



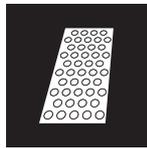
PHOTOS MAY SHOW OPTIONAL OR CUSTOMISED EQUIPMENT.



Double basic line



Dots



Dot'n line



Longflex



Edgeflex



Chess

SPRAY PLASTIC AND DOT'N LINE APPLICATION

From city areas to urban and interurban roads, the BM 2000 can handle both smaller jobs and longer road stretches.

The BM 2000 SP DL is an agile machine with excellent load abilities and a turning radius of only 3,2 m. It allows for material tank capacity of 290 L.

The BM 2000 has a one-seat slidable drive and operator section for flexible working on the left or right side.

Depending on the equipment, the machine can apply both flat and profiled markings, single and double lines of different widths, as well as for simultaneous application of continuous and interrupted lines.

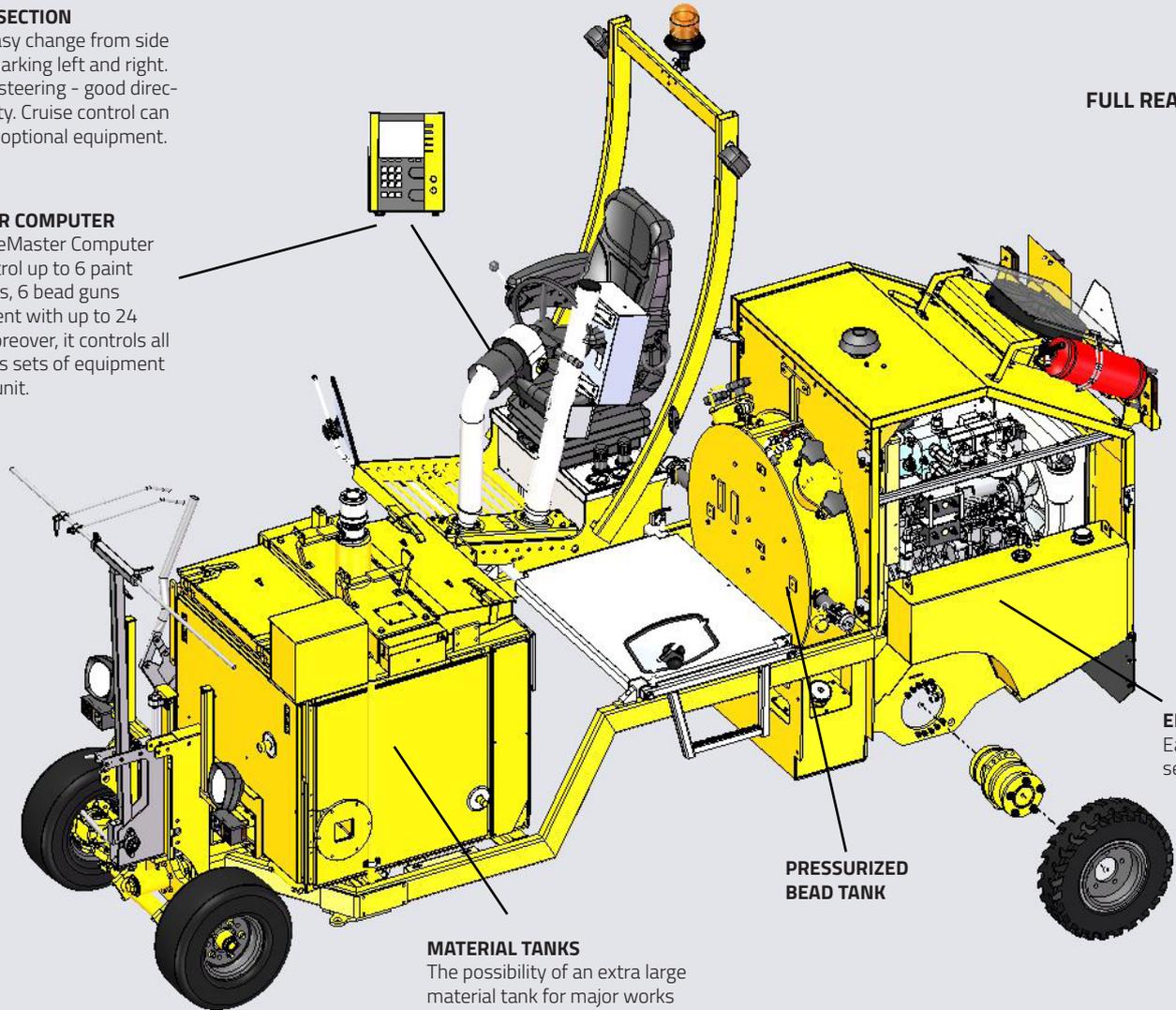
KNOWING THE BM 2000

OPERATOR SECTION

Quick and easy change from side to side for marking left and right. Dual torque steering - good directional stability. Cruise control can be added as optional equipment.

