

SGS-Stepp Flue Fired Kettle

SPECIFICATIONS

*Four sizes available from 180 to 580 Gallon.
Propane or Diesel Heating Systems.
Heated Tack Tanks with pumping systems available.*



• SGS- 275 Propane



• SGS- 275 Diesel

Used for melting and applying crack sealing materials for asphalt and concrete road surfaces.

Stepp Manufacturing Co., Inc.

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Stepp's Flue Type Kettle

- **TANK:** Melting tanks shall have a capacity of 180, 275 360 & 580 gallons with 5% for material expansion. Will be constructed of 14 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 valve lockable in closed position. To have two (2) draw-off valves, one (1) located at bottom plugged, one (1) at flue height for fast start up time and to prevent the possibility of exposing the flue.
 - **THERMOMETERS:** 6" stem with 2½" face. Temperature range from 50° - 500° F inserted in a well with protective collar.
 - **HEATING SYSTEM:** Kettle to be heated by removable flue submerged in melting tank. flue will be constructed of 6" diameter x .188 wall thickness fire tube and 5" diameter x .135 on return tube. Heating burner will be located in a burner well, constructed of 10 gauge bottom and sides. Front plate of burner well constructed of 3/16 A36 steel plate with ½" minimum radius on flange where flue attaches to torch well (flange to allow for expansion and contraction without causing damage to flue system). The flue system mounted to a 12 gauge steel cover attached to kettle by ½" diameter studs. Entire flue system to be easily removed for cleaning and maintenance. burner well and exhaust stack will have hinged rain cover. Flue system to have a minimum of 3,630 square inches of heat transfer area not counting burner well. (For maximum efficiency and heat up time.) The entire flue system will be pneumatically tested with a minimum of 10 P.S.I. for leaks and stress.
 - **BURNER SYSTEM:** Kettle to be fired by a Stepp MLT-500 Liquid LP Burners having a BTU output of 500,000. Shall be equipped with safety lighting wand and holder, pressure regulator, pressure gauge, all necessary hoses, fittings and valves.
 - **TRAILER:** The SGS-180 model shall have a frame constructed of 2"x 4"x 11 gauge, SGS-275 of 2"x 5"x 11 gauge, and SGS-360 and 580 models of 2"x 6"x 3/16". All trailers to be A-frame style with high strength, rectangular steel tubing reinforced at all stress points. Suspension shall be of leaf spring type. Shall have electric brakes with break-away kit and tires. Hitch shall be of 3" pintle or 2-5/16" ball style and have adjustable height from 21"-34". Fenders shall be heavy duty, minimum 12 gauge steel and be of bolt-on design. Trailer electrical system shall be 12 volt DC battery with charging system, with a 6Pin round or 7Pin RV light plug (customer specified).
 - **PAINT:** Entire unit to be primed with red oxide and painted highway orange unless other wise specified.
 - **WARRANTY:** One (1) year on parts and labor. component parts warranty will prevail. All parts as specified or equal.
- 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 breakers. Safety opening device to prevent operator from being exposed to hazardous conditions when opening lid. Lid shall be de-signed 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 2" of 1½# density hi-temperature insulation, with 16 gauge steel cover.

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- **CONSTANT IGNITION SYSTEM:** Consist of pilot light, thermo coupling, and baso safety valve. If pilot light is extinguished gas supply is automatically shut off.
- **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.
- **LP CYLINDER:** 100# cylinder with liquid withdrawal.
- **MOUNTED BOTTLE:** 52 gallon frame mounted bottle.
- **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:** 8" diameter flange with rain cover. To hold crack filling can for draining back to tank.
- **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.
- **APPLICATION NOZZLE WITH SHOE:** Nozzles available in 1/8", 1/4", or 3/8" sizes.
- **SCREW PLUG IMMERSION HEATER:** 1.5 KW electric heater with thermostat. 120 volts. 3 KW electric heater with thermostat. 120 volts.
- **6 FOOT SPRAY 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.
- **HYDRAULIC SPRAY WAND ATTACHMENT (Submerged Pump with full circulating spray bar):** 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.
- **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.
- **RECIRCULATING VALVE:** To allow for material to circulate back to kettle without going through spray wand (to circulate material in tank).
- **FLUSH TANK:** 5 gallon tank constructed of 16 gauge steel. Will be plumbed to pump to flush out spray wand or spray bar.
- **LONG APPLICATING HOSE:** 20' of spray wand hose in place of standard 15' hose.
- **HEATED WAND:** Electric heated hose and wand to prevent material from freezing up in wand. Alternator to operate off gas engine.
- **BAFFLES:** One (1) 12 gauge steel full width baffle equally spaced from tank ends.
- Remote spray bar operator.
- Diesel engine.
- Diesel burner.