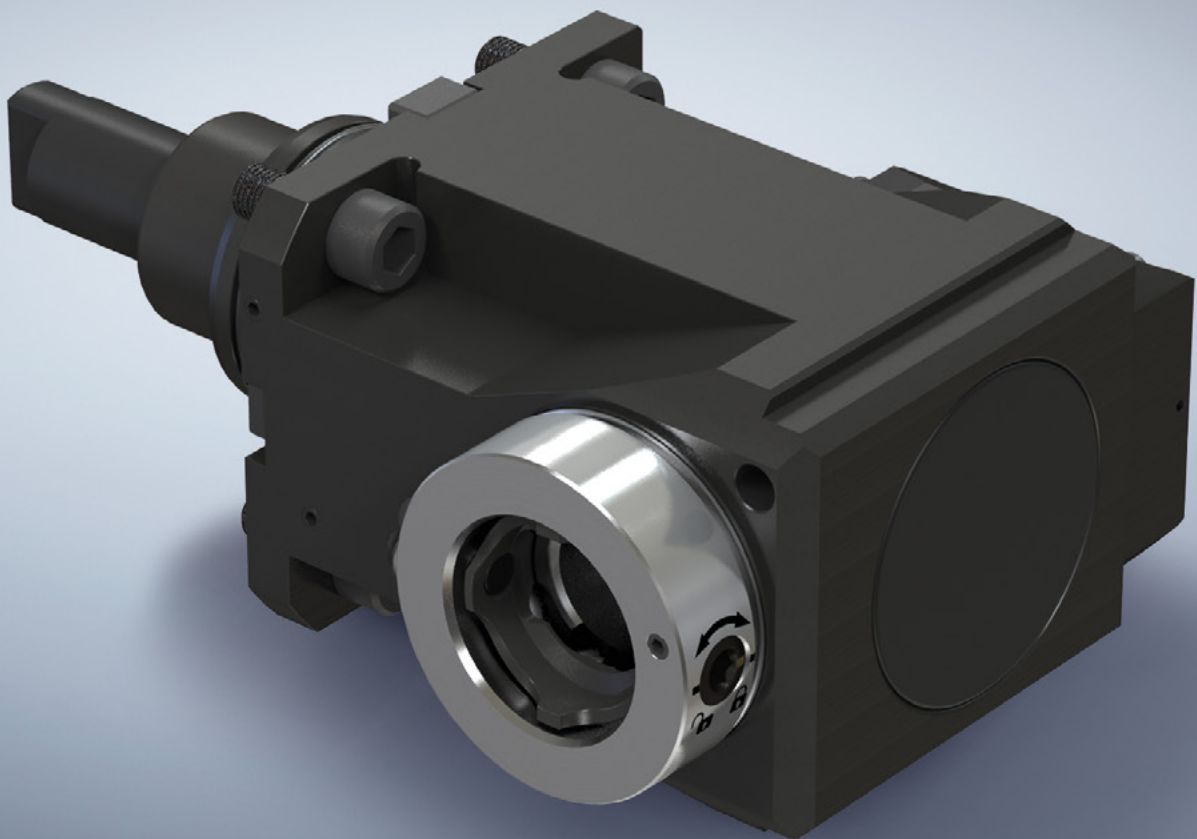


# EMAG BMT 55-83

Live Tools & Static Holders

Tooling & Machine Tooling Technology

Metal machining





AT BENZ GMBH 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 TOOLING TECHNOLOGY FOR EMAG LATHES BMT 55-83

BENZ STANDARD PRODUCT RANGE - FITS FOR:

## MACHINES

					
			SW	AL	TYPE
<b>EMAG VL</b>	2	4	330	83	STD
<b>EMAG VLC</b>	100 (VL2)		340	83	HSP
<b>EMAG VT2</b>			360	83	STD
<b>EMAG VTC</b>	100 (VT2)		360	83	HSP

 Further tools upon request



More information about our BENZ products and accessories can be found at the download area of our website.

