# **Processing centres BMG 500/600**



A member of the Homag Group



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# Be on the safe side with HOMAG

An investment in a new machine or plant should not be an experiment. Opt for a competent, experienced and reliable partner you can trust - opt for HOMAG.

- Competence and experience gathered over more than 50 years
- Production of over 1 500 processing centres a year throughout the HOMAG Group
- A motivated workforce of around 5,000 working to produce the legendary standard of HOMAG quality in 12 locations

High technology for woodworking shops and industrial producers:

- The unique basic machine construction made of the solid composite material SORB TECH guarantees optimum processing quality through vibration damping and extreme durability
- Different process technologies such as sawing, edge banding, hardware mounting, measurement processes and 3D processing can all be combined to ensure a truly future-proof investment





Precise shift cuts - extreme fitting accuracy from the word go, even with extreme material thicknesses.

greater flexibility in the design of your products.



DRIVE5C+ five-axis spindle for fewer units and



Edge banding to a previously unattainable standard of quality: HOMAG laserTec - the quantum leap for furniture production.

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### Quality and innovation down to the last detail

Innovative solutions for every woodworking assignment. Superior technology right from the start. Every customer can benefit from HOMAG's rich fund of system expertise. Our processing centres are the culmination of decades of experience in mechanical and plant engineering.

Identical system components, standardized control engineering and ergonomic operation add up to increased productivity. State-of-the-art technologies for variable workpiece shapes at a high standard of quality.

06 **HOMAG** BMG 500/600





Two-step safety system (patented) with feed reduction in the warning area and stop on bumper contact. The no-contact monitoring system combines optimum working safety, simple access to the machine and high performance through 100% feed rate utilization.



Cubic workpieces of up to 300 mm (500 mm) in height can be processed by the large 600 mm (910 mm) axes, even when working with the maximum workpiece length of 230 mm (measured from the HSK support).

#### safeScan safety system

#### Dynamic alternating field size

The safety system allows a dynamic alternating field size without fixed field allocation. This means that when processing longer parts on one side of the machine, it is still possible to prepare and position a shorter part on the other side.



#### Protecting the environment and improving econon

A heavy-duty machine bed made of the new vibration-absorbing material SORB TECH helps save around 60 % primary energy and enhances processing quality.





#### Outstanding surface quality

Outstanding surface quality due to vibration-damping machine beds and gantry.

# As individual as your requirements

Deciding in favour of a HOMAG machine means investing in a highly efficient processing centre with the capability to fulfil wide-ranging different manufacturing requirements. Each machine is a complete system guaranteeing maximum output and efficiency every time - no matter how individual your production requirements are.





Trimming of components with large Z height

Trimming of inclined grooves for panel connection





Routing of a dovetail joint for upright / transom constructions

Holes for paling at narrow angles





Interpolating processing of freeform components

# Versatility - productively manufactured

As demand for individual solutions increases, our technology has all the right answers. Different design styles and structural solutions can be efficiently and economically implemented.







laserTec shaped component edging with zero joint



Precise-fitting corner dowel connections

Profiling of frame components





Scraping of mitered edges

### Scaleable output

Up to three processing units can be individually mounted for fast tool exchange, for instance two trimming spindles and one drilling head in conjunction with two tool changers.

> Highly rigid gantry construction by means of finite element calculation optimized for a high standard of workpiece quality.





#### Tool change systems

Tool storage facility with up to a total of 99 slots offers a basis for the flexible application of different tools and units even with large diameters up to 200 mm. Even saw blades with a diameter of 350 mm for extreme cutting depths and also shift cuts can be fitted (14-slot or 18-slot changer)

#### Synchronous processing

Synchronous processing of two workpieces clamped a fixed distance apart for maximum output using two trimming spindles with identically equipped tool changers.







#### Workpiece fixture

Different table systems for flexible, safe fixture of different workpieces. Depending on the workpiece geometries and surface properties, fixture is optionally possible using vacuum, pneumatic and mechanical clamps.



