EXCHANGEABLE UNITS

Tooling technology

Wood / Composites / Aluminum machining





PRODUCT COMPASS

OVERVIEW UNITS & TECHNICAL DATA



STANDARD UNITS

	MONO R Classic Line	DUO Classic Line	QUATTRO Classic Line	FLEX D Classic Line	FLEX D Premium Line	FORTE Classic Line	MOULDER Premium Line	FLOATING VC Classic Line	FLOATING V Classic Line	COLLEVO+ Classic Line	SIMOLO Classic Line	SECO Classic Line	TRUCOLO Classic Line
			#			141	1				Î		
	p. 12	p. 18	p. 6+9	p. 14	p. 18	p. 10	p. 14+21+22	p. 10	p. 6	p. 7+20	p. 13+20	p. 22	p. 8
Maximum output speed	8.000 min ⁻¹	15.000 min ⁻¹	10.000 min ⁻¹	24.000 min ⁻¹	18.000 min ⁻¹	2.700 min ⁻¹	4.000 min ⁻¹	6.000 min ⁻¹	15.000 min ⁻¹				
Maximum output torque	25 Nm	25 Nm	25 Nm / 10 Nm	25 Nm	26,5 Nm	25 Nm	25 Nm	8 Nm	10 Nm	-	-	-	25 Nm
Transmission ratio	1:0,8	1:1,2	1:1,2	1:1	1:0,9	1:1,2	1:0,7	1:1	1:1	1:0,9	1:1	1:1,2	1:1
Lubrication	Grease	Grease	Grease	Grease	Oil bath	Grease	Oil bath	Grease	Grease	Grease	Grease	Grease	Grease

OTHER UNITS

	MONO R Premium Line	ANGULO Classic Line	SUBIO Classic Line	MULTI H3 NESTING Classic Line	MULTI V3 CABINEO Classic Line	MULTI V Classic Line	FLOATING HS Classic Line	ZUCCO Classic Line	RENITO V Classic Line	CAVO H Classic Line	CATENO F Classic Line	SMART NESTING Classic Line	SOFFIARO Classic Line
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		3				Japan			Y			T	
	p. 12	p. 11	p. 12	p. 16	p. 16+19	p. 9+15	p. 19	p. 11+21	p. 7	p. 8	p. 13	p. 17	p. 17
Maximum output speed	8.000 min ⁻¹	10.000 min ⁻¹	10.000 min ⁻¹	12.000 min ⁻¹	10.000 min ⁻¹	12.000 min ⁻¹	15.000 min ⁻¹	3.000 min ⁻¹	1.000 min ⁻¹	4.000 min ⁻¹	5.000 min ⁻¹	20.000 min ⁻¹	24.000 min ⁻¹
Maximum output torque	25 Nm	20 Nm	8 Nm	2 Nm	3 Nm	5 Nm	25 Nm	_	22 Nm	10 Nm	20 Nm	2 Nm	25 Nm
Transmission ratio	1:0,8	1:1,3	1:1	1:4	1:1	1:1	1:1,2	1:1	1:1	1:1	1:1	1:1	1:1
Lubrication	Oil bath	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease	Grease

2 www.benztooling.com

BENZ TOOLING

At BENZ Tooling 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 metal machining, woodworking and composite material processing for more than 75 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.

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.

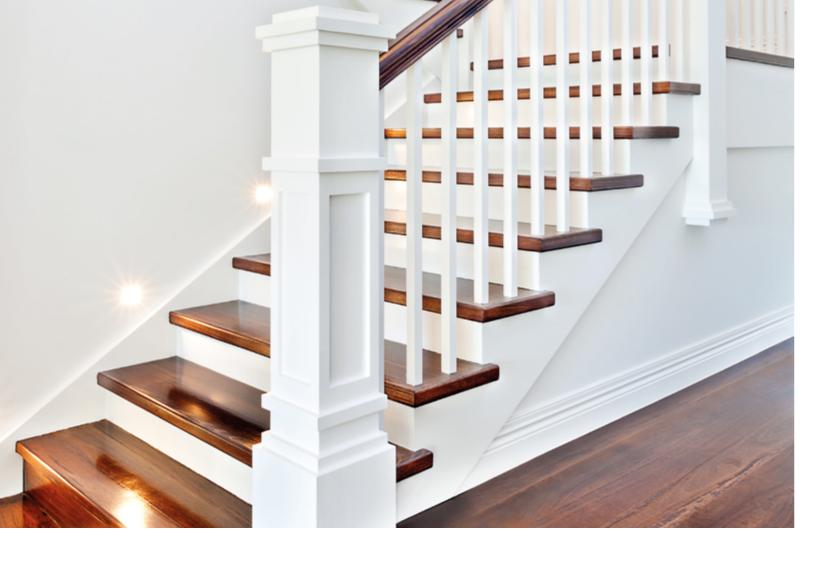
PASSION. BENZ precision products are composed of a vast array of different individual parts. They are the result of great care that starts in the design phase and even includes the selection of raw materials. Primarily, however, they are the expression of our employee's experience and passion to do good 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.

