

J600

Unique precision and surface quality
for the perfect result



Key data

J600 – the optimal grinding machine for individual component and small batch production

Grinding range: 300 x 600 mm

The highest level of profile accuracy

“Mirror finish” surface quality

Highest flexibility

Manufactured in accordance with German quality standards



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 application-oriented 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, Russia 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.

J600

Electronic handwheel for X-, Y- and Z-axis · Easy-Mode enables manual grinding operations in surface and plunge grinding · Grinding wheel adaptor with shorter taper · Reduced noise level for the operator · Improved reversing accuracy of the X-axis · Optimal accessibility to the work area · 1-axis rotary index table for polygon grinding · External cylindrical and non-circular grinding

Characteristics

Dimensions

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

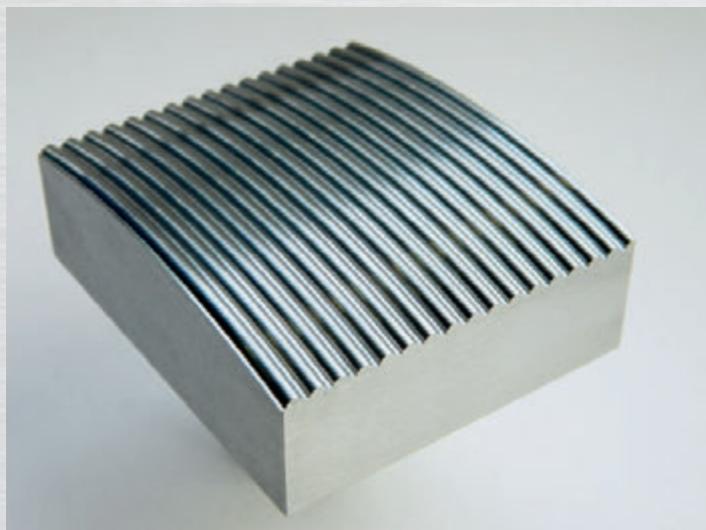
Hardware

- All important elements comprise gray cast iron
- 3-point-setup
- Thermosymmetrical cross slide design
- X-axis with newly developed, hydrodynamic EasySlide guideway
- Additional, electronic handwheel in the area of the work area door for the X- and Z-axis (optional)
- Double sliding door to the work area



Software

- The SINUMERIK 840D sl controls all functions of the J600.
- The 15" control panel with 16:9 aspect ratio offers optimum operating comfort.
- Safety Integrated allows maximum safety for the operator and the machine, for example when setting up the machine with open doors.
- Siemens drives ensure the highest dynamics and accuracy during machining.



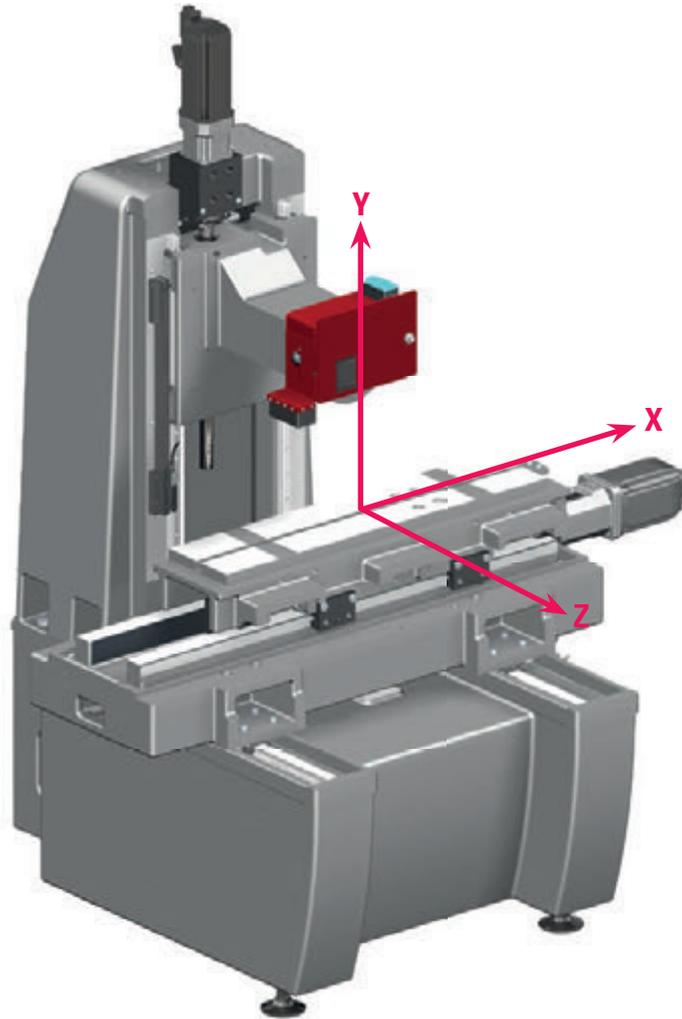
With the new J600, JUNG presents a modern surface and profile grinding machine for the highest precision and surface quality. This machine offers a host of potential applications - from individual component production through to small batch production in all industries. The J600 realizes its full potential particularly when grinding demanding applications in tool and die making.

