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— Automatic Block Ice Machine —

Guangzhou Icesource CO., Ltd

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Block Ice

The biggest ice size, the smallest contact area with the outside world, and difficult to melt.

Block Ice Size

Block ice size can be customized depend on bucket size. It can also crush according to different requirements then applied in different industrial area.

Ice Feature

Block ice with the feature of large ice size, large refrigeration storage, melting resistance, low cost and easy operation. After crushing, block ice contact area with goods will enlarge, which can quickly cool down the food, slow down food deterioration, and prolong the preservation time.

Block Ice Application

Ports, ice factories in docks, food processing, aquatic products preservation, cooling, long-distance transportation, aquatic products, food preservation, cooling in special fields, ice sculpture, ornamental use, etc. It is especially suitable for environment with high temperature and unstable voltage.

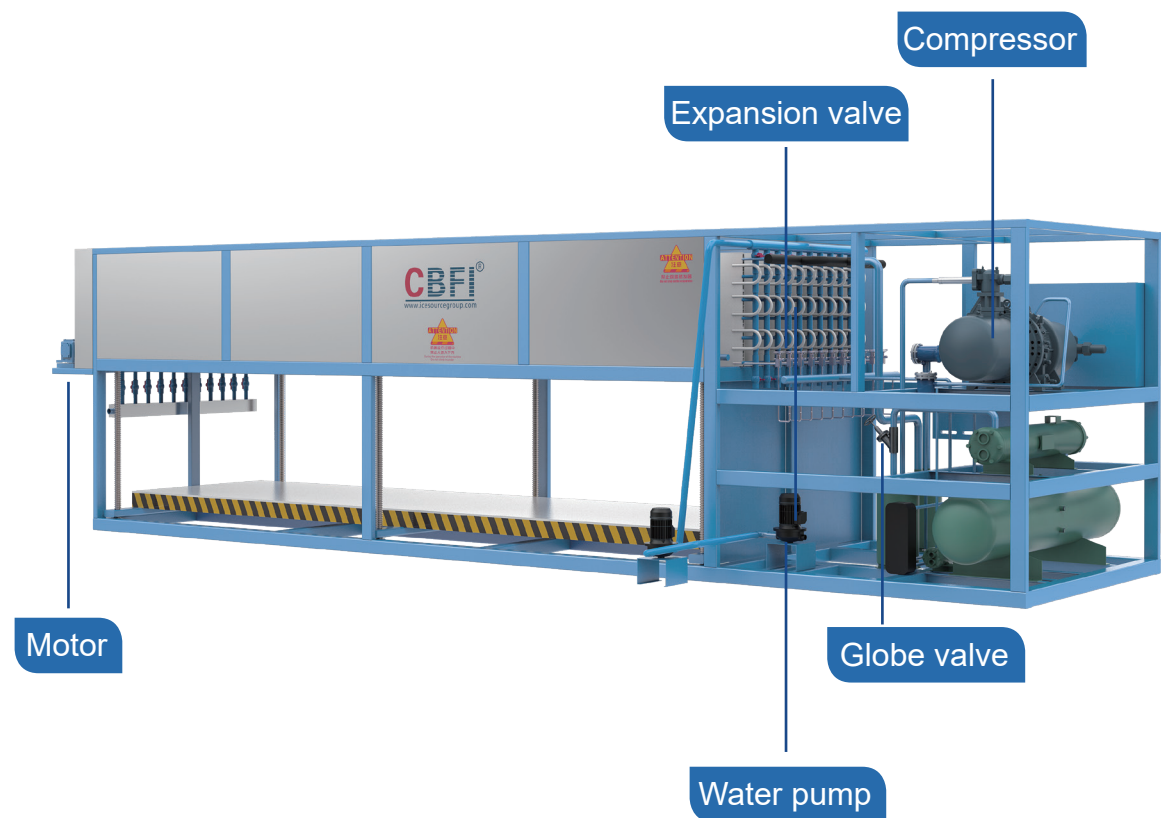
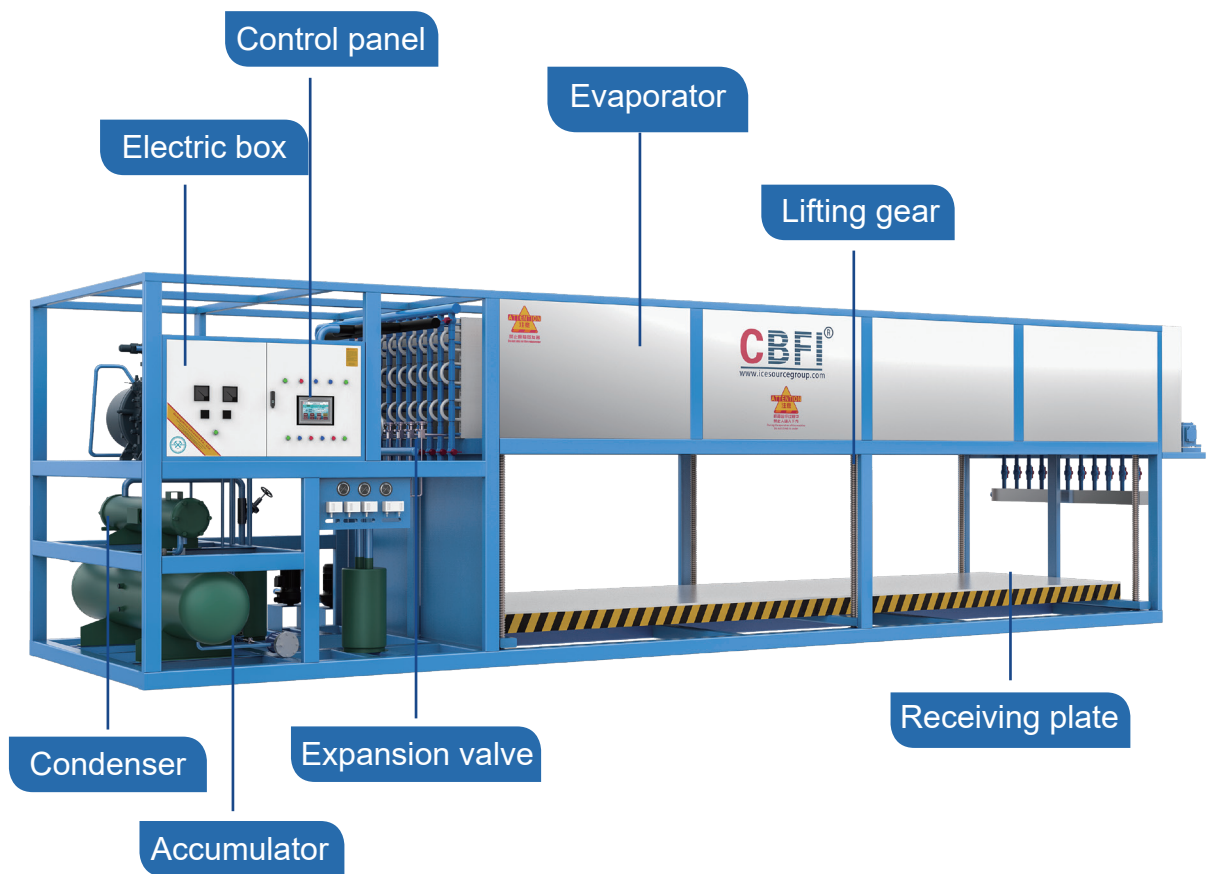
ICE MAKING FIVE STEPS

