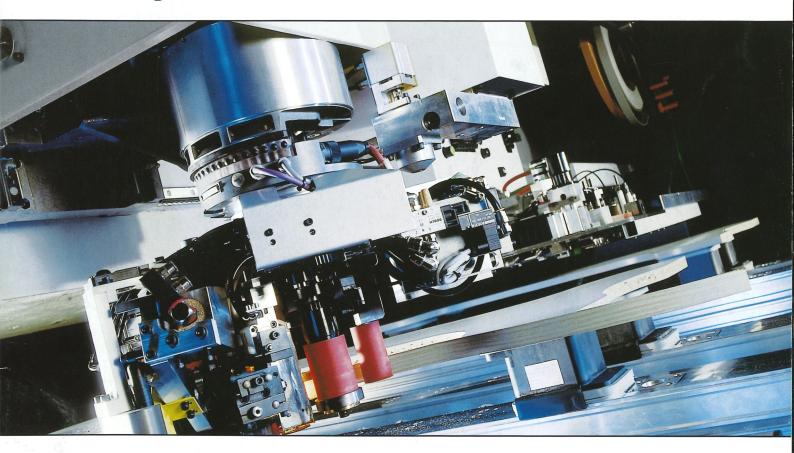


# **Gantry series BAZ 700**



# A whole new standard in flexibility: Gantry series BAZ 700



The growing complexity of customer requirements, new products and shorter delivery periods call for a manufacturing technology solution which is both flexible and efficient. The new BAZ 700 gantry series addresses these demands with a whole new standard, combining high flexibility and high output for the first time in a gantry machine requiring a low financial investment. The unique flexibility achieved by the series is made possible by modular-based unit technology and varied equipment possibilities. Coupled with the use of two independent processing tables and up to three processing units (**profi** line), the BAZ 700 gantry series opens up exciting scope for aboveaverage productivity, flexibility and



# BAZ 700 - the direct route to greater productivity

## HOMAG

## Save time with faster reset times

The special gantry design with its two independently operating processing tables and up to three independent processing units offers a number of decisive benefits: It is possible to process two different workpieces at the same time or to use the units in an alternating mode at the two tables without the need for a tool change. The benefit here lies in drastically reduced non-productive and processing times.

### Save space through a compact gantry design

Depending on your processing requirements, both tables can be used independently or in tandem mode: Either for alternating processing (workpieces are positioned on one table while the other table is in full production), or for processing large workpieces in a minimum of space. The gantry design cuts down on distances covered by the operator, as the work areas for the two tables are directly adjacent to each other. The patent-protected safety monitoring system eliminates the need for extra space allocated to safety devices or step mats.

## **Individual processing** and fast tool changeover

The two spindles are deployed alternately to process a single workpiece. While one continues to work, the other spindle engages a new tool and moves into position, drastically reducing downtimes. For large workpieces, the two tables can be used together in tandem mode.

## Low-vibration design for optimum quality

The result of extremely rigid gantry design is a highly dynamic acceleration. As a consequence, output is increased and vibrations are reduced to such a degree that optimum routed patterns / workpiece surfaces are achieved.

