

•Flake Ice Machines

•Ice Storage and Delivery System

·Block Ice Machines

•Cube Ice Machines

•Cold Storage Room & Containerized Cold Storage



### **ICEMAC COMPANY PROFILE**

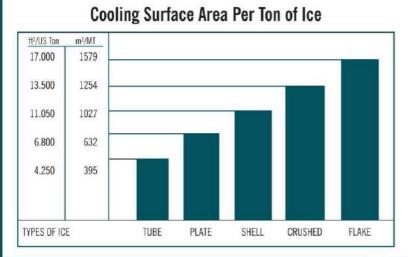
Icemac is a manufacturer of industrial flake ice maker, ice cube maker, block ice making machine and water chiller plant with experience of more than 15 years in cooling industry, Icemac's goal is to provide a great service to all of our customers worldwide.

lcemac is always focusing on supplying high quality and effective machines to our customers and all components of machine are selected from famous brands. Apart from our standard products, lcemac makes an effort to provide flake ice makers in accordance

with their costumers' requirements.

Icemac sells ice machines with different cooling capacities all over the world. Equipment manufactured by Icemac works confidently in places where hot and tropical climate have effect on such as regions in Africa, Middle East,Gulf, Asia — Pacific and South America.

# INTRODUCTION



Flake Ice Machine

From 0.5 to 30 tons/day

### **Block Ice Machine**

- From 150 kg/day to 50 tons/day
- Containerized up to 10 tons/day

### **Cube Ice Machine**

From 160 kg/day to 3000 kg/day

### **Cold Storage Room**

- Regular / Warehouse Cold Storage
- · Containerized Cold Storage

Flake ice has approximately 1,600 m2/ton surface area, and it provides excellent cooling capacity than any other ice.

- Flake ice is a simple and soft scale form of ice. It has also kind of dry and brittle ice shape.
- Broad contact area and good changeability can make possible the full contact with refrigerated objects, like fish, concrete etc.
- There's no acute edges or sharp points on the ice flake, so it won't damage to the surface of the cooled object.
- ▶ Its thickness is about 1.5mm~2.0 mm.





### **FLAKE ICE MACHINE**

Flake ice can be used to keep fresh fruit, vegetable and meat. Flake ice is allowing to display perishable foods without fear of spoilage. Flake ice made up of thin pieces of ice and has no sharp edges, so cannot damage to refrigerated surfaces.

Flake ice is the ideal choice for fish markets, grocery stores, and healthcare facilities. It is also used in packing produce, poultry, concrete cooling, the pharmaceutical industry and scientific labs.

There are two type of flake ice machine: fresh water flake ice machine and sea water flake ice machine. Fresh water flake ice machine works with fresh water (drink water), sea water flake ice machine works with sea water (salty water). Icemac provides both of them. The flake ice produced by Icemac machines is sub-cooled to -4°C/-8°C. The thickness of the ice will be 1.5 - 2 mm.

Icemac flake ice machines are very simple to operate and made of durable materials that ensure high quality results with each and every use. Our flake ice machine can be also installed in container for easy transportation and maintenance. Icemac flake ice machines offer maximum cooling and a slower melt and save your operation cost by using low water and energy. If you think to combine quality and efficiently, they would be best for your operation.

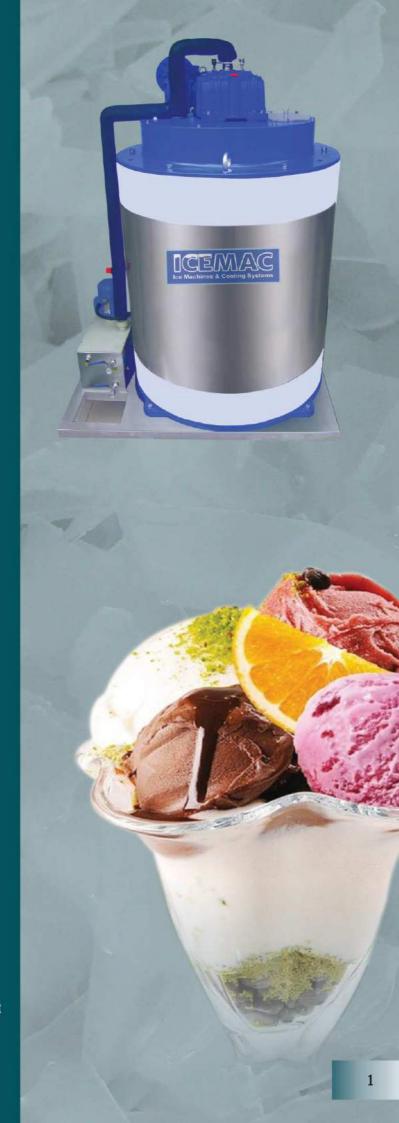
Even in high ambient temperatures, Icemac flake ice machines are durable and reliable. With stainless steel construction and capacities ranging from 0.5 to 30 ton per day, Icemac ice machines deliver clear, fresh, sanitary flake ice and eliminate your dependency on ice suppliers.

#### **ADVANTAGES**

- ·Fast cooling & production
- ·High efficiency, energy saving and low maintenance
- -Compact size and easy installation
- -Long service life and reliable performance
- -Environment friendly and low noise
- ·Easy to clean
- -2 year guarantee period

#### **COMMON FEATURES**

- -Vertical evaporator
- •The machine is constructed by durable 304 stainless steel material, which has good quality to against rust and corrosion.
- ·LCD Display automation control system with English language support
- ·Top brand components
- ·Air cooling system
- ·Easy to use electronic control









### Why is ice more effective than cold water at same temperature?

Because of the fact that phase change occurs at the same temperature. At 1 bar pressure, ice will melt to become liquid water at 0 C. Therefore, the latent heat of fusion that is approximately 335 KJ/kg. This heat is removed from surrounding assuming that it is at higher temperature. Briefly, one kg water at 0 C contains X kj of energy but ice at 0 °C contains (X-335kj) of energy. Ice is more capable of cooling than water.

Flake Ice Machine: Icemac flake ice makers have two type of application fields. These are fresh water flake ice machine and sea water flake ice machine. Our flake ice machine capacity ranges between 0.5-tons/day to 30 tons/day. If it's demanded, we can produce higher capacity machines up to 90 ton/day by using more than one ice maker.

Cube Ice Machine: We provide industrial cube ice machines. Our cube ice machine capacity ranges between 160 kg/day and 3000 kg/day.

**Block Ice Machine:** We provide block ice machines in the range of 150 kg/day up to 50 tons/day. We also provide containerized block ice machines up to 10 tons/day.

Water Chiller Plant: We provide water cooling machines in the range of 0.5 liters/day to 5000 liters/day. Even if you cannot find the capacity you need in our standard capacity range, contact us. We can offer the solution for you.

### Flake Ice Making Machine and Area of Utilization

There are two types of ice flaker machine: fresh water ice flaker machine and sea water ice flaker machine. Fresh water flake ice machine works with fresh water (drink water), sea water flake ice machine works with sea water (salty water). Icemac produces to costumers with both sea water flake ice making machine and fresh water flake ice machine. The flake ice produced by Icemac machines is sub-cooled to -4°C/-8°C. The thickness of the ice will be 1.5 - 2 mm.

Icemac flake ice machines are very simple to operate and made of durable materials that ensure high quality results with each and every use. Our flake ice machine can be also installed in container for easy transportation and maintenance. Icemac flake ice machines offer maximum cooling, slower melt and save your operation cost by using low water and energy consumption. If you think to combine quality and efficiency, they would be the best option for your operation.

Even in high ambient temperatures, Icemac flake ice machines are durable and reliable with stainless steel construction and capacities ranging from 0.5 to 30 tons/day, Icemac ice machines deliver clear, fresh and sanitary flake ice, also eliminate your



- ▶ In tropical climate, Mean temperature of tropical climate is about 18C and there is only two seasons. Temperature remains constantly hot during the year and between 30C and 50C. Therefore, condenser's temperature has to be higher than ambient temperature for efficient operations. We designed flake ice machines as per climate of the operating region. Water conditions are considered for tropical regions. The design and selection of the ice machine has to be based on these criteria's. Icemac's flake ice maker can work properly on tropical conditions. Because Icemac ice machines' condenser can work properly at higher temperat ure.
- ▶ By using vertical evaporator, the circulation of heated liquid can be performed to give good heat transfer in preference to horizontal type. It is more efficient than horizontal due to fact that heat transfer coefficients are substantially higher. Icemac uses vertical type of evaporator on ice flaker machines.



