

PHOTOS MAY SHOW OPTIONAL OR CUSTOMISED EQUIPMENT.

## LINE TYPES



Single basic line



Single skip line



Longflex



Dots

## 2-COMPONENT EXTRUSION AND DOTS (98:2)

From city areas to urban and interurban roads, the BM 2700 can handle both smaller jobs and longer road stretches.

The BM 2700 is an agile machine with excellent load abilities. It allows for thermoplastic capacities up to 360 liters, 2- component or Cold Paint capacities of 440 liters and for two colors cold paint also 2 x 220 liters.

Equipped with the new generation of Borum's LineMaster computer, operating the machine is easy and convenient.

The application equipment can be set to execute lines in widths between 10-30 cm. The equipment on this machine may be used for the application of flat lines and profiled dots.

REVISION-001

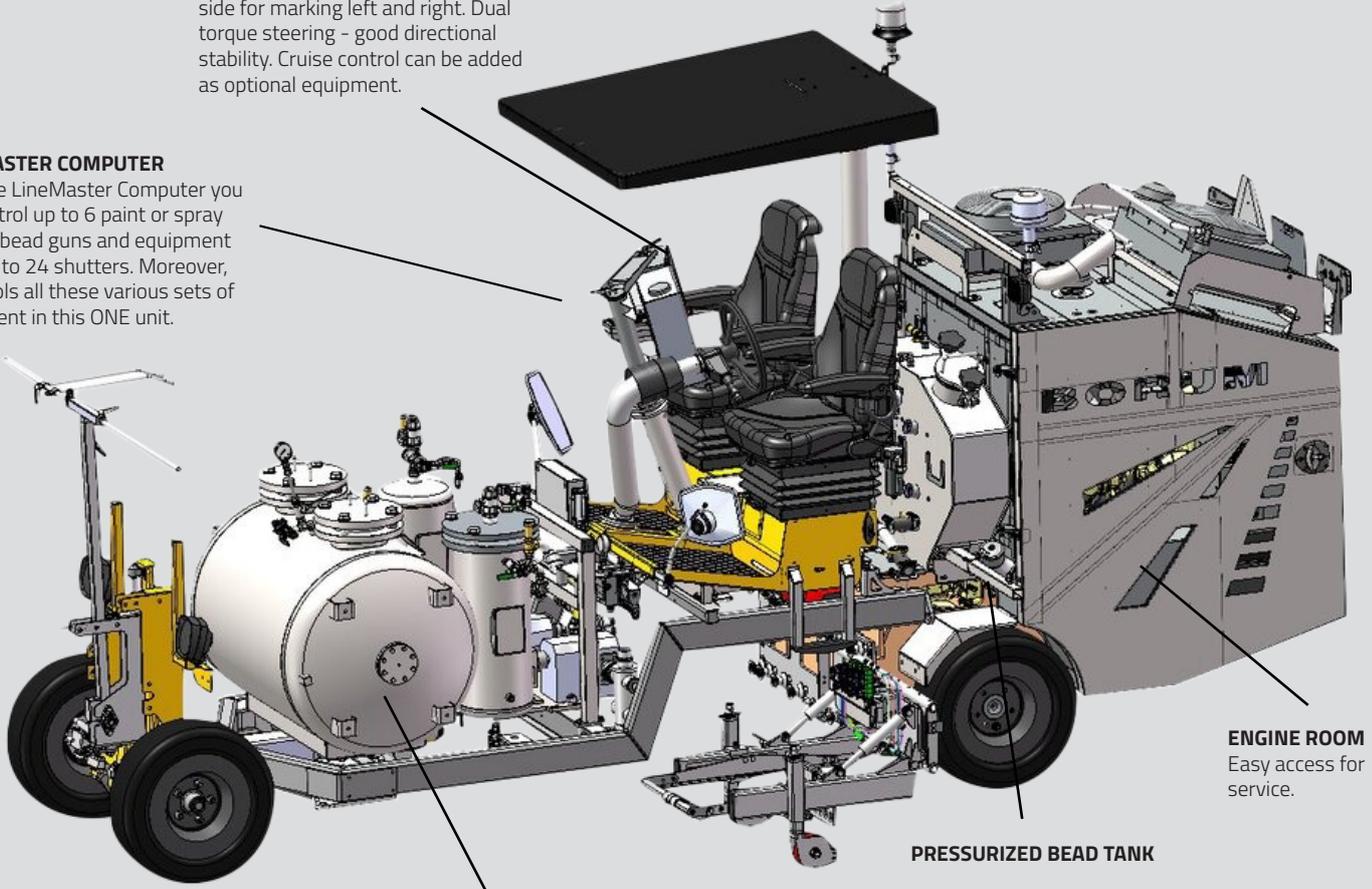
# KNOWING THE BM 2700

## 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.



**ENGINE ROOM**  
Easy access for service.

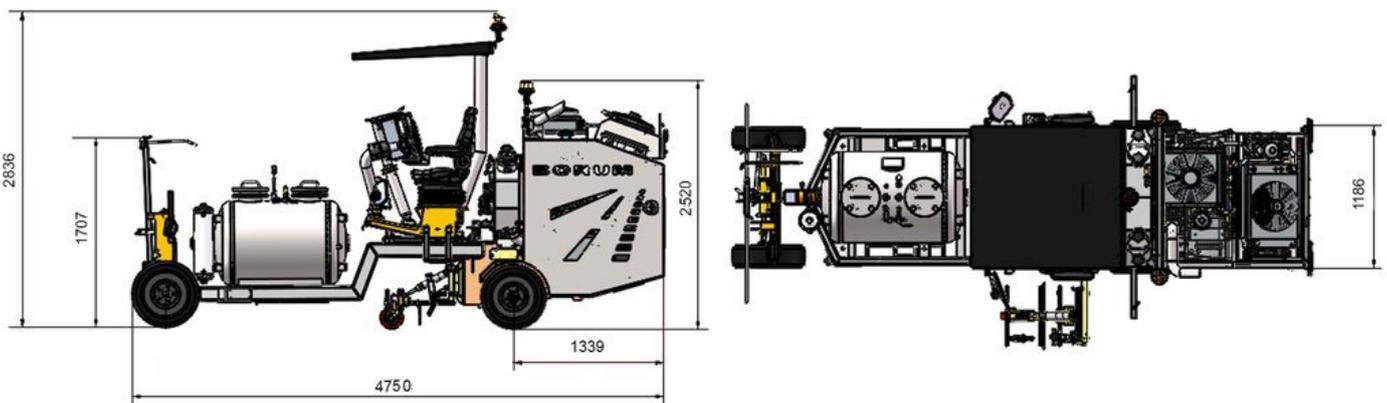
**PRESSURIZED BEAD TANK**

## MATERIAL TANKS

Possibility to choose between black steel and stainless steel tanks with capacities of 440 L or 2x200 L.

## CHASSIS

Solid double-frame construction



# TECHNICAL SPECIFICATIONS

ENGINE		■	■	■	■	■	■
Manufacturer	Deutz						
