



The universal helpmate  
for your production

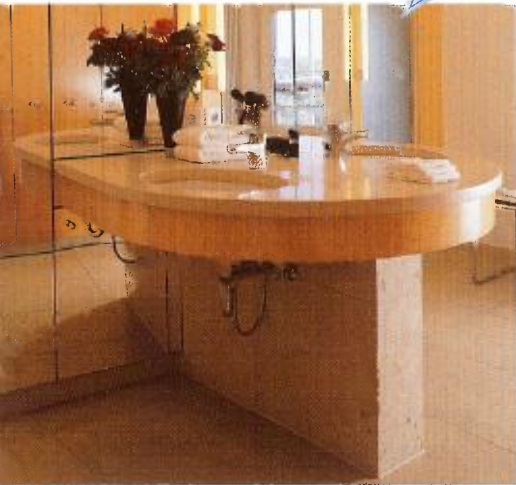
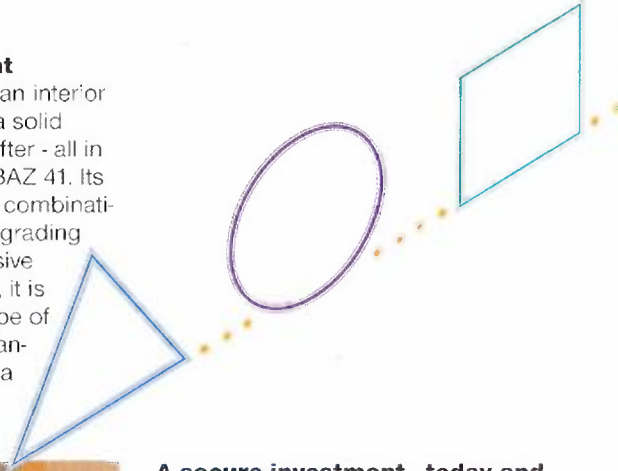
# Processing Centre Optimat BAZ 31 and BAZ 32

# Optimat BAZ 31 and BAZ 32: the versatile all-rounder



## Explicit combination talent

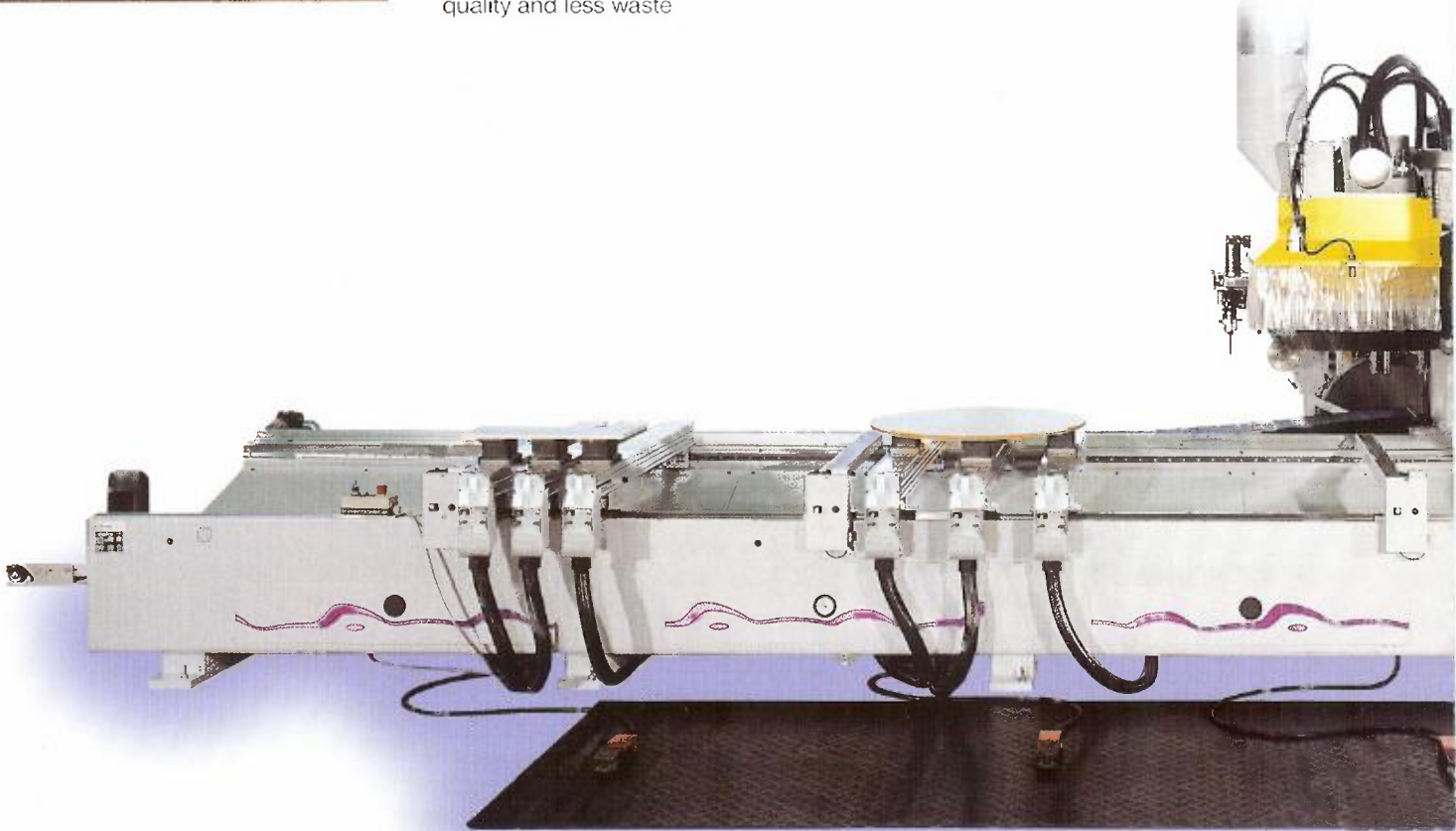
Kitchen furniture parts today, an interior fitting component tomorrow, a solid wood staircase part the day after - all in a day's work for the Optimat BAZ 41. Its decisive advantage lies in the combination of flexibility, output and upgrading capability. With a comprehensive range of supplementary units, it is capable of coping with any type of order quickly and to a high standard of quality. And all this at a unique cost-to-performance ratio.



