BORUM

BM 5000 T C

PHOTOS MAY SHOW OPTIONAL OR CUSTOMISED EQUIPMENT.

Double basic line

Double basic line

Edgeflex

Longflex

Chess

Single basic line

THERMOPLASTIC EXTRUSION AND COLD PAINT APPLICATION

The BM 5000 series provides you with a variety of high capacity line marking machines designed for large scale jobs such as marking highways, motorways or airport runways.

The BM 5000 T C is a combination machine that can be used for applying both thermoplastic and cold paint markings in various widths.

The cold paint material tank capacity is 440 L and the plastic material tank is 585 L. The possibility of large material capacity naturally gives fewer stops during the day for refilling.

The BM 5000 has a two-seat slidable drive and operator section for flexible working on the left or right side.

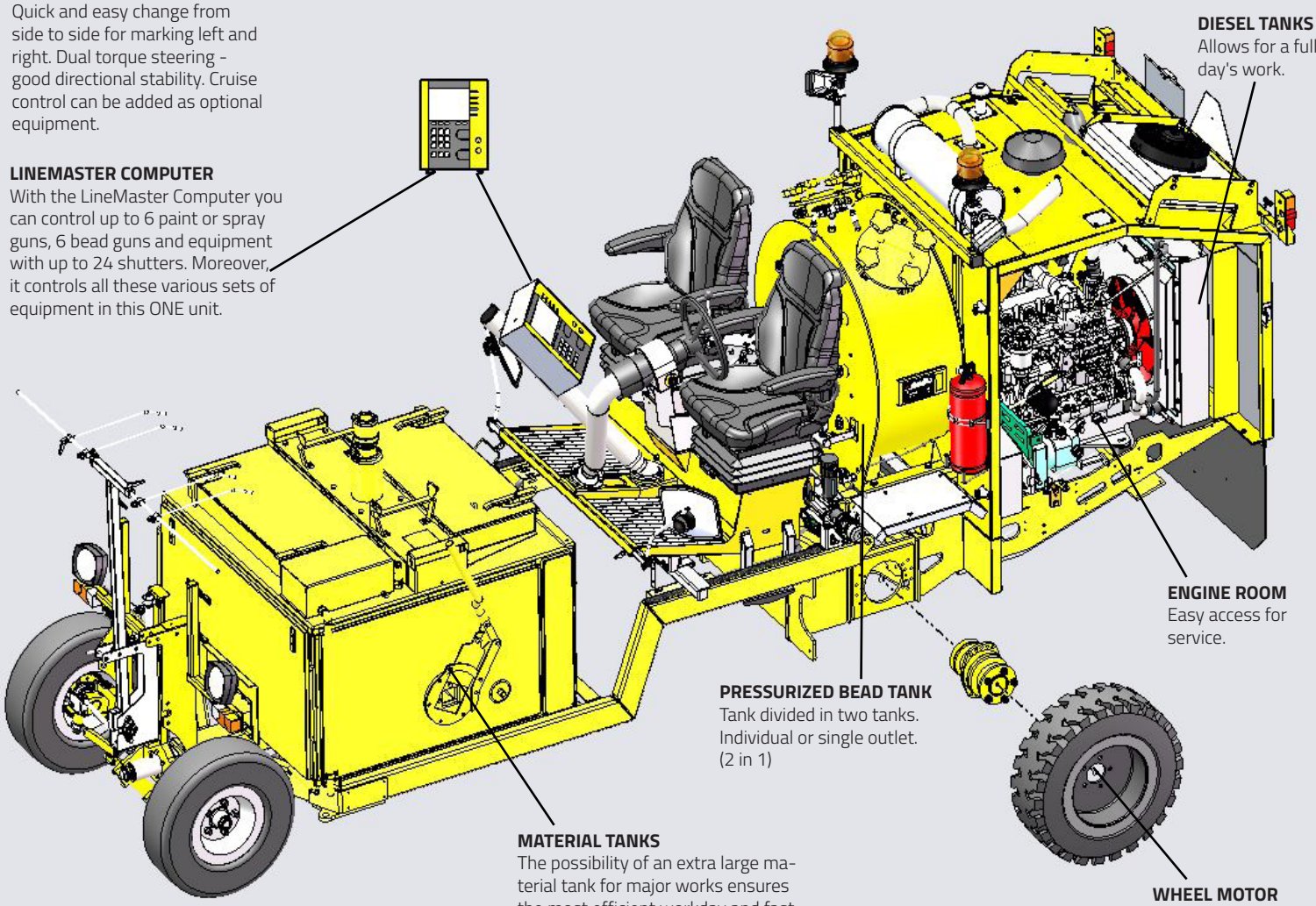
REVISION-004

KNOWING THE BM 5000

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



DIESEL TANKS
Allows for a full day's work.

