



CNC – Machining Center OPTIMAT BP145

CNC-Technology
par excellence -
Unbeatable
Y-capacity.

OPTIMAT BP145

Your CNC-Machining Center



With the Optimat series, WEEKE is presenting CNC machining centers with quality and reliability looking back on 50 years of experience.

The Optimat Series is manufactured with state-of-the-art technology located Herzebrock-Clarholz, Germany.

All individual components are based on the latest technology available and are used throughout the entire HOMAG Group.

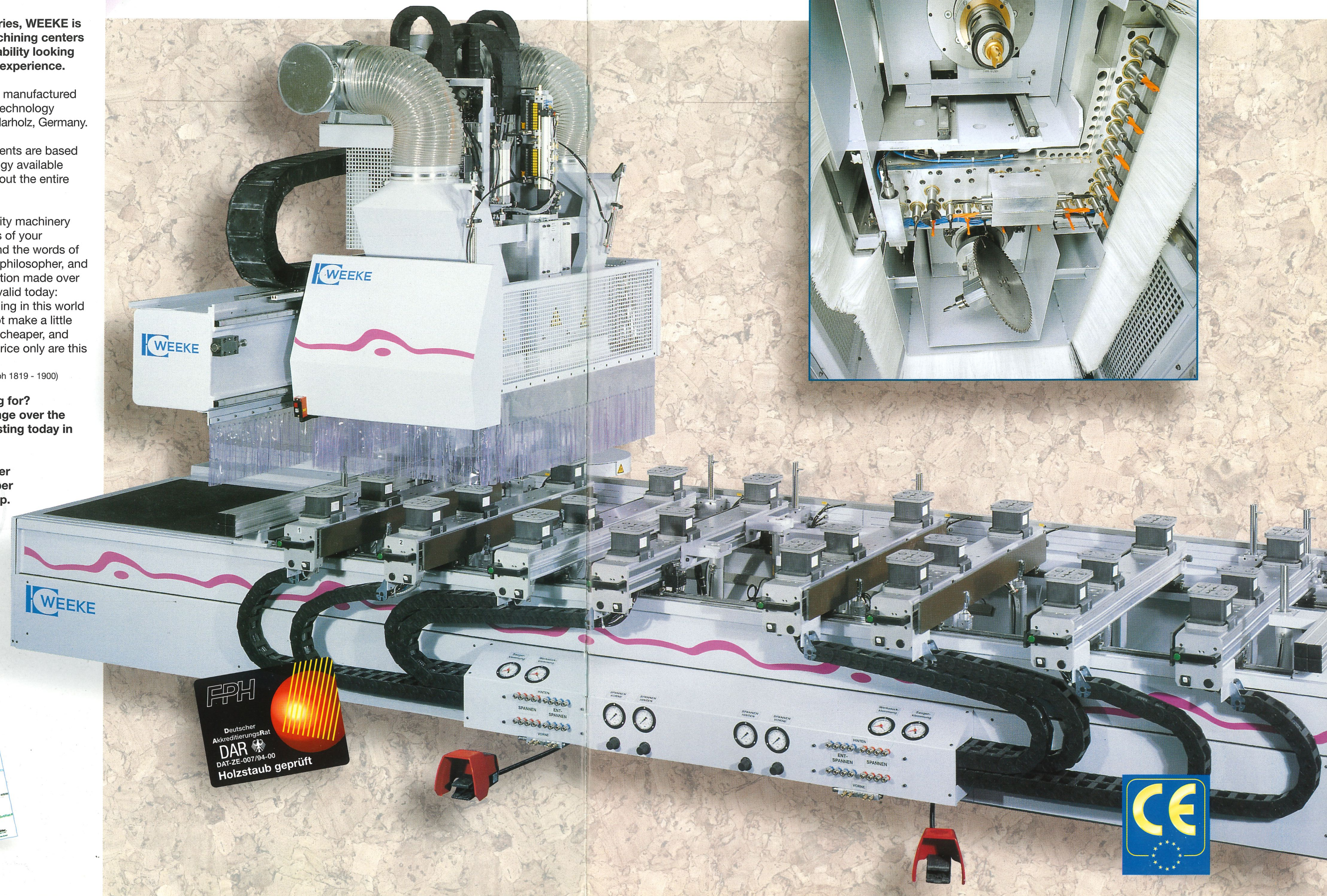
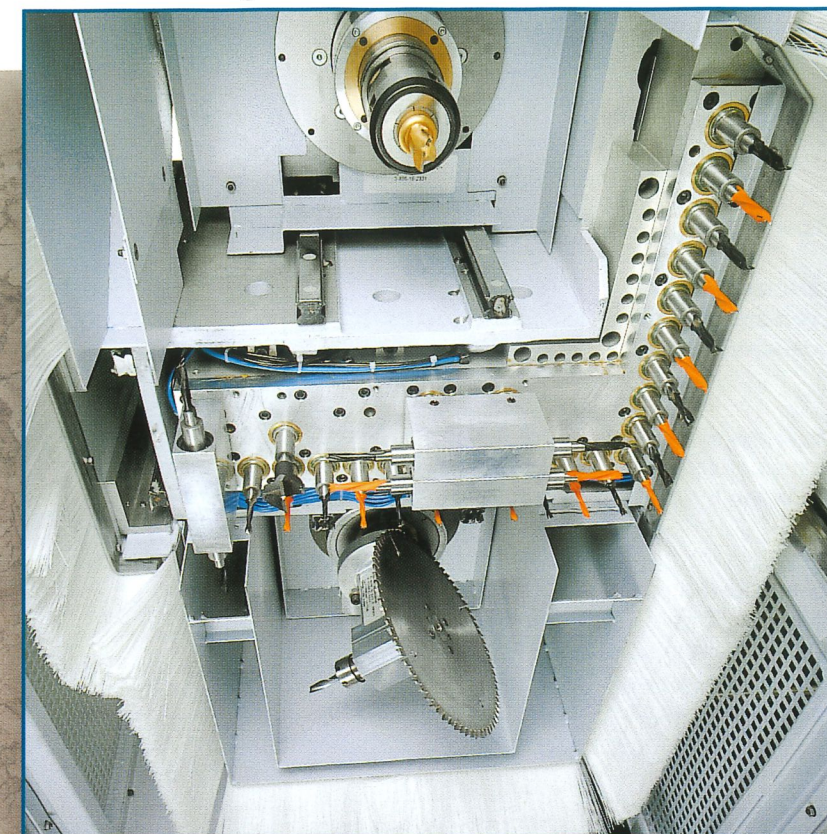
You decide what quality machinery means to the success of your business. Keep in mind the words of John Ruskin, English philosopher, and how his recommendation made over 100 years ago is still valid today:
 „There is hardly anything in this world that some man cannot make a little worse and sell a little cheaper, and those who consider price only are this man's lawful prey.“

(John Ruskin, Social Philosoph 1819 - 1900)

What are you waiting for?
Ensure your advantage over the competition by investing today in your future.

WEEKE - Your partner for the future. Member of the HOMAG-Group. Certified by DIN ISO 9001.

