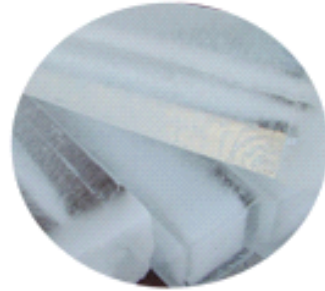


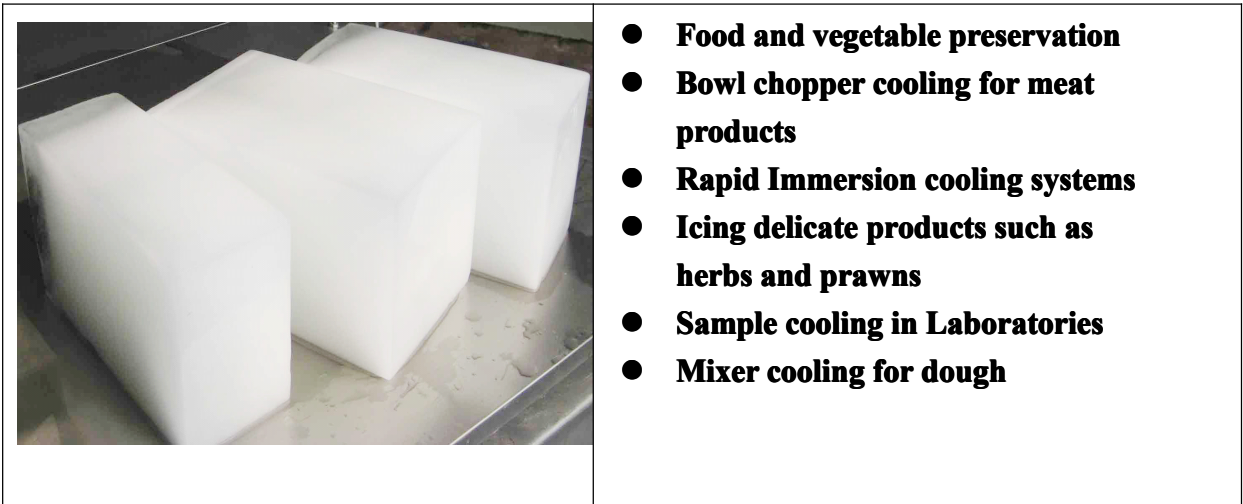
Introduction to Block Ice Machine



by Sophia Wan

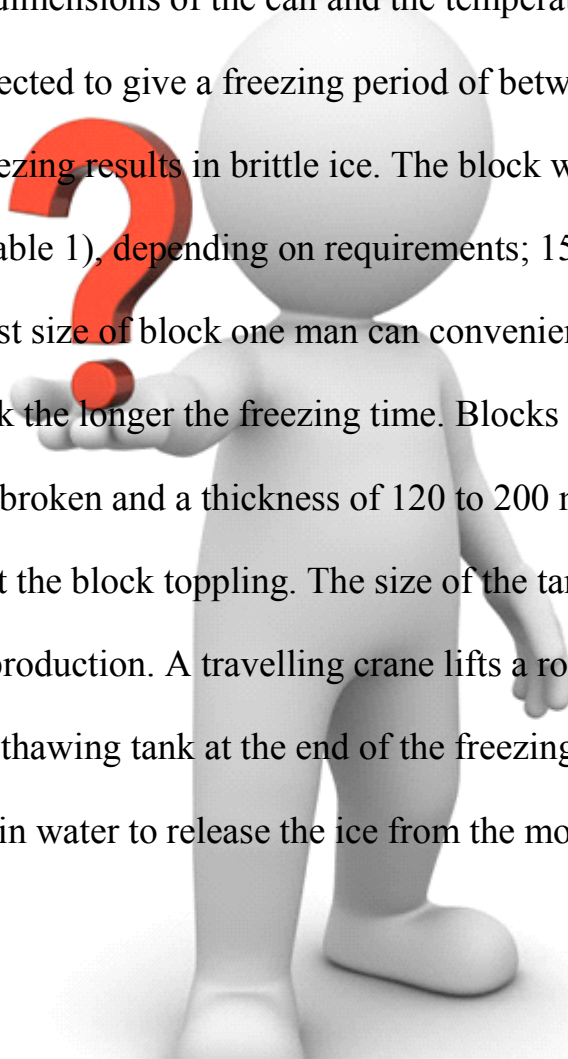
Block ice has a large dimension but has small contact area so it does not melt easily. It still has a use, and sometimes an advantage, over other forms of ice in tropical countries. Storage, handling and transport can all be simplified if the ice is in the form of large blocks; simplification is often obligatory in small scale fisheries and in relatively remote situations. With an appropriate ice crushing machine block ice can be reduced to any particle size but the uniformity of size will not be as good as that achieved with some other forms of ice. In some situations, block ice may also be reduced in size by a manual crushing method.