## Fields of applications;

- Concrete cooling
- Fishery
- ► Food processing
- Artificial skiing ground
- Medical facilities and bio-technology
- Dye chemical industry
- Medium and large chain supermarket
- Bread and biscuit processing
- ▶ Dairy processing



1. Fisheries: Seawater flake ice machine can be installed directly on the fishing boat, using sea water for making ice. Fresh sea products must be suddenly frozen. Fishery industry is one of the most remarkable area of ice machine applications.

2.Concrete Cooling: Using flake ice has a much bigger impact on the temperature of the concrete mix, compared to using cold water, due to the large amount of heat that is needed to melt the ice.

3. Medicine: To maintain organism activity and control the reaction rate, a lot ice need to be used in some chemical synthesis experiments

4. Vegetable and Food Processing: Flake ice has a fast cooling effect, it can generate a low humidity environment, in this way ensuring vegetables and fruits from bacterial damage.

5. Poultry processing: In poultry, meat processing will have a good amount of heat, the cooling process may be used for ice sheet poultry, as well as humidity control products and improving quality.

6.Dairy Processing: Temperature must be effectively controlled during the production in dairy processing. Because the reason is that fermentation temperature need to be checked at required value to acquire enough moisture and protect the bioactive elements such as bacterial ingredients.

7. Bread and biscuit processing: During the kneading of dough, dough's temperature can rise because of the friction. To prevent this problem, flake ice has to be added into the dough.



### How does flake ice maker work?

Initially the water is pumped to the water distribution pan and then the water in the pan equally flows down on the inner surface of evaporator. After that, the refrigerant in the system evaporates inside evaporator and it absorbs a good amount of heat with the water on the wall by heat exchanging. Evaporators' inner surface severely cools to below the freezing point and water that flows over the surface will turn to ice. The spiral ice scraper will peel ice from the surface. Finally ice falls into storage bin at the bottom.





#### **ADVANTAGES**

- ► Fast cooling & production
- ► High efficiency, energy saving and low maintenance
- ► Compact size and easy installation
- ► Long service life and reliable performance
- ► Environment friendly and low noise
- Easy to clean
- ▶ 1 year guarantee period

#### **COMMON FEATURES**

- Vertical evaporator
- ► The machine is constructed by durable 304 & 316 stainless steel material, which has good quality to against rust and corrosion.
- LCD Display automation control system with English language support
- ► Top brand components
- ► Air cooling system and Water cooling
- Easy to use electronic control
- Recycling of Water: Icemac Flake Ice Machines recycle all unfrozen water back to the ice maker in this way no water is wasted. This enables that all water is converted to ice. User Friendly Design: The ice machine has a PLC touchscreen control system and it can automatically control the all progress of ice making with alarm while full ice, lacking of water, high pressure or low pressure cases. It is very convenient for operator.



### FRESH WATER FLAKE ICE MACHINE

It works with fresh water. It is very quiet and highly efficient and produces hygienic ice with the vertical kind of evaporator. The cooling instrument consists of highquality equipment. Icemac fresh water flake ice machine can work properly in standard and tropical conditions. It cannot just keep vegetables and fruits fresh but also provide enough moisture to them by this way it can take them under preservation.

Technical Specs / Model	FI-05 (500 kg)	FI-1 (1 ton)	FI-2 (2 ton)
Ice Making Capacity	500 kg/24h	1000 kg/24h	2000 kg/24h
Cooling Capacity	2.9 kW	5.2 kW	12.4 kW
Ambient Temperature*	30-40 C°	30-40 C°	30-40 C°
Water Input Temperature	5/25 C°	5/25 C°	5/25 C°
Condensation Temperature	45 C°	45 C°	45 C°
Ice Output Temperature	-4°C / -8°C	-4°C / -8°C	-4°C / -8°C
Ice Thickness	1.5 - 2 mm	1.5 - 2 mm	1.5 - 2.2 mm
Cooling Mode	Air Cooling	Air Cooling	Air Cooling
Refrigerant	R 404 A	R 404 A	R 404 A
Evaporator Type	Vertical	Vertical	Vertical
Compressor Brand and Power	Dorin, 3 hp, Semi-Hermetic	Dorin, 7 hp, Semi-Hermetic	Dorin, 10 hp, Semi-Hermetic
Power Supply	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz
Power Consumption	2.7 kW/h	4.7 kW/h	11.7 kW/h
Dimension of Evaporator (W-L-H)	81 x 58 x 79 cm	81 x 58 x 88 cm	93 x 68 x 130 cm
Dimension of Ice Machine (W-L-H)	126 x 74 x 81 cm	130 x 97 x 90 cm	130 x 115 x 138 cm
Net Weight	210 kg	500 kg	500 kg

Technical Specs / Model	F1-3 (3 ton)	FI-5 (5 ton)	FI-10 (10 ton)
Ice Making Capacity	3000 kg/24h	5000 kg/24h	10000 kg/24h
Cooling Capacity	17 kW	33 kW	52 kW
Ambient Temperature*	30-40 C°	30-40 C°	30-40 C°
Water Input Temperature	5 / 25 C°	5/25 C°	5 / 25 C°
Condensation Temperature	45 C°	54 C°	50 C°
Ice Output Temperature	-4°C / -8°C	-4°C / -8°C	-4°C / -8°C
Ice Thickness	1.5 - 2 mm	1.5 - 2 mm	1.5 - 2 mm
Cooling Mode	Air Cooling	Air Cooling	Water Cooling
Refrigerant	R 404 A	R 404 A	R 404 A
Evaporator Type	Vertical	Vertical	Vertical
Compressor Brand and Power	Dorin, 15 hp, Semi-Hermetic	Dorin, 30 hp, Semi-Hermetic	Dorin, 50 hp, Semi-Hermetic
Power Supply	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz
Power Consumption	13 kW/h	26 kW/h	45 kW/h
Dimension of Evaporator (W-L-H)	93 x 68 x 130 cm	114 x 89 x 152 cm	200 x 130 x 240 cm
Dimension of Ice Machine (W-L-H)	160 x 128 x 138 cm	245 x 180 x 157 cm	200 x 150 x 250 cm
Net Weight	550 kg	1050 kg	1800 kg

Technical Specs / Model	FI-15 (15 ton)	FI-20 (20 ton)	FI-30 (30 ton)
Ice Making Capacity	15000 kg/24h	20000 kg/24h	30000 kg/24h
Cooling Capacity	88 kW	95 kW	150 kW
Ambient Temperature*	30-40 C°	30-40 C°	30-40 C°
Water Input Temperature	5/25 C°	5 / 25 C°	5 / 25 C°
Condensation Temperature	45 C°	45 C°	45 C°
Ice Output Temperature	-4°C / -8°C	-4°C/-8°C	-4°C/-8°C
Ice Thickness	1.5 - 2 mm	1.5 - 2 mm	1.5 - 2.2 mm
Cooling Mode	Water Cooling	Water Cooling	Water Cooling
Refrigerant	R 404 A	R 404 A	R 404 A
Evaporator Type	Vertical	Vertical	Vertical
Compressor Brand and Power	Dorin, 2x40 hp, Semi-Hermetic	Dorin, 2x40 hp, Semi-Hermetic	Dorin, 4x40 hp, Semi-Hermetic
Power Supply	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz
Power Consumption	63 kW/h	69.5 kW/h	119.6 kW/h
Dimension of Evaporator (W-L-H)	135 x 135 x 235 cm	135 x 135 x 235 cm	135 x 135 x 235 cm
Dimension of Ice Machine (W-L-H)	280 x 315 x 250 cm	260 x 180 x 250 cm	230 x 250 x 195 cm
Net Weight	3550 kg	3350 kg	5800 kg
			On Request



