



## Awarded Supplier Information

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**Supplier Name:** Dultmeier Sales LLC

**Supplier ID #:** 0000245530

**Supplier Address:** 13808 Industrial Rd

**City:** Omaha

**State:** NE

**Zip Code:** 68137 -

**Contact Person Name:** Tom Hansen

**Phone #:** 1-402-333-1444

**Title:** Deice Division Leader

**Fax #:** 1-402-333-5546

**Email:** [Thansen@dultmeier.com](mailto:Thansen@dultmeier.com)

**Website:** [www.dultmeier.com](http://www.dultmeier.com)

**Authorized Location:**  **Locations list attached as (*attachment title*)**

**Address:**

**City:**

**State:**

**Zip Code:**

**Contract ID #:** 5027

**Delivery:** FOB destination

**Minimum Order:** n/a

**P/Card Accepted:**  Yes

No

**Other:**



# QUOTATION



**Dultmeier Sales, LLC**  
 P.O. Box 45565  
 Omaha, NE 68145-0565 USA  
**Phone:** (800) 228-9666 or (402) 333-1444  
**Fax:** (402) 333-5546  
**E-mail:** dultmeier@dultmeier.com

# QUOTATION

Order Number	
1514512	
Order Date	Page
7/18/2018 12:00:29	1 of 1

Quote Expires On 8/17/2018

**Bill To:**

Oklahoma DOT Div 5 HQ  
 PO Box 1449  
 Clinton, OK 73601-1449  
 USA

580-323-1431

**Customer ID:** 293792

**Ship To:**

Oklahoma DOT Div 5 HQ  
 1.25 miles South of Jct of I-40 and US-183 Hwy  
 Clinton, OK 73601-0000  
 USA

Ordered By:

<i>PO Number</i>	<i>Ship VIA</i>	<i>Quoted By</i>
	LTL Truck Shipment	THANSEN

<i>Quantities</i>					<i>Item ID</i> <i>Item Description</i>	<i>Pricing UOM</i> <i>Unit Size</i>	<i>Unit Price</i>	<i>Extended Price</i>
<i>Ordered</i>	<i>Allocated</i>	<i>Remaining</i>	<i>UOM Unit Size</i>	<i>Disp.</i>				
1	0	1	EA		DUBPS3000-SS Brine Product System/SS Hopper & Frame Brine Production System, SS Hopper & Frame	EA 1.0	43,500.0000	43,500.00
1	0	1	EA		DUBFS1C Brine Filtering System, Flanged, On Plate Brine Filtering System, Flanged On Plate	EA 1.0	0.0000	0.00
1	0	1	EA		DUIB020A-OK BPS3000-SS Plumb Kit, for OK DOT BPS3000-SS Plumbing Kit, Poly Couplers, 150FT Hose Total, for OK DOT	EA 1.0	1,463.0000	1,463.00

Total Lines: 3

**SUB-TOTAL:** 44,963.00  
**TAX:** 0.00  
**AMOUNT DUE:** 44,963.00

*U.S. Dollars*

Sales tax and freight, whether shown or not, will be charged based on point of delivery. Liftgate, notifications and residential billing will be charged based on carriers billing.

**QUOTATION**



**Dultmeier Sales Davenport, Inc.**  
 P.O. Box 45565  
 Omaha, NE 68145-0565 USA  
**Phone:** (800) 228-9666 or (402) 333-1444  
**Fax:** (402) 333-5546  
**E-mail:** dultmeier@dultmeier.com

**QUOTATION**

Order Number	
1413154	
Order Date	Page
11/3/2017 13:02:51	1 of 1

Quote Expires On 12/3/2017

**Bill To:**

Oklahoma Dept of Transportation DIV 6HQ  
 Comptroller Division, Rm B6 3rd Fl  
 200 NE 21 ST  
 OKLAHOMA CITY, OK 73105-0000  
 USA  
 580-735-2561

**Ship To:**

Oklahoma Dept of Transportation DIV 6HQ  
 N Side US 64 25 Mi W of Jct US 64 & US 183  
 Buffalo, OK 73834-0190  
 USA

Ordered By:

**Customer ID:** 262914

<i>PO Number</i>	<i>Ship VIA</i>	<i>Quoted By</i>
De-Ice Sprayer	UPS Ground	RSCHWANINGER

<i>Quantities</i>					<i>Item ID</i>	<i>Pricing UOM</i>	<i>Unit Price</i>	<i>Extended Price</i>
<i>Ordered</i>	<i>Allocated</i>	<i>Remaining</i>	<i>UOM Unit Size</i>	<i>Disp.</i>	<i>Item Description</i>	<i>Unit Size</i>		
1	0	1	EA		DU1A045	EA	15,950.0000	15,950.00
				1.0	1800Gal Icing Unit W/Skid/Legs/Dcs400 Deice Sprayer, Self-Loading, 1800 Gallon, DCS400	1.0		

Total Lines: 1

**SUB-TOTAL:** 15,950.00  
**TAX:** 0.00  
**AMOUNT DUE:** 15,950.00  
 U.S. Dollars

Sales tax and freight, whether shown or not, will be charged based on point of delivery. Liftgate, notifications and residential billing will be charged based on carriers billing.

**BPS3000-SS BRINE PRODUCTION SYSTEM FEATURING  
ULTRA-EASY CLEANOUT  
SPECIFICATION  
April 26, 2017**

It is the intent of this Specification to describe in detail an Ultra Easy-Clean Out Brine Production System. This system shall be designed and constructed to convert rock salt to finished salt brine. It shall also include a self-contained hydraulic system to rotate the lower brine holding tank and trash screen down when cleaning is desired, allowing all debris in the salt hopper to simply flow into a standard 2 or 3 cu. yd. loader bucket. Total clean-out will only take approximately 10 minutes and requires no personnel entry into the system for shoveling and no "quick attach" loader buckets.

I. General:

- A. The BPS3000-SS Brine Production System shall be capable of producing approximately 3,000 to 5,000 Gallons of Brine Per Hour (based on owner's water supply of 50 GPM to 85 GPM at 60 PSI or greater).
- B. System shall be designed and constructed to be easily filled with rock salt using a standard 2 cu. yd. or 3 cu. yd. loader bucket (no conveyors or augers required).
- C. System shall be designed and constructed to be easily cleaned of all debris in the salt hopper with a standard 8' wide 2 cu. yd. or 3 cu. yd. loader bucket (no "quick attach" loader buckets are required). To do this, the loader operator will simply position his loader bucket below the system's lower brine holding tank. He will then switch on the system's self-contained hydraulic control Power Pack. The operator will then rotate the pivoting trash screen and lower brine holding tank down, allowing all debris in the salt hopper to flow into the loader bucket.
- D. System shall also be designed and constructed to provide for easy clean out of the silt and other fines inside the lower brine holding tank as follows: The operator will again rotate the system's lower brine holding tank down, this time with the pivoting trash screen held in the "up" position. He will then remove the secondary screen inside the lower brine holding tank and wash out the silt and other fines using a standard water spray hose.
- E. Entire system shall be constructed on a single skid frame to allow for easy loading, unloading, and moving using various loaders with forks (system can also be lifted into place).
- F. System shall be a "downward flow" brinemaker where the salt bed acts as a "filter bed" as the water moves down through the bed from the top spray bars. This provides for cleaner brine (less suspended solids in the finished brine) than upward flow brinemakers produce.
- G. Overall system dimensions are: 10'6" wide x 6'1" deep x 8'0" high.

II. Upper Salt Hopper:

- A. The Upper Salt Hopper shall have an approximate capacity of 6 cu. yds. of rock salt. It shall be approx. 120" (10'0") wide by 63" (5'3") deep at the top to allow for easy loading with rock salt with 2 or 3 cu. yd. loader buckets. The back side of the hopper shall be angled forward (tapered). There shall also be inward tapers on the left and right sides of the lower portion of the salt hopper.
- B. The Upper Salt Hopper shall be constructed of 10 gauge, 304 stainless steel.

III. Pivoting Trash Screen:

A 14 gauge 304 stainless steel trash screen shall be located at the bottom of the hopper. This screen shall have approx. 1/4" dia. circular holes through it. The screen shall be hinged on its back side and have a securing device on its front side so it can rotate down with the Lower Brine Holding Tank, or be secured in the up position for additional cleaning of fines from the Brine Tank.

IV. Lower Brine Holding Tank:

- A. The Lower Brine Holding Tank shall be constructed of 10 gauge, 304 stainless steel.
- B. 304 stainless steel support members shall run across the Lower Brine Holding Tank at proper spacing to provide support for the trash screen above.
- C. A 16 gauge 304 stainless steel secondary screen shall be located approximately 6-8" from the bottom of the Lower Brine Holding Tank. This screen shall have approx. 1/8" dia. circular holes through it. The screen shall be removable for cleaning purposes.

- D. A 2" stainless steel female thread bung or coupling shall be welded into the back side of the Lower Brine Holding Tank.
- E. The back side of the Lower Brine Holding Tank shall be hinged and also have locking pins on the left and right front sides so it can rotate down and back up again (for cleaning purposes). The back hinges/sleeves and front locking pins/sleeves shall be 304 stainless steel. The torsion bar on the back side of the Lower Brine Holding Tank shall also be 304 stainless steel.
- F. Lower Brine Holding Tank shall hold approximately 150 gallons and shall have a forward taper on its back side. It shall be approx. 94" (7'10") across its front so a standard 2 cu. yd. or 3 cu. yd. front end loader bucket can be easily positioned underneath it.

V. Skid Frame:

- A. Skid Frame shall support all other system components including the Upper Salt Hopper, Lower Brine Holding Tank, hydraulic system, brine discharge pump, plumbing, and electrical control panel.
- B. The entire Skid Frame shall be constructed of structural stainless steel tubing, 3" x 3" x 3/16".
- C. The Skid Frame shall have 3" x 3" x 3/16" structural stainless steel bottom cross beams on each side and two across the rear. These cross beams will be located approx. 6-8" above the floor to enhance floor cleaning. The Skid Frame shall also have a 3" x 3" x 3/16" structural stainless steel front cross beam welded to the frame to support the locking pins for the Lower Brine Holding Tank and trash screen.
- D. Skid Frame shall also have 3" x 3" x 3/16" structural stainless steel cross beams running across the top on the front, back & both sides. It shall also have 3" x 3" x 3/16" structural stainless steel beams running diagonally on both sides.
- E. Each vertical leg of the skid frame shall also have stainless steel base feet (pre-drilled) for securely anchoring the skid frame to the floor. Vertical legs will be telescoping (manual) with bolt holes every 2" for height adjustment in the field.
- F. Stainless steel lifting lugs are provided on all four corners of the skid frame so an overhead or portable crane can be used for lifting and positioning the system.