Automatic Block Ice Machine



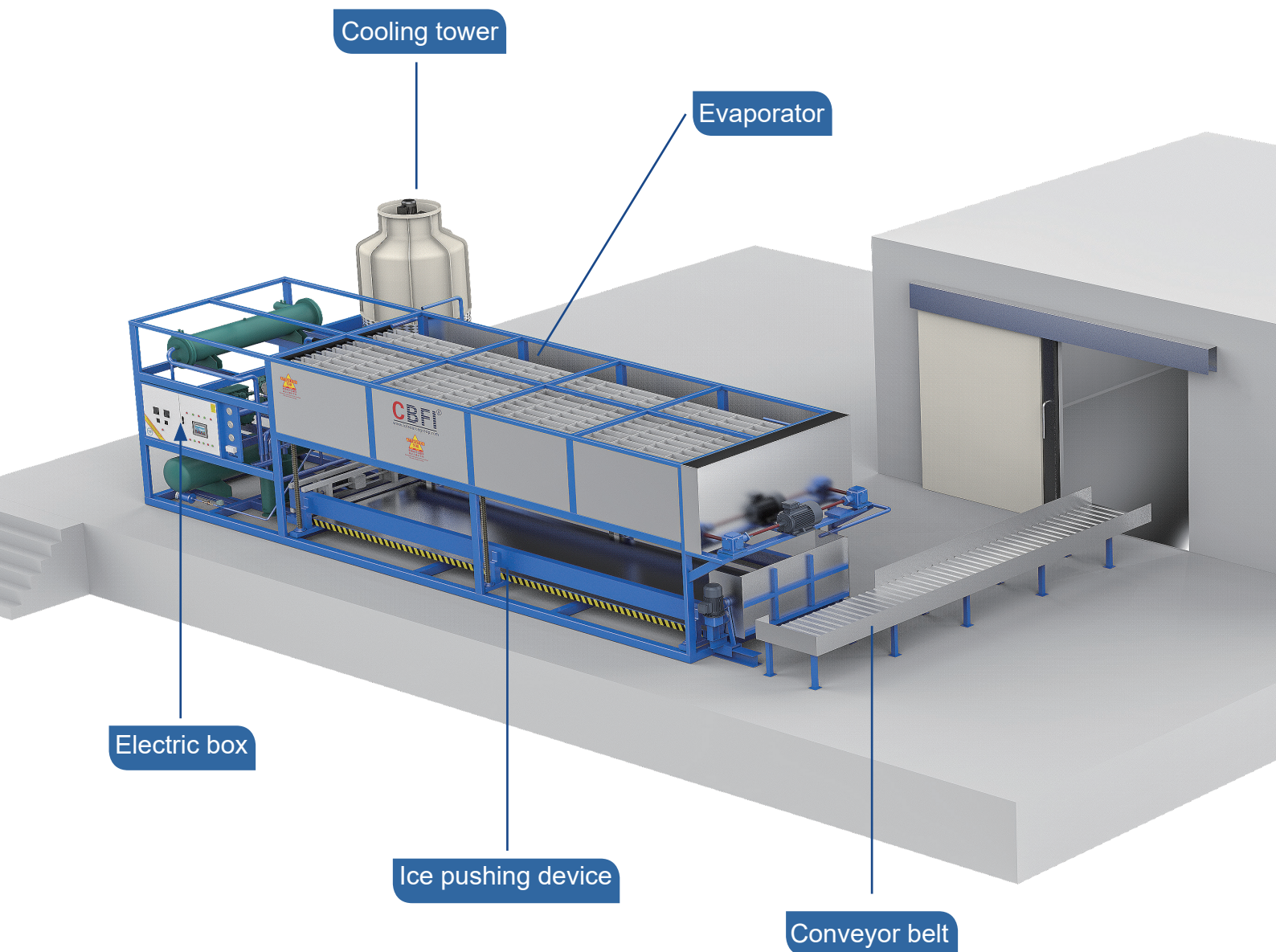
CBFI ABI automatic block ice machine full series One-stop automatic operation

ABI series automatic block ice machine is independently developed by CBFI,
The first prototype was built as early as 2014.
Our team always adhere to the Customers benefits from Icesource corporate core values.
Insist on quality workmanship, constantly bring forth the new from the old.
To provide customers with the highest profit margin solutions.



