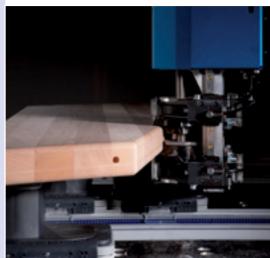


# **Unit and Clamping Element Catalogue**



# **Units and clamping elements**









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# Your partner for solutions worldwide

As leader in technology and innovation, the HOMAG Group aspires to be faster and more innovative than its competitors in the development of new machines, plants and units. To achieve this ambition, direct proximity to our customers is more important today than ever before. Because it is from intensive dialogue with users that new products with the focus on customer benefit are born. Through the lifeline | service, our expert employees on the ground ensure optimum customer support over the entire life cycle of our plants and machines: From determining customer requirements through assembly and training to production optimization, upgrades or conversions, as well as on-going machine maintenance. The HOMAG Group with its 22 sales and servicing companies and around 60 exclusive sales partners is there to provide worldwide support.



# HOMAG – Complete solutions to address all your processing needs

Based on experience gathered from the operation of several thousand processing centres, we are the only supplier in the world with the capability to offer complete production cells and plants including project processing and software.

Alongside drilling, trimming and sawing applications, we implement ultramodern solutions for edge banding.

### **High-efficiency CNC engineering**

- CNC processing centres for drilling and trimming solid wood, wood-based materials, plastics, aluminium and more.
- Processing centres with edge banding for panel-shaped materials and lightweight panels
- Highly efficient production cells with automatic feed, workpiece changeover and stacking
- Hardware mounting technology for lightweight panels



### WEEKE - over 60 years of experience

On October 1st, 1945 Gustav Weeke & son founded a metalworking shop in Herzebrock. In 1954, WEEKE developed the world's first lock insertion machine which was capable of perfor-ming all the necessary work steps in just 5 seconds. What had been a purely family-owned company was integrated into the HOMAG Group in May 1986. Its role within the Group was to take responsibility for the strategically important specialist field of drilling, routing and assembly technology. In the meantime, ultra-modern CNC technology and networking with other production units have become a staple part of WEEKE's

Success through partnership!



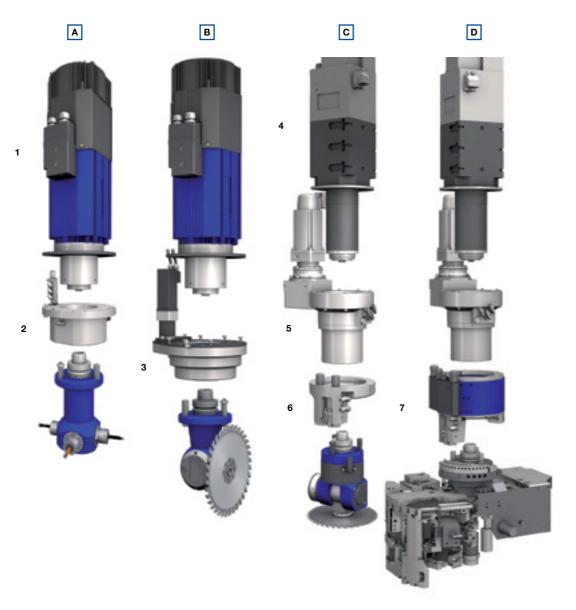
### WEINMANN - United in trust

Since the company foundation in 1985, we have upheld three underlying values: Partnership, innovation and tradition. These three pillars interlock like the pieces of a puzzle to form the basis for development of this company's enduring product portfolio.

As one of the leading manufacturers of modern, high-performance machines, plants and systems for timber frame house construction, our work is focused on the development of innovative technology designed to address the needs of its customers and the market. As a customer, you benefit from an impressive pool of experience and valued expertise in the processing of selected materials. Your individual terms of reference form the yardstick for all our actions..

# **Connections fit for the future**

The unit interfaces used by the HOMAG Group are ahead of their time. They feature patented technologies which allow the operating spectrum of your plant or machine to be upgraded as and when it suits you. In conjunction with the HOMAG Group unit technology, they open up practically unlimited production scope.



- A Torque support
- **B** C axis
- C Interpolating C axis
- D E interface

- 1 AC motor, short neck, air-cooled
- 2 Torque support
- 3 C axis
- 4 AC motor, long neck, water-cooled
- 5 Interpolating C axis
- 6 FLEX5(+) interface
- 7 E interface

# Range of modular units for flexible working

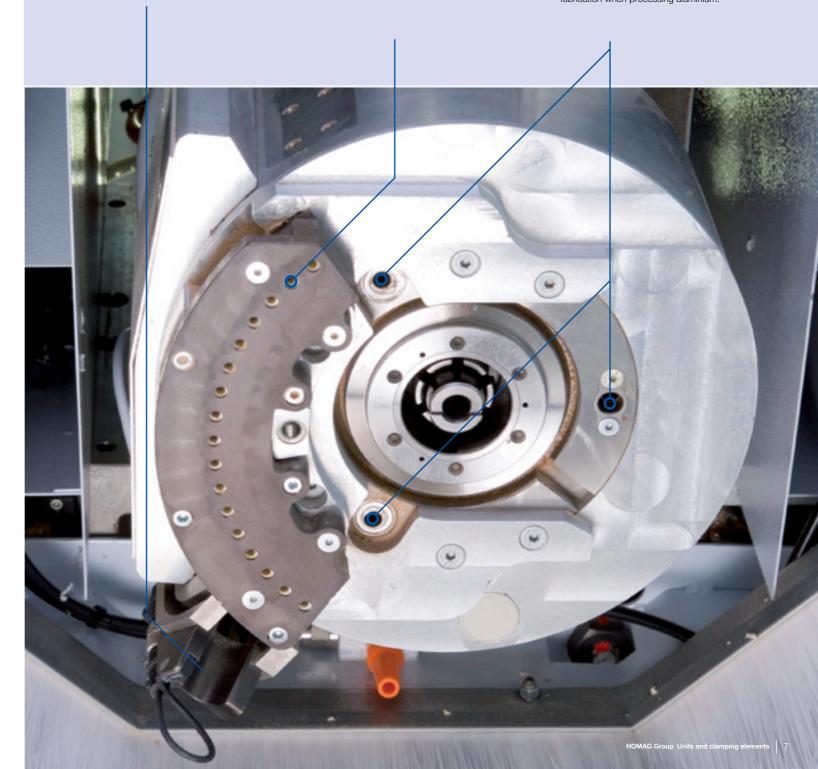
The units needed for the relevant processing step are exchanged fully automatically by the tool changer system into the machine's working spindle. They can be swivelled from 0 to 360° degrees over the C axis and - depending on their application - fitted with pneumatic or electronic connections.

The HOMAG Group range of operating units is being continuously extended and updated. It contains a whole series of additional units not listed in the catalogue. We are able to offer you the optimum solution for your specific application every time. Talk to us!

The FLEX5 / FLEX5+ interface permits automatic adjustment of the unit's angle of incline by means of the C axis, allowing operations such as precise shift cuts (see page 16).

Patented technologies such as the electronic interface permit the application spectrum of your processing centre to be extended - for example to include the use of edge banding units (see page 32). This entails the transmission of control signals and energy into the unit, for instance for melting the glue.

The retainer for the 3 bolts of the highly rigid 3-point unit support also permits transmission of compressed air and fluids into the units. This is the requirement for allowing the use of, for instance, pneumatically traced units (see page 15) or the supply of fluids into units for minimum quantity lubrication when processing aluminium.



# **Innovation. Precision. Passion**

Over 20 years of experience in the development of units are reflected in the advanced stage of today's unit engineering. The HOMAG Group units are distinguished by their extreme rigidity, outstanding precision and stability.

# 3-point interface in monoblock

3 highly rigid bolts linked directly to the unit housing without additional interface. This quarantees optimum transmission of forces and reduces vibrations which could impact negatively on the workpiece quality and life of the units.

8 HOMAG Group Units and clamping elements

### Patented gear technology

This angular gearing arrangement with a cylindrical pinion in involute gear teeth permits:

- · Greater effective diameter of the gears for transmission of higher torque levels
- Fewer interfaces due to lower number of components (gears) result in more compact units and fewer wearing parts
- Higher speeds (peripheral speeds up to 62 m/s) reduce processing times / increase the application spectrum and offer greater performance reserves



Angular gear with cylindrical pinion in involute gear teeth

# The optimum for every application

The design of the individual units can be individually adjusted to the specific production assignment and different utilization conditions. For instance to achieve improved power transmission and a higher standard of processing quality in the end product. Or in order to withstand extreme loads in multipleshift series production.