VI. Hydraulic System:

- A. Hydraulic System for rotating the Lower Brine Holding Tank & trash screen down and up shall be completely self-contained (no hydraulic lines or connections required by owner).
- B. Hydraulic System shall include a hydraulic pump with integral reservoir (reservoir shall be Stainless Steel). The hydraulic pump shall be operated by a close-coupled 1 HP, 115/208-230V, 1 Phase, Totally Enclosed (TENV) electric motor. The system shall also include a pressure relief valve. Two 2 1/2" dia. hydraulic cylinders shall also be included, sufficient in size to rotate the Lower Brine Holding Tank. The cylinders shall be securely pinned to the Lower Brine Holding Tank. A hydraulic control valve shall also be included to retract and extend the hydraulic cylinders. Proper hydraulic tubing and fittings shall also be included to provide a complete & fully operational system. Hydraulic tubing shall be steel with zinc plating with a 24 hour salt spray rating. Hydraulic fittings shall be JIC steel fittings with outdoor rating.

VII. Brine Discharge Pump:

- A. Pump shall be 2" x 1 1/2" straight centrifugal constructed of 316 stainless steel (housing, impeller & mounting feet) with viton/carbon/ceramic mechanical seal. Pump shall be close-coupled to a 3 HP, 220V, 1 Phase, TEFC motor.
- B. Pump shall be capable of producing a maximum flowrate of 150 GPM and also 80 GPM at 62' total dynamic head (TDH).

VIII. Discharge Plumbing:

- A. Discharge plumbing shall make maximum use of polypropylene valves & pipe fittings and wire reinforced hose for corrosion resistance and quick & easy maintenance.
- B. Suction plumbing to the Brine Discharge Pump shall include a 2" EPDM suction hose (wire reinforced) with 2" check valve (on the Lower Brine Holding Tank port). It shall also include a 2" valve and camlock male adaptor for pulling finished brine from a storage tank hose. It shall also include 3/4" fresh water inlet/salinity adjustment plumbing including a solenoid valve

(controlled by Control Panel to be open only when brine pump is running) and manual adjustment valve (for adjustment of the fresh water for salinity adjustment).

- C. Discharge plumbing from the Brine Discharge Pump shall include a 2" valve & camlock male adaptor for storage tank hose hook-up. It shall also include a 3/4" valve and built-in clear PVC tube for sampling the finished brine concentration. The PVC tube shall also include clear tubing and valves to send the sampled brine back to the pump suction when the pump is running.

IX. Water Inlet & Spray Bar Plumbing:

- A. Water inlet plumbing shall include a 2" polypropylene valve (1 1/2" I.D.) with 2" camlock male adaptor for water inlet hose hook-up. It shall also include two 1-1/4" Sch. 40 stainless water spray pipes running across the Upper Salt Hopper (one spray pipe near top and other approx. 2'6" above bottom of hopper), both with stainless shields over the spray pipes. These spray pipes shall have drill holes at proper spacing and size to concentrate solid streams of water onto the salt pile in the Upper Salt Hopper. Spray pipes can be turned on or off individually with stainless ball valves located outside the hopper.
- D. A 2"-24V electric ball valve (1 1/2" I.D.) shall be included in the water inlet plumbing. This valve will be automatically closed when the float switch in the Upper Salt Hopper or Lower Brine Holding Tank is activated (indicating that the water inflow rate is faster than the brine pump discharge rate, or that it may be "time to clean" the system). This gives the system to self-regulate water inflow rates to better match brine pump discharge rate.

X. System Control Panel:

- A. The System Control Panel shall include an IP66 (weathertight) hinged, PVC, gasketed enclosure securely mounted to the skid frame.
- B. Panel shall also include power disconnect switch with lock-out/tag-out, hydraulic pump control, 208-240/24V transformer, waterproof switches (wired 24V; IP65) including "auto/shutdown" switch, pump only switch, and hydraulic system switch (switches are illuminated style). Panel also includes an indicating "time to clean screen" light and an indicating "reduce flow" light. Panel shall also be wired to four float switches: one to shut off the brine pump should the brine level drop too low in the Lower Brine Holding Tank (to protect the pump from running dry), two more to shut off the electric water inlet valve (when water inflow rate is faster than brine pump discharge rate; one in the Lower Brine Holding Tank and one in the Upper Salt Hopper), and one to indicate "time to clean" (in the Upper Salt Hopper).
- C. Panel shall be wired with overload protection and ready to receive 220V, 1 Phase power (power supply to panel to be direct wire in proper conduit, by owner's electrician).
- D. Electrical System shall also include flexible conduit with liquid-tight connectors from the Control Panel to the brine discharge pump and hydraulic system pump motor.
- E. Control Panel shall be UL Listed.

XI. Other Safety/Operational Features:

- A. System shall include 3 oblong "Sight Windows" in the Upper Salt Hopper. These windows will be constructed of Lexan and are positioned so the operator can see the salt level in the Upper Salt Hopper from the floor, once the salt level lowers.
- B. Both the "Time to Clean" indicator light and the "Sight Windows" provide key safety advantages in addition to operational advantages in that no ladders will be required to check the salt or water level in the Upper Salt Hopper, or to determine when it is "Time to Clean" the system.
- C. System shall include two heavy-duty rubber Safety Shields (one on each end of system).

XII. Manuals:

- A. One Installation & Operation Manual shall be supplied with each system delivered (copies available at no additional cost).
- B. Plumbing & Wiring Schematics shall be included in the manual.

XIII. Warranty:

- A. Warranty shall begin at time system(s) are delivered.
- B. Warranty shall be for one year, including all system components & parts (labor and any incidental costs by owner; not included).
- C. See Owner's Manual for complete safety, operational, and warranty information.

XIV. Training:

- A. A minimum of 4 hours of On-Site Training by a qualified representative of the selling company will be included. In addition, free phone support will be provided for both installation support and operational questions.

XV. Optional Items:

- A. A complete accessories plumbing kit to connect the Brine Production System to a brine storage tank including 150' of 2" EPDM suction/discharge hose (wire reinforced), 6-2" polyprop. ball valves, 6-2" polyprop camlock couplers and 3-2" polyprop male cam adaptors. This is plumbing kit DU 1B020A and can be provided at additional cost.
- B. Other plumbing valves and fittings are available at additional cost, including brine storage tanks and transfer pump units

**Specifications for Complete 1,800 Gal. Anti-ice/De-ice Spraying System with Raven DCS400 Control System for 3-Lane Spraying (Fits Standard 10 Ton Tandem Axle Dump Trucks)-DU 1A045:**

**A. Tank System:**

1. Tank system shall consist of twin (two) 900 Gal. tanks, each tank having its own sump. The tanks shall fit together with a "tongue & groove" interface on the skid frame (The individual twin tanks provide a baffling effect).
2. Each tank shall be a natural translucent color so that the liquid level can be seen inside the tank. Each tank shall be cylindrical-shaped with integral legs; tank dimensions shall be approx. 62" dia. x 74.5" long each (149" length for both tanks combined).
3. Each tank shall be molded of high density polyethylene resin with UV protection and be capable of holding material with a specific gravity of 1.9. Tanks shall carry a 3-year warranty.
4. Each tank shall have a 16" dia. top manway opening with screw type vented lid.
5. Each tank shall have molded-in gallonage markers.
6. Tanks shall be securely mounted to the skid frame with four 1 1/2" dia. steel hoops and two 1 1/2" wide lateral steel straps. J-bolts shall secure the bottom of the steel hoops to the skid frame.

**B. Self-Loading Skid Frame System:**

1. System shall be "self-loading" style with rotating steel front legs, steel wheels at front of frame, individual "telescoping" steel rear legs, and steel "frame guides".
2. Frame shall be constructed of 6 x 8.2 lb. steel side channels running full-length on each side with similar cross members running under each tank molded leg across the frame. Proper tank "stops" shall also be included.
3. Front legs shall rotate on 1 1/4" dia. high strength bolts and shall be constructed of 3" sq. steel tube with steel capped bottoms.
4. Rear legs shall telescope up individually (to allow one person to easily lift up each rear leg without binding). Upper rear leg sleeves shall be constructed of 4" x 1/4" sq. steel tube and upper rear legs of 3 1/2" x 3/16" sq. steel tube. Lower rear legs of 3" x 3/16" sq. steel tube with 6" x 6" x 1/4" thick steel base plates at bottom of each rear leg shall be included.

5. Front end of frame shall include two 4" steel caster wheels with grease fittings.
6. Four steel frame "guides" shall be included to guide unit into dump body when backing up. Two steel tailgate latch pins shall also be included.
7. Entire frame system shall be painted with a powder coat paint finish (black).

### **C. Automatic Programmable Control System:**

1. System will include an Automatic Programmable Control System which is ground-speed orientated to provide automatic rate control of the spraying system at any speed. This control system will also include the following additional features:
  2. Controller (Raven DCS400) can be pre-programmed for up to 6 different application rates (flowrates input in gallons per lane-mile) and will keep the spray system on the pre-set target rate regardless of speed changes. Rate adjustment dial allows for "on the fly" changes between pre-programmed rates. Optional Controller is Raven DCS410; can be pre-programmed for up to 10 different application rates including other enhanced features.
  3. Controller will also keep system on target rate (gallons per lane-mile) regardless of the number of lanes being sprayed (1, 2 or 3 lanes at once) and will allow for "on the fly" changes to the number of lanes being sprayed.
  4. Manual override button allows operator to increase or decrease the pre-programmed rates at any time. Controller also includes programmable "blast" feature to momentarily increase flowrate for bridge decks, etc. Boom control switch allows for instantaneous switching between 1, 2 or 3 lane spraying.
  5. Rate (gallons per lane-mile) is displayed in left display screen at all times. Right display screen can display: total area; total volume, day area, day volume, distance, speed, volume per minute (GPM), area per hour, volume remaining in tank, and time.
  6. Control system also includes 2" flowmeter (Raven RFM-100), and automatic adjusting hydraulic control valve, GPS speed sensor, and all necessary control and console cables with weatherpack connectors.
  7. System shall be capable of spraying up to 3 lanes at 40 Gals Per Lane-Mile (on each lane) at up to 50 MPH.