Possible head configuration OPTIMAT BP145



OPTIMAT BP145 – Made by WEEKE

Flexibility is essential to success in today's competitive marketplace



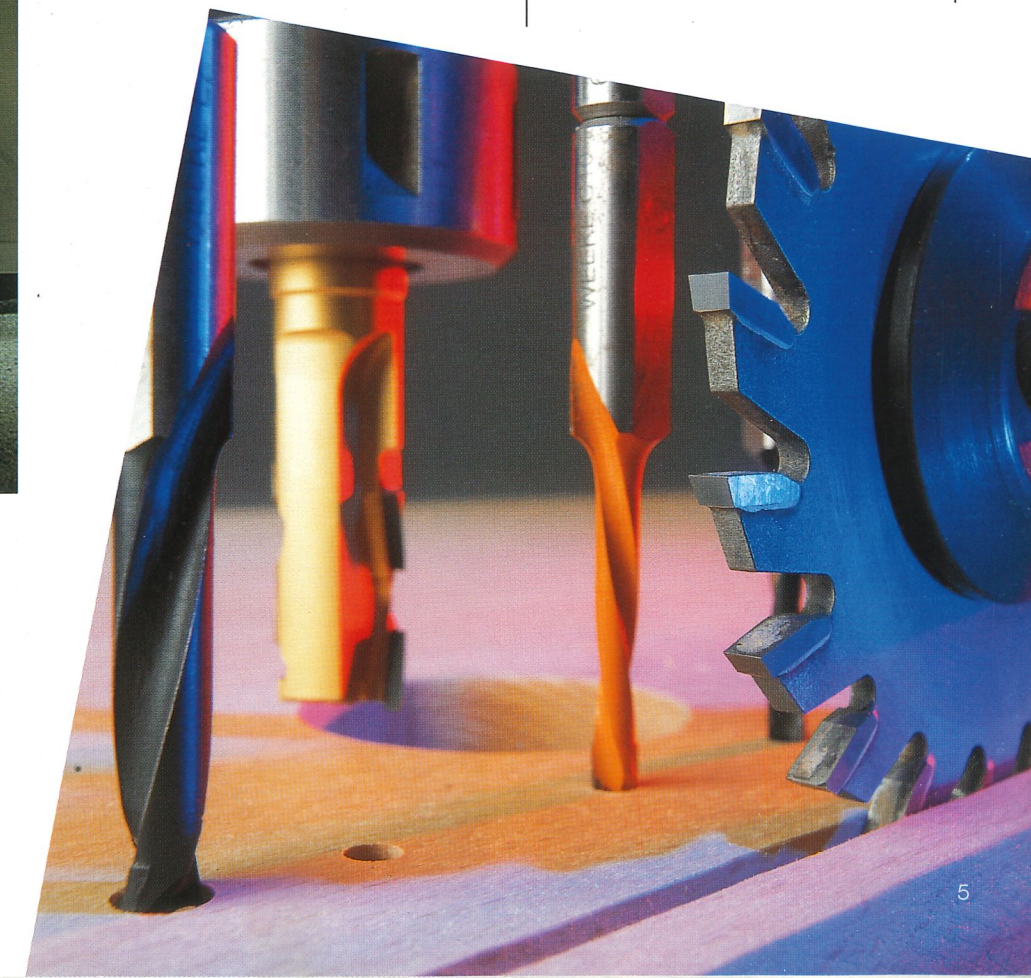
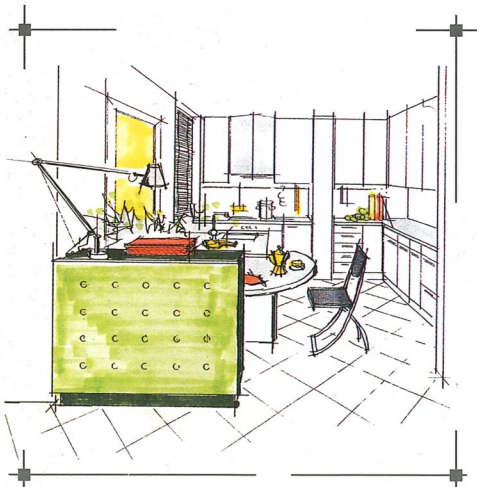
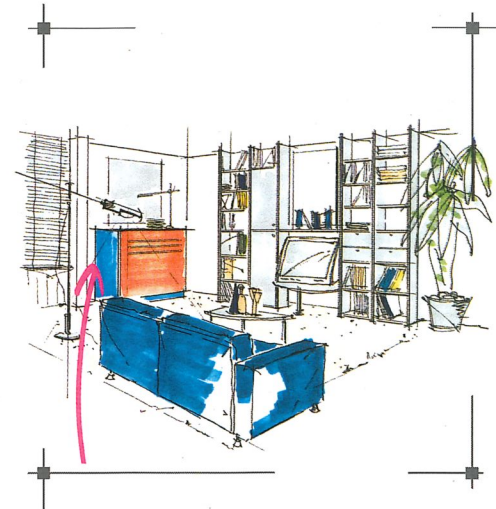
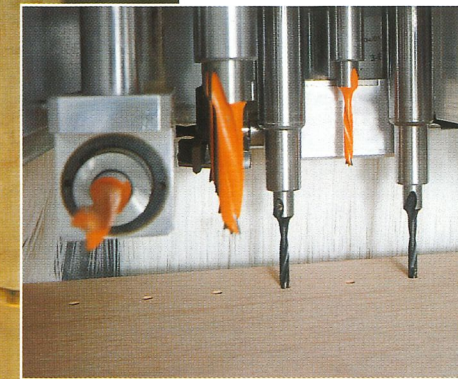
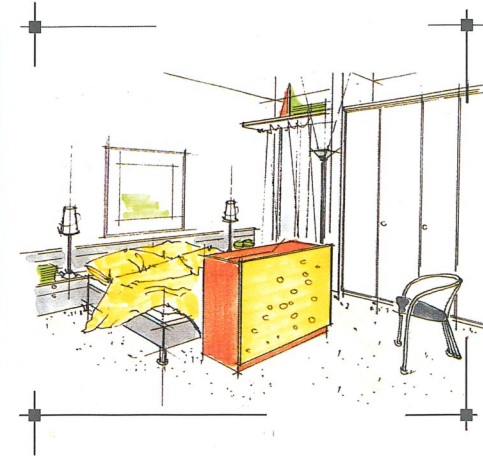
You have:

- Craftsmanship
- Creativity
- Flexibility
- Good Business Sense

You know why you are successful: you don't sell what you are able to produce, you produce what you are able to sell.

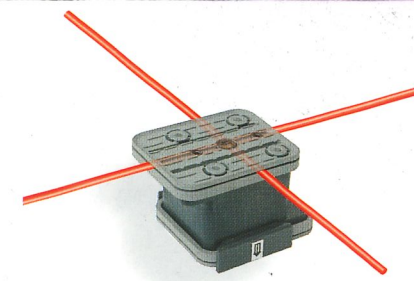
As your partner, we have the same opinion and offer you the capability to continue your success in the future with the Optimat Series.

The Optimat Series offers flexibility for a wide range of applications. This allows you to handle production in a cost effective manner providing an advantage against your Competition.



Innovation in Part Hold-Down Technology Easy Positioning of the Vacuum Pods – The

Console Table

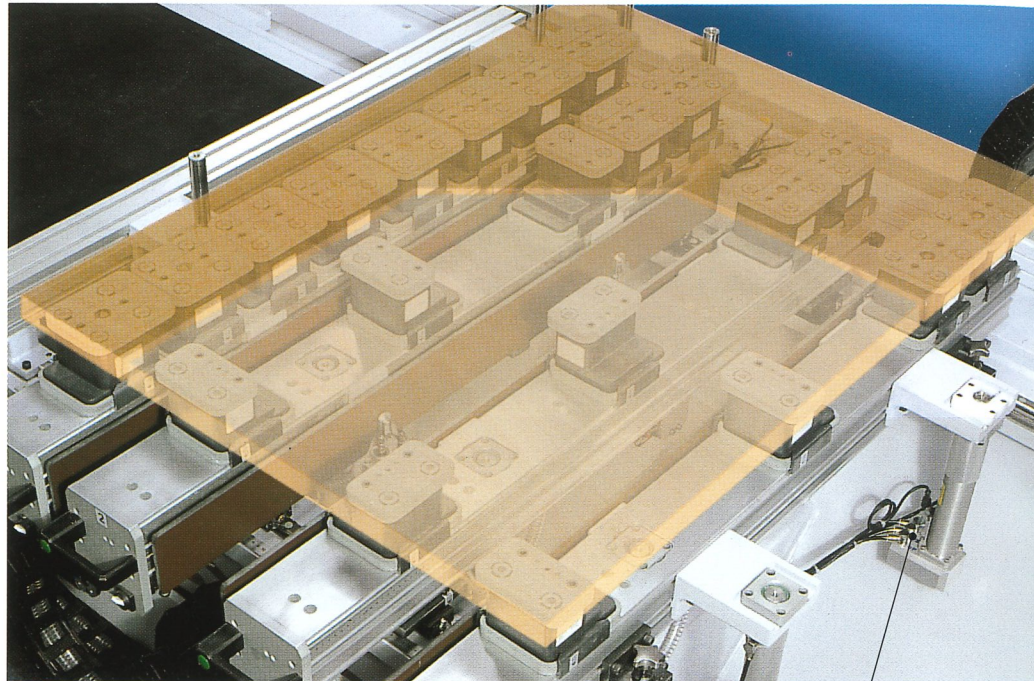


Laserpositioning

The clamping of the workpieces is one of the most critical issues for the Quality of CNC-manufacturing. The combination of machine stability, high precision tooling and effective clamping guarantees a quality product leaving the machine. With these factors in mind we developed the console table with free and easy positioning of the vacuum pods. Our vacuum system provides high flexibility in order to clamp the workpiece.

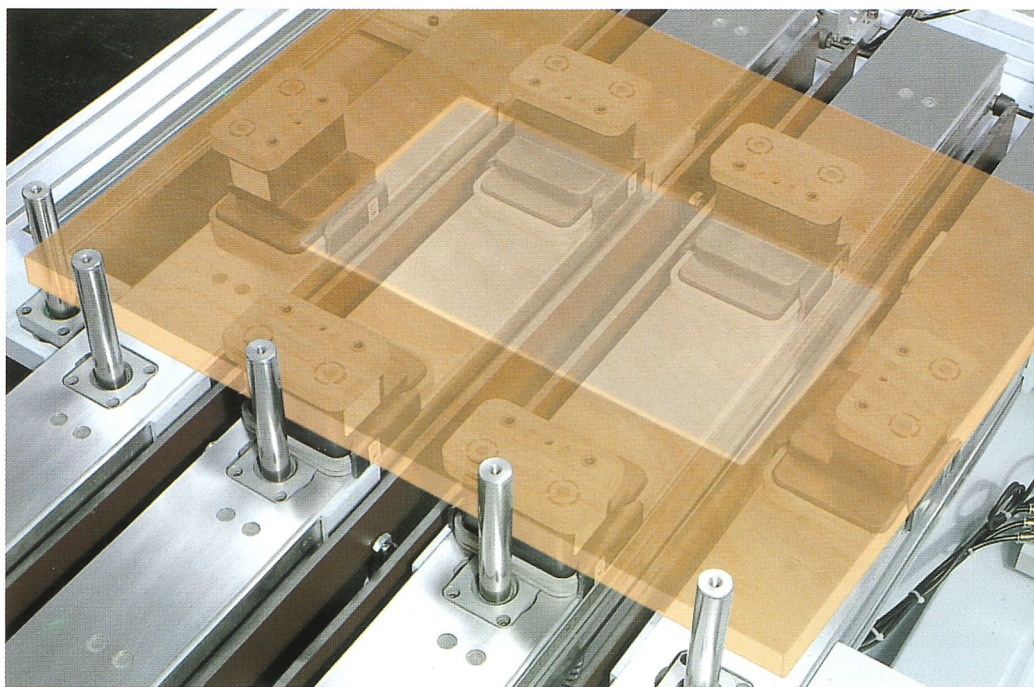
The following technical features underline this flexibility.

- The side stops can be moved.
- A powerful vacuum pump, including an electronic vacuum control to ensure a strong clamping of the workpiece.
- Scales on the benches and the pods assist the operator in positioning the vacuum pods and the benches.
- Strong stops (D=25mm, proximity switch) guarantee an accurate positioning of heavy workpieces.
- The gasket of the vacuum pod can be exchanged easily.
- The vacuum pods for narrow parts can be positioned length- and crosswise.
- Up to 8 vacuum pods can be positioned on one bench. Off cut can be clamped easily
- On top vacuum pods (90° indexing) for narrow parts.
- Panel feeding rails for an easy loading of the machine
- 2nd row of stops assists operator in feeding narrow parts
- Stop extensions – and pneumatic devices for laminated workpieces with overhang
- Hold down devices and pneumatic cylinders for clamping frames or mouldings.

