

**VINAYAK<sup>®</sup>**



[www.vinayakequipments.com](http://www.vinayakequipments.com)

AN ISO 9001 : 2008 CERTIFIED COMPANY



*use the  
machinery of*  
**VINAYAK<sup>®</sup>**  
*pave the  
way to* **SUCCESS**





Over a decade, **VINAYAK** have shaped many dream projects **VINAYAK** is India's leading construction equipment manufacturing company, located in Ahmedabad, India. The company has a thorough technical background...focused in its drive to provide innovation design with state of the art technology and quality leased world class product, which are accepted in market because of its prompt effective after – sales service and higher performance on price ratio.

Today, **VINAYAK** and its dedicated staff look back with satisfaction at decades of successful operation and state of the art products. In the constant improvisation, **VINAYAK** have an ingenious R & D.

The company has an excellent product range...their array of business solutions stands testimony to the fact that good business, values, pillared by expertise that wonder. **VINAYAK** crafts solutions that are epitomy of great foundations.

**VINAYAK....** is the pioneer in launching of several equipments in India like;

- Asphalt Drum Mix Plant
- Mobile Asphalt Drum Mix Plant
- Wet Mix Macadam Plant
- Asphalt Paver Finisher
- Bitumen Sprayer
- Trolley Mounted Bitumen Sprayer
- Broomer Machine
- Road Making Machine
- Mobile Concrete Batching/Mixing Plant

**VINAYAK....**in its all perspective is quality concentric, they are constantly upgrading their technology, process, machinery and resources.

Every stage is monitored from R & D to design and customization **VINAYAK** does it all. **VINAYAK** have representative offices across the country. They have accomplished many projects with their round the service attitude, in the shorted span of time. Over 350 nos. of Machines supplied all over India as well abroad.

Using latest CAD modeling system and visualization techniques to provide reliable practical designs for well-accepted site worms. For optimum quality the company uses CNC machines ensuring quality control.

It's this pursuit of excellence, that the company has achieved many repeat orders, this becoming customer's first choice of infrastructure development.

**VINAYAK Aim**  
Customer first, Staff happy, social benefits pursued

**Enterprise Aim**  
Build trust, work in unity, improve mutually, share benefits

**Quality Policy**  
**VINAYAK** (AN ISO 9001:2008 Certified Company) based in Ahmedabad, Gujarat, India, is one of the leading manufacturers of quality road construction equipment in the nation today. The company has achieved a leading status as a trend setter in quality measurement of road construction equipment. We believe in stringent quality control, starting from the purchase of material required from reputed manufacturers which are time tested. The production department has separate quality assurance engineers operating round the clock, who supervise and check that the products are thoroughly tested on completion to maintain the quality criteria.

**Test Equipment and Facilities**  
All road construction equipment Manufactured as per M.O.R.T.H (Ministry Of Road Transport & Highway) Specification in India. Today Our Machineries are preferred by most of the contractors in Domestic & International market due to Good Quality, Average Basic Cost, Economical Performance at the site, Less Maintenance Cost and Timely Services provided by us.

Enterprise  
Certificate





Road Construction Equipments

ASPHALT DRUM MIX PLANT

Available Models :

Model	DM - 45	DM - 50	DM - 60	DM - 100
Capacity	40 - 60 TPH	60 - 90 TPH	90 - 120 TPH	120 - 150 TPH

Salient Features

- Easy Operation And Less Maintenance.
- Designed for The International Market.
- Modern Drum Mix Technology.
- Produces High Production Rate.
- Portable of Stationery.
- Low Dust Emissions.
- Proper Drying And Homogeneous Mixing of Aggregate.
- Modular Design for Containerized transport
- Proper Asphalt Coating and Saving.
- Easy to Operate.
- Less Fuel Consumption.
- Fully Automatic Computerized Control Panel Board.
- Accuracy in Quality Control.



Thermo Drum Unit

DRUM MECHANICS

The 40 -120 TPH plants are supplied with a low maintenance cradle type drum drive. The auto lubrication system ensures proper and adequate lubrication on the chain drive thereby ensuring long years of trouble free service. Optionally a four wheel friction drive, which is a standard on the 150 TPH and higher models, can be supplied.

