

CITY OF TRAVERSE CITY, MICHIGAN

Specifications for Portable Asphalt Recycling Machine, Trailer Mounted, +3 tons per hour, for recycling Millings, Chunked or Broken Asphalt

The intent of the following general and detailed specifications is to describe the minimum requirements of a new, not previously used, trailer mounted +3 Ton per hour asphalt recycler. Brand names, makes, and model numbers contained herein are for reference only in regards to the type, level of quality, and durability that the City will accept as a minimum. The City, at its discretion, reserves the right to reject any and/or all bid proposals or make an award to the most responsive/best bidder that in its opinion meets the minimum specifications and requirements set forth herein. Prototypes will not be accepted.

Unit being bid must be manufactured in North America by a company with extensive experience in the asphalt equipment industry. State Country of manufacture :

It is a condition of this tender that bidders submit descriptive literature and specifications of the equipment being quoted and also be prepared, when requested, to arrange for a demonstration within five days of such a request at no cost to the City. The demonstration must be performed within Traverse City.

The bidder must supply a video demonstration on cd or dvd of the model being offered or a website where the video can be viewed. The video must be narrated and show the major features of the recycler.

CD or DVD Enclosed or Website:

State Year, Make & Model of Unit Being Bid : 2014, KM International,
KM T-2

1.0 Performance & Operation

- 1.1 Load size three (3) tons per hour. (1,814 kg per hour) and capable of at least 2600 lbs per load Yes No ___ Specify _____
- 1.2 Recycled asphalt temperature will be monitored by the operator with a supplied infrared digital thermometer Yes No ___ Specify _____
- 1.3 Operating temperature range to be 280° F (137.7° C) to 360 ° F (182.2° C). Yes No ___ Specify _____
- 1.4 Unit will recycle mechanically broken, chunk pieces (up to 12" – 30.5 mm), or milled asphalt (RAP). Yes No ___ Specify _____

2.0 Trailer Specifications

- 2.1 GVWR of the trailer shall be 14,000 lbs (6,350 kg.) Yes No ___ Specify _____
- 2.2 Shall be equipped with dual 7,000 lb. (3,175 kg.) axles. Yes No ___ Specify _____
- 2.3 Axle frame must be heavy duty construction built with 8" channel steel with (6), 6" cross members. Lightweight frame construction will not be accepted. Yes No ___ Specify _____
- 2.4 Electric trailer brakes equipped on all four (4) wheels with trailer break-away kit. Yes No ___ Specify _____
- 2.5 Four (4) - ST235/80R16 trailer service tires, rated at 3,500 lbs (1,587 kg.) each, with steel painted rims. Yes No ___ Specify _____
- 2.6 Trailer shall be equipped with diamond plate steel fenders, 3/16" (4.76 mm) welded to the frame. Yes No ___ Specify _____
- 2.7 Trailer hitch shall be 3" (76.2 mm) pintle style, adjustable 18" (457 mm.) to 30" (762mm). Yes No ___ Specify _____
- 2.8 Trailer must be equipped with a 7,000 lb. (3,175 kg.) tube type jack stand, swivel mount, top wind. Yes No ___ Specify _____
- 2.9 Must be equipped with trailer safety chains (2), constructed of min. 3/8" (9.5mm) zinc coated grade 70 chains with forced slip hooks. Yes No ___ Specify _____
- 2.10 Trailer frame must be open in the front to allow for installation of tool box and optional accessories. Floor to be constructed of steel mesh or checkerplate. Yes No ___ Specify _____
- 2.11 Unit to be manufacturer's standard colors. Yes No ___ Specify _____
- 2.12 All wiring to be enclosed in loom and all electrical connections are to be sealed with heat shrink tubing (mastic seal filled). If mastic seal butt connectors are used, wire ends are to be lightly coated with dielectric silicone grease before being crimped and heated. Lighting system shall be completely sealed and include waterproof lamps, weatherpack connectors, and weatherproof junction boxes with waterproof choke seals. All plug-in connectors to be coated with silicone dielectric grease. NO scotch locks. NO exceptions. Yes No ___ Specify _____

Successful bidder to provide wiring diagram.

Trailer connector: 7-pin connector. City to provide successful bidder with wiring diagram.

