



NEW
Units for all
brands

Tool technology

Exchangeable units

WOOD/COMPOSITES/
ALUMINIUM MACHINING





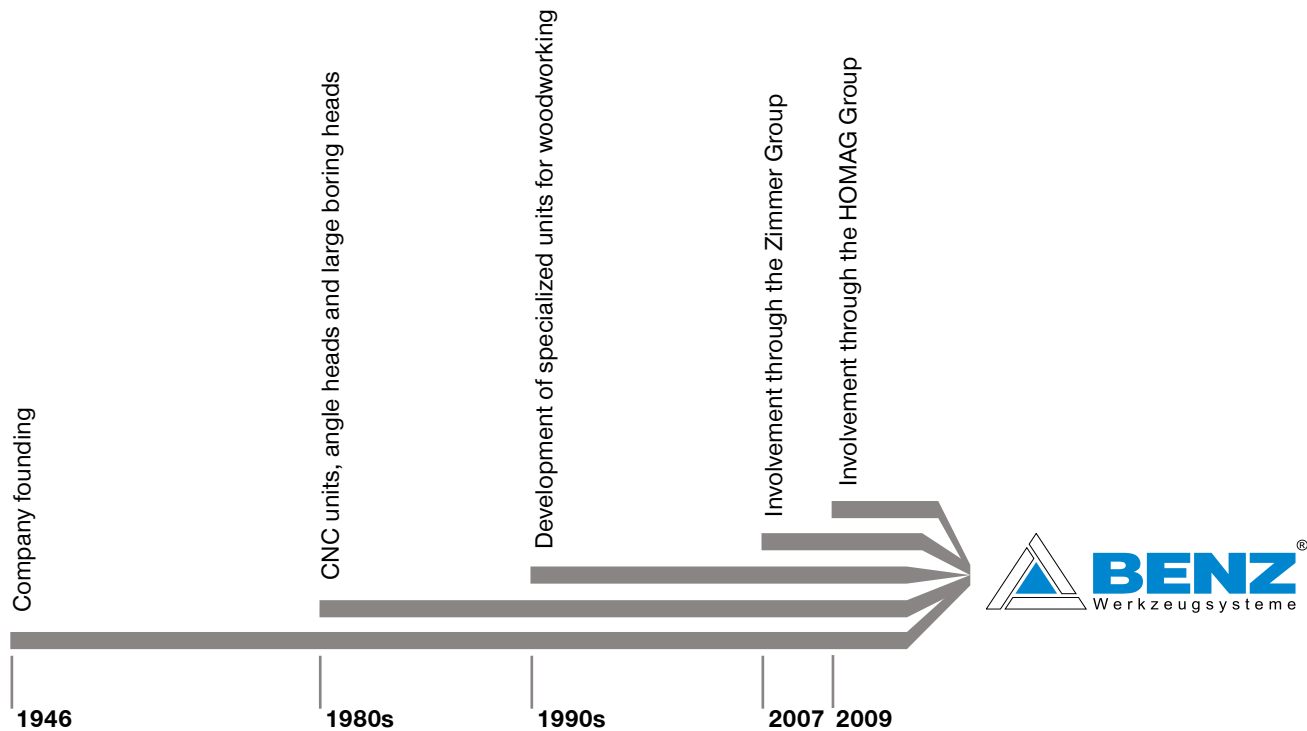
AT BENZ WERKZEUGSYSTEME, OUR MAXIM, “INNOVATION. PRECISION. PASSION.” IS FAR MORE THAN JUST A MARKETING FORMULA. RATHER, IT DESCRIBES THE CORE GOALS OF OUR BUSINESS WHILE ALSO OUTLINING THE REASONS WHY WE HAVE BEEN ABLE TO COMPETE IN THE MARKET SUCCESSFULLY WITH TOOL SYSTEMS FOR WOODWORKING, METAL MACHINING AND COMPOSITE MATERIAL PROCESSING FOR MORE THAN 30 YEARS.

INNOVATIONS ARE IMPORTANT TO US. BUT WE ALSO RECOGNIZE THAT THEY CAN BE SUCCESSFUL ONLY IF THEY PRECISELY MEET THE NEEDS OF OUR CUSTOMERS. THIS IS WHY WE HAVE MAINTAINED A STRICT FOCUS ON OUR CUSTOMERS FOR MANY YEARS. WE ENSURE THAT OUR DEVELOPMENTS AND INNOVATIONS SIMPLIFY YOUR PRODUCTION PROCESSES AND LOWER YOUR MANUFACTURING COSTS - AND ULTIMATELY IMPROVE YOUR COMPETITIVENESS AS A RESULT.



BENZ GMBH

WERKZEUGSYSTEME



BENZ PRECISION PRODUCTS PROVIDE REFINED SOLUTIONS, INNOVATIVE TECHNOLOGY AND THE HIGHEST LEVEL OF QUALITY. WHAT IS THE SECRET TO THIS SUCCESS? OUR EMPLOYEES AND THEIR INVALUABLE EXPERTISE MAKE THE DIFFERENCE.

Innovation. With an eye on what is currently within the bounds of feasibility, we strive to always make use of innovative technologies. And we keep in close contact with our customers to ensure we already know today what our customers will need tomorrow. Technical progress is ingrained into our very identity, which means you can always find smart, detailed solutions in our product range.

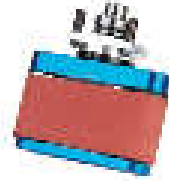
Precision. We ensure our products have the highest level of precision and reliability. This is vital in our industry. Our customers also rely on absolute precision during production—and need to be able to put all their trust in us. But production is not the only area where we strive for precision. We also seek minimal tolerances and maximum accuracy in other areas as well—from development to sales to delivery.

Passion. BENZ precision products are composed of a vast array of different individual parts. They are the result of great care that starts in the design phase and even includes the selection of raw materials. Primarily, however, they are the expression of our employee's experience and passion to do good work. We are tool specialists through and through and we are willing to move mountains to reach the perfect solution and to ensure the satisfaction of our customers.

PRODUCT GROUPS

TOOLING AND MACHINE TOOLING TECHNOLOGY

TOOLING TECHNOLOGY



LIVE TOOLS/ TOOL HOLDERS

- + Radial heads 90°
- + Radial heads ≠ 90°
- + Axial heads
- + Swivel heads
- + Multi-spindle heads
- + Broaching units
- + Rotating tool holders
- + Static tool holders

Components. Our comprehensive tool concepts for turning centers and milling centers are ideal for nearly every application. Providing a technological advantage is our goal.

Specific to the customer. Our modular approach enables customized configurations.

Systems. We develop special customer-specific tools for OEM and end customers on request.

EXCHANGEABLE UNITS

- + Angle heads 90°
- + Angle heads ≠ 90°
- + Swivel heads
- + Multi-spindle heads
- + Broaching units
- + High-speed spindles

Knowledge and experience. Our knowledge of the metalworking industry and decades of development partnership make us ideal for new tasks anywhere in the world.

Components. We deliver a vast array of standard components from stock and develop innovative, customized systems for OEM and end customers.

Variety. Whether in machining centers in the automotive, aerospace or wind energy industries, units from Benz can be used anywhere. Numerous customers choose us as their systems and innovation partner.

EXCHANGEABLE UNITS

- + Angle heads 90°
- + Swivel heads
- + Multi-spindle heads
- + Multi-axis heads
- + Sanding units
- + Floating head units

For any application. Cost-effectively process and machine wood, composites and aluminium: We provide series production angle heads for drilling, milling, sawing and grinding in addition to other units for special applications.

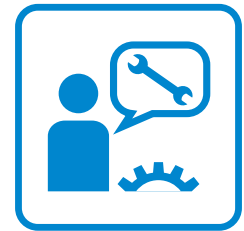
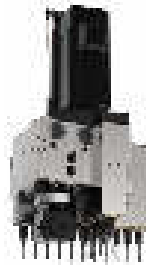
From basic to high-end. Benz units are available in a variety of performance classes, making them ideal for everything from light machining to high-performance continuous operation.

Systems. We have the solution for your special applications: Customized Benz units for machining centers. Put us to the test!

METAL

WOOD/COMPOSITE MATERIALS

MACHINE TOOLING TECHNOLOGY



MULTI-SPINDLE HEADS AND LARGE DRILL HEADS

- + Large angle heads
- + Large drill heads
- + XXL multi-spindle heads

Development partner. We accompany you from brainstorming to inspection of the final machine, always to your expectations. Our assortment ranges from compact heads to XXL units.

Systems. Benz stands for high-end solutions in the fields of machine tooling technology, specialty solutions, custom assemblies and mechanical modules. We manufacture and configure multi-spindle and large-angle heads as well as large drill heads.

Components. Attachment units complete our range.

SYSTEM TECHNOLOGY

- + Multiple-spindle drill heads
- + Motor spindles
- + Motors
- + 5-axis technology
- + C-axes
- + Swivel axes
- + Rotary distributors
- + Z-axes

Components. Our range includes standard products in an assortment of shapes and sizes.

The perfect addition. Our system additions provide you with even more efficiency. Perfect your existing solutions with Benz products!

Systems. We develop the technology of tomorrow. Your individual requirements for the efficiency of your machine tools and the suitability of the tools in use provide our benchmark for new, innovative solutions.

SERVICE

- + Repair service
- + ExpressService
- + Customized crash package
- + Preventive maintenance
- + Spare part management
- + Global service
- + Service hotline

Do not lose a second. Speed is the order of the day when unexpected breakdowns occur. Our service center ensures immediate assistance around the world. We ensure your machine has as little downtime as possible.

Service quality. We guarantee top service quality reflecting our expertise as a manufacturer.

Foresight. We go one step further: Preventive maintenance, customized crash packages and our spare part management service ensure you have the best setup to face any emergency. We look to the future to keep you at your peak.

TOOLING TECHNOLOGY

WOOD/COMPOSITES/ALUMINIUM

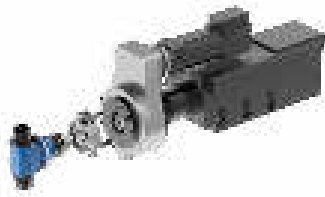
EXCHANGEABLE UNITS

EXCHANGEABLE UNITS OVERVIEW



APPLICATIONS

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SYSTEM DESIGN

2 Page 34



PRODUCT COMPASS

3 Page 54



DESIGN OVERVIEW

4 Page 58



HSK TOOL HOLDER

5 Page 100



CUSTOMISED SPECIAL SOLUTIONS

6 Page 102



HOMAG ORIGINAL UNITS

7 Page 104



ACCESSORIES

8 Page 108



SERVICE

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PLEASE CHECK:



INQUIRY FORM

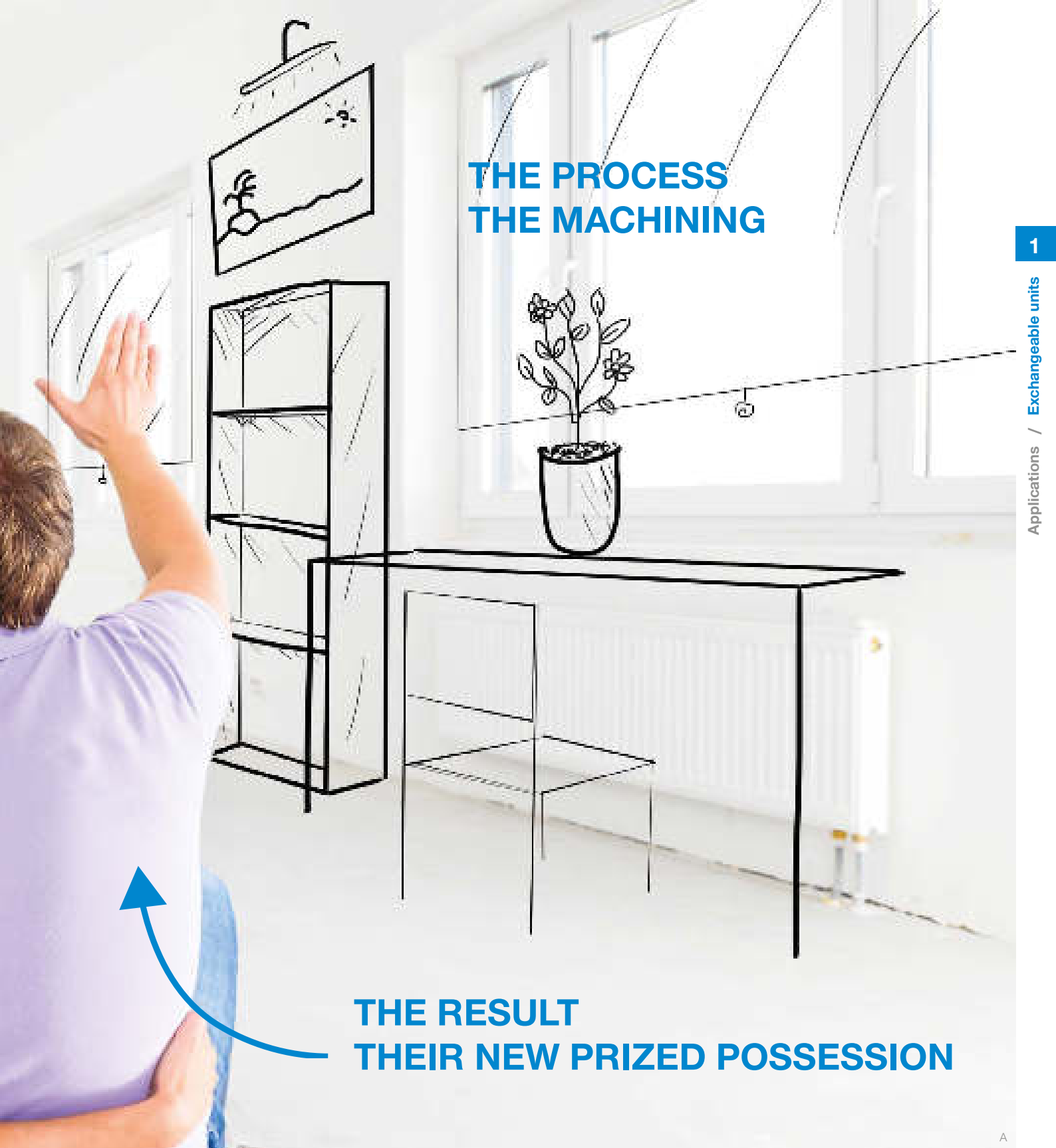
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THE BEGINNING THE APPLICATION



Your customers. Individuals, each with their own expectations and unique taste. Especially when it comes to their own four walls. It has to be personal and of course meet functional needs. That's how you get to know each customer.

Your goal. A customer who is overjoyed to receive his or her new prized possession. And is happy to come back for more.



THE PROCESS THE MACHINING

THE RESULT THEIR NEW PRIZED POSSESSION

As a manufacturer, it is important for you not just to meet your customers' expectations, but to exceed them. You are responsible for creating a prized possession from a simple application. And you do everything to ensure that – especially in terms of machining workpieces. To do that not only with perfect results, but also economically and efficiently, you can trust BENZ units. For all your machining work.