<https://www.benztooling.com/en/services/downloads>



# BMT 55-83



Live Tools | Static Holders



## LIVE TOOLS

	AXIAL	6		AXIAL, 1:2	7
	RADIAL	8		RADIAL, 1:2	9
	ADJUSTABLE	10		BROACHING UNIT AXIAL	11

## STATIC HOLDERS

	STANDARD	12		BENZ CAPTO™	13
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# LIVE TOOL BMT 55-83

## AXIAL

### TECHNICAL DATA



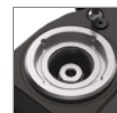
#### OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499

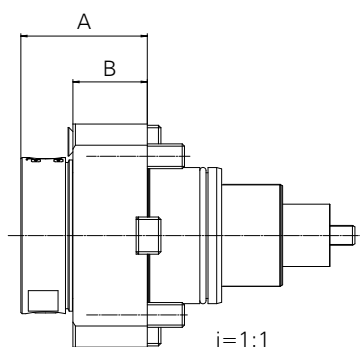


BENZ  
CAPTO™

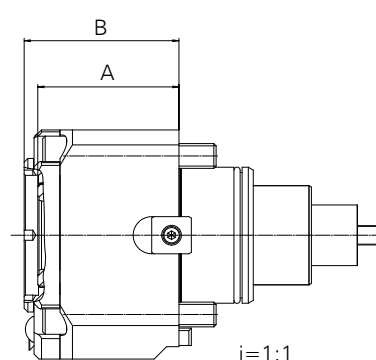
**i** Other output spindles  
available upon request



BENZ Solidfix® / Collet chuck



BENZ CAPTO™



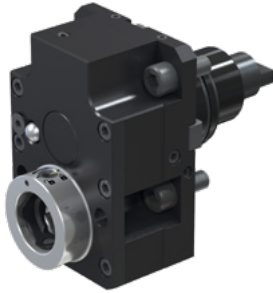
Output spindle	Technical Data				$n_{1\max} / n_{2\max}$ [rpm]	$M_{1\max} / M_{2\max}$ [Nm]	$A_{\max}$ [mm]	B [mm]	Order No.
	Size Spindle	i	EC	IC p <sub>max</sub> [bar]					
BENZ Solidfix®	S4	1:1	✓	-	6000 / 6000	50 / 50	51	30	113DA07800S4
	S4	1:1	✓	70	6000 / 6000	50 / 50	51	30	113EA07800S4
	S3	1:1	✓	-	12000 / 12000	50 / 50	49	30	113DA07800S3
	S3	1:1	✓	70	12000 / 12000	50 / 50	49	30	113EA07800S3
Collet chuck	ER32	1:1	✓	-	6000 / 6000	50 / 50	55,1	30	113DA07800E6A
	ER32	1:1	✓	70	6000 / 6000	50 / 50	60,2	30	113EA07800E6A
	ER25	1:1	✓	-	12000 / 12000	50 / 50	42,9	30	113DA07800E5A
	ER25	1:1	✓	70	12000 / 12000	50 / 50	47,9	30	113EA07800E5A
BENZ CAPTO™	C4	1:1	✓	-	6000 / 6000	50 / 50	57	62,5	113DA07800L4BD
	C4	1:1	✓	70	6000 / 6000	50 / 50	57	62,5	113EA07800L4BD
	C3	1:1	✓	-	12000 / 12000	50 / 50	49	53,5	113DA07800L3BD
	C3	1:1	✓	70	12000 / 12000	50 / 50	49	53,5	113EA07800L3BD

■ High Speed

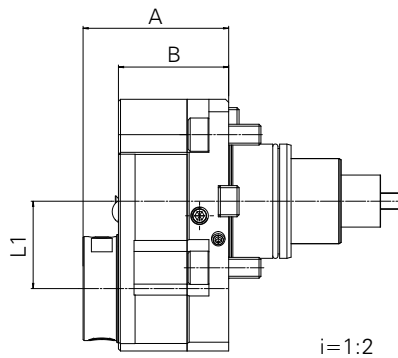
# LIVE TOOL BMT 55-83

## AXIAL, 1:2

### TECHNICAL DATA



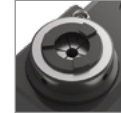
BENZ Solidfix® / Collet chuck



### OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499

BENZ  
CAPTO™



Other output spindles  
available upon request

Output spindle	Technical Data		EC	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [rpm]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]	A <sub>max</sub> [mm]	B [mm]	L1 [mm]	Order No.
	Size Spindle	i								
BENZ Solidfix®	S3	1:2	✓	-	6000 / 12000	30 / 15	70	53	42	113DI07894S3D
	S3	1:2	✓	100	6000 / 12000	30 / 15	77	60	42	113EI07894S3D
Collet chuck	ER25	1:2	✓	-	6000 / 12000	30 / 15	71,9	53	42	113DI07894E5AD
	ER25	1:2	✓	100	6000 / 12000	30 / 15	83,9	60	42	113EI07894E5AD