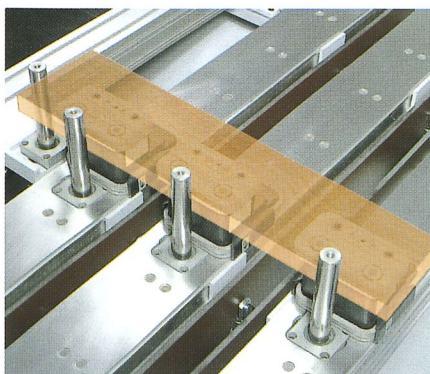


Up to 8 vacuum pods on one bench

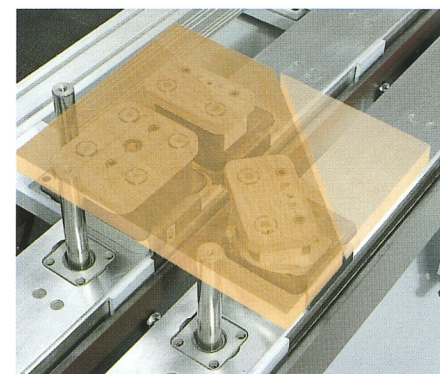
Proximity switch



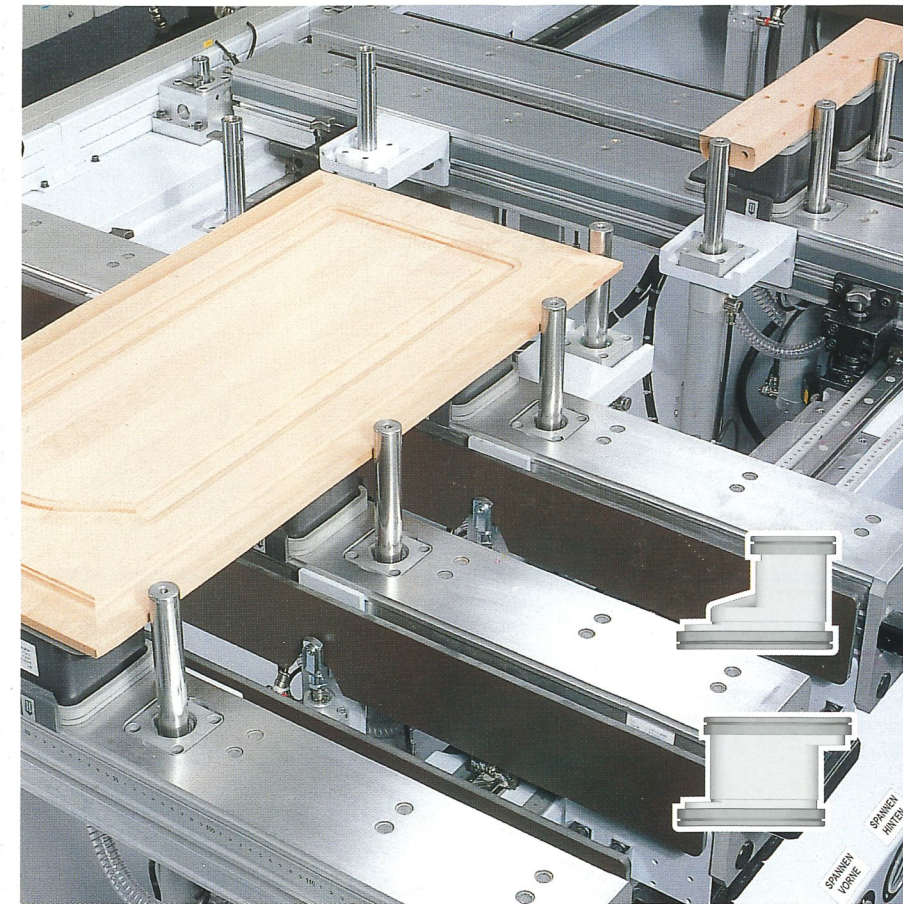
Vacuum pods length- or crosswise



Narrow vacuum pods



Narrow vacuum pods (0°-45° indexing)



Panel feeding rails and solid stops (d=25mm)



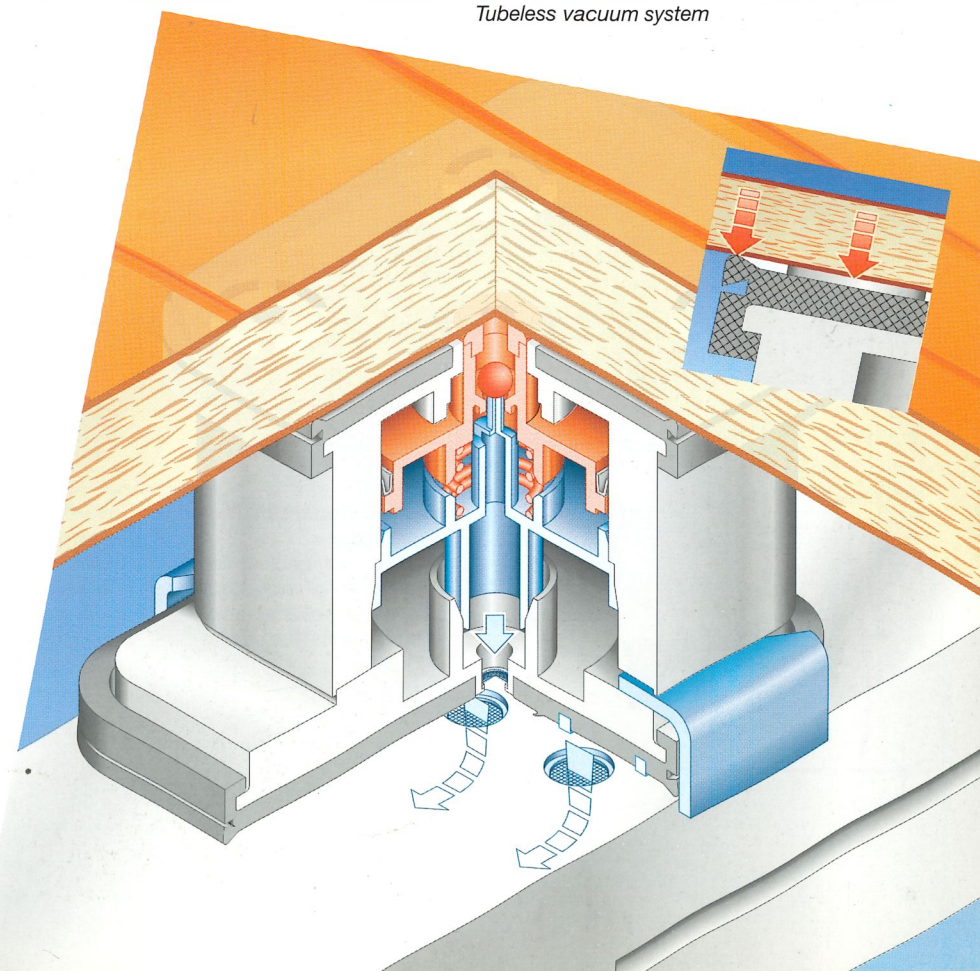
Easy exchange of the rubber



Tubeless vacuum system



Variety of vacuum pods



The C-axis and the pneumatic Interface of the OPTIMAT BP145

Head configurations with fixed aggregates must be ordered up-front when buying the machine. You don't know what will happen in the future. WEEKE understands this problem and came up with a perfect solution: The aggregate capability. The aggregate capability gives you maximum flexibility.

You don't have to look forward to the future when buying the machine. We will offer a solution which considers the demand of the future.

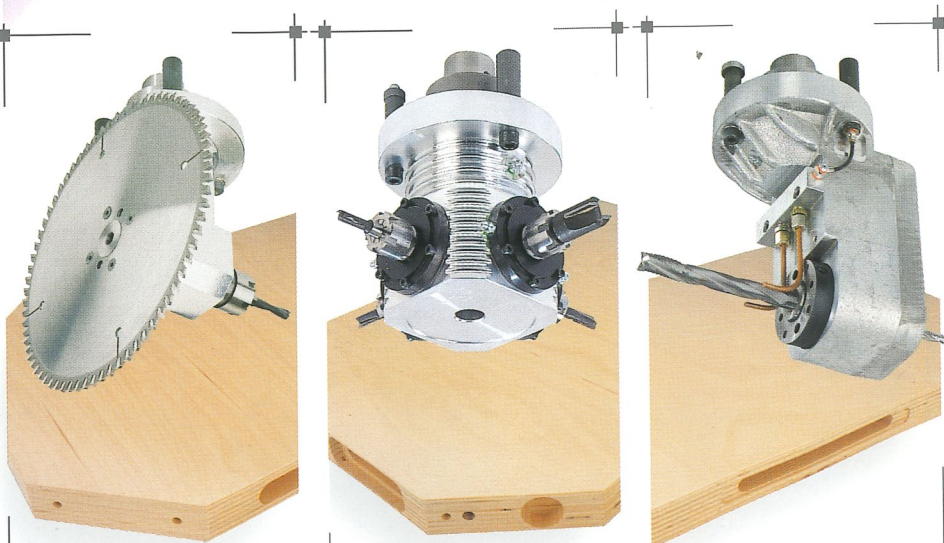
The C-Axis

Safe and accurate fixing of the aggregates with the HSK-tooling interface and three strong pins = high operating quality and long tooling life

Free programming of the aggregates (360°) = processing with every angle.

The Pneumatic Interface

At place where air consumption is necessary the pneumatic interface is what you need – High Accuracy for floating applications and a long tool life when routing a cam box.