The design principle is oriented towards a modular system, so that the J600 can be optimally tailored to individual customer requirements. The J600 owes its outstanding damping characteristics not least to the EasySlide hydrodynamic guideways in the table axis. High-precision recirculating ball-screw drives ensure high accelerations and highest dynamic.

The in Germany produced J600 offers unique ease of use. The double sliding door to the work area and additional maintenance openings guarantee optimal handling and cleaning of the machine.

Automatic machining cycles form the basis for maximum availability and utilization. The simple, conventional handling extends productivity and flexibility.

Established construction principle



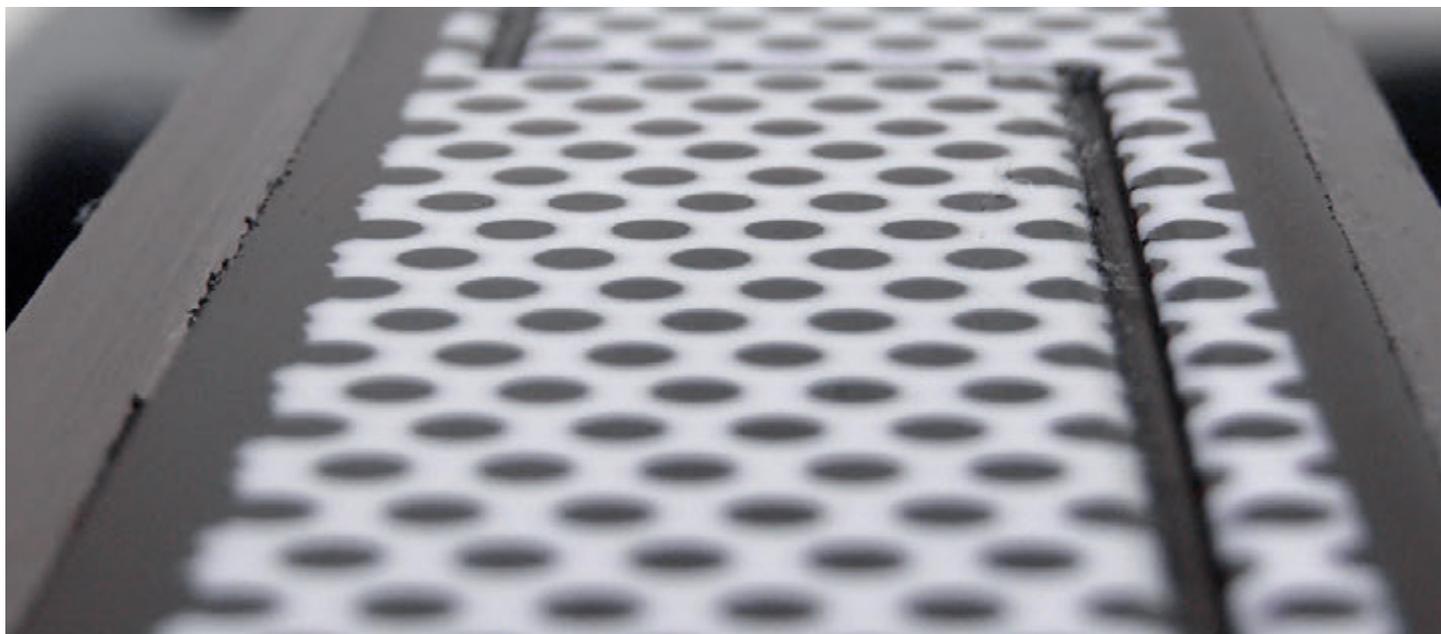
Machine bed, column, saddle, table and wheel head of the J600 are made of cast iron. Thanks to 3D-CAD and finite element analysis, we have optimized the rigidity and weight of the machine.

