# **ASPHALT MIXING PLANT**

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**ZHENGZHOU SINOSUN MACHINERY CO.,LTD** 

# SINOSUN GROUP









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### **COMPANY PROFILE**

SINOSUN Group was founded in 2004, which is a high-tech technology company integrating design, manufacturing and sale of high-tech technology. Since SINOSUN inception, always hold "honest and trustworthy, quality, innovation," the corporate culture, to create a class of well-known brands of road construction machinery industry and CE,ISO9001:2008 and GOST certificate. Our main products are asphalt mixing plant, concrete mixing plant, burner.

Welcome to visit our factory!









Our Asphalt Mixing Plant Factory has about 300 staffs now, including 37 senior engineers over national title,52 after-sales service personnel that have rich experience in domestic and international service. Factory main product lines focus on four kinds of asphalt batch mixing plant, mobile asphalt mixing plant, continuous asphalt mixing plants and mobile continuous asphalt mixing plant. Manufacturing wide range of different models equipment which can be meet customer's needs, also meet the diverse needs of customers.

The advantages of our asphalt mixing equipment:

- 1. Higher quality with reasonable price. Our Prices and reliable configuration have won the customers trust.
- 2.Flexible design. Meeting the needs of customers provided, according to customer requirements, designed for customers who order.
- 3.Modular structure. Containerized compact structure. To save costs and ease installation and transportation.
- 4. Professional after-sale service team can provide efficient and professional service.

With these advantages, company annual production and sales of asphalt plants more than 300 sets, annual sales more than one hundred million, with virtue of excellent quality and professional technology, we have successfully completed many assume national high-tech industrialization demonstration engineering, these Equipments are widely used in a number of national key projects, "five vertical and seven horizontal" highway and the 2008 Beijing Olympic Games Beijing city ring road highway.

So far, our asphalt mixing plant products have been widely used in domestic road construction projects. Such as Russia, Romania, Poland, Brazil, the Philippines, Thailand, India, Indonesia, Angola, Saudi Arabia, Algeria, Ethiopia, Peru, Argentina, Chile, Colombia, more than 60 countries and products around the world, Popular with the customers and praise.







#### **Environmental and Energy saving**

- Dust collector including gravity and filter bag, emission concentration < Ringelmann I,</p> Air emissions≤20 mg/Nm3.
- Equipment adopt the sound attenuation, sound insulation, shock absorption. significantly reduce noise emissions, environmental noise ≤80 db (A).
- Bag filter adopt high pressure impulse, good cleaning effect, Filter bag is equipped with high and low temperature protection, prolong the service life of the filter bag.
- Burner adopt Italy patent design, high combustion efficiency, wide application of fuel, according to user needs, can use fuel such as diesel oil, heavy oil, coal, Gas, environmental protection, energy saving.
- The unique mixing blade design and simple and efficient way of driving make stir more easy, efficient and reliable.
- Adopt USA NOMEX filter bags, high temperature resistant and long service life



#### **Smart and Convenient**

- PC+SIEMENS PLC control system, can
   International Famous Brand Components, realize automatic control, semi-automatic control and manual control
- Wifi remote Control, fault warning diagnosis, completely report and print report of production.
- Humanization design, Windows operation system, display the status of motors and burner, monitor the cold bin.
- System with parameter setting, data management, fault diagnosis, etc, make the operation simple and safe

#### **Accurate measurement**

- Adopts European standard in terms of heat power system, which is enhanced by accurate weighing system, reducing oil and electricity consumption: Adopts USA Mettler Toledo brand load cells, which is very precise and with a high weighing accuracy.
- Bitumen pump adopt frequency control+ the secondary measurement technology. automatic error correction, bitumen weighing accuracy: Dynamic ±2.5%
- Hot aggregates adopt automatic fall correction, weighing accuracy: Dynamic ±1.5%; Mineral weighing accuracy: Dynamic ±0.5%.
- ullet Precision of bitumen aggregate ratio  $\leq \pm$ 0.1%
- Each Cold bins equipped with SIEMENS brand frequency converter and module. dosing accurately.

