

A detailed close-up photograph of a metal grinding operation. A cylindrical metal workpiece is being ground by a rotating wheel, creating a bright, polished surface. The workpiece has a threaded section and a smooth section. The grinding wheel is visible on the right, and the metal shavings are being removed.

**TECHNOLOGY
THAT PROMOTES
CONTINUOUS GROWTH**

**HIGH PRECISION
GRINDING SOLUTIONS
FOR INTERNAL,
EXTERNAL AND RADIUS**



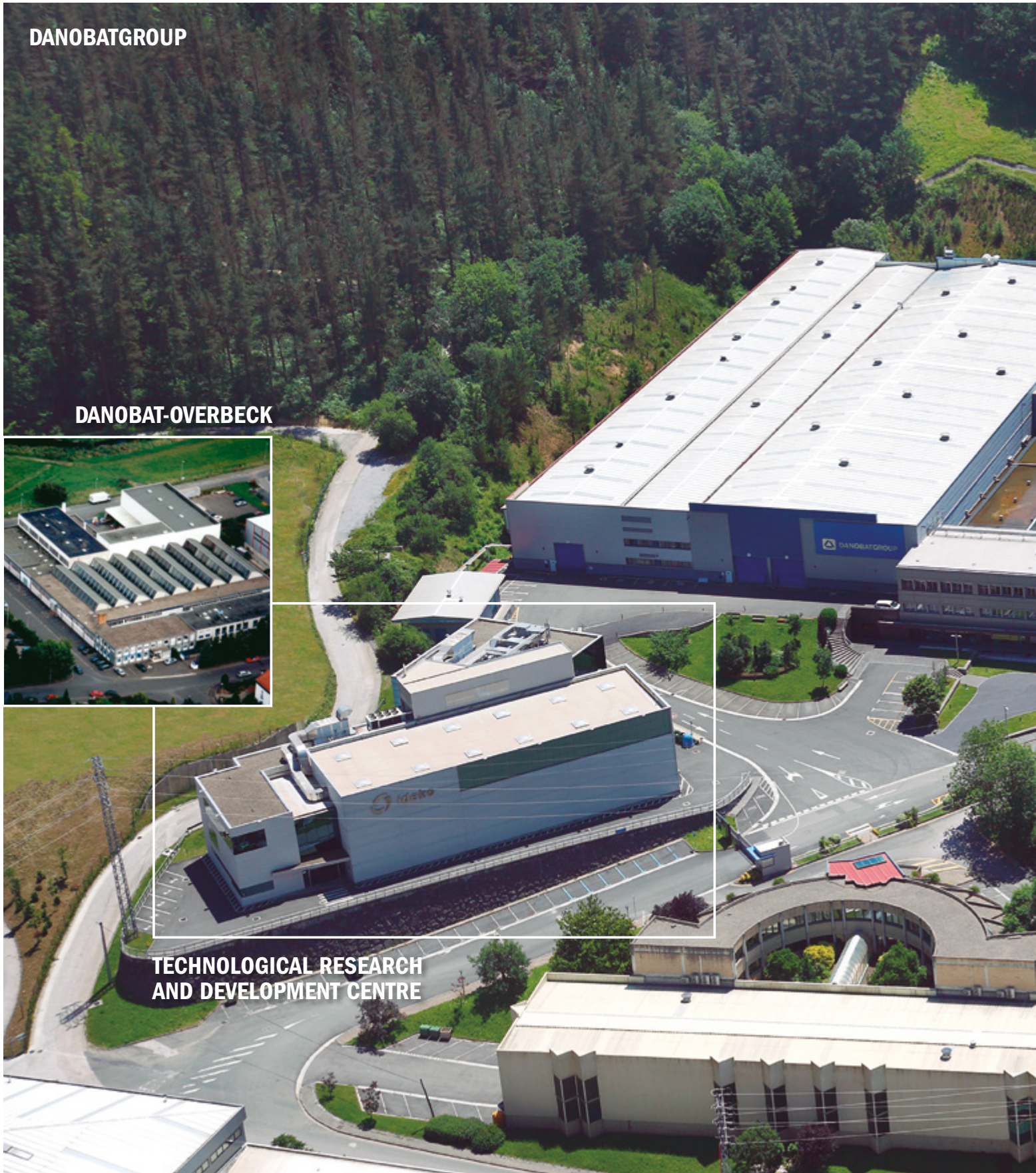
**DANOBAT
OVERBECK**

HIGH PRECISION GRINDING SOLUTIONS

DANOBATGROUP

DANOBAT-OVERBECK

**TECHNOLOGICAL RESEARCH
AND DEVELOPMENT CENTRE**





DEMANDING SOLUTIONS, STATE OF THE ART TECHNOLOGY

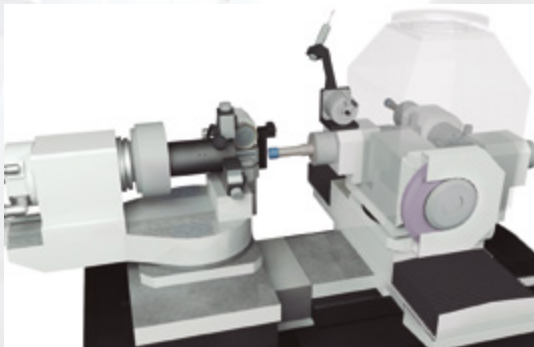
In this catalogue DANOBATGROUP presents the range of high precision grinding machines for internal, external and radius applications. Solutions designed for the most demanding production requirements, machines designed for single part batches or for high production.

