

ELKON MOBILE MASTER - 100 LION FULLY AUTOMATIC MOBILE CONCRETE BATCHING PLANT



Working Position of **ELKON MOBILE MASTER-100 LION**
Fully Automatic Mobile Concrete Batching Plant

Elkon Mobile Master Series Batching Plants are not only the result of advanced technology and engineering skills but they are also new generation Batching Plants. It is only possible to fit all units of the Batching Plant to a limited area by extensive R&D work, experience and accurate production facilities.

Elkon Mobile Master Series Batching Plants can go thousands of kilometers on its own axle with a single towing vehicle for instance a trailer. **ELKON MOBILE MASTER-100 LION** Mobile Concrete Batching Plant is the new generation concrete batching plant with its advantages comparing to other concrete batching plants:

- Compact design
- Easy installation and start-up
- Less foundation costs
- Fully automatic robust control system
- Reliable units (Siemens, WAM, Telemecanique, Beckhoff, Jotun, Pirelli etc.)
- Technologic and high quality production
- Inconformity with GOST-R, UkrSEPRO and European Norms

TECHNICAL SPECIFICATIONS

1. AGGREGATE SILO

- Capacity : $4 \times 22.5 = 90 \text{ m}^3$
- Welded and bolted construction
- 4 compartments
- suitable for storage 4 different types aggregate
- 4 group electro-pneumatically operated discharge gates.
- Two different compartments will equipped with 2 units different vibrators.
- Aggregate silo panels are formed in very special mould to give high durability.

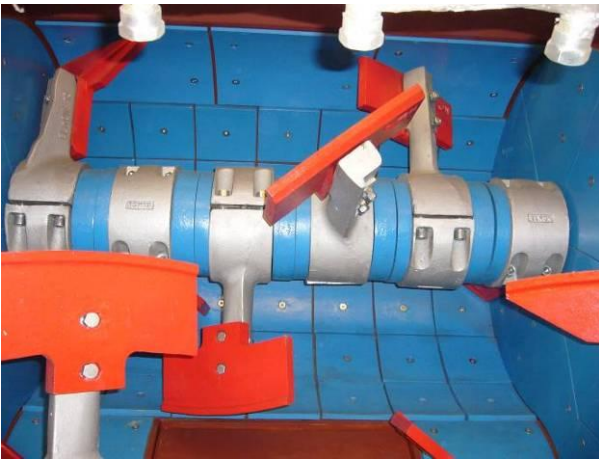


2. AGGREGATE WEIGHT BATCHER AND TRANSFER CONVEYOR



- Weighing capacity: 0-6000 kg
- In order to provide accurate weighing of the materials, weight system equipped with 4 load cells.
- Aggregate weight batcher will be equipped with 1 unit vibrator.
- Belt Quality: 125 kg/cm^2 load transfer capacity, 10 mm total thickness, 4/2 coating, 4 multi layer linen cord. (chevron belt)

3. ELKON TWINSHAFT MIXER (3000/2000 I.)



- Model : ETSM 3000/2000
- Type: Elkon Twinshaft Mixer
- Dry Filling Capacity: 3000 liter
- Vibrated Concrete Capacity: 2000 liter
- Capacity : 2 m³ vibrated concrete/charge
- Mixer body welded steel construction.
- Vibrated material yield 2000 liters, with hydraulic unloading door opening, with discharge door, fitted with following accessories:
 - Electric cables box device
 - Manual pump for unloading door emergency opening.
- Inner bottom linings and inner lateral linings are cast steel wear resistant Mn alloyed, replaceable.
- Mixing arms screwed on shafts.
- Mixing blades are Mn alloyed wear resistant cast steel
- Scraper blades are Mn alloyed wear resistant cast steel
- Lubrication system for mixing shafts' seals with electrical grease pump (automatic greasing system).
- The members of mixing reduction gears and the mixing axles bearings are greased in oil bath in the carter in a lasting way.
- Cover with two inspection doors in accordance with the accident prevention and safety regulations (mixer stops while inspection door opening).
- Inspection step complete with access ladder

4. CEMENT WEIGHT BATCHER

- Weighing capacity: 0-1000 kg.
- Equipped with 2 load cells.
- Discharge: 2 units electro-pneumatically operated butterfly valve.
- Cement screw automatic warning system on the discharge gate.
- 2 pieces cement screws are directly connected to the cement weight batcher. There are two additional joint places for 2 pieces of cement screws.
- Equipped with 1 vibrator.