#### High-speed tool change

The installation of two trimming spindles permits the reduction of chip-to-chip times and improved productivity. While one spindle is trimming, the second one is being fitted with the tool required for the next processing operation.



### **Trimming spindles**

Our working spindle technology sets whole new standards, enhancing both the performance and flexibility of our machines. For instance the enormous benefit of a controlled working spindle with electronic speed monitoring. Other highlights include the vibration sensors for preventing damage to the trimming spindles, the sensoFlex tracing system and 5-axis technology.







#### DRIVE5C+ five-axis trimming spindle

Compact DRIVE5C+ five-axis spindle with 15 kW output and controlled spindle speeds from 0 to 24,000 rpm for high torque even at low rotational speeds.

#### DRIVE5+ five-axis trimming spindle

High-performance shaped component processing using a bilaterally supported spindle with Cartesian arrangement.

#### 4-axis trimming spindle with unit interfaces

The unit interfaces open up practically unlimited production scope. Using patented technologies, the assignment spectrum can be extended at any time.







- 1 AC motor with fluid cooling
- 2 Interpolating C axis
- 3 E interface
- 4 FLEX5(+) interface

#### Fluid cooling and spindle sensor

Fluid-cooled trimming spindles with hybrid bearings provide a long service life. An additional vibration sensor detects tool imbalance and protects the spindle from overloading, for example due to excessively high feed rates.

### Minimum quantity lubrication

Machining of aluminium with minimum quantity lubrication through the unit or by means of an external spray pipe at the spindle for maximum care of tools.







#### Pneumatic interface

The patented interface permits the use of traced units, for example for precise rounding top and bottom, independently of thickness tolerances.



#### Sawing, trimming, drilling at any angle

FLEX5+ unit with automatic angle adjustment and automatic tool change. A unique unit for 4-axis spindles which covers over 90% of five-axis applications.

#### Electronic interface

Patented technologies such as the electronic interface offer scope for upgrading the application spectrum of your processing centre: This also includes the use of edge banding units. The control signals and necessary energy, for example to melt the glue, are transmitted to the unit.





#### sensoFlex tracing system

- Perfect workpiece quality the traced spindle compensates any unevenness and unwanted tolerances
- Complete flexibility through the use of tracing for different tools
- Functional upgrading through the facility to use wide-ranging different units

### Drilling systems to the highest standard

High-speed drilling technology, patented clamping of the spindle and quick-change system for tools. Precise drilling, fast cycle speeds, maintenance-free and durable design.



#### Drilling head V12/H4

HIGH-SPEED drilling head up to 7500 rpm with 12 vertical spindles, grooving saw and 4 horizontal spindles with 0/90° swivel facility. Fast drilling including grooving in the X/Y direction.



HIGH-SPEED drilling head up to 7500 rpm with 17 vertical spindles, grooving saw and 4 horizontal spindles with 0/90° swivel facility. Fast drilling including grooving in the X/Y direction.

#### Multi Processing Unit (MPU)

The Multi Processing Unit has a stepless 360° swivel action. This allows the saw and also all 20 vertical and 10 horizontal spindles to be applied at any optional angle. An optional trimming spindle attachment saves tool changes and enhances productivity.





9 vertical spindlesand 4 horizontal spindles.



### Drilling head V25/H10

HIGH-SPEED drilling head up to 7500 rpm with 25 vertical spindles, 6 horizontal spindles in the X direction and 4 in the Y direction including grooving in the X direction.









Drilling head with spindle locking mechanism

Quick-change system

Automatic spindle locking mechanism: Patented system for precise drilling depth every time even with different materials. With speeds ranging from 1 500–7 500 rpm for high feed rates / short drilling cycles (appr. 1.5 sec.).







#### Drilling and trimming unit with 4 spindles

Patented quick-change system for drill bit changeover without tools to reduce set-up times.