The machine's cross-slide design ensures a consistent position of the grinding wheel to the grinding head vertical guide and direct absorption of the grinding forces by the cross-slide and table guideways. High-precision 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 setup 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

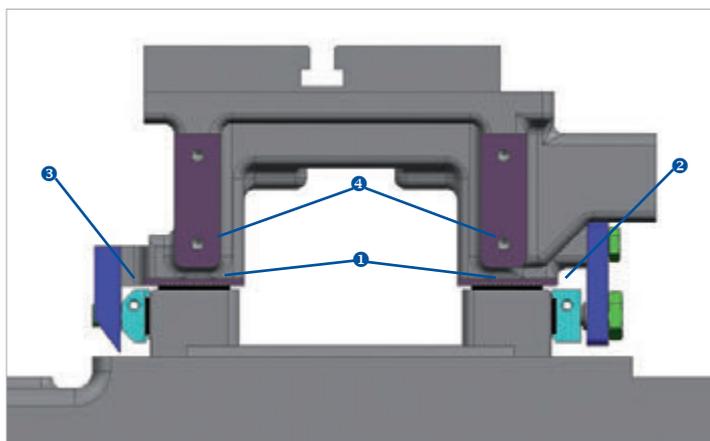
The thermo-symmetrical guideway principle EasySlide



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 adapted lubricant



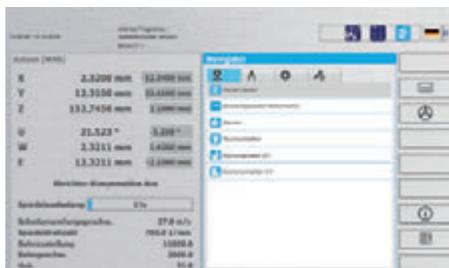
- 1 Guideway support
- 2 Lateral table guide, fixed side with EasySlide coating
- 3 Lateral table guide, moveable side with EasySlide coating
- 4 Sliding coating on table

The tool making user interface – from single parts to small series production

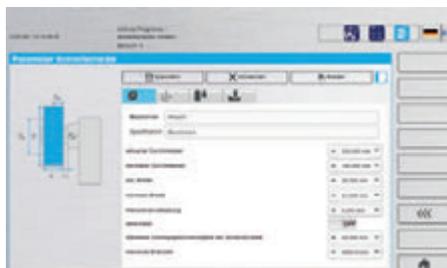


Key advantages

- 15" screen with 16:9 aspect ratio
- User friendly with comfortable programming functions
- Simple set-up of machine and parameter
- Adaptation of technology parameters during machining without interrupting the program
- Practise-orientated software extensions to enhance the productivity



Navigator



Tool management



Surface grinding in different planes

The J600 control is a combination of the proven Siemens 840D solution line and program cycles especially developed for the tool and die industry by JUNG.

This combination makes the J600 specialist to solve difficult grinding tasks economically and flexibly. The typical requirements, such as

“quick start reciprocate grinding programs” are already integrated. Program sequences can be quickly and easily adapted to the needs of your grinding application.

The Navigator is the first step into dialog-guided program creation. From here you can access the main programs for grinding and dressing pro-

gramming as well as tool management. In addition, preassigned auxiliary programs for machine warm-up, measuring cycles or automatic tool adjustment are available. You can also access the CAD software or GripsProfile for contour creation.

Software extensions

GripsProfile und CAD module:

- 13 standard contours
- Contour program generation
- Dress Check
- Dressing simulation
- Differential dressing