Application



How a block ice machine works?

Block ice machine. The AGICO block ice machine forms the ice in cans which are submerged in a tank containing circulating sodium or calcium chloride brine. The dimensions of the can and the temperature of the brine are usually selected to give a freezing period of between 4.8 and 24 hours. Too rapid freezing results in brittle ice. The block weight can vary from 5 to 150 kg (Table 1), depending on requirements; 150 kg is considered the largest size of block one man can conveniently handle. The thicker the block the longer the freezing time. Blocks less than 120 mm thick are easily broken and a thickness of 120 to 200 mm is preferable to prevent the block toppling. The size of the tank required is related to the daily production. A travelling crane lifts a row of cans and transports them to a thawing tank at the end of the freezing tank, where they are submerged in water to release the ice from the moulds. The cans



are tipped to remove the blocks, refilled with fresh water and replaced in the brine tank for a further cycle (Fig. 1). This type of plant often requires continuous attention and a shift system is operated by the labour force which may be 5 to 10 workers for a 100 t/day plant.

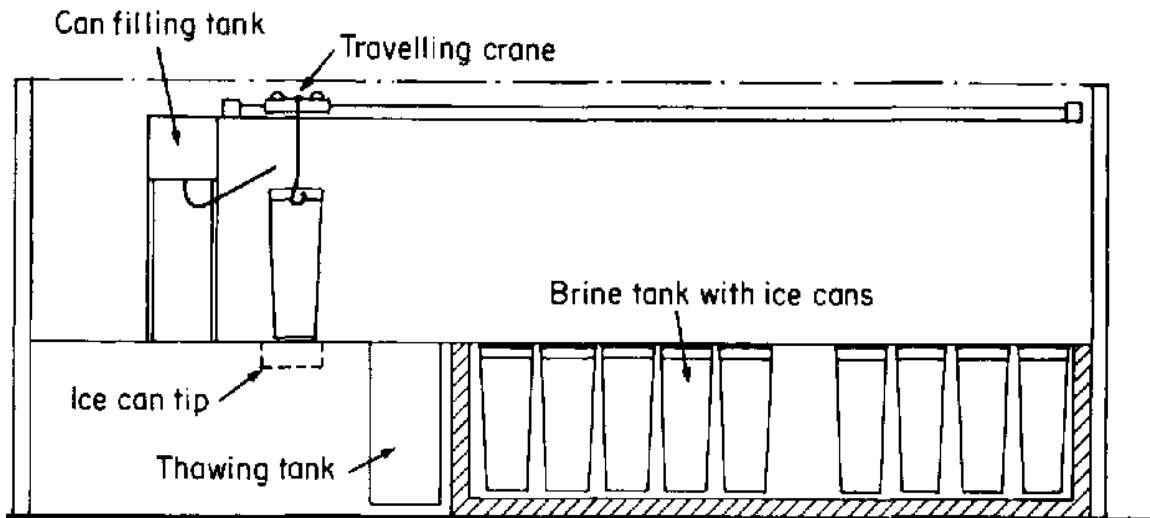


Fig. 1

Ice Weight (kg)	Ice Dimension (mm)	Freezing Time (hours)
5	80*150*500	4.8
10	100*200*600	6
15	90*310*650	6
20	100*350*750	8
25	120*300*800	8
30	120*300*960	8
50	150*400*950	12
100	200*560*1000	24

Table 1: Standard Ice Blocks

If you want to buy block ice machine or have any question, please feel free to contact us or visit our website for more information.

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