

CPA – Statewide Procurement

Revised January 2023

SPREADER, MATERIAL, V-BOX HOPPER TYPE WITH CONVEYOR, SELF-CONTAINED

PART I

GENERAL INFORMATION, REQUIREMENTS, AND CONDITIONS

1. The equipment furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, and shall be of quality workmanship and material. The Contractor represents that all equipment offered under this specification shall be new. USED, SHOPWORN, DEMONSTRATOR, PROTOTYPE, REMANUFACTURED, RECONDITIONED, OR DISCONTINUED MODELS ARE NOT ACCEPTABLE.
2. All parts not specifically mentioned which are necessary for the unit to be complete and ready for operation or which are normally furnished as standard equipment shall be furnished by the Contractor. All parts shall conform in strength, quality and workmanship to the accepted standards of the industry
3. The unit provided shall meet or exceed all Federal and state of Texas safety, health, lighting and noise regulations and standards in effect and applicable to equipment furnished at the time of manufacture.
4. It is the intent of CPA to purchase goods, equipment, and services having the least adverse environmental impact, within the constraints of statutory purchasing requirements, the customer need, availability, and sound economic considerations. Suggested changes and environmental enhancements for possible inclusion in future revisions of this specification are encouraged.
5. Any example shown is an example to show type and class of equipment desired. Contractors are cautioned to read the specification carefully, as there may be special requirements not commonly offered by the equipment manufacturer. DO NOT ASSUME STANDARD EQUIPMENT MEETS ALL OF THE DETAILED SPECIFICATION REQUIREMENTS MERELY BECAUSE IT IS LISTED AS AN EXAMPLE. Contractors are cautioned that any unit which does not meet specifications in every aspect, will not be accepted.

PART II

SPECIFICATIONS

1. **SCOPE**: This specification describes a self-contained V-box type material spreader with conveyor and spinner, which shall accommodate material and aggregate up to 3/8 inch diameter and be capable of being mounted inside a dump truck body. The spreader shall be powered by a dump truck central hydraulic system and shall also operate both the conveyor and spinner. All units furnished to this specification shall meet or exceed the following:

EXAMPLES: Flink Model LMC5H
 Henderson Model FSH-II,
 Monroe Model MCV
 Swenson Model EV100,
 Warren Model E/AC-2420A,
 or CPA approved equal.

2. **DESIGN**: The V-box hoppers described in this specification are for mounting on either single or tandem axle diesel powered dump trucks. The 5.5 cubic yard capacity spreader is for mounting on a single axle dump truck and the 9.5 cubic yard capacity spreader is for mounting on a tandem axle dump truck. The 5.5 cubic yard hopper shall be easily transferable from one single axle dump truck to another, and the 9.5 cubic yard hopper shall be easily transferable from one tandem axle dump truck to another. A hydraulic drive system driven by a dump truck central hydraulic system shall provide power for both the conveyor and spinner systems.

3. **V-BOX HOPPER**: The hopper shall meet the following requirements:

		Range
3.1.	Water Level Capacity	5.5 c.y. 9.5 c.y.
3.2.	Height	48 - 54 Inches 58 - 63 Inches
3.3.	Width	Max 84 Inches Max 84 Inches
3.4.	Length	Max 9 feet Max 12 feet
3.5.	Sides, Slope	45 degrees 45 degrees
3.6.	Number of braces with crossmembers, each side	4 5
3.7.	Each hopper and conveyor shall be constructed of minimum 12-gauge, 201 stainless steel, continuously welded.	
3.8.	All-welded construction.	
3.9.	Self-locking, adjustable, screw-type gate jack with feed-gate ruler.	
3.10.	Manufacturer's standard mounting points for dump body mounting.	
3.11.	Bolt-on ladder mounted on the right rear of the unit. The ladder shall extend a maximum of four inches above the top of the spinner to the top of the hopper. Ladder shall be approximately 16 inches wide. Ladder shall be constructed of 12-gauge stainless steel. Rungs shall be minimum size No. 5 stainless steel rebar and spaced not more than 12 inches apart	
3.12.	Equipped with an inverted "V" over the conveyor. The inverted "V" shall be approximately 12 inches wide, adjustable in height, and manufactured of not less than 12 gauge stainless steel.	
3.13.	The 9.5 cubic yard spreader shall have a sloped front, constructed to fit dump bed dimensions referenced in Drawing 1A and shall clear dump bed hydraulic cylinder housing (doghouse) with a minimum of two inches when properly mounted in dump body.	
3.14.	Unit shall be provided with installed inverted letter "V" shaped chevron on all available surfaces of	