3.0 Dimensions & Weight

- 3.1 Overall length (with loading hopper in travel position) to be 23' 10" (726 cm). Yes No ___ Specify _____
- 3.2 Overall width 8' 0" (243.8 cm). Yes No ___ Specify _____

- 3.3 Overall height with hopper in travel position 9' 0" (274 cm). Yes No ___ Specify _____
- 3.4 Overall height with hopper in working position 10' 2" (310 cm). Yes No ___ Specify _____
- 3.5 Net Weight 8,700 lbs. (3,810 kg.) Yes No ___ Specify _____

4.0 Loading Hopper

- 4.1 Hopper hydraulically actuated into locking position for safe travel and equipped with safety pins. Yes No ___ Specify _____
- 4.2 Hopper will allow a safe rear loading position only. Side loading units that require complete traffic stoppage will not be accepted. Yes No ___ Specify _____
- 4.3 Loading hopper size 26" (66 cm) x 94" (238.7 cm) Yes No ___ Specify _____
- 4.4 Loading hopper to be constructed of 3/16" (4.76 mm) 250 Brinell hardened steel. Yes No ___ Specify _____
- 4.5 Hopper movement shall be powered by (2) hydraulic cylinders, 2" (50.8 mm) x 16" (406 mm) each. Yes No ___ Specify _____
- 4.6 Hopper shall incorporate manually engaged 12 volt Vibrator to clear hopper of any materials prior to raising Hopper to the stowed position. Yes No ___ Specify _____

Yes Exceed 2 Vibrators New

5.0 Asphalt Heating Drum

- 5.1 Heating drum shall be constructed of 3/16" (4.76 mm) 450 Brinell hardened steel. Yes No ___ Specify _____
- 5.2 Heating drum core to be covered with 1" (2.54 cm) high temperature refractory insulation and encased in steel. Yes No ___ Specify _____
- 5.3 Drum agitation shall incorporate (7) drum agitator/flight constructed of 3/16" (4.76 mm) 450 Brinell hardened steel. Yes No ___ Specify _____
- 5.4 Drum rotation shall be hydraulic, reversible, approximate speed 9 rpm. Yes No ___ Specify _____
- 5.5 Drum must be able to dump directly into a frontend loader or small quantities or into a skidsteer bucket. Yes No ___ Specify _____
- 5.6 (2) Access side panel doors shall be provided for ease of inspection & maintenance of moving parts. Yes No ___ Specify _____
- 5.7 Must be equipped with automatic 12 volt exhaust assist fan. Yes No ___ Specify _____
- 5.8 Hopper supported by frame and incorporates 9 crossmembers. Yes No ___ Specify _____

6.0 Diesel Engine

- 6.1 Engine shall be a diesel powered Kubota, Model D902-898 CC, 3 cylinder Yes No___ Specify_____
- 6.2 Shall be EPA Tier 4 rated. Yes No___ Specify_____
- 6.3 Engine HP shall be 21.6 @ 3,200 RPM minimum. Yes No___ Specify_____
- 6.4 Shall be liquid cooled. Yes No___ Specify_____
- 6.5 Shall be equipped with a 12v. electric starter and 40amp alternator. Yes No___ Specify_____
- 6.6 Shall be equipped with a mechanical fuel pump and fuel filter. Yes No___ Specify_____
- 6.7 Engine to be equipped with toggle switch for preset Idle and run speeds Yes No___ Specify_____

7.0 Hydraulics

- 7.1 Hydraulic reservoir capacity minimum 22 gallon (83.2 Litre). State capacity. Yes No___ Specify_____
- 7.2 Hydraulic pump output shall be minimum 9.5 gpm. (36 lpm). State output. Yes No___ Specify_____
- 7.3 Hydraulic motor capacity shall be 38 cu. inch. (622.7 cu. cm) Yes No___ Specify_____
- 7.4 Hydraulic dump cylinder (bore x stroke) lift 6" x 15" (12.7 cm x 38 cm), load cylinders (2) 2" x 16" (50.8 mm) x 16" (406 mm) each. Yes No___ Specify_____
- 7.5 Must be equipped with hydraulic oil cooler and a hydraulically driven cooler fan. Yes No___ Specify_____
- 7.6 Hydraulic system must be equipped with a pressure gauge, spin on filter and internal filter (finger strainer). Yes No___ Specify_____

