

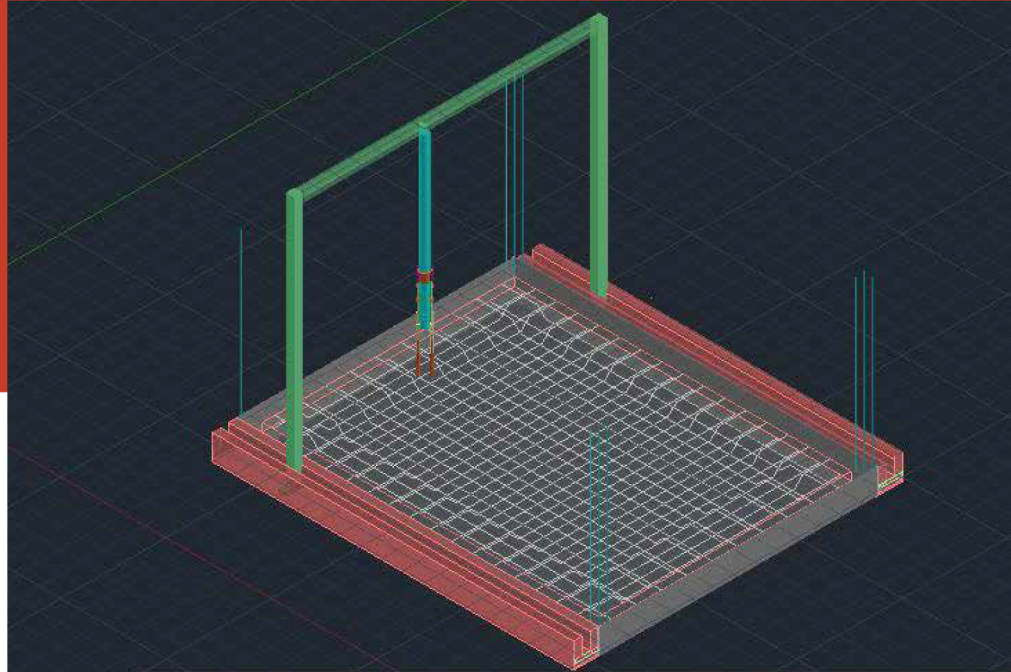
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PROJECT

AUTOMATED CELLULAR CONCRETE POURING AND COMPACTOR



In the construction of RCC structures, a set of procedures are followed: batching, mixing, transporting, pouring and compacting of concrete and cutting, bar-bending for reinforcement and finally finishing and curing.

Automation in this area has been limited to pumping of concrete using RMC plant and transit mixers. Until now, concrete pouring and compaction has been done manually, a task that is both time-consuming and requires skilled labourers.

Compaction of concrete, an important component in laying a concrete structure, expels entrapped air from freshly placed concrete and packs the aggregate particles of the concrete mix together, increasing the density of the concrete. If compaction is not carried out correctly, defects may become apparent and the concrete structure will suffer from significant loss of strength. This project has now automated the process of laying concrete and its compaction.

Features

- Compactors are combined with the hose pipe of the concrete pump, through which concrete is poured. This is followed by compaction using needle compactors for a fixed period of time
- The whole setup is supported by the frame structure, which is accessible from all the three axes
- Can be monitored manually or digitally
- Results in higher accuracy and is cost effective