the rear of the hopper. Material shall be 3M Diamond Grade, red and white prismatic conformable tape with HI-TAC vacuum. Each strip shall be 8" wide to provide maximum visibility to the traveling public.

- 3.15. Unit shall come equipped with lighting which includes stop, turn, taillights and a rear work light near spinner for night time operations. These lights shall be protected from material being entered into the hopper. Unit shall be equipped with emergency lighting to include a left mounted blue colored LED strobe and a right mounted amber colored LED strobe warning light powered by vehicle through a standard 7-pin trailer connector.

4. GRID ASSEMBLY: Shall meet the following requirements:

- 4.1. Quantity
 - 4.1.1. 5.5 c.y. units shall have a minimum four top screens
 - 4.1.2. 9.5 c.y. units shall have a minimum four top screens
- 4.2. Screens shall be hinged from a center longitudinal member.
- 4.3. Screen openings, maximum three (3) inches square mesh.
- 4.4. Screens shall not extend over the edge of the hopper.

5. CONVEYOR: Shall meet the following requirements:

- 5.1. Minimum width 24 inches.
- 5.2. The conveyor drag chain shall consist of two (2) strands of steel alloy chain.
- 5.3. Each chain, minimum 21,000-pound tensile strength.
- 5.4. A chain wiper shall be installed for each chain.
- 5.5. Conveyor wear plate, minimum 7-gauge stainless steel and replaceable.
- 5.6. Chain cross members, maximum 4-1/2-inch centers.
- 5.7. Side chains shall have metal covers for protection from overflow of material.
- 5.8. Chain tension adjustment of minimum six (6) inches shall be provided.
- 5.9. Idler shaft shall have two (2) polyethylene rollers of a four and three-quarter inch (4 and ¾ inch) minimum diameter composed of UHMW polyethylene on a 21 inch stainless steel tube."
- 5.10. Equipped with an automatic chain oiler.

6. CHUTE AND SPINNER ASSEMBLY: Shall meet the following requirements:

- 6.1. Spinner disc.
- 6.2. Stainless steel, minimum 17 inches in diameter and minimum 3/16 inch thick.
- 6.3. Minimum of six equally spaced fins of minimum 3/16 inch thick shall be provided.
- 6.4. Four material deflectors located on the lower section of the spinner chute shall be provided for controlling the width of spread. A minimum of three (3) deflectors must be adjustable.
- 6.5. Spread width shall be adjustable from four feet up to 40 feet.
- 6.6. Assembly shall be bolt-on type, easily removable.

NOTE: Chute and spinner assembly to be installed by Customer.

7. HYDRAULIC DRIVE: Shall meet the following requirements:

- 7.1. Unit shall contain a hydraulic drive system that is driven by a dump truck central hydraulic system. Unit shall be equipped with, but not limited to, the following:
- 7.2. All fittings, hoses, and related hydraulic components necessary for hookup of spreader to the truck's

central hydraulic system.

- 7.3. A minimum of three hoses having the following inside diameters (I.D.) and fittings:
 - 7.3.1. One each 1/2-inch I.D. pressure hose with 1/2 inch female quick-disconnect coupler, minimum 54 inches in length.
 - 7.3.2. One each 3/4-ton I.D. pressure hose with 3/4 inch female quick-disconnect coupler, minimum 54 inches in length.
 - 7.3.3. One each 1-inch I.D. return hose with 1-1/4 inch I.D. female quick-disconnect coupler, minimum 54 inches in length.