HSK 63 combination aggregate

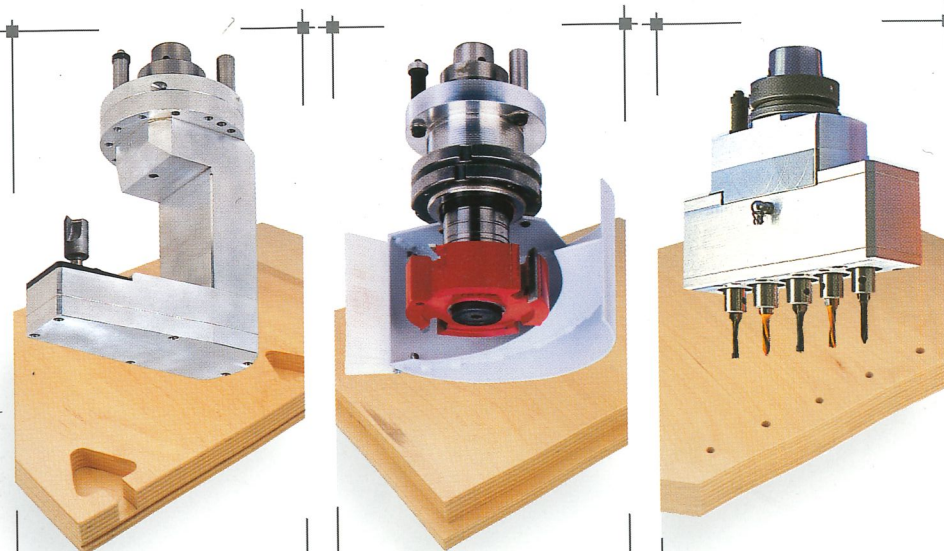
For boring, routing and sawing such as connections, grooves and through cuts etc. under any angle (0°-360°). Max saw blade diam. 240 mm.

HSK 63 routing aggregate

For boring and routing up to a depth of 50 mm under any angle (0°-360°).

HSK 63 cam box routing aggregate

For cam box routing, hinge slots and horizontal routing up to a depth of 128 mm (0°-360°).



HSK 63 Underside Routing Aggregate

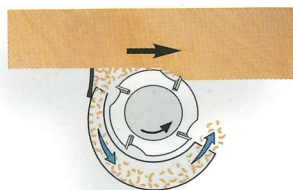
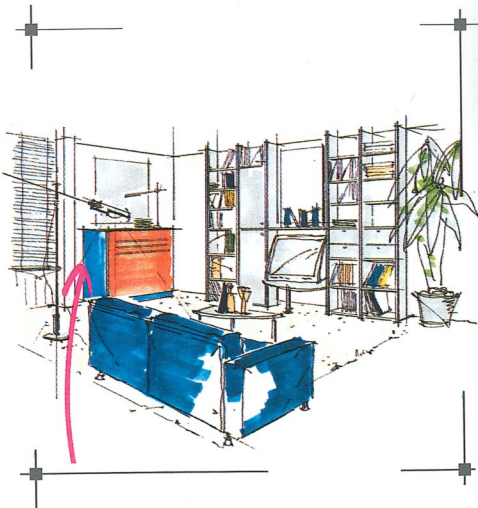
Vertical routing or drilling from the bottom of the workpiece. Routing is possible up to 100mm from the corner (0°-360°)

HSK63 Aggregate with Chip device

Vertical routing with a high amount of chips, Heavy routing and profiling – a spiral is leading the chips straight into the dust extraction (0°-360°)

HSK boring aggregate

For hole row borings under any angle (0°-360°). Possible distances 25, 30, 32 or 50 mm.

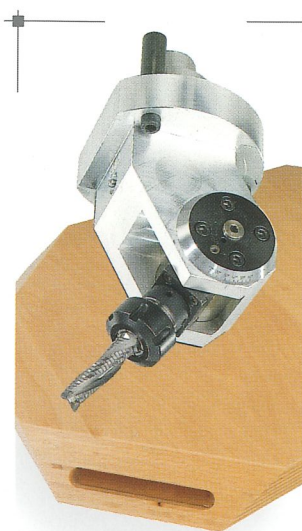




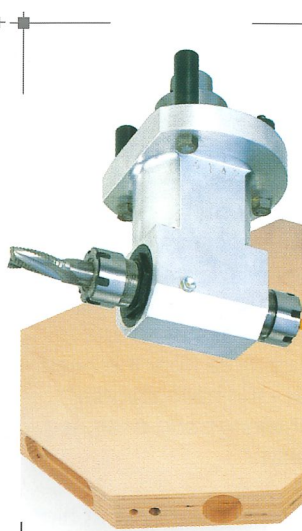
HSK 63 boring/sawing inclinable
For boring and sawing up to a depth of 50 mm under any angle (0°-360°).
The inclination of the borer or the saw blade can be adjusted manually (0°-90°).



HSK 63 boring/routing inclinable
For boring and sawing up to a depth of 78 mm under any angle (0°-360°).
The inclination of the borer or the saw blade can be adjusted manually (0°-90°).



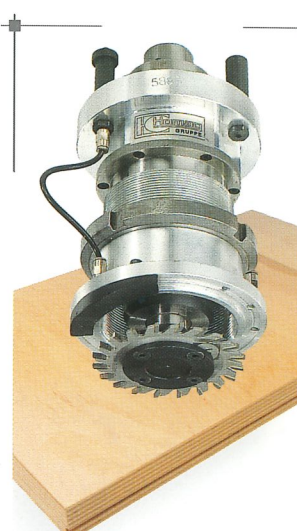
HSK 63 boring/routing inclinable
For boring and sawing up to a depth of 78 mm under any angle (0°-360°).
The inclination of the borer or the saw blade can be adjusted manually (0°-90°).



HSK 63 routing aggregate 2 spindles (clockwise/anti-clockwise operation).
For boring and routing up to a depth of 50 mm under any angle (0°-360°).



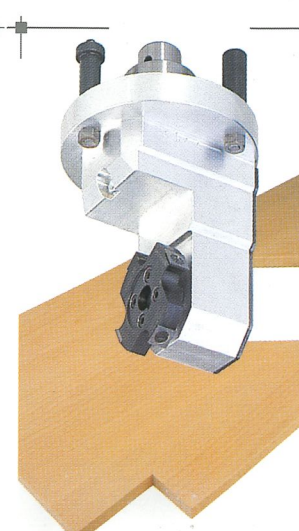
HSK 63 routing vertical with tracing ring
For routing in the workpiece surface, for routing of profiles or for tongue and groove connections. The complete surface of the tracing ring can lie on the workpiece.
Chips are being removed by the integrated blow nozzle.



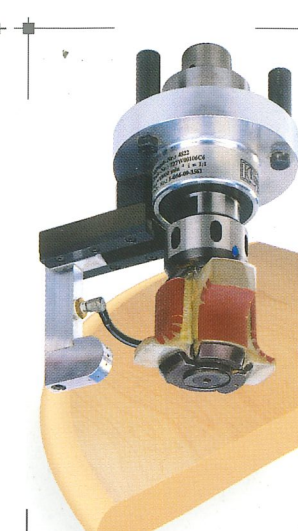
HSK 63 routing vertical with tracer shoe
For routing in the workpiece surface, for routing of profiles or for tongue and groove connections, with C-axis controlled tracer shoe.
Chips are being removed by the integrated blow nozzle.



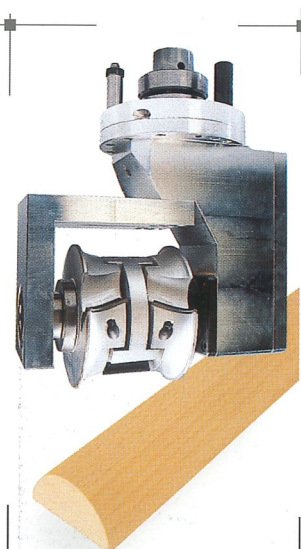
HSK 63 routing vertical with tracing ring
For routing in the workpiece surface, for routing of profiles or for tongue and groove connections. The complete surface of the tracing ring can lie on the workpiece.
Chips are being removed by the integrated blow nozzle. (0°-360°).



HSK 63 corner notching aggregate
For sharp-edged rectangular notching up to a material thickness of 25 mm under any angle (0°-360°).



HSK 63 adapter for sanding tool
For sanding of MDF or solid wood edges. The sanding tool is continuously cleaned by a blow nozzle.



HSK63 Planning Aggregate
Surface Applications up to 100mm width, like grooving or V-grooving but also Applications with different height in the surface



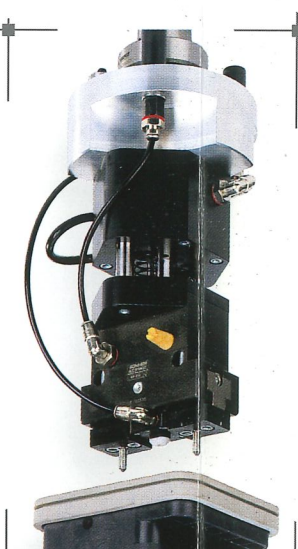
HSK 63 horizontal boring aggregat
For boring patterns under any angle (0°-360°).



