

CNC-Processing Center Optimat BHC 250

The Compact Solution

Optimat BHC 250 – working length 2100 mm



High quality and reliability based on more than 50 years of experience are reflected in each detail of every WEEKE machining center. State-of-Art technology in the factory in Herzebrock-Clarholz guarantees our customers the highest precision in every respect of the machine. We have developed CNC solutions in dialogue with you our customer, hereby securing flexibility and extension for the future.

CNC-Processing Centers usually require high investment volumes and are therefore very difficult to finance for smaller or middle-size companies. WEEKE offer the perfect solution for CNC-Newcomers with the Optimat BHC 250 which solves this problem.

Optimat BHC 250 – working length 2100 mm

- automatic tool changer
- flexible
- efficient
- compact
- space-saving

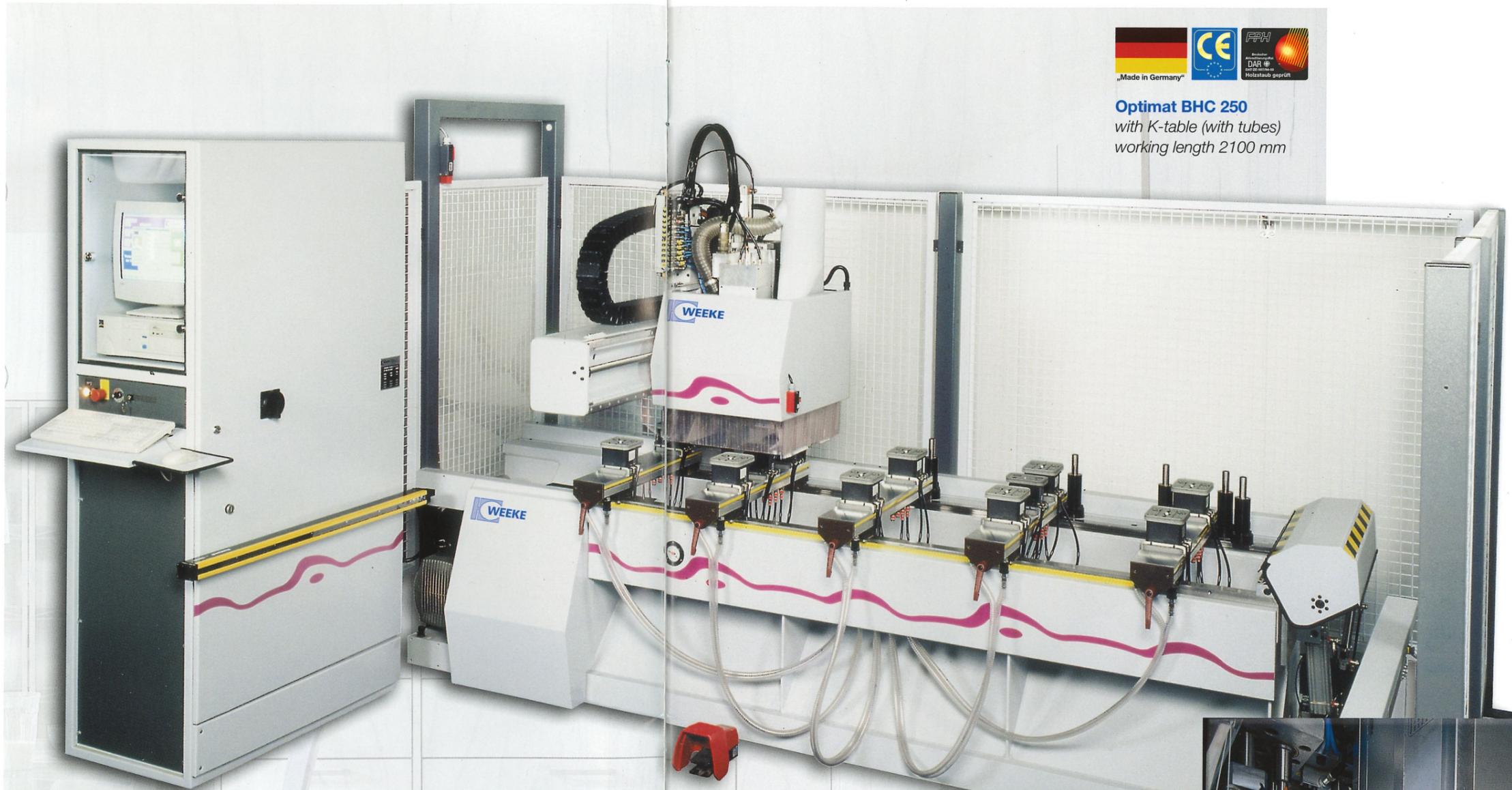
With minimal floor space required and the capabilities of the 5-position tool changer this is a machining center that makes your purchase decision easy. The greatest advantage of this machine is its cost to benefit ratio. Check it out yourself and see!

"If you want to be successful, you must accept the other's point of view and must consider the things with his eyes." (Henry Ford)

So, what are you waiting for? Come and be personally convinced! Visit us in our Show Room at WEEKE.

WEEKE – Your partner for the future.

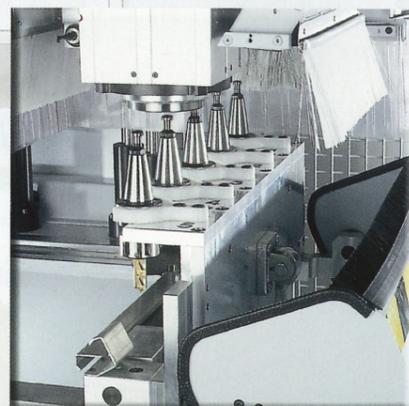
**Member of the HOMAG-Group.
Certified by DIN EN ISO 9001.**



Optimat BHC 250
with K-table (with tubes)
working length 2100 mm



Tool change magazine in function



Tool change magazine in function



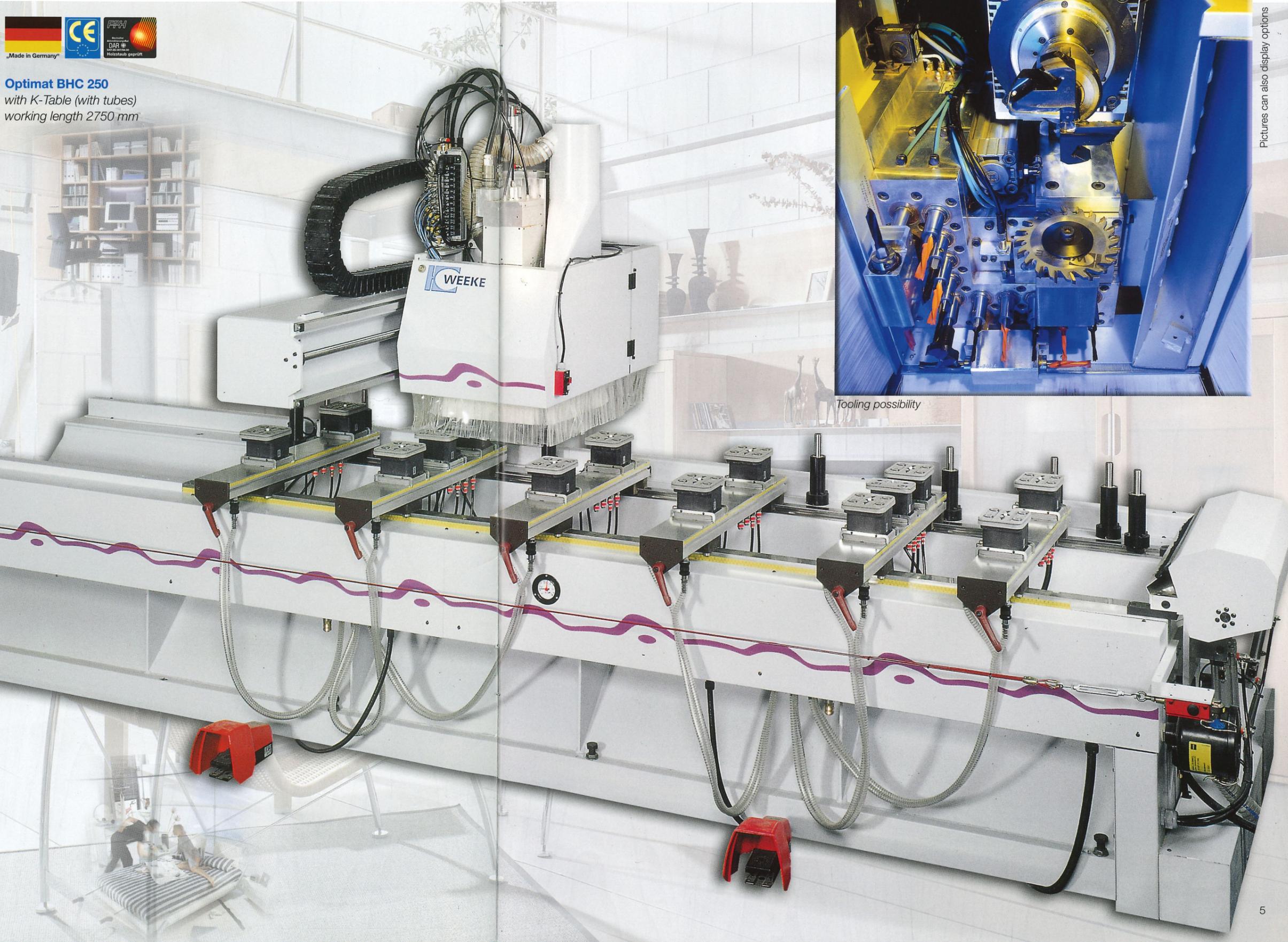
Pictures can also display options

OPTIMAT BHC 250 – working length: 2750 mm K-Table (with tubes)