- 7.4. Hydraulic hoses as recommended by the manufacturer shall be furnished and shall have self-sealing male and female dripless quick-disconnect couplers for each hose meeting ISO 17241-1 Series B Specification. Caps and plugs for quick-disconnects shall be furnished and meet ISO 17241-1 Series B Specifications.

EXAMPLES: Parker H4-62, H6-62, H8-62
Hansen 4-H-26, 6-H-31, 8-H-36,
or CPA approved equal.

- 7.5. Dual-flow control valve (mounted at the rear of the spreader, controlled from the cab) to allow independent control of the spinner and the conveyor.
- 7.6. High torque, low speed hydraulic motors to drive conveyor and spinner system. Drive system shall operate at maximum of 1,500 PSI working pressure.
- 7.7. Gear box ratio shall be 25:1.

- 8. INSTRUCTION ON SAFETY, OPERATION AND PREVENTIVE MAINTENANCE: The Contractor shall provide the services of a competent factory trained technician thoroughly trained in the use and operation of the unit to the customer a minimum of two hours instruction on safety, operation and preventive maintenance of the unit. The service shall be provided after the unit has been delivered and is ready for operation but prior to payment.

9. SAFETY PLAQUES OR DECALS

- 9.1. Product safety plaques or decals shall be furnished and affixed at the operator's station and at any hazardous area. The safety plaques or decals shall describe the nature of the hazard, level of hazard seriousness, how to avoid the hazard, and the consequence of human interaction with the hazard. Permanent plaques are preferred to decals. Type, size and location of product safety plaques or decals shall be in accordance with current ANSI Z535.4 standard.
- 9.2. A permanent lubrication plaque shall be furnished and visible from the outside of the unit. The plaque shall note all lubrication points and recommended periodic oil changes and lubrication intervals.

10. MANUALS: Shall meet the following requirements:

- 10.1. Original manuals in paper format containing illustrated parts lists and operating and service instructions for the unit and engines shall be delivered with each unit. In addition to the paper format original manual, the Contractor may provide an electronic media version of the current original manual.
- 10.2. The manuals shall be as detailed as possible outlining all necessary service and operating instructions for each unit delivered. Parts lists shall cover all components of the unit. Each part shall be identified by part number, description and component location. Necessary warnings and safety precautions shall be included. It is requested, but not required, that the manuals be printed on recycled paper.
- 10.3. The following additional information shall be provided by the Contractor at time of delivery if not included in the manual required above.
 - 10.3.1. Manufacturers recommended service and preventive maintenance intervals.
 - 10.3.2. Recommended fluids, lubricants and their SAE/API equivalents.

- 11. WARRANTY: The unit shall be warranted against defects in material and workmanship for a period of not less

than 12 months and shall cover 100% parts and labor for the unit. If the manufacturer's standard warranty period exceeds 12 months, then the standard warranty period shall be in effect. The Contractor shall furnish the manufacturer's warranty to the Customer at time of delivery. The Contractor shall be ultimately responsible for the warranty. The warranty begins on the date the unit is determined to meet specifications and accepted into the Customer's fleet.

12. PARTS AND SERVICE: Equipment manufacturer shall have an authorized dealer within the state of Texas or factory-trained personnel available for warranty repairs and the performance of service within 72 hours after notification by the customer. The authorized dealer shall have factory-trained personnel available for warranty repairs and the performance of service. The dealer shall also maintain an inventory of high-usage parts and a quick source for low-usage parts.
13. REPLACEMENT FILTERS AND BELTS: A complete replacement set of filters and belts shall be provided for each unit furnished to this specification (not required for cab and chassis). Each filter and belt shall be labeled with the equipment manufacturer's part number as shown in the manufacturer's parts book and shall be furnished at the time of delivery. ONLY OEM FILTERS AND BELTS ARE ACCEPTABLE. The part numbers provided on the form shall correspond with the part numbers found in the parts manual for the equipment.
 - 13.1. The set of filters shall include air, fuel, oil, hydraulic, etc., filters used on the equipment.
 - 13.2. The set of belts shall include all belts used on the equipment.
14. MANUFACTURER'S STATEMENT OF ORIGIN (MSO): Contractor shall furnish MSO to the Customer with each unit at time of delivery. CUSTOMER WILL NOT ACCEPT THE UNIT AND PROCESS PAYMENT WITHOUT THE MSO.
15. DATA SHEET: Data Sheet should be completed and submitted for informational purposes only.

