



PHOTOS MAY SHOW OPTIONAL OR CUSTOMISED EQUIPMENT.



Double basic line



Double basic line



Edgeflex



Longflex



Chess



Single basic line

### **THERMOPLASTIC EXTRUSION AND COLD PAINT AIRLESS**

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 CA is a combination machine that can be used for applying both thermoplastic and cold paint markings in various widths.

The paint material tank capacity is 440 L and the plastic material tank is 585 L. The possibility of the 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.

# 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)

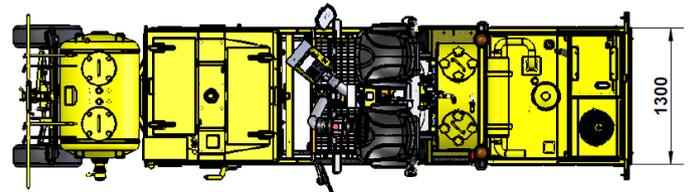
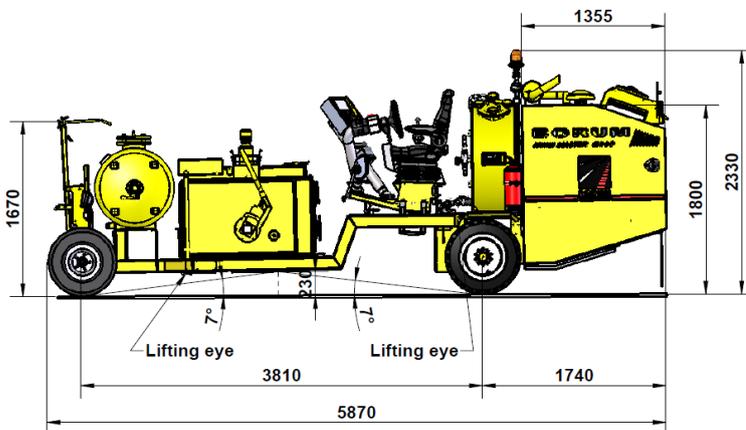
**WHEEL MOTOR**  
2-speed wheel motor. Allows working uphill.

## 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.

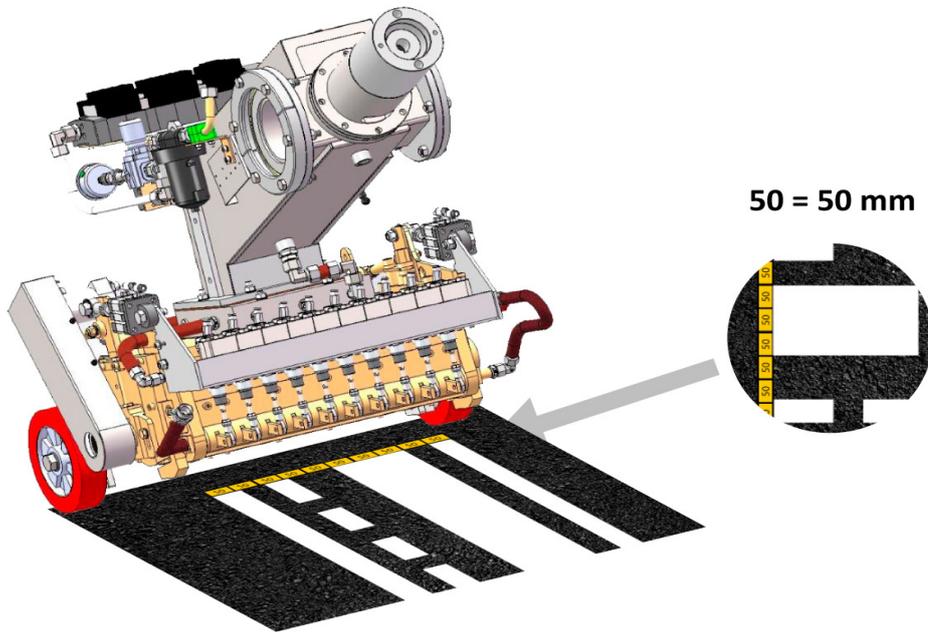


# TECHNICAL SPECIFICATIONS

ENGINE		■	■	■	■	■	■
Manufacturer	Kubota						
Type	Turbo (Diesel)						
Cooling	Water						
Cylinder	4 stroke 3800 cm <sup>3</sup>						
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.