Specially treated sprockets, thrust wheels, trunion rings and trunion rollers, engineered precisely for flawless and trouble free dryer drum rotation, ensures unlimited productivity

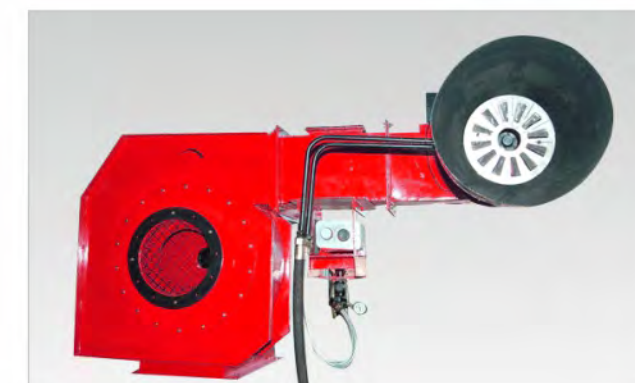
THERMO DRUM

The drying and mixing unit of the asphalt plant demands complex flight design and heat transfer technology. With its continuous R & D and incorporation of the latest design up-gradations, Vinayak thermo drum is miles ahead of competition. The Vinayak thermo drum unit follows a triple heat transfer system that ensures a total transfer of heat to the aggregates translating into higher productivity and lower fuel consumption. The heat is transferred to the aggregates using the conductive, convective and radiation techniques. The unique flight design ensures total heat transfer, a through mixing & coating, lower emissions and prevention of bitumen oxidation

Burner

Thermo-Drum Burner is the heart of the entire system hence its efficiency, ease of serviceability etc. are most important factors.

- Two stage High & low
- Capacity to reduce the moisture up to 0.5% and achieve 180 Deg. Celsius for aggregate.
- Able to use LDO / FO / Diesel as fuel.
- Nozzle cleaning is possible during running condition.
- Fully automation operation





## Road Construction Equipments



### Cold Aggregate Bin Feeder Unit

The hoppers have been properly designed with slopes, allowing a constant discharge without bridge forming. The first bin meant for the small size aggregate or dust is fitted with vibratory motor to ensure the free flow. Each hopper is equipped with an adjustable opening door that determines the discharge quantity weight of materials.

The material is drawn out from the hoppers by means of extracting conveyor driven by a preset-able adjustable variable drive motor, coupled with worm gear boxes, that enables to increase or decrease the material output as per the job mix formula requirements. It is also possible to increase or decrease the total capacity without varying the present settings by means of master control.

### Vibrating Screen

The vibratory screen is assembled at the end of cold aggregate feeder for removal of oversized materials.

## Bitumen Heating & Storage Tanks

Fully insulated double walled tank is equipped with separated high-pressure electronic burner for heating the Asphalt and control unit capable of metering and spraying required quantity of bitumen at specified temperature.

The positive displacement jacketed Asphalt pump coupled with reduction gearbox and variable speed motor is provided with hot oil circulating system.

All the Asphalt carrying pipelines are hot oil jacketed and thoroughly insulated with asbestos tape.

- External insulation with ceramic wool and covered with suitable thick sheet.
- Tested tube nest for diathermic oil circulation.
- Thermic duct, manhole, lifting hooks, breather pipe.
- Electronic high-pressure jet burner.
- Heavy duty jacketed Asphalt pump
- Thermometers.



## Hot Mix Silo

Mixed hot material taken out from mixer drum is carried by inclined hot conveyer belt & discharged into the Tipper/Truck through automatic Hydraulic surge storage Silo.

The surge storage Silo of approximately 10 to 50 Tons is provided at the discharge end of the conveyor.

The surge storage Silo is hydraulically actuated, for opening and closing hopper door and scrapper plate to scrape out the mixed material sticking to the conveyor.

## Filler Storage Unit

The piping is provided up to-coating zone in the thermo-drum.

The system is powered by a variable speed Motor coupled with gearbox to rotary valve and also synchronized with aggregates and bitumen.

