



BT600AB
STAINLESS STEEL AUTOMATIC BRINE MAKING PLANT
COMPLETE WITH OVERFLOW PREVENTION AND PUMP PROTECTION

Brine Making Plant shall meet the following minimum specifications:

1. The brine making process will be automatically controlled by an Electronic Controller (EC). The EC will control the salinity content of the finished brine to within $\pm 0.2\%$. The operator will be able to pre-select the desired salinity level of the finished brine. In auto mode the EC will shut down the machine in the event that the brine is either too rich or too lean. The brine maker will also include full manual override controls which enable brine production in a fully manual mode.
2. Comply: _____yes _____no
3. The dissolution tank, brine containment tank and spillway shall be welded stainless steel, one-piece construction. The tank will include a sloped floor to allow for easier clean-out operations.
4. Comply: _____yes _____no
5. The entire Brine Making Plant shall be constructed into a single frame to allow for easy loading, un-loading, and positioning using various fork lift trucks.

Comply: _____yes _____no
6. The dissolution tank, brine containment tank and spillway shall be constructed of 304 grade stainless steel. The tank will include a sloped floor to allow for easier clean-out operations. Plastic or fiberglass construction is not permitted.

Comply: _____yes _____no
7. The Brine Making Plant shall be delivered as a complete system with all plumbing, pump, valves, hoses, etc. included in the package. The Customer will be responsible for connecting the discharge pump to its own storage facilities if required.

Comply: _____yes _____no

8. Pricing shall include delivery, set-up, commissioning and training as a separate item.

Comply: _____yes _____no

9. Overall dimensions shall not exceed:

Width: 145 inches

Depth: 60 inches

Height: 72 inches

Comply: _____yes _____no

10. System being supplied shall be designed and constructed so as to assure the dissolution tank can be filled using a standard 2 yd³ loader bucket.

Comply: _____yes _____no

11. System shall be an upward water flow type system. Water will move through the salt from the bottom to the top. The brine will exit the dissolution tank through a fixed, stainless steel spillway into the brine containment tank.

Comply: _____yes _____no

12. Dissolution Tank Opening:

Width: ~136 inches minimum

Depth: ~52 inches

Capacity: ~5.2 yd³

Comply: _____yes _____no

13. Brine Containment Tank:

Capacity: approximately ~2470 litres (650 USG)

Comply: _____yes _____no

14. Pump/Motor shall be:

Close coupled only:

Bench Rated for 120 USGPM flow rate
2 HP – 115/220 VAC Single Phase
Housing shall be glass reinforced polypropylene
Pump shaft shall be stainless steel
All other pump parts shall be corrosion resistant

Comply: _____yes _____no

15. All valves and fittings shall be corrosion resistant Banjo flange style polypropylene or approved equal.

Comply: _____yes _____no

16. All fresh water supply lines and dilution water supply lines that are affixed to the Brine Making Plant shall be Sch. 80 PVC pipe. Flexible hose is not permitted.

Comply: _____yes _____no

17. Flexible hose used for recirculation and pump-out purposes shall be “tank truck” reinforced and rated for up to 150 PSI minimum and have a service temperature rating of -40°C to 120°C.

Comply: _____yes _____no

18. Main water supply line shall be controlled using an electric solenoid valve that is activated/de-activated by the electrical control panel.

Comply: _____yes _____no

19. Dilution water shall be controlled by an electronic proportioning valve which is monitored and controlled by the electronic salinity control unit in the electrical panel.

Comply: _____yes _____no

20. The Brine Making Plant shall include water/brine high-level sensors on both the dissolution tank and the brine containment tank. The sensors will close the main water supply valve automatically in order to prevent overfilling. The sensors shall be c/w slosh guards as required.

Comply: _____yes _____no

21. The Brine Making Plant will include a low level safety sensor that will automatically prevent the pump from running when there is no liquid in the brine containment tank.

Comply: _____yes _____no

22. Electrical Panel:
Nema 4X minimum
10' electrical cord c/w "twist lock" plug
Motor contactor c/w overload relay
Emergency Stop button
Sensor relays
Electronic Salinity Control – User Adjustable
Manual Override Control Switch
Pump Start/Stop Switch

Comply: _____yes _____no

23. Spillway:
The spillway shall have a flow capacity of not less than 22,680 litres (6000 USG) per hour.

Comply: _____yes _____no

24. Clean-Out:
The dissolution tank shall include at least one 6" ANSI stainless steel clean-out flange c/w 6" PVC Butterfly valve located at the rear. No elbows or other flow diversions are permitted on the clean-out pipe. The clean-out pipe shall be located approximately 1/4" to 1/2" from the floor of the dissolution tank.

Comply: _____yes _____no

25. The brine containment tank shall include a 6" clean-out as item 20 above.

Comply: _____yes _____no