

# SEMIX MOBILE 90L4

## MOBILE CONCRETE BATCHING PLANTS



SMX-F-2403020927-4

### PROPOSAL

#### SALD PRECAST

Mr. Abdulllah Al Salah  
Riyadh / KSA

#### Delivery

8-12 weeks

#### Validity Of Offer

17-03-2024

#### Terms Of Payment

%50 Advance, %50 Before Shipment



## SEMIX MOBILE 90 L4 CONCRETE BATCHING PLANT

DESCRIPTION	AMOUNT	UNIT PRICE	TOTAL PRICE
1) SEMIX MOBILE 90 L4 CONCRETE BATCHING PLANT	1	€200,000.00	€200,000.00
1.1) 90L4 MOBILE CONCRETE BATCHING PLANT'S TOTAL CAPACITY : 90 M <sup>3</sup> /H	1	-	-
1.2) MIXER TYPE & CAPACITY: 2250/1500 (1.5 M <sup>3</sup> ) SEMIX SINGLE SHAFT MIXER	1	-	-
1.3) MIXER MOTOR POWER: 45 KW	1	-	-
1.4) CEMENT WEIGHING HOPPER: 800 KG	1	-	-
1.5) WATER WEIGHING HOPPER: 500 KG	1	-	-
1.6) ADDITIVE WEIGHING HOPPER: 20 LITRES	1	-	-
1.7) ADDITIVE PUMPS: 1	1	-	-
1.8) AGGREGATE BIN CAPACITY: 4 X 15 = 60 M <sup>3</sup> INLINE BINS	1	-	-
1.9) AGGREGATE WEIGHING SYSTEM: WEIGHING CONVEYOR BELT	1	-	-
1.10) AGGREGATE TRANSFER MECHANISM: CONVEYOR BELT	1	-	-
1.11) ELECTRICAL PANEL COMPONENTS: SCHNEIDER (INCLUDING PLC)	1	-	-
1.12) SOFTWARE: SEMIX (SQL BASED)	1	-	-
1.13) COMPRESSOR: 700 LT/MIN	1	-	-
		Subtotal:	€200,000.00
		Discount:	-€24,000.00
		Total:	€176,000.00
<b>TRANSPORTATION</b>			
		Mobile 90L4 - (EXW Ankara)	€0.00
		General Total:	€176,000.00



## Patented Design

In SEMIX Mobile 90L4 batching plants, only one ramp needed for feeding aggregate bins thanks to its' patented design.

Inline aggregate bin structure eliminates the need of installing a pre-feeding conveyor.

## High Mobility

Semix Mobile 90L4 can be rapidly assembled in 4 days with its' compact design. It can be relocated to another project easily because of its' high mobility.



## SEMIX Concrete Mixers

In SEMIX **Mobile 90** Concrete Batching Plants, 1.5 m<sup>3</sup> of compacted concrete output capacity **mixers** are preferred. Depending on requirements, **single shaft** or **planetary mixers** can be adapted to the Mobile 90L4 batching plant. The mixing process is controlled electronically by a mixer-control unit software , which performs as a full automatic unit.





### 1.5 m<sup>3</sup> Single Shaft Concrete Mixer

Brand & Model : Semix SM 2250 / 1500 lt – Horizontal **Single Shaft Mixer**

Loading Capacity : 2250 lt

Compacted Concrete Capacity : 1500 lt

Electric Motor : 45 kW GAMAK/VOLT-1 Unit, with thermic overload switch protection

Discharge Door : 1 Unit / **Hydraulic**

Discharging in Emergency Situations : Present - Manual Pump

Water Dispenser : Present - 1 Unit

Emergency Stop Button : Present - 1 Unit

Maintenance Door Safety Switch : Present - 1 Unit



## Mixing Blades & Wearing Plates



Mixing Blade : Ni-Hard 4 (**Chrome, Nickel special alloy cast iron**)

Stripping Blade : Ni-Hard 4 (**Chrome, Nickel special alloy cast iron**)