PART III

DELIVERY AND ACCEPTANCE

1. **DELIVERY REQUIREMENTS:** Delivery of all equipment on this order shall be completed within the number of days specified on the purchase order. Any unit(s) not delivered within this time frame may be canceled from the purchase order or, at the Customer's option, an extension may be granted in writing, whichever is in the Customer's best interest.
 - 1.1. If any unit is canceled for non-delivery, the needed equipment may be purchased elsewhere and the Contractor may be charged any additional increase in cost and handling.
 - 1.2. **LIQUIDATED DAMAGES:** Unless a delivery extension is granted for acceptable reasons due to circumstances beyond the Contractor's control, liquidated damages of \$160 per unit will be deducted from the invoice for every working day after the expiration of the number of days shown on the purchase order until the units are delivered. This provision is not intended as a penalty but for ease of administration and the avoidance of disputes. The parties agree that \$160 per day is the nearest practicable estimate of cost to rent replacement equipment.
2. **ACCEPTANCE INSPECTION:** All equipment ordered will be subject to acceptance inspection and performance testing upon receipt. Acceptance inspection and performance testing will not take more than five working days, weather permitting. The Contractor will be notified within this time frame of any units not delivered in full compliance with the purchase order specifications. If any units are canceled for non-acceptance, the needed equipment may be purchased elsewhere and the Contractor may be charged any additional increase in cost and handling.
3. **WORKING DAY:** A working day is defined as a calendar day, not including Saturdays, Sundays, or regularly observed state and federal holidays.

PART IV

WARRANTY

1. WARRANTY: The unit shall be warranted against all defects in material and workmanship for a period of not less than 12 months or 1,200 hours of use, whichever comes first, and shall cover 100% parts and labor for the unit. If the manufacturer's standard warranty period exceeds 12 months or 1,200 hours, then the standard warranty period shall be in effect. The warranty begins on the date the unit is determined to meet specifications and accepted into the Customer's fleet.
- Warranty
_____ Months
_____ Hours
whichever
comes first

NOTE: A delayed warranty in service start date may be requested.

2. INTENT: During the warranty period the Contractor shall be responsible for labor, materials, and other costs as outlined below associated with required warranty repair. It is the intent of this warranty that the Contractor performs warranty repair work. At the Customer's option, the Customer may perform minor warranty repairs to the unit at the Contractor's expense.
- 2.1. EXCLUSIONS: The Customer will assume the expense for replacement tires and tubes, tire repairs, lubricating oils, hydraulic fluids, greases, filters, fuel, antifreeze, batteries, lights, hoses, belts, cleaning, painting and other minor items normally consumed in day-to-day operations. The Customer will assume responsibility for cost of repairs resulting from collision, theft, vandalism, operator negligence or acts of God.
- 2.2. EQUIPMENT MAINTENANCE: It is the Customer's practice to maintain the equipment in accordance with the manufacturer's published recommendations.
- 2.3. MINOR WARRANTY REPAIRS: It is the intent of this warranty that the Contractor performs minor warranty repairs; however, at Customer's option, warranty repairs deemed by the Customer to be minor in nature may be performed by the Customer at the Contractor's expense. Parts required for repairs made by the Customer will be OEM parts and obtained from the Contractor or any commercial source, at no cost to the Customer. Only the actual time required for repairs shall be reimbursed. The Customer will not request reimbursement for additional time incurred such as mechanic's travel time or diagnostic time. Reimbursement by the Contractor to the Customer for the cost of warranty repairs shall be computed as follows:
- 2.3.1. Labor: Labor for warranty repairs will be calculated at the composite rate for the mechanic in effect at the time of the warranty repairs. Labor rate will not exceed \$40 per hour. The time allowed for each repair will be determined by the manufacturer's standard time schedule. Manufacturer's time schedule shall be furnished to the receiving district with the unit at the time of delivery (if available). If a manufacturer's time schedule is not available, the actual time for repairs, as noted above, will be used.
- 2.3.2. Warranty Repair Claims: The Customer may track and bill warranty repairs through the Customer's fleet management software or on the Contractor's standard forms.
- 2.3.3. Parts: Replaced parts will be held 30 calendar days and will be available for inspection by the Contractor or authorized representative. Copies of invoices for all parts will be provided to the Contractor. The cost of parts other than those furnished to the Customer at no cost by the Contractor will be billed at actual cost.