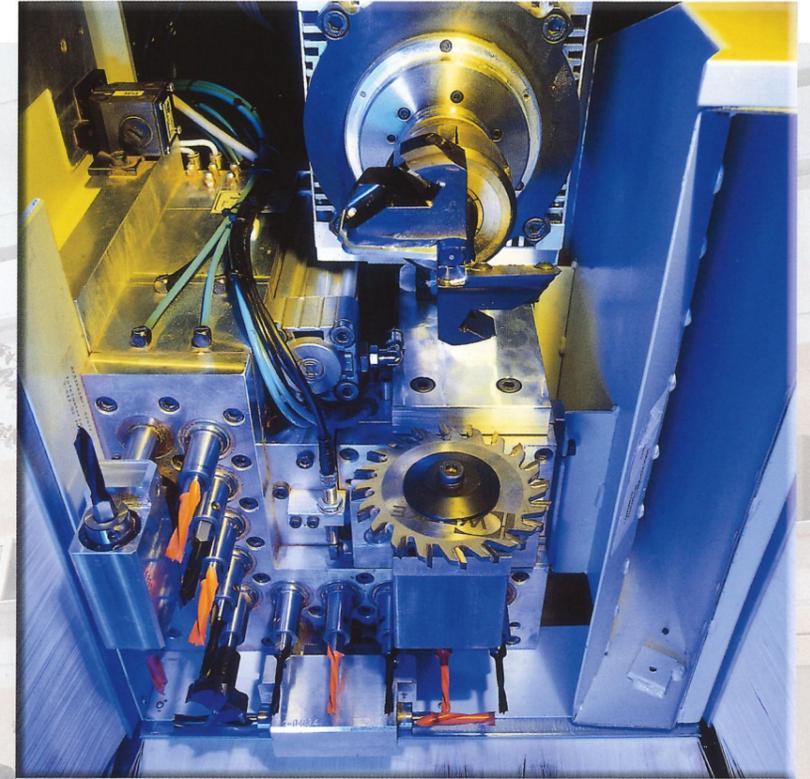


This modular version of the Optimat BHC 250 offers, next to some of the already mentioned advantages, further handy features:

- 3185 mm travel range (2750 mm working field) in X-axis
- 2-field operation → guarantees continuous work process
- Safety mats
- Modular construction system → application possible as a drill/routing- or combined processing center horizontal routing unit (option) → more flexibility in your production
- Horizontal routing unit
- Laser positioning (option) → faster and more precise set-up
- The choice between several tool changing systems → we will keep your production flexible



Optimat BHC 250
with K-Table (with tubes)
working length 2750 mm



Tooling possibility

Pictures can also display options

OPTIMAT BHC 250 – working length: 2750 mm

K-Table



Would you like to be in a position to react quickly and flexibly to every customer request? Our modular construction system realises everything ...

With the Optimat BHC 250 (working length: 2750 mm/K-table) we offer you an outstanding cost-benefit ratio with a strong design, high flexibility and highest operation reliability. These features on your processing center complement your production requirements and assist you to expand in your market.

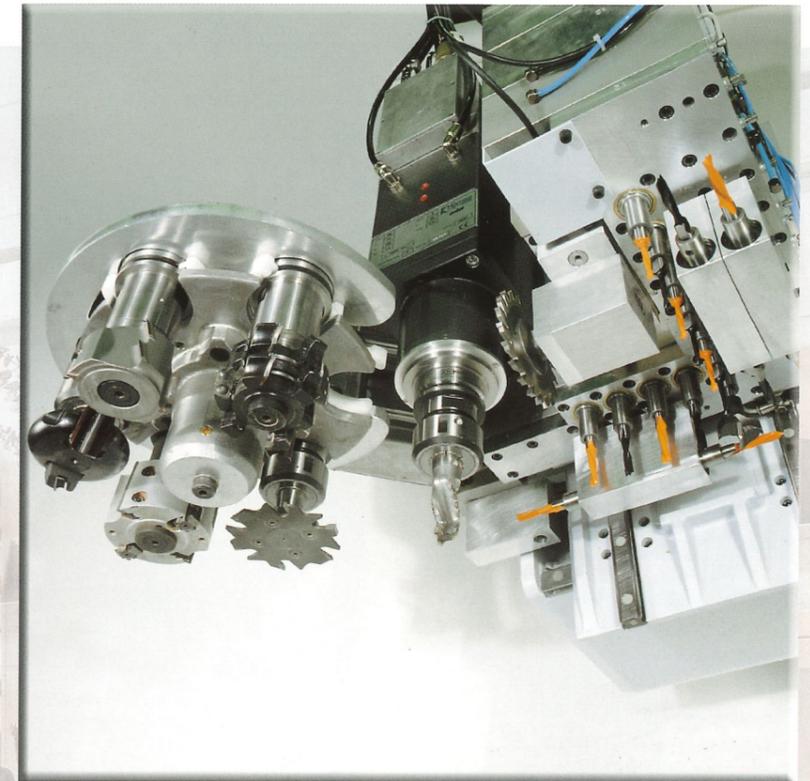
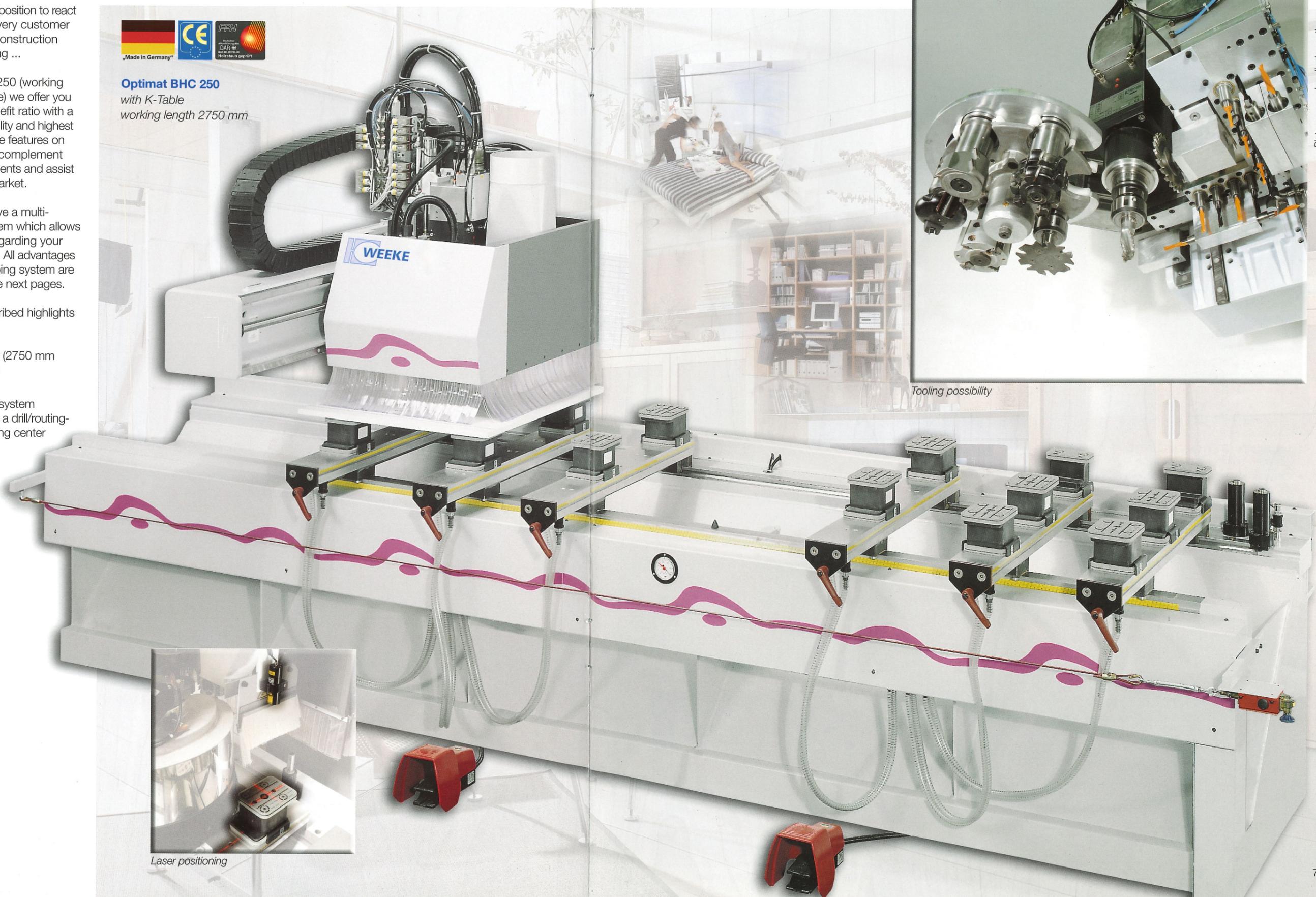
With the K-Table you have a multi-functional clamping system which allows you to remain flexible regarding your processing requirements. All advantages of this established clamping system are described in detail on the next pages.

Of course all of the described highlights are already available:

- 3185 mm travel range (2750 mm working field) in X-axis
- 2-field operation
- Modular construction system application possible as a drill/routing- or combined processing center
- Horizontal routing unit (option)
- Laser positioning (option)
- Choice between several tool changing systems



Optimat BHC 250
with K-Table
working length 2750 mm



Tooling possibility



Laser positioning

Pictures can also display options

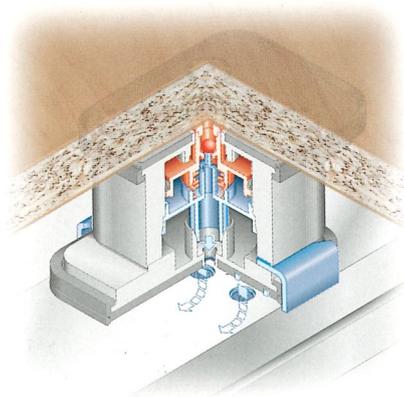
Our clamping technique is flexible – The K-Table

With **the free positionable, tubeless vacuum cup system** we offer you further flexibility regarding the different geometrical shapes and sizes.

