



PHOTOS MAY SHOW OPTIONAL OR CUSTOMISED EQUIPMENT.



Double basic line



Edgeflex



Longflex



Dots



Dot'n line



Chess

## DOT'N LINE THERMOPLASTIC EXTRUSION

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

The BM 2000 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 265 L.

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

The thermoplastic Borum Dot'n line extruder can apply lines of 5 – 30 cm width depending on the configuration of the equipment. The extruder may be used for the application of flat lines, profiled lines, dots and a combination of dots and lines.

# KNOWING THE BM 2000

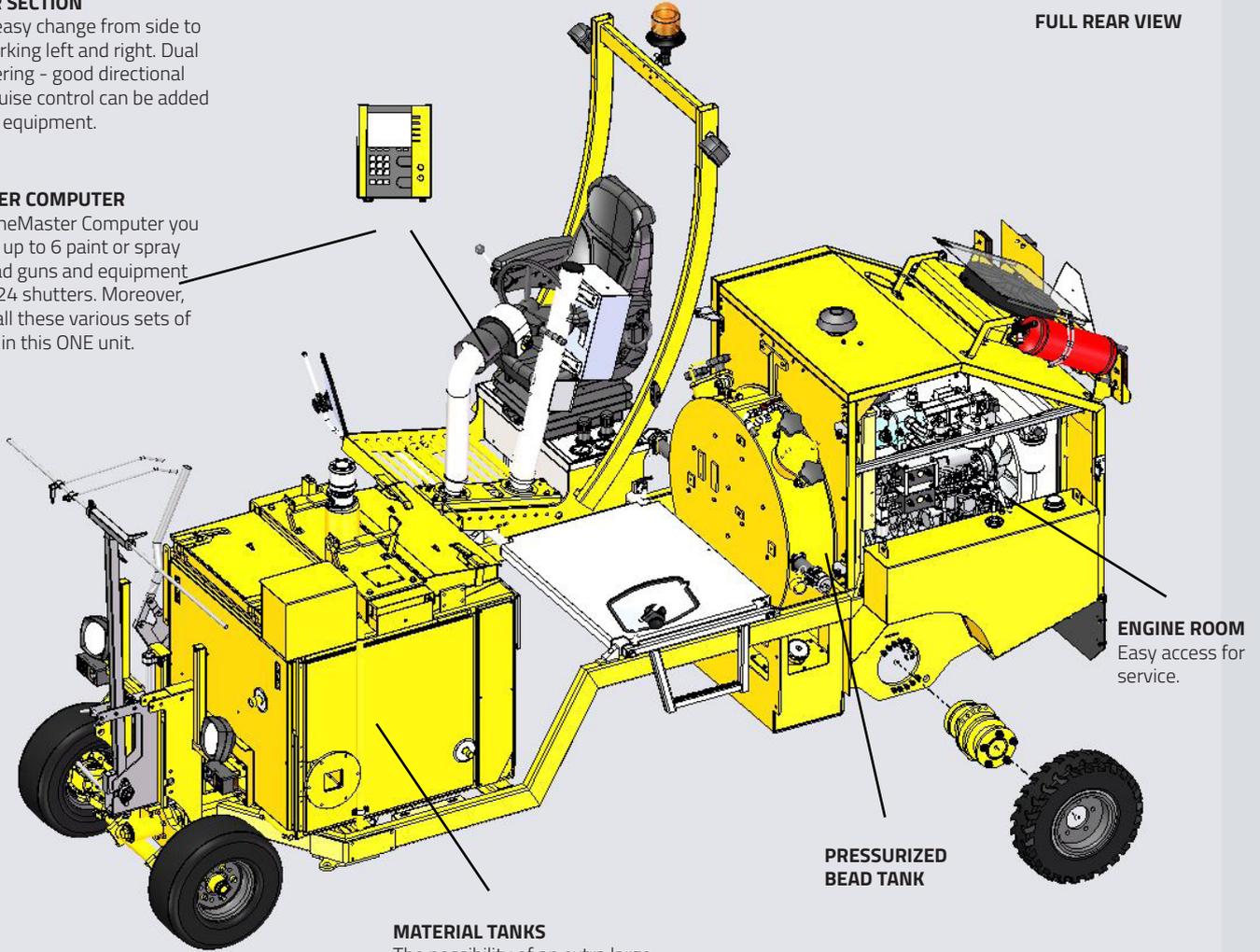
## OPERATOR SECTION

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.

