ASHOK ENGINEERING WORKS

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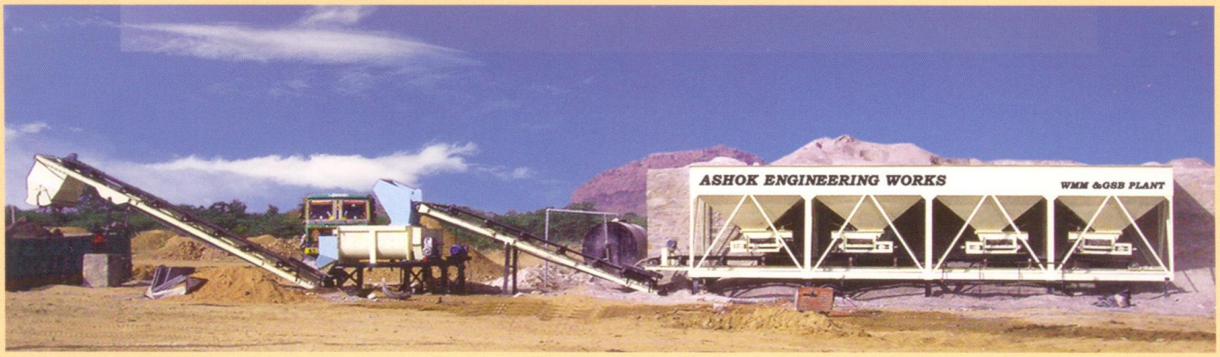
WET MIX MACADAM & GSB PLANT



CONTINUOUS DRUM - MIX TYPE

DUO MODEL DRUM - MIX PLANT

ROAD EQUIPMENTS

Quality Construction Equipments

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The AEW Duo Drum Asphalt/Hot Mixing Plant

The AEW Duo Drum asphalt mix plant is a new simple, 100% efficient and an affordable system for the drying & mixing requirements for the modern paving industry.

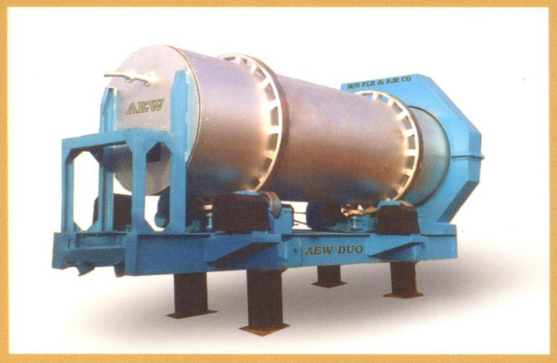
The Unique features of the AEW MODEL 60 DUO DRUM asphalt mix plants makes it the best solutions indual drum system today which created an overwhelming request for the detailed information and specifications.

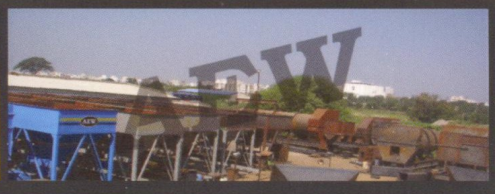
Here we take you through a brief and precise summary on the specifications, working and the need of the new AEW Duo Drums mix asphalt plants in the place of the commonly used drum mix plants.

Each, AEW DUO DRUM Asphalt Plant is available either as a skid mounted or have a portable unit.

Capacities range from 50 To 120 TPH. No matter which Model you choose you will receive a host of features which may be summarized as follows:

- Drum Unit 1 for aggregate Heating with Burner
- Drum Unit 2 for Asphalt Mixing
- Four Bin Feeder standard
- Exhaust fan with Dust Collector Unit(cyclone type)
- Cold Conveyor Unit
- Load out Conveyor Unit Standard with Gob hopper
- Heated aggregates feeding conveyor
- Belt/Screw Conveyor For Fine Dust/Filler Feeding
- 20 Tons Bitumen Tank with heating & pumping unit
- L.D.O Tank 4 KL
- Control Cabin With Panel