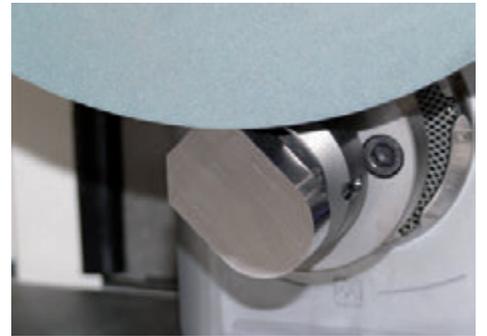
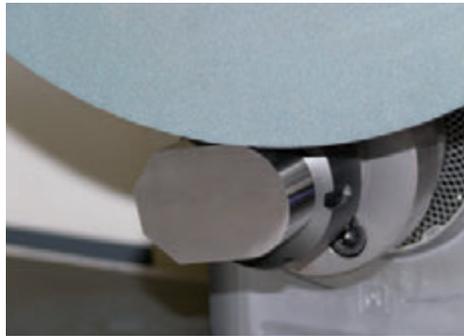
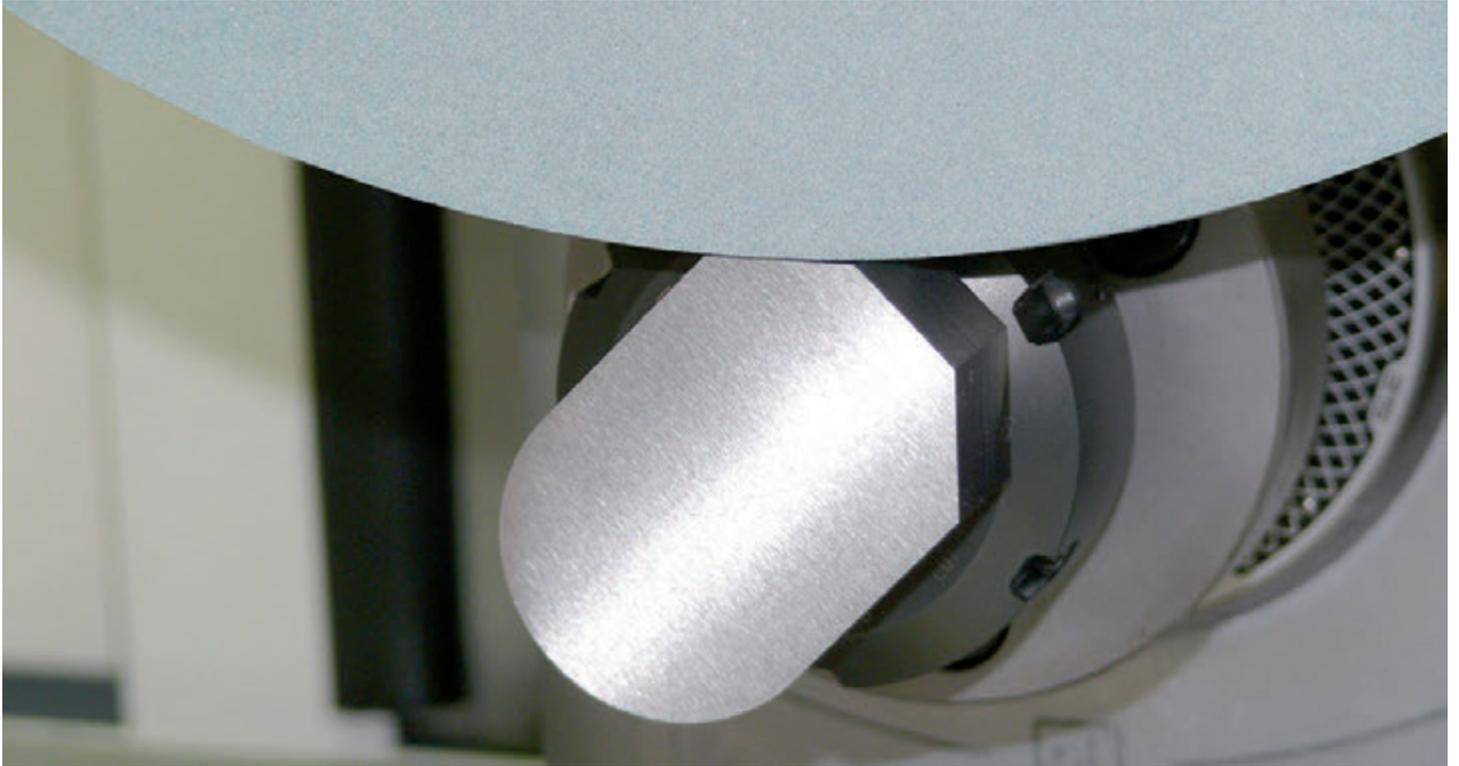
Optional grinding cycles:

- Contour dressing
- CD dressing
- Creep feed grinding with AC control
- Plunge grinding
- Path grinding X/Y
- Reciprocal path grinding Z/Y
- Punch grinding function
- Batch mode
- Measuring probe
- Structure-borne sound sensor

Optional programs:

- Machine-warm-up/switch-off program
- CAD module
- GripsProfile
- Tool management
- Operating data logging
- Digital Solutions™

Polygon grinding



Reduced machining times

The new polygon grinding software enables grinding of 360° contours on the J600 in a single clamping. For this function the J600 can be equipped with a rotary index table (optionally with tailstock).