We are specialized in design and manufacture of grinding machines suited to customers' applications. The finest technologies are utilised to achieve the highest stability and precision. The modularity in the design gives us flexibility to achieve the shortest lead time and the optimum cost. Our machines provide an ergonomic and quality solution with a user friendly and powerful software being at the same time friendly with the environment.

WHEN WE REACH THE LIMIT WE HAVE SET, WE GO BEYOND IT

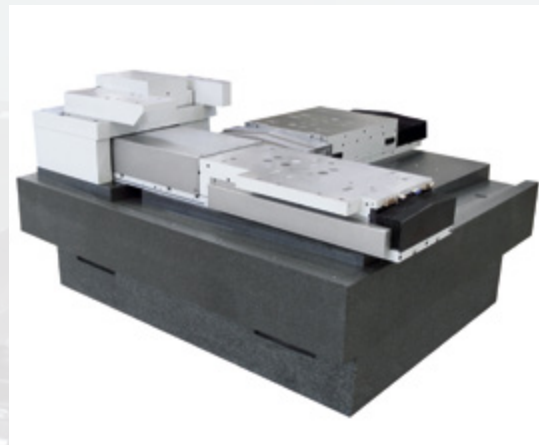
LINEAR & DIGITAL TECHNOLOGY

- The finest technologies result in the most accurate machines. Precise and fast movements assuring the highest productivity and quality.
- The machines are equipped with components: X and Z axes with linear motors and rotary axes using maintenance free torque motors.



RIGIDITY - STABILITY - PRECISION

- Natural granite bed stabilized over thousands of years for a perfect thermal stability.
- Electrospindles carefully assembled in a CLEAN ROOM (with humidity and temperature control) in-house.



ERGONOMICS - MODULARITY - AESTHETICS

- Updating the design to the customer needs.
- End-users security, accessibility and shop floor functionality.