### SEA WATER FLAKE ICE MACHINE

Sea water flake ice machine can produce ice from directly sea-water, and this machines are usually used on deep-sea fishing boat. It is made of durable 316 stainless steel with powerful corrosion resistance. It has a good quality of design and body which can enable the fishing boat

Technical Specs / Model	FI-1 (1 ton)	F1-2 (2 ton)	FI-3 (3 ton)	F1-5 (5 ton)
Ice Making Capacity	1000 kg/24h	2000 kg/24h	3000 kg/24h	5000 kg/24h
Cooling Capacity	5.2 kW	15.6 kW	21.4 kW	33 kW
Ambient Temperature*	30-40 C°	30-40 C°	30-40 C°	30-40 C°
Water Input Temperature	5/25 C°	5 / 25 C°	5/25 C°	5/25 C°
Condensation Temperature	45 C°	45 C°	45 C°	54 C°
Ice Output Temperature	-4°C / -8°C	-4°C / -8°C	-4°C / -8°C	-4°C / -8°C
Ice Thickness	1.5 - 2 mm	1.5 - 2.2 mm	1.5 - 2 mm	1.5 - 2 mm
Cooling Mode	Air Cooling	Air Cooling	Air Cooling	Air Cooling
Refrigerant	R 404 A	R 404 A	R 404 A	R 404 A
Evaporator Type	Vertical	Vertical	Vertical	Vertical
Compressor Brand and Power	Dorin, 7 hp, Semi-Hermetic	Dorin, 15 hp, Semi-Hermetic	Dorin, 20 hp, Semi-Hermetic	Dorin, 30 hp, Semi-Hermetic
Power Supply	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz	3P / 380 V / 50 Hz
Power Consumption	4.7 kW/h	11.15 kW/h	15.8 kW/h	26 kW/h
Dimension of Evaporator (W-L-H)	81 x 58 x 88 cm	93 x 68 x 130 cm	93 x 68 x 130 cm	114 x 89 x 152 cm
Dimension of Ice Machine (W-L-H)	130 x 97 x 90 cm	130 x 115 x 138 cm	160 x 128 x 138 cm	245 x 180 x 157 cm
Net Weight	500 kg	500 kg	500 kg	1050 kg
Ice Storage Bin (Optional)	500 kg	1000 kg	1500 kg	On Request



# ICE STORAGE and DELIVERY SYSTEM Icemac ice rake systems are highly proper for operation which has larger amount of ice capacity. Icemac offers flexible systems. Thus our ice makers and delivery systems can easily meet your requirements. The ice storage room do has a special design. This provides the proper air circulation around the ice when storage room is full of ice pile. ·lcemac ice storages are equiped with air-cooling units and these units can keep the temperature between -5 °C and -10 °C. By this way, flake ice piles are conveyed without any problems. ·Hoist assembly ,door assembly and rake system are all controlled electrically. Our system to determine the ice loading in the ice bin, uses electrical controller. This controller is outfitted with PLC and motor starters. ·Screw conveying systems are the most efficient and compatible mechanism for ice storage systems. It is very economical for conveying ice. Two batching plants can be supplied simultanously. ·Application industries: seafood processing, fishing, aquaculture, meat and poultry processing, commercial bakery, concrete cooling, chemical manufacturing, packaged ice. • P.L.C. Computer Controlled with Operator Interface. · Hot dipped galvanized framework. It is suitable your available space and your required capacity. · Stainless Steel raker chains. Insulated panel. Galvanised steel frame and stainless steel frame options are available it means that no corrosion and no rust for long term using.

11



·Automatic transmitters adjust right amount of ice to be added and directly transfer to the concrete truck.

·lce storage with ice rake and delivery system indicates air cooler is mounted inside of pre-fabricated house for cooling is utterly optimal for storing icemac flake ice.

Why Icemac ice rake system?

- Competitive price
- Quality guarantee
- Fast and easy installation
- Labor cost reduction
- Outstanding versatility



Icemac offers flake ice machines to its valuable costumers at reasonable prices and best quality. Cold storage room is also available for use.

# **TECHNICAL SPECIFICATIONS - FLAKE ICE MACHINE**

Technical Specs / Model	Fi-1 (1 ton)
Ice Making Capacity	500 kg to 30 tons per da
Condensation Temperature	45 °C
Evoporation Temperature	-20 °C
Ice Output Temperature	-5°/-8°C
Ice Thickness	1.5 - 2 mm
Cooling Mode	Water Cooling
Refrigerant	R404 A
Evoporator Type	Vertical - 304 SS
Compressor Power	65 kW, Semi - Hermetic
Power Supply	3P / 380 V / 50 Hz

Width	Length	Height	Storage Capacity
2438 mm	6060 mm	2896 mm	11.5 ton
2438 mm	12192 mm	2896 mm	23 ton
	2438 mm	2438 mm 6060 mm	2438 mm 6060 mm 2896 mm



### **BLOCK ICE MACHINE**

Block ice machine is one of products produced by Icemac that finds wide area in industrial applications. Icemac's aim is to provide a great service to all of our customer worldwide with stainless steel construction and capacities ranging from 150 kg up to 50 tons per day. The block ice produced by Icemac is sub-cooled to around  $-10^{\circ}$ C.

Block ice plays a critical role in many industries and there is an expanding demand for good quality and dependable block ice machines. The block ices are large in dimension but have a smaller contact area. However, in some special methods it can reach lower temperature than normal ice types. Icemac Block ice machines can produce large amount of ice without needing big crew to operate them. Icemac block ice machines has been engineered as low cost and easy to run.

Block ice is the preferred refrigeration method in many industries. Icemac block ice machines are used in all industries which needed immediate and effective cooling. Especially, concrete plants, bakeries, fishing industry, food transportation and mining industries are extensively use these machines.

Icemac block ice machines are very simple to operate and made of durable materials that ensure high quality results with each and every use. Our block ice machine can be also installed in different conditions, convenient for transportation. Icemac block ice machines offer maximum cooling and a slower melt and save your operation cost by using low water and energy. If you think to combine quality and efficiency, they would be the best for your operation.

Even in high ambient temperatures, Icemac block ice machines are durable and reliable. Icemac block ice machines deliver clear, fresh, sanitary block ice and eliminate your dependency on ice suppliers.

Classic applications for Icemac Block Ice Machines include:

- · Hotels
- Caterers
- Fishing industry
- · Caravan parks
- Poultry Producers
- · Petrol stations
- · Party Ice Suppliers
- Mining Industry

Block ice is the preferred cooling method in several industries. Block ice is also more hygienic, because it has a lower temperature than any other regular ice, and thus it is good enough to frost large amount of food for a low cost.





# Types of Block Ice Machines

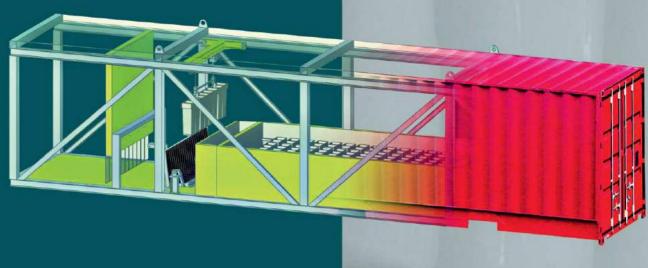
There are 2 basic type of block ice maker that we produce for industry;

**Brine Block Ice Machine:** It is more generally used in producing block ice. It has some application in industry.

**Containerized Block Ice Machines:** It is really beneficial in place where ice making is difficult. It is useful because of its transportability.

Containerized block ice plant and brine block ice machine are available for our costumer's utilization.





#### Icemac Block Ice Machines' Features:

- · Brine inner part is polyethylene coated to prevent salt damage.
- The exterior of the machine is made of chrome plating or polyethylene.
- It is very useful with its good quality design.
- Evaporator structure is long lasting and it does not need for frequent replacement.