# LIVE TOOL BMT 55-83

## RADIAL

### TECHNICAL DATA



LENGTH L1

85

OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499



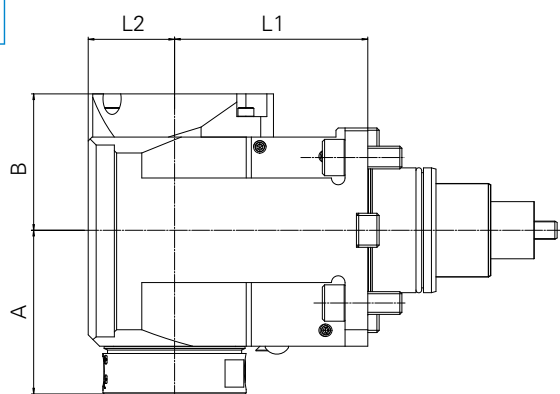
BENZ  
CAPTO™



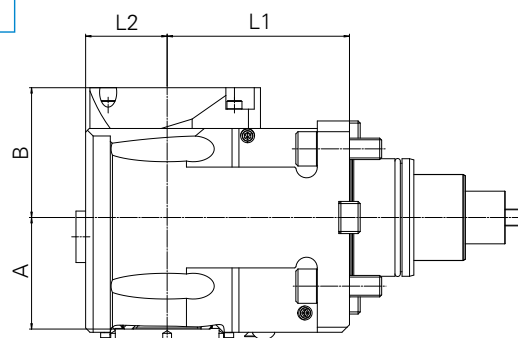
Other output spindles  
available upon request



BENZ Solidfix® / Collet chuck



BENZ CAPTO™



Technical Data											
Output spindle	Size Spindle	i	EC	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [rpm]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]	A <sub>max</sub> [mm]	B [mm]	L1 [mm]	L2 [mm]	Order No.
BENZ Solidfix®	S4	1:1	✓	-	6000 / 6000	70 / 70	72	52	85	38	113FAX07849S4D-85
	S4	1:1	✓	100	6000 / 6000	70 / 70	72	60	85	38	113GAX07849S4D-85
	S3	1:1	✓	-	12000 / 12000	30 / 30	56	40	85	28	113FAX07839S3D-85
	S3	1:1	✓	100	12000 / 12000	30 / 30	56	58	85	28	113GAX07839S3D-85
Collet chuck	ER32	1:1	✓	-	6000 / 6000	70 / 70	69,1	52	85	38	113FAX07849E6AD-85
	ER32	1:1	✓	100	6000 / 6000	70 / 70	74,2	60	85	38	113GAX07849E6AD-85
	ER25	1:1	✓	-	12000 / 12000	30 / 30	56,9	40	85	28	113FAX07839E5AD-85
	ER25	1:1	✓	100	12000 / 12000	30 / 30	61,9	58	85	28	113GAX07839E5AD-85
BENZ CAPTO™	C4	1:1	✓	-	6000 / 6000	70 / 70	52	54	85	38	113FAX07849L4BD-85
	C4	1:1	✓	100	6000 / 6000	70 / 70	52	60,5	85	38	113GAX07849L4BD-85
	C3	1:1	✓	-	12000 / 12000	30 / 30	42	45	85	32	113FAX07839L3BD-85
	C3	1:1	✓	100	12000 / 12000	30 / 30	42	67,5	85	32	113GAX07839L3BD-85

High Speed



# LIVE TOOL BMT 55-83

## RADIAL, 1:2

### TECHNICAL DATA



LENGTH L1

85

OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499

BENZ  
CAPTO™

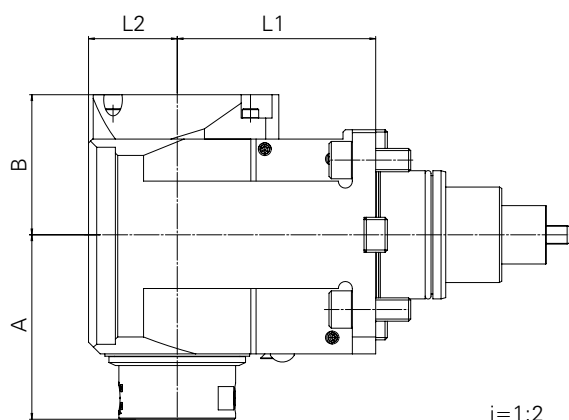


Other output spindles  
available upon request



BENZ Solidfix® / Collet chuck

BENZ CAPTO™



Output spindle	Technical Data										Order No.
	Size Spindle	i	EC	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [rpm]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]	A <sub>max</sub> [mm]	B [mm]	L1 [mm]	L2 [mm]	
BENZ Solidfix®	S3	1:2	✓	-	5000 / 10000	40 / 20	79	52	85	38	113FWX07849S3D-85
	S3	1:2	✓	✓	5000 / 10000	40 / 20	79	60	85	38	113GWX07849S3D-85
Collet chuck	ER25	1:2	✓	-	5000 / 10000	40 / 20	78,6	52	85	38	113FWX07849E5AD-85
	ER25	1:2	✓	✓	5000 / 10000	40 / 20	83,6	60	85	38	113GWX07849E5AD-85

