

# PLANOMAT easy TOUCH

High Performance  
for Surface and Profile Grinding



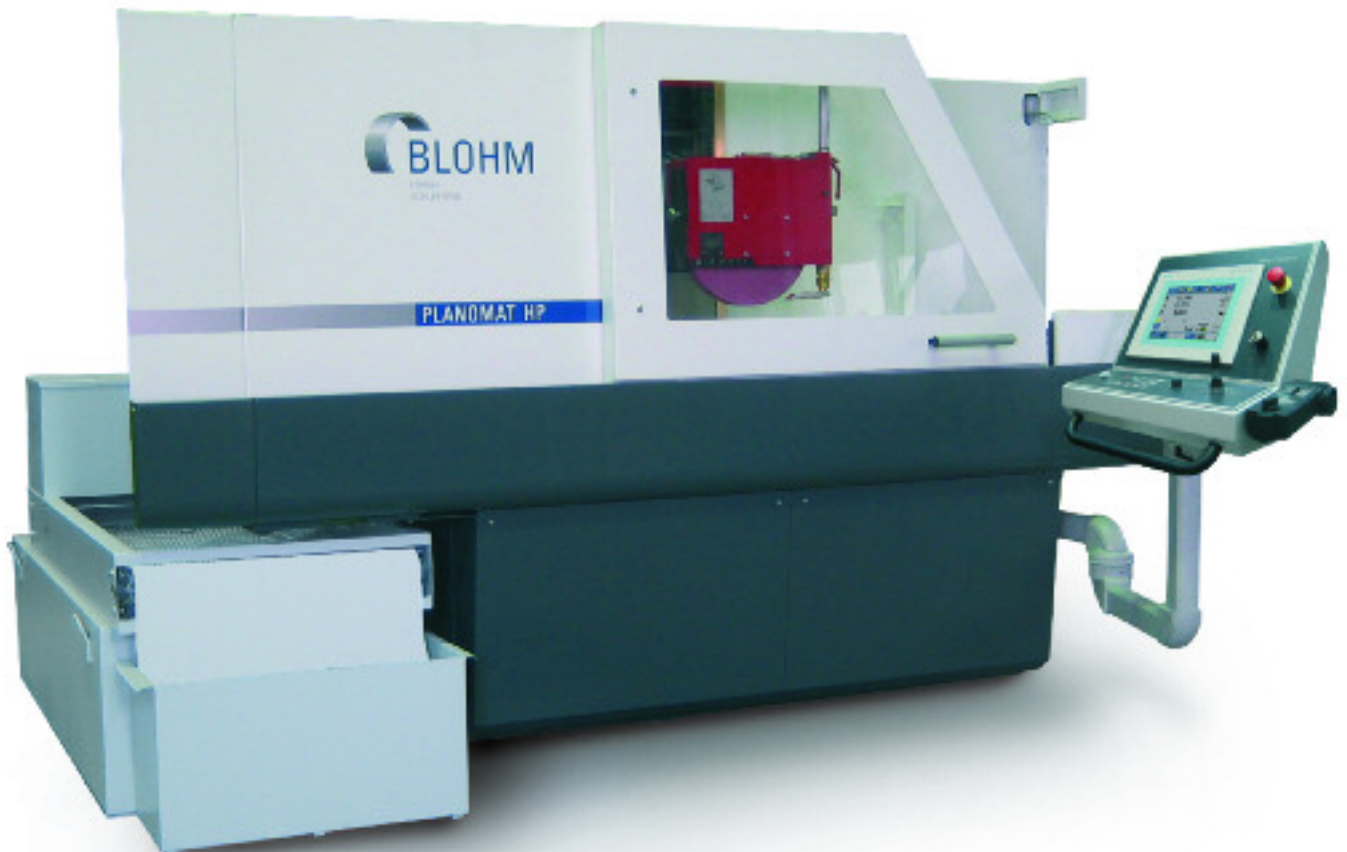
More than Precision

# PLANOMAT easy TOUCH

## High Performance for surface and profile grinding

The new BLOHM PLANOMAT HP series excels with the innovative BLOHM easy TOUCH control and high-precision re-circulating ball screws with digital drives. This combination allows for quick and easy set-up along with high feed rates and accelerations, which result in considerable grinding time reductions compared to conventional machines. Nearly maintenance free linear guideways and powerful grinding spindle drives complement the latest generation PLANOMAT HP. Large dimensioned coolant exit channels ensure that high volumes of coolant can be utilized for efficient profile grinding applications.

The PLANOMAT HP is available with partially or fully enclosed work area meeting the requirements of the EC Machinery Regulations (CE). The 3 point locations and the integrated cabinet guarantee a fast installation. The PLANOMAT HP series is available in 6 different configurations ranging from 400 x 800 through 600 x 2000 mm offering the optimal machine size for almost any application.





## easy TOUCH control

Ease in operation is re-defined

Surface and profile grinding has been re-defined by the BLOHM easy TOUCH control. Developed jointly by BLOHM and SIEMENS, the control utilizes the proven SIEMENS CNC 840G hardware with an innovative operator interface which addresses all aspects of workshop operational requirements. The menu-guided operation is accessed through a color touch screen and joystick, which permits 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.



Standard screen



Simple definition of work piece dimensions



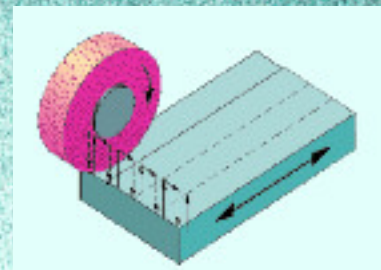
3 layer automatic grinding cycle:  
roughing – semi-finishing – finishing – spark-out  
with integrated dressing cycles.  
Only a few parameters are required to be input to  
complete the cycle.

