

REDLINE S

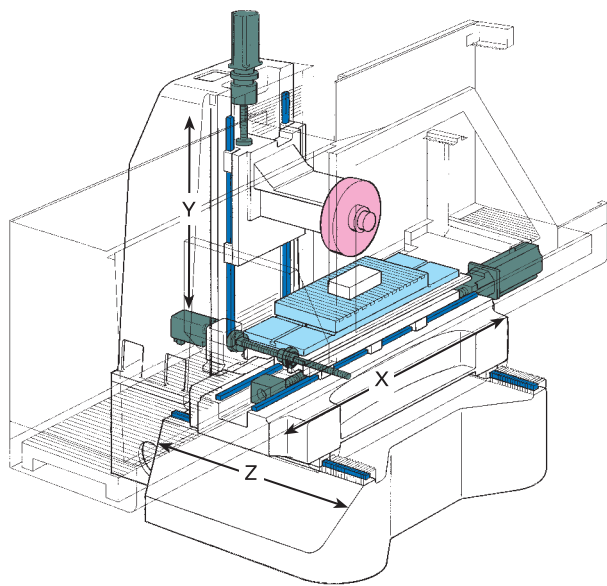
Precision "engineered by BLOHM"



More than Precision

BLOHM REDLINE S

BLOHM's small surface and profile grinding machine



REDLINE

S 36

S 48

Grinding range	mm	300 x 600	400 x 800
Table clamping area with aux. surface	mm	300 x 1,000	400 x 1,200
Distance table to spindle center	mm	135 ... 575	135 ... 575
Table load with magnetic chuck	kg	500	700
X-axis machine table longitudinal travel	mm	700	900
Feed rate	mm/min	30 ... 30,000	30 ... 30,000
Y-Axis, wheel head vertical travel	mm	450	450
Feed rate	mm/min	4 ... 4,000	4 ... 4,000
Z-axis, saddle cross travel	mm	280	360
Feed rate	mm/min	4 ... 4,000	4 ... 4,000
Table height above floor	mm	950	950
Grinding spindle drive, AC-Motor, variable speed	kW/min ⁻¹	5.9/1,500	5.9/1,500
Grinding wheel size (dia. x width x bore)	mm	300 x 50 x 76.2	300 x 50 x 76.2
Machine dimension (width x depth x height)	mm	3,060 x 2,800 x 2,280	3,160 x 3,100 x 2,280
Machine weight	kg	3,200	3,600

Subject to technical alterations



The BLOHM **REDLINE S** easy Touch is a very affordable yet extremely precise surface and profile grinding machine. It excels due to the simple operation in manual or automatic grinding cycles.

Two controls are available, allowing you to tailor this precision grinding machine to your specific application.



Precision guideways and high-quality, ground recirculating ballscrews in all axes

The modular concept, built with quality components made of cast iron, is thermal and vibration optimized using 3D-CAD and finite-element analysis. AC servos and ground re-circulating ball screws drive the three main axes. All axes feature hardened and ground monorail guideways, with preloaded ball re-circulating units.



Cartridge type spindle with 4 precision ball bearing packs



Grinding wheel head, drive and guideways and linear glass measuring scale for Y and Z axis (standard for a machine with easy Touch control)



BLOHM REDLINE S eco

The cost-effective step into surface grinding applications

The machine will be supplied ready to grind :

- Wheel flange with standard grinding wheel
- Balancing arbor
- Diamond holder with single point diamond
- Electro-perm.- magnetic chuck with chuck control unit
- Bandfilter-coolant filtration unit
- Transport equipment and packing



The BLOHM eco operator system was developed jointly by BLOHM and Siemens for surface grinding applications.

Simple to operate grinding and dressing cycles, the 10.4" TFT color monitor, a central override switch and a portable electronic handwheel permit the simple and quick set up and operation in a manual or automatic mode.

The clear menu-guided operation is via a TFT color monitor with softkeys which makes the machine easy to use without any programming knowledge. Setting of wheel dimensions, dresser and part position can be done quickly and comfortable via a teaching function. The control features canned grinding and dressing cycles with parametric input tables.

The control concept

The following cycles are included:

- Reciprocate plunge grinding
- Surface grinding with intermittent or continuous cross feed
- Input of a stock amount or finished dimension
- Plunge or surface grinding with manual infeed
- 3 layer automatic grinding cycle
- Straight line dressing with compensation of dressing amount automatic or manually via push button



Standard screen



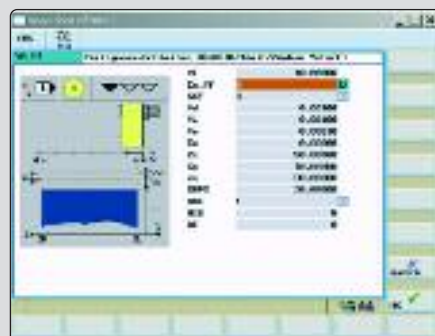
Setting of dresser position



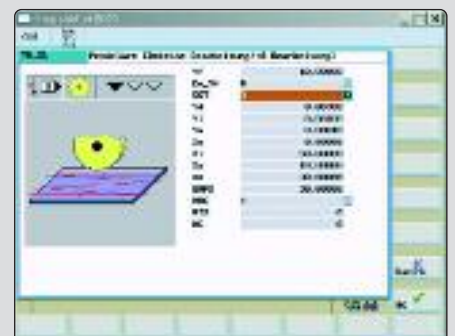
Dressing parameter



Setting of part position and reversal points by teach in



Part parameter



Grinding parameter

BLOHM REDLINE S easy TOUCH

The solution for surface and profile grinding jobs

Surface and profile grinding has been newly defined by the BLOHM easy TOUCH control. Developed jointly by BLOHM and SIEMENS, the control utilizes the well proven SIEMENS CNC 840G hardware with an innovative BLOHM developed operator interface which meets all aspects of workshop operational requirements. The clear menu-guided operation is accessed through a color touch screen and joystick, which permits the simple operation of the machine and provides the best possible utilization of the machines performance. This is easily achieved by the simple and quick operation ensuring an increase in productivity.