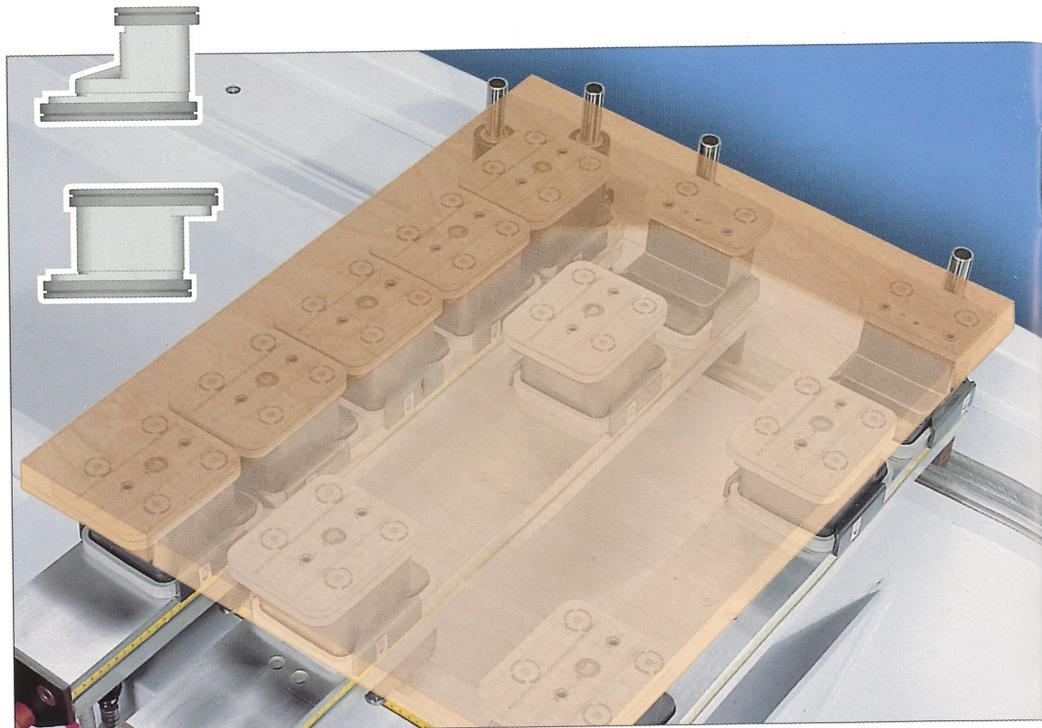
This is achieved via following characteristics:

- Suction pods with a height of 100 mm → be extremely free under the work pieces. This allows the use of multi-function tools
- Easy handling via our double-cycle vacuum system
- The side stops can be moved via hand lever valves – no limit in the work piece length
- Strong vacuum pump (option 100 m³/h)
- Electronic vacuum control systems guarantee strong clamping of the work piece - manufacturing reliability even for spongy materials and exotic forms
- Fast tool change via scales and indices
- Solid stops (**d = 20 mm**) accurate positioning for heavy work pieces
- Up to 5 vacuum pods can be positioned on the work piece
- The vacuum pods for narrow work pieces can be positioned length- and crosswise
- Large utility range via the different geometry of the vacuum cups
- Laser positioning (option)

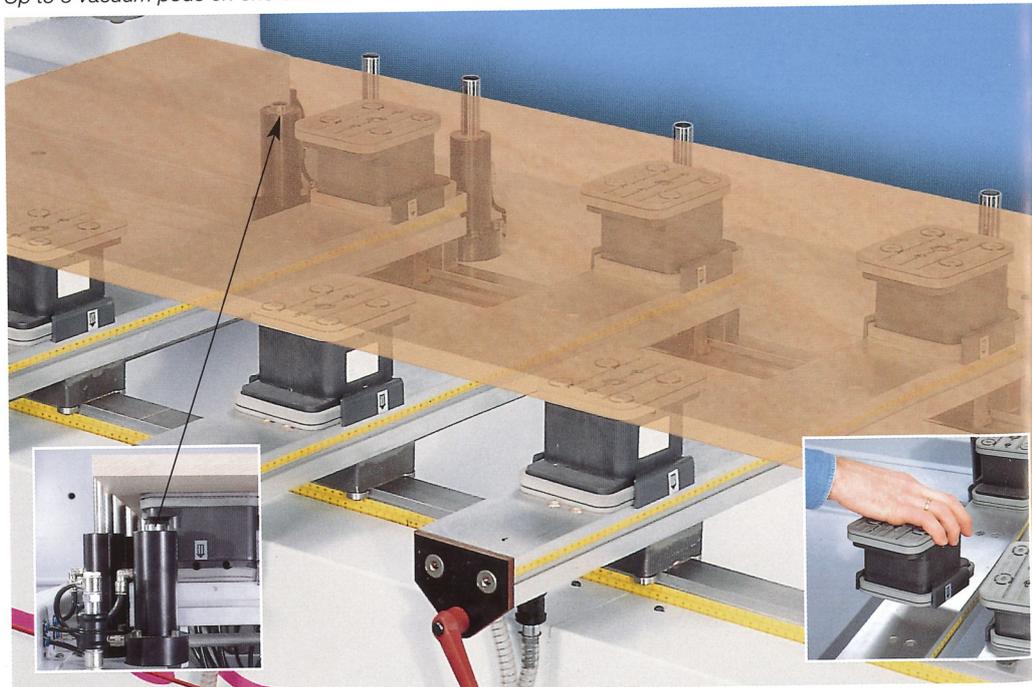
No matter if you create or process frames, ledges, corners, cut-outs, circles etc., your work piece always remains tightly clamped. With the tubeless clamping system, re-tooling can be realised easily, fast and secure.