# Impetus for oil mist Air jet cleaning during lock case

### Lifetime grease lubrication

Lifetime grease lubrication is ideal for units in cyclical application (processing duration generally less than 1 minute). It offers an ideal cost-to-performance ratio. During processing, the grease is spun away in some cases from the tooth flanks due to centrifugal force produced by the rotating gears. During breaks in use, it flows back into the gears and ensures optimum lubrication. Due to the optimum viscosity of a high-performance grease, a long service life is achieved without the need to top up.

### Oil bath lubrication

In series production using processing units with long utilization periods, oil bath lubrication is advisable. A section of the gears passes through an oil bath, and rotation then distributes the oil throughout the whole of the unit.

A "window" at the side indicates whether the oil level is sufficient.

### Oil mist lubrication

For units exposed to high loads and periods of use in series production, a patented oil mist lubrication has been developed. Selective distribution of the oil within the unit is achieved by means of a lubrication pulse, with compressed air transmission through the unit interface. The use of compressed air ensures that a defined oil quantity is conveyed to the unit and atomized.

This innovative technology means doubling the service life and ensures enormous load reserves.







Oil mist lubrication

# Sawing, drilling, trimming – to the utmost degree of perfection









# Sawing, drilling, trimming – to the utmost degree of perfection



Drilling operation in a minimum of space for mitre ioints used in door frames and architraves.



0

### High performance sawing unit

In conjunction with the C axis, sizing, grooving, snipping and separating cuts can be executed at any optional angle, and recesses or notches can also be sawn. The maximum cutting depth is 75 mm or 110 mm depending on the model.



### Sawing and snipping unit

The position of the saw blade in the centre of the C axis permits special high-precision snipping cuts to be performed during edge banding. All other sawing operations can naturally be performed up to a cutting



### Sawing/drilling and trimming unit

Combination unit for the use of two tools for drilling, trimming and sawing without tool change. The durable, compact design even permits trimming operations at a close angle to the workpiece and cutting depth of up to 80 mm, 75 mm or 55 mm. The maximum useful tool length for trimming and drilling is 85 mm, 70 mm or 50 mm.



### 4-spindle drilling/ trimming unit

The 4-sided spindle outlet makes available four different drilling and trimming tools without tool change. Ideal for interior fittings and furniture construction involving different connecting and hardware holes. The highly rigid monoblock design and crown wheel toothing (Cylkro gear) even allows light trimming work to be performed. The maximum useful length of tools is 50 mm / 55 mm.



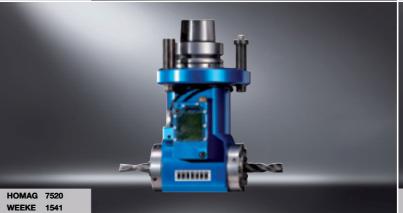
















### High Performance swiveling sawing/drilling and trimming unit

For sawing cuts at an angle of 0° to 90° and drilling/trimming operations at an angle of 0° (vertical) to 100° (horizontal). This permits precisefitting shift cuts, drilling and trimming operations. The High Performance version offers sufficient stability even for light trimming work. Depending on the unit design, the cutting depth with vertical saw blade is 50 mm / 70 mm. With a 45° incline of the saw blade, a cutting depth of 43 mm / 63 mm is achievable.



### Swiveling sawing/drilling unit

The standard unit for shift cuts and drilling operations at different angles. The swivel range for sawing is between 0° and 90° and for drilling between 0° and 100°. With a vertical saw blade, a cutting depth of 50 mm is reached, and with a 45° angle, a depth of 43 mm.



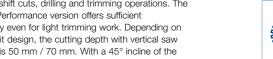
### High Performance sawing/drilling and trimming unit

This High Performance design combination unit offers higher performance reserve and is also suitable for the continuous use of two tools for drilling, trimming and sawing. The maximum cutting depth is 80 mm or 75 mm. The maximum useful tool length for trimming and drilling is 85 mm



### 2+2-spindle drilling/trimming unit

The 4-sided spindle outlet makes available four different drilling and trimming tools without tool change. Continuous shaft for greater rigidity and processing without change of direction when using clockwise and counterclockwise rotating tools, e.g. when trimming out recesses for door hinges.







# Sawing, drilling, trimming – to the utmost degree of perfection





Traced flush trimming of edge overhang on postforming profiles.



## execution



The cranked execution of the unit permits the use of drill bits and trimming tools with a greater useful length, e.g. for hardware hole drilling and when trimming the hinge recesses in internal doors. The maximum tool useful length is between 78 mm and 85 mm depending on the unit design.



### Drilling unit 3+1 spindles

The dowelled corner connection has become an ever more established technique in the window production sector. Alongside sash bar and transom boreholes, this unit can also be used for the efficient production of corner connections with different drilling patterns using three boreholes in a single cycle (spacing pattern 20 mm or 32 mm). The additional drill at the back offers greater flexibility, e.g. for sash bar dowelling with minimal diameters. Drill bit useful lengths of 50 mm are standard, lengths as great as 80 mm are possible in the version with 20 mm spacing pattern.



### Underside trimming unit

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



### 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





















### 3-spindle hardware drilling head

Drilling unit for pot hinges during front production. As the spindle spacing is coordinated to the hardware being mounted, all 3 boreholes can be produced in a single step.



### 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. Versions with 30 and 32 mm spacing pattern are also available.



### **Corner notching unit**

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





### **Vertically traced trimming unit**

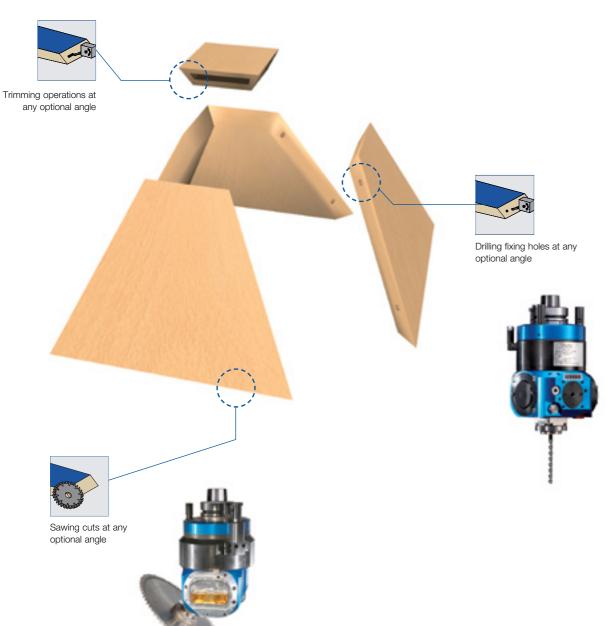
Using a tracing ring with a diameter of 70 mm or 130 mm, or using a tracing pad, processes such as precise-fitting connecting grooves or tapering profiles without overlap can be executed independently of workpiece thickness tolerances.



# **Efficiency gain through innovation – FLEX5+**

HOMAG Group units permit more productive, more economical execution of production operations in furniture construction. An example: The FLEX5+ unit with automatic angle adjustment and automatic tool change. This allows several differently shaped workpieces to be completely processed without manual intervention.







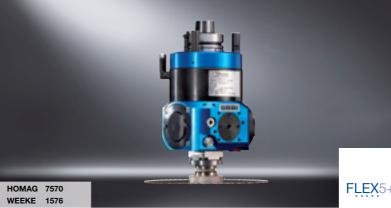




# FLEX5 sawing, trimming and drilling unit with automatic angle adjustment

Precise execution of shift cuts or boreholes and any optional angle without manual settings results in considerable productivity improvement by eliminating the need for test cuts, as well as improved quality. Depending on angle adjustment of the A axis, cutting depths of up to 70 mm are possible, as well as boreholes with a useful tool length of 65 mm.









### FLEX5+ sawing, trimming and drilling unit with automatic angle setting and automatic tool change

Sawing, trimming and drilling at any optional angle with automatic tool change. This enables complete processing of a wide selection of workpieces, e.g. pyramids, without manual intervention. Depending on angle adjustment of the A axis, cutting depths of up to 60 mm are possible, as well as boreholes with a useful tool length of 60 mm.



