



**EXPRESS TYPE 240 TON/HOUR  
ASPHALT PLANT QUOTATION**

**Quotation No: GE-065-22  
Date: 24.02.2022**



#### DESIGN CRITERIA

**OKEMOS, EXPRESS TYPE 240 ton/hour Asphalt Plant**, has 4 fractions and has a 240 t/h capacity when the bituminous hot mixture production cycle time is maximum 45 seconds, mixing capacity is maximum 3.000 kg and under the following conditions:

- The moisture content of aggregate is max 3%.
- The minimum temperature of aggregate entering dryer unit is 10°C.
- The average specific weight of aggregate is 1,650 kg/m<sup>3</sup>.
- The aggregate diameter is 40 mm at maximum.
- The aggregate specific heat capacity is 0.21 kCal/kg°C.
- The aggregate should be cubical shaped and should not contain any foreign or distorted material.
- The proportion of material sieving through a 3 mm screen is ≤ 35%.
- The proportion of material sieving through an 80µm screen is ≤ 8%.
- Natural gas calorific value is at least 8.250 kCal/Nm<sup>3</sup>.
- The production capacity includes bitumen, filler and admixture weights.
- The environmental temperature and other variations may affect the production capacity by ±10%.
- The capacity calculation test will be carried out with direct under mixer truck loading.
- During the test period, aggregate and filler must be present in proportions suitable for the mixture design of the production.

## SCOPE OF SUPPLY

No	UNITS	QUANTITY	CAPACITY
1.	COLD AGGREGATE SILOS	-4 UNITS	20 m <sup>3</sup>
2.	COLD AGGREGATE COLLECTING CONVEYOR	-1 UNIT	800 mm
3.	DRYER FEEDING CONVEYOR	-1 UNIT	800 mm
4.	DRYER	-1 UNIT	at 3% moisture content 260 t/h
5.	DRYER BURNER	-1 UNIT	16.650.000 kCal/h
6.	AGGREGATE ELEVATOR	-1 UNIT	260 t/h
7.	TOWER GROUP		
7.1.	Sieve	-1 UNIT	260 t/h
7.2.	Hot Aggregate Silo	-1 UNIT	38 t
7.3.	Aggregate Weighing Unit	-1 UNIT	3.000 kg
7.4.	Bitumen Weighing Unit	-1 UNIT	300 kg
7.5.	Filler Weighing Unit	-1 UNIT	300 kg
7.6.	Mixer	-1 UNIT	3.000 kg/batch
7.7.	Hot Mix Silo (Under Mixer, Double compartment)	-1 UNIT	70 t
7.8.	Oversized and Overflow Bunker	-1 UNIT	
8.	FILLER HANDLING SYSTEM		
8.1.	Filler Elevator	-1 UNIT	15 t/h
8.2.	Filler Service Silo	-1 UNIT	3 m <sup>3</sup>
8.3.	Filler Storage Silo	-1 UNIT	20 m <sup>3</sup>
9.	DRY TYPE DUST RETAINING FILTER	-1 UNIT	810 m <sup>2</sup>
10.	EXHAUST FAN	-1 UNIT	72.000 m <sup>3</sup> /h
11.	PRE-SEPARATOR	-1 UNIT	16 m <sup>3</sup>
12.	PNEUMATIC SYSTEM	-1 UNIT	195 m <sup>3</sup> /h
13.	CONTROL CABIN, CONTROL & POWER SYSTEMS		
13.1.	Control Cabin	-1 UNIT	2,4 m x 7 m
13.2.	Automation and Power Systems	-1 SET	
14.	BITUMEN SYSTEM INSTALLATION	-1 SET	
15.	OPTIONAL UNITS		
15.1.	ELECTRICALLY HEATED BITUMEN TANK	-4 UNITS	50 ton
15.2.	ELECTRICALLY HEATED BITUMEN TANK WITH AGITATOR	-2 UNITS	50 ton



## TECHNICAL SPECIFICATIONS

<b>TYPE / MODEL</b>	EXPRESS TYPE EAP 245 FUM Stationary and automatic/Manuel Batch Type
<b>DRYING CAPACITY</b>	240 t/h Based on less than 3% aggregate moisture content
<b>MIXER CAPACITY</b>	240 t/h Based on 3.000 kg/batch, 80 batch/h, Cycle 45 sec.
<b>SERVICE VOLTAGE</b>	380 V / 50 HZ
<b>OPERATING SYSTEM</b>	Automatic / Manual operation with PLC control panel