Cooling	Water						
RatedPower	55 kW						
Cylinder	4 stroke 2900 cm <sup>3</sup>						
Type	Turbo (Diesel)						
Approval	EU Stage V (TIER 4)						
COMPRESSOR		■	■	■	■	■	■
Compressor Capacity	Screw compressor 2400 L/min @ 10 bar. Integrated oil-cooling system. Air-cooler incl. water separator.						
FILLING CAPACITIES		■	■	■	■	■	■
Fuel tank capacity	2x 60 L						
Hydraulic tank size	88 L						
Bead capacity	140 L/224 kg. Pressurized (max 1.5 bar)						
DRIVING PROPERTIES		■	■	■	■	■	■
Drive angle	15° / 27%						
Turning radius	3.45 m						
Steering	Hydraulic dual torque steering						
TRANSMISSION		■	■	■	■	■	■
Hydrostatic transmission	For variable speed, forward/backwards						
Speed	0-17 km/h						
ELECTRICAL SYSTEM		■	■	■	■	■	■
Electrical system	24 V / 100 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	Borum Yellow (Other colours available on request)						
DIMENSIONS		■	■	■	■	■	■
Length	4750 mm						
Width	1180 mm without equipment						
Height	2520 mm						

# 2-COMPONENT COLD PLASTIC (98:2) EQUIPMENT - GENERAL INTRODUCTION

Being equipped with an internal mixer for mixing of the paint and hardener and efficient cleaning system that is easily triggered from the machine's computer, the Borum 2-component cold plastic equipment is constructed to provide high-quality road markings.