ONE-STOP SOLUTION

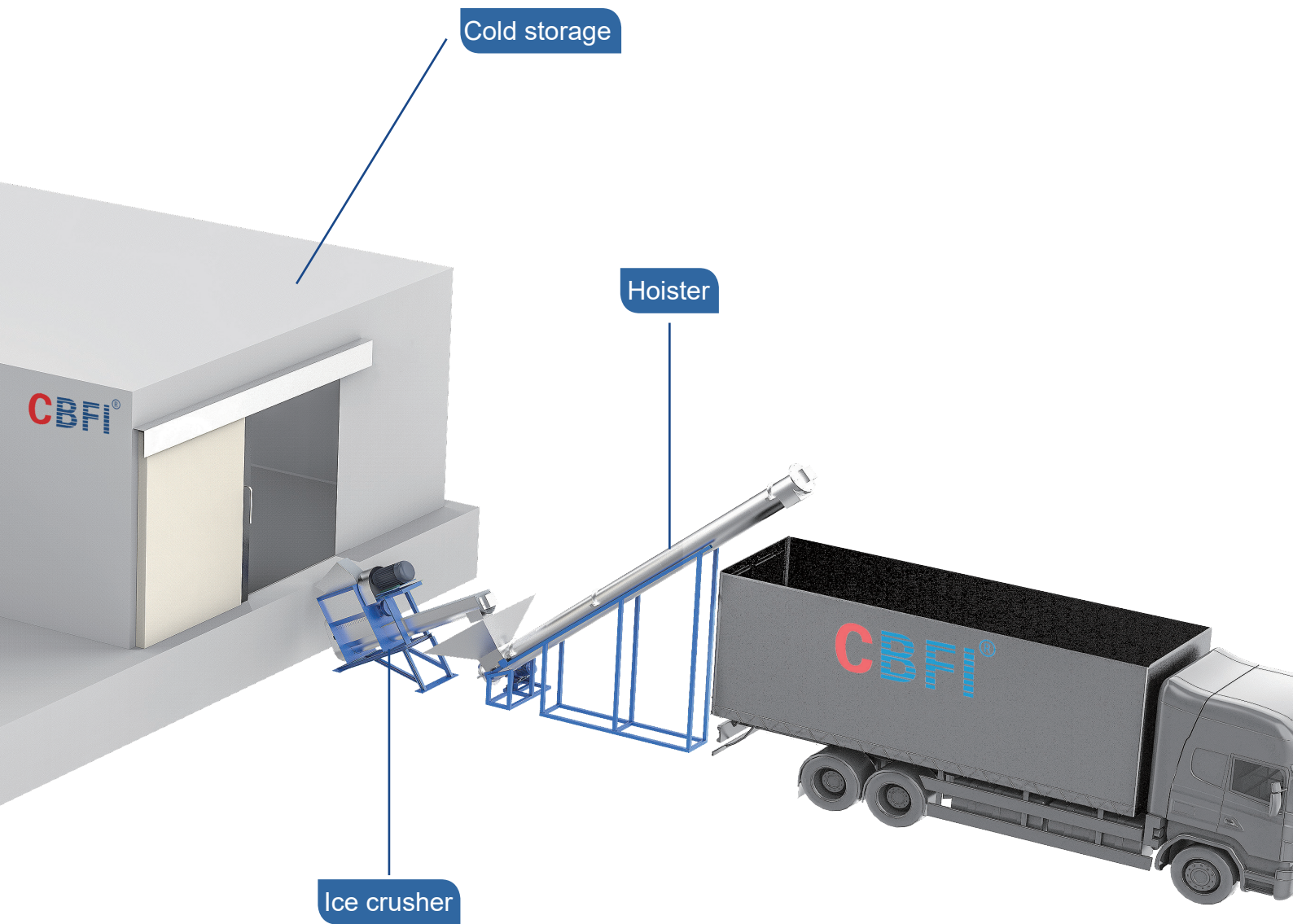
Automatic Block Ice Machine



Complete set of equipment for Automatic Block Ice Machine

This project is an ice plant, and the overall equipment includes:

1. Cooling tower *1, deicing and filling water circulation pump *1
2. 10-ton automatic block ice machine *1, ice pushing device *1
3. Conveyor *1, elevator *1, ice crusher * 26m*8m cold storage *1



PARAMETER

Automatic Block Ice Machine

Automatic block ice machine is a new type of ice making machine, which evaporates refrigerant in the evaporator and makes ice with direct cooling water through the evaporator. The main components include refrigeration system, lifting device, control system. Evaporator is made of aluminum plate. The refrigerant flows inside the aluminum plate, and the external heat exchange with water makes ice.