- 2.4. **MAJOR WARRANTY REPAIRS:** When major warranty repairs are required, the Customer will notify a representative of the Contractor's Texas dealer by telephone at the location and the telephone number designated by the Contractor on the attached Data Sheet as the point of contact. Major warranty repair work for the purpose of this specification means major repairs to the engine and major repairs to any other components of the unit. Diagnosis of the actual repairs required shall be the responsibility of the Contractor. The unit will be made available at a Customer's facility within a 100-mile radius of the FOB point shown on the purchase order. The repair work may be performed by the Contractor or Contractor's authorized representative.
- 2.4.1. At the Contractor's option, the unit may be taken by the Contractor to a commercial repair facility. The Contractor shall be responsible for the cost of the round trip transportation of the unit to and from that location.
- 2.4.2. If mutually agreed upon between the Contractor and the Customer, the Customer may transport the unit to the Contractor's location or authorized repair facility, within the boundaries of the state of Texas. The cost of equipment and manpower necessary to haul the unit for the round trip will be billed back to the Contractor at the rental rate of the equipment and composite hourly rate for the driver in effect at the time for the equipment required. The composite hourly rate for the driver will not exceed \$30 per hour. Rental rate for the truck and trailer will not exceed \$0.80 per mile for the truck and \$8 per hour for the trailer.
3. **RESPONSE TIME:** Warranty repair action shall begin within two working days after notification is made to the Contractor for need of warranty repairs. A representative of the Contractor's Texas dealer will be notified by telephone at the location and telephone number designated by the Contractor on the attached Data Sheet as the point of contact. The Contractor shall notify the Customer immediately of any changes in this location and telephone number. The warranty repairs should be completed and the unit returned to the Customer (or picked up by the Customer at the Contractor's expense as outlined above) within a reasonable period of time. For the purpose of the specification eight working days is defined as a reasonable period of time. Excessive delays incurred for the performance of warranty repairs by the Contractor may adversely affect the Contractor's status.
4. **BILLING AND PAYMENT FOR WARRANTY REPAIR EXPENSES:** Cost will be accumulated for transportation of the unit by the Customer to the Contractor's location or authorized repair facility. Payment for transportation costs as provided for in this section shall be made within 30 calendar days of the billing date.
5. **PARTS AND SERVICE:** The manufacturer of the equipment furnished shall have an authorized dealer within the state of Texas. The authorized dealer shall have factory-trained personnel available for warranty repairs and the performance of service. The dealer shall also maintain an inventory of high-usage parts and a quick source for low-usage parts.

