountable to the highest standards in sustainability. As a 'Best in Class' natural refrigerants company, we continually refine our technologies, enhance efficiency, and deliver innovative solutions, all with the goal of creating a greener future for our customers, industry, and planet.

### Leaders in sustainable cooling and heating

ATMO Approved is the world's leading industry label measuring and recognizing impact with natural refrigerants that power millions of refrigeration, chiller and heatpump systems worldwide. Each year 'Best in Class' manufacturers and contractors must meet strict criteria and demonstrate impact in order to 'become' ATMO Approved. Since 2022 over 80 companies have applied. To date only 18 have been (Re) Approved.



# REFRIGERATION

Refra offers a wide range of refrigeration products for both commercial and industrial applications. Many years of experience have allowed us to develop reliable refrigeration products such as chillers, condensing units, CO2 racks, heat pumps, compressor packs and more.

## Chillers

Chillers are vital components in modern air conditioning and refrigeration systems, providing efficient temperature control for industrial and commercial applications. Refra specializes in producing customized chillers that meet the specific requirements of the customer, ensuring optimal performance and energy efficiency. Backed by years of experience developing environmentally-friendly solutions for large-scale properties, Refra delivers reliable and sustainable cooling systems.

### Propane Chillers

Propane chillers, renowned for their high efficiency and minimal environmental impact, utilize refrigerant R290, one of the most effective natural refrigerants. These R290 chillers deliver superior cooling performance and energy savings, making them an optimal choice for industrial and commercial applications. With over 10 years of experience in producing propane refrigeration systems, Refra offers unparalleled expertise in ensuring reliable and safe solutions. Our propane chillers comply with all safety requirements according to the EN378 standard and incorporate the latest technological advancements. Selecting refrigerant R290 not only benefits the environment but also adheres to the latest European F-gas regulations, thereby mitigating future costs. Additionally, the low global warming potential of refrigerants naturally contributes to sustainability, while the enhanced efficiency of these systems provides significant cost savings, making them a prudent and economical investment.

#### GREEN SOLUTIONS

We are on a mission to make a positive impact in the refrigeration industry since 2011 – that's when Refra became a pioneering company with an unwavering commitment to environmental sustainability and started producing refrigeration equipment with natural refrigerants.

# Air Cooled Chillers

Natural refrigerants available!  
#R290 #R1270

Choose propane or propylene and  
contribute to the environment!

## Aura Chillers



DESCRIPTION

GREEN SOLUTIONS

Small capacity air-cooled chillers with the cooling power from 20 kW to 60 kW are perfectly suitable for particularly small commercial applications. Aura chillers are a great choice when low power is required, using the smallest possible frame in order to save space. Air-cooled units are among the most popular when choosing chiller systems, making it a well-crafted product that can meet the regular needs of the customer.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

Ultra-compact frame construction is assembled with high-quality EC fan motor technology, scroll or reciprocating compressors and a finned tube or microchannel condenser. The galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection and noise reduction. An additional 30 mm rock wool material can be supplemented for a super silent unit operation with double insulation.

## Nivi Chillers



DESCRIPTION

GREEN SOLUTIONS

Medium power range air-cooled chillers with a cooling capacity from 40 kW to 190 kW are designed for commercial and industrial buildings with low to medium power demand. One of the main advantages of this unit is the possibility to add two circuits, which will provide maximum operational safety by ensuring continuous system operation in case of emergency. If one circuit is damaged, the other can still use 50% of unit's capacity to service the end user. Nivi chillers are perfect for integrating propane and free-cooling systems, resulting in highly ecological refrigeration solutions. A built-in reversible heat pump can be installed for both heating and cooling options and better water circulation.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

Compact frame construction is assembled with high-quality EC fan motor technology, finned tube heat exchangers and scroll or reciprocating compressors. Galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection and noise reduction. An additional 50 mm rock wool material can be supplemented for a super silent unit operation with double insulation.

## Galaxy Chillers



DESCRIPTION

GREEN SOLUTIONS

High power air-cooled chillers with the cooling capacity of 70 kW to 800 kW are designed for industrial and commercial buildings with large power demand. Such systems are widely used in various factories, immense supermarkets and warehouses. With high cooling capacity and many possible extra features, Galaxy chillers stand out as one of the most versatile products that Refra can offer.

Special modular assembly system provides extensive power selection options and the ability to integrate a wide range of useful solutions such as a built-in hydraulic module, additional water storage tanks, free cooling or heat recovery options. Galaxy chillers can be made with two to five circuits to ensure continuous system operation in case of emergency – if one circuit is damaged, the others can still use the remaining unit capacity to service the end user.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

Comprehensive modular frame construction is assembled with high-quality EC fan motor technology, finned tube and/or microchannel heat exchangers, scroll, reciprocating or screw compressors. The galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection as well as noise reduction and can be produced up to 13 meters in length. An additional 50 mm rock wool material can be supplemented for a super silent unit operation with double insulation.

## Glacio Chillers



DESCRIPTION

GREEN SOLUTIONS

Extra large capacity air-cooled chillers with the cooling power of 120 kW to 1400 kW are designed for immense industrial and commercial buildings with high-power demand. Glacio chillers are able to provide the highest cooling capacity of all the chillers produced by Refra. The intricate design of the open frame makes it possible to produce a unit with extremely powerful, high-quality parts.

These units can be assembled with a built-in hydraulic module, as well as additional free cooling (possible with hybrid coils) or heat recovery options. Exposed frame construction and special perforated doors provide greater air movement and absorption, so the chiller can operate at high capacity without interruption. Two to four circuits can be added to ensure continuous system operation in case of emergency – if one circuit is damaged, the others can still use the remaining unit capacity to service the end user.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installation.

Open frame construction can be assembled with high-quality EC fan motor technology, finned tube heat exchanger and scroll, screw or reciprocating compressors. When a screw compressor is selected, an additional oil cooling system can be installed to eliminate extra costs associated with it. The galvanized steel and powder coated frame ensures proper protection of the internal unit construction. An additional insulation box can be added to reduce compressor noise to obtain silent operation.

# Liquid Cooled Chillers

Natural refrigerants available!  
#R290 #R1270 #R744

Choose propane or propylene and contribute to the environment!

## Oasis Chillers



### DESCRIPTION

Medium power range liquid-cooled chillers with a cooling capacity from 25kW to 600 kW are designed for a wide range of commercial and industrial refrigeration or air conditioning applications. Designed for indoor installation, Oasis chillers are manufactured on a compact frame that can be easily transported through standard doors.