## **Maximum precision even** for complex routed geometry

**Alternating processing** 

to minimize set-up times

With simultaneous workpiece change-

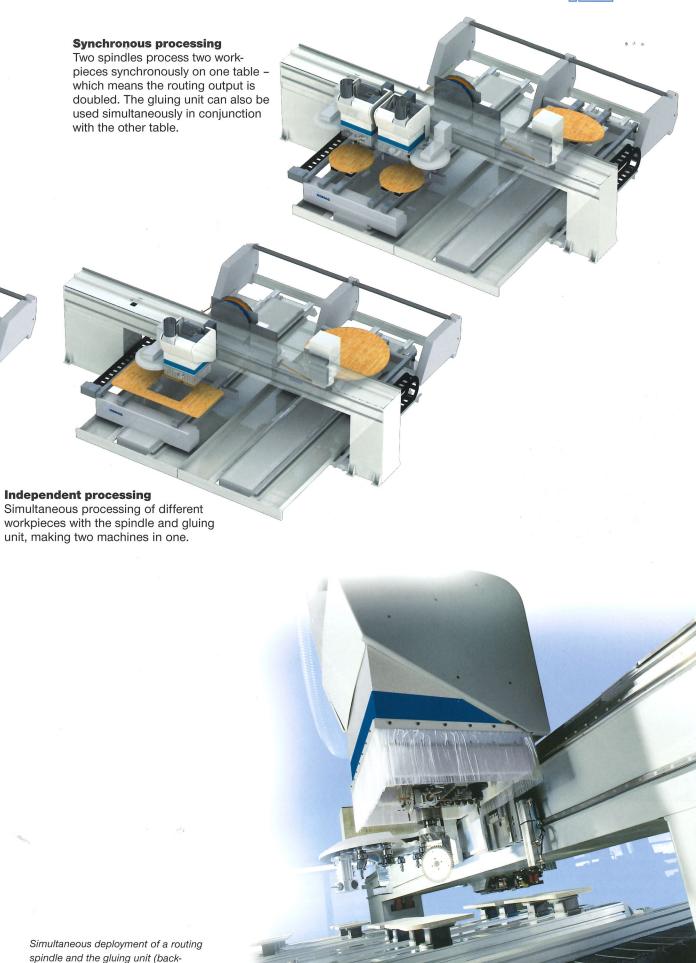
over on one table and workpiece pro-

cessing on the other, set-up times for

workpiece changeover are eliminated.

ground) for increased productivity.

Precise linear guide systems, digital drive technology and rack and pinion drive system combine to make this a highly dynamic machine. These benefits combined with the power control system pave the way for outstanding positioning and path accuracy even at high feed rates.

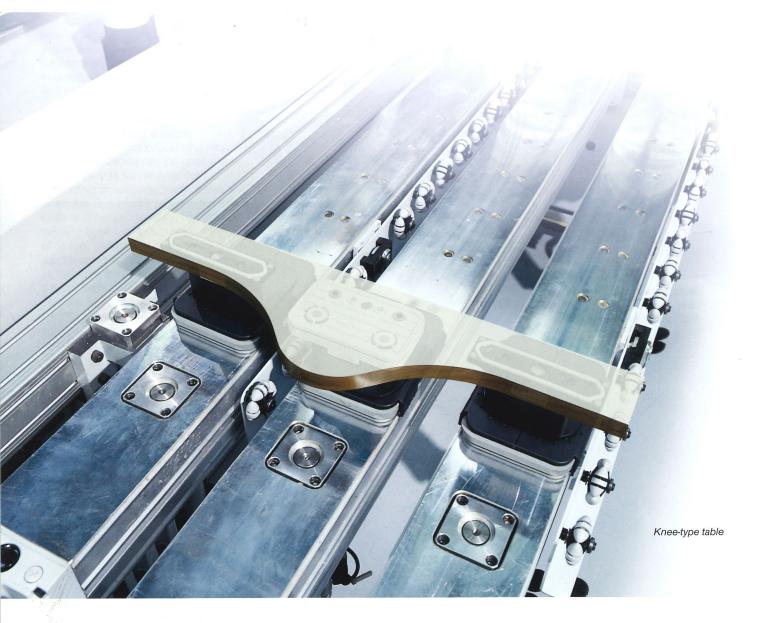


## Table options to address your needs

### Clean and fast: the knee-type table

This is the ideal answer for flexible manufacturing. Every knee can be simply adjusted by a quick manual operation. The benefits: Hoseless vacuum system for a variable number of vacuum clamps. Precise fixturing of

parts on the highly rigid knees permits pin-point processing precision. Both ends of the knees are fixed by guide carriages, permitting them to be moved without jamming. The conveyor belt for automatic waste piece disposal is an option. To cover wide-ranging requirements, a large selection of clamping elements is available. For details, please apply for our unit and clamping element catalog.



The two independently operating tables can be configured just the way you need them from any of the three available options.

#### **Workpiece positioning**

Stop pins are the precise standard solution for fast, simple workpiece positioning. To adjust the clamping fixture to

each individual product, we offer a wide range of different clamping elements. These can be positioned using an LED display integrated in the knees, or using a ceiling laser. A ceiling laser for additional indication of the workpiece contours is optionally available.



