



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TECHNICAL SPECIFICATIONS FOR

TRAILER MOUNTED AIR JACKETED THERMOPLASTIC TRAILER PACKAGE WITH APPLICATORS

SERIES NO. 258-000

REV. 11/13/2025

EQUIPMENT SPECIFICATION 258-000B

GENERAL

This specification sets forth the minimum requirements for a complete thermoplastic applicator trailer system.

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 model TPTT1000 Trailer system with thermoplastic applicators, 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. A Louisiana safety inspection shall be performed on each vehicle prior to delivery and a Louisiana safety inspection sticker properly affixed.

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. Notarized Bill of Sale
2. Original Certificate of Origin (MSO), (no photocopy)
3. Dealer's Service Policy
4. 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
5. Service Manual(s)
 - a. One (1) Hardcopy
 - b. One (1) Digital Copy
 - i. Acceptable Formats: PDF delivered via USB "Flash Drive", or E-mail
6. 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.

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. General Description

- 1.1. These specifications describe the minimum requirements for a thermoplastic pre-melter trailer with a minimum rating of 14,000 lbs. (tandem 7,000 lb. axles). The unit shall consist of a trailer equipped with dual 1,000 lb. thermoplastic pre-melters mounted at the rear of the trailer platform and two (2) thermoplastic applicators.
- 1.2. Machine and component finish: The complete machine and all components including tanks, dies, etc., shall have the minimum protective coating described in the following
 - 1.2.1. All metal parts and components, unless zinc plated or aluminum shall have two prime coats and two finish coat of paint. The prime coat materials shall be specially 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 degrees F.

Comply: ____ Yes ____ No

2. Thermoplastic Applicators

- 2.1. Two (2) minimum capacity 350 lb. operator propelled thermoplastic applicator designed to place thermoplastic road marking material
 - 2.1.1. Unit shall be equipped with a hand held torch
- 2.2. Framework: Wheels to be heavy duty, basic frame able to support fully loaded active weight of the machine
- 2.3. Wheels
 - 2.3.1. Airless type front wheels with grease fittings.
 - 2.3.2. Rear wheels heavy duty swivel type with a hand or foot actuated locking mechanism and rear wheel parking brake
- 2.4. Pointer Guide
 - 2.4.1. Front mounted pointer guide adjustable for each die size to be used
 - 2.4.2. Automatically lifted and lowered by operator
 - 2.4.3. Pointer capable of being positioned on either side of the die

Comply: ____ Yes ____ No

EQUIPMENT SPECIFICATIONS

2.5. Controls

- 2.5.1. Applicator will have adjustable handles convenient for the operator to operate and maneuver the applicator
- 2.5.2. Shut off valve/s convenient to the operator on the propane bottle, the LP gas regulator, the die control handle, the control for the thermoplastic material gate, the bead control lever for drop-on beads and the material agitator

Comply: ____ Yes ____ No

2.6. Propane system

- 2.6.1. The propane system shall consist of two (2) 20 lb. and two (2) 100 lb. propane bottle racks, propane bottles, propane regulators, and related hoses rated for use with LPG systems.
- 2.6.2. The system to provide propane fuel to all burners and the power pack

Comply: ____ Yes ____ No

2.7. Heating System

- 2.7.1. The unit shall operate on propane fuel.
- 2.7.2. A replaceable single burner or dual burner to provide effective heating of thermoplastic material shall heat and maintain temperature of the molten thermoplastic in a holding tank.
- 2.7.3. The heating system will be equipped with a pilot light and pilot safety valve connected with a thermocouple. The heating system main burner shall be controlled by a thermostat with adjustable range up to 500 degrees F. The material temperature shall be controlled by means of an automatic temperature control system to melt and maintain optimal material temperatures between 400 degrees F and 440 degrees F, monitored by a thermocouple that is positioned in the material holding tank. Thermostat shall be able to show both set temp and actual temp at the same time. Battery operated thermostat is not required.
- 2.7.4. The LPG heating system shall be furnished with all necessary safety features, connections, fuel lines, regulators.
- 2.7.5. Proper means of heating the material flow valve and die to assure proper operation of all functions.