Oasis liquid-cooled chillers are built on a closed, assembled frame and equipped with scroll or reciprocating compressors as well as BPHE condenser and evaporator. An additional 50 mm rock wool insulation can be supplemented for a super silent unit operation. On request, these units can be equipped with a buffer tank of up to 800 liters or a hydraulic module.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

GREEN SOLUTIONS 

## Pelagi Chillers



### DESCRIPTION

High capacity liquid-cooled chillers with the cooling power from 140 kW to 2 MW are perfectly suitable for medium to large industrial or large commercial applications. These chillers can be integrated with a dual liquid system, where the condenser uses glycol mixture and the evaporator uses water for the refrigeration process. Due to the glycol-free ability, Pelagi chillers are ideal for particularly sensitive equipment that requires refrigeration with clean, distilled water.

Pelagi chillers are assembled on a welded open frame, equipped with maximum 4 screw compressors and shell and tube heat exchangers. Usually stored in special technical rooms and connected to secondary devices such as cooling towers or dry coolers to reject the absorbed heat to an additional fluid loop.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

GREEN SOLUTIONS 

## Atlantis Chillers



### DESCRIPTION

High capacity liquid-cooled chillers with the cooling power up to 2 MW are designed for immense industrial and commercial buildings with high-power demand. The special design of the walk-in container is ideal for buildings where indoor installation is not possible. These chillers can be placed right next to the building or on the roof, which will not only reduce installation costs, but will also allow easy unit maintenance. Additional options, such as illumination, ventilation and heating can be installed inside the container to make the service of the unit even more convenient.

Modular assembled container size ranges from 2,4 meters to 13 meters in length and can be insulated with polyurethane foam or 50 mm rock wool material for a super silent unit operation. On request, these units can be equipped with supplementary hydraulic module inside the container and a dry-cooler on top of it.

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GREEN SOLUTIONS 



# Free Cooling

Natural refrigerants available!  
#R290 #R1270 #R744

Choose propane or propylene and contribute to the environment!

## Libre Chillers



DESCRIPTION

GREEN SOLUTIONS 

Free cooling system consists of a heat exchanger that cools down glycol mixture by using low temperature ambient air. When outdoor temperatures are lower relative to indoor temperatures, the system utilizes the cool outdoor air as a free cooling source. These energy-efficient units are perfect for industrial refrigeration or air conditioning processes, as they help to reduce mechanical energy consumption up to 80% and reduce maintenance costs as well as environmental impact.

Open frame construction can be assembled with high-quality EC fan motor technology, finned tube heat exchanger, 3-way valve and circulation pump. The galvanized steel and powder coated frame ensures proper protection of the internal unit construction.

## Ambiens Chillers



DESCRIPTION

GREEN SOLUTIONS 

Free cooling system consists of a heat exchanger that cools down glycol mixture by using low temperature ambient air. When outdoor temperatures are lower relative to indoor temperatures, the system utilizes the cool outdoor air as a free cooling source. These energy-efficient units are perfect for industrial refrigeration or air conditioning processes, as they help to reduce mechanical energy consumption up to 80% and reduce maintenance costs as well as environmental impact.

Comprehensive modular frame construction is assembled with high-quality EC fan motor technology, finned tube heat exchangers, 3-way valve and circulation pump. The galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection.

# HEAT PUMPS

Heat pumps efficiently transfer heat between different environments, offering both heating and cooling solutions in a single machine. Refra specializes in producing reversible heat pumps that seamlessly switch between heating and cooling modes, making them ideal for year-round operation. This dual capability makes heat pumps an exceptionally efficient solution, eliminating the need for separate systems. By reducing energy consumption and utilizing environmentally friendly refrigerants, Refra heat pumps play a crucial role in lowering greenhouse gas emissions, offering a sustainable and forward-thinking choice for modern buildings and industrial operations.

## Propane Heat Pumps

Propane heat pumps, using refrigerant R290, are an advanced and eco-friendly option for heating and cooling in commercial, and industrial applications. R290, a natural refrigerant, has a very low global warming potential, ensuring compliance with stringent European F-gas regulations and helping businesses avoid future regulatory costs. In addition to being environmentally sustainable, propane heat pumps are highly energy-efficient, providing substantial operational cost savings over time. Refra, with over 10 years of experience in producing propane refrigeration systems, ensures that its R290 heat pumps meet all EN378 safety standards and incorporate the latest technology for reliability and superior performance. With continuous product innovation, Refra's propane heat pumps are not only a sustainable choice but also deliver high efficiency and long-term durability, offering a future-proof solution for businesses aiming to reduce energy consumption and environmental impact.

GREEN SOLUTIONS

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# Heat Pumps

Natural refrigerants available!  
#R290 #R1270 #R744

Choose propane or propylene and  
contribute to the environment!

## Flamma



### DESCRIPTION

Small capacity reversible heat pumps with the heating power from 20 kW to 50 kW are designed for small commercial or industrial applications. Manufactured using R290 refrigerant only and full-inverter technology the units are a part of the extremely economical and environmentally friendly Refra product line. These single circuit heat pumps can be used for heating purposes at ambient temperature of -15° or higher as well as for cooling purposes with the capacity of 14 kW to 35 kW. This dual solution is very efficient in terms of price, installation and space, as there is no need to install two separate systems.

### GREEN SOLUTIONS

Ultra-compact frame construction is assembled with high-quality EC fan motor technology, scroll or reciprocating compressors and a finned tube or microchannel condenser. To prevent ice formation, the frame is equipped with special water drain outlets, which are required to ensure a proper defrosting process. It is also recommended to place the unit on a platform in order to leave some space underneath for water to drain. The galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection and noise reduction. An additional 30 mm rock wool material can be supplemented for a super silent unit operation with double insulation.

Refra manufactures modern devices using plug-and-play ideology, making the installation and use of the devices as easy as possible. In this case, the customer can start using the device quickly and easily after installment.

## Ignis



### DESCRIPTION

Medium power range reversible heat pumps with the heating power from 50 kW to 180 kW are designed for commercial and industrial buildings with low to medium power demand. Manufactured using R290 refrigerant only and full-inverter technology the units are a part of the extremely economical and environmentally friendly Refra product line. These pumps can be used for heating purposes at ambient temperature of -15° or higher as well as for cooling purposes with the capacity of 35 kW to 126 kW. This dual solution is very efficient in terms of price, installation and space, as there is no need to install two separate systems.

### GREEN SOLUTIONS

One of the main advantages of this unit is the possibility to add two circuits, which will provide maximum operational safety by ensuring continuous system operation in case of emergency. If one circuit is damaged, the other can still use 50% of unit's capacity to service the end user.