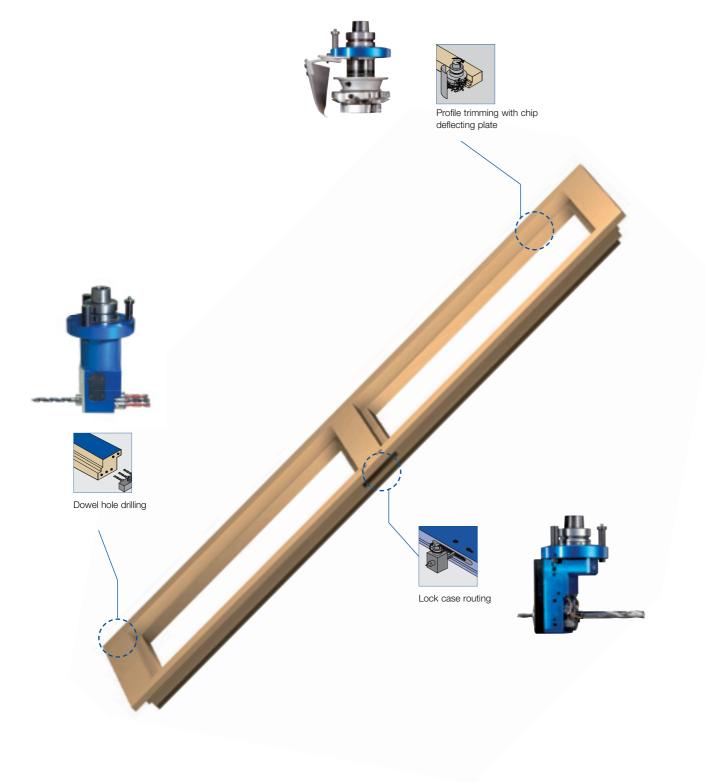
### FLEX5axis sawing, trimming and drilling unit with automatic tool change and independent adjustment of the A and C axis

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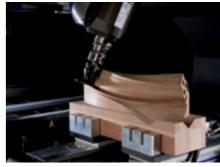
The FLEX5axis unit is able to independently swivel and rotate the tool. This allows the benefits of 4-axis technology to be ideally linked with the flexibility of 5-axis technology. Depending on the A axis angle, cutting depths up to 70 mm are possible.

# **Built for high hogging output**

Excellent processing quality and top marks in terms of speed. HOMAG Group units for the manufacture of windows and doors make available a wide selection 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.









# **Built for high hogging output**

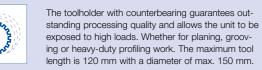




Aerotech toolholder for optimum capture of chips when trimming grooves.



### Horizontal planing unit





### Horizontal trimming unit

Highly rigid tool bearing permits smoothing for furniture production, sliding dovetail joints for facade construction or handrail profiling for staircase production. The maximum tool length varies depending on the tool diameter (max. 200 mm) and the workpiece processing method and material.



### Chip guidance unit

Trimming tool holder with chip deflecting plate for optimized chip disposal with high levels of stock removal at the outside contour of workpieces. The chip deflecting plate is controlled and adjusted to the contour at the C axis.





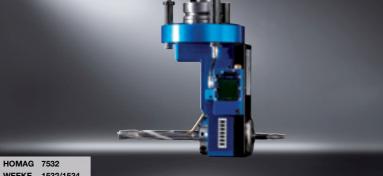














### Lock case trimming unit with 2 toolholders

For trimming operation such as lock cases and lock face plates in doors, with integrated air jet for optimum chip discharge. The unit has a two-sided spindle outlet for two tools with a maximum useful length of 135 mm / 35 mm.



### High Performance lock case trimming unit with 2 toolholders

For heavy-duty trimming work with high feed rates in hard wood, for instance for front door production or paling hole trimming in staircase construction. Chip discharge is supported by the integrated air jet nozzle. The two tools with a maximum useful length of 130 mm and 50 mm respectively permit efficient production without the need for a tool change.



### Trimming tool holder with jet for compressed air and fluids

For trimming operations combined with compressed air feed, for example for tool cooling when processing plastics or to improve chip disposal when trimming deep grooves (nesting). For aluminium processing, minimum quantity lubrication ensures processing in line with the properties of the material. The maximum tool diameter is 120 mm with a tool projection of max. 80 mm.



Toolholder with ultra-precise hydraulic extension chuck and turbine for improved tool cooling and chip disposal. Waste piece separator (patented) to prevent waste pieces becoming stuck in the blades, so averting any associated risk of spindle damage due



# From the machine to the multitalent

Cutting, mortising, sanding – innovative processing units expand the scope of CNC processing centers. Wherever processing operations could be realized not at all or only manually, these solutions permit complete processing to a mechanical standard of precision and quality.





### Belt sanding unit



For sanding the edges and outside contours of furniture parts, staircases, doors. Width of the sanding belt 100 mm and integrated air jet nozzles. The unit can be oscillated at the Z height automatically using the wood**WOP** program. This ensures an optimum sanding pattern, prevents the formation of track marks and results in low consumption costs.

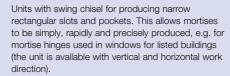


### Sanding unit with air jet nozzle

For sanding solid wood or MDF panels. The sanding bodies are retained by a collet chuck and continuously cleaned with compressed air by an air jet nozzle. This increases the life of the abrasive and improves the workpiece surface quality.



# Mortise hinge unit / swing chisel mortising unit





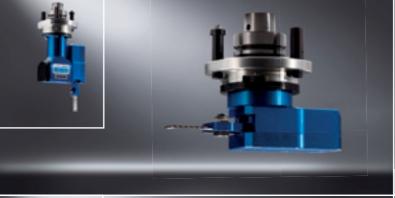
# CO ST

### Foil cutting unit

Foils, textiles and leather can be precisely and neatly cut to individual size using a cutting wheel.



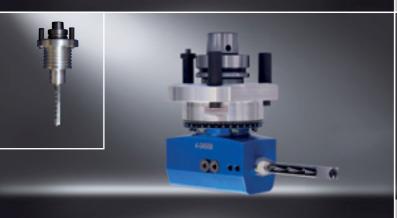














### **Eccentric sanding unit**

Sanding unit for leveling and sanding moldings and edges. Ideally suited for use in 5-axis processing centers. Using customarily available components with a diameter of 125 mm, the abrasive grain and pliability of the plate can be simply adapted to the application.



### **Measurement probe**

Measurement probe to determine and transfer the relevant actual dimension in X, Y and Z. The data can be computed in the processing program using stored formulas. Adapted versions for workpieces with and without coating ply overhang.



### Drilling unit with mortising tool

For drilling / mortising square holes, for example for finger jointing in the furniture construction sector or in the case of mortised stair treads without tread rounding (the unit is available with vertical and horizontal work direction).





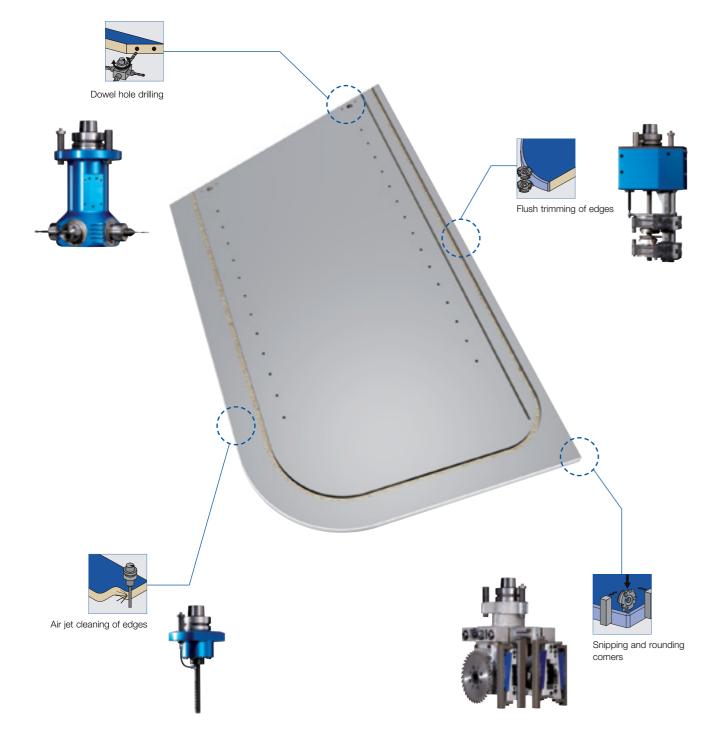
### **Cutting unit**

An oscillating cutting edge permits contour cutting of carpet, solid wood veneer, linoleum and other coverings and cuttable materials.