#### Drilling head, 7 spindles in a 25 mm spacing pattern

Specifically for the office furniture sector, 7 holes can be drilled simultaneously at any angle. As an addition to the drilling head with popular 32 mm spacing pattern, a high degree of flexibility is achieved with minimal production times. On request, other distances and drill bit numbers are possible, for example for cup hinge hardware drilling in a single work process.

### **Tool change systems**

Simple flexibility. All neatly stored away for quick access. Tool changers provide the basis for the flexible deployment of tools and units, also for large saw blades or heavy processing tools.

### Units

Excellent processing quality and top marks in terms of speed. HOMAG Group processing units make available a range of innovative technologies. They can be combined and coordinated precisely to address your own specific application situation. Even special, non-standard assignments are reliably and efficiently processed.

#### Systems for all requirements

Tool changers with up to 99 (72 + 18 + 9) slots provide the basis for the flexible deployment of tools and units.

#### 18/14-slot plate changer

For tools and units with a diameter of up to 200 mm. A saw blade with a diameter of up to 350 mm can be accommodated in the changer.



#### 72-/ 30-slot chain changer

High capacity and extremely fast changeover times with prelocated double-action gripper.

#### 72-slot chain changer mounted underneath

In double-spindle machines, because the tool changer is positioned underneath, the same changer can be accessed by both trimming spindles.





10-slot plate changer

Fast changeover times due to changer motion coupled directly to the spindle. For tools and units with a diameter of up to 180 mm.

### Linear changer

Additional tool change magazine, with 8/9 slots and integrated tool transfer station, laterally mounted. The magazine also accommodates the pickup station for the optional easyEdge unit.



For trimming and drilling the underside of workpieces, e.g. recesses for kitchen worktop connectors or hardware holes in the edge area without the need to flip the workpiece. The maximum distance to the workpiece edge is 110 mm and the maximum tool projection is 30 mm.







#### Pick-up station & tool transfer station

An additional pick-up station for saw blades with a diameter of 350 mm saves space in the tool changer.

A tool transfer station increases operating convenience and helps prevent errors in the equipment of tool changer slots for improved safety.



#### Corner notching unit

For the production of right-angled, splinterfree, sharp-edged recesses, for example for efficient processing of door glazing cutouts, sink cutouts in kitchen worktops.



More information is provided in our processing unit and clamping element catalogue.

#### Vertically traced trimming unit

By means of a tracing ring with dia. 70 mm / dia. 130 mm, or tracing pad, it is possible to perform operations such as pocket trimming in precise relation to the workpiece surface. When connecting kitchen worktops, tracing guarantees an offset-free transition by precise trimming of grooves for the tongue and groove joint.





#### Measurement probe

Tracing system to determine the actual X, Y and Z axis measurement of relevance for processing with automatic correction offset in the processing program.

# Edgebanding with the BMG500: perfect edge quality with easy usage

HOMAG processing centers with edgebanding units are real all-rounders. With them several working steps from panel sizing, profiling and drilling to edge banding can be executed on one machine.





Perfect edge finish due to traced combination flush trimming / scraping unit – efficient processing without tool change.

**FER** 

Clear visual access in the processing through large sight window.

### Innovative edge banding technology for all

HOMAG Group processing centres are ideally prepared for the use of ultra-modern edge banding technologies. The edge banding units are offered in a variety of performance categories and can be ideally coordinated to address your individual production requirements. Their patented electronic interface makes them easy to operate and ensures optimum control precision.



Rebate edges, softforming, internal corners, inclined edges: For more information on edge gluing and finish processing, see our Unit and Clamping Element Catalog

#### powerEdge edge banding unit

The **power**Edge edge banding unit is the culmination of experience gathered from over 2,000 processing centres for edge banding and forms the basis for a complete family of edge banding units to cover a wide variety of applications. In conjunction with pre-snipping stations with direct access to as many as 12 different edging types, economical, top quality edge banding of workpieces in batch sizes of just one is guaranteed.