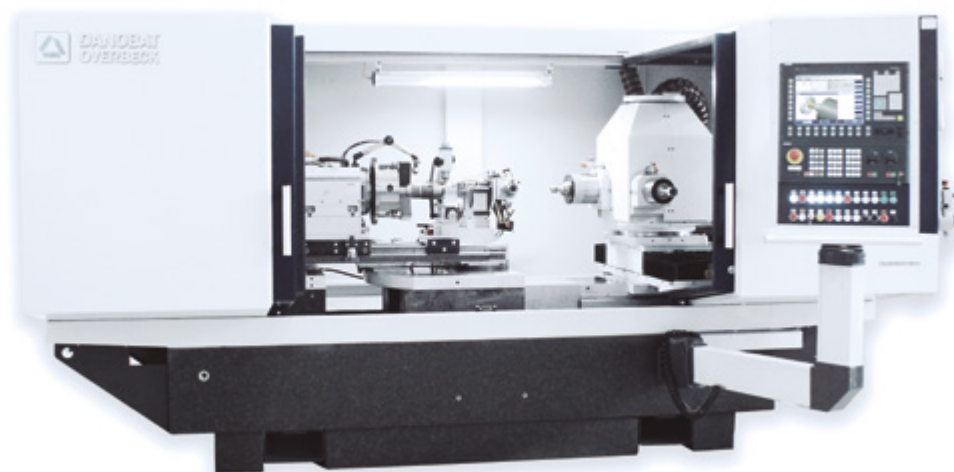
SOFTWARE

- The powerful and user-friendly Danobat-Overbeck software includes an intuitive interface, optimally adapted to the machine as well as to the requirements of our customers.
- Easy machine operation for efficient programming.
- Integration of a variety of classic grinding and dressing cycles.
- Modules for thread grinding, coordinate grinding, grinding of non-circular shapes, as well as with freely programmable connection profiles.
- Software modules for measurement tasks, logging of measurement data and process monitoring.
- Integration of handling systems.



INTERNAL AND UNIVERSAL GRINDING MACHINES

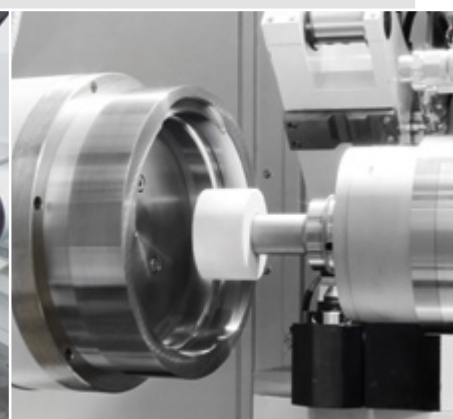
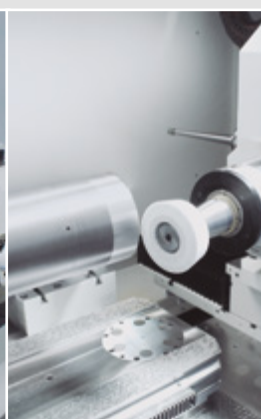
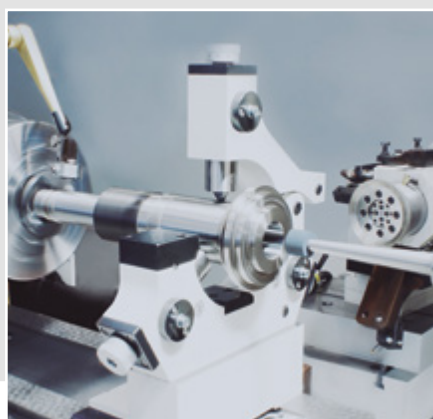
ILD



TECHNICAL CHARACTERISTICS		ILD-400	ILD-500	ILD-700	ILD-700 U
Internal grinding length	mm	400	250	400	400
External grinding length	mm	150	150	400	400
Work swing	mm	600	600	700	760
Workpiece length (incl. clamping system)	mm	800	1300	500	500
Workpiece weight (incl. clamping system)	kg	500	500	500	500
"B"-axis swiveling range	°	+20/-10	+20/-10	optional +25/-25	+25/-25
X and Z axis stroke	mm	450/550	425/475	700/700	420/700/U700