## 1. COLD AGGREGATE FEEDING SILOS – 4 UNITS

- Feeding capacity of dosing bands of Cold Aggregate silos are adjusted by electric motor, driven by frequency drivers. The speeds of each of the dosing bands are automatically controlled from the cabin according to the recipe and batch capacity to be manufactured. If desired, belt speeds can be increased or decreased manually by the operator during manufacturing.
- Cold aggregate silo legs are designed to be able to carry 40 tons of weight.
- To provide easy transportation, silos are designed as conical shape which enables silos to be loaded inside of each other.
- One set of cold aggregate silos is easily transported with only one truck.
- Vibration motors in fine aggregate silo are used to prevent clogging of fine aggregates.
- Separator grid is used to segregate foreign materials and oversize aggregates

Capacity	20 m <sup>3</sup>
Feeding Width	4.500 mm
Dosage Belt	5 Pieces
Belt Width	650 mm
Chassis	Made of S235JR metal sheet, hot-dip galvanized coating
Drive	3 kW motor with gear box <b>(frequency controlled)</b>



## 2. COLD AGGREGATE COLLECTING CONVEYOR – 1 UNIT

- The movement of the conveyor belts is directly driven by the gearbox.
- There is a scraper to scrape the materials sticking on the tape.
- Belt thickness and strength are selected due to the loading capacity.
- Top and bottom rollers are located with sufficient space and quantities to carry the load and prevent sagging of the band.
- Rollers can be easily replaced without welding and bolting.
- Rollers are maintenance- free closed systems.
- The adjustable drum is covered with rubber to prevent sliding.
- Conveyor belt is manufactured as adjustable with tensioning system.
- Emergency wire is available to stop the tape in case of an emergency.

Conveyor Width	800 mm
Drive	5,5 kW motor + gearbox

### 3. DRYER FEEDING CONVEYOR – 1 UNIT

- Separator grid is used to segregate foreign materials and oversize aggregates between collecting and feeding conveyor.
- There is a scraper to scrape the materials sticking on the tape.
- Belt thickness and strength are selected due to the loading capacity.
- Top and bottom rollers are located with sufficient space and quantities to carry the load and prevent sagging of the band.
- Rollers can be easily replaced without welding and bolting.
- Rollers are maintenance- free closed systems.
- The adjustable drum is covered with rubber to prevent sliding.
- Conveyor belt is manufactured as adjustable with tensioning system.
- In case of malfunction or electrical breakdown, a “backstop locking system” has been developed to prevent belt from operating opposite to carrying direction.
- Inclined type conveyor is used for dryer feeding.
- Emergency wire is available to stop the tape in case of an emergency.

Conveyor Width	800 mm
Drive	7.5 kW motor+ gearbox



### 4. DRYER – 1 UNIT

- The dryer drum is made of heat and wear resistant plate steel (SAE 950C).
- Compensation springs are connected with a special design without welding in order to distribute the body load evenly, to meet the thermal expansions and to be easily replaced.
- Pliable legs of the dryer chassis provide easy transportation.
- Bolted distinctive wing geometry increases the heat contact to the aggregate surface therefore obtaining maximum efficiency from the heat and preventing wet aggregate from sticking to the surface of the wings, which reduces efficiency and causes combustion defects.
- The drying drum is supported by two heat treated steel rings on four heat treated steel rollers. The forward and reverse movement of the drum along the bearings is limited by two sets of stop rollers. The drive of the drying drum is provided by four electric motor-gearbox groups.
- Dryer inlet is painted with special heat resistant paint.
- A high-strength thermocouple is used to measure the aggregate temperature at the dryer outlet.

Sizes	Ø 2.200 mm (diameter) x 9.360 mm (length) 12 mm sheet thickness
Drive	4 x 22 kw motor+ gear box ( <b>soft-starter system</b> )
Insulation	0.8 mm stainless steel sheet over 50mm rock wool

## 5. DRYER BURNER – 1 UNIT

- Burner flame intensity is adjusted automatically depending on the moisture content of the aggregate and the amount of aggregate entering the dryer.
- Silent type high pressure dryer burner.
- The burner will be selected according to the fuel type that the customer will use. (one type fuel)
- Has an automatic ignition system, including a security system whereby fuel flow is automatically shut off in case flame burns out.
- Fuel valves used in the burner use electricity.
- All burner controls are within cabin. The controller is fully automatic and has a temperature control system.
- Flame intensity is adjusted according to aggregate temperature.
- Operator may manually increase or decrease burner flame intensity.