8.0 Fuel System

- 8.1 Acceptable fuel is No. 1 or No. 2 diesel, or B-5 bio-diesel. Yes No___ Specify_____
- 8.2 Fuel tank capacity minimum 75 gallon (284 litre). State capacity. Yes No___ Specify_____
- 8.3 Shall be equipped with a secondary fuel filter on the supply line. Yes No___ Specify_____
- 8.4 Must be equipped with a fuel shut-off valve. Yes No___ Specify_____

9.0 Burner System

- 9.1 Burner to be Beckett Model SDC with 13.5 v. DC ¼ HP , 3,450 RPM motor. Yes No___ Specify_____
- 9.2 Burner capacity shall be minimum 700,000 BTU (0.7 MBTU/hr). State capacity. Yes No___ Specify_____
- 9.3 Burner control assembly will contain a manual on/off switch, 12 volt meter, hour meter and pressure gauge. Yes No___ Specify_____
- 9.4 Burner assembly must adjust from travel position to to burn position via a 4' (122 cm) swing arm and lock with a spring loaded locking pin and safety pin. Yes No___ Specify_____
- 9.5 Burner will automatically shut down if the burner is removed from the heating position before the diesel burner is shut off. Yes No___ Specify_____

10.0 Accessories

- 10.1 Must be equipped with a 20" (50.8 cm) treadplate lockable tool box. Dimensions 20" w x 9" h x 9.7" d. (50.8cm x 22.8cm x 24.4cm). Yes No___ Specify_____
- 10.2 Must be equipped with a hand held infrared heat thermometer. Yes No___ Specify_____
- 10.3 Must be equipped with a grease gun and greasing schedule. Yes No___ Specify_____
- 10.4 Must be equipped with parts, service, and operators manual for the recycler, burner and diesel engine . Operators manual must contain safety procedures. Yes No___ Specify_____

11.0 Safety

- 11.1 Unit must have appropriate safety decals installed. Yes No___ Specify_____
- 11.2 Must have diesel fuel shutoff valve. Yes No___ Specify_____
- 11.3 Must have 2.5 lb. (1.13 kg.) fire extinguisher installed. Yes No___ Specify_____
- 11.4 Unit must be equipped with red emergency 1-1/2" mushroom shutdown switch to cut power on engine/hydraulics and burner in an emergency. Yes No___ Specify_____

12.0 Warranty

- 12.1 Manufacturer's standard 12 month warranty. Warranty statement from manufacturer must be submitted with tender or tender will be considered void. Yes No___ Specify_____

13.0 Training

13.1 Training will be provided on the operation and maintenance of the unit (minimum 4 hours training) at the customer's premises at no extra cost.

Yes No Specify _____

14.0 Options To Be Included

14.1 Rake & Shovel Holder (Without Tools)

Yes No Specify _____

14.2 Work lights

Yes No Specify _____

14.3 One spare tire and wheel (not mounted)

Yes No Specify _____

14.4 One complete spare burner unit

Yes No Specify _____

14.5 One complete set of spare filters, screens (fuel, oil, hydraulic)

Yes No Specify _____

BID SUMMARY

TITLE: One (1) Portable Asphalt Recycling Machine, Trailer Mounted,
+3 tons per hour, for recycling Millings, Chunked or Broken Asphalt

DUE DATE: Thursday, June 5, 2014 at 2:00 PM

Having carefully examined the specifications and any other applicable information, the bidder proposes to furnish all items necessary for and reasonably incidental to the proper completion of this bid. Bidder submits this bid and agrees that the bid may not be withdrawn for a period of sixty (60) days from the actual date of the opening of the bid.

Bidder understands and agrees, if selected as the successful bidder, to accept a Purchase Order / Service Order / Contract from the City and to provide proof of any required insurance.

Bidder submits this bid and agrees to meet or exceed all the City of Traverse City's requirements and specifications unless otherwise indicated in writing and attached hereto.