PART V

OPTIONAL EQUIPMENT

1. **OPTION NO. 1: ELECTRIC SPRAY SYSTEM / PRE-WETTER** (for use with Option No. 2 – Air Cooled Gasoline Engine, Rear Mounted): This system shall provide for an electric spray system, designed to spray a constant deicing solution on material being spread. The spray system shall be capable of spraying calcium and magnesium chloride, glycol, liquid urea, and other de-icing solutions. All parts that come in contact with liquid being sprayed shall be corrosion resistant. All components shall be rated with a minimum 150 PSI working pressure. The following shall be provided to make the system complete:
 - 1.1. Liquid spray pump.
 - 1.2. An electric motor/pump combination shall have a minimum 12-volt DC, three chamber diaphragm pump, with internal circuit breaker.
 - 1.3. Pump seal shall consist of a viton / santoprene combination.
 - 1.4. Pump box shall be polypropylene.
 - 1.5. Pump shall be rated at a minimum 3 GPM.
 - 1.6. Output shall remain constant regardless of conveyor/spinner speed.
 - 1.7. An electrical solenoid valve shall provide for an in-cab on/off (system) switch. To control the amount of product there shall be an adjustable pressure regulator located in-line between the pump and the nozzles.
 - 1.8. The in-cab liquid control console shall have a variable adjustment knob for liquid settings, a power on indicator light, a low-pressure light, and alarm indicating insufficient nozzle flow or empty tank.
 - 1.9. Minimum of two (2) extended range neoprene self-cleaning nozzles with cores, discs, and mounting hardware. Nozzles shall be installed to maximize coverage of the granular material.
 - 1.10. Minimum 100-gallon polyethylene rotation molded reservoir complete with replaceable in- line screen strainer, shut-off valves, and mounting hardware. Reservoir shall be angle formed to allow for mounting to the sloped side of the V-box.
2. **OPTION NO.2 : AIR COOLED GASOLINE ENGINE, REAR MOUNTED**: In lieu of the hydraulic drive requirements specified in Part II, Paragraph 7, unit shall be equipped with, but not limited to, the following:

EXAMPLE: Kohler Magnum or approved equal.

 - 2.1. Horsepower minimum 18 HP at governed RPM.
 - 2.2. 12-volt electric system, alternator and battery. Battery rating shall be stamped or molded on the case or cell connectors, or on a nameplate permanently attached to the top with letters, numbers, or symbols which shall enable the user to determine the rating from the manufacturer's catalog, complete with battery box, cables and Dry type air cleaner.
 - 2.3. Cast-iron crankcase or aluminum crankcase with cast-iron sleeves and full pressure lubrication system.
 - 2.4. Fuel tank capacity, minimum 7-½ gallons
 - 2.5. Automatic choke.
 - 2.6. Spin off oil filter.
 - 2.7. Low oil pressure shut-off device.

- 2.8. Electric starter.
- 2.9. Settlement bowl under gas tank shall be furnished.
- 2.10. In-line fuel filter mounted between settlement bowl and carburetor.
- 2.11. Hydraulic Power Source shall meet the following requirements:
 - 2.11.1. 3-½ gallons at 1,000 RPM pump.
 - 2.11.2. Engine direct coupled to the pump through a number 60 chain coupler.
 - 2.11.3. 12-gallon hydraulic reservoir with 10 micron filter assembly.
 - 2.11.4. Electronic solenoid diverter valve (diverts oil to hydraulic motor back to tank).
 - 2.11.5. Shall be plumbed complete with all hosing including spinner hosing. Hydraulic hoses as recommended by the manufacturer shall be furnished and shall have self-sealing male and female dripless quick-disconnect couplers for each hose meeting ISO 7241-1 Series B specifications.
EXAMPLES: Parker H4-62, H6-62, H8-62,
 Hansen 4-H-26, 6-H-31, 8-H-36,
 or CPA approved equal.

- 2.11.6. Shall be complete with a dual flow control valve.
- 2.11.7. Gear box ratio shall be 25:1.

2.12. Remote In-Cab Control, Console Mounted shall meet the following requirements:

- 2.12.1. Ignition switch.
- 2.12.2. Starter button.
- 2.12.3. Electric throttle.
- 2.12.4. Ammeter.
- 2.12.5. Oil sentry bypass button.
- 2.12.6. Electric solenoid on/off switch.
- 2.12.7. Night light.
- 2.12.8. An on/off electric switch located on the cab console to control a solenoid valve that in turn shall regulate the flow of oil from the pump to either the dual flow control valve or back to tank. This arrangement shall allow the stopping or starting of the spreader from the cab. The dual flow control valve shall allow independent control of the spinner and the conveyor by making the adjustment at the rear of the spreader.

