

Mobile Concrete Mixer from India to the World

Global opportunity for concrete Mixing and Transport Equipment indigenously invented and protected under patents in INDIA.

Background & Opportunity

Europe, UK, US, CIS countries, Gulf, African Market, South America, and almost all over the world.

Why the above Target Market?

All the above markets, employ **mobile volumetric Concrete Mixers** installed on trucks to produce and transport concrete.

All the above Markets use only **Two aggregates, one cement, water and chemicals** to produce concrete by using truck-mounted volumetric mixers.

There are **Huge techno-commercial benefits** with respect to a replacement equipment **especially made in India** as per this brief presentation.

Case Study UK- Ready-Mix Market

The Volumetric Mobile Concrete Mixers of various makes and brands **have taken considerable market share in UK** wherein there are **more than 40 RMC (Ready-Mix Concrete) manufacturers** who use **Truck-Mounted Mobile **Volumetric Concrete Mixers**** for commercial supply of concrete instead of the conventional RMC plants and Transit Mixer set ups. As on date the Mobile Concrete Mixers have taken over **12-15% market share** of the conventional RMC supply.

<https://www.ashvilleconcrete.com/>

<https://www.365concrete.com/>

<https://www.allmixkent.co.uk/>

<https://www.beatsonsconcrete.co.uk/>

<https://bordermix.co.uk/>

<https://www.bestmix.co.uk/>

<https://concretesingh.com/>

<https://www.derbyshireconcrete.co.uk/>

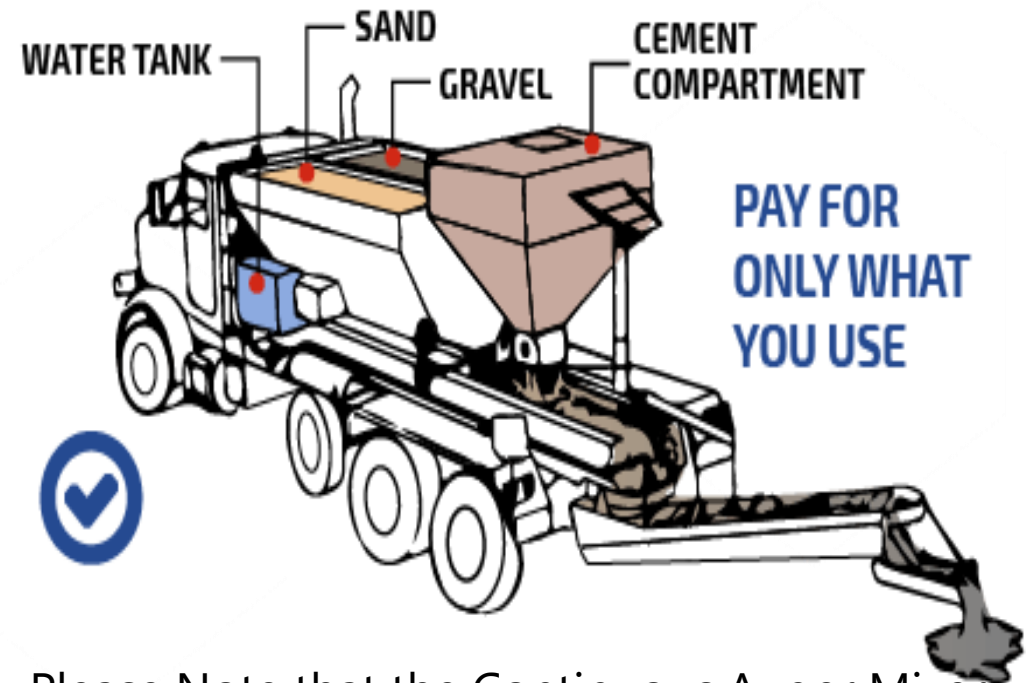
<https://dkconcrete.co.uk/>

Introduction to Volumetric Mobile Concrete Mixers

The Volumetric Mobile Concrete Mixers have **two compartments for fine (Sand) and Coarse (gravel)** Materials. And **One Compartment for Cement**.