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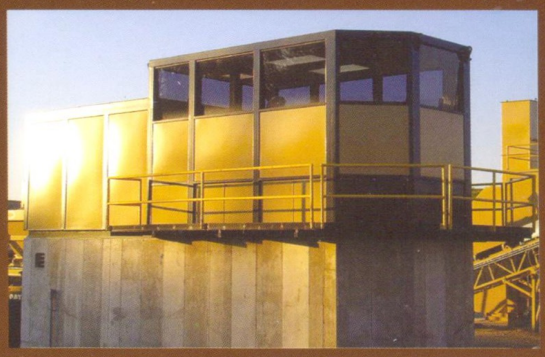
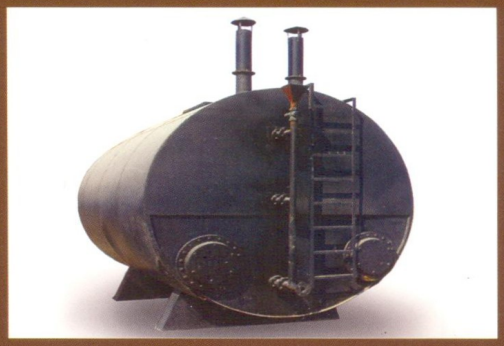
History behind the Duo Drum Development

The need in the market toward the total separation of the drying & mixing areas in drum mix asphalt plants for several years has lead the AEW to come out with a solution for the same with its new product named AEW DUO Drum asphalt plant.

- Ahosk Engineering Works (AEW) has introduced In the year 2008 AEW MODEL 60 DUO DRUM Asphalt Plants into the market, the out come of the same are the clean stacks and best asphalt mix.
- The demand for the new AEW MODEL 60 DUO DRUM asphalt Plants is tremendous due to three major reasons namely.

1. The relatively low stack temperature associated with the counter flow process allows a higher proportion of recycle material to be processed without endangering the dust collector.
2. The proximity of the mixing drum inlet to the burner in the counter flow process facilitates the burning off of any hydrocarbons created in the mixing process.
3. The AEW innovation of drying and mixing drums allows the dryer to be operated without the dust collector mudding often associated with counter flow drying.





Effects and Benefits of Duo Drum asphalt plant Design on Production

- The operational benefit of this unique Duo drum is the reduced time as both the drying process and the mixing process require time… And in drum mix plants time means length. Single drum units reduce drying time and mixing time in an effort to stay within the confines of mobility. The last stages of the batch plant era saw dryers grow from 5m to 7m in length. This period ofdryer elongation came about for two reasons that increased fuel efficiency, and other realization that wet materials require time as well as heat to properly dry.
- In Our MODEL DUO DRUM asphalt plants features a 5m long drying drum and a 4m long mixing drum. These lengths allow sufficient drying time for the wettest of materials and allow time in the best mix of the Asphalt.
- In the use of the common Drum mix plants the consequence of isolating the mixing process from the hot gas stream is the loss of the dust trapping Ability which is rectified by the AEW Duo Drum hot mix asphalts' which enables for the customized gradation of aggregates as per the requirements.
- The extremely low/small amount of air flow allows the addition of dry type additives without the immediate evacuation of a high percentage of the additive to the Dust collector. This feature is not available in the commonly used drum mix plants which results in an additional load on the Dust collector and large amounts of dust in transit.

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ASPHALT MIXING PLANT
CONTINUOUS DRUM- MIX TYPE

COLD FEEDER UNIT (FOUR BIN TYPE)

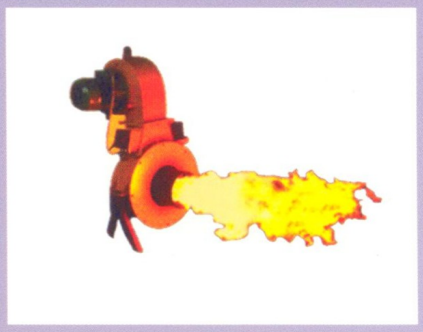
- Ruggedly designed M.S. Structure chases and M.S. Plate hopper body.
- Auxiliary conveyor with AC/DC variable speed drive under each bin.
- Option of oversize vibrator with drive-under each bin or common provided at discharge of collecting conveyor.
- Hopper body vibrator for sand and fines bin/s.
- Provision for add-on capacity by hopper extension.
- Weighing sensor (Load Cell) provided at discharge end to collecting conveyor.

