### **Drying unit**



The aggregates are fed by the dryer feed belt into the lower part of the dryer drum in which the initial section contains a series of spiral flights which feed the material towards the internal flights. The flights have been designed in such a way as to lift the aggregates and then drop them in a thin veil in front of the burner flame ensuring an efficient drying process. The Drying unit is started through Siemens soft start technology, resulting in a smooth activation process.

The burner and the drum tube form a precisely balanced unit, the combined effect of which is low fuel consumption, exit height and gas temperature and secondary air intake resulting in the improvement and economy of the mixing unit as a whole.



Inside of drying drum

Unit
Drum Diameter
Drum Length
Drum Drive

160 TPH
180 cm
3 Meters
37 K.W Electromotor and
gearbox
10

120 TPH
160cm
7.5 Meters
22 K.W Electromotor and
gearbox
10 mm

Drum Shell Thickness

Drum Type: S

Single continuous spiral steel shell is used; in order to maximize heating

Efficiency, prolong drum shell life and minimize fuel consumption.

Friction ring:

Width 17 cm, Thickness 7 cm with 4 heavy duty rollers.

**Activation:** 

Through Siemens Soft Start. Resulting in a low rpm start up gradually

working up to full load rpm.

### **Elevator**



#### **Hot Elevator Unit:**

The hot aggregate bucket elevator is a totally enclosed chain driven system. Bucket tips are double reinforced for maximum durability. The elevator unit is electrically driven from the head shaft via a chain system.

Electromotor Gearbox: 160 TPH 15 K.w 80 RPM

120 TPH 11 K.w 80 RPM

#### Filler Elevator Unit:

The bucket filler elevator is standard to all plants. The warm reclaimed filler obtained from the drying process via the cyclone is collected and fed to the mixing tower. Warm filler is covered better and more quickly by the bitumen and as an incidental benefit; the specific energy consumption is reduced. As an option, a second mineral filler elevator can be supplied and located parallel to the reclaimed filler elevator.

Electromotor Gearbox : 5.5 K.w 30 RPM

# **Automation technology**





# **Wet Filter**



Filter: Water Filter, Spray tower cyclone design

Diameter of Main Tank: 2.4 meters

Height: 6 Meters

Body: 5mm Thickness, Steel

Exhaust Diameter: 1.3 Meters

Exhaust Height: 6 Meters

Exhaust Body: 5 mm Thickness, Steel

Stand Height: 3 Meters

Water Pump: 50-160 11 K.w Electromotor 3000 Rpm

Water Nozzles: 75 Units



### Oil heater

#### 2 Models available

#### 500,000 K. cal model

Capacity: 500,000 K. cal per hour Heating Coils: 7.5cm Diameter piping

Length: 3.7 meters

Tank metal thickness: 3-4 mm

Width: 1.8 meters Insulation: Glass wool covered with 2mm of steel

Height: 2.2 meters Burner: 500,000 K. cal per hour capacity

Pump: 3" Oil pump 7.5 K.w electromotor 3000 rpm

#### 300,000 K. cal model

Capacity: 300,000 K. cal per hour Heating Coils: 5cm Diameter piping

Length: 3.5meters Tank metal thickness: 3-4 mm

Width: 1.7 meters Insulation: Glass wool covered with 2mm of steel

Height: 2 meters Burner: 300,000 K. cal per hour

Pump: 2" Oil Pump 5.5 K.w electromotor 3000 rpm

Full automatic control panel.



#### Safety features:

- 1. Two thermometer system. One controls the burner; the other is the back up that completely turns off the burner if the first thermostat is not functioning.
- 2. Pressure switch controls the pressure of the pump. If the pump is not working and the pressure drops the pressure switch turns off the burner.

# **Turbo Jet Burner**

Reliable proven Turbo Jet burner giving high energy outputs with low fuel consumption. Fully automatic temperature control process, the burner self adjusts the temperature according to the load using jumo microprocessors.

Greater efficiency is achieved by using servo motors to adjust the air/fuel ratio.



**Blower Motor** 

160 TPH 22 Kw 2900 rpm

:

120 TPH 18.5 kw 2900

rnm

Fuel Pump:

160 TPH 4 kw

120 TPH 3 kw

single nozzle design

**Capacity:** 10,000,000 to 12,000,000 Kcal

Fuel: gas-oil, heavy oil

Temperature control: Fully automatic self adjusting

controls.

# **Heavy Duty vibrating screen**

Aggregates from the bucket elevator is discharged over an anti-abrasion lining and then sprayed over the entire screening area. Totally enclosed dust sealed housing, discharge chute, with inspection doors, giving access for inspection, maintenance and mesh changing.



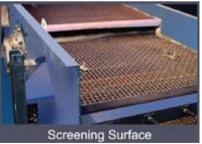
Unit	160 TPH	120 TPH
Total screen area	4m x 1.40	3.5m x 1.40 M
Screen Drive	11 K.w electromotor	7.5 K.w electromotor

**Screening Method :** Fully enclosed counter weight vibration

Screen Material: High resistance stainless steel alloy

**Output:** 4 product sizes plus over size





### Mixing and weighing Unit

The mixing unit contains Twin shaft high capacity paddles with high wear resistance liners. The mixing blades feature optimized shapes and materials to ensure a long service lifespan and easy maintenance. Using load cell technology the fully automatic weighing unit is designed to individually weigh the aggregate, filler and bitumen to provide consistent recipes. The filler dispatch bin is designed to cover the entire span of the mixing unit in order to provide uniform filler distribution. Pneumatic system controls the opening and closing of the storage bin outlet. Constant air pressure is achieved through the over sized compressor and receiver



Dimensions	160 TPH	120 TPH
Height	105 cm	98 cm
Width	168 cm	130 cm
Length	170 cm	170 cm

**Outlets:** Pneumatic load cell technology

Cycle weighing time: 15 Sec Cycle mixing time: 30 Sec

### **Cold Feed Unit**

Four individual feeder bins each with a 15 ton capacity. Each bin top and mid-section is reinforced for added rigidity. Bin bottom is designed with tapered opening to minimize bridging. Each bin is fitted with independent invertors linked to the control room, allowing accurate adjustment of the aggregate proportions on the go.



#### **Feed Units:**

Bin Opening: 230cm x 330cm

Heaped Capacity: 15 tons per bin

Thickness of bins: 5-6 mm

#### **Cold Feed Conveyor:**

Belt Length: 160 TPH (50cm x 165cm 3ply

10mm)

120 TPH (50cm x 165cm 3ply

10mm)

Feeder Drive : 2.2 K.w Electromotor and

gearbox

#### **Collecting Conveyor:**

Belt Length: 160 TPH (60cm x 13 meters 3 ply

10mm)

120 TPH (50cm x 13 meters 3 ply

10mm)

Belt Drive: 4 K.w Electromotor gearbox

#### **Conveyor to the Dryer:**

Belt Length: 160 TPH(60cm x 11 meters 3ply

10mm)

120 TPH (50cm x 11 meters 3 ply

10mm)

Belt Drive: 4 K.w Electromotor Gearbox

# Bitumen tank

Capacity: 45,000 liters Length: 9.5 meters Height: 2.40 meters Width: 2.40 meters

Heating Coils: 4 Layers, 5 cm diameter

**Tank metal thickness:** 5-6 mm

**Insulation:** 5 cm of Glass wool covered by 2mm of steel lining. **Temperature indicator:** analog gauge installed in the frame. **Pump:** 3" bitumen pump with 11 K.w electromotor 1500 rpm.

The bitumen tank is supplied with a floating device that allows the pump to draw the bitumen

from the highest point.



