



# M2 SERIES SLURRY SEAL AND MICRO SURFACING PAVERS

## Specification Sheet

### AGGREGATE SYSTEM

**Hopper:** Constructed of 10 gauge steel. 55-degree walls with polyethylene lining to minimize material bridging, so vibration is not required.

**Aggregate Feed Belt:** Belt over chain for non-slip performance. Feed belt engages with air clutch. Powered by variable speed jackshaft shared with emulsion pump. Belt width is 24 in. (61 cm). Modular construction that can be removed from hopper.

**Aggregate Calibration:** Variable gate opening at rear of hopper. Digital revolution sensor for head pulley, digital display of lbs/min (kg/min). Air counter for calibration and material quantity tracking.

**Conveyor Frame:** Modular construction. Removable for maintenance.

**Aggregate Gate:** Variable gate opening. Aggregate conveyor powered by jackshaft common to emulsion pump to provide consistent emulsion to aggregate ratio. Aggregate gate has sensor to stop all production when aggregate hopper is empty.

Model	M206	M208	M210	M212	M216
<b>Hopper</b> (Level Struck Load)	6 yd <sup>3</sup> (4.6 m <sup>3</sup> )	8 yd <sup>3</sup> (6.1 m <sup>3</sup> )	10.5 yd <sup>3</sup> (8.0 m <sup>3</sup> )	12 yd <sup>3</sup> (9.2 m <sup>3</sup> )	16 yd <sup>3</sup> (12.2 m <sup>3</sup> )

## EMULSION SYSTEM

**Tank:** Constructed of 10 gauge steel with internal baffles. Double welded. Tank is removable and has removable external strainer and manways. Stainless steel optional.

**Pump:** Positive displacement with air clutch. Double heat jacketed. Modified to handle specialty emulsions. Powered by variable speed jackshaft shared with aggregate belt. Pump engages with air clutch (non-slip). Discharges directly into pugmill.

**Valve:** Butterfly valve on suction side of pump is air actuated. Valve opens and closes with mix start switch.

**Metering:** Emulsion pump powered by jackshaft common to aggregate conveyor to provide consistent emulsion to aggregate ratio.

Model	M206	M208	M210	M212	M216
Emulsion Tank	267 gal. (1,011 L)	435 gal. (1,647 L)	600 gal. (2,271 L)	691 gal. (2,616 L)	750 gal. ea x 2 (2,839 L ea x 2)

## LIQUID ADDITIVE SYSTEM

**Tank:** 65 gal. (246 L) capacity. Constructed of stainless steel. Double welded.

**Pump:** Two positive displacement gear pumps, hydraulically driven. Mechanically connected to provide a water and additive mix at a 10:1 ratio.

**Optional Pump:** Peristaltic, positive displacement pump with stainless steel fittings for corrosive additives.

**Control and Metering:** Speed control of hydraulic motor determines amount of additive/water delivered to the pugmill. Flow rate display at operator's console allowing precise adjustment.

### *Proven, Unique Choices*

*The M2 Series has a proven machine to fit your job size: from our smallest version, the maneuverable M206, to our largest model, the M216 that is ideal for highway and large preventive maintenance jobs. Or, choose our most popular M210, the hybrid of maneuverability and capacity.*

## MINERAL FILLER (CEMENT) SYSTEM

**Hopper:** 12.5 ft<sup>3</sup> (0.35 m<sup>3</sup>) capacity. Constructed of stainless steel with hinged cover and hydraulically driven fluffer.

**Feed:** 4 in. (10 cm) diameter. Hydraulically powered double-pitch auger. Delivers material to end of aggregate belt.

**Monitoring:** Digital revolution counter. Digital display of lbs/min (kg/min) and percent of mineral filler (cement) to aggregate.

**Control and Metering:** Adjustable rate. Variable auger speed to change mineral filler (cement)/aggregate ratio by adjusting variable displacement pump. Rate is proportional to production rate.

## WATER SYSTEM

**Tank:** Removable steel tank with internal baffles and removable manways. Interior coated for corrosion resistance. Double welded. Stainless steel optional. M216 only: Plastic tank mounted on gooseneck of trailer for weight distribution.