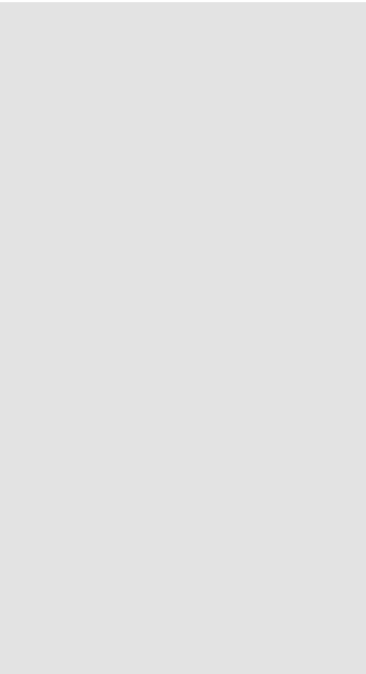
Based on customers requirements, other machine capacities & configurations could be taken into account.

- The ILD internal universal grinding machines provide high-precision tool machining for internal, external and face grinding of large workpieces, up to 1300 mm long (ILD 500) or until a work swing over table of 760 mm (ILD-700 U). Perfect for grinding of spindle housings, shafts, tool holders, roller bearings, hydraulic components and machine tool components using the latest technology.
- Both manual or motorized W-axis for clamping and grinding of long components are available.
- Depending on the requirements, the machines can be equipped with turret for up to 4 grinding spindles and a measuring probe as well as integrated automation.
- Various dressers such as single point diamond, rotary dressing disc, dressing turret, swivelling radius dresser as well as profile roll dresser can be implemented.



INTERNAL GRINDING MACHINES

ID



TECHNICAL CHARACTERISTICS		ID-200	ID-400
Internal grinding diameter	mm	100	200
Internal grinding length	mm	100	200
Work swing	mm	215	560
Workpiece length (incl. clamping system)	mm	200	400
Workpiece weight (incl. clamping system)	kg	40	80/180
X and Z axis stroke	mm	400/200	425/475

Based on customers requirements, other machine capacities & configurations could be taken into account.

- High precision machines for internal, external and face grinding, suitable for single part manufacturing and high production. The ID can also incorporate spindle turret, measuring head and automatic loading system.
- Designed for the grinding of gear parts, cutting tools, bearings, non-round discs and hydraulic components.
- The ID-400 L is prepared for the grinding of spindle shafts, spindle housings, tool adapters and heavy duty grinding.

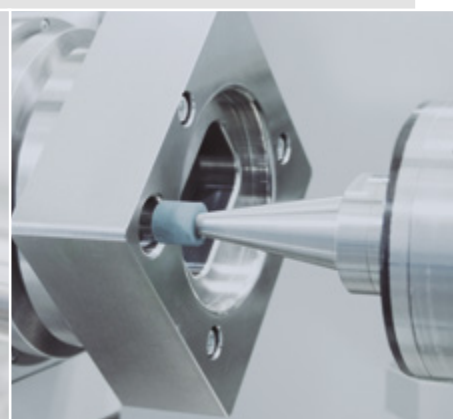
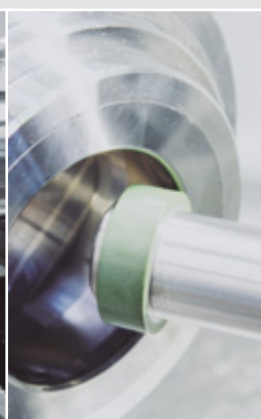
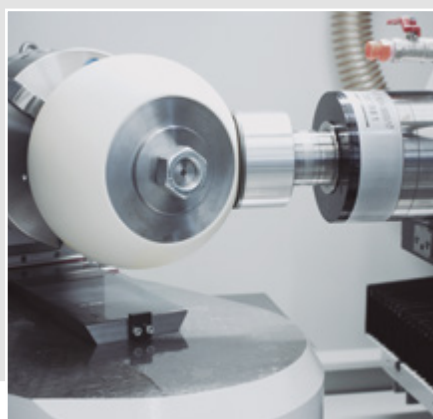




