

ARCTIC CELL

CUSTOM-MADE

MODULAR COLD ROOMS



**CHILLING
YOUR WORLD**

SINCE 1981

CHILLING YOUR WORLD

SINCE 1981

ARCTIC

With over 40 years of experience in refrigeration technology, we have been committed to the continuous development and enhancement of refrigeration equipment, delivering custom-made solutions to clients globally.



EXPERIENCE



40 years of expertise in refrigeration technology.

TOP QUALITY



We deliver premium-grade refrigeration solutions, encompassing everything from individual components to fully integrated systems.

EXPERTISE



We continually advance technical expertise to capitalize on innovations in refrigeration, through trend analysis and strategic investment in education and equipment.

LOW LIFE-CYCLE COSTS



Refrigeration solutions are cost-effective, with low maintenance and high energy efficiency.

INVESTING IN THE FUTURE



Refrigeration solutions are engineered for optimal energy efficiency, appealing to environmentally conscious users with a future-oriented focus.

ENGINEERING-INSTALLER APPROACH



We combine innovative engineering, installation expertise, and comprehensive technical support.

ADAPTABILITY



We design, engineer, and manufacture custom-made refrigeration equipment tailored to specific customer requirements.

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CUSTOM MADE MODULAR COLD ROOMS

Custom-made cold rooms are designed and manufactured to meet the specific needs of various industries, fully adaptable to the available space, and tailored to the requirements of investors.



SQUARE COLD ROOM
Designed for unobstructed spaces, featuring seamless panels for a sleek look, ideal for areas where visual aesthetics are important.



L-COLD ROOMS
Designed for spaces with obstacles, fully adaptable to maximize and efficiently utilize every available area.



COMBINED COLD ROOMS
2-in-1 solution, positive and negative temperature zones in one unit, maximizing space and offering versatile storage.



COLD ROOM WITH SPECIFIC ANGLES
Designed to fit unique spaces with custom angles. Custom-made cold rooms offers the option to install glass display doors, making it perfect for retails.



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KEY ADVANTAGES

Advantages of custom-made cold rooms for investors and installers

INVESTORS:



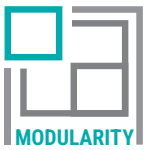
Production according to customer requirements.



Low cost of ownership during entire life cycle. *1



High-quality panel connections guarantee optimal energy efficiency.



Modularity enables full adjustment to available space.



Innovative solutions and special requests.



Floors in a wide range of load-bearing capacities.



Use of food safe contact materials.



Compliant with ISO norms.



Environmentally friendly products.



EU STANDARDS



Quick and easy assembly without power tools.



No silicone.



High level of assembly readiness.



High control of factory production and inspection of finished products.



High packaging standards to protect and safely transport goods.



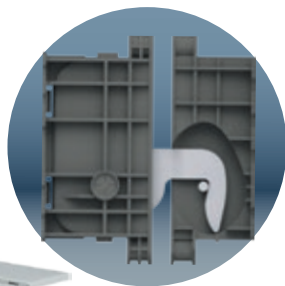
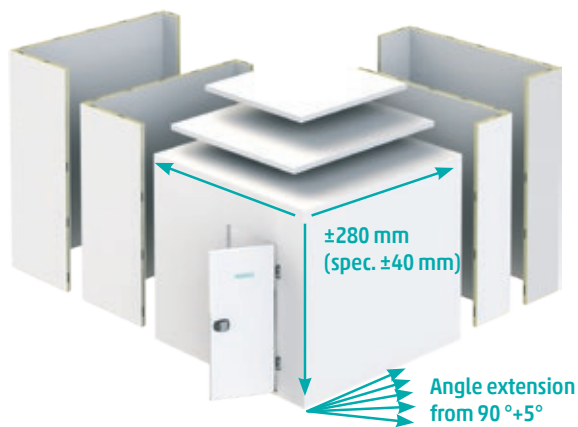
Recommended by refrigeration specialists.

*1 Ownership cost includes all costs incurred during a product's life cycle (the product's purchase, installation, energy costs incurred through refrigeration equipment's use, maintenance and servicing costs, as well as eco-friendly disposal of the product after its discontinuation).