EASY SOLID WOODWORKING



One thing counts above all others for timber framing: Custom-made parts, produced on schedule. Then many individual parts come together to form a complete, uniform work of art, for example in the form of a roof truss your customer has been eagerly awaiting. The materials for bearing structures like this must withstand heavy loads for decades in some cases – just like the units used to machine these solid wood parts in CNC-controlled timber framing systems.

Stability and an extremely rugged design are the qualities that distinguish BENZ units. And even the high machining volumes of your timber framing production lines will not reach the full capacity of BENZ units. Challenge us!

Timber framing of a roof truss

Millimetres matter: Timber framing requires dimensionally accurate marking, machining and finally fitting together of the individual parts to form a complete structure.

①



DUO

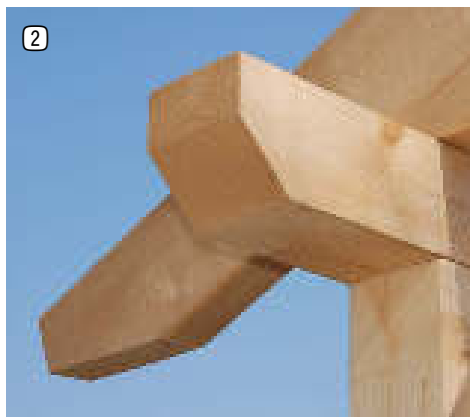
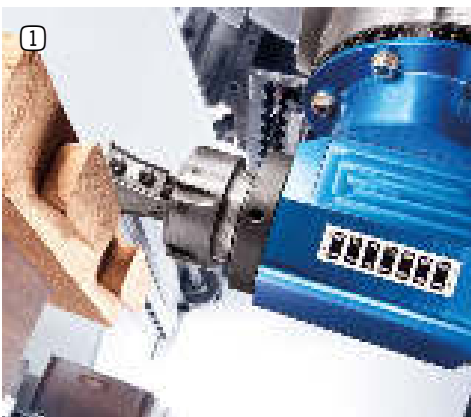
Double sided angle head

②



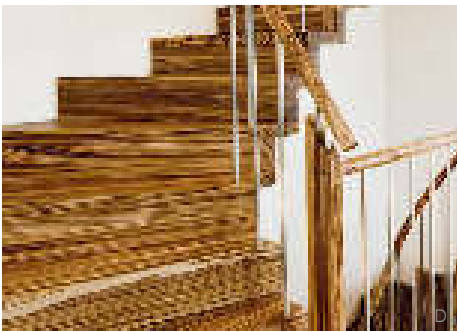
FLEX D

Adjustable angle head
with digital display



- ① Milling studs
- ② Finished main beams for a roof truss

MOVE UP TO COMPLETE MACHINING



The staircase seems to rise effortlessly to the top, yet numerous steps and demanding work are needed to arrive at this point. You know that from your own experience: Form formatting the steps, drilling square piling holes and installing the handrails to the finishing touches. A bothersome process if you have to reclamp individual tools.

Why not manufacture workpieces completely in one clamping? Your advantage: eliminating time-consuming reclamping for further processing and rework previously done manually. Your production process will be leaner, which will lower production costs. But why not go one step further – up!

Solid wood staircase

Complete machining of individual parts in just one clamping

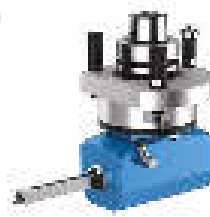
①



QUATTRO

Four sided angle head

②



RENITO H

Horizontal
chisel mortising unit

③

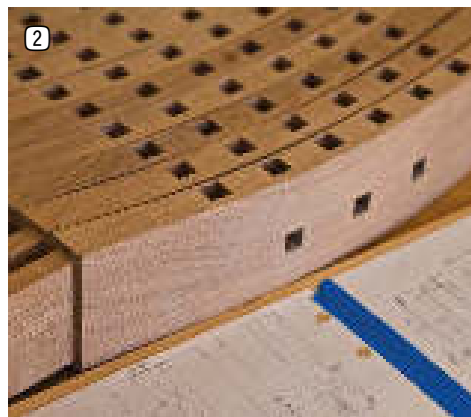


COLLEVO

Belt sanding unit



E



- ① Drilling holes for screws and dowels
- ② Square holes for piling
- ③ Sanding workpieces, for example the stairs

PERFECTLY SHAPED EDGE MACHINING



Touching permitted! They form the extremities of a piece of furniture – the edges. And no one feels just like another. Cut, fringed, unfinished, ground, polished – the list of possibilities for finishing edges is long.

Using CNC machines for edge machining eliminates time-consuming, manual postprocessing. You can machine your workpiece in one clamping. Formatted and perfectly shaped, all together!

Various edges on kitchen furniture

Edges can be machined in one clamping with CNC units.

①



FLOATING

Floating trimming unit

②



LIVELLO

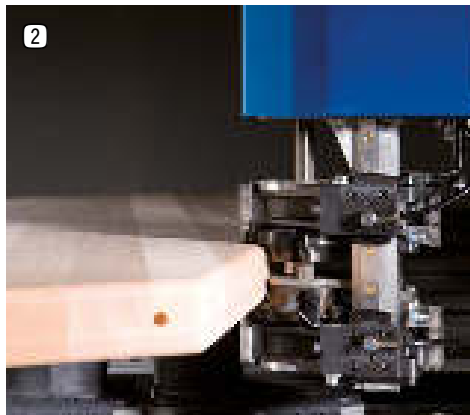
Flush trimming unit

③



SIMOLO

Orbital sanding unit



- ① Floating milled chamfers and roundings on workpiece edges
- ② Fine machining with three-sided floating milling or grinding
- ③ Workpieces sanded on a CNC machine

INDIVIDUAL LOOK AND FEEL

SURFACE FINISHING



You've surely had this experience. You run your fingers across a piece of furniture to get a sense of its shape. One surface finish feels rough, another soft and smooth. When designing a new piece of furniture, you can already imagine its surface finish with your inner eye: A solid wood bed with an easy-grip surface, or a child's chair made of very fine, sanded wood.

The one thing responsible for this individual look and feel is the perfect sanding pattern. And BENZ units ensure that you can transfer this look and feel from your CNC machine to your workpiece: for sanding, brushing and polishing – for any shape and surface.

Solid wood bed

The perfect sanding pattern creates the finish of a workpiece. BENZ units can be used for grinding, sanding, brushing and polishing all shapes and surfaces.

①



SIMOLO

Orbital sanding unit

②



COLLEVO

Belt sanding unit

③



MOULDER

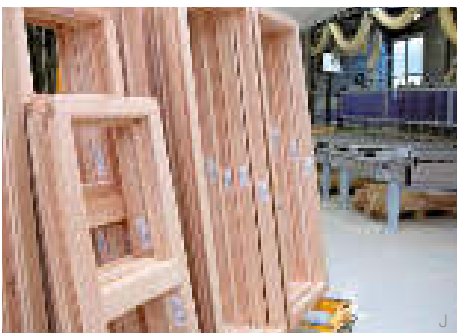
Moulder head



- ① Sanding level, concave and convex surfaces
- ② Sanding workpieces
- ③ Brushed workpiece surface

BRIGHT SPOTS

WINDOW MACHINING



Windows function outwardly but also inwardly, and not just visually. They enhance the appearance of living and working areas in terms of comfort, energy efficiency, noise protection, safety and security. And yet they must always fit the taste of your customers and their surroundings. Round or bevelled designer casements? Wood or aluminium windows? Each window is customised production. And the art is in the details.

We help you make your windows true bright spots, with a broad perspective: from economical milling of frame profiles to cutting slots for butt hinges and drilling holes for fittings. BENZ units – for the complete vista of window manufacturing on your CNC machine!

Window construction

Windows are a work of art in space. A wide range of different materials is used to manufacture windows. Machining goes into small details. CNC units help you perform every machining step precisely – for truly bright spots.

①



HSK tool holder

For profile milling cutters,
etc.

②



CAVO

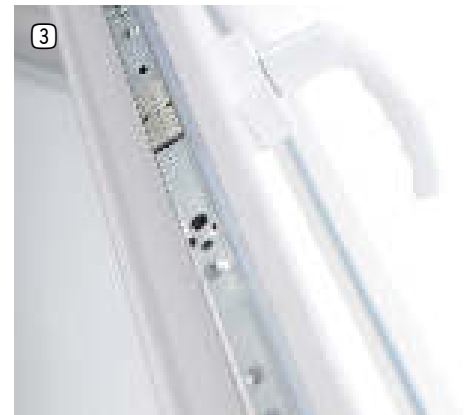
Hinge mortising unit

③



MULTI V3

Vertical multi-spindle head
with 3 spindles



- ① Milled frame profiles
- ② Cutting slots for butt and strap hinges
- ③ Fittings on a window

NEW PERSPECTIVES DOOR MANUFACTURING



It opens up new perspectives into a room: the door. But doors are not all the same. You know that from your customers. One of them likes modern versions from large-scale production. Another prefers a tailor-made object from which refined details emerge.

For you as a door manufacturer that means flexible and economical machining with batch sizes as small as 1, covering an ever growing diversity of designs and materials. So it's a good thing there are smart BENZ unit concepts covering all these requirements: lean designs for the smallest cutouts, multi-angle heads for reduced tool change times and units that can withstand even the most extreme conditions.

Exterior and interior door manufacturing

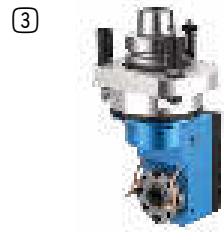
Large-scale production but also individually designed doors, special sizes, very small series – this is the reality today in door manufacturing. BENZ units cover the entire process chain for production: from cutting raw materials to applying details.



QUATTRO
Four sided angle head



ANGULO
Corner notching unit



FORTE
Lock recess trimming unit

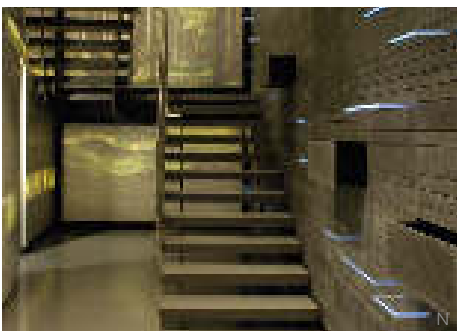


- ① Drilling fittings and milling slots
- ② Vision panel milled in a door
- ③ Milling lock recesses and cuffs

NEW DIRECTIONS

COMPOSITES

MACHINING



Individually shaped. Far from standard. Outstanding. Something different. And at the same time still functional. That's what your customer wants. And so you implement your customer's interior construction project, with composite materials. Composites are products consisting of two or more materials, but with completely different properties than the original components. That's exactly why composites are well regarded. And your customer will appreciate them, too. Not only because his guests will compliment him for his modern kitchen, but especially if he accidentally slams a sharp knife on the Corian® countertop – and nothing happens. As manufacturer, you have twice the reason to be pleased. Because nothing changes in your production process. You can machine composites very conveniently, just like hardwoods on a CNC machine with BENZ units.

Material + Material = Composite

Introducing new materials into your production: Composites - a combination of at least two different basic materials. The material properties of the composite differ significantly from those of the original components. But nothing changes for your production process. You can machine composites very easily with your current CNC woodworking units.

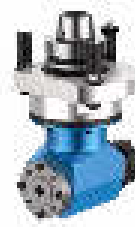
①



FLOATING

Floating trimming unit

②



DUO

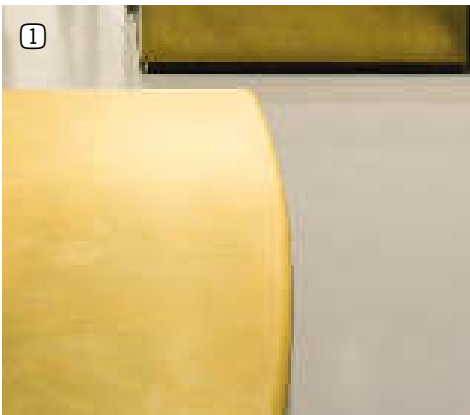
Double sided angle head

③



SIMOLO

Orbital sanding unit



- ① Convex surface with floating milled rounding
- ② Drawer with doweled front and slotted and drilled side parts
- ③ Sanded workpiece surface

CONNECTING PROFILE SLOT MACHINING



No more time-consuming and complicated gluing or screws! The way of the future is "insert and it's ready". Now that you are using profile slot connecting systems to mount workpieces, you couldn't do without it. The advantages are clear: a high-quality, elegant solution you can use flexibly for many different applications, all with enormous savings in time compared to conventional methods.

Fortunately, connector profile slots can also be milled quickly, precisely and economically. Your connector between the CNC machining centre and the connecting system: BENZ units for milling slots – for all machine types and at any angle.

Integrating connecting systems

Furniture can be installed quickly and easily with connecting systems such as Clamex P. You can make profile slots for applying connectors for series production parts quickly, precisely and economically on your CNC machining centre. And at any angle.

①



DUO

Double sided angle head

②



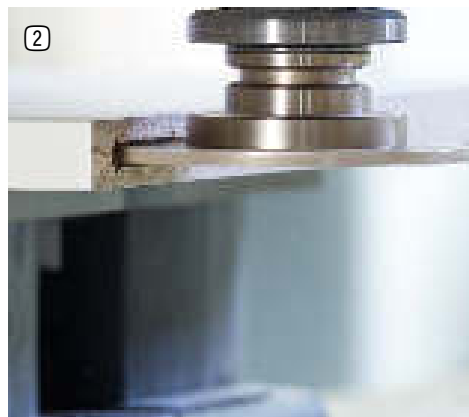
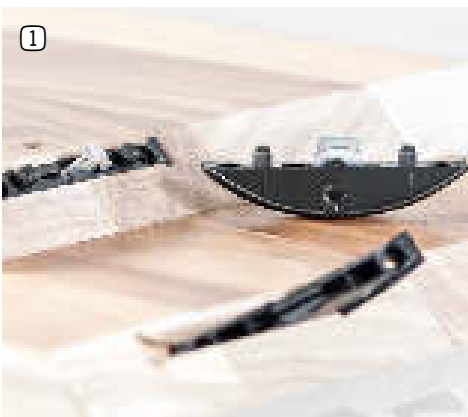
HSK tool holder

③



MULTI V3

Vertical multi-spindle head
with 3 spindles



- ① Profile slots and connectors of the Clamex P system
- ② Milling a profile slot for connecting systems
- ③ Piece of furniture with fittings

MILLING PROFILE SLOTS WITH A CNC MACHINE

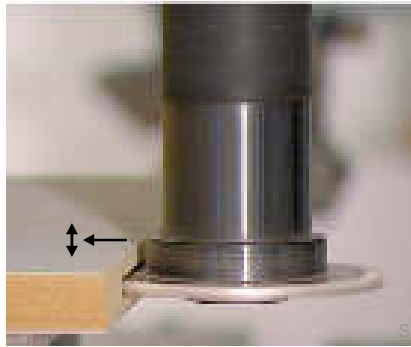
FLEXIBLE AT ANY ANGLE

CREATING A 90° CORNER CONNECTION WITH LAMELLO PROFILE SLOT CONNECTORS



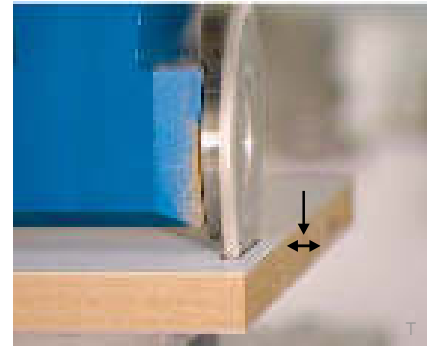
Drilling

Drill the opening to work through. The connecting system will later be fixed permanently in place through the opening.



