GROB
SWITZERLAND

C9T

COLD FORMING MACHINE

SCAN ME

ERNST GROB AG

COLD FORMING MACHINES
SPECIAL PURPOSE MACHINES
SLOTTING MACHINES

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Helical splines

C9T Helix

Controls	Fanuc or Siemens
Spline module	up to approx. 3.5*
Helix angle	up to 30°
Workpiece diameters	
Spline (mm)	Ø 20 – 120*
Clamping location (mm)	Ø 400 max.*
No. of teeth	independently programmable

C9T - Helix

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 C9T-Helix with swivelling roller heads is a dedicated machine concept for generating helical splines.

Typical applications
The main field of application for the C9T-Helix is generating helical splines on spindles, steering pinions and gears (e.g. for planetary gear assemblies).

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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C9T - Helix

- Helical splining
- Extremely short cycle times
- High process stability
- Universal usage, minimal changeover times
- Ease of service and maintenance

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