Bid forms are to be completed, including bid sheet, and submitted. Items not meeting specifications must be noted in the "comply" column and bidder shall fully describe every variance, exception, and/or deviation. Additional sheets may be used and submitted with bid.

Bidder is also required to submit, with the bid, the latest printed manufacturer's specifications and advertising literature on the equipment (including components) to be provided. Completed unit MUST be equipped in compliance with all applicable ANSI, OSHA, State and Federal Motor Vehicle Safety standards and regulations in effect at time of manufacture.

Bidder understands that the City reserves the right to accept any or all bids in whole or in part and to waive irregularities in any bid in the best interest of the City of Traverse City. The bids will be evaluated and awarded on the basis of the best value to the city. Criteria used will include, but not be limited to, bidder/contractor's ability, qualifications, experience, type and amount of equipment, purchase price, maintenance cost(s), insurance, resale, license and permits and overall capability meeting the needs of the City of Traverse City. The City is sales tax exempt – Government.

The Bidder certifies that it is in compliance with the City's Nondiscrimination Policy as set forth in Administrative Order No. 47 and Chapter 605 of the City's Codified Ordinances.

The Bidder certifies that none of the following circumstances have occurred with respect to the Bidder, an officer of the Bidder, or an owner of a 25% or more share in the Bidder's business, within 3 years prior to the bid:

- (a) conviction of a criminal offense incident to the application for or performance of a contract;

(b) conviction of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense which currently, seriously and directly reflects on the Bidder's business integrity;

(c) conviction under state or federal antitrust statutes;

(d) attempting to influence a public employee to breach ethical conduct standards; or

(e) conviction of a criminal offense or other violation of other state, local, or federal law, as determined by a court of competent jurisdiction or an administrative proceeding, which in the opinion of the City indicates that the bidder is unable to perform responsibility or which reflects a lack of integrity that could negatively impact or reflect upon the City of Traverse City, including but not limited to, any of the following offenses or violations of:

i. The Natural Resources and Environmental Protection Act.

ii. A persistent and knowing violation of the Michigan Consumer Protection Act.

iii. Willful or persistent violations of the Michigan Occupational Health and Safety Act.

iv. A violation of federal, local, or state civil rights, equal rights, or non-discrimination laws, rules, or regulations.

v. Repeated or flagrant violations of laws related to the payment of wages and fringe benefits.

(f) the loss of a license or the right to do business or practice a profession, the loss or suspension of which indicates dishonesty, a lack of integrity, or a failure or refusal to perform in accordance with the ethical standards of the business or profession in question.

Pre-delivery Inspection: Successful bidder shall make a complete inspection of vehicle (and/or equipment) to insure it meets specifications and perform any pre-delivery service(s) required before the vehicle is delivered. Acceptance shall be subject to complete inspection and approval of the City.

Terms: Net Cash. Payment will be made as soon as possible after delivery/acceptance of vehicle/equipment. Price quoted shall include any title fee and all delivery costs to the City Garage, 625 Woodmere Ave., Traverse City, MI 49686.

Bidder certifies that as of the date of this bid, Bidder's company or Bidder is not in arrears to the City of Traverse City for debt or contract and is in no way a defaulter as provided in Section 152, Chapter XVI of the Charter of the City of Traverse City.

The City may require an in house equipment demonstration for your bid to be considered. Bidder agrees that the bid may not be withdrawn for a period of sixty (60) days from the actual date of the opening of the bid.

Year, make, and model of unit bid: 2014, KM International T-2

COST \$ 74,900

Submitted by:
Cliff D Cameron
Signature

Clifford Cameron Dir. Sales
Name and Title (Print)

810 688-1234 - 810 688-8765
Phone Fax

KM International
Company Name

6561 Bernie Kohler dr.
Company Address

North Branch, Mi 48461
City, State, Zip

S Corporation
Sole proprietorship/partnership/corporation

Michigan
If corporation, state of corporation

Specification Sheet

KM International – Model KM T-2-M1

KM T-2-M1 portable asphalt recycling machine can recycle up to three (3+) tons per hour of either saw cut chunked or milled asphalt (up to 2600 lbs per load)

Trailer.