### **ADVANTAGES**

- · Fast cooling & production.
- High efficiency, energy saving and low maintenance Compact size and easy installation.
- Long service life and reliable performance Environment friendly and low noise.
- · Easy to clean.
- 1 year guarantee period.

#### **COMMON FEATURES**

- Icemac block ice machine is constructed by durable 316 stainless steel material, which has good quality to against rust and corrosion.
- Polyester insulation to increase energy efficiency and eliminate corrosion Top brand components.
- · Air cooling system & Water cooling system.
- · Easy to use automation control.



### How Block Ice Making Machine Works?

The common method is used for block ice machines in the market. Series of ice cans containing water are submerged into the tank which filled with solution of Brine. This process reduces the temperature of ice cans and cools the water to a temperature below the freezing point. The blocks can take 8-24 hours to be manufactured depending to their size and weight. However, once these blocks are produced, they take long time to melt. Thus, it will be very easy to transport the blocks to remote areas.

In case of need, Icemac can provide the block ice maker with optional accessories which are as follows;

- · Ice defrost system
- · Ice carrying counter
- · Ice transposition system

#### **ICE DEFROST SYSTEM**

In refrigeration system, the coldest surface is evaporator's surface. For this reason, there will be snow and frost formation on the surface of evaporator because of humidity of air. The process that aims to melt the frost formation on the surface of evaporator is called as "defrost". It will be good decision to supply your ice machine with defrost system. Otherwise frozen water on evaporator can be a problem to machine's operation

Some defrost application methods are as follows;

- · Defrost with electricity
- · Defrost with hot gas
- · Defrost with warm water
- · Defrost with hot air
- · Defrost with room air

Icemac ice makers use warm water method in defrost system.





# ICE CARRYING COUNTER AND TRANSPOSITION SYSTEM

Lifting Crane is installed on above the place where water in molds turns into the ice blocks. It takes the ice buckets into the thawing tank to uncouple ice from the buckets.





# SMALL CAPACITY BLOCK ICE MACHINE

Technical Specs / Model	BI-150 (150 kg)	BI-240 (240 kg)	BI-480 (480 kg)
Ice Making Capacity	150 kg/24h	240 kg/24h	480 kg/24h
Cooling Capacity	1.5 kW	2.3 kW	2.85 kW
Ambient Temperature	30-40 C°	30-40 C°	30-40 C°
Water Input Temperature	5 / 25 C°	5 / 25 C°	5 / 25 C°
Ice Output Temperature	-10 C°	-10 C°	-10 C°
Ice Molds Piece	20 pcs	16 pcs	16 pcs
Weight and Size of per block (W-L-H)	2,5 kg and 10x10x55 cm	5 kg and 10x10x55 cm	10 kg and 10x15x75 cm
Ice molds material, thickness	ANSI 304 / 1 mm	ANSI 304 / 1 mm	ANSI 304 / 1.2 mm
Ice block production in 24h	60 pcs	48 pcs	48 pcs
Ice production time	8h	8h	8h
Cooling Mode	Air Cooling	Air Cooling	Air Cooling
Refrigerant	R 404 A	R 404 A	R 404 A
Evaporator Type	Copper Coil	Copper Coil	Copper Coil
Pool Inner Coating	Polyetilen	Polyetilen	Polyetilen
Compressor Brand and Power	Tecumseh, 1.5 hp,	Tecumseh, 2 hp,	Tecumseh, 3 hp.
Compressor Type	Semi – Hermetic	Semi – Hermetic	Semi-Hermetic
Power Supply	3P / 380-400 V / 50-60 Hz	3P / 380-400 V / 50-60 Hz	3P / 380-400 V / 50-60 Hz
Power Consumption	1.3 kW/h	2 kW/h	2.5 kW/h
Dimension of plant with ice pool (W-L-H)	130 x100 x75 cm	130 x100 x75 cm	165x100x115 cm
Accessories	1 piece circulating motor	1 piece circulating motor	1 piece circulating motor
	1 kW with stainless steel bar	1 kW with stainless steel bar	1 kW with stainless steel bar
Opsional Accessories	Ice defrost system	Ice defrost system	Ice defrost system
	Ice carrying counter	Ice carrying counter	Ice carrying counter
	Ice transposition system	Ice transposition system	Ice transposition system



# SMALL CAPACITY BLOCK ICE MACHINE

Technical Specs / Model	BI-1000 (1 ton)	BI-2000 (2 ton)	BI-3000 (3 ton)
Ice Making Capacity	1000 kg/24h	2000 kg/24h	3000 kg/24h
Cooling Capacity	6 kW	15 kW	15.5 kW
Ambient Temperature	30-40 C°	30-40 C°	30-40 C°
Water Input Temperature	5 / 25 C°	5 / 25 C°	5 / 25 C°
Ice Output Temperature	-10 C°	-10 C°	-10 C°
Ice Molds Piece	35 pcs	70 pcs	48 pcs
Weight and Size of per block (W-L-H)	10 kg and 10x15x55 cm	10 kg and 10x15x75 cm	22 kg and 15x25x75 cm
Ice molds material, thickness	ANSI 304 / 1 mm	ANSI 304 / 1.2 mm	ANSI 304 / 1.2 mm
Ice block production in 24h	105 pcs	210 pcs	144 pcs
Ice production time	8h	8h	8h
Cooling Mode	Air Cooling	Air Cooling	Air Cooling
Refrigerant	R 404 A	R 404 A	R 404 A
Evaporator Type	Copper Coil	Copper Coil	Copper Coil
Pool Inner Coating	Polyetilen	Polyetilen	Polyetilen
Compressor Brand and Power	Tecumseh, 7 hp,	DORIN, 15 hp,	DORIN, 7 hp,
Compressor Type	Semi – Hermetic	Semi – Hermetic	Semi-Hermetic
Power Supply	3P / 380-400 V / 50-60 Hz	3P / 380-400 V / 50-60 Hz	3P / 380-400 V / 50-60 Hz
Power Consumption	5 kW/h	13 kW/h	12 kW/h
Dimension of plant with ice pool (W-L-H)	126 x200 x110 cm	350x110x110 cm	220x320x90 cm
Accessories	1 piece circulating motor	1 piece circulating motor	1 piece circulating motor
	1 kW with stainless steel bar	2 kW with stainless steel bar	1 kW with stainless steel bar
Opsional Accessories	Ice defrost system	Ice defrost system	Ice defrost system
	Ice carrying counter	Ice carrying counter	Ice carrying counter
	Ice transposition system	Ice transposition system	Ice transposition system



# LARGE CAPACITY BLOCK ICE MACHINE

Technical Specs / Model	BI-5000 (5 ton)	BI-10000 (10 ton)
Ice Making Capacity	5000 kg/24h	10000 kg/24h
Cooling Capacity	25 kW	56 kW
Ambient Temperature	30-40 C°	30-40 C°
Water Input Temperature	5 / 25 C°	5 / 25 C°
Ice Output Temperature	-10 C°	-10 C°
Ice Molds Piece	66 pcs	136 pcs
Weight and Size of per block (W-L-H)	25 kg and 12x25x94 cm	25 kg and 15x20x93 cm
Ice molds material, thickness	ANSI 304 / 1.2 mm	ANSI 304 / 1.5 mm
Ice block production in 24h	198 pcs	408 pcs
Ice production time	8h	8h
Cooling Mode	Air Cooling	Air Cooling
Refrigerant	R 404 A	R 404 A
Evaporator Type	Copper Coil	Copper Coil
Pool Inner Coating	Polyester	Polyester
Compressor Brand and Power	DORIN or Equal, 30 hp,	DORIN or Equal, 2x40 hp,
Compressor Type	Semi – Hermetic	Semi – Hermetic
Power Supply	3P / 380-400 V / 50-60 Hz	3P / 380-400 V / 50-60 Hz
Power Consumption	20 kW/h	49.5 kW/h
Dimension of plant with ice pool (W-L-H)	175x675 x125 cm	850x210x125 cm
Accessories	1 piece circulating motor	2 piece circulating motor
	1 kW with stainless steel bar	2 kW with stainless steel bar
Opsional Accessories	Ice defrost system	Ice defrost system
	Ice carrying counter	Ice carrying counter
	Ice transposition system	Ice transposition system