ARCTIC CELL

KEY ADVANTAGES

Adaptability and energy efficiency



MODULARITY ENABLES FULL ADJUSTMENT TO SPACE

- Precise spatial alignment and optimal configuration are effortlessly achieved with **panel dimensions adjustable in 40 mm increments** (standard 280 mm).
- The angle expansion from **90° angle is possible in +5° increments** (e.g. 95°, 100°...), further enhancing the flexibility and integration into various architectural configurations.

HIGH-QUALITY PANEL CONNECTIONS GUARANTEE OPTIMAL ENERGY EFFICIENCY

- **Panel connections** - panels are equipped with tongue-and-groove joints, ensuring optimal insulation.
- **Eccentric cam locks** - panels are connected using eccentric cam locks with a tensile strength of 500 kg, providing excellent insulation along the entire length of the panel connection and eliminating the need for silicone.
- **Minimized energy loss** - integrated angles within the panels ensure a minimum number of joints, thereby reducing energy losses significantly.



LOW COST OF OWNERSHIP THROUGHOUT THE ENTIRE LIFE CYCLE

Refrigeration equipment is designed to provide low cost of ownership throughout its entire life cycle, encompassing all costs incurred during the product's lifespan, including:

- **Installation** - quick and easy assembly without power tools, ensuring an efficient and cost-effective installation process.
- **Energy costs** - reduced energy consumption due to high energy efficiency.
- **Maintenance and servicing** - minimal maintenance requirements and servicing costs.
- **Eco-friendly disposal** - environmentally responsible disposal practices after the product's discontinuation.



FOOD CONTACT SAFETY

- **Compliance with regulations** - the steel sheet surface contains no substances that could affect the product, fully compliant with food industry regulation EN 11886-5* and ISO 11886-5.
- **Testing Procedures (ISO 11886-5)** - overall extract migration with distilled water in a migration cell. / Overall extract migration with 3% acetic acid in a migration cell.
- **CE Mark Certification** - ARCTIC CELL panels are certified under EN 14509:2013, ensuring compliance with the European standards for internal and external wall and ceiling finishes.

ARCTIC CELL

TECHNICAL DATA

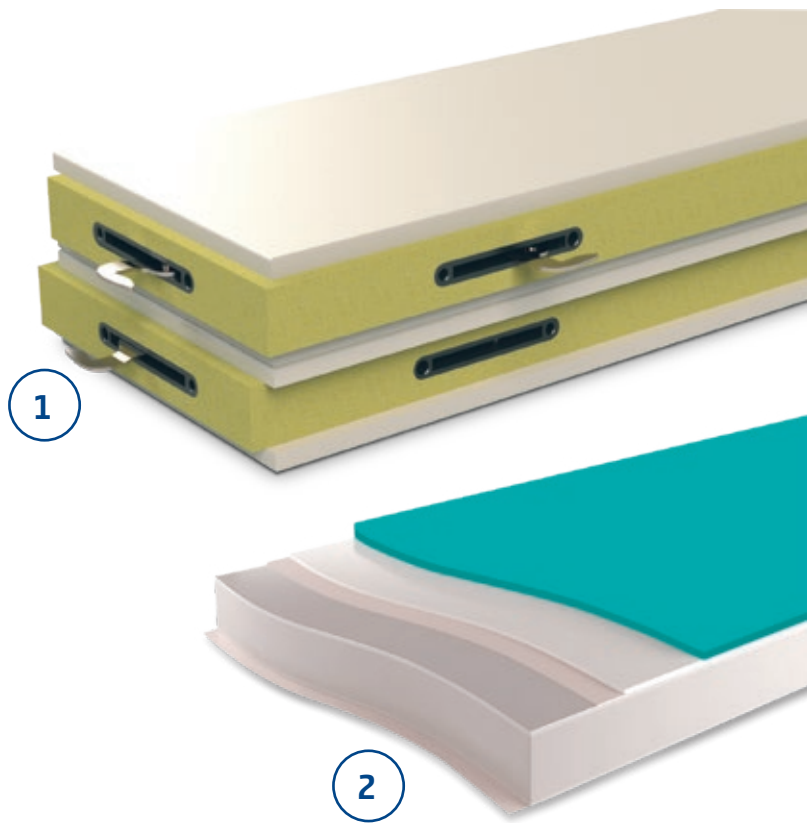
Cold Room Panels

1. ECO-FRIENDLY THERMAL INSULATION CORE

- **Advanced polyurethane foam** - the panels feature a core made of polyurethane foam with a density of 40-42 kg/m³, ensuring superior insulation performance.
- **Ecological compliance** - polyurethane foam incorporates advanced HFO technology as an expansion agent, delivering minimal Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP) in accordance with the F-Gas regulatory directive.

