



T12

COLD FORMING MACHINE



ERNST GROB AG

Cold forming machines & Slotting machines

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Cold formed clutch disc carrier with internal and external splines

Controls

Fanuc or Siemens

Workpiece diameters cold forming

Lower range (mm) Ø 50–250
 Intermediate range (mm) Ø 100–300
 Upper range (mm) Ø 150–350

Workpiece diameters stroke stamping

Range (mm) up to Ø 250

No. of teeth

independently programmable

T12 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 torque motor developed in-house allows workpiece high speed indexing, resulting in the shortest possible production cycle times.

Typical applications

In addition to its primary application, i.e. the cold forming of splines on sheet metal components, the universal and modular design concept of the model T12 cold forming machine allows it to be used for other GROB processes such as spinning and cold forming, stroke stamping or reduction, and including the forming of large module splines in solid stock workpieces.

Benefits

This state-of-the-art machine concept generates very high feed rates per workpiece revolution while delivering optimal component quality.

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.

Changeover times of just a few minutes provide our customers with flexible planning potentials and just-in-time production. The T12 machine concept can be readily expanded into a fully automated production line when linked with other GROB machines for the production of preforms (R3 spinning machine), and also for the downstream processing of splined components (S8 slotting machine).

T12 Cold Forming Machine

- ▶ GROB quality
- ▶ Extremely short cycle times
- ▶ High process stability
- ▶ Universal usage, minimal changeover times
- ▶ Ease of service and maintenance