

Profile Grinding Machines LGF 800-1250

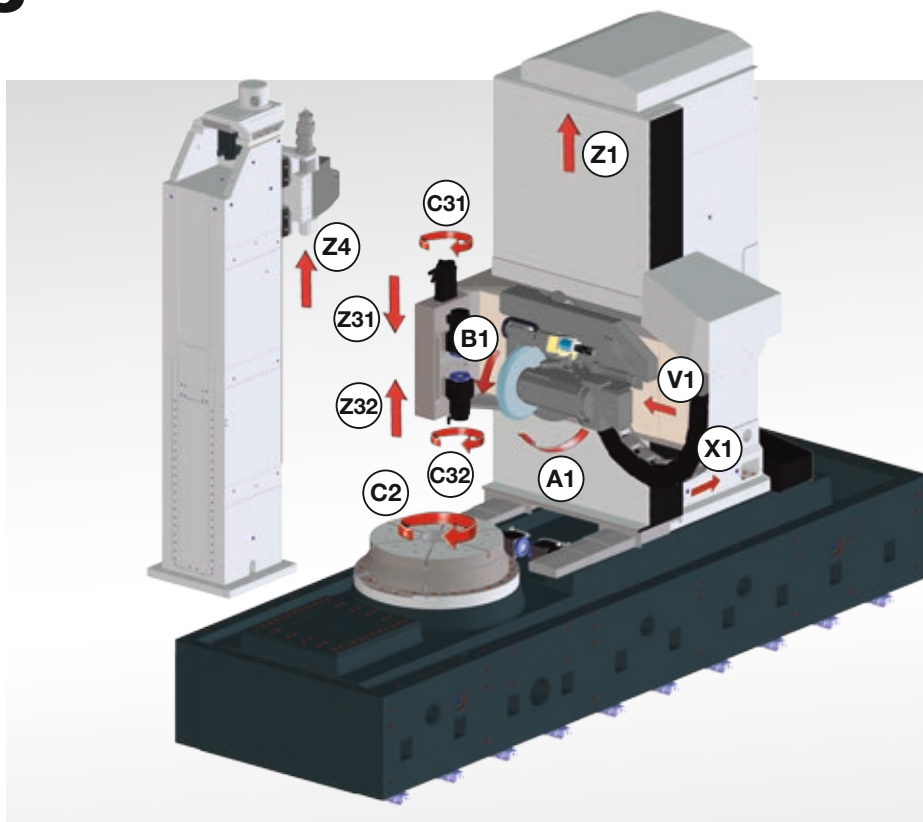


LIEBHERR

Profile Grinding Machines LGF 800-1250

Axis

- A1 - swivel motion tool
- B1 - rotary motion tool
- C31 - dresser tool axis
- C32 - dresser tool axis
- C2 - table axis
- V1 - tangential motion tool
- X1 - radial motion column
- Z1 - axial motion tool
- Z4 - vertical motion tailstock
- Z31 - axial motion dresser tool
- Z32 - axial motion dresser tool



By introducing the new LFG series, Liebherr enables the highly productive profile grinding of external and internal gears.

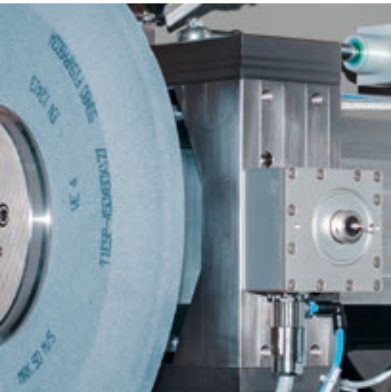
The basis for this is the directly driven table which guarantees in combination with the machine bed made of mineral casting ultimate precision throughout the complete service time. It is essential for a modern profile grinding machine that also the swivel axis is directly driven. Therewith the pre-conditions are given for being able to grind topologically correct or topologically freely-defined tooth flanks on one flank or two flanks highly efficiently.

The LFG can be changed over for grinding of internal gears with only a minimum of effort. The internal grinding head is mounted above the external grinding unit. The large grinding disc is dressed by two dressers on the machine bed.