# LIVE TOOL BMT 55-83

## ADJUSTABLE

### TECHNICAL DATA



### OUTPUT SPINDLE

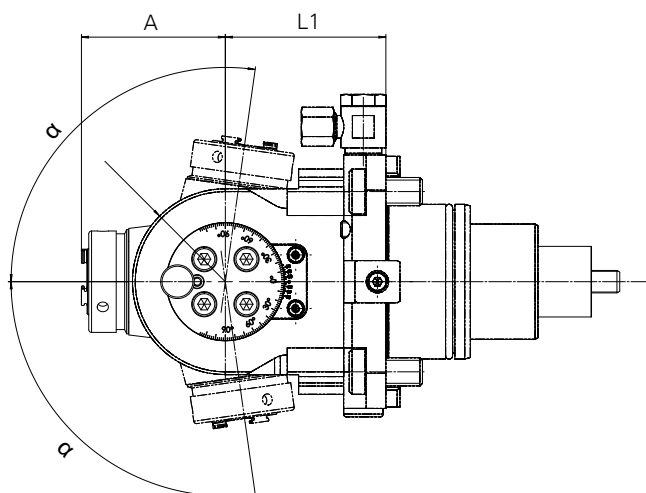


Collet chuck  
System ER  
DIN 6499

**i** Other output spindles  
available upon request



Collet chuck



	Technical Data									
	Size	i	EC	IC p <sub>max</sub>	n <sub>1 max</sub> / n <sub>2 max</sub>	M <sub>1 max</sub> / M <sub>2 max</sub>	A <sub>max</sub>	L1	α	
Output spindle	Spindle			[bar]	[min <sup>-1</sup> ]	[Nm]	[mm]	[mm]	[°]	Order No.
BENZ Solidfix®	S1	1:0,879	✓	-	8000 / 7000	10 / 12	46	57	98	113FDX09439S1
	S1	1:0,879	✓	50	8000 / 7000	10 / 12	46	57	98	113GDX09439S1
Collet Chuck	ER16	1:0,879	✓	-	8000 / 7000	10 / 12	51,1	57	98	113FDX09439E3A
	ER16	1:0,879	✓	50	8000 / 7000	10 / 12	56	57	98	113GDX09439E3A

\*Internal cooling p<sub>max</sub> = 50 bar

# LIVE TOOL BMT 55-83

## AXIAL, BROACHING UNIT - BENZ LINA 4.0

### TECHNICAL DATA



i.com

LENGTH L1

88

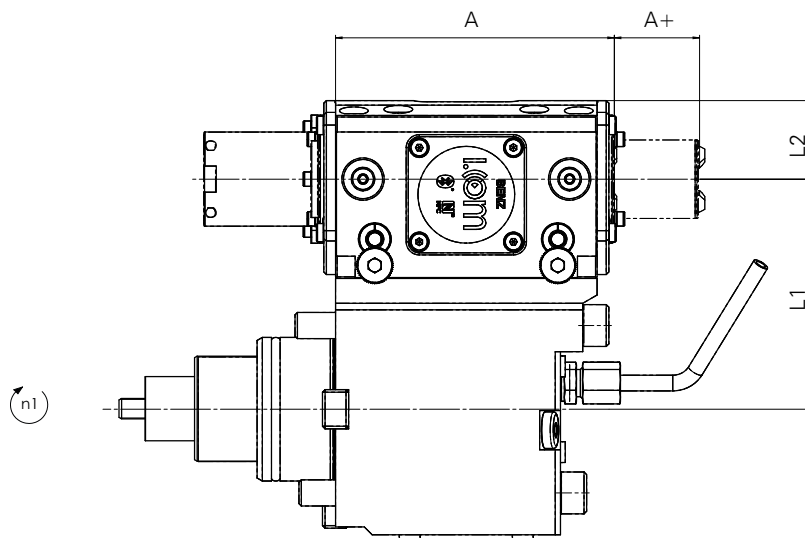
OUTPUT SPINDLE



Prism-shaped  
profile  
Ø 30 mm



For questions regarding BENZ i.com  
please contact our BENZ Sales Team



#### Performance Data

Type	$n_{1 \max} / *n_{2 \max}$ [min <sup>-1</sup> ]	$M_{1 \max} / F_{c \max}$ [Nm]	f [mm]	Groove width <sub>max</sub> [mm]
ES	1500 / 1500	30 / 1700	0,02 - 0,10	12