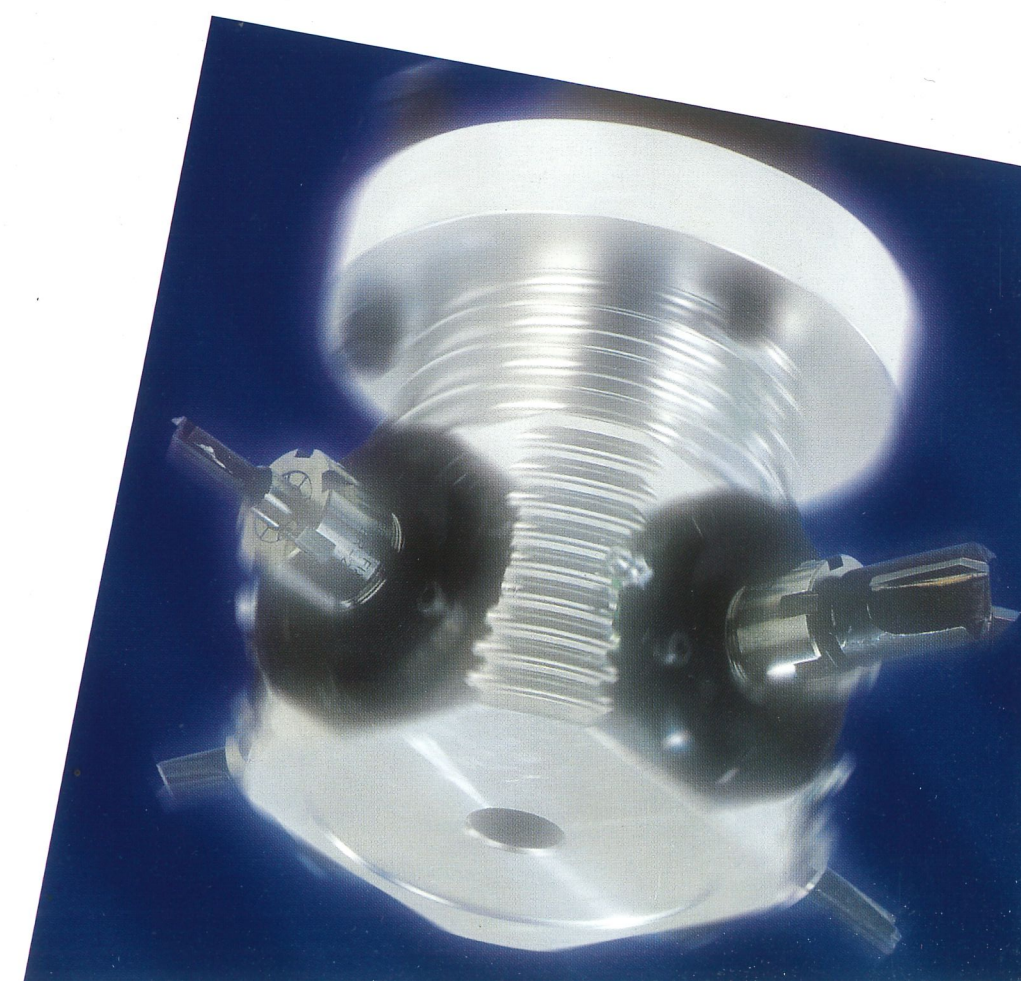
HSK 63 speed increaser
up to 30000 rpm. For light operations and small tool diameters.



HSK 63 thread cutting aggregat
For threads from M4 to M12 in plastics.



HSK63 Positioning Aggregate
Automatic positioning of the benches and the vacuum pods supported from the Woodwop software.



HSK63 – State-of-the-art technology with unmatched accuracy and repeatability



The OPTIMAT 145 –Powerful, liquid cooled HSK63 router spindle with an automatic tool changer.

Innovative Technology for truly demanding jobs

The modern routing spindle has to manage today's challenges. The latest workpiece materials like MDF, solid surface material, Lexan and Plexiglas expect more from the heart of the machine - the main spindle. We took the challenge and designed our machine with:

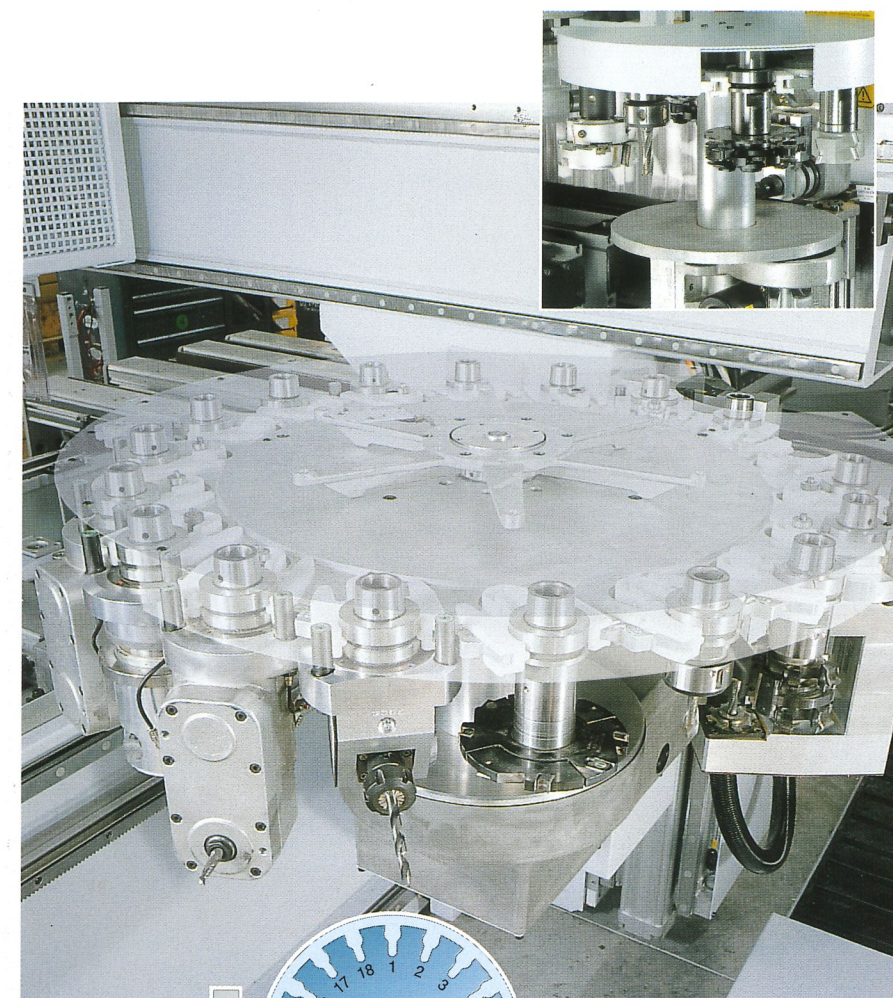
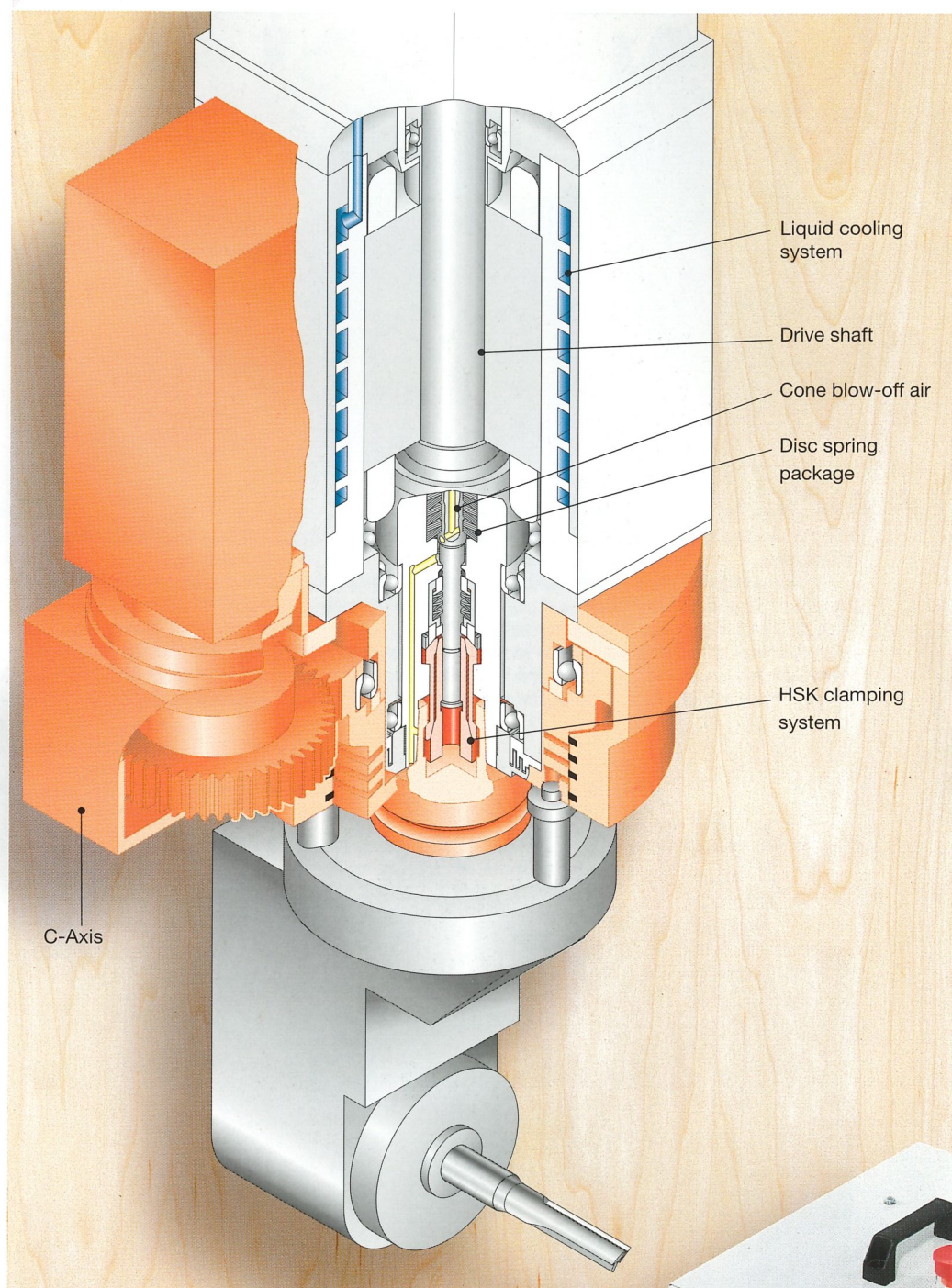
- Constant Temperature even at high RPM and heavy routing.
- No heating at the bearings = **High Reliability**
- Electronic Sensors = **Long Life**

HSK Tool Interface

Although the SK-System (SK30 or SK40) is very common the advantages of the **HSK Tooling Interface** are obvious.