2. HIGH-TECH GALVANISED STEEL SHEET

- **Superior base** - Constructed from hot-rolled steel with excellent mechanical properties, treated through a process of residual stress normalization.
- **Corrosion protection** - pre-treated with zinc-magnesium, featuring a 120g/m² coating, ensuring corrosion protection that meets the highest industry standards.
- **Enhanced adhesion** - an additional 10 µm coating on the interior side of the panel ensures optimal adhesion between the polyurethane foam and the steel sheet.



SPECIFICATION	
Operating temperature range (+/-) ^{*2}	-40°C to +70°C
Reaction to fire	C s3 d0 (System 1) ^{*3}
Panel thickness for positive and/or negative operating temperature range	80 mm 100 mm 120 mm 160 mm
Standard internal height	2200 mm 2400 mm 2600 mm 2800 mm
Special internal height	up to max. 4000 mm
Standard expansion (increments)	±280 mm
Special expansion (increments)	±40 mm
Angle expansion	expansion of standard 90° angle is possible in 5° increments (e.g. 95°, 100°...)

COLD ROOM U-VALUE (heat transfer coefficient as defined in EN 14509)		INSULATION LAMBDA VALUE
mm	W/(m ² K)	
ISO 80	0,27	λ = 0.0225 W/mK The lambda value is calculated at +10°C, accounting for aging effects as defined in EN 13165.
ISO 100	0,22	
ISO 120	0,18	
ISO 160	0,14	

MATERIAL TYPES

STEEL SHEET:

- Type: DX51D-ZM120, thickness of 0.6 mm
- Color: RAL 9010

STAINLESS STEEL METAL:

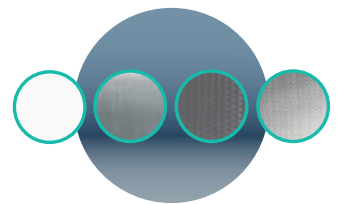
- Type: AISI 304 / AISI 316
- Surface Treatment: Scotch Brite

STAINLESS STEEL METAL:

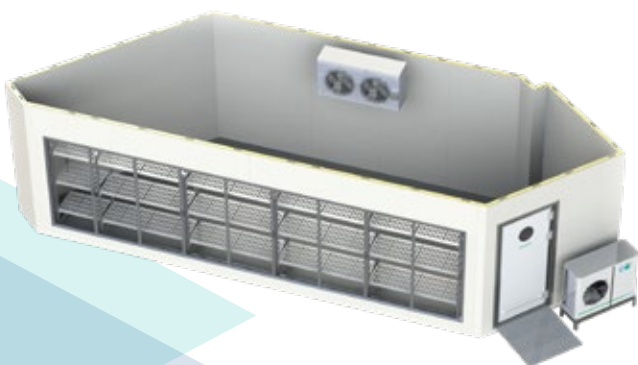
- Type: AISI 304
- Surface Treatment: Circular Sanding

STAINLESS STEEL METAL:

- Type: AISI 304
- Surface Treatment: Decorative Leinen



^{*1} - ISO 11886-5, per which the following tests are conducted:
 1. Overall extract migration with distilled water in migration cell.
 2. Overall extract migration with 3% acetic acid in migration cell.
^{*2} - Operating temperature range refers to refrigeration panels
^{*3} - In compliance with EN 13501



