



FP5 Flameless Pothole Patcher

Specification Sheet

With its proven electric heating system, Bergkamp's FP5 Flameless Pothole Patcher provides a safe and complete, long-lasting approach to pothole repairs, using the all-in-one patching process. The FP5 has a hydraulic-driven AC generator, providing onboard electric power that maintains consistent heat to the material, with the ability to plug into stationary power during non-working hours to virtually eliminate wasted hot mix. The truck-mounted unit uses the chassis engine through a live Power-Take-Off (PTO) for hydraulic power at all engine or travel speeds.

ASPHALT HOPPER SYSTEM:

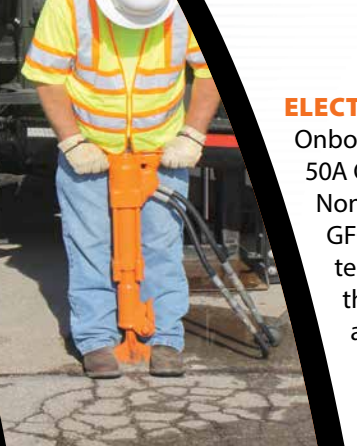
The asphalt hopper holds 5 yd³ (3.82 m³) struck and 3.69 yd³ (2.82 m³) heaped, with 50° side slopes and vertical ends, with 3.0 in (7.6 cm) of insulation in sloped bottom, encased in a double-steel jacket. Hopper doors of steel construction with double-layered steel encapsulating 2.0 in (5.1 cm) insulation. Hopper doors hydraulically operated with controls accessible from ground level, using manually operated three-position hydraulic control valves. Two hopper heaters with 240 VAC 4 kW electric heaters. Material feed with 6x6 auger, which is hydraulically driven and reversible. Full hopper length agitator, which is hydraulically driven and reversible. Auger and agitator controls are located at the operator station. Material distribution chute pivots 90° for distribution of patching mix from hopper, locking in a horizontal position for ease in shoveling patching mix and in an upward position for travel.

HYDRAULIC SYSTEM:

Steel 25 gal (94.6 L) reservoir, equipped with oil level sight gauge with thermometer, filler breather cap and external shutoff valve on hydraulic pump suction line. PTO to match chassis, minimum 21 hp (15.7 kW) with on/off control in cab. Variable-volume single-stage piston pump, direct-mounted to heavy-duty clutched-drive and single-speed wet spline PTO when mounted on an automatic transmission. Hoses rated to 3,000 psi (207 bar). Multi-spool control valves for hopper auger, agitator, doors and auxiliary tools, with built-in adjustable relief. Auxiliary hydraulic circuit with quick-coupling attachment and controls at operator station.

THE ALL-IN-ONE PROCESS

Safe, Efficient, Permanent



ELECTRICAL SYSTEM:

Onboard power source is a hydraulically driven 10kW, 1Ø, 240VAC electric generator with a 50A Class A ground fault circuit interrupter (GFCI) circuit breaker for operator protection. Non-working hours heating powered by customer-installed 1Ø, 240VAC, (or 208VAC) 50A GFCI-protected circuit. The control panel houses a controller that displays the hopper temperature and set point and allows set point adjustment for thermostatic control of the hopper heaters. Also contained within the control panel are a voltmeter, an ammeter, and 3 branch circuit breakers for troubleshooting and overcurrent protection; two 25A circuits, one for each hopper heater, and one 10A circuit for the tack heater and controller. The tack heater may be turned off independently of the controller with a toggle switch in the control panel.