ABI10 / 1 tons per day

Ice making capacity: 1 tons /24 hours
 Compressor brand: Bitzer
 Rated power of compressor: 3.88kW
 Circulating water pump power: 1.1KW
 Ice maker size: 3000*1100*1700(mm)
 Ice size: 110*90*550(mm)
 Ice output shift: 5 per 24 hours

ABI30 / 3 tons per day

Ice making capacity: 3 tons /24 hours
 Compressor brand: Bitzer
 Rated power of compressor: 9.44kW
 Circulating water pump power: 1.1KW
 Cooling water pump power: 0.55KW
 Ice maker size: 4600*1380*1900(mm)
 Ice size: 225*90*550(mm)
 Ice output shift: 5 per 24 hours



Ice making capacity: 5tons /24 hours
Compressor brand: Bitzer
Rated power of compressor: 18.9kW
Circulating water pump power: 1.5KW
Cooling water pump power: 0.55KW
Ice maker size: 4800*1860*1900(mm)
Ice weight: 225*90*550(mm)
Ice output shift: 5 per 24 hours



Ice making capacity: 10tons /24 hours
Compressor brand: HanBell
Rated power of compressor: 39.1kW
Circulating water pump power: 4KW
Cooling water pump power: 1.5KW
Ice maker size: 8100*2140*2300(mm)
Ice size: 315*120*760(mm)
Ice output shift: 3 per 24 hours



Ice making capacity: 20tons /24 hours
Compressor brand: HanBell
Rated power of compressor: 72.6kW
Circulating water pump power: 7.5KW
Cooling water pump power: 2.2KW
Ice maker size: 7800*2240*2500*2 (mm) (Evaporator)
2800*2000*2300 (mm) (Host)
Ice size: 435*120*850(mm)
Ice output shift: 2 per 24 hours



Ice making capacity: 30tons /24 hours
Compressor brand: HanBell
Rated power of compressor: 141.4kW
Circulating water pump power: 7.5KW
Cooling water pump power: 2.2KW
Ice maker size: 11000*2240*2500*2 (mm) (Evaporator)
3200*2000*2500 (mm) (Host)
Ice size: 435*150*850(mm)
Ice output shift: 2 per 24 hours



EQUIPMENT PARAMETER

Automatic Block Ice Machine

| Model | Compressor brand | Refrigerating capacity (kw) | Compressor power (kw) | cooling method | Lifting motor (kw) | Cooling tower power (kw) | Cooling water pump power (kw) | Machine size L*W*H(mm) | Remarks |
|--------|------------------|-----------------------------|-----------------------|----------------|--------------------|--------------------------|-------------------------------|------------------------------|--------------------------------------------------|
| ABI10 | Bitzer | 9.35 | 3.88 | Air cooling | 1.1 | / | / | 3000*1100*1700 | Automatic lift can be changed to manual forklift |
| | RefComp | 9.4 | 3.7 | Air cooling | 1.1 | / | / | 3000*1100*1700 | Automatic lift can be changed to manual forklift |
| | Frascold | 9.57 | 4 | Air cooling | 1.1 | / | / | 3000*1100*1700 | Automatic lift can be changed to manual forklift |
| | Copeland | 10.15 | 4.44 | Air cooling | 1.1 | / | / | 3000*1100*1700 | Automatic lift can be changed to manual forklift |
| ABI20 | Bitzer | 18.95 | 7.04 | water cooling | 1.1 | 0.25 | 1.1 | 4100*1280*1700 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4000*1280*1700 | Automatic lift can be changed to manual forklift |
| | RefComp | 18.7 | 6.9 | water cooling | 1.1 | 0.25 | 1.1 | 4100*1280*1700 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4000*1280*1700 | Automatic lift can be changed to manual forklift |
| | Frascold | 18.57 | 7.025 | water cooling | 1.1 | 0.25 | 1.1 | 4100*1280*1700 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4000*1280*1700 | Automatic lift can be changed to manual forklift |
| | Copeland | 16.2 | 7 | water cooling | 1.1 | 0.25 | 1.1 | 4100*1280*1700 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4000*1280*1700 | Automatic lift can be changed to manual forklift |
| ABI30 | Bitzer | 23.9 | 9.44 | water cooling | 1.1 | 0.55 | 1.1 | 4600*1380*1900 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4860*1700*1900 | Automatic lift can be changed to manual forklift |
| | RefComp | 25 | 9.2 | water cooling | 1.1 | 0.55 | 1.1 | 4600*1380*1900 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4860*1700*1900 | Automatic lift can be changed to manual forklift |
| | Frascold | 25.14 | 9.43 | water cooling | 1.1 | 0.55 | 1.1 | 4600*1380*1900 | Automatic lift can be changed to manual forklift |
| | | | | | | | | 4860*1700*1900 | Automatic lift can be changed to manual forklift |
| ABI50 | Bitzer | 48.2 | 18.9 | water cooling | 1.5 | 0.55 | 1.5 | 4800*1860*1900 | |
| | | | | | | | | 5200*2140*2250 | |
| | RefComp | 45.7 | 18.7 | water cooling | 1.5 | 0.55 | 1.5 | 4800*1860*1900 | |
| | | | | | | | | 5200*2140*2250 | |
| | Frascold | 45.46 | 17.49 | water cooling | 1.5 | 0.55 | 1.5 | 4800*1860*1900 | |
| | | | | | | | | 5200*2140*2250 | |
| ABI80 | Hanbell | 69.7 | 28.4 | water cooling | 3 | 1.5 | 4 | 7100*2140*2300 | |
| | | | | | | | | 8580*2200*2300 | |
| | | | | | | | | 7660*2240*2500 | |
| ABI100 | Hanbell | 98.3 | 39.1 | water cooling | 4 | 1.5 | 4 | 8100*2140*2300 | |
| | | | | | | | | 10200*2200*2300 | |
| | | | | | | | | 9000*2240*2500 | |
| ABI150 | Hanbell | 131.6 | 51.1 | water cooling | 5.5 | 1.5 | 5.5 | 11200*2200*2500 Evaporator | 2500*2000*2300 Host |
| | | | | | | | | 10800*2200*2500 Evaporator | 2500*2000*2300 Host |
| | | | | | | | | 11000*2240*2500 Evaporator | 2500*2000*2300 Host |
| ABI200 | Hanbell | 196.8 | 72.6 | water cooling | 7.5 | 2.2 | 7.5 | 7800*2240*2500*2 Evaporator | 2800*2000*2300 Host |
| ABI300 | Hanbell | 311.1 | 141.4 | water cooling | 5.5*2 | 2.2 | 7.5 | 11000*2240*2500*2 Evaporator | 3200*2000*2500 Host |