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TECHNICAL DATA

Standard dimensions

		LENGTH (mm)																	
		1560	1840	2120	2400	2680	2960	3240	3520	3800	4080	4360	4640	4920	5200	5480	5760	6040	
WIDTH (mm)	IZO 80																		
	1560																		
	1840																		
	2120																		
	2400																		
	2680																		
	2960																		
	3240																		
	3520																		
	3800																		
	4080																		
	4360																		
	4640																		
	4920																		
	5200																		
	5480																		
5760																			
6040																			

PANEL THICKNESS: 80 mm

Standard internal heights (mm):
2200 | 2400 | 2600 | 2800

		LENGTH (mm)																	
		1600	1880	2160	2440	2720	3000	3280	3560	3840	4120	4400	4680	4960	5240	5520	5800	6080	
WIDTH (mm)	IZO 100																		
	1600																		
	1880																		
	2160																		
	2440																		
	2720																		
	3000																		
	3280																		
	3560																		
	3840																		
	4120																		
	4400																		
	4680																		
	4960																		
	5240																		
	5520																		
5800																			
6080																			

PANEL THICKNESS: 100 mm

Standard internal heights (mm):
2200 | 2400 | 2600 | 2800

		LENGTH (mm)																	
		1640	1920	2200	2480	2760	3040	3320	3600	3880	4160	4440	4720	5000	5280	5560	5840	6120	
WIDTH (mm)	IZO 120																		
	1640																		
	1920																		
	2200																		
	2480																		
	2760																		
	3040																		
	3320																		
	3600																		
	3880																		
	4160																		
	4440																		
	4720																		
	5000																		
	5280																		
	5560																		
5840																			
6120																			

PANEL THICKNESS: 120 mm

Standard internal heights (mm):
2200 | 2400 | 2600 | 2800

		LENGTH (mm)																	
		1720	2000	2280	2560	2840	3120	3400	3680	3960	4240	4520	4800	5080	5360	5640	5920	6200	
WIDTH (mm)	IZO 160																		
	1720																		
	2000																		
	2280																		
	2560																		
	2840																		
	3120																		
	3400																		
	3680																		
	3960																		
	4240																		
	4520																		
	4800																		
	5080																		
	5360																		
	5640																		
5920																			
6200																			

PANEL THICKNESS: 160 mm

Standard internal heights (mm):
2200 | 2400 | 2600 | 2800

ARCTIC CELL

TECHNICAL DATA

Refrigeration Doors

REFRIGERATION HINGED DOORS

- **Superior insulation:** designed with minimal joints and no thermal bridges, these doors ensure exceptional insulation and enhanced energy efficiency.
- **Factory production control** - manufacturing quality is constantly examined, supervised, evaluated, and assessed to facilitate consistently high quality. Verifiable via Initial Type Test (ITT) and Factory Production Control (FPC).



DURABLE HINGES

- The refrigeration doors are equipped with hinges made from a high-quality composite that is resistant to temperature fluctuations.



LOCK & SAFETY

- **High-Quality lock** - the refrigeration doors are equipped with a lock made from premium composite materials, featuring a lock cylinder and a fluorescently labelled "ANTIPANIC" mechanism.
- **Safety compliance** - this mechanism allows the door to be opened from the inside, ensuring safety and compliance with EN 179 standards.
- **Emergency access** - Opening and exiting are possible even if the doors are locked from the outside.

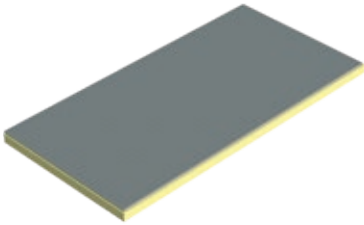


REFRIGERATION DOORS	STANDARD DIMENSIONS									
WIDTH (mm)	800			900			1000		1200	
HEIGHT (mm)	1900	2000	2200	1900	2000	2200	2000	2200	2000	2200

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TECHNICAL DATA

Cold rooms floors



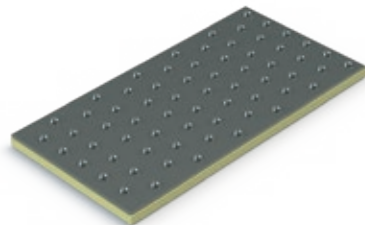
BASIC FLOOR R9/90

MATERIAL:

- Hot-Dip Galvanized Steel: DX51D-ZM120, covered with embossed PVC.
- Anti-Slip Design: R9 rating for enhanced safety.