Comply: ____ Yes ____ No

2.8. Holding Tank

- 2.8.1. Each applicator shall have a thermoplastic storage minimum capacity of 350 pounds in a material tank
- 2.8.2. The top shall have two hinged lids for material loading and inspection with a safety locking mechanism to prevent splashing out of molten material.
- 2.8.3. The tank shall have an opening at the bottom to transfer hot plastic to the extrusion die for application, this opening is recessed to allow complete depletion of all thermoplastic material in the holding tank preventing buildup of material.
- 2.8.4. A removable filter screen to be provided to allow for filtering of foreign matter from hot molten material during loading from a thermoplastic melting kettle.

Comply: ____ Yes ____ No

EQUIPMENT SPECIFICATIONS

2.9. Mixer

- 2.9.1. Material agitation shall be provided by an auger agitation system to maintain consistent temperature throughout the tank.

Comply: ____ Yes ____ No

2.10. Quick Change Thermoplastic Extrusion Dies

- 2.10.1. The following thermoplastic extrusion dies are to be included:
- 2.10.1.1. One (1) 4" die
 - 2.10.1.2. One (1) 6" die
 - 2.10.1.3. One (1) 8" die
 - 2.10.1.4. One (1) 12" die
- 2.10.2. Die wall are to be constructed of 100 % hardened steel
- 2.10.3. . The die shall be adjustable for height and angle that allows the die to float on the pavement surface without the need for additional weights. The die and all components shall be designed for quick and easy removal (without any tools) for changing of line width.
- 2.10.4. Each die shall be manufactured to apply thermoplastic at .090 inch mil thickness for the 8" and 12" dies and .090 inch mil thickness for the 4" die.
- 2.10.5. Each die is to be controlled by a single handle convenient to the operator. This handle will serve the function of setting or removing the die on the pavement and opening or closing the die to extrude thermoplastic.
- 2.10.6. Each die shall be heated with its own heat source to maintain material and die temperature during applications. The die heater(s) shall be connected to the main LPG supply by gas lines and fittings. The die heaters shall have individually controlled control valves.

Comply: ____ Yes ____ No

2.11. Bead Hopper and Hose

- 2.11.1. Metal construction glass bead hopper mounted on the rear of the applicator
- 2.11.2. Connected to the bead dispenser with flexible bead hose to monitor bead flow to prevent flow of beads without the use of tools
- 2.11.3. 50 lbs. capacity

Comply: ____ Yes ____ No

EQUIPMENT SPECIFICATIONS

2.12. Bead Dispenser

- 2.12.1. Automatic bead dispenser
- 2.12.2. On/off lever mounted for easy reach of operator
- 2.12.3. Driven by gear type transmission, chain driven by wheel of dispenser to provide dispensing of glass beads
- 2.12.4. Adjustable flow control of beads
- 2.12.5. Able to engage independently of extrusion die
- 2.12.6. All steel construction and rust proof
- 2.12.7. Designed so variable width lines of 4", 6", 8", 12" lines can be achieved by hand adjustments

Comply: ____ Yes ____ No

3. Pre-Melter System

- 3.1. The pre-melters shall be fabricated steel containers having a capacity to heat 1,000 lbs. each of thermoplastic material. Containers shall be built with an outer stainless steel jacket, insulated to prevent heat loss.
- 3.2. Feed system
 - 3.2.1. The top of the cylinders shall be fitted with steel cover housing and feed door of adequate size for charging plastic granules.
 - 3.2.2. The feed doors shall be minimally sized and sloped to limit potential splash back of molten material.

Comply: ____ Yes ____ No

3.3. Heating System

- 3.3.1. The temperature of the molten thermoplastic shall be maintained in the pre-melting tanks by a thermostatic controlled LPG heating system, one (1) for each container. Equipped with a pilot light and pilot safety valve connected with a thermocouple
- 3.3.2. Automatic temperature controlled system to melt and maintain optimal material temperatures between 400 degrees F and 440 degrees F.
- 3.3.3. Thermostatically controlled liquid propane gas LPG heating system up to 500 degrees Fahrenheit
- 3.3.4. System to include all necessary safety features, connections, fuel lines, and regulators for connection to propane cylinder.