TECHNICAL CHARACTERISTICS		IRD-200	IRD-400
Internal grinding diameter	mm	100	200
Internal grinding length	mm	100	200
Work swing	mm	215	360
Workpiece length (incl. clamping system)	mm	200	400
Workpiece weight (incl. clamping system)	kg	40	80/180
"B"-axis swiveling range	°	+91/-15	+91/-15
X and Z axis stroke	mm	400/200	425/475

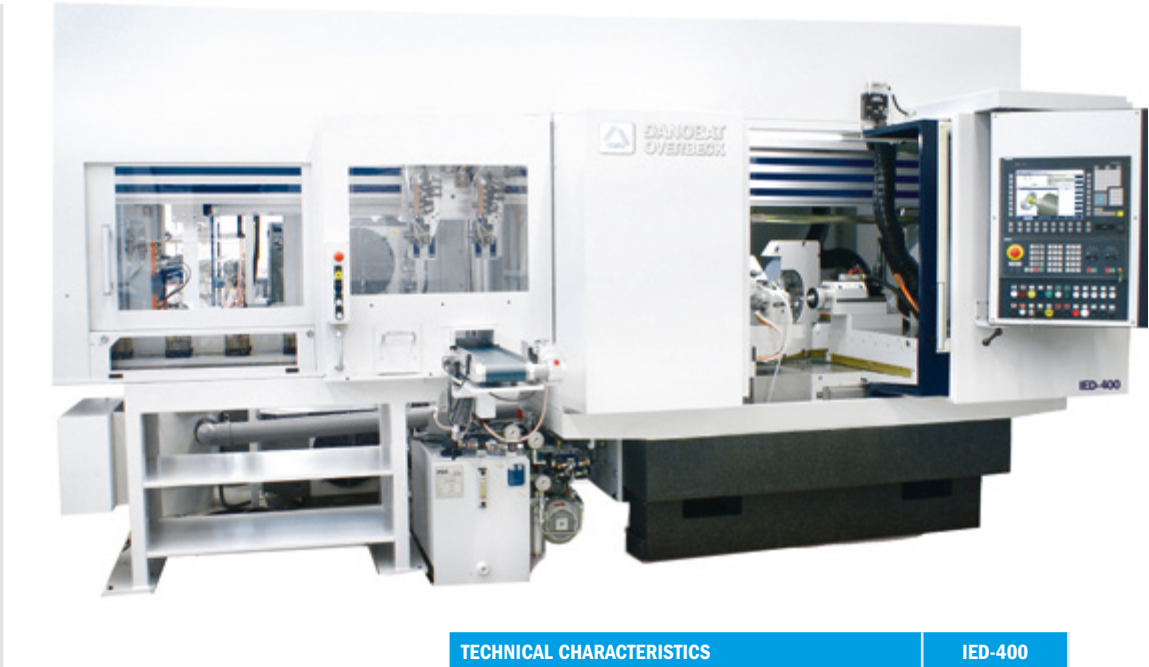
Based on customers requirements, other machine capacities & configurations could be taken into account.

- High precision grinding machines with integrated rotary axis in the workhead base.
- The CNC controlled motor and the 3 axes interpolation software allow the grinding of different radii without manual resetting of the pivot points.
- Spindle turret for highest versatility with up to 4 spindles.
- Prepared for internal, external, radius, face and non-round grinding, ideal for the machining of forming and cutting tools.



