

FALCON ASPHALT REPAIR EQUIPMENT

Technical Specifications For

Five (5) Ton Slip-in Mounted Portable Asphalt Hot Box & Recycler

1. General

Item	Item Description	Compliance
A.	These specifications describe an asphalt recycler & hot box capable of: <ul style="list-style-type: none"> • Heating and re-heating cold patch asphalt • Transporting hot mix, keeping it hot all day and holding hot mix asphalt overnight • Recycling asphalt chunks and millings 	Yes__ No__
B.	The asphalt recycler & hot box must be an air jacketed hopper with no moving parts	Yes__ No__
C.	Manufacturer or manufacturer's representative must provide a working demonstration of manufacturer's current equipment.	Yes__ No__
D.	Capacity: 5 Ton Truck Mount	Yes__ No__

2. Local Service Provider

Item	Item Description	Compliance
	Bidder must include the name of the local service provider responsible for parts and service Service Provider Name _____ Contact Name _____ Phone Number _____ Mileage from servicing dealer to end customer _____	Yes__ No__

3. Hopper Construction

Item	Item Description	Compliance
A.	WALLS <ul style="list-style-type: none"> • Hopper is of triple wall construction and has three parallel walls (inner, middle and outer) • Hopper floor and all four hopper walls are heated <ul style="list-style-type: none"> a) Hopper is heated by an air-jacket below the hopper floor and between the inner and middle hopper walls • All walls must be of one-piece, seamless steel construction • All front and side hopper walls are parallel and angled (inner, middle and outer) • The tops of all three steel layers of the front and rear hopper walls are angled to create a 2" slope • Complete area between middle and outer walls is filled with 8 lb density, 2" mineral wool insulation • Top of hopper walls secured to each other with 10-gauge steel capping channel and side hopper walls secured to each other with 10-gauge steel corner molding, stopping hopper from losing its shape over time • Zip screws may not be used in the construction of the hopper 	Yes__ No__
B.	BURNER BOX IS: <ul style="list-style-type: none"> • Located below the hopper floor • Constructed of 15.3# channel iron with dimensions of 10" high, 51" long and 34" wide • Insulated with 1" ceramic blanket on all four walls and the floor 	Yes__ No__
C.	HOPPER FLOOR:	Yes__ No__

	<ul style="list-style-type: none"> Hopper floor is constructed of a single piece of 1/4" plate steel that is a minimum of 34" wide and a minimum of 51" long The hopper floor is free of any steel wall or divider that partitions the hopper into compartments 	
D.	HOPPER HEAT DUCT <ul style="list-style-type: none"> A single, diamond shaped 10-gauge steel heat duct is welded from the front-hopper wall to the back-hopper wall Heat duct is continuously welded Heat duct is a minimum of 12" above the hopper floor 	Yes__ No__
E.	DIMENSIONS <ul style="list-style-type: none"> Overall hopper frame length without the hook lift sub frame not to exceed 12 feet Overall hopper frame width not to exceed 83" Overall height is 75" with bi-fold doors open Width of loading doors with bi-fold doors open is 92" 	Yes__ No__
F.	BI-FOLD HOPPER TOP LOADING DOORS <ul style="list-style-type: none"> Bi-fold steel loading doors are framed on square tubing with angle iron reinforced cross members The area inside loading doors is filled with insulation Doors are hinged to the hopper corners with bolt-on, 1 1/4" diameter 4-bolt pillow block bearings Two hydraulic cylinders with 2.5" bore, 1.5 " rod, and a 16" stroke Loading doors are bi-fold with two equal-size sections hinged together the entire length of the door and covered with a neoprene guard. 	Yes__ No__
G.	HOPPER REAR MATERIAL METERING DOOR <ul style="list-style-type: none"> Rear hopper wall includes a single, fully insulated, guillotine-style, hydraulic unloading door Unloading door opening dimensions must be a minimum of 16" high and 33" wide One 2.5" bore, 1.5" rod and 16" stroke hydraulic cylinder Hopper floor asphalt guide allows asphalt to flow onto shoveling apron Detachable and fully adjustable shoveling apron attached to rear of unit Without removing the apron, it must be capable of being positioned to dump asphalt without contacting the apron. 	Yes__ No__
H.	HOPPER HYDRAULIC CONTROLS <ul style="list-style-type: none"> Lever on curbside spool valve controls movement of loading doors (raise and hold to open, lower and hold to close) Lever on curbside spool valve controls movement of material door (raise and hold to open, lower and hold to close) 	Yes__ No__
I.	HOPPER WIRING <ul style="list-style-type: none"> Plug-in connector to be 7-pin flat RV, 7-pin round or 6-pin round All wires shall be THHN, stranded, copper, and color coded and all wiring and enclosures shall be NEMA-3 rated Wiring connections shall be soldered, sealed in shrink-wrap, covered with high temperature corrugated loom and protected by steel conduit All wiring is external to the hopper walls 	Yes__ No__

