

# METALIKA

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# CONCRETE BATCHING PLANT with full automatic model in-line hopper Type BS-60 automatic



# **Specifications:**

Engine power  Mixer output (concrete)	37 kW <b>1m3</b>	
Mixer volume -Dry filling	1500 liters	
Mixer	M 1500	
Type of Concrete batching plant	BS-60 automatic	

Water gauge

Water supply 2"

The water flow at a pressure of 5 bar

Pulse flow meter

30 m³/h

Impuls /liter

# Storage aggregates in line silos

Capacity of 90 m<sup>3</sup> with 4 silo / fractions / capacity  $22.5 \pm 2.5\%$  m<sup>3</sup> per silo.

Silos are mounted on concrete foundations. (Preparation of the foundation are the responsibility of the buyer as well as access ramps)

Electric motor vibrator for fraction 0-4 mm. 2 pieces

The possibility of fine aggregates dosing.

Electro mechanical weight conveyor with belt width 800 mm, length of 16 m, with a

measuring range of MO 3000 kg and the drive power 11 kW. Quality conveyor belts EP400/3-4+2

**Skip device** for aggregate transport from 15 kw

scale to mixer.

Air Compressor

Power

# Cement scale, measuring range MO 600 kg

All Compressor	
Operating pressure	6-8 bar
Capacity	475 l/min
Reservoir	140 I

# **Snail cement transporter**

Length of transport	7 m
Capacity	45 t/h
Engine power /LENZE Austria/	7.5 kw

#### **Electrical connection**

For a plant with two snail PT45	86.5 kw
Operating voltage and frequency	380V/50 Hz

# Maximum capacity

of fresh concrete – theoretical -	60 m <sup>3</sup> /h
of compacted concrete	50 m <sup>3</sup> /h

#### **DESCRIPTION CONCRETE BATCHING PLANT \*BS-60 Automatic\* WITH PRICES:**

4 kw

# 1. Plant frame with guide beams for skip baskets

It is made of U-profiles, square tubes and covered with steel plates.

### Agreggate hoppers /bunkers/ in line

Capacity of 90 m<sup>3</sup> with 4 hoppers capacity 22.5 ± 2.5% m<sup>3</sup> each

Hoppers are mounted on concrete foundations.

(Preparation of the foundation are the responsibility of the buyer as well as access ramps)

Electric motor vibrator for bunkers 0-4 mm. 2 pieces

The possibility of fine aggregates dosing.

Electro mechanical weighing conveyor with belt width 800 mm, length of 16 m, with a measuring range of MO 3000 kg and the drive power 11 kW.

Quality conveyor belts EP400/3-4+2

#### 2. Skip device with basket

Transports cocnrete from conveyor to mixer.

#### 3. Pan Mixers with vertical axle

Manufacturer of mixer: METALIKA.

Type mixers: M 1500

Power supply of mixer is: 37 kW/ LENZE Austria /

The capacity is 1 m<sup>3</sup> of concrete.

Mixer has a diameter of 2760 mm, a depth of 500 mm making it shallow for mixers in this category. Concrete is mixed on a larger area which reduces the mixing time of concrete, but the quality of mixing is not reduced.

Inside the mixer is fully coated with a protective removable pads 10 mm thick, which are made of steel with a manganese content to 0.8%.

In the system of mixing is rotor (casted by the SL22) and processed in a tightening in the horizontal drill-milling machine, which guarantees absolute centricity when turning. Rotor mass 500 kg carries a nine-lever (with rubber bumpers for protection against wear) for mixing concrete with spring suspension bearing, which is another guarantee that the quality of concrete mixing is guaranteed.

Discharge of mixers is via electro hydraulic shutter with gear rack, which allows opening the shutter for  $180\,^{\circ}$  C. In emergency, it is capable to open through the manual hydraulic pump.

The covers of mixers are made of a two-part so that at any time you can lift half of the cover over the winch. This system makes a lot easier maintenance of mixer.

#### 4. Automatic control system

The controlling system is located in the operator's cab. It consists of the two parts: control and energy, but this two parts are physically separated. In part of the energy equipment are installed by AEG and a SCHNEIDER-Electrik.