LINEMASTER COMPUTER

With the LineMaster Computer you can control up to 6 paint or spray guns, 6 bead guns and equipment with up to 24 shutters. Moreover, it controls all these various sets of equipment in this ONE unit.

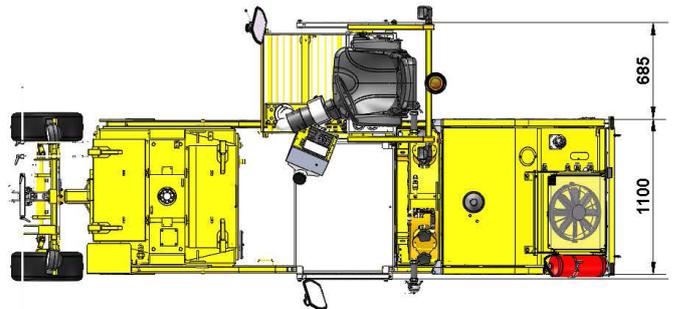
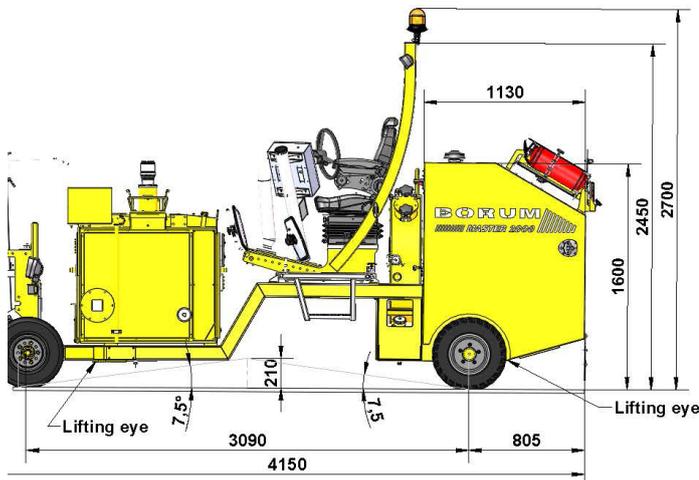


CHASSIS

Solid double-frame construction

MATERIAL TANKS

The possibility of an extra large material tank for major works ensures the most efficient workday and fast progression of the road works.



TECHNICAL SPECIFICATIONS

ENGINE	
Manufacturer	Kubota
Type	Turbo (Diesel)
Cooling	Water
Cylinder	4 stroke 2400 cm3
RatedPower	44 KW
Approval	EU stage IIIA (type V2403-M-T-)/US Interim TIER 4
COMPRESSOR	
Compressor Capacity	Screw compressor. 1800 L/min @ 10 bar Integrated oil-cooling system. Air-cooler incl. water separator.
FILLING CAPACITIES	
Fuel tank capacity	50 L (diesel)
Hydraulic tank size	50 L
Bead capacity	115 L/170 kg. Pressurized (max 1.2 bars)
MATERIAL TANK	
Material Tank	290 L
DRIVING PROPERTIES	
Turning radius	3,2 m
Steering	Dual torque steering
TRANSMISSION	
Hydrostatic transmission	For variable speed, forward/backwards
Speed	0-16 km/h
ELECTRICAL SYSTEM	
Electrical system	12 V / 150 Amp
CONTROL UNIT	
Borum LineMaster	Program up to 99 different line types. Organise lines in up to 30 marking programs. 8" display. Transfer of daily marking reports. Data about road marking jobs can be accessed online (optional).
COLOUR	
Colour	RAL 1007 (Other colours available on request)
DIMENSIONS	
Length	4150 mm
Width	1100 mm
Height	2450 mm (Without Beacon)

THERMOPLASTIC SPRAY APPLICATION (PRESS. TANK)

The thermoplastic spray application equipment works via a pressure tank. The amount of material that is put on the road is set by the pressure of the tank and the air pressure of spraying. This offers you an easy to use the system.



Sliding retainer frame, upon which 1-3 spray guns and 1-3 bead guns can be attached. Easy slidable from side to side for an optimal working position. Ground distance is maintained by retainer wheels hereby ensuring a constant road marking width.