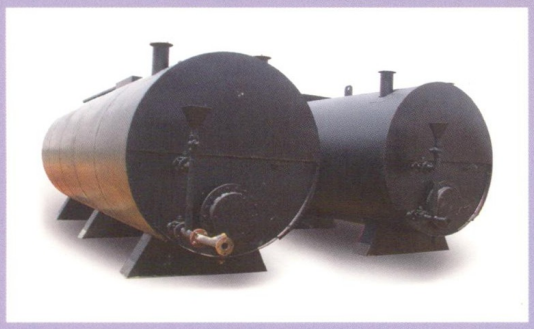
DRYER AND MIXING UNIT

- Circumferential chain drive offers smooth and power efficient dryer drive with less torque and wear on gearbox.
- Sweep rotor ensures smooth and uniform discharge of mix.
- Multi cone dust collector with dust out late fines re-feeding arrangement.

BURNER UNIT

- Two nozzles type pressure jet burner with high-low intensity offers higher fuel efficiency.
- PHF (Pumping, Heating & Filtering) unit facilitate pre-heating of fuel for higher efficiency.
- Can be operated both in auto and manual mode directly from control panel.
- Automatic temperature controls against required preset temperature.
- Inter locking with exhaust and air blower operation with sequence control ensures safety against backfire and gives smooth operation.





ASPHALT TANK

- Fully insulated tank body offers minimum heat losses.
- Two ways heating coil designed ensures fast and efficient heating process.
- Easy for heating coil cleaning and maintenance process.
- Jacketed bitumen pump station avoids jamming of pump operation.
- Fully automatic pressure jet burner offers faster and efficient heating of bitumen and automatic temperature control from panel.

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CONTROL UNIT

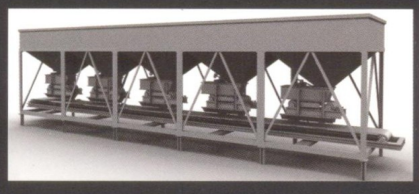
- PLC Movdule software based fully automatic, computerize controls.
- Both automatic and manual mode of operation.
- Up to date print out records containing all parameters of asphalt production.
- Dust and scratch proof panel board housed in insulated, air-conditioned control room.
- Extended junction box for easy connection, maintenance and fault tracing.

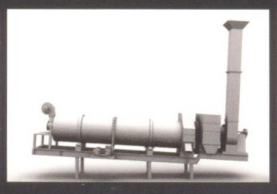
INTERNAL FLIGHT ARRANGEMENT

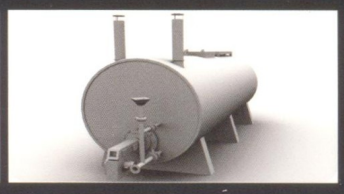
- Combination of 'J' & 'W' type flights arranged in straight and zigzag pattern in the drying and mixing zone is critical which ensures proper mixing & heating economizing fuel consumption.

SPECIAL FEATURES

- Proper Drying & Homogeneous mixing of aggregate.
- Less fuel consumption.
- Proper Asphalt coating & saving.
- Weather proof Control Panel.
- High production rate at low operating cost.
- Mobile OR Stationery.
- Healthy & Spacious Structure.
- Easy operation & minimize maintenance.
- Accuracy in quality control.
- Tailor-made configuration can be offered on request.







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WET MIX MACADAM & GSB PLANT

A pugmill consists of two horizontal shafts on which several paddle shanks, each with two paddle tips, are mounted. The paddle tips are adjustable and fairly easily replaced. The paddle areas are adjusted to ensure there are no "dead areas" in the pigmill. A "dead area" is a location where aggregates can accumulate out of reach of the paddles and not be thoroughly mixed. Dead areas can be avoided by making sure the clearance between the paddle tips and the liner is less than one half of the maximum aggregate size. Non-uniform mixing can occur if the pugmill is overfilled When the plant is operating at full production, the paddle tips should be barely visible at the surface of the meterial during mixing. If the material is too high, the surface aggregates will tend to "float" above the paddles and will not thoroughly mix. Conversely, in apugmill containing too little aggregate, the tips of the paddles rake through the material without mixing it. These problems can be avoided by following the manufacturer's pugmill batch rating recommendation. Normally,the rating is based on a percentage of the capacity of the pugmills, "live zone." This live zone is the net volume in cubic feet below a line extending across the top are of the inside body shell radius with shafts, paddles, and tips deducted.