#### Safe and Reliable

- high stability and reliability, effectively quaranteed the quality.
- Control system adopt dual host redundancy design, dynamic process, good performance.
- Reliable centralized lubrication system. lubrication reliable and prolong service life.
- Before delivery, all the components assembly, debug, these preparation work reduced the site adjustment time, ensure the quality of products.
- Key components are equipped with mechanical maintenance hole, ensure the workers safety.







### Cold Aggregate Bin







Side wall type belt conveyor / Alarm sensor / Direct connection

### **Dryer Drum**







Butterfly elastic plate outside / Japan Nikko design / Direct connection

### **Vibration Screen**







Italy OIL brand / Double vibrator linear type

#### Mixer





Italy MARINI design / Direct connection / Chromium manganese alloy steel

### **Bag House Dust Filter**





USA DuPont Nomex brand filter bags

### **Control System**







SIEMENS PLC control system / Remoting control with wifi

#### Layout

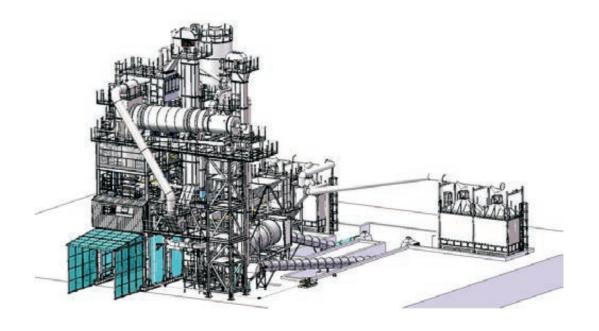
- Equipment adopts modular structure, 3D drawing software of three-dimensional design, can according to the construction requirements, and combined to form a variety of configuration
- Small land occupied, compact structure, Solves the difficulties due to lack of space.
- Simplify the basis, easy to install and maintenance, easy-transportation and transfer.
- Rational layout, novel and decent appearance

#### **Parameter**

Model	SAP64	SAP80	SAP100	SAP120	SAP160	SAP240	SAP320		
Installation Power (kw)	154	215	232	340	430	600	860		
Rated Capacity (T/H)	64	80	100	120	160	240	320		
Cold aggregate kinds	4*6.5m3		4*8m3		4/5*8m3	5*15m3	6*15m3		
Drying drum	6.5m *	7m *	7m *	8 m *	9 m *	10 m *	10 m *		
Length/Diameter	Ф1.5 m	Ф <b>1.7 m</b>	Ф <b>1.7 m</b>	Ф1.8 m	Ф2.25 m	Ф2.5 m	Ф2.7 m		
No. of screen layers	4 layers	4 layers	4 layers	4 layers	4/5 layers	5 layers	6 layers		
Vibrating screen		Double Italy OLI Brand Vibrator Liner type							
Mixing period (s)				45					
Capacity of mixe(kg)	800	1000	1300	1500	2000	3000	4000		
Fuel Consumption			≤6.5k	g/T finished	product				
Fuel type		Heavy oil/	Diesel/Coa	al/Natural ga	s/Liquefied	petroleum	gas		
Dust Collecting		Gravity	dust colle	ctor+ NOME	X Bag House	Dust Filter			
Control method		Manual / Automatic							
Temperature of	140400								
finished product( $^{\circ}\!$ C)		140-180							
Emission	< 20 mg / Nm <sup>3</sup>								
Concentration	≤20mg / Nm³								
Finished product silo		20/40/	/60/80/100	)/120/200T I	Bottom Type	(Optional)			

#### Recycled Asphalt Plant

#### SR Series Integrated Virgin & Recycling Asphalt Plant Equipment



#### **Features**

- Mixer is settled on the recycled asphalt tower, new structure design, virgin asphalt integrated with the recycled asphalt together, high add ratio for recycled asphalt, high capacity performance.
- Special sized dryer drum blades can prevent adhesive aggregate, make the production stable and efficient, easy to maintenance.
- The high temperature exhaust gas returned to dryer drum through the flute to refuse which can save energy while reducing the burden of dust collection equipment.
- The old aggregate adding rate can reach up to 30%-50% through this method.