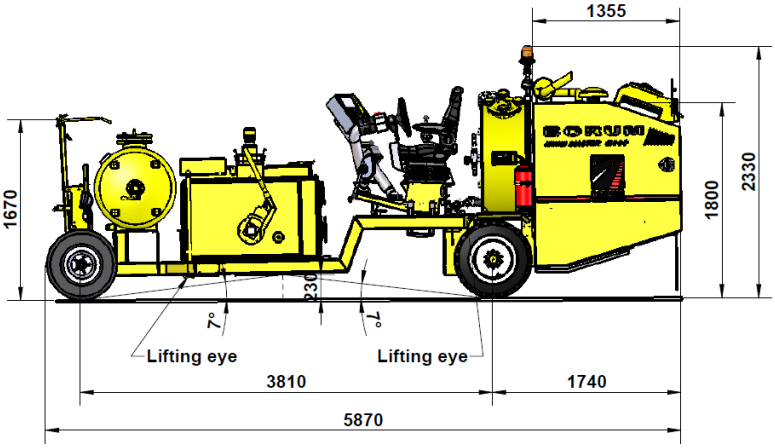
ENGINE ROOM
Easy access for service.

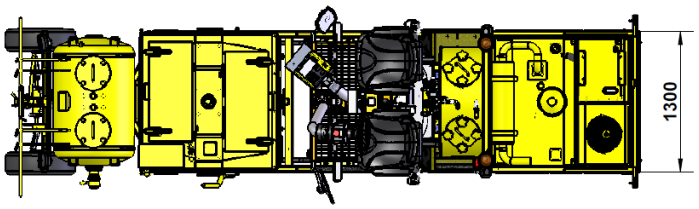
PRESSURIZED BEAD TANK
Tank divided in two tanks. Individual or single outlet. (2 in 1)

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.

WHEEL MOTOR
2-speed wheel motor. Allows working uphill.