Internal Wearing : **HARDOX 450**

Ni-Hard 4 : In all **SEMIX Concrete Mixers**, Ni-Hard 4 alloys are being used in mixer blades. NiHard 4 is a high-strength cast iron alloy that contains 4% nickel and has a tensile strength of up to 1,200 MPa. The nickel in NiHard 4 creates a tough surface that resists abrasion, while the hardening agents make the alloy harder and more resistant to deformation. This structure is ideal for products under conditions of high abrasiveness and high impact conditions. It is commonly used in applications that require high strength. NiHard 4 has a very low coefficient of thermal expansion, which makes it ideal for use in high-temperature applications. NiHard 4 is a type of steel that is very strong and resistant to wear and tear. It is commonly used in industrial applications where durability is key.

Lubrication : 4 Points Automatic Lubrication System **SKF - LINCOLN**  
(German)

Automatic lubrication system is integrated with the PLC and SCADA, the system periodically lubricates the necessary points and preventing from major problems. These systems use sensors to detect the level of lubricant present and dispense the appropriate amount automatically.



## Main Mixing Chassis



General view : The main chassis was built in compliance with international requirements with a transition height of 4,100 mm to 4,250 mm with high-quality steel components and outstanding workmanship. For maneuvering and filling the truck mixer with an average width of 5,000 mm, the main chassis offers great ease. A platform, handrails, and stairs are built into the main chassis.

Supports of the chassis : UNP & INP profiles with extra cross braces.

Concrete discharge funnel : 1 Unit for quick cleaning with inlaid, galvanized bar construction. Highly wear-resistant coating.

Walkways, stairs & railings : At the mixer and at the upper weighing frame, walkways, and platform. 60 ° staircase with grating steps and railings to the mixer floor, with top landing and 60 ° grade tilt.



## Weighing Hoppers

Cement Weighing Capacity : 800 kg

Cement Weighing Load-cells : 3 units 500 kg

Water Weighing Capacity : 500 kg

Water Weighing Load-cells : 2 units 500 kg

Additive Weighing Capacity : 1 x 20 Lt

Additive Weighing Load-cells : 1 unit 100 kg



## Weighing Hopper Equipments

Cement Discharge Valve : Ø 250 mm Butterfly Type - **WAM (Italy)**

Cement Hopper Vibrator : 1 unit - **OLI (Italy)**

Water Discharge Valve : Ø 200 Butterfly Type mm - **WAM (Italy)**

Additive Discharge Valve : 1 Unit - 1 ½" ball valve with actuator

## Aggregate Storage Bin

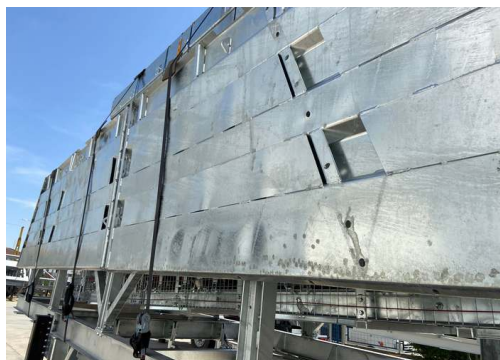
Aggregate Bins Capacity&Quantity : 60 m<sup>3</sup> – 15 m<sup>3</sup> capacity each one – 4 bins (Linear)

Bunker Discharging Gate(s) : 2 Gates in each bin – Totally 8 Discharging Gates

Vibrator Brand & Capacity : 350/3 – 2 Units **WAM-OLI (Italy)**

Pneumatic Piston Brand & Capacity : DSBC 80-250 Piston 8 Units – **Festo (Germany)**

Pneumatic Valve : 8 Units – **Festo (Germany)**



With trapezoidal bending for aggregate bin covers a high strength can be reached. In SEMIX's aggregate storage hoppers, extra reinforcement steels are welded to the empty spaces in the trapezoid. Thanks to this method, aggregate storage bins can serve long years.

