

KM 4000 TEDD SPECIFICATION

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Technical Product Specifications

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**Specifications are subject to change without notice*



COMPLIANCE TO SPECIFICATIONS

The bidder shall indicate 100% compliance by checking "YES" or non-compliance by checking "NO" for each line item of specification. Any space left blank shall be considered non-compliant. Any deviation from the specification, or where submitted literature does not fully support the meeting of specifications, must be clearly cited in detail, in writing, by the bidder and submitted with the bid. NO verbal interpretations will be accepted! In addition NO deviations below "minimum" specifications as written will be accepted.

"BIDDING REQUIREMENTS SECTION"

SECTION		SPECIFICATION DETAIL	COMPLY	
			YES	NO
SECTION 1 <u>GENERAL</u>	1.1	This specification is to describe the asphalt hotbox reclaimer unit designed to manage up to two (2) tons (4,000 lbs.) of plant hot mix asphalt (HMA).		
	1.2	The unit is designed as a trailer and the hotbox is permanently affixed to the trailer framework.		
	1.3	The unit offers the user the ability to maintain hot mix asphalt or cold patch material at workable temperatures for up to forty eight (48) hours continuously.		
	1.4	Unit also offers to the user the option to "reclaim" virgin hot mix asphalt from ambient storage temperature to usable hot mix form.		
	1.5	The unit offers the ability to safely maintain temperatures that accommodate standard "cold patching" materials.		
	1.6	The heating unit is an efficient use of fuel and controlled by an electronically controlled thermostat.		
	1.7	Operator must be able to maintain load temperature between 50-350 degrees Fahrenheit.		

SECTION 2 <u>DIESEL CONTROLS</u>	2.1	The unit is to include a sealed weather resistant NEMA Type 4 control panel.		
	2.2	The NEMA Type 4 control panel dimensions measure 12" x 10" x 8".		
	2.3	The control panel incorporates an Unitronics Programmable Logic Controller (PLC).		
	2.4	The control panel monitors and controls heating temperatures from 50-350 degrees F.		
	2.5	The control panel allows for monitoring, tracking and logging of data.		
	2.6	The control panel incorporates an on-delay burner start up on a 0-168 hour adjustment.		
	2.7	The control panel will display real time voltage with accuracy of +/- 3%.		
	2.8	The control panel incorporates an hour meter with a resettable run time and a Non-Resettable total runtime.		
	2.9	The control panel is to display real time asphalt load and combustion chamber temperatures.		
	2.10	The diesel burner will be controlled digitally with the PLC.		
	2.11	Burner and controls shall be mounted on the front exterior wall of the storage bin.		



SECTION	SPECIFICATION DETAIL		COMPLY	
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SECTION 3 <u>DIESEL</u> <u>BURNER</u>	3.1	Asphalt storage compartment will be heated by a diesel fueled 12VDC KEM 101 Beckett burner.		
	3.2	Burner rating is not to exceed 105,000 BTU.		
	3.3	The diesel burner must be mounted to the hot box above the trailer frame within the chassis. Burners mounted even with or below the frame will not be accepted.		
	3.4	Burner must be easily removed for maintenance by removing four (4) nuts and a fuel line.		
	3.5	The burner is protected and enclosed by a cover keeping the unit and components out of weather and clear of road debris.		
	3.6	The diesel burner will be equipped with an automatic electronic ignition system.		
	3.7	The diesel burner will supply primary combustion air and fuel into the insulated (combustion) fire box during operation.		
	3.8	It will be equipped with 100% safety shut down if burner ignition fails.		
	3.9	In the event of a monitored abnormally high temperature in the combustion chamber the burner will automatically shut down for safety purposes and require the system to be recycled for a manual restart.		
	3.10	Combustion chamber must be an integral part of the burner system and easily removed above the trailer frame.		
	3.11	Combustion chamber is constructed of a one piece 1.5" ceramic refractory board.		
	3.12	The heating system will be supplied power by a twelve (12) volt gel deep cycle marine battery maintained through the towing vehicle charging system. <small>*A second battery will be added to units with options requiring 12VDC connections.</small>		
	3.13	A permanently mounted 110 volt/12volt battery charger is supplied for overnight charging.		
	3.14	The heating system fuel supply tank shall be a minimum of 22 gallon capacity.		
	3.15	The fuel tank will include a quick site fuel level indicator on top of the tank.		

