

# Azanefreezer 2.0

The natural choice for low temperature cooling and food processing  
Low-charge ammonia, air-cooled packaged units, from 45TR to 115TR



**Azanefreezer** 2.0

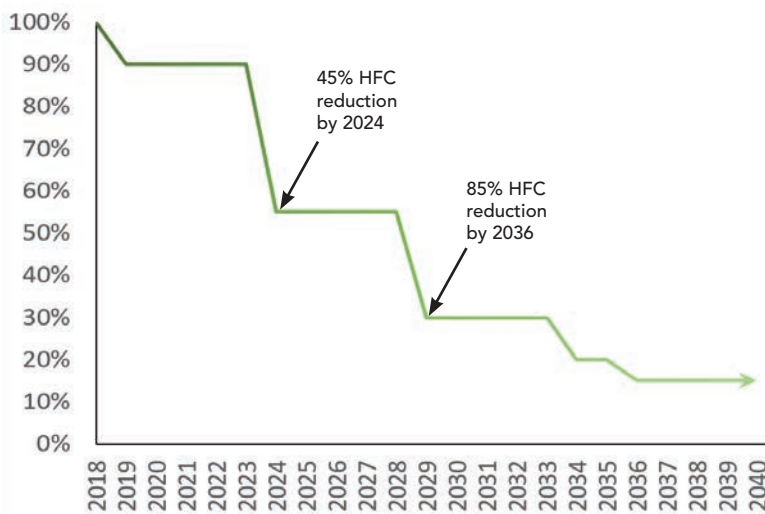


Combining exceptional efficiency, ultimate flexibility and market leading quality, Azanefreezer 2.0 is the natural solution for low temperature storage and food processing applications.

The simplicity of installation and low operating costs deliver the lowest total cost of ownership.



## The natural alternative to synthetic refrigerants



Azanefreezer is based on low pressure receiver technology pioneered by Star Refrigeration more than 40 years ago to deliver optimum efficiency and low refrigerant charge.

This technology is incorporated within a factory built package that simplifies site installation.

The phase down of high global warming refrigerants under the Kigali amendment will lead to uncertainty over which synthetic refrigerants will be permitted in the future, what their availability will be and how much they will cost.

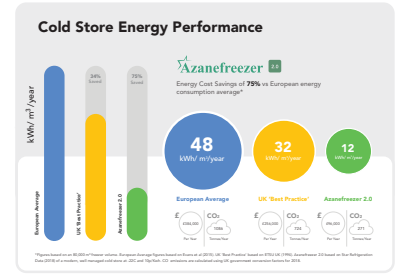
Azanefreezer has been developed to provide a long term alternative to synthetic refrigerant solutions. It uses ammonia, a naturally occurring fluid that has zero direct global warming effect and is widely available at low cost.



# Core Benefits

## Efficiency

- › Proven energy savings versus synthetic refrigerants and traditional pumped recirculation ammonia systems
- › Integrated reverse cycle defrost system melts frost directly from the inside out; ensuring fast, effective and efficient defrost
- › Low pressure receiver allows fully wetted evaporators; eliminating wasteful superheat and optimizing heat transfer
- › EC condenser fans and automatic floating head pressure control for improved efficiency
- › In-house controls for optimized system performance
- › Additional efficiency enhancing measures include economizer, variable Vi and EC evaporator fans



Azanefreezer 2.0 installation demonstrating energy savings of up to 75%.



## Simplicity

- › Straightforward installation with no machinery room required
- › Rooftop or ground mount options available
- › Integrated air-cooled condenser eliminates water usage, chemical treatment and sewer costs
- › Easy maintenance access. All components which require regular maintenance are located within the package
- › No need for refrigerant pumps

## Reliability

Utilizing proven technology and high quality components, Azane products are manufactured in the US and have an expected life span of over twenty years.

## Air Cooler Evaporators

Azanefreezer 2.0 operates with aluminium evaporators. The use of aluminium offers a number of benefits:

- › Lighter and more efficient at transferring heat than equivalent zinc galvanized or stainless steel
- › Corrosion resistant
- › Easy to clean

## Benefits

- › Vastly improved Risk Management - employee and environmental safety, avoiding plant closures and risk to product, staff and the surrounding neighborhoods
- › 15-25% more efficient than a central engine room / central plant
- › Historically shown to out-perform traditional pumped-recirculated ammonia systems by sustaining its efficiency for the life of the plant
- › Simple installation, smaller footprint, with no machinery room required - reduces regulatory requirements, enhances space utilization, improving ROI
- › Provides for greatly enhanced facility yields through creating temperature convertible rooms with lower costs for installation and maintenance
- › Up to 80% reduction in ammonia charge when compared to a central plant system



# Features & Components

AzaneFreezer 2.0 packaged refrigeration units are specially designed to deliver flexible and efficient cooling. Both installation and maintenance are quick and easy, while a robust, high quality construction ensures maximum system longevity.