The increasing demand for quality and cutting quantity (volume) is causing higher cutting speeds. As a result there is an increase of rpm with this increase there are higher centrifugal forces. The **HSK-System** clamps from the inside increasing centrifugal force causing more strength. The large surface between the tool holder and spindle and a force of 11 kN make this system unique. It is able to handle the challenge of today and tomorrow.

The SK-Systems clamp from the outside. Increased centrifugal force weakens the system and reduces the cut quality.

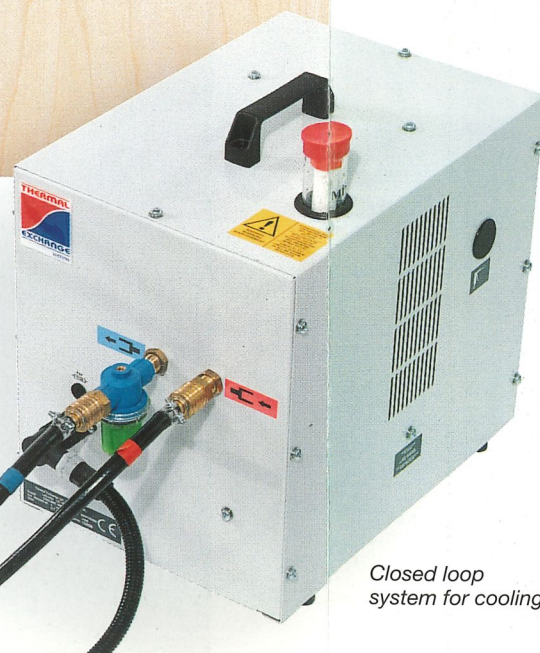


Ride Along Tool Changer

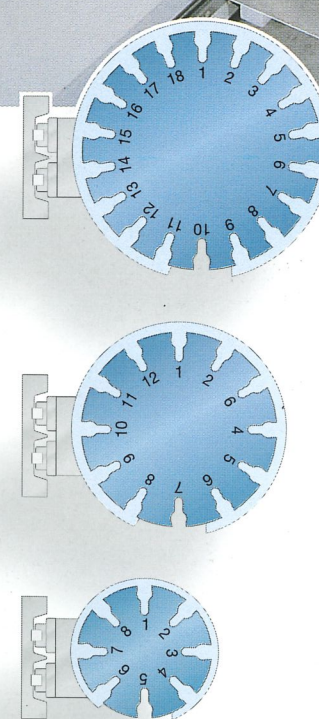
The tool changer carrying 8 tools, is mounted at the support and rides along in X- direction reducing tool change times and allowing two field operation.

Option: 12- and 18-pos tool changer

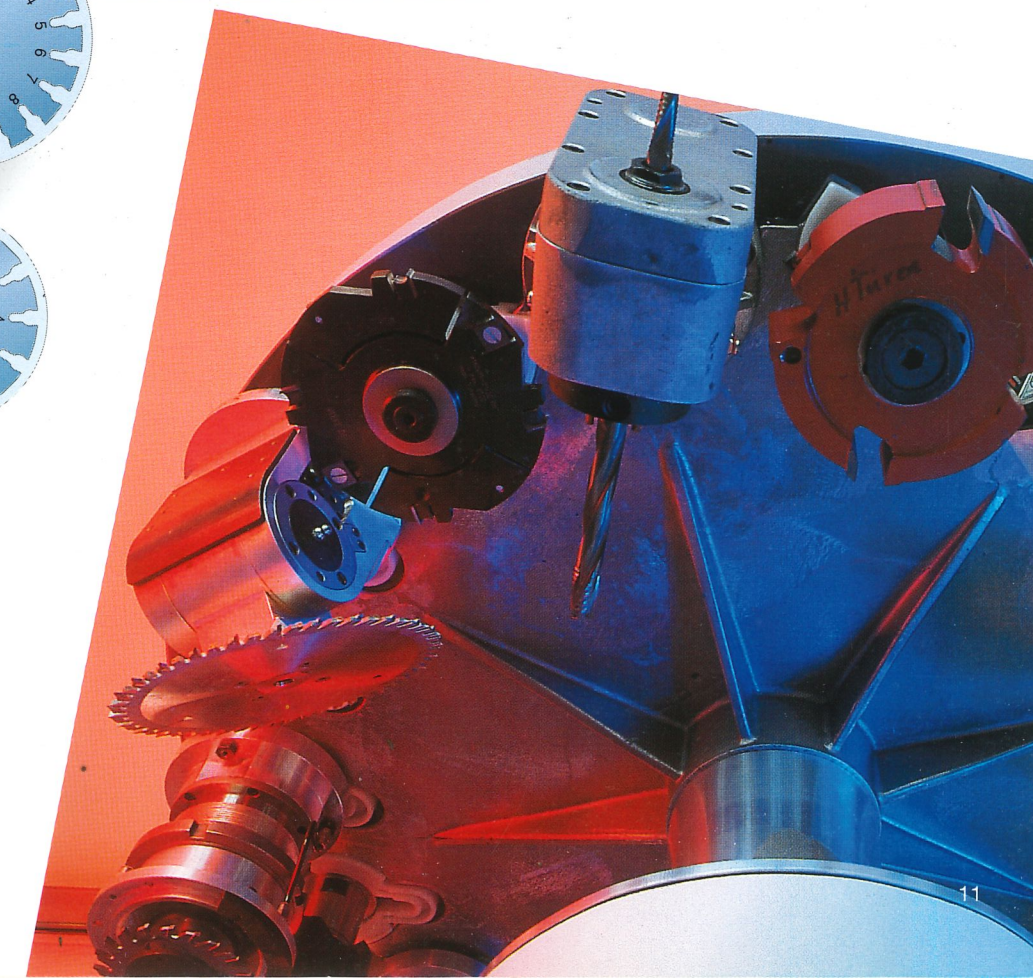
Operator terminal next to the tool changer



Closed loop system for cooling



8-, 12- and 18-pos tool changer



OPTIMAT BP145

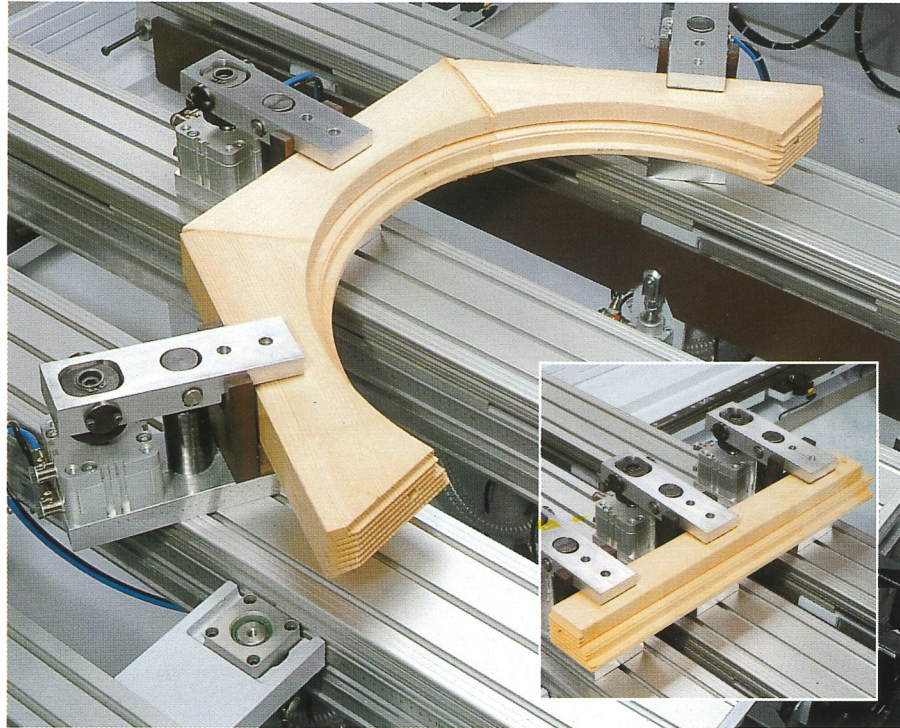
Efficient Workpiece Clamping – The WEEKE System

The samples show the variety of the workpiece clamping system designed by WEEKE.

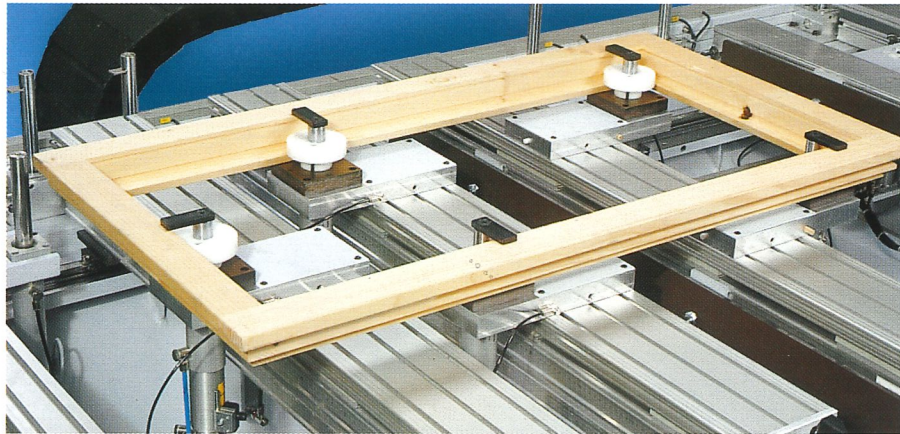
In ease you clamp frames, mouldings, tops and bottoms, cutouts or circles the workpiece will be always fixed on the working table of the machine.

The tubeless system with 100 mm high vacuum pods allows to use very high work pieces. Of course, you can design your own fixtures but you also may choose additional clamping devices from WEEKE.

