Poly Briner Guide Specifications

## PART 1: GENERAL

* 1. **SCOPE OF WORK**

This **BrineMaker** specification covers flat bottom, upright, domed top, crosslinked PE tanks fabricated according to the requirements of ASTM D1998 and the basic components and optional features outlined below. The BrineMaker is designed to receive pneumatically loaded salt and to produce and supply saturated brine. The stated design capacity is based on the shell capacity of dry salt with a density of 70#/cubic foot.

**1.2 MANUFACTURER QUALIFICATIONS**

1.2.1 MANUFACTURER'S EXPERIENCE**:**

The manufacturer shall have been regularly engaged in the design and manufacture of brine make-up and storage systems tanks such as specified herein for at least five years. The manufacturer's experience shall include at least fifteen installations of equal or larger capacity than specified herein, that have been in operation for at least five years.

1.2.2 MANUFACTURER'S WARRANTY:

The BrineMaker and accessories shall be warranted as follows:

Poly Vessel : three years

Accessories : one year

Electronics : by manufacturer

**1.3 SUBMITTALS**

1.3.1 SHOP DRAWINGS**:**

Manufacturer shall furnish BrineMaker shop drawings for approval. Drawings shall indicate type, size and location of all specified fittings and other appurtenances.

1.3.2 SEISMIC CALCULATIONS**:**

Where required, manufacturer shall furnish seismic design calculations in accordance with the current IBC which have been verified and stamped by an independent registered professional engineer.

1.3.3 CHEMICAL RESISTANCE DATA:

All materials used in the construction of the vessel and appurtenances shall be compatible with salt brine.

##### PART 2: PRODUCTS

**2.1 ACCEPTABLE PRODUCTS**

**BrineMaker** 800-998-7345 or

Approved equal

* 1. **BrineMaker MATERIALS OF CONSTRUCTION**

2.2.1 Standard Components:

 Tank: Crosslinked Polyethylene

Salt Fill Line: 4"fully radiused 304SS w/camlok, cap and supports

 Brine Outlet: 2" flange with PVC collection plenum

Top Manway: Fume Tight Lid

Drain: 2" flange with diptube & screen

 Vent/Dust Collection: 8” flange with dust bag, hose clamps and supports

 Water Inlet: 1” MPT with Internal Spiral Distribution Head

 Anchor Lugs: SS or galvanized as required

 Lifting Lugs: Molded-In (on most vessels)

2.2.2 Optional Accessories:

 Salt Level Indication: 4” flange w/bob device, LED readout and 4-20ma output

FRP Side Manway: 24" flanged with EPDM gasket and 316SS hardware

Freeze Protection System: Heating pads with control panel and insulation

 Brine Level Control System: 2” flange, pressure transducer, controller,NEMA 4X enc.

 FRP Access Ladder: With boarding rails, or operator deck, or safety cage

 Gravel Bed: Quartz gravel bed as specified by salt supplier

 Seismic Design: per applicable standard

 Food Grade Tank: HDPE resin

**2.3 BrineMaker SEISMIC & WIND DESIGN**

Tank manufacturer shall provide seismic and wind design in conformance with plans and instruction certified by a registered professional engineer. Provide wet stamped calculations.

**2.4 BrineMaker Temperature Maintenance System**

2.4.1 The heating system shall be designed to maintain tank contents at 50ºF, at a minimum ambient temperature of \_\_ºF. The tanks will be installed \_\_\_doors.

* + 1. The insulation will have an outer protective layer of mastic coating.
	1. **BrineMaker Specification – \_\_\_\_ Ton Unit**

Diameter: \_\_\_\_

Height: \_\_\_\_ (shell)

Volume: \_\_\_\_ cubic feet

Standard Tank Color: Natural/Translucent

Configuration: Flat bottom, domed top

Design Specific Gravity: 1.35

Design Temperature: 100° f

Design Pressure: atmospheric

Design Standard: ASTM D1998

Fabrication Method: Rotational Molding

Resin: HDXLPE or HDLPE