**Mixing Water Pump:** Positive displacement, hydraulically driven pump.

**Mixing Water Control and Monitoring:** Speed control of hydraulic motor determines amount of water delivered to the pugmill. Flow rate display at operator's console allowing precise adjustment.

**Pump for Hand Hoses and Spray Bar:** Independent from mixing water. Centrifugal, hydraulically driven.

**Road and Tire Spray Bars:** Road spray bar located behind drive axles. Tire spray bar located in front of front axle. Extensions to ensure complete coverage, with on/off controls at operator's console. Check valves to eliminate nozzle dripping.

**Tank Fill Method:** Non-backflow water fill system with quick connect fill port on passenger side.

Model	M206	M208	M210	M212	M216
<b>Water Tank</b>	267 gal. (1,011 L)	435 gal. (1,647 L)	600 gal. (2,271 L)	691 gal. (2,616 L)	1,000 gal. (3,785 L)
	10 ga. steel double welded	10 ga. steel double welded	10 ga. steel double welded	10 ga. steel double welded	Plastic
<b>Fill Port</b>	Remote opening hatch	Remote opening hatch	Remote opening hatch	Remote opening hatch	Fill port open to atmosphere

### MIXING SYSTEM

**Mixer:** Dual shaft, multi-paddle pugmill, dual hydraulically powered, variable speed and reversible. Fixed angle paddles. Removable pugmill assembly. Adjustable angle. Replaceable bottom bowl and paddle tips.

**Urethane Diverter:** Controlled by an air cylinder.

### ENGINE

**Engine:** 4.5 L diesel. 99 HP (74 kW). Enclosed in cabinet to reduce noise for operator and driver. Oil pressure, water temperature gauges with shutdowns installed in cabinet, as well as tachometer and hydraulic system pressure gauge. This engine meets U.S. EPA and California emissions standards under 40 CFR 1039.625. Selling or installing this engine for any purpose other than for the equipment flexibility provisions of 40 CFR 1039.625 may be a violation of federal law and subject to civil penalty. This engine is certified to run on diesel fuel.

Model	M206	M208	M210	M212	M216
<b>Fuel System</b>	Connected to truck tank	Connected to truck tank	Connected to truck tank	Connected to truck tank	40 gal. (151 L) tank





### HYDRAULIC SYSTEM

**Pumps:** One 1,850 psi (128 bar) pressure compensating variable volume pump, and one 3,000 psi (207 bar) maximum gear pump.

**Reservoir:** 65 gal. (246 L) capacity. Internal baffles and 10 micron air breather filter. Electric pump transfers hydraulic oil from barrel to tank to ensure only clean filtered oil is added to system.

**Oil Cooler:** Mounted in front of radiator.

**Filtration:** Replacement 10 micron cartridge elements. System uses dirt alarm to indicate when excessive particles have accumulated and elements need to be replaced.

**Recommended Oil:** Mobilfluid 424.



### OPERATOR PLATFORM AND CONTROLS

**Location:** Operator controls are located at rear of unit.

**Rear Console Controls:** Console includes following controls: mix start/stop switch for one button control of mixing operation; mix start override; spray bar on/off switch; manual hydraulic controls for spreader box lift and side shift, and spreader box auger on/off/reverse and speed control; pugmill diverter left/right; and water and additive flow control and meter.

**Control Cabinet With Locking Door:** Includes air logic board with system selector switches and emulsion delay controls; flow controls for pugmill and mineral filler (cement) systems, counters for aggregate, emulsion and fines; jackshaft pressure gauge; engine on/off, start, throttle; air pressure gauge, volt meter and hour meter.

**Lower Control Cabinet Panel:** Includes manual on/off valves for pugmill and jackshaft, and flow control for spray bar and jackshaft.

## SPREADER BOX ATTACHMENT

**Spreader Box Lift Bar:** Full width for safety, with extension for extended spreader boxes. Powered by dual hydraulic cylinders capable of lifting all spreader boxes currently available from Bergkamp. Rear extension provided for Rut Box operation. Remote side shift controls on spreader box lift bar (both sides) for operation by spreader box operator.

**Hydraulic Quick Connects:** Provides power to spreader box augers. Includes valve to allow ground personnel to disable auger hydraulic circuit.