#### **Parameter**

SR1510	SR2010	SR2015	SR3015	SR3020
120	160	160	240	240
80	80	120	120	160
50%	33%	50%	37.5%	50%
2000	3000		4000	
140-160	200-240		280-320	
650	920		1200	
Ф1.95×8	Ф2.25× 9		Ф2.5× 10	
14.8	19.7		29.6	
Ф2.25×8 Ф2.5		Ф2.5× 10		Ф2.5×12
9.8		14.8		19.7
Coal/Gas/Diesel/Heavy Oil				
≤50				
	120 80 50% 2000 140-160 650 Ф1.95×8 14.8 Ф2.25×8 9.8 Coal/Gas/	120 160 80 80 50% 33% 2000 3000 140-160 200-2 650 920 Φ1.95×8 Φ2.2 14.8 19.7 Φ2.25×8 9.8 Coal/Gas/Diesel/Hea	120 160 160 80 80 120 50% 33% 50% 2000 3000 140-160 200-240 650 920 Φ1.95×8 Φ2.25×9 14.8 19.7 Φ2.25×8 Φ2.5×10 9.8 14.8 Coal/Gas/Diesel/Heavy Oil	120 160 160 240  80 80 120 120  50% 33% 50% 37.5%  2000 3000 4000  140-160 200-240 280-33  650 920 1200  Φ1.95×8 Φ2.25×9 Φ2.5×  14.8 19.7 29.6  Φ2.25×8 Φ2.5×10  9.8 14.8  Coal/Gas/Diesel/Heavy Oil

#### Asphalt warm mixing renewable equipment



#### **Features**

- Increase the proportion of reclaimed materials, reduce the consumption and
- production cost.

  Effectively reduce the degree of asphalt aging, reduce greenhouse gases, such as asphalt smoke emissions, improve the
- working environment.
  Prolong the service life of asphalt mixing equipment, reduce the equipment operation
- Adapt to a validity of working conditions, especially in low temperature construction of long and large tunnel construction.
   Each technical performance meet to the requirement of construction standard, increase the workability of asphalt and stone.

Model	PS-60
Output	60t/h
Bin conveyor power	5.5kw
Broken arch power	0.37kw ×3
Feeding conveyor power	5.5kw
Returning conveyor power	5.5kw × 2
Vibrating power	2.6kw × 2
Crasher power	37kw
Discharging conveyor power	5.5kw×2
Total power	77kw



### MAP series Mobile Asphalt Mixing Plant



#### **Main Features**

- Adopt Korea DMI mobile asphalt plant structure design, high mobility performance, small land occupied, convenient transportation and little downtime.
   Adopt AVIC brand Aviation Plugs, easy connection, fast disassembly and assembly wires.
   Simple and convenient production technology process, accurate, highly reliable and stable control system.
   Move fast, save cost

- Move fast, save cost.
  System of drying, weighing, mixing, discharging are full-automatically controlled.
  All the units are separated mutually while each unit can achieve seamless connection.