Compact frame construction is assembled with high-quality EC fan motor technology, finned tube heat exchangers and scroll or reciprocating compressors. To ensure proper defrosting process the frame has special water drain gutters with electric heating cables. This solution helps avoid additional platform placement costs as you can install the unit directly on the ground. CH galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection and noise reduction. An additional 50 mm rock wool material can be supplemented for a super silent unit operation with double insulation.

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## Solis



### DESCRIPTION

High power reversible heat pumps with the heating power from 100 kW to 400 kW are designed for industrial and commercial buildings with large power demand. Manufactured using R290 refrigerant only and full-inverter technology the units are a part of the extremely economical and environmentally friendly Refra product line. With high cooling capacity and many possible extra features these products are widely used in various factories, immense supermarkets and warehouses. These pumps can be used for heating purposes at ambient temperature of -15° or higher as well as for cooling purposes with the capacity of 70 kW to 280 kW. This dual solution is very efficient in terms of price, installation and space, as there is no need to install two separate systems.

### GREEN SOLUTIONS

CJ heat pumps can be made with one to three circuits to ensure continuous system operation in case of emergency - if one circuit is damaged, the others can still use the remaining unit capacity to service the end user.

Comprehensive modular frame construction is assembled with high-quality EC fan motor technology, finned tube and/or microchannel heat exchangers, scroll, reciprocating or screw compressors. Larger, raised coils are set to simplify the defrosting process and allow water to drain freely. The galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection as well as noise reduction and can be produced up to 13 meters in length. An additional 50 mm rock wool material can be supplemented for a super silent unit operation with double insulation.

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# CO2 Systems

CO2 refrigeration systems have gained widespread popularity as a sustainable solution in the air conditioning and refrigeration industries for their energy efficiency and environmentally friendly characteristics. Refra has been producing both transcritical and subcritical CO2 refrigeration systems for over 10 years, providing the expertise and experience needed to deliver high-quality products.

CO2 refrigeration systems are an environmentally sustainable solution that use carbon dioxide (R744) as a natural refrigerant, offering low global warming potential and high efficiency. Refra specializes in producing both transcritical and subcritical CO2 systems, tailored for a range of industrial and commercial applications.

The benefits of CO2 refrigeration system include energy efficiency, reduced greenhouse gas emissions, compliance with evolving environmental regulations, and a long-term cost advantage. Additionally, CO2 systems provide both versatility and safety, as they are adaptable to various climates and suitable for a wide range of applications. The non-flammable and non-toxic properties enhance safety by reducing incident risk and simplifying maintenance.

**GREEN SOLUTIONS**  
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# Transcritical systems

Natural refrigerants available!  
#R290 #R1270 #R744

Choose propane or propylene and contribute to the environment!

## CO2 Light



DESCRIPTION

GREEN SOLUTIONS

CO2 Light is perfectly suitable for small food retail stores or gas stations because of its small scale. It can provide up to 53 kW of cooling capacity, split between medium temperature and low temperature refrigeration. These rack systems are designed with reliable refrigeration technologies that are well tested and proven in the market. Assembled with maximum of 3 compressors on a welded and powder coated frame with reliable insulation material to ensure proper unit protection and noise reduction.

CO2 Light can be manufactured with two different frame types – open type and closed type. The open type frame construction is designed to house the system indoors. It is a conveniently assembled refrigeration unit that can be easily brought in and installed inside the premises. If there is no room for the refrigeration system indoors, the CO2 Light model can be made with a special protective frame, which allows you to install the equipment outdoors and connect it to the premises. This type of system can be easily serviced as it is equipped with both front and side doors.

**GREEN SOLUTIONS** | This unit is a part of Refra’s environmentally friendly product group, as it is made using CO2 refrigerant. Such low GWP solutions are designed to have better efficiencies and capacities, as well as less environmental damage.

## CO2 Ecopack



DESCRIPTION

GREEN SOLUTIONS

CO2 ECOPACK is a customizable transcritical rack, designed mainly for commercial application. Built on a low and narrow frame, it is designed for small spaces and easy maintenance. This model can be assembled with maximum 4 MT and 3 LT reciprocating compressors and provide cooling capacity up to 135 kW. Due to its simple, small frame design, this unit is the optimal choice for installing a medium size refrigeration system.

## CO2 Vertical



### DESCRIPTION

GREEN SOLUTIONS 

The CO2 vertical rack is constructed as a single unit on a powder coated steel frame. Vertically built to reduce the footprint, this product has a sufficiently high power potential. This is the unit with the highest power capacity per square meter. Therefore it is ideal for the demands of small food retail stores. Vertical rack system is designed with a well-known refrigeration technologies that have been reliably tested. This frame can be assembled with maximum of 4 compressors and manufactured for medium and low temperature cooling, providing up to 75 kW of refrigeration capacity.

## CO2 Container



### DESCRIPTION

GREEN SOLUTIONS 

CO2 Container is a new generation solution that covers most refrigeration needs. It combines both transcritical and subcritical CO2 systems with a unique AR frame, designed exclusively by Refra. Cooling capacity of this product ranges from 50 kW to 600 kW, meaning that it can be designed for various applications.

The special design of the walk-in container is ideal for buildings where indoor installation is not possible. It can be placed right next to the building or on the roof, which will not only reduce installation costs, but will also allow easy unit maintenance. For maximum safety, the container is equipped with a special leak detector that responds to gas leaks quickly and lets prevent malfunctions. Additional options, such as illumination, ventilation and cooling can be installed inside the container to make the service of the unit even more convenient.

Modular assembled container size ranges from 2,4 meters to 13 meters in length and can be insulated with polyurethane foam or 50 mm rock wool material for a super silent unit operation. On request, these units can be equipped with supplementary hydraulic module, additional water storage tanks, heat recovery options inside the container and a gas-cooler on top of it.

## CO2 Select

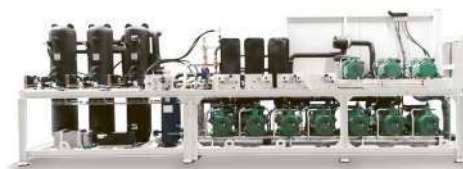


### DESCRIPTION

GREEN SOLUTIONS 

CO2 Select is a customizable transcritical rack, designed for commercial and industrial applications. It is built on a rigid frame, designed for easy maintenance and durability. A special "reach-in" container option for outdoor installation provides convenient installation and efficient unit service. The cooling capacity of this product ranges from 50 kW to 330 kW, meaning that it can be designed for various applications.

## CO2 Industrial



### DESCRIPTION

GREEN SOLUTIONS 

CO2 Industrial is a customizable transcritical rack, designed mainly for industrial application. Special "reach-in" container option for outdoor installation provides convenient and efficient unit service. This type can be assembled with maximum of 6 reciprocating compressors per stage (MT/LT) and provide cooling capacity ranging from 50 kW to 500 kW. This model is assembled with 6-cylinder compressors, resulting in bigger dimensions and larger power supply.

