

MIXING CENTRE FOR DELIVERY OF CELLULAR CONCRETE

Type: MS 1000M

Data Sheet No. 011.1

A machine for making and delivery of lightweight concrete (LC) filled with technical foam — **foam concrete (PBG)** or with polystyrene beads — **polystyrene concrete (PsB)**.

Individual parts of the machine represent a single compact unit on a common frame placed on a braked chassis or anchored to the floor.

Dosing of all components and a mixing process are controlled by a computer control unit. An optimal assembly consists of MS 1000 together with 1 or 2 conveyors for dry components re-dosing. The control - automatic switching on and off - of silos and conveyors and their vibrators is provided through their power connection to the switchboard (sockets) of MS 1000 Control Centre (CC).

The production process has two phases. In the first phase, raw materials are successively automatically fed into the mixer and are thoroughly mixed: first, mixing water with chemical admixture (if required) together with cement, followed by sand (if required) and the preformed foam. Fibre and polystyrene beads (if required) are dosed manually.

In the second phase, the uniformly mixed LC mortar is pumped by a built-in or external screw pump using hoses to the place of installation at a speed that can be regulated.



Use: The machine is designed for LC production directly on site or in a factory and can operate:

- In automatic mode in cooperation with a transport or stationary dry mixture silo.
- In automatic mode in cooperation with a truck agitator dispensing grout.
- In automatic or semi-automatic mode with manual loading of (packed) dry components that can be fed into the unit feed hopper by means of conveyors.

Main parts: Base Frame, Control Centre, Mixer, LC Delivery Pump, Water Tank, Water Pump(s), Foam Generator and Chassis. The Control Centre (CC) consists of a computer control unit, a frequency converter, calibrated scale under the mixer, water and admixture meters, and a central box with fusing and protection of electric drives of connected equipment.

- Contains:**
- System of accurate re-dosing of all input raw materials, i.e. dry and liquid ones including technical foam
 - Mixing process control system – eliminating impact of operators on a mixing process
 - Liquid admixture automatic dosing system
 - Integrated electronic calibrated scales for weighing dry components or grout
 - Foam making concentrate automatic dosing system
 - System of automatic switching the LC delivery pump and blender off after pumping the fresh LC out
 - System signals not allowed decrease of power supply voltage
 - System signals faulty phases order of electric power supply
 - Automatic blender cleaning system
 - System of protection of connected equipment electric drives

Specification:

Installed power:	from 17 kVA; protection class IP 44 (sprayed water)
Production capacity (Production cycle time):	up to 15* m ³ of PBG / hour (from 4* min per 1 m³ of PBG)
Input component dosing accuracy:	± 3 %
Mixer volume (effective) / Mixer drive:	1170 (1000) l / 5,5 or 7,5 kW
Built-in pump capacity – GB 800M / 1200M, 7,5kW (Pmax):	up to 15 / 24 m ³ of PBG per hour (8 / 5 bar)
Delivery head** of GB 800M Pump – PBG / PsB:	up to 70+m / 24 m
Length of delivery hoses Js 50 mm:	250+m without vertical difference
External pump–GB800L/p, 11kW, 12 bar (Delivery head**):	up to 15 LC per hour (up to 100+m PBG / 70+m PsB)
Aggregates:	up to 4 mm
Foam generator capacity (concentration range):	7 / 10 / 13 l/sec at a foam density of 60 g/l (from 1 to 5 %)
Water tank volume:	270 l
Weight (without chassis):	from 1 435 kg (from 1 100 kg)
Dimensions — l x w x h (without chassis):	4 465 x 1 940 x 1 980 mm (3 040 x 1 500 x 1 450 mm)
Feeding hopper ground clearance (without chassis):	1 930 mm (1 450 mm)

* Mainly depends on the dosing speed of dry components and the type of the installed pump (GB 800M or 1200M)

** Delivery head depends on the LC density, consistency, the length of hoses and the type of the installed pump

Transport: Behind a passenger car with towing capacity min 1 500 kg (braked). Accessories are carried in a towing vehicle.

Operation:

Operating ambient temperature: 0—40 °C

Power supply: 400 V/50 Hz, 5 pin connection (CEE-coupling), fusing (C) min. 32 A

Water supply: min. 3/4" with capacity min. 1.0 l/sec

Access road for: a van with a trailer, in the mode of cooperation with a transport silo, it is defined by the silo supplier about 5 x 3 m for MS 1000 without area for a silo

Required hardened surface:

Safety: The equipment MS 1000 is accredited by EU safety rules and standards and is marked with **CE: EC-TYPE EXAMINATION CERTIFICATE** according to Directive 98/37/EC(98/79/EC No. 00013/103/2/2007
Electric installation is in a five-pin version with a current protective switch.