#### **D. Plumbing & Boom Systems:**

1. All plumbing components used shall consist of corrosion-resistant materials including reinforced polypropylene and stainless steel. Hoses shall be EPDM suction/discharge hose with thermal plastic helix and internal braiding and 100% EPDM tube.
2. Maximum use of polypropylene "flanged" fittings shall be utilized to allow for quick and easy maintenance of the plumbing system.
3. A 2" Drain-Fill valve shall be located at the rear of the unit for easy access and shall include a 2" male adaptor and cap for quick hose hook-up.
4. Pump shall be a 2" x 1 1/2" cast iron centrifugal pump with integral hydraulic-drive motor. Pump shall provide a maximum flowrate of 200 GPM or more and will also provide 175 GPM at 40 PSI (at 10 GPM hydraulic oil flowrate at 1,800 PSI). (Hypro 9304 Series with nylon impeller and severe-duty mechanical seal with silicon-carbide faces or Ace FMC-200-HYD-304).
5. 12 Volt Valve Assembly shall be of the "stackable" style and include three 1" Full Port Valves constructed of polypropylene with stainless balls, stems & hardware. Valve Assembly inlet shall be 1 1/2" minimum. Each valve shall include a high torque motor with auto reset circuit breaker and DPDT relay inside a waterproof polypropylene NEMA 4X or 6P rated housing with valve position indicator. Valve assembly shall be rated to 150 PSI working pressure. Valve Assembly mounting bracket shall be provided.
6. Boom system shall include 1 1/4" stainless steel boom securely mounted to the rear of the spray system with two stainless steel "cusha" clamps. Boom shall be adjustable from 1'2" to 2'6" above the pavement. The center-lane section of the boom shall include a 3-way manual valve to allow the operator to direct liquid flow to either two stainless steel flooding nozzles (Spraying Systems SS QCKSS150 or similar) for anti-icing, or to 19 stainless steel solid stream nozzles for de-icing. Left and right lane nozzles shall include 6 solid stream nozzles inserted into "swivel ball" assemblies for effective coverage of left & right lanes. Each boom lane section (left, right, center) will be supplied through an adjustable check valve (5-15psi) to avoid liquid in the hose from "dribbling out" when application is not desired. All nozzles will be "reasonably balanced" to ensure the anti-icing/de-icing liquid is distributed approximately equally to all lanes being sprayed (Other nozzle combinations are also available).

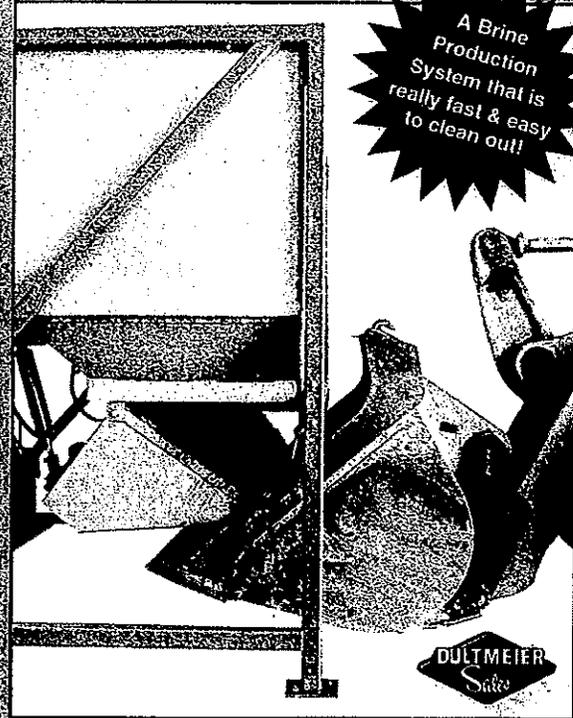


# BPS3000-SS Brine Production System

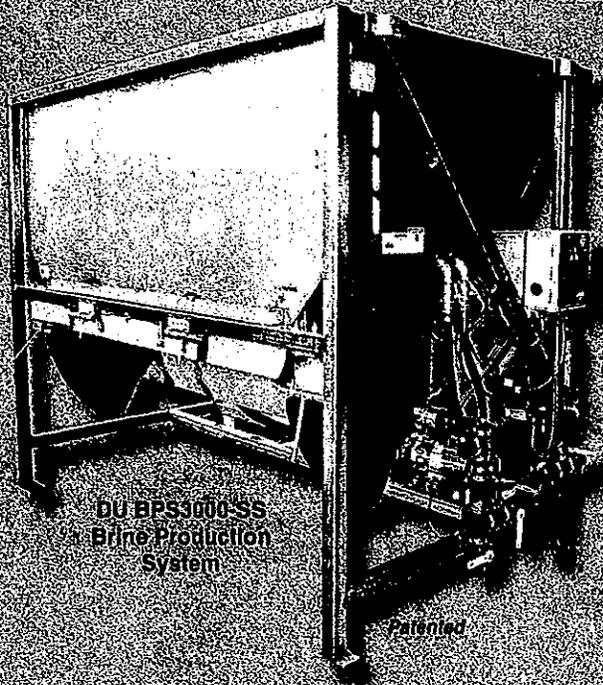
with **ULTRA-EASY HYDRAULIC CLEAN OUT**

## SYSTEM FEATURES:

- **Cleans Completely in 10 Minutes:**  
Self-contained hydraulic control system rotates the lower tank and trash screen, funneling all debris right into your front end loader bucket! No shoveling of hopper required! No need to remove your loader bucket like other systems require for cleanout!
- **Large Capacity & High Volume Production:**  
6-1/4 Cu. Yd. Salt Hopper. Now with (2) water spray pipes in hopper. Heavy duty 10 gauge stainless steel. 3 HP Stainless Pump. Produces 4,000 to 6,000 Gallons Per Hour!
- **Versatile Plumbing:**  
Made of 2" polypropylene and stainless fittings for excellent corrosion resistance. Pump to storage, recirculate, load trucks and adjust salinity.



**A Brine Production System that is really fast & easy to clean out!**



DU BPS3000-SS Brine Production System

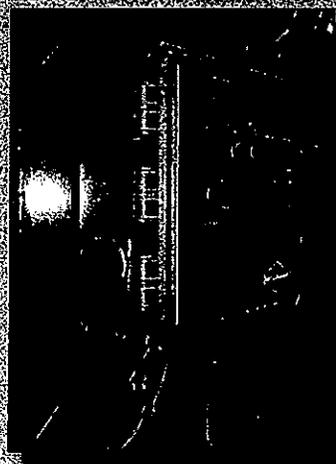
Patented

## Simple and Easy to Use:

- No augers or conveyors required - just load salt into top of hopper with your front end loader. Then turn on your water supply & make brine!
- One master panel controls brine production and hydraulic cleanout.
- Portable skid frame; forklift into place quickly & easily.
- 100% stainless steel construction. 3" x 3" x 3/16" frame and 10 gauge hopper.

## SPECIFICATIONS

- **SIZE:** Height: 96", Length: 132", Width: 73"
- **SALT HOPPER CAPACITY:** 6-1/4 cubic yards (level).
- **BRINE PUMP:** Centrifugal stainless, 3 HP, 230V, 1 Phase.
- **HYDRAULIC SYSTEM:** 1 HP, 208-230V, 1 Phase Pump with reservoir, control valve & pressure relief valve. Fully self-contained.
- **ELECTRICAL:** 230V, 1 Phase, 30A Control Panel with 24V transformer and waterproof switches *U.L. Listed.*
- **EMPTY WEIGHT:** Approximately 3,600 lbs.



Master panel with automatic and manual pump control, hydraulic cleanout control, illuminated lights and lockout. Weather tight enclosure and waterproof switches. *U.L. listed.*



Large 2" water inlet plumbing includes 24 volt automatic control valve, manual throttling valve & drain valve. Overflow protection also included.

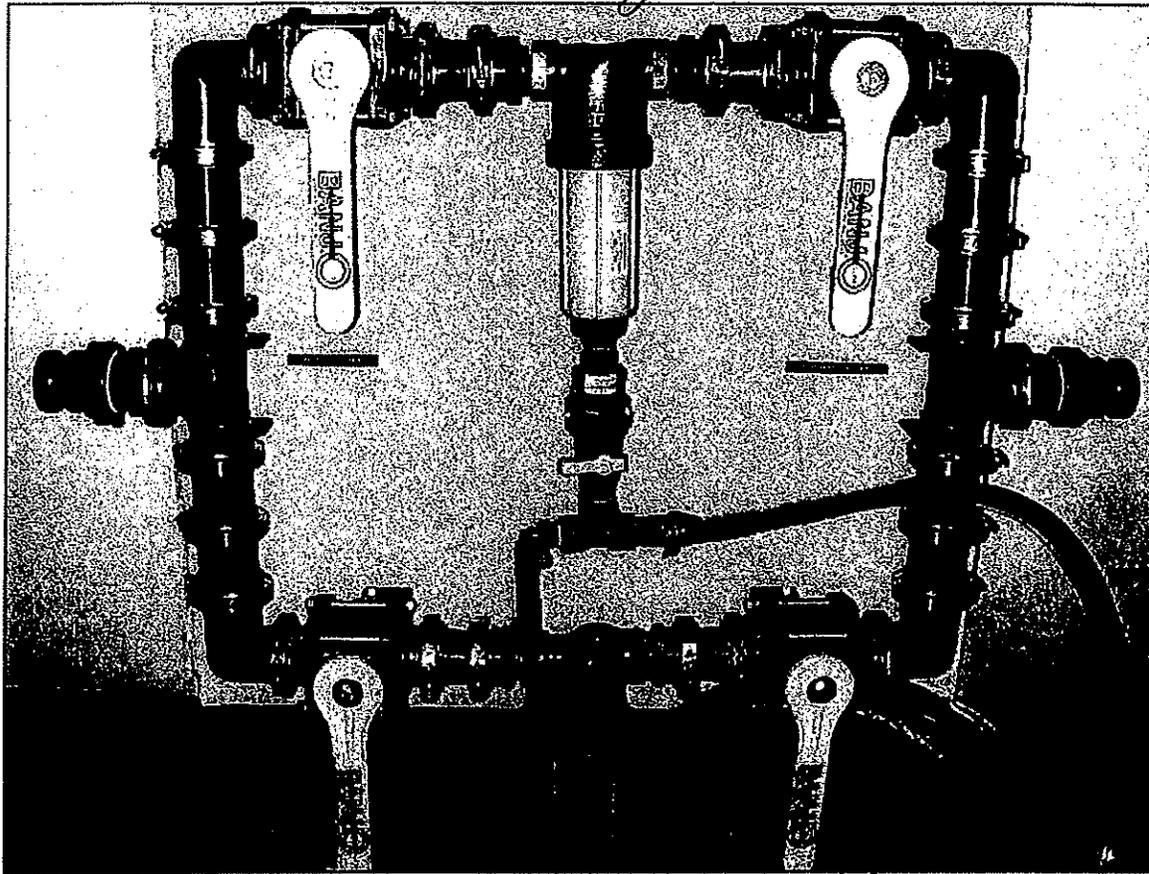
**Call Rich Schwaninger at (800) 553-6975 ext. 5792**



DU BFS1C

# Brine Filtering System

Plumbing Kit



DU BFS1 shown *assembled*

- "Self-Cleaning" Line Strainers continually remove fines, requiring less cleaning than standard strainers.
- Significantly reduce debris & fines going to your brine storage tanks & spray tanks.
- Dual Strainers and Valves in parallel allow you to clean screens without stopping production.
- Stainless base plate with side lips for easy mounting to any wall or flat surface.