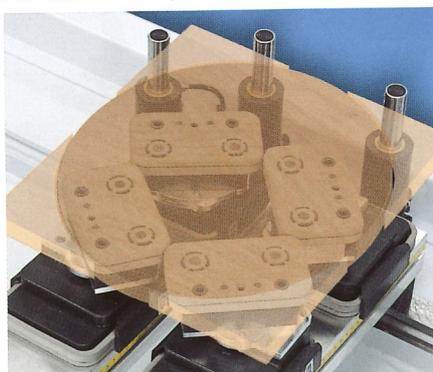
Double-cycle vacuum system



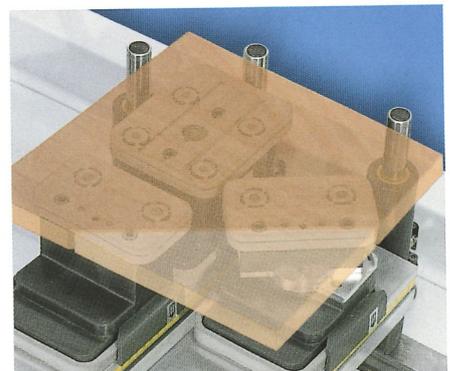
Up to 5 vacuum pods on one console



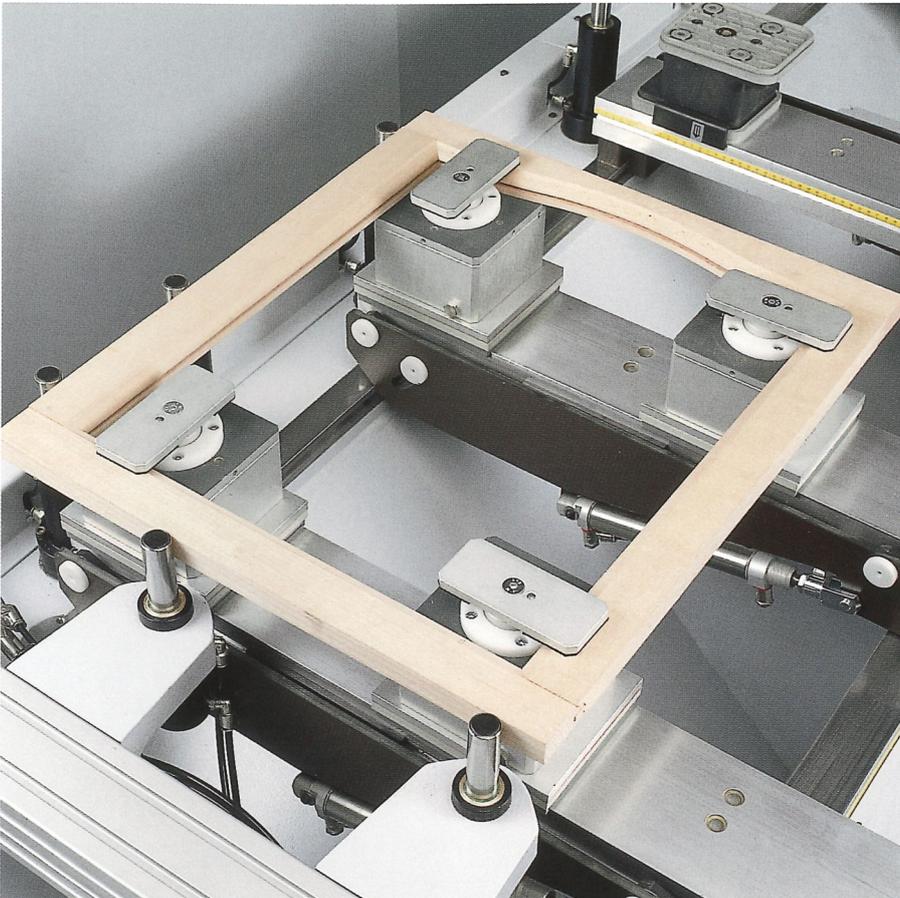
Moveable side stops



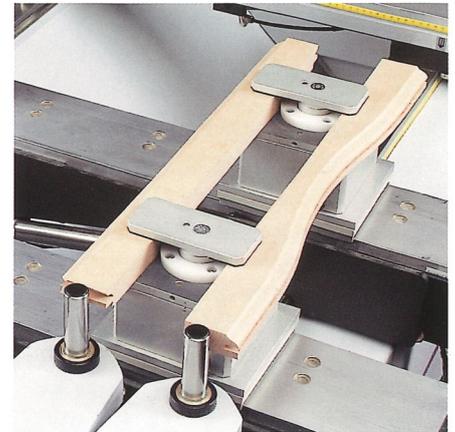
Combination of narrow vacuum pods



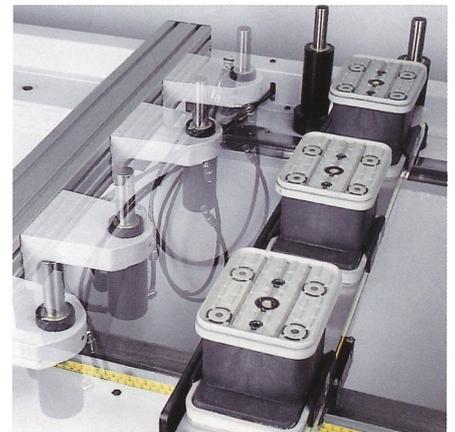
Narrow vacuum pods (0°-45° indexing)



Multi clamping system



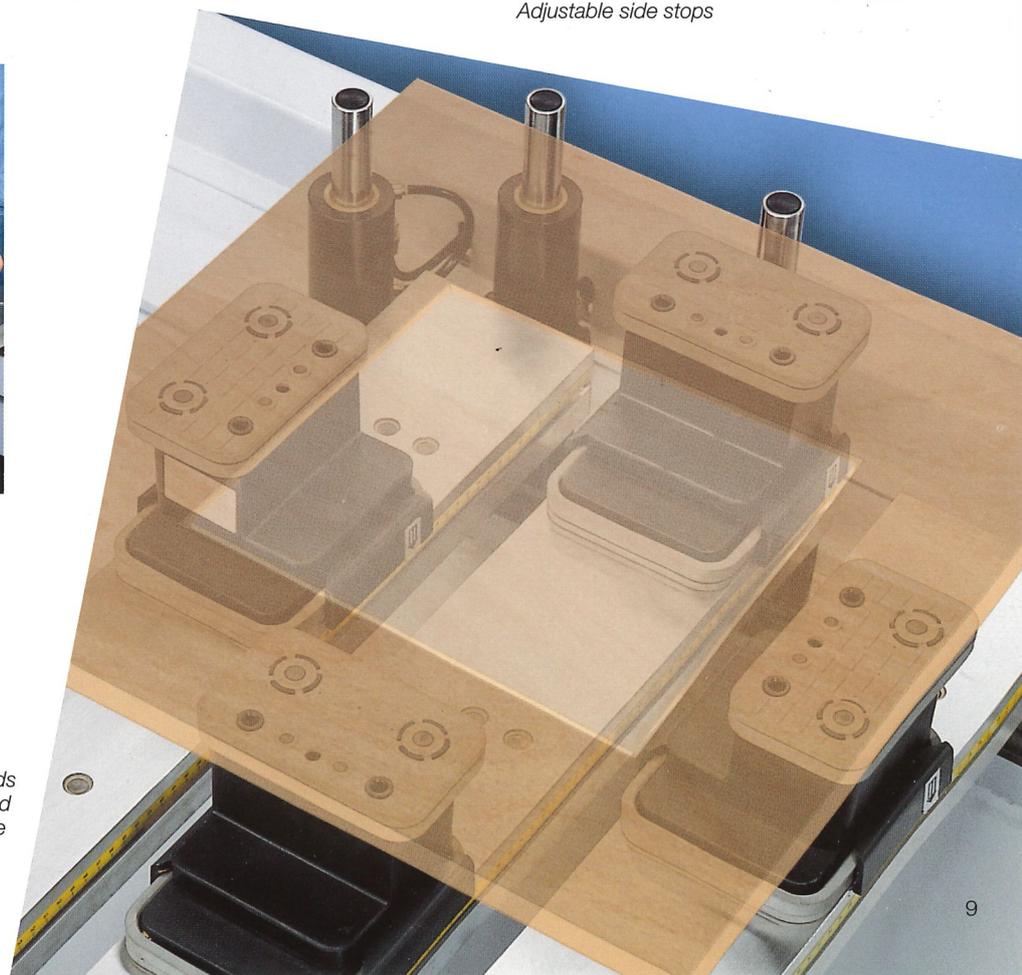
Clamping on both sides of narrow parts



Adjustable side stops



Solid stops



Vacuum pods
length- and
crosswise

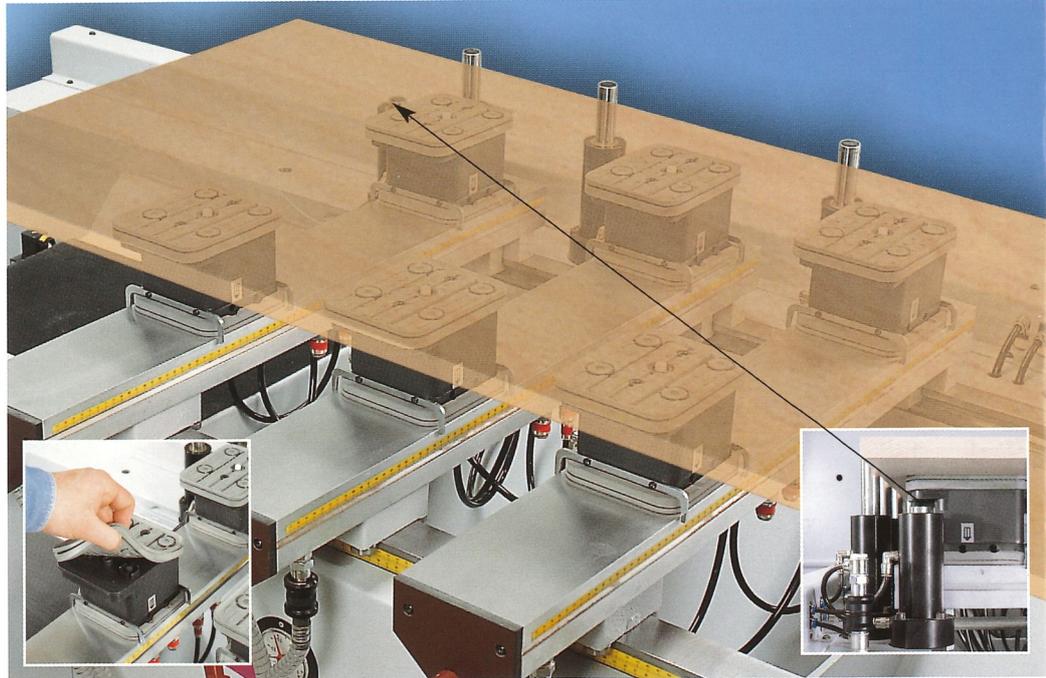
Pictures can also display options

The alternative clamping system – The K-Table with tubes

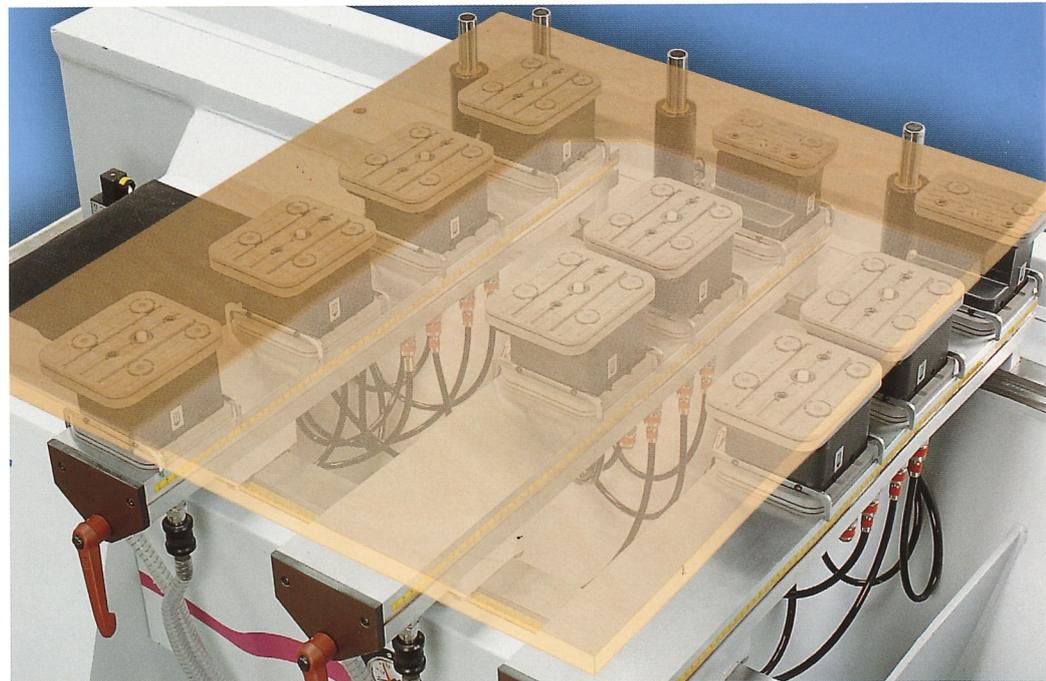
Our modular construction system is also utilised in the clamping system range. Use your freedom and examine our established tube system in detail. You have the choice:

Here are the typical features:

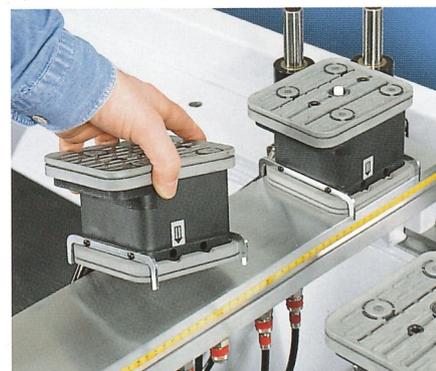
- Suction pods with height of 100 mm → large freedom of movement below the work pieces allow the use of multi-function tools.
- The side stops can be moved via hand lever valves → no limit in the work piece length
- Strong vacuum pump (option 100 m³/h)
- Electronic vacuum control systems guarantee a strong clamping of the work piece → manufacturing reliability even for spongy materials and exotic forms
- Fast tool change via scales and indices
- Solid stops (**d = 20 mm**) accurate positioning for heavy work pieces
- Up to 4 vacuum pods can be positioned on the work piece
- The vacuum pods for narrow work pieces can be positioned length- and crosswise
- Large utility range via the different geometry of the vacuum cups
- Laser positioning (option)



Moveable side stops



Up to 4 vacuum pods on one console



Simple positioning

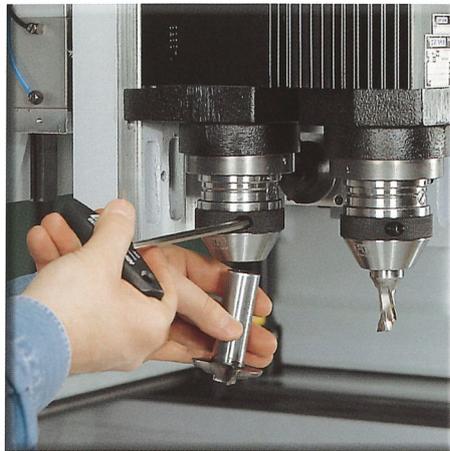
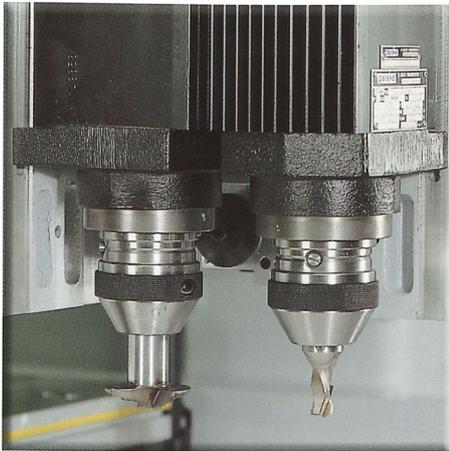


Strong vacuum pump

The Tool Changing Systems



Hydro clamping system (ETP)



The BHC 250 can be equipped with one or two powerful routing motor(s) and a hydro clamping system (ETP):

- Use of pre-set tools, not necessary to measure again
- All tool data are entered into the tool file only once
- Safe and fast manual tool change
- Programmable right- and left-handed rotation of the routing motors
- High precision through centric hydraulic clamping

You would like more flexibility in your production?

The Optimat BHC 250 can be adapted even further to your requirements with a 5-fold pick-up tool changer.

Another ace in the modular construction system of the Optimat BHC 250:

Ride-along tool changing magazine
The tool changing magazine which moves in X-and Y-direction at the processing support accepts up to 6 tools and guarantees shortest tool changing times.

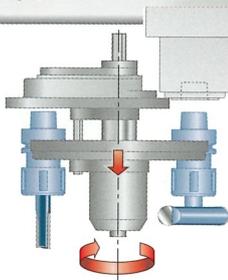
The configuration is your choice!



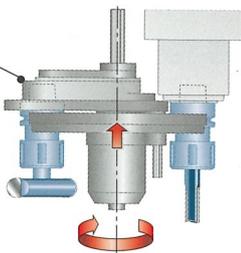
6-fold tool changer moving in X-and Y-direction



5-fold tool pick-up tool changer

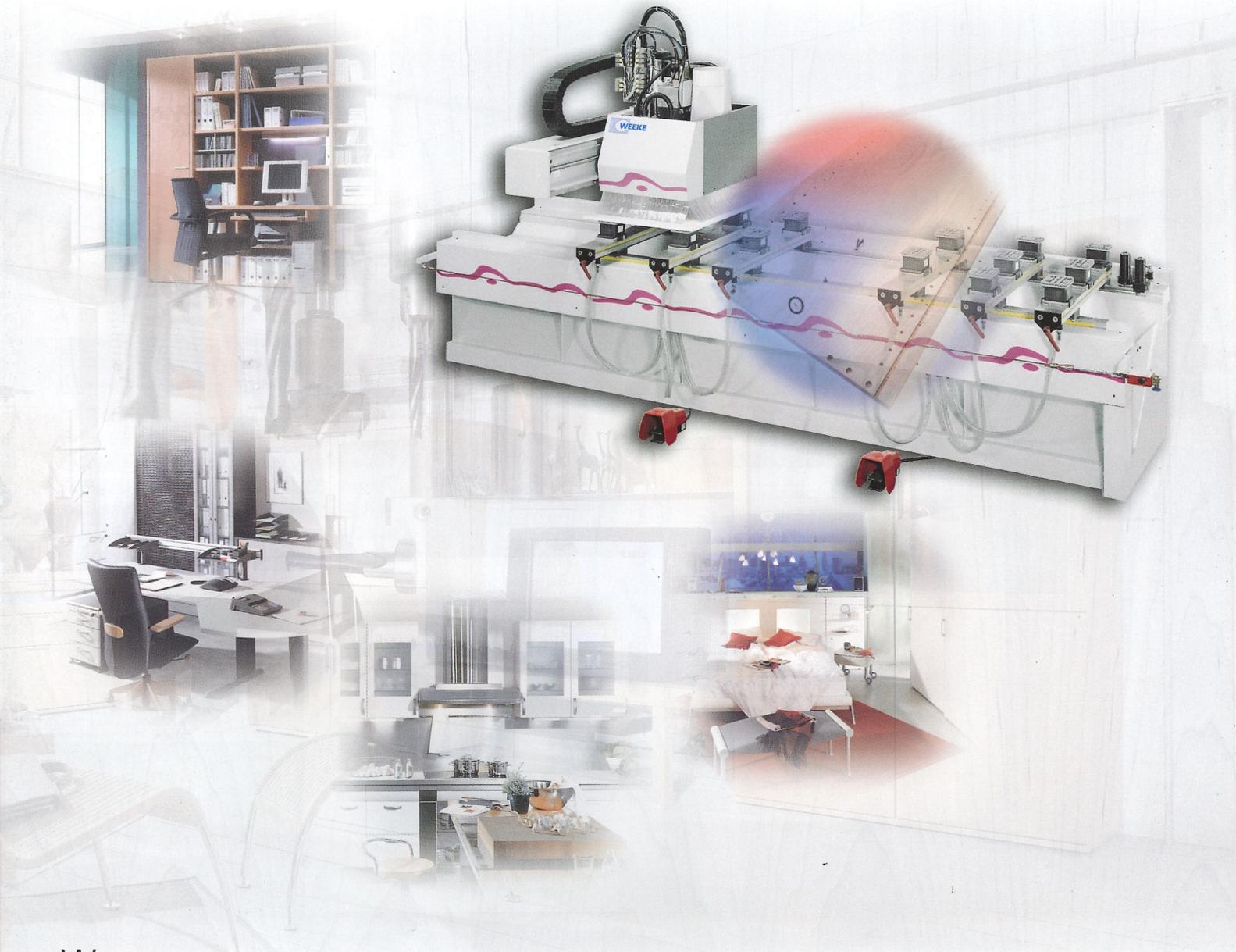


Dust protected tool changing magazine



Pictures can also display options

The Challenge – activity on all continents



World-wide manufacturing companies must prepare for tougher competition. This applies for us as well as for yourself. Those companies who restructure the processes which are becoming more and more complex by the day and handle these issues in a competent manner, will stay competitive and will hereby stay ahead of their competitors.

Highlights in Hard- and Software



The **WoodWOP** and the **Homatic 2000** Systems are developed in close co-operation with you and our specialists.

In our days, short cycle times are a must! Profits are realised by fast and safe programming. Well known to you from your standard machine, easy handling and high reliability are realised via the WoodWOP surface.

The interface between man and machine was realised by WEEKE with a PC-System and the Microsoft Windows® world many years ago. Easy handling of the machine in your daily business is the result of this solution - you move in a confident world. You already know this world which provides safety and confidence from your own home.

Program your success in WoodWOP.