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PROCESSING OF STAIRCASE STRINGERS



QUATTRO Milling of pockets and drilling of dowel holes



2 FLOATING V Floated milling or sanding of chamfers on edges and curves



3 COLLEVO+ Sanding of concave, convex and flat faces of steps and stringers



RENITO V Drilling of square holes as anti-rotation lock on palings

MOVE UP IN STAIRCASE CONSTRUCTION

UNITS

QUATTRO Classic Line

Four-sided angle head



Product

information

Saving of valuable tool change time: four tools

available directly at the workpiece; suitable for

milling and drilling operations

FLOATING V Classic Line

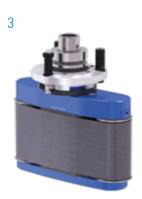
Floating trimming unit, vertical





Vertical floating for precise milling depths despite variations in thickness of workpiece; integrated chip extraction system prevents scratching of the surface COLLEVO+ Classic Line

Belt sanding unit





information

Sanding of flat, concave and convex edges (e.g. on table tops, stair treads and stair stringers)

RENITO V Classic Line

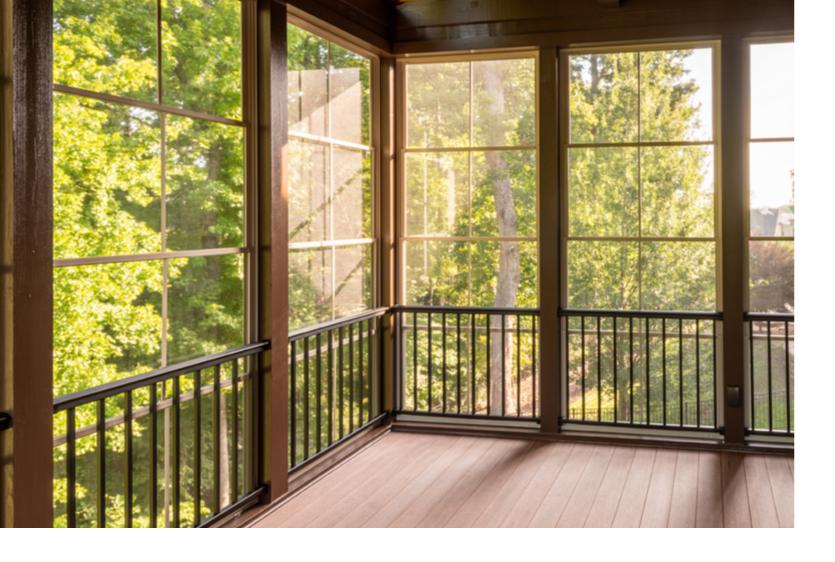
Chisel mortising unit





High accuracy, no reclamping errors; drilling of

vertical square holes in one step (e.g. stake holes, square cut-outs); available in vertical and horizontal design



PROCESSING OF WINDOW FRAMES AND SASHES



CAVO H Mortising of slots for hinge hooks



2 TRUCOLO Milling of profiles with profile milling heads



3 MULTI V3 Drilling of holes for fittings in just one stroke



QUATTRO Machining of dowel holes

BRIGHT SPOTS IN WINDOW MACHINING

UNITS

CAVO H Classic Line

Hinge mortising unit



Product information

Machined slots for hinges – fast and precise without reclamping errors; available in vertical and horizontal design

