J600 UNIQUE PRECISION AND SURFACE QUALITY FOR THE PERFECT RESULT

JUNG J600

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UNITED GRINDING





A member of the UNITED GRINDING Group

J600

DIMENSIONS

- Grinding Range: 300 × 600 mm
- Distance table to spindle center: 580 mm

HARDWARE

- All important elements comprise gray cast iron
- Only three feets for levelling
- Thermosymmetrical cross slide design
- X-axis with newly developed, hydrodynamic EasySlide guideway
- Double sliding door to the work area

SOFTWARE

- C.O.R.E. OS operating system
- Optimum operating comfort
- Programming with menu-guided grinding and dressing cycles
- UNITED GRINDING Digital SolutionsTM

«With the new J600, JUNG presents a modern surface and profile grinding machine for the highest precision and surface quality. »

MATTHIAS FRIEDRICH, SALES ENGINEER BLOHM JUNG

YOUR BENEFITS

- Electronic handwheel for X-, Y- and Z-axis
- Profile accuracy at the highest level
- Surface quality in the area of "mirror finish"
- Optimum accessibility of the work area
- Grinding wheel flange with with transverse stop
- Improved reversing accuracy of the X-axis
- Maximum flexibility
- Reduced noise pollution for the operator



C.O.R.E. – CUSTOMER ORIENTED REVOLUTION

C.O.R.E. helps us make your production fit for the digital future.

It's based on a new operating system, C.O.R.E. OS, that equips the machine with intelligence. Thanks to the uniform C.O.R.E. software architecture, exchanging data between UNITED GRINDING machines is easy. The integrated umati API can be used to communicate with third-party systems as well. It also offers access to UNITED GRINDING Digital Solutions[™] products directly on the machine. C.O.R.E. not only establishes the technical foundation for this and other IoT and data applications, it also forms the basis of revolutionary yet uniform operation.

What does this mean for you?

- The user-friendly, intuitive, and uniform operation makes work easier for machine setters, machine operators, and maintenance staff
- Standardized data collection and intelligent processing of data creates transparency and supports process optimization
- The uncomplicated and consistent use of modern digital software solutions is guaranteed – directly on the machine
- The technical platform for the use of modern IoT and data applications has been established

C.O.R.E. ELEMENTS



C.O.R.E. PANEL – THE FUTURE OF OPERATION

Intuitive

Thanks to intuitive design with self-explanatory icons, navigation through the machine menu and process steps is quick and easy. Instead of buttons, the user is presented with a modern and clearly arranged multitouch display.

User-friendly

Each user configures their own user interface individually. This is called up automatically with the RFID chip after logging in. When the user leaves the machine, the panel switches to "Dark Factory Mode." Production progress and the machine state are also clearly visible from a distance. And thanks to the ergonomic design, the panel can be tilted and individually adjusted easily.

Efficient

The uniform and intuitive operating philosophy reduces training time. The configurable and role-specific interface helps prevent errors and increases the efficiency and quality of programming. Information can be exchanged quickly and in real-time via the front camera and Bluetooth headset. UNITED GRINDING Digital Solutions[™] products can be used directly on the panel.



ESTABLISHED CONSTRUCTION PRINCIPLE

Machine bed, column, cross slide, table and spindle head of the J600 are made of cast iron. Thanks to 3D-CAD and finite element analysis, we have optimized the rigidity and weight of the machine. The machine's cross-slide design ensures a consistent position of the grinding wheel to the spindle head vertical guide and direct absorption of the grinding forces by the cross-slide and table guideways. Highprecision re-circulating ball-screws are also installed in all three axes. All electrical equipment and control systems of the J600 are manufactured by Siemens.



The design principle of the J600 offers a number of further advantages:

- Large grinding range with compact external dimensions
- 3 leveling elements ensure maximum precision, even at critical locations
- 400 kg table load allow for extensive use of the working area
- The large door opening makes individual loading of heavy parts possible
- Machine, cabinet and control panel form one unit for safe transport





The thermo-symmetrical guideway principle EasySlide

Optimal dampening and maximum smoothness increase the precision of the grinding process. To achieve this, the J600 is equipped with scraped guideways in the X-axis and the guides on the table base with the new EasySlide coating. As a result your parts receive a very high surface finish quality. The new wear resistant composite EasySlide coating on the lateral guides and on the table base ensures utmost running smoothness, increased precision and high surface finish quality.

Key advantages

- EasySlide guideways with very high wear resistance
- Lateral guidance by preloaded, externally mounted guides
- Separation of load and guiding plane
- Increased smoothness and optimal dampening
- Exceptionally high surface quality of workpieces
- 400 kg table load
- 330 table strokes/min
- Feed rate of up to 50 m/min due to low static friction
- Constant permanent lubrication with appropriate lubricant



- Guideway support
- ② Lateral table guide, fixed side with EasySlide coating
- ③ Lateral table guide, moveable side with EasySlide coating
- ④ Sliding coating on table

APPLICATIONS



CUSTOMIZED APPLICATIONS

Grinding with individual clamping

Implementation of rotary CNC-axes or flexible zero-point clamping systems, tailored to customer requirements. In addition, there are supplementary automation solutions.



Also external cylindrical and noncircular grinding

Any external contour consisting of line and circular elements can be ground on the J600 with polygon grinding. External cylindrical grinding and noncircular grinding tasks can also be performed with the highest precision and surface quality.



