

## ASPHALT DRUM MIX TYPE HOT MIX PLANT



QUALITY



R&D



PRODUCTS



SERVICES



MAN POWER

**AN ISO 9001:2008 COMPANY  
COMMITTED FOR QUALITY & SERVICES**



MODELS	DM-45	DM-50	DM-60
CAPACITY	40 - 60 t/h	60 - 90 t/h	90 - 120 t/h

Because, they are 'the best' in all respect - for high productivity, best performance & ample profitability.

'KESAR' is a leading supplier of asphalt mixing plant and machinery, with the focus very firmly on road building. Ever since we established, we have been setting benchmarks in the road-building industry, thanks to countless innovations and solutions which are as competitive as they are dependable. True to our motto - "High Productivity, Performance & profitability" - we gear our activities totally to the needs and requirements of our clients across the globe.

We are aware that plants and machines which prove their merits day after day under tough operating conditions are the only way to give our clients the critical competitive edge that they need.

We're entering a new era of development, energy crisis and environmental concerns. Our customers & their challenges are the impetus to our product development accolades.

We therefore, are convinced that sharing knowledge & experience helps us attain more & more.

Our customers must generate profits amid this turbulent times and varying needs. So, we focus on - 'sustainable and profitable development is highly manifested' - in our futuristic generation asphalt plants. Our each model inherits a tradition of over two decades of experience in working with clientele & evolving markets nation-wide.

We share a large responsibility in developing new technologies that help you to produce top quality, green and profitable asphalt mixes.

KESAR's green plant technology initiative is not just a fad; but carefully sculpted to deliver remarkable reduction in asphalt manufacturing costs – a must to survive in a competitive market. 'KESAR' asphalt mixing plants simply do not deliver top quality mix, but with each ton produced on our plants, you reduce carbon foot-prints, ensure energy savings and make asphalt production as environment friendly as possible.

KESAR's quality solution will not only empower you to face the challenges of today's modern day job-sites but also will equip you to confidently face the future.

## AGGREGATES METERING

Accurate pre-dosing can't be overlooked if you want to achieve a precise hot mix quality. The generously sized 'KESAR' feeders are supplied with individual frequency variator controls to ensure precise dosing. Easy calibration procedure ensures you precision even after decades of use. Synchronization of feeders with actual material output ensures consistent quality product, minimal waste and reduces fuel consumption. 'No Flow' sensors (optional) installed on each bin with warning lights/acoustic signals keep the loader & plant operators well informed about material run out or interruption in material flow. An electronic belt weigher with a "S" type load cell mounted under the feeding / slinger conveyor belt accurately measures aggregate feeding rates in tph.

## BURNER TECHNOLOGY

'KESAR' plant is supplied with a standard high pressure jet burner suitable for fuels like-FO/HSD/LDO complete with fuel-line heater, filters and a high pressure pumping station. The auto control burner requiring low air and automatic temperature controls ensures you a very high fuel efficiency. This totally enclosed burner unit is devoid of any refractory material and is equipped with modern safety interlocks and process automation to simply enhance your focus on mix production. The dual-air (primary & secondary air) controlled burner produces the proprietary 'ball-shaped' blue flame, inevitably required for total combustion, fuel efficiency, longer drum shell life, maximum radiation heat transfer and conformance to high emission standards.

## AGGREGATES DRYING / MIXING IN THERMO DRUM UNIT

Specially designed dryer internal flight arrangements not only guarantee the highest heat transfer and drying efficiency but also offers you unmatched long drum life. The insulating flights near flame in drying/heating zone allow flame to radiate heat without any disturbance & protect the drum shell from overheating, the notched cascading flights allows to penetrate the flame into the partially dense material veils in the drying zone to full length, the 'J'-shaped flights in mixing zone not only fully coat the hot aggregates surfaces but also thoroughly mixes them to produce a complete homogeneous mix.

The dams help to prolong mixing time and a large volume breaching box at the discharge end knocks down coarse dust particles from going into exhaust and but mix with main flow. A specially designed "slurry mixing cone" wherein powdered filler is pneumatically blown & hot liquid bitumen is poured on it to make a slurry first & then spray this slurry on to hot aggregates for mixing, thereby protects costly filler from blowing out & waste into exhaust.

As a primary dry dust collectors, we have 'multiclone cyclones' designed for high efficiency separates/collects most of the coarse dry dust particles from the exhaust gases & allow only a fine dust to go further. A motor driven screw conveyor at it's bottom removes out the collected dust. As a secondary dust collectors, we offer a high efficiency venture type Wet Dust Collectors to separate fine dust particles. Dust laden exhaust gas flow from dryer/mixer through primary dust collectors then enters into a Venture duct and a high pressure water is sprayed by fine nozzles to create mist at its narrow throat. Because the gas flow is 'turbulent' here, all fine dust particles get wet & heavier when they come in contact with this water mist. They are then separated at the bottom of a cylindrical shape separator tank due to cyclonic motion there and are drained out in mud form. Dust particles of the size less than 10micron called P10, which are most hazardous to health are also effectively collected here.

## PROTECTION FROM HEAT LOSSES

We optionally offer a dryer drum whose entire outer surface is well insulated by Ceramic thermal wool & cladding done by S.S. sheet to protect the drum from a considerable heat loss, which otherwise is radiated in to the environment. This considerably saves in fuel cost in cold seasons & at cold locations of plant. It also helps to keep long time aesthetic look in tact otherwise; paint on open drum surface near burner end burns out due to continuous overheating and looks bad.

Thus, process technology developed through our experience of supplying more than 100 asphalt plants, comprises of a well synchronized drying and heating system and a fine tuned primary & secondary dust collector units, which ascertains conformance to the strictest environmental emission directives and fuel savings.