**Side Shift:** Positive side shift, 20 in. (51 cm) of lateral movement.

## PAINT

**Paint:** Pre-treatment phosphatizing wash, one coat primer and multiple coats industrial enamel. Color is customer selected.

## POWER WASHER

**Power Washer:** 1,700 psi (117 bar), 4 gpm (11.36 lpm) high pressure washer with 30 ft. (9.14 m) hose on spring loaded retractable reel.

## ELECTRICAL SYSTEM

**Electrical System:** 12 VDC, 60 Amp, negative ground.



## OPTIONAL EQUIPMENT

**Emulsion Load Pump:** Positive displacement pump mounted on truck frame to facilitate quick loading of emulsion. Double-heat jacketed. Modified to handle special emulsions. Hydraulically powered from onboard engine.

**Water Load Pump:** Centrifugal pump mounted on truck frame to facilitate quick loading of water. Hydraulically powered onboard engine.

### **Stainless Steel Water and Asphalt Emulsion Tanks**

**Corrosion-Resistant Additive System:** Peristaltic pump with stainless steel fittings for corrosive additives.

**Spreader Box Skew Bar:** Allows the spreader box pull chain lengths to be hydraulically shifted while paving, which changes the angle of the spreader box to better match a radius, thus requiring less handwork.

**Tarp System:** Pulltarps® electric sliding bow system.

### **Electronic Monitoring System**

**Spare Parts Packages:** A recommended selection of parts is available, allowing quick return to paving operations in case of a problem.

**Tag Axle(s):** Recommended to increase wheelbase and better manage legal load weight restrictions.



# TRUCK REQUIREMENTS

Model	M206*	M208	M210 <sup>#</sup>	M212 <sup>†</sup>	M216
CA or CT	CA – 112 in. (2,845 mm)	CT – 133 in. (3,378 mm)	CT – 153 in. (3,886 mm)	CT – 171 in. (4,343 mm)	Trailer mounted
Minimum Gross Vehicle Weight Rating (GVWR)	44,000 lbs (19,958 kg)	64,000 lbs (29,030 kg)	72,000 lbs (32,659 kg)	80,000 lbs (36,287 kg)	90,000 lbs (40,823 kg)
Front Axle	18,000 lbs (8,165 kg)	18,000 lbs (8,165 kg)	20,000 lbs (9,072 kg)	20,000 lbs <sup>†</sup> (9,072 kg)	N/A
Rear Axle(s) Capacity	23,000 lbs (10,433 kg)	46,000 lbs (20,865 kg)	46,000 lbs <sup>#</sup> (20,865 kg)	52,000 lbs (23,587 kg)	75,000 lbs (34,019 kg)
Tag Axle Capacity	10,000 lbs (4,536 kg)	10,000 lbs (4,536 kg)	13,000 lbs (5,897 kg)	16,000 lbs (7,257 kg)	N/A
Rear to Tag	58 in (1,473 mm)	49 in (1,245 mm)	56 in (1,422 mm)	56 in (1,422 mm)	N/A
Useable Frame Length	16.5 ft. (5.0 m)	19.3 ft. (5.9 m)	22.2 ft. (6.8 m)	23.7 ft. (7.2 m)	25.7 ft. (7.8 m)
Minimum Engine Horsepower	250 HP (186 kW)	275 HP (205 kW)	300 HP (224 kW)	300 HP (224 kW)	N/A
Required Groundspeed for Paving (Low gear at 100 rpm above idle)	1.5 mph (2.4 kph)	1.5 mph (2.4 kph)	1.5 mph (2.4 kph)	1.5 mph (2.4 kph)	1.5 mph (2.4 kph)

\* M206: Cabover truck chassis.