Horizontal milling

Mill the profile slot for inserting the connector (horizontal machining)



Vertical milling

Mill the profile slot for inserting the connector on the mating piece (horizontal machining)

- + The right exchangeable units for all machine types
- + Milling slots at all angles (depending on the type of unit)
- + The same profile slot on both workpieces (high level of accuracy in creating the slots)
- + The machining process can be implemented directly in the CAD planning
- + Short cutting times



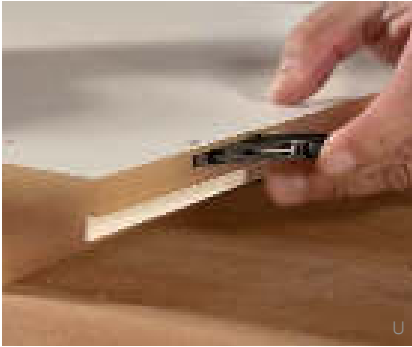
Video



► **Milling profile slots with a CNC machine**

scan QR code or go to:

www.youtube.com/BENZWerkzeugssysteme



Insert the connector

The connector can be pushed into the profile slot manually in just seconds, without any tools at all.



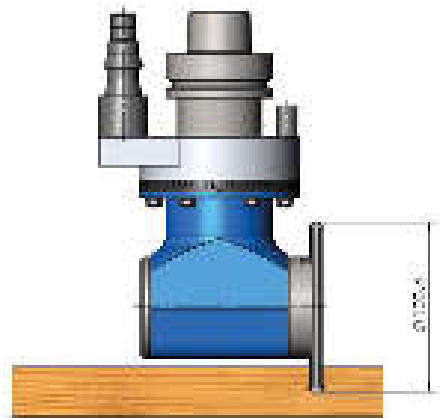
Assembly

Join the two workpieces together and tighten the two connectors through the opening with a hex wrench.



Finished corner connection

After the connectors have been tightened, the workpiece is mounted and ready.



Profile slot position and depth

Because workpieces differ greatly in design, so does the connecting situation and angle for the profile slot.

Therefore different profile slot positions and depths are possible for the connecting systems.

Profile slot position / angle



Create the slot **horizontally**



Create the slot on the edge of the workpiece, **vertically**



Create the slot in the centre of the workpiece, **vertically** (depth: up to 15 mm)



Create the slot in the centre of the workpiece, **vertically** (depth: up to 10mm)



Create the slot **at any angle**



Profile slot depth

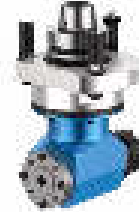
Standard BENZ units can be used to create slots with depths **up to 15 mm**

(exception: FLEX5C and FLEX5+C: up to 10 mm in the centre of the workpiece)

UNITS

FOR CREATING PROFILE SLOTS

THE RIGHT TOOL FOR EVERY ANGLE



Profile slot position / angle	Design			
	HSK tool holder	MONO Single sided angle head	DUO Double sided angle head	QUATTRO Four sided angle head
	+			
		+	+	+
		+	+	+
		+	+	+

+ suitable



ANGULO Corner notching unit	FORTE Lock recess trimming unit	FLEX D Adjustable angle head	FLEX5C / FLEX5+C Adjustable angle head with automatic adjustment
		+	+
+	+	+	+
+	+	+	
+	+	+	+
		+	+

Compact design
With the compact design of all BENZ units, profile slots up to 15 mm in depth are easy to create.



Mill slots at any angle
With the Flex5+C unit, you can set the slot (for the den connector) at any angle, fully automatically and with full precision.

5-AXIS MACHINES EVEN MORE POWERFUL WITH UNIT TECHNOLOGY



The number of 5-axis machines is growing with each passing year. 5-axis machining is considered the elite division of machining, and for good reason. The complexity of machining requires a high level of competence in the technologies that are used.

The efficiency achieved in this manner can be boosted still further with BENZ units. BENZ Aggregate – the extra push in productivity for your 5-axis machine!

5-axis technology

5-axis technology is considered the elite division of machining. With supplementary units, 5-axis machines provide even more powerful and efficient machining.



Advantages of units in 5-axis machining



QUATTRO
Four sided angle head



MULTI V5
Multi-spindle head



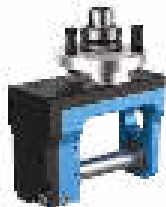
FLOATING
Floating trimming unit
with swarf extractor



ANGULO
Corner notching unit



DUO
Double sided angle head



MOULDER
Moulder head



SIMOLO
Orbital sanding unit



COLLEVO
Belt sanding unit

- + Reduction in tool changing times by cycling the C-axis
- + Reduction in machining time
- + Higher productivity by using units, for example by using a moulder head as a multi-blade saw
- + Internal machining that is not possible due to the collision contour of a 5-axis head (for example notching the inside corners for vision panels on doors)
- + Complete machining of workpieces
- + Sanding surfaces and edges
- + Connecting systems (for example Clamex P from Lamello) can be used quickly and easily

THE PROCESS

THE MACHINING

2

System design / Exchangeable units

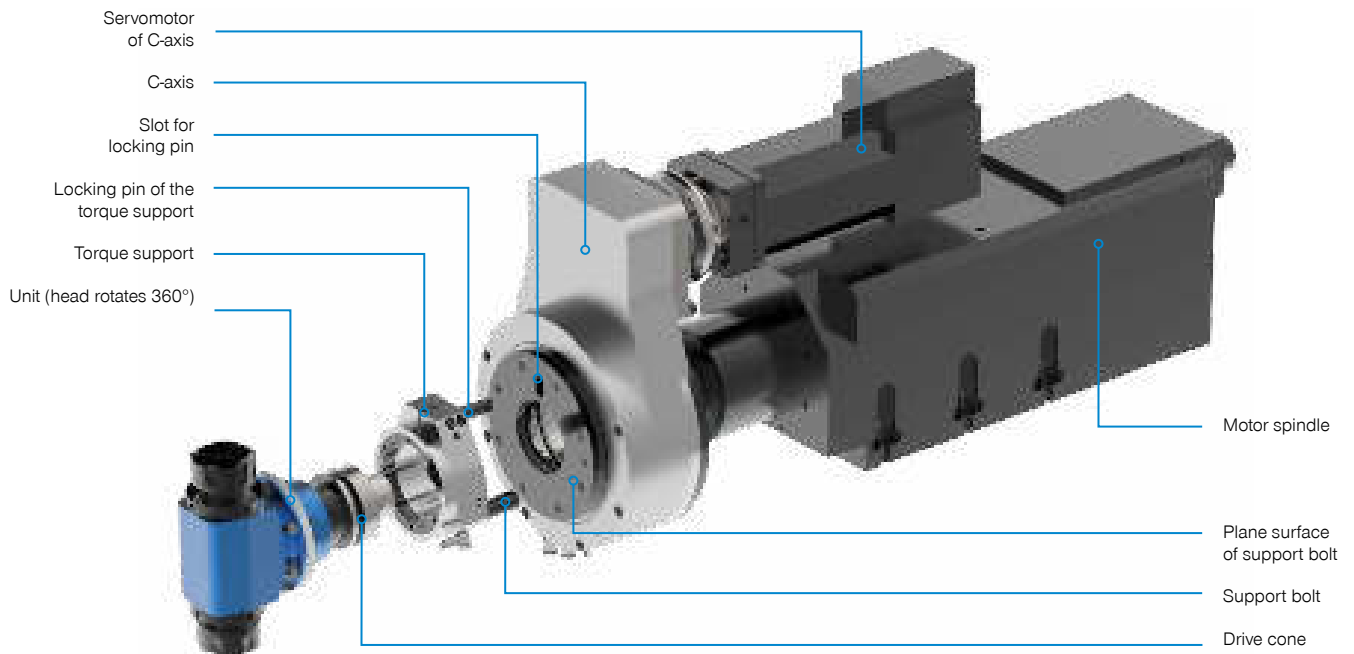


The moment has come. Your customer has made up her mind. For you to create her prized possession. Now it's your turn: To create a true work of art from a diverse range of materials and individual parts. But before the wood and composite materials come together to form the new solid wood designer kitchen, you will invest a great deal of energy and competence in manufacturing it.



Your prized possession can be found in your manufacturing line: your CNC machine. It has long been one of your most important employees when it comes to efficient and precise machining of workpieces. And what does it work with? BENZ units! The true multi-talents in the production process: For milling, drilling, sawing, planing, sanding and more...

SYSTEM DESIGN: MODULAR DESIGN



A "COMPLETE UNIFIED WORK OF ART"

Individual machine elements are like a puzzle. They have to fit together exactly to produce the desired complete picture. If you are using exchangeable units on your machining centre this means the machine connection of a unit must be exactly coordinated to the C-axis and motor spindle. That is the only way the unit will be stably anchored in the machine and protected against twisting during machining.

Everything from a single source

All the better if you can obtain all your components from a single source. Then they will already fit each other perfectly, straight out of the box. Within the Zimmer Group we offer you exchangeable units as well as C-axes, motor spindles and other components.

SYSTEMATIC: SO YOU CAN FIND THE RIGHT UNIT

REQUIREMENTS

TOOL



MACHINING CASE



MACHINE TYPE



EXCHANGEABLE UNIT COMPONENTS



OUTPUT SPINDLE (TOOL HOLDING FIXTURE)

All output spindles can be implemented

Overview p. 36



Centring Ø40 (TK Ø45/Ø52 - 4x M5)/collet chuck holder ER25 per DIN6499 with internally located clamping nut

DESIGN/LENGTH SPECIFICATIONS

The design and length are matched with the respective machining application

Design overview p. 58



Double sided angle head - Classic Line DUO

Length overview - p. 38

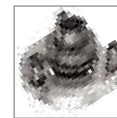
M

Medium

MACHINE CONNECTION

All machine connections can be implemented

Overview p. 40



HSK - F63
HOMAG/WEEKE/WEINMANN



Individual customer requirements, e.g. machine connections, output spindles, etc. not listed here, can be implemented on request. Please contact us!



OUTPUT SPINDLE CLAMPING OPTIONS

Firmly clamped in

Clamp a wide range of tools including drills, milling cutters or saw blades in one unit. We offer you a large assortment of standard output spindles to do just that. The BENZ Solidfix® modular tool interface offers you great flexibility.



The output spindle

BENZ offers the right output spindle for every tool.

OPTIONS

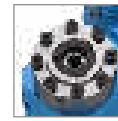
OUTPUT SPINDLES



Collet chuck holder ER25 Mini per DIN6499 with externally located clamping nut



Collet chuck holder ER32 per DIN6499 with externally located clamping nut



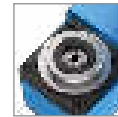
Centring Ø40 (TK Ø52 - 8x M5)/ collet chuck holder ER25 per DIN6499 with internally located clamping nut



Centring Ø30 (TK Ø42 - 2x Ø6)/ collet chuck holder ER25 Mini per DIN6499 with externally located clamping nut



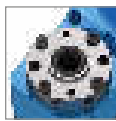
Collet chuck holder ER16 per DIN6499 with internally located clamping nut



Collet chuck holder ER25 per DIN6499 with internally located clamping nut



Centring Ø30 (TK Ø45/ Ø52 - 4x M5)/ Weldon holder Ø10 per DIN1835B



Centring Ø30 (TK Ø52 - 4x M5 / TK Ø48 - 2x Ø6 / Ø8)/ Whistle notch holder Ø16 / Ø20 per DIN1835E



Centring Ø40 (TK Ø45/Ø52 - 8x M5)



Centring Ø16 (TK Ø28 - 4x M6)



Arbor Ø30 (TK Ø42 - 2x Ø6), tool length 1.5 - 6 mm



Arbor Ø30 (TK Ø42 - 2x Ø6), tool length 1.5 - 16 mm



Arbor Ø30 (TK Ø42 - 2x Ø6), tool length 1.5 - 33 mm



Arbor Ø30 (TK Ø42 - 2x Ø6), tool length 1.5 - 52 mm



Arbor Ø30 (TK Ø42 - 2x Ø6), tool length 1.5 - 63 mm



Arbor Ø20 (TK Ø32 - 4x M6/ 2x Ø6), tool length 6 - 43 mm



Modular quick-change system BENZ Solidfix® S3



Weldon holder Ø6 per DIN1835B




Weldon holder Ø10 per DIN1835B



Weldon holder Ø12 per DIN1835B



Whistle notch holder Ø6 per DIN1835E

 Additional designs on request.



LENGTHS / DESIGNS THE OPTIMUM FOR EACH APPLICATION

Perfect interaction

The interaction between machine, the tools that are used and your workpiece determines which is the right unit length for you. BENZ units are available in 3 different lengths: Short, medium and long. A wide range of different designs are also available for your machining tasks. Units specially designed for sawing, milling, grinding, or a general purpose unit? The choice is yours!

Are you not sure which is the right design and length for you? We will be happy to advise you!



Sawing with the MONO single sided angle head

The interaction between machine, the tools that are used and your workpiece determines which is the right unit length for you.

Not sure? We will be happy to advise you!

UNITS LENGTHS

The length makes the difference: **BENZ units are available in 3 different lengths.** In this way we can take into account the different properties of your machine your tool and your workpiece.



Short

- + For cramped working areas in the machine (little distance between the machining table and machine spindle)
- + If the changing weight of the tool changer is limited



Medium

- + The universal length: Covers the majority of machining tasks and tools



Long

- + For machining tasks with large tool diameters (saw blades, etc.)
 - + For machining tasks on high workpieces
-

UNITS DESIGNS

Design overview

The design overview with complete descriptions of units can be found starting on page 58.



Product lines: [Classic and Premium Line](#)

Units with permanent grease lubrication are included in the Classic Line. Units with oil bath lubrication (see picture above) belongs to the Premium line. For further information on the product lines see page 58.



MACHINE CONNECTION

THE INTERFACE TO YOUR MACHINE

Precise fit

There are many machine manufacturers with numerous types of machines for machining wood and composite materials. Each manufacturer generally builds on its own machine concept – and thus on different components. That has a significant effect on exchangeable units. They have to be adapted to the relevant machine type. We help you to make sure that everything fits together precisely. Just tell us your machine model – and we do the rest.



The machine connection

The machine connection consists of the torque support and drive cone of the unit.