# Subcritical systems

## CO2 Galaxy



DESCRIPTION

GREEN SOLUTIONS 

CO2 Galaxy units are among the most versatile racks in the transcritical system. Designed on a V-shaped frame, these systems offer a wide power range. Created for industrial applications, the power of these units can reach up to 800 kW.

Due to the wide range of assembly options, the CO2 Galaxy rack comes with an integrated gas cooler. This simplifies installation and equipment selection work and reduces overall costs of the project. Special modular assembly system provides extensive power selection options and the ability to integrate a wide range of useful solutions such as a built-in hydraulic module, additional water storage tanks or heat recovery options.

Comprehensive modular frame construction is assembled with high-quality EC fan motor technology, finned tube heat exchangers and reciprocating compressors. The galvanized steel and powder coated frame with a reliable insulation material ensures proper unit protection as well as noise reduction and can be produced up to 13 meters in length. An additional 50 mm rock wool material can be supplemented for a super silent unit operation with double insulation.



## CO2 Cascade



DESCRIPTION

GREEN SOLUTIONS 

CO2 Cascade units are perfectly suited for high temperature climate. This system consists of two refrigeration systems connected via heat exchanger, where one evaporates, the other condenses. Such combination provides either low temperature refrigeration or both: low and medium temperature refrigeration with different refrigerants. Low temperature units can be designed with CO2 and a flooded system to ensure better heat exchange, while medium temperature units obtain a truly cost-effective and environmentally friendly solution when produced with HFC and HC refrigerants. At high ambient temperatures, conventional refrigeration systems require a large amount of energy, whilst propane works perfectly in such conditions.

## CO2 LT Liquid Cooled



DESCRIPTION

GREEN SOLUTIONS 

LT Liquid cooled systems are designed to supplement the existing refrigeration arrangement with an already installed chiller. This unit can be cooled by glycol provided from a currently existing chiller and provide additional low temperature cooling. It is perfect for achieving particularly low refrigeration temperatures that can go down to -35 °C degrees. Such solutions are mostly used for warehouse cooling and other industrial applications.

# Condensing Units

Condensing units are designed for small-scale air conditioning and refrigeration applications. They are particularly suitable for localized, relatively low cooling demands and when cost, space, and ease of installation are key factors. In commercial refrigeration condensing units often represent a more economical choice because they operate more effectively decentralized cooling applications and involve fewer components and a lower initial investment compared to other refrigeration systems. Refra offers a range of HVAC condensing units with cooling capacities from 10 to 40 kW, including both air-cooled and liquid-cooled options. These units are available in various sizes and capacities to meet diverse operational needs.

## Air Cooled Units

### R-Case Unit

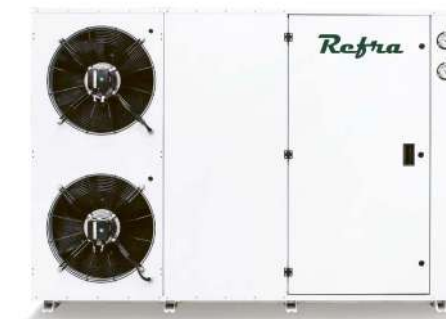


#### DESCRIPTION

Small capacity condensing units, designed for small commercial applications such as convenience stores, petrol forecourts and cold rooms. Assembled with scroll or digital scroll compressors, designed for MT or LT applications. This model is built on a smallest condensing unit frame and provides a cooling capacity from 10kW to 30kW.

Assembled with copper aluminium fin condenser, Copeland compressors with crankcase heater, high efficiency AC/EC axial fans and a liquid receiver. Built in a closed galvanized steel frame with polymer powder coating and additional insulation for silent unit operation. Electric panel includes phase rotation and phase loss monitoring relay, compressor and fan motor overheat protection, contactor and main switch. Additional assembly options are available..

### B-Case Unit



#### DESCRIPTION

Small capacity condensing units with the cooling capacity from 15kW to 40kW. Designed on a compact frame, perfectly suitable for small commercial applications such as convenience stores, petrol forecourts, cold rooms and more.

Assembled with copper aluminium fin condenser, Bitzer reciprocating compressors with crankcase heater and high efficiency AC/EC axial fans. Built in a closed steel frame with a polymer powder coating and condenser protection grid. Electric panel includes phase rotation and phase loss monitoring relay, compressor and fan motor overheat protection, contactor and main switch. Additional assembly options are available.

### BM Unit

DESCRIPTION

Small to medium capacity condensing units, designed for commercial and industrial applications such as food and beverage manufacturers, convenience stores, petrol forecourts and cold rooms. Assembled with reciprocating compressors the units provide a cooling capacity from 12kW to 55kW. These condensing units are an optimal choice for conventional refrigeration systems – affordable, small in size and easy to install. The units can be built outdoors, but additional shelter against rain or snow should be provided.

Assembled with copper aluminium fin condenser, Bitzer or Copeland compressors with crankcase heater, high efficiency AC/EC axial fans and a liquid receiver. Built on an open welded galvanized steel frame with powder coating.



### Aqua Box

DESCRIPTION

Wide range capacity liquid cooled condensing units, designed for commercial and industrial applications with the cooling capacity from 10 kW to 40kW. These units work on a principle of the heat rejection loop, where condenser heat is dissipated to the environment via water. Rejected heat can be used for additional needs in the same building, which gives these facilities additional economic benefits. These units provide an economical, compact alternative to traditional air-cooled condensing units.

Built on an open welded frame with standard profile, this condensing unit is also available in a double-deck construction for higher capacity. Assembled with shell and tube or plate heat exchanger, 1 to 4 scroll or reciprocating compressors and a liquid receiver as well as refrigerant filters and a sight glass. Safety valve and pressure switches are added to increase the security of the unit.



## Liquid Cooled Units

### Aqua Rack

DESCRIPTION

Wide range capacity liquid cooled condensing units, designed for commercial and industrial applications with the cooling capacity from 10 kW to 40 kW. These units work on a principle of the heat rejection loop, where condenser heat is dissipated to the environment via water. Rejected heat can be used for additional needs in the same building, which gives these facilities additional economic benefits. These units provide an economical, compact alternative to traditional air-cooled condensing units.

Built on an open welded frame with bent profile and powder coating, these condensing units carry a plate heat exchanger. Can be assembled with 1 to 4 reciprocating or scroll compressors with crankcase heater, a liquid receiver, refrigerant filters and a sight glass. Safety valve and pressure switches are added to increase the security of the unit.