SIMULTANEOUS GRINDING MACHINES

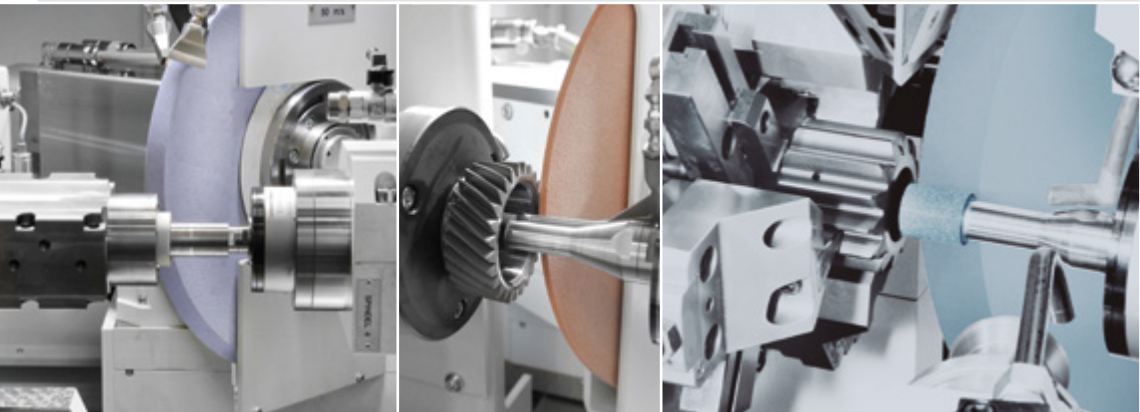
IED



TECHNICAL CHARACTERISTICS		IED-400
Internal grinding diameter	mm	300
External grinding diameter	mm	250
Work swing	mm	300
Workpiece length (incl. clamping system)	mm	250
Workpiece weight (incl. clamping system)	kg	80/180
X and Z axes stroke internal grinding	mm	220/460
X and Z axes stroke external grinding	mm	320/220

Based on customers requirements, other machine capacities & configurations could be taken into account.

- Simultaneous machines for internal and external diameter or face grinding. The machines are equipped with best quality components, produce with the highest accuracies and reduce the idle times to the minimum.
- Designed and manufactured for the grinding of gears, injection components, transmission components and other machine parts.



EXTERNAL GRINDING MACHINES

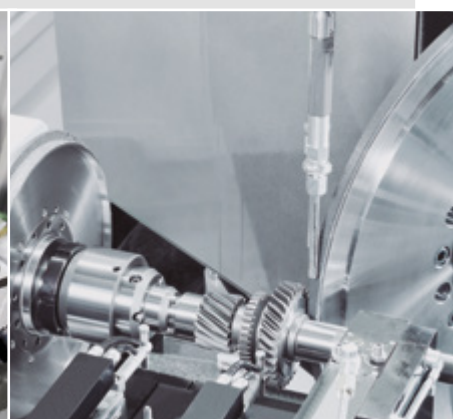
LG



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

Based on customers requirements, other machine capacities & configurations could be taken into account.

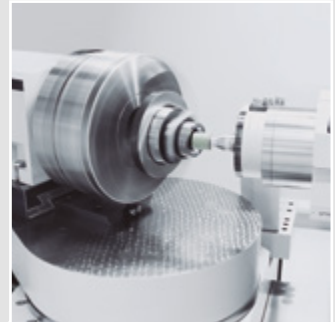
- High precision components grinding, such as hydraulic components, automotive parts and cutting tools.
- The machine's natural granite base and the linear motor driven slides provide the high accuracy and thermal stability required for these highly demanding applications. These specifications also allow the grinding of non-round components.
- The use of a liquid cooled electrospindle 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 or super abrasives with maximum torque.
- Versatile and flexible machine with the direct drive B axis and the use of multiple wheels.