# LARGE CAPACITY BLOCK ICE MACHINE

Technical Specs / Model	BI-13000 (13 ton)	BI-15000 (15 ton)
Ice Making Capacity	13000 kg/24h	15000 kg/24h
Cooling Capacity	56 kW	56 kW
Ambient Temperature	30-40 C°	30-40 C°
Water Input Temperature	5 / 25 C°	5 / 25 C°
Ice Output Temperature	-10 C°	-10 C°
Ice Molds Piece	200 pcs	200 pcs
Weight and Size of per block (W-L-H)	25 kg and 15x20x93 cm	25 kg and 15x20x93 cm
Ice molds material, thickness	ANSI 304 / 1.5 mm	ANSI 304 / 1.5 mm
Ice block production in 24h	600 pcs	600 pcs
Ice production time	8h	8h
Cooling Mode	Air Cooling	Air Cooling
Refrigerant	R 404 A	R 404 A
Evaporator Type	Copper Coil	Copper Coil
Pool Inner Coating	Polyester	Polyester
Compressor Brand and Power	DORIN or Equal, 2x55 hp,	DORIN or Equal, 2x55 hp,
Compressor Type	Semi – Hermetic	Semi – Hermetic
Power Supply	3P / 380-400 V / 50-60 Hz	3P / 380-400 V / 50-60 Hz
Power Consumption	20 kW/h	76 kW/h
Dimension of plant with ice pool (W-L-H)	850x210x125 cm	850x210x125 cm
Accessories	3 piece circulating motor	3 piece circulating motor
	2 kW with stainless steel bar	2 kW with stainless steel bar
Opsional Accessories	Ice defrost system	Ice defrost system
	Ice carrying counter	Ice carrying counter
	Ice transposition system	Ice transposition system





**Block Ice Crusher** 

# CUBE ICE MACHINE

A very popular shape is preferred with an ice kinds of elegant forms and crystalline structure that attracts attention. It improves the taste of beverages and made presentations on the palate by providing the required cooling can leave delicious taste and coolness.

An industrial cube ice machine is great for large-volume application. Icemac cube ice machines are very simple to operate and made of durable materials that ensure high quality results with each and every use. Icemac cube ice machines offer maximum cooling and a slower melt and save your operation cost by using low water and energy. If you think to combine quality and efficiency, they would be best for your operation.

Comparing with commercial type of ice cube machines, industrial ice cube makers is better for ice factories for retailing ice. Since industrial ice cube makers have larger ice output and this makes it big capacity ice cube maker. In places with higher temperature, industrial ice cube machines are more suitable forenterprise and it comes in first for return on investments.

Even in high ambient temperatures, Icemac cube ice machines are durable and reliable. With stainless steel construction and capacities ranging from 160kg to 3000 kg per day, Icemac ice machines deliver clear, fresh, sanitary cube ice and eliminate your dependency on ice suppliers.

Where does ice cube used?







# Restaurants

Cube ice machines are essantial equipments for the restaurant. Cube ice machines are used for following purposes;









**Cocktail and Beverages**: To keep drinks always cold, ice cubes are really necessary.



**Salad bars and displays**: Ice cubes have to be used to ensure safety and freshness.



**Cooking Safety**: Food should not be cooled at room temperature. This can be cause food-borne problems.







Cooking preparation and safety: Influence of ice shocks to the food can prevent it from overcooked.





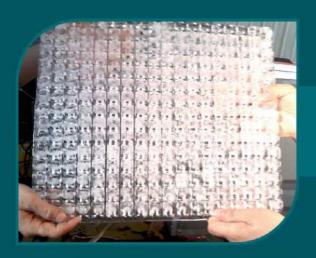
# • Healthcare facilities

Ice is very important in many health applications that indicates physical therapy clinics. Also ,hospitals always have a steady supply of ice maker.



# Bagging

lce cubes can be easily packed and stocked in the cold storage rooms.



### Manufacturing and Processing plants

In some production areas, process rate needs to be adjusted by cooling. Cube ice should be proper for this operation.



## Chemical Industry

To maintain organism activity and control the reaction rate, a lot ice need to be used in some chemical synthesis experiments.



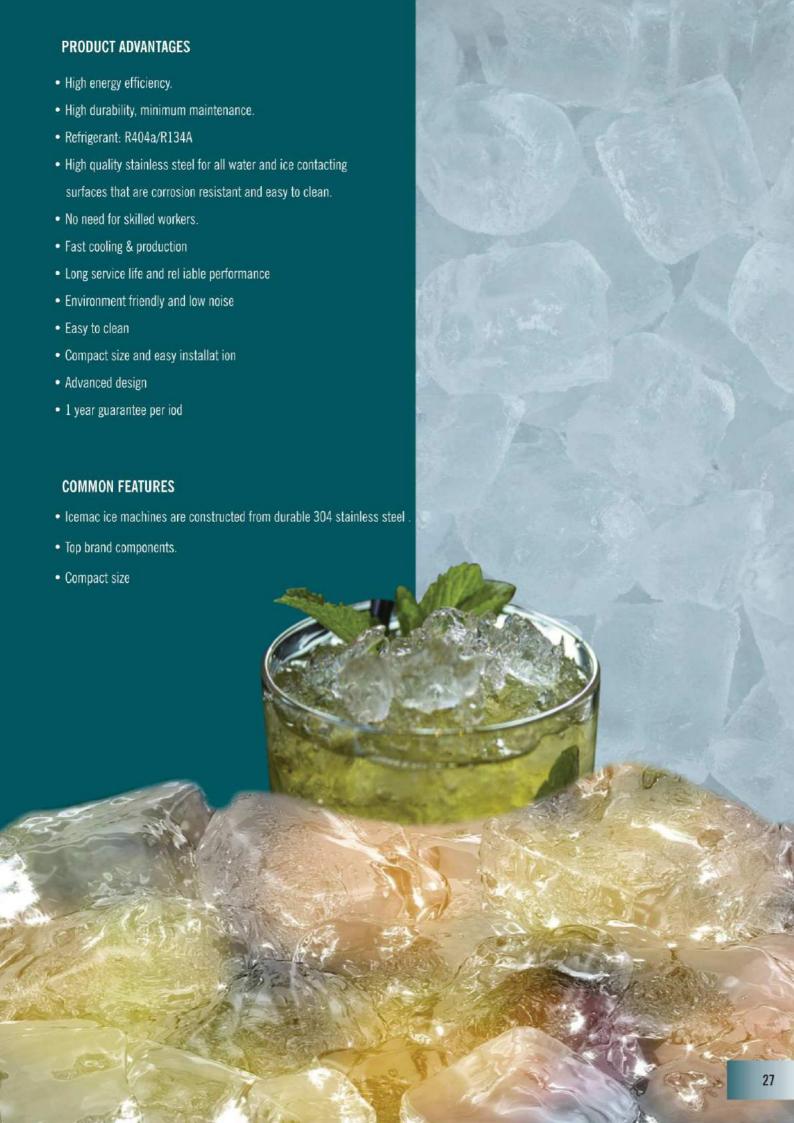
### About Air-cooled or Water-cooled ice machines

There are two main equipments on ice makers. These are water-cooled and air-cooled refrigeration units. The water-cooled unit has a water tower and it cools the hot water that is come from condenser. A machine that outfitted with water-cooled unit consumes more water and makes more noise than air-cooled units. Water-cooled unit is genereally used in places where temperature can reach higher levels. In air-cooled unit systems ,hot water that is come from condenser is cooled by air. So there is more water efficiency in comparison with water-cooled systems. But in areas with higher temperature, it is not suitable to use. Icemac can supply its ice makers with air-cooled or water-cooled to meet your requirements.

### Sport Facilities

Cube ice has intensively wide use areas. It is the only non-drug painkiller which can cure of injuries and damages. By raising the pain threshold, it prevents the formation of edema injured area. It can be used as icepack due to the fact that ice cube is easily packed.