FULL REAR VIEW

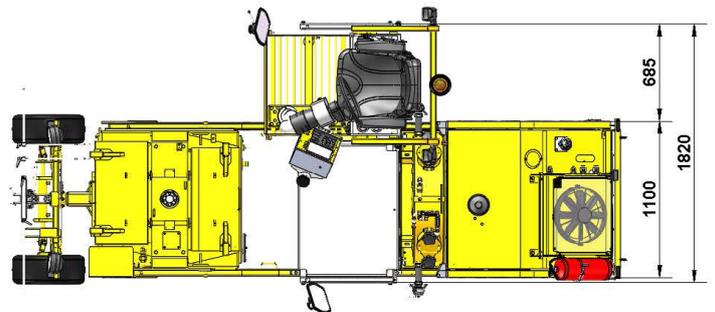
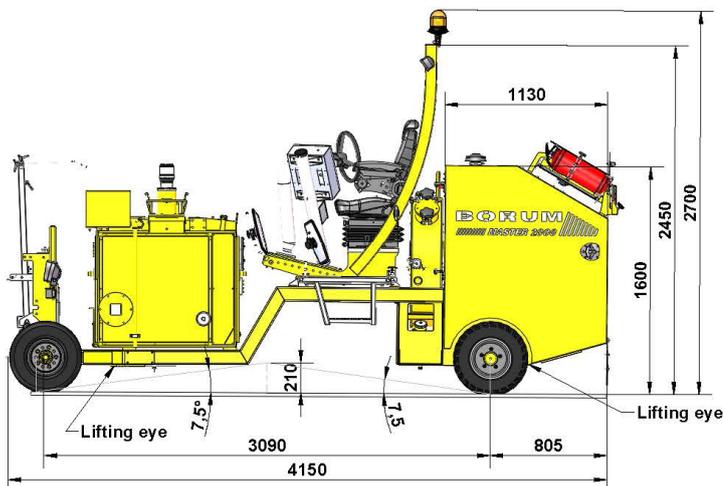


## CHASSIS

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.

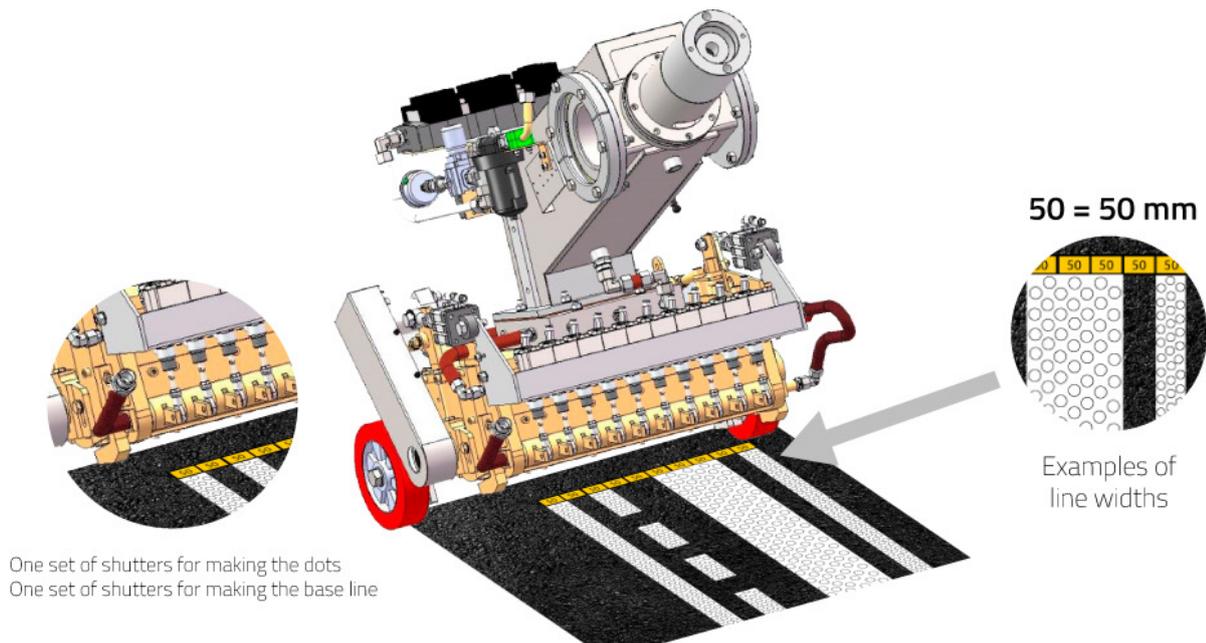


# TECHNICAL SPECIFICATIONS

<b>ENGINE</b>		■ ■ ■ ■ ■ ■ ■ ■
Manufacturer	Kubota	
Type	Turbo (Diesel)	
Cooling	Water	
Cylinder	4 stroke 2400 cm <sup>3</sup>	
RatedPower	44 KW	
Approval	EU stage IIIA (type V2403-M-T-)/US Interim TIER 4	
<b>COMPRESSOR</b>		■ ■ ■ ■ ■ ■ ■ ■
Compressor Capacity	Screw compressor. 1800 L/min @ 10 bar Integrated oil-cooling system. Air-cooler incl. water separator.	
<b>FILLING CAPACITIES</b>		■ ■ ■ ■ ■ ■ ■ ■
Fuel tank capacity	50 L (diesel)	
Hydraulic tank size	50 L	
Bead capacity	115 L/170 kg. Pressurized (max 1.2 bars)	
<b>MATERIAL TANK</b>		■ ■ ■ ■ ■ ■ ■ ■
Material Tank	265 L	
<b>DRIVING PROPERTIES</b>		■ ■ ■ ■ ■ ■ ■ ■
Turning radius	3,2 m	
Steering	Dual torque steering	
<b>TRANSMISSION</b>		■ ■ ■ ■ ■ ■ ■ ■
Hydrostatic transmission	For variable speed, forward/backwards	
Speed	0-16 km/h	
<b>ELECTRICAL SYSTEM</b>		■ ■ ■ ■ ■ ■ ■ ■
Electrical system	12 V / 150 Amp	
<b>CONTROL UNIT</b>		■ ■ ■ ■ ■ ■ ■ ■
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).	
<b>COLOUR</b>		■ ■ ■ ■ ■ ■ ■ ■
Colour	RAL 1007 (Other colours available on request)	
<b>DIMENSIONS</b>		■ ■ ■ ■ ■ ■ ■ ■
Length	4150 mm	
Width	1100 mm	
Height	2450 mm (Without Beacon)	