DU BFS1	2" Full Port Polypropylene Brine Filtering System Flanged Plumbing Kit (Unassembled) – <b>Call for Pricing</b> .....
DU BFS1C	2" Full Port Polypropylene Brine Filtering System Flanged Plumbing Kit (Assembled on Stainless Base Plate) – <b>Call for Pricing</b>
DU BFS2	2" Standard Port Polypropylene Brine Filtering System Threaded Plumbing Kit (Unassembled) – <b>Call for Pricing</b> .....
DU BP3336SS	12 Gauge Stainless Base Plate, 33" x 36" with 3" x 1" side lips – <b>Call</b> .....



1-800-228-9666 • Fax: 1-402-333-5546 • 13808 Industrial Rd. • Omaha, NE 68137

1-800-553-6975 • Fax: 1-319-386-5448 • 601 West 76th St. • Davenport, IA 52806

Website: dultmeier.com • e-mail: dultmeier@dultmeier.com

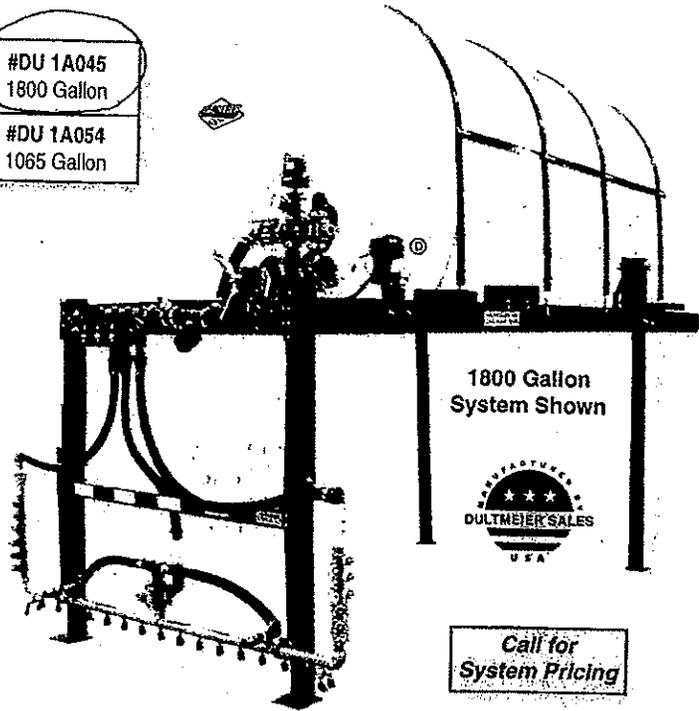
# DU 1A045 Truck Mounted Skid Sprayer

## SYSTEM FEATURES:

- Single 1065 Gallon Tank for 5 Ton Trucks.
- Two 900 gallon "twin" tanks provides excellent baffle. (1800 Gallon System).
- Heavy-duty self-loading steel leg frame (Front legs rotate up as truck backs up to load unit; front wheels provide smooth roll-in). Can load and unload in 5 minutes.
- Extra-Tough Powder Coat Paint.
- Independent telescoping rear legs for "blind-free" lifting by one person.
- Adjustable height stainless steel boom with high-flow flooding nozzles (spray 1, 2 or 3 lanes at once). Solid Stream nozzles also included for de-icing center lane.
- High flow hydraulic-drive pump; engine-drive pumps also available.
- Raven DCS 400 Automatic Control System-complete with flow meter & control valve. Pre-programmable controller with up to six application rates. DCS410 also available. (GPS compatible).
- Precise application rate: Gal/Lane-Mile; automatically maintains preset rate with speed changes. Can change rates or spraying 1, 2 or 3 lanes while driving.
- "Blast" button for high volume spraying of bridge decks.
- Polypropylene flanged fittings for simple maintenance.
- Options available.

#DU 1A045  
1800 Gallon

#DU 1A054  
1065 Gallon



**RAVEN**  
INDUSTRIES

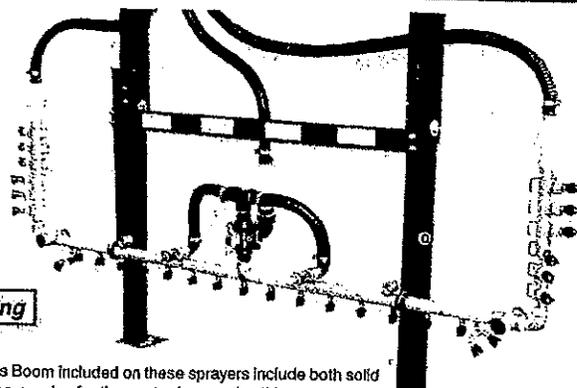
- Anti-Ice and Dust Control on Roads
- Right-Of-Way
- Airport Ice Control



Model DCS400

**RAVEN**  
INDUSTRIES

Call for Pricing



Raven DCS400 Automatic Programmable Rate Control System on these sprayers. Includes a 2" flowmeter, control valve and cables. (DCS410 also available).

3-Section Stainless Boom Included on these sprayers include both solid stream and flooding nozzles for the center lane and solid state nozzles for spraying the left and right lanes with adjustable ball assemblies. (Other Options Available).

*Included*

*Included*

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

**EQUIPMENT SPECIFICATION**

**2/2017**

**SALT BRINE PRODUCTION SYSTEM WITH CLEANOUT**

The following specifications and dimensions will apply to purchase a SALT BRINE PRODUCTION SYSTEM WITH CLEANOUT for the Oklahoma Department of Transportation. The State reserves the right to waive minor technicalities under this specification. Federal and State laws supersede any conflicting part of this specification.

The unit shall be a current model, new and unused, under standard production by the manufacturer, and of which parts are stocked at one or more locations in Oklahoma or Greater Oklahoma City. The requirement for parts to be stocked at locations in Oklahoma or Oklahoma City may be waived if the bidder provides an alternative parts availability plan acceptable to the Agency. All parts utilized on the unit will be new and unused.

**FILL IN ALL SPACES SHOWING SPECIFIC INFORMATION, FAILURE TO COMPLY  
COULD RESULT IN BID REJECTION.**

EXAMPLE MODEL:

VENDOR'S PROPOSED TRAILER: MAKE: Dultmeier Sales MODEL: DOBPS3000-SS

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

**GENERAL SPECIFICATIONS for SALT BRINE SYSTEM:**

All components will be constructed of non-corrosive material.

Yes

All necessary fittings, hardware, hoses and connections will be included to hook up to a water supply, produce the brine and pump into a storage tank up to 50 feet away.

Yes See Bid clarif: #3

Overall system dimensions shall be approx. 10'9" wide x 6'1" deep x 8'0" high.

Yes

All tanks or bins will be heavy duty 304 stainless steel guaranteed by the manufacturer for the intended use.

Yes

The unit will be constructed to facilitate complete cleanout and to allow ready access to all required drains and maintenance points. It shall also include a self-contained hydraulic system to rotate the lower brine holding tank and trash screen down when cleaning is desired, allowing all debris in the salt hopper to simply flow into a standard 2 or 3 cu. yd. loader bucket.

Yes

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

**EQUIPMENT SPECIFICATION**

**2/2017**

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

Unit will be capable of completely flushing out all fresh water with salt brine in the recirculation mode. There shall be no components of the system susceptible to freezing above the freezing temperature of salt brine.

Yes

All valves and plumbing necessary to provide the above functions will be provided. If flexible plumbing is utilized, cam lock fittings with 1/4 turn ball valves shall be provided.

Yes

The pump and motor will be designed to be used in a high corrosive environment and shall be mounted to provide for easy access for maintenance.

Yes

The pump and motor will be 220 Volt single phase and capable of pumping 100 gpm, minimum.

Yes

The pump housing and impeller will be stainless steel and close coupled. Lovejoy couplings are not acceptable.

Yes

All rigid plumbing will be PVC schedule 80, minimum

Yes, see bid clarif: #1

The unit will have a "on-off" switch designed for use in a highly corrosive, outdoor environment.

Yes, see bid clarif: #1A

Discharge Pump will be 2" x 1 1/2" straight centrifugal constructed of 316 stainless steel (housing, impeller & mounting feet) with viton/carbon/ceramic mechanical seal. Pump shall be close-coupled to a 3 HP, 220V, 1 Phase, TEFC motor.

Yes

Pump will be capable of producing a maximum flowrate of 150 GPM and also 80 GPM at 62' total dynamic head (TDH).

Yes, see bid clarif: #2

Discharge plumbing from the Brine Discharge Pump will include a 2" valve & cam lock male adaptor for storage tank hose hook-up. It shall also include a 3/4" valve for sampling the finished brine concentration.

Yes

Pump discharge will be equipped with 2" male PVC cam lock fitting with a 1/4 turn ball valve to prevent backflow from storage tank into holding tank.

Yes

A 2"-24V electric ball valve (1 1/2" I.D.) will be included in the water inlet plumbing. This valve will be automatically closed when the float switch in the Upper Salt Hopper or Lower Brine Holding Tank is activated (indicating that the

Yes, see bid clarif: 1B

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

2/2017

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

water inflow rate is faster than the brine pump discharge rate, or that it may be "time to clean" the system.