Capacity	16.650.000 kCal/h
Fuel Type	Diesel, fuel oil, or natural gas (according to client's choice)

## 6. AGGREGATE ELEVATOR – 1 UNIT

- The aggregate elevator carries the aggregate heated in the dryer to the sieve unit.
- Buckets are mounted to a chain. Wear-resistant gears made of special heat treated (for hardening) steel material are used to drive chain.
- Hardox material is used for sections of buckets most prone to wear.
- In case of malfunction or electrical breakdown, a "backstop locking system" has been developed to prevent chains from operating opposite to carrying direction.
- The elevators' chain tension adjustment mechanism is spring type.

Capacity	240 t/h
Drive	37 kw motor with gear box <b>(frequency controlled)</b>



## 7. TOWER GROUP

### 7.1. Sieve – 1 Unit

- Compact, totally closed, maintenance free and sealed against dust.
- Aggregates are sent to bypass compartment without being sieved through pneumatically controlled valve system.
- The flap direction is controlled from inside the cabin and its positions are displayed on the computer screen.
- There are large maintenance covers on the top and sides of the sieve.
- The sieve on each floor consists of two separate parts and each tension system is separate.
- The dust accumulated in the sieve is absorbed by a hood on the sieve body and transferred to the dust collection system. The suction channel is flexibly connected to prevent vibration from the sieve body.
- The dimensions of the sieves in the sieve unit are delivered in the dimensions to be determined by the customer.

Capacity	260 t/h
Drive	2 x 12 kw
Assortment	5 + 1 (oversized)



### 7.2. Hot Silo – 1 Unit

- Aggregates sieved from the sieve are stored in the compartments of the hot aggregate silo according to their class.
- 1st compartment may be used as by-pass compartment.
- Top and bottom level sensors in each compartment.
- There is a temperature sensor in the first compartment to monitor the aggregate temperature.
- Temperature and level values are followed by the operator on the computer screen.
- Cover is available to enter all compartments for care purposes.
- In case aggregate level reaches maximum level, feeding system is stopped by level sensor signal.
- If the feeding system is stopped, the material coming from the feeding line can remain in the system without being discharged to the outside.
- Each compartment has overflow channels.

Capacity	5 compartments / total of 38 ton
Insulation	50 mm thick, 100 kg/m <sup>3</sup> density rock wool and above covered with 0.8mm stainless sheet



### 7.3. Aggregate Weighing Unit – 1 Unit

- It is the place where different types of aggregates are weighed separately for each mixture according to the production recipe and kept to be sent to the mixer.
- Covers are computer controlled for fast and precise weighing.
- The order of material unloading to the weigher is automatically adjusted by the computer according to the recipe.
- According to production recipe, mixture weighing values are given by the operator.
- Aggregates are discharged directly to mixer via pneumatically commanded lid
- During unloading from the weigher, a soft sealing is provided to prevent dust from coming out and not to affect the weigher calibration.
- Weighing is done with three Load-Cells.

Capacity	3.000 kg (max.)
Weighing Method	Accumulative
Weighing System	Electronic Load Cell

### 7.4. Bitumen Weighing Unit – 1 Unit

- Consists of two containers, internal weighing container and external stationary discharge container. Both containers are electrically heated. External container is used to insulate interior container which is used to maintain bitumen temperature. The bitumen weighed in the inner container is poured into the outer container when it is their turn. From there, it is homogeneously discharged into the mixer from the scale through the mixer by gravity.
- Bitumen weigher is equipped with a maximum level switch. This switch immediately stops the bitumen circulation pump when the bitumen reaches the maximum level so that the bitumen does not overflow from the scale due to any malfunction. With the bitumen drain plug in the bitumen scale, it is ensured that the bitumen is drained harmlessly.
- Weighing is done with three Load-Cells.