# 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.



One set of shutters for making the dots  
One set of shutters for making the base line

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 minimalized 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.

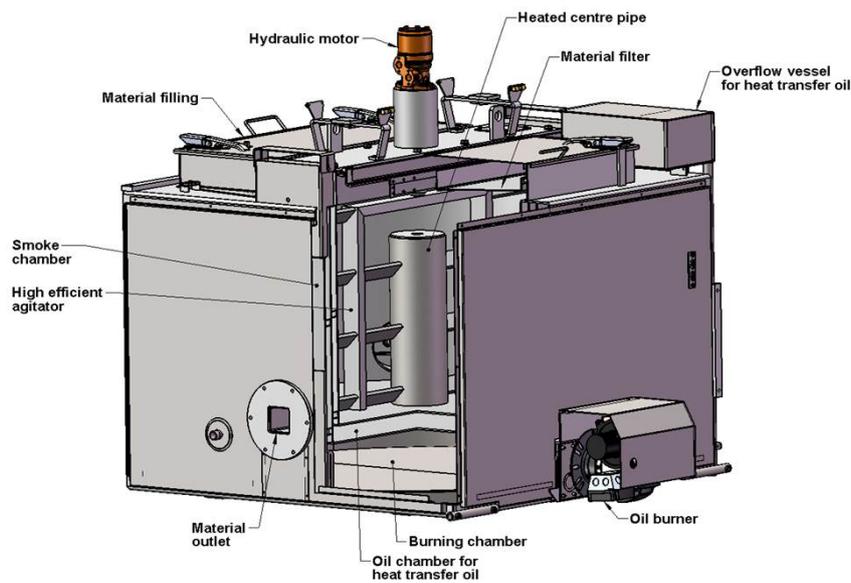
The application speed depends on the type of application and goes up to 6 km/h.

## 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.

# NON-PRESSURIZED THERMOPLASTIC TANK



Non-pressurized thermoplastic tank, indirectly heated via heat transfer oil. The thermal oil and thermoplastic material temperature is thermostatically controlled and regulated automatically according to the settings

## 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.

## BURNER SYSTEM

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

## 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.

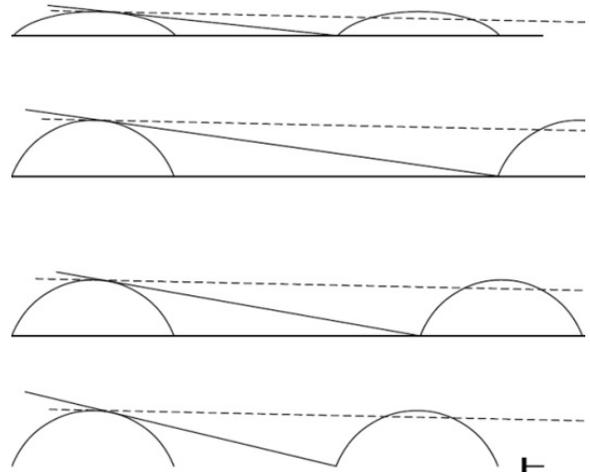
It is possible to store up to 99 different line types, and to arrange these in up to 30 different marking programs. You are also able to pre-set line widths, line types and different combinations to have them ready for marking, and can instantly adjust them on the go.



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 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:

Dot'n line is generally used on roads with high traffic and low night visibility as highways and motorways.



### LEARN MORE

Find out more in the Borum Knowledge Lab.

# ADDITIONAL EQUIPMENT

The additional equipment can be mounted on the machine according to your 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.



**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**



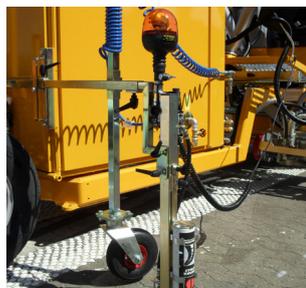
**Bar with pneumatic lift for mounting warning lights**  
(Comes without lights)



**Pre-marking system with paint gun**



**Airknife**



**Pre-marking system with paint can**



**Hydraulic broom**



**Quick shift**