CHASSIS
Solid double-frame construction



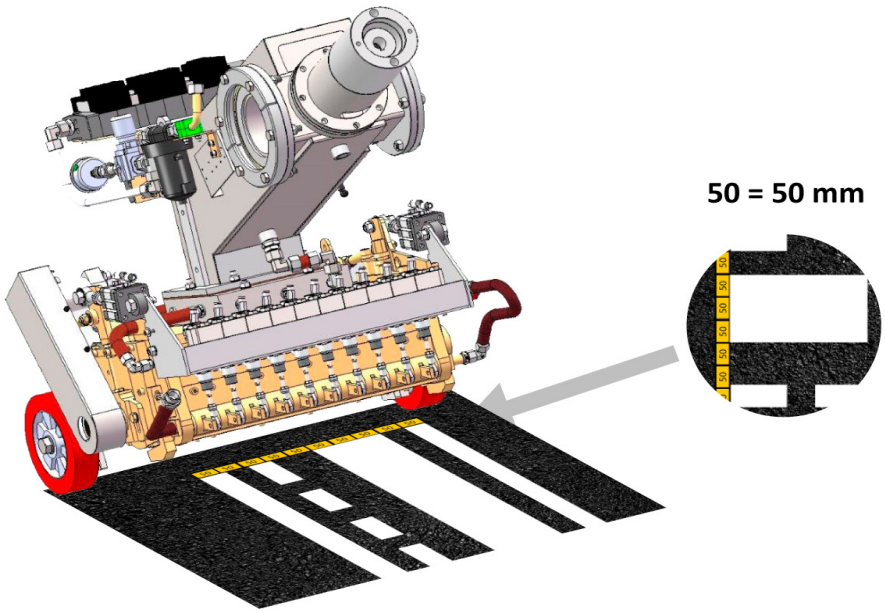


TECHNICAL SPECIFICATIONS

ENGINE	
Manufacturer	Kubota
Type	Turbo (Diesel)
Cooling	Water
Cylinder	4 stroke 3800 cm3
RatedPower	74 KW
Approval	EU Stage IIIA resp. TIER 3
COMPRESSOR	
Compressor Capacity	Choice of 1-2 compressors can give 1800 - 3600 L/min @ 10 bar. Integrated oil-cooling system. Air-cooler incl. water separator
FILLING CAPACITIES	
Fuel tank capacity	180 L (2 x 90 L) - Diesel
Hydraulic tank size	93 L
Bead capacity	330 L (2 x 165 L). Pressurized (max 3 bars)
MATERIAL TANK	
Material Tank	585 L and 440 L
DRIVING PROPERTIES	
Drive angle	12.5 degrees / 22% (low gear 7200 kg)
Turning radius	4.90 m.
Steering	Dual torque steering
TRANSMISSION	
Hydrostatic transmission	For variable speed
Speed	Low gear 0-12 km/h, high gear 0-24 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	5910 mm
Width	1300 mm
Height	2250 mm (Without Beacon)

THERMOPLASTIC EXTRUDER

The working principle of the extruder lies in the extrusion of the hot thermoplastic material through the extruder shutters onto the road surface. This allows to switch between line types in seconds with a push of a button. No need for mechanical adjustment. The thickness of the line is controlled by the slot gap and the speed of the machine, coupled to the thermoplastic feed rate.



Glass beads can be pre-mixed and/or automatically applied with glass bead guns.

You can choose between thermoplastic extruder of 30, 40, or 50 cm in total line width, built-up with 5 cm standard shutters (alternative shutter dimensions in the range of 4-10 cm for alternative line widths).

Effective heating of the complete unit using a centrifugal pump, 42 L/min, hydraulically driven. This ensures optimal performance and that the material does not stiffen and set inside the equipment.

Pneumatic lifting cylinder for up/down function, operation controlled from operator's seat.

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.

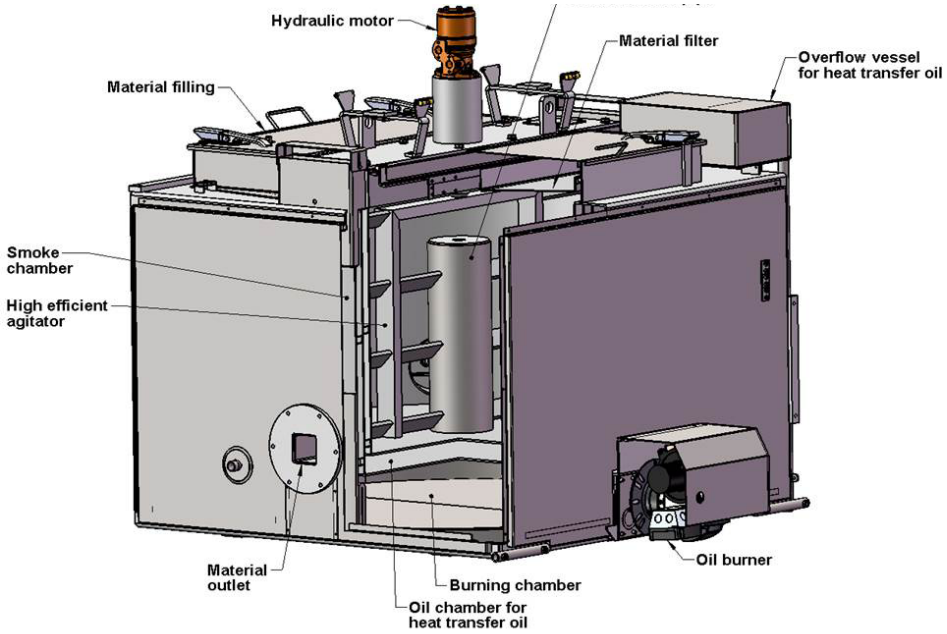
The application speed varies according to the material, line type and width. Usual working speed is 3-6km/h but can go up to 8 km/h for some lines. Speed-dependent settings are possible.

AUGER SCREW PUMP WITH CONTINUOUS RECIRCULATION SYSTEM

The transport of material from tank to extruder head is done by a hydraulically driven auger screw pump, which is electronically controlled. The screw pump has a permanent thermoplastic recirculation system which ensures a constant flow past the inactive extrusion shutters, keeping these clean and ready for opening. This avoids settling and catching of solid parts and prevents unnecessary wear of mechanical parts.