## A secure investment - today and tomorrow

BAZ 31 und BAZ 32 provides the perfect answer to your changing production requirements. The benefits at a glance:

- A machine concept capable of replacing several individual machines, a complete solution to save valuable workshop space
- Retrofit capability for processing units means years of profitable use
- Configured for maximum shape and material versatility
- Lucrative production of even small batch sizes
- Processing workpieces on one and the same machine means improved quality and less waste
- Economical two-channel-technology (BAZ 32): As long as one machine side banding is done, on the opposite side tools are already changed
- The gluing part is a fix part of the extension arm - there is no need for a time wasting change (BAZ 32)
- A ternate operation: Synchronously to the banding procedure, a finished workpiece can be exchanged for a raw one
- These are the ideal machines for processing large workpieces

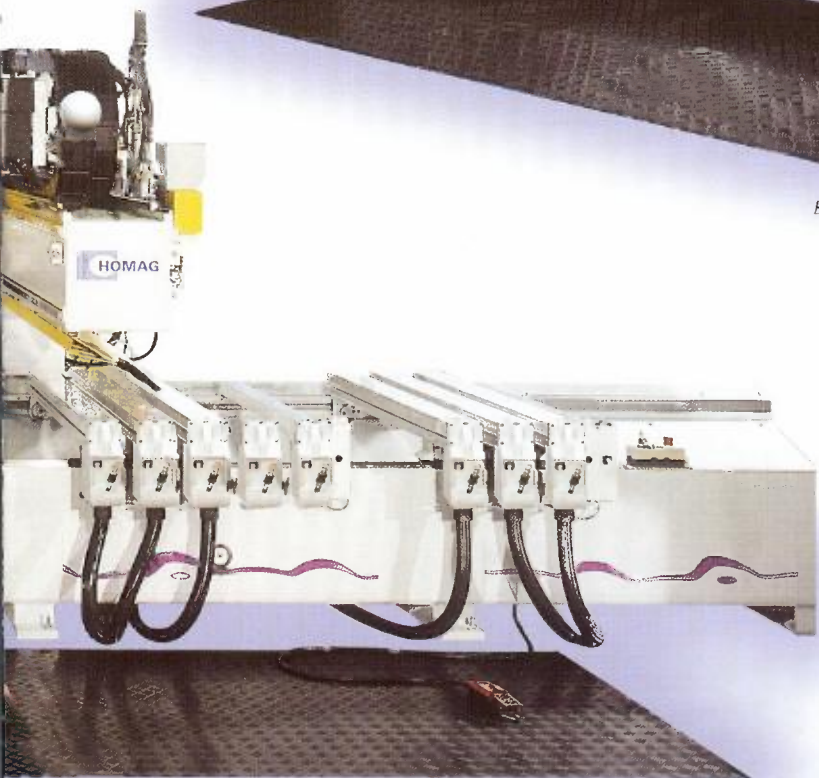
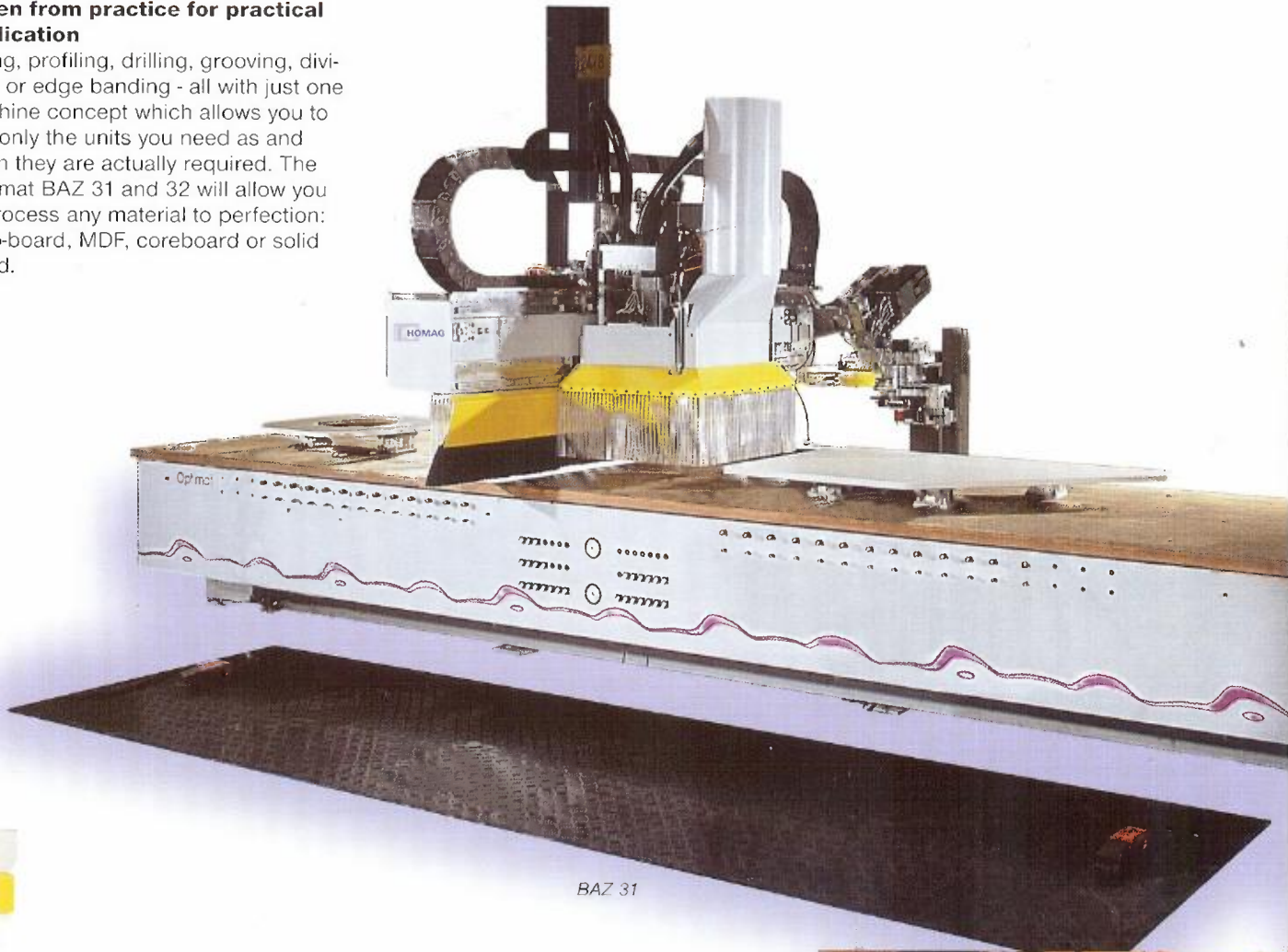






**Taken from practice for practical application**

Sizing, profiling, drilling, grooving, dividing or edge banding - all with just one machine concept which allows you to buy only the units you need as and when they are actually required. The Optimat BAZ 31 and 32 will allow you to process any material to perfection: Chip-board, MDF, coreboard or solid wood.



