Azanechiller 2.0
The natural chiller choice

Cooling capacities from 40 TR to 340 TR
and fluid temperatures from 14°F to 50°F
The state of the art Azanechiller 2.0 is the latest iteration of the Azanechiller and combines exceptional efficiency, quality components, and performance monitoring to ensure the lowest total cost of ownership. The Azanechiller 2.0 delivers the benefits of industrial-quality ammonia refrigeration in a convenient and factory-built package so that the uncertainty of synthetic HFC refrigerants can be easily avoided with a future-proof solution.

The Azanechiller 2.0 is an excellent solution and the natural choice for temperature controlled storage, food production, process cooling, HVAC, and more. Because it uses a very low charge of ammonia in an outdoor package, it offers an extremely safe option that is easy to install and does not require a machinery room.

The Need for Evolution

The Azanechiller 2.0 has been developed specifically as a result of stringent new legislation to minimize the environmental impact of chiller operation while also improving plant efficiency.

Improved Performance

The Azanechiller 2.0 has also been designed to assure that it remains ahead of the curve of ever-increasing efficiency standards. Per AHRI 550/590 parameters, integrated part load values in the range of 23 MBH/kW are achievable when ammonia is paired with the efficient design and operation of the Azanechiller.

Exceptional Efficiency

The Azanechiller 2.0 range has set a new benchmark in chiller efficiency by integrating variable speed reciprocating compressor technology with EC fans, close evaporator approach design and advanced controls. Azanechiller 2.0 delivers efficiency that is at least 20% higher than competing HFC chiller technology.

This allows the units to deliver immediate reductions in energy costs for end users after installation.

Low Refrigerant Charge

The use of high side control and low refrigerant charge evaporator technology ensures optimum efficiency and eliminates the need for a separate suction vessel. This results in refrigerant charges as little as 1.4 lb/TR.

Manufactured in the US

Azanechiller 2.0 is manufactured in the US by Azane Inc., the US’s leading low charge ammonia solutions provider.

Market Flexibility

The family of pre-engineered chillers is suitable for a wide variety of end user markets, including temperature controlled storage, food processing, beverage production, process cooling, HVAC, data centers, ice rinks, pharmaceutical and more.

Core benefits

- Exceptional Efficiency
- Low Refrigerant Charge
- Improved Performance
- Improved Efficiency
Features & Components

Azanechiller 2.0 is a complete refrigeration package integrating high quality, industrial components with our customized control package on an Allen Bradley PLC to offer unrivalled efficiency, performance, reliability, and quality.

The packaged system makes installation simple and also allows for systems to be easily relocated on-site, to a different facility, or even re-sold.

Stainless Steel Control Panel
For extended life in outdoor operation.

Efficient Allen Bradley PLC Control
PLC control provides optimised performance, based on ambient temperature and cooling load.

Touchscreen HMI. Remote access and condition based monitoring are available through broadband.

Steel Pipework
Fully welded steel piping for long life and leak tight operation.

Variable Speed fans
EC variable speed fans with optional Axitop diffusers for low fan power and improved air flow.

Heat Exchanger
Fully welded plate and shell heat exchanger utilized as combined evaporator and suction separator. High integrity design, giving low refrigerant charge and minimizes risk of leakage.

Chiller Pumps
Optional on-skid pumpset.

Drive Motor
VSD High efficiency IE3 drive motor with flange mounting to ensure accurate alignment.

Heat Recovery
Optional heat recovery from ammonia hot gas system.

Optional acoustic housing for compressor set.

COMPONENTS

Stainless steel tube condenser for long life. Full perimeter maintenance access.

Flatbed Condenser

Variable Speed fans

Fully welded plate and shell heat exchanger utilized as combined evaporator and suction separator. High integrity design, giving low refrigerant charge and minimizes risk of leakage.

Steel Baseframe
Channel section steel frame gives rigid construction and long life.

Steel Baseframe

Azanechiller 2.0

Compressor
Variable speed, reciprocating compressor with lowest power consumption providing linear capacity from 100% to 13% (depending on model).

Single or twin compressor options available.

Enhanced compressor technology delivers 25% longer service intervals. Intelligent overhaul scheduling via PLC reduces maintenance costs for part load operation.

Compressor

Flatbed Condenser

Stainless Steel Control Panel

Efficient Allen Bradley PLC Control

Chiller Pumps

Drive Motor

Heat Recovery

Steel Baseframe

Steel Pipework

Variable Speed fans

Heat Exchanger

Optional acoustic housing for compressor set.
LOW CHARGE AMMONIA IS HERE

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