

Total Patcher Vortex - Specifications

Emulsion Tank

- **Size** - 250 U.S. gal; 12-inch filler cap for added safety and convenience
- **Working Pressure** - 200 psi @ 500° F pressure relief set from 100-110 psi
- **Insulation** - R-15 rating with a fire retardant fiber reinforced plastic cover
- **Heat** - Two 1500w radiant heater blankets (120v) with thermostatic control

Emulsion Line Clean Out Tank

15 U.S. gal pressure vessel rated at 200 psi @ 450° F pressure relief set at 175 psi

Engine Fuel Tank

18.5 U.S. gal steel with quantity gauge

Compressor

Ultra high performance screw type compressor producing 60 cfm @ 100 psi @1800 RPM (maximum 150 psi) Has 3/4-inch 25-foot hose reel to run air tools

Blower

450 cfm with 7 psi (14 psi potential) @ 1500 rpm, approx 42 BHP. Mounted directly off engine flywheel (requires no belts or pulleys). Protective air pop-off valve set at 10 psi. Normal operating temp under 230° F (max 275° F).

Air Conveyor Aggregate Feed

Hopper box on patcher receives aggregate via a 5" dia flex hose from dump truck. Aggregate is injected into the air conveyor system via a low pressure suction created by a venturi (under the hopper box). Slide gate opens and closes by a 4" stroke air ram controlled through a 12v air solenoid valve activated by a remote switch located at operator control handle. Aggregate 1/4" - 1/2" size is normally used. Machine will run up to 1" aggregate, and will allow a 2 1/2" stone to pass through without clogging. Air solenoid valve has manual override for easy servicing.

Air Filters

- **Engine** - Paper element with vactuor valve in filter housing
- **Compressor** - Paper element with vactuor valve in filter housing
- **Blower** - Paper element with 300 sq inches in filtration surface with foam pre-cleaner

Mobile Heating System

Engine coolant is routed through a high efficiency heat exchanger filled with heat exchange oil. The heated oil circulates via a 12v circulation pump throughout the emulsion distribution system, including the emulsion storage tank, hoses, and spray nozzle. Average system temp is 140° F. The total patcher can work effectively down to an ambient temp of 20° F (using proper emulsion for those temperatures).

Vented Nozzle/Spray Tip

Nozzle - Lightweight steel tube 3 1/2" x 13" automatically pressure compensates to prevent blowing material out of target area. Promotes clean operation and precise control.

Spray tip - Singular heated block with a precession laser cut 1" x .0625" inch slot for dispensing emulsion for 100% aggregate coating.

Aggregate Hose

Aggregate travels the length of the machine via a 3 1/2" ID schedule 40 pipe, then travels through 3 1/2" ID rubber neoprene lined hose (wire reinforced to prevent kinks).

Emulsion Supply/Diesel Clean-Up Line

A 20' long x 1/2" ID hose rated at 2300 psi carries the emulsion to the spray nozzle. Emulsion lines are encased in an insulated line packet to allow for cold weather operation. This line also serves as the clean-up line when patching operations are completed. Clean up takes about 1 quart of liquid.

Swinging Hose Carrier

Easy Operation - Free travel boom system supports the weight of the aggregate hoses. System allows an 18" working travel radius. All operator controls for throttle and aggregate flow are at the handle.

Trailer

- **Frame** - 6" x 2" x 1/4" thick rectangular tube frame
- **Axles** - Tandem 6,000 lb torsion bar for a 12,000 lb load capacity
- **Tires** - Four ST235-80 R16; load range D; heavy-duty white modular 8 lug rims
- **Brakes** - Four wheel electric with breakaway unit
- **Lights** - Brake & tail, side marker, multi-directional/multi-pattern high intensity LED light stick, rear mounted strobe
- **Dimensions** - 96" wide x 91" high x 198" long
- **Weight** - 5970 lbs empty, 8170 lbs full