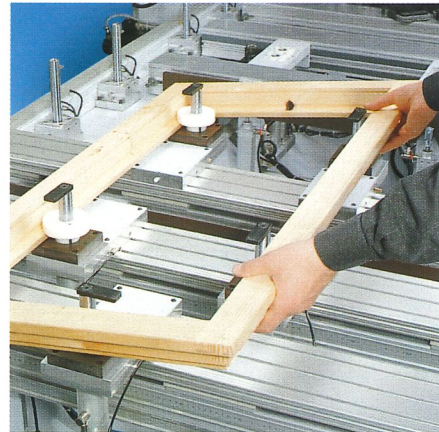
The only thing you have to do, is to take the vacuum pods off. No toolings are necessary.



Clamping system for frames



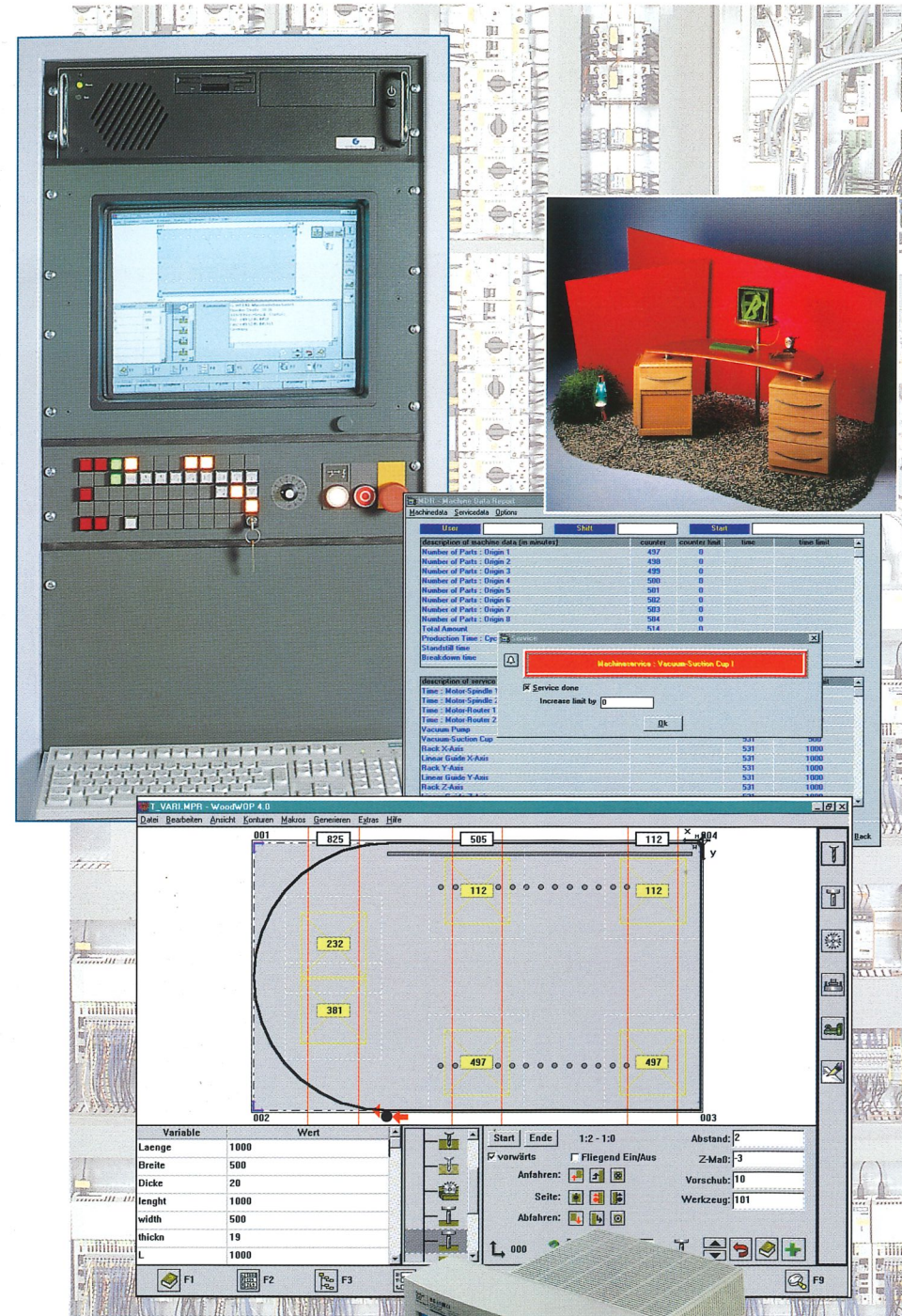
Clamping device for complete frames



Pneumatic stop for overhang



Highlights in Hard- and Software



The WoodWOP and the Homatic 2000 system is developed in close cooperation with you and our specialists.

Short cycle times are in our days a must. Any profit is realized by a fast and safe programming. Easy handling and high reliability you know already from your standard machines are realized by the WoodWOP surface. Parametric programming and the possibility of component technique together with your know-how will lead to a maximum of productivity.

The Interface between Man and Machine has been realized by WEEKE with a PC-System and the Microsoft Windows® world many years ago. Easy handling of the machine in the daily business is the result of this solution - you are moving in a confidential world. You know this world already from your home it provides safety and confidence.

With WoodWOP you are going to program your success.

WoodWOP = Workshop Orientated Programming

is optimized for the requirements of smaller shops but also for the wood- and furniture industry.

Interactive menus are an active support to create programs. With WoodWOP you are programming your workpiece and it's necessary applications but not the machine and it's operations.

CAD/CAM: For connections with CAD-Systems components for AutoCAD® and AutoCAD LT® are available.

The integration of the OPTIMAT in Computer network systems, barcode systems and remote diagnostic systems is one of a lot of possibilities.

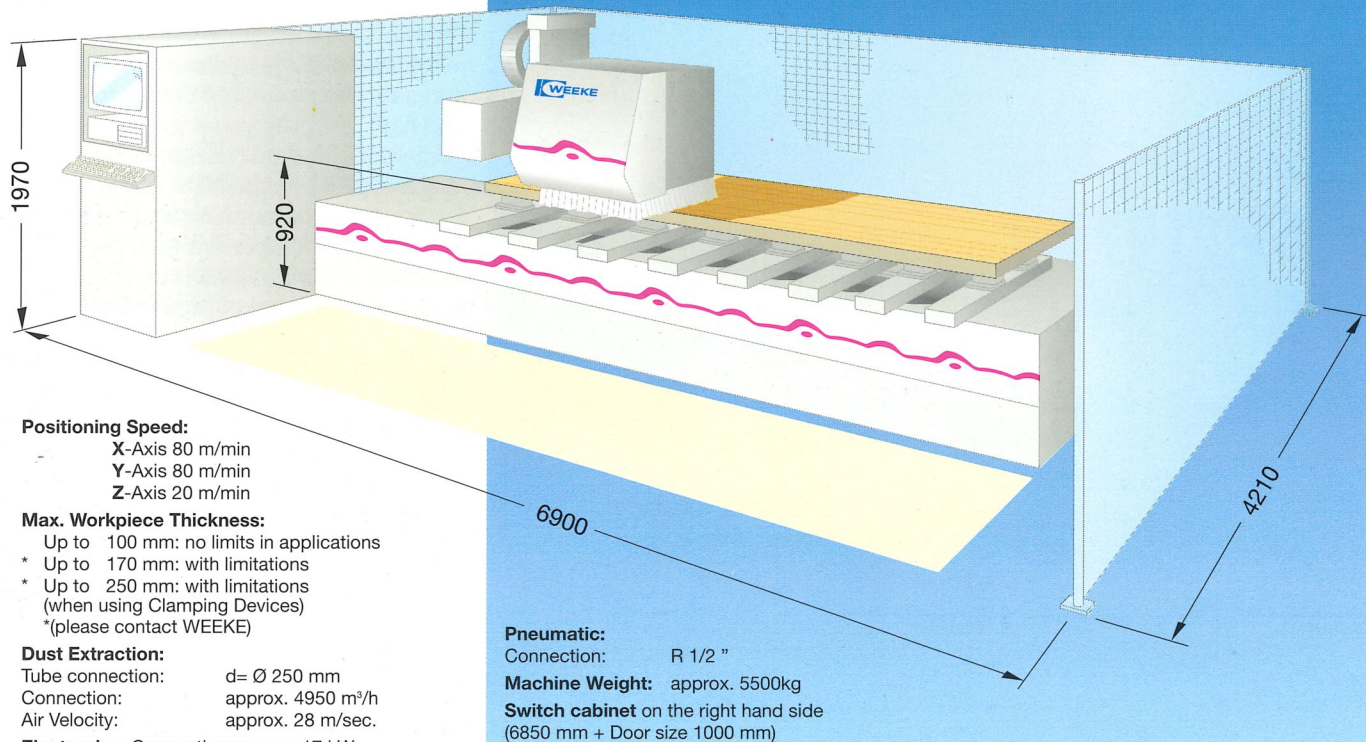
Software interfaces to several software companies of CAD/CAM and branch programs are available.



Where to go with the OPTIMAT? Onto Your Shop Floor – Automate and improve your current operation!