# From workpiece to masterpiece

To secure a high standard of production quality coupled with more economical manufacture, a continuous process of innovation is vital. The HOMAG Group develops ultra-modern units, for instance, which are capable of pneumatically tracing workpiece tolerances and automatically compensating for them during the processing operation. Combination units collate several work steps into one, so increasing the processing speed.







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



### Air jet nozzle

For cleaning the trimmed edges of dust and chips, ensuring optimum quality of the glue joint when edge banding.







### Flush trimming unit

The traced flush trimming unit compensates for tolerances at the workpiece and edge. Alongside flush trimming of edges, workpiece edge profiling operations such as rounding of stair treads, can also be performed. Simultaneous traced processing above and below reduces processing times and increases workpiece quality. (Two versions are available for workpiece thicknesses 60 mm and 100 mm.)



# Combined flush trimming - scraper

O S

Combination unit for flush trimming of the overhanging edge and for scraper blade finish processing. The precise arrangement of profile cutter in the trimming spindle axis extension (patented) guarantees prevention of crazing and shoulder formation, particularly in smaller workpiece radii. Three-sided unit tracing compensates for workpiece and edge tolerances and guarantees a high standard of processing quality. The unit is available for workpiece thicknesses of 60 mm and 100 mm and as a profile or surface scraper blade.

# Perfection for corners and edges

HOMAG Group units are capable of performing wide-ranging tasks in production, and deliver excellent results every time. The processed workpieces fulfil the highest quality aspirations and possess precisely the required characteristics. And if the whole process has to be speeded up? We have the solution!







### 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). (Two versions are available for workpiece thicknesses 60 mm and 100 mm.)



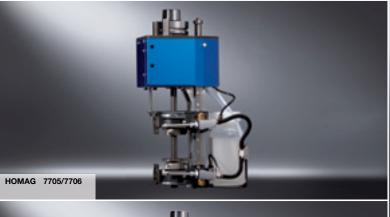
### Profile scraper blade unit / glue joint scraper blade unit

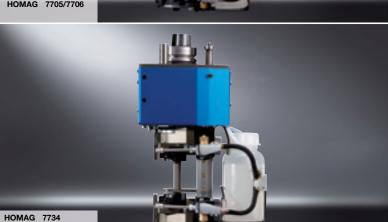
Knife marks and other impressions are removed by means of a traced profile scraper blade. The precise arrangement of profile cutter in the trimming spindle axis extension (patented) guarantees prevention of crazing and shoulder formation, particularly in smaller workpiece radii. The variant with glue joint scraper blade eliminates glue residues from the surface of the workpiece specifically in production cells with automatic workpiece handling where manual cleaning is not possible or not wanted.

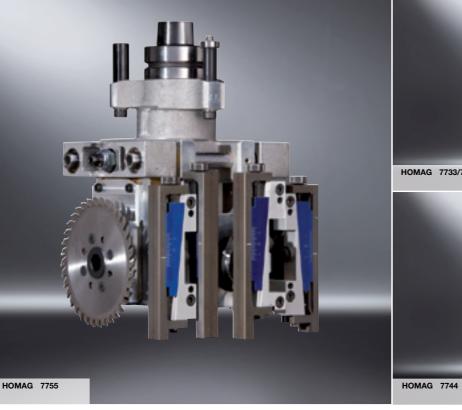


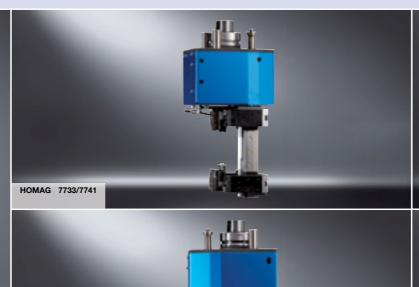
### Flush trimming unit for inclined edges

Profile trimming and profile scraper blade for finish processing of inclined edges from below. Lateral tracing is adapted to the incline of the edge. Supplementary versions are available for processing from above.

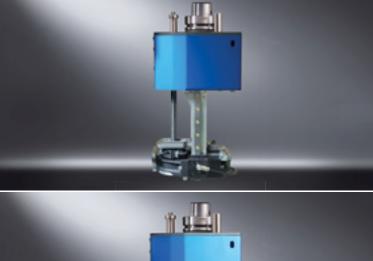
















# Profile scraper blade device with chip

The application of separating agent reduces the occurrence of glue residues on the workpiece surface. An integrated chip shredder (patented) reduces the size of the long chips from the profile scraper blade and prevents faults occurring due to tangled chips (knotting)



# **Combined snipping and corner rounding**

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.



# Combined profile and glue joint scraper

Perfect scrape-free workpiece quality due to scraping of the edge profile and the glue joint at the workpiece surface transition. The combination of these two functions cuts down on unit changeover times.





### Flush trimming unit

Unit with adjusted tracing and small tools for processing tight internal radii of up to 20 mm.



# Innovative technologies for your ideas

The units of the HOMAG Group can be used for a large number of tasks – complex and versatile processing operations are quickly and efficiently performed. This enables every conceivable requirement in the field of timber construction to be fulfilled with ease.







### Chain sawing unit 200

For processing soft materials such as SIP materials and other sandwich elements for timber house construction. The saw sword is designed to pierce the elements. This opens up a very wide field of application, including for instance window and door cutouts as well as shift cuts. The cutting depth is 200 mm.

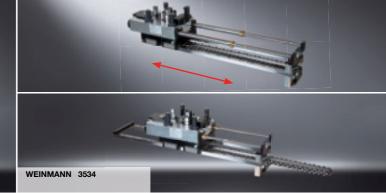


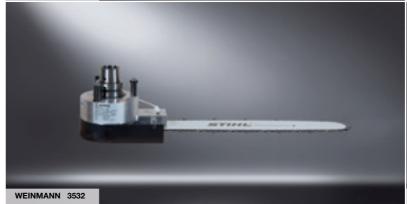
### **Chain mortising unit**

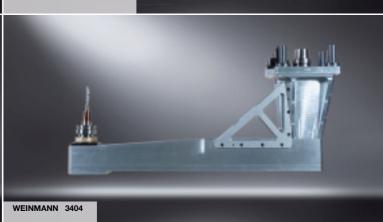
The chain mortiser performs tenon processing operations on the face and longitudinal side, for instance to produce tenons for steel connectors used in timber engineering. The cutting depth is 600 mm.













### Horizontal chain sawing unit 400

This chain sawing unit offers the same performance scope as the chain sawing unit 200. However, in conjunction with a 5-axis unit (WMP series 2), it allows horizontal cutting depths of up to 400 mm.





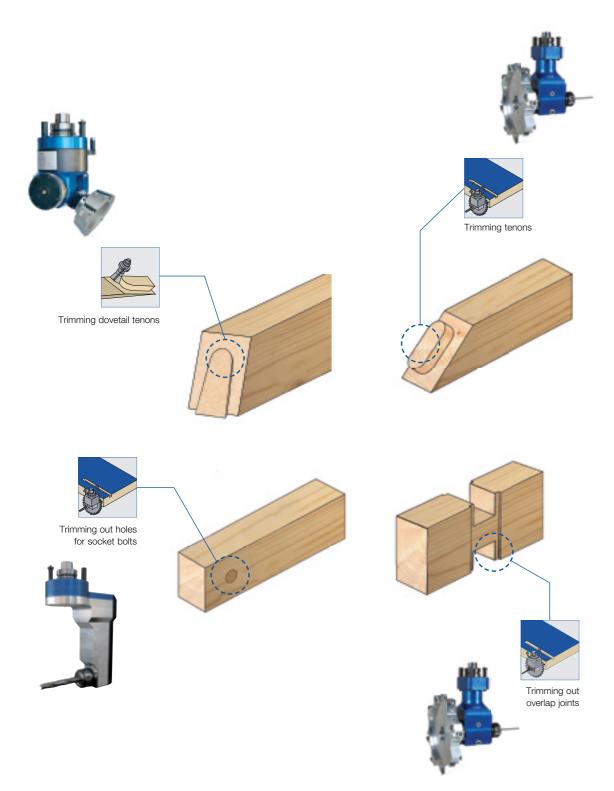
### Underside unit

The underside unit is used to manufacture connections on the underside of the element without the need for flipping the component. Possible processing operations here include for instance countersinking for shim washers and screw heads/nuts, different boring and trimming operations. Blocking grooves and dovetail pockets can also be produced on the underside of the component



# **Versatility for maximum flexibility**

We have what you need: Versatile units for high-precision processing operations – individually coordinated to joinery requirements.