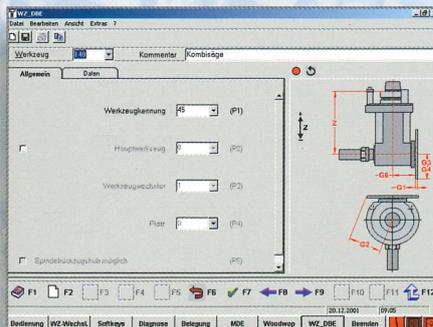
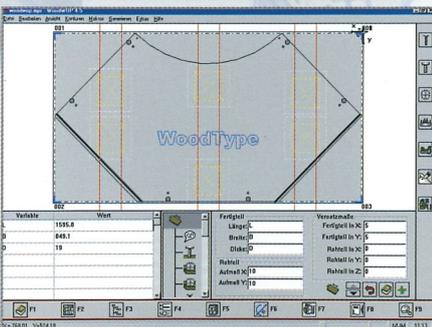
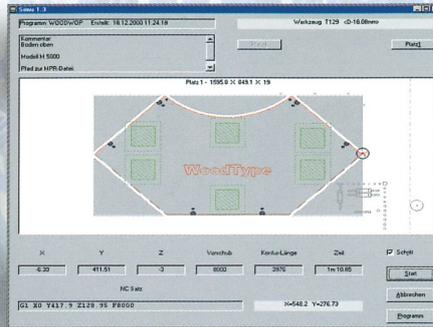
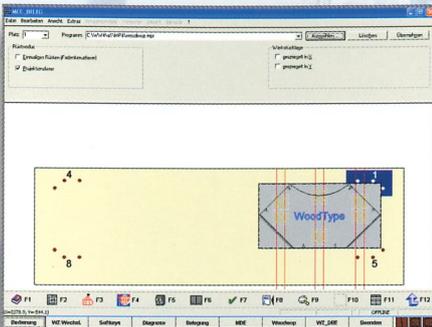
WOP = Workshop-Orientated - Programming

In WoodWOP you do not program the machine and its movements but the panel and its processes.

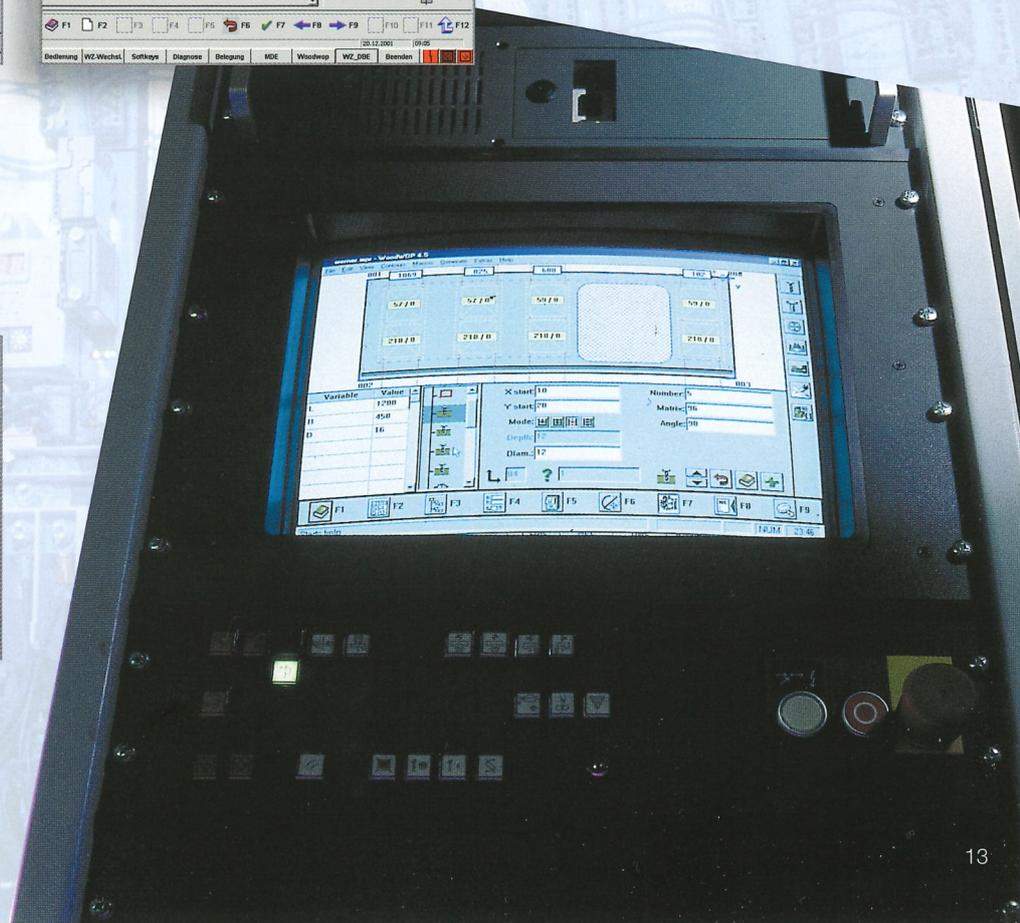
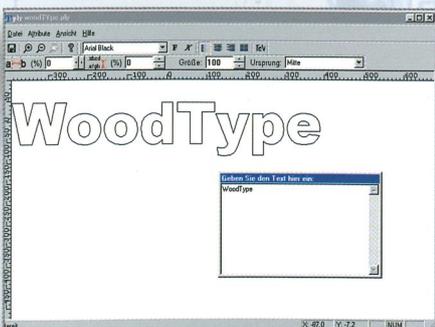
The integration of the Optimat BHC 250 machining center into your existing computer network and your barcode system are only few of many options. The control is already prepared for internet.

Numerous successful projects with well known manufacturers and suppliers of branch programs do not leave any wishes open in the CAD/CAM range.

Pictures can also display options



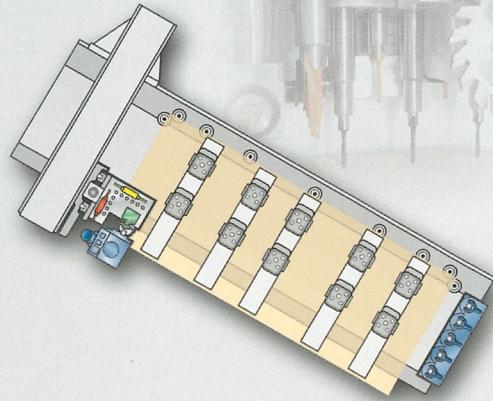
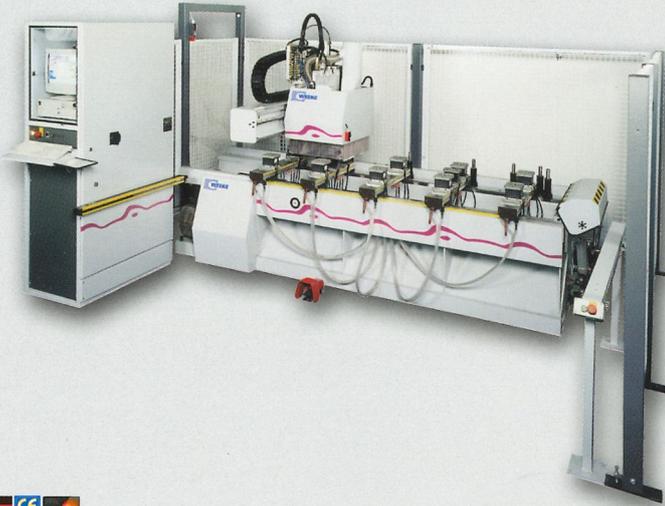
Parametric programming and the possibility of component technique combined with your personal know-how will lead to a maximum of productivity.



An overall view of our technology

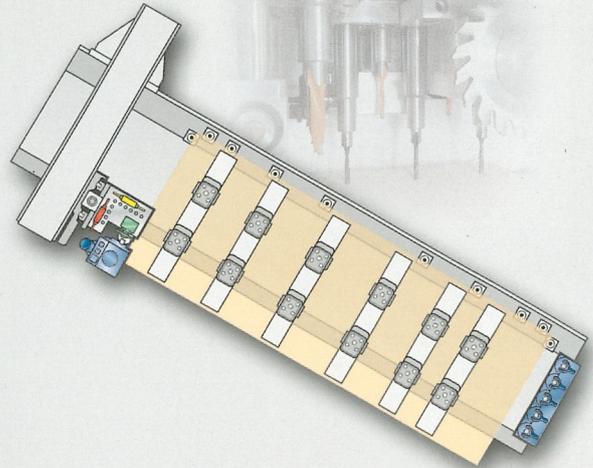
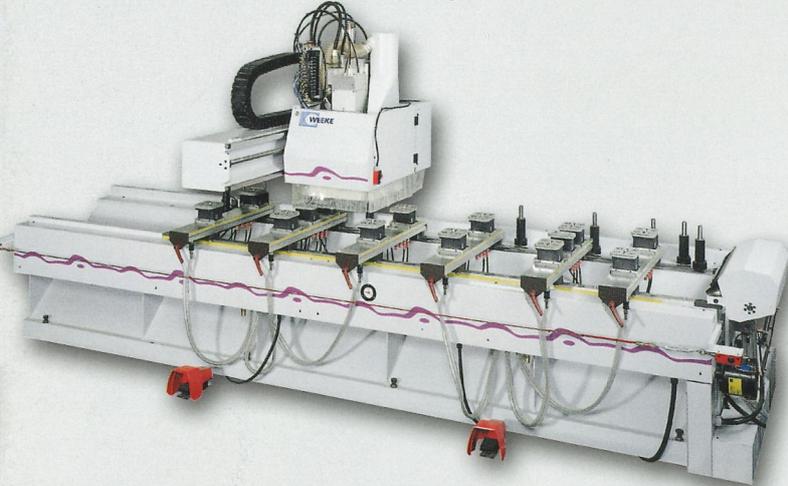
Optimat BHC 250