Model	MAP1000	MAP1300	MAP1500	MAP2000	Remarks
Total nower	215kw	5kw 235kw	340kw	430kw	Standard
Total power	215KW	255KW	340KW	450KW	configuration
Capacity	80T/H	104T/H	120T/H	160T/H	5% moisture
Mixer Capacity	1000kg	1300kg	1500kg	2000kg	Rated
Mixing period		4	·5s		
Cold aggregate		4		4/5	
hopper quantities					
Fuel consumption		≤6.5kg/T fi	Light/heavy oil/Gas		
Finished product		140			
temperature( C)					
weighting precision	ì	生?	Dynamic		
Air emission		< 20 m	NOMEX Bag filter		
concentration		≦20n	NOMEX dag miter		
Trailing speed		40-10	Air brake System		
Trailer quantities	Funito				Excluding Bitumen
		5 units			tank,Filler silo









### **QLB series Twin-shaft Asphalt Mixing Plant**

#### Introduction

The series plant are Twin Shaft Asphalt Mixing Plant. It integrated design of batch type drying drum and horizontal twin-shaft mixer.

The capacity of QLB series portable Asphalt Mixing Plant is from 10-80t/h.





#### **Parameter**

Model	QLB-10	QLB-15	QLB-20	QLB-30	QLB- 40	QLB- 60	QLB- 80	
Through put (t/H)	10	15	20	30	40	60	80	
Fuel	41.5	54	63.5	104.5	125	157.5	200	
Coal	57.5	75	86.5	127.5	169	205	276	
Aggregate		-						
Batcher			$2.3\mathrm{m}^3\times3$	5 m <sup>3</sup> ×3	5m <sup>3</sup> ×3	5m <sup>3</sup> ×3	5m <sup>3</sup> ×3	
Weighting of								
product silo(T)	2	5	5	9	9	9	20	
Discharge								
temperature		120-180℃ (adjustable)						
Fuel	Fuel oil : 57.5kg / t							
consumption	Coal: 1315kg/t							
Optional	Coal breaker, Waterfilter, Bag filter							
components		Control Houses, bitumen heating tank						

### SLB series Twin-drum Asphalt Mixing Plant

#### Introduction

This series plant are twin Drum Asphalt Mixing Plant. The two drums (drying drum and mixing drum) are integrate design.
The capacity of SLB series Asphalt Mixing Plant is from 8-30t /h.

Model	SLB-8	SLB-10	SLB-15	SLB-20	SLB-30		
Through put(t/h)	8	10	15	20	30		
Discharge temperature ( $^{\circ}\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	120-180 (adjustable )						
Optional components	Aggregate Batcher, Finished silo, Coal breaker, Water filter, Bag filter						
	Control Houses, Bitumen heating tank						



#### MFR series Coal Burner

#### **Main Performance**

- Adopt new structure to optimize traditional machine mechanism, exclusively adopt the combustion chamber rotary to solve traditional problems such as slagging or burning incompletely.
- The high flame temperature that can burn fully and save energy.
  With exclusive high performance fire-brick, prolonging the service life.
  Continuous production, no need to slag removal everyday.
  The cost of the production is as little as 1/3 of that of the oil burner.

- Coal pulverizer broken hammer adopt NM500 high wear-resisting material
- Automatic control system, autoignition and adjust damper, easy to operate.

#### **Parameter**

Model	MFR500	MFR1000	MFR1500	MFR2000	MFR3000	MFR4000
Motor power (KW)	31. 25	48. 25	73. 75	97. 25	144. 5	205. 95
Rated coal burning amount $(t/h)$	0. 45	1	1. 5	2	2. 86	3. 66
Mixer output (t/h)	25-40	60-85	100-125	140-170	200-250	280-320
Material temperature control ( $^{\circ}\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	130-180					
Coal powder granularity (mesh)	180-200					

#### **Main Components**

- Coal pulverizer: Grinding granular coal into coal powder of 150-200 mesh.
- Main machine of coal burner(including combustion chamber, moving forward and backward system, automatic rotation system and combustion air supply system)
- Control system: the system control, temperature detection and control.
- Ignition system: it can realize automatic ignition.
   Fire opening: connected to the drying drum discharging device, it protect the discharging device not burner out.