PERMISSIBLE LOAD:

- Static Load: Even load up to 3000 kg/m².
- Dynamic Load: Concentrated load up to 90 kg/4 cm².



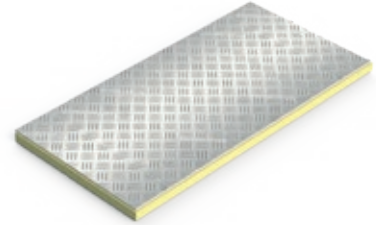
FLOOR LD 90

MATERIAL:

- Stainless Steel: AISI 304 with a Scotch Brite finish.
- Anti-Slip Design: Featuring a conically embossed pattern for enhanced safety.

PERMISSIBLE LOAD:

- Static Load: Even load up to 3000 kg/m².
- Dynamic Load: Concentrated load up to 90 kg/4 cm².



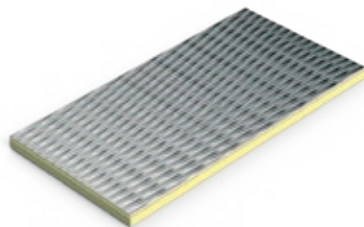
FLOOR R11/120

MATERIAL:

- Stainless Steel: AISI 304 with a Scotch Brite finish.
- Anti-Slip Design: Class SE-TB1-R11 pattern for superior safety.

PERMISSIBLE LOAD:

- Static Load: Even load up to 3000 kg/m².
- Dynamic Load: Concentrated load up to 120 kg/4 cm².



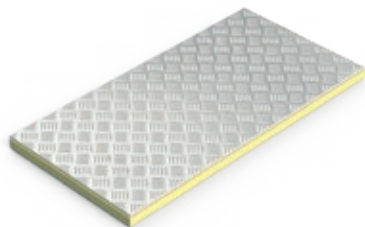
FLOOR R12/300

MATERIAL:

- Stainless Steel: AISI 304 with a Scotch Brite finish.
- Anti-Slip Design: Class SE-5WL-R12 pattern for enhanced safety.

PERMISSIBLE LOAD:

- Static Load: Even load up to 4000 kg/m².
- Dynamic Load: Concentrated load up to 300 kg/4 cm².



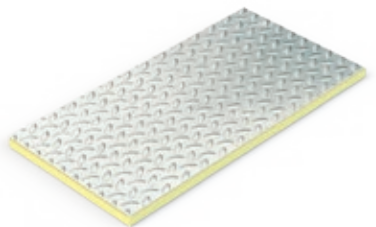
FLOOR HD 400

MATERIAL:

- Ribbed Aluminium Sheet Steel: AlMg3.
- Anti-Slip Design: Ribbed tear-drop pattern for superior safety.

PERMISSIBLE LOAD:

- Static Load: Even load up to 4000 kg/m².
- Dynamic Load: Concentrated load up to 400 kg/8 cm².



FLOOR HD 650

MATERIAL:

- Hot-Dip Galvanized Steel: S235, floating design.
- Anti-Slip Design: Ensures enhanced safety.