## Weighing Conveyor

Belt Quality : EP 125 / 4 coats

Load-cell : Capacity of 2000kg - 4 Units

Motor Power/Gearbox : 11 kW

Vibrator : 350/3 – 1 Unit - **WAM-OLI (Italy)**

Drums : 10 mm Rubber Coated

Bearings : Lubrication Grease Nipple over SNH series

Scraper : V type with its weights -1 Unit

Emergency Stop Button : 1 Unit

Pull-rope Switch : 1 Unit



## Aggregate Transfer Conveyor

Belt Quality : EP 125 / 4 coats

Motor Power : 15 kW - 1 Unit

Drums : 10 mm Rubber Coated

Bearings : Lubrication Grease Nipple over SNH series

Scraper : V type with its weights -1 Unit

Emergency Stop Button : 1 Unit

Pull-rope Switch : 1 Unit

Covering over the Belt : Semi-closed with steel sheet

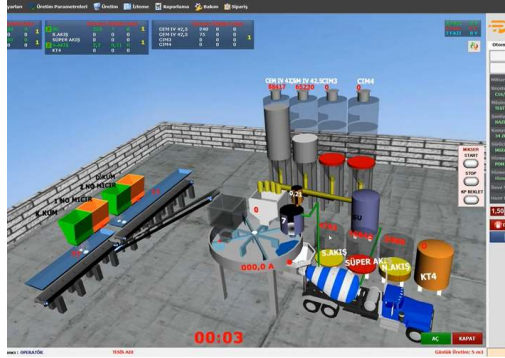


## Grid Blasting Before Painting



All components of the SEMIX's concrete batching plants are treated with Grit Blasting process in SEMIX's certified grit blasting facility before the painting with steel balls. This method provides high surface finish quality after the painting.

# CONTROL CABIN & AUTOMATION SYSTEM



Air conditioner, electrical connections and lightening - present at control cabin. Power board with manual control system provides production options completely at automatic - mode as well as manual mode. Power board includes safety system protection switches for motors (phase protection relay), circuite breaker in case of overload. All electrical components are SCHNEIDER brand. Full set of computer for automation system with printer/UPS - present.

### AUTOMATION SYSTEM:

**Production Screen;**You can monitor process of the operation on the animation screen, which is infrastructure by Microsoft DirectX. During the producing, required values, measurement values and differences of values will be shown. Following of the measured will be checked by the system during the process and it will be shown on automation screen with error sound if there is a problem. It can add or discharge water automatically without changing value of cement, during the process.

**Entering;**You can change the value of production to add or discharge while you are producing your order. You can portray unlimited customer, target, transfer with different drivers. Definition of silo and material can be changed and checked by the operator easily on the computer.

**Settings;** The automation system uses lots of parameters, that was designed to be understandable easily for any user; to get most efficient performance. Also, the settings can be locked not to be changed by workers.

**History;**When user want, he can checked old production records or details. And if there is need, the old production records or details can be printed any time.

**Reporting;** The program saves unlimited production record in database, so you can get report (production, receipt, customer, field work, etc.) with different time periods as daily, weekly, monthly, yearly when it is needed. Reports can be printed or forward them to excel or PDF files. Also, Stock reports can be get at the same way.

**Delivery Note;**You can print delivery note after or before the manufacture. If you don't want to print at that time, you can print them from the database when it is needed. Also you can split or merge manufactures' delivery note when it is needed them. After manufacturing, if customer changes, You can change the new customer and reprint a new delivery note.

**User Permissions;** You can limit operators or any user permissions when it is needed.

**Manufacturing from Orders;** You can define daily order list to the program and ordered lists can be produced through the program. You can monitor orders produced and remaining time by time.