## Packaged configuration

The self-contained packaged unit is designed for outdoor installation, eliminating the need for a machinery room.



**Reverse cycle defrost**  
Four-way valve for fast, effective reverse cycle defrost.



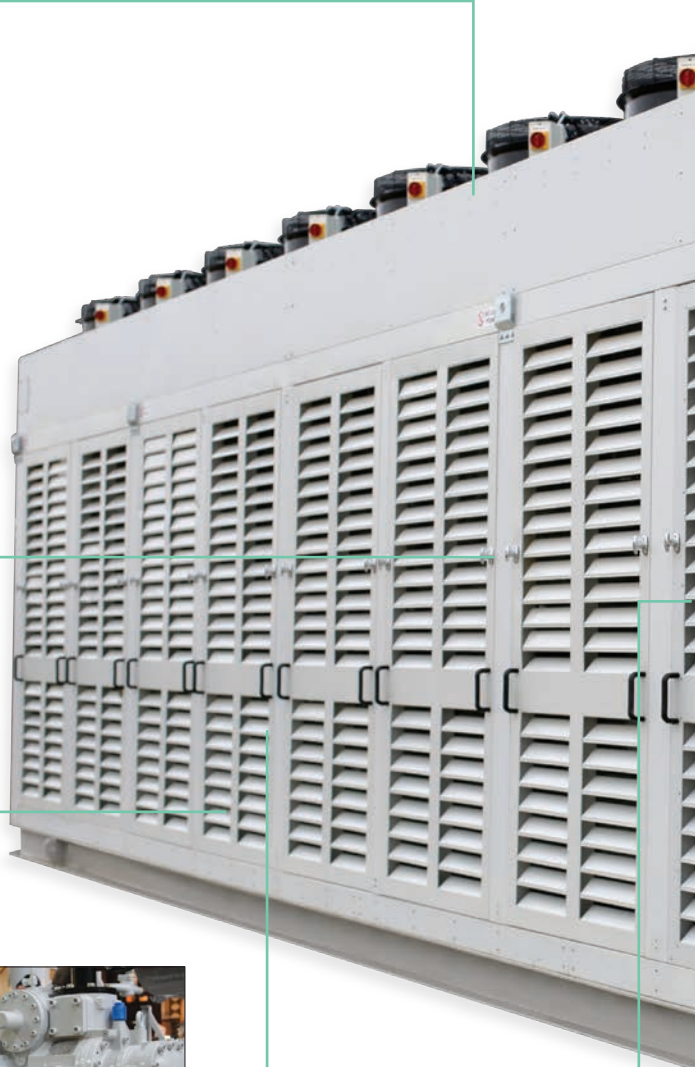
**Insulation**  
Robust PIR insulation with high quality alu-zinc cladding as standard.



**Twin compressors**  
Economized twin screw compressors with high efficiency rotors and variable Vi, providing optimized performance as well as redundancy.



**Low Pressure Receiver**  
Azane's LPR system delivers efficient, overfeed operation without the need for pumps.





**EC fans**  
EC fans for low fan power and improved efficiency.



Azanefreezer 2.0 now comes equipped ready to activate Ethos, a performance optimization and energy management system.



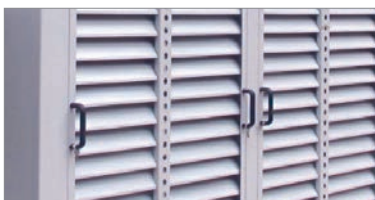
**Air-cooled condenser**  
An integrated air-cooled condenser eliminates the need for water usage and associated chemical treatments.



**Efficient controls**  
Azane's optimized controls system includes integrated Allen Bradley PLC and panel-mounted touchscreen HMI. A remote connectivity option allows off-site analysis and alarm monitoring.

**Electrical panel**  
The on-skid stainless steel electrical panel includes starters for both the package and coolers (where required), avoiding the need for multiple power supplies.

**Steel base frame**  
Fully welded steel base frame, for rigid construction and long life.



**Optional Removable panels**  
For easy maintenance access around the unit.

# LEADING THE CHARGE



## IN LOW-CHARGE



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