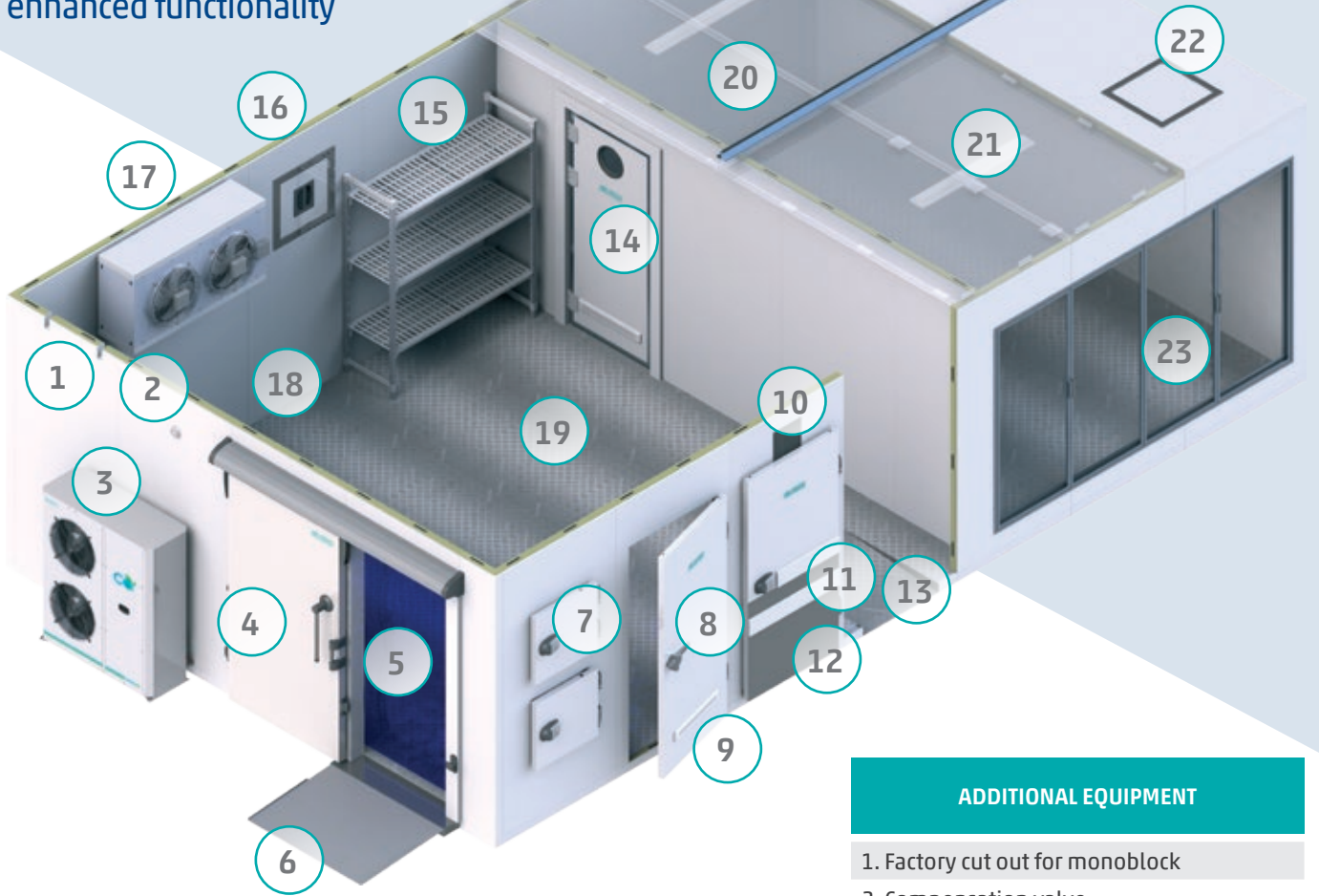
PERMISSIBLE LOAD:

- Static Load: Even load up to 5000 kg/m².
- Dynamic Load: Concentrated load up to 650 kg/8 cm².