Yes, see bid clarif: # 18

The system will include an automatically open and close fresh water dilution valve when the pump is pumping completed brine. This shall allow the brine to be diluted only when the brine system is pumping to the storage tank.

Yes, see bid clarif # 18

Dilution valve will be installed with cam lock fitting for easy removal.

Yes

A self-contained sample station that allows user to fill a small reservoir with completed brine as it is being pumped to storage and drain the reservoir back into the to-storage brine stream without removal of reservoir.

Yes

**Optional pricing** will be provided for a complete plumbing kit to filter brine on the way to storage (located between the Brine Production System & storage tank) including the following:

Yes

Two 1 1/2" "self-cleaning" line strainers with 100 mesh stainless screens (50 & 80 mesh also available),

Yes

Plumbed in parallel with four 2" polypropylene ball valves, and

Yes

All necessary 2" polypropylene tees, elbows, nipples and cam lock male adaptors (ready to receive 2" cam lock coupler hose connections each end)-DU BFS2 (threaded fittings) or DU BFS1 (2" full port flanged fittings.)

Yes

The kit shall include a plumbing diagram for quick & easy installation.

Yes

An optional stainless steel wall mounting bracket shall also be available.

Yes

System will be designed and constructed to be easily cleaned of all debris in the salt hopper with a standard 2 cu. yd. or 3 cu. yd. loader bucket (no "quick attach" loader buckets are required). One acceptable option is to do this is for the loader operator to simply position his loader

Yes

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

2/2017

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

bucket below the system's lower brine holding tank.

Yes

System will be designed and constructed to provide for easy clean out of the silt and other fines inside the brine holding tank and be able to wash out the silt and other fines of the tank and/or screen using a standard water spray hose.

Yes

Entire system will be constructed on a single skid (304 stainless) frame to allow for easy loading, unloading, and moving using various loaders with forks (system can also be lifted into place.)

Yes

System will have a "downward flow" brine maker where the salt bed acts as a "filter bed" as the water moves down through the bed from the top spray bars.

Yes

Brine Production Unit will be capable of producing a minimum of 3,000 gallons per hour at a brine concentration of at least 23% (salt concentration by weight in water).

Yes

The unit will be approved for an outdoor mounting location and shall incur no freeze damage above the freezing temperature of salt brine when properly used and maintained.

Yes

System will be designed and construction to be easily filled with rock salt with standard 2 cubic yard and 3 cubic yard loader buckets. (no conveyors or augers required.)

Yes

All hand shut off valves will be large enough to easily operate while wearing insulated gloves.

Yes

Water inlet will be a 2" PVC male cam lock fitting.

Yes

The salt holding bin will have a minimum of 6 cubic yard

Yes

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

2/2017

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

capacity, minimum, with a minimum dump opening of 105" x 48".

Yes

System will have a minimum 3000 square inches of screen area.

No, see bid clarit: 2A

The system will be capable of being loaded with salt and the hopper emptied from the same side.

Yes

The dump height will not be greater than 108".

Yes

Complete specifications and literature on the unit bid will accompany the bid. Any exceptions to these specifications shall be indicated on the bid or on a separate attachment to the bid, labeled as such.

Yes

Any "or equal" or "equivalent" items for brand specified components will be listed with the bid package. Complete description and literature on the "or equal" components shall be supplied for consideration by the Department of Transportation. The burden of proof regarding "or equal" items will be upon the vendor.

Yes

PRE-DELIVERY SERVICE:

The unit will be DELIVERED COMPLETE AND FULLY OPERATIONAL. It shall be properly serviced, free of leaks, and all mechanical adjustments made prior to delivery. A minimum of THREE DAYS NOTICE PRIOR TO DELIVERY shall be given to the person to whom the unit is to be shipped.

Yes

DELIVERY:

The unit will be delivered complete and fully operational, requiring only to be hooked up to water and plugged into a grounded 220 V single phase outlet. It shall be properly serviced, with all mechanical adjustments made prior to delivery.

TECHNICAL SERVICE:

The services of a competent technician, thoroughly trained in the use, operation and servicing of the unit, will be

Yes

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

**EQUIPMENT SPECIFICATION**

**2/2017**

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

furnished for a minimum period of one working day for the delivery point. The technician shall instruct the ODOT personnel in the proper use, safety, operation and preventive maintenance of the unit and to test the unit for satisfactory performance. This instruction shall be performed on a date to be agreed upon by the Division Shop Superintendent.

Yes

Any "on site" assembly required must be performed by the vendor at a date and time agreed upon by the receiving location.

**SERVICE and PARTS:**

- a) Bidder shall furnish a list of established manufacturer's authorized locations where an adequate stock of current parts and service are available
- b) Consideration in awarding bids shall be given to parts and service availability

Yes

Yes

**INSPECTION AND DELIVERY OF EQUIPMENT TO COMPLY WITH VENDOR'S  
INSTRUCTION SHEET**

**SERVICE MANUALS & PARTS BOOKS:**

Successful bidder shall furnish one (1) Shop Manual, Parts Manual and Operators Instruction Manual for the unit with one additional set of each manual supplied to the delivery point. The manuals should fully and clearly cover all components of the unit, including motors, drive systems and attachments.

**SPECIFICATIONS:**

Each bidder shall submit complete manufacturer's specification in duplicate and shall submit all other data to show that his proposal meets these specifications.

**THE STATE OF OKLAHOMA RESERVES THE RIGHT TO WAIVE MINOR  
TECHNICALITIES UNDER THESE SPECIFICATIONS.**

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

2/2017

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

DEMONSTRATION:

The Department of Transportation reserves the right to require a successful demonstration at vendor's expense at a location chosen by them. Demonstration should include the use of manufacturer's current model for entire season prior to the award to assure equality, correct specifications and productivity of subject unit.

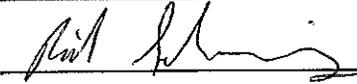
WARRANTY:

The bidder agrees, if his proposal is accepted, to guarantee the design, material and workmanship of the unit bid according to the standard factory warranty, or for one year, whichever is greater. A copy of the warranty will accompany the bid. Warranty coverage should include costs of transporting the unit to and from dealer's shop, when outside a 150 mile radius of the delivery point.

VENDOR SHALL FILL IN ALL SPACES UNDER VENDOR'S PROPOSED; FAILURE TO COMPLY COULD RESULT IN BID REJECTION.

COMPLIANCE:

Bidder shall furnish a statement in writing on the Bid or by attached letter and in the Vendor's Statement below, if his equipment proposed strictly meets these Specifications. If not, he shall list each variation therefrom.

DEALER: Dultmeier Sales LLC DATE: 11/3/17  
SIGNATURE:  PHONE: 402-333-1444  
ADDRESS: 13808 Industrial Rd.  
Omaha, NE 68137

**Bid Clarifications for Solicitation #3450004727**

**Salt Brine Production System with Cleanout**

**& Truck Mounted Skid Sprayer**

**Bid Clarification #1:** All rigid plumbing will be 304 Stainless Steel, Sch. 40 (which is superior to PVC). Some non-rigid plumbing (EPDM hose) is utilized to provide flexibility at key points where it is required. Valves and Pipe Fittings will be either Stainless or Polypropylene (rated to 150 PSI Working Pressure or Greater), both of which are superior to PVC.

**Bid Clarification #1A:** The main on-off power switch (disconnect) is located on the master Control Panel. This switch is rated at IP 65 ("able to protect against water jets"). Furthermore, the plastic construction of this switch makes it highly resistant to salt and other highly corrosive products in an outdoor environment. The master Control Panel itself is rated to IP 66 ("able to protect against powerful water jets") as well as NEMA 4X, 6P and is UL Listed. It is constructed of high impact polycarbonate for high resistance to salt and other highly corrosive products.

**Bid Clarification #1B:** The 2"-24V Water Valve will operate automatically as specified; it can also be opened or closed with a switch on the Master Control Panel (for easy draining of water from system for freeze protection). The fresh water dilution solenoid valve will automatically open when the brine discharge pipe is running, and close when pump cycles off, as specified. Adjustment of the fresh water dilution "rate" is done by the operator with a manual gate valve located near the solenoid valve.

**Bid Clarification #2:** Discharge pump produces a maximum flowrate of 150 GPM and 80 GPM at 62' Total Dynamic Head (TDH). This is more than enough flowrate to produce brine at the specified flowrate of 3,000 Gallons per Hour (which is 50 GPM).

**Bid Clarification #2A:** Screen Area is 2,700 Sq. Inches (90" x 30"). This screen size is more than adequate to produce salt brine at 3,000 Gallons Per Hour or more.

**Bid Clarification #3:** Unit will be ready for hook up to water supply (with three complete 50' x 2" hose assemblies provided in our included DU1B020A plumbing kit) but owner must provide proper water system backflow protection (RPZ Valve or similar in accordance with state and local plumbing codes) and 2" male adaptor. Control panel does not include 220V cord or plug (since distances to 220V power supply vary and can affect cord size). Panel includes terminal strip for owner's electrician to make 220V connections in accordance with state and local electrical codes (flexible conduit recommended). Owner will need to set system on level reinforced concrete pad (6" min thickness and reinforced to hold a total load of 19,000 lbs) and then shim properly to ensure system is level. Owner will need to install the 2" hose assemblies, the Optional Plumbing Kit (i.e.-Brine Filtering System, onto a pole or wall, etc) and install the included 2-2" Stainless Ball Valves with 2" Stainless Nipples, including one 3" x 2" Poly Reducer Bushing and 2" Poly Male Cam Adaptors, into the Optional 10,500 Gal Storage Tank. We will provide details and Plumbing Diagram for this work by Owner.

**Bid Clarification #4:** Dultmeier Sales (Omaha, NE) maintains stock on all key system components including discharge pump, hydraulic pump/reservoir, 24V water valve, hand valves, fittings, float switches, etc. These components can be delivered to locations in Oklahoma in 1 day if UPS overnight air

is specified (or 2 days if UPS Ground is specified). Other end users have also elected to stock key components at their locations.

**Bid Clarification #5:** To maximize training effectiveness, the technician will provide the on-site training when the Brine Production System has been fully powered, supplied with water and plumbed to the Storage Tank with Plumbing Kit and Brine Filtering System (see Bid Clarif. #3 above). This allows for much more effective training of OK DOT operators since we can then actually make salt brine during the training session.

