

HENAN SINORoader HEAVY INDUSTRY CORPORATION



LB Asphalt Batch Mixing Plant



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ABOUT US

HENAN SINORoader HEAVY INDUSTRY MACHINERY MANUFACTURING CO.,LTD,WE ARE LOCATED IN ZHENGZHOU CITY OF HENAN PEOVINCE,WHICH IS NOT ONLY ONE OF THE LARCEST INDUSTRIAL ENTERPRISE GROUPS OF CHINA BUT AL SO ONE OF THE KEY ENTERPRISES IN CHINA'S CONSTRUCTION MACHINERY INDUSTRY.OUR TOTAL ASSETS AMOUNT TO ABOUT RMB1.2 BILLION;WE HAVE ABOUT 1200 EMPLOYEES:OUR COMPANY COVERS A GROSS AREA OF MORE THAN 80,000M²



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Re-location

-  Modular Design
- Compact Structure
- Portable Chassis
- Foundation Free
- Pre-assembly

5S Advantages

-  Civil Work Saving
- Transportation Cost Saving
- Set-up Cost Saving
- Energy Consumption Saving
- Maintenance Cost Saving

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Sinoroader batch plants provide the consistency that is crucial to your mix quality. All plant processes and components are carefully developed to ensure that feeding, heating, drying, screening and mixing seamlessly blend together.

Asphalt Batch Mix Plant LB Series is new and ideal construction equipment used for manufacturing asphalt that is mainly applied in highway road construction and other civil construction.

LB asphalt batching plant is a stationary asphalt mixing plant mainly consisting of cold aggregate supply system, drum dryer, burning system, hot aggregate elevator, vibrating screen, weighing system, mixing tower, dust collecting system, filler supply system, bitumen supply system, electronic control system, finished asphalt storage bin.

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- Modular design and integrity steel base, reasonable layout, demolition, transportation and installation faster and easier.
- Superior drying drum plate design, and independent research and development of advanced combustion heating technology to improve efficiency, reduce energy consumption.
- Plus high hot aggregate bin design to increase the stock of hot aggregate storage, to increase producing capacity.
- Automatic/manual control system with failure self-diagnosis program, simple and safe.
- Core components adopt international famous brand products, such as Siemens electrical components, EBICO burners, Switzerland METTLER TOLEDO weighing sensor, etc., reduces the failure rate and prolong its service life.



AGGREGATE SUPPLYING SYSTEM

1. Protective plates on both sides of the aggregate hoppers to avoid sundries getting into the aggregates and conveying belt.
2. To make the supplying smoother, vibrators are equipped below each hopper.
3. Adds grid plate at top of each hopper to buffer the shock from aggregates flow, meanwhile it screens oversize aggregates.



4. Conveying belt is protected by dustproof cover to reduce dust emission.
5. Adds belt cleaners and pinch rollers to make the aggregates supplying more fluent and accurate, besides, they also extend the belt durability.



6. Small vibrating screen is added between belts, to further screen oversize aggregates;
7. The supplying system has insufficient material alarm system, ensuring a safe and smooth production.



DRYING SYSTEM

1. Driving units have auto lubrication device, greatly reduces labor cost;
2. Different areas inside the drying drum have different blade configurations, which can handle aggregates in different processes;
3. The rolling rings and rollers are applying high strength wear-resisting material. Deviation preventing rollers for both rolling rings;
4. The cylinder adopts boiler steel and stainless steel skin, which gives it high temperature resistance and non-deformability;
5. The cylinder employs thermal insulating rock wool material that can maintain the temperature inside, reducing heat loss.