ASPHALT EMULSION SYSTEM:

80.0 gal (302.8 L) ASME asphalt emulsion system tank, insulated with 2.0 in (5.1 cm) of insulation. Top opening is 7.5 in (19 cm) round for ease of fill, visual inspection of contents and tank level. 230 VAC thermostatically controlled tank heater with 1000 W silicone drum heat band located toward the tank's bottom, with no direct contact with the emulsion. 12 ft (3.7 m) hose with spray wand for clean-out of pothole and application of tack coat, with dual feed of air and emulsion materials, designed so that air cleans out spray nozzle, pushing emulsion from wand and hose into supply tank while stirring supply tank. Emulsion line with on/off valve and storage position on vehicle. Air is supplied from chassis' air compressor (no effect on chassis warranty). The air tank is ASME-approved, with bleed valve and pressure gauge mounted on the machine. Equipped with 85 psi (5.8 bar) tractor protection valve to ensure that no air may be taken from the truck system unless system pressure is above 85 psi (5.8 bar) to provide adequate truck braking system pressure.

SPOILS BINS:

Equipped with two spoils bins. Rear-mount 0.51 yd³ (0.39 m³) bin, side-mount 0.47 yd³ (0.36 m³) bin, both with swing-open door and gravity dump. Rear bin has a fold-down door for easy loading.



PAVEMENT BREAKER SYSTEM:

Powered by onboard hydraulic system, 67 lb (30.4 kg) pavement breaker with asphalt chisel and 25 ft (7.6 m) of hose with quick disconnects. Spring-loaded hose reel. Hammer storage location provided on lift platform. Optional hammers available (see Optional Equipment).

COMPACTOR SYSTEM:

Standard vibratory plate compactor powered by 5 hp (3.7 kW) gas engine, providing 3,375 lbf (15.0 kN) of centrifugal force with a 19.5 in x 23 in (49.5 cm x 58.4 cm) plate size. Compactor weighs 190 lb (86.2 kg) and includes 15 gal (56.8 L) water tank with gravity feed, complete with filler cap and on/off valve. Compactor storage location provided on lift platform. Vibratory roller compactor optional (see Optional Equipment).

ACCESS PLATFORM:

Large 77.5 in x 44 in (196.9 cm x 95.3 cm) access platform constructed of heavy-duty 10- gauge steel tread pattern for simple viewing of hopper and asphalt emulsion fill. Access to hydraulic and air tanks, oil cooler, oil filter, water tank and main electrical panel.

LIFT PLATFORM:

Hydraulically operated lift platform provides storage for pavement breaker system and compactor system, with hydraulic lowering of tools for operator safety. Controls at rear of unit for ease of operation.

OPERATOR CONTROLS:

Hopper doors are controlled with manual valve front hopper wall, accessible from curbside ground level. Operator control station located at rear of hopper, with controls for agitator, front and rear auger motors, auxiliary tools, lift platform and optional swing auger.



AUGER SYSTEM:

Hydraulic motor drive for auger, powered by 13.6 hp (10.1 kW) motor producing 1,100 ft-lb (1,491 Nm) of torque. Includes a secondary auger motor that provides double the horsepower and torque in parallel mode to auger out stiff mixes.

SIDE TOOL/STORAGE BOX:

Lockable 108 in x 23 in (274.3 cm x 58.4 cm) tool storage box with two doors, 15-in (38.1 cm)-tall. Door opening constructed of heavy-gauge steel, with full-length hinge and two adjustable, keyed hand latches.

SAFETY LIGHTING SYSTEM:

Flashing amber 12 VDC strobe light (24 VDC system available). Directional arrow board with 12 VDC system and in-cab controls for on/off, left arrow, right arrow, both arrows and flash bar patterns. Audible electronic back-up alarm.

HAND TORCH

200,000 BTU propane torch with shut-off valve used to dry out potholes. 20 lb (9.1 kg) tank and 31 ft (9.4 m) hose with torch hose storage.

OPTIONAL EQUIPMENT:

INPAVE® Technology – The FP5 offers INPAVE® technology, a Bergkamp-exclusive telematics system that automatically generates reliable performance information for each crew, patcher and all patching materials. By capturing data from normal functions, INPAVE Technology allows you to evaluate your process, and enables your agency to make strategic changes to increase patching quality and reduce costs. The Technology features an in-cab, 8-in tablet with a GPS function that can export the mapping data to a Shape File for seamless blending into your GIS System. All other data can be exported, as well, in various formats for reporting and management analysis.