Lifting of retainer from operators seat is done using a hydraulic cylinder.

All material pipes are oil-jacketed and insulated to maintain an ideal material temperature.

Effective heating of the complete unit using a centrifugal pump, 42 L/min, hydraulically driven.

Line thickness is typically between 0.75 mm to 1.5 mm.

Marking speed up to 15 km/h depending on the work conditions, operator, etc.

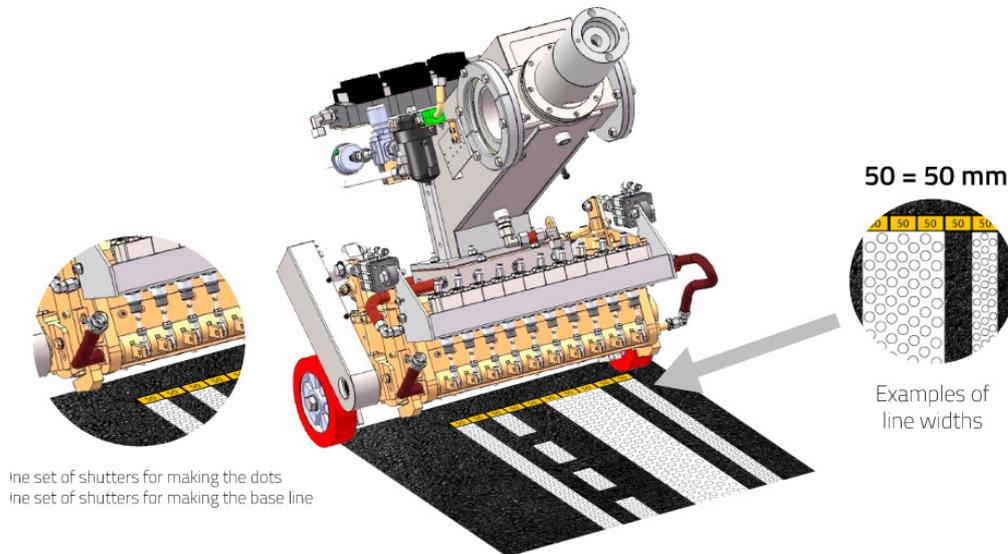
GUN FOR SPRAY-PLASTIC APPLICATION

Automatic high-capacity spray plastic gun. Consists of an oil jacketed gun body and a pneumatic cylinder. Possibility to apply line widths ranging from 10 - 20 cm depending on line thickness, work conditions, application speed and layer thickness. As an alternative, we offer a narrow nozzle, which can spray 5-15 cm with one gun.

Optional narrow nozzle size of 3 mm or wide nozzle size of 7 mm.

THERMOPLASTIC DOT'N LINE EXTRUDER

The Dot'n line system offers a three-in-one solution for thermoplastic markings. This equipment can apply flat lines, dots and a unique combination of lines and dots.



In the drawing, you can see examples of different shutters set-ups giving different widths. The equipment's width can be up to 40 cm. The line width starts at 5 cm and can be built up to 40 cm with 5 cm standard shutters.

By using two sets of shutters the base line has time to cure slightly before the Dots are applied. Consequently, the Dots will settle on top of the line with sharp edges, securing the optimum retroreflection.

The diameter of dots can be chosen between $\varnothing 18$ and $\varnothing 45$ mm depending on the chosen drum. The number of dots/meter is 15-35 dots and is controlled by the LineMaster.

The shutters have no contact with the high tensile steel drum and therefore wear is minimized and lifetime is prolonged.

Effective heating of the complete unit using a centrifugal pump, 42 L/min, hydraulically driven.

Pneumatically controlled quick cleaning system for removal of solids left in the extrusion slot. It can be activated while extrusion is in process and is only slightly detectable on the line in the form of a moderate thickening of the layer.

Continuous circulation of the thermoplastic material inside the equipment. This avoids settling and catching of solid parts and prevents unnecessary wear of mechanical parts.