## Increased output through flexible clamping systems

The new developed suction cup platform for use with the knee clamping system means it is now possible to move a hoseless suction cup along the knee without the need to worry about the integrated suction points. This feature is made possible by a system of chambers which suppresses leaks between the suction point and suction cup.

The dual-circuit vacuum system permits the suction cup to be fixed, and then in a second stage, the workpiece to be fixed. This does away with unwanted movement of the suction cups while workpieces are positioned.





## Fully automatic: the patented AutoClamp knee table

The newly developed AutoClamp knee-type table allows automatic table set-up including precisely positioned clamping elements.

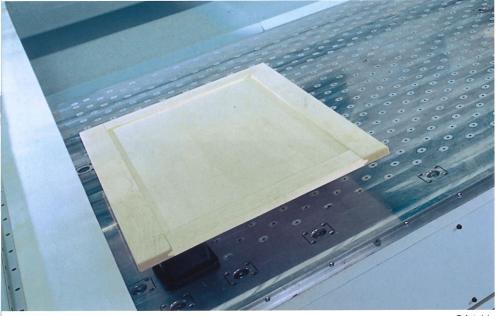
The benefits: Resetting the work table during workpiece change-over reduces downtimes and ensures high output even for batch sizes as small as one. It also permits upgrading to create a production cell.

Different suction cup shapes can be used to accommodate varying work-piece geometry. For more convenient exchange, the suction cups are moved towards the operator.



Patented production cell comprising the Optimat BOF 712 with linear feeder Optimat TBP 370. For optimum working safety and operating simplicity, the production cell is operated using a control system.