SECTION 4 <u>TRAILER</u> <u>DESIGN</u>	4.1	Trailer frame will be constructed of six inch (6") @8.2# channel steel. Trailers using tubular steel will not be accepted.		
	4.2	All corners and fatigue areas will be gusseted.		
	4.3	The trailer frame will include 2 1/2 "x 3/4 wall square tube steel cross member.		
	4.4	The battery and hydraulic fluid reservoir will be located in the front tongue area of the hotbox trailer in a lockable steel enclosure.		
	4.5	The trailer will have a single, 7000# rated axles. 24", torsion will be used for suspension.		
	4.6	Wheels will be 16", white spoke rims and ST235/80R16 tires with a minimum load rating of 3520# each.		
	4.7	Twelve (12) volt DC electric brakes will be provided on all wheels.		
	4.8	Front leveling jack will be 7000 pound minimum capacity with 15" adjustable pad.		
	4.9	Towing eye will be solid forged steel, 20,000 pound rated, with minimum three inch (3") interior diameter and height adjustment from 18" to 30".		
	4.10	Overall standard dimensions are 175" x 80"x 88"		
	4.11	Safety chains will be permanent attached 3/8" Class III with grab hooks.		
	4.12	Trailers are compliant with USHTSA, FMCSA, and FMVSS requirements.		
	4.13	Trailers are certified by North American Trailer Association (NATM).		
	4.14	The front frame of the trailer will enclose the triangular utility area measuring a minimum of 5.5 sq. ft.		



SECTION	SPECIFICATION DETAIL		COMPLY	
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SECTION 4 CONTINUED. TRAILER DESIGN CONTINUED	4.15	3/16" (#3) braced expanded steel grating (meets deflection requirements of Federal Specification RR-G-661-B) will be the flooring of the utility area.		
	4.16	Two (2) permanent attached hooks located inside of the trailer frame offer safety securing devices for tools and equipment during travel.		
	4.17	The fenders will be a minimum of 11 gauge steel "diamond" floor plate for slip resistance and rigid enough to be used as a work platform.		
	4.18	Protective tail light pockets will be an integral part of each fender.		
	4.19	The structural diamond plate fender platforms shall enable the operator to reach and clean half of the hopper from each side of the unit, eliminating the need for the operator to reach completely across the machine , thereby minimizing the potential of injuries and compensation-related liabilities		
	4.20	The structural fender platforms shall be complete with built-in steps. The structural fender platforms shall also serve as the mounting location for the flush, grommet mounted stop, turn and tail lights. In the interest of degradation caused by heat, no DOT required lighting is to be mounted in the rear wall of the asphalt storage box.		
	4.21	In the interest of structural integrity and so as to completely eliminate structural fatigue caused by condensation and rust, the trailer frame long members shall be constructed from 6" channel iron. For this reason box tube construction, which is prone to internal corrosion, shall be not be accepted.		
	4.22	The channel iron members of the trailer shall be completely and continuously welded on both sides so as to leave no joints or seams exposed.		
	4.23	The scissor hoist will be a minimum of 11,000# lifting capacity. Dual push cylinders will not be accepted.		
	4.24	The hoist will be operated by means of a 12 volt electric pump with integral oil reservoir and push button operator with a tethered cord.		
	4.25	The push button dump controller will be mounted on the rear passenger side of the hotbox allowing the user to view the rear of the hotbox while dumping.		
	4.26	When in the dump position the asphalt hopper is capable of discharging the entire load of asphalt.		
	4.27	The hotbox reclaimer box will dump up to a minimum of 52 degrees.		
	4.28	The hotbox reclaimer box will have a manual prop rod built into the trailer frame.		
	4.29	Combination LED stop/tail lights and marker lights will be properly located and wired with not less than sixteen (16) gauge UL approved wiring.		
	4.30	Two (2) 6" oval LED stop tail, turn lights will be mounted at the far outside rear facing on the fenders.		
4.31	Two (2) 1" LED red vehicle presence lights will be mounted at the rear widest point on the fenders.			
4.32	Two (2) 1" LED amber vehicle presence lights will be mounted at the furthest forward and widest outside point of the vehicle.			