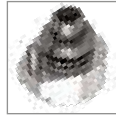
BENZ STANDARD MACHINE CONNECTIONS



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE /
WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



HSK - F63
Weinig

EXCERPT ADDITIONAL MACHINE CONNECTIONS



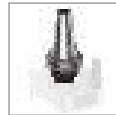
HSK - F63
per
DIN 69893
e.g. HOMAG



HSK - E63
per
DIN 69893
e.g. CMS



SK 30
similar to
DIN 69871A
e.g. BIESSE



SK 40
similar to
DIN 69871A
e.g. MAKA



SK 30 with
wheelwork,
e.g.
MORBIDEL-
LI



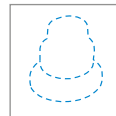
BT 30 per
JIS B 6339,
e.g. KOMO



BT 35 per
JIS B 6339,
e.g. HEIAN



BT 40 per
JIS B 6339,
e.g. SHODA



More



Scale ring on the torque support

The head can be rotated 360° around the drive. That allows you to align the exchangeable unit in the tool changer, saving space.



BENZ SOLIDFIX® MODULAR QUICK CHANGE SYSTEM

1 unit – 1000 machining possibilities

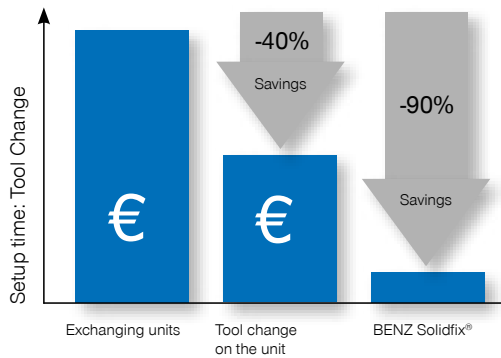
BENZ Solidfix® is a modular quick change system that allows you to change tools in less than 20 seconds. The time-consuming process of removing the angle head from the machine is avoided, as only the adapter with cutting tool is changed. Replacing the change adapter saves you several angle heads. Your advantage: One angle head instead of several – and therefore lower investment costs compared to exchanging the complete unit!

BENZ Solidfix® can be used for many different applications including drilling, milling and sawing.



DUO double sided angle head with BENZ Solidfix® output spindle
performance, precision, handling and safety. Those are the features that distinguish the BENZ Solidfix® modular quick change system.

► **Savings with BENZ Solidfix®**



System advantages

- **Modular design**
based on angle head and change adapter with different types of output spindle
- **Minimises setup and non-productive time / increases productivity**
by changing the preset tool within seconds
- **Low investment overhead**
Because the angle head remains on the machine and only an adapter needs to be changed, fewer angle heads are needed overall
- **Easy handling**
One-hand operation without a special tool
- **Operating safety**
Cannot become detached accidentally

► **Tool change with BENZ Solidfix®**



In just a few steps

- **Make yourself familiar with the activation**
To be able to change the adapter, the activation must first be open (small picture above)
- **Insert the adapter and turn it 90°**
- **Distance-controlled clamping to fix the adapter in place**
Turn the clamping screw in as far as it will go (small picture below)



Video

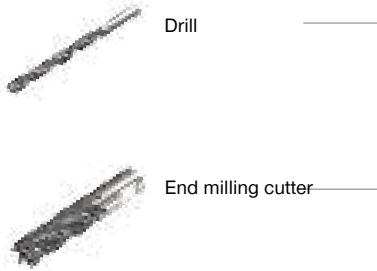
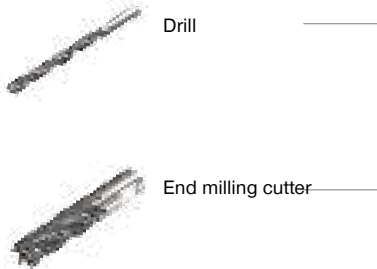


► **BENZ Solidfix® - tool change**

Scan the QR code to the side with a smartphone and experience how easy it is to change tools with BENZ Solidfix®. You can also visit our YouTube channel to watch the video:
www.youtube.com/BENZWerkzeugsysteme

BENZ SOLIDFIX® SYSTEM DESIGN

TOOLS



DRILL/MILLING HOLDERS



Collet chuck holder with externally located clamping nut per DIN6499
Clamping range
ER 25 Ø2 - Ø16
ER 32 Ø2 - Ø20



Weldon holder per DIN1835B
Clamping range
Ø6/Ø8/Ø10/Ø12/Ø14/Ø16/
Ø18/Ø20

SAW BLADE HOLDERS



Saw blade



Arbor Ø30 (TK Ø42 - 2x Ø6)
tool length 1.5 - 63 mm



Saw blade



Centring Ø30 (TK Ø45/Ø52 - 4x M5)



Saw blade



Centring Ø40 (TK Ø52 - 8x M5)

EXCHANGEABLE UNITS

► For horizontal machining
(see page 58)



HSK TOOL HOLDER

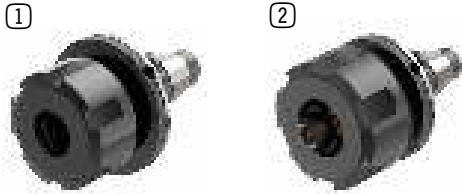
Presetting of tools is possible

► For vertical machining
(see page 100)







BENZ SOLIDFIX®

ADAPTER OVERVIEW






Collet chuck holder per DIN6499

Order No.	Technical data		
	Size	Type	Figure
693.130E534	S3	ER 25	1
B136-E5		ER 25	1
D01810B045050		ER 25	1
693.130E648	S3	ER 32	2
B136-E6		ER 32	2
D01810B045050		ER 32	2



Saw blade holder

Order No.	Technical data		
	Size	Type	Figure
693.040SD38	S3	Arbor Ø30 (TK Ø42 - 2x Ø6) tool length 1.5 - 6 mm	1
D01810B058062		Arbor Ø30 (TK Ø42 - 2x Ø6) tool length 1.5 - 6 mm	1
693.040S0001	S3	Centring Ø30 (TK Ø45/Ø52 - 4x M5)	2
811.00.235		Centring Ø30 (TK Ø45/Ø52 - 4x M5)	2
693.04040S0414	S3	Centring Ø40 (TK Ø52 - 8x M5)	3
811.00.235		Centring Ø40 (TK Ø52 - 8x M5)	3



Weldon holder per DIN1835B

Order No.	Technical data	
	Size	Type
693.1400606	S3	Ø6
693.1400808	S3	Ø8
693.1401028	S3	Ø10
693.1401232	S3	Ø12
693.1401432	S3	Ø14
693.1401635	S3	Ø16
693.1401842	S3	Ø18
693.1402046	S3	Ø20

BENZ SOLIDFIX®

ADAPTER OVERVIEW



Sealing plugs

▶ Technical data	
Order No.	Size
693.581S	S3



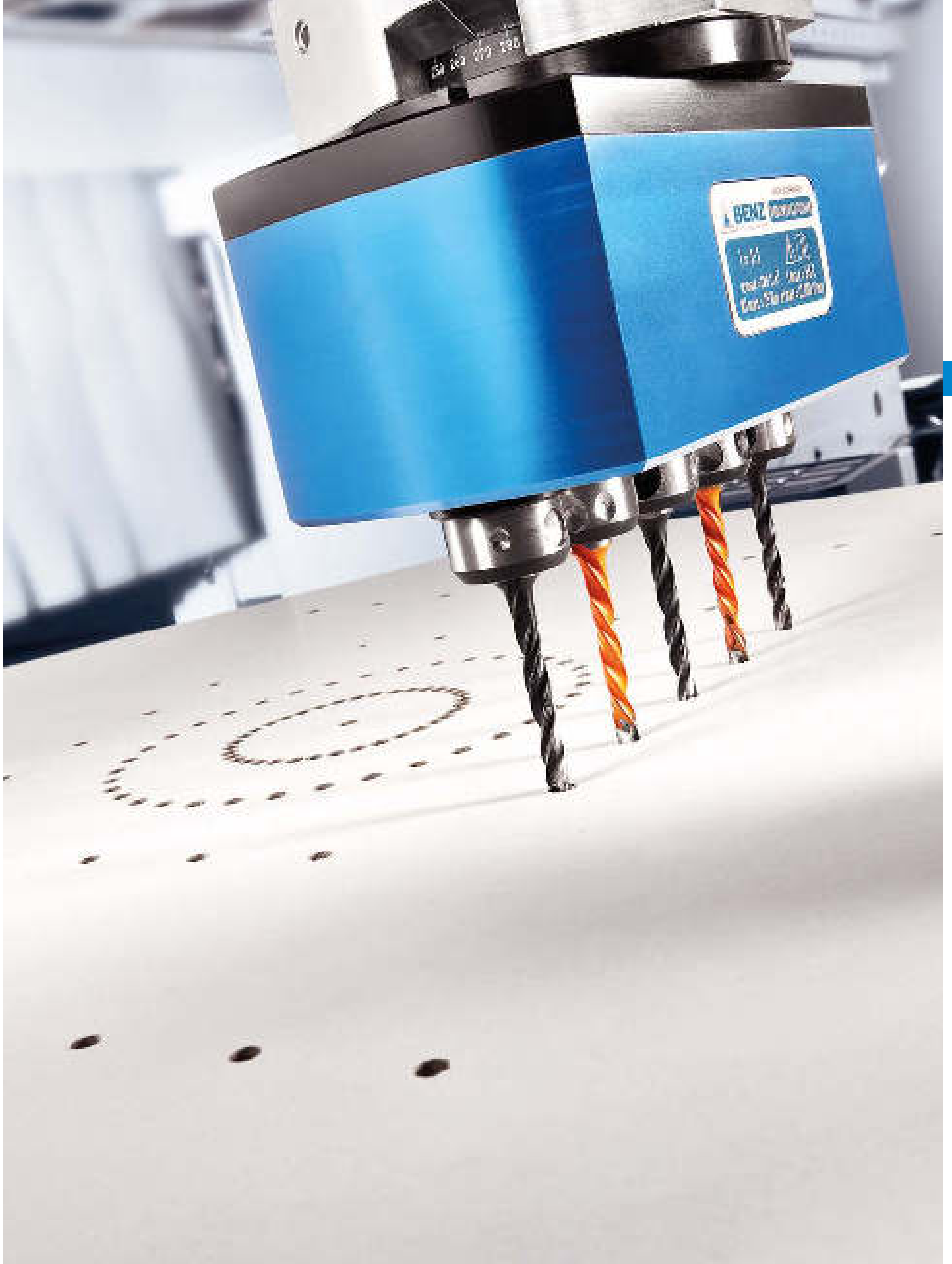
Blank

▶ Technical data		
Order No.	Ø	L
693.10250100	50	100



Assembly block

▶ Technical data	
Order No.	Size
B300-4-S3	S3























EXCHANGEABLE UNITS

SYSTEM DESIGN

▶ PICTOGRAM AND ABBREVIATION OVERVIEW

▶ Exchangeable unit specification

Pictogram	Exchangeable unit specification			
Profile slot position / angle	 <p>Horizontal Horizontal slot</p>	 <p>Vertical / workpiece edge Vertical slot on the workpiece edge</p>	 <p>Vertical / workpiece centre Vertical slot in workpiece centre (up to 15 mm in depth)</p>	 <p>Vertical / workpiece centre Vertical slot in workpiece centre (up to 10 mm in depth)</p>
Machining	 <p>Drilling The unit is suitable for drilling operations</p>	 <p>Milling The unit is suitable for milling operations</p>	 <p>Sawing The unit is suitable for sawing operations</p>	 <p>Planing The unit is suitable for planing operations</p>
Number of output spindles (tool holding fixtures)	 <p>1 The angle head has one output spindle</p>	 <p>2 The angle head has two output spindles</p>	 <p>3 The angle head has three output spindles</p>	 <p>4 The angle head has four output spindles</p>
Axis angle	 <p>0° Angle head for machining tasks at 0° angle</p>	 <p>45° Angle head for machining tasks at 45° angle</p>	 <p>90° Angle head for machining tasks at 90° angle</p>	 <p>180° Angle head for machining tasks at 180° angle</p>
C-angle	 <p>4 x 90° The exchangeable unit can be rotated 4 x 90°</p>	 <p>360° The exchangeable unit can be rotated 360°</p>		
Lubrication	 <p>Grease lubrication The wheelworks are lubricated with grease</p>	 <p>Oil bath lubrication The wheelworks are lubricated with an oil bath</p>		

**Any angle**

Slot at any angle

**Profile slot depth****Brushing**

The unit is suitable for brushing operations

**Grinding**

The unit is suitable for grinding operations

**Cutting**

The unit is suitable for cutting operations

**Chiselling**

The unit is suitable for chiselling operations

**X**

The angle head has X output spindles (multi-spindle head)

**-5° to +100°**

Angle head for machining tasks at flexible angle. Any angle can be set.

**-15° to +102°**

Angle head for machining tasks at flexible angle. Any angle can be set.




**α°**

Angle head for machining tasks at a fixed angle α .

EXCHANGEABLE UNITS

SYSTEM DESIGN

▶ PICTOGRAM AND ABBREVIATION OVERVIEW

Pictogram	General Specifications
Information	 <p>Important Information</p> <p>Caution! Important Note. Please read this carefully.</p>
Video	 <p>Video</p> <p>A video is available for this product</p>
Services	 <p>Customer Service</p> <p>Services, e.g. repair, preventative maintenance, etc.</p>

▶ Abbreviations

B Width

CAD Computer-aided design

CNC Computerized Numerical Control

∅ Diameter

d Internal diameter

D External diameter

° Degrees

kg Kilograms

rpm Revolutions per minute

mm Millimetres

Nm Newton meters

TK Semicircle

e.g. for example

S

Small

M

Medium

L

Long

SO

Soft

ME

Medium

HA

Hard





PRODUCT LINES

CLASSIC / PREMIUM LINE

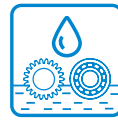
Suitable for your individual application

Manufacturing tasks and the corresponding general conditions in machining of wood and composite materials are often very different. The design of individual units may therefore be adapted to these general conditions, for example to achieve higher machining performance or to withstand extreme loads.



CLASSIC LINE WITH GREASE LUBRICATION

The reliable universal unit: The maintenance-free units with grease lubrication and a long service life are hard to beat in long machining cycles. They offer an optimum price/performance ratio.



PREMIUM LINE WITH OIL BATH LUBRICATION

The power pack: Oil bath-lubricated units achieve maximum machining performance, even with extremely difficult requirements.





























Are you not sure which is the right product line for you? We will be happy to advise you!























