

Mixer drum cleaning



The new system replaces traditional drum cleaning methods and can save time and costs and improve health and safety.

Manual cleaning is the most common and traditional method of clearing out residual concrete build-up from the drum and this involves operators physically climbing inside the drum via the small entry hatch, armed with a jackhammer in order to chip away and loosen the set concrete. A drum-cleaning system for truck mixers, which significantly reduces the health and safety risks involved in drum cleaning, has been launched onto the UK market. *Concrete* report.

Vibrations from a jackhammer often loosen concrete from the roof of the drum, making falling debris one of the biggest contributors to operator injuries during the cleaning process. Last year, two people in America died while carrying out routine maintenance to the mixer drum, with several other people hospitalised.

Now a new drum-cleaning system has been introduced to the UK market. Ready Jet is a US firm, based in Florida, which began work on a robotic concrete removal system in 2005. Following a period of testing in the US, the company launched its new cleaning method in 2007 and since then has gradually rolled it out across the world.

The Ready Jet G3 enables remote removal of concrete, which avoids injuries incurred from climbing inside the drum. Another benefit of this new practice is that it significantly eliminates exposure to silica dust (recent tests of the system found no detectable amounts of silica). Chipping away at the concrete by traditional

means exposes the operator to silica dust, a known carcinogen. Occupational exposure to silica dust over a period of years can result in silicosis, a form of lung disease.

There is also the health and safety issue of working in confined spaces, as the rescuing of an injured operator is almost impossible.

The G3 is run by remote control, operated either by one or two people and works by removing hardened concrete from inside the truck mixer drum via robotic water-blasting technology, without compromising the integrity of the mixer drum or blades.

Putting to one side the health and safety risks and the potential damage to the vehicle from impact hammers, the Ready Jet system ensures significant time savings are gained. Commonly, cleaning time can be reduced to around two hours per mixer drum, providing a quick return on production. To remove the same amount of concrete by traditional methods would take an operator about a day to complete the task.



Ready Jet G3 robotic concrete removal system.