Build-in pressure regulating system ensures that line width and thickness does 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

BURNER SYSTEM

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

CLEANING SYSTEM

10L pressure solvent tank for cleaning of hoses and paint guns.

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.

PRESSURIZED COLD PAINT EQUIPMENT

Air spray with atomizing air is a method of marking that uses a pressure tank for the material and compressed air to atomize and spray the paint onto the road surface.

For all Borum spray machines, the equipment is mounted on a sliding retainer frame as standard that allows you to quickly slide the equipment from one side to another. You can have 1-3 paint guns and 1-3 bead guns are attached.

The ground distance is maintained by a retainer wheel to ensure a constant road marking width.

Lifting of retainer is done from the operator's seat.

Paint filter with cut-off valve for easy maintenance.

The machine can be equipped with two material tanks so that dual-color marking can be carried out simultaneously.

Working speed can be up to 15 km/h depending on the conditions, e.g. material, line type, and operator experience.

BM C6 COLD PAINT GUN

High-performance spray gun. with a 6 mm nozzle set for water-based, solvent-based and high solid paints. The BM C 6 gun can work with paint marking pressure up to approx. 8 bar.

Air capacity of 300-700 L/min. is needed per gun.

Possibility to apply lines in widths from 8 to 20 cm with one gun depending on work conditions, application speed, and layer thickness. Line thickness is typically between 0.25 mm to 0.80 mm.

PRESSURIZED COLD PAINT TANK

Pressurized black steel tank for solvent - based cold paint.

The material tank has a filling system with large filling holes. This makes the filling process very easy to manage. In addition, the large filling holes also make cleaning the tanks easy.

AGITATOR (MIXER)

Driver by hydraulic motor and with manually operated reversing valve.

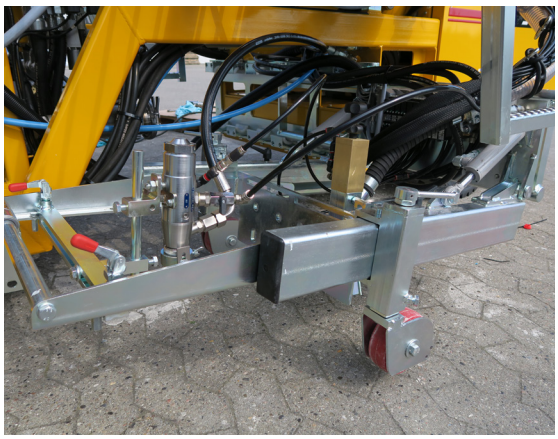
THERMOPLASTIC FEATURES

Thermoplastic is a durable material that cures quickly and adheres strongly to the road surface. It can be used for applications of both flat lines (also known as type 1 lines) or of thick profiled lines and markings (also known as type 2 lines).

This type of material is used on various types of roads, but you will often see it on highways or motorways as it can withstand high traffic density, it has a high visibility at night and during wet conditions and glass beads can be mixed in for enhancing visibility.

COLD PAINT FEATURES

Cold paint material is a cost-effective solution for executing flat markings over all types of pavements and for use in repairments. Flat lines are mainly used in well-illuminated areas as urban roads for e.g. where the lines do not need high retroreflectivity levels.
Although drying time different between types of paints, it is usually quite long and cones and traffic management might be needed.



TYPICAL USES:

Cold paint is a cost effective solution for executing flat markings over asphalt pavements and for use in repairments.

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.

Quick shift

Hand paint gun

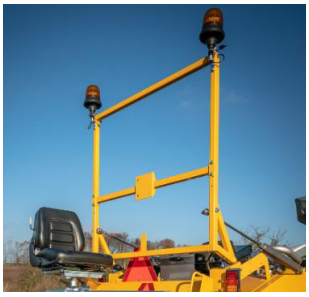
Pre-marking system with paint can

BM Online

Air drier for bead tank

Bead alarm mounted on bead gun

Pointer turning with steering
With hydraulic lifting system



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

Cone holder

Remote control for BM LineMaster

Cruise control

Sunshade with 1 rotating light

Pre-marking system with paint gun

Airknife

Ejector filling of bead tank

Fixed pointer
With hydraulic lifting system