### Flex5 trimming unit with dovetail router

The 5-axis processing unit is used to produce dovetail tenons on inclined cuts such as shift cuts. Angular adjustment takes place fully automatically.



### Horizontal drilling and trimming unit



For wall connecting holes, transport holes, as well as pockets and other trimmed recesses in a horizontal position. The unit has a one-sided spindle outlet for two tools with a maximum useful length of 210 mm.











### Angular unit with disk router

The angular unit is the basic unit used for joinery processes. Together with the disk router, lap joints and grooves can be produced. Tenons are also produced rapidly to a high standard of quality. The reverse side drill is used to produce holes for rafter nails

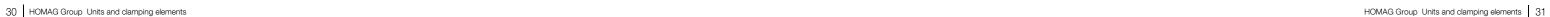


### Ball point technology marker

The marker allows reference lines and other markings to be transferred to the element. Spring power guarantees a constant pressing force against the element. The marker is suitable for marking:

- Wood-based material panels
- Solid wood
- Plasterboard panels
- Hardboard panels

The marking unit is mounted in an HSK 63 F holder.

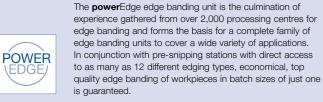


# Innovative edge banding technology for all

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.



### powerEdge edge banding unit



The Quick Service function allows fast, efficient maintenance or cleaning of the edge banding unit by means of simple "unhinging".



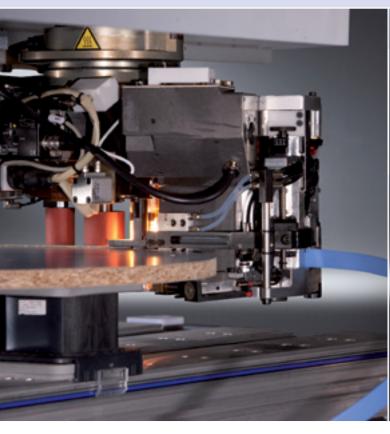
### laserTec edge banding unit

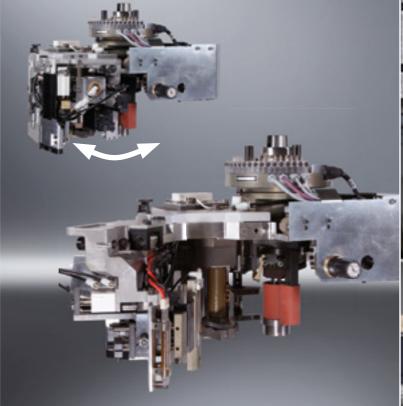
Edge banding to a previously unattainable standard of quality: HOMAG **laser**Tec – the quantum leap for furniture production. Under patent law in Germany only usable with Rehau edge!



### 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.









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 For use on all HOMAG CNC routers with 4-axis spindle, no special preparations required for the working spindle such as electronic interface and vector control. External heating at the pickup slot eliminates waiting times. Gluing can then start immediately the unit is in position.

# Full productivity from batch size 1

The HOMAG Group's broad technological expertise basis and many years of experience provide the assurance that your processing centre will remain efficient and economical despite rapidly changing market demands. For instance through easy resetting for perfect processing of wide-ranging different edging materials, or scope for the economical processing of minimal batch sizes.



Banding of rectangular internal corners using the internal corner edge banding unit.



### powerEdge edge banding unit with the supplementary edgeFolding package

edgeFolding permits the edging of rectangular workpieces in a single work process and opens up scope for improved workpiece edge appearance with only a single butt joint.



# powerEdge edge banding unit for rebate

By means of a pressure pad rail, rebate geometries. for example on internal doors, can be edged with veneer. This allows even small batch sizes to be economically produced using the powerEdge edge banding unit. Scope for resetting makes for enhanced flexibility and greater investment security.



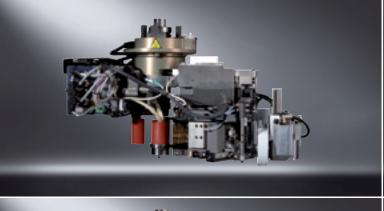
### Internal corner edge banding unit

This ingenious edge banding unit for edging internal corners, for example on kitchen worktops, allows this type of difficult workpiece to be produced without manual intervention to a consistently high standard of quality.

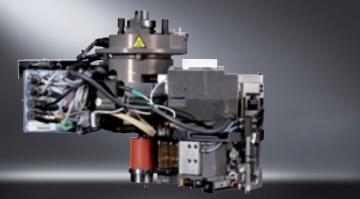


### doubleEdge edge banding unit

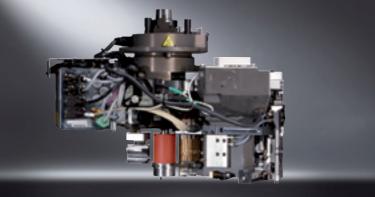
Innovative technology for narrow edge sealing on frameless honeycomb board. The support edge and decor edge are banded in a single work process. In the case of shaped components with a thickness of up to 100 mm, only a single work step is required.

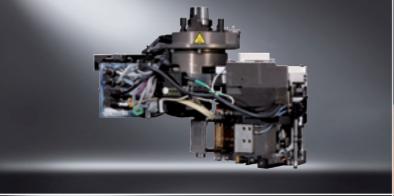


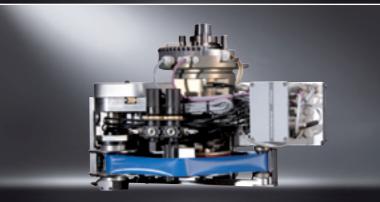


















### powerEdge edge banding unit

For banding edges in wide-ranging different materials such as melamine, ABS, PP, PE, PVC, acrylic, aluminium or veneer at feeds of up to 30 m/min., including 360° butt joint gluing. In conjunction with an optional hot air nozzle, an IR lamp enhances the flexibility of the edging material and permits minimal outside radii of just under 5 mm, depending on the material used. The unit is available in two variants: For standard edging heights of 65 mm or optionally edging heights of 105 mm. Lightweight panels can naturally also be edged (option).



# powerEdge edge banding unit for

By exchanging the post-pressure roller, the unit can be simply and quickly reset for softforming profiles. Depending on your profile geometries and edging types, we analyse the possibility of technical implementation, and custom produce a profile pad to your individual specification.



### Transfer Finish edge banding unit

The thin coating of workpiece edges reduces costs for edging material and opens up new scope for workpiece profile design. The films are available with different decor effects and fit flexibly into the work-



### T-Edge T-section material unit

Application of T-section edges on the processing centre - the tough edging type for applications such as school or office furniture can be simply and effectively applied with only a minimal investment

# Innovative technology for economical solutions

The development process continues: The processing of new edging materials, rising design aspirations, new production techniques in order to save material and resources. As market leader, the HOMAG Group offers innovative custom-tailored solutions to your production assignments - put us to the test!









### powerEdge for inclined edge gluing

Gluing at any optional incline from +45° to -7°. The automatic unit adjustment facility allows both shaped edges and inclined edges to be applied to the same workpiece in any optional direction.

### powerEdge rebate edging

Complete processing of internal doors with the **power**Edge edge banding unit with post-pressure zone for rebate edges.

### powerEdge softforming

Banding a real wood edge with quarter round profile. Post-pressure zone with profile pressure pad.

### powerEdge workpiece thickness 100 mm

Edge banding on moldings up to a workpiece thickness of 100 mm.

# Clean, fast: 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.





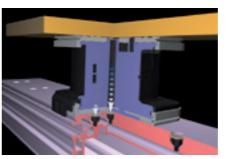
Suction cups are displayed using a laser beam (cross hairs). The workpiece contour can be "travelled" as a positioning aid for freeform parts.



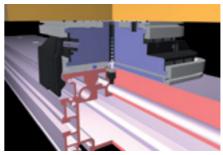
LED system – both the fastest and safest positioning system for consoles and clamping elements



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.



Dual circuit vacuum system



Single circuit vacuum system



Double lip technology for maximum hold

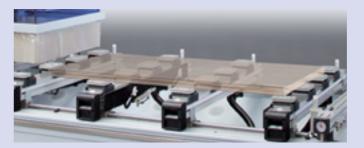
### We offer a single and a dual circuit vacuum system

The dual-circuit vacuum system fixes the vacuum clamp steplessly on the console with the first circuit. Workpieces can be positioned without risk of the suction cup slipping. By activating the second circuit, the workpieces are fixed and held securely in place. The lip technology of the rubber-coated surfaces on the vacuum clamps guarantees maximum force distribution. The patented double lip technology on the underside of the vacuum clamp allows stepless positioning on the consoles.