Validity from 01.01.2015

MIXING CENTRE FOR DELIVERY OF LIGHTWEIGHT CONCRETE

Type: MS 1000S

Data Sheet No. 011.2

A machine for making and delivery of lightweight concrete (LC) filled with technical foam — **foam concrete (PBG)** or with polystyrene beads — **polystyrene concrete (PsB)**.

It is mainly designed for manufacturing prefabricated components. Separate parts of the equipment compose a compact unit with minimized demands on occupied area. Dosing of all components and a mixing process are controlled by a computer control unit.

An optimal assembly consists of MS 1000S together with three conveyors for dry components re-dosing and an external electronic scale. The control - automatic switching on and off - of silos and conveyors and their vibrators is provided through their power connection to the switchboard (sockets) of MS 1000 Control Centre.

The production process has two phases. In order to speed up the feeding of raw materials, the dosing of all dry components occurs simultaneously together with mixing water and chemical admixture (if required). In the second phase, the uniformly mixed LC mortar is pumped by a built-in or external screw pump using hoses to the place of installation at a speed that can be regulated.



Use: The MS 1000S is designed for operation in automatic mode while it can simultaneously control three conveyors for accurate re-dosing of two dry components as a minimum.

Main parts: Base Frame, Control Centre, Mixer, LC Delivery Pump, Water Tank, Water Pump(s), Foam Generator (and Chassis)

The Control Centre (CC) consists of a computer control unit, a frequency converter, an integrated combined electronic calibrated scales: internal ones weighing the mixer and external scales (if required) weighing the hopper of one conveyor, water and admixture meters, and a central box with fusing and protection of electric drives of connected equipment.

- Contains:**
- System of accurate re-dosing of all input raw materials, i.e. dry and liquid ones including technical foam
 - Mixing process control system – eliminating impact of operators on a mixing process
 - Liquid additive automatic dosing system
 - Weighing calibrated system for parallel (simultaneous) dosing of two dry components
 - Foam making concentrate automatic dosing system
 - System of automatic switching the LC delivery pump and the mixer off after pumping the fresh LC out
 - System signalises not allowed decrease of power supply voltage
 - System signalises faulty phases order of electric power supply
 - Automatic blender cleaning system
 - System of protection of connected equipment electric drives

Specification:

Installed power:	from 20 kVA; protection class IP 44 (sprayed water)
Production capacity (Production cycle time):	up to 15* m ³ of PBG / hour (from 4* min per 1 m³ of PBG)
Input component dosing accuracy:	± 3 %
Mixer volume (effective) / Mixer drive:	1170 (1000) l / 5.5 or 7.5 kW
Built-in pump capacity – GB 800M / 1200M, 7.5kW (Pmax):	up to 15 / 24 m ³ of PBG per hour (8 / 5 bar)
Delivery head** of GB 800M Pump – PBG / PsB:	up to 70+m / 24 m
Length of delivery hoses Js 50 mm:	250+m without vertical difference
External pump–GB 800L/p,11kW,12 bar (Delivery head**):	up to 15 LC per hour (up to 100+m PBG / 70+m PsB)
Aggregates:	up to 4 mm
Foam generator capacity (concentration range):	7 / 10 / 13 l/sec at a foam density of 60 g/l (from 1 to 5 %)
Water tank volume:	270 l
Weight without external scales (without chassis):	from 1 460 kg (from 1 140 kg)
Dimensions — l x w x h: (without chassis):	4 465 x 1 940 x 1 980 mm (3 140 x 1 500 x 1 750 mm)
Dimensions of the weighing frame-l x w x h / Weight:	1400 x 830 x 830 mm / from 45 kg
Feeding hopper ground clearance (without chassis):	1 930 mm (1 700 mm)

The MS 1000S equipment is designed to be anchored to the floor or mounted on the chassis for casting in-situ.

* Mainly depends on the dosing speed of dry components and the type of the installed pump (GB 800M or 1200M)

** Delivery head depends on the LC density, consistency, the length of hoses and the type of the installed pump

Transport: By truck or behind a passenger car with towing capacity min 1 500 kg (braked). Accessories are carried in a towing vehicle.

Operation: Operating ambient temperature: 0—40 °C
 Power supply: 400 V/50 Hz, 5 pin connection (CEE-coupling), fusing (C) min. 32 A
 Water supply: min. 3/4"with capacity min. 1.0 l/sec
 Required hardened surface: about 5 x 4 m incl. drainage

Safety: The equipment MS 1000 is accredited by EU safety rules and standards and is marked with **CE**:
EC-TYPE EXAMINATION CERTIFICATE according to Directive 98/37/EC(98/79/EC **No. 00013/103/2/2007**
 Electric installation is in a five-pin version with a current protective switch.

Validity from 01.01.2015