



## 15 TON/HOUR EMULSION PLANT QUOTATION

**TECHNICAL SPECIFICATIONS:**

<b>CAPACITY</b>	: 15 Ton/ Hour
<b>SERVICE VOLTAGE</b>	: 380 V / 50 HZ
<b>OPERATION</b>	: Manual operation

**1- SOLUTION TANK – 1 UNIT**

Capacity	: 8 ton (max.)
Body	: Made of acid resistant polypropylene material.
Heating System	: Electrical heating with resistance (acid resistant special material)
Insulation	: 40 mm polyurethane sandwich panel.

**Drive and Mixing**

System	: 1,1 kW 23 rev/min
Measuring Temperature	: Analog and digital

**Equipment**

DN25 acid and emulsifier filling  
Manhole, ladder and platforms  
DN50 filling, discharge and overflow pipes are included  
Mechanical level gauge

- Pooling system existing for usage of whole mixture and avoid remaining mixture.
- Rotating sprinkler existing for cleaning tank.

**2- COLLOID MILL – 1 UNIT**

Capacity	: 15 t/h (max.)
Heating	: Electrical heating
Motor Power	: 37 kW -3000 cy/min. electrical motor driven

**3- SOLUTION DOSAGE PUMP – 1 UNIT**

Type	: Lobe pump (to make homogeny mixture and pumping with required flow rate) (German origin)
Capacity	: 15 t/h (max.)
Body	: Stainless steel (acid resistant)
Motor Power	: 4 kW

**4- BITUMEN DOSAGE PUMP – 1 UNIT**

Body Heating	: Electrical heating
Drive	: 4 kW gearboxes with motor

## 5- ACID AND EMULSIFIER PUMPS – 2 UNITS

Type	: Eccentric Pump (simultaneously suction and filling capability)
Capacity	: 30 lit/min (max.)
Body	: Durable for corrosion and hydraulic acid

## 6- WEIGHING UNIT – 1 UNIT

Capacity	: 160 kg
Body	: Polypropylene (acid resistant)
Weighing	: Loadcell
Dozing	: Activator valve, acid resistant

## 7- FLOW METERS – 2 UNITS

### Solution Flowmeter

Capacity	: 9000 lit/h (German origin)
Body	: Stainless steel (HCL resistant)
Operating Temperature	: 200°C (max.)

### Bitumen Flowmeter

Heating	: Electrical heating
Capacity	: 15000 lit/h (made in Germany)
Body	: Stainless steel
Operation heating	: 200°C (max.)

### Specifications

DN50 flanged connection  
Durable up to 40 bar (max.) pressure  
Digital display  
The total amount of bitumen passed can be seen

## 8- AUTOMATION PANEL

- The control panel will be in IP65 protection class (outdoor).
- Tank agitation motor
- Colloid mill motor
- Acid filling pump motor
- Emulsion filling pump motor
- SAE Pump
- Bitumen Pump motors existing on control panel
- Water level to be filled in solution tank will be monitored on level gauge.
- The solution tank will be heated by electric heaters. Temperature value of tank will be monitored on panel.
- SAE and bitumen flow rate value will be monitored as digitally on control panel.
- SAE and bitumen pumps motor having frequency control system. Frequency can be set on mimic diagram by digital potentiometer.

## 9- CHASSIS – 1 UNIT

Body : NPI

Layout : All equipment mention above will be assembled on body. There is a proper ladder for operator to control above solution tank.

## 10- BITUMEN FILTER – 1 UNIT

### Specification

Dn50 inlet and outlet flanges

## GENERAL TERMS

### 1. MANUFACTURERS' OBLIGATIONS

- 1.1. Manufacturer is obliged to manufacture the mentioned **OKEMOS EMULTION PLANT** within the production time stated in this quotation.
- 1.2. **OKEMOS EMULTION PLANT** units are as listed in scope of supply section.
- 1.3. Packing the necessary parts of the plant, loading them on the transport vehicles provided by the customer.
- 1.4. Emulsion 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. After completion of assembly manufacturer shall train any person assigned by client for 3 days.
- 1.8. Guarantee documents for all materials and components used for production will be submitted to client. Guarantee documents for components with international trademarks used for the automation system 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 is clients' responsibility.
- 2.3. All required permits and/or lawful requisites for plants' erection is clients' obligation.
- 2.4. All on-site work safety precautions must be taken.
- 2.5. All Client is liable for transportation insurance of plant,
- 2.6. Client is obliged to provide lifting equipment such as a mobile crane and forklift at required tonnages and list of tools and equipment given by manufacturer.
- 2.7. Plant and site lighting is clients' responsibility.
- 2.8. Supply and installation of main power line, grounding and lightning rod belongs to the customer.
- 2.9. Tools and equipment's in accordance with the list submitted by the manufacturer will be supplied following the assembly,
- 2.10. Client must provide lockable sheds to store equipment and materials and suitable change rooms as soon as erection commences.
- 2.11. Obtaining comprehensive fire insurance with adequate status throughout the installation process.
- 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 bitumen, water etc. to operate the plant.
- 2.14. The client will ensure its safety and security during the storage and assembly of the facility at the installation site.
- 2.15. Client is liable for any damages caused to plant during transportation, erection and operation such as fire and theft etc.
- 2.16. All other issues are not mentioned in this quotation.

#### ➤ **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**

- Naturally generally wearable parts - electrical components such as electric motors, rubber parts and wearable parts.
- Damage arising from misuse of machinery.
- Primer and top coat paint, due to no special conditions or terms agreed upon.
- Damage and defects caused by interference to system, tampering with the inner and outer structure, trying to repair and replacing interference of unauthorized services/suppliers/persons/facilities without **OKEMOS'es** permission
- Electronic and automation systems of international companies producing high standards such as SIEMENS, TELEMECHANIQUE are used in the facilities we produce. The guarantees of these systems are limited to the guarantee periods given by these the customer will be given the guarantee documents obtained from these companies.

#### **IN GENERAL:**

The plants installation, inspection and maintenance & repair must coincide with our "Operations & Maintenance" manual.

The facility is considered to be in operation when it is capable of producing emulsions.

**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.



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