5. WATER WEIGHT BATCHER

- Weighing capacity: 0-600 kg
- Equipped with load cell.
- Loading of the water to the batcher is performed electro pneumatically controlled valve.
- Discharge: Electro-pneumatically operated butterfly valve.
- Water weight batcher is completely galvanized.
- System consists of required water connections, pipes, valves and fittings.
- Water fed to mixer under high pressure water pump.



6. ADDITIVE WEIGHT BATCHER



- Weighing capacity: 2x25 l.
- Equipped with load cell
- Loading of the additives to the batcher is performed by 2 unit additive pumps.
- Discharge: Electro-pneumatically operated Elkon design special type discharge gate.
- Additive weight batcher is completely galvanized.
- Additive weight batchers are equipped with cleaning system.

7. COMPRESSED AIR PLANT

- Brand: **HERTZ**
- System consists of compressor, pneumatic cylinders, valves, air conditioners, hoses for compressed air.
- Pneumatic pipeline for connection different utilization points
- Technical details of the compressor
- Suction capacity: 1657 l./min.
- Motor power : 7,5 kW
- Tank capacity : 500 l.



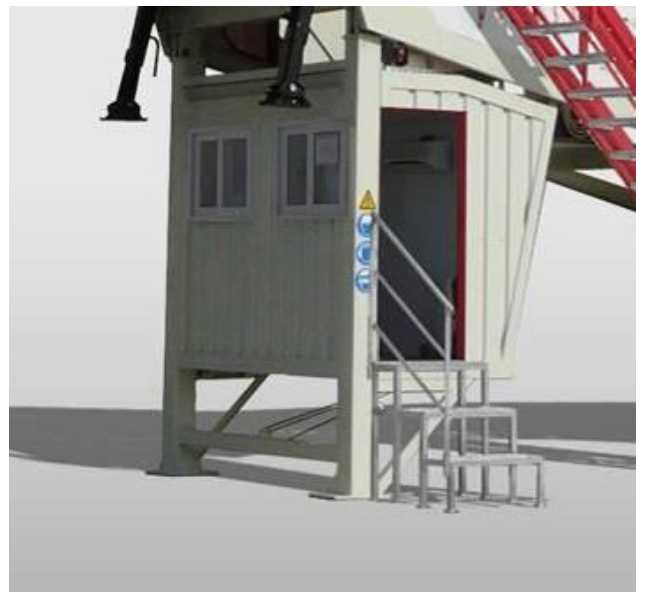
8. SUPPORTING CONSTRUCTION



- Supporting structures for twinshaft mixer, all batchers, ladders and platforms.
- The platform makes possible to access every point of the mixer and discharge points of the weight batcher, loading points, load cell hang points, transfer conveyor and drive system.
- All parapets and ladders are galvanized.
- Special corrosion resistant **JOTUN-NORWAY** paints.
- Has all necessary equipments for transportation by use of tow truck.
- 1 units axle, 4 units tire + 1 unit spare tire, lighting system, king pin etc.