### The scope of functions includes the following canned cycles:

- Reciprocate plunge grinding
- Surface grinding with intermittent or continuous cross feed
- Input of a stock amount or finish 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

Dressing cycles are started automatically by the program, via stroke counter or manually via push button.

Additionally, BLOHM's new dressing system ADC (Adaptive Dressing Control) is available. The dressing cycle is started automatically when the power consumption of the grinding spindle drive increases due to the loading of the grinding wheel reaching a pre-selected value.



ECO – rough grinding function

# Software options for your application

## 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.

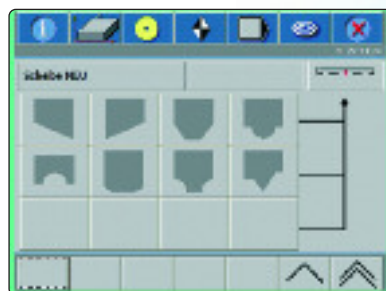
## Software package 2 Profile dressing – profile grinding

The software package 2 includes contour dressing cycles for profile grinding applications.

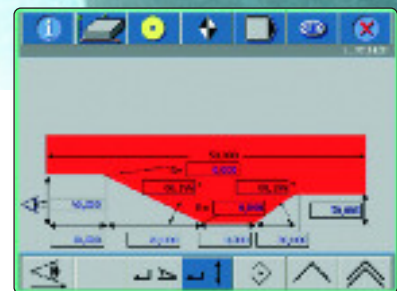
8 different contours are available which are easily defined by parametric inputs via the touch screen. The grinding wheel profile will be generated by means of continuous path controlled dressing including rapid layer by layer pre-profiling cycle.



Selection of dressing tools



Selection of wheel contour



Description of dressing contour

## Software package 3 Program package calibrating and face grinding

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

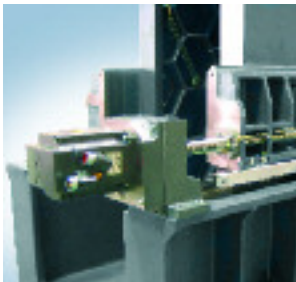
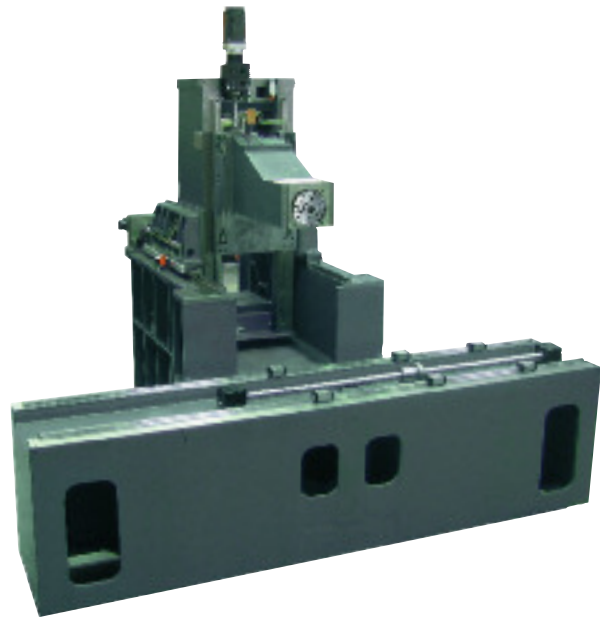
- Initial and subsequent calibrating of grinding wheel flanks with diamond blades or calibrating rolls.
- Grinding of vertical surfaces by means of reciprocate face grinding. Infeed takes place at reversal point.

## Software package 4 Grinding wheel management

Grinding wheel management for a maximum of 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 re-profiling of the grinding wheel.

The modular platform concept with high-quality cast iron components is thermal and vibration optimized using 3D-CAD and finite-element analysis.

High precision and long life are guaranteed by utilizing state-of-the-art components throughout.



**Z-axis**, direct drive with optional linear glass scales



High-quality, ground re-circulating **ballscrews** in all axes for silent operation



**Precision guideways** for slip-stick free motion



**Cartridge type spindle** with short taper for repeatable grinding wheel positioning

## Technical Data

<b>PLANOMAT HP</b>			<b>408</b>	<b>412</b>	<b>608</b>	<b>612</b>	<b>616</b>	<b>620</b>
Grinding range	mm		400 x 800	400 x 1,200	600 x 800	600 x 1,200	600 x 1,600	600 x 2,000
Table clamping area with auxiliary surface	mm		400 x 1,200	400 x 1,600	600 x 1,200	600 x 1,600	600 x 2,000	600 x 2,400
Distance table to spindle centre	mm		150 ... 700 (option 950)					
X-axis machine table longitudinal travel	mm		900	1,300	900	1,300	1,700	2,100
Feed rate	mm/min		30 ... 40,000				30 ... 30,000	
Y-axis wheel head vertical travel	mm		550 (option 800)					
Feed rate	mm/min		4 ... 6,000					
Z-axis column cross travel	mm		360	360	560	560	560	560
Feed rate	mm/min		4 ... 6,000					
Grinding spindle drive, variable speed, AC motor kW/rpm			15/1,000 (option 24.5/1,250)					
Grinding wheel size (OD x W x ID), max	mm		400 x 30 ... 80 x 127					
Dimensions	Width	mm	3,410	4,410	3,410	4,410	5,450	5,450
	Depth	mm	2,200	2,200	2,600	2,600	2,600	2,600
	Height	mm	2,550	2,550	2,550	2,550	2,900	2,900
Machine weight	kg		4,100	4,400	4,900	5,400	7,000	8,000

Subject to technical alterations

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