## THE BORUM 2-COMPONENT COLD PLASTIC EQUIPMENT (LOW PRESSURE SYSTEM) CONSISTS OF:

1. Separate material tanks for:
  - Paint
  - Hardener
  - Solvent for cleaning
2. Feeder system with:
  - Pump system that ensures the 98:2 ratio for the paint and hardener
  - Mix for blending the paint and the hardener. The mixing of the material is done internally, so it is not affected by external factors as wind etc., as for external mixing
  - Pressure valves digitally controlled by Borum LineMaster computer. No need for mechanical adjustment while marking



## LOW PRESSURE PUMP SYSTEM WITH INTERNAL MIXING FOR SECURING 98:2 RATIO

The pump system consists of a lobe type paint pump and gear type pump for hardener. The two pumps are driven by one hydraulic motor via chain and variable gearbox securing the 98:2 relation between paint and hardener.

The system is also equipped with a controller for performing the flushing of gun(s) and mixer.

## BORUM VARIO RETAINER FOR EASY EQUIPMENT SWITCH

The Borum Vario Retainer provides a unique possibility to interchange between applications in a very short time, with very few standard tools. When the work is done, the retainer and application equipment can be easily stowed under the machine. The retainer makes it possible to use all application equipment in different positions on the machine.

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

## ALARMS

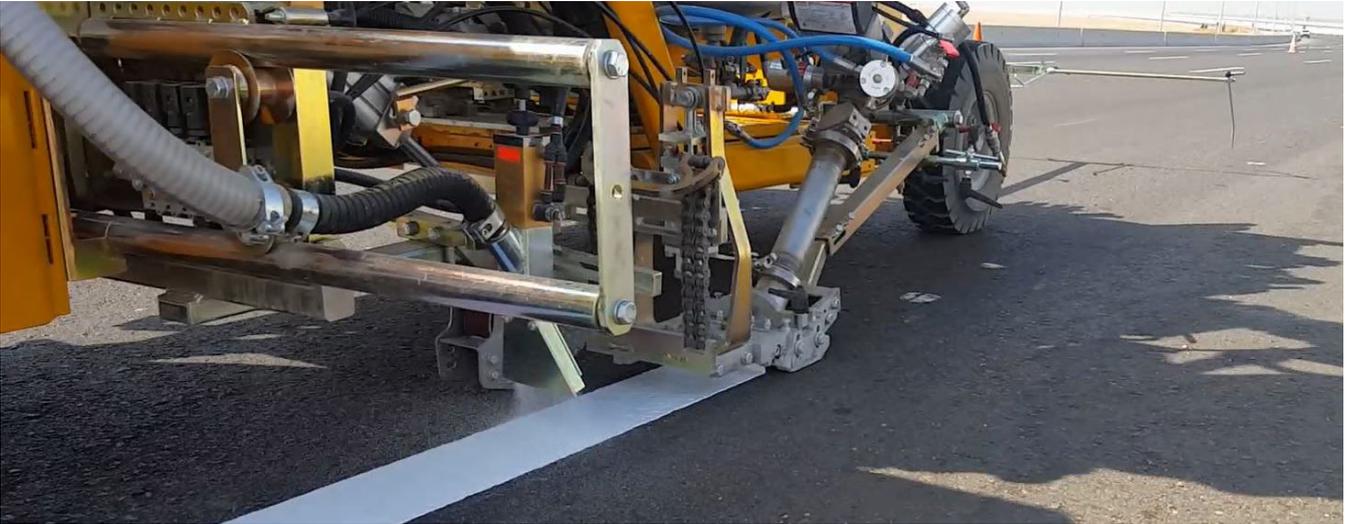
- Alarm when hardener does not flow during marking work. This helps to avoid non-cured markings to be applied
- Alarm when there is a break in the marking works which is longer than set in the computer. This notifies you to clean the system before material cures inside the equipment.