Process optimised accessories:

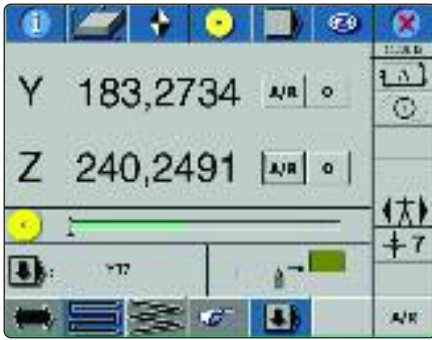
- Universal dressing attachment for single point diamonds, diamond blades and diamond chisels.
- Table mounted contour dressing attachment PEA-TLR 28, suitable for continuous-path controlled dressing with universal diamond form
- Electro-perm.-magnetic chucks
- Linear glass scales
- Automatic balancing systems
- Coolant filtration units
- Mist exhaust units

The scope of supply includes the following canned cycles:

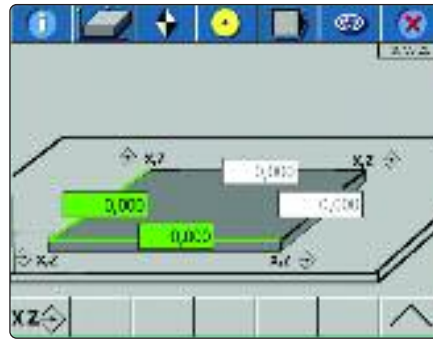
- Reciprocate plunge grinding
- Surface grinding with intermittent or continuous cross feed
- Input of a stock amount or finished dimension
- 3 layer automatic grinding cycle with ECO-roughing function
- Plunge or surface grinding with manual infeed
- Creep feed grinding cycle
- Recessing of grinding wheel flanks

The REDLINE S easy Touch is equipped in the Y and Z axis with linear glass scale to guarantee high repeatability.

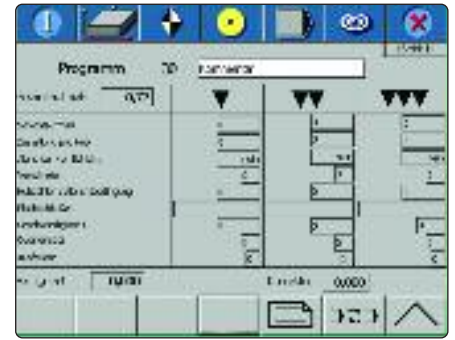




Standard screen



Simple definition of work piece dimensions



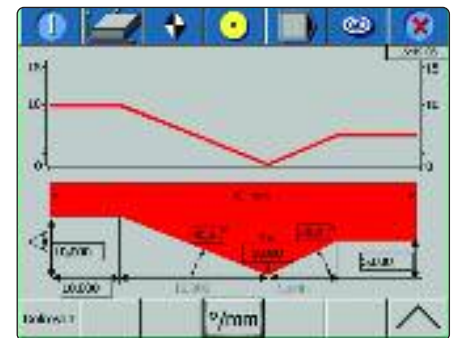
3 layer automatic grinding cycle: roughing – semi-finishing – finishing – spark-out with integrated dressing cycles. Only a few parameters are required to be input to complete the cycle.



Selection of dressing tools



Selection of wheel contour



Description of dressing contour

Control options for your applications

Software package 1 – Additional grinding cycles

Software package 1 includes grinding cycles for automatic step grinding, rotary table surface grinding and automatic gap control. The multi-step grinding program permits grinding of up to 10 different grinding planes in one set up. The Y and Z starting position, working parameters for roughing, finishing, dressing, re-positioning in Y-direction for each plane are individually programmable. Grinding program for rotary table – surface grinding by means of oscillation of the Z-axis with positioned X-axis and automatic infeed in Y-direction.

Automatic gap control to reduce air-grinding time for work pieces with varying stock. The air gap between grinding wheel and workpiece will be eliminated by a high infeed. When the grinding wheel touches the work piece the rapid infeed is changed to normal grinding infeed.

Software package 2 – Profile dressing/profile grinding

The software package 2 includes contour dressing cycles for profile grinding applications. 7 different contours are available which are easily defined by parametric inputs via the touch screen. The grinding wheel profile will be generated by means of continuous path controlled dressing including rapid layer by layer pre-profiling cycle.

Software package 3 –

Program package calibrating and face grinding

The grinding wheel is dressed from the table. The following subroutines are available:

- Initial and subsequent calibrating of grinding wheel flanks with diamond blades or calibrating rolls
- Grinding of vertical surfaces by means of reciprocate face grinding. Infeed takes place at reversal point

Software package 4 – Grinding wheel management

Grinding wheel management for max. 24 wheels. All process relevant grinding wheel data can be stored in the control before the wheel is taken off the machine. The wheel marked with name/number is stored outside the machine. Once the wheel is remounted, the wheel identification is entered into the wheel management of the control and the stored data, i.e. actual wheel diameter, wheel width and profile definition are activated and displayed. The machine is immediately available for reprofiling of the grinding wheel.

REDLINE S

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