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.

Highest flexibility and wide variety of workpieces

The set-up of a new grinding process on the J600 is very easy: the user simply generates the two-dimensional contour of the workpiece in CAD and imports it into the program. All further steps are performed automatically. The machine operator does not need any programming know-

ledge, as the grinding program converts the data into the third dimension completely automatically. The operator then only needs to select the technology parameters.

J600 Applications



Dressing attachments – highest flexibility for economic manufacturing



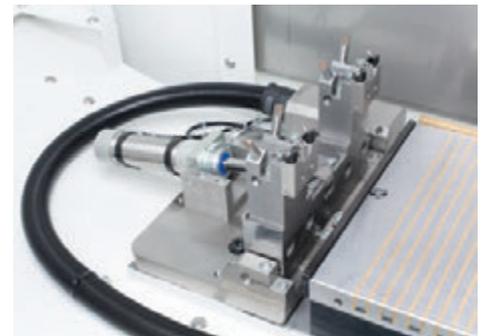
Swivel dresser PA-T130 mounted on the left of the machine table. Torsion-resistant dressing arm mounted on one side for a μm -accurate contour and fast tool change. Automatic adjustment of the dressing wheels (profile depth up to 30 mm).



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



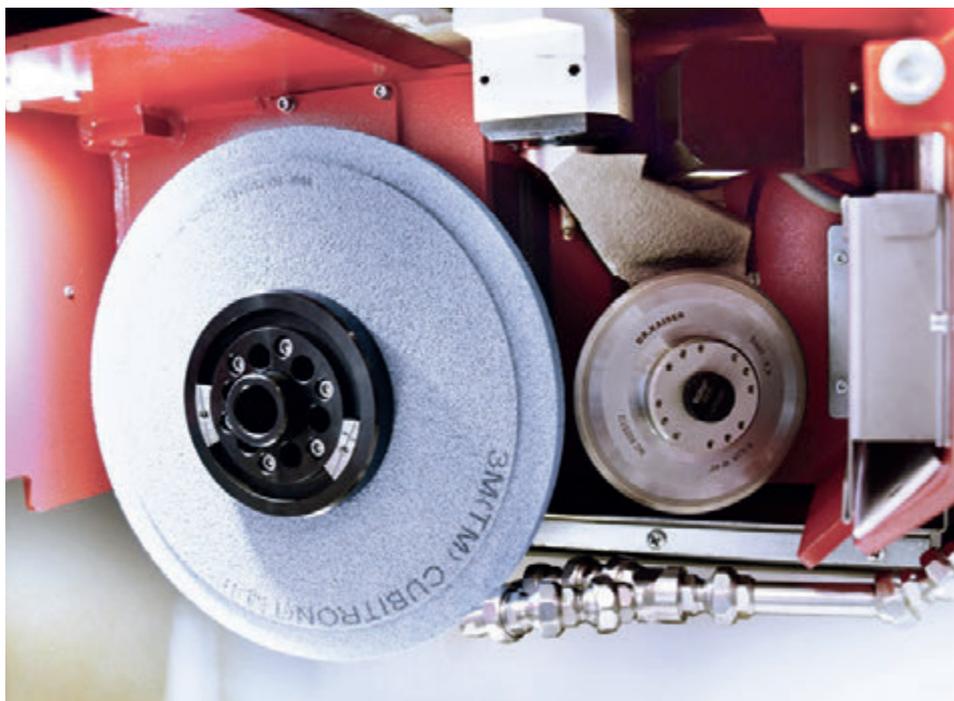
Table-top dresser PA-TLR28 for the use of two universal diamond forming rolls for contour dressing.



