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The purpose of these specifications is to describe a double-boiler type melter applicator that is specifically designed for and shall be capable of heating and applying all grades of asphalt rubber sealant, fiber modified asphalt sealant, and specification joint sealant without any further equipment modification. It may be used for the application of resinous, colored sealant and fillers. This unit shall be the manufacturer's current production model manufactured in the United States of America.

| <u>1. GENERAL SPECIFICATIONS</u> | <u>Comply</u> | <u>Does Not Comply</u> |
|--|----------------------|-------------------------------|
| A. The machine shall be capable of dispensing sealant material within one hour of start up at a 70° F (21.1° C) ambient temperature. | _____ | _____ |
| B. All qualified bidders must have and maintain a complete inventory of repair parts and have experienced, factory-trained service personnel for this equipment. | _____ | _____ |
| C. A comprehensive safety manual shall be supplied with each unit. | _____ | _____ |
| D. A factory-trained person shall be made available for initial start-up and training in the operation of the melter. | _____ | _____ |
| E. Temperature indicating devices shall have intervals no greater than 5° F (2.8° C) and shall be calibrated as required to assure accuracy. | _____ | _____ |
| F. The melter shall have continuous sealant agitation and a mixing system to provide uniform viscosity and temperature of material being applied. | _____ | _____ |
| Other: _____ _____ | _____ | _____ |

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| <u>2. REQUIRED SAFETY FEATURES</u> | | |
| A. The heat transfer oil shall adequately and efficiently bring the sealant material to application temperature without the use of a heat transfer oil circulation pump. This eliminates the potential exposure of personnel to pressurized hot heat transfer oil. | _____ | _____ |
| B. The material tank meets all FMCSA requirements for elevated temperature materials by meeting CFR Title 49, Part 173.247. | _____ | _____ |
| Other: _____ _____ | _____ | _____ |

3. FRAME

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| <u>Comply</u> | <u>Does Not Comply</u> |
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A. This unit shall be skid mounted. The longitudinal side frames and tongue members of the trailer shall be of one continuous piece construction composed of hot rolled steel channel having the minimum dimensions of 3 inches (7.6 cm) web, 3/16 inch (.48 cm) thickness with 1-3/8 inch (3.5 cm) flanges.

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B. Total shipping weight is approximately 1000lbs (453 kg).

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C. Overall size of the unit is 6'-1/4" (183.52 cm) Long x 3'-5" (104.14 cm) Width x 4'-9" (144.78 cm) Height.

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Other: _____

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4. HEATING TANK

A. The material heating tank shall be a minimum of 30 inches (76.2 cm) in diameter by 16 inches (40.6 cm) deep having a capacity of 50 gallons (189.3 l) at ambient temperature.

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B. A double boiler type jacket shall create a reservoir which shall hold a minimum of 18 gallons (68.1 l) of heat transfer oil at 70°F (21.1°C). (Note: at 500°F (260°C) the heating oil will expand approximately 18%.)

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C. The jacket shall wrap around 100% of the outside area of the circular material tank and allow for complete circulation of the heated transfer oil.

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D. The tank and jacket shall be made of 10 gauge (.134 inch) (.34 cm) hot rolled sheet steel minimum.

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E. There shall be a plug to allow the entire heat transfer oil system to be drained.

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F. The heat transfer oil shall be of ISO Grade 68.

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Other: _____

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5. EXPANSION TANK

A. A vented expansion tank for heat transfer oil. Overflow down tubes are unacceptable.

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Other: _____

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6. TANK INSULATION

Comply Does Not Comply

A. The heating tank shall be insulated with a minimum of 1-inch (2.5 cm) thick high temperature ceramic insulation and covered by a 22 gauge (.08 cm) galvanized steel outer wrapper.

B. Fiberglass and rock wool insulations are unacceptable due to their moisture retention properties resulting in a significant loss of their insulating value.

Other: _____

7. LOADING HATCH

A. The opening shall have a minimum area of 188 square inches (1,212.9 square cm) and shall be hinged.

Other: _____

8. HEATING SYSTEM

A. One 180,000 BTU vapor propane fuel burner directly at the bottom of the heat transfer oil tank heats the heat transfer oil.

B. The total area exposed to the burner shall be a minimum of 2,900 square inches (18,709.6 square cm) or 20.1 square feet (1.9 square m).

C. The material tank shall have a minimum of 2,210 square inches (14,258 square cm) or 15.3 square feet (1.4 square m) of contact with the heat transfer oil.