4. Heat System

Item	Item Description	Compliance
A.	BECKETT DIESEL BURNER <ul style="list-style-type: none"> Hopper heated by one 105,000 BTU maximum RW Beckett diesel burner Diesel burner fuel solenoid powered by a 12-volt system 	Yes__ No__

	<ul style="list-style-type: none"> • Burner includes a cad cell (eye) to shut down the flow of fuel if the burner flame is not present • A pressurized pump controls the flow of fuel to the diesel burner • Diesel burner spark ignition system is powered by a 12-volt battery • Burner has automatic recycle on spark system and automatic shutdown safety system • Burner has inspection guard that is removable without the use of tools, while standing on the ground • Nozzle shall be .75 GPH • Diesel burner is engineered to continuously operate while the equipment is in tow and while the hopper is raised 	
B.	DUAL BURNER HEATING PACKAGE <ul style="list-style-type: none"> • An additional diamond-shaped heat duct is welded inside the hopper from one side hopper wall to the other such that it intersects the front to back heat duct and forms one criss-crossing heat duct • An additional 90,000 BTU maximum RW Beckett diesel burner bolts to a second combustion chamber that bolts to the front hopper wall and directs heat into the criss-crossing ductwork inside the hopper • Additional combustion chamber is constructed of a one-piece, seamless, vacuum formed ceramic fiber that is 1" thick with an insulation rating for temperatures in excess of 2,000 degrees Fahrenheit • An additional 550 CCA 12-volt deep cell battery is mounted in a battery box on the trailer • Both hopper diesel burners are controlled by the same digital temperature controller and wall-mounted thermocouple 	Yes__ No__
C.	BURNER COMBUSTION CHAMBER <ul style="list-style-type: none"> • Constructed of a one-piece, seamless, vacuum formed ceramic fiber that is 1" thick with an insulation rating for temperatures in excess of 2,000 degrees Fahrenheit causing a complete blending of fuel and air 	Yes__ No__
D.	BATTERY Two 550 CCA 12-volt deep cell batteries are mounted in battery boxes on the trailer	Yes__ No__
E.	BATTERY CHARGER <ul style="list-style-type: none"> • A 12-volt marine grade battery charger is mounted on the trailer frame • The battery charger is hard wired to the unit's battery 	Yes__ No__
F.	DIESEL EXHAUST <ul style="list-style-type: none"> • All exhaust produced by the diesel burner vents through a single chimney on the top of the front hopper wall 	Yes__ No__
G.	DIESEL FUEL SYSTEM <ul style="list-style-type: none"> • Trailer has an in-line quick disconnect diesel fuel filter with a water separator, preventing burner failure • Hopper Diesel Burner Fuel <ul style="list-style-type: none"> a) Diesel fuel tank has a capacity enough for holding hot mix and heating cold mix for three 8-hour shifts • Fuel tank neck is welded into the fuel tank • Fuel tank includes lockable fuel cap 	Yes__ No__
H.	VOLTAGE INDICATOR AND PROTECTION SYSTEM <ul style="list-style-type: none"> • Heating system must include a voltage indicator and protector controller to automatically prevent burner from operating below burner manufacturer's required voltage 	Yes__ No__
I.	CONTROLS <ul style="list-style-type: none"> • Falcon Smart Control digital temperature controller mounted in a NEMA-3 rated lockable electrical enclosure • 5" full color, touch screen monitor that includes 	Yes__ No__

	<ul style="list-style-type: none"> ○ VIP (see item H.) ○ 7-day timer ○ Fuel level gauge ○ Hour meter ○ Voltmeter ○ Temperature gauge ● Four (4) virtual switched 12v outputs ● Burner reset function ● Burner fault detection system ● Machine diagnostics ● Password protected temperature settings ● Temperature settings adjustable up to 300 degrees Fahrenheit ● Individual settings for use with hot mix or cold mix ● Burner is designed to stop running when the temperature setting on Smart Control monitor is reached ● Smart Control will re-ignite the burner when the hopper temperature falls 10 degrees below the temperature set by the operator on the Smart Control monitor 	
--	--	--

5. Paint

Item	Item Description	Compliance
A.	Manufacturers standard paint color	Yes__ No__
B.	Two coats of epoxy primer and two coats of urethane finish are applied to all parts and entire unit	Yes__ No__
C.	Entire unit, including all bolt-on parts, are blasted prior to painting	Yes__ No__
D.	All accessory bolt-on parts are painted prior to assembly to chassis	Yes__ No__
E.	Non-steel parts are not painted. These components/parts are installed after the paint process is complete	Yes__ No__

6. Warranty and Delivery

Item	Item Description	Compliance
A.	Two-year warranty (Pass through warranties will not be accepted)	Yes__ No__
B.	Guaranteed five-year maintenance free combustion chamber	Yes__ No__
C.	Four-hour safety, operation and recycling instruction by a factory-trained technician required upon unit's delivery	Yes__ No__
D.	One Operator / Parts / Service Manual is included upon delivery and available on manufacturers website	Yes__ No__