Patented Swing Auger System – Enables accurate placement of asphalt through swing arc of 8.7 ft (2.7 m), powered hydraulically.

Pivot Tack System – Retains and supports the emulsion and air hoses, which supply the tack wand. The spring return retractor design prevents the hose from touching the ground and allows for 20 feet of spray wand coverage behind the patcher.

Pavement Breaker System – 45 lb (20.4 kg) or 80 lb (36.3 kg) hammers available in lieu of standard.

Camera Options – **1.** 360-degree birds-eye camera system. Includes four (4) cameras, mobile digital recorder, with a 10-inch display, wi-fi, and 4G capabilities. **2.** Single rear back-up camera with night vision and 7-inch in-cab display.

Compactor System – Vibratory single-drum roller compactor powered by 4 hp (2.9 kW) gas engine, providing 2,275 lbf (10.1kN) of centrifugal force. Compactor weighs 377 lb (171 kg).

Sand Spreader – Replaces discharge chute and includes two variable-speed hydraulic motors to control sand discharge rate and spread width.

Asphalt Emulsion Tank – Larger 120 gal (454.3 L) tank available.

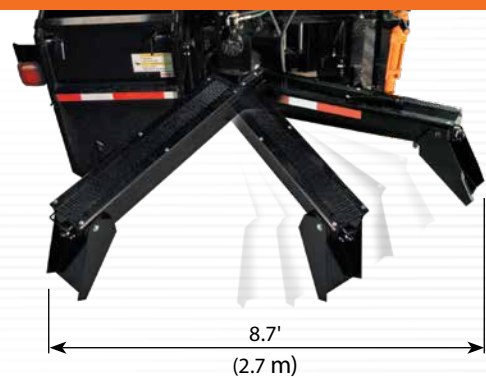
Additional Options Available – LED lights, upgraded arrow boards, shovel and asphalt lute holders, front cleaning-fluid hand-spray wand and hose reel, work lights, flashers, spray wand, back-up camera system and many others as needed by request.

Optional Pivot Tack System



The Pivot Tack System helps operators stay safe by keeping hoses off the ground.

Optional Patented Swing Auger System



Great for shoulder and large utility repairs and fixing multiple potholes from one location.

