



# Concrete Mixers

Concrete mixers are one of the most important equipments used in the construction industry because it allows users to mix large amount of cement, sand, or gravel with water throughout a project without undergoing the time wasting and labor intensive method of hand mixing the materials. The rotating drum allows users to mix their materials with ease and using a very limited amount of energy. The continual rotating of the drum allows workers ample time to make use of the wet, mixed cement before it hardens.

Concrete mixers range from the very large commercial mixing truck to the smaller, portable concrete mixer sometimes called a "mini mixer. Special concrete transport trucks (in-transit mixers) are made to transport and mix concrete up to the construction site. They can be charged with dry materials and water, with the mixing occurring during transport. With this process, the material has already been mixing.

For smaller volumes of concrete, typically up to two cubic yards (1.83 cubic meters), a portable concrete mixer is sufficient. A portable concrete mixer is typically powered by electricity and sits on a base with wheels for easier transport. The rotating drum can be tilted down so that mixed concrete can be poured into a wheelbarrow.

For homeowners attempting small concrete projects such as a patio, sidewalk repair, or small slab, a portable concrete mixer is essential to maximize efficiency. A concrete mixer does not keep concrete ready for application indefinitely, so it is important to have an understanding of how much concrete you can pour and finish within a specific time frame. It is therefore important to note the type of concrete mixer to use depending on the type of project one has.

## PAN MIXERS SOUTH AFRICA

They are a leading manufacturer of a wide range of concrete block, brick and paving

machinery, turbine and counter-current pan mixers and batching plants for the Concrete, Refractory and Ceramic industries. Pan Mixers have been servicing the needs of local and overseas customers since 1976. PMSA brick-making machinery, in the Johannesburg area alone, produces 2 000 000 bricks per day.

One of their products is the Fiori self-loading mixer is a four wheel drive mobile batching plant with its own diesel engine, its own loading bucket and its own mixing drum that can rotate and discharge concrete 270 degrees. With the addition of weighing, reporting and sensing systems to that very rugged design, the Fiori concrete batching vehicle (CBV) is the only self-loading mixer that can make certified concrete on demand.

This means that a mixer-operator is able to load his own sand and stone on his own with the loading of cement done by hand directly from the bag into the loading bucket. In addition to that, everything that the bucket loads is also weighed and recorded by the onboard computer.

As the load is lifted, a reading is produced for the operator. Having previously input the calculations required for the specific mix design, should the operator attempt to overload the drum, the door for discharging the material will not open.

The operator would then lower the bucket, before emptying the excess material out until the correct weight is attained. This safety mechanism not only prevents miscalculations in the mix, but also prevents the drum from being overloaded. The Fiori has a device that counts the drum revolutions, and will not allow the mixer-operator to discharge concrete until the material has been suitably mixed.

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