The feeding of filler (lime/cement) is pneumatic by means of air blower.



## Pollution Control Devices (Optionals)

### CV Series - Wet Dust Collectors

CV Series is a venture type high efficiency wet dust collector that maintains the required environmental standards in specified areas. The extreme turbulence type venture design ensures a very good entrapping of the dust laden exhaust gas. Large stainless steel spray nozzles provide a clog free operation and assure minimum water make-up requirements. The adjustable venture throat permits "fine tuning" to get optimum cleaning efficiency to meet specific plant operating requirements.

### Freedom - Bag House Type Filter Unit

Freedom is a state-of-the-art free air flow type bag house filter unit with specially treated meta aramid filter elements designed specifically for asphalt application. This zero maintenance design keeps emissions at less than 50 mg/Nm<sup>3</sup>, which meets International pollution control norms.

## Controls

Insulated Control Cabin Fitted With Air Conditioner And Micro Controller Based Control Panel With Printer And Computer Affording Total Control Of the Plant From The Keyboard With The Relevant Software.

- The plant is supplied with centralized control panel.
- All controls, including the motor control center circuit breakers, are provided in the control panel.
- The control panel comprises of the automatic burner controls, Aggregate and Asphalt Blending Controls, Motor controls, Aggregate and Asphalt Blending Controls, Motor Controls, Feeder Bin Controls and Electric Switchgear.
- All the parameters like, temperature of bitumen-hot mix material-exhaust gases and aggregate weight, asphalt percentage, hot mix material weight etc. are displayed on the control panel.
- It is equipped with protection like Single Phasing, Overload, fuses, Sequence Interlock etc.
- Load wise data can be printed on the printed provided in the panel.





