

XAP125 Asphalt Mixing Plant Specification



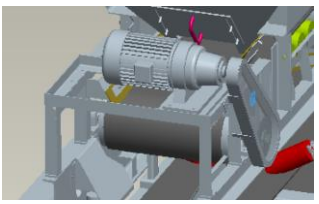
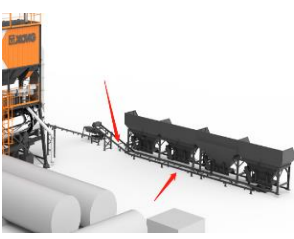



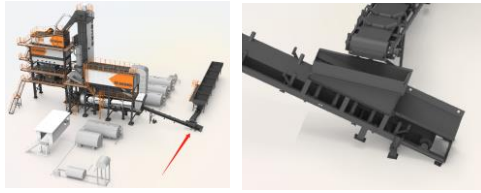
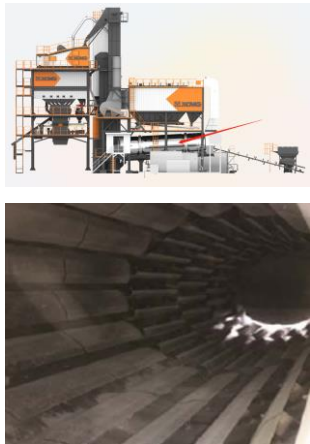
☆Basic specification



- 1 Rated productivity 120 t/h
- 2 Nominal mixing capacity 1500 kg/batch
- 3 Rated working condition:
 - Aggregate: $\leq 40\text{mm}$ 100%
 - $\leq 3\text{mm}$ 40%
 - $\leq 74\mu\text{m}$ (ASTM200) 7%
 - Dryer output temperature 160°C
 - Ambient temperature 20°C
 - Moisture $\leq 5\%$
 - Filler content 5%
 - Asphalt content 5%
- 4 Static dosing precision:
 - Bitumen $\pm 0.2\%$
 - Filler $\pm 0.2\%$
 - Minerals $\pm 0.3\%$
- 5 Fuel consumption ≤ 6.5 kg/t
- 6 Required operating power About 294 kW (whichever is the actual configuration)
- 7 Maximum single unit power 75 kW
- 8 Minimum installation area 750(30m×25m) m²
- 9 Power supply:
 - Single voltage: 220V
 - Three phase: 380V
 - frequency: 50Hz
- 10 Environment protection standard:
 - Dust emission content $\leq 20\text{mg/Nm}^3$ (Rated working condition)
 - Smoke blackness \leq Ringelmann 1st level
 - Ambient noise $\leq 80\text{dB}$
 - Control room noise $\leq 70\text{dB}$

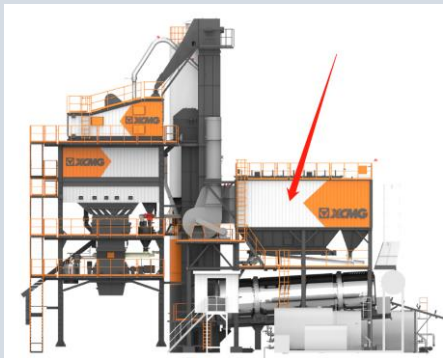
☆Detailed specification


Note: the item with “ * ”before the serial number in the above table is the optional items, which can be adjusted according to the purchase demand.


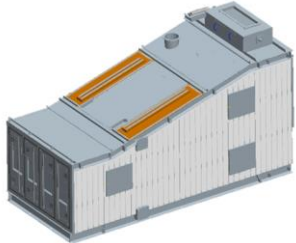

No.	Content	Capacity	Q'ty	Unit	
1	Cold feed system				
1.1	Cold hopper 	Single hopper capacity	7.5m ³	4	set
		Loading height	2.8m		
		Loading width	3.3m		
		Filter screen	Each hopper with a filter(≥120mm)		
1.1.1	Vibration motor	Power	0.08kW	1	pcs
1.2	Dosing machine 	Conveying capacity	100t/h	4	set
		Speed adjustment method	Frequency conversion control, infinite speed regulation		
		Attachments	Anti-deviation block idler and carrier roller		
		Belt Type	No-interface high-strength circular belt	4	set
		Belt Width	500mm		
1.2.1	Gear motor 	Power	2.2kW(ea)	4	Unit
1.2.2	Frequency converter		Adjust gear motor speed to control minerals supply	4	pcs
* The discharge gate is adjustable, to get better aggregate proportion; * Sand hopper has breaking vibrato motor, when aggregate moisture is high, it will start automatic, also it can be controlled by operator inside control room by manual.					
1.3	Belt conveyor 	Conveying capacity	130t / h	1	set
		Attachments	Belt tensioning device, sweeper, block idler		
1.3.1	Drive motor	Power	4kW	1	Unit