BAZ 32

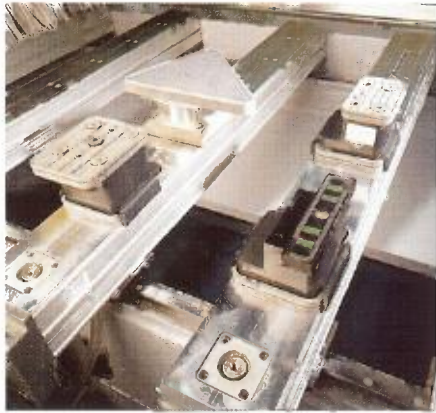


# Quality in detail

## Knee-type table

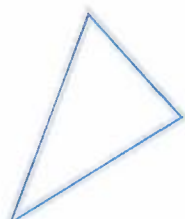
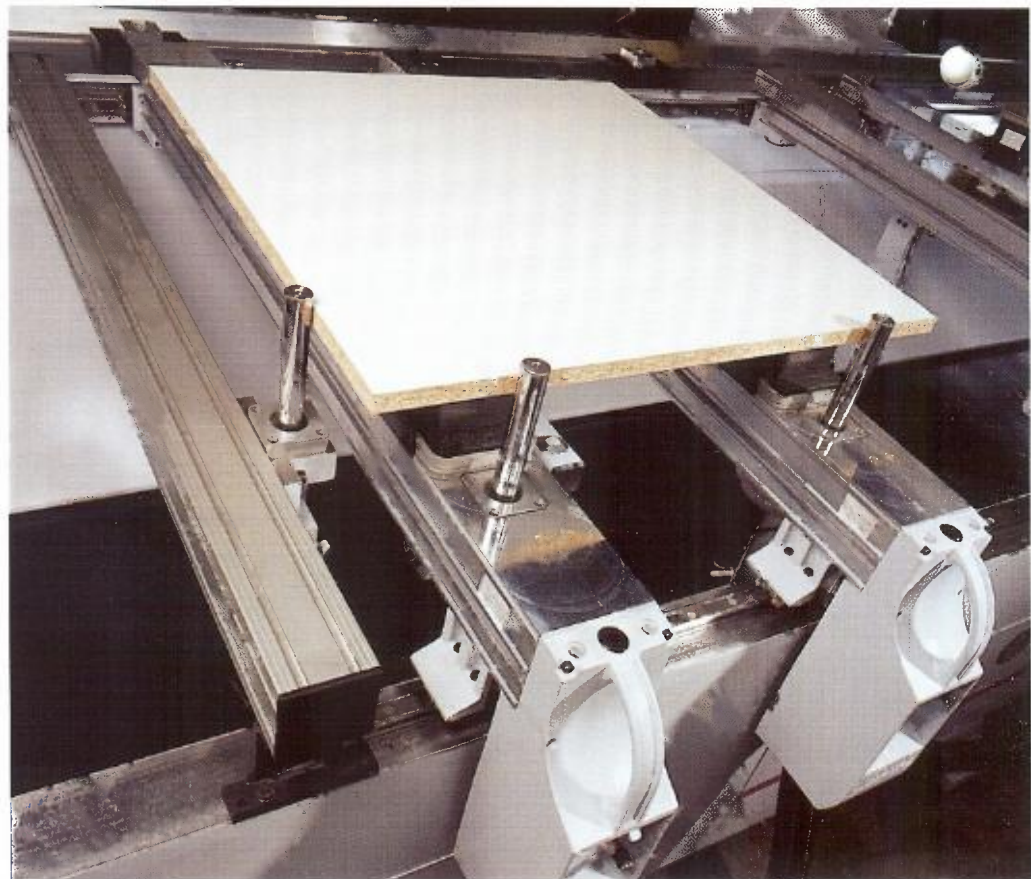
The practically-oriented way to work: Every support can be quickly and easily adjusted by hand. The benefits:

- Hoseless dual-circuit vacuum system for a variable number of suction cups
- Wear-free water ring pumps for high suction output coupled with low power consumption
- High degree of processing precision due to precise part fixture on highly rigid sectional aluminium brackets
- Knees are fixed at each end with two guide carriages for smooth, non-jamming traversing action
- Optional: Conveyor belt for optimum residue and waste piece disposal without any need for manual intervention

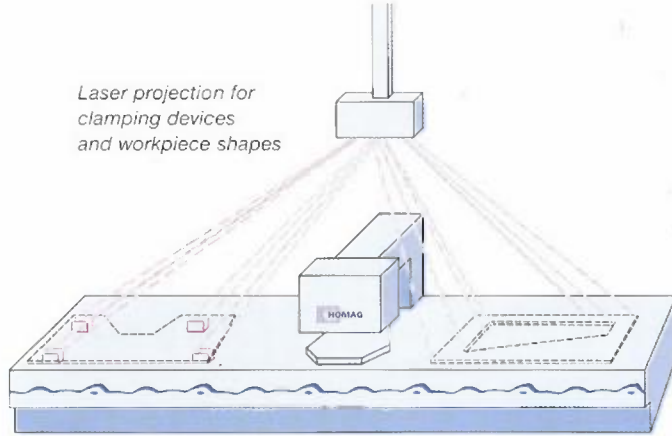


## Workpiece positioning

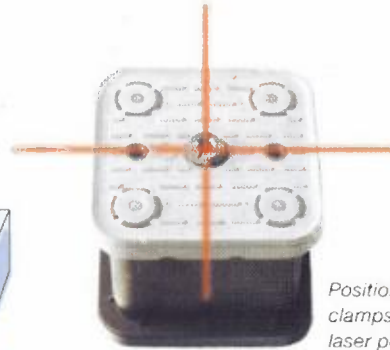
Easy positioning of the suction cups by laser and of the workpiece on the reference bolts are a standard low-cost solution for simple fast workpiece positioning. A large number of additional easy-exchange clamping systems are available to allow the clamping fixture to be adjusted for any product (for example staircase risers, extremely narrow parts etc.).