Software for process automation is SCADA.

Command desk (controlling part) is made of steel and it is completely closed in IP56 protection level. On the command desk, there is technological scheme of plant working with full color signalization (prescribed by IEC standards). On the desk, there are touch panels through which it is also possible to control plant.

The control system allows operation in automatic mode, manual mode or in combination.

This system (beside all these possibilities) provides more space for recipes (over 100 recipes, and the ability to add (if needed) moisture gauges and gauges of the level cement in silos, without adding new electronics, or adding balances for stone flour, propylene, etc.). In this variant, we can provide a complete analysis of the production process of concrete. Which means you can print at any time delivery list with all information about the quality and quantity of concrete delivered to each vehicle.

Then, as an option can be installed software for financial and material Accounting with complete monitoring of production and all analysis of the production. This software is not counted in the given equipment and accessories go as per customer request.

Within this system is automation related to opening and closing mixers, dosage of cement and two types of additives.

# 5. Cement silo BOLTED 35m3 / 45t with screw cement transporter PT45 L =7 m

To store and to transport cement to the cement scale. Capacity of screw is 45 t/h and power is 7.5 kW.

With the necessary filters, fludisation, openings for cleaning, input and output of cement. Without AIR COMPRESSOR

# 6. Special equipment

#### DEVICE FOR ADDING TWO TYPES OF ADDITIVES

The device consists of two dosing pumps, balance for measuring, pump and device with the necessary automated controlling system for dosing additives.

7. **Humidity sensor** below sand hopper, one microwave probe with automation, result from previous measuring of humidity to be used as correction factor for next measuring (this will save time needed to obtain humidity value and will not slow mixing process), double humidity correction, eg if 1000kg of sand have 10% of water, correction will be 1000+100+10kg = 1110kg sand, made in Spain.



**Terms of production:** 90 to 120 days after order confirmation.

#### **INSTALLATION**

For installation of equipment is planned two arrival:

for rough assembly - it is needed five days and two workers that we will send and three days for commissioning with training of operators.

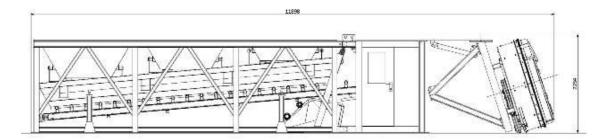
Foundation have to be prepared before installation.

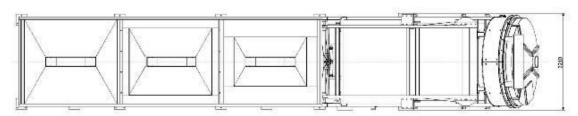
#### **OUR OBLIGATION**

- Loading equipment on buyer's vehicles.
- Installation of plant for installation we send two trained workers (rough assembly)
- After a rough assembly, technician will come for commissioning of the plant and for training of operator.

#### **BUYER'S OBLIGATION**

- Provision of crane 40 t.
- Four extra workers for rough assembly
- Presence of future operators on the concrete plant.
- Weights for calibrating
- Before plant delivery, foundations must be prepared.
- The construction site must be well organized and planned, with storage place for parts.
- Water supply to the operator's cab (diameter of pipe 2")
- Power supply to the operator's cab Cable Cu 4x70 mm<sup>2</sup> up to 10 m length from the location shown on the disposition of the ground.
- Auxiliary tools for assembling, such as scaffolding, wooden beams, oxygen, acetylene and electricity.





# **TECHNICAL DOCUMENTATION**

When the order is realized, the buyer will receive the following documents.

- General conceptual drawing
- Drawing of the fundament with the loads (the drawing is only for dimensions and loads, it can't be used as drawings of formwork and reinforcement).

After commissioning, the buyer will receive:

- Electric scheme
- Instructions for use and maintenance and spare parts catalog.

# **GUARANTEE TERMS**

According to our terms of delivery and payment.

The guarantee is 12 months putting machine into the work or max 18 months after delivery.

The guarantee applies to the functionality of the plant, the guarantee is not valid for consumption parts.