No.	Content		Capacity	Q'ty	Unit
1.3.2	Belt	Type	No-interface high-strength circular belt	1	set
		Width	550mm		
1.4	Belt feeder 	Conveying capacity	130t / h	1	set
		Attachments	Belt tensioning device, sweeper, block idler		
1.4.1	Drive motor	Power	4kW	1	Unit
1.4.2	Belt	Type	No-interface high-strength circular belt	1	set
		Width	550mm		
1.4.3	Filter device 		Reject big material($\geq 100\text{mm}$)	1	set
The number of hopper can be selected according to actual demand					
2	Drying drum system				
2.1	Drying drum 	Drying capacity	130t / h (Standard cold mineral humidity $\leq 5\%$)	1	set
		Diameter	$\phi 1.8\text{m}$		
		Length	7.7m		
2.2	Gear motor	Power	11kW(ea)	4	Unit
2.3	Thermal device	Type	Mineral wool insulation, covered with stainless steel plate	1	set
2.4	Discharge chute	Temperature measurement	Highly-sensitive thermal resistor	1	set

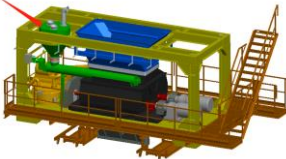
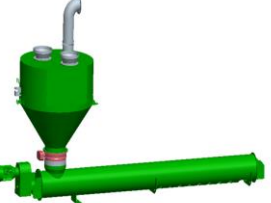
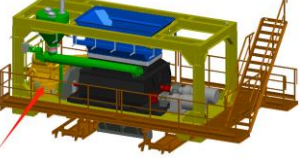
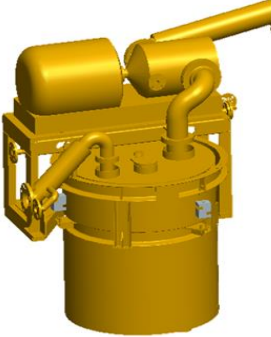
No.	Content	Capacity	Q'ty	Unit	
2.5	Negative-pressure device	Real-time monitoring of the negative pressure value in the bag filter	1	set	
2.6	Burner		1	set	
2.6.1	Standard burner  	Fuel	Heavy oil or diesel (See Annex 1)	1	set
		Output power	≥10.5MW		
		Adjustment ratio	1: 10		
		Fuel pump power	≥1.5kW		
		Fuel volume control	Variable frequency control of fuel pump		
		Fan power	≥11kW		
		Air flow control	Frequency control and air door adjustment		
		Control mode	Manual and automatic control		
* Optional 2.6.2	Gas burner	Fuel	Natural gas(calorific value above 8600kcal/m ³)	1	set
		Output power	≥10.5MW		
		Adjustment ratio	1: 10		
		Fan power	≥11kW		
		Air flow control	Frequency control and air door adjustment		
		Control mode	Manual and automatic control		
		Supply gas pressure	45-50kPa		
		Pipe diameter	≥DN80		
		Nitrogen oxide emission concentration	≤200mg/Nm ³		
		Max. gas consumption	1060Nm ³ /h		
* 2.6.3	Dual-fuel burner	Fuel	Heavy oil or diesel (See Annex 1)	1	set