Remark:

- * Lifting operation: automatic
- * Daily output of more than 20 tons is non-standard, parameters can be determined according to customer demand.
- * Design parameters: refrigerant R22, voltage 380V/3P/50HZ.
- * Standard parameters: ambient temperature 28°C, water supply temperature 16°C.
- * Design conditions: condensation temperature 38°C, evaporation temperature: -15°C.
- * The above parameters are based on the corresponding ice mold size. If the ice mold size is different, please contact the technical department again to check the parameters.



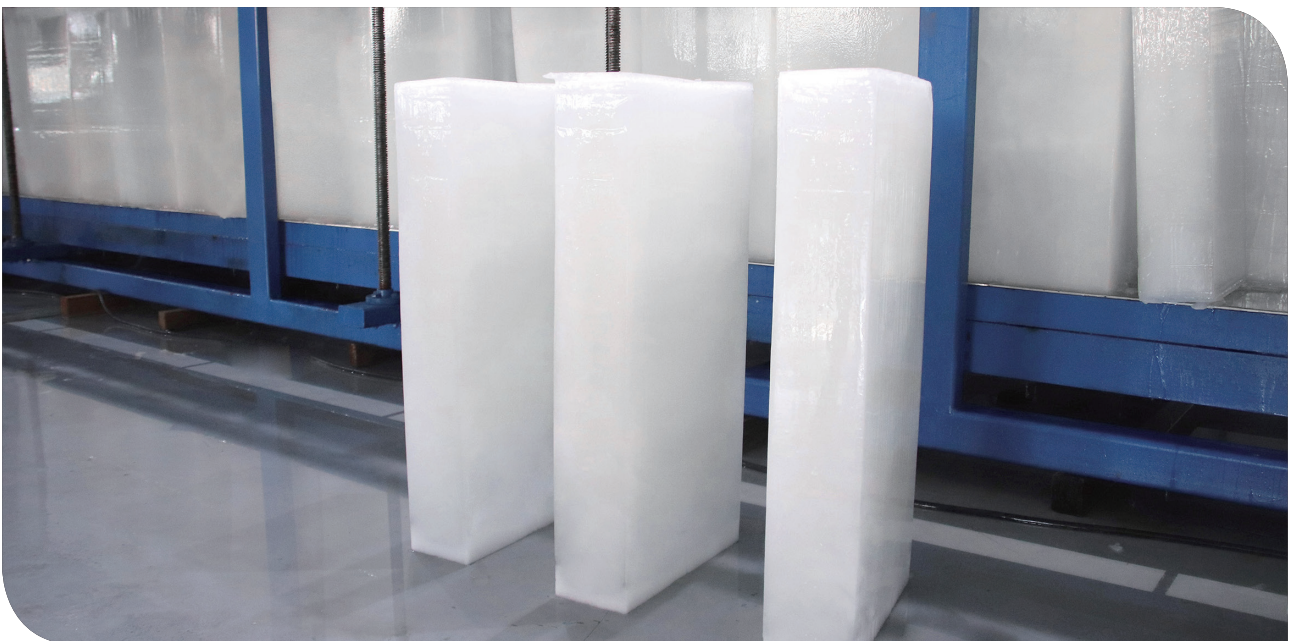
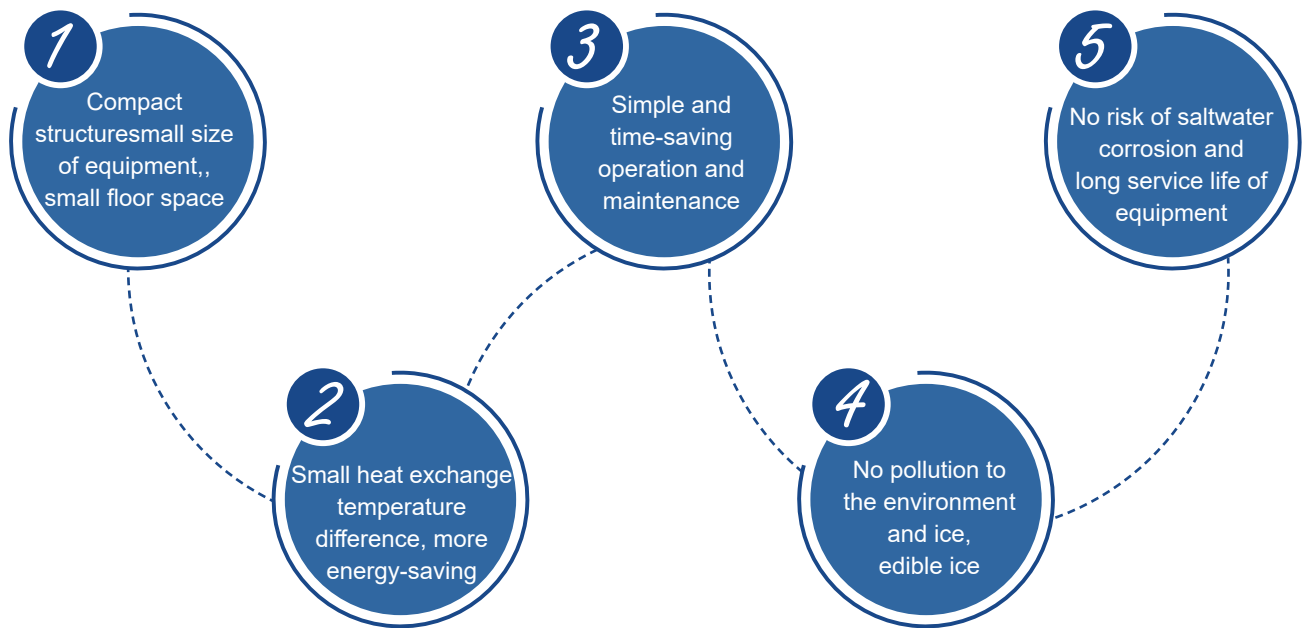
BLOCK ICE SIZE