Large sized production plants are pushed to the limits every day which convinces us to select specially alloyed and heat treated materials. Specially automated production processes ensure long trouble free years of service. The four wheeled friction drive with special start-under-load drives for a high capacity plant ensures silent and maintenance free operations.

## 'KESAR' MOBILE PLANTS

No technical compromise between mobility and operational principals of a classical stationary drum mix plant, same production efficiency and performance levels. Mobility is the top priority for every small size road project, because mobile plants are easy to move from one site to another. They are simple to transport and assemble/erect and they can easily be restarted even without external assistance. Simply, you can save your time & money.. We supply plants with fine mobility up to 120tph capacities.

### ADVANTAGES

- ♦ Low investment required
- ♦ Heating starting in the dryer by irradiation from the flame
- ♦ Moisture from RAP can be exhausted through the same main fan.
- ♦ Possibility of upgrading and refitting the recycle facility in the existing old plants.
- ♦ Accurate metering of RAP by weight is done on it's feeding conveyor by a separate belt weigher.
- ♦ Emission comfortably within the most strict limits.

## 'KESAR' RECYCLE PLANTS

'KESAR' Drum mix plants can be equipped with a series of accessories for recycling material coming from the demolition of old pavements. The % of materials to be recycled in the mix can vary according to the technical solution adopted besides the material itself plus operating conditions like temperature, % moisture etc..).

### DISADVANTAGES

- ♦ Overheating of virgin aggregates; plant hourly output reduced when feeding RAP
- ♦ Low RAP percentage maximum Up to 20%.
- ♦ Emission of vapour in mixing zone is more difficult to exhaust.
- ♦ You are saving your money in large amount on recycling the RAP with a very little additional cost only.

## STORING & HEATING OF BITUMEN IN TANKS

### DIRECT HEATING TANKS

Bitumen tanks are supplied of 'O'/'U'-shaped horizontal in position as per customer's choice. An oil fired auto control pressure jet burner burner is mounted on each tank to heat the bitumen to the desired temperature. In this direct-heating type tanks, the bitumen is heated by firing the burner into heating coil made of steel pipes..

Tanks capacity available is 10, 15, 20, 25, 30, 40 & 50 tons.

### INDIRECT HEATING TANKS

In In-direct heating type tanks-cylindrical in shape& horizontal in position, the bitumen is heated by circulating hot thermic oil through it's heating coil. A thermic oil heater with oil fired burner heats the thermic oil & this hot-oil is circulated through the heating coil inside the bitumen tank by an oil pump on heater. A single heater can easily heat nos. of tanks as required in continuous process. The temperature of oil is very well controlled by an auto thermostat on heater and so, bitumen never gets over-heated. Thus, the quality of bitumen (viscosity)never get deteriorated/spoiled in this kind of indirect heating system. Fuel consumed to heat every ton of bitumen is also less compared that for a direct heating system.

### HOT-MIX STORAGE

The asphalt hot mix produced from the plant up to 100tph capacity is normally loaded directly into a tipper to carry the mix to paver site. At the discharge end of the load out conveyor, an anti-segregation gob-hopper with a timer based hydraulically operated twin clam-shell gate discharges hot asphalt mix in batches into the tipper underneath. However, we offer well insulated Hot-mix storage silo of capacity: 25/40/50T as an option for high capacity plants. Thus, we manufacture / supply all the system components-feeders, dryer/mixer, conveyors, tanks, silos, dust filters in-house on the basis of an integrated concept. This enables us to offer our customers an optimised complete solution, with all elements of the plant ideally coordinated-from process analysis and design of the system components through to controls for all components of the plant.

## PLANT ACCESSORIES

Our products aren't great just because the way they are designed and perform well. We understand our customer's needs and so our products are configured specifically to meet local challenges. While our product range offers numerous options with regards to plant models and capacities we however, go a step further to also allow to configure plant accessories to meet customer's site specific requirements. Hence, with all the great features, they get a custom configured plant. Please do call us, today to let us know your challenges and our experts will help you configure your asphalt plant, to keep you always on top of your business and competition.

## ONLINE SUPPORT

As you would expect, we provide a well-developed service network and reliable supplies of spare parts, together with support throughout the entire lifetimes of the plants and machines that we offer. You rely on 'KESAR' plants and desire to have it working non-stop. Each of our latest plants are supplied with remote assistance, so that you have instant access to expertise and that you do not have to wait for troubleshooting. Instant access & troubleshooting on your plant guarantees you to stay constantly focused on your business. Friendly 'KESAR' engineers and technical experts are just a call away from you. With a mere mobile phone call, have our engineer the complete access to your asphalt plant and he can assist you to monitor each value on the plant controls, irrespective of how remote your project site is located.

Quick tips on instant trouble shooting and access to process control information ensures you have complete peace of mind. We develop technologies to benefit our customers. We know that sharing knowledge and ideas with our customers, teaches us a lot about their challenges, hence we look forward for opportunities to meeting our esteemed customers

'KESAR' always places emphasis on providing the best overall solution that guarantees flexible and economical plant utilisation - reliably and throughout its entire lifespan. Over 100 nos. of 'KESAR' -asphalt mixing plants installed across the nation provide corresponding proof day in, day out. To know more or to upgrade your existing plant system with remote assistance, please don't hesitate call us now.

**WE ASSURE OUR ALL CUSTOMERS THAT WE WILL PROVIDE THEM THE BEST QUALITY MACHINES AT AN ECONOMICAL COST - PROMPT SERVICES - BEST CO-OPERATION AT ALL TIMES.**



## FACTORY

### **KESAR ROAD EQUIPMENTS (INDIA) PVT. LTD.**

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