**Stepp SBF Bottom Fired Kettle**

**Bidding Specifications**

**1.0 INTENT**

It is the intent of this specification to provide for the purchase of one (1) new and unused STEPP SBF Bottom Fired Kettle.

The following specification is based upon a STEPP SBF-300 Bottom Fired Kettle.

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| **TANK:**  Melting tank shall be of a low profile configuration for ease of loading and maximum heat exchange area. Tank size will be 36" wide, 60" long, and 22½" deep. Tank to have a capacity of 328 gallons with 5% for material expansion. Will be constructed of 10 gauge A569 steel plate. Tank to be electrically welded inside and out. All welding to be in compliance with ASME standards. Tank will be tested for leaks in accordance with N.D.E. (Non-Destructive Examination) procedures. | **YES** | **NO** |
| **SPLASH GAURD:**  4" splash guards around opening of lid, constructed of 14 gauge steel. |  |  |
| **DRAW-OFF:**  Kettle to be equipped with 2-1/2” diameter inside closing type draw-off lockable in closed position. |  |  |
| **THERMOMETERS:**  6” stem with 2-1/2” face. Temperature range from 50-550°F. Inserted in a well with protective collar. |  |  |
| **COVERS** |  |  |
| **TOP COVERS:**  Top covers to be constructed of 12 gauge steel. Covers will have elephant bends and drip edge to assure positive drainage of rain off of kettle. Removable covers will be bolted to the tank with ½” studs and be sealed with hi-temperature silicone. |  |  |
| **LOADING LID:**  Loading lid to be barrel shaped, constructed of 16 gauge steel with lid beakers to raise lid when sealed with asphalt. Safety opening device to prevent operator from being exposed to hazardous conditions when opening lid. Lid shall be designed to drain condensation back to tank. (in place of manhole.) |  |  |
| **MANHOLE:**  20” manhole with splash collar and hinged rain cover, 1-1/2” diameter overflow pipe (in place of loading lid) |  |  |
| **INSULATION:**  Tank to be insulated with 1” of ceramic fiber blanket, 6# density, rated to 1900°F and mechanically fastened to the outside 14 gauge steel cover. |  |  |
| **HEATING SYSTEM:**  Kettle to be of bottom fired configuration with full flowheat divided to assure complete circulation aroun dentrei tank. Exhaust stack will have hinged rain covers. Heating system to have a minimum of 8,364 square inches of heat transfer area (for maximum efficiencty and heat up time.) |  |  |
| **BURNER SYSTEM:**  Kettle to be fired by a Stepp MLT-500 liquid LP burner having an output of 500,000 BTU. Shall be equipped with safety lighting wand an dholder, pressure regulator, pressure gauge, and all necessary hoses, fittings, and valves. Standard system includes constant ignition and shall consist of pilot light, thermo coupling, and baso safety valve. If pilot light is extinguished, gas supply is automatically shut-off. Spark ignition w/ auto temp controls is available as optional equipment. |  |  |
| **TRAILER:**  Trailer to be A-frame style. Model 200 with 3500# single axle, to carry loaded kettle at highway speeds. Frame constructed of rectangular tubing reinforced at all stress points with ¼”x4”x15” fish plates. Hitch to be pintle ring, ball hitch, or pin hitch adjustable from 22”-32” with adjustable screw jack and 12 gauge heavy duty fenders. |  |  |
| **ELECTRIC BRAKES:**  Axle to be equipped with 12V electric brakes wired in protective loom with 7RV connector. (6 Round also available) |  |  |
| **SPRAY SYSTEM OPTIONS** |  |  |
| **HYDRAULIC SPRAY WAND ATTACHMENT DRIVEN BY TRUCK HYDRAULICS:**  Product pump to be hydraulic motor powered from the towing vehicles hydraulic system. Hydraulic motor to have a forward, reverse control valve with built-in relief valve. All hydraulic lines to be run with hydraulic tubing. To have two connection hoses extending 50” in front of the kettle to attach to truck. Hoses to be 1/2“ diameter x 100R1 high pressure hydraulic hose. Hydraulic motor driving an HL-32 Viking Pump with built-in pressure relief valve, pump to be submerged in melting tank to prevent pump from feezing. Suction line to have removable screen 3-way valve between screen and pump to allow for flushing of pumping system. Shall be equipped with 15’ of ¾” flexible hose, with 4’ hand held spray wand with quick nozzles, hose rack and through-tank wand holder to allow for circulating material trhough spray wand system when not in use. |  |  |