Parameters table

| Model | Ice weight (KG) | Ice mold size L*W*H(mm) | Ice size L*W*H(mm) | Ice out Times/24 hours |
|--------|-----------------|-------------------------|--------------------|------------------------|
| ABI10 | 5 | 115*95*600 | 110*90*550 | 5 times |
| | 10 | 230*95*600 | 225*90*550 | 5 times |
| ABI20 | 5 | 115*95*600 | 110*90*550 | 5 times |
| | 10 | 230*95*600 | 225*90*550 | 5 times |
| ABI30 | 10 | 230*95*600 | 225*90*550 | 5 times |
| | 15 | 250*125*600 | 245*120*560 | 3 times |
| ABI50 | 10 | 230*95*600 | 225*90*550 | 5 times |
| | 25 | 320*125*800 | 315*120*760 | 3 times |
| ABI80 | 25 | 320*125*800 | 315*120*760 | 3 times |
| | 30 | 310*150*800 | 305*145*760 | 2 times |
| | 50 | 440*155*900 | 435*150*850 | 2 times |
| ABI100 | 25 | 320*125*800 | 315*120*760 | 3 times |
| | 30 | 310*150*800 | 305*145*760 | 2 times |
| | 50 | 440*155*900 | 435*150*850 | 2 times |
| ABI150 | 30 | 280*150*900 | 275*145*850 | 2 times |
| | 40 | 360*150*900 | 355*145*850 | 2 times |
| | 50 | 440*155*900 | 435*150*850 | 2 times |
| ABI200 | 40 | 440*125*900 | 435*120*850 | 3 times |
| | 50 | 440*155*900 | 435*150*850 | 2 times |
| | 50 | 390*180*900 | 385*175*850 | 2 times |
| ABI300 | 50 | 440*155*900 | 435*150*850 | 2 times |

ADVANTAGES

Automatic Block Ice Machine



Evaporator process

The aluminum evaporator is an important part of the ice machine for direct cooling. The refrigerant flows inside the aluminum plate and the ice is made by direct heat exchange with water outside. Aluminum has a high thermal conductivity, 4.5 times that of carbon steel and 12 times that of commonly used stainless steel. Fast ice making, low density and light weight of aluminum, 1/3 of the weight of the same volume of steel. Special zigzag runner design, greater contact area, higher heat exchange efficiency.



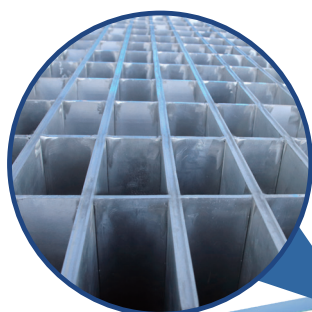
Joining together

The ice molds are spliced together at both ends of the gap and welded and strengthened in the middle, playing a role of stable balance.



Screw series

Each plate of the ice mold is connected by screw in series. The specially designed evaporator and the side evaporator are reinforced with ribs. The evaporator adopts screw + welding processing mode to ensure that it will never deform.



Welding process

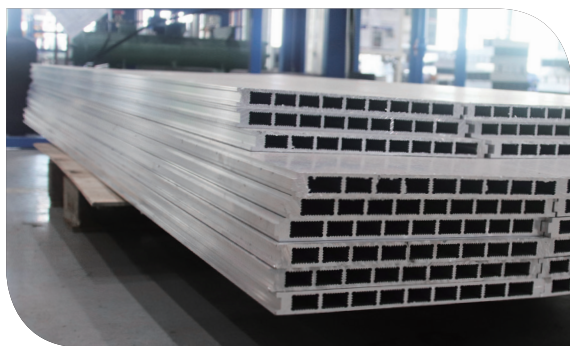
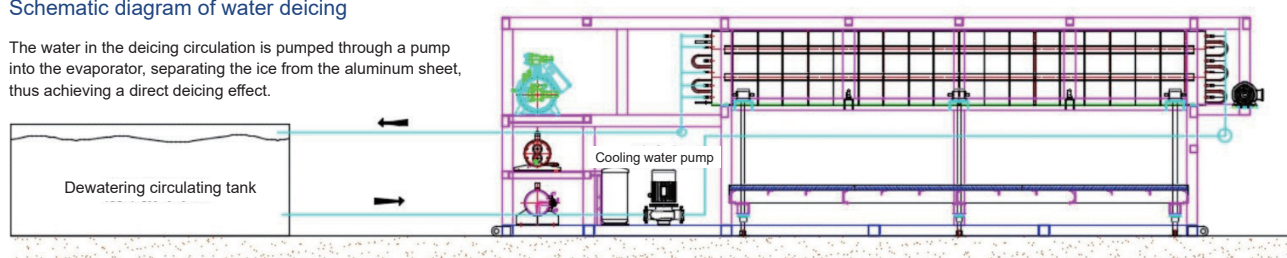
The baffle plate is welded into a grid. The baffle plate is more firmly fixed than other manufacturers' slots, and will not move due to ice expansion force.

