

Technical Specifications - AccuBatch™ brine maker

1.0 Salt Hopper

- 1.1 The entire salt hopper and salt hopper structure shall be made of structurally sound fiberglass.
- 1.2 The salt hopper shall have a nominal capacity of 1.6 cubic yards
- 1.3 The salt hopper has a nominal weight capacity of 3000 pounds
- 1.4 The salt hopper shall have the following nominal inner dimensions: 26.5 inches wide and 94.5 inches long and 33.25 inches high.
- 1.5 The height of the bottom of the butterfly cleanout valve is 31 inches off of the ground.
- 1.6 The salt hopper shall be constructed of fiberglass and coated with an inner UV resistant white gel coat and a highly-visible yellow outer gel coat.
- 1.7 Overall nominal thickness of the salt hopper shall be 0.75 inches.
- 1.8 All fittings and valves shall be fiberglass reinforced molded polypropylene
- 1.9 The fill nozzles are capable of providing fresh water or recirculated brine water to the system depending on the position of the valves in the system.
- 1.10 The hopper shall have a 13 degree sloped bottom leading toward a circular 6" diameter discharge port fitted with a manually operated 6" diameter butterfly valve consisting of cast iron body, EPDM seat, 316 stainless steel disc and stem.
- 1.11 All clamps and other necessary hardware shall be stainless steel
- 1.12 There shall be a quick disconnect fitting for the hose connecting the discharge side of the pump to the salt hopper.
- 1.13 The salt hopper will be fitted with removable 304 stainless steel screens to minimize the amount of salt or other debris to be washed into the brine tank through the two overflow weirs.
- 1.14 The salt hopper will be permanently fitted with Two stainless steel rectangular overflow weirs having measurements of Width 20" x Height 4.5" x Depth 12"

2. Brine Tank

- 2.1 The entire brine tank and brine tank structure shall be made of structurally sound fiberglass.
- 2.2 The brine tank shall have a nominal capacity of 800 gallons
- 2.3 The brine tank shall have the following nominal inner dimensions: 46.5 inches wide by 94.5 inches long by 46.5 inches high.
- 2.4 Overall nominal thickness of the brine tank shall be 0.75 inches

- 2.5 All fittings and valves shall be fiberglass reinforced molded polypropylene. The brine tank shall have the following nominal outer dimensions, including all fittings and/or mounts: 60 inches wide by 113.5 inches long by 49.5 inches high
- 2.6 The Brine tank outlet shall be fitted with a 2" port with a manually operated shut off valve. The valve has a 2" male QDC lever lock connection.
- 2.7 The brine tank shall be constructed of fiberglass and coated with an inner UV resistant white gel coat and a highly-visible yellow outer gel coat.
- 2.8 The floor of the brine tank shall have a 5 degree slope from opposite side of the discharge port toward the discharge port

3. Motor/pump/valve stack assembly

- 3.1 The components on the motor/pump/valve stack assembly will be a motor, pump, conductivity analyzer sensor, a check valve and a three-way manual valve.
- 3.2 The motor shall be a 3hp, 240V, 3450 rpm; FLA 13; 1 PH TEFC
- 3.3 The pump shall be rated at a nominal 100 gpm with a 2" inlet and outlet with stainless steel impeller and housing.
- 3.4 There shall be a salinity probe mounted and housed on the discharge side of the pump. The probe will be wired to the salinity analyzer control box with 15 ft of usable shielded cable.
- 3.5 There shall be a manual 3-way valve mounted on the downstream side of the conductivity probe housing. The valve will control whether the water/brine solution being discharged from the pump will be sent to the salt hopper (recirculation-production mode) or to a customer supplied brine storage device, such as a tank or truck
- 3.6 There shall be a 3" check valve mounted on the pump assembly to eliminate any backflow of water and salt from the salt hopper or from a storage tank/truck through the pump.
- 3.7 There shall be a 2" male quick disconnect fitting on the "storage" side of the 3-way valve that the customer can connect to in order to take the finished product from the AccuBatch™ system to a customer supplied storage device
- 3.8 The motor/pump/valve stack assembly will be attached to a stationary mount located on the side of the Brine Tank.

4. Control Panel

- 4.1 The control panel back plate shall be UL listed.
- 4.2 The control panel can be mounted outdoors as penetrations in the control panel will comply with IP-66, or greater.
- 4.3 The control panel shall be fitted with the following: Start, Stop, E-stop, Reset push button, Hand-Off-Auto motor control, four LED voltage fault indicators, LED stack light.
- 4.4 The control panel for the conductivity analyzer shall consist of touch screen controls rated at IP-66 and will be mounted to the side of the main control panel.
- 4.5 The main power will be supplied to the control panel by a 15 ft power cord with 240 VAC, 30A, 1PH male cord cap.
- 4.6 The entire system shall have a power requirement of 240V, 30A, 60hz, single phase AC.
- 4.7 The control panel enclosure shall be made of fiberglass reinforced polyester.
- 4.8 The total full load amperage shall be 18.4 Amperes.
- 4.9 The short circuit current rating shall be 5000 Amperes RMS.

5. Optional Accessories

- 5.1 To minimize salt spillage during the loading process, a 304 stainless steel spill deflector can be purchased as an optional accessory if the customer so desires. If purchased at the time of original machine purchase the spill deflector will be mounted on the Salt Tank at the factory.
 - 5.1.1 If the customer purchases the spill deflector after the initial Accubatch purchase, the spill deflector will be shipped to the customer in three pieces. Two pieces will mount on each end of the Salt Hopper and one piece will mount along the long side of the Salt Hopper, directly adjacent to the Brine Tank. Assembly instruction will be included as will all required mounting hardware(bolts, nuts and washers).
 - 5.1.2 The dimensions of the Salt Hopper including the optional spill deflector is 109" L x 35" D x 81" H.
- 5.2 All parts listed on supplied parts list can be purchased as needed. Contact your local Cargill Deicing Technology Sales Representative.

6. Documentation



6.1 Each machine will be supplied with a CD containing electronic files of the following: Operators Manual, Parts List, Warranty Terms, Warranty Claim Form, Warranty Claim Instructions, Warranty Registration Form, RMA Form, and Conductivity Analyzer Instruction Manual