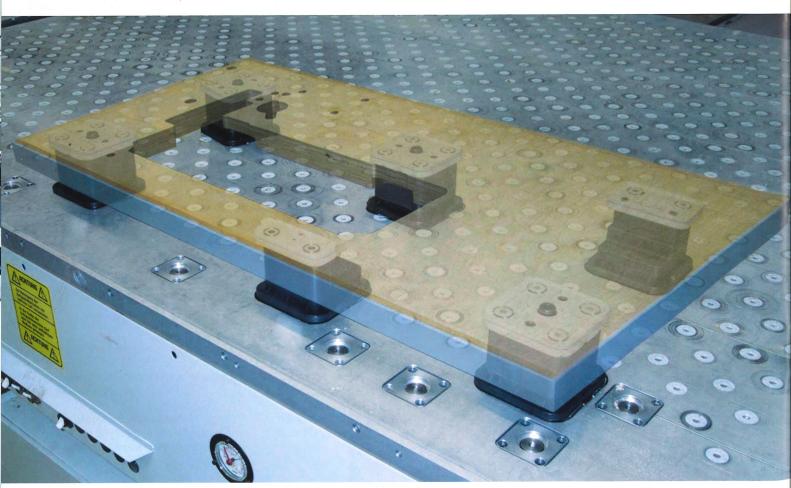
## Unlimited flexibility - the GA table



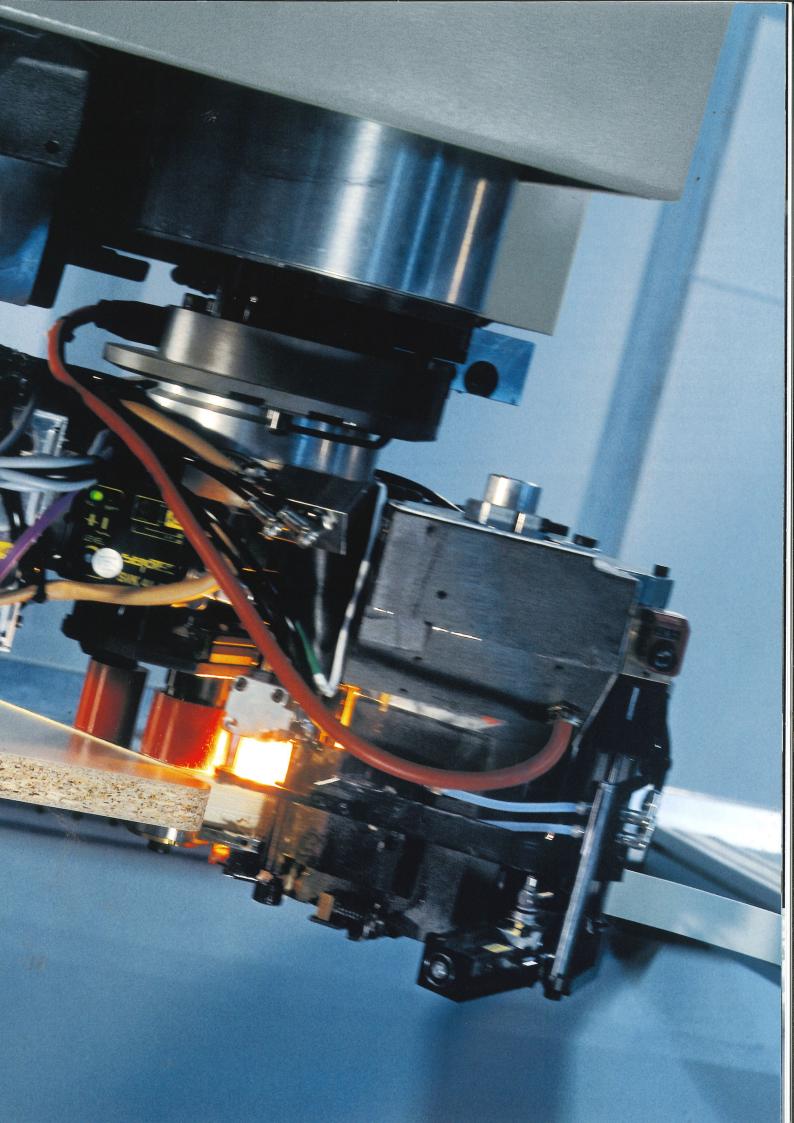
GA table

#### Flexible solution: the GA table

The GA table features a hoseless vacuum system with solenoid valves. The vacuum is created by two low air pressure stages and is used to hold the vacuum clamps to the GA table and the workpiece to the vacuum clamps. Each individual vacuum clamp can be positioned. The smooth surface of the table allows the easy removal of scrap pieces. The extensive clamping element catalog opens up scope for wide-ranging applications. GA - the innovative table version exclusively from Homag.



GA table with sewing machine workpiece made of 40 mm thick multiplex plywood



# Spindle control for perfect results



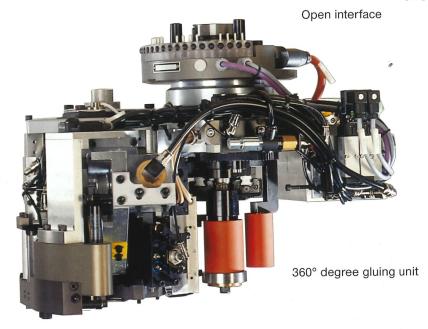
Highlight on "Spindle technology"

The use of a controlled vector spindle featuring with electronic speed monitoring offers a whole range of benefits:

- Electronically monitored power input protects the spindle from damage due to inconsistent materials (such as knots in the wood)
- HSC technology for high feed rates and optimum surface quality due to speeds of up to 30,000 rpm
- No loss of speed under load, guaranteeing a consistent cutting rate and surface quality
- Full torque even at low speeds (e.g. when sanding)
- Liquid cooling in the spindle for low operating temperatures and a longer service life

## The patented Homag interface for every eventuality

- Highly precise standardized locating interface HSK 63
- · Four-dimensional interface for
  - Power transmission
  - Optional C axis (the inserted units can be rotated and swivelled at will to produce cuts and boreholes at any angle)
  - Pneumatic transmission (e.g. compressed air to blow away chips or to control tracing units)
  - Transmission of electronic control pulses (e.g. for operation of an exchange-mountable gluing unit).



> Routing spindles optionally with 7.5/14.5 or 21.0 kW (10,0/19,5 or 28 HP)

The traced combination flush trimming and scraping unit makes use of the drive, C-axis and pneumatic interface.