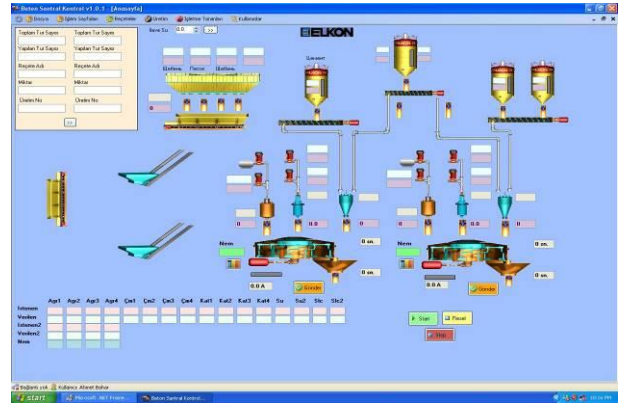
9. OPERATOR'S CABIN, CONTROL PANEL and ELECTRONIC WEIGHING SYSTEM

- Plant will be controlled from operator cabin which has wide view possibility.
- There is a control panel in the operator cabin.
- Soft starter of the mixer, all contactors of the motors, TMS, relays and soft starter for the mixer are **SIEMENS-GERMANY** brand.
- Power board has lighting facility and provides protection according European Norms.
- Cables are **Pirelli-ITALY** brand. In order to provide easy maintenance all cables and parts are numerated.
- Automatic control is performed by means of industrial controller - **SIEMENS PLC** and **SIEMENS Touch -GERMANY** operator panel.
- Buttons and switches are **Telemecanique (Schneider)-FRANCE** brand.
- Fully automatic and manual operation of the system is possible from the control panel.
- The working of plant can be observed from the diagram on the control panel.
- Weighing of aggregate, cement, water and additive can be observed from the indicators (**ASAHI-JAPAN**) which are equipped on the control panel.
- Operator cabin will be equipped with 4 season air conditioner.
- Control cabin can be folded into construction during transportation.
- Batching plant computer is controlled by a PLC unit. The system provides full automatic control.



10. ELKON COMPUTERIZED AUTOMATION SYSTEM

- In Command Panel Models, Siemens Plc and Operator Panel
- The system consist of PC, printer, software, UPS.
- Full automatic concrete productions on computer
- Inventory entry and inventory reports.
- System access security protection with different user privileges.
- Daily records for the produced concrete.
- Records for every batch seperately.
- Flexible production with lots of parameters.
- Companies, vehicles, drivers, and construction sites records
- Watching digital and analog concrete slump values
- Batch reports according to productions
- Requested and taken material's ratios
- Automatic recipe generating according to the humidity values.
- Remote internet access
- Easy calibration with the displayed indicators.
- Manuel and automatic concrete production from the control panel.



11. CEMENT SCREW



- Capacity : 80 ton/hour
- Dimensions : Ø 273x 9500 mm
- Equipped with galvanized maintenance lids.
- Screw has centralized lubrication system (special design by **ELKON**) for the supporting bearings.

12. CEMENT SILO

- Elkon Bolted Type Cement Silo
- Capacity of a silo is 100 tons
- Cement silo has required legs which give opportunity to feed cement to the cement batcher with screw in suitable angle.
- Cement silo has ladder and upper parapets.
- Cement silo has mechanical valve in discharge part.
- Cement silo has cement filling pipe
- The parts of the cement silos are manufactured by special laser cutting and drilling technologies and they are implemented special surface cleaning procedure.
- All components are performed by chemical surface cleaning procedure and after that coating and painting by **JOTUN-NORWAY** brand paints.
- 2 units 100 tons cement silo can be transported by one truck (TIR), which means minimum transport cost.



13. CEMENT SILO FILTER



- Brand: **WAM-ITALY**
- Cleaning System: Jet Pulse pneumatically.
- Compact 800 mm diameter 304 stainless steel body with bottom flange, 24.5m² filter surface.
- High filtration efficiency due to POLYPLEAT® filtering elements.

14. CEMENT SILO ACCESSORIES

- Max-min. level indicator - Cement level indicator is a limit value indicator that is used to check the cement filling volume in the cement silo.
- Fluidizing system - Fluidizing system involves distribution pipe and nozzles. Distribution pipe is assembled into cement silo by fixing parts that are pre-assembled in to the cement silo.
- Pressure safety valve - High pressure safety valves are used to discharge the high pressure in the cement silo.
- Max-min. level indicator panel with alarm system



PRODUCTION ACTIVITIES AND TECHNOLOGY OF ELKON



Elkon continues its production on totally 40.000 m² area, 20.000 m² of which is closed 3 modern factories (ELKON-1, ELKON-2 and ELKON-3). ELKON manufactures all units of the concrete batching plants in his 3 production facilities by ELKON quality and guarantee. By today Elkon has reached the production capacity of 240 units concrete batching plant / year.

The Constant Slogan Of ELKON: Advanced Technology

Elkon realizes all his designs by using CAD programs in his young and dynamic Innovation Departments thus It becomes possible to reach high sensitivity in the production process. New designed products are simulated, and the static and the dynamic analysis are being made by using special computer programs. Moreover the production of sensitive parts are made in CAM supported special machines.

In material preparation stage, Elkon uses the laser production technology to get high sensitivity and quality, special paint cabinets and high quality JOTUN brand, epoxy first coating and last coating special paints against corrosion.