# Technical Specifications\*

MODEL	DM-45	DM-50	DM-60	DM-100
<b>CAPACITY</b>	(40 – 60 TPH)	(60 – 90 TPH)	(90 – 120 TPH)	(120 – 150 TPH)
<b>Cold Aggregate Bin Feeder Unit</b>				
No. of Bins	4	4	4	4
Total Storage Capacity ( Heaped Form )	100 Tons	120 Tons	150 Tons	200 Tons
Auxiliary Drive Motor	1.5 kw	1.5 kw	2.2 kw	2.2 kw
Auxiliary Conveyor Belt Size	450 mm width X 3 ply	450 mm width X 3 ply	450 mm width X 3 ply	450 mm width X 3 ply
Gathering Conveyor Drive Motor	3.7 kw	3.7 kw	5.5 kw	5.5 kw
Gathering Conveyor Belt Size	600 mm width X 3 ply	600 mm width X 3 ply	600 mm width X 3 ply	600 mm width X 3 ply
Bin Vibrator	0.75 kw	0.75 kw	0.75 kw	0.75 kw
<b>Vibratory Screen</b>				
Drive Motor	0.75 kw	0.75 kw	0.75 kw	0.75 kw
Wire Mesh	900 mm X 1300 mm	900 mm X 1300 mm	900 mm X 1300 mm	900 mm X 1300 mm
Screening Area	45 mm X 45 mm	45 mm X 45 mm	45 mm X 45 mm	45 mm X 45 mm
<b>Slinger Conveyor</b>				
Conveyor Drive Motor	3.7 kw	3.7 kw	5.5 kw	5.5 kw
Conveyor Belt Size	500 mm width X 3 ply	500 mm width X 3 ply	600 mm width X 3 ply	600 mm width X 3 ply
<b>Thermo Drum Unit</b>				
Dryer – Diameter	1200 mm	1500 mm	1800 mm	1800 mm
Dryer – Length	6250 mm	6750 mm	7000 mm	8000 mm
Glass wool Insulation	50 mm	50 mm	50 mm	50 mm
Drive Type	Cradle Type Chain Drive	Cradle Type Chain Drive	Cradle Type Chain Drive	4 WD Friction Drive
Drive Motor	15 kw	18.5 kw	30 kw	45 kw
Exhauster	15 kw	18.5 kw	30 kw	45 kw
<b>Multi Clone Primary Dust Collector</b>				
No. of Cons	10	15	21	21
Dust Screw Drive Motors	0.75 kw	0.75 kw	1.5 kw	1.5 kw
<b>Dryer Burner</b>				
Burner Capacity	350 LPH	550 LPH	750 LPH	1100 LPH
High Pressure Burner Type	Fully Automatic Dual Stage	Fully Automatic Dual Stage	Fully Automatic Dual Stage	Fully Automatic Dual Stage
Fuel Type	Diesel	Diesel	Diesel	Diesel
Blower Motor	3.7 kw	5.5 kw	11 kw	15 kw
Burner Pumping Station Motor	1.1 kw	2.2 kw	5.5 kw	5.5 kw
<b>Bitumen Tank ( U - Shape &amp; Completely Insulated )</b>				
Tank Capacity	15 Tons	20 Tons	20 Tons – 2 Nos.	25 Tons – 2 Nos.
Bitumen Drive Motor	3.7 kw	3.7 kw	5.5 kw	5.5 kw
Heating System	Direct Heating	Direct Heating	Direct Heating	Direct Heating
<b>Fuel Storage Tank</b>				
Tank Capacity	3000 Liters	3000 Liters	5000 Liters	8000 Liters
<b>Load Out Conveyor</b>				
Conveyor Drive Motor	3.7 kw	3.7 kw	5.5 kw	5.5 kw
Heat Resistant Conveyor Belt	HR 600 mm width X 3 ply	HR 600 mm width X 3 ply	HR 600 mm width X 3 ply	HR 600 mm width X 3 ply
Hopper Capacity	1.0 Ton	1.0 Ton	1.5 Ton	2.0 ton
Hydraulic Power Pack Motor	2.2 kw	2.2 kw	3.7 kw	3.7 kw
<b>Mineral Filler Unit</b>				
Drive Motor	0.75 kw	0.75 kw	0.75 kw	0.75 kw
Drive Gear Box	Heavy Duty Worm Gear	Heavy Duty Worm Gear	Heavy Duty Worm Gear	Heavy Duty Worm Gear
Rotary Valve	150 mm	150 mm	150 mm	150 mm
Hopper Capacity	1.0 Ton	1.0 Ton	1.0 Ton	1.0 Ton
Air Compressor	5.5 kw	5.5 kw	5.5 kw	5.5 kw
<b>Recommended Gen Set</b>				
Open Land Requirement	100 KVA	125 KVA	182 KVA	250 KVA
Pollution Control Unit (Optional) Type	35 Meters X 35 Meters	40 Meters X 40 Meters	45 Meters X 45 Meters	50 Meters X 50 Meters
Wet Dust Type Collector	Extreme Turbulence Venturi		Less than 150 mg/m3	
Bag House Type Filter	Reverse Air Flow Type		Less than 50 mg/m3	