Laser projection for clamping devices and workpiece shapes



Positioning of vacuum clamps by means of laser positioning aid

A ceiling laser is also available. This provides sufficient lighting intensity that an optimum display is guaranteed even in daylight. The following are displayed:

- The workpiece contour for free workpiece positioning

- The positioning points for the individual clamps. Here, the suction cup positions are automatically calculated by the machine in such a way that they cannot be damaged during machining processes.



Staircase clamping device



Clamping device for narrow workpieces

### Drive technology

The dynamic high-speed drive system is configured for high working speeds and a long service life

- Digital drive system making use of fibre optic technology (no disturbance due to magnetic fields)
- Optimum trimming quality as the result of a highly rigid, low-vibration design
- Maximum contour fidelity and repeat accuracy, i.e. parts produced subsequently are totally identical
- Fast approach movement to individual processing points on the workpieces

### Closed, smooth-surfaced table

The table comprises a smooth multiplex plate and permits positioning of the suction cups in any optional location. A highly flexible solution which is a particular benefit for complex shapes.

### Firmly in place – clamping technology

The workpiece is simply laid in position and adjusted using lateral and longitudinal stops which can be recessed into the table. Freely positionable vacuum clamping elements hold it securely in place during processing.



Disposal of residue pieces with chip conveyer belt

# State-of-the-art spindle technology and variable machine equipment

## The highlight – double spindle technology

The use of double spindle featuring an electronic speed monitoring function offers a wide spectrum of benefits:

- Fluid cooling in the spindle for low temperatures and a long service life
- Highly precise standardized locating interface HSK 63
- Four-dimensional interface for:
  - Power transmission
  - C axis (units located in the durable ceramic spindle bearings can be swivelled and rotated at will for cuts and boreholes at any angle)
  - With pneumatic transmission (e.g. compressed air for chip clearance or to operate the snipping saw in the gluing unit)
  - Transmission of electronic control pulses (e.g. for operation of the different exchange-mountable gluing units)

**Main spindle**

External drive via main spindle with 12 kW

**C axis**

C axis for rotation

**Pneumatic**

Pneumatic supply

**Electrics/electronics**

Self-drive with 220 V and control with 24 V



Open-ended interface

360° gluing with butt joint for straight edges with direct glue application

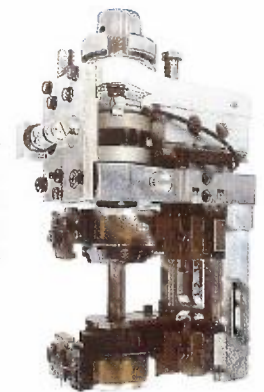
## The drilling head: optional upgrading capability

- Modular structure with 12 or 17 spindles
- Also suitable for heavy drilling work with double spindle bearings
- Facility for mounting two adapter units. Benefit: More tools can be used without exchanging the unit



Trimming tool uses drive system

Tracing combi-flush trimming and scraping unit uses drive, C-axis and pneumatics

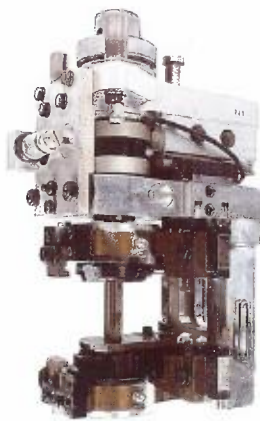


## Separate units brochure

The wide number of available units which can be used on the machine are described in detail and illustrated in a separate brochure. If you require more detailed information, we will be pleased to send you a copy.

Powerfull drilling head with versatile adapter units (e. g. trimming spindle)





**Flush trimming unit**

Tracing on three sides, for compensation of workpiece and edge tolerances. Scanning possible above, below and at the side. The contact pressure is applied at right angles to the workpiece contour. Speed up to max. 12,000 rpm.



**Corner notching unit**

For producing right-angled, tear-free, sharp-edged internal recesses, for example for venting slots or when producing work tops.



**Professional gluing**

The gluing unit can be exchange mounted in the working spindle as required from the pick-up station. In this way, professional results are achieved, for example with the 360° gluing unit.

- Gluing with highly precise abutting glue joint for straight edges with direct glue application, inside radius up to R = 30 mm without problems.
- Shortwave lamp to heat thick edges
- Unlimited swivel facility via C axis



**Trimming unit, 4 horizontal spindles**

For drilling and trimming work on for example grooves, oblong holes, notches and edge trimming at any optional angle.



**Fixture for sanding disks**

For sanding work, predominantly on solid wood edges or MDF panels. A DIN chuck is used as a locating fixture for the sanding disks, which are continuously cleaned with compressed air from a cleaning air jet.