The fine (Sand) and Coarse (gravel) material compartments **share a common belt conveyor** at the bottom and each compartment is provided with a **manually adjusted gate to vary the volume flow** of each material.

The sand, gravel, cement, water and admixture are dropped at the bottom end of **a continuous screw mixer** and all are mixed to produce concrete when they come out of the open end of the screw mixer.



Please Note that the Continuous Auger Mixer needs to be suspended outside the vehicle with a complex hydraulic system for required discharge height.

Some Leading Manufacturers

<https://cementech.com/>

<https://www.zimmermanindustries.com/>

<https://bay-lynx.com/products/volumetric-concrete-mixers/>

[https://proallinc.com/?gad_source=1&gclid=CjwKCAiAq4KuBhA6E](https://proallinc.com/?gad_source=1&gclid=CjwKCAiAq4KuBhA6EiwArMAw1KsQfZB9Dx-QPUit1ORMdrdoASU9Z-Gx69L8s8bGymaT1q7_mEMSAhoCVfsQAvD_BwE)

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[Gx69L8s8bGymaT1q7_mEMSAhoCVfsQAvD_BwE](https://proallinc.com/?gad_source=1&gclid=CjwKCAiAq4KuBhA6EiwArMAw1KsQfZB9Dx-QPUit1ORMdrdoASU9Z-Gx69L8s8bGymaT1q7_mEMSAhoCVfsQAvD_BwE)

PROBLEM STATEMENT

Concrete is produced purely on Volume by setting volume flows manually. Highly dependent upon operator skill. mix is not reliable comparatively with conventional RMC as the mixer is a continuous mixer with an open end. Too low discharge height of concrete produced. Auger mixer needs to be suspended outside vehicle which needs complicated hydraulic components and circuit which complicates the manufacturing process and increases cost.

Find out more at the PowerPoint Getting Started Center

(Click the arrow when in Slide Show mode)



SOLUTION TO THE PROBLEM

A new Concrete Mixer is disclosed having a fine material compartment (sand), a Coarse material Compartment (gravel), a compartment for cement wherein all three solid materials are raised to a much higher discharge height and batched on weight basis without human intervention and is in a compulsory batch type mixer thereby eliminating the suspended Auger and giving a very high discharge height comparable to a conventional Transit Mixer Truck.

Technical Comparison

NEW MIXER

- All materials are **batched automatically without human intervention**. Without dependency on operator skill.
- Materials are calibrated and batched on **weight basis**.
- Materials are reliably mixed with water **inside a compulsory mixer having a discharge gate**.
- Since solid materials are discharged at a much higher height, a discharge height comparable to normal Transit Mixer is obtained. And the entire hydraulic circuit and suspended Auger Mixer outside the truck are eliminated.

VOLUMETRIC MIXER

- Material gates **need to be adjusted manually** every-time the Mix design is changed.
- Materials are batched purely on **volume basis**.
- Materials are mixed in a **continuous screw (auger) mixer** having an open discharge end.
- Since solid materials are batched and discharged on a belt at bottom, **material discharge height is very low** and hence need a **complete hydraulic system to lift the auger to even feed a concrete pump**.