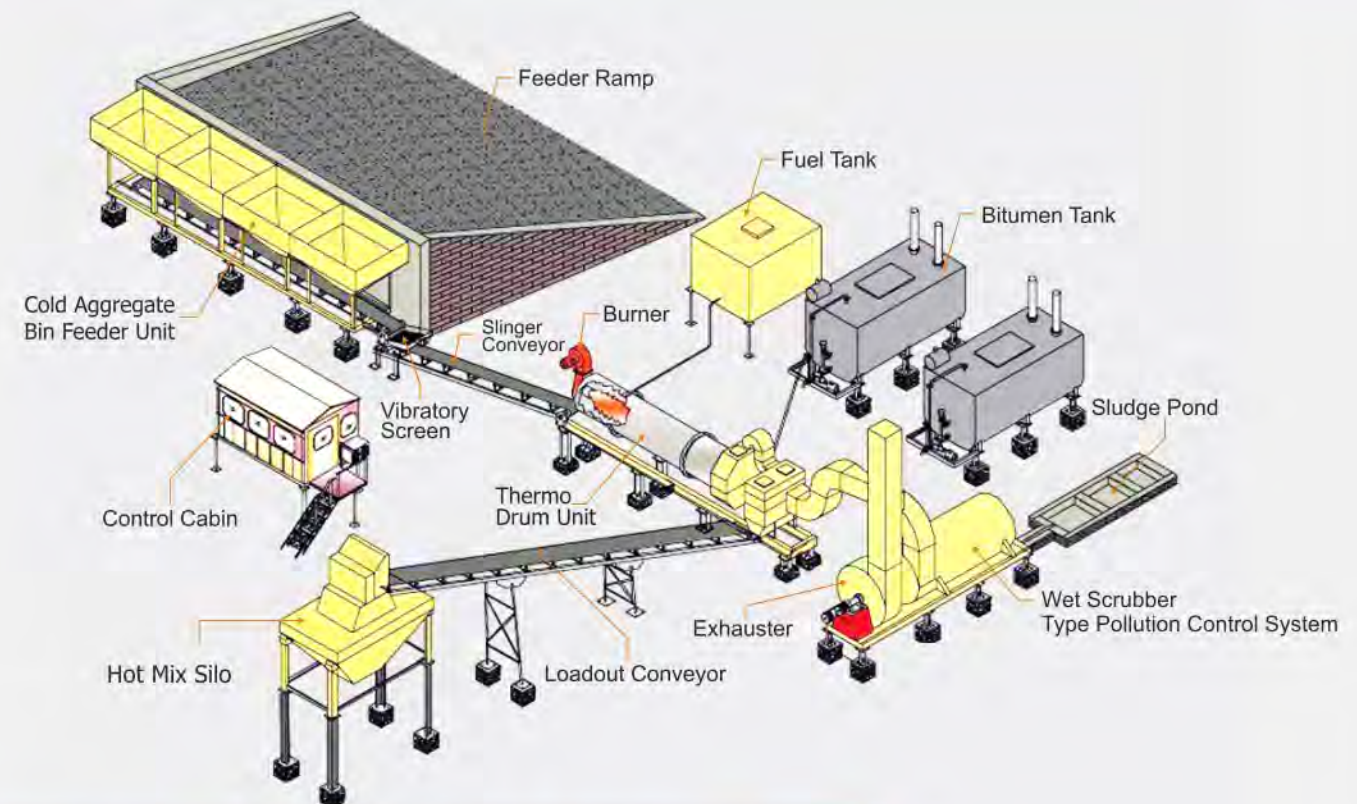
Offer for capacities over 150 TPH on request.

Accessories shown are optional and a part of standard supply.

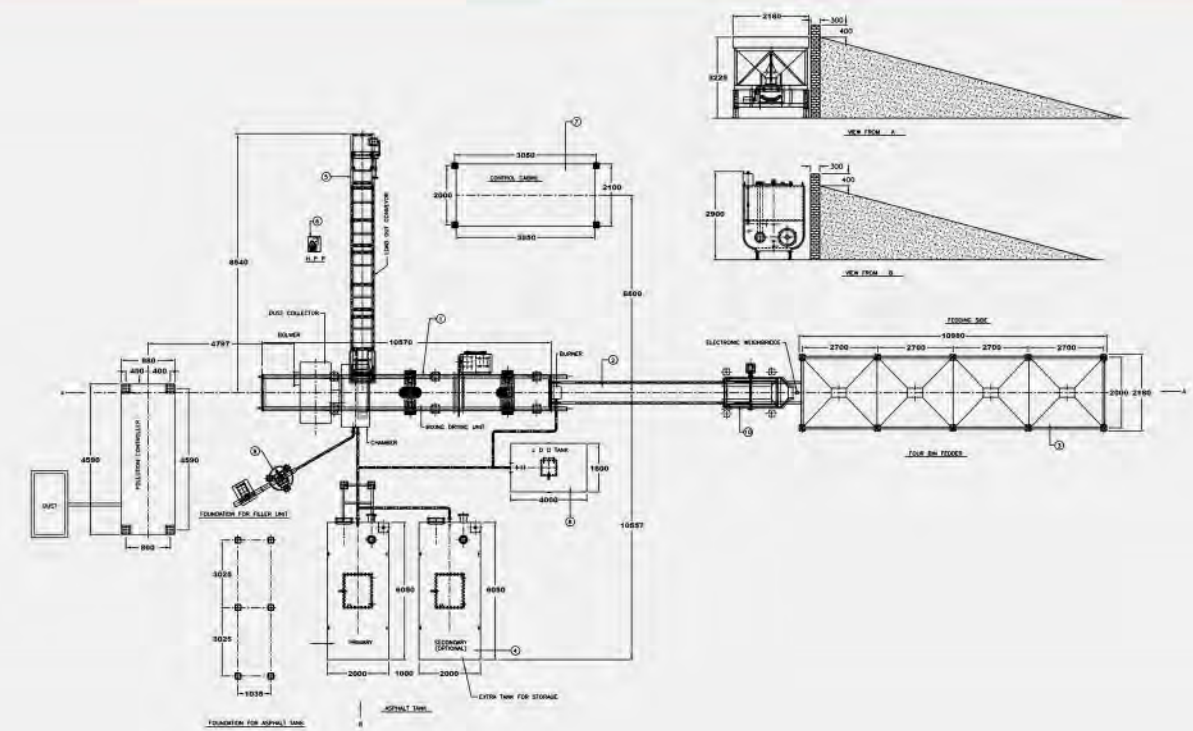
\*Vinayak's policy of constant up gradation, of specifications are subject to change without prior notice.

