



Ice Making Machinery

Fluid Dynamics treatment of feed water to ice making machinery prevents scale accumulation and associated maintenance while producing clearer ice of improved quality.

Ice Types: Flaked, cubed, tubed and crushed (this is normally crushed cubed or tubed ice).

Calculating water consumption

Depending on the size of the ice making machinery their production is normally stated in tons, tonnes or lbs per day.

One gallon of water makes 8.35lbs of ice. Depending on where the ice machine was manufactured determines how the machines output is specified:

One US ton (also known as the short ton) = 2,000lbs

One long ton (originated from the UK imperial system) = 2240 lbs

One metric tonne = 1000kg = 2204lbs

Ice machines run in cycles, with the above information and the ice machine's operation period of 24 hours/day or less and the cycle timing, it's possible to calculate a reasonably accurate estimate of the maximum demand in GPM for the ice machine.

Example:

The NorthStar Stainless Steel Model # 60

Produces 28.9 tons (26.2 MT metric tonnes)
of flaked ice / day and runs 24 hours / day.

$$28.9 \times 2000 = 57800\text{lbs}$$

$$57800\text{lbs} / 8.35 = 6922 \text{ GPD}$$

$$6922 \text{ GPD} / 24 = 288 \text{ GPH}$$

$$288 \text{ GPH} / 60 = 4.8 \text{ GPM}$$

$$4.8\text{GPM} \times \text{cycle time period} \times \text{number of cycles per hour} / 60$$



For this installation a ½ Scaleton was selected. The feed pipe diameter was ¾“.