ARCTIC CELL

ADDITIONAL EQUIPMENT

Comprehensive solutions for enhanced functionality



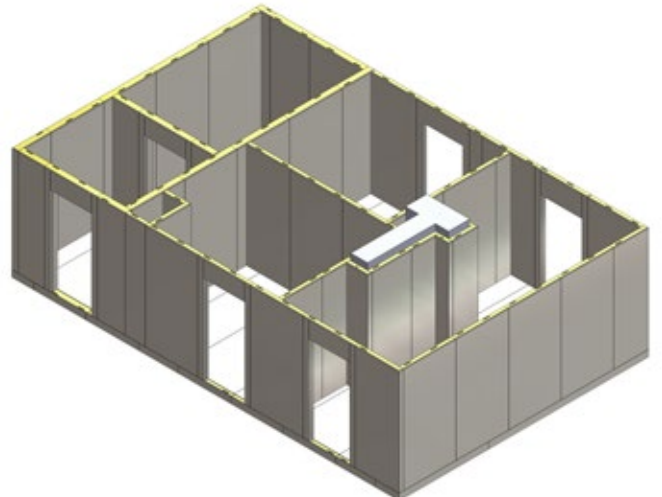
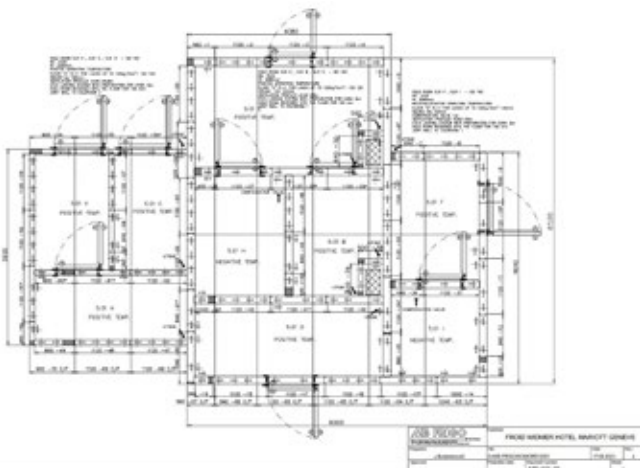
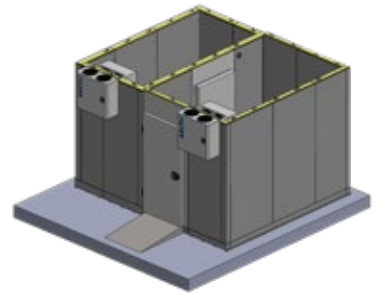
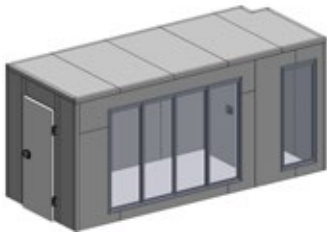
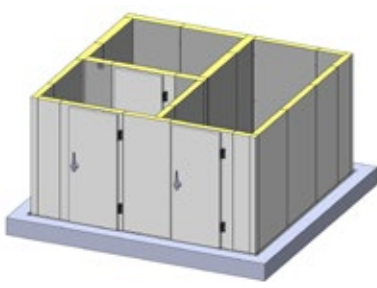
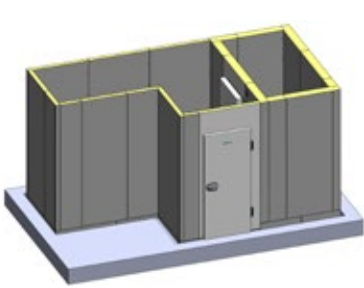
ADDITIONAL EQUIPMENT

1. Factory cut out for monoblock
2. Compensation valve
3. Refrigeration units ArctiCO2
4. Built-in sliding door
5. Strip curtain
6. External ramp
7. Refrigeration doors with special dimension
8. STUV locking system
9. Bumper
10. Guideway passage
11. Acrylic bumper
12. Door with circle-brushed covering
13. Internal ramp (only MT)
14. Push&pull door with bumper and inspection window
15. Shelves
16. Wall-mounted hatch
17. Evaporator
18. Sanitary profiles
19. Floor R11/120
20. T-suspension
21. Lighting
22. Ceiling-mounted hatch
23. Glass door



ARCTIC CELL SOLUTIONS

Examples of custom-made cold rooms to meet customer needs



ARCTIC CELL COMPACT

ALL IN ONE SOLUTION

The compact design allows for easy installation, application, maintenance, and servicing.

- Modular cold rooms with eccentric cam locks and hinged refrigeration doors
- Pre-prepared for Arctic Monoblock
- Pre-selected Arctic Monoblock
- Hinged refrigeration doors
- Walk in floor (hot-dip galvanised steel DX51D-ZM120, covered with anti-slip design R9)
- Dimensions up to 10 m³
- Certified in accordance with EU standards



SPECIFICATION

- Filled with polyurethane foam of 40-42 kg/m³ density
- Gas injection in accordance with F-GAS regulations
- Manufactured with high-quality hot-rolled steel sheet with RAL 9010 colour
- Compensation valve for LT temperature range