No.	Content	Capacity	Q'ty	Unit	
		Natural gas(calorific value above 8600kcal/m ³)			
		Output power	≥10.5MW		
		Adjustment ratio	1: 10		
		Fuel pump power	≥1.5kW		
		Fuel volume control	Variable frequency control of fuel pump		
		Fan power	≥11kW		
		Air flow control	Frequency control and air door adjustment		
		Control mode	Manual and automatic control		
		Supply gas pressure	45-50kPa		
		Pipe diameter	≥DN80		
		Nitrogen oxide emission concentration	≤200mg/Nm ³ (natural gas burning)		
		Maximum gas consumption	1060Nm ³ /h		
2.7	Maintenance platform	Easy to maintain burner	1		
Four wheels of drum is friction driven					
3	Dust collector system				
3.1	Primary dust removal	Gravity dust collector	1	set	
3.11	Coarse filler spiral	Conveying capacity	25t / h	1	piece
		Power	7.5kW		
3.2	Secondary dust removal	Type	Filter bag	1	set
		Filteration area	≥480m ²		
		Filteration ability	43000m ³ /h		



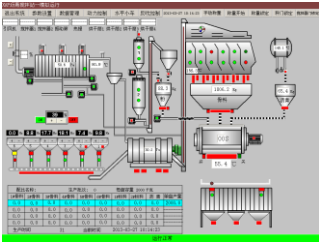
No.	Content		Capacity	Q'ty	Unit
3.2.1	Bag	Texture	Aramid fiber	1	set
		Density	450g/m ²		
3.2.2	Counter-blow cylinder		Valve cylinder	1	set
3.2.3	Temperature measuring equipment		Thermocouple measures the temperature to protect the bag	1	set
3.3	Cold air door	Cold air door	Feedback control by temperature sensor	1	set
		Air cylinder	Valve cylinder		
*3.4	Waste filler mixer	Mixing capacity	30t/h	1	Unit
		Power	11kW		
3.5	Spiral below the silo	Power	5.5kW	1	piece
3.6	Ash discharge screw	Power	5.5kW	1	piece
3.7	Induced draft fan	Type	Highly-efficient centrifugal fan	1	Unit
		Motor power	75kW	1	Unit
3.10	<p>Particle size of dust collected by the primary dust remover $\geq 0.075\text{mm}$, large particles are sent to the hot elevator for recycling through the gravity flap valve by the screw conveyor;</p> <p>The dust collected by the secondary bag collector is directly discharged, and the recycled filler can not be used under the standard configuration.</p> <p>The temperature sensor mounted on the flue is connected to the controller; it prevents the bag from working under high temperature by controlling the emergency cold air door.</p>				
* 3	Wet cyclone filter				
3.1	Exhaust fan power		75kW	1	set
3.1.1	Water pump	Water pump 1	2.2Kw	1	set
		Water pump 2	2.2kW		
3.2	Screw conveyor		5.5Kw	1	set
3.2.1	Dust emission:		$\leq 200\text{mg/Nm}^3$	1	set
4	Hot mineral elevator				



No.	Content		Capacity	Q'ty	Unit
4.1	Elevator 	Structure	Single row wear-resistant plate chain hopper type	1	set set
		Lifting capacity	130t / h		
		Wear-resistant structure	Anti-wear structure is designed at the receiving and feeding chute		
4.1.1	Gear motor	Power	15kW	1	Unit
		Anti-reverse	With anti-return device		
5	Vibration screening system				
5.1	Vibrating screen 	Type	Double vibration motor drive	1	set
		Screening capacity	130t / h		
		Screening area	13.5m ²		
5.1.1	Screen	Layer numbers	4	1	set
		Standard specifications	5、11、19、32		
5.1.2	Vibration motor	Power	2.35kW (each)	2	pcs
5.10	Double vibration motor drive, 2000 hours free of maintenance; screen specification can be customized according to production requirements				
6	Hot mineral storage system 				
6.1	Silo	Structure	4 positions	1	set
		Capacity	13.8m ³		
6.1.1	Material level gauge	Type	Point-type level detection	4	pcs

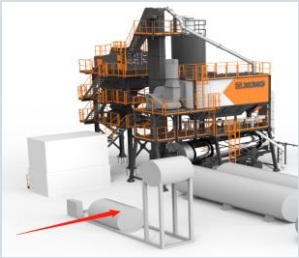


No.	Content		Capacity	Q'ty	Unit
6.1.2	Material temperature measuring		The high-precision thermocouple temperature sensor monitors the mineral temperature in the sand bin in real time	1	pcs
6.2	Hopper door			4	set
6.2.1	Air cylinder			4	set
6.10	Each silo comes with a sampling port for easy access.				
7	Weighing and mixing system				
7.1		Mixing capacity	1500kg/batch	1	set
		Type	Double horizontal shaft forced mixing		
		Attachments	Additives and other expansion interfaces, recycled materials, and emergency stop device.		
7.1.1	Gear motor	Power	22kW(ea)	2	set
7.1.2	Paddle arms, paddle tips, liners		Highly wear-resistant material	1	set
7.2		Weighing method	“Cumulative” incremental measurement	1	set
		Weighing capacity	1500kg		
		Weighing type	Three points type weighing		
		Static measuring precision	±0.3%		

