

# **Concrete Cooling Buffer Tanks**

The North Star **Buffer Tank** is designed to provide temporary remote storage for up to 2.2 US tons (2.0 metric tons) of flake ice. Designed for use in mass pour concrete cooling projects, they are typically installed near the point of use so ice is instantly available to fill a weighing hopper (by others) without waiting for ice to be delivered from the storage bin. This is especially beneficial for concrete batching projects where quick response and even ice flow are critical to matching different design mixes. The North Star **Buffer Tank** is capable of delivering up to 24 US tons (21 metric tons) per hour.

Feature	Benefit		
Designed & Manufactured for Reliability & Durability	Incorporates independent drives for agitators and discharge screw.		
	<ul> <li>Water-tight electrical connection on level control to avoid water intrusion through the connection.</li> </ul>		
	<ul> <li>Reinforced agitator paddles.</li> </ul>		
	<ul> <li>Fully insulated hopper.</li> </ul>		
Automatic Shut- Off & Protection Devices	Paddle-type high-level control stops ice delivery when Buffer Tank is full.		
	<ul> <li>Hinged cover with sensor to detect excessive ice. Automatically shuts off to prevent damage to the system.</li> </ul>		
Saves Money & Time	Reduces batch time by having ice always available at mix area.		
	<ul> <li>Pre-wired electrical motors and junction box. Prevents wiring errors.</li> </ul>		
	<ul> <li>Prevents damage to main delivery system which is not designed for shor on/off sequences that are repetitively required.</li> </ul>		
Easy to Install	Shipped fully assembled with installation instructions.		
	<ul> <li>Fork lift channels included. Prevents damage during transportation and lifting.</li> </ul>		





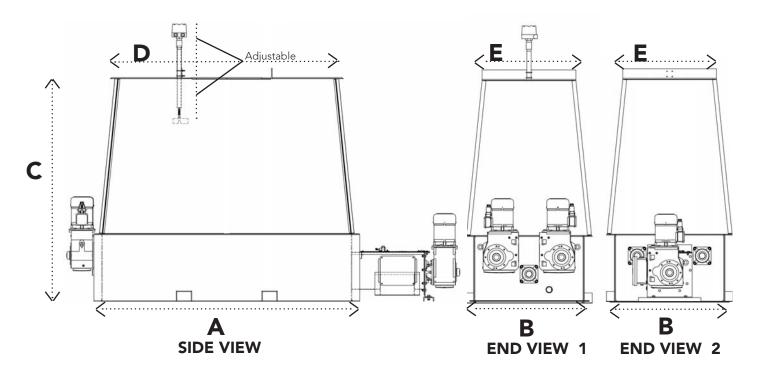


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### **Major System Components**

Frame Assembly
Hopper Assembly
Standard CEMA Screw Conveyor Flanged Outlet
Trough Support Channels
12" Diameter Heavy-Duty Discharge Screw Conveyor
Agitator Conveyors

Safety Grate Over Discharge Screw Outlet Hinged Trough Cover Assembly Junction Box Assembly Overfeed Detector Sensor Level Control Assembly (120 or 220 V) Plastic Hopper Cover



#### **Dimensions**

## 2 Ton (1.8 Metric Ton) Buffer Tank

A.	11'-4 3/4"	(3473 mm)
B.	48 1/2"	(1232 mm)
C.	7′-0″	(2134 mm)
D.	7′-0″	(2134 mm)
E.	2'-6"	(762 mm)

#### **Notes:**

- 1. All motors utilize European style electrical cable plugs to facilitate quick replacement of motors.
- 2. For 480v/3ph/60Hz or 380v/3ph/50Hz operation.
- 3. Starter motors for Buffer Tank can be incorporated into the main rake control panel. (Additional charge)

# Weights and Capacities

Model	Weight - Empty	Capacity	Drive Motors (3)	Delivery Rate
DT2000M	4,000 lbs (1814 kg)	2.2 US Tons (2.0 MT)	17.5 Total HP (13.0 kW)	24 US TPH (21 MTPH)

Note: Also available in 3 US Ton (2.7 Metric Ton) capacity

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