### Aqua Case

DESCRIPTION

Wide range capacity liquid cooled condensing units, designed for commercial and industrial applications with the cooling capacity from 10kW to 40kW. These units work on a principle of the heat rejection loop, where condenser heat is dissipated to the environment via water. Rejected heat can be used for additional needs in the same building, which gives these facilities additional economic benefits. These units provide an economical, compact alternative to traditional air-cooled condensing units.

Built on an assembled frame with covers, this condensing unit can be designed in a variety of ways, depending on intended use. Collected with shell and tube or plate heat exchanger, 1 to 4 reciprocating or scroll compressors and a liquid receiver as well as refrigerant filters and a sight glass. Safety valve and pressure switches are added to increase the security of the unit. An additional 50 mm rock wool insulation can be supplemented for a super silent unit operation..



# Compressor Racks

Compressor racks are one of the most established refrigeration technologies and remain a popular choice for both commercial and industrial applications. These systems consist of multiple compressors assembled in a single frame, forming a reliable compressor rack system to meet diverse cooling needs. Refra offers refrigeration rack solutions in various capacities, suitable for commercial and industrial cooling. With a choice of scroll, screw, or reciprocating compressors from top manufacturers these systems are economical, easy to install and maintain.

## Mini Rack



### DESCRIPTION

Mini racks, with cooling capacities ranging from 7 kW to 170 kW, are expertly designed to meet the demands of commercial and industrial applications. They can be equipped with either scroll or reciprocating compressors, offering flexibility to suit specific power requirements. These compressor racks are ideal for a variety of uses, including cooling in retail spaces, refrigeration chambers, large warehouse facilities, and other industrial environments.

Additionally, Mini compressor racks can integrate seamlessly into larger refrigeration systems, enhancing their adaptability. For added convenience, customers can choose between purchasing the compressor rack as a standalone unit for an existing condenser or as a complete package with a Refra condenser.

Built on a robust open welded frame with a bent profile, the compact design makes the Mini Rack perfect for installations in tight spaces. Each unit is equipped with essential components such as refrigerant filters, a receiver, and a sight glass to ensure efficient operation. Safety features, including a safety valve and pressure switches, are incorporated to enhance the system's reliability and security.

## Flexi Rack



### DESCRIPTION

Flexi racks, with a wide cooling capacity range from 7 kW to 900 kW, are designed for diverse applications across varying sizes. These compressor racks are well-suited for cooling shops, cold rooms, ice rinks, large warehouses, production areas, and other industrial facilities. Whether integrated as part of a larger refrigeration system or operating as a standalone unit, the Flexi compressor racks provide flexible cooling solutions. Customers can select a rack to fit an existing condenser or opt for a complete package with a Refra condenser for added convenience. Flexi compressor racks can be equipped with scroll, screw, or reciprocating compressors, catering to different operational needs.

Built on an open welded frame with a robust standard profile, Flexi racks are available in a double-deck configuration to handle higher capacities. The rack also comes equipped with essential components such as refrigerant filters, a receiver, and a sight glass. To ensure optimal safety, the unit is fitted with a safety valve and pressure switches, enhancing system security during operation.

## Silent Rack



### DESCRIPTION

Silent Rack offers a wide range of cooling capacities, from 7 kW to 500 kW, making it ideal for both commercial and industrial applications with varying power demands. Whether used for cooling shops, refrigeration chambers, or general air conditioning systems, Silent compressor racks provide reliable performance across a broad spectrum of uses. They can also be integrated as part of a larger refrigeration system. For added flexibility, Silent rack can be paired with an existing condenser or purchased together with a Refra condenser, ensuring convenience and ease of installation. Silent Rack is available with either scroll or reciprocating compressors, tailored to meet specific operational needs.

Constructed on a robust assembled frame with protective covers, the Silent compressor rack can be customized to suit various applications. It features essential components such as refrigerant filters, a receiver, and a sight glass for easy monitoring. Safety is a top priority, with built-in safety valves and pressure switches to ensure secure operation. For noise-sensitive environments, an optional 50 mm layer of rock wool insulation can be added, creating a super-silent unit while maintaining high efficiency.

## Container Rack



### DESCRIPTION

Container Racks offer a wide range of cooling capacities from 7 kW to 900 kW, making them ideal for commercial and industrial applications with high power demands. These racks are perfectly suited for cooling environments such as shops, ice rinks, refrigeration chambers, large warehouses, production areas, and other industrial facilities. Container compressor rack can function as part of a larger refrigeration system, and customers can either integrate it with an existing condenser or opt for a Refra condenser for added convenience. Container rack is highly customizable, available with scroll, screw, or reciprocating compressors to match various operational needs.

Housed in a specially designed walk-in container, this unit is ideal for outdoor installation, especially in buildings where indoor space is limited. Installing the unit next to the building not only reduces installation costs but also simplifies maintenance. For enhanced serviceability, optional features such as internal lighting, ventilation, and heating can be added to the container. Container sizes range from 2.4 meters to 13 meters in length and can be insulated with either polyurethane foam or 50 mm rock wool for super silent operation. This setup ensures efficient performance, easy access, and reliable temperature control in demanding conditions.

# WATER SYSTEMS

Refra offers specialized water systems, designed to complement our refrigeration equipment or operate independently as standalone refrigeration units. These systems can be supplied individually or integrated with our refrigeration solutions, ensuring optimal performance and adaptability.

# Buffer Tanks

Buffer tanks are one of the main components of water systems, often being used to provide additional volume, ensure stable temperature and higher flow for heating and cooling setups. Such water systems are becoming increasingly common in commercial and industrial applications due to its cost-effective characteristics and additional energy recovery options. By adding a buffer tank to the refrigeration or heating system, you will be able to constantly maintain the required amount of liquid to service it and avoid technical inconvenience. Refra manufactures cold and hot water buffer tanks and can supply them either individually or bundled with other refrigeration units. The customer can also choose additional features such as heat recovery or combined access.

## Heat recovery buffer tanks



### DESCRIPTION

Refra buffer tanks with an integrated heat recovery are an innovative and highly cost-effective systems that are rapidly gaining popularity in commercial sector. A special buffer tank with a built-in double wall heat exchangers acts as an intermediary to collect and utilize excess heat. This system is characterized by the fact that it allows the heat generated by the operation of the refrigeration equipment to be used for other heating purposes in the same building. By installing one system, the customer gets heating and cooling at once, as well as huge savings in energy and equipment costs.

These tanks are available with an anti-legionella kit, which prevents the spread of bacteria and is therefore particularly important for domestic water systems. A special 6 or 9 kW electric element can be added for additional water heating that will heat the water in the tank to the required temperature.