No.	Content	Capacity	Q'ty	Unit	
7.2.1	Weighing transducer	High-precision sensor	3	pcs	
7.3	Filler weighing hopper  	Weighing method	1	set	
		Weighing capacity			120kg
		Weighing type			Three points type weighing
		Static measuring precision			±0.3%
7.3.1	Weighing transducer	High-precision sensor	3	pcs	
7.3.2	Butterfly valve	Pneumatic butterfly valve control filler feeding	1	pcs	
7.4	Bitumen weighing tank  	Weighing method	1	set	
		Weighing capacity			100kg
		Weighing type			Three points type weighing
		Static measuring precision			±0.2%
7.4.1	Weighing transducer	High-precision sensor	3	pcs	
7.4.2	Butterfly valve	Pneumatic butterfly valve controls bitumen material feeding	1	pcs	

No.	Content	Capacity	Q'ty	Unit	
7.10	<p>Mixer adopts double horizontal shaft forced mixing with low speed gear synchronization; The“cumulative” incremental measurement and unique expert database intelligent weighing technology ensures high precision weighing, with axial discharge through the cylinder driven material door;</p> <p>Filler is measured incrementally, and the filler is discharged into the screw conveyor by controlling the pneumatic butterfly valve, and at last spread into the mixer.</p> <p>The bitumen adopts incremental metering and“secondary weighing” technology to ensure the accurate bitumen-mineral ratio of finished materials.</p> <p>The mineral measuring hopper, hot mineral silo and mixing main building are connected with the forced negative pressure system, preventing the dust from escaping during the weighing and mixing process and isolating the pressure disturbance to ensure measurement accuracy.</p>				
8	Filler supply system				
8.1	Filler silo	Structure	Single mineral filler silo	1	set
		Mineral filler volume	20m ³		
8.1.1	Material level gauge	Type	High, low-point level detection	1	set
8.1.2	Mineral filler weighing spiral	Conveying capacity	22t / h	1	pcs
		Power	4kW		
8.1.3	Silo-top dust collector		Vibration dust collector	1	pcs
8.1.4	Pop-off valve		Ensuring filler injection safety	1	pcs
8.10	The ore filler feeding adopts the pneumatic conveying method of the ore filler truck;; the mineral filler is transported to the weighing hopper by the screw; the ore filler silo and the recovery filler silo (optional) are equipped with arch breaking devices.				
9	Main tower leg				
9.1	Main tower leg 	Structure	Independent high strength steel structure	1	set
		Traffic Height	3.8m		
		Traffic width	4.5m		
		Fixation	Pre-embedded steel plate welding fixed		
10	Gas circuit system				
10.1	Air compressor	Type	Screw-type air compressor	1	Unit
		Capacity	3.3m ³ /min		
		Power	22kW		

No.	Content	Capacity	Q'ty	Unit	
10.2	Pneumatic components	Quick-plug connector, hose, three pneumatic components, joints, etc.	1	set	
11	Control system				
11.1	  	Control mode	PLC+PC, all computer control	1	set
		Communication method	Ethernet or Industrial field bus		
		Power	380V/220V ($\pm 5\%$), 50Hz, 3 phase 4 lines		
		Control interface display	Production process and production status monitoring, operation fault warning and alarm, hot mineral material level indication, system negative pressure and temperature display, maintenance prompt information display, fault diagnosis information display, production data query, etc.		
11.2	Control room	Type	Container control room, modular	1	set
		Area	9m ²		
11.2.1	Air conditioner	1P	1	Unit	
11.3	PLC		1	set	
	Contactactor				
	Circuit breaker				
	Relay				
	Emergency stop switch				
	Proximity switch				
	Travel switch				
11.10	Each motor operation method is computer operation; the control system can be automatic or semi-automatic production, real-time carry-over automatic compensation, bitumen excess protection, input automatic calibration, data storage and output printing; the computer can control the mixing in real time; as for burner control, it has PLC automatic program control, ignition, safety monitoring, and automatic fault protection.				