ARCTIC CELL COMPACT

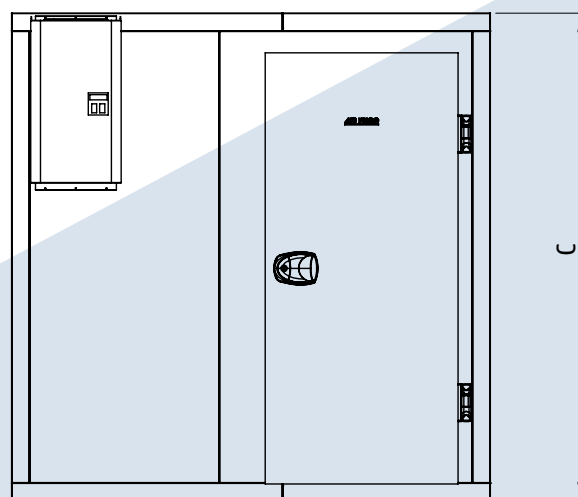
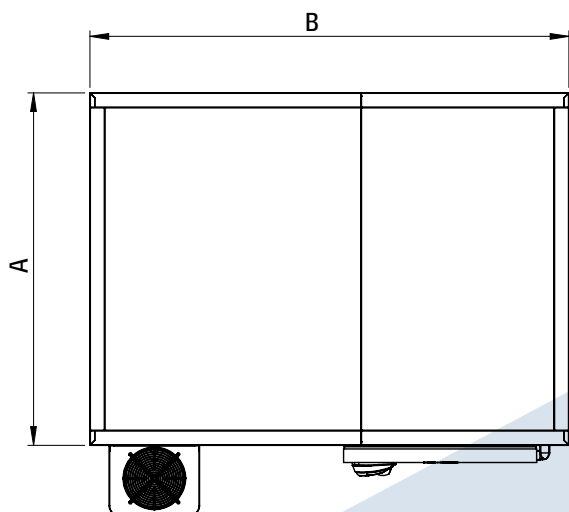
TECHNICAL DATA

Dimension and monoblock models

Depth „A”(cm)	Width "B" (cm)	Height "C" (cm)
128	156	216
	184	216
156	156	216
	184	216
	212	216
	240	216
184	156	216
	184	216
	212	216
	240	216
212	156	216
	184	216
	212	216
	240	216
240	156	216
	184	216
	212	216
	240	216

PRESELECTED MONOBLOCK UNIT

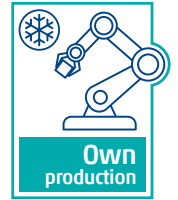
Temperature Range MT/LT; Panel Thickness 80 mm; Door Clear Opening 1900x800 mm



MB FRIGO

TECHNOLOGY

Since 1981, we have been building and improving business in the segment of air conditioning and refrigeration technology.



Over the years, we have developed the production of refrigeration equipment in our own production centre using technology and machinery that allow a more flexible approach to the needs of customers.



Leveraging robotized production, we've automated business processes, increased efficiency, enhanced quality, and shortened delivery times.

Our expertise lies in the manufacturing of cold rooms, refrigeration doors, and refrigeration units. The high flexibility of production program enables the creation of custom-made products tailored to specific market needs.



WHAT WE OFFER?

A long-term business relationship, a professional approach to collaboration and 360° support.



HIGH QUALITY PRODUCTS

- Comprehensive refrigeration solutions
- Custom - made solutions according to customer requirements
- Factory production control and thorough inspection of finished products
- Reliable, safe, user-friendly, and energy-efficient refrigeration solutions
- Fully compliant with EU and ISO standards

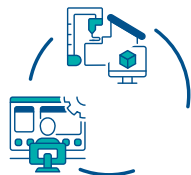


EASY FOR INSTALLERS

- Quick and easy assembly without the need for power tools or silicone
- High level of assembly readiness
- Superior packaging standards to ensure safe transportation and protection of goods



PRODUCTION AND DELIVERY ON TIME



PRESALES AND ENGINEERING SUPPORT



SUPPORT OF THE R&D DEPARTMENT AND SERVICE-TECHNICAL CENTER



AVAILABLE SPARE PARTS



Authorized representatives for
ARCTIC refrigerant solutions:



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