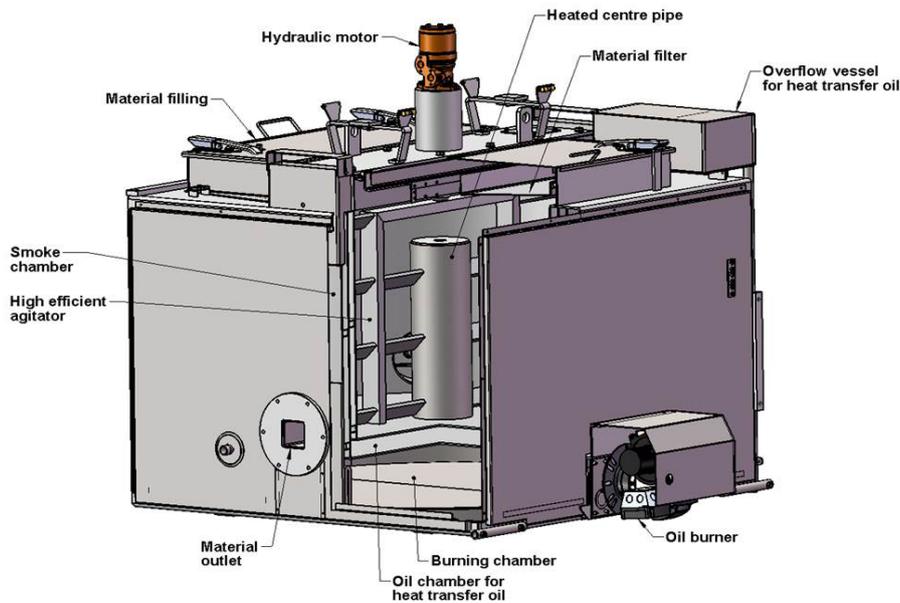
The application speed varies according to the material, line type and width. Usual working speed is 3-6km/h but can go up to 8 km/h for some lines. Speed-dependent settings are possible.

## 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.



# AIRLESS COLD PAINT EQUIPMENT

High-pressure airless spraying uses a high-pressure airless piston pump to spray the paint. This method can apply paints of high viscosity, and apply relatively thick layers in a single pass. However, the paint cannot be mixed in with glass beads as in the case of atomizing spray equipment due to the pump.



Sliding retainer frame, upon which 1-3 paint guns and 1-3 bead guns can be attached as standard. You can also opt for the option wide retainer on which up to 5 paint guns and 5 bead guns can be provided.

Easily slideable retainer from side to side for an optimal working position. Ground distance is maintained by retainer wheel to ensure a constant road marking width.

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

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

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

## BM COLD PAINT AIRLESS GUN

Automatic high-performance spray gun. Nozzle set for water-based, solvent-based and high solid paints. Possibility to apply line widths up to 25 cm with standard nozzles depending on line thickness, work conditions, and application speed. You can also choose from a wide range of nozzle sizes depending on your requirements.

High-pressure filter unit with integrated pulsation damper. Easy cleaning and maintenance.

# NON-PRESSURIZED BLACK STEEL TANK



## NON-PRESSURIZED BLACK STEEL TANK

Non-pressurized black steel tank for water-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)

driven 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.



## ADVANTAGES OF COLD PAINT MATERIAL

High-pressure airless spraying uses a high-pressure airless piston pump to spray the paint. The airless spray paint is sharper and smoother than atomized spray as there is no high-speed airflow to scatter any rebounding paint. The marked lines are neat and more clear-cut compared to atomizing spray paint. This method can apply paints of high viscosity, and apply relatively thick layers in a single pass. However, the paint cannot be mixed in with glass beads as in the case of atomizing spray equipment due to the pump.



## TYPICAL USES:

Thermoplastic is generally used on roads with high traffic volume 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.



**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 Lin-eMaster**



**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



**Hydraulic broom**