With the possible 300-3000 liters capacity and 6 to 10 bar pressure, these tanks combine hot water storage for both heating support and domestic water heating. The tank is made of carbon S235JR or 304/316L stainless steel, externally insulated with an additional (50-100mm) layer of polyurethane and lined with a high-quality red dermatine fabric. Both vertical and horizontal tank positioning is possible together with threaded, flanged or victaulic joints. This model also has an additional inspection flange for convenient device repair.

## Cold water buffer tanks



### DESCRIPTION

Refra cold water tanks with an operating pressure of 6 to 10 bar are used to increase the amount of liquid in the refrigeration systems and can be produced as system component or a completely separate product. The water tank with possible 300-3000 liters capacity will help to keep a constant cooling cycle, thus stabilizing unit operation and avoiding poor water temperature control.

Cold water tanks can also be used for water flow separation. A built-in separation plate or a blast pipe ensures smooth operation of the unit and maintains consistent water temperature in the system. This feature gives the opportunity to regulate the volume of liquid, used for different circuits.

The tank is made of carbon S235JR or 304/316L stainless steel, externally insulated with an additional layer of ArmaFlex and lined with a high-quality blue dermatine fabric. Both vertical and horizontal tank positioning is possible together with threaded, flanged or victaulic joints.

**Hot water buffer tanks**



DESCRIPTION

Refra manufactures hot water tanks, tailored to various heating systems. With an operating pressure of 6 to 10 bar and the capacity of 300-3000 liters, these water storage and preparation tanks can help maintain the required amount of liquid for service continually and ensure a constant supply of hot water for comfortable consumption.

Refra hot water tanks are available with an anti-legionella kit, which consists of a recirculation pump, heating element and timer. This kit prevents the spread of bacteria and is therefore particularly important for domestic water systems. A special 6 or 9 kW electric element can be added for additional water heating that will heat the water in the tank to the required temperature.

The tank is made of carbon S235JR or 304/316L stainless steel, externally insulated with an additional (50-100mm) layer of polyurethane and lined with a high-quality red dermatine fabric. Both vertical and horizontal tank positioning is possible together with threaded, flanged or victaulic joints.



# Pump stations

A pump station utilizes water or glycol for industrial and commercial cooling applications. These systems include a holding chamber and specialized pumps which are designed to move liquids efficiently to areas where natural flow is insufficient. They ensure the reliable circulation of cooling liquids throughout the system, optimizing performance and maintaining consistent temperature control.

## Pump Stations for Cooling



### DESCRIPTION

Pump stations for cooling systems are essential components that ensure efficient circulation of coolant through refrigeration or HVAC systems. They are designed to maintain consistent pressure and flow rates, optimizing the cooling process and enhancing overall system performance. Pump stations can be customized to suit specific cooling needs and can integrate with various cooling systems, including water loops and chillers. They are often used in industrial settings, commercial buildings, and large-scale refrigeration systems, providing reliable and energy-efficient operation.

Refra pump stations for cooling systems are uniquely designed to meet specific customer requirements, as they are manufactured according to the hydraulic drawings provided by the client. This customization ensures complete adaptation to the existing project. Additionally, customers can select from a variety of frames offered by Refra, and the pump stations come with numerous additional functions and unlimited power supply options. This versatility makes them suitable for a wide range of heating systems across both commercial and industrial sectors.

## Pump Stations for Heating



### DESCRIPTION

Pump stations for heating systems are crucial components that facilitate the effective circulation of heating fluids within HVAC systems. They are engineered to maintain stable pressure and flow rates, optimizing the heating process and improving overall system efficiency. These pump stations can be tailored to meet specific heating requirements and can seamlessly integrate with various systems, including hydronic heating and district heating applications. They are commonly used in commercial buildings, industrial facilities, and residential developments, providing reliable and energy-efficient operation.

Refra pump stations for heating systems are uniquely crafted to align with specific client needs, as they are manufactured based on the hydraulic drawings provided by the customer. This level of customization guarantees full integration into the existing project. Customers have the flexibility to choose from a range of frames offered by Refra, and the pump stations come equipped with numerous additional features and unlimited power supply options. This adaptability makes them ideal for diverse heating applications in both commercial and industrial sectors.

## Pump Stations for Waterloop



### DESCRIPTION

Refra manufactures pump stations for waterloop systems with the cooling capacity from 30 kw to 250 kW. These systems produce distributed cooling at different temperatures with a single condensing water loop. Together with Refra pump stations, the system creates a fully integrated refrigeration technology that eliminates the need for complex refrigeration systems and greatly simplifies installation work.

Built on a super slim assembled galvanized steel frame with powder coating. Standard selection includes single or dual pump with inverter, glycol tank with filling pump, shut-off valves, control board with controller and necessary control sensors as well as a three-way valve, manometers and a coarse cleaning filter.

Extra features, such as emergency heat exchanger with full controls or bubble filter separator can be combined. An additional heat recovery pump can also be added to extract maximum efficiency from the system. It will use the rejected heat for other heating purposes in the building. The pump station can also be equipped with a dry cooler in one frame.



# Ice banks

Ice banks are highly effective in various air conditioning and refrigeration applications by addressing the common need for consistent cooling during peak demand periods. They work by storing thermal energy in the form of ice, which is later used for cooling purposes. Such ice cold storage is widely used for process cooling in industries like food and beverage manufacturing or preservation. Ice storage tanks are popular in commercial cooling as they reduce energy consumption during peak hours. Refra ice banks can be integrated into ice storage chiller system in a flooded setup with Refra chillers or in a direct expansion ice storage cooling system with condensing units or compressor racks. This flexibility ensures a configuration that best meets the specific cooling demands of the customer.

## Ice banks with glycol coil



### DESCRIPTION

Refra manufactures liquid ice banks, designed for accumulation of capacity. Such units can be compatible with other refrigeration systems, if the hygienic standards of all units are ensured. The glycol used in the system is usually cooled by a separate chiller.

Made with multiple stainless steel thermal coil batteries, built into a large water reservoir, these units work on the principle of ice formation. The glycol mixture circulating in the coil batteries forces the formation of ice on the pipes, thus cooling the water inside the tank. This technology is capable of cooling particularly large amounts of water with relatively little energy consumption.

## Ice banks with DX coil



### DESCRIPTION

The direct expansion system is popular due to easier installation and reduced system costs. Direct expansion ice banks are usually used for refrigeration of dairy products in medium or large farms, milk collection points, beer or milk factories. Refra manufactures ice banks based on this refrigeration model.