Water deicing system

The water deicing system of refrigeration system adopts single working condition design, and the system is stable. A water pump can remove ice with lower energy consumption and faster time. The evaporator is designed with serrated flow passage to increase heat transfer area and achieve high ice-making efficiency. The refrigerant is exchanged with water through an aluminum plate, the water in the aluminum plate evaporator is frozen into ice, and the block ice removal can be completely automated. No pollution, no environmental impact.

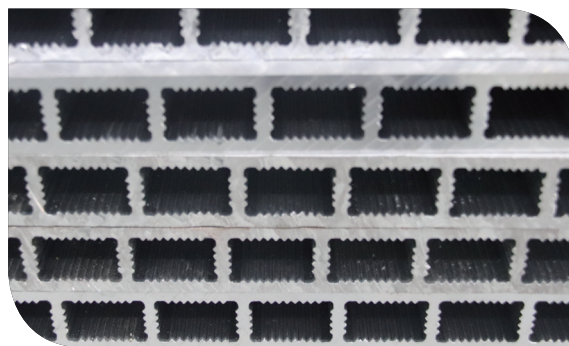
Schematic diagram of water deicing

The water in the deicing circulation is pumped through a pump into the evaporator, separating the ice from the aluminum sheet, thus achieving a direct deicing effect.



Aluminum plate

The aluminum plate is used as the evaporator, and the heat exchange between the refrigerant and the water is carried out directly, and the block ice removal can be completely automated.



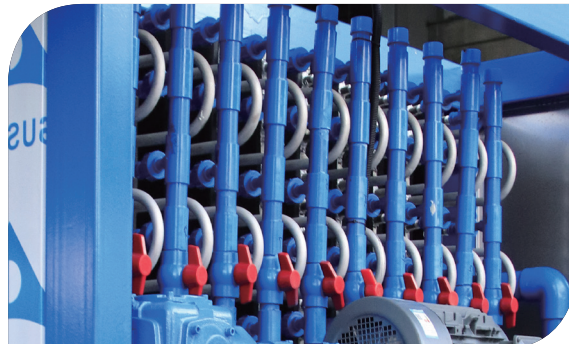
Serrated runner design

The evaporator is designed with serrated flow passage to increase heat transfer area and make ice more efficiently.



Operation full automation

Fully automated and simple operation can realize intelligent cloud control of Internet of Things and real-time monitoring of mobile phones.



Port interface

The ice-making and de-icing systems are integrated and independent, and the ice-making and de-icing systems can also realize the recovery of cold volume.

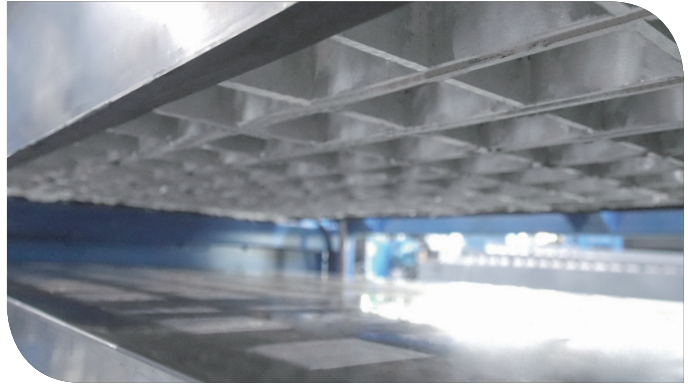
The function of sealing strip

The sealing plate can be used for many times. The sealing plate is in contact with the sealing strip and pressed tightly, but does not contact with the bottom of the evaporator. A gap is reserved, so the ice molds are connected.



Sealing strip

Sealing tape, good sealing, can be used many times.

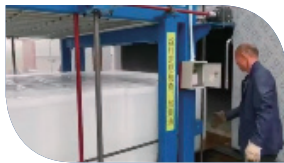


Water sealing plate and sealing strip

The sealing plate is in contact with the sealing strip and pressed tightly, but not with the bottom of the evaporator, leaving a gap, so that the ice molds are connected.

The ice pushing device

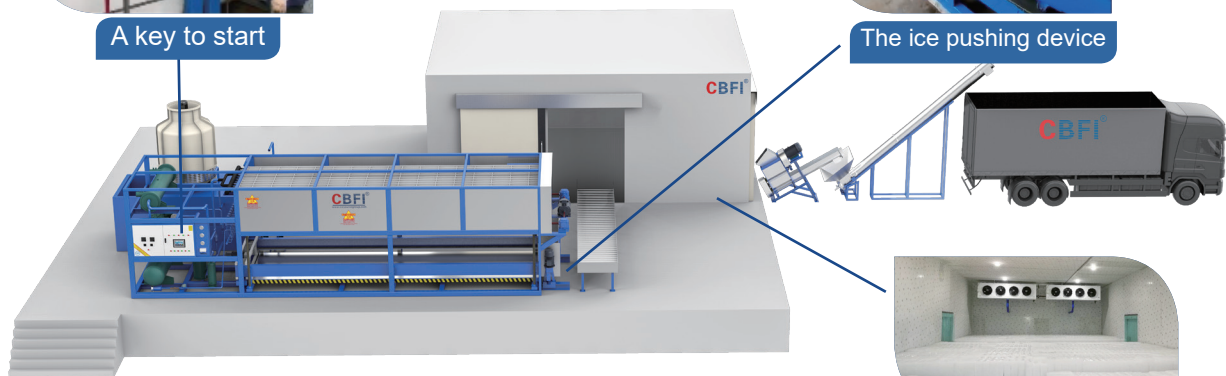
The volume of ice blocks of the automatic block ice machine is large, and the weight of the ice blocks varies from 8 to 40kg. The ice blocks can be transported to the cold storage with auxiliary tools such as ice pushing device.



