

MINIMUM SPECIFICATIONS FOR A TRAILER MOUNTED PATCHING MACHINE

It is the purpose of these specifications to describe a new self-contained, trailer mounted spray-injection patching machine. All parts not specifically mentioned which are necessary to provide a complete unit or which are normally furnished as standard equipment shall be furnished by the successful bidder and shall conform in strength, quality of material, and workmanship to what is provided by the industry in general. The equipment bid herein will be the manufacturer's latest current production model.

SPECIFICATIONS

The following specifications cover a high performance trailer mounted spray-injection patching machine designed for street and road maintenance. The unit shall: 1) use compressed air to clean cracks and work area surfaces, 2) spray heated emulsion over area to provide tack coat, 3) apply fully coated patch material mixture and 4) provide adequate control and workability to ensure that application of material is at grade level and proper patch density is achieved. Weight shall be approximately 6,570 LB with dimensions of 177" long, 96" wide and 87" high. The unit must be capable of operating in temperatures down to 10°F.

WORKING AREA	Yes	No	
Shall be minimum 1,240 square feet			_

Other

BOOM

Yes No

- a. Unit shall have 18-foot fully articulating operator boom
- b. Boom shall contain overhead support for all hoses and operator controls
- c. Operator controls shall be boom mounted to contain asphalt, aggregate, throttle, hydraulic, and horn controls.
- d. Operating Position: Shall be minimum of 6 feet from material discharge. Unit shall be designed to eliminate material over spray from contacting the operator.

EQUIPMENT SPECIFICATIONS CRAFCO AIR STREAM

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e. All emulsion lines shall be heated by circulating transfer fluid and fully insulated from the asphalt emulsion tank to the spray nozzle. _____

Other_____

DISCHARGE NOZZLE AND COATING SYSTEM

Yes No

- a. Asphalt spray shall be capable of 100% coating of the aggregate prior to discharge.
- b. Coating system shall have 100 PSI pressure pray bath to achieve complete aggregate coating.
- c. Nozzle shall be designed to create internal spray bath that ensures complete aggregate coating.
- d. Unit must be capable of placing up to 4.5 tons of patching mixture per hour.

Other___

TANKS

Yes No

- a. Shall have a minimum 250 gallon pressurized, (ASME coded Vessel) completely insulated asphalt emulsion tank with waterproof steel cover, safety pressure relief valve and certified for 650°F.
- Emulsion Tank: To be tested to 300 PSI with a coded ASME approved working pressure of 200 PSI.
- c. Insulation: Emulsion storage tank shall have minimum R-Value 19 waterproof insulation.

- d. Emulsion flush and tack wand controls to be rear mounted for operator convenience.
- e. Emulsion tank must be heated with thermostatically controlled 6,000-watt electric heating elements positioned inside tank.
- f. Heating element housing shall be in an ASME pressure tested tube. Heating element shall not be in direct contact with the asphalt emulsion to allow for heating element removal without draining tank and to prevent charring of asphalt.
- g. Must have minimum 30 gallon ASME pressurized flush tank.
- h. Unit must have 8-gallon flush holding tank.
- i. Flush Tank: To be tested to 300 PSI with a coded ASME approved working pressure of 200 PSI for safety.
- j. Emulsion to be pressure fed to nozzle eliminating the use of a mechanical feed pump.
- k. Emulsion tank and lines shall be heated with transfer fluid circulated directly from diesel engine.
- 1. Unit shall have 22 gallon fuel tank._____
- m. Emulsion tank shall have 8-inch easy access lid, and 2-inch bottom discharge gate valve for clean out.
- Other_____

COMPRESSOR

Yes No

- a. Unit shall have minimum 13.2 CFM compressor direct drive with governor regulator control and capabilities to piggy back a hydraulic pump.
- b. Maximum pressure 150 PSI
- c. Compressor must be able to pressurize ½ full emulsion tank from 0 to 100 psi in no more than 11 minutes.