PRODUCT COMPASS

UNITS – OVERVIEW BY APPLICATIONS

3 Product compass / Exchangeable units

		▶ CLASSIC LINE								
		MONO	MONO R	DUO	QUATTRO	FLEX D	FORTE	ANGULO	SUBIO	MULTI
Design		 P. 60	 P. 62	 P. 66	 P. 68	 P. 70	 P. 74	 P. 76	 P. 78	 P. 80
Applications		++	++	++	++	++	++	++	++	++
		++	++	++	++	++	++	++	++	++
		++	++	++	++	++	++	+	-	-
		-	+	-	-	-	-	-	-	-
		+	+	+	+	+	+	+	-	-
		-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-
▶ Tool outputs										

- not suitable
- + suitable with conditions
- ++ suitable

								► PREMIUM LINE		
FLOATING	COLLEVO	SIMOLO	SECO	RENITO	FIX	CAVO	LIVELLO	MONO R	FLEX D	MOULDER
										
P. 90	P. 92	P. 94	P. 96	P. 98	P. 98	P. 98	P. 98	P. 64	P. 72	P. 86
++	-	-	-	-	++	-	-	++	++	-
++	-	-	-	-	++	-	++	++	++	++
+	-	-	-	-	++	-	-	++	++	++
-	-	-	-	-	-	-	-	+	-	++
-	-	-	-	-	+	-	-	+	+	++
-	++	++	-	-	-	-	+	-	-	-
-	-	-	++	-	-	-	-	-	-	-
-	-	-	-	++	-	++	-	-	-	-
										

THE RESULT

A PRIZED POSSESSION



”

My customer's
prized possession:

a new designer kitchen.

My prized possession:

the BENZ floating trimming unit.

You did it! That's it, the beam in your customer's face as she receives her new prized possession. A fine moment you are happy to work for, which also motivates you.



Motivating. Leading the way. Innovative. And always reliable. That also describes the BENZ units you use for so many applications in your production. Machining without BENZ units? No longer imaginable for you. Your BENZ unit – simply a prized possession.

EXCHANGEABLE UNITS

OVERVIEW

DESIGN



MONO

60

Single sided angle head



MONO R

62

Single sided angle head at reduced speed



DUO

66

Double sided angle head



QUATTRO

68

Four sided angle head



FLEX D

70

Adjustable angle head with digital display



FORTE

74

Lock recess trimming unit



ANGULO

76

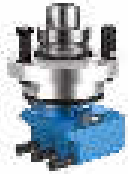
Corner notching unit



SUBIO

78

Undersurface unit



MULTI H3 80

Horizontal multi-spindle head with 3 spindles



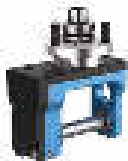
MULTI H3+ 82

Horizontal multi-spindle head with 4 spindles



MULTI V 84

Vertical multi-spindle head with 3-11 spindles



MOULDER 86

Moulder head



FLOATING 90

Floating trimming unit



COLLEVO 92

Belt sanding unit



SIMOLO 94

Orbital sanding unit



SECO 96

Cutting unit

SINGLE SIDED ANGLE HEAD - CLASSIC LINE

MONO

▶ TECHNICAL DATA



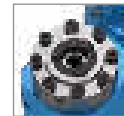
- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 15,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1.2
- ▶ **Max. drive torque M_2** 25 Nm
- ▶ **Weight** about 5 kg

Standard design

1 Head length



2 Output spindle



Centring Ø40/
collet chuck
ER25A

3 Machine connection



HSK - F63



Video



▶ Angle head - live in the application

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

▶ Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



MONO



▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD LENGTH



i For further information see p. 38

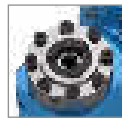
②



▶ OUTPUT SPINDLE



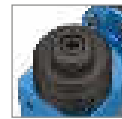
Collet chuck
ER32



Centring Ø40/
collet chuck
ER25A



Centring Ø30/
Weldon Ø10



Arbor Ø30,
tool length
1.5 - 6 mm



Arbor Ø30,
tool length
1.5 - 16 mm



Arbor Ø30,
tool length
1.5 - 33 mm



Arbor Ø30,
tool length
1.5 - 52 mm



Arbor Ø30,
tool length
1.5 - 63 mm



BENZ
Solidfix® S3

i For further information see p. 36

③



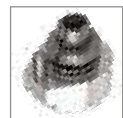
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



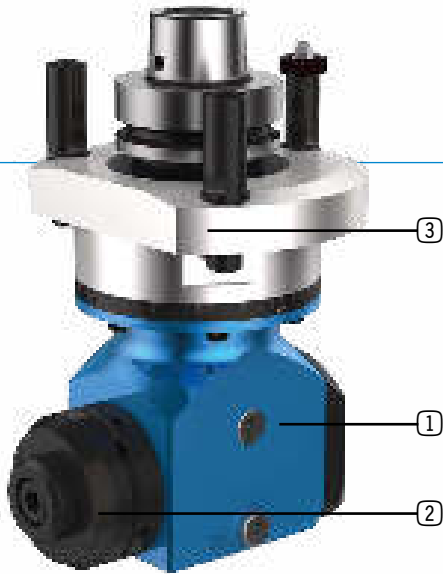
HSK - F63
Weinig

i For further information see p. 40

SINGLE SIDED ANGLE HEAD - CLASSIC LINE

MONO R AT REDUCED SPEED

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 8,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:0.8
- **Max. drive torque M_2** 25 Nm
- **Weight** about 5.5 kg

Standard design

1 Head length



2 Output spindle



Arbor Ø30,
tool length
1.5 - 6 mm

3 Machine connection



HSK - F63



Video



► **Angle head - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



MONO R



▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD LENGTH



i For further information see p. 38

②



▶ OUTPUT SPINDLE



Collet chuck ER25M



Collet chuck ER32



Centring Ø30/
Weldon Ø10



Centring Ø40



Arbor Ø30,
tool length
1.5 - 6 mm



Arbor Ø30,
tool length
1.5 - 16 mm



Arbor Ø30,
tool length
1.5 - 33 mm



Arbor Ø30,
tool length
1.5 - 52 mm



Arbor Ø30,
tool length
1.5 - 63 mm



BENZ
Solidfix® S3

i For further information see p. 36

③



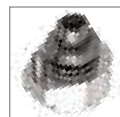
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



HSK - F63
Weinig

i For further information see p. 40

SINGLE SIDED ANGLE HEAD - PREMIUM LINE

MONO R AT REDUCED SPEED

TECHNICAL DATA



- ▶ **Lubrication** Oil bath
- ▶ **Max. drive speed n_2** 8,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:0.8
- ▶ **Max. drive torque M_2** 25 Nm
- ▶ **Weight** about 5.5 kg

Standard design

1 Head length

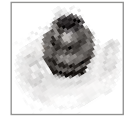


2 Output spindle



Arbor Ø30,
tool length
1.5 - 6 mm

3 Machine connection



HSK - F63



Video



▶ **Angle head - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



MONO R



▶ **ADDITIONAL OPTIONS: MODULAR DESIGN**

①



▶ **HEAD LENGTH**



i For further information see p. 38

②



▶ **OUTPUT SPINDLE**



Collet chuck
ER25M



Collet chuck
ER32



Centring Ø30/
Weldon Ø10



Centring Ø40



Arbor Ø30,
tool length
1.5 - 6 mm



Arbor Ø30,
tool length
1.5 - 16 mm



Arbor Ø30,
tool length
1.5 - 33 mm



Arbor Ø30,
tool length
1.5 - 52 mm



Arbor Ø30,
tool length
1.5 - 63 mm



BENZ
Solidfix® S3

i For further information see p. 36

③



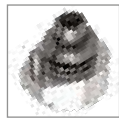
▶ **MACHINE CONNECTION**



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



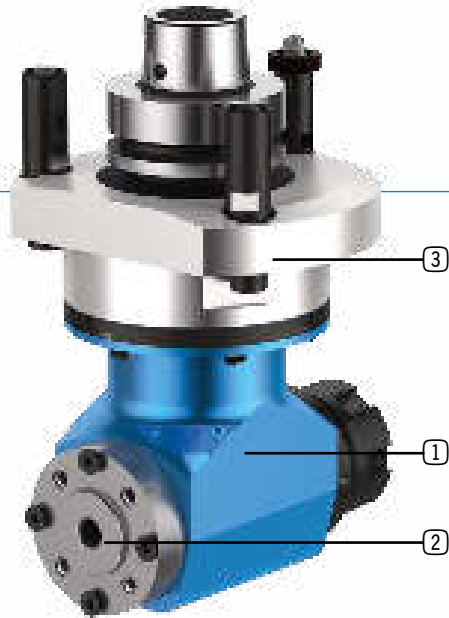
HSK - F63
Weinig

i For further information see p. 40

DOUBLE SIDED ANGLE HEAD - CLASSIC LINE

DUO

▶ TECHNICAL DATA



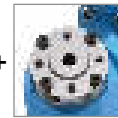
- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 15,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1.2
- ▶ **Max. drive torque M_2** 25 Nm
- ▶ **Weight** about 5 kg

Standard design

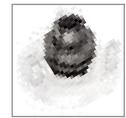
- ① Head length
- ② Output spindle
- ③ Machine connection



Collet chuck
ER32



Centring Ø30/
Weldon Ø10



HSK - F63



Video



▶ Angle head - live in the application

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

▶ Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



DUO



▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD LENGTH



i For further information see p. 38

②



▶ OUTPUT SPINDLE



Collet chuck ER25M



Collet chuck ER32



Centring Ø30/
Weldon Ø10



Centring Ø40



Arbor Ø30,
tool length
1.5 - 6 mm



Arbor Ø30,
tool length
1.5 - 16 mm



Arbor Ø30,
tool length
1.5 - 33 mm



Arbor Ø30,
tool length
1.5 - 52 mm



Arbor Ø30,
tool length
1.5 - 63 mm



BENZ
Solidfix® S3

i For further information see p. 36

③



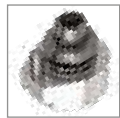
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



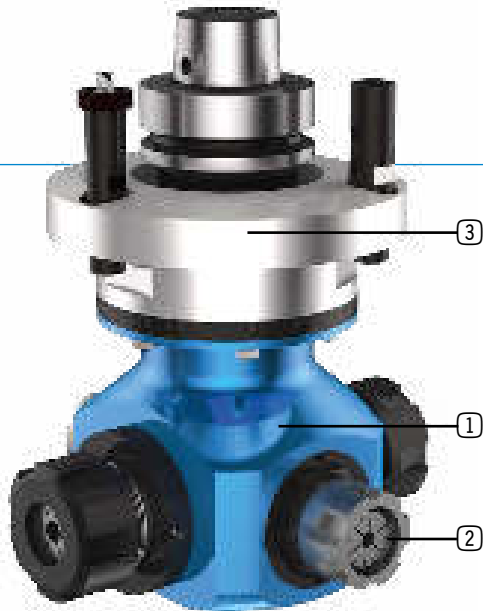
HSK - F63
Weinig

i For further information see p. 40

FOUR SIDED ANGLE HEAD - CLASSIC LINE

QUATTRO

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 15,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:1.2
- **Max. drive torque M_2 milling spindle** 25 Nm
- **Max. drive torque M_2 drilling spindle** 10 Nm
- **Weight** about 6 kg

Standard design

- ① Head length ② Output spindle ③ Machine connection



Collet chuck
ER32



Collet chuck
ER25M



HSK - F63



Video



► Angle head - live in the application

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication

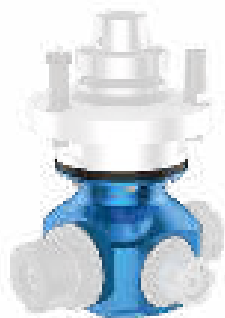


QUATTRO



▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD LENGTH

M

i For further information see p. 38

②



▶ OUTPUT SPINDLE

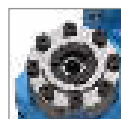


Collet chuck ER32

+

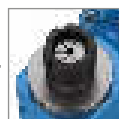


Collet chuck ER25M



Centring Ø40/
collet chuck ER25A

+



Collet chuck ER25M



BENZ Solidfix® S3

+



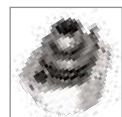
Collet chuck ER25M

i For further information see p. 36

③



▶ MACHINE CONNECTION



HSK - F63 BIESSE



SK 30 BIESSE



HSK - F63 Busellato



HSK - F63 Felder



HSK - F63 HOMAG / WEEKE / WEINMANN



HSK - F63 IMA



HSK - F63 Masterwood



HSK - F63 SCM



HSK - F63 SCM



HSK - F63 Weinig

i For further information see p. 40

ADJUSTABLE ANGLE HEAD WITH DIGITAL DISPLAY - CLASSIC LINE FLEX D

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 15,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:1
- **Max. drive torque M_2** 25 Nm
- **Weight** about 8 kg

Standard design

① Head length

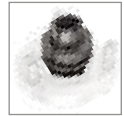


② Output spindle



Centring Ø30/
Collet chuck
ER25M

③ Machine connection



HSK - F63

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



FLEX D

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD LENGTH



i For further information see p. 38

②



▶ OUTPUT SPINDLE



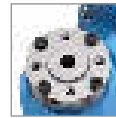
Collet chuck ER25M



Collet chuck ER32



Centring Ø30/
collet chuck ER25M



Centring Ø30/
Weldon Ø10



Centring Ø40

i For further information see p. 36

③



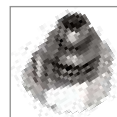
▶ MACHINE CONNECTION



HSK - F63 BIESSE



SK 30 BIESSE



HSK - F63 Busellato



HSK - F63 Felder



HSK - F63 HOMAG / WEEKE / WEINMANN



HSK - F63 IMA



HSK - F63 Masterwood



HSK - F63 SCM



HSK - F63 SCM



HSK - F63 Weinig

i For further information see p. 40

ADJUSTABLE ANGLE HEAD WITH DIGITAL DISPLAY - PREMIUM LINE FLEX D

► TECHNICAL DATA



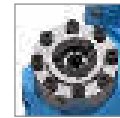
- **Lubrication** Oil bath
- **Max. drive speed n_2** 15,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:0.94
- **Max. drive torque M_2** 26.5 Nm
- **Weight** about 9 kg

Standard design

1 Head length

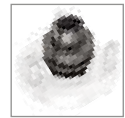


2 Output spindle



Centring Ø40/
collet chuck
ER25A

3 Machine connection



HSK - F63



Video



► Angle head - live in the application

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



FLEX D



▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD LENGTH

M

i For further information see p. 38

②



▶ OUTPUT SPINDLE



Centring Ø40/
collet chuck
ER25A

i For further information see p. 36

③



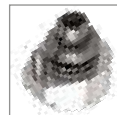
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



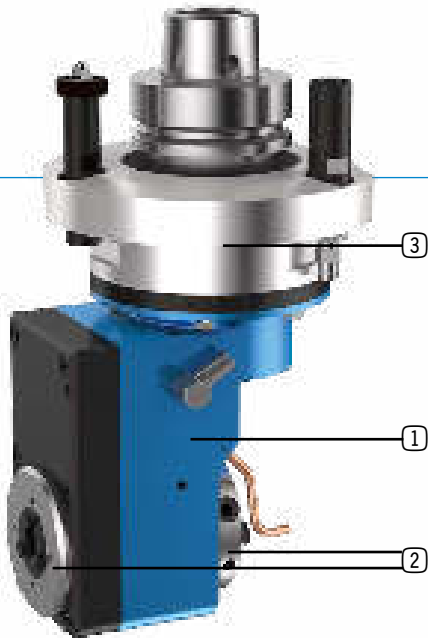
HSK - F63
Weinig

i For further information see p. 40

LOCK RECESS TRIMMING UNIT - CLASSIC LINE




FORTE

▶ TECHNICAL DATA



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 15,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1.2
- ▶ **Max. drive torque M_2** 25 Nm
- ▶ **Weight** about 5.5 kg