Capacity	<b>300</b> kg (max.)
Weighing Method	Individual weighing
Weighing System	Electronic Load Cell

### 7.5. Filler Weighing Unit – 1 Unit

- The fillers coming from the filler service silo with a spiral are weighed and added to the mixture.
- It has a vibration motor, pneumatic control and a special sealing gasket discharge cover.
- Minor tare changes during operation are reset from the cabin.

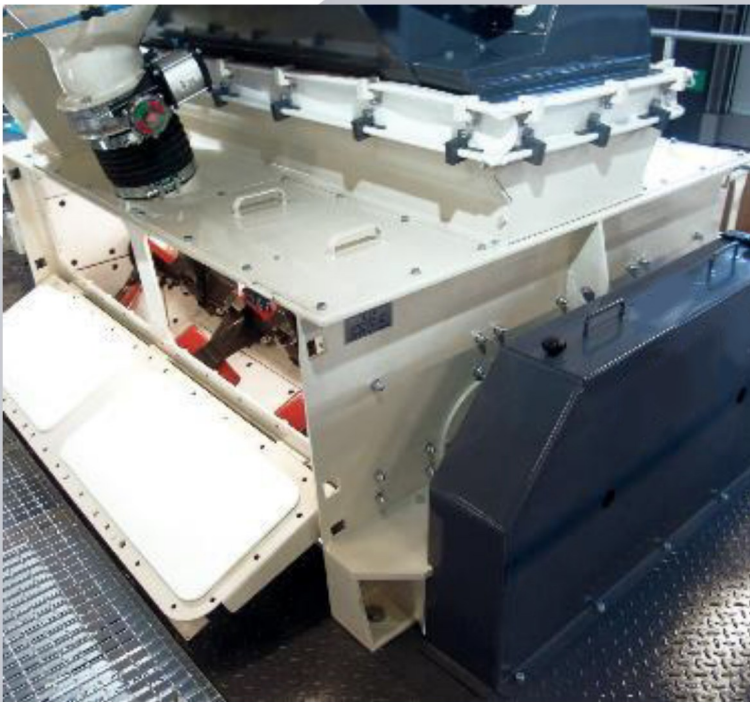
Capacity	<b>300</b> kg (max.)
Weighing Method	Individual weighing
Weighing System	Electronic Load Cell



## 7.6. Mixer – 1 Unit

- The mixer body is heated by electrical resistance. It has two shafts, two motor gearbox group drives, mixing pedals synchronized with heavy-duty synchronized gears. In addition, the mixer body is of circular cross-section discharge cover type, which is supported by heavy-duty bearings and driven by double pneumatic cylinders.
- Interior body is covered with wear resistant Ni hard 4 steel castings. Arms and pedals are wear resistant and easy to replace.
- Heavy duty type synchronized gears are made of GS 60 steel casting. Gear profile designed with maximum contact surface.
- Mixer Arms are manufactured from GS60 material as cast steel and designed for there is no unswept space in the mixer. The connection surfaces are attached to the arms with two specially shaped anchored bolts so that they do not slip.
- Mixer arm connections are tightened with a counter nut and locked with a lock plate.
- Worn pedal tips can be used for a longer period of time by sliding them from the connection notches on the mixing arm.
- Pedals are made of cast steel.
- Wear resistant arms and pedals on a twin shaft designed with special angles for best (homogenous) asphalt mix.
- Mixer shafts are manufactured from SAE1050 steel material, with the trunnions at both ends machined in accordance with the bearing engagement gap, and connected to the synchronized gears by wedge insertion.
- The shaft is embedded in the body with mechanical seals. The seals are replaceable without removing the shaft.
- According to pre calculated production recipe timing aggregate, filler, bitumen and additives are automatically fed to the mixer system via automation system.
- The hot mixture in the mixer is discharged directly to the asphalt bunker or car by a pneumatic cover, completely and as soon as possible.
- The mixer discharge cover form is in a way to prevent the hot bituminous mixture from staying in the mixer and not to leave a dead spot.

Capacity	<b>3.000</b> kg/batch
Drive	<b>2 x 55 kW (frequency controlled)</b>



### 7.7. Hot Mix Silo – 1 Unit

- Double compartment
- Hot mix bunker discharge lids are electrically heated and the whole body is insulated with 50 mm thick and 80 kg/m<sup>3</sup> density rock wool and covered with galvanized sheet/embossed aluminium.
- Discharge lids are controlled by command cabinet as well as manually controlled via buttons located on the plant platform.