**Bid Clarification #6:** Brine Filtering System recommended is our DU BFS1C. This includes the DU BFS1 Flanged Version, mounted onto a 36" x 33" 304 Stainless Base Plate. See Bid Clarification #9 below for additional details regarding pricing.

**Bid Clarification #7:** The 1,800 Gal Tank (two 900 Gal Twin Tanks) is 149" Long x 62" Dia. The overall dimensions of the DU1A045 Truck Mounted Skid Sprayer are approx. 15'0" (Front Wheels to back Boom) and 64" Wide ("Frame Guides" (two each side) project out wider and are designed to make loading the system easier and more squarely into a standard 84" wide tandem axle dump truck).

**Bid Clarification #8:** Our Bid Price Per Unit for the "Brine Production Systems with hopper bottom & frame" also includes our complete DUBPS3000-SS Brine Production System and the following items:

2-2" Stainless Ball Valves, 2-2" Stainless Nipples, 1-3" x 2" Polyprop Reducer Bushing and 2-2" Polyprop Male Adaptors (these items supplied by Dultmeier Sales and installed into the tank ports on site by Owner)

3-2" x 50' Long Complete Hose Assemblies (each hose assembly includes 2" x 50' wire-reinforced EPDM hose, 2-2" polyprop hose barbs, 2-2" polyprop ball valves, 2-2" polyprop camlock couplers and stainless bandit clamps). These Hose Assemblies make for fast and easy connections to male adaptors on the Brine Production System, Storage Tank Ports and water supply.

**Bid Clarification #9:** Our Bid Price Per Unit for the "Plumbing Kit for Brine System" includes our DUBFS1C Brine Filtering System Plumbing Kit which includes all items specified in the "Optional Pricing" of the Equipment Specification and fully assembled onto the stainless steel wall mounting bracket noted. A flyer showing this complete Unit is enclosed.

**Also Note:** The reservoir on the BPS3000-SS system's hydraulic pump is now stainless steel, instead of painted steel.

**SALT BRINE PRODUCTION SYSTEM WITH CLEANOUT  
And Truck Mount Skid Sprayer**

The following specifications and dimensions will apply to purchases of SALT BRINE PRODUCTION SYSTEM WITH CLEANOUT and TRUCK MOUNT SKID SPRAYER for the Oklahoma Department of Transportation. The State reserves the right to waive minor technicalities under this specification. Federal and State laws supersede any conflicting part of this specification.

The unit shall be a current model, new and unused, under standard production by the manufacturer, and of which parts are stocked at one or more locations in Oklahoma or Greater Oklahoma City. The requirement for parts to be stocked at locations in Oklahoma or Oklahoma City may be waived if the bidder provides an alternative parts availability plan acceptable to the Agency. All parts utilized on the unit will be new and unused.

**FILL IN ALL SPACES SHOWING SPECIFIC INFORMATION, FAILURE TO COMPLY  
COULD RESULT IN BID REJECTION.**

EXAMPLE MODEL:

VENDOR'S PROPOSED TRAILER: MAKE: Dultmeyer Sales MODEL: DUBPS3000-SS

<u>MINIMUM REQUIREMENTS</u>	<u>VENDOR'S PROPOSAL</u>
<b><u>GENERAL SPECIFICATIONS for SALT BRINE SYSTEM:</u></b>	
All components will be constructed of non-corrosive material.	<u>Yes</u>
All necessary fittings, hardware, hoses and connections will be included to hook up to a water supply, produce the brine and pump into a storage tank up to 50 feet away.	<u>Yes, See Bid Clarit: # 3</u>
Overall system dimensions shall be approx. 10'9" wide x 6'1" deep x 9'0" high.	<u>Yes</u>
All tanks or bins will be heavy duty 304 stainless steel guaranteed by the manufacturer for the intended use.	<u>Yes</u>
The unit will be constructed to facilitate complete cleanout and to allow ready access to all required drains and maintenance points.	<u>Yes</u>
Unit will be capable of completely flushing out all fresh water with salt brine in the recirculation mode. There shall	<u>Yes</u>

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

27-15

5/2016

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

be no components of the system susceptible to freezing above the freezing temperature of salt brine.

Yes

All valves and plumbing necessary to provide the above functions will be provided. If flexible plumbing is utilized, cam lock fittings with 1/4 turn ball valves shall be provided.

Yes

The pump and motor will be designed to be used in a high corrosive environment and shall be mounted to provide for easy access for maintenance.

Yes

The pump and motor will be 220 Volt single phase and capable of pumping 100 gpm, minimum.

Yes

The pump housing and impeller will be stainless steel and close coupled. Lovejoy couplings are not acceptable.

Yes

All rigid plumbing will be PVC schedule 80, minimum

Yes, see bid clarif: #1

The unit will have a "on-off" switch designed for use in a highly corrosive, outdoor environment.

Yes, see bid clarif: #1A

Discharge Pump will be 2" x 1 1/2" straight centrifugal constructed of 316 stainless steel (housing, impeller & mounting feet) with viton/carbon/ceramic mechanical seal. Pump shall be close-coupled to a 3 HP, 220V, 1 Phase, TEFC motor.

Yes

Pump will be capable of producing a maximum flowrate of 160 GPM and also 70 GPM at 74' total dynamic head (TDH).

Yes, see bid clarif #2

Discharge plumbing from the Brine Discharge Pump will include a 2" valve & cam lock male adaptor for storage tank hose hook-up. It shall also include a 3/4" valve for sampling the finished brine concentration.

Yes

Pump discharge will be equipped with 2" male PVC cam lock fitting with a 1/4 turn ball valve to prevent backflow from storage tank into holding tank.

Yes

A 2"-24V electric ball valve (1 1/2" I.D.) will be included in the water inlet plumbing. This valve will be automatically closed when the float switch in the Upper Salt Hopper or Lower Brine Holding Tank is activated (indicating that the water inflow rate is faster than the brine pump discharge rate, or that it may be "time to clean" the system.

Yes, see bid clarif # 1B

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

27-15

5/2016

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

The system will include an automatically open and close fresh water dilution valve when the pump is pumping completed brine. This shall allow the brine to be diluted only when the brine system is pumping to the storage tank.

Yes, see bid clarif?  
# 1B

Dilution valve will be installed with cam lock fitting for easy removal.

Yes

A self-contained sample station that allows user to fill a small reservoir with completed brine as it is being pumped to storage and drain the reservoir back into the to-storage brine stream without removal of reservoir.

Yes

**Optional pricing** will be provided for a complete plumbing kit to filter brine on the way to storage (located between the Brine Production System & storage tank) including the following:

Yes

Two 1 1/2" "self-cleaning" line strainers with 100 mesh stainless screens (50 & 80 mesh also available),

Yes

Plumbed in parallel with four 2" polypropylene ball valves, and

Yes

All necessary 2" polypropylene tees, elbows, nipples and cam lock male adaptors (ready to receive 2" cam lock coupler hose connections each end)-DU BFS2 (threaded fittings) or DU BFS1 (2" full port flanged fittings.)

Yes

The kit shall include a plumbing diagram for quick & easy installation.

Yes

An optional stainless steel wall mounting bracket shall also be available.

Yes

System will be designed and constructed to be easily cleaned of all debris in the salt hopper with a standard 2 cu. yd. or 3 cu. yd. loader bucket (no "quick attach" loader buckets are required). One acceptable option is to do this is for the loader operator to simply position his loader bucket below the system's lower brine holding tank.

Yes

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

27-15

5/2016

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

System will be designed and constructed to provide for easy clean out of the silt and other fines inside the brine holding tank and be able to wash out the silt and other fines of the tank and/or screen using a standard water spray hose.

Yes

Entire system will be constructed on a single skid (304 stainless) frame to allow for easy loading, unloading, and moving using various loaders with forks (system can also be lifted into place.)

Yes

System will have a "downward flow" brine maker where the salt bed acts as a "filter bed" as the water moves down through the bed from the top spray bars.

Yes

Brine Production Unit will be capable of producing a minimum of 3,000 gallons per hour at a brine concentration of at least 23% (salt concentration by weight in water).

Yes

The unit will be approved for an outdoor mounting location and shall incur no freeze damage above the freezing temperature of salt brine when properly used and maintained.

Yes

System will be designed and construction to be easily filled with rock salt with standard 2 cubic yard and 3 cubic yard loader buckets. (no conveyors or augers required.)

Yes

All hand shut off valves will be large enough to easily operate while wearing insulated gloves.

Yes

Water inlet will be a 2" PVC male cam lock fitting.

Yes

The salt holding bin will have a minimum of 6 cubic yard capacity, minimum, with a minimum dump opening of 105" x 48".

Yes

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

**EQUIPMENT SPECIFICATION**

**27-15**

**5/2016**

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

System will have a minimum 3000 square inches of screen area.

No, see bid Clarif #2A

The system will be capable of being loaded with salt and the hopper emptied from the same side.

Yes

The dump height will not be greater than 108".

Yes

Complete specifications and literature on the unit bid will accompany the bid. Any exceptions to these specifications shall be indicated on the bid or on a separate attachment to the bid, labeled as such.

Yes

Any "or equal" or "equivalent" items for brand specified components will be listed with the bid package. Complete description and literature on the "or equal" components shall be supplied for consideration by the Department of Transportation. The burden of proof regarding "or equal" items will be upon the vendor.

Yes

**GENERAL SPECIFICATIONS for TRUCK MOUNT SKID SPRAYER:**

1800 gallon UV protected horizontal polyethylene tank (two 900 gallon twin tanks)

Yes

Heavy duty self-loading steel leg frame

Yes

Independent telescoping powder coated painted rear legs for bind free lifting

Yes

Adjustable height stainless steel boom with high flow flooding nozzles

Yes

Solid stream nozzles

Yes

High flow hydraulic drive pump

Yes

Automatic Control System, includes flow meter & control valve

Yes

Pro-programmable controller with up to six applications rates

Yes

Precise application rate – Gal/Lane Mile automatically maintains preset rate with speed changes. Changeable rates or spraying 1 or more lanes while driving

Yes

STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION

EQUIPMENT SPECIFICATION

27-15

5/2016

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

Blast button for high volume spraying

Yes

3 section stainless boom included on sprayer, both solid stream and flooding nozzles for the center lane and large offset nozzles for spraying the left and right lanes

Yes

Polypropylene flanged fittings

Yes

LENGTH:

149 Inches

Yes, see bid clarif #7

DIAMETER:

62 Inches

Yes, see bid clarif: #7

PRE-DELIVERY SERVICE:

The unit will be **DELIVERED COMPLETE AND FULLY OPERATIONAL**. It shall be properly serviced, free of leaks, and all mechanical adjustments made prior to delivery. A minimum of **THREE DAYS NOTICE PRIOR TO DELIVERY** shall be given to the person to whom the unit is to be shipped.