FOUR BIN FEDER

It is of single chassis construction. At each Bin a radial gate is provided which can be opened in any position to regulate the aggregate flow. Individual endless belts are provided. below the gates to discharge material on to the gathering belt.

Vibrating Screen

A single-deck vibrating screen is provided on the slinger conveyor to remove oversize aggregates received from the 4- bin feeder.

Slinger Conveyor

An Inclined conveyor with wide belt mounted on idlers receives aggregate from the gathering conveyor and feeds it to the pug mill.

Water Tank

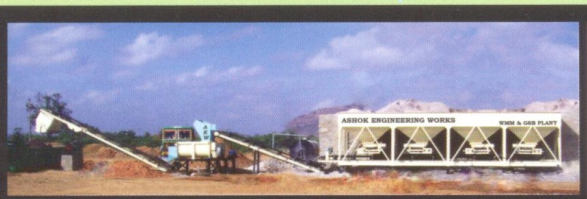
One/Two Water Tanks of 15/20 MT. Capacity each are provided, fabricated from steel plates with manhole, flow meter, pump, etc.

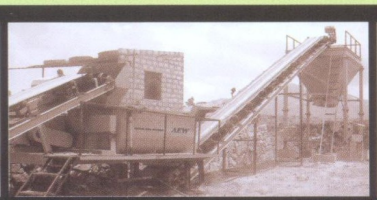
Control Cabin

A fully automatic control panel is provided for controlling the quantity and quality of production with operator sitting in Air- Conditioned Comfort.

Features of Wet Mix Macadam Plant

- Modern Wet Mix Macadam Technology.
- Produces High Quality Mix.
- Portable or Stationary.
- High Production Rate.
- Easy to Operate.
- Highly Accurate Aggregate & Additives Feeder.
- Manufactured as per MONTH Specification.





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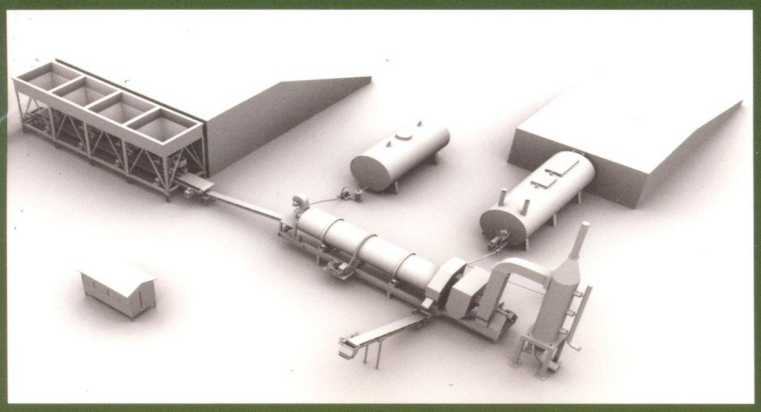
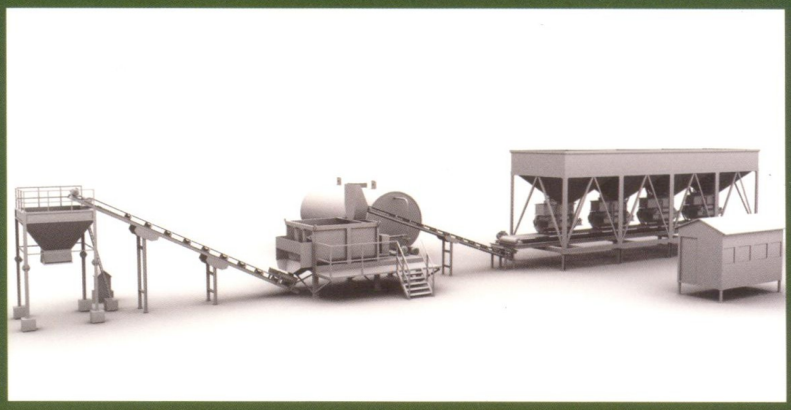
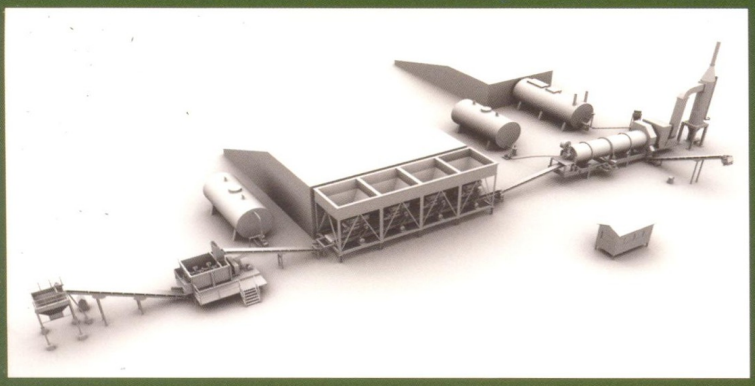
ASPHALT DRUM MIX PLANT



