

**FALCON ASPHALT REPAIR EQUIPMENT**  
**Technical Specifications For**  
**Two (2) Ton Truck Mounted Portable Hot Box**

**1. General**

Item	Item Description	Compliance
A.	These specifications describe an asphalt hot box capable of: <ul style="list-style-type: none"> <li>• Heating and re-heating cold patch asphalt</li> <li>• Transporting hot mix, keeping it hot all day and holding hot mix asphalt overnight</li> </ul>	Yes__ No__
B.	The asphalt 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: 2 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.	<b>WALLS</b> <ul style="list-style-type: none"> <li>• Hopper is of triple wall construction and has three parallel walls (inner, middle and outer)</li> <li>• Hopper floor and all four hopper walls are heated <ul style="list-style-type: none"> <li>a) Hopper is heated by an air-jacket below the hopper floor and between the inner and middle hopper walls</li> </ul> </li> <li>• All walls must be of one-piece, seamless steel construction</li> <li>• All front and side hopper walls are parallel and angled (inner, middle and outer)</li> <li>• The tops of all three steel layers of the front and rear hopper walls are angled to create a 2" slope</li> <li>• Complete area between middle and outer walls is filled with 8 lb density, 2" mineral wool insulation</li> <li>• 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</li> <li>• Zip screws may not be used in the construction of the hopper</li> </ul>	Yes__ No__
B.	<b>BURNER BOX IS:</b> <ul style="list-style-type: none"> <li>• Located below the hopper floor</li> <li>• Constructed of 15.3# channel iron with dimensions of 10" high, 51" long and 34" wide</li> <li>• Insulated with 1" ceramic blanket on all four walls and the floor</li> </ul>	Yes__ No__
C.	<b>HOPPER FLOOR:</b> <ul style="list-style-type: none"> <li>• Constructed of a single piece of ¼" plate steel that is 34" wide and 51" long</li> <li>• The hopper floor is free of any steel wall or divider that partitions the hopper into compartments</li> </ul>	Yes__ No__

D.	<b>DIMENSIONS</b> <ul style="list-style-type: none"> <li>Minimum Weight is 1,500 lbs.</li> <li>Height not to exceed 46" (peak of one open loading door to a point equal to the bottom of the fork pocket)</li> <li>Overall hopper length not to exceed 110" and width not to exceed 57"</li> </ul>	Yes__ No__
E.	<b>HOPPER TOP LOADING DOORS</b> <ul style="list-style-type: none"> <li>Steel loading doors are framed on square tubing with angle iron reinforced cross members</li> <li>The area inside loading doors is completely filled with insulation</li> <li>Doors are hinged to the hopper corners with bolt-on, 1" diameter 2-bolt pillow block bearings</li> <li>Doors open with manually retractable handle</li> <li>Doors are secured with positive safety locks in the open position and while in tow to prevent injury</li> </ul>	Yes__ No__
F.	<b>HOPPER REAR MATERIAL METERING DOOR</b> <ul style="list-style-type: none"> <li>Rear hopper wall includes a single, fully insulated, guillotine-style, unloading door</li> <li>Unloading door opening dimensions must be a minimum of 16" high and 33" wide</li> <li>Door is equipped with replaceable CAM follower bearings</li> <li>Unloading door handle shall be located along the curbside sidewall of the hopper keeping operator out of traffic and enabling full functionality while standing three feet from the closest point of the door opening</li> <li>Curbside placement of door handle also keeps operator away from free falling 300°F asphalt</li> </ul>	Yes__ No__
G.	<b>HOPPER WIRING</b> <ul style="list-style-type: none"> <li>Plug-in connector to be 7-pin flat RV, 7-pin round or 6-pin round</li> <li>All wires shall be THHN, stranded, copper, and color coded and all wiring and enclosures shall be NEMA-3 rated</li> <li>Wiring connections shall be soldered, sealed in shrink-wrap, covered with high temperature corrugated loom and protected by steel conduit</li> <li>All wiring is external to the hopper walls</li> </ul>	Yes__ No__

#### 4. Heat System

Item	Item Description	Compliance
A.	<b>BECKETT DIESEL BURNER</b> <ul style="list-style-type: none"> <li>Hopper heated by one 105,000 BTU maximum RW Beckett diesel burner</li> <li>Diesel burner fuel solenoid powered by a 12-volt system</li> <li>Burner includes a cad cell (eye) to shut down the flow of fuel if the burner flame is not present</li> <li>A pressurized pump controls the flow of fuel to the diesel burner</li> <li>Diesel burner spark ignition system is powered by a 12-volt battery</li> <li>Burner has automatic recycle on spark system and automatic shutdown safety system</li> <li>Burner has inspection guard that is removable without the use of tools, while standing on the ground</li> <li>Nozzle shall be .75 GPH</li> <li>Diesel burner is engineered to continuously operate while the equipment is in tow and while the hopper is raised</li> </ul>	Yes__ No__
B.	<b>BURNER COMBUSTION CHAMBER</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Yes__ No__
C.	<b>BATTERY</b>	Yes__ No__

	<ul style="list-style-type: none"> <li>One 550 CCA 12-volt deep cell battery is mounted in battery boxes on the frame</li> </ul>	
D.	<b>BATTERY CHARGER</b> <ul style="list-style-type: none"> <li>A 12-volt marine grade battery charger is mounted on the frame</li> <li>The battery charger is hard wired to the unit's battery</li> </ul>	Yes__ No__
E.	<b>DIESEL EXHAUST</b> <ul style="list-style-type: none"> <li>All exhaust produced by the diesel burner vents through a single chimney on the top of the front hopper wall</li> </ul>	Yes__ No__
F.	<b>DIESEL FUEL SYSTEM</b> <ul style="list-style-type: none"> <li>Trailer has an in-line quick disconnect diesel fuel filter with a water separator, preventing burner failure</li> <li>Hopper Diesel Burner Fuel <ul style="list-style-type: none"> <li>a) Diesel fuel tank has a capacity enough for holding hot mix and heating cold mix for three 8-hour shifts</li> </ul> </li> <li>Fuel tank neck is welded into the fuel tank</li> <li>Fuel tank includes lockable fuel cap</li> </ul>	Yes__ No__
G.	<b>VOLTAGE INDICATOR AND PROTECTION SYSTEM</b> <ul style="list-style-type: none"> <li>Heating system must include a voltage indicator and protector controller to automatically prevent burner from operating below burner manufacturer's required voltage</li> <li></li> </ul>	Yes__ No__
H.	<b>CONTROLS</b> <ul style="list-style-type: none"> <li>Falcon <b>Smart Control</b> digital temperature controller mounted in a NEMA-3 rated lockable electrical enclosure</li> <li>5" full color, touch screen monitor that includes <ul style="list-style-type: none"> <li>VIP (see item G.)</li> <li>7-day timer</li> <li>Fuel level gauge</li> <li>Hour meter</li> <li>Voltmeter</li> <li>Temperature gauge</li> </ul> </li> <li>Four (4) virtual switched 12v outputs</li> <li>Burner reset function</li> <li>Burner fault detection system</li> <li>Machine diagnostics</li> <li>Password protected temperature settings</li> <li>Temperature settings adjustable up to 300 degrees Fahrenheit</li> <li>Individual settings for use with hot mix or cold mix</li> <li>Burner is designed to stop running when the temperature setting on <b>Smart Control</b> monitor is reached</li> <li><b>Smart Control</b> will re-ignite the burner when the hopper temperature falls 10 degrees below the temperature set by the operator on the <b>Smart Control</b> monitor</li> </ul>	Yes__ No__

## 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 and operation 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__