#### laserTec edge banding unit

Edge banding to a previously unattainable standard of quality: HOMAG laserTec - the quantum leap for furniture production.



Using the electronic interface, additional energy is transmitted for heating, as well as control signals for high-precision, automatic butt joint edge banding. The interface offers the unique flexibility needed to use even different edge banding units on a single processing centre, or to use the processing centre for other tasks during maintenance of the edge banding unit.



It entails melting the surface to be glued using a laser beam and then pressing it directly onto the workpiece. The result: Exceptionally high quality edges, no visible transition between panel and edge (zero joint), higher holding force, better heat and moisture resistance.

#### easyEdge edge banding unit

The world's smallest edge banding machine affordable, simple, efficient. The universal solution for edging small workpiece quantities with veneer edges, ABS edges, PP edges, melamine edges and thin PVC edges. In conjunction with a manual snipping unit, it is even possible to perform 360° butt joint edge banding in craftsmanship quality.

#### Combined flush trimming - scraper blade unit

Combination unit for flush trimming the edge overhang and for scraper blade finishing. This removes cutter marks and other unevenness on the edge profile. Three-sided unit tracing compensates for workpiece and edge tolerances and guarantees a high standard of processing quality.



#### easyEdge and DRIVE5C+

The perfect combination of edge gluing and highperformance 5-axis processing. The DRIVE5C+ spindle engages the easyEdge unit directly from the pickup station in the lateral linear changer, the edging material is fed in - done.





### Combined snipping and corner rounding unit

Already edged rectangular workpieces are often finish processed on a processing centre, for instance to produce bevels or rounded contours. For finish processing, this patented unit provides, alongside traced cross-cutting of overhanging edges, also precise corner rounding of edges up to a thickness of 3 mm at a 90° workpiece corner.



Inclined edge banding at any optional angle of inclination. The automatic unit adjustment facility allows both shaped edges and inclined edges to be applied to the same workpiece.

#### Flush trimming unit with separating agent

Separating agent application during flush trimming reduces the amount of glue residues on the workpiece and often eliminates the need for scraping the glue joint with a glue joint scraper blade unit (depending on the glue and edging type and on the quality expectations).





#### Horizontally traced trimming unit

By means of a tracing roller, horizontal trimming operations are performed precisely relative to the workpiece surface, e.g. during flush trimming of overhanging edges on the postforming profiles of a kitchen worktop. The diameter of the tracing roller and trimming tool are coordinated, generally to 20 mm.

# Fast, neat and convenient – the console table

The classic with the dual-circuit vacuum system. The vacuum clamps are steplessly positioned and offer clearance for the use of tools and for dropping waste pieces. The fast, precise and primarily simple positioning of suction cups is facilitated by the LED or laser positioning aid. Wooden staves, moldings, arch components, narrow or frame components - HOMAG clamping systems will ensure reliable fixture of even the most unusual workpieces.





Suction cups are displayed using a laser beam (cross hairs). The workpiece contour can be "travelled" as a positioning aid for freeform parts.



#### Linear guide and insertion aid

Simple handling by consoles with high-precision linear guides and durable insertion aids with two pneumatic cylinders. Vacuum and compressed air connections are integrated in the consoles for pneumatic clamps and clamping templates.

#### Bolts with end position scanning and for laminate/veneer overhang

Stop bolts with end position monitoring to protect tools, units and machine operating staff. Exchangeable stops specifically for workpieces with laminate overhang.







#### Dual circuit vacuum system

Exclusive vacuum clamping technology with patented double sealing lip for the stepless displacement of clamps along the console. The first clamping circuit fixes the clamps in the console and prevents unwanted displacement. The second then holds the material firmly in position.

#### powerClamp

Manual clamping fixture powerClamp for straight and curved parts. Ideal for all arched, narrow and frame parts.

#### Clamping device

Uprights and staves can be securely and simply clamped in no time using this clamping device.