Yes

DELIVERY:

The unit will be delivered complete and fully operational, requiring only to be hooked up to water and plugged into a grounded 220 V single phase outlet. It shall be properly serviced, with all mechanical adjustments made prior to delivery.

~~No~~  
Yes, see bid clarif: # 3

TECHNICAL SERVICE:

The services of a competent technician, thoroughly trained in the use, operation and servicing of the unit, will be furnished for a minimum period of one working day for each delivery point. The technician shall instruct the ODOT personnel in the proper use, safety, operation and preventive maintenance of the unit and to test the unit for satisfactory performance. This instruction shall be performed on a date to be agreed upon by the Division Shop Superintendent.

Yes, see bid clarif: # 5

Any "on site" assembly required must be performed by the vendor at a date and time agreed upon by the receiving

Yes

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

EQUIPMENT SPECIFICATION

27-15

5/2016

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

location.

**SERVICE and PARTS:**

- a) Bidder shall furnish a list of established manufacturer's authorized locations where an adequate stock of current parts and service are available
- b) Consideration in awarding bids shall be given to parts and service availability

*Yes, see bid clarif #  
4*

*Yes, see bid clarif: #  
A1*

**INSPECTION AND DELIVERY OF EQUIPMENT TO COMPLY WITH VENDOR'S  
INSTRUCTION SHEET**

**SERVICE MANUALS & PARTS BOOKS:**

Successful bidder shall furnish one (1) Shop Manual, Parts Manual and Operators Instruction Manual for each unit with one additional set of each manual supplied to each delivery point. The manuals should fully and clearly cover all components of the unit, including motors, drive systems and attachments.

**SPECIFICATIONS:**

Each bidder shall submit complete manufacturer's specification in duplicate and shall submit all other data to show that his proposal meets these specifications.

**THE STATE OF OKLAHOMA RESERVES THE RIGHT TO WAIVE MINOR  
TECHNICALITIES UNDER THESE SPECIFICATIONS.**

**DEMONSTRATION:**

The Department of Transportation reserves the right to require a successful demonstration at vendor's expense at a location chosen by them. Demonstration should include the use of manufacturer's current model for entire season prior to the award to assure equality, correct specifications and productivity of subject unit.

**WARRANTY:**

The bidder agrees, if his proposal is accepted, to guarantee the design, material and workmanship of the unit bid according to the standard factory warranty, or for one year,

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

EQUIPMENT SPECIFICATION

27-15

5/2016

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

whichever is greater. A copy of the warranty will accompany the bid. Warranty coverage should include costs of transporting the unit to and from dealer's shop, when outside a 150 mile radius of the delivery point.

**VENDOR SHALL FILL IN ALL SPACES UNDER VENDOR'S PROPOSED; FAILURE TO COMPLY COULD RESULT IN BID REJECTION.**

**COMPLIANCE:**

Bidder shall furnish a statement in writing on the Bid or by attached letter and in the Vendor's Statement below, if his equipment proposed strictly meets these Specifications. If not, he shall list each variation therefrom.

DEALER: Dultmeier Sales LLC      DATE: 11/3/17  
SIGNATURE: *Phil Dultmeier*      PHONE: 402-333-1444  
ADDRESS: 13808 Industrial Rd.  
Omaha, NE 68137

## **Bid Clarifications for Solicitation #3450004727**

### **Salt Brine Production System with Cleanout**

#### **& Truck Mounted Skid Sprayer**

**Bid Clarification #1:** All rigid plumbing will be 304 Stainless Steel, Sch. 40 (which is superior to PVC). Some non-rigid plumbing (EPDM hose) is utilized to provide flexibility at key points where it is required. Valves and Pipe Fittings will be either Stainless or Polypropylene (rated to 150 PSI Working Pressure or Greater), both of which are superior to PVC.

**Bid Clarification #1A:** The main on-off power switch (disconnect) is located on the master Control Panel. This switch is rated at IP 65 ("able to protect against water jets"). Furthermore, the plastic construction of this switch makes it highly resistant to salt and other highly corrosive products in an outdoor environment. The master Control Panel itself is rated to IP 66 ("able to protect against powerful water jets") as well as NEMA 4X, 6P and is UL Listed. It is constructed of high impact polycarbonate for high resistance to salt and other highly corrosive products.

**Bid Clarification #1B:** The 2"-24V Water Valve will operate automatically as specified; it can also be opened or closed with a switch on the Master Control Panel (for easy draining of water from system for freeze protection). The fresh water dilution solenoid valve will automatically open when the brine discharge pipe is running, and close when pump cycles off, as specified. Adjustment of the fresh water dilution "rate" is done by the operator with a manual gate valve located near the solenoid valve.

**Bid Clarification #2:** Discharge pump produces a maximum flowrate of 150 GPM and 80 GPM at 62' Total Dynamic Head (TDH). This is more than enough flowrate to produce brine at the specified flowrate of 3,000 Gallons per Hour (which is 50 GPM).

**Bid Clarification #2A:** Screen Area is 2,700 Sq. Inches (90" x 30"). This screen size is more than adequate to produce salt brine at 3,000 Gallons Per Hour or more.

**Bid Clarification #3:** Unit will be ready for hook up to water supply (with three complete 50' x 2" hose assemblies provided in our included DU1B020A plumbing kit) but owner must provide proper water system backflow protection (RPZ Valve or similar in accordance with state and local plumbing codes) and 2" male adaptor. Control panel does not include 220V cord or plug (since distances to 220V power supply vary and can affect cord size). Panel includes terminal strip for owner's electrician to make 220V connections in accordance with state and local electrical codes (flexible conduit recommended). Owner will need to set system on level reinforced concrete pad (6" min thickness and reinforced to hold a total load of 19,000 lbs) and then shim properly to ensure system is level. Owner will need to install the 2" hose assemblies, the Optional Plumbing Kit (i.e.-Brine Filtering System, onto a pole or wall, etc) and install the included 2-2" Stainless Ball Valves with 2" Stainless Nipples, including one 3" x 2" Poly Reducer Bushing and 2" Poly Male Cam Adaptors, into the Optional 10,500 Gal Storage Tank. We will provide details and Plumbing Diagram for this work by Owner.

**Bid Clarification #4:** Dultmeier Sales (Omaha, NE) maintains stock on all key system components including discharge pump, hydraulic pump/reservoir, 24V water valve, hand valves, fittings, float switches, etc. These components can be delivered to locations in Oklahoma in 1 day if UPS overnight air

is specified (or 2 days if UPS Ground is specified). Other end users have also elected to stock key components at their locations.

**Bid Clarification #5:** To maximize training effectiveness, the technician will provide the on-site training when the Brine Production System has been fully powered, supplied with water and plumbed to the Storage Tank with Plumbing Kit and Brine Filtering System (see Bid Clarif. #3 above). This allows for much more effective training of OK DOT operators since we can then actually make salt brine during the training session.

**Bid Clarification #6:** Brine Filtering System recommended is our DU BFS1C. This includes the DU BFS1 Flanged Version, mounted onto a 36" x 33" 304 Stainless Base Plate. See Bid Clarification #9 below for additional details regarding pricing.

**Bid Clarification #7:** The 1,800 Gal Tank (two 900 Gal Twin Tanks) is 149" Long x 62" Dia. The overall dimensions of the DU1A045 Truck Mounted Skid Sprayer are approx. 15'0" (Front Wheels to back Boom) and 64" Wide ("Frame Guides" (two each side) project out wider and are designed to make loading the system easier and more squarely into a standard 84" wide tandem axle dump truck).

**Bid Clarification #8:** Our Bid Price Per Unit for the "Brine Production Systems with hopper bottom & frame" also includes our complete DUBPS3000-SS Brine Production System and the following items:

2-2" Stainless Ball Valves, 2-2" Stainless Nipples, 1-3" x 2" Polyprop Reducer Bushing and 2-2" Polyprop Male Adaptors (these items supplied by Dultmeier Sales and installed into the tank ports on site by Owner)

3-2" x 50' Long Complete Hose Assemblies (each hose assembly includes 2" x 50' wire-reinforced EPDM hose, 2-2" polyprop hose barbs, 2-2" polyprop ball valves, 2-2" polyprop camlock couplers and stainless bandit clamps). These Hose Assemblies make for fast and easy connections to male adaptors on the Brine Production System, Storage Tank Ports and water supply.

**Bid Clarification #9:** Our Bid Price Per Unit for the "Plumbing Kit for Brine System" includes our DUBFS1C Brine Filtering System Plumbing Kit which includes all items specified in the "Optional Pricing" of the Equipment Specification and fully assembled onto the stainless steel wall mounting bracket noted. A flyer showing this complete Unit is enclosed.

**Also Note:** The reservoir on the BPS3000-SS system's hydraulic pump is now stainless steel, instead of painted steel.

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

**EQUIPMENT SPECIFICATION**

**10/2016**

**SALT BRINE PRODUCTION SYSTEM WITH CLEANOUT**

The following specifications and dimensions will apply to purchase a SALT BRINE PRODUCTION SYSTEM WITH CLEANOUT for the Oklahoma Department of Transportation. The State reserves the right to waive minor technicalities under this specification. Federal and State laws supersede any conflicting part of this specification.

The unit shall be a current model, new and unused, under standard production by the manufacturer, and of which parts are stocked at one or more locations in Oklahoma or Greater Oklahoma City. The requirement for parts to be stocked at locations in Oklahoma or Oklahoma City may be waived if the bidder provides an alternative parts availability plan acceptable to the Agency. All parts utilized on the unit will be new and unused.

**FILL IN ALL SPACES SHOWING SPECIFIC INFORMATION, FAILURE TO COMPLY  
COULD RESULT IN BID REJECTION.**

EXAMPLE MODEL:

VENDOR'S PROPOSED TRAILER: MAKE: Dultmeier Sales? MODEL: DUBPS 3000-S2

MINIMUM REQUIREMENTS

VENDOR'S PROPOSAL

GENERAL SPECIFICATIONS for SALT BRINE SYSTEM:

All components will be constructed of non-corrosive material.

Yes

All necessary fittings, hardware, hoses and connections will be included to hook up to a water supply, produce the brine and pump into a storage tank up to 50 feet away.