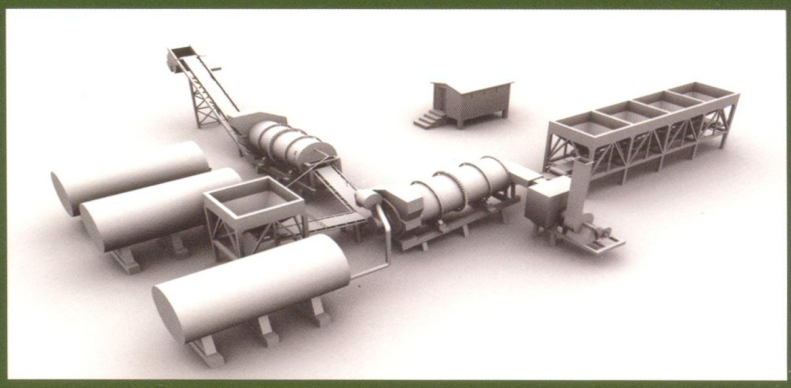
WET MIX MACADAM PLANT



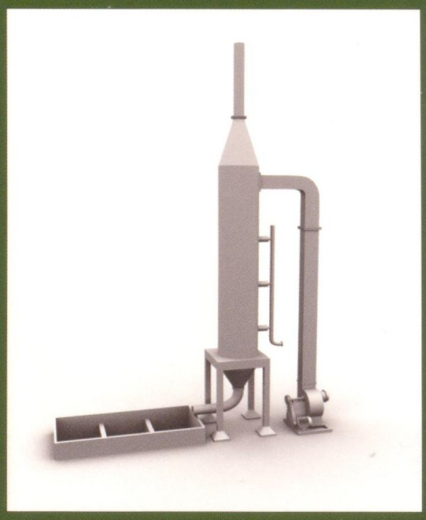
WET MIX MACADAM & ASPHALT DRUM MIX PLANT



DUO MODEL HOT MIX PLANT



POLLUTION CONTROL



Pollution Control Unit

The Pollution Control Unit consists of two chambers

- ✓ water sprinkler chamber
- ✓ Air flow chamber

✓ Water sprinkler chamber separates the dust particles from the air. The dust particles comes out along with water.

✓ Air chamber helps in sending the purified air into the atmosphere through the chimney.

✓ Some of these machines available on rental basis also.