Standard design








① Head length	② Output spindles	③ Machine connection
M	 	
	Centring Ø30/ Whistle notch Ø16/Ø20	HSK - F63

Video



▶ **Angle head - live in the application**
 Scan QR code or go to:
[www.youtube.com/
 BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

▶ Specifications

Machining	Number of output spindles	Axis angle	C-angle	Lubrication
				
				
				

FORTE

▶ **ADDITIONAL OPTIONS: MODULAR DESIGN**

①



▶ **HEAD LENGTH**

M

i For further information see p. 38

②



▶ **OUTPUT SPINDLE**

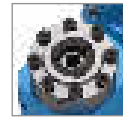


Collet chuck ER32

+



Collet chuck ER16A

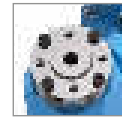


Centring Ø40/collet chuck ER25A

+



Collet chuck ER16A



Centring Ø30/Weldon Ø10

+



Collet chuck ER16A



Centring Ø30/Whistle notch Ø16/Ø20

+



Collet chuck ER16A



BENZ Solidfix® S3

+



Collet chuck ER16A



Arbor Ø20, tool length 6 - 43mm

i For further information see p. 36

③



▶ **MACHINE CONNECTION**



HSK - F63 BIESSE



SK 30 BIESSE



HSK - F63 Busellato



HSK - F63 Felder



HSK - F63 HOMAG / WEEKE / WEINMANN



HSK - F63 IMA



HSK - F63 Masterwood



HSK - F63 SCM



HSK - F63 SCM



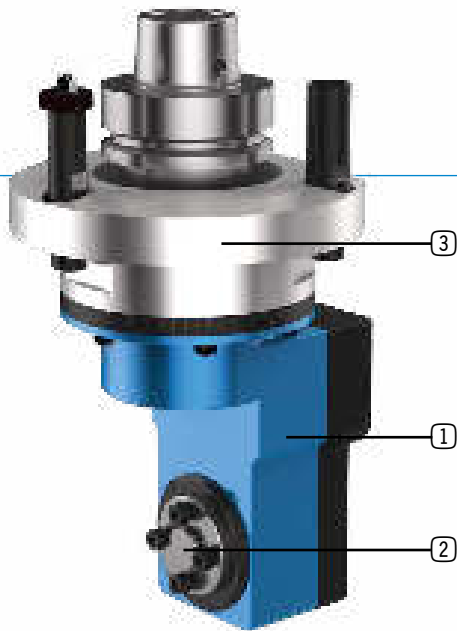
HSK - F63 Weinig

i For further information see p. 40

CORNER NOTCHING UNIT - CLASSIC LINE

ANGULO

▶ TECHNICAL DATA



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 10,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1.3
- ▶ **Max. drive torque M_2** 20 Nm
- ▶ **Weight** about 4.5 kg

Standard design

1 Head length



2 Output spindle



Centring Ø16

3 Machine connection



HSK - F63



Video



▶ **Angle head - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

▶ Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



ANGULO

▶ **ADDITIONAL OPTIONS: MODULAR DESIGN**

①



▶ **HEAD LENGTH**



i For further information see p. 38

②



▶ **OUTPUT SPINDLE**



Collet chuck
ER16A



Collet chuck
ER25M



Centring Ø16

i For further information see p. 36

③



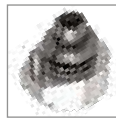
▶ **MACHINE CONNECTION**



HSK - F63
BIESSE



SK 30
BIESSE



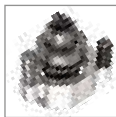
HSK - F63
Busellato



HSK - F63
Felder



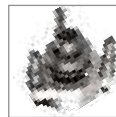
HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



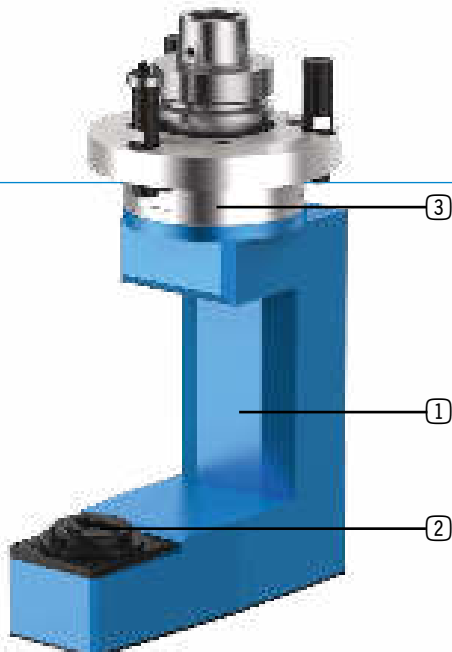
HSK - F63
Weinig

i For further information see p. 40

UNDERSURFACE UNIT - CLASSIC LINE

SUBIO

TECHNICAL DATA



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 10,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1
- ▶ **Max. drive torque M_2** 8 Nm
- ▶ **Weight** about 7 kg

Standard design

1 Head size



2 Output spindle



Collet chuck
ER25A

3 Machine connection



HSK - F63

Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



SUBIO

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HEAD SIZE

M

i Additional projections and lengths on request

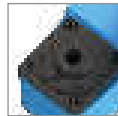
②



▶ OUTPUT SPINDLE



Collet chuck
ER25A



Weldon Ø12

i For further information see p. 36

③



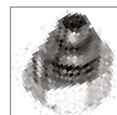
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



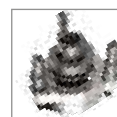
HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



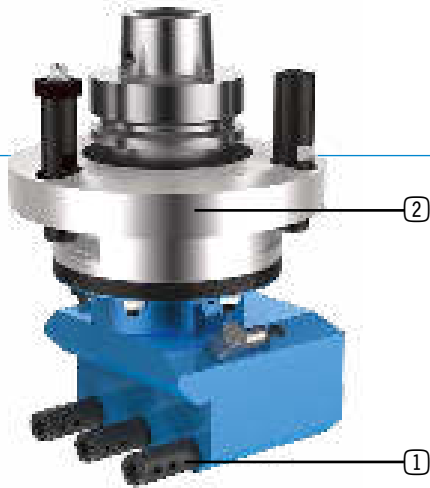
HSK - F63
Weing

i For further information see p. 40

MULTI-SPINDLE HEAD - CLASSIC LINE

MULTI H3

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 12,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:4
- **Max. drive torque M_2** 2 Nm
- **Weight** about 4 kg
- **Nesting applications** Design is suitable

Standard design

1 Spindle distance

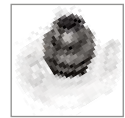
32

Output spindle



Whistle notch
Ø6

2 Machine connection



HSK - F63



Video



► **Multi-spindle head - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



MULTI
H3

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ SPINDLE DISTANCE

20

32



Additional spindle distances/ numbers of spindles/ drilling patterns on request

▶ OUTPUT SPINDLE



Whistle notch
Ø6



For further information see p. 36

②



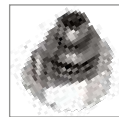
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



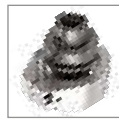
HSK - F63
Felder



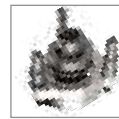
HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



HSK - F63
Weinig



For further information see p. 40

MULTI-SPINDLE HEAD - CLASSIC LINE

MULTI H3+

TECHNICAL DATA



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 10,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1.37
- ▶ **Max. drive torque M_2** 5 Nm
- ▶ **Weight** about 4 kg

Standard design

1 Spindle distance

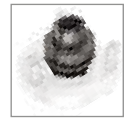
25

Output spindle



Weldon Ø10

2 Machine connection



HSK - F63



Video



▶ **Multi-spindle head - live in the application**

Scan QR code or go to:

www.youtube.com/BENZWerkzeugsysteme

Specifications

Machining



Number of output spindles



Axis angle



C-angle



Lubrication



MULTI H3+



▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ SPINDLE DISTANCE

20

22

22,5

25

25,4

32



Additional spindle distances/ numbers of spindles/ drilling patterns on request

▶ OUTPUT SPINDLE



Weldon Ø10



For further information see p. 36

②



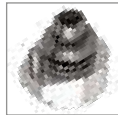
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



HSK - F63
Weinig

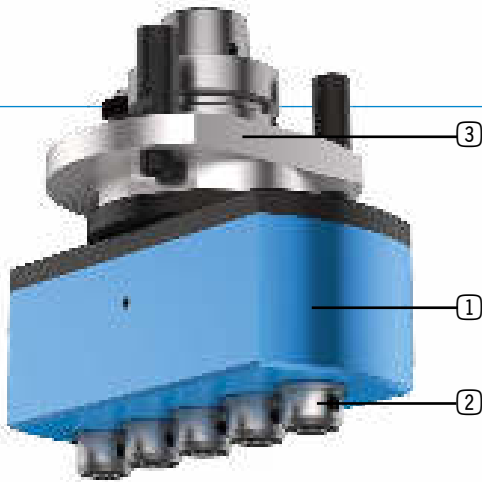


For further information see p. 40

MULTI-SPINDLE HEAD - CLASSIC LINE

MULTI V

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 12,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:1
- **Max. drive torque M_2** 5 Nm
- **Weight** about 5.5 kg

Standard design

① No. of spindles/
spindle distance

5

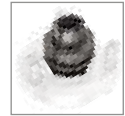
32

Output spindle



Weldon Ø10

② Machine
connection



HSK - F63



Video



► **Multi-spindle head - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkeugsysteme](http://www.youtube.com/BENZWerkeugsysteme)

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



MULTI V

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ NUMBER OF SPINDLES

- 3
- 5
- 7
- 9
- 11

▶ SPINDLE DISTANCE

- 20
- 21,5
- 25
- 25,4
- 30
- 32
- 40
- 50
- 60
- 100

i Additional spindle distances/ numbers of spindles/ drilling patterns on request.

▶ OUTPUT SPINDLE



Collet chuck
ER25M



Collet chuck
ER32



Weldon Ø10

i For further information see p. 36

②



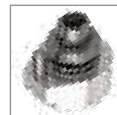
▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



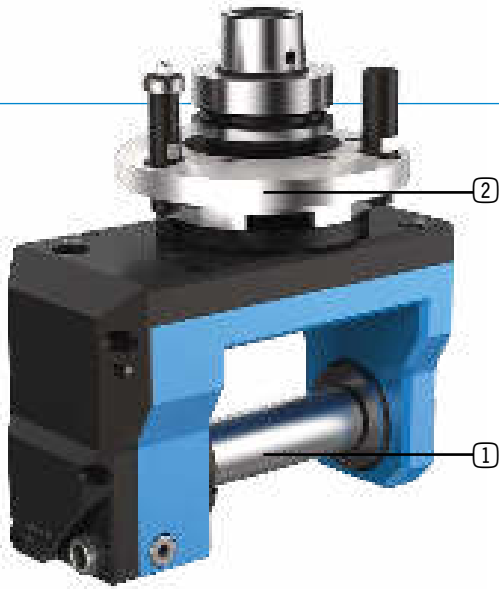
HSK - F63
Weinig

i For further information see p. 40

MOULDER HEAD - PREMIUM LINE

MOULDER C

► TECHNICAL DATA



- **Lubrication** Oil bath
- **Max. drive speed n_2** 10,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:0.9
- **Max. drive torque M_2** 25 Nm
- **Weight** about 7.5 kg
- **Max. tool diameter** Ø125

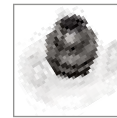
Standard design

① Output spindle



Arbor Ø30,
tool length
100 mm

② Machine connection



HSK - F63



Video



► **Unit - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining	Number of output spindles	Axis angle	C-angle	Lubrication

MOULDER C

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ OUTPUT SPINDLE



Arbor Ø30,
tool length
100 mm



Arbor Ø30,
tool length
120 mm

i Additional arbor diameters and tool lengths on request

②



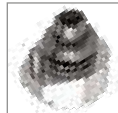
▶ MACHINE CONNECTION



HSK - F63
BIESSÉ



SK 30
BIESSÉ



HSK - F63
Busellato



HSK - F63
Felder



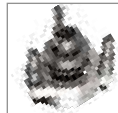
HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



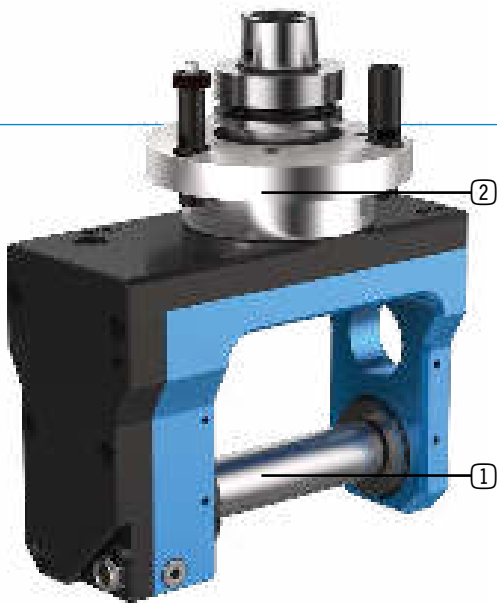
HSK - F63
Weinig

i For further information see p. 40

MOULDER HEAD - PREMIUM LINE

MOULDER

TECHNICAL DATA

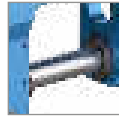


- ▶ **Lubrication** Oil bath
- ▶ **Max. drive speed n_2** 10,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:0.7
- ▶ **Max. drive torque M_2** 25 Nm
- ▶ **Weight** about 10 kg
- ▶ **Max. tool diameter** Ø180

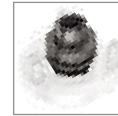
Standard design

① Output spindle

② Machine connection



Arbor Ø30,
tool length
120 mm



HSK - F63



Video



▶ **Unit - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

Specifications

Machining

Number of
output spindles

Axis angle

C-angle

Lubrication



MOULDER

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ OUTPUT SPINDLE



Arbor Ø30,
tool length
120 mm



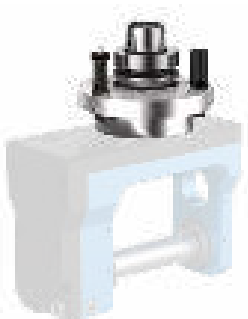
Arbor Ø35,
tool length
120 mm



Arbor Ø35,
tool length
170 mm

i Additional arbor diameters and tool lengths on request

②



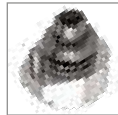
▶ MACHINE CONNECTION



HSK - F63
BIESE



SK 30
BIESE



HSK - F63
Busellato



HSK - F63
Felder



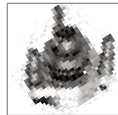
HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



HSK - F63
Weinig

i For further information see p. 40

FLOATING TRIMMING UNIT - CLASSIC LINE

FLOATING

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 18,000 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:1
- **Max. drive torque M_2** 10 Nm
- **Weight** about 6 kg