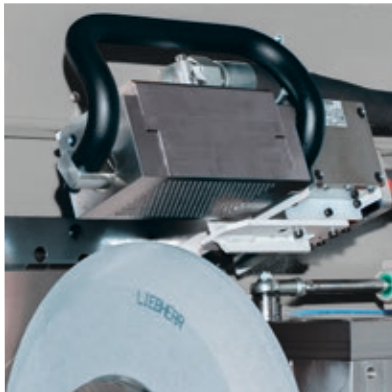
As standard the grinding disc of the LFG is dressed by a single-dresser in combination with the shift and swivel axis. In order to reduce the dressing time, the LFG can optionally be obtained with a sync-dresser which dresses the left and the right flank of the grinding disc simultaneously. A further reduction of the grinding time can be achieved by abrasion-optimised grinding and by the high feed rate of the stroke axis.

The proven tailstock allows the clamping of gear shafts. An automated profile grinding operation in a new size range is enabled by the LFG with the Liebherr ring loader. The LFG is equipped with an automatically adjusting grinding oil nozzle. The grinding data are recorded and serve for documentation and monitoring the process.

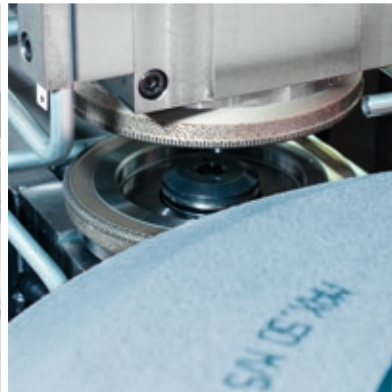
Technical Data



The measuring head is parked behind the directly driven grinding spindle. In swung out position the measuring head allows measurement within the machine.



The optimum coolant feed is distinguished by an automatic nozzle tracking and variable jet stream contour.



Instead of standard dressing, a sync dresser is available for halving the dressing times.



The internal grinding head can easily be put on and has the same advantages as the LFG-grinding head: NC-coolant nozzle and automatic measuring unit.

		LGF 800	LGF 1000	LGF 1250
Max. workpiece diameter	mm	800	1,000	1,250
Max. workpiece speed	rpm		250	
Max. axial travel*	min		1,000/1,400	
Min. pos. over table	mm		350	
Max. pos. over table	mm		1,750	
External grinding head drive power	kW		37/63	
Tool speed	rpm		4,000	
Max. tool dia.	mm		450	
Max. workpiece width	mm		130	
Max. module/profile height	min		50/120	
Grinding head swivel angle	Degrees		120/-95	
Internal grinding head drive power*	kW		23	
Tool speed	rpm		3,730	
Max. tool dia.	mm		400	
Max. workpiece width	mm		80	
Max. module/profile height	mm		30/70	
Axial speed	mm/min		18,000	
Radial speed	mm/min		10,000	
Tangential speed	mm/min		10,000	
Weight of machine with steady column	approx. kg		33,000	
Total connected load	approx. kVA		65	

*more information on request

Machine Tools and Automation Systems from Liebherr

Liebherr employs roughly 1200 staff in the area of machine tools and automation technology and has production facilities in Kempten and Ettlingen (Germany), Collegno (Italy), Saline (Michigan, USA) and Bangalore (India). They are supported by expert and reliable marketing and service specialists at a large number of locations worldwide.

With over sixty years of industrial experience, Liebherr is one of the world's leading manufacturers of CNC gear cutting machines, gear cutting tools and automation systems. The company's innovative products are the result of pioneering ideas, highly qualified staff and state-of-the-art manufacturing systems at each of their locations. They are characterised by economy, ease of use, quality and reliability in combination with a high degree of flexibility.



System Solutions in the Area of Machine Tools

Included in the production programme are gear hobbing machines, gear shaping machines and generating- and profile grinding-machines, all noted for their high degree of stability and availability. Particular importance is attached to the energy efficiency of the machines.

Gear cutting machines from Liebherr are supplied to renowned manufacturers of gears and gearboxes and large-scale slewing rings worldwide. They are in demand primarily from the automotive and construction machinery industries and also increasingly from the wind power industry for the manufacture of gears for wind turbines.

High Quality Gear Cutting Tools

Liebherr manufactures high quality, precision tools for the soft and hard machining of gears and all Liebherr gear cutting machines are fitted with Liebherr tools. The range also includes Lorenz shaping tools and products customised for specific customer applications.

Automation Systems for a Broad Range of Applications

Liebherr has a wide range of products for linear robots, pallet-handling systems, conveying systems and robot integration for projects in all areas of production and can provide above-average availability of systems.

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