DANOBAT

HIGH PRECISION GRINDING MACHINES

LG

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The LG cylindrical grinding machine has been developed for high precision component grinding, such as hydraulic components, automotive parts and cutting tools.

The grinding machine's natural granite base and the linear motor driven slides provide the high accuracy and thermal stability required for these high demanding applications. These specifications also allow the grinding of non-round components.

The use of electric-spindle makes possible the combination of conventional and high speed grinding. This produces a maximum peripheral wheel speed of 140 m/s and covers the range necessary for grinding with conventional abrasive (60 m/s) or super abrasives (up to 140 m/s) with maximum torque.

In addition the cylindrical high precision grinding machine is versatile and flexible with the direct driven B axis and the use of multiple wheels. Requirements of completely automated manufacturing processes are fulfilled with incorporation of customized automatic loading systems developed by DANOBAT, e.g. integrated gantry or robot solutions, guaranteeing minimum loading and unloading time (2-6 s. depending on applications).

LG **TECHNICAL DESCRIPTION**

TECHNICAL CHARACTERISTICS		LG-200	LG-400	LG-600	LG-1000
Distance between centres	mm	200	400	600	1000
Diameter to be ground	mm	200	290	290	290
Weight between centres	kg	30	50	50	50
Grinding wheel diameter	mm	350/400	500	500	500
Wheel peripheral speed	m/s	35/140	35/140	35/140	35/140

Highlights

- New grinding processes.
- High productivity.
- Short changeover times.
- Complete part finished in one set up.

Machine configuration

- Machine main bed made of natural granite: thermal stability.
- Moving table configuration.
- X and Z axes driven by means of linear motors and controlled by linear scales:
  Repeatability and precision / Maintenance benefits
- Grinding cutting speeds up to 140 m/s:
  Different CBN technologies: plunge, peel grinding, etc.
- Built-in motors in workspindle, wheelspindle and “B”axis.
- Customized user-friendly software.
- Non-round and thread grinding capability.
- Suitable for match grinding.

Optional equipment

- Wide variety of OD wheelhead configurations for maximum flexibility.
- Automatic loading/unloading installations: robot, integrated portal loader...
- Customized chucks and tooling items for each part type.
- Pre/in/post-process measuring devices.
- CNC steady rests.
- Various filtration systems upon customer request for neat oil or water emulsion.
- Movable slide for tailstock for minimum changeover time.

LG APPLICATION

ABS MOTOR SHAFT

GEARBOX SHAFT

CUTTING TOOL

AXLE

CARBON ROTOR

HYDRAULIC COMPONENT

PUNCH

TOOL

DANOBATGROUP

DANOBAT-OVERBECK
Konrad-Adenauer Str. 27
D-35745 Herborn
Germany

Phone: +49 (0) 2772 801 0
info@overbeck.de
www.danobatoverbeck.de