

COLD ROOM AND STORAGE



Chenguan provides 3 types of cold room: fresh preservation room (-5 to 10°C), cold storage (-5 to -20°C), freezing room (-20 to -35°C). 2 ways of heat transferring: unit cooler or evaporative tube, 2 ways of refrigeration: ammonia system or freon system; 2 ways of condensation: air-cooled or water-cooled. The size is specified by customer. We can supply the complete turn-key service of cold room project: design, material, installation and maintenance. Our cold rooms are widely used in food processing industry and food logistics, for Stockpiling medicine, meat, aquatic products, poultry, eggs, dairy products, fruits, vegetables, and industrial products cryogenic tests.

Insulation materials: Polyurethane stuffing, painted steel or stainless steel plates two sides, aluminum plate embossed to be optional.

Refrigeration compressor units: Germany Bitzer, American Copeland, Maneurop and so on. We can provide the center multiple compressor units according to the cold room design to

solve big refrigeration demand.

Cold refrigeration air blowers: adopt high effective ceiling unit cooler.

Room temperature controls: Use computer temperature controller, it can measure the coils temperature of defrosting by unit cooler. If defrosting condition reach the set temperature. The system will stop defrosting in advance to avoid the temperature is too high to harm. We provide more parameters to option. It will prevent these system preparations and frequent restarting.



Main Parts of the Cold Room

- **Compressor** Our company specializes in sales of compressor units. Over the years, Our cold storage compressor units are widely used in many supermarkets, hotels and seafood and aquatic insulation place. Our company is accepted to vast clients by first-class product quality, improved after-sales service, reasonable prices and good reputation. Every compressor units will be the best choice for your ideals.



The series of air-cooled condenser which our company produce use the technology of hydraulic swelling pipe in once molding and two flanging finned aluminum tubes, high quality and steel tube aluminum fins heat exchanger. The high speed fans with high pressure head and air volume. Users can choose different forms of air-cooled condenser based on the working conditions. Air-cooled condenser include side blast air-cooled condenser, V-type air-cooled condenser, W-type air-cooled condenser, the condenser for air-conditioned room.

- **Ceiling Unit Cooler** Our company Ceiling unit cooler is simple structure, easy installation, save space and flow evenly distributed. Ceiling unit cooler can draw into new air to increase comfort. Indoor ceiling unit cooler can set auxiliary electricity (water) heating, suitable for hot summer and cold in winter area. Ceiling unit cooler is efficient energy saving, multi-point air supply, cold, air balance distribution and quiet operation.



The unit cooler evaporator used thin-walled brass and punching the second flanging forming a highly efficient aluminum fins from the mechanical expanding. The unit cooler have high heat conduction efficiency, using fan

anti-moisture, low temperature resistant, air volume, low noise, smooth and reliable operation.

- **Electronic Control System** The main application of electronic control box is in beverage manufacturing, food processing, chemical raw materials and chemical products industry, pharmaceutical manufacturing industry. Electronic control boxes made of stainless steel plate, aesthetic appearance, ease for installation.



Electronic control system has automatic control capabilities that enable automatic temperature control, timing control, etc.

- **Insulation** panel is nice and durable. The material is PU. the types of panel appearances, the double-side color steel plate, stainless steel double-sided, single-side color plate, single-side stainless steel, glass steel plate. PU panel inside of raw materials used by high-pressure polyurethane foam, the density more than 40 Kg/m³, effective insulation. Polyurethane cold storage equipment is controlled by the computer completely, control is accurate and reliable, and automated equipment running. Cold Storage insulation panel interface is convex and eccentric and used steel hook, locking force, sealing well.

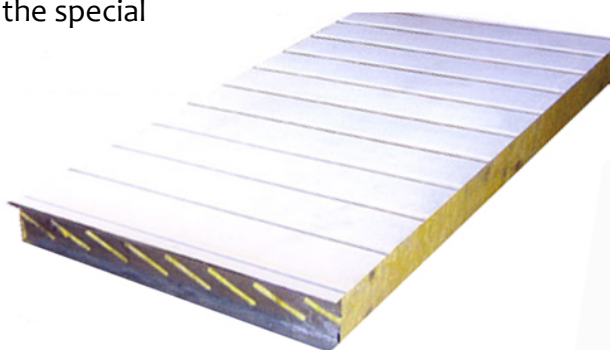
Cold Storage insulation panel have complete different specifications, thickness: 75mm, 100mm, 150mm, 200mm, the standardization of the multiple dimensions of 960 mm, height is 2 m to 10 m, the body of all the special requirements can be satisfied.