TRUCOLO Classic Line

Tool holder with chip deflector





One tool holder for several profile cutters: quick change of cutting tools due to modular design; simple cleaning of cutters

MULTI V3 Classic Line

Multi-spindle head, vertical





Product information

Time savings by drilling several holes in one machining step; ideally suited for vertical row drilling (e.g. hinges, shelf support, fitting, olive holes); available in vertical and horizontal design

QUATTRO Classic Line

Four-sided angle head





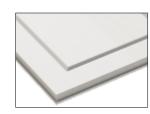
Saving of valuable tool change time: four tools available directly at the workpiece; suitable for milling and drilling operations



PROCESSING OF INTERIOR DOORS



FORTE Milling of the recesses for lock case and latch plates



2 FLOATING VC Milling of decorative grooves as well as engraving



3 ANGULO Precise notching of inner corners on light cutouts



4 ZUCCO Sanding of inner door plates up to the corners

NEW PERSPECTIVES IN DOOR MANUFACTURING

UNITS

FORTE Classic Line

Lock recess trimming unit



information

Ideal for horizontal machining with long tools; additional second output; optionally available with blow nozzles for cleaning the milled pocket

FLOATING VC Classic Line

Floating trimming unit, vertical





Small and fast: floated milling or engraving with up to 24,000 rpm; integrated chip extraction system prevents scratching of the surface

ANGULO Classic Line

Corner Notching Unit





Due to narrow design, suitable for plunging into small recesses (e.g. notching of inside corners on light cutouts)

ZUCCO Classic Line

Vibrating sanding unit





Fine sanding of flat surfaces; sanding of inner door plates up to the corners (e.g. country house doors)



PROCESSING OF KITCHEN FURNITURE



SUBIO Milling of recesses for kitchen worktop connectors without flipping the workpiece



2 MONO R **Cutting of panels**



3 SIMOLO Sanding of chamfers



CATENO F Mortising of deep and narrow pockets for fittings (e.g. Blum AVENTOS HKi)

CLEAN CUTS IN KITCHEN MANUFACTURING

UNITS

SUBIO Classic Line

Undersurface unit



Product

information

Machining on bottom side of workpiece (e.g. connector pockets on kitchen countertops); no need to flip the workpiece

MONO R Classic Line Premium Line

Single-sided angle head at reduced speed





Reduced speed for use of large saw blades; horizontal spindle output for sawing and milling operations (e.g. cutting panels, rear panel grooves)

SIMOLO Classic Line

Orbital sanding unit





Sanding of flat, concave and convex surfaces (e.g. chair backs, chamfers)

CATENO F Classic Line

Mortising chain unit





information

Mortising of very deep and narrow pockets; automatic chain clamping during machining process; no chain lubrication required





PROCESSING OF WARDROBE ELEMENTS



1 FLEX D Processing of panels at any angle (e.g. miter cuts)



2 MOULDER Milling of finger joints



3 MULTI V3 Drilling of holes for concealed hinges



4 MULTI V5 Drilling of row holes for shelves

FURNITURE PRODUCTION WITH A SIGNATURE

UNITS

FLEX D Classic Line

Adjustable angle head with digital display



Product

information

Processing at any angle (e.g. miter and folding cuts); time savings thanks to precise, digital adjustment of the A-axis; less offcuts; high repetition accuracy

MOULDER Premium Line

Moulder head





Heavy duty moulding, milling and sawing as well as brushing; can be equipped with saw blade packages or profile cutters (e.g. for structuring surfaces or machining acoustic panels)

MULTI V3 Classic Line

Multi-spindle head, vertical







information

Time savings by drilling several holes in one machining step; ideally suited for vertical row drilling (e.g. hinges, shelf support, fitting, olive holes); available in vertical and horizontal design

MULTI V5 Classic Line

Multi-spindle head, vertical





Time savings by drilling several holes in one machining step; ideally suited for vertical row drilling (e.g. shelve support, acoustic panels)