Matrix adapter plate



Multiclamp for dual circuit vacuum system Vacuum actuated clamping element for clamping

strips and staves

Highly flexible clamping systems offer secure fixture even when working with filigree workpieces. The matrix adapter panel even permits shaped components to be "cut to size" with optimized cutting waste on a console table machine using the nesting process.





Laser projection of the clamps and the workpiece contour for optimum utilization and simple positioning of raw parts which cannot be aligned at the stops.

#### 3-step clamp

Highly rigid 3-step clamps with extreme clamping height for precise complete processing of window and front door components without subsequent outside moulding and profiling.







#### Vacuum clamps made of aluminum

Vacuum clamp in aluminium with additional mechanical clamping operation at the console for engaging solid wood parts. The suction plate can be rotated and also exchanged, and is lined with emery cloth.

# Automatically in the right position: The AP table

AP - automatic positioning - provides the key to greater convenience and automation. The program-controlled positioning of consoles and clamping elements allows batch size 1 operation without manual intervention and allows workpieces to be moved apart after the execution of a dividing cut.



# Versatile application: the matrix table

The grooved aluminium matrix table permits the positive locking of clamping elements and consequently reliable workpiece fixture even where high hogging forces are involved. The transmission of vacuum through the table construction optimizes distribution of the vacuum, reduces leaks and transmission losses and does away with the need for complex installations. Using different clamps with variable clamping heights, the matrix table is also suitable for the use of units.

#### movePart

The clamps move apart automatically in the program sequence after separation for complete processing.



#### **power**Clamp

powerClamp clamping fixture for straight and curved parts. Ideal for all arched, narrow and frame parts. Also with automatic reclamping for 5-sided processina.





Clamping device Uprights and staves can be securely clamped in no time using this clamping device.

#### Maxi-Flex system

#### Maxi-Flex for grid tables

Freely equippable system base plate for vacuum clamp.

System base plate, can be freely equipped with vacuum clamps with a magnet base plate.







Vacuum clamp Vacuum clamping elements for insertion in the grooves of the grid table.



Multiclamp Vacuum actuated clamping element for clamping

strips and staves.



#### Fixture using non-standard clamps

The aluminium grid table with dovetail guides guarantees precise, positive fitting clamping element fixture.





#### Vacuum grid table with air cushion function

The vacuum transmission is integrated in the design of the aluminium grid table. Division into zones and efficient vacuum pumps ensure reliable clamping. even for nesting processes with underlay panels. The air cushion function makes light work of handling large-format panel-shaped workpieces.

# Better the automatic way: Made to measure manufacturing solutions

Using intelligent solutions, we turn CNC processing centres into complete production cells with automatic material handling and specific supplementary functions. This is how to make optimum use of your machine and achieve maximum output. All these benefits are made possible using innovative system technology based on long years of experience in the construction of complex plants of all different sizes all over the world.



#### **TBA** feeder attachment

Simple, space-saving entry into the world of automation with the TBA feeder attachment mounted laterally at the machine. Reliable handling, precise positioning and integrated workpiece cleaning. Extreme operating and programming simplicity through direct use of the wood **WOP** processing program.



#### Gripper technology with a system

Integrated sensor functionality prevents errors as a result of adhering parts, while monitoring that workpieces are correctly picked up.



Alignment against stops

Articulated suction grippers permit precise positioning of workpieces against the stops on the machine table.

#### Robot handling systems

Unlimited workpiece handling with different layer patterns, storage positions, alignment and flipping. Supplementary functions such as labeling, position measurement or cleaning can be simply integrated.



#### Alignment, validation and turning over

Free robot movement in up to 6 axes permits additional functions to be simply integrated into the process (e.g. turn over function for processing on both sides).



Handling automation: safe, material friendly and economical.



#### Cell control and visualization

For reliable, efficient cell operation, in particular with batch size 1 production, HOMAG offers a simple, intuitively operated user interface for visualization and control of the entire cell.