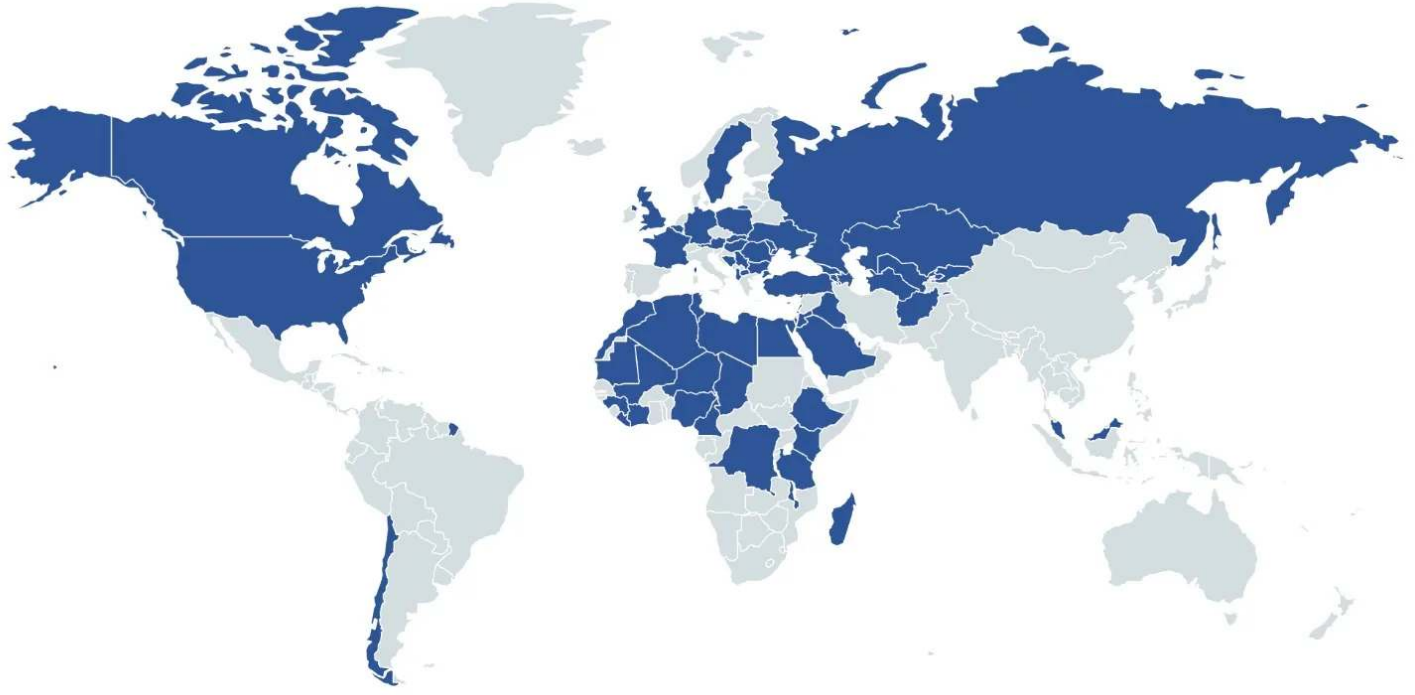
**Planned Manufacture;** Before manufacturing is completed, you can enter the next production to program. If you save the next production record to program, after the last production finish, the next production will start automatically.

**Internet;**The program is designed to be controlled via the internet. By via internet, you can do reporting, editing, deleting or viewing (receipts, field work, customers, production details, etc. ). Also, you can create, remove or edit order records for defined user rights. Reports may print or save on PDF, Excel by using via internet. For using via internet, you should get a static ip. Infrastructure for internet ( staticip, internet line, etc. ) will be provided by yourself. P.S.: Internet features are optional and requires additional charge.

**Remote Support;**If you have an internet connection in cabin, we can help and solve problems quickly and you will have technical support about automation program.



# References



HEIDELBERG  
CEMENT

STRABAG

LAFARGE



HYUNDAI

ASTALDI

clinotech

Limak

kalyon

CENGİZ  
İNŞAAT

KOLIN

KİPAŞ HOLDİNG

ONUR  
TAHHİT TAHHİMLİK İNŞAAT TİC. VE SAN. A.Ş.

DANIŞ BETON  
SİVA İNŞAAT SAN. TİC. A.Ş.

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