GGMC Green Group Machinery Compact







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About GGMC

GGMC is mobile machinery developed and manufactured by the GREEN GROUP, experts in industrial refrigeration since 2006. Talking with clients we noticed that not all of them have the opportunity to build new compressor rooms. We suggest this solution, which does not require a lot of preparation from the client and can be easy integrated into any systems.

All equipment is built in sections mounted inside 45 ft shipping container and on a special platform on top of the container. Depending on logistical factors, the platform can be demounted and easily assembled again at the customer's location.

Advantages

- Simple installation
- ____ Saving footprint
- Reinforced frame ____
- ____ Liquid resistance floor
- Ventilation system ____
- ____ Inside temperature control
- Leakage sensor and other safety systems
- Water treatment system ____
- Fully insulated pipes and components ____
- PED 2014/68/eu and CE approval _
- Remote service support 24/7 ____

Options

- Heat recovery Heat Pump
- CO₂/NH₂ cascade solution ____
- Low charge ammonia volume

GREEN

Tropic version ____



DRY COOLER EC

EC motors provide better performance than AC motors, and use less electricity. They are also generally much more compact, and speed can easily be controlled using commutation electronics, for example via pulse width modulation.

LOW-PRESSURE VESSELS

Pressure vessels are available for almost all refrigeration applications. Our technology guarantees reliable refrigerant separation with a maximum operating refrigerant volume of 5 m³ per unit.

DANFOSSICF VALVE STATION

- Lower operating refrigerant charge
- Low power consumption
- Lower operating weight
- Small plan area
- ICAD precision dosing

EFFECTIVE VENTILATION

Each GGMC comes with a complete ventilation system, including exhaust air ducts and ventilation fans.

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Innovative new motor profile and efficiency with high coefficiency of



EVAPCO OR BAC CONDENSER

Designed for industrial refrigeration, evaporation condensers lower system condensing temperatures thereby reducing compressor horsepower, saving up to 15% energy compared to traditional air-cooled systems.



SIEMENS FREQUENCY CONVERTER

Leading manufacturing electric drive technology, perfectly regulating electric motors in refrigeration applications.



SIEMENS CONTROLLER

Simatic S7-1500 CPU controller with highresolution, 12" touch-screen control panel HMI. Remote monitoring. Safe and secure.



automatic Vi regulation ensuring energy performance (COP) at various loads.

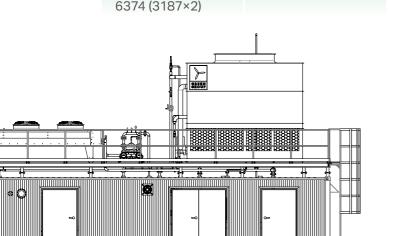
GGMC modifications

Model	FREEZING	COOLING	CHILLING
(ammonia)	Max refrigeration capacity kW at -40°C	Max refrigeration capacity kW at -10°C	Max refrigeration capacity kW at +2°C
GGMC 120	117	452	691
GGMC 160	153	580	881
GGMC 200	197	750	1146
GGMC 300	282	1028	1194
GGMC 400	370	1335	1537
GGMC 500	485	1735	2596

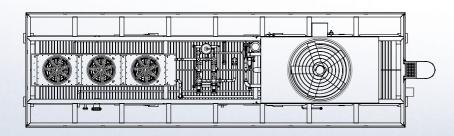
GGMC dimensions and weight

The 45ft HC (high cube) container standard dimensions are: L=13716 mm; W=2438 mm; H=2896 mm. Overall characteristics are shown in next table.*

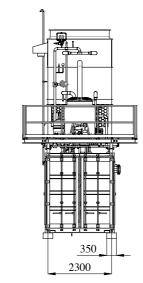
Measurement	Dimension, mm	Weight, t
Length	14802	
Width	4130 (2065×2)	Up to 25 (18+7)
Height	6374 (3187×2)	



3x4510 350 13530

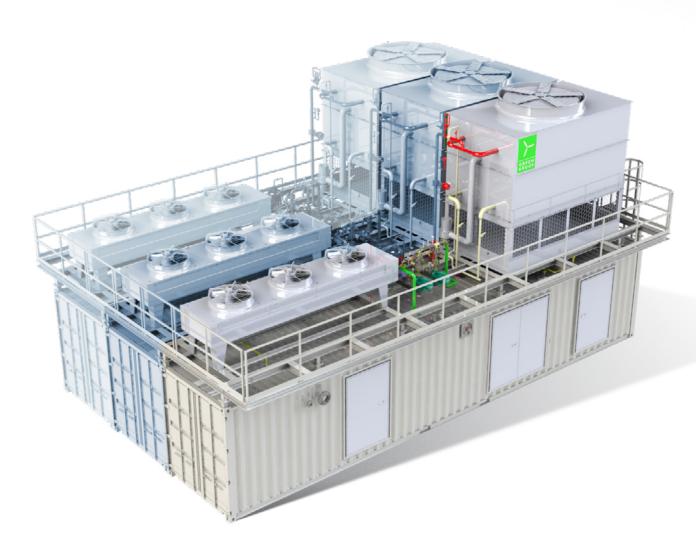


* All dimensions can be adjusted according to individual customer requirements.