# THIS MACHINE IS EQUIPPED WITH

## 2-COMPONENT COLD PLASTIC (98:2) EXTRUDER

The extruder is ordered for the specific line width. The line width can be 10-30 cm and the line thickness can be set to 1-3 mm (ribs/profiles can be up to 10 mm depending on the material).



The extruder head is provided with a quick connector to the mixer head for easy exchange of equipment. The extruder is also provided with a pneumatic cylinder with cleaning arrangement.

The extruder is ordered for the specific line width. Available line widths are 10, 12, 15, 17, 20, 22, 24, 25, 30 (4, 5, 6, 7, 8, 8.5, 9, 9.5, 10, 12 inch.) Provided with quick connector to the mixer head for easy exchange of head.

Usual marking speed is between 2-6 km/h depending on work and weather conditions, operator experience, etc. Faster application speeds can be achieved.

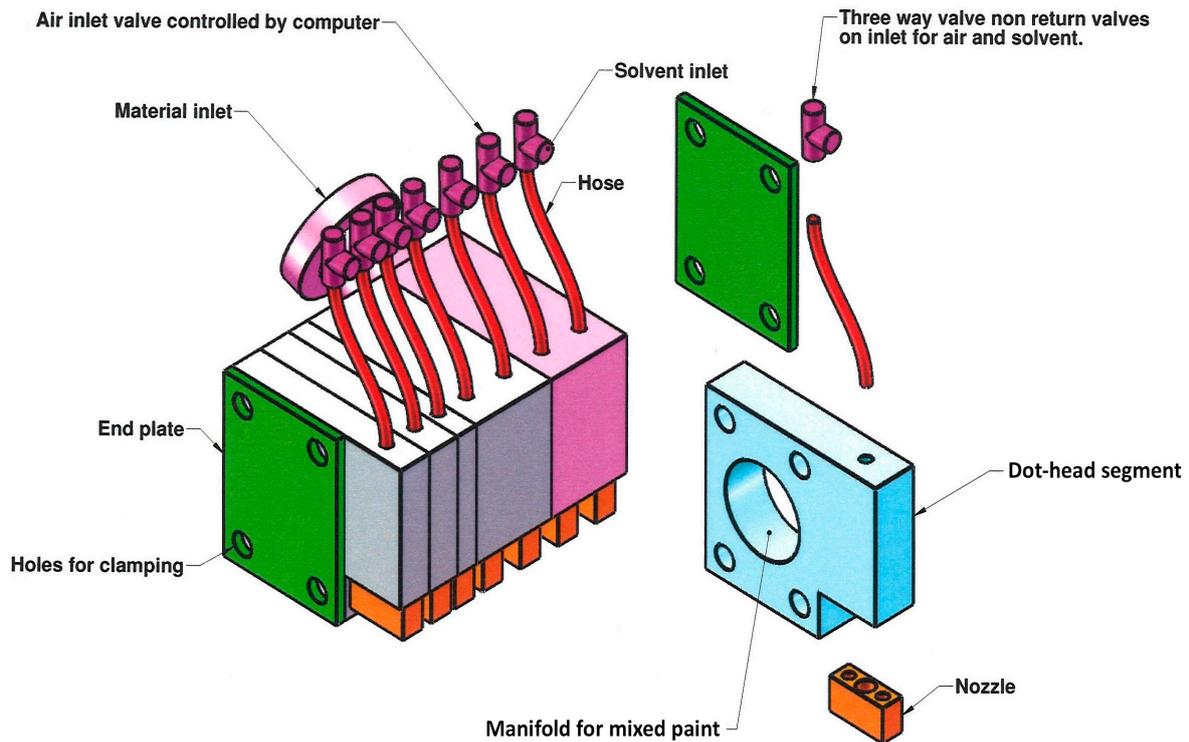
Recommended paint viscosity for extruded lines is higher than 6500 cp and for ribs is higher than 8500 cp.