**Also Available with Mobility System for Asphalt Drum Mix Plant :**  
 - All Units Suitably Mounted on Chassis Complete With Axles, Wheel Hubs, Tow Bar With Pin etc.  
 - Pre-wired with cables, socket, plugs, junction box to inter connect the units

## General Layout of Asphalt Drum Mix Plant



## Civil Foundation Layout of Asphalt Drum Mix Plant





## Global Installation



DM - 45 In Afghanistan



DM - 35 In Afghanistan



DM - 50 In Yemen



DM - 50 In Gboko, Nigeria



DM - 50 In Lokoja, Nigeria



DM - 60 Kano, Nigeria



DM - 50 In Mozambique



DM - 50 In Sri Lanka



DM - 50 In Iraq



DM - 50 In West Indies



DM - 50 In Guyana



DM - 60 In Ecuador



DM - 50 In Factory



DM - 50 In Factory



DM - 50 In With P.C.U. at Factory

## Our Range of Products



Mobile Asphalt Drum Mix Plant

- Offered in 30/40/60/90/120/150 TPH Capacity.
- The portable units are Trailer – Mounted are easily moved from one job site to another site.



Trolley Mounted Bitumen Sprayer

- Offered in 2000/2500 Liters Capacity.
- Safe and ease of operation, Hand spray system.
- Totally factory tested, arrives ready to launch.



Wet Mix Macadam Plant

- Offered in 120/160/200/250 TPH Capacity.
- Most modern Wet Mix know – how.
- Ease to operate and maintain.
- High accuracy aggregate feeding.



Broomer Machine

- An attachment of tractor. The sweeping job is done in forward direction, same as the machine.
- Excellent visibility for the operator due the anti duct guards.
- Screws for adjustment of the pressure to the brush.



Hydrostatic Sensor Paver Finisher

- Paving width 2.66 mtr. to 5.5 mtr. - Our Paver Finishers are preferred by most of the export customers in various countries due to Good Quality, Average basic cost, economical performance, less maintenance and timely service provided by us.



Thermoplastic Road Marking Machine

- We Offered Thermoplastic Road Marking Machine with Rotor Glass bead system.(Air Jacketed) Operator Propelled, Manual operations.



Bitumen Sprayers

- Offered in 3000/4000/6000/7000 Liters Capacity.
- Fully – insulated tank with high efficiency heating system.
- Designed to suit standard truck chassis.
- Totally factory tested, arrives ready to launch.



Mobile Concrete Batching/Mixing Plant

- Offered in 15/20/25m<sup>3</sup> /Hour Capacity with PAN type mixer.
- Mixer having Electronic Load Cell type weighing system.
- Plant can be erected & commissioned within two days.



## Plant Being Containerized



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**VINAYAK**® CONSTRUCTION EQUIPMENTS

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