

Application Profile





Concrete Mixers

Highlights

Application

- BK Series geared motors feature inverter-friendly design
- All-position mounting flexibility
- Torque rating to 18500 Nm
- Low noise gearing
- IP65 Enclosure (Standard), IP66 (Optional)
- Completely enclosed, sealed against dust and moisture

The German company, Liebherr Mischtechnik GmbH, develops and builds concrete mixing plants where roller-compacted concrete (RCC) is manufactured. The special features of this concrete are its high resistance towards chemical and physical corrosions and the peculiarly compressive strength. RCC is also characterized by its low cement and water content and its short-term availability in great quantities. All these features make RCC very suitable for dams.

In Myanmar, previously Burma, construction has begun on a 135m high concrete dam. The water blocked by the dam will supply a 790 megawatt power plant. Four identical Liebherr concrete plants supply 10,000 m³ RCC daily at full capacity. A total of three million m³ RCC is required. Twin-shaft batch type mixers will process these quantities. However, Liebherr also provided all transport, storage and feeding equipment, all these applications required geared motors.

Cooling was another gear motor application in the project. It is not the construction workers' housing that is cooled, but the grey concrete mush, In a 150m long cooling tunnel, four degree Celsius "warm" water keeps the cement outside the mixer at a temperature of 18 degrees. Cooling efficiency is determined by outdoor temperature which can rise to 45 degrees in Myanmar. Temperature is lowered to prevent the RCC from cracking during hydration, during curing of the cement paste to cement stone. Due to their high efficiencies, Bauer BK90 bevel geared motors are installed as double drives.

BK Series gear motors are highly reliable, efficient, and economical. They feature a torque rating up to 18500 Nm and output speeds up to 280 min-1. Units are completely enclosed and sealed against dust and moisture. An inverter-friendly design provides for easy integration into new or existing installations.

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