ELKON prefers to use components from world wide known, reliable brands in his products such as Siemens (Germany), Telemecanique (France), WAM (Italy), Pirelli (Italy), Beckhoff (Germany), Lincoln (Germany), Beka-Max (Germany), Jotun (Norway), Brevini (Italy), Farbo (Italy) etc.

ELKON 100% complies with the international standards in concrete batching plant manufacturing and also performs all points that are indicated by **CE** and **GOST-R** standards.

ELKON meticulously tests and controls all his products thereby using advanced quality control methods in his factory. After all products are being assembled and tested in Elkon factories, they are being disassembled for transportation.

WORLDWIDE KNOWN AND RELIABLE COMPONENTS ON **ELKON** CONCRETE BATCHING PLANTS



BECKHOFF

SIEMENS

ELKON CONCRETE BATCHING PLANTS ALL OVER THE WORLD

Company Name	City - Country	Product
Marshalls Mono	Falkirk /UNITED KINGDOM	ELKON MOBILE MASTER-60
Paver Systems Ltd	Carlisle / U. KINGDOM	ELKON MOBILE MASTER-60
Rockrite Haulage	New Port/UNITED KINGDOM	ELKON MOBILE MASTER-60
Carayon	Mazamet / FRANCE	ELKON MOBILE MASTER-120
Hindas Ent Ab	Bollebygd / SWEDEN	ELKON MOBILE MASTER-60
Var Bv	Wilp-NETHERLANDS	ELKON MOBILE MASTER-60
Epsilon Epsilon Sa	Thessaloniki / GREECE	ELKOMIX-603535 PL
Ewenex	Warsaw / POLAND	ELKON MOBILE MASTER-60
Euro Beton	Debrecen / HUNGARY	ELKON MOBILE MASTER-60
Elitech Sro	Tlmace / SLOVAKIA	ELKON MOBILE MASTER-60 PEGASUS
Rollstone Kft	Brasov / ROMANIA	ELKON MOBILE MASTER-60
Fenomen Doo	Osijek / CROATIA	ELKON MOBILE MASTER-60
Rollstone Kft	Brasov / ROMANIA	ELKON MOBILE MASTER-60
Cpm Bh Doo	Lukavac / BOSNIA	ELKON MOBILE MASTER-60 PANTHERA
Splendid	Balchik / BULGARIA	ELKOMIX-120 TW
Diana Komerts	Burgas / BULGARIA	ELKON MOBILE MASTER-60
Naran Precast	Dubai / UAE	ELKOMIX-60 PL
Al-Jazirah Development	Riyadh / SAUDI ARABIA	ELKOMIX -120120 PL
Al-Humyin Trading	Dammam / SAUDI ARABIA	ELKOMIX-120/120 WET/DRY TYPE
Alawi Tunki Establishment	Mecca / SAUDI ARABIA	ELKON MOBILE MASTER-60 PEGASUS
Qatar Contracting	Doha / QATAR	ELKOMIX-120 TW
Radwan Brothers Co.	Aleppo / SYRIA	ELKOMIX-60
Al Taher Concrete Readymix	Basra / IRAQ	ELKON MOBILE MASTER-60
Al Turki Cement	Muscat / OMAN	ELKON MOBILE MASTER-60
Alabnia	Tripoli / LIBYA	ELKOMIX-135 TW
Montmontaža Plc	Benghazi / LIBYA	ELKON MOBILE MASTER-60
Gp Hidrotehnika	Rades / TUNUSIA	2 units ELKOMIX-60TW
Selfa Structure	Algiers / ALGERIA	ELKOPOMP-S45
Amck Mining Sprl	Katanga Region / DRC	ELKON MOBILE MASTER-60
B.L.Harbert International	Addis Ababa / ETHIOPIA	ELKON MOBILE MASTER-60
Afrimat Readymix	Cape Town / SOUTH AFRICA	ELKON MOBILE MASTER-60
Biwater International Ltd.	Abuja / NIGERIA	ELKON MOBILE MASTER-60
Smi Hyundai West Africa	Lagos / NIGERIA	ELKON MOBILE MASTER-60 PEGASUS
Costain (West Africa) Plc.	Lagos / NIGERIA	ELKON MOBILE MASTER-100 LION

• MORE THAN 1000 CONCRETE BATCHING PLANTS OVER 50 COUNTRIES IN 4 CONTINENTS ALL OVER THE WORLD.