1. Prevent aggregate from impinging on the flame while spreading the material to maximize radiant heat transfer.

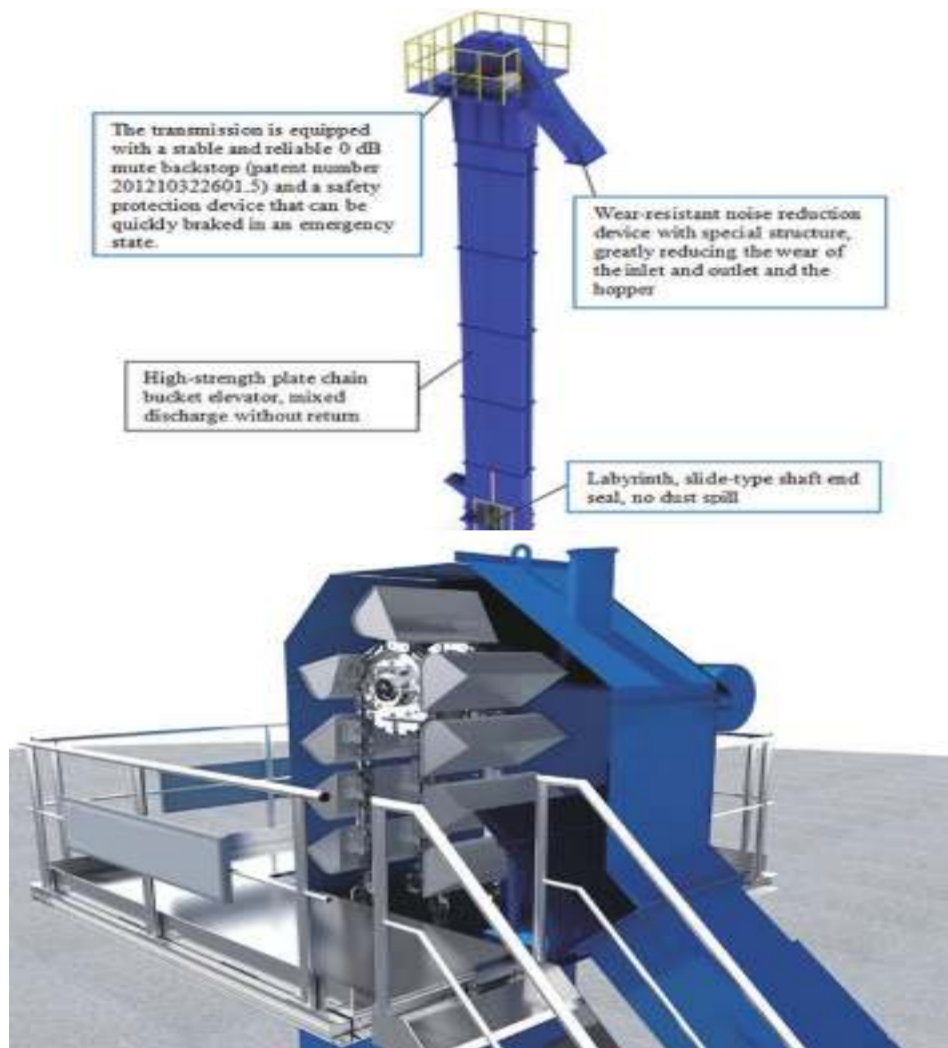


2. Break up any clumps or sticky material when the aggregate first enters drum.

3. Provide greater uniformity of the aggregate veil through the gas stream during the drying process, across a wide variety of mix designs and tonnage rates.