# INDUSTRIAL CUBE MACHINE (R404A Regular)

Technical Specs / Modelice	CI-160	CI+190	CI-245
Making Capacity	160 kg/24h	190 kg/24h	245 kg/24h
Cooling Capacity	0,86 kW	0,95 kW	1,05 kW
Ambient Temperature	30 - 40 °C	30 - 40 °C	30 - 40 °C
Water Input Temperature	5 / 25 C°	5 / 25 °C	5 / 25 °C
Ice Output Temperature	-1 / -2 C°	-1 / -2 °C	-1 / -2 °C
Condensation Temperature	45 C°	45 °C	45 °C
Evaporator Temperature	-10 C°	-10 °C	-10 °C
Compressor Brand	Tecumseh	Tecumseh	Tecumseh
Condenser	Air Cooling	Air Cooling	Air Cooling
Evaporator Type	Vertical	Vertical	Vertical
Refrigerant Type	R404A	R404A	R404A
Dimension of Ice Machine (W-L-H)	85x56x137 cm	85x56x157 cm	85x56x157 cm
Net Weight	90 kg	110 kg	115kg
Bin Capacity (Optional)	80 kg	120 kg	120 kg

Technical Specs / Modelice	CI-340	CI-450	CI-545
Making Capacity	340 kg/24h	450 kg/24h	545 kg/24h
Cooling Capacity	1250 W	1,6 kW	1,98 kW
Ambient Temperature	30 - 40 °C	30 - 40 °C	30 - 40 °C
Water Input Temperature	5 / 25 C°	5 / 25 ℃	5 / 25 °C
Ice Output Temperature	-1 / -2 C°	-1 / -2 °C	-1 / -2 °C
Condensation Temperature	45 C°	45 °C	45 °C
Evaporator Temperature	-10 C°	-10 °C	-10 °C
Compressor Brand	Tecumseh	Tecumseh	Tecumseh
Condenser	Air Cooling	Air Cooling	Air Cooling
Evaporator Type	Vertical	Vertical	Vertical
Refrigerant Type	R404A	R404A	R404A
Dimension of Ice Machine (W-L-H)	85x76x158 cm	85x76x158 cm	85x76x158 cm
Net Weight	130 kg	140 kg	150kg
Bin Capacity (Optional)	260 kg	260 kg	260 kg



Technical Specs / Modelice	CI-700	CI-900	CI-1000	CI-3000
Making Capacity	700 kg/24h	900 kg/24h	1000 kg/24h	3000 kg/24h
Cooling Capacity	2,8 kW	4000 kW	4,5 kW	14 kW
Ambient Temperature	30 - 40 °C			
Water Input Temperature	5 / 25 C°	5 / 25 °C	5/25°C	5 / 25 °C
Ice Output Temperature	1/-2 C°	-1 / -2 °C	-1 / -2 °C	-1 / -2 °C
Condensation Temperature	45 C°	45 °C	45 °C	45 °C
Evaporator Temperature	10 C°	-10 °C	-10 °C	-10 °C
Compressor Brand	Tecumseh	Tecumseh	Tecumseh	Tecumseh
Condenser	Air Cooling	Air Cooling	Air Cooling	Air Cooling
Evaporator Type	Vertical	Vertical	Vertical	Vertical
Refrigerant Type	R404A	R404A	R404A	R404A
Dimension of Ice Machine (W-L-H)	85x122x158 cm	85x122x158 cm	85x122x158 cm	320x140x58 cm
Net Weight	250 kg	400 kg	450 kg	700 kg
Bin Capacity (Optional)	400 kg	450 kg	450 kg	800 kg

# INDUSTRIAL CUBE MACHINE (R134A Tropical)

Technical Specs / Modelice	CI-160	CI-190	CI-245	CI-340
Making Capacity	160 kg/24h	190 kg/24h	245 kg/24h	340 kg/24h
Cooling Capacity	0,86 kW	0,95 kW	1,05 kW	1,25 kW
Ambient Temperature	50 - 55 °C			
Water Input Temperature	5 / 25 C°			
Ice Output Temperature	-1 / -2 C°			
Condensation Temperature	55 C°	55 C°	55 C°	55 C°
Evaporator Temperature	-10 C°	-10 C°	-10 C°	-10 C°
Compressor Brand	Tecumseh	Tecumseh	Tecumseh	Tecumseh
Condenser	Air Cooling	Air Cooling	Air Cooling	Air Cooling
Evaporator Type	Vertical	Vertical	Vertical	Vertical
Refrigerant Type	R134A	R134A	R134A	R134A
Dimension of Ice Machine (W-L-H)	85x56x137 cm	85x56x157 cm	85x56x157 cm	85x56x158 cm
Net Weight	90 kg	110 kg	115 kg	130 kg
Bin Capacity (Optional)	80 kg	120 kg	120 kg	260 kg



Technical Specs / Modelice	CI-450	CI-545	CI-700
Making Capacity	450 kg/24h	545kg/24h	700 kg/24h
Cooling Capacity	1,6 kW	1,98 kW	2,8 kW
Ambient Temperature	50 - 55 °C	50 - 55 °C	50 - 55 °C
Water Input Temperature	5 / 25 C°	5 / 25 °C	5 / 25 °C
Ice Output Temperature	-1 / -2 C°	-1 / -2 °C	-1 / -2 °C
Condensation Temperature	55 <b>C</b> °	55 °C	55 °C
Evaporator Temperature	-10 ℃	-10 °C	-10 °C
Compressor Brand	Tecumseh	Tecumseh	Tecumseh
Condenser	Air Cooling	Air Cooling	Air Cooling
Evaporator Type	Vertical	Vertical	Vertical
Refrigerant Type	R134A	R134A	R134A
Dimension of Ice Machine (W-L-H)	85x76x158 cm	85x76x158 cm	85x122x158 cm
Net Weight	140 kg	150 kg	250 kg
Bin Capacity (Optional)	260 kg	260 kg	400 kg

CI-900	CI-1000	CI-3000
900 kg/24h	1000 kg/24h	3000 kg/24h
4 kW	4,5 kW	14 kW
50 - 55 °C	50 - 55 °C	30 - 40 °C
5 / 25 C°	5 / 25 C°	5 / 25 C°
-1 / -2 C°	-1 / -2 C°	-1 / -2 C°
55 C°	55 C°	55 C°
-10 C°	-10 C°	-10 C°
Tecumseh	Tecumseh	Tecumseh
Air Cooling	Air Cooling	Air Cooling
Vertical	Vertical	Vertical
R134A	R134A	R134A
85x122x158 cm	85x122x158 cm	320x140x85 cm
400 kg	450 kg	700 kg
450 kg	450 kg	800 kg
	900 kg/24h 4 kW 50 - 55 °C 5 / 25 C° -1 / -2 C° 55 C° -10 C° Tecumseh Air Cooling Vertical R134A 85x122x158 cm 400 kg	900 kg/24h 4 kW 4,5 kW 50 - 55 °C 5 / 25 C° -1 / -2 C° 55 C° -10 C° Tecumseh Air Cooling Vertical R134A 85x122x158 cm 400 kg 4,5 kW 4,5 kW 50 - 55 °C 50 - 55 °C 50 - 55 °C 50 - 10 °C 70 -

• Regular type of ice cube machines are proper to be used at normal temperatures between 30-45°C.

 Tropical type of ice cube machines are proper to be used at higher temperatures between 50-55°C.



# **COLD STORAGE ROOM**

Insulated panels which made from polyurethane are the best solution for the insulated refrigeration and cold rooms. These prefabricated panels have a sandwich model which has polyurethane between metal claddings. So, the panels are lightweight and polyurethane distributed equally for homogeneous insulate. They also designed to ensure interlocking so they are leak-free walls and best for cold rooms. These locking systems starts from 80mm thickness of panels.

