



## EMCAD System Technology Simplifies Paving, Increases Profitability

Bergkamp's unique EMCAD (Electronic Mix Control And Diagnostic) System increases your production by reducing calibration time by up to two-thirds and simplifying production adjustments and troubleshooting. This helps you manage costs and calculate profits more accurately.

### The EMCAD System:

- Eliminates manual calculations.
- Displays current and average material ratios, total material used and material application rates.
- Increases or decreases paving rates with a single adjustment.
- Provides real-time production cycle error monitoring and reporting for control components.

The end result is a more efficient and cost-effective slurry seal and micro surfacing paving crew and more money in your pocket.

### Automatic Efficiency

- Simplify calibration
- Real-time production rate monitoring
- Detailed end-of-day printout
- Onboard diagnosis

Standard on Bergkamp M1E and M310

## Taking The Calculation Out Of Calibration

The EMCAD System simplifies calibration by reducing the number of steps required and eliminating manual calculations needed to prepare the paver. Using a fixed gate, calibration occurs at a single-gate setting, reducing your workload by up to two-thirds. The system monitors and adjusts material ratios automatically according to the set points of the ingredients, production control setting and instantaneous feedback from the delivery system sensors to provide consistent mix. Aggregate, asphalt emulsion, water, additive and fines are proportionally delivered and metered according to the set points as per mix design. Even less-experienced operators can make adjustments during production with very little training and without compromising the accuracy of the mix, keeping costs to a minimum.

## Performance Feedback...In Black & White

Produce on-demand reports to track production for individual sections of the job, or the entire job, via an onboard printer. The production reports simplify record keeping and enhance management oversight by allowing you to monitor mixes. You can evaluate these printouts and make the necessary adjustments to more efficiently run the machine and easily calculate your bottom line.

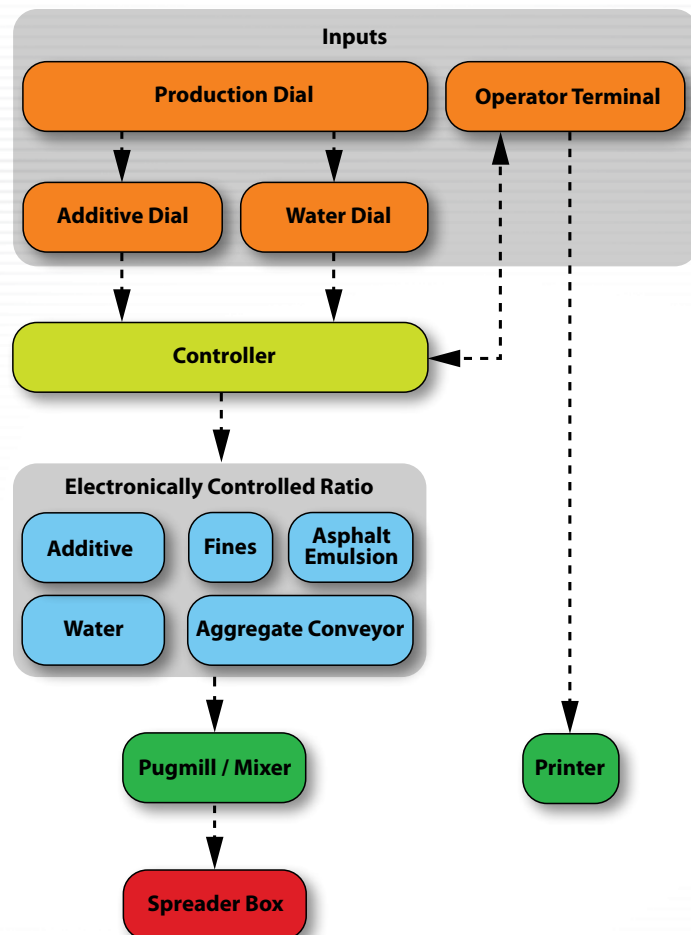
The EMCAD System tracks aggregate, asphalt emulsion, fines, water, additive, distance and pounds per square yard.

Production Totals and Ratios	
Date:	07/21/11
Time:	05:41:23 PM
Materials Used	
Aggregate:	vulcan 821
Emulsion:	css/hp
Fines:	portland
Additive:	perel
Aggregate	62.45 tons
Emulsion	15,157 lbs
Fines Feeder	1,248 lbs
Water	525 gals
Additive	3.3 gals
Distance	1,690 yds
Square Yards	5,633
Emulsion	12.81 %
Fines Feeder	1.88 %
Water	3.5 %
Additive	0.82 %
Application Rate	22.4 lbs/yd
Emulsion Setpoint	12.8 %
Fines Feeder Setpoint	1.88 %
Aggregate Moisture	3.88 %
Box Width	128.8 inches
Average Box Width	128.8 inches
Additive Weight	7.95 lbs/gallon

## Troubleshooting Made Simple

The EMCAD System makes troubleshooting easy with its onboard diagnostics that constantly monitor components in the production control system and engine. Your personnel can easily read the error message on the interface display at the first hint of a problem. Proper diagnosis enables mechanics to speed up the repair process and get you back paving again.

The production, additive and water controls (located at the rear console) provide the operator with the ability to regulate production rates and fine tune water and additive ratios to adjust to the changes in temperature and humidity. Set point configuration for aggregate, asphalt emulsion and fines is provided to ensure overall mix design integrity.



## M1E: Proven Continuous Paver Meets Innovation

Bergkamp's M1E self-propelled continuous slurry seal and micro surfacing pavers have taken the proven capabilities of the M1 and equipped them with the innovative EMCAD System. The M1 Series continuous pavers reduce construction joints and increase your tons-per-hour paved. They are specifically designed for ease of maintenance; all key components are easily accessible, and the asphalt emulsion, water and additive tanks can easily be removed. A front hydraulically adjusted axle raises and lowers each unit for ease of loading, improved maneuverability and greater access to maintenance points.

The M1E has replaced all major component clutches, chains and sprockets on the standard M1 with direct-drive hydraulics to work with the EMCAD System, reducing the number of wear parts and maintenance points on the machine.

Bergkamp's *mobile support units* transport aggregate, asphalt emulsion and water to ensure the paver receives a constant supply of material.



## M310: Most Advanced Truck-Mounted Paver

Bergkamp's M310 slurry seal and micro surfacing paver takes pavement maintenance to a whole new level. It is the most advanced truck-mounted paver in the industry, using the EMCAD System to help the operator easily monitor production rates and reduce material waste.

The M310 carries 10 yd<sup>3</sup> (7.7 m<sup>3</sup>) of aggregate in a level truck load and 630 gallons (2,385 L) of both asphalt emulsion and water. It is engineered with convenient control locations and good operator visibility. Optional tag and pusher axles can be added to better manage legal weight requirements for load capacity.



# BERGKAMP

## PAVEMENT PRESERVATION SOLUTIONS

### Providing Pavement Preservation Solutions Worldwide

Bergkamp Inc. has been an expert in pavement maintenance equipment for more than 35 years, and works with customers throughout the world. The company's success continues to grow through hands-on knowledge of the industry and its products, and the company's dedication to customer support.

Bergkamp is the only manufacturer to produce a full-size continuous slurry seal and micro surfacing paver. It also designs and manufactures a full line of truck- and trailer-mounted slurry seal and micro surfacing pavers and equipment, along with truck-mounted flameless pothole patchers.

Contact Bergkamp today to find cost-effective solutions for extending the life of highways, roads and parking lots.

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Proud Member Of:



M310 Paver



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