AGGREGATES ELEVATING SYSTEM



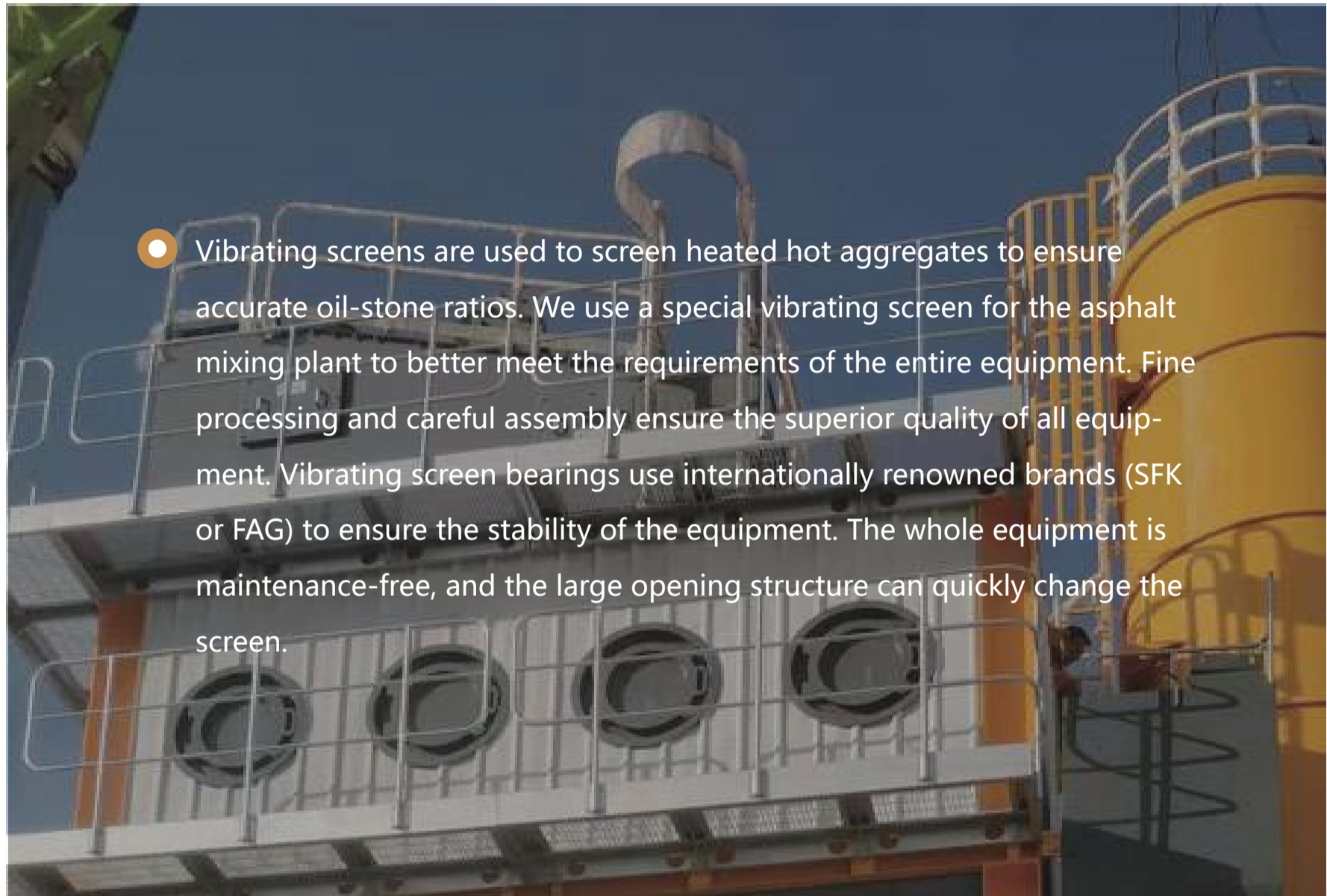
1. The aggregates elevator takes modular design with newest dust sealing structure;
2. Elevator applies double plate link chains design, which extends the elevator's service life and reduces maintain frequency.
3. Excellent leakproofness with the motors;
4. Applies famous cycloidal pin gear speed reducers, more powerful and reliable;
5. The aggregates slide tunnel adopts damping structure wear-resisting plate link chains to enhance the performance.

WEIGHING SYSTEM

Adopts world famous brand (TOLEDO) weighing component, to make sure that the measurement error of aggregates is below 0.5%, and the measurement error of bitumen and filler is below 0.25%.



SCREENING SYSTEM



- Vibrating screens are used to screen heated hot aggregates to ensure accurate oil-stone ratios. We use a special vibrating screen for the asphalt mixing plant to better meet the requirements of the entire equipment. Fine processing and careful assembly ensure the superior quality of all equipment. Vibrating screen bearings use internationally renowned brands (SFK or FAG) to ensure the stability of the equipment. The whole equipment is maintenance-free, and the large opening structure can quickly change the screen.



- ① Vibrating screens that apply world famous vibration motors are completely sealed;
- ② Aggregate storage bin adopts large bin structure to avoid material overflow;
- ③ Aggregate bins are separated by high strength wear-resisting plate to avoid aggregates mixing.



MIXING TOWER

- Twin-shaft paddle mixer, fast and homogeneous mix performance; Mixer arms, paddles and liners made by wear-resistant alloy, sturdy and durable; Drive motors adopts central lubrication, easy for maintenance.



Once they are dried, the aggregates reach a temperature of 150-160°C in the dryer and are then transported to the reselecting screen by means of a bucket elevator.



The mixer consists of an armoured hopper, on the inside of which there are two rotating arms with paddles. The counter-rotation of these two arms mixes the aggregates, bitumen and filler until a homogeneous mix is produced.

In the vibrating screen, the materials are newly separated by the meshes on the basis of the size required. Once separated, the hot aggregates are fed into the appropriate compartment (4 to 6) and are kept as hot as possible until they are ready to be weighed.



DUST FILTERS

- Primary cyclone dust filter, coarse dust are reclaimed; Secondary bag house dust filter, fine dust are collected and reclaimed; Dust emission is less than 20mg/Nm³, minimal dust emission.

In the asphalt equipment industry, we have been developing for many years. Our asphalt mixing plant is equipped with our own bag filter. The bag filter adopts the principle of atmospheric back-blowing. The dust-removing area is large and the dust-removing efficiency is high. The bag filter has a simple structure, simple installation, low failure rate and high recovery efficiency.

The batch asphalt mixing plant baghouse is fitted directly over the dryer to eliminate ductwork. The baghouse utilizes two-stage filtration with a primary collector which separates coarse material from the gas stream and protects the bags from abrasion.