Capacity

70 Ton



### 7.8. Oversized and Overflow Bunker– 1 Unit

- It is the place where the materials coming from the sieve top and hot silo overflow pipes are stored. Next to the ready asphalt silo.
- There is a maximum level sensor.
- Pneumatically controlled unloading cover is available.

## 8. FILLER SYSTEM

- Top and Bottom level sensors in silos.
- Filling system from outside to the service silo with bulk trailer.
- Service silo and storage silo are automatically fed via the automation system.
- Filler feeding and transfer spirals.

### 8.1. Filler Elevator – 1 Unit

- It transfers the filler, which are transported from the filter or the filler stock silo by spirals, to the filler service silo.
- Filler elevator buckets are transported by belt system.
- Elevator buckets have a conical structure in both directions for easy discharge of filler.
- Back stop locking system is used to prevent chains operating to reverse direction.

Capacity	15 t/h
Drive	4 kw <b>(frequency controlled)</b>

### 8.2. Filler Service Silo – 1 Unit

- It is the place where the filler from all supply points (Filler Vertical Elevator or External Filler Filling System) are stored, the main purpose of which is to meet the filler need of the mixture.
- If the filler level gets low, min- level sensor warns the system so that stocked filler is sent to filler elevator.
- Upper level sensor warns to stop the filler transfer coming from stock tank in case the service silo is full.
- With the help of the spillway on it, when the silo is full, it allows excess filler to flow into the Filler Stock Silo.
- There is a vibrating or air discharge unit under the Dosing Silo to ensure the regular flow of the filler. This system works for at filler weighing, ensuring that the filler run smoothly. At the same time, there is a manually controlled cover on this unit that adjusts the flow rate of the filler and ensures that it is completely closed when necessary.

Capacity	3 m <sup>3</sup>
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### 8.3. Filler Stock Silo – 1 Unit

- After filler service is filled up, filler is stored in this silo.
- It works with the signal coming from the lower level sensor in the Filler Service Silo.
- Lower and upper level sensors.
- There is a vibrating or air discharge unit under the Dosing Silo to ensure the regular flow of the filler. This system works for at filler weighing, ensuring that the filler run smoothly. At the same time, there is a manually controlled cover on this unit that adjusts the flow rate of the filler and ensures that it is completely closed when necessary.
- When filler service silo needs more filler or needs filler to be discharged, screw type conveyor transfers filler to filler vertical elevator.

Capacity	20 m <sup>3</sup>
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## 9. DRY TYPE DUST RETAINING FILTER – 1 UNIT

- Dry Type Filter Systems prevent environmental pollution by separating the dust and gas generated during asphalt production, as well as preventing the spread of stone dust to the environment and ensuring its collection. These collected dusts are used as filler material in asphalt production.
- The filter of the Asphalt Plant is cassette and bagged and also a dry type system.
- Dryer gas outlet, all dust and gas suction pipes of the facility are connected to the filter group.
- There is a pre-separator unit to prevent large particles from entering the filter system and to re-add them to the mixture.
- Filter bags are vertically placed cassette type and are cleaned by the blast air system, which operates by taking advantage of the difference between atmospheric pressure and vacuum during cleaning. Shock air system is directed by computer through pneumatic covers.
- The dust emission values of the gas coming out of the filter are low.
- Filter temperature is controlled by a thermocouple in which can be monitored from the cabin.
- Includes air cooling valve to prevent overheating. Burner has an automatic shutdown safety system for over-heating.
- Collected filler in filter is conveyed via screw type conveyor to either outside or to filler elevator.
- The vacuum value formed in the dryer by the aspirated air by the filter fan is monitored by the operator.
- The filter is insulated with 50 mm thick glass wool covered with embossed aluminium.
- A exact sealing has been achieved in the filter.