Modular design

Modular design keeps your options open and gives flexibility, too. A unit can be expanded by adding extra modules to the existing one.



5 things for Installation

Everything we need – few conditions for installation:





8 poles foundation

Drainage

Water inlet







Electricity



Internet -Profinet cable

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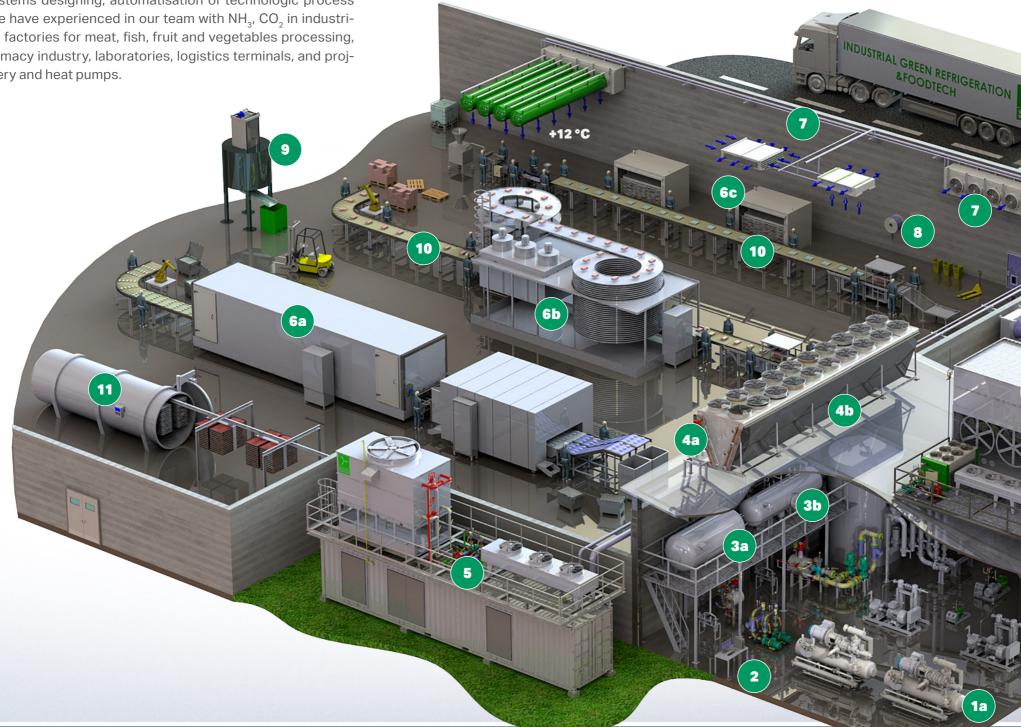
About the Company

The joint stock company GREEN GROUP was founded in 2006 and it attracted people with great experience in engineering and servicing refrigeration and air conditioning systems. The philosophy of the company is based on harmony of the environment with new ecotechnologies and our task is to ensure that the words ENVIRONMENT, ECOLOGY and the GREEN GROUP are related.

The main activities of the GREEN GROUP are refrigeration, air treatment, renewable energy systems designing, automatisation of technologic process and contracting. We have experienced in our team with NH₂, CO₂ in industrial projects, such as factories for meat, fish, fruit and vegetables processing, breweries, the pharmacy industry, laboratories, logistics terminals, and projects for heat recovery and heat pumps.

Equipment

- 0 **Machinery:** a) NH₃ screw compressor, b) CO₂ reciprocating compressor, c) NH₂ heat pump 2 Monitoring 3 Low pressure vessels: a) CO₂, b) NH₂ 4
 - Condensers: a) Heat recovery (desuperheating), b) Dry, c) Adiabatic



Mobile Machinery

Freezers/Chillers: a) Tunnel/IQF,

b) Spiral, c) Plate

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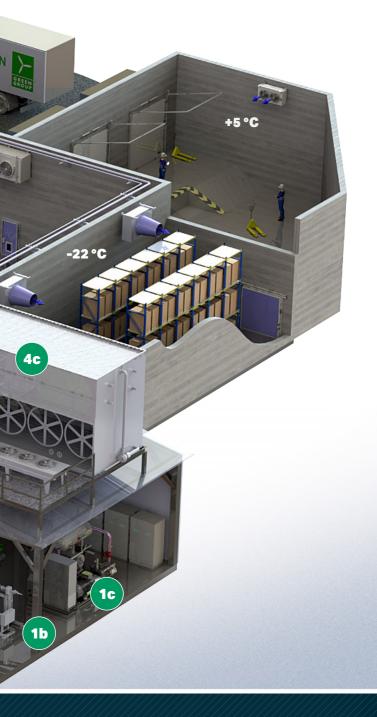
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- **Coolers/Evaporators**
- **Washing solutions**
- Ice machine with a storage
- Conveyors
- Freeze Dryer (Lyophilizer)





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