PANEL PRODUCTION WITH LOW MACHINING DEPTH



MULTI H3 NESTING Drilling dowel holes in corpus elements with nesting machine



2 MULTI V3 CABINEO Drilling of pockets for Cabineo connectors in one step



3 SOFFIARO Milling and cleaning in just one step during the nesting application



SMART NESTING Drilling and milling of recesses for connectors in limited spaces

NESTING: SMART & EFFICIENT PRODUCTION

UNITS

MULTI H3 NESTING Classic Line

Multi-spindle head, horizontal



Product information

Particularly low design; enables horizontal machining on nesting table

MULTI V3 CABINEO Classic Line

Multi-spindle head, vertical





Reduction of machining time: drilling of pockets for Cabineo connectors in one stroke; integration of machining process directly into CAD planning

SOFFIARO Classic Line

Blow nozzle unit





Efficient cleaning of machining surface with up to four individually controllable blowing nozzles; economical and effective use of compressed air; optionally with hydraulic chuck

SMART NESTING Classic Line

Mortising unit





Marvel of space: drilling and milling in tight recesses (e.g. dowel holes in the nest)



PROCESSING FOR CONNECTOR SYSTEMS – LAMELLO



DUO Drilling and milling of profile slots and grooves



2 FLEX D Milling of profile slots for inserting the connector (e.g. Clamex connector)



3 MULTI V3 CABINEO Drilling of pockets for Cabineo connectors in one step



4 FLOATING HS Floated milling of slots at a defined depth to the surface (e.g. for Tenso P connector)

READY TO GO: PREPARING CONNECTIONS

UNITS

DUO Classic Line

Double-sided angle head



Product information

Two horizontal tool holders for vertical sawing as well as horizontal drilling and milling (e.g. drilling dowel holes, milling pockets, cutting panels)

FLEX D Premium Line

Adjustable angle head with digital display





Processing at any angle (e.g. miter and folding cuts); time savings thanks to precise, digital adjustment of the A-axis; less offcuts; high repetition accuracy; oil bath lubrication for heavy-duty machining

MULTI V3 CABINEO Classic Line

Multi-spindle head, vertical





information

Reduction of machining time: drilling of pockets for Cabineo connectors in one stroke; integration of machining process directly into CAD planning

FLOATING HS Classic Line

Floating trimming unit, horizontal

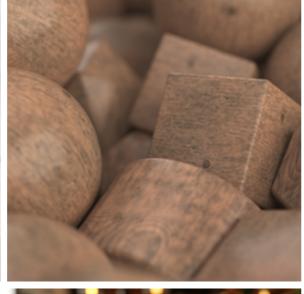




information

Vertical floating for precise milling depth despite variations in thickness of workpiece (e.g. profile grooves for connectors)









PROCESSING OF SURFACES ON A MACHINE



SIMOLO Sanding of flat, convex or concave surfaces



2 COLLEVO+ Sanding of edges



3 ZUCCO Fine sanding of flat surfaces



MOULDER Brushing of surfaces

INDIVIDUAL LOOK & AND FEEL

UNITS

SIMOLO Classic Line

Orbital sanding unit



Product information

Sanding of flat, concave and convex surfaces (e.g. chair backs, chamfers)

COLLEVO+ Classic Line

Belt sanding unit



Product information

Sanding of flat, concave and convex edges (e.g. on table tops, stair treads and stair stringers)

ZUCCO Classic Line

Vibrating sanding unit





Product information

Fine sanding of flat surfaces; sanding of inner door plates up to the corners (e.g. country house doors)

MOULDER Premium Line

Moulder head

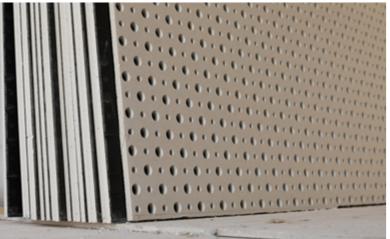




information

Heavy duty moulding, milling and sawing as well as brushing; can be equipped with saw blade packages or profile cutters (e.g. for structuring surfaces or machining acoustic panels)







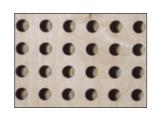
PROCESSING OF ACOUSTIC PANELS AND SPECIAL MATERIALS



SECO Cutting different materials with oscillating knife



MOULDER Cutting or grooving of acoustic panels



MULTI V21 Drilling of holes in acoustic panels



CATENO S Sawing of door and window cutouts in prefabricated house construction

EVERYTHING IS POSSIBLE AND EVEN MORE

UNITS

SECO Classic Line

Cutting unit



Product

information

Cutting of different materials directly on the nesting machine (e.g. foam, cardboard, fabric, leather, veneer, rubber, carpet, felt, cork, soft plastic and many more)