Yes, see bid clarif #3

Overall system dimensions shall be approx. 10'9" wide x 6'1" deep x 9'0" high.

Yes

All tanks or bins will be heavy duty 304 stainless steel guaranteed by the manufacturer for the intended use.

Yes

The unit will be constructed to facilitate complete cleanout and to allow ready access to all required drains and maintenance points.

Yes

Unit will be capable of completely flushing out all fresh water with salt brine in the recirculation mode. There shall be no components of the system susceptible to freezing above the freezing temperature of salt brine.

Yes

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All valves and plumbing necessary to provide the above functions will be provided. If flexible plumbing is utilized, cam lock fittings with ¼ turn ball valves shall be provided.

Yes

The pump and motor will be designed to be used in a high corrosive environment and shall be mounted to provide for easy access for maintenance.

Yes

The pump and motor will be 220 Volt single phase and capable of pumping 100 gpm, minimum.

Yes

The pump housing and impeller will be stainless steel and close coupled. Lovejoy couplings are not acceptable.

Yes

All rigid plumbing will be PVC schedule 80, minimum

Yes, see bid clarif # 1

The unit will have a "on-off" switch designed for use in a highly corrosive, outdoor environment.

Yes, see bid clarif # 1A

Discharge Pump will be 2" x 1 1/2" straight centrifugal constructed of 316 stainless steel (housing, impeller & mounting feet) with viton/carbon/ceramic mechanical seal. Pump shall be close-coupled to a 3 HP, 220V, 1 Phase, TEFC motor.

Yes

Pump will be capable of producing a maximum flowrate of 160 GPM and also 70 GPM at 74' total dynamic head (TDH).

Yes, see bid clarif # 2

Discharge plumbing from the Brine Discharge Pump will include a 2" valve & cam lock male adaptor for storage tank hose hook-up. It shall also include a 3/4" valve for sampling the finished brine concentration.

Yes

Pump discharge will be equipped with 2" male PVC cam lock fitting with a ¼ turn ball valve to prevent backflow from storage tank into holding tank.

Yes

A 2"-24V electric ball valve (1 1/2" I.D.) will be included in the water inlet plumbing. This valve will be automatically closed when the float switch in the Upper Salt Hopper or Lower Brine Holding Tank is activated (indicating that the water inflow rate is faster than the brine pump discharge rate, or that it may be "time to clean" the system.

Yes See bid clarif # 1B

The system will include an automatically open and close fresh water dilution valve when the pump is pumping

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completed brine. This shall allow the brine to be diluted only when the brine system is pumping to the storage tank.

Yes, see bid clarif. # 1B

Dilution valve will be installed with cam lock fitting for easy removal.

Yes

A self-contained sample station that allows user to fill a small reservoir with completed brine as it is being pumped to storage and drain the reservoir back into the to-storage brine stream without removal of reservoir.

Yes

**Optional pricing** will be provided for a complete plumbing kit to filter brine on the way to storage (located between the Brine Production System & storage tank) including the following:

Yes

Two 1 1/2" "self-cleaning" line strainers with 100 mesh stainless screens (50 & 80 mesh also available),

Yes

Plumbed in parallel with four 2" polypropylene ball valves, and

Yes

All necessary 2" polypropylene tees, elbows, nipples and cam lock male adaptors (ready to receive 2" cam lock coupler hose connections each end)-DU BFS2 (threaded fittings) or DU BFS1 (2" full port flanged fittings.)

Yes

The kit shall include a plumbing diagram for quick & easy installation.

Yes

An optional stainless steel wall mounting bracket shall also be available.

Yes

System will be designed and constructed to be easily cleaned of all debris in the salt hopper with a standard 2 cu. yd. or 3 cu. yd. loader bucket (no "quick attach" loader buckets are required). One acceptable option is to do this is for the loader operator to simply position his loader bucket below the system's lower brine holding tank.

Yes

System will be designed and constructed to provide for

Yes

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easy clean out of the silt and other fines inside the brine holding tank and be able to wash out the silt and other fines of the tank and/or screen using a standard water spray hose.

Yes

Entire system will be constructed on a single skid (304 stainless) frame to allow for easy loading, unloading, and moving using various loaders with forks (system can also be lifted into place.)

Yes

System will have a "downward flow" brine maker where the salt bed acts as a "filter bed" as the water moves down through the bed from the top spray bars.

Yes

Brine Production Unit will be capable of producing a minimum of 3,000 gallons per hour at a brine concentration of at least 23% (salt concentration by weight in water).

Yes

The unit will be approved for an outdoor mounting location and shall incur no freeze damage above the freezing temperature of salt brine when properly used and maintained.

Yes

System will be designed and construction to be easily filled with rock salt with standard 2 cubic yard and 3 cubic yard loader buckets. (no conveyors or augers required.)

Yes

All hand shut off valves will be large enough to easily operate while wearing insulated gloves.

Yes

Water inlet will be a 2" PVC male cam lock fitting.

Yes

The salt holding bin will have a minimum of 6 cubic yard capacity, minimum, with a minimum dump opening of 105" x 48".

Yes

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**VENDOR'S PROPOSAL**

System will have a minimum 3000 square inches of screen area.

No, see bid clarif # 2A

The system will be capable of being loaded with salt and the hopper emptied from the same side.

Yes

The dump height will not be greater than 108".

yes

Complete specifications and literature on the unit bid will accompany the bid. Any exceptions to these specifications shall be indicated on the bid or on a separate attachment to the bid, labeled as such.

Yes

Any "or equal" or "equivalent" items for brand specified components will be listed with the bid package. Complete description and literature on the "or equal" components shall be supplied for consideration by the Department of Transportation. The burden of proof regarding "or equal" items will be upon the vendor.

Yes

**PRE-DELIVERY SERVICE:**

The unit will be **DELIVERED COMPLETE AND FULLY OPERATIONAL**. It shall be properly serviced, free of leaks, and all mechanical adjustments made prior to delivery. A minimum of **THREE DAYS NOTICE PRIOR TO DELIVERY** shall be given to the person to whom the unit is to be shipped.

Yes

**DELIVERY:**

The unit will be delivered complete and fully operational, requiring only to be hooked up to water and plugged into a grounded 220 V single phase outlet. It shall be properly serviced, with all mechanical adjustments made prior to delivery.

Yes, see bid clarif: # 3

**TECHNICAL SERVICE:**

The services of a competent technician, thoroughly trained in the use, operation and servicing of the unit, will be furnished for a minimum period of one working day for the delivery point. The technician shall instruct the ODOT personnel in the proper use, safety, operation and

Yes, see bid clarif # 5

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preventive maintenance of the unit and to test the unit for satisfactory performance. This instruction shall be performed on a date to be agreed upon by the Division Shop Superintendent.

Yes

Any "on site" assembly required must be performed by the vendor at a date and time agreed upon by the receiving location.

**SERVICE and PARTS:**

- a) Bidder shall furnish a list of established manufacturer's authorized locations where an adequate stock of current parts and service are available
- b) Consideration in awarding bids shall be given to parts and service availability

Yes, see bid clarif #4

Yes, see bid clarif #4

**INSPECTION AND DELIVERY OF EQUIPMENT TO COMPLY WITH VENDOR'S  
INSTRUCTION SHEET**

**SERVICE MANUALS & PARTS BOOKS:**

Successful bidder shall furnish one (1) Shop Manual, Parts Manual and Operators Instruction Manual for the unit with one additional set of each manual supplied to the delivery point. The manuals should fully and clearly cover all components of the unit, including motors, drive systems and attachments.

**SPECIFICATIONS:**

Each bidder shall submit complete manufacturer's specification in duplicate and shall submit all other data to show that his proposal meets these specifications.

**THE STATE OF OKLAHOMA RESERVES THE RIGHT TO WAIVE MINOR  
TECHNICALITIES UNDER THESE SPECIFICATIONS.**

**DEMONSTRATION:**

**STATE OF OKLAHOMA  
DEPARTMENT OF TRANSPORTATION**

**EQUIPMENT SPECIFICATION**

**10/2016**

**MINIMUM REQUIREMENTS**

**VENDOR'S PROPOSAL**

The Department of Transportation reserves the right to require a successful demonstration at vendor's expense at a location chosen by them. Demonstration should include the use of manufacturer's current model for entire season prior to the award to assure equality, correct specifications and productivity of subject unit.

**WARRANTY:**

The bidder agrees, if his proposal is accepted, to guarantee the design, material and workmanship of the unit bid according to the standard factory warranty, or for one year, whichever is greater. A copy of the warranty will accompany the bid. Warranty coverage should include costs of transporting the unit to and from dealer's shop, when outside a 150 mile radius of the delivery point.

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DEALER: Dultmeier Sales DATE: 11/3/17  
SIGNATURE: Phil Dultmeier PHONE: 402-333-1444  
ADDRESS: 13808 Industrial Rd.  
Omaha, NE 68137

## **Bid Clarifications for Solicitation #3450004727**

### **Salt Brine Production System with Cleanout**

### **& Truck Mounted Skid Sprayer**

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**Bid Clarification #1A:** The main on-off power switch (disconnect) is located on the master Control Panel. This switch is rated at IP 65 ("able to protect against water jets"). Furthermore, the plastic construction of this switch makes it highly resistant to salt and other highly corrosive products in an outdoor environment. The master Control Panel itself is rated to IP 66 ("able to protect against powerful water jets") as well as NEMA 4X, 6P and is UL Listed. It is constructed of high impact polycarbonate for high resistance to salt and other highly corrosive products.

**Bid Clarification #1B:** The 2"-24V Water Valve will operate automatically as specified; it can also be opened or closed with a switch on the Master Control Panel (for easy draining of water from system for freeze protection). The fresh water dilution solenoid valve will automatically open when the brine discharge pipe is running, and close when pump cycles off, as specified. Adjustment of the fresh water dilution "rate" is done by the operator with a manual gate valve located near the solenoid valve.

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3-2" x 50' Long Complete Hose Assemblies (each hose assembly includes 2" x 50' wire-reinforced EPDM hose, 2-2" polyprop hose barbs, 2-2" polyprop ball valves, 2-2" polyprop camlock couplers and stainless bandit clamps). These Hose Assemblies make for fast and easy connections to male adaptors on the Brine Production System, Storage Tank Ports and water supply.

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**Also Note:** The reservoir on the BPS3000-SS system's hydraulic pump is now stainless steel, instead of painted steel.