Made with multiple stainless steel coil batteries, built into a large water reservoir, these systems work on the principle of ice formation. The refrigerant circulating in the coil batteries forces the formation of ice on the pipes, thus cooling the water inside the tank. This technology is capable of cooling particularly large amounts of water with relatively little energy consumption.

# Air Cooled Condensers

A condenser is designed to transfer heat from a working refrigerant to the surrounding air. The condenser relies on the efficient heat transfer that occurs during phase changes. Refra condensers can be designed in a wide capacity range and various frames, making them suitable for small and large commercial or industrial refrigeration systems. We ensure, that the production of condensers meets the quality control system standards of ISO 9001:2015. Designed using grooved copper tubes, aluminum or copper fins and single-phase or three-phase axial fans.

## HEAT EXCHANGERS

Refra's heat exchanger production line is equipped with modern automated machinery and operated by skilled professionals, ensuring a high-quality production process with minimal deviations from the designed result. At the customer's request, Refra can design and manufacture custom finned tube heat exchangers for a variety of applications, providing tailored solutions for nearly any type of heat exchanger.

CF



DESCRIPTION

Extensive capacity range air cooled condenser series created for large refrigeration and air conditioning systems. Four heat exchangers and double fan row provide immense heat capacity within limited placement area, making it perfect for saving space while still maintaining high power. This type of unit is perfectly suitable for commercial and industrial buildings with high power demand. Available heat capacity is up to 1,6 mW under nominal conditions (when Tcond is 45°C, Tamb is 30°C and R1234ZE).

W shaped large construction, assembled with inner grooved copper tubes, aluminum or copper fins and AC or EC fan motor technology. Galvanized steel and powder coated frame can be designed in various sizes. The clever frame design also allows for the installation of additional equipment under the condenser.

CV



DESCRIPTION

Wide capacity range air cooled condenser series, Created for small and large refrigeration or air conditioning systems used in commercial and industrial buildings with medium and high power demand. CV series units are ideal when high capacities are required in a limited installation space. This unit is Available heat capacity is up to 1,3 mW under nominal conditions (when Tcond is 45°C, Tamb is 30°C and R1234ZE).

V shaped construction, assembled with inner grooved copper tubes, aluminum or copper fins and AC or EC fan motor technology. The galvanized steel and powder coated frame can be designed in various sizes.

CM



DESCRIPTION

Wide range capacity air cooled condenser series, perfectly suitable for small and large refrigeration and air conditioning systems used in commercial or industrial buildings with low to high power demand. Due to its lightweight construction and practical weight distribution this product can be installed even on medium-strength rooftops. Available heat capacity is up to 800 kW under nominal conditions (when Tcond is 45°C, Tamb is 30°C and R1234ZE).

Flat shaped simple construction, assembled with inner grooved copper tubes, aluminum or copper fins and AC or EC fan motor technology. The galvanized steel and powder coated frame can be designed in flat or vertical way.



# Gas Coolers

Gas coolers are heat rejection heat exchangers in vapour compression refrigeration systems that use carbon dioxide (CO2) as refrigerant. Such products are often chosen for cooling high pressure gases and are perfect for CO2 systems. Refra gascooler series are designed on the same frame as condensers, but with 7,94 x 0,54 mm tubes suited for high pressures in CO2 transcritical systems – up to 120 bar. Our gas coolers come with EC fans and aluminum or copper fins. Each unit is pressure tested and shipped filled with nitrogen.

## GF



### DESCRIPTION

Large capacity range gas cooler series, created for large transcritical CO2 systems with high pressure. Double heat exchanger and double fan row provide large heat capacity within limited placement area, making it perfect for saving space while still maintaining high power. This product is perfect for green and climate-friendly solutions and suitable for commercial or industrial buildings with high power demand. Available heat capacity ranges over 1 MW upon nominal conditions (when Tin is 115°C, Tout is 33°C and Tamb is 35°C and pressure is 91,7 bar).

W shaped large construction, assembled with inner 7,94 x 0,54 mm grooved copper tubes, aluminum or copper fins and EC fan motor technology. The clever frame design also allows for the installation of additional equipment under the gas cooler.

## GV



### DESCRIPTION

Wide capacity range gas cooler series, created for small or large transcritical CO2 systems with high pressure. This product is perfect for green and climate-friendly solutions and is suitable for commercial or industrial buildings with medium power demand. Available heat capacity is up to 1 MW upon nominal conditions (when Tin is 115°C, Tout is 33°C and Tamb is 35°C and pressure is 91,7 bar).

V shaped construction, assembled with inner 7,94 x 0,54 mm grooved copper tubes, aluminum or copper fins and EC fan motor technology. The galvanized steel and powder coated frame can be designed in various sizes.

# Dry Coolers

## GM

### DESCRIPTION

Wide capacity range gas cooler series, created for small and medium transcritical CO2 systems with high pressure. Due to its lightweight construction and practical weight distribution this product can be installed even on medium-strength rooftops. This product is perfect for green and climate-friendly solutions and suitable for commercial or industrial buildings. Available heat capacity is up to 500 kW upon nominal conditions (when  $T_{in}$  is 115°C,  $T_{out}$  is 33°C and  $T_{amb}$  is 35°C and pressure is 91,7 bar).

Flat shaped simple construction, assembled with inner 7,94 x 0,54 mm copper tubes, aluminum or copper fins and EC fan motor technology. The galvanized steel and powder coated frame can be designed in flat or vertical way.



A dry cooler is a cooling device that uses air to achieve process temperature regulation. Dry coolers can be programmed to operate year-round, even in environments with low temperatures. These systems are often seen in data processing centers or other commercial and institutional buildings, where excess heat needs to be removed. The benefits of choosing dry coolers include easy installation and low operating costs.

DM



DESCRIPTION

Wide capacity range dry cooler series, which can be used in waterloop systems or as a free-cooling option in chillers. This small to medium capacity product is perfect for small and medium commercial buildings and various supermarkets. Available heat capacity is up to 350 kW under nominal conditions (when ETG is 35%, Tin is 45°C, Tout is 40°C and Tamb is 35°C).

Flat shaped simple construction is assembled with smooth copper tubes, aluminum or copper fins and EC/AC fan motor technology. The galvanized steel and powder coated frame can be designed in horizontal or vertical position.

DF



DESCRIPTION

High capacity range dry cooler series, perfect for large industrial refrigeration systems. 4 heat exchangers and double fan row can provide especially large heat capacity within limited placement area, making it the unit with the highest power supply per square meter. Available heat capacity ranges over 1 MW under nominal conditions (when ETG is 35%, Tin is 45°C, Tout is 40°C and Tamb is 35°C).

W shaped large construction, assembled with smooth copper tubes, aluminum or copper fins and AC/EC fan motor technology. The clever frame design also allows for the installation of additional equipment under the dry cooler.

