



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR
STRIPING MACHINE, SMALL

SERIES NO. 255-500

REV. 2/1/2023

EQUIPMENT SPECIFICATION 255-500E

GENERAL

This specification sets forth the minimum requirements for an operator propelled 360 lb. capacity thermoplastic applicator designed to place thermoplastic marking material on the roadway.

Equipment shall be new, a production model of current manufacture, and must meet all state and Federal safety and emission standards in effect at time of order.

REPRESENTATIVE SPECIFICATIONS

A Trantex TXEQ-360MIIT, with appropriate options and standard features, was used to develop these specifications and establish equivalency evaluation criteria.

Equipment of similar style, type, character, quality, features, and purpose conforming to the following detailed requirements/specifications will be considered. For evaluation purposes, bidders proposing an exception/equivalent option/feature to those specified herein, may be required to provide manufacturer/product information (catalogue sheets, detailed specifications, pictures, etc.). This information will be evaluated against the minimum requirements of this specification. Proposed submittals that are determined not to be equivalent to the established criteria will be rejected.

LOUISIANA AUTHORIZED DEALER(S)

Proposed item(s) must be from a manufacturer who has at least one (1) authorized dealer **within the State of Louisiana** where parts and service can be obtained. Authorized dealer(s) must have properly trained technicians plus all other resources necessary to perform warranty and repair services in complete accordance with the manufacturer's requirements. A letter certifying the ability to meet this requirement, inclusive of the company name(s) and address(es) of the Louisiana authorized dealer(s), should be supplied with the bid submittal and may be required prior to award.

DELIVERY & ACCEPTANCE

Vendor shall perform a test run of each unit to verify that all features and capabilities are operating properly at time of delivery. Documentation of testing may be required prior to acceptance by the Department.

Unit(s) must be delivered completely assembled (including all components, accessories, etc.) and ready for operation without any additional preparation including, but not limited to, ensuring all fluid levels are at their full mark, fuel tank(s) is full, all necessary lubrication has been performed, etc.

Any unit delivered under this specification is subject to rejection if there is evidence of poor workmanship, by either the vendor or the original manufacturer. Noted defects and/or nonconformance findings may be corrected by the vendor. Corrections must be completed and approved by the Equipment Engineer or his representative prior to final acceptance.

Unit(s) shall be delivered “**on the ground;**” DOTD will not unload nor provide any unloading equipment to the vendor/delivery driver in order to offload the unit(s).

NOTE: The Department will have space available for equipment to be unloaded.

EACH UNIT MUST BE SUPPLIED WITH THE FOLLOWING DOCUMENTATION AT TIME OF DELIVERY:

1. Dealer's Service Policy
2. Owner's/Operator's Manual(s)
 - a. One (1) Hardcopy
 - b. One (1) Digital Copy
 - i. Acceptable Formats: PDF delivered via USB “Flash Drive”, or E-mail
3. Service Manual(s)
 - a. One (1) Hardcopy
 - b. One (1) Digital Copy
 - i. Acceptable Formats: PDF delivered via USB “Flash Drive”, or E-mail
4. Build Sheet(s) – as applicable
 - a. One (1) Hardcopy
 - b. Build sheets should be written in plain language (not company specific codes) and include, at a minimum, all standard & optional features of the delivered unit.

NOTE: Invoices will not be processed for payment until the unit(s) have been inspected by the Equipment Engineer or their representative and deemed in compliance with the specifications.

BID SUBMITTALS

Any additions, deletions, or variations from the specifications should be noted in the "Bidder's Exceptions" page of this specification. Exceptions that are noted to be less than a minimum requirement will not be accepted.

Any additions, deletions or variations from the manufacturer's standard published specifications should be noted on the "Bidder's Exceptions" page of this specification. Unless otherwise noted, any items appearing in the manufacturer's standard published specifications furnished by the Bidder are assumed to be included in the Bidder's submittal.

Bidder should note on their submittal any installation(s) to the equipment that will be performed by the vendor instead of the manufacturer.