Filtering area	810 m <sup>2</sup>
Number of bags	540
Bag type	%100 Poly.
Bag density	450 g/m <sup>3</sup> ±%5
Piece volume max.	250 g/m <sup>3</sup>
Air permeability	9.000 – 12.000 l/dm <sup>2</sup> /h @ 200 Pa
Heat resistance	150°C
Emission Value	≤20 mg/Nm <sup>3</sup>



## 10. EXHAUST FAN – 1 UNIT

Air Volume	72.000 m <sup>3</sup> /h
Air Pressure	450 mmwc
Motor	132 kW <b>(frequency controlled)</b>

## 11. PRE-SEPARATOR – 1 UNIT

- The system that reduces the filter load by approximately 50% by keeping the coarse filler in the polluted air coming to the filter and increases the life of the filter and bag at least 3 times.
- Collected material transferred to aggregate vertical elevator via screw type conveyor.

Capacity	16 m <sup>3</sup>
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## 12. PNEUMATIC SYSTEM – 1 UNIT

Compressor	Air cooling, screw type
Capacity	195 m <sup>3</sup> /h
Pressure	7,5 kg/cm <sup>2</sup>
Motor	22 kW
Tank Capacity	500 dm <sup>3</sup>

### 13. CONTROL CABIN, CONTROL AND POWER SYSTEMS

#### 13.1. Control Cabin – 1 Unit

- Plant is controlled from one control cabin.
- Cabin has lighting facility and air conditioning unit.

Dimensions	2,4 m x 7 m
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#### 13.2. Automation and Power Systems

- Ability to activate and deactivate the entire plant facility with a single command.
- Manual and automatic controls are available.
- Fully automatic batching controlled by PLC.
- Syntax error-controlled, user recipe preparation module.
- Monitoring of all alarm conditions, retrospective recording of alarm conditions.
- Time-dependent monitoring of temperature values and filter vacuum values and printing
- Client records along with amounts date and mix recipe ratios may be defined, processed and viewed.
- It has the feature of monitoring the total production amount depending on daily, monthly and annual consumption.



#### 14. BITUMEN SYSTEM INSTALLATION – 1 SET

##### Bitumen Filling Pump – 1 Unit

Capacity	50 m <sup>3</sup> /h
Motor	15 kW

##### Bitumen Service Pump – 1 Unit

Capacity	30 m <sup>3</sup> /h
Motor	11 kW

- Includes bitumen service pump, bitumen transfer pump, bitumen service line valves, bitumen filter and three-way valve.

Line Insulation	It is covered with embossed aluminium sheet on 100 mm thick rock wool
Density of Rock Wool	100 kg/m <sup>3</sup>





## 15. OPTIONAL UNITS

### 15.1.ELECTRICALLY HEATED BITUMEN TANK – 4 UNITS

Type	Electrically Heated
Capacity	50 ton

#### Insulation

Insulation material	Rock Wool
Rock Wool Density	80 kg/m <sup>3</sup>
Insulation Thicknesses (body, base, roof)	200 mm

#### Heating System (Electrical Resistance)

Main Resistance	23 kW
Base Resistance	15 x 0,53 kW
Melting Resistance	2 x 1,58 kW

### 15.2.ELECTRICALLY HEATED BITUMEN TANK WITH AGITATOR – 2 UNITS

Type	Electrically Heated
Capacity	50 ton
Agitator	11 kw

#### Insulation

Insulation material	Rock Wool
Rock Wool Density	80 kg/m <sup>3</sup>
Insulation Thicknesses (body, base, roof)	200 mm

#### Heating System (Electrical Resistance)

Main Resistance	23 kW
Base Resistance	15 x 0,53 kW
Melting Resistance	2 x 1,58 kW

#### Accessories

- A thermometer is used to show the temperature in the tank.
- Vega pressure sensor is used to show the bitumen level.
- In accordance with the standards in tanks; inlet and outlet openings, separate drain plug, exit ladder, landing, heat indicator, lifting hooks, ventilation system, cover system etc. available.
- Heating board is available on the tanks.

### **BITUMEN TANK FEATURES**

- The bitumen storage volume has been increased with its special construction with rounded corners and prismatic cross-sections.
- It provides the opportunity to fit more tanks in narrow spaces by reducing the total area occupied by the tank in the facility.
- With specially designed electrical resistances, CO2 emissions and pollution caused by oil leaks are prevented.
- Insulation materials and thicknesses are designed to maintain the heat for a long time without the need to reheat the bitumen in the tank.
- According to EU health, safety and environmental norms, the static structures of the tanks are designed to be durable enough to work under maximum load.
- Since there is less air contact, oxidation is reduced and thus the bitumen quality is maintained.