In the single-circuit vacuum system, in contrast to the dual-circuit vacuum system, flatter vacuum clamps are used with a height of 50 mm. The vacuum clamps the workpiece and clamp simultaneously.

Which of these systems holds your workpieces depends on which processing centre you chose. Both systems guarantee maximum vacuum power and provide the basis for optimum processing quality.

# Clamps for K table: 50 mm height





Multiclamp (12 - 80 mm) (for single-circuit vacuum system)

# Vacuum clamp 140 x 115 x 50 mm (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm

# Vacuum clamp 50 x 120 x 50 mm (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm

# Vacuum clamp 75 x 125 x 50 mm (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm
- Rotated by 90 degrees, manually mounted

### Vacuum clamp 75 x 125 x 50 mm (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm
- Rotated by 90 degrees, manually mounted



















# Vacuum clamp 75 x 125 x 50 mm (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm

### Vacuum clamp 30 x 130 x 50 mm, 90° (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm
- Rotated by 90 degrees, manually mounted

# Vacuum clamp 30 x 130 x 50 mm (for single-circuit vacuum system)

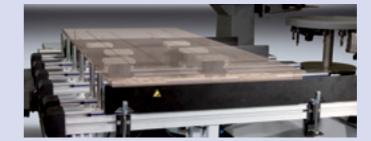
- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm

# Vacuum clamp 75 x 125 x 50 mm, 360° (for single-circuit vacuum system)

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 50 mm
- Rotatable by 360 degrees

# Clamps for K table: 100 mm height

The Classic, the dual-circuit vacuum system. These vacuum clamps can be steplessly positioned and offer clearance for the use of tools and for dropping waste pieces. The fast, precise and primarily also simple positioning of vacuum clamps is made possible by LED or Laser positioning aid.





### Vacuum clamp 160 x 115 x 100 mm

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm

### Vacuum clamps with lift device 160 x 115 x 100 mm

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm
- With integrated lift device

### Vacuum clamp 75 x 125 x 100 mm

- · Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm

### Vacuum clamp (0/90°) 75 x 125 x 100 mm

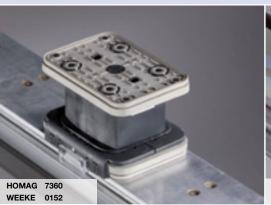
- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm
- Manual 0/90° swivel action

### Vacuum clamp (0/90°) 50 x 120 x 100 mm

- Vacuum clamp for stepless positioning on the
- Exchangeable rubber lining
- Add-on height 100 mm
- Manual 0/90° swivel action

### Vacuum clamp (0/90°) 30 x 130 x 100 mm

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm
- Manual 0/90° swivel action



























### Aluminum vacuum clamp H 100 mm with emery cloth

- 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
- · Lined with emery cloth
- Dimensions 160 x 120 mm and 125 x 75 mm

### Aluminum vacuum clamp H 100 mm with rubber friction coating

- 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
- Rubber friction coating
- Dimensions 160 x 120 mm and 125 x 75 mm

### Vacuum clamp H150 mm

- · Vacuum clamp in round design for clamping stair stringboards or stair treads in conjunction with clamping fixture for stair treads
- Height 150 mm
- Diameter 100/150/200 mm
- The maximum workpiece thickness reduces in accordance with the vacuum clamp height

### Vacuum clamp (360°) 125 x 75 x 100 mm

- · Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm
- Rotatable by 360 degrees

### Vacuum clamp (360°) 120 x 50 x 100 mm

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm
- Rotatable by 360 degrees

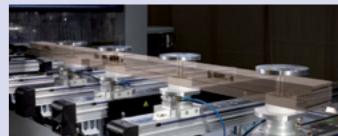
### Vacuum clamp (360°) 130 x 30 x 100 mm

- Vacuum clamp for stepless positioning on the console
- Exchangeable rubber lining
- Add-on height 100 mm
- Rotatable by 360 degrees

# Multiclamp / powerClamp / 3-step clamp

Whether wooden staves, mouldings, arches, narrow or frame components etc. – the clamping systems used in the HOMAG Group are also able to hold unusual workpieces / workpiece shapes in position.





# powerClamp "Basic" (8 - 78 mm) for K tables

- Mechanical/pneumatic clamping element for clamping wooden staves, narrow parts, mouldings and panel stacks
- Arrangement on the clamping console with manual clamping
- Base plate can be recessed to expose the clamping elements for arch production
- Strong retaining force for high-powered hogging operations
- Inclusive of locking mechanism accessory

Only for use in conjunction with the pneumatic supply unit.

# powerClamp clamping element (58 - 120 mm) for K tables

- Mechanical/pneumatic clamping element for clamping wooden staves, arch components or panel stacks
- Arrangement on the clamping console with pneumatic clamping
- Base plate can be recessed to expose the clamping elements for arch production
- Inclusive of distance ring for variation of the clamping depth

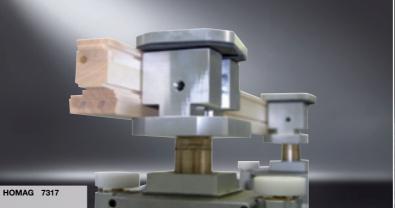
Only for use in conjunction with the pneumatic supply unit. Note: For machines with a workpiece height of 125 mm.

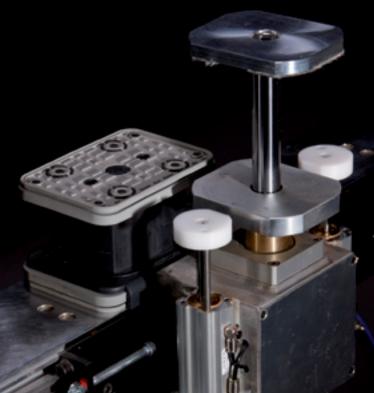












### Multiclamp for dual circuit vacuum system

Vacuum actuated clamping element for clamping strips and staves

- Height: 100 mi
- Clamping range 10 45 mm or 37 80 mm
- Includes fixture for locking on the consoles

### Multiclamp for single-circuit vacuum system

Mechanical clamp for narrow and frame components. Suitable for consoles with single-circuit vacuum system

- Height: 50 m
- Clamping range: 12 50 mm and 50 80 mm (by manual rescrewing of the upper clamping plate)
- · Inclusive of mechanical locking mechanism accessory

Only for use in conjunction with the pneumatic supply unit

### Sash bar insertion aid

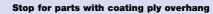
Special inserts for sash bar clamping simultaneously act as insertion aids.

### 3-step clamp

Highly rigid 3-step clamps for precise complete processing of window and front door components without subsequent rebating on glued window sashes. The clamping range is 0 - 120 mm (optionally 150 mm). For precise clamping of wide staves, insertion aids are optionally available.

# Supplementary equipment – "Nothing is impossible"

We offer suitable clamps to address wide-ranging different application requirements. For fast, efficient handling in every situation.



Simple, safe alignment of parts with veneer or coating ply overhang for sizing. Can be configured as a plug-on sleeve, manual snipping stop or automatically with lift-and-turn fixture.



### Lift-off rails

As an addition to the standard design in HPL, lift-off rails with exchangeable plastic slideway coating for gentle handling or all-round rollers for simple alignment of heavy components are available.





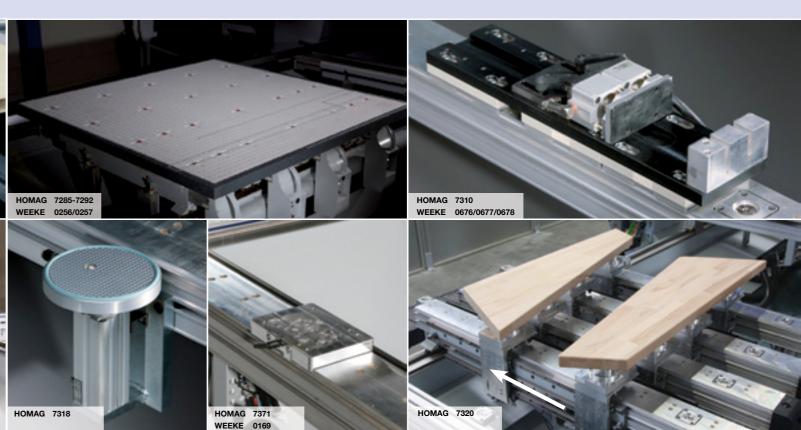
# MATRIX adapter plate for the K table 1,550/2,100/3,050 x 1,550/1,220 mm

Gridded plastic adapter plate for mounting on the K table, for example when using nesting applications.