DRESSING SYSTEMS - MAXIMUM FLEXIBILITY FOR ECONOMICAL PRODUCTION



Folding dresser for peripheral, lateral and profile dressing. Pneumatic actuation prevents grinding wheel and grinding wheel guard from colliding with the dresser.



Table-top dresser PA-TLR28 for the use of two universal diamond forming rolls for contour dressing. Diamond form rolls for path-controlled dressing.



Diamond holder with interchangeable inserts (90, 150, 300 mm) for efficient peripheral and face dressing as well as for calibrating.



Swivel dresser PA-T130 mounted on the left side of the machine table. Torsion-resistant dressing arm mounted on one side for μ m-precise contour and quick tool change. Automatic adjustment of the dressing wheels (profile depth up to 30 mm).

HEAD DRESSER PA-K37



Precision

 High-precision, direct axis drives with 0.1 µm resolution

Operation

GripsProfile programming system for

- Workpiece profile geometry creation
- Collision and feasibility checks
- CAD/CAM integration

Flexibility

- 6x toolholder for profile diamonds, or alternatively toolholder for rotating diamond dressing disc
- Quick-change system for toolholders

Productivity

 Continuous dressing of the grinding wheel during machining

Performance

- Automatic setting-up and gauging of tools on the machine
- Integrated tool management
- Acoustic emission controlled dressing technology

Production reliability

 Overhead arrangement prevents collisions with workholders/fixtures in the working area

Cost effectiveness

- Longer dressing tool life
- Maximum precision in unmanned operation

- Complex profiles can be flexibly produced
- Profile depth: inner profile 20 mm, outer profile 30 mm
- CD dressing, less cycle time, more space on the machine table



WE ARE HERE FOR YOU!

Our products are designed to meet customer demands for as long as possible, they are intended to operate efficiently, reliably, and be available at any time.

From "Start up" through to "Retrofit" – our Customer Care is there for you throughout the working life of your machine. For this reason, you can rely on competent HelpLines worldwide and Service Engineers near you:

- We will provide you with fast, straight-forward support.
- We will help to increase your productivity.
- We work professionally, reliably and transparently.
- We will provide a professional solution to your problems.



UNITED GRINDING DIGITAL SOLUTIONS™

We develop solutions to support you in simplifying processes, boosting your machines' efficiency and increasing overall productivity under the "UNITED GRINDING Digital SolutionsTM" brand. Find out more about

UNITED GRINDING Digital SolutionsTM services on our website in the Customer Care section.



TECHNICAL DATA

J600

Grinding rage		300 × 600 mm
Magnetic chuck		300 × 600 mm
Table clamping area with auxiliary surface		300 × 1,000 mm
Distance table to spindle center		130 580 mm
Table load with magnetic chuck, max.		400 kg
Table height above floor		925 mm
X-axis,	longitudinal travel, max.	700 mm
	Feed rate	30 50,000 mm/min
Y-axis,	wheel head vertical travel, max.	450 mm
	Feed rate	4 3,750 mm/min
Z-axis,	saddle cross travel, max.	345 mm
	Feed rate	4 4,000 mm/min
Grinding spindle drive, variable speed, AC-motor		8.5/1,500 kW/min ⁻¹
Speed, max.		5.000 1/min
Grinding wheel (d × w × bore)		150 300 × 14 50 × 76.2 mm
Dimensions width		3,360 mm
	depth, incl electrical cabinet,	2 410
	without operator panel	2,410 mm
	height	2,500 mm
Weight, incl. electrical cabinet		4,500 kg
Short stroke reciprocating (no. of strokes per time)		220/min at 15 mm longth of stroke

Short stroke reciprocating (no. of strokes per time) 330/min at 15 mm length of stroke

We reserve the right to make technical changes



BLOHM JUNG GMBH

Productivity, performance and precision – three attributes which users worldwide associate with surface and profile grinding machines from BLOHM and JUNG. Our machines have been in use worldwide for decades in widely varying fields of application and under very different conditions. The experience gained from over 35,000 delivered machines is constantly incorporated into further developments and innovations, increasing our customers[,] production efficiency even further.

The product portfolio of Blohm Jung GmbH extends from surface grinding machines through applicationoriented universal machines to customer-oriented production machines. Our service and technology specialists support our customers throughout the entire lifecycle of the machine. From grinding tests through training and maintenance contracts to retrofits, we offer our customers prompt and personal advice. In 2008 the two established brands BLOHM and JUNG merged under one roof. Blohm Jung GmbH has thus combined its extensive know-how and constantly enables new, higher standards in the area of precision, quality and cost efficiency. There are also many opportunities for tailoring production solutions to individual customer requirements. As part of the UNITED GRINDING Group, Blohm Jung GmbH is represented internationally with offices in India, China, Singapore, Japan and the USA. A further 40 sales and service agencies guarantee a worldwide presence and customer proximity. The company's main locations are the development and production facility in Hamburg and the service and technology center in Göppingen.



UNITED GRINDING GROUP

UNITED GRINDING Group is one of the world's leading manufacturers of grinding, eroding, laser, and measuring machines, as well as machine tools for additive manufacturing. With roughly 2.300 employees at more than 20 manufacturing, service, and sales locations, the group is organized in a customer-oriented and efficient way.

Through its MÄGERLE, BLOHM, JUNG, STUDER, SCHAUDT, MIKROSA, WALTER, EWAG, and IRPD brands, as well as competence centers in America and Asia, UNITED GRINDING offers broad application expertise, a large product portfolio, and a full range of services for the production of high-precision components.

"We want to make our customers even more successful – UNITED FOR YOUR SUCCESS"







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