Optional 360° Camera System and Recorder



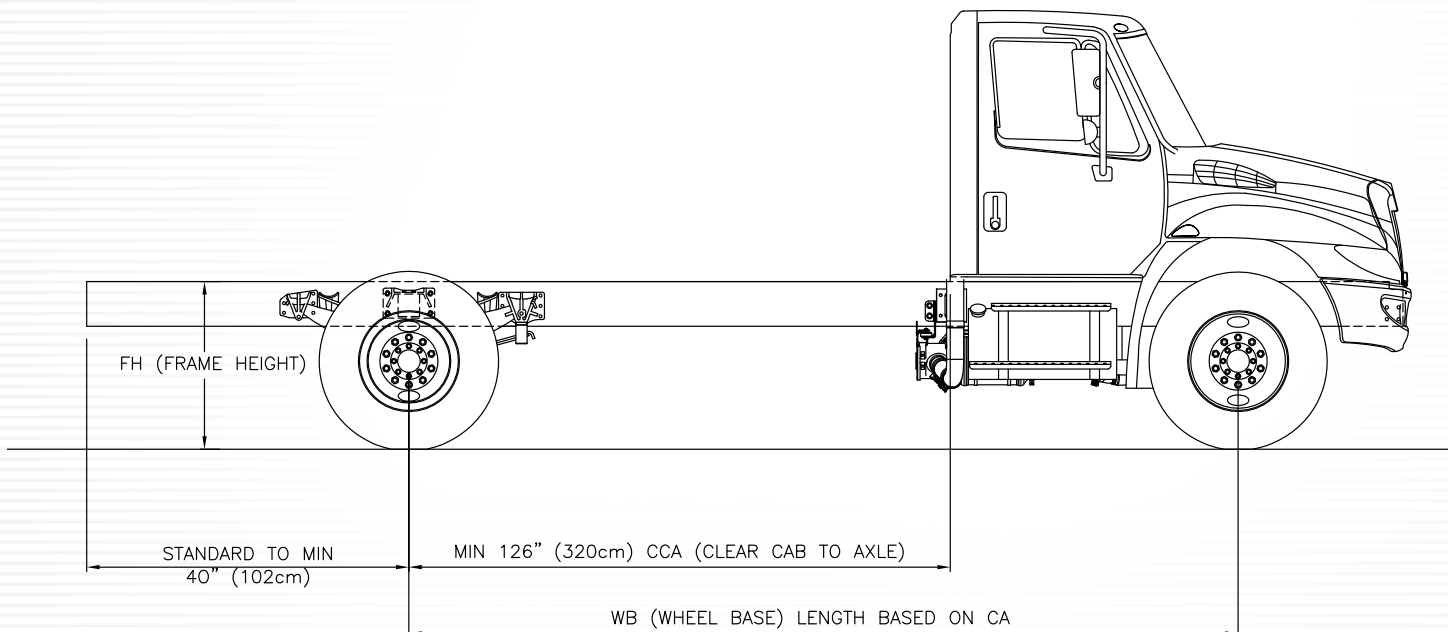
360° rear camera and 10" monitor with mobile digital recorder. Wi-Fi and 4G Compatible.

Optional Roller Compactor



FP5 FLAMELESS POTHOLE PATCHER

STANDARD CONVENTIONAL TRUCK



TRUCK REQUIREMENTS:

Truck chassis must have a minimum GVWR of 33,000 lb (14,968 kg), with a minimum front axle capacity of 12,000 lb (5,443 kg), minimum rear axle capacity of 21,000 lb (9,525 kg), air brakes and maximum capacity air compressor. Vertical exhaust preferred. Minimum clear cab-to-axle dimension of 126 in (320 cm). Allison 3000RDS, 3500RDS or 4000RDS automatic transmission preferred, with clearance for mounting PTO gearbox with direct-mount hydraulic pump on right side of transmission. On standard transmission chassis, all hydraulic functions will cease when clutch is depressed.

MACHINE CAPACITIES:

| | Aggregate Hopper | | Asphalt Emulsion Tank | Optional Emulsion Tank | Hydraulic Reservoir | Water Tank | Cleaning Fluid Tank | Air Tank | Spoils Bin Rear | Spoils Bin Side |
|------------|---|--|-----------------------|------------------------|---------------------|--------------------|---------------------|--------------------|--|--|
| | Struck | Heaped* | | | | | | | | |
| FP5 | 5 yd ³ (3.82 m ³) | 3.69 yd ³ (2.82 m ³) | 80 gal (302.8 L) | 120 gal (454.3 L) | 25 gal (94.6 L) | 15 gal (56.8 L) | 15 gal (56.8 L) | 20 gal (75.7 L) | 0.51 yd ³ (0.39 m ³) | 0.47 yd ³ (0.36 m ³) |

*Under doors

MACHINE MEASUREMENTS**:

| | Overall Length | Overall Width, Mounted | Height Above Chassis Frame | Weight, Empty |
|------------|----------------------|------------------------|----------------------------|------------------------|
| FP5 | 193 in (490.2 cm) | 96 in (243.8 cm) | 77 in (195.6 cm) | 7,600 lb (3,447 kg) |

**Base machine, no options

Note: Products and specifications subject to change without notice. Some equipment shown with optional features and accessories. Contact Bergkamp for details.

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