SECTION		SEPECIFICATION DETAIL	COMPLY	
			YES	NO
SECTION 5 <u>ASPHALT STORAGE BIN</u>	5.1	The asphalt storage bin will hold a capacity of two (2) tons of material.		
	5.2	The storage bin measures 54" x 72" x 44" from base of bin to peak.		
	5.3	The design offers gravity feed of the material towards the shovel ports.		
	5.4	The asphalt bin is constructed of four (4) 14 gauge welded steel walls.		
	5.5	The floor will be constructed of one solid piece of 14 gauge steel.		
	5.6	A third wall of reflective aluminum is attached and located between the storage bin and the outer shell.		
	5.7	2,300 degree Fahrenheit refractory ceramic insulation located between the reflective wall and bottom floor insulates the bottom of the unit.		
	5.8	High temperature fiber glass insulation not less than three inches (3") in thickness insulates the exterior walls of the unit.		
	5.9	The outer shell will be fabricated of reinforced 16 gauge steel.		
	5.10	All seams will be a continuous weld.		
	5.11	Interior gussets and supports welded at strategic points provide additional fabricating rigidity.		
	5.12	When the unit is in the full dump position the full load must be able to be dumped. Units that cannot discharge the full load and require manual unloading in the dump configuration are not acceptable.		
	5.13	The shovel deck platform is solid reinforced 11 gauge steel.		
	5.14	Asphalt chambers must not have any vents or heat tubes running from front to back. As these tubes contribute to asphalt damaging or bridging in the chamber. Vent openings in the asphalt chamber will quickly fill up with asphalt and limit the transfer of heat likewise these units are unacceptable.		
	5.15	Asphalt storage bin shall be designed in a way in which the inside walls of the hopper are tapered towards the shovel door.		

SECTION 6 <u>FILLING DOORS</u>	6.1	A single shock assisted lid is designed to accommodate easy loading of asphalt.		
	6.2	The cover/lid will be constructed of sixteen (20) gauge insulated with no less than two inches (2") of high temperature insulation to offer optimum efficiency.		
	6.3	The handle will be fabricated of square tubing and allow the user to open and close the unit from a ground standing position.		
	6.4	The handle allows for the user to operate close to unit and out of danger of road traffic.		
	6.5	A replaceable gas spring will be affixed to each door to reduce opening force as well as hold the door in the open position for filling.		
	6.6	Additional grab handles are located on the opposite sides of the lid.		
	6.7	When in the open position, the lid creates a funnel designed large enough to easily maneuver the unit under standard asphalt stations (batch or silo type plants) for filling and open to protect the unit.		
	6.7	Asphalt loading lids must be a continuous type hinge. Pillow block bearings hinges are not acceptable due to their failure rate.		



SECTION	SPECIFICATION DETAIL	COMPLY		
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SECTION 6 CONTINUED. <u>FILLING DOOR</u> <u>CONTINUED</u>	6.8	The handle linkage shall be bolted to the box side and not require re-positioning the handle to operate or the use of body weight to counteract the weight of the door when opening or closing.		
	6.9	When opening the door the operator shall be positioned immediately and safely alongside the unit and in-line with the structural fenders, standing either in front of or behind them depending on which door is being actuated. Throughout the opening and closing of the doors the operator shall not be required to step away from the unit to operate the door handles.		
	6.10	When in the open position, the door design shall serve to protect the burner, controls, and other related components and exhaust stack located in the front storage area from falling material during the loading process.		
	6.11	The design of the loading door must open from front to back protecting the trailer and enabling easy loading with frontend loaders from the side of units. No exception to this critical safety consideration shall be permitted.		

SECTION 7 <u>SHOVELING</u> <u>PORTS</u>	7.1	A single shoveling port at the rear of the unit is provided for the unloading of material.		
	7.2	The shovel port is large enough to accommodate standard use asphalt shovels.		
	7.3	The doors will be fabricated of welded sixteen (16) gauge steel with high temperature insulation enclosed inside the doors.		
	7.4	The door will travel in a sliding track which is equipped with a safety latch feature to keep shovel doors open during use.		
	7.5	The shovel port is a minimum of 16" high by 16" wide.		

SECTION 8 <u>PAIN</u>	8.1	All pieces exposed shall be properly coated.		
	8.2	All raw materials used in the manufacturing process will be new and unused and properly coated with an industrial equipment primer and industrial equipment paint coating. KM International chrome yellow will be the primary coating color.		

SECTION 9 <u>WARRANTY</u>	9.1	The manufacturer will, for a period of twelve (12) months from the invoice date, repair or replace any serviceable or consumable parts determined by a KM International representative to be defective.		
	9.2	All components, with the exception of the previously listed twelve (12) month warrantied parts, will be covered under this warranty for a period of twenty-four (24) months.		
	9.3	The trailer frame components, hotbox body and workmanship is warrantied for a period of five (5) years from the invoice date.		
	9.4	This warranty applies only when the claim is approved and repaired by a KM International representative.		
	9.5	This warranty applies only when the equipment is used for its intended purpose and properly maintained.		