Failure to note any specification exceptions, manufacturer specification alterations, and/or vendor installations prior to award may result in rejection of the equipment at the time of delivery.

THE NUMBER OF DELIVERY DAYS AFTER RECEIPT OF ORDER (ARO) MAY BE USED AS A FACTOR IN THE AWARD.

EQUIPMENT SPECIFICATIONS

NOTICE TO BIDDERS

Bidder should review the detailed "Equipment Specification" completely and respond to the compliance question at the end of each section by marking "X", in the space provided, for "Yes" or "No". Mark "Yes" to indicate that the equipment bid meets the section exactly as specified. Mark "No" if there are exceptions to any part of that section. Exceptions/deviations to any part of the specification are to be detailed on the "Bidder's Exceptions" page of this specification.

IN ORDER TO BE CONSIDERED FOR AWARD, BIDDER SHOULD RETURN THIS SPECIFICATION, COMPLETED IN FULL, WITH THEIR BID SUBMITTAL.

Note: All values listed below are minimums unless noted otherwise.

1. Body Construction

- 1.1. Frame constructed of angular steel able to support 650 lbs.
- 1.2. Dimensions
 - 1.2.1. Length: 48"
 - 1.2.2. Width: 30" (side to side)
 - 1.2.3. Height: 43"
- 1.3. Wheels
 - 1.3.1. 10" airless type front wheels
 - 1.3.2. Bolt to heavy duty hubs, 1" Timken bearings
 - 1.3.3. Heavy duty rear swivel caster with foot actuated straight track locking mechanism
- 1.4. Pointer guide
 - 1.4.1. Front mounted
 - 1.4.2. Adjustable for each die size
 - 1.4.3. Plated steel for corrosion protection
- 1.5. Tool kit supplied with unit

Comply: ____ Yes ____ No

2. Heating System

- 2.1. 20 lb. propane cylinder, system regulator and related hoses for LPG systems
- 2.2. Shut-off valve on propane bottle
- 2.3. System to provide propane fuel to the main burner and stainless steel jet burners on the applicator and extrusion dies
- 2.4. High pressure liquid propane fuel system
- 2.5. Minimum operating pressure 4 – 7 PSI
- 2.6. 75,000BTU
- 2.7. System furnished with all necessary safety features, connections, fuel lines, regulators, etc. for connection to a propane cylinder
- 2.8. Automatic Ignitor for main burner
- 2.9. Equipped with a hand torch for safe lighting of burners, inspection door in material tank for lighting

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- 2.10.** Stainless steel jet burners fitted at all material transfer valves, on each application die, to assure proper operation of all functions

Comply: ____Yes ____No

3. Thermostatic Temperature Control

- 3.1.1.** Equipped with a pilot light and pilot safety valve connected with a thermocouple
- 3.1.2.** Heating system main burners shall be controlled by a gas thermostat with adjustable range up to 500° F
- 3.1.3.** Thermostat linked by thermocouple to the hot thermoplastic in the holding tank
- 3.1.4.** Temperature gauge with readings up to 500° F mounted into material tank
- 3.1.5.** Thermostat controls mounted into a moisture proof enclosure

Comply: ____Yes ____No

4. Thermoplastic System

- 4.1.1.** Removable holding tank
 - 4.1.1.1.** 360 lbs. thermoplastic storage capacity in a vertical, air jacked, all steel construction material tank
 - 4.1.1.2.** Top equipped with (2) hinged lids for material loading and inspection with safety locking mechanism
 - 4.1.1.3.** Recessed opening at bottom of tank to transfer hot plastic to the extrusion die
 - 4.1.1.4.** Removable filter screen shall be provided to allow for filtering of foreign matter from hot molten material during loading from a thermoplastic melting kettle
- 4.1.2.** Mixer
 - 4.1.2.1.** Material agitation by Auger Agitation System
 - 4.1.2.2.** Agitation system shall maintain consistent temperature throughout the tank to prevent incomplete mixing and scorching and prevent glass beads from settling out of the thermoplastic