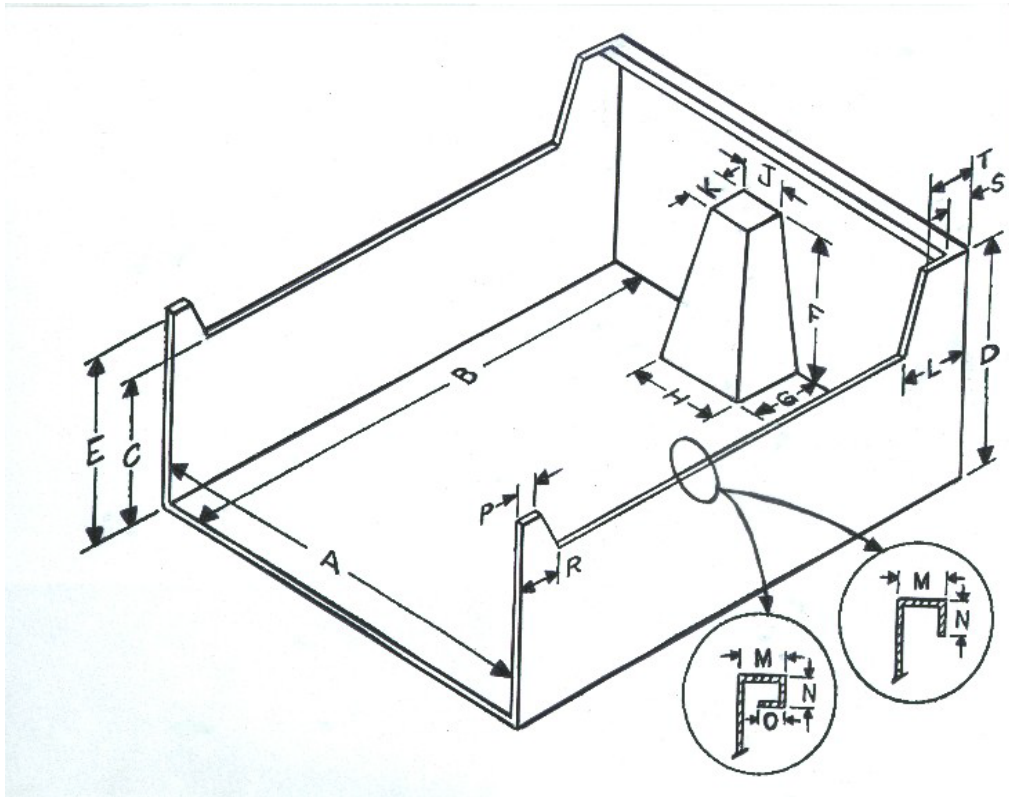
3. OPTION NO. 3 : HYDRAULIC SPRAY SYSTEM / PRE-WETTER: System shall provide for an in-line series hydraulic sprayer with the conveyor/auger motor which shall provide a constant relationship with the amount of material being spread. The spray system shall be capable of spraying calcium and magnesium chloride, glycol, liquid urea, and other deicing solutions. All parts that come in contact with liquid being sprayed shall be corrosion resistant. All components shall be rated with a minimum 150 PSI working pressure. The following shall be provided to make the system complete:

- 3.1. Liquid spray pump.
- 3.2. Minimum three cubic inch hydraulic motor to drive the product pump coupled in series with the conveyor/auger motor.
- 3.3. Product pump shall have a cast bronze housing and be rated at a minimum seven GPM.
- 3.4. Gears shall be bronze with a viton teflon lip seal.
- 3.5. All excess liquid shall return back to tank for agitation in the reservoir liquid.

