

Taking control of concrete

The January 2014 Quarry Southern Africa debate article about self-loading concrete mixers has drawn comment from Quintin Booyesen, marketing and sales manager at Pan Mixers SA.

Ready-mix concrete is not always convenient for contractors, as the production process is out of the hands of the contractor. The Fiori self-loading concrete mixers have the advantage that the contractor is in control of a number of aspects. These include:

Time – The concrete can be made anytime, day or night, at a moment's notice.

Batch size – Small batches for only 1 or 2 m³ can be made easily without any penalty for a small load usually charged by ready-mix companies for not having a full load. The batch controller is easily adjusted for any batch size by simply putting in desired concrete quantity, and the batch recipe is calculated to suit the batch size instantly.

Wastage – A significant reduction in wastage is achieved, as concrete is produced on demand.

Operator training – Drivers can be easily trained. For example, PMSA typically trains operators within 1 to 2 days onsite. Multiple drivers (2 or 3) are also usually trained to ensure that more than one person has the knowledge and skills on the site to operate the machinery.

Cost control – The contractor is in control of all costs, as the best aggregate pricing, cement and materials can be sourced to avoid the overhead costs of a batching plant, in addition to the high costs of a ready-mix truck having to travel long distances to the site.

Price of self-loading mixer vs. a batching plant and



Fiori self-loading concrete mixer working on site.

ready-mix truck – For the price of a ready-mix truck, a contractor can buy a full self-loading 4x4 batching plant on wheels and make concrete anywhere at any time. The single machine has the capacity to produce between 60 to 90m³ of concrete per day on site, depending on site terrain and conditions.

A 4x4 allows the concrete to reach places most ready-mix trucks are not able to travel to, thereby providing the contractor with increased flexibility.

Traffic congestion – In areas where road congestion is a problem, the aggregates can be transported during low traffic times or at night. With the Fiori CBV, concrete can be made on-site at any time throughout the day, alleviating travel congestion where ready-mix trucks would be waiting in traffic. This also eliminates the

risk of the concrete mix losing its quality, as a result of prolonged waiting periods in traffic.

Set-up costs – Self-loading concrete mix can be easily transported to site and there is virtually no civil or establishment costs, as the machine is a self-contained unit. Immediate production is possible with the self-loading mixer trucks, as the machine can make concrete as soon as it drives off the roll-back or low-bed.

Accuracy – The weigh batching system on the Fiori CBV range is accurate within 2-3%, and this is equal to or even better than some batching plants, which often undertake the actual mixing process in the transit mixers.

Mixing – Transit mixers or ready-mix trucks by definition are not always intended for mixing concrete, but rather

transporting batched concrete, whereas the Fiori self-loading concrete mixer is designed for mixing, which ultimately can result in superior quality concrete.

Slump control – The Fiori self-loading mixer has on-board slump control which gives consistency between batches of concrete, and enables the contractor to monitor the slump between concrete batches from the control panel of the self-loading mixer.

Flexibility – The Fiori CBV can be used for concrete, plaster and mortar on the same job site with a single self-loading concrete mixer. **New technology** – The introduction of world class machinery should not always be seen as a threat to traditional and older ways of doing things. New technology is making contractors' jobs easier and saving costs during tough times.