**Swivel-mounted sawing/drilling unit**

For sawing cuts and boreholes at any angle from 0 degrees (vertical) to 90 degrees (horizontal). Applications: Mitre cuts, hinge holes on doors etc.



**12-slot plate changer**

for the provision of up to 12 tools and units (optional 18 tools and units)

# High-performance CNC control

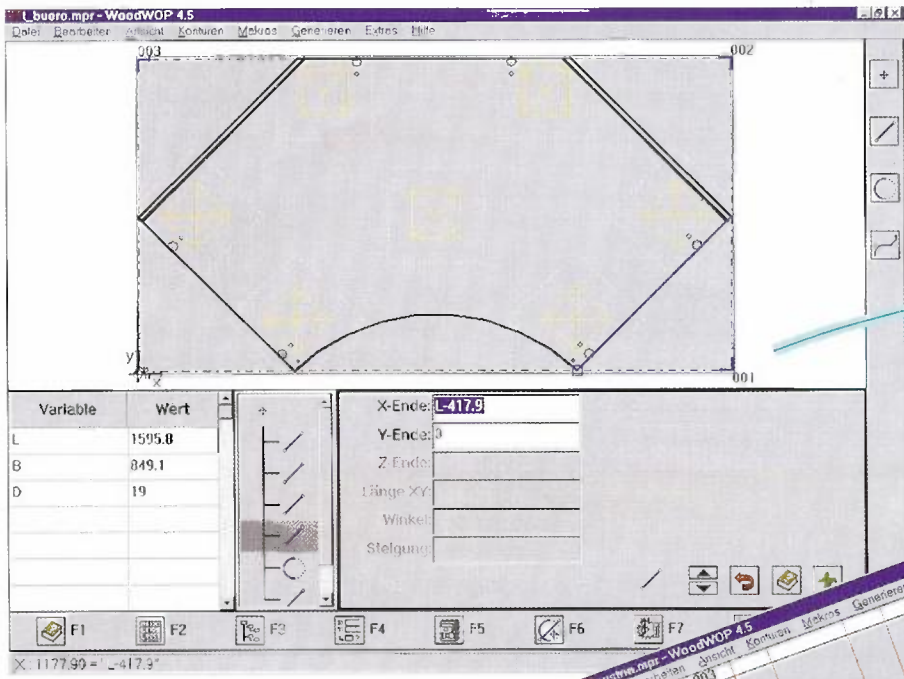
Open-ended, flexible PC 83 control system for highly complex applications coupled with maximum operating simplicity. This offers scope for any degree of automation and networking in the future:

- High-performance CNC control system for the independent simultaneous execution of several different processes (multi-channel technology)
- Windows NT operating system with familiar user interface and reliable operator prompting
- Industrial PC with two exchange disks – ideal for data back-up or to ensure trouble-free continuation of work in case of disk damage

## WoodWOP – impressive benefits

- Optimized programming system for processing panel-shaped workpieces in the woodworking and furniture industry
- The most frequently installed system in the world, meaning a high degree of familiarity and working knowledge already existing in the industry
- Open-ended interfaces to all common CAD and branch software packages (option)
- Pre-programmed machine routines for traversing movements towards and away from workpieces
- Graphic tool data bases for transparent tool administration

- Variant program with graphic support, featuring optical recognition of the currently used tool; Dimensionally neutral programming of similar workpieces, only changing measurements need to be entered
- Automatic calculation of suction cup positions and their display
- Programs can be accessed by means of bar code, i.e. workpieces bearing bar code labels access the relevant programs at the machine (option)
- Error messages in plain text
- WoodScout diagnostic system for fast troubleshooting with error messages in plain text



- Remote diagnosis possible via integrated modem
- Control desk plus independent control unit to allow the machine to be operated from any optional position (e.g. to permit the sequences to be monitored when first using new units).







## Homag is everywhere

For you, the customer, a well-developed servicing, sales and dealer network means even greater proximity, rapid response and improved customer support – around the world.

## Practically-oriented training

Although Homag products are designed for outstanding operating simplicity, thorough training does help cut down on commissioning times, reduces trial wastage, helps



develop the skills of the operator and generally improves efficiency.

## Careful maintenance

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

## Outstanding quality

The Homag Group is certified to DIN EN ISO 9001 (TÜV CERT). At Homag, it is a matter of course for machines to comply with the CE standard. This provides you with the assurance of consistent, certified quality.