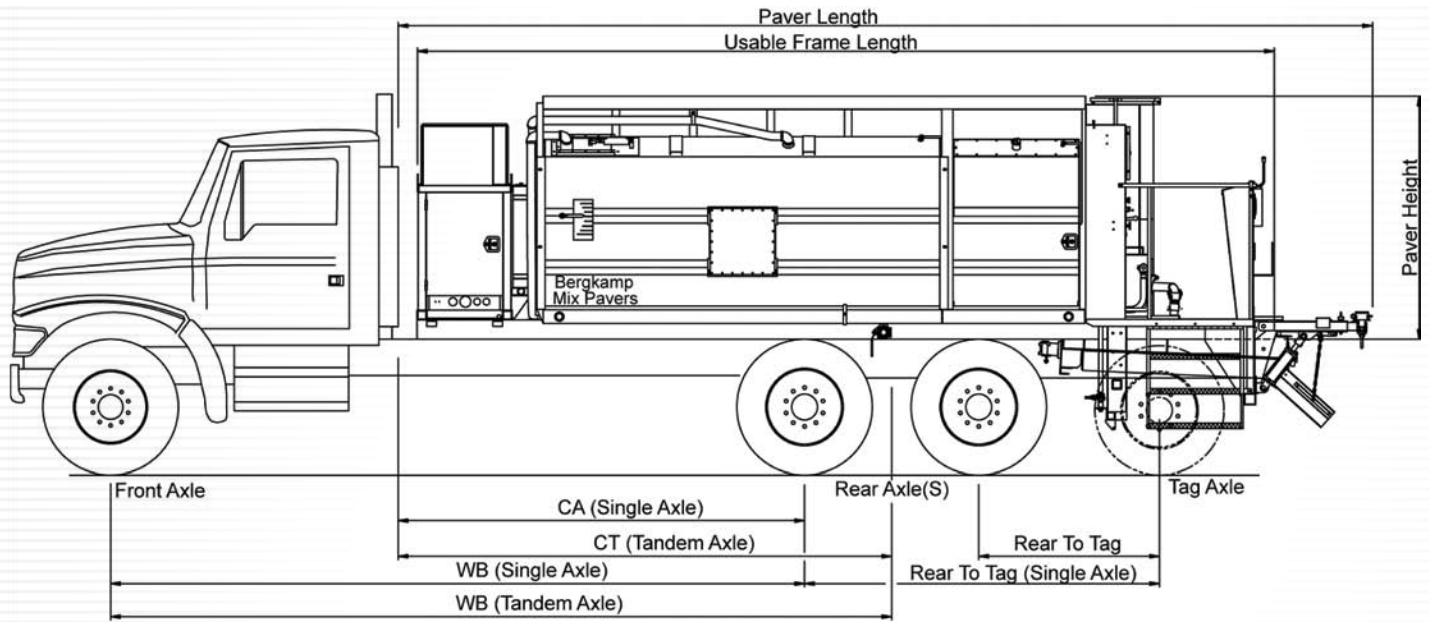
<sup>#</sup> M210: Requires a 52,000-lb (23,587 kg) rear axle if a tag axle is not used.

<sup>†</sup> M212: A setback front axle is recommended to improve axle loading and turning radius.

**Transmission:** Manual transmission with double low gear recommended. Final drive ratio in lowest gear (transmission first gear ratio multiplied by the rear end ratio) is to be 120 or greater (e.g., 26.08 transmission first gear ratio x 5.38 rear end ratio = 140.3 final drive ratio).

**Note:** Above specifications are general in nature. Bergkamp Inc. should be consulted regarding specifications of customer-supplied trucks. Bergkamp does not warrant or guarantee that trucks will meet any federal, state or local load regulations. End user is responsible for loading the M2 Series units within the truck manufacturer's axle rating and within federal, state and local laws. Specifications are subject to change without notice.

# M2 SERIES SLURRY SEAL AND MICRO SURFACING PAVERS



Model	M206	M208	M210	M212	M216
<b>Length</b>	19 ft. (5.79 m)	22.8 ft. (6.9 m)	24.7 ft. (7.53 m)	26.2 ft. (7.99 m)	31.5 ft. (9.60 m)
<b>Width</b>	8 ft. (2.44 m)	8 ft. (2.44 m)	8 ft. (2.44 m)	8 ft. (2.44 m)	8 ft. (2.44 m)
<b>Height (Above Frame)</b>	6.3 ft. (1.92 m)	6.3 ft. (1.92 m)	6.3 ft. (1.92 m)	6.3 ft. (1.92 m)	6.3 ft. (1.92 m)
<b>Empty Weight</b>	13,500 lbs (6,124 kg)	14,000 lbs (6,350 kg)	14,500 lbs (6,577 kg)	15,000 lbs (6,804 kg)	15,500 lbs (7,031 kg)