### **INSULATED PANELS**

- High Quality Panels
- Fire Resistant
- ECO Friendly Products
- Energy Efficient
- . Designs for Client's Requests
- · Maximum thermal insulation
- Waterproof Construction
- Suitable for wide temperature range







(30°C-45°C outside temperature)	Panel Thickness	Recommended Temperature	Panel Weight (kg/m²)	
5	60mm	+10°C/+5°C	10,26	_
7.5	80mm	+5°C/-5°C	11,06	_
7.7.	100mm	-5 °C / -12 °C	11,86	_
	120mm	-12 °C / -20 °C	12,66	_
	150mm	-20 °C / -30 °C	13,86	_
	180mm	-30 °C / -40 °C	15,06	_
	200mm	-40 °C / -50 °C	15,86	

Panel Thickness (mm)	60	80	100	120	150	180	200	
K (w/mK)	0,025	0,025	0,025	0,025	0,025	0,025	0,025	
R (m²K/W)	2,40	3,20	4,00	4,80	6,00	7,20	8,00	
U (W/m²K)	0,417	0,313	0,250	0,208	0,167	0,139	0,125	
Temperature Difference (△C)		Q =		mission (W/n side temperatur				
10	4,17	3,13	2,50	2,08	1,67	1,39	1,25	
15	6,25	4,69	3,75	3,13	2,50	2,08	1,88	
20	8,33	6,25	5,00	4,17	3,33	2,78	2,50	
25	10,42	7,81	6,25	5,21	4,17	3,47	3,13	
30	12,50	9,38	7,50	6,25	5,00	4,17	3,75	
35	14,58	10,94	8,75	7,29	5,83	4,86	4,38	
40	16,67	12,50	10,00	8,33	6,67	5,56	5,00	
45	18,75	14,06	11,25	9,38	7,50	6,25	5,63	
50	20,83	15,63	12,50	10,42	8,33	6,94	6,25	
55	22,92	17,19	13,75	11,46	9.17	7,64	6,88	
60	25,00	18,75	15,00	12,50	10,00	8,33	7,50	
65	27,08	20,31	16,25	13,54	10,83	9,03	8,13	
70	29,17	21,88	17,50	14,58	11,67	9,72	8,75	
75	31,25	23,44	18,75	15,63	12,50	10,42	9,38	
80	33,33	25,00	20,00	16,67	13,33	11,11	10,00	

K	0,025	Heat transfer coefficient of polyurethane panels for hot climates
Ü	U = K/L	Thermal transmittance value is the amount of heat transfer through $1\text{m}^2$ panels for unit temperature difference
R	R = 1/U	The panel's thermal resistance against heat transfer
Q	$Q = U x \Delta C$	Net heat that passes through $1m^2$ panel. The optimum heat transfer value is around $10\text{-}12~\text{W}$ for $1m^2$ surface considering inner volume and initial cost.

PANEL TYPES						
Corrugated Panels	Flat Panels	Floor Panels				
Have corrugated surface More panel stiffness Fixing and locking system	Have flat surface More hygienic Easy to clean Fixing and locking system	Non-slip type surface 2000 kg/m2 loading capacity Fixing and locking system				

Filled with 40kg/m3 ( $\pm 2$ ) density of Polyurethane between two 0,50 mm galvanized sheets

1110 mm standard width, up to 13,50 meters for wall and 8 meters for floor panels if required

All surfaces have a protective film to be removed during the assembly

	Surface Types	Surface Types
Polyester:	RAL 9002 color polyester on both sides of sheets	Honeycomb type Plywood
PVC:	120µm antibacterial PVC coating on both sides of sheets	Steel Sheet PVC
CrNi:	AISI 304 stainless coating on both sides of sheets	CrNi S.S. Sheet







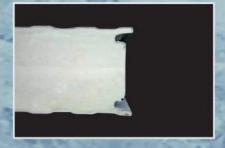
Steel Sheet PVC



**CrNi Steel Sheet** 







# **Cold Room Doors**

Specifications	Hinged Door	Sliding Door				
Sizes	Optional up to 2500 x 3000 mm	Optionally special sizes				
Thickness	92mm for cold 120 mm freezer rooms.	92mm for cold 120 mm freezer rooms.				
Frame	PVC Aluminum Mounted on panel	PVC Aluminum				
Wing	Polyurethane (40kg/m3)					
Surface Sheet	Polyester Surface Sheet PVC standard colored CrNi					
Safety	Can be open from inside when locked Alarm system (optional)					
Accessories	Adjustable door hinge Standard lock system Special rubber joints to seal wing	Special rubber joints to seal wing Holding arms, carrier rails, wheels. Other sliding door accs.				



Specifications	Single Swing Door Double Swing Door		Office Doors & Emergency Exits		
Sizes	From 700 x 1700 mm To 1000 x 2500 mm Optional special measurements	From 1200 x 2000 mm To 2000 x 2500 mm Optional special measurements	Standard 800 x 2000 mm		
Thickness	40 mm wing				
Frame	Aluminum door frame Mounted on the panel and wall				
Wing	Polyurethane Windowed or wind Can be open up to 180 degrees	Polyurethane (40kg/m3			
Surface Sheet	Standard polyester sheet PVC or CrNi (optional)				
Accessories	S.S sheet or safety bands on the	Special rubber joints			









### **Accessories**

### **PVC Strip Curtains**

Icemac PVC strip curtains are suitable for every door type. They are easy to assemble. The sizes for the curtains are vary depending on the door size to be used

- Reduces cold air losses
- · Saves energy and increases efficiency
- Reduces electricity costs
- · Reduces the inside air pollution
- · Provides hygiene
- Noise canceling
- Transparent view

#### **Shelves**

- · Provides ventilation efficiency
- Less moisture condensation
- · Allows light pass
- · Stainless steel for cold rooms

# Special Epoxy Flooring (Optional)

Epoxy floor is a special type of material for cold room floors. They are applied on concrete with any color and design and come with a lot of advantages.

- √ Elegant view
- √ Pretty easy to clean
- √ Very hygienic and antibacterial
- √ High strength with light weight
- √ Corrosive resistant
- √ Vivid and bright view with extra-long life
- √ Waterproof and anti-static
- √ Quick and economic apply











# **Cold Storage Room**

Cold rooms are the best choice to keep perishable products fresh. The main element of the cold rooms is the insulation. With the right insulation and cooling system for the requirements, the cold room will be operated with optimum efficiency. Icemac provides a complete solution for your cold room requirements with the best quality

- Maximum Insulation with Polyurethane Panels
- Turn-Key Project for All Requirements
- Suitable for Hot Climates
- Customer Specified Designs
- · Service and Maintenance



# **Application Areas**



















# **Cooling Unit Types**

### **Split Type Cooling Units**

### **Central Cooling Units**

### **Blast Freezing Units**







### **Descriptions**

29 Standard Models From 2.350 W to 88.600 W Hermetic or Semi-Hermetic Models Air-cooled(standard) Special production on request Water-cooled (optional) Multi-compressor system Best for multiple cold rooms Multiple temperature output Wide range of cooling capacity Special designs for customer Two-stage Semi-hermetic type deep freeze air compressors Rapid cooling with -40C system

### **Advantages**

- . High cooling with low power consumption
- · Suitable for high ambient temperatures
- · Ready-assembled complete product
- · Easy installation
- · Wide standard products
- · Special models
- . Noise isolation (Optional)
- . Water cooling system (Optional)
- · High energy saving
- Suitable for high ambient temperatures
- · Ready-assembled complete product
- · Special models
- · Noise isolation (Optional)
- · Water cooling system (Optional)

Reducing temperature to -18C/-20C in a short time

- Suitable for high ambient temperatures
- Ready-assembled complete product
- · Special models