with K-Table (with tubes) working length: 2100 mm



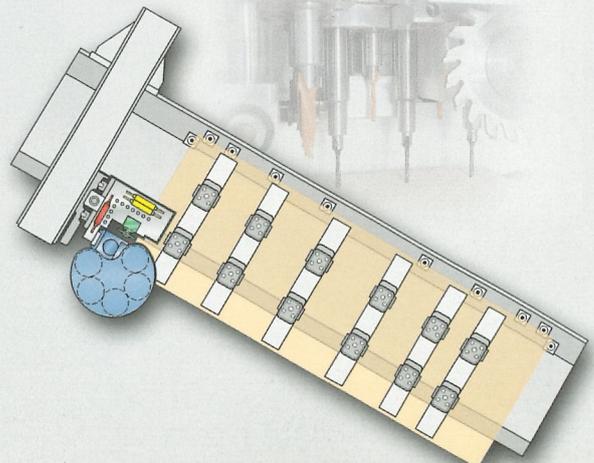
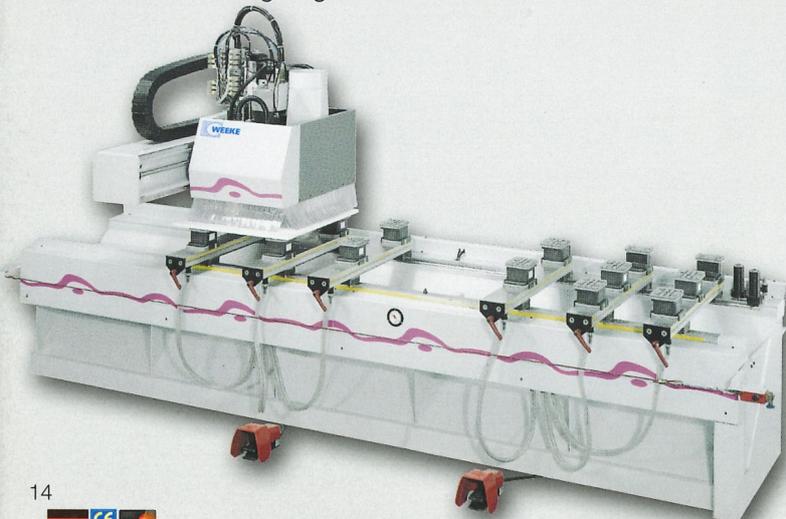
Optimat BHC 250

with K-Table (with tubes) working length: 2750 mm

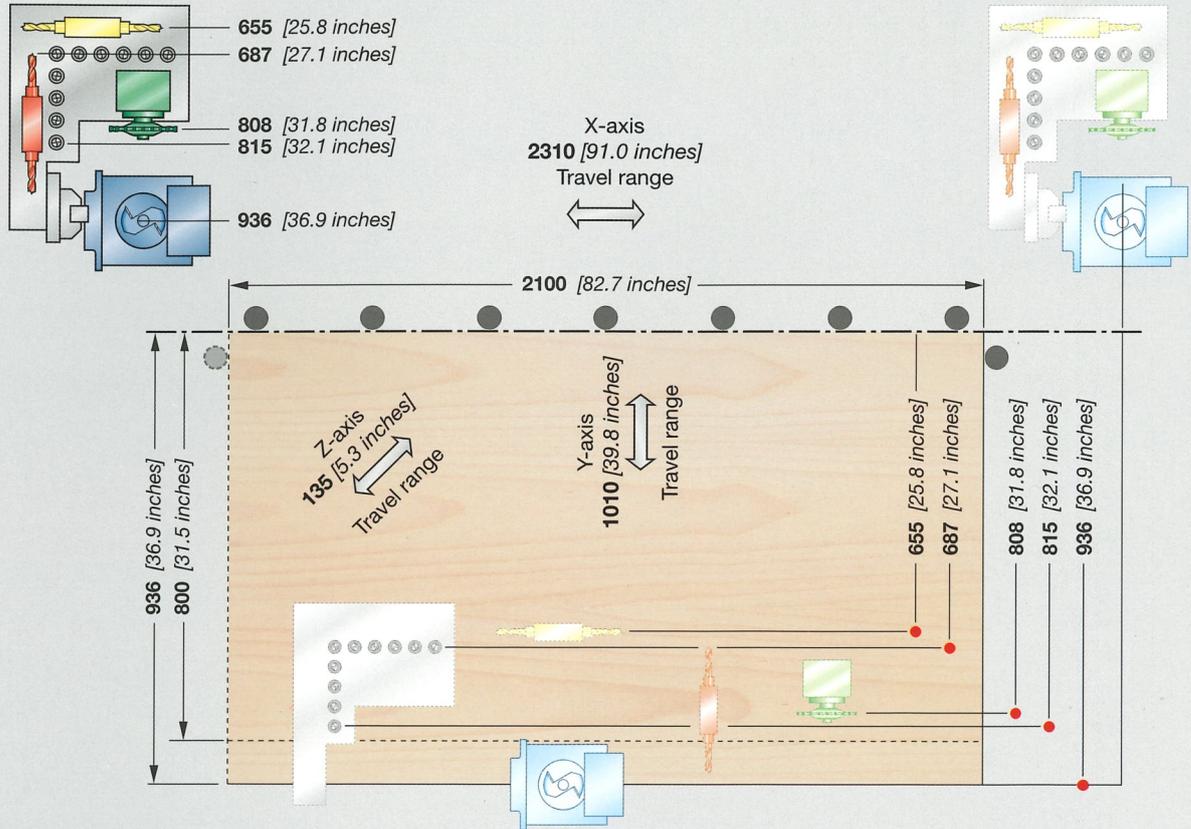


Optimat BHC 250

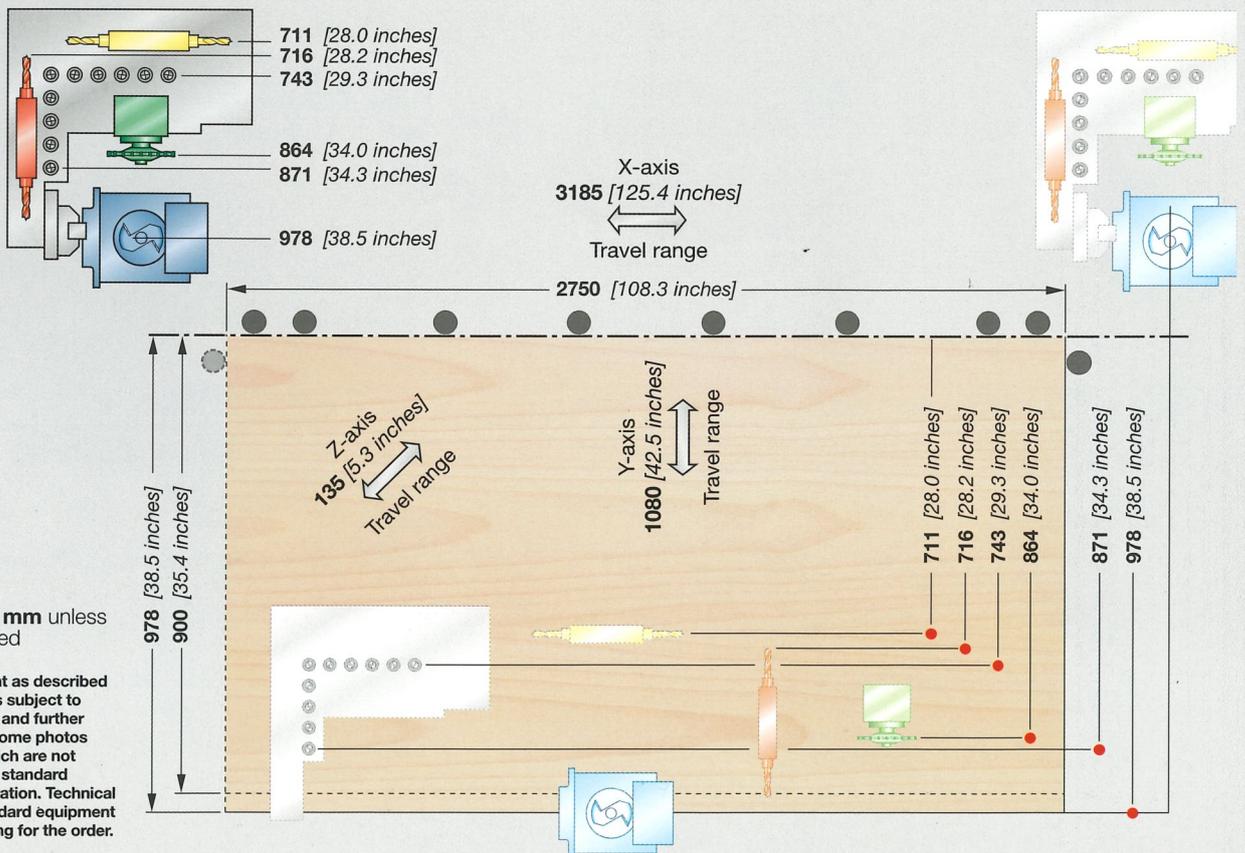
with K-Table working length: 2750 mm



Optimat BHC 250 [2100 mm]



Optimat BHC850 [2750 mm]



Dimensions in **mm** unless otherwise stated

NOTE: Equipment as described in this brochure is subject to technical change and further developments. Some photos show options which are not included with the standard machine configuration. Technical data refer to standard equipment and are not binding for the order.