Fitting and exchanging the Borum 2-Component Extruder with other 2-component equipment, such as Dot or Agglomerate, can be done in less than 2 minutes, without the use of tools.



## DOT APPLICATION, 2-COMPONENT 98:2, STRUCTURED MARKING

For making 2-component dotted lines in all standard line widths.



The Borum 2-component DOT is a flexible system of building blocks, which makes it possible to put together exactly the required application size.

The line width can be 10-30 cm, the line thickness can be from 1,5 to 5 mm, and the gap between the dots is 17 mm. Dot thickness is usually around 3-4 mm.

The marking speed can be 4-5 km/h depending on the conditions, e.g. material, dot size, operator's experience, etc.

DOT basic module includes 6 rows of DOTs. With a built-in mixer and pneumatic valves for paint, hardener and cleaning solvent, all controlled from the LineMaster.

Maximum of 18 dots across the head, separate cleaning extension is needed for dot heads wider than 13 dots.

Recommended quantity dots/m 15-20, controlled in the LineMaster computer. Recommended paint viscosity > 8500 cp.

### AS AN OPTION YOU CAN ALSO ADD ONE OF THE FOLLOWING APPLICATION EQUIPMENTS

#### 2-COMPONENT SPRAY 98:2

The machine can be supplied with one or two spray guns and possibility to apply line widths of up to 20 cm (8 inch) per gun. Please notice that restrictions apply when 2 guns are mounted.

#### 2-COMPONENT 98:2, EXTRUDER 98:2 (STRUCTURED MARKING)

The extruder is ordered for the specific line width. Available line widths are 10, 12, 15, 17, 20, 22, 24, 25, 30 (4, 5, 6, 7, 8, 8.5, 9, 9.5, 10, 12 inch.) Provided with quick connector to the mixer head for easy exchange of head.

#### 2-COMPONENT 98:2, AGGLOMERATE APPLICATION (STRUCTURED MARKING)

Agglomerate needle roller available in a standard width of 30 cm (11.8 inch). It must be mounted under extruder unit. Line size depends on the extruder.

\*NB! There are limitations when using the same machine for both sprayed and profiled applications.

# PRESSURIZED STAINLESS STEEL TANK



## PRESSURIZED MATERIAL TANK FOR 2-COMPONENT

Pressurized material tank and filters in stainless steel for water and ammonium based paints. Option for black steel tanks. The material tank has a filling system with two filling holes. This makes the filling process very easy to manage.

## AGITATOR (MIXER)

Driven by hydraulic motor and with manually operated reversing valve.

## EASY-TO-USE CLEANING SYSTEM

The cleaning system is formed by a solvent tank for cleaning of mixer-head, hoses and paint guns. The system is activated via the Borum LineMaster computer. The cleaning is an automated preset sequence ensuring the correct valves are opening/closing.

36L (79 lb wt.) pressure solvent tank for cleaning of mixer-head, hoses and paint guns.  
Stainless steel, max 8,5 bare (123 psi)

NB! When working with 2-component whenever the application is stopped, application equipment has to be cleaned from the cold plastic mixture within a few minutes.

## FEATURES OF LINEMASTER AND MACHINEMASTER

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.

In the MachineMaster computer, 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.



## 2-COMPONENT MATERIAL ADVANTAGES

The 2-component application material is a great solution for ensuring reliable line markings in areas with dense traffic. With 2-component material, you get a wear-resistant road marking with good visibility, durability and little dirt pick up.



The challenge with 2-component cold plastic material is that once it is mixed it needs to be applied on the road right away. Even though Borum machines are designed to mix the materials as late as possible in the application process, you will need to pay attention to the time frame you have, before the material cures inside the machine / equipment.



### 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



**Ejector filling of bead tank**



**Sunshade with 1 rotating light**



**Pointer turning with steering**  
With hydraulic lifting system



**Remote control for BM Lin-eMaster**



**Air drier for bead tank**



**Cone holder**



**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**



**Fixed pointer**  
With hydraulic lifting system



**Airknife**



**Pre-marking system with paint can**



**Hydraulic broom**



**Hand paint gun**