D. This provides for a melt rate of a minimum of 400 pounds (181.4 kg) per hour.

Other: _____

9. IGNITION OF BURNER

A. The burner shall be manually lit via a pilot light.

B. If the pilot light is extinguished or fails to remain lit, a sensor will shut down fuel supply automatically.

C. The controls for the burner shall be incorporated into the control box located on the rear side of the machine for operator safety.

| <u>Comply</u> | <u>Does Not Comply</u> |
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Other: _____

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10. TEMPERATURE CONTROL

- A. The melter applicator shall have a thermostatic control device that will automatically regulate hot oil temperature.
- B. Two dial type temperature gauges visually indicate actual temperature of heat transfer oil and material and are located on the top curbside of the unit.
- C. The thermostat shall control burner ignition for a temperature range from a low of 200°F (93.3°C) up to a high of 425°F (218.3°C) for a wide variety of sealants.

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Other: _____

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11. DRIVE AND DRIVE CONTROLS

- A. The motive force to the agitator shall be a hydraulic motor driven by a 2-piston hydraulic pump/reservoir coupled to a single cylinder gasoline fueled engine.
- B. The drive controls governing the rotation direction of the agitator shall be by an independent hydraulic valve with integral relief valve.

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Other: _____

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12. AGITATION

- A. The sealant material shall be mixed by a hydraulically driven full sweep vertical agitator with two opposing horizontal paddles with vertical risers attached to the extreme ends. This feature ensures that material remains in complete suspension and that the hot material stays in the lower area of the tank and does not get splashed or thrown to the upper areas of the tank where it can collect and build up.
- B. The agitator shall rotate in either direction with infinite speed control.

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Other: _____

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13. ENGINE

- A. A single cylinder 3 HP gasoline engine will be supplied.

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Comply Does Not Comply

Other: _____

14. NOISE LEVEL

- A. At an average of 6 feet (1.8 m) from the unit, the noise level shall be a maximum of 85 D.B.A.

Other: _____

15. FUEL CAPACITY

- A. The melter shall have a 100 pound (45.4 kg) vapor propane bottle.

Other: _____

16. PAINT

- A. All painted surfaces shall be coated with Axalta two-part epoxy paint applied by Axalta certified painters.

Other: _____

17. TRAINING

- A. An authorized, factory-trained representative will be made available for a full day of training at a facility designated by the bidding agency.

- B. At this training session a complete operational, mechanical and safety overview will occur.

- C. The operation manual will be viewed and discussed with all concerned personnel.

- D. Additionally, the representative will be available at that time for "on the job" training as the crew moves out on the pavement to perform crack sealing in the field.

Other: _____

18. SAFETY AND TRAINING MANUALS

- A. A written Safety Manual will be provided to the bidding agency.

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| <u>Comply</u> | <u>Does Not Comply</u> |
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19. PARTS

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| A. Bidders must show proof that a large stock of parts for the model of equipment upon which they are bidding is maintained at their facility. | _____ | _____ |
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20. AWARD

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| A. Equipment is for use by the Highway Department and must meet the requirements of that agency as interpreted by the Highway Commissioner. | _____ | _____ |
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| B. Prior to award the Purchasing Agency may require a visit to the supplier's facility to assure supplier has plant capacity to manufacturer and deliver equipment on time as required. | _____ | _____ |
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| C. If it is determined that the supplier cannot supply as requested, this is just cause for cancellation. | _____ | _____ |
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21. WARRANTY

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| A. The manufacturer shall warranty the equipment for two years or as otherwise noted in the manufacturer's standard warranty policy. | _____ | _____ |
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22. QUALIFICATIONS OF BIDDERS

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| A. No bid will be considered unless the bidder can meet the following conditions: | _____ | _____ |
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| B. That it has in operation a parts/service location and keeps a sufficient stock of parts on hand at all times. | _____ | _____ |
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| C. That it is bidding upon the stock model chassis that meets the requirements of the specifications without material changes or modifications. | _____ | _____ |
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| D. The model is regularly advertised and sold as having a capacity of not less than called for herein. | _____ | _____ |
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| E. The bidder has been engaged in the manufacture of equipment of the type bid upon for at least twenty-four months. | _____ | _____ |
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OPTIONS REQUIRED (X if to be included)

(Customer to insert quantity for each option required)

- _____ V-shaped Squeegee
- _____ Tool Box
- _____ 10 # Fire Extinguisher
- _____ 10 # Fire Extinguisher Bracket
- _____ 20 # Fire Extinguisher
- _____ 20 # Fire Extinguisher Bracket

APPROVED EQUAL

These specifications are not intended to be restricted, but are meant to describe the kind and size of unit desired to be purchased in detail. If a bidder is basing his proposal on other equipment than what is specified in these bid documents and wishes the equipment he proposed to be considered as an "approved equal," he will submit on a separate sheet attached to the Technical Specifications contained herein, an item by item description of that which he proposes. For purposes of comparison, include only those items on each sheet as given in these Technical Specifications. Such bidders shall also include, but not as a substitute for the above, any manufacturer's literature or specifications. In addition, if the bidder takes exception to any item, he will note the item and describe in detail the exception and how his proposal is an "approved equal." Failure to carry out the provisions noted herein may be deemed sufficient reason to reject the bidder's proposal.