- Includes vacuum fastening elements for clamping the adapter plate
- Includes additional, 2-step monitoring for wearing plate calibration and processing mode
- Add-on height 100 mm as for standard vacuum clamp
- Groove width 4 mm / groove depth 5 mm, (for sealing cord 4 x 6 mm) incl. 20 m rubber sealing cord
- Workpiece clamping on the adapter plate takes place by means of hand lever valve
- Depending on the processing operation, an additional vacuum pump is required

### Clamping fixture for newel posts and staves

Mechanical/pneumatic clamping element with adjustable clamping jaws for reliable clamping of newel posts, beams, wooden staves etc.. As a result of horizontal clamping, workpieces can be ideally processed from above and from the side.



### Vacuum clamp lowerable for waste pieces

Vacuum clamp for holding and pneumatically lowering waste pieces from working height to console height. The waste pieces are lowered out of the processing area and remain fixed in order not to create any obstruction during continued processing. The clamping unit is mounted laterally at the console and controlled by means of an M command integrated in the CNC program.

### Vacuum clamp base plate

Base plate module for mounting on the consoles as the basis for special clamping fixtures.

### Manual clamping fixture for tread pair, K table

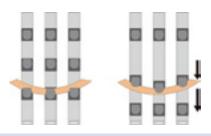
Clamping fixture for stair treads for the manufacture of 2 stair treads from a single raw panel.

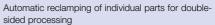
- Integration of an automatic function in the program to move the fixtures apart permits all-round processing of both worknieses.
- Two displaceable platforms for standard vacuum clamps per console
- Add-on height including vacuum clamp 150 mm
- Stop bolts with 180 mm stroke are required

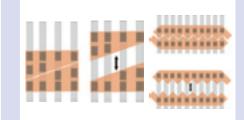
# Saves time and enhances flexibility – the AP table

AP - automatic positioning system - provides the key to greater convenience, faster set-up and optimized processing steps. The automatic positioning of clamps permits operations such as moving workpieces apart after a separating cut.







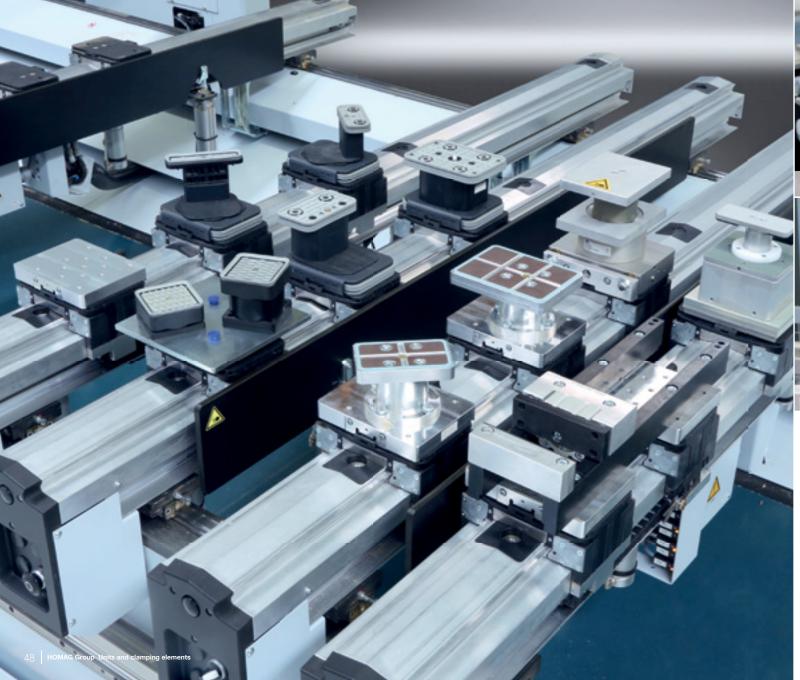


In staircase production, for instance, stair treads can be traversed after being divided for complete processing. In the field of window construction, 5-sided processing can be formed without manual intervention by means of manual reclamping.

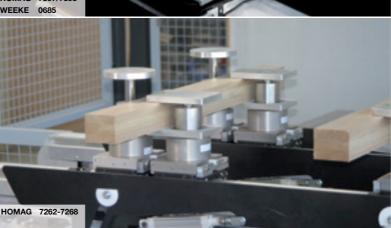
As the proven dual-circuit vacuum system from the K table (page 33) is used for the clamping element platforms in the AP system, this opens up scope for utilization of the comprehensive range of different K table clamping elements.

The integrated pneumatic transmission into the clamping elements permits the clamping panels and workpiece surfaces to be cleaned by air jets prior to reclamping. This patented function prevents chip residues from being pressed into the workpiece surface.

The stop bolts in the consoles guarantee accurate positioning of the clamping elements to ensure highly precise individual component production of window profiles without outside moulding and profiling of the frame. In addition, the stop bolts are used as an insertion aid for wide staves. This patented principle guarantees precise transverse profiling independently of the part width.









- Vacuum actuated clamping element for clamping strips and
- Clamping depth max. 40 mm, with reducer max. 22 mm
- Workpiece thickness 10 45 mm and 37 82 mm
- Includes fixture for fixing on the AP platforms

Multiclamp 40 mm, AP table

Clamping range extension by means of spacer 20 mm

### Vacuum clamp 160 x 115 mm, AP table

- Vacuum clamp with double sealing lip for infinitely adjustable positioning on the console
- With push-button valve
- Add-on height 100 mm

### \* Additional platform for vacuum clamp

- Increase of the clamping element level by 25 mm
- Stacking capability up to 2x
- Also for use on K tables
- Higher degree of freedom below the under surface of the workpiece

# Versatile application: the matrix table

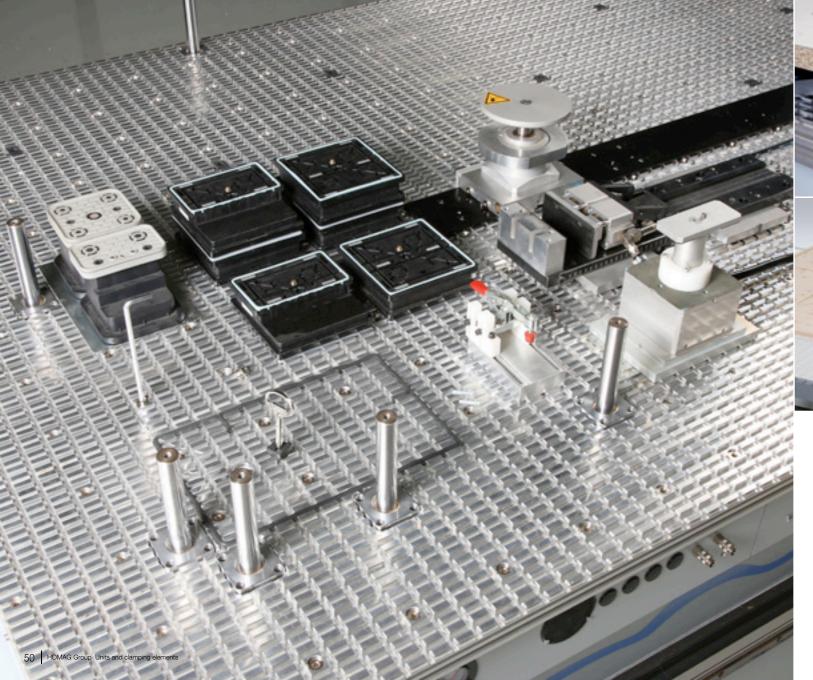
The grooved aluminium matrix table permits the positive locking of clamping elements and consequently reliable workpiece fixture even where high hogging forces are involved. The transmission of vacuum through the table construction optimizes distribution of the vacuum, reduces leaks and transmission 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.