## Performance on demand: The tool changer

The 12-fold plate changer is a costeffective solution for 12 tools and units (optional 18-fold version available).

The patented interface allows you to add units as needed. For details of the wide range of units available for use with the interface, please refer to our separate unit and clamping element catalog.

# Perfected gluing technology

All-round perfect gluing technology

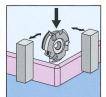
Homag gluing units permit economical edge banding, including finishing processes in a consistent standard of quality. Using just one exchangeable gluing unit, a machine with a working spindle can be flexibly be turned into a router with added edge banding (including all-round 360° gluing). Using an independently operating separate gluing

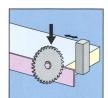
unit incl. ride along edge magazine, workpieces can simultaneously be edged and trimmed. An edge pre-heating function allows even minimal corner radii of 8 mm to be edged with thick edging materials (depending on edge type). As a result, articles such as office container lids can be edged in a single working process without corner butt joints.



A newly developed traced unit takes care of ultra-precise snipping and corner rounding. The result: Finished articles in a unique standard of quality!









For the ultimate in production flexibility, ride along edging magazines to accommodate 1, 2 or 6 coils are available (also free-standing magazines with up to 24 coils in the **profi** line version). To reduce tool changing times, a saw with C-axis can be used for snipping overhanging edges.



## A drilling head with an extra dimension



#### Upgradeable drilling head

The modular structure of the drilling head has either 12 or 17 spindles. The double spindle bearings lend the drilling head greater resistance to stress. In addition, one or two adapter units can be mounted, allowing more tools to be used without changing the unit, or to extend the number of vertical spindles up to 29.



## Adapter 4-spindle drilling head + saw

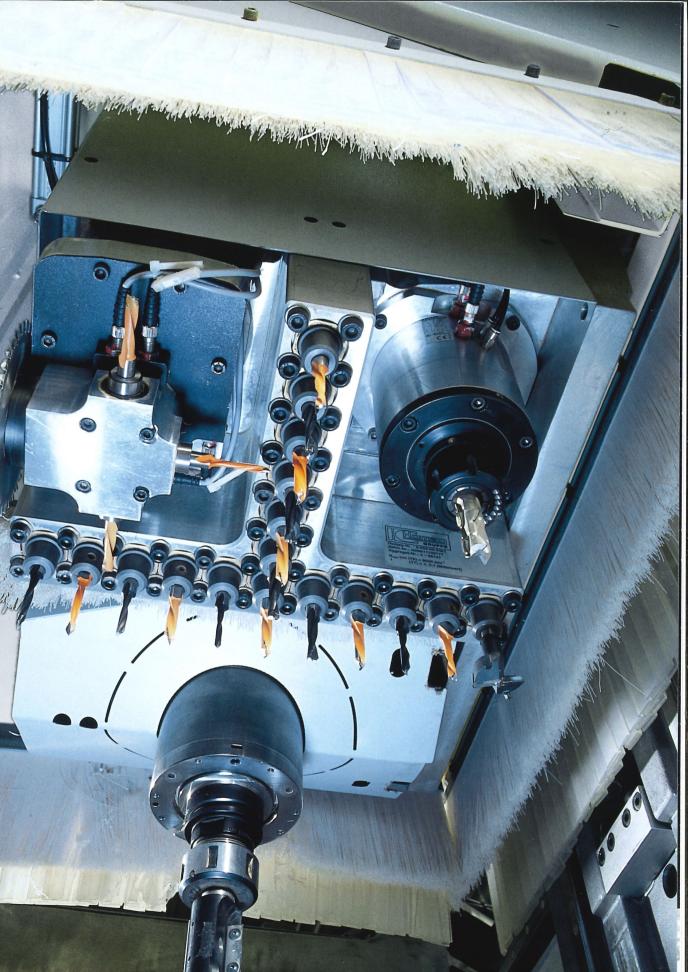
Three drills of different diameters for horizontal boreholes and a circular or grooving saw blade can be deployed in both the X and Y direction (0-90 degree swivelling).

For details of other available adapter units, please refer to our unit and clamping element catalog

## **Adapter routing spindle**

To reduce downtimes, an additional routing tool can be used without the need for tool changeover.