No.	Content	Capacity	Q'ty	Unit	
12	Bitumen supply system				
12.1	Bitumen tank 	Heating mode	Thermal oil	1	pcs
		Capacity	40000L		
		Attachments	Level gauge, thermometer, valve		
12.2	Bitumen circulation pump	Power	5.5kW	1	Unit
		Flow	≥16m ³ /h		
12.3	Unloading pump	Power	≥7.5kW	1	Unit
		Flow	≥24.4m ³ /h		
12.10	Bitumen pump can realize bilateral rotation, to achieve the bitumen transport and circulation; The Piping specification and quantity of bitumen tank can be Optional according to the actual production demand. If the bitumen tank is cancelled, the bitumen pipeline from the tank to the circulating pump, the pipeline from the circulating pump to the bitumen weighing drum, valves, relevant heat transfer oil pipelines and the pipeline from the heat transfer oil furnace to the tank shall be cancelled; The customer is required to provide a complete set of pipelines, valves, booster pumps from the tank to the circulating pump, from the circulating pump to the bitumen weighing drum, and a complete set of pipelines from the heat transfer oil furnace to the tank. On the basis of canceling the bitumen tank and retaining the oil unloading tank, only the oil unloading tank and oil unloading pump will be retained.				
13	Fuel supply system 				
13.1	Diesel tank and pipeline	Capacity	10000L	1	set
		Attachments	Valves, pipeline, etc.		
13.10	The specifications and quantities of diesel tanks and pipelines can be Optional according to actual production requirements. If the diesel tank is cancelled, the diesel pipeline, valve and other accessories will be cancelled. The customer needs to configure a full set of pipeline, valve and other accessories connecting the tank to the burner.				

No.	Content	Capacity	Q'ty	Unit	
14	 <p>Heating system of conduction oil</p>				
14.1	 <p>Thermal oil burner</p>	Type	Organic heat transfer oil furnace	1	set
		Heating capacity	200 000kcal/h		
14.1.1	Heat conduction oil furnace burner		1	Unit	
14.1.1.1	 <p>Standard burner</p>	Type	Secondary flame control, automatic ignition, automatic shut down, flame monitoring and automatic fault alarm.	1	Unit
		Fuel	Diesel oil		
*14.1.1.2	Gas burner	Type	Secondary flame control, automatic ignition, automatic shut down, flame monitoring and automatic fault alarm.	1	Unit
Fuel		Natural gas(calorific value above 8600kcal/m ³)			
Gas supply pipe diameter		≥DN32			
Supply gas pressure		3-20kPa			
Nitrogen oxide emission concentration		≤120mg/Nm ³			
Max. gas consumption		28.7 m ³ /h			

No.	Content	Capacity	Q'ty	Unit	
*14.1.1 .3	Dual-fuel burner	Type	Secondary flame control, automatic ignition, automatic shut down, flame monitoring and automatic fault alarm.	1	Unit
		Fuel	Light diesel, natural gas (calorific value above 8600kcal/m ³)		
		Gas supply pipe diameter	≥DN32		
		Supply gas pressure	3-20kPa		
		Nitrogen oxide emission concentration	≤120mg/Nm ³ (natural gas burning)		
		Maximum gas consumption	28.7 m ³ /h		
14.10	Heat transfer oil furnace control system automatically monitors the temperature, pressure, liquid level and other parameters and automatically control the furnace to work within the set temperature range; the furnace comes with a low position shut down device, and the heating chamber comes with an insulating layer. According to the local environmental protection requirements, the gas type heat-conducting oil furnace with nitrogen oxide emission concentration ≤50mg/Nm ³ or ≤80mg/Nm ³ is optional and price calculation is required. If the tank is cancelled and the heat-conducting oil furnace is retained, only the heat-conducting oil furnace is configured and the pipeline is made by the customer.				
15	Attached parts				
15.1	Attached tools	Wrench, socket, tool kits, etc.	1	set	
15.2	Attached spare parts	Solenoid valve, thermocouple, etc.	1	set	
15.3	Commissioning tools	Angle steel, etc.	1	set	