Technical Comparison- Manufacturing

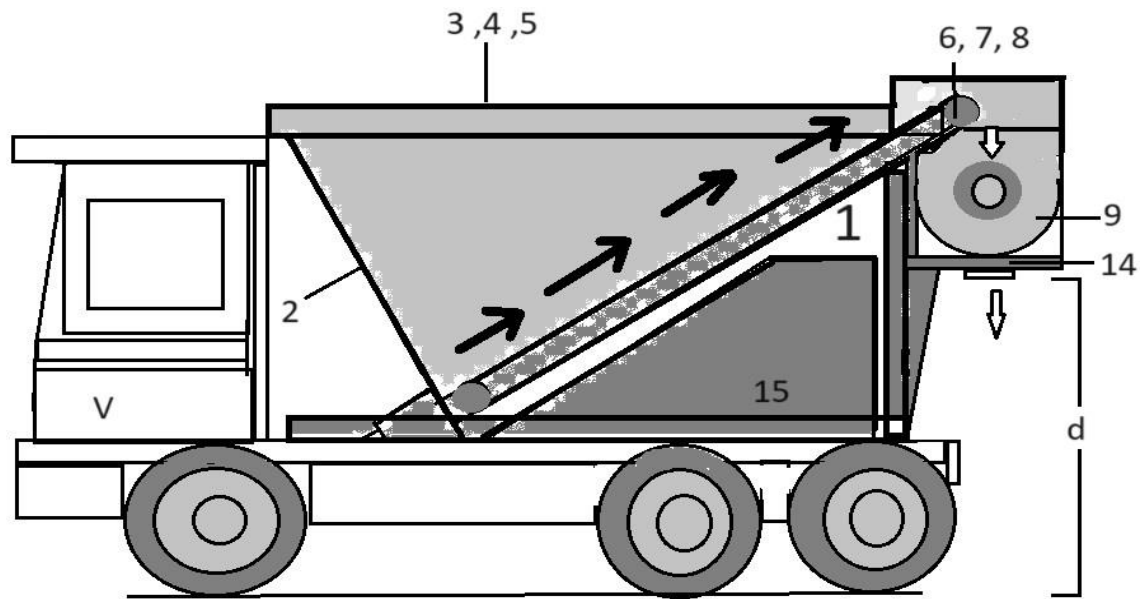
NEW MIXER

- Single Welded Structure
- Simple Hydraulic Circuit
- Chassis adjustable for any truck brand
- All equipment on Truck- No suspended components.
- Design standard irrespective of Truck-Chassis used.

VOLUMETRIC MIXER

- Different sub assemblies of aggregate compartments, Cement Compartment and auger suspended hydraulically out of chassis on a pivot.
- Complicated hydraulic circuit with auger hydraulics
- No such adjustment possible, custom designed for each truck.
- Auger bottom end starting below the truck Chassis so each mixer design depends on truck chassis.

NEW MIXER PATENT



VOLUMETRIC MOBILE MIXER



Commercial Advantages

NEW MIXER

- The cost of manufacturing is **almost 1/5th of the cost of a Volumetric Mixer** due to simple design; actual cost may vary as this is just an indication.
- Standardized hydraulic flow. **Can work on both – slave engine as well as Truck PTO.** Slave engine can be locally used as per applicable country norms.
- High flexibility as can be installed on any truck brand **with little adjustment.**
- High cost difference not only results in **off-setting the freight and import tax** but will also result in **better margins for local distributors** in individual countries.

VOLUMETRIC MIXER

- Manufacturing Cost is **approx. 4-5 times higher** than the new mixer.

IP Commercialization by IME in India & the Objective

- IME has already commercialized many patents of the original inventors. A few related to Truck-Mounted Mixers have been licensed to IME and IME has further sub-licensed for manufacturing, use and sale.
- The NEW MIXER is specifically designed and invented for the EXPORT market and not for selling in INDIA for the time being till the Indian market get used to the concept.
- The other products already licensed have been designed for Indian domestic Market where more than two aggregates and more than one cement materials are used. The machines are already in production by the sub-licensee.
- The present NEW MIXER for global market is protected by a separate patent and not licensed to any third party.
- The objective is to have a manufacturing unit (100% EOU) in India and to have a no. of distributors in the overseas markets.
- The Indian patent application (202321088529 has been published by IPO and International Examination at PCT is expected soon and Individual country specific patents shall be filed within the applicable time limits.

Track Record with respect to Patents:

- The original inventors have been granted more than 7 Indian and two International patents as of now out of which 6 are related to Truck-Mounted Mobile Concrete Mixers for production and transportation of concrete.
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- Many of the patents have been licensed.
- The Original inventors have been working in the field of concrete production and supply and related equipment since 2002.

Patent Strike rate:

- Majority of patents have been examined in International stage establishing the novelty, inventive step and industrial applicability.

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