## GENERAL TERMS

### 1. MANUFACTURERS' OBLIGATIONS

- 1.1. Manufacturer is obliged to manufacture the mentioned ASPHALT PLANT within the production time stated in quotation section.
- 1.2. ASPHALT PLANT units are as listed in scope of supply section.
- 1.3. Packing and loading units securely on client's vehicles.
- 1.4. Asphalt plant installation plan, foundation projects, operation projects will be supplied to client by manufacturer within 15 days following contract signature and advance payment.
- 1.5. To send suitable supervisors for assemblage, electricians, welders, pipe layers, automation personnel and training operators for commissioning to commence on time
- 1.6. Technical assembly is manufacturers' responsibility.
- 1.7. To give training to the one of the client's personnel for one week after the completion of erection.
- 1.8. Guarantee documents for all materials and components used for production will be submitted to client and guarantee documents for components with international trade marks will be provided.

### 2. CLIENTS' OBLIGATIONS

**Below mentioned services are not covered by the contract and will be at clients' risk and own payment unless otherwise agreed in writing.**

- 2.1. The topographical survey and geo-technical research required determining the suitability of the construction site substrate for the foreseen work, as well as all the calculation, planning and execution of any excavation, earthmoving, civil and foundation work required will be supplied by the client in order to comply with the Manufacturer's arrangement drawings. The ground should be prepared to withstand 2 kg/cm<sup>2</sup>.
- 2.2. The appropriate electrical energy voltage, ampere and power (380 V, 3 Phase, 50 Hz or generator) including all necessary cables and connections to the command cabin is clients' responsibility.
- 2.3. All required permits and/or lawful requisites for plants' erection are clients' obligation.
- 2.4. All on-site work safety precautions must be taken.
- 2.5. Client is liable for transportation and transportation insurance of the plant.
- 2.6. Client is obliged to provide lifting equipment such as a mobile crane and forklift at required tonnages specified by manufacturer
- 2.7. Plant and site lighting is clients' responsibility and client is liable for earthing all lighting cables.
- 2.8. Appropriate earthing power cable connection at earthing points, supply and assembly of lightning conductor of PLANT is clients' obligation.
- 2.9. Client should supply tools and equipment before erection listed by the manufacturer.
- 2.10. Client must provide lockable sheds to store equipment and materials and suitable change rooms as soon as erection commences.
- 2.11. Client is liable for a full fire insurance policy during erection and assembly.
- 2.12. Client must provide the necessary water, construction site electric panel and compressed air.
- 2.13. Client is obliged to provide the required amount of materials such as aggregate, bitumen, fuel etc. to operate the plant.
- 2.14. During the storing and assembly of the plant, client is liable for all kind of security and precautions.
- 2.15. Client is liable for any damages caused to plant during transportation, erection and operation such as fire and theft etc., after it has been shipped from manufacturers' premises.
- 2.16. The subjects that are not mentioned in this quotation.

### 3. GUARANTEE

*The guarantee period is twelve (12) months commencing from the date of commissioning against defects due to faulty material and workmanship.*

#### EXCLUSIONS TO GUARANTEE:

- Parts prone to wear, electrical motors, filter bags, electrical components, rubber parts and parts subject to corrosion.
- Damage arising from misuse of machinery.
- Primer and top coat paint, due to no special conditions or terms agreed upon.
- The damage to filtering material caused by the malfunction of the filter cleaning mechanism left unobserved for a period of time and therefore the damage of occurring fire.
- Damage and defects caused by interference to system, tampering with the inner and outer structure, trying to repair and replacing parts, interference of unauthorized services/suppliers/persons/facilities without OKEMOS'es permission.
- The guarantee period of other vendor's supplies are limited with the suppliers' own warranties and will be presented to client by manufacturer.

#### IN GENERAL:

The plants installation, inspection and maintenance & repair must coincide with our "Operations & Maintenance" manual. The asphalt plant is considered "commissioned" at the point of producing asphalt.

OKEMOS reserves the right to make changes in technical information, features and images used without notice. The images used in the offers are representative and vary according to the machine capacity and models.



Başakşehir Mah. Erciyes Sk. D:24

Başakşehir 2. etap No:3, İç Kapı No:15

Başakşehir / İSTANBUL - TURKEY

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