### **Ancillary Equipment**

#### Drummed bitumen melting equipment



#### **Parameter**

Model	DT-4	DT-6	DT-10
Productivity	2-4	4-6	8-10
Bitumen temperature( $^{\circ}$ C)	120-140	120 -140	120-140
Numbers of Drum Per Batch	26	32	44
Thermal capacity of oil heater(kcal/h)	30×10 <sup>4</sup>	50×10 <sup>4</sup>	70×10 4
Thermal oil temp $(^{\circ}\mathbb{C})$	200-240	200-240	200-240
Total power (kw)	35.5	42.5	57
Total weight (τ)	20	21	24
Overall dimension (Lx WxH)	6350×2200×2560	7500×2250×2560	11800×2550×2700

# 19/20

#### **Performance**

- This series drummed bitumen melter is special for its enclosed construction which is more environmental friendly.
- This series drummed bitumen melter adopts automatically control system and imported auto-ignite burner.
- This series drummed bitumen melter has strong applicability. It is suitable for various types of drums. Even when the drum is out of shape, the machine could still be operated normally.
- This series drummed bitumen melter features energy-saving. It make full use of hot gas (320-450℃) of burner to melt and make asphalt coming out of drums (it is about 150℃ while waste gas was let off to air). The closed-construction saves 50% energy sources compared with the exposed one.
- This series drummed bitumen adopts semi-mobile structure, easy to remove, fast to install. Planetary containerized for easy road transport.

#### **Emulsion Bitumen Plant**

#### **Main Performance**

- This series drummed bitumen melter is special for its enclosed construction which is more environmental friendly.
- This series drummed bitumen melter adopts automatically control system and imported auto-ignite burner.
- This series drummed bitumen melter has strong applicability. It is suitable for various types of drums. Even when the drum is out of shape, the machine could still be operated normally.
- This series drummed bitumen melter features energy-saving. It make full use of hot gas (320-450℃) of burner to melt and make asphalt coming out of drums (it is about 150℃ while waste gas was let off to air). The closed-construction saves 50% energy sources compared with the exposed one.
- This series drummed bitumen adopts semi-mobile structure, easy to remove, fast to install. Planetary containerized for easy road transport.

## <u>Project</u>

Model	PSRH-6	PSRH-10	Remark
Capacity (T/H)	6	10	Rated capacity
Installation power	26.5kw	50kw	Theory power
Emulsified fineness	< 5µm	< 5µm	
Water heating type	Thermal oil/ heating	electric	
Blending tank volume	1.25m3×2	1.5m3×2	
Bitumen tank volume	5 m3	6 m3	
Finished product tank	5 m3	6 m3	
Water tank volume	5 m3	6 m3	































#### Foreign customer

With the development of our company, we begin to put more attention on the overseas market. Our asphalt mixing plant products have been services for customers all over the world including Southeast Asia, Africa, South American, etc.

At the same time, after years of operation, we have formed our professional overseas marketing service team, constructed the perfect over sales channels.













#### Service

#### **Pre-sales service**

Professional engineers will propose the professional suggestions according to your requirements and performance parameter: Use advanced CAD, PRO/E to make maps, can offer various design plans and make the best solution for you.

#### Medium-sales service

The technician will answer the difficult problem and technical support timely that users will meet in the course of using while selling, and will train the technical staff for customer, teach them how to install maintain and use, make customers feel the sincerity of our company.

#### After-sales service

The company has professional and experienced engineers and technicians, set up the files for every user to responsible for the maintenance and using guidance of products, the seller will offer high-efficiently.

#### **Maintenance**

- Adding the lubricant to every bearing regularly.
- Daub the grease on drive chain regularly, and adjust appropriately
- Often check the fastening situation of every bolt
- Clear up the filler, cooler of air compressor in time
- Check the abrasion situation of every conveyer belt and belt should change if necessary
- Check the engineering pipeline of fuel, hydraulic system to make sure they are in good state

#### **Cooperative Supplier**



















