STEPP MFG™

ASPHALT MAINTENANCE EQUIPMENT

SBF BOTTOM FIRED KETTLES

SBF 200

SBF 300

SBF 500

Specifications

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SBF

Three Sizes available:

200 gallon, 300 gallon & 500 gallon)

Low Profile Bottom Fired Kettle for heating, hauling, storing and applying various asphalt and emulsions for crack filling, seal coating, and priming. (Not recommended for rubberized asphalt.)

- **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. Tanks to have a capacity of 213 gallons, 328 gallons, and 538 gallons with all models having 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.
- **SPLASH GUARD:** 4" splash guards around opening of lid, constructed of 14 gauge steel.
- **DRAW-OFF:** Kettle to be equipped with 2½" diameter inside closing type draw-off lockable in closed position.
- **THERMOMETERS:** 6" stem with 2½" 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 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, 1½" 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 Bottom Fired configuration with full flow heat divided to assure complete circulation around entire tank. Exhaust stack will have hinged rain covers. Heating system to have a minimum of 8364 square inches of heat transfer area (for maximum efficiency 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 and holder, 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 with auto temps controls available as optional equipment.
- **TRAILER:** Trailer to be A-frame style Model 200 with 3500# suspension, Model 300 with 6000# suspension and Model 500 with 6000# tandem suspension, to carry loaded kettle at highway speeds. Frame constructed of rectangular tubing reinforced at all stress points with 1/4 x 4 x 15" fish plates. Hitch to be pintle ring, ball hitch, or pin hitch adjustable from 22" to 32", adjustable screw jack, and 12 gauge heavy duty fenders. Tires to
- **ELECTRIC BRAKES:** Axle to be equipped with 12 volt electric brakes wired in protective loom with7 prong connector.
- **PAINT:** Entire unit to be primed and painted highway orange unless otherwise specified.
- **WARRANTY:** One (1) year on parts and labor. Component parts warranty will prevail. All parts as specified or equal.

AVAILABLE OPTIONS

SPRAY SYSTEM OPTIONS

- HYDRAULIC SPRAY WAND ATTACHMENT DRIVEN BY TRUCK HYDRAULICS: Product pump to be hydraulic motor powered from truck 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 (2) connection hose extending 50" in front of kettle to attach to truck. Hoses to be 1/2 diameter x 100R1 high pressure hydraulic hose. Hydraulic motor driving a HL-32 Viking Pump with built in pressure relief valve, pump to be submerged in melting tank to prevent pump from freezing. 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 3/4" flexible hose, with 5' hand held spray wand with quick nozzles, hose rack and through tank wand holder to allow for circulating material through spray wand system when not in use.
- ENGINE DRIVEN PUMPING SYSTEM w/FLUID DRIVE: To include a 20 HP Kohler engine with propane carburetor and electric start. A 12 volt 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 which will operate a submerged Viking HL-32 material pump. Pump shall be capable of forward and reverse positions. To 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 (wand Pressure Control) valve to allow for material to circulate back to kettle without going through spray wand (to circulate material in tank).
- HONDA GASOLINE ENGINE in lieu of LP Kohler engine. 13 Hp, Electric Start and charging circuit.
- KUBOTA DIESEL ENGINE in lieu of Kohler LP engine. Preferred engine with diesel burner. 16 HP, Liquid cooled, 12 volt alternator, and digital engine management system.
- ENGINE ENCLOSURE: vandal proof and noise reduction enclosure available.
- 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 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.
- RECIRCIRCULATING FLUSH TANK: 15 gallon flush tank that allows you to recirculate the flushing solvent and capture in the same tank
- APPLICATION NOZZLE WITH SHOE: Nozzles available in 1/8", 1/4", or 3/8" sizes.
- HOSREEL

HEATING SYSTEM OPTIONS

- SPARK IGNITION SYSTEM: One (1) for each burner. 12 volt 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: FOR SINGLE BURNER: To monitor temperature of material in tank and automatically control LP burner. Automatic control system includes spark ignition system.
- AUTOMATIC TEMPERATURE CONTROLS: FOR DOUBLE BURNER: Same as above except for double burners.
- BOTTLE RACK: Bottle rack to hold 100# LP bottle. Standard unit comes with one.
- LP CYLINDER: 100# cylinder with liquid withdrawal.
- MOUNTED BOTTLE: 50 gallon frame mounted bottle.
- SCREW PLUG IMMERSION HEATER: 1.5 KW electric heater with thermostat. 120 volts. 3 KW electric heater with thermostat. 120 volts.
- DIESEL BURNER WITH SPRAK IGNITION AND AUTO TEMP CONTROLS; Consists of a 12 volt forced air diesel burner that includes flame out protection and automatic temperature controls. The heating system shall operate on either #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

AVAILABLE OPTIONS Continued

TANK AND TOP LOADING OPTIONS

- SAFETY LOADING CHUTE: 20" x 20" opening. Door to prevent splashing out of opening. Loading chute to be located in main cover and have hinged rain cover.
- CRACKPOT CLEANING BRACKETS: 8" diameter flange with rain cover. To hold crack filling can for draining back to tank.
- BAFFLES: One (1) 12 gauge steel full width baffle equally spaced from tank ends.
- MATERIAL LOADING BASKETS: Material basket to consist of 1/4" diameter chain forming a grid across opening of kettle to allow for barrels or cans of material to be placed on grid. Barrel shaped lid can then be lowered over material and then lowering material into melting vat. A raising and lower axle to be attached to a 14" diameter hand wheel with safety lock.
- MATERIAL LOADING HOIST: Swinging hoist boom consists of 2" schedule 40 pipe with back brace, mounted in ball bearing (for easy swinging) will be equipped with 1/2 ton chain hoist and barrel clamp.
- HYDRAULIC AGITATOR: Hydraulically driven agitator for keeping materials mixed.
- ELECTRIC AGITATOR WITH 7 DAY PROGRAMABLE TIMER: Electric driven agitator with programmable timer to mix materials while unattended.
- LIGHTS: Combination stop, turn, and clearance lights with license plate bracket wired in a protective loom with 7 prong connector.
  - 2 Light System: Standard
  - 2 Light LED System: LED Lights
  - 4 Light System: 2 separate lights for stop and turn signal, located on the rear on each side of the unit. Only used with towing vehicles that have air brakes
  - 4 Light LED System: 2 separate LED lights for stop and turn signal, located on the rear on each side of the unit. Only used with towing vehicles that have air brakes
- HYDRAULIC SURGE BRAKES: Axle to be equipped with hydraulic brakes and surge actuator with brake away protection.
- BRAKE AWAY KIT: (Included With Electric Brakes) Trailer brakes lock in case of accidental brake away from towing vehicle. Brakes are applied automatically and wired to a 12 volt battery.
- SPARE TIRE: Spare tire with holder mounted onto frame of unit.
- STAINLESS STEEL TOOL HOLDERS: Spring loaded clamps for holding rakes, lutes, brooms and shovels.
- TOOL BOX: Constructed of 14 gauge steel with cover and hasp 12" x 12" x 36".