- 3.6. An electrical solenoid valve shall provide for an in-cab on/off (system) switch. To control the amount of product there shall be an adjustable pressure regulator located in-line between the pump and the nozzles.
- 3.7. The in-cab liquid control console shall have a variable adjustment knob for liquid settings, a power on indicator light, a low-pressure light, and alarm indicating insufficient nozzle flow or empty tank.
- 3.8. The pump and proportional flow divider assembly shall be enclosed in a protective thermoplastic enclosure.
- 3.9. Minimum of two (2) extended range neoprene self-cleaning nozzles with cores, discs, and mounting hardware. Nozzles shall be installed to maximize coverage of the granular material.
- 3.10. Minimum 100-gallon polyethylene rotation molded reservoir complete with replaceable in-line screen strainer, shut-off valves, and mounting hardware. Reservoir shall be angle formed to allow for mounting to the sloped side of the V-box.
4. OPTION NO.4: GEAR BOX RATIO: In lieu of gear box ratio specified in Part II, Para. 7.7, ratio shall be 50:1.
5. OPTION NO.5: SINGLE AUGER DRIVE SYSTEM: In lieu of standard conveyor belt specified in Part II, Para 5, unit shall have a single rotating auger dispersal system.
6. OPTION NO.6: DUAL AUGER DRIVE SYSTEM: In lieu of standard conveyor belt specified in Part II, Para 5, unit shall have a dual auger dispersal system.
7. OPTION NO.7: INTERCHANGEABLE CARTRIDGE SYSTEM: In lieu of standard fixed conveyor cartridge in Part II, Para 5, unit shall have a replaceable cartridge that contains either an auger or a conveyor. Customer will specify which. Leg stands shall be incorporated into the cartridge assembly and shall manually fold up and down.
8. OPTION NO. 8: SPREADER HOLD DOWN: Spreader shall have four (4) channel type hold down pockets. Two (2) on each side near the top of the spreader for attaching the straps with one towards the front and one towards the rear. Four (4) heavy duty ratchet straps shall be provided for each unit, 2" inches x 8' foot.
9. OPTION NO. 9: VIBRATOR: A vibrator shall be provided and mounted in a location that will assist in the releasing of material that has been lodged in the hopper.
10. OPTION NO.10: 5.5 CUYD LEG STANDS: V-Box will come equipped with a set of folding stainless-steel leg stands. The V-Box stands shall be bolted or welded directly to the V-box. The V-box stands shall be mounted in locations that allow the legs to fully support the V-box to prevent tipping or collapsing of the V-box. Legs shall come equipped with a tailgate latch bar on each side. Customer will specify which method of attachment.
11. OPTION NO.11: 9.5 CUYD LEG STANDS: V-Box will come equipped with a set of folding stainless-steel leg stands. The V-Box stands shall be bolted or welded directly to the V-box. The V-box stands shall be mounted in locations that allow the legs to fully support the V-box to prevent tipping or collapsing of the V-box. Legs will come equipped with a tailgate latch bar on each side. Customer will specify which method of attachment.
12. OPTION NO.12: ELECTRIC POWERED ENGINE: In lieu of the hydraulic drive requirements specified in Part II, Paragraph 7, unit shall be equipped with, but not limited to, the following:
 - 12.1. Minimum ½ hp electric, direct drive auger motor.
 - 12.2. Minimum ½ hp electric, direct drive spinner motor.
 - 12.3. Dual Speed controller mounted in cab with wiring harness

DRAWING 1A

10 cubic yard Dump Body with Doghouse



DIMENSIONS

A	84 inches	K	9-1/4 inches
B	154-1/2 inches	L	18 inches
C	42-5/16 inches	M	3-1/2 inches
D	64 inches	N	1-1/2 inches
E	45-7/16 inches	O	N/A
F	48 inches	P	5-1/8 inches
G	27 inches	R	7-5/8 inches
H	16-1/2 inches	S	3-1/2 inches
J	16-1/2 inches	T	6-3/4 inches

Authorized Warranty Service Provider

Name and address of firm nearest the FOB point that will provide warranty service and repair parts. If there is more than one line item on the solicitation, respondent shall provide information on servicing dealer nearest each FOB point:

Firm Name

Address

City, State, Zip

Individual Contact Name

Phone

Email Address

Fax Number

Website – URL

If servicing dealer furnishes parts for minor repairs by Customer personnel, will this affect the warranty? (Y/N)

If answer is “yes” please attach explanation.

Name of Firm Submitting Response

Individual Contact Name

Phone Number

Fax Number

Email Address

Website URL

Respondent’s Signature

Print or Type Respondent’s Name