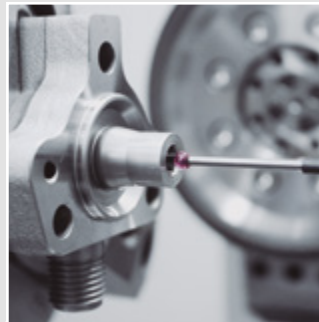
EQUIPMENT

**TO THE MOST
ADVANCED AND
INNOVATIVE MACHINES,
WE ADD MORE
INNOVATION AND
TECHNOLOGY**

WORKHEAD SWIVELLING AXIS



DIAMETER MEASURING



ROTARY ALIGNMENT



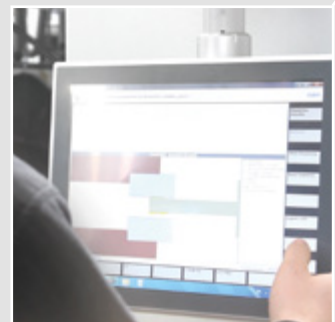
NON-ROUND GRINDING SOFTWARE

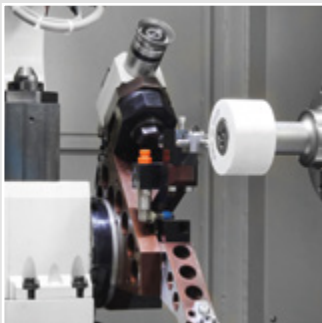
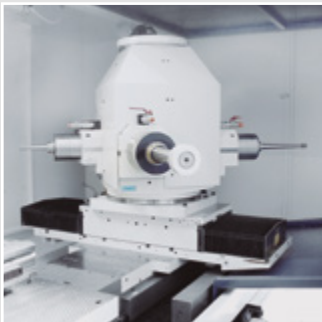
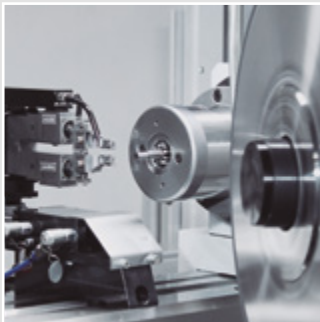
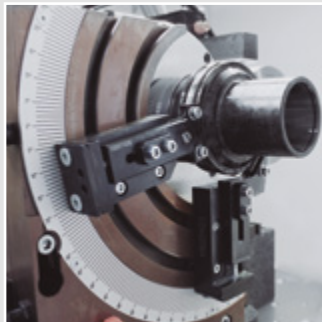
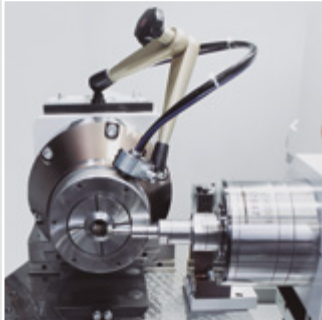
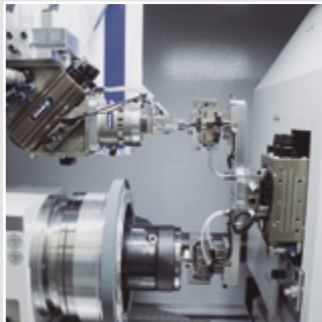


JIG GRINDING



SIMULATION SOFTWARE



DRESSING TURRET**DRESSING DISC AND FORM WHEEL****DRESSER FOR DIAMOND GRINDING WHEELS****RADIUS DRESSER****DIRECT DRIVE SPINDLE****STEADY REST FOR LONG PARTS****AUTOMATIC CHUCK AND IN PROCESS MEASURING****MAGNETIC CHUCK AND SHOE GRINDING****MEASURING STATION FOR MATCH GRINDING****GRINDING PROCESS MONITORING WITH HIGHLY SENSITIVE FLUID SENSOR****DRESSING PROCESS MONITORING WITH HIGHLY SENSITIVE AE-SENSOR****LOADING AND UNLOADING SYSTEM WITH HORIZONTAL AND VERTICAL AXIS****LOADING AND UNLOADING SYSTEM WITH ROBOT AND PALLET SYSTEM**

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