

TECHNICAL SPECIFICATION

DRUM MIX TYPE PLANT

DM-45 CAPACITY 40-60 TPH

THE PLANT CONSISTS OF:-

1.220 M x 6.100 M long Drum complete w/flight, bitumen and fines, Piping, Sprocket drive w / 20 HP Electric Motor, frame Mounted Exhaust fan and drive w/20 HP electric motor frame mounted chamber at discharge end of drum has a special configuration to remove dust particles from the exhaust gas. A dust transfer screw in the bottom of the chamber has a 2 HP electric drive to waste collected dust. Dryer unit burner capable of heating the aggregate to required temperature without any unburnt fuel or carbon residue on the aggregate and to reduce the moisture content of the aggregate to the specified minimum.

The plant will be fitted with suitable type of thermometric instrument at appropriate places so as to indicate the temperature of exhaust gases, bitumen and mix.

DRYER:

Diameter : 1.220 Mtrs.
Length : 6.100 Mtrs.
Capacity : 45 to 60 TPH
Dryer motor: 20 HP AC
Dryer Gear ratio: 20: 1

EXHAUSTER:

Exhauster: 10500 CFM
Exhauster Motor: 20 AC
Screw Conveyor Motor: 2 HP AC
Screw Conveyor Gear: 40: 1

SINGLE DECK VIBRATORY SCREEN:

Provided between the gathering and the slinger conveyor for the Removal of the oversize material .Is net 65 mm size is driven by 0.5 HP AC vibratory motor at 750 RPM/440 V.

LONG SLINGER CONVEYOR:

Charging conveyor 5HP AC motor to be used with cold aggregate feeder equipped with a load cell for continuously monitoring the weight of the aggregate in TPH.
Conveyor Belt: 600 mm Width x 15 Mtrs. Long
Slinger Motor: 5 HP AC
Reduction Gear: 5: 1 D- Type

BURNER PACKAGE FOR DM-45 :

Drum mix Burner Package including high Pressure jet burner with 5 HP fan motor and 2 HP fuel coil pump with a 12 KW electric pre Heater with auto on off control.

Blower 5 HP AC

Fuel Pump: 2 HP AC

Heater: 12 KW

MINERAL FILLER AND DUST CONVEYING SYSTEM:

1.0 Ton Capacity fabricated steel Plate with loading doors with Pneumatic dust and filler conveying system rotary valve with 1 HP DC electric motor adaptor chute with fines piping back to drum Mixer, Compressor with 10 HP electric motor.

Mineral filler rotary valve motor: 1 HP DC

Mineral filler compressor: 7.5 HP

COLD AGGREGATE FEEDER:

Stationery cold aggregate feeder. Four bin cold aggregate unit

Includes-gathering conveyor with 600mm wide driven by a 5 HP AC motor. Auxiliary conveyor under each bin are driven by 2 HP DC variable speed drive and fitted with adjustable quadrant gates.

Capacity of each bin is approximately AI-10 8 Tons.

Gathering conveyor: 600 mm wide x 24.000 Mtrs.long

Under feeder belt: 500 mm wide x 2.5 Mtrs. long

No. Of Bins: 4 Noses,

Bin capacity: 8.0 MT (each)

Gath.conveyor motor: 5 HP AC

Gath.conve.reduction gear: 20:1 D-Type

Auxiliary conveyor motor: 2 HP DC

Auxiliary conveyor reduction gear: 20: 1 C-Type

STATIONERY BITUMEN STORAGE TANK OF 15,000 LITRES CAPACITY WITH DIRECT COIL HEATER:

Single compartment fitted with internal heat transfer coils. Fully

Insulated with 2" thick mattress glass wool with vent. Pipe, two

Fill return connection draw of connection and drain. Complete with

Dial type thermometer, manhole and interior access ladder, and socket for thermostat insertion exterior access ladder to tank top with Walk way and handrails.

Motor: 5 HP DC Asphalt Auto Burner rating: 20-30LPH

Reduction Gear: 10: 1 Hot oil Pump: 3/4" x 3/4"

Bitumen Pump: 2" x 2" " " "Motor: 1 HP

LOAD OUT CONVEYOR:

Truck loading will be by an inclined load out conveyor with heat Resistant belting equipped with a GOB hopper with hydraulically Operated cam shell gate to provide surge capacity when changing Trucks and controls segregation in the mix.

Load out motor: 5 HP AC

Load out Gear: 5:1 D-Type

Conveyor Belt: 500 mm width x 16 Mtrs.

Hydraulic Power Pack motor: 3 HP AC

CONTROLS:

Stationery control trailer wide including entrance lobby to provide in operator room that houses factory-installed asphalt Plant Controls and motors starters provision to fit an air-conditioner, Window glass, lockable doors, fully pre-wired interior lighting.

The Control cabin houses:

(A) Main circuit breaker,

(B) Basic motor control centre includes-Base starter enclosure, power distribution system, control system, Transformer starter mounting hardware and safety interlock System. Transformer starter mounting hardware in starter panel enclosure doors.

(C) Cold feed aggregate controls it controls the aggregate Flow from the four cold feed hoppers at the predetermined percent Age at the desired level of feeding (Between 20 TPH to 90 TPH). The total flow rate of the aggregate is displayed digitally on The panel through electronic weighbridge mounted on gathering Conveyor/slinger conveyor.

(D) Bitumen synchronization and metering It provides volumetric measurement of bitumen flow in Liters /Minute & cumulative reading of total liters. The speed of the pump is automatically controlled to discharge amount of bitumen at desired percentages of aggregate flow. (E) The calibrated fines metering system to indicate fines feeding rate from the fines store age.

(F) Burner for hot oil as well as drum includes automatic STA Rating and increase /decrease to achieve the desired set temperature

(G) The Temperature indicators (Digital) includes:

1. The Temperature of Bitumen Passing Through the Pump
2. The Temperature of Mix Material out of the Drum
3. The Temperature of exhaust gases at the exhaust fan
4. The Temperature of Hot oil
5. The Temperature of exhaust gases at the oil heater

BREAK UP DETAILS AS TO POWER REQUIRED FOR OUR DM-45 (Auto)

Sr.No.	Description	Qty.	Total (H.P)
1.	Cold Aggregate Feeder		
	* 2 HP DC	04	08.0
	* 5 HP AC	01	05.0
	* 1.0 HP AC (Bin Vibrator)	01	01.0
2.	Vibrating Screen		
	* 0.5 HP AC	01	0.5
3.	Slinger Conveyor		
	* 5 HP AC	01	5.0
4.	Thermo drum Unit		
	* Drum Drive	01	20.0
	* Exhauster	01	20.0
	* Screw Conveyor	01	2.0
	* Dryer Burner		
	-> Blower	01	5.0
	-> Pump	01	2.0
	-> Heater	01	16.0
5.	Load out Conveyor		
	* 3 HP AC	01	3.0
	* 5 HP AC	01	5.0
6.	Mineral filler Bin		
	* 1 HP DC	01	1.0
	* 7.5HP AC	01	07.5
7.	Bitumen Tank		
	* 5 HP DC	01	5.0
	* 1 HP AC	01	1.0
	Note :- Burner Single phase consumption		=====
	Total HP ----->>		107.0 HP
8.	Extra unit (Wet Dust collector)		
	* 7.5 HP AC	01	7.5 HP
	Total HP ----->>		114.5 HP

Due to continuous product development, specifications are subject to change without notice.