## Simple control - automatic optimization

The Homag **power** control system PC85 is an open-ended and flexible control system for highly complex applications coupled with outstanding operating simplicity. The latest generation allows efficient combination of all machine-operating modes (alternating and individual operation). Integration of different program steps (tool change optimization) occurs while processing takes place as a result of Intelligent **Process Optimization (IPO)**, meaning that ultra-efficient production is possible from as low as batch size one.

To allow the programs to be accessed in accordance with the workpiece sequence, an integrated job list control system is provided.

## woodWOP - rationalization through fast programming

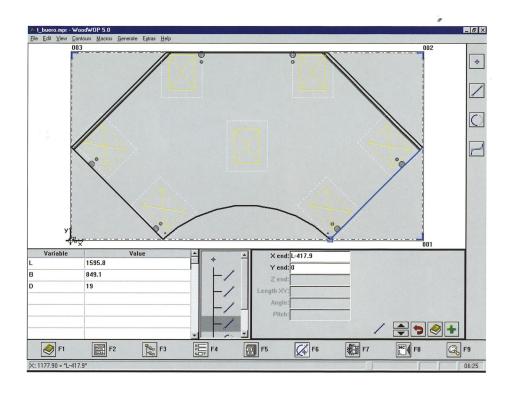
The wood working industries most popularly programming system in the woodworking industry offers outstanding support for optimum machine operation. Starting from the graphic tool database as an overview for existing tools, through the import of CAD drawings and data from tradespecific software packages (optional).

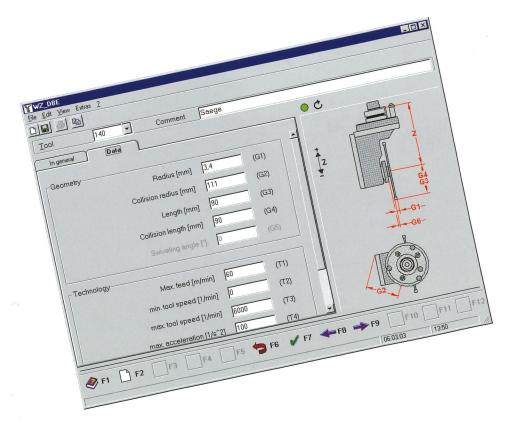
## **Machine data acquisition**

Alongside a reliable machine, high performance is dependent upon environmental factors. To analyse and optimize organizational integration and material flow, the PC85 control system comes equipped with a basic machine data acquisition version as a standard feature. A professional version is optionally available which opens up scope for detailed evaluation and feedback to higher-level management systems.

## **Tool service life determination**

In order to cut ancillary costs, a tool life management function is optionally available. This allows you to optimize your tool inventory and the associated upkeep costs.







## **Software solutions from Homag**

#### woodWOP-Wizard

The wood**WOP** Wizard is used to automatically generate the processing sequence for edging on the basis of the workpiece geometry, the edge transitions and a number of configurable rules of technology:

- Axially parallel edges (where appropriate already glued) are detected
- Roughing and pre-trimming
- Corner rounding
- · Pre-swivel action for flush trimming
- Edges can be finished individually or together

#### wood**Design**

The wood**Design** allows the fast graphic entry of carcase furniture designs into the system.

#### Integration made possible

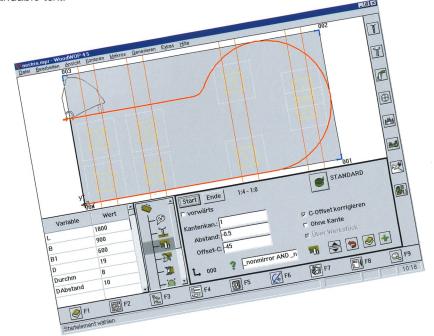
Interfaces are optionally available which permit the integration or coupling to trade-specific software packages. This allows utilization of existing data from the production engineering department.