Comply: ____ Yes ____ No

3.4. Gas Thermostat

- 3.4.1. The heating system main burners controlled by an adjustable thermostat with 100 to 500 degrees Fahrenheit range.
- 3.4.2. The thermostat linked by thermocouple to thermoplastic in holding tanks

Comply: ____ Yes ____ No

EQUIPMENT SPECIFICATIONS

3.5. Main System Burners

- 3.5.1. System to include two main burners, 180,000 BTU minimum rating
- 3.5.2. Provide rapid heating for thermoplastic material

Comply: ____ Yes ____ No

3.6. Automatic Ignition System

- 3.6.1. Main burners equipped with an electronic automatic ignition system for remote lighting
- 3.6.2. Solid state components housed in weatherproof enclosure
- 3.6.3. Automatically shutoff of gas supply to burners if blown out
- 3.6.4. Gas flow to burners controlled by heavy duty solenoid providing absolute on/off type gas flow system for temperature accuracy and operator safety

Comply: ____ Yes ____ No

3.7. Hydraulic Power Supply

- 3.7.1. Powered by a 8.5 HP (minimum) electric start, propane fired engine
- 3.7.2. The power system shall be fitted with protective cover and mounted to trailer tongue
- 3.7.3. This shall have dual fuel capabilities allowing use of propane as primary fuel and gasoline as secondary fuel when required

Comply: ____ Yes ____ No

3.8. Propane system

- 3.8.1. Four steel bottle racks accommodating two (2) 100 lbs. and two (2) 20 lb. propane bottles are to be mounted on the trailer.
- 3.8.2. Two (2) 100 lb. bottles and two (2) 20 lb. certified propane bottles are to be supplied with trailer
- 3.8.3. The two 100lb bottles plumbed as to provide fuel to the pre-melter burner
- 3.8.4. The bottle racks shall be integrated into the trailer; bolt on racks are not acceptable

Comply: ____ Yes ____ No

3.9. Discharge System

- 3.9.1. The pre-melter cylinders equipped with a material discharge valve of proper design to function satisfactory when discharging liquid plastic at temperatures upward of 475 degrees F
- 3.9.2. Detachable discharge chute of proper length and angle to facilitate the loading of the thermoplastic applicator shall be supplied
- 3.9.3. Discharge valves shall be opened from rear of the trailer

Comply: ____ Yes ____ No

EQUIPMENT SPECIFICATIONS

4. Trailer

- 4.1. Trailer shall support all equipment, including both applicators and have a 14,000 lb. rating
- 4.2. Heavy gauge structural steel construction
- 4.3. Double welded at all frame cross member contact points
- 4.4. ¼ inch diamond plate decking and coated with non-skid coating
- 4.5. Tandem axles, spring mounted (7,000 lb. each axle)
- 4.6. 16" Wheels
- 4.7. Spare tire included
- 4.8. Ball type hitch with safety chains
- 4.9. Electric brakes
- 4.10. Equipped with rigid piping under the deck for hydraulic and liquid propane systems
 - 4.10.1. Pipes located to minimize use of flexible hose
- 4.11. Equipped with 1,000 lb. capacity hydraulic lift gate for loading/unloading thermoplastic applicators
 - 4.11.1. 12 volt vehicle battery
 - 4.11.2. Platform load area minimum 65"x35"
 - 4.11.3. Mounted to side of the trailer and secured for travel
 - 4.11.4. Curbside fixed control panel for operation of the gate
- 4.12. Chain binders and chains attached to trailer for securing both applicators to the trailer
- 4.13. Wiring: All wiring must be insulated and enclosed in flexible conduit or by some other form inside frame.
Securely fastened at sufficient intervals to prevent sagging and protected from hot surface and pipes

Comply: ____ Yes ____ No

4.14. Paint

- 4.14.1. Manufacturer's standard color
- 4.14.2. All items hot to the touch are painted red, marked "HOT" or enclosed

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.

**Spec. /Detail
Reference**

Exception

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.