TECHNICAL DATA

BHC 250

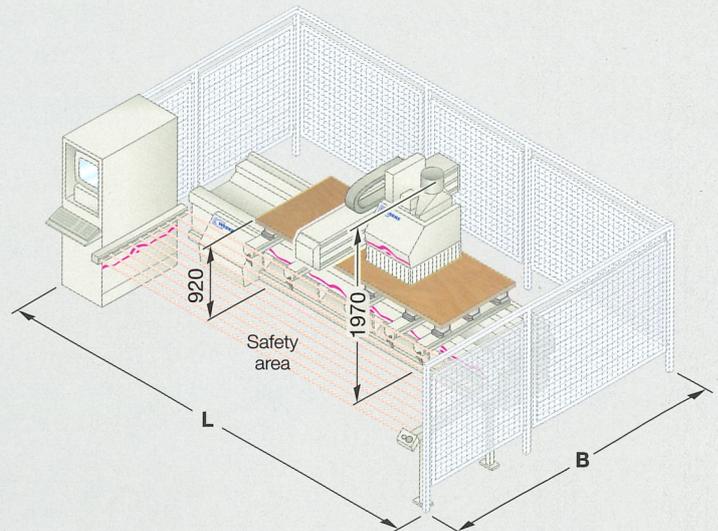
Work piece thickness	mm	max. 50
	mm	max. 50 - 70 *
Driving system of the axis	digital	
Positioning accuracy of the axis	mm	0.03
Rapid traverse rate X-Y-Z axis	m/min	60/50/20
Compressed air connection	inch	R 1/2
Compressed air required	bar	7
Air pressure consumption	l/min	100-200
Vacuum pump capacity	m ³ /h	ab 40
Central suction connector	mm	Ø 160-200
Suction air speed	m/min	min. 28
Pressure drop	PA	min. 2000
Total suction power	m ³ /h	min. 2027 - 3170
Electrical connecting power	kW	8 - 12
Total machine weight		
[for 2100 mm]	kg	ca. 2700
[for 2750 mm]	kg	ca. 3100

* using the corresponding tool lengths or clamping devices

Optimat BHC 250

Working-length	L	B
2100	ca. 4100	ca. 3100
[82.7 inches]	[ca. 161.4 inches]	[ca. 122.0 inches]

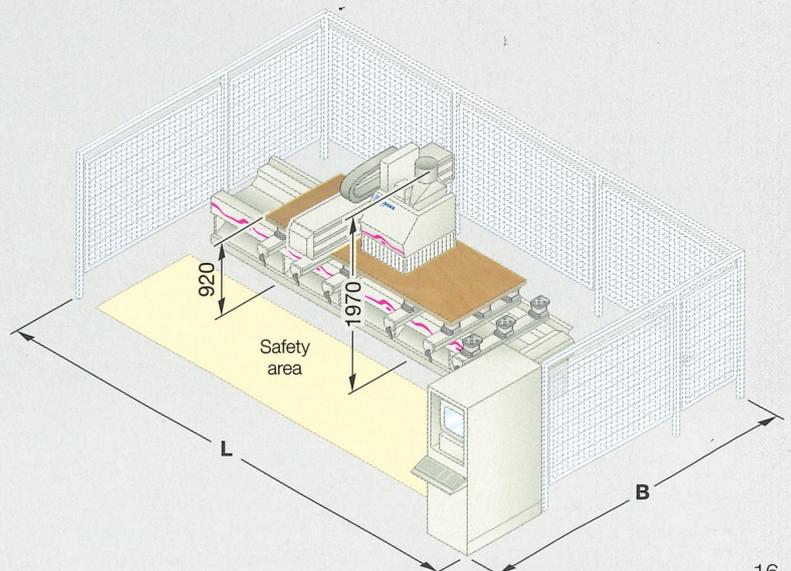
Option: Safety cabinet **right** side



Optimat BHC 250

Working-length	L	B
2750	ca. 4800	ca. 3500
[108.3 inches]	[ca. 188.8 inches]	[ca. 137.8 inches]
3750	ca. 5800	ca. 3500
[147.6 inches]	[ca. 228,3 inches]	[ca. 137.8 inches]
4750	ca. 6800	ca. 3500
[187.0 inches]	[ca. 267.7 inches]	[ca. 137.8 inches]

Option: Safety cabinet **left** side



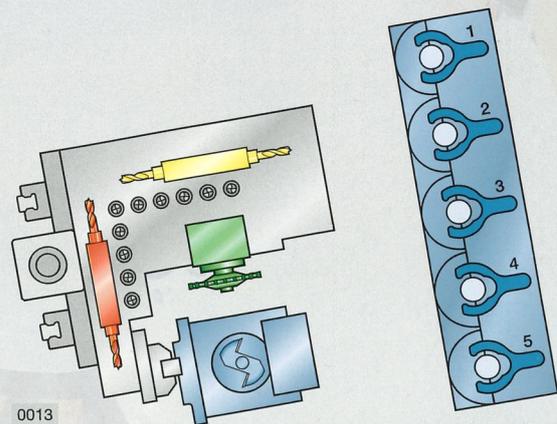
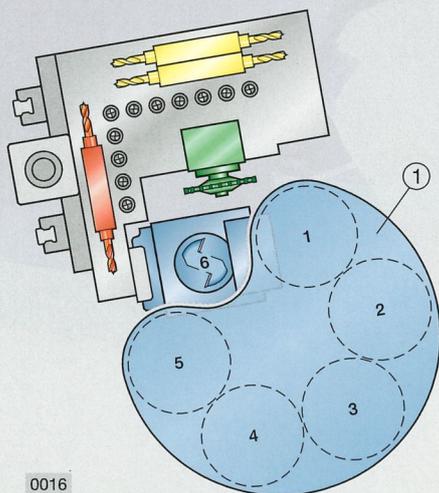
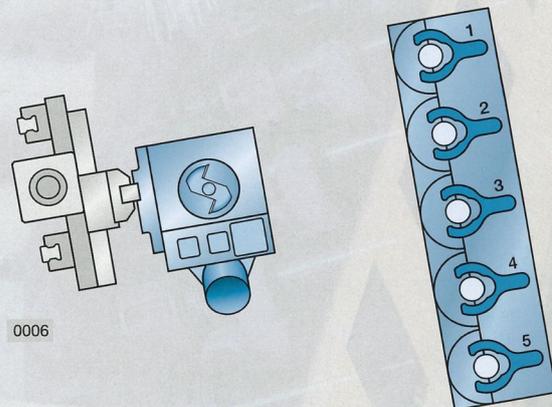
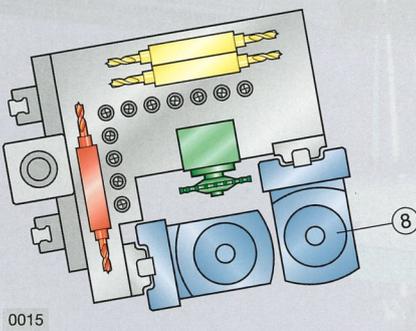
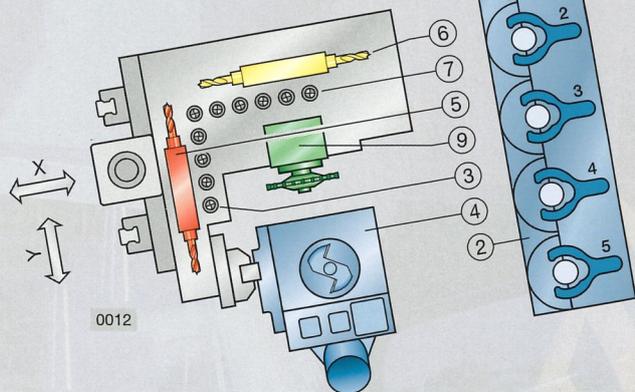
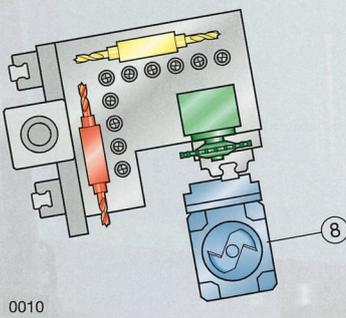
Dimensions in **mm**

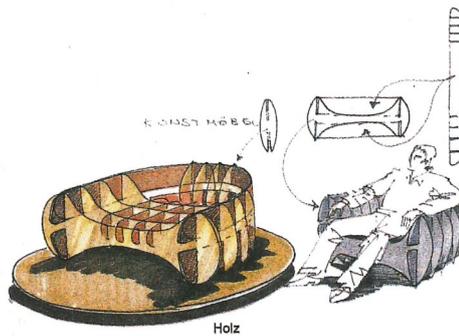
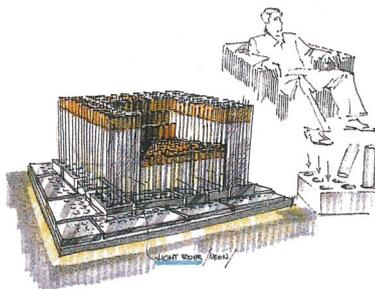
Set-up dimension refer to our standard versions

Optimat BHC250

Possible equipment

- ① 6-fold tool change magazine ride along X-, Y-axis
- ② 5-fold pick-up tool change magazine
- ③ Vertical drilling spindles Y-axis (individually selectable)
- ④ Main Router Spindle
- ⑤ Horizontal drilling spindles Y-axis
- ⑥ Horizontal drilling spindles X- axis
- ⑦ Vertical drilling spindles X- axis (individually selectable)
- ⑧ Router
- ⑨ Grooving saw unit





Dialogue

A chair made of wood – a chair made of aluminum. Two different materials but with so many similarities. You will find these objects in our foyer, hopefully to encourage you to talk with us.

Relationships based on a partnership mean we have the same aims and the same starting point resulting in mutual satisfaction – WIN WIN.

A member of the international HOMAG-Group



WEEKE Bohrsysteme GmbH
Benzstraße 10-16
33442 HERZEBROCK-Clarholz
GERMANY
Fon +49-52 45-4 45-0
Fax +49-52 45-4 45-1 39
info@weeke.de www.weeke.de