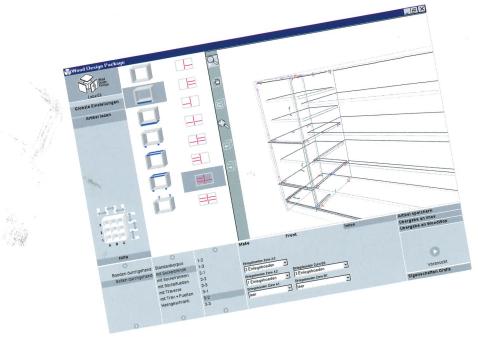
## woodScout - Help in a language you understand

In case of faults, the unique diagnostic system (optionally) provides an invaluable aid, graphically displaying the location of the fault at the machine and releasing an error message in easily understandable text.

#### All from a single source

The broad performance spectrum of woodWOP is supplemented by a range of additional software products. For example the special woodNest software for nesting parts in order to optimize abatement. Use of the same operating principle and service from a single, reliable source guarantee optimized completion. Please apply for more detailed information.





## It pays to be a Homag customer



### Homag is everywhere

A well-developed servicing, sales and dealer network means even greater proximity, rapid response and improved customer support – all over the world.

#### **Practically-oriented training**

Although Homag products are designed for outstanding operating simplicity, thorough training does help cut down on commissioning times, reduces scrap from trial and error, helps develop the skills of the operator and generally improves efficiency.

With this aim in mind, customer training courses are held in a number of languages in our own training centre.

## **Careful maintenance**

Scheduled, correctly performed maintenance helps reducing costs and increasing the productivity and service life of plant and machinery.

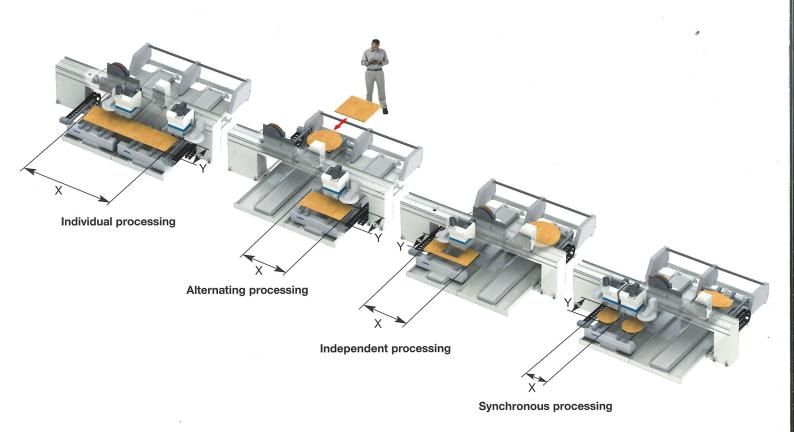
#### Identical parts, simple handling

A large number of the parts, control elements and assemblies used in Homag Group plants and machines are identical. The wide-ranging benefits of this policy include simplified operation, lower costs, streamlining of spare parts management and also faster maintenance and servicing – to name only a few.

## Remote diagnosis worldwide

All NC machines are fitted in the factory with a modem to allow remote diagnosis anywhere around the globe. A search for possible faults is performed from the Homag Service Centre. Once localized, they are narrowed and often already solved over the phone.

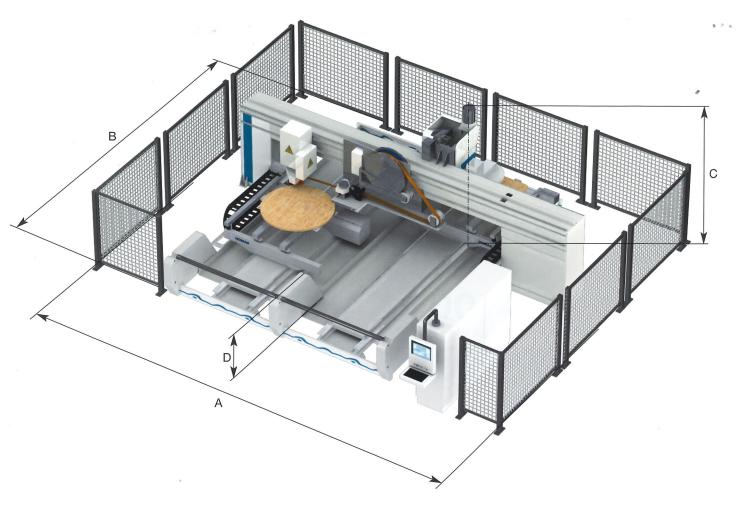
## Flexible with or without edge processing



Two gantry lengths, three table depths and two processing heights mean you can select the optimum combination for your workpiece dimensions.