Standard design

1 Internal diameter of floating ring

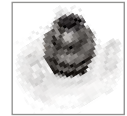
70

2 Output spindle



BENZ
Solidfix® S3

3 Machine connection



HSK - F63



Video



► Unit - live in the application

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining



Number of output spindles

1

Axis angle

0°

C-angle

-

Lubrication



FLOATING



► ADDITIONAL OPTIONS: MODULAR DESIGN

①



► INTERNAL DIAMETER OF FLOATING RING

70

94

105

122

i Additional internal diameters of floating ring on request

②



► OUTPUT SPINDLE



BENZ
Solidfix® S3

i For further information see p. 36

③



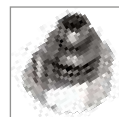
► MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



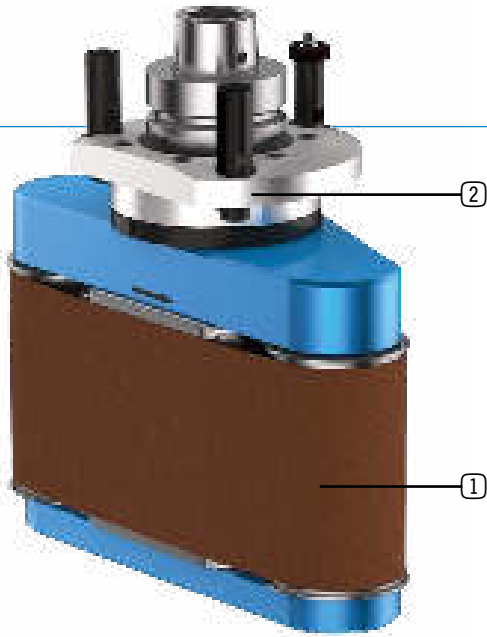
HSK - F63
Weinig

i For further information see p. 40

BELT SANDING UNIT - CLASSIC LINE

COLLEVO

► TECHNICAL DATA



- **Lubrication** Grease
- **Max. drive speed n_2** 2,700 rpm
- **Transmission ratio ($n_1 : n_2$)** 1:0.9
- **Max. drive torque M_2** 10 Nm
- **Weight** about 9 kg

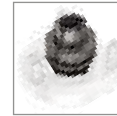
Standard design

① Sanding belt



Width 100 mm,
length 560 mm

② Machine connection



HSK - F63



Video



► Unit - live in the application

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

► Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



COLLEVO

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ SANDING BELT

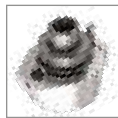


Width 100 mm,
length 560 mm

②



▶ MACHINE CONNECTION



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



HSK - F63
Weinig



For further information see p. 40

ORBITAL SANDING UNIT - CLASSIC LINE

SIMOLO

▶ TECHNICAL DATA



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 4,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1
- ▶ **Weight** about 3 kg

Standard design

① **Hardness level/diameter of sanding disc**



Ø 125

② **Machine connection**



HSK - F63



Video



▶ **Unit - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

▶ Specifications

Machining



Number of
output spindles



Axis angle



C-angle

-

Lubrication



SIMOLO

▶ ADDITIONAL OPTIONS: MODULAR DESIGN

①



▶ HARDNESS LEVEL OF SANDING DISC

SO ME HA

▶ DIAMETER OF SANDING DISC



Ø 125



Ø 150

②



▶ MACHINE CONNECTION



HSK - F63



SK 30

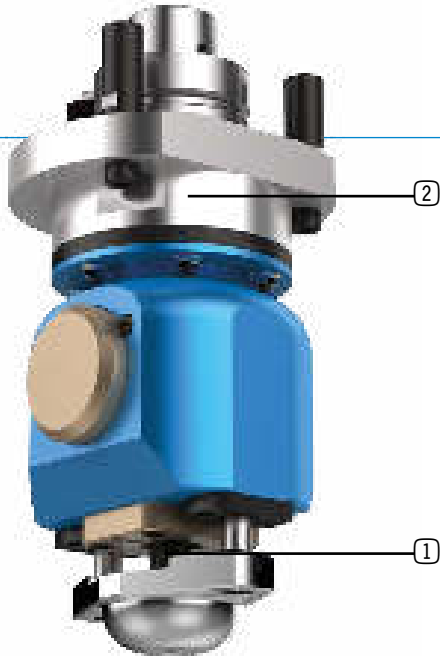


For further information see p. 40

CUTTING UNIT - CLASSIC LINE

SECO

▶ TECHNICAL DATA



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 6,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1.2
- ▶ **Stroke** 5 mm
- ▶ **Weight** about 6.5 kg

Standard design

① Output spindle



Weldon Ø6

② Machine connection



HSK - F63



Video



▶ **Unit - live in the application**

Scan QR code or go to:

[www.youtube.com/
BENZWerkzeugsysteme](http://www.youtube.com/BENZWerkzeugsysteme)

▶ Specifications

Machining



Number of
output spindles



Axis angle



C-angle



Lubrication



SECO

▶ **ADDITIONAL OPTIONS: MODULAR DESIGN**

①



▶ **OUTPUT SPINDLE**



Weldon Ø6

i For further information see p. 36

②



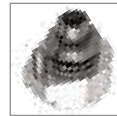
▶ **MACHINE CONNECTION**



HSK - F63
BIESSE



SK 30
BIESSE



HSK - F63
Busellato



HSK - F63
Felder



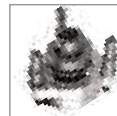
HSK - F63
HOMAG / WEEKE / WEINMANN



HSK - F63
IMA



HSK - F63
Masterwood



HSK - F63
SCM



HSK - F63
SCM



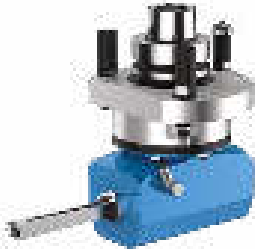
HSK - F63
Weinig

i For further information see p. 40

ADDITIONAL UNITS - CLASSIC LINE

SPECIAL APPLICATIONS

▶ CHISEL MORTISING UNIT - CLASSIC LINE - RENITO H



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 1,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:0.73
- ▶ **Max. drive torque** 22 Nm
- ▶ **Weight** about 4.5 kg



▶ CHISEL MORTISING UNIT - CLASSIC LINE - RENITO V



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 1,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1
- ▶ **Max. drive torque** 22 Nm
- ▶ **Weight** about 3.5 kg



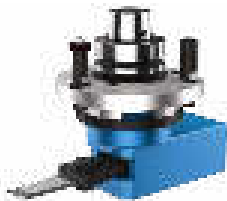
▶ SINGLE SIDED ANGLE HEAD - CLASSIC LINE - FIX



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 15,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1
- ▶ **Max. drive torque** 25 Nm
- ▶ **Weight** about 5 kg
- ▶ **Angle** 15° | 45° | 60° | Additional angles on request



▶ HINGE MORTISING UNIT - CLASSIC LINE - CAVO H



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 4,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1
- ▶ **Weight** about 4.5 kg



▶ HINGE MORTISING UNIT - CLASSIC LINE - RENITO V



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 4,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:0.8
- ▶ **Weight** about 8 kg



▶ TRIMMING UNIT - CLASSIC LINE - LIVELLO



- ▶ **Lubrication** Grease
- ▶ **Max. drive speed n_2** 12,000 rpm
- ▶ **Transmission ratio ($n_1 : n_2$)** 1:1
- ▶ **Max. drive torque** 5 Nm
- ▶ **Max. edge radius** R12
- ▶ **Max. workpiece thickness** 60 mm
- ▶ **Weight** about 11 kg





HSK TOOL HOLDER

OVERVIEW




HSK tool holder: **Collet chuck holder**

Order No.	Technical data	
	Size	Type
727.130E680	HSK-F63	ER 32
B136-E6		ER 32
D01810B045050		ER 32



HSK tool holder: **Saw blade holder**

Order No.	Technical data	
	Size	Type
727.04040S0426	HSK-F63	Centring Ø40 (TK Ø52 - 8x M5)
811.00.235		Centring Ø40 (TK Ø52 - 8x M5)



HSK tool holder: **BENZ Solidfix® holder**

Order No.	Technical data	
	Size	Type
727.251S3070VE	HSK-F63	S3



Video



► Tool holder - live in the application

Scan QR code or go to:

www.youtube.com/BENZWerkzeugsysteme



HSK tool holder: **Milling cutter holding fixture**

Order No.	Technical data	
	Size	Type
727Wxxx062269	HSK-F63	Arbor Ø30 (TK Ø48 - 2x Ø6)

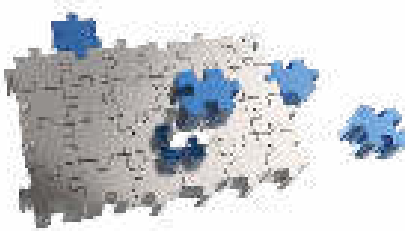
xxx: Please indicate your machine model when ordering so we will be able to select the right machine connection for you.

Scope of delivery: HSK tool holder including machine connection



INDIVIDUAL SOLUTIONS MADE TO MEASURE

Do you need an angle head that does not match any standard parameters? No problem! We develop and produce your angle head made to measure exactly according to your specifications. Small adaptations to standard products and highly complex new developments are our strength - prompt, affordable and with the usual BENZ quality thanks to our modular kits. Extreme conditions everywhere around the world: our components and systems are proven in practical applications and offer you limitless possibilities.



From customer requirement to individual solution
Based on your requirements we define the best possible solution and work out an appropriate concept together with you.

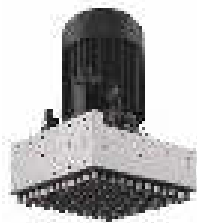


Special units implemented



21-spindle drilling head

Can be loaded via pick-up station; for machining acoustic plates



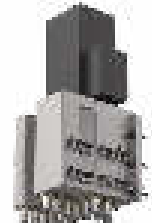
144-spindle drilling head with motor

Permanently installed in the machine; for machining acoustic plates



Combination: Multi-spindle head / Undersurface unit

For machining tops and bottoms of plates



19-spindle drilling unit with individually extendable spindles

High retention force with spindle locking for corner notching unit



Floating trimming unit for sawing

Vertically floating trimming unit with horizontal tool output; for creating slots with a defined, uniform depth



Floating trimming unit for horizontal drilling

Vertically Floating trimming unit with horizontal tool output; for drilling holes or for milling tasks at a uniform distance from the surface of the workpiece



Saw chain unit

Can be loaded via pick-up station; for sawing door and window cutouts in prefabricated house construction



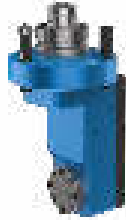
Drive unit

With 90° swivelling unit, HSK clamping unit and exchangeable sawing unit

HOMAG ORIGINAL UNITS

OVERVIEW

STANDARD



SAWING AND SNIPPING UNIT

HOMAG: 7511



SAWING/DRILLING/MIL- LING UNIT, ADJUSTABLE

HOMAG: 7508
WEEKE: 1522/1524



SAWING/DRILLING/ MILLING UNIT

HOMAG: 7519
WEEKE: 1548/1542/1539



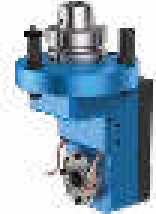
DRILLING/MILLING UNIT, 4 / 2+2 SPINDLES

HOMAG: 7523/7524
WEEKE: 1518/1519/1520



CORNER NOTCHING UNIT

HOMAG: 7547
WEEKE: 1551



LOCK RECESS TRIMMING UNIT, 2 SPINDLES

HOMAG: 7529
WEEKE: 1533/1536/1531

HIGH PERFORMANCE



SAWING UNIT

HOMAG: 7512
WEEKE: 1547



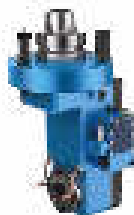
SAWING/DRILLING/MIL- LING UNIT, ADJUSTABLE

HOMAG: 7509
WEEKE: 1521/1523



SAWING/DRILLING/ MILLING UNIT

HOMAG: 7520
WEEKE: 1543/1541



LOCK RECESS TRIMMING UNIT, 2 SPINDLES

HOMAG: 7532
WEEKE: 1534/1532



Additional units from the catalogue of HOMAG units and clamping equipment are available on request.



AA

3-POINT INTERFACE IN MONOBLOCK DESIGN

HOMAG unit design

Three support bolts are connected directly with the unit housing without any additional interface (monoblock design). This ensures excellent transfer of force and eliminates vibrations.

HOMAG units are available in two performance classes: **Standard** and **High Performance**.

Standard units

Units in the standard design have permanent grease lubrication. They are maintenance-free and feature an especially long service life. They are ideal for cyclical use and offer an optimum price/performance ratio.

High Performance units (HP)

The HP units have patented oil bath lubrication to achieve especially high machining performance. Selective lubrication pulses with compressed air ensure an optimum oil quantity is pumped into the machine where it is atomised. In this way the bearing and wheelwork parts are always perfectly lubricated, which considerably extends the service life of the unit.