# **HOMAG** software: The basis for simple, efficient operation

Our processing centres are one thing - the software needed for their convenient, simple operation day in, day out is another. This is why HOMAG software guarantees extreme flexibility and operating reliability. A matter of course at HOMAG: interfaces to external programming and design systems, help programs for interleaving and modules to help you monitor your machine and track its performance.

powerTouch is the latest operating philosophy of the HOMAG Group. It combines design and function to create a completely new control generation. The new system is characterized by the full HD multitouch monitor, ergonomic touch operation, simple navigation and the standardized user interface.

#### woodWOP - streamlined operations through fast programming

- · Fast, intuitive operation based on simple, direct navigation
- Free use of variables for flexible variant programming
- Fast creation of own subroutines
- More programming reliability with 3D graphics of workpiece, processing operations and clamps
- High degree of operating convenience due to freely configurable windows, multiscreen capability, language-neutral input screens, help graphics and much more
- Biggest forum for CNC programming in the Internet:
- www.woodWOP-Forum.de

#### woodWOP CAD-Plugin

- CAD functions integrated directly in woodWOP
- CAD drawings can be generated directly at the machine and at the production engineering workstation
- Import of CAD drawings in DXF format
- · Intuitive operation and fast familiarization with a standardized user interface



For more information,

refer to our brochure

centres.

Software for processing





woodNest - reduction of cutting waste

Die

- · Nesting software for automatic interleaving of workpieces on a raw panel
- Material cost savings due to optimum utilization of the raw panel
- Individually adjustable optimization parameters help reduce overall processing time and take care of process reliability



#### woodWOP Wizard - your automatic route to the perfect edge

- · Automatic generation of the complete processing sequence for edging
- Generation of all processing steps such as rough trimming, jointing trimming, edging, snipping, flush trimming and scraping
- Takes into consideration workpiece geometry, edge transitions and edge type
- Time savings of over 90 % compared to conventional programming





• Reduction of machine running-in time due to

optimum program preparation

• Display of real processing time

#### woodMotion - processing program simulation Machine data acquisition MDA - for a productive environment • Graphic simulation of the CNC program at the

· Registration of piece numbers and ACTUAL operating times at the machine

different languages

- Integrated maintenance instructions for the · Simulation of 5-axis processing including material optimum time and quality-based planning and
  - execution of maintenance work
  - · Optional professional version permits detailed breakdown and logging of registered data



office PC

removal

1 ALL DATE OF STREET, STREET,





### woodScout - help in your own language

 Optional high-performance diagnostic system Graphic display of the fault location at the machine Clearly understandable plain text error messages in

• Learning capability through the assignment of root causes and remedial actions (expert knowledge)



#### collisionControl permanent safety for your machine

- Monitors possible collisions between machine components and clamps during processing
- Automatic machine stop in the event of an impending crash situation
- · Display of the crash situation in the form of a snapshot with collision bodies shown up in colour
- Depiction of the machine as a moving 3D model in live operation



-	
-	

### Graphical tool database

- Dimensioned graphics for simple set-up and management of tools and units
- 3D view of tools

### **Services**



The sale of our machines comes with all-in optimum service backup and individual advice. We place the entire wealth of our extensive expertise at your service, both at the procurement stage and during running operation. The HOMAG Group lifeline | service ensures optimum availability and economical production - over the entire life cycle of your machine.

lifeline | service







- Intelligent stand-by operation reduces energy costs during break times or in case of partial capacity utilization by up to 10 %, saving up to 8 000 kwh of power per year
- · A flap control system switches the volumetric flow of the extraction system to the processing units actually in use. This cuts up to 20 % of the costs for extraction, corresponding to a saving of up to 12 000 kWh per year

#### Optimum financing

security over years

requirements

- cepts based on individual business administration requirements
- The outstanding value stability of HOMAG processing centres offers benefits in terms of leasing and subsequent replacement investment













### Value stability and long machine service life

 Facility for continuous upgrading of processing centre functionality using standardized interfaces ensures compliance with future production

• The HOMAG modification department

offers solutions to address major retrofitting requirements, ensuring a high degree of investment

• HOMAG Finance offers optimized financing con-

For other applications, please apply for our unit and clamping element catalogue.