A key to start



The ice pushing device



Put into cold storage

TRANSPARENT ICE

Automatic Block Ice Machine

Transparent ice machine is an ice maker which is used to produce all transparent blocks of ice according to the special requirements of our customers. Clear block ice does not have any bubbles and impurities, it is as clear as crystal, the ice is hard,, not easy to melt, very suitable for artistic ice sculpture production, medical and laboratory ice and other occasions.



Ice making time

Production of transparent block ice, ice - making time of 48 hours.



The technical requirements

Advanced bubble ice - making technology

COLD ROOM

Guangzhou Icesource Co., Ltd.

1. The cold room looks like a container and is suitable for a wide range of applications. It can hold 5-100 tons of various kinds of food, such as ice, fruit, fish and vegetables.
2. Automatic intelligent control, with temperature setting; temperature control, automatic defrosting and other functions, automatic and accurate temperature control, energy saving and consumption reduction;
3. Convenient maintenance, safe and reliable operation, faultless operation within inches long, no special person is required to monitor;
4. Long shelf life, high economic efficiency and simple operation technology.



Separated cold room



One-piece cold room

ICE CRUSHER

Guangzhou Icesource Co., Ltd.



Ice Crusher



Screw ice crusher

Ice crusher parameters

| Ice crusher specifications | Material | Roller size | Size of crushed ice | About the weight of crushed ice | Machine size | Machine weight | Motor Power | Ice crushing capacity |
|-----------------------------------------------------------|---------------------|-------------|------------------------------|---------------------------------|---------------------|----------------|-------------|-----------------------|
| A conventional ice cube crusher | 304 stainless steel | Φ 219*385mm | Ice cubes within 380mm*120mm | Ice cubes within 50kg | 860mm*620mm*1090mm | About 100kg | 3kw | 4 tons/hour |
| B roller extended ice block ice crusher | 305 stainless steel | Φ 219*480mm | Ice cubes within 470mm*120mm | Ice cubes within 60kg | 860mm*710mm*1090mm | About 110kg | 4kw | |
| C roller thickening and lengthening ice block ice crusher | 306 stainless steel | Φ 406*550mm | Ice cubes within 540mm*230mm | Ice cubes within 100kg | 1450mm*780mm*1900mm | About 260kg | 5.5kw | 2 tons/hour |
| Conventional tube ice, cube ice crusher | 307 stainless steel | Φ60*290mm | All tube ice/cube ice | All tube ice/cube ice | 540mm*475mm*920mm | About 80kg | 1.5kw | |

Design parameters: voltage 380V/3P/50HZ, material 304 stainless steel.
Remarks: The ice crusher can crush the weight of ice cubes for reference only. The specific selection of the ice crusher depends on the size of the ice cubes to be crushed.

Ice Crusher

The ice breaker is a kind of ice equipment specially designed for large blocks of ice. It is easy to operate and reliable. The inside of the machine is equipped with anti-ice rebound baffle. The whole is made of 304 stainless steel with strong corrosion resistance and service life of more than 10 years.



APPLICATION

Block ice

1

Seafood
preservation



2

Fresh-keeping

3

Food preservation



4

Industrial
cooling

Equipment test



Commissioning site of 3t automatic ice block ice machine



Commissioning site of 5t automatic ice block ice machine



Commissioning site of 10t automatic ice block ice machine



Commissioning site of 15t automatic ice block ice machine



Commissioning site of 25t automatic ice block ice machine



Commissioning site of 30t automatic ice block ice machine

ABOUT CBFI

Guangzhou Icesource Co., Ltd.

Guangzhou Icesource Co., Ltd. is a national high-tech enterprise based domestically and global oriented , we provide customers with advanced ice making equipment, complete ice making system, medium and high-end cold storage products and engineering. The company was founded in 2010 and started R&D in 2004. It is headquartered in the world-class city group - Guangdong-HongKong-Macau Greater Bay Area (China · Guangzhou). As one of the largest manufacturers in the domestic ice-making equipment industry, Icesource has a modern production base of 20,000 square meters and nearly 300 employees. After years of rapid development, with continuous technological innovation and excellent product quality, Icesource has covered all over the country and exported to more than 150 countries and regions around the world. Icesource has gained a certain brand awareness in the world.

Awards & Certificates



Guangdong High-tech Enterprise



Excellent Enterprise in Guangdong Province



"Contract-honoring and Credit-keeping" Enterprise in Guangdong Province



Vice President Unit of Guangdong Cold Chain Association



The most popular cold chain logistics provider



Guangdong Engineering Technology Research Center for Ice-Making Equipment



OUR ENTERPRISE

Show of Power



- ① 16000 m² factory area
- ② Advanced production equipment
- ③ 1 to 1 VIP professional service
- ④ Professional team