| **ENGINE DRIVEN PUMPING SYSTEM W/ FLUID DRIVE:**  To include a 20HP Kohler LPG engine with propane carburetor and electric start. A 12V battery shall be included and located in a lockable battery box. The engine shall power a hydraulic pump. The hydraulic pump shall power a hydraulic motor with wil operate a submerged Viking HL-32 material pump. Pump shall be capable of forward and reverse positions and include 15’ of yellow ortec hose and 5’ steel spray wand with an on/off valve. A 3-way valve shall be installed to allow for flushing of pump and plumbing. To include flange for putting wand to recirculate back to tank. Includes a WPC valve to allow for material to circulate back to kettle without going through the spray wand. |  |  |
| **HONDA GASOLINE ENGINE:**  In lieu of Kohler LPG engine. 13HP, electric start and charging circuit. |  |  |
| **KUBOTA DIESEL ENGINE:**  In lieu of Kohler LPG engine. Preferred engine with diesel burner system. 16HP, liquid cooled, 12V alternator, and digital engine management system. |  |  |
| **ENGINE ENCLOSURE:**  Vandal proof and noise reduction enclosure available for all engine options. |  |  |
| **ECONOMY TACK BAR:**  Consists of a 6’ non-circulating spray bar with height adjustment, 6” nozzle setting. To be plumbed with a 3-way ball valve to allow for circulating back to tank or through spray bar, valve to be located in easy reach of operator. Requires spray wand attachment. |  |  |
| **ECONOMY TACK BAR WITH TETHER CONTROL:**  Adds a tether control to start and stop pump from towing vehicle. |  |  |
| **DELUXE TACK BAR:**  6’ full circulating spray bar system. 6” nozzle spacing, quick flip valve disconnect, tether operated actuator to turn valves on and off from towing vehicle. Preferred system. |  |  |
| **8’ SPRAY BAR OPTION:**  Upgrade your spray bar to an 8’ spray width. |  |  |
| **HEATED OVERHEAD BOOM AND WAND:**  Electric heated hose and wand to prevent material from freezing up in wand. To include an overhead boom system. |  |  |
| **FLUSH TANK:**  5 gallon flush tank for cleaning out pumping system with solvent. |  |  |
| **RECIRCULATING FLUSH TANK:**  15 gallon flush tank that allows you to recirculate the flushing solvent and capture in same tank. |  |  |
| **APPLICATION NOZZLE WITH SHOE:**  Nozzles available in 1/8”, ¼”, or 3/8” sizes. |  |  |
| **HOSE REEL:**  Optional hose reel available with hose and wand pumping system. |  |  |
| **HEATING SYSTEM OPTIONS** |  |  |
| **SPARK IGNITION SYSTEM:**  One for each burner. 12V spark ignition system lights main burners. If flame is extinguished, gas supply is automatically shut off. Available with kettles with electric start engine only. |  |  |
| **AUTOMATIC TEMPERATURE CONTROLS:**  To monitor temperature of material in tank and automatically control LP burner. Automatic controls system includes spark ignition. |  |  |
| **BOTTLE RACK:**  Bottle rack to hold 100# LP bottle. (one comes std with unit) |  |  |
| **LP CYLINDER:**  100# LP cylinder with liquid withdrawal |  |  |
| **MOUNTED LP BOTTLE:**  50 gallon frame mounted LP bottle |  |  |
| **SCREW PLUG IMMERSION HEATER:**  1500W electric heater with thermostat. 120V.  3000W electric heater with thermostat. 220V. |  |  |
| **DIESEL BURNER W/ SPARK IGNITION AND AUTO TEMP CONTROLS:**  Consists of a 12V forced air diesel burner that includes flame out protection and automatic temperature controls. The heating system shall operate on #1 or #2 diesel fuel. Fuel is supplied from a 30 gallon fuel tank. |  |  |
| **DIESEL BURNER ENCLOSURE:**  Lockable enclosure to protect burner from outside elements. Also vandal proof. |  |  |
| **PAINT:**  Surfaces of the unit will be properly prepared and primed per standard industry practices. Shall have a two (2) part polyurethane paint. |  |  |
| **WARRANTY:**  Shall be one year on parts, materials, and workmanship. Product pumps and hoses that handle heated materials shall have a 12 month pro-rated warranty. Component parts such as engines, hydraulic components, tires, etc., shall be covered by the component manufacturer’s warranty. |  |  |

**Exceptions & Deviations**

Bidder shall fully describe every variance, exception, and/or deviation. List the item number here and fully explain any items in non-compliance with specification. Additional sheets may be used if required.

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