The dust-laden gas then enters the baghouse where the dust collects on the heat-resistant meta aramid bags. Pneumatically operated cylinders clean bags a row at a time. Collected dust can be stored or returned to the mix.

The filler plays a fundamental role in regulating the asphalt adhesion and improving the bitumen binding to the aggregates.



1. The system adopts high-pressure pulse cleaning method, and the residual dust is small. All the dust can be transported to the circulating silo for reuse or discharge through the recycling packing conveying device. Emission concentration does not exceed 20mg/Nm³

2. The bag is made of high-efficiency filter material produced by DuPont of the United States. The bag has high temperature resistance, low loss and long service life.



INTELLIGENT CONTROL

- Highly automation with PLC control, quite easy for operation; Manual, semi-auto and auto control mode available; Remote technical support available.



- 1 Fancy control room for operator, nice operating environment and good sound insulation effect.
- 2 Control room is equipped with split-type air conditioner, aluminium alloy sliding windows, wood floor and so on.
- 3 All operations are integrated in one room, auto and semi-auto control makes it easy to operate.



BITUMEN PUMP

- Three-Screw Pump of asphalt mixing plant is a positive displacement pump, and has the remarkable advantages such as simple structure, small volume, being allowed to rotate at high speed, stability and high efficiency, etc.

By using the principle of screw meshing and relying on the mutual meshing of rotating screws in pump block, the three-screw pump of asphalt mixing plant sucks the medium conveyed and seals it in the meshing cavity, then pushes it to the discharge port along the axial direction of screws at uniform speed, and forms stable pressure at the discharge port.

Three-Screw pump of asphalt mixing plant is only applicable to conveying lubricating fluids not containing solid particles at normal temperature. It may be used as a common delivery pump, and a pressure supply pump in hydraulic drive device.



- The 3QGB series heat-preservation high-viscosity three-screw pumps developed by the company after many years of research optimize the cooperation between screw and pump block, and between driving screw and driven screw based on three-screw pump, in order to realize the delivery on high-temperature and high-viscosity media.

The 3QGB series heat-preservation high-viscosity three-screw pumps are mainly used to convey high-viscosity lubricating fluids. They are usually used as the delivery pumps of asphalt, heavy fuel oil, heavy gear oil and heavy diesel fuel. Inside the pumps, heat preservation chamber and channel are set up, gas or liquid could be used as heat carrier, and their maximum working temperature is equal to or lower than 350°C. High viscosity reduction, and the conveying viscosity is generally 3.0~760mm².



TECHNICAL PARAMETER

Model	Capacity (Standard Conditions)	Mixer Capacity	Dust Rem ove Effect	Total Power	Fuel Consumption		Measureme nt Accuracy
					Fuel Oil	Fuel Coal	
LB700	60t/h	750 kg	$\leq 20 \text{ mg/Nm}^3$	178kW	5.5-7 kg/t	10kg/t	Aggregate: $\pm 0.5\%$
LB1000	80t/h	1000 kg	$\leq 20 \text{ mg/Nm}^3$	285kW	5.5-7 kg/t	10kg/t	Filler: $\pm 0.25\%$
LB1500	120t/h	1500 kg	$\leq 20 \text{ mg/Nm}^3$	380kW	5.5-7 kg/t	10kg/t	Bitumen: $\pm 0.25\%$
LB2500	200t/h	2500 kg	$\leq 20 \text{ mg/Nm}^3$	547kW	5.5-7 kg/t	10kg/t	
LB3000	240t/h	3000 kg	$\leq 20 \text{ mg/Nm}^3$	700kW	5.5-7 kg/t	10kg/t	



PROJECT CASE



240TPH Asphalt Batch Mix Plant Running Smoothly in Uzbekistan



120TPH Asphalt Plant in Malaysia Won Client's Praise



LB Asphalt Batch Mixing Plant in Nigeria



DHB80 Continuous Asphalt Mixing Plant Erected in Peru



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YLB700 Mobile Asphalt Mixing Plant in Ethiopia



ELB1500 Environmental-friendly Asphalt Mixing Plant in Australia



First LB1500 Asphalt Batch Mix Plant Successfully Erected in Thailand



MDHB20 Asphalt Drum Plant in Kenya Successful Installed



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CUSTOMIZED DESIGN

RAP (reclaimed asphalt pavement) processing unit can be added if required;
Asphalt plant auxiliary equipment and machine available for client' s option;
Upgrade and retrofit service available upon requirement.

ADDRESS

Longxiang Industrial Park ,Weidu District, XuChang, HeNan, China

E-MAIL

info@sinoroader.com

WHATSAPP/WECHAT

+86 181 3785 8347