Туре	Q Cooling Capacity Watt	P Nominal Power HP	TP Total Input Power kW	Compressor Model	Compressor Brand	Refrigerant	Vmin m3	Vmax m3
Cold Series			Hermetic Typ	oe Compressor		Evap/Cond	I = -10 C/	+45 C
CH-110	2.350	1,1	1,5	9232 GK	Aspera	R 404	0	16
CH-150	2.950	1,5	2,0	9238 GK	Aspera	R 404	17	30
CH-250	4.050	2,5	2,7	TFH 4531 Z	Tecumseh	R 404	43	65
CH-300	5.180	3,0	3,5	TFH 4540 Z	Tecumseh	R 404	66	70
CH-500	7.120	5,0	4,7	TAG 4561 Z	Tecumseh	R 404	90	105
CH-600	7.820	6,0	5,3	TAG 4568 Z	Tecumseh	R 404	95	120
CH-700	9.175	7,0	5,8	TAG 4573 T	Tecumseh	R 22	120	150
Cold Series		S	emi-Hermetic	Type Compress	or	Evap/Cond	I = -10 C/	+45 C
CS-500	8.480	5,0	4,0	Q519,1Y	Frascold	R 404	81	150
CS-700	13.200	7,0	6,6	Q728,1Y	Frascold	R 404	151	200
CS-750	15.300	7,5	7,7	Q733,1Y	Frascold	R 404	201	270
CS-1000	18.600	10,0	9,2	S1039,1Y	Frascold	R 404	271	390
CS-1500	23.900	15,0	11,7	S15 51Y	Frascold	R 404	391	450
CS-2000	27.200	20,0	13,2	V 20 59Y	Frascold	R 404	451	550
CS-2500	32.700	25,0	16,0	V 25 71Y	Frascold	R 404	551	650
CS-3000	39.650	30,0	19,1	V 30 84 Y	Frascold	R 404	651	850
CS-3500	50.110	35,0	23,1	Z 35 106 Y	Frascold	R 404	851	1200
CS-4000	58.500	40,0	27,2	Z 40126 Y	Frascold	R 404	1201	1400
CS-5000	71.600	50,0	34,5	Z 50 154 Y	Frascold	R 404	1401	1600
CS-6000	88.600	60,0	40,5	W 60 187 Y	Frascold	R 404	1601	1800

Туре	Q Cooling Capacity Watt	P Nominal Power HP	TP Total Input Power kW	Compressor Model	Compressor Brand	Refrigerant	Vmin m3	Vmax m3
Frost Series Hermetic Compressor Ev				vap/Cond = -25 C/ +45 C		Cold Room Temp18 / -22		
FH-150	1.350	1,5	1,3	CAJ 2464 Z	Tecumseh	R 404	0	13
FH-200	1.850	2,0	1,7	TFH 2480 Z	Tecumseh	R 404	10	20
FH-300	2.850	3,0	2,5	TFH 2511 Z	Tecumseh	R 404	20	30
FH-500	3.850	5,0	4,0	TAG 2516 Z	Tecumseh	R 404	30	40
FH-700	5.050	7,0	4,5	TAG 2522 Z	Tecumseh	R 404	40	60
Frost Series	s Semi-Hermetic Compressor E		vap/Cond = -25 C/ +45 C		Cold Room Temp18 / -22			
FS-400	5.150	4,0	3,7	Q 425,1 Y	Frascold	R 404	60	75
FS-500	6.380	5,0	4,8	Q 528,1 Y	Frascold	R 404	65	80
FS-600	7.660	6,0	5,7	Q 533,1 Y	Frascold	R 404	81	130
FS-700	9.620	7,0	6,9	S 7 39 Y	Frascold	R 404	151	180
FS-1000	12.430	10,0	8,8	S 10 51 Y	Frascold	R 404	181	250

Blast Freezing Units							
Туре	Freezing Capacity			Electricity	Refrigerant		
	kg/8h	kg/12h	kg/24h		**		
BF-12	400	600	1200	380 V 50Hz	R 404 A		
BF-15	500	750	1500	380 V 50Hz	R 404 A		
BF-21	700	1050	2100	380 V 50Hz	R 404 A		
BF-30	1000	1500	3000	380 V 50Hz	R 404 A		
BF-36	1200	1800	3600	380 V 50Hz	R 404 A		
BF-42	1400	2100	4200	380 V 50Hz	R 404 A		
BF-45	1500	2250	4500	380 V 50Hz	R 404 A		
BF-72	2400	3600	7200	380 V 50Hz	R 404 A		
BF-84	2800	4200	8400	380 V 50Hz	R 404 A		
BF-90	3000	4500	9000	380 V 50Hz	R 404 A		
BF-135	4500	6750	13500	380 V 50Hz	R 404 A		
BF-180	6000	9000	18000	380 V 50Hz	R 404 A		

# **Containerized Cold Storage**

Icemac Containerized Cold Storages are portable and turn-key cold rooms with 2 standard sizes for storing and transporting the products with cost efficiency. These refrigerated containers are provided to our customers fast and economically and they are the best solution for your requirements. They can be used while transporting the goods.

### **Features**

- · Available in 20ft and 40ft standard sizes
- Blast Freezing System Option
- . Delivery to your site
- High Insulation with Polyurethane
- Two Room with Different Temperature Option
- Wide Temperature Range
- Suitable for Ice Maker Plants
- . Best for Food Storage and Seafood
- Anti-slip Floors

# **Benefits**

- Extremely Cost Efficient
- · Turn-Key Project
- · Easy to Operate
- Portable System
- Strong Structure
- Accessory Options (PVC curtain, ramps, alarms...)





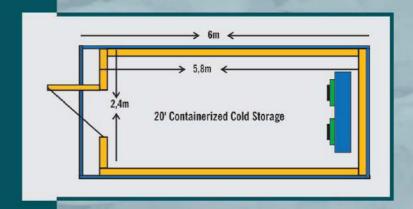
Container Type	10' Container	20' Container	40' Container		
Total Inside Volume [m3]	16,4	33,2	67,7		
External Dimensions [L x W x H]	3 x 2,4 x 2,6 m	6 x 2,4 x 2,6 m	12,2 x 2,4 x 2,6 m		
Standard Panel Thickness (Optional)	80mm & 120mm & 150mm				
Usable Internal Dimensions [L x W x H	1,94 x 2,19 x 2,24 m	4,94 x 2,19 x 2,24 m	11,04 x 2,19 x 2,24 m		
Usable Inside Volume for Storage [m3]	9,5	24,2	54,2		
Flake Ice Storage Capacity [Tons]	1,7	4,2	9,5		
Cube Ice Storage Capacity [Tons]	2,2	5,7	12,6		
Block Ice Storage Capacity [Tons]	5,7	14,4	32,2		
Compressor Brand for Cold Storage	Aspera 9232 GK	Aspera 9238 GK	Tecumseh 4531 Z		
Cooling Capacity	2350W	2950W	4050W		
Electricity	220-240V / 50Hz - 1~	230V / 50Hz - 1~	400-440V / 50-60Hz - 3~		
Total Power Consumption	1,5kW	2kW	2,7kW		
Compressor Brand for Frozen Storage	Tecumseh CAJ 2464 Z	Tecumseh TFH 2511 Z	Tecumseh TAG 2522 Z		
Cooling Capacity	1350	2850	5050		
Electricity	220 / 60Hz - 1~	220V / 50HZ - 3∼	400-440V / 50-60Hz - 3~		
Total Power Consumption	1,3kW	2,5kW	4,5kW		

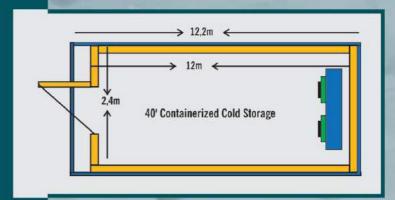
# **Solar Powered Container Storage**

Use the solar power to energize your container cold storage to reduce your cost.

The container storages in hot regions requires more energy and insulation to operate the system. With the advantage of duration of sunshine in hot climates, solar power provides an efficiency to the operating expenses.

- · Excellent energy savings
- Eco-Friendly
- Long Product Life
- Easy and Fast Installation
- Optional Add-on Panels After Setup
- 24h operation with battery support













#### **HEAD OFFICE**

Soganlik Yeni Mah. Ataturk Cad. No:6/1 Else Apt. Daire: 9 (Kat: 8), 34880 Kartal/ISTANBUL

Phone: +90 216 306 40 44 Fax: +90 216 306 40 45

### **FACTORY**

Bahcelievler Mh. Dumlupinar 5. Sk

No: 2/2 Corum-Turkey

Phone: +90 364 230 12 33 Fax: +90 216 306 40 45

Email: sales@icemac.net Web: www.icemac.net