Technical Data:

Travel Range:
X-Axis 3950 mm
Y-Axis 1890 mm / Z-Axis 400 mm



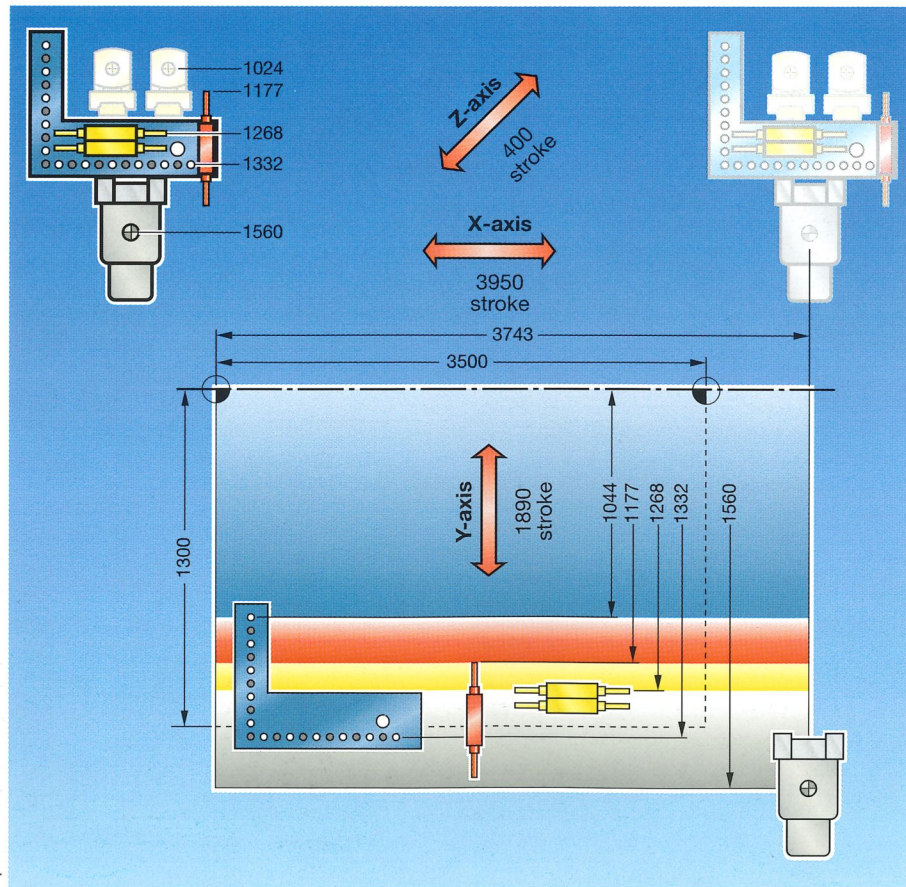
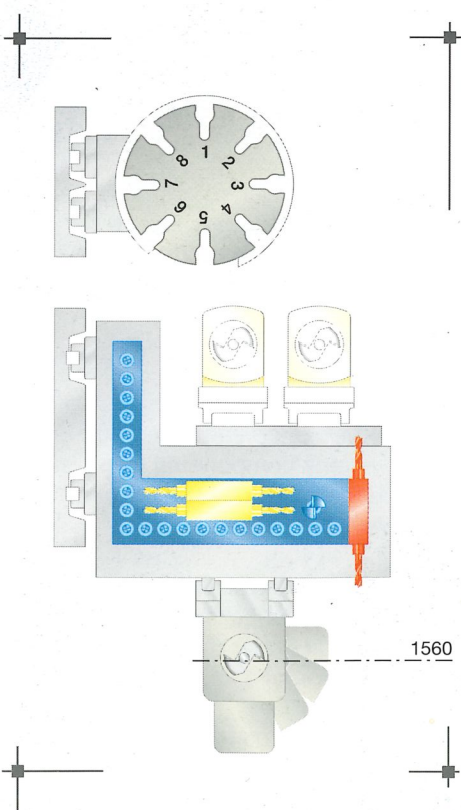
Positioning Speed:
X-Axis 80 m/min
Y-Axis 80 m/min
Z-Axis 20 m/min

Max. Workpiece Thickness:
Up to 100 mm: no limits in applications
* Up to 170 mm: with limitations
* Up to 250 mm: with limitations
(when using Clamping Devices)
(please contact WE EKE)

Dust Extraction:
Tube connection: d= Ø 250 mm
Connection: approx. 4950 m³/h
Air Velocity: approx. 28 m/sec.

Electronics: Connection approx. 17 kW

Pneumatic:
Connection: R 1/2"
Machine Weight: approx. 5500kg
Switch cabinet on the right hand side
(6850 mm + Door size 1000 mm)



The All-round Machine for the Future

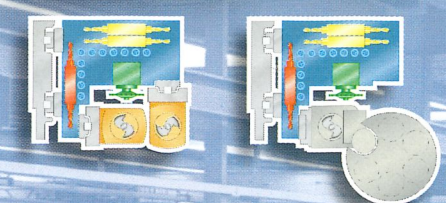


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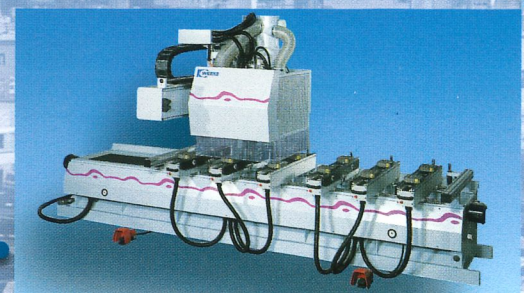
BP60



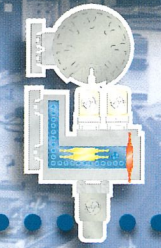
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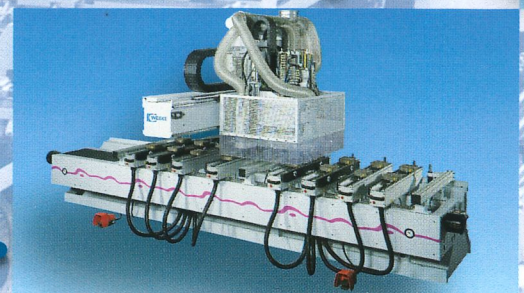
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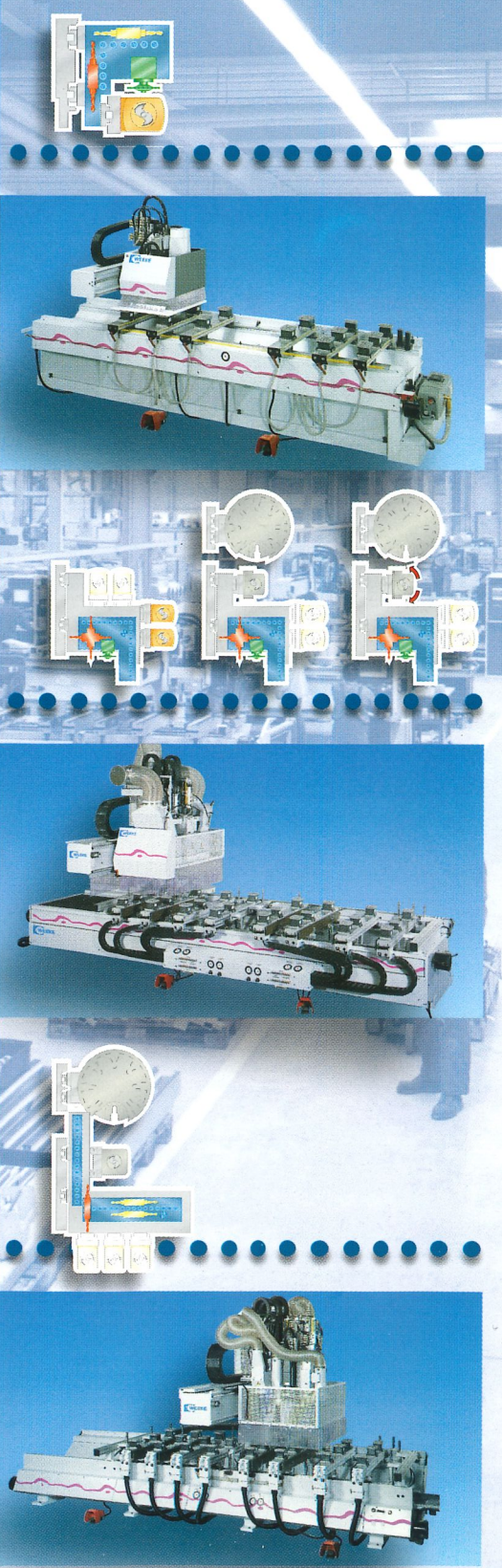
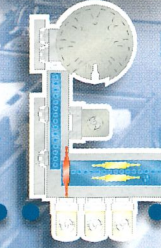
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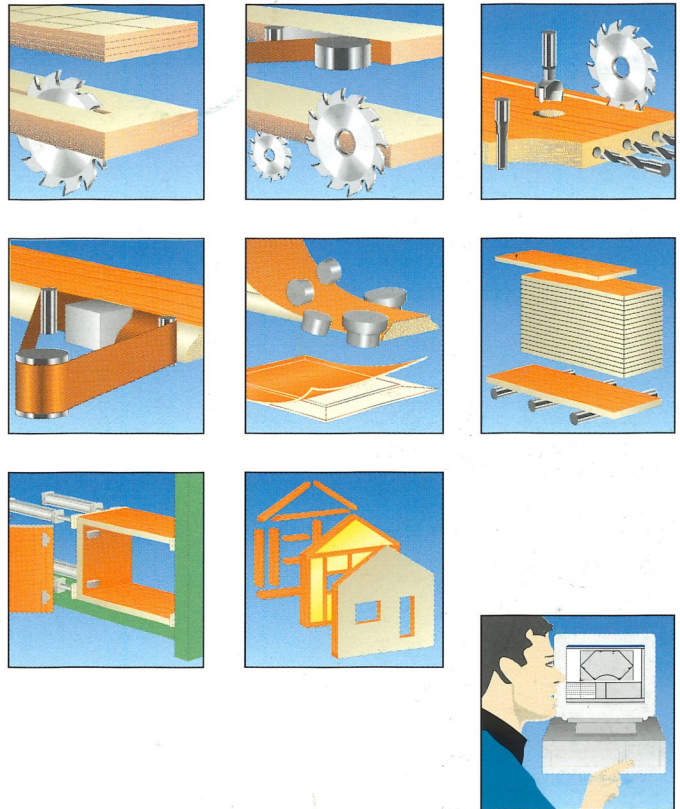
BP150



BP155



The HOMAG Group



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