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ASPHALT DRUM MIX PLANT

DESCRIPTION		MODEL			
		AEW-DM-35	AEW-DM-45	AEW-DM-50	AEW-DM-60
Capacity (TPH)		30 45	40 60	60 80	80 120
Connected Power		72HP.54 KW	89.5HP/68KW	122.5HP/68KW	165HP/125KW
Cold Agg.Feeder	Storage Capacity	32 M.TV	40 M.T	50 M.T	60 M.T
Dryer Unit	Dryer Drum OxL	01.10x6.0mtr.	0 1.20x6.6mtr.	0 1.50x6.7mtr.	01.80x7.2mtr.
	Drive System – Gear Box & Fluid Coupling	6 " N U & C 05	7 " FSM & C 05	8 " FSM & C 06	10 " FSM & C 08
	Chain Size & type	2 " Roller Circumferential	2 ½" Roller Circumferential	2 ½" Roller Circumferential	3" Offset Circumferential
	High Pressure Jet Burner - Capacity	160 Ltrs./Hr.	240 Ltrs./Hr	350 Ltrs./Hr.	480 Ltrs./Hr.
Primary Dust Collector Unit	Multicone type	12 cones	14 Cones	16 Cones	20 Cones
Load out Conveyor	Hopper Cap.	500 kg.	600 kg.	750 kg	750 kg.
Bitumen Tank	Capacity	12 KL	15 KL	20 KL	30 KL
	Burner	30 LPH	40 LPH	40LPH	48 LPH
Fuel Storage Tank	Capacity	3 KL	5 KL	7.5 KL	10 KL
Filler Unit	Hopper Capacity	2 cmt.	3 cmt.	4 cmt.	5 cmt.
	Air- Compressor	23 cfm @200ps	32 cfm @200psi	43 cfm @200psi	54 cfm @200psi
Operating Control Unit	Controls				
Optional Items					
Extra Bitumen Storage Tank			As per required Capacity (12 KL/15 KL/20 KL/30 KL)		

WET MIX MACADAM PLANT

TECHNICAL SPECIFICATION				
Model	WMM-60	WMM-100	WMM-160	WMM-200
Output(TPH)	60	100	160	200
Gathering Conveyor (mm.)	600	600	600	600
Belt Feeder Width (mm.)	500	50	500	500
No. of Bins	4	4	4	4
Bin Capacity (MT.)	10	10	12	15
Slinger Conveyor				
Conveyor Width (mm.)	500	500	600	600
Pug Mill				
Capacity (cu.m.)	1.4	1.6	1.9	2.1
No. of Arms	20	26	3	38
Water Tank Capacity (MT.)				
Power Requirements				
4Bin Feeder(HP)	4 x 2	4 x 2	4x 2	4 x 2
Gathering Conveyor (HP)	5	5	7.5	7.5
Slinger Conveyor (HP)	5	5	7.5	7.5
Vibrating Screen (HP)	0.5	0.5	0.5	1
Pug Mill Drive (HP)	15	20	25	40
Hydraulic Power Pack (HP)	2	2	3	3
Water Pump (HP)	2	3	5	5

DUO MODEL HOT MIX PLANT

DESCRIPTION		AEW DUO MODEL	
		AEW DUO - 45	AEW DUO -50
Capacity (TPH)		40 60	40 80
Connected Power		75 HP	95 HP
Cold Agg.Feeder	Storage Capacity	40 M.T	50 M.T
Dryer Unit	Dryer Drum OxL	0 1.2 x 5mtr.	0 1.50 x 5mtr.
	Mixing Drum OxL	0 1.2 x 4 mtr.	0 1.50 x 4 mtr.
	Drive System - Gear Box	6"FSM	7"FSM
	Chain Size & type	2 ½" Roller Circumferential	2 ½" Roller Circumferential
	High Pressure Jet Burner - Capacity	240 Ltrs./ Hr.	350 Ltrs./ Hr.
Primary Dust Collector Unit	Multicone type	14 Cones	16 Cones
Load out Conveyor	Hopper Cap.	500 kg.	750 kg.
Bitumen Tank	Capacity	15 KL	20 KL
	Burner	40 LPH	40 LPH
Fuel Storage Tank	Capacity	4 KL	10 KL
Filler Unit	Hopper Capacity	10 cmt.	10 cmt.
Operating Control Unit	Controls	Microprocessor Dimmer Drive AC/DC	

NOTE: In order to constantly improve its products AEW reserves the right to change the foregoing specifications without notice.

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