Cold Storage insulation PU panel main technical parameters:

Heat transfer coefficient: $\leq 0.023 \text{ W / m}^2\text{ }^{\circ}\text{C}$

Low Temperature: -20 ~ -10 $^{\circ}\text{C}$

Temperature: High temperature: -2 ~ +12 $^{\circ}\text{C}$



Temperature uniformity: $\leq 4 \sim 6^{\circ}\text{C}$

Density: $40 \sim 50 \text{ Kg/M}^3$

Water absorption: $\leq 0.3 \text{ Kg/M}^2$

Middle temperature: $-10 \sim -2^{\circ}\text{C}$

Compression strength: $\geq 0.2 \text{ Mpa}$

Technical Parameters

Room Style	Small	Middle	Large
Room Volume	$< 500 \text{ M}^3$	$500 \sim 1000 \text{ M}^3$	$> 1000 \text{ M}^3$

Temperature

Temperature	High $^{\circ}\text{C}$	Middle $^{\circ}\text{C}$	Low $^{\circ}\text{C}$	Frozen $^{\circ}\text{C}$
Range	± 5	$-10 \sim -5$	$-20 \sim -10$	Less than -23

Cooling Time(Empty, Nominal Condition)

Room Volume M^3	Cooling Time (H)			
	High $^{\circ}\text{C}$	Middle $^{\circ}\text{C}$	Low $^{\circ}\text{C}$	Frozen $^{\circ}\text{C}$
≤ 100	≤ 1.0	≤ 1.5	≤ 2.5	≤ 3.5
$101 \sim 1000$	≤ 2.5	≤ 3.0	≤ 4.0	≤ 4.5
> 1000	≤ 3.5	≤ 4.0	≤ 5.0	/

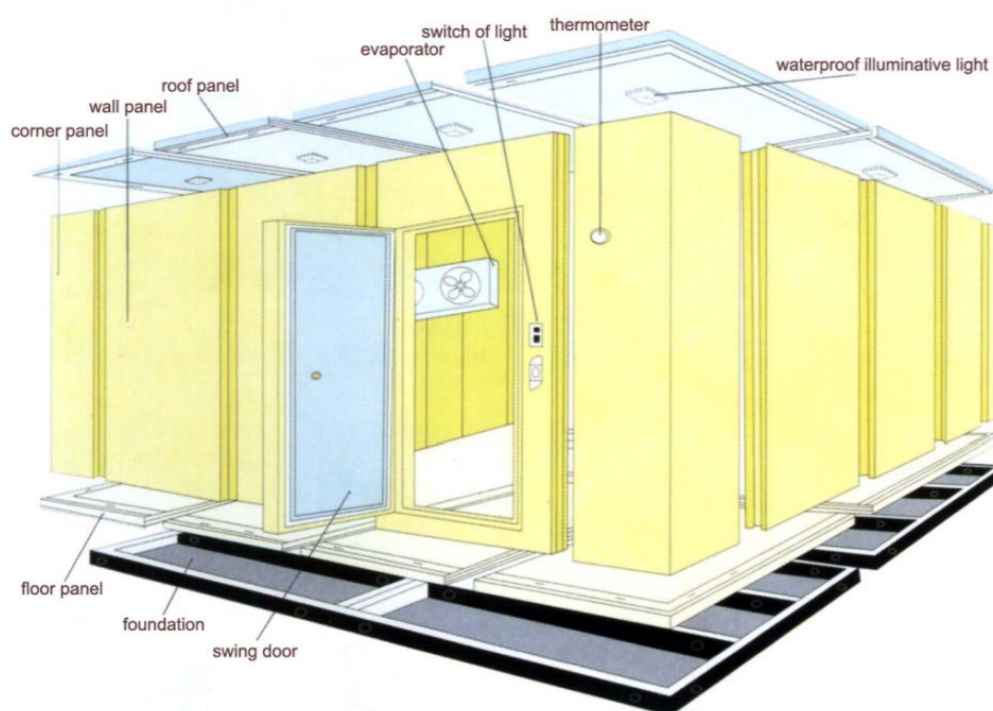
Models

Volume (M^3)	Overall Size (M)	Net Height (M)	Cooling Room $\pm 5^{\circ}\text{C}$ 100 mm Panel		Frozen Room $-20^{\circ}\text{C} \sim -10^{\circ}\text{C}$ 150 mm Panel	
			Compressor Power (HP)	Water Consumption (T)	Compressor Power (HP)	Water Consumption (T)
8.3	$2.24 \times 2.24 \times 2.2$	2.0	3	1.2	3	1.2
13	$3.36 \times 2.24 \times 2.2$	2.0	3	1.5	3	1.2
15	$3.36 \times 2.24 \times 2.5$	2.3	3	1.5	4	1.5
23	$3.36 \times 3.36 \times 2.5$	2.3	4	3	4	1.5
31	$4.48 \times 3.36 \times 2.5$	2.3	4	3	4	1.5
42	$4.48 \times 4.48 \times 2.5$	2.3	4	3.5	4	2.0
53	$5.6 \times 4.48 \times 2.5$	2.3	5	4	5	2.0
88	$6.72 \times 5.6 \times 2.7$	2.5	5	4	7.5	3.5
103	$7.84 \times 5.6 \times 2.7$	2.5	5	5	10	4.0
124	$8.96 \times 5.6 \times 3.0$	2.7	10	5	10	4.0
170	$10.08 \times 6.72 \times 3.0$	2.7	15	8	15	5.5

286	13.44×7.84×3.0	2.7	15	8	15	5.5
333	14.56×8.96×3.0	2.7	10×2	10	15×2	11
426	15.68×8.96×3.5	3.2	10×2	10	15×2	11
529	16.8×8.96×4	3.7	15×2	15	15×3	16.5

Room Assembling

Our company offers a variety of installation methods, it is installed by customers, or by personal guide to install from our company, we can also provide a full installation services, complete key projects.



Technical Changes, The data and illustrations in this catalogue are not binding and only provide an approximate description. We reserve the right to make changes to the product delivered compared with the data and illustrations in this catalogue, e.g. in respect of technical data, design, fittings, material and external appearance.

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