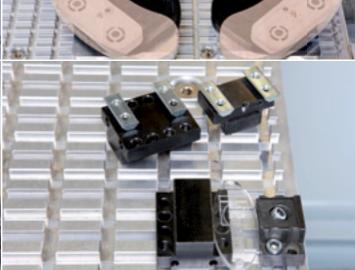


With diverse types of vacuum blocks it is also possible to carry out simple and quick horizontal processes on grid

The aluminium grid table is applicable for diverse applications and materials







### **Nesting principle**

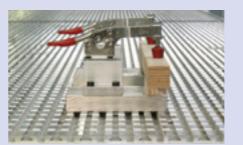
The term "nesting" denotes the processing of panel-shaped workpieces from suitable unfinished panels in combination with the optimization of cutting waste and processing times. Fields of application: Wide-ranging different panel materials such as chipboard and MDF, as well as plastic, fire-resist, hard fibre, honeycomb and lightweight panels. The focus here lies on optimum material utilization. Using the nesting technique, individual components for largeformat furniture workpieces are cut out of the panel so as to create the minimum possible cutting waste.

Aluminium grid table with trapeze shaped grooves for interlocking and flexible fixing of all kinds of clamping aids

# The grid table - for Nesting and many other applications



1" vacuum connections with quick-open function by means of switch cabinet key, vacuum openings with precision thread for fixing clamps



### Vacuum clamp

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

### Vacuum clamp for grid table 160 x 160 x 45 mm

Vacuum clamping element for insertion in the grooves of the grid table.

### Vacuum clamp for grid table 160 x 96 x 45 mm

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

# T-nuts, T-slot nut oder

Slot nuts with thread for positive locking of clamping fixtures in the dovetail guide.

### FLEX system base plate for grid table

- For mounting on the grid table
- Modular system for plug-on vacuum clamp in the base plate
- Base plate 175 x 175 mm
- System height 45 mm (includes vacuum clamp)

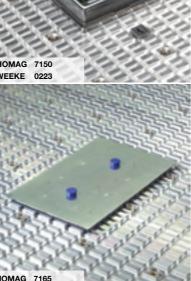
### Vacuum clamp for grid table 125 x 75 x 45 mm

Vacuum clamping elements for insertion in the grooves of the grid table (including base plate).

### Vacuum clamp for grid table 140 x 115 x 45 mm

Vacuum clamping elements for insertion in the grooves of the grid table (including base plate).





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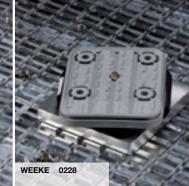














### **Maxi-FLEX system**

Freely equippable system base plate for vacuum clamp.

### Maxi-flex system height 102 mm baseplate

Modular system for freely positionable vacuum clamp in the base plate. This permits simple adjustment to the workpiece geometry. Base plate 253 x 163 mm, system height including vacuum clamp 102 mm.

### Maxi-flex system height 102 mm vacuum clamp

Vacuum clamp with magnetic base

- Vacuum clamp Maxi-FLEX 120 x 120 x 102 mm
- Vacuum clamp Maxi-FLEX 125 x 75 x 102mm asymmetrical

### **Hollow screws**

Hollow screws for positive locking fixture of templates or dummy panels in the existing vacuum openings. In the version for template fixture, the vacuum can be routed via the borehole in the screw into the template.

# Rail for powerClamp clamping

Rail for fixture of the powerClamp clamping elements from the K table range for pneumatic clamping of wooden staves, arch parts or stacks of panels. Mechanical fixture of the rail in the system groove is possible in both directions on the table. Alignment of the clamping elements with stop pins.

### Multiclamp for grid table

- · Vacuum actuated clamping element
- for clamping strips and staves • Add-on height 100 mm
- Clamping depth max. 40 mm, with reducer max. 22 mm
- Workpiece thickness 10 to 40 mm

### Multiclamp for grid table

- Vacuum actuated clamping element for clamping strips and staves
- Add-on height 45 mm
- Workpiece thickness up to

# The MATRIX table

Ideal for nesting assignments, the well-established MATRIX table also provides outstanding flexibility. By providing efficient vacuum availability, its operation makes maximum use of resources. Various vaccum clamp variants and sizes are optionally available, allowing you to keep your options open and remain flexible during production processes (e.g. using the QuickPod system).





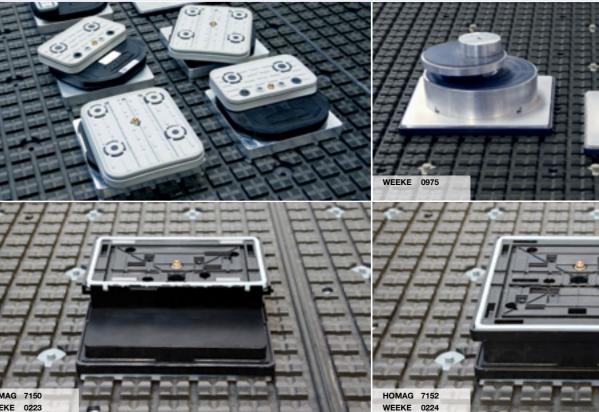


Various clamping elements for different applications are optionally available

Multiclamp for MATRIX table

Support height: 45 mm, clamping range up to 55 mm



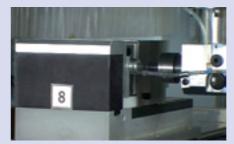


Vacuum clamp for grid table 160 x 96 x 45 mm

Vacuum clamp for grid table 160 x 160 x 45 mm

# Nothing is impossible...

Whether plastic or aluminium processing operations, special drilling units with 35 spindles or clamping systems for shaped components, clamping foam panels or filigree cutting of foils. We offer an impressive track record when it comes to solving individual customer requirements. This fund of expertise can benefit you. Ask us. We will be pleased to help. No matter whether you are looking for clamping systems, fixing techniques or processing unit solutions: We are the partner you are looking for!



Aluminium thread tapping



Special clamping elements for aluminium processing

### Clamping fixture for block frames

Precise clamping relative to the reference edge for a pair of block frames.

### Clamping fixture for rail, panel and staveshaped workpieces

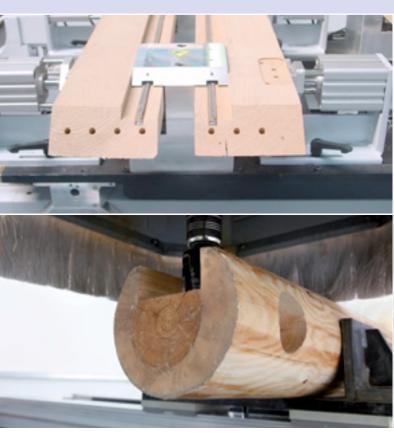
Fast and reliable clamping of narrow and long workpieces for architraves and panels.

### Hot wire cutting

Cutting unit for polystyrene foam slabs. The unit is supplied via the E interface at the working spindle which heats the cutting wire.

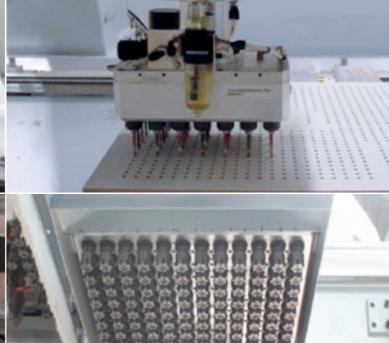
### 35-spindle drilling unit

Simultaneous drilling of 35 holes, for example when producing acoustic panels. The unit can be fitted into the working spindle from the pickup slot.









### Block clamp

Adapted block clamping fixture for round timber elements.

### Clamping fixture for facings

Vacuum clamping fixture for a pair comprising rebate and ornamental facings according to customer design. Mounted on a base plate module.

### Clamping fixture for round pipes

Clamping fixture for 5-axis processing of round plastic

### **Drilling unit 144 spindles**

Simultaneous drilling of 144 holes, for example when producing acoustic panels. Collet chucks for holding different shank diameters. Unit permanently mounted on the unit

# The complete range of 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



### Servicing advice

We will be happy to advise you about our range of service products designed to help maximize the availability of your machines and optimize your production costs. Our service advisor will carry out a potential analysis and work with you define possible improvement

### **Remote servicing**

There is no more effective way to keep you up and running. We can reduce your servicing costs and cut machine downtimes through our hotline and remote troubleshooting service. TeleServiceNet allows over 85 per cent of all disruptions to be solved without the need to send out a service technician.











### **Trainings**

Practical, machine-specific training to bring your machine operators and maintenance personnel abreast of the latest developments. We offer dedicated start-up assistance packages for new producers entering the market.

### Inspection / maintenance

Regular preventive inspection and maintenance offer the ideal conditions to help you avoid unplanned machine standstills. By providing competent support, we can assure you of the very highest product quality and machine availability.

Content, technical data and photos are not binding in every detail. We reserve the right to make changes.





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