HOMAG ORIGINAL UNITS

FLEX5C / FLEX5+C

TECHNICAL DATA

▶ Lubrication	Oil bath
▶ Max. drive speed n_2	15,000 rpm
▶ Transmission ratio ($n_1: n_2$)	1:0.94
▶ Max. drive torque M_2	10 Nm
▶ Weight	about 13 kg

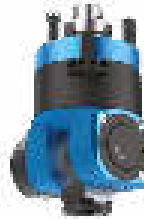
VERSIONS



FLEX5C SAWING/DRILLING/ MILLING UNIT

- ▶ with automatic angle adjustment

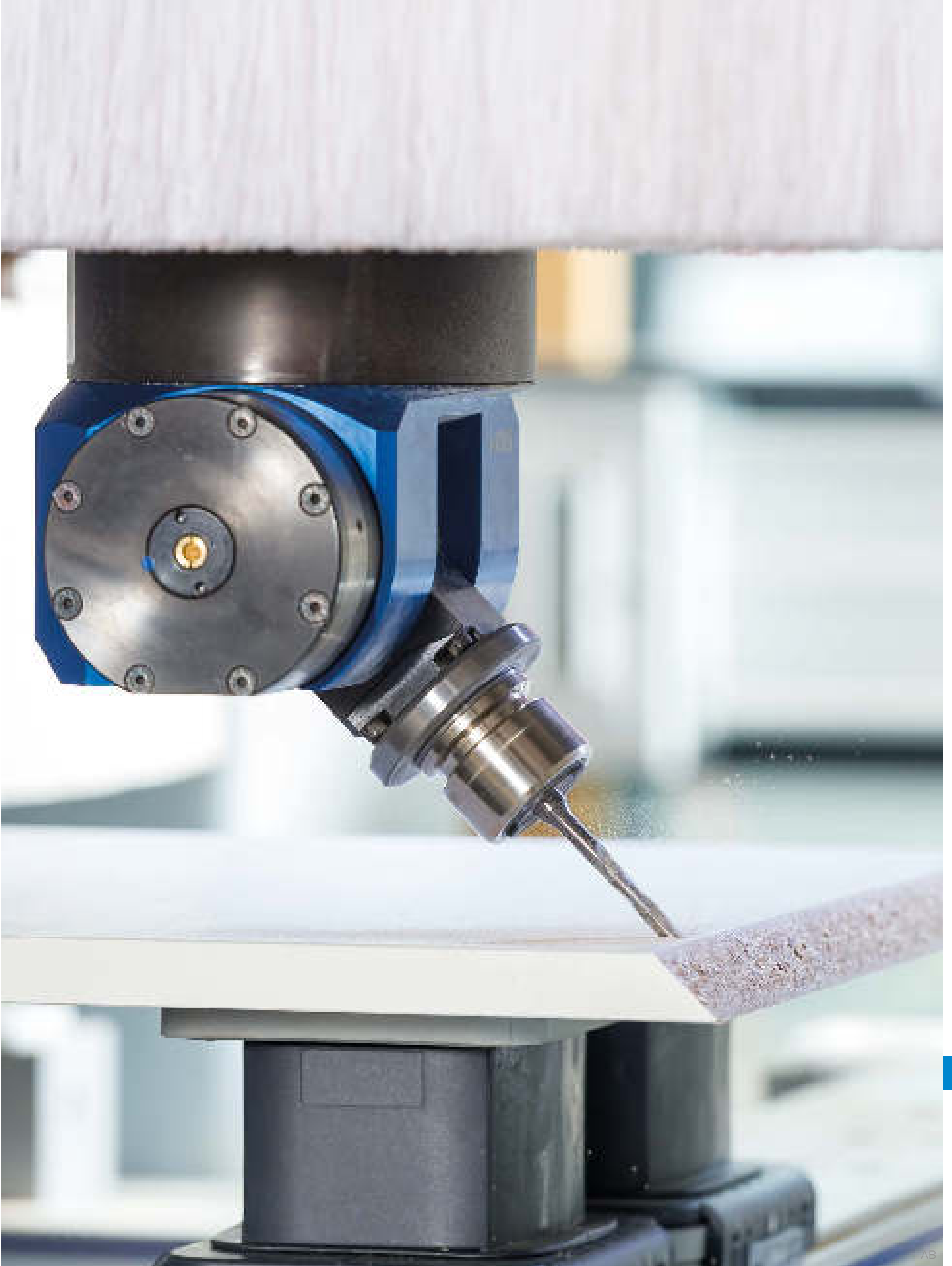
HOMAG: 7568
WEEKE: 1573



FLEX5+C SAWING/DRILLING/ MILLING UNIT

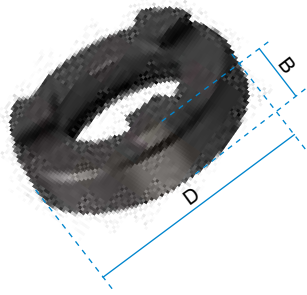
- ▶ with automatic angle adjustment
- ▶ with automatic tool change

HOMAG: 7570
WEEKE: 1576



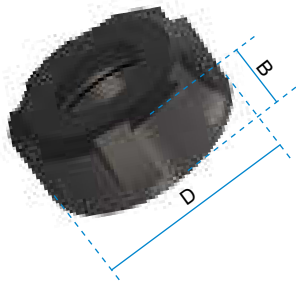
EXCHANGEABLE UNITS

ACCESSORIES



Clamping nut: **internal**

Order No.	Technical data		
	ER	D	B
B135-E3AX	16	M24x1	7.6
B135-E5AX	25	M32x1.5	8.8



Clamping nut: **Externally located per DIN6499**

Order No.	Technical data		
	ER	D	B
B135-M4	25 Mini	35	20
B135-E6	32	50	22



Collet chuck: **per DIN6499, Regofix system shape B**

Order No.	Technical data		
	ER	d	increasing by
B134-426E-...	16	1-10 ¹	0.5
B134-430E-...	25	1-16 ²	1
B134-470E-...	32	3-20 ²	1

Order No.		
ER 16	B134-426E-	<input type="checkbox"/>
d=6	0600	

¹ Collet chuck can clamp up to 0.5 mm smaller than nominal dimension
² Collet chuck can clamp up to 1 mm smaller than nominal dimension
 Collet chuck not included in scope of delivery.



Collet wrench: **Internally located clamping nut**

Order No.	Technical data
	ER
B136-E3AX	16
B136-E5AX	25



Collet wrench: Externally located clamping nut

▶ Technical data	
Order No.	ER
B136-M4	25 Mini
B136-E6	32



Hook wrench DIN1810A

▶ Technical data	
Order No.	Ø
D01810A052055	52-55
D01810A058062	58-62



Hook wrench DIN1810B

▶ Technical data	
Order No.	Ø
D01810B040042	40-42
D01810B045050	45-50
D01810B052055	52-55
D01810B058062	58-62



Handle wrench

▶ Technical data	
Order No.	Torx
811.00.235	T20



Single open-end wrench

▶ Technical data	
Order No.	SW
KL8317-0005	32
KL8317-0006	36
KL8317-0004	41
KL8317-0003	46

ANGLE HEADS SERVICE

▶ SERVICES: CUSTOMISED, VALUE-RETAINING, COST-EFFECTIVE



▶ Service repair

Fast and professional analysis of damage
Findings and repair recommendations within 5 working days
on request: general maintenance or refurbishing



▶ ExpressService

Exceptionally fast and efficient turnaround
Repair at a fixed price
48-hour ExpressService available for select units



▶ Individual crash package

Keep machine downtime and lost profits to a minimum
Highly recommended for customer-specific solutions
Includes regular wear and tear as well as special parts



▶ Preventive maintenance

Prevention: Reduce unplanned downtime, increase unit operating times and unit life cycle
Maintain proper product performance / general maintenance or refurbishing
Replacement of wear parts during your planned downtime



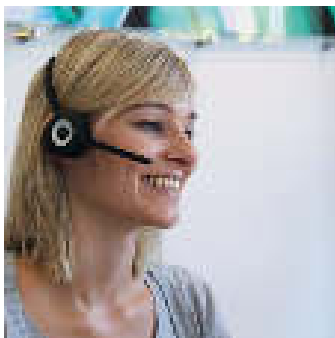
► **Spare part management**

Immediate availability / delivery of original precision spare parts
Comprehensive inventory of spare parts / High availability
Spare parts express shipment as needed



► **Global service**

Service technicians visit you on site



► **Service Hotline**

Skilled service representatives answer your questions and provide additional support in the event of a problem
Contact information: www.benz-tools.com

INQUIRY FORM FOR EXCHANGEABLE UNITS









Customer number (if known)	<input type="text"/>	Phone number	<input type="text"/>
Company	<input type="text"/>	Fax number	<input type="text"/>
Street	<input type="text"/>	Postal code, city	<input type="text"/>
Contact person Mr <input type="checkbox"/> Ms <input type="checkbox"/>	<input type="text"/>	E-mail	<input type="text"/>
BENZ dealer (if known)	<input type="text"/>	Date	<input type="text"/>







Machines / tool data

Machine manufacturer	<input type="text"/>	Serial number	<input type="text"/>
Machine model	<input type="text"/>	Machine tool holder (HSK-F63, SK30, etc.)	<input type="text"/>
Are BENZ exchangeable units already being used on the machine?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Drawing number/ unit number	<input type="text"/>		

Design

								
Design	MONO	MONO R	DUO	QUATTRO	FLEX D	FORTE	ANGULO	SUBIO
Pieces	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

								
Design	MULTI H3	MULTI H3+	MULTI V	MOULDER	FLOATING	COLLEVO	SIMOLO	SECO
Pieces	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

						
Design	RENITO H	RENITO V	FIX	CAVO H	CAVO V	LIVELLO
Pieces	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please not also the following page ►

INQUIRY FORM FOR EXCHANGEABLE UNITS

Machining

Application

Drilling

Sawing

Chiselling

Milling

Planing

Cutting

Grinding

Information about the tool

Shaft/centring Ø mm

Tool Ø mm

Tool width and/
or length mm

Sketch of tool
included

Requested tool holder
See the relevant product
page for selection

Information about the workpiece

Material to machine
type of wood, etc.

Sketch of workpiece
included

Operation

Speed rpm

Frequency of use hrs / day

Operating time /
idle time / min

days / week

Miscellaneous

Comments
For example requested
accessories, special
machining details

You have questions
and would like for us
to call you

TECHNOLOGIES

ZIMMER GROUP

ZIMMER



HANDLING TECHNOLOGY

WITH MORE THAN 30 YEARS OF EXPERIENCE AND INDUSTRY KNOWLEDGE, OUR PNEUMATIC, HYDRAULIC AND ELECTRICAL HANDLING COMPONENTS AND SYSTEMS ARE GLOBAL LEADERS.

Components. More than 2000 standardized gripper systems, positioning systems, robotools and much more. We offer a complete selection of technologically superior products that are ready for rapid delivery.

Semistandard. Our modular approach to design enables custom configurations and high rates of innovation for process automation.

Systems. We are particularly strong in providing custom system solutions for handling technologies, robotics and vacuum engineering.

ZIMMER



DAMPING TECHNOLOGY

INDUSTRIAL DAMPING TECHNOLOGY AND SOFT CLOSE PRODUCTS EXEMPLIFY THE INNOVATION AND PIONEERING SPIRIT OF THE KNOW-HOW FACTORY.

Industrial damping technology. Whether standard or customized solutions, our products stand for the highest cycle rates and maximum energy absorption with minimal space requirements.

Soft Close. Development and mass production of pneumatic and hydraulic dampers with extraordinary quality and rapid delivery.

OEM and direct. Whether they need components, returning mechanisms or complete production lines – we are the trusted partner of many prestigious customers.

ZIMMER



LINEAR TECHNOLOGY

WE DEVELOP LINEAR COMPONENTS AND SYSTEMS THAT ARE INDIVIDUALLY ADAPTED TO OUR CUSTOMERS' NEEDS.

Clamping and braking elements. We offer you more than 4000 types for profiled and rounded rails as well as for a variety of guide systems from all manufacturers. It makes no difference whether you prefer a manual, automatic, electric or hydraulic drive.

Individualized systems. The unique functionality and precision of our clamping and breaking elements open up numerous possibilities for custom applications such as active or semi-active braking and damping.

ZIMMER



BENZ®
Werkzeugsysteme



BENZ®
Werkzeugsysteme



PROCESS TECHNOLOGY

MAXIMUM EFFICIENCY IS ESSENTIAL FOR SYSTEMS AND COMPONENTS USED IN PROCESS TECHNOLOGY. HIGH-LEVEL CUSTOM SOLUTIONS ARE OUR TRADEMARK.

A rich reservoir of experience. Our know-how ranges from the development of materials, processes and tools through product design to production of series products. Challenge us.

Deep production capabilities. The Zimmer Group pairs these capabilities with flexibility, quality and precision, even when making custom products.

Series production. We manufacture demanding products out of metal (MIM), elastomers and plastics with flexibility and speed.

TOOLING TECHNOLOGY

ZIMMER GROUP DEVELOPS INNOVATIVE WOOD, METAL AND COMPOSITE PROCESSING TOOL SYSTEMS FOR ALL INDUSTRIES. NUMEROUS CUSTOMERS CHOOSE US AS THEIR SYSTEMS AND INNOVATION PARTNER.

Knowledge and experience. Industry knowledge and a decades-long development partnership for exchangeable assemblies, tool interfaces and tool systems make us the ideal choice for new challenges around the world.

Components. We deliver numerous standard components from stock and develop innovative, customized systems for OEM and end customers – far beyond just the metal- and wood-processing industries.

Variety. Whether you have machining centers, lathes or flexible production cells, the power tools, holders, assemblies and drilling heads of Zimmer Group are ready for action.

MACHINE TOOLING TECHNOLOGY

AS A DRIVING FORCE IN OUR INDUSTRY, WE DELIVER HIGH-VALUE SOLUTIONS IN THE FIELD OF MECHANICAL ENGINEERING, FULLY ACCORDING TO THE NEEDS OF OUR CUSTOMERS.

Development partner. We accompany you from brainstorming to inspection of the final machine, always to your expectations.

Components. We deliver series products and modules, five-axis heads, motor spindles, gearbox swiveling heads, add-on assemblies and motors.

Systems. The Know-how Factory stands for solutions in the fields of mechanical engineering systems, specialty solutions, custom assemblies and mechanical modules. We manufacture and configure multiple-spindle and large-angle heads as well as large boring heads.

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USAGE NOTE

INDIVIDUAL

DECLARATION OF INCORPORATION IN TERMS OF THE EC DIRECTIVE 2006/42/EC ON MACHINERY (ANNEX II 1 B)

We hereby declare that our products meet the basic requirements of the Machinery Directive 2006/42/EC as an incomplete machine to the extent that this is possible as part of delivery.

We also declare that the specific technical documents were produced in accordance with Annex VII Part B of this Directive. We undertake to provide the market supervisory bodies with versions of the incomplete machine's special documents via our documentation department should they have reason to request them.

The incomplete machine also satisfies the stipulations of EC Directive 2004/108/EC on electromagnetic compatibility. The protective goals of EC Directive 2006/95/EC regarding electronic equipment have been met.

The incomplete machine may only be commissioned if it has been ascertained, if applicable, that the machine or system in which the incomplete machine is to be installed satisfies the requirements of Directive 2006/42/EC on Machinery and an EC declaration of conformity has been drawn up in accordance with Annex II.

ARE YOU ALREADY FAMILIAR WITH OUR EXPERTISE?

- ▶ **TEAMS OF EXPERTS WITH INDUSTRY EXPERIENCE**
- ▶ **INTERNATIONALLY NETWORKED THROUGH WORLD-WIDE LOCATIONS AND PARTNERS**
- ▶ **THE HIGHEST QUALITY FOR ALL PRODUCTS AND SERVICES**
- ▶ **PRECISE, CUSTOMER-SPECIFIC SOLUTIONS**
- ▶ **CONSTANT DEVELOPMENT OF OUR INDUSTRY EXPERTISE**

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BENZ GMBH WERKZEUGSYSTEME

BENZ PRECISION TOOLS PROVIDE REFINED SOLUTIONS, INNOVATIVE TECHNOLOGY AND THE HIGHEST LEVELS OF QUALITY IN PRECISION MACHINING.

AS PART OF THE ZIMMER GROUP, WE GO ONE STEP FURTHER. THE NEW **ZIMMER GROUP UMBRELLA BRAND COMBINES THE COMPANIES ZIMMER GMBH, ZIMMER KUNSTSTOFFTECHNIK, ZIMMER DAEMPFUNGSYS-TEME AND BENZ WERKZEUGSYSTEME INTO ONE PARTNER FOR YOUR PROJECTS: THE KNOW-HOW FACTORY.**

CHALLENGE US. DISCOVER THE ENTIRE WORLD OF ZIMMER GROUP! IF YOU HAVE QUESTIONS ABOUT THE NEW ZIMMER GROUP AND OUR TECHNOLOGY, WE WOULD BE HAPPY TO ANSWER THEM.

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