GVWR.....	9,950 lbs. (standard) or 14,000 lbs. (please specify)
Axles.....	Dual 7,000 lbs. each
Frames.....	8" channel steel with 2-1/2" square tube x 1/4" support members
Brakes.....	Electric, 4 wheels, breakaway kit (hydraulic brakes optional)
Tires.....	Four (4) ST 235/80R16 trailer service, 3500 lbs rated each
Fenders.....	11 gage diamond plate steel, welded to frame
Hitch.....	3" ID pintle, adjustable 18" to 30"
Jack Stand.....	7000 lb square tube, swivel mount, side wind
Safety Chains.....	3/8" zinc coated grade 70, forced slip hooks

Dimensions & Weight.

Length.....	23' – 10" (Loading Hopper down in travel position)
Width.....	8' – 6"
Height.....	9' – 0" (Loading Hopper down in travel position): 10' – 2" (Loading Hopper up)
Weight (net).....	9,360 lbs

Loading Hopper.

Top opening.....	26" x 94"
Construction.....	3/16" steel, 235 brinell hardened
Actuators.....	(2) hydraulic cylinders, 2" x 16", 3,250 psi rated
Vibrators.....	Dual, Cougar DC 200, manually operated, push button

Asphalt Heating Drum.

Construction.....	3/16" steel, ASTM A36 steel alloy with outside diameter insulated
Agitators.....	Eight (8), 3/16" steel, 235 brinell hardened, sawtooth design, staggered heights
Rotation.....	Hydraulic, reversible, approximately 9 rpm, adjustable
Support Casters...	(4) forged steel, 3"x 8", 14,000# rated each, 1-1/4" precision tapered roller bearings
Thrust Caster.....	Single, 3"x 6", 12,000# rated, 1-1/4" precision tapered roller bearing

Engine.

Model.....	D902-11774
Engine.....	Kubota diesel, 898 CC, 3 cylinder, water cooled, inline, EPA Tier 4
Fuel Tank capacity..	80 gallon with filter and manual shut-off (common tank with burner)
Power.....	21.6 BHP @ 3200RPM, liquid cooled
Features.....	12V starter, 60 amp alternator, mechanical fuel pump, fuel filter, hinged cover

Hydraulics

Reservoir (capacity).....	30 gallon
Cooler (w/ hydraulic fan).	Manually adjustable to accommodate hot or cold weather conditions
Pump (output).....	12 gallon/minute with splined shaft
Motor (capacity).....	38 cubic inch with 3 piece, self-centering, keyless shaft-hub locking assembly
Cylinders (Bore x Stroke)..	Lift: (1) - 5" x 15"; load: (2) - 2" x 16"
Other components:	manually adjustable, variable speed hydraulic heat exchanger, control valves, pressure gauges, filters, piping and hoses

Specification Sheet

KM International – Model KM T-2-M1

Heating System.

Fuel..... No. 1 or No. 2 diesel, B-5 bio-diesel
Fuel Storage..... 80 gallon with filter and manual shut-off (common tank with engine)
Burner Type..... Beckett Model SDC
Burner Capacity..... 700,000 BTU
Other components: piping, hoses, pressure gage, hour meter and swivel arm

Electrical System.

Battery..... 12V, maintenance free, marine gel
Charging..... Kubota engine 60 amp alternator: backup through vehicle charging system
Other components: engine control panel with safety shutdown and first out fault indication, hour meter, keyswitch, speed selector switch (idle/run)

Hydraulic Controls.

Drum rotation (load/neutral/unload), Load Chute (up/down), Dump (up/down)

Burner Controls.

Burner control (manual on/off), 12 Volt meter, Hour meter, Pressure gauge

Emergency Stop.

Red mushroom push button (engine and burner stop) located on the burner platform

Performance.

Load size (nominal)..... 4 tons per hour*
Recycled asphalt temperature..... Controlled by operator
Operating Temperature Range..... 280°F – 360°F

*Recycling time & capacity will vary depending on moisture content, ambient temperature, asphalt quality or type (millings, broken chunks, etc). Unit can produce up to 4 tons per hour with dry, recycled virgin asphalt and experienced operators.

Operation.

Loading..... Mechanically, broken chunk pieces (up to 12") or milled asphalt (RAP)
Unloading..... Self-unloading into a repair site, or into loader bucket