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A leading manufacturer of *Machines for stoneworks (marble and granite)* required a peculiar clutch solution for their automatic tool change system.

MWM engineers developed a special electromagnetic toothed clutch ESB-210/Z with as many toothed armatures as the tools are.



*The special toothed clutch ESB-210/Z with the armatures*

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This toothed clutch allows the automated process to change huge tools and pass various utilities.

The special ESB-210/Z body is mounted on CNC machine. On the armatures are mounted the different tools for marble and granite works.

Tested under the hardest conditions, when engaged, the clutch is able to:

- take the selected tool
- transmit torque over 3.000Nm
- lift and carry weights exceeding well over 600 kg.

Other feature is the protection from dust.

Dusty environment is one of the most difficult environments for electromagnetic toothed clutch and bearings.

A mix of labyrinth seal and sealed bearings protect the functional parts of this clutch against contamination by fine particles.

The results are:

- Reliability
- Safe function
- Long life
- Maintenance free