DV



DESCRIPTION

Wide capacity range dry cooler series, created for small to large refrigeration systems with high power demand. Complete with a double heat exchanger and single/double fan row, this product is a super effective solution, which can provide large heat capacity while being installed in limited space area. For these reasons it is a popular choice for medium to large size commercial and industrial buildings. Available heat capacity is up to 550 kW under nominal conditions (when ETG is 35%, Tin is 45°C, Tout is 40°C and Tamb is 35°C). Capacities up to 1.2 mW can be achieved by ordering a modular DV type with more heat exchangers that are tilted to the side and reduced in length.

V shape construction, assembled with smooth copper tubes, aluminum or copper fins and EC/AC fan motor technology. The galvanized steel and powder coated frame can be made in various sizes.



# OEM Heat Exchangers

Refra heat exchanger production line is completed with modern automatic machinery and qualified personnel, allowing us to achieve high quality production process with minimum deviations from designed result. At the customer's request, Refra can design and manufacture finned tube heat exchangers for various application so almost any type of heat exchanger is possible with individual design. We use only certified high quality tubes and aluminum or copper sheets for coil production to achieve maximum reliability. All heat exchangers are tested with high pressure and fit PED (Pressure Equipment Directive) – No. 23/1997/EC.

## Evaporator coil (DX)



### DESCRIPTION

Refra heat exchangers for evaporators are made of aluminum or copper fins and convert the system's refrigerant liquid to gas. Usually they are used to cool and sometimes dehumidify air. Refra evaporator coils are made using inner grooved or smooth copper tubes, which range from 7 mm to 12,7 mm in diameter. The operating tube pressure reaches 80 or even 120 bar, making evaporator coils perfectly suitable for CO2 systems.

The frame can be made using aluminum, galvanized or stainless steel and can be coated with a special Aqua-Aero anti corrosion protection. Heat exchangers can be manufactured up to 50 kW capacity for both low and medium temperatures.

## Liquid coil



### DESCRIPTION

Refra heat exchangers for liquid can be designed and manufactured to fully meet customer needs. Super flexible options allow Refra engineers to select the optimal circuit arrangement for required capacities, providing the best possible unit performance. The coils can be designed using various diameter smooth copper tubes which extends the power selection options. Assembled with aluminum or copper fins and aluminum, galvanized or stainless steel frame with Aqua-Aero anti corrosion protection. Coils are suited for small to high capacity commercial or industrial refrigeration systems.

# Evaporators

As many refrigeration systems incorporate direct-expansion evaporators, Refra released its own direct-expansion evaporator series, which can be sold separately. Direct-expansion evaporator coils are used in low and medium temperatures refrigeration applications to cool and sometimes dehumidify air.

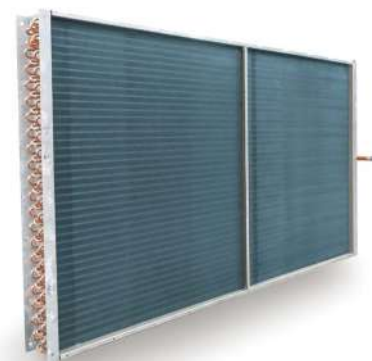
## Gas cooler coil



### DESCRIPTION

Refra heat exchangers for gas coolers are made of special K65 copper tubes for high pressures which go up to 120 bar. Such coils are perfect for CO2 systems as they are capable of maintaining the pressure these systems need. Standard units are designed using corrugated fin shape and can be made with aluminum, galvanized or stainless steel frame with Aqua-Aero anti corrosion protection. These products are usually selected and manufactured exclusively according to the customer's wishes.

## Condenser coil



### DESCRIPTION

Refra heat exchangers for condensers are made of copper tubes and convert the system's refrigerant gas to liquid form. Usually they are used for refrigeration equipment as a remote condenser or as a part of a condensing unit. Refra condenser coils are made using inner grooved or smooth copper tubes, which range from 5 mm to 12,7 mm in diameter. The frame can be made using aluminum, galvanized or stainless steel and can be coated with a special Aqua-Aero anti corrosion protection. Heat exchangers can be manufactured from low to high capacities to fully meet customer needs.

**EMC**



DESCRIPTION

Wide capacity range EMC series evaporators are the most popular option when choosing evaporator for applications in various supermarkets, cold rooms, warehouses and other premises. They are easy to instal, as well as easy to maintain and clean. Assembled with high quality copper tubes with working pressure up to 32 bars, aluminum fins, AC/EC fans and electric heating elements for defrosting. Fin spacing varies between 3,5 mm and 9,9 mm at Te from +10 °C to -40 °C. These evaporators can also be designed for CO2 systems up to 80 bars on request.

**EMA**



DESCRIPTION

EMA series evaporators are designed with an extra slim aluminum frame, making it an ideal option for small premises. This compact small capacity evaporator saves space and can be installed in narrow niches. Assembled with high quality copper tubes with working pressure up to 32 bars, aluminum fins, AC/EC fans and electric heating elements for defrosting, this product is ideal for commercial applications in various supermarkets, cold rooms, warehouses and more. Fin spacing varies between 3,5 mm and 9,9 mm at Te from +10 °C to -40 °C. These evaporators can also be designed for CO2 systems up to 80 bars on request.

**EMT**



DESCRIPTION

EMT series evaporators are designed with two horizontally arranged coils, which make the frame flat and perfect for large rooms with low ceilings. The evaporator's ability to simultaneously pull and blow air is perfect for large open spaces that require even air distribution. Assembled with high quality copper tubes with working pressure up to 32 bars, aluminum fins, AC/EC fans and electric heating elements for defrosting, this product is ideal for commercial applications in various supermarkets, cold rooms, warehouses and more. Fin spacing varies between 3,5 mm and 9,9 mm at Te from +10 °C to -40 °C. These evaporators can also be designed for CO2 systems up to 80 bars on request.





Contacts

Sales Team

Factory addresses

# Customer feedback

With long-term experience, the company's employees can offer impeccable dedication to customers, the most efficient solutions and the highest quality equipment.

“

For an installer, Refra is the best partner because of the various possibilities in terms of selection, customisation, components, etc. Units built on request give multiple advantages in terms of flexibility when installing and during operation. Because of their selection with knowledge and experience, the customer gets a high-end ready-to-use unit that complies with all European legislations & approvals.

Chris Desmet | CEO | Heytec

“

The directors of Absolutely Chilled have had an association with Refra for over 15 years and have always found their engineering knowledge and quality of product to be of the highest standard, for instance with their R290 heat pumps.

Shane McKenzie | Business Development Director | Absolutely Chilled Ltd

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