#### High degree of availability through preventive maintenance and worldwide service

- Worldwide service with over 500 technicians
- Regular inspections and preventive maintenance help avoid machine faults and extend service life
- MDA software informs the machine operator about scheduled maintenance requirements and provides cost transparency for calculation
- TeleServiceNet our "eye" into the machine avoids costly on-side services
- woodScout diagnostic software intelligent selfhelp for all machine operators

# Technical data BMG 500/600



### Working dimensions



Machine type	X = Workpiece length [mm]				
	All units				
	Individual processing	Alternating processing CE*			
BMG xxx/33/xx	3 300 (129.9")	1 025 (40.4")			
BMG xxx/40/xx	4 000 (157.5")	1 375 (54.1")			
BMG xxx/60/xx	6 000 (236.2)	2 375 (93.5")			
BMG xxx/74/xx	7 400 (291.3)	3 075 (121.1")			

Machine type	Y = Workpiece width [mm]					
	A = 0° all units, A = 90° with tool length 230 mm	A = 0° w diameter	Gluing (BMG512/V)			
	Front stop	Front stop	Rear stop	Rear stop		
BMG xxx/xx/12	1 100 (43.3")	1 325 (52.2")	1 550 (61.0")	1 550 (61.0")		
BMG xxx/xx/15	1 450 (57.1")	1 675 (65.9")	1 900 (74.8")	1 900 (74.8")		
BMG xxx/xx/19	1 800 (70.9")	2 025 (79.7")	2 250 (88.6")	2 250 (88.6")		
BMG 511/xx/29	2 800 (110.2")	3 025 (119.1")	3 250 (128.0")			

Setting up dimensions

Machine type	Positioning length [mm]			Positioning	Positioning	
	33	40	60	74	depth [mm]**	height [mm]**
BMG 511/xx/12	7 450 (293.3")	8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	4 750 (187.0")	2 960 (116.5")
BMG 511/xx/15	7 450 (293.3")	8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	5 000 (196.9")	2 960 (116.5")
BMG 511/xx/19		8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	5 500 (216.5")	2 960 (116.5")
BMG 511/xx/29***				13 050 (513.8")	7 250 (285.4")	2 960 (116.5")
BMG 512/xx/12	7 450 (293.3")	8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	5 650 (222.4")	2 960 (116.5")
BMG 512/xx/15	7 450 (293.3")	8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	5 900 (232.3")	2 960 (116.5")
BMG 512/xx/19		8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	6 400 (252.0")	2 960 (116.5")
BMG 512/xx/12/V	7 450 (293.3")	8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	5 450 (214.6")	2 960 (116.5")
BMG 512/xx/15/V	7 450 (293.3")	8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	5 950 (234.3")	2 960 (116.5")
BMG 512/xx/19/V		8 150 (320.9")	10 150 (399.6")	11 550 (454.7")	6 200 (244.1")	2 960 (116.5")
BMG 611/xx/12	7 800 (307.1")	8 500 (334.6")	10 500 (413.4")	11 900 (468.5")	4 500 (177.2")	3 450 (135.8") 3 800 (149.6")
BMG 611/xx/15	7 800 (307.1")	8 500 (334.6")	10 500 (413.4")	11 900 (468.5")	4 750 (187.0")	3 450 (135.8") 3 800 (149.6")
BMG 611/xx/19		8 500 (334.6")	10 500 (413.4")	11 900 (468.5")	5 250 (206.7")	3 450 (135.8") 3 800 (149.6")

\* Dimension with central division. Size of alternating field adjusted to the component size \*\* Dependent on the machine configuration \*\*\* Available lengths, table and gantry configurations on request

Technical data and photos are not binding in every detail.

We reserve the express right to make changes in the interests of further development.