GROB

SWITZERLAND

C6

COLD FORMING MACHINE

SCAN ME

ERNST GROB AG

COLD FORMING MACHINES
SPECIAL PURPOSE MACHINES
SLOTTING MACHINES

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Precision-splined camshaft

Controls	Fanuc or Siemens
Spline module	up to approx. 2.3*
Workpiece diameters	
Spline (mm)	Ø 8 – 80*
Clamping location (mm)	Ø 315 max.*
No. of teeth	independently programmable

C6 Cold Forming Machine

Technology

The GROB cold forming process is based on a straightforward and universally applicable principle: the total forming effort needed is broken down into numerous forming increments spread along the entire cylindrical length of the zone being formed. Characteristic for workpieces produced by this process are their superb precision and surface finish, combined with the typical benefits of cold forming: cold work hardening, enhanced material microstructure, material savings, low hardening distortion etc.

The model C6 is an economical investment solution for generating smaller spline modules, while offering high levels of flexibility and productivity. The C6 operates in continuous pitch mode, thereby achieving extremely short cycle times.

Typical applications

The main field of application for the C6 is the automotive industry, typically for generating torque transmission splines on powertrain shafts and axles, or for high precision splines on, e.g. camshafts with sliding cams in engine manufacturing.

Other applications are those where low unit costs but high quality are required, for example in machine building and equipment manufacturing.

Benefits

GROB cold forming machines allow the generation of a diversity of spline geometries and specific features such as creating chamfers, including spline crowning.

Highly-dynamic machine axes facilitate simple operation and control-aided correction and compensation of quality relevant factors such as spline alignment, elastic recovery behaviour, but also batch related variations.

Each machine configuration reflects individual customer requirements such as layout, degree of automation or plant specifications.

*These specifications are workpiece dependent and may vary.

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C6 Cold Forming Machine

- **Cost-effective**
- **Extremely short cycle times**
- **High process stability**
- **Universal usage, minimal changeover times**
- **Ease of service and maintenance**

V04-2021