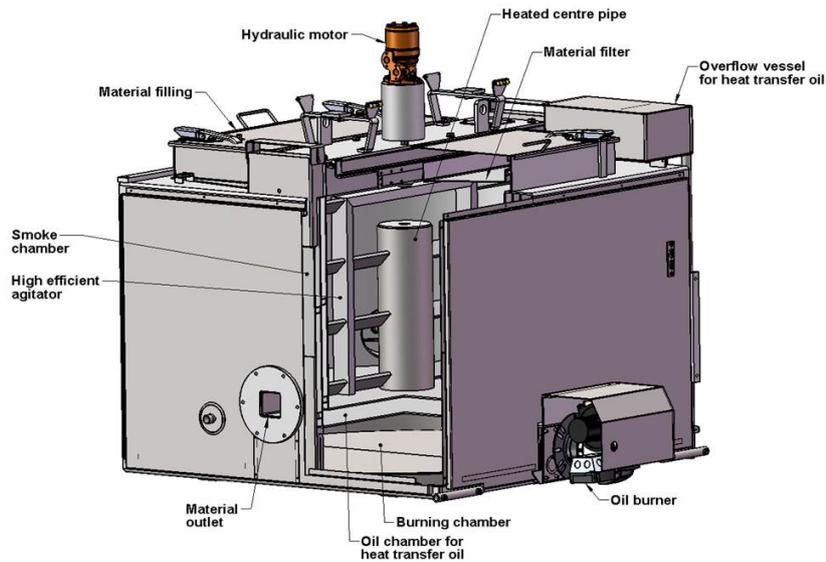
The application speed depends on the type of application and goes up to 6 km/h.

AUGER SCREW PUMP WITH CONTINUOUS RECIRCULATION SYSTEM

The transport of material from tank to Dot'n'Line head is done by a hydraulically driven auger screw pump, which is electronically controlled. The screw pump has a permanent thermoplastic re-circulation system, which ensures a constant flow also past the inactive extrusion shutters, keeping solid parts from settling and keeping the equipment ready for working.

Build-in pressure regulating system ensures that line width and thickness do not change no matter the number of shutters involved in the current marking assignment.

PRESSURIZED MATERIAL TANK



Pressurized tank indirectly heated via thermal oil. The thermal oil and thermoplastic material temperature is thermostatically controlled and regulated automatically.

BURNER SYSTEM

Diesel burner system for heating of the thermal oil (and thermoplastic). Propane burner available on demand.

VERTICAL AGITATOR (MIXER)

With hydraulic transmission. Heated center pipe for efficient uniform temperature control. Perfect melting & homogenization of the thermoplastic. Stable construction with foundation and bearings at the top of the material tank.

LINEMASTER FEATURES

The Borum LineMaster control unit is an easy way of setting and controlling your line marking jobs. The LineMaster is attached to the operator's section of the machine and gives you full control of all your line marking tasks, from line application and pre-marking to reporting and invoicing.

It is possible to store up to 99 different line types, and to arrange these in up to 30 different marking programs. You are also able to pre-set line widths, line types and different combinations to have them ready for marking, and can instantly adjust them on the go.

Furthermore, you are able to view the status of various parts of the machine (e.g. compressor) on the computer screen that will help with correctly maintaining the machine and avoiding break downs.



THERMOPLASTIC SPRAY ADVANTAGES

Due to the equipment working via a pressure vessel, it is very simple and easy to use as the pressure in the vessel is the same as the pressure in the application. Furthermore, the tank requires very little maintenance.

Thermoplastic spray markings are a cost-efficient solution as the applied lines do not require as much material as extruded profiled markings. Furthermore, this type of material forms a uniform application that is more durable and dries faster compared to cold paint applications.



THERMOPLASTIC DOT ADVANTAGES

Having numerous dots in a line gives the light a lot of possible areas to fall onto and create a retro-reflective effect. This is essential for having clear visibility, especially while driving during night time.

The drainage effect of the profiled markings ensures that rain water will easily drain away from the lines, thus maintaining high reflective values in rainy weather.

This is possible because of the structure that allows the water to drain. Furthermore, the profiled nature of the road marking produces a noise when driven over that will warn the driver against driving off the road.



TYPICAL USES:

Thermoplastic spray plastic is generally used for road marking in inter-urban areas.



LEARN MORE

Find out more in the Borum Knowledge Lab.

ADDITIONAL EQUIPMENT

The additional equipment can be mounted on the machine according to the requirements. They are not necessary for the running of the machine but add to the comfort of the machine driver or to the functionality of the machine



Quick shift



Ejector filling of bead tank



Air drier for bead tank



Fixed pointer
With hydraulic lifting system



Remote control for BM Lin-eMaster



Cone holder



Pointer turning with steering
With hydraulic lifting system



Sunshade with 1 rotating light



Cruise control



BM Online



Bead alarm mounted on bead gun



Bar with pneumatic lift for mounting warning lights
(Comes without lights)



Pre-marking system with paint gun



Airknife



Pre-marking system with paint can