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

Wheel head mounted dresser PA-K37

CNC controlled 4-axis dresser from JUNG



Precision

- High-precision, direct axis drives with 0.1 µm resolution

Operation

JUNG 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
- Structure-borne sound 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

Customer Care



BLOHM and JUNG surface and profile grinding machines should fulfill the customer's requirements for as long as possible, work cost-effectively, function reliably and be available at all times. From "start up" through to "retrofit" – our Customer Care is there for you throughout the working life of your machine. 6 professional helplines and more than 25 service technicians are available in your area, wherever you are in the world.

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



Start up
Commissioning
Warranty extension



Qualification
Training
Production support



Prevention
Maintenance
Inspection



Service
Customer service
Customer consultation
HelpLine
Remote service



Digital Solutions™
Remote Service
Service Monitor
Production Monitor



Material
Spare parts
Replacement parts
Accessories

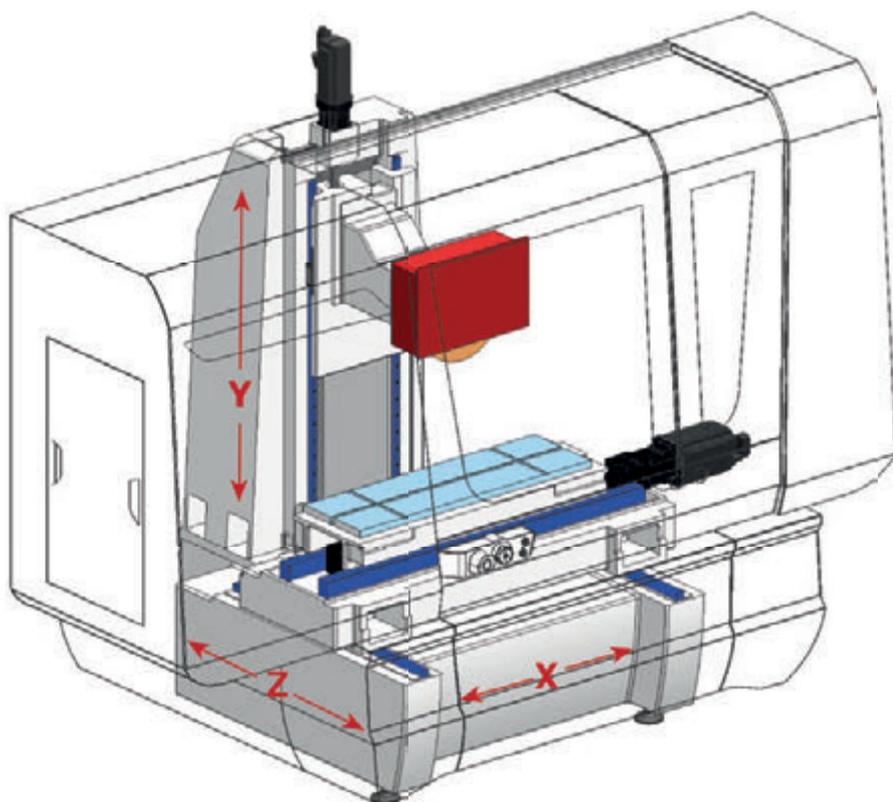


Rebuild
Machine overhaul
Assembly overhaul



Retrofit
Modifications
Retrofits
Machine trade-in

Technical data



J600

Grinding range	mm	300 × 600
Magnetic chuck	mm	300 × 600
Table clamping area with auxiliary surface	mm	300 × 1.000
Distance table to spindle center	mm	130...580
Table load with magnetic chuck, max.	kg	400
Table height above floor	mm	925
X-axis, longitudinal travel, max.	mm	700
Feed rate	mm/min	30...50.000
Y-axis, wheel head vertical travel, max.	mm	450
Feed rate	mm/min	4...3.750
Z-axis, saddle cross travel, max.	mm	345
Feed rate	mm/min	4...4.000
Grinding spindle drive, variable speed, AC-motor	kW/rpm	8,5/1.500
Speed, max.	1/min	5.000
Grinding wheel (d × w × bore)	mm	150...300 × 14...50 × 76,2
Dimensions width	mm	3.360
depth, incl electrical cabinet, without operator panel	mm	2.410
height	mm	2.500
Weight, incl. electrical cabinet	kg	4.500
Short stroke reciprocating (no. of strokes per time)		330/min at 15 mm length of stroke

We reserve the right to make technical changes



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