## 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 but a few.



## Remote diagnosis worldwide

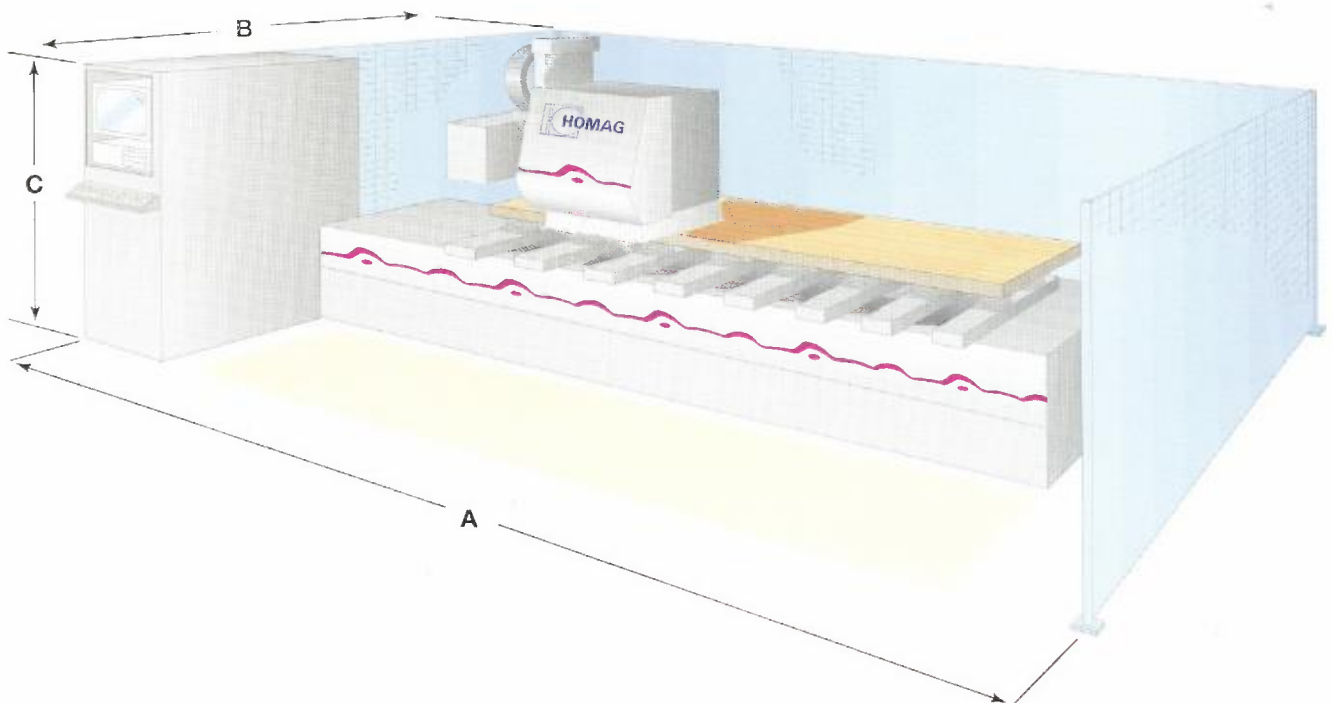
All NC machines are fitted in the factory with a modem to allow remote diagnosis anywhere around the globe. A search for possible faults is performed from the Homag Service Centre. Once localised, all errors can be remedied immediately over the telephone line.



# Specifications

| Type  | Optimat BAZ 32/50   | Optimat BAZ 31/40    | Optimat BAZ 31/60   | Optimat BAZ 32/30   |
|---|---------------------|----------------------|---------------------|---------------------|
| A = Length [mm]   | 9.250 (365")        | 11.250 (443")        | 9.250 (365")        | 11.250 (443")       |
| B = Width [mm]  | 5.250 (207")        | 5.250 (207")         | 5.250 (207")        | 5.250 (207")        |
| Height [mm]   | 2.600 (103")        | 2.600 (103")         | 2.600 (103")        | 2.600 (103")        |
| Extraction output for working spindle [m <sup>3</sup> /h]                               | 7.850 (4620 C.F.M)  | 7.850 (4620 C.F.M)   | 7.850 (4620 C.F.M)  | 7.850 (4620 C.F.M)  |
| Extraction system connection [mm]   | 1 x Ø 315 (12,40")  | 1 x Ø 315 (12,40")   | 1 x Ø 315 (12,40")  | 1 x Ø 315 (12,40")  |
| Compressed air consumption [NL/min]   | ca. 400 (14 C.F.M)  | ca. 400 (14 C.F.M)   | ca. 400 (14 C.F.M)  | ca. 400 (14 C.F.M)  |
| Connected electrical load [kW]  | ca. 27 (36 HP)      | ca. 27 (36 HP)       | ca. 33 (44 HP)      | ca. 33 (44 HP)      |
| Max. workpiece sizes [mm]   |                     |                      |                     |                     |
| Single feet   | 4.800 (189")        | 6.800 (267")         | 3.800 (149")        | 5.800 (228")        |
| Alternate operation   | 2 x 1.700 (2 x 67") | 2 x 2.700 (2 x 106") | 2 x 1.200 (2 x 47") | 2 x 2.200 (2 x 86") |
| 4-workpiece feet  | 4 x 800 (4 x 23")   | 4 x 1.100 (4 x 43")  | 4 x 450 (4 x 17")*  | 4 x 850 (4 x 32")   |
| Max. width of workpiece [mm]  |                     |                      |                     |                     |
| Up to 1.200 mm with all units and workpiece at the front stop                           | 1200 (47")          | 1200 (47")           | 1200 (47")          | 1200 (47")          |
| Up to 1.300 mm with all units and workpiece at the rear stop                            | 1300 (51")          | 1300 (51")           | 1300 (51")          | 1300 (51")          |
| Up to 1.400 mm for edge banding and workpiece at the rear stop                          | 1400 (55")          | 1400 (55")           | 1400 (55")          | 1400 (55")          |
| Up to 1.480 mm for panel sizing with tool diameter 20 mm and workpiece at the rear stop | 1480 (58")          | 1480 (58")           | 1480 (58")          | 1480 (58")          |