Comply: ____Yes ____No

5. Quick Change Thermoplastic Extrusion Dies

- 5.1.1.** Thermoplastic extrusion dies to be supplied as follows:
 - 5.1.1.1.** One (1) each 4" width die
 - 5.1.1.2.** One (1) each 6" width die
 - 5.1.1.3.** One (1) each 8" width die
 - 5.1.1.4.** One (1) each 12" width die
- 5.1.2.** The die walls are to be constructed of 3/16" heat treated steel plate (aluminum not permitted).
- 5.1.3.** The die will have a set of replaceable tungsten carbide runners that ride on the pavement surface. The die shall be attached to a swivel mount that allows the die to float on the pavement surface without the need for additional weights. The die and all components designed for quick and easy removal
- 5.1.4.** Quick-Change Die System to allow changing of dies and requires no tools. Dies that require tools for changing are not permitted
- 5.1.5.** Die is to be controlled by a single handle convenient to the operator
 - 5.1.5.1.** The die handle equipped with a safety stop

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- 5.1.6. Each die shall be heated with its own set of stainless-steel jet burners to maintain material and die temperature during applications. The die burners shall be connected to the frame LPG supply by flexible gas hoses and quick disconnect fittings. Die jet burners controlled via control valves
- 5.1.7. Each die shall have the following minimum number of jet burners:
- 5.1.7.1. 4" Die - 2 each jet burners
 - 5.1.7.2. 6" Die - 3 each jet burners
 - 5.1.7.3. 8" Die - 4 each jet burners
 - 5.1.7.4. 12" Die - 5 each jet burners
- 5.1.8. Fully adjustable die

Comply: ____ Yes ____ No

6. Glass Bead System

- 6.1. Bead Hopper and Hose
- 6.1.1. All steel construction bead hopper with a 50 lb. minimum capacity of glass spheres, mounted on rear of the applicator
 - 6.1.2. Hopper connected to the bead dispenser with a see-through flexible bead hose to monitor bead flow and a positive on-off cut off valve
- 6.2. Dispenser
- 6.2.1. Glass spheres spread by an automatic bead dispenser
 - 6.2.2. An on-off lever mounted for easy reach of the operator that operates independently of the die position and operation. This allows complete coverage of stripes at beginning and end of line
 - 6.2.3. Bead dispenser driven by gear type transmission that is chain driven by the front wheels axle to provide no-slip, positive dispensing of glass beads. Adjustability in amount of flow of beads shall be controlled without the use of additional tools
 - 6.2.4. The bead dispenser designed so that variable width lines of 4", 6, 8", 10", 12", and dual 4" widths can be achieved by fingertip adjustments without the use of additional tools. The bead dispenser must be adjustable from 1 ½" to 3" above the road surface and from 6" to 12" behind the extrusion die.

Comply: ____ Yes ____ No

7. Machine and Component Finish

- 7.1.1. The complete machine and all components, including tanks, dies, etc., shall have the minimum protective coating described in the following:
- 7.1.1.1. All metal parts and components, unless zinc plated or aluminum shall have one prime coat and one finish coat of paint. The prime coat materials shall be specifically compounded for the respective metals to which they are applied. The thermoplastic holding tank and dies shall be painted with heat resistant paint designed for temperatures of up to 1200° F

Comply: ____ Yes ____ No

BIDDER'S EXCEPTIONS

Instructions: Bidder should note all exceptions in space provided below. List the detail number from the aforementioned specification in the column to the left and the exception in the column to the right. Responses may be typed or hand-written. Handwritten responses must be legible. If additional space is needed, please print a duplicate copy of this sheet. "Bidder's Exceptions" page(s) should be returned with the bid submittal.

Examples:

1.6 Engine has 325 horsepower

1.18.3 Batteries have 2000 CCA combined.

2.2.8 Crossmembers are 4" channel on 12" centers.

[illegible]