Processing dimensions (example knee table)	Op	timat	profi line		
	BAZ 711	BAZ 722	BAZ 722	BAZ 723	
X = Max. processing widths including gluing Individual processing type 42 [mm] Individual processing type 58 [mm] Alternating processing type 42 [mm] Alternating processing type 58 [mm] Independent processing type 42 [mm] Independent processing type 58 [mm] Synchronous 4-workpiece processing type 42 [mm] Synchronous 4-workpiece processing type 58 [mm]	4200 (165") 5730 (226") 1850 (72") 2550 (100") -	4200 (165") 5730 (226") 1850 (72") 2550 (100") 1850 (72") 2550 (105") 675 (26") 1025 (40")	4200 (165") 5730 (226") 1850 (72") 2550 (100") 1850 (72") 2550 (105") 675 (26") 1025 (40")	4200 (165") 5730 (226") 1850 (72") 2550 (100") 1850 (72") 2550 (105") 675 (26") 1025 (40")	
Y = Max. processing depths including gluing Standard [mm] Option [mm] Option [mm]	1300 (51") 1600 (63")	1300 (51") 1600 (63")	1300 (51") 1600 (63") 1850 (72")	1300 (51") 1600 (63") 1850 (72")	
Max. working heights including clamps Standard routing operations with max. tool length of 230 mm [mm] Standard workpiece height including edge banding [mm]	300 (11,80") 60 (2,36")	300 (11,80") 60 (2,36")	300 (11,80") 60 (2,36")	300 (11,80") 60 (2,36")	

## Performance in a minimum of space



The use of a Homag patented safety engineering concept eliminates the use of safety tread mats means a considerable reduction in the set-up space required for the machine. As EMERGENCY STOP situations can no longer occur, production disruptions as a result of unauthorized entry are eliminated.

The new safety concept also cuts out the risk of tread mat damage caused by fork lifts or workpiece pallets, allowing workpiece pallets to now be positioned in the immediate vicinity of the machine. Loading rollers have been integrated to aid the positioning of even large workpieces.

Set-up dimensions and connected loads	Optimat			profi line				
	BAZ 711		BAZ 722		BAZ 722		BAZ 723	
A = Length with type 42 [mm] A = Length with type 58 [mm]	9500 11500	(375") (453")	8750 11500	(345") (453")	8750 11500	(345") (453")	10500 13000	(414") (512")
B = Width with processing depth 1300 mm [mm] B = Width with processing depth 1600 mm [mm] B = Width with processing depth 1850 mm [mm]	5250 5500	(207") (217")	6750 7000	(266") (276")	6750 7000 7250	(266") (276") (286")	6750 7000 7250	(266") (276") (286")
C = Height to upper edge of extraction nozzles [mm]	3000	(119")	3000	(119")	3000	(119")	3000	(119")
D = Working height of knee table including vacuum clamps [mm]	950	(37,40")	950	(37,40")	950	(37,40")	950	(37,40")
Extraction output [m³/h]	5000(2	2950 C.F.M.)	5.000 (2	2950 C.F.M.)	5.000(2	2950 C.F.M.)	5.000/10.000	(2950 /5800 C.F.M.)
Extraction port diameter [mm]	1 x 250	(9,84")	1 x 250	(9,84")	1 x 250	(9,84")	2 x 250	(2 x 9,84")
Compressed air consumption [NL/min]	600	(22 C.F.M.)	800	(29 C.F.M.)	800	(29 C.F.M.)	1200	(44 C.F.M.)
Electrical connected load [KW]	from 33	(44 HP)	from 34	(46 HP)	from 34	(46 HP)	from 42	(57 HP)

Specification and photo details without commitment. We reserve the express right to make changes in the interests of progress.



A member of the Homag Group



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