\*for trimming with tool diameter 20 mm

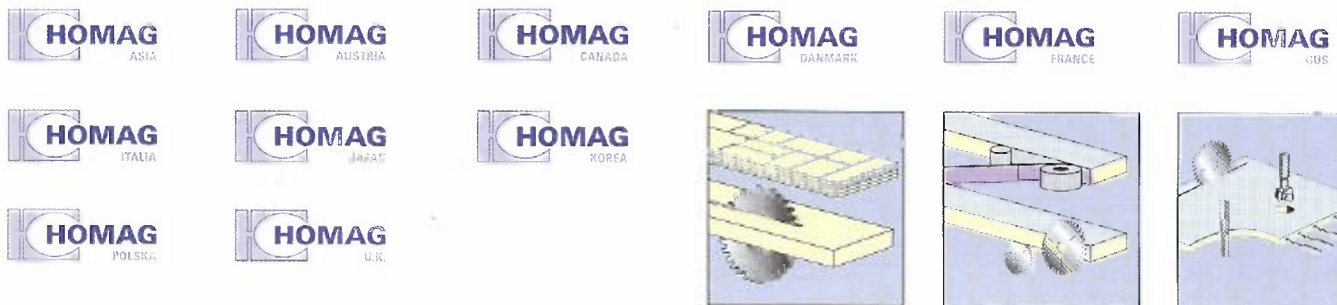


Certain details of the provided specifications and photos may deviate from the supplied product. We reserve the right to make changes in the interest of progress.

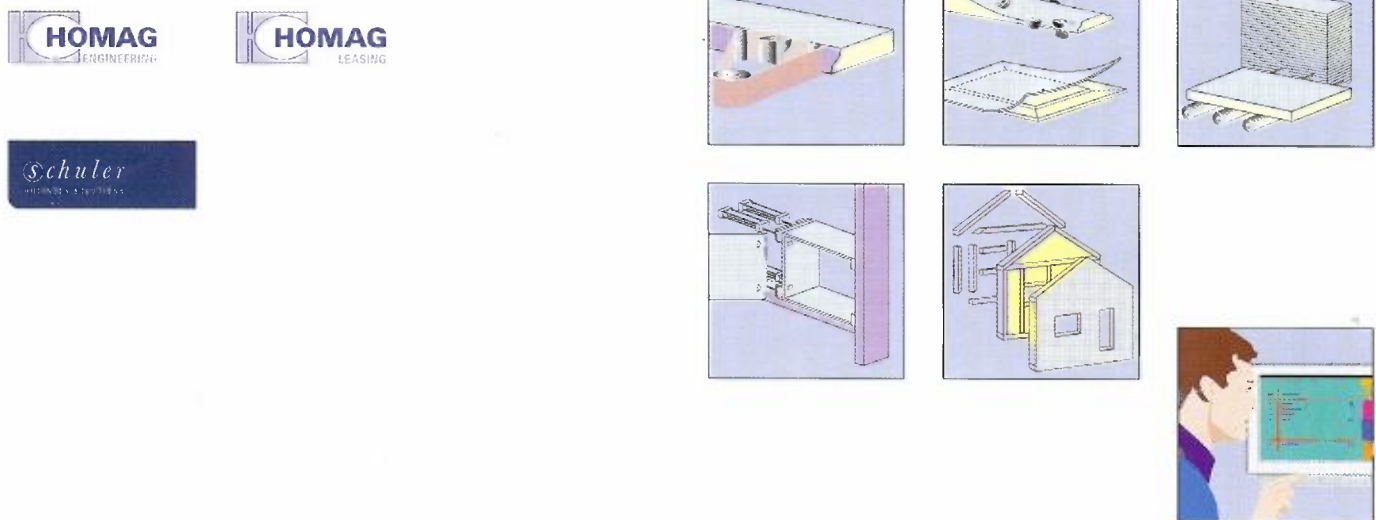
Production



Sales



Service



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