MOULDER Premium Line

Moulder head





Heavy duty moulding, milling and sawing as well as brushing; can be equipped with saw blade packages or profile cutters (e.g. for structuring surfaces or machining acoustic panels)

MULTI V21 Performance Line

Multi-spindle head, vertical





Time savings by drilling several holes in one machining step (e.g. acoustic panels); with oil mist lubrication for continuous operation

CATENO S Classic Line

Mortising chain unit





Sawing of significant cutting depths; integrated saw chain lubrication; suitable for conventional chains and bars

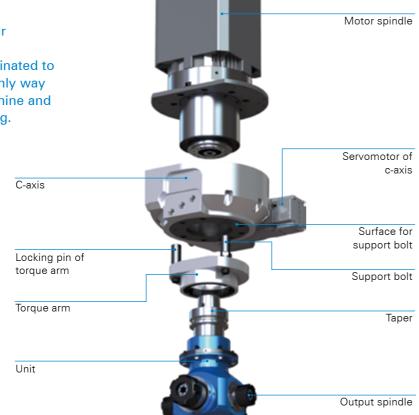
SYSTEM DESIGN MODULAR DESIGN

MODULAR DESIGN — FOR MAXIMUM FLEXIBILITY

Perfectly adapted to each other

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 center 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.



PRODUCT LINES — OPTIMAL LUBRICATION FOR EVERY APPLICATION

Classic Line - Premium Line - Performance Line

Units with permanent grease lubrication are part of the Classic Line and are suitable for most standard applications.

The Premium Line with oil-bath lubrication was developed especially for heavy duty machining (e.g. deep cuts in solid wood).

Oil mist lubricated BENZ units can be used in continuous operation and are suitable for high load volumes.



Oil gauge glass of Premium Line

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 must be exactly adapted to the respective machine type. We help you. Just tell us your machine model - and we do the rest.

BENZ Standard – Machine connections

HSK-F63

Masterwood





HSK-F63



HSK-F63











other machine connections on request

LENGTHS / DESIGNS — THE OPTIMUM FOR EACH APPLICATION

Units - overall lengths

The length makes the difference: Many BENZ units are available in 3 different lengths.





HSK-F63

SHORT

 for cramped working areas in machine (little distance between machining table and machine spindle)

- if changing weight of tool changer is limited



MEDIUM

the Allrounder

 covers majority of machining tasks and tools



- for machining tasks with large tool diameters (e.g. saw blades)



for machining tasks on high workpieces

OUTPUT SPINDLE – VARIOUS OPTIONS

As standard as possible, as customized as needed

BENZ Tooling offers the right output spindle for every tool.





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



Collet chuck holder ER32 per DIN6499 with externally located clamping nut



Centering Ø40 (TK Ø52 - 8x M5)/collet chuck holder ER25A per DIN6499 with internally located clamping nut



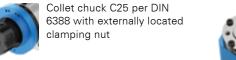
Centering Ø30 (TK Ø42 - 2x Ø6)/collet chuck holder ER25 Mini per DIN6499 with externally located clamping nut



Collet chuck holder ER16A per DIN6499 with internally located clamping nut



Collet chuck holder ER25A per DIN6499 with internally located clamping nut





Centering Ø30 (TK Ø45/ Ø48/Ø52-4x M5)/Weldon holder Ø10 per DIN1835B



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





Centering Ø40 (TK Ø52 - 8x M5)/Weldon holder Ø10/ Ø16 per DIN1835B



Centering Ø16 (TK Ø28 - 4x M6)

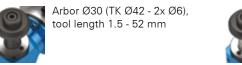




Arbor Ø30 (TK Ø42 - 2x Ø6), tool length 1.5 - 16 mm



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





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



Weldon holder Ø10/Ø16 per DIN1835B



Whistle notch holder Ø6 per DIN1835E



HSK - F63 per DIN 69063



Collet chuck holder PFERD SPZ 947.01



other output spindles on request

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