Other_____

AGGREGATE DELIVERY SYSTEM

Yes No

- a. Unit shall have a pneumatic venturi eductor that conveys aggregate from hopper, through emulsion spray bath and out the nozzle with no moving parts.
- b. Venturi shall be machined from solid metal stock.
- c. Air nozzle shall be positioned in the center of aggregate discharge tube.
- d. Air tube shall be tapered to reduce air turbulence and wear.
- e. Minimum weight of venturi must weigh be 68 LB.
- f. Aggregate hopper shall have bolted on safety screen.
- g. Aggregate flow shall be regulated by air actuated slide plate.
- h. Aggregate flow controls must be located on articulating operator's boom for finger tip operation

TAILGATE

Yes No

- a. Unit shall come equipped with gravity tailgate feeder designed to adapt to typical dump truck tailgate that includes hose to feed aggregate directly from tailgate to aggregate hopper.
- b. Unit must have the ability to be modified to a hydraulic powered aggregate tailgate feeder.
- c. Manufacturer must offer hydraulic tailgate as a standard upgrade option.

Other

BLOWER

Yes No

a. High volume 820-CFM lobe blower

- b. Must be equipped with heavy-duty silencer
- c. Blower shall be directly driven from engine.
- Blower shall be mounted and aligned to the d. engine with a solid metal alignment block machined to match the blower face plate and engine bell housing. The alignment block shall be constructed so when bolted into place automatic alignment of blower and engine alignment dowels/studs occurs providing a tolerance of +/-.003 inch alignment between blower shaft and engine crankshaft. Machines requiring additional field adjustment to assure proper blower/engine alignment by either user or a trained professional will not be accepted.

- a. Shall be heavy-duty reinforced tubular steel frame
- b. Shall have brake lights, tail lights, and directional lights with connections to meet FMVSS108.

Yes

No

- c. Unit shall have tandem 12,000 LB tandem leaf spring axles.
- d. Tires shall be tubeless ST 225/75 R15 load range D
- e. Unit must have electric brakes with break-away activation.

- f. Unit shall have adjustable 10,000 LB pintle hitch
- g. Must shall be equipped with retractable jack stand.
- h. Unit shall have adjustable hitch height of 21 to 30 inches from ground level in 2 ¼ increments

Ot	her		
FI	LTERS	Yes	No
a.	Engine: Dry type		
b.	Blower: Dry type		
Ot	her		
H	OSES	Yes	No
a.	Material hose shall be 3 ¹ / ₂ rubber that resists curling adequately reinforced and rub	and t	wisting, i
b.	Material hose length shall be	 18 feet in	length
c.	Emulsion hose shall be 3/8 inc	ch ID pla	stic
d.	All pressure hoses shall have h fittings.	nigh-press	sure
e.	Unit shall have 8-foot quick f	lush hose	
Ot	her		
C	OLOR	Yes	No
is	all be Nason two part urethand a Dupont Corlar Epoxy-934S upont Corlar - 936S		

Other

CRACK FILLING ATTACHMENT (OPTIONAL) Yes No

CHASSIS

Unit shall come equipped with 25-foot emulsion hose on retractable reel with 4-foot hand wand. Must be rear mounted on unit.

Other_____

HYDRAULIC TAILGATE (OPTIONAL)

- a. Shall operate from hydraulic power supplied by patching machine- independent from truck hydraulics.
- b. Shall have dual augers and center feed.
- c. Shall be adjustable to fit any standard dump truck bed.
- d. Shall be completely adaptable to patching machine.

Other_____

OTHER OPTIONS

	Yes	No		
a. Strobe light kit				
b. Water/fuel separator				
c. Arrow board and control				
d. Air Stream hydraulic system complete assembly				

e. Electric throttle

MISCELLANEOUS

successful bidder to ensure that it conforms to the specifications herein before mentioned above.