#### Technical Data


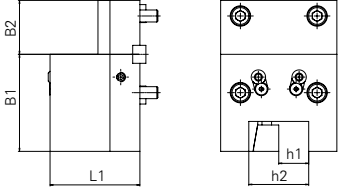
Type	Size	i	EC	IC p <sub>max</sub> [bar]	**A+	A [mm]	L1 [mm]	L2 [mm]	Order No.
ES	30	1:1	✓	50	32 / 34	106,5	88	30	113ES07807B2D-88-IB

\*number of double stroke per minute


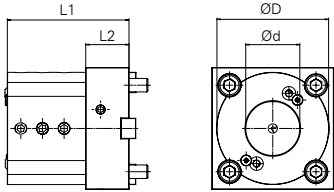
\*\*usable working stroke / total stroke

# STATIC HOLDERS – BMT 55


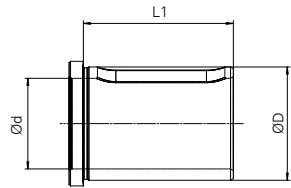
## O.D. TURNING TOOL | SINGLE

Model	Drawing	Technical Data						Order No.
		h1 [mm]	h2 [mm]	L1 [mm]	B1 [mm]	B2 [mm]	EC IC	
		25	50	75	81	45	✓ ✓	<a href="#">113A078560001</a>
		25	50	75	81	45	✓ ✓	<a href="#">113A078560001-IC</a>

## BORING BAR HOLDER | SINGLE


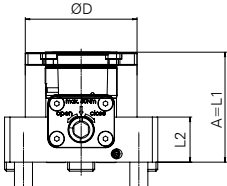
Model	Drawing	Technical Data				Order No.
		Ød [mm]	ØD [mm]	L1 [mm]	L2 [mm]	
		40	83	90	32	<a href="#">113A078576005</a>

## REDUCING SLEEVE


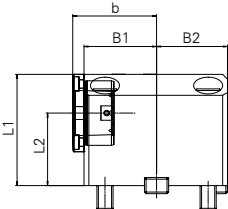
Model	Drawing	Technical Data			Order No.*
		Ød [mm]	ØD [mm]	L1 [mm]	
		32	40	69	<a href="#">B571-403269L</a>
		25	40	69	<a href="#">B571-402569G</a>
		20	40	69	<a href="#">B571-402069G</a>
		16	40	69	<a href="#">B571-401669G</a>

\*Versions: L= with slotted hole / G= with threads


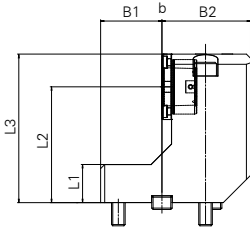
## AXIAL HOLDER | SINGLE - BENZ CAPTO™

Model	Drawing	Technical Data						Order No.
		Size Adapter [mm]	A [mm]	ØD [mm]	L1 [mm]	L2 [mm]	IC	
		C4	61	62	61	25	✓	<a href="#">113AA078L4BDU-61</a>
		C5	73	77	73	25	✓	<a href="#">113AA078L5BDU-73</a>

## RADIAL HOLDER | SINGLE - BENZ CAPTO™

Model	Drawing	Technical Data							Order No.
		Size Adapter	L1 [mm]	L2 [mm]	b [mm]	B1 [mm]	B2 [mm]	IC	
		C4	69	45	52	45	44	✓	113AP078L4BDU-45
		C5	77	45	58	45	44	✓	113AP078L5BDU-45

## RADIAL HOLDER | SINGLE - BENZ CAPTO™

		Technical Data								
Model	Drawing	Size	L1	L2	L3	b	B1	B2	IC	Order No.
		Adapter	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]		
		C4	28	85	109	0	45	65	✓	113AR078L4BDU-85
		C5	28	85	117	0	45	77	✓	113AR078L5BDU-85

# PRODUCT GROUPS

## TOOLING & MACHINE TOOLING TECHNOLOGY

### TOOLING TECHNOLOGY



METAL

#### LIVE TOOLS/TOOL HOLDERS

- Radial heads 90°
- Radial heads  $\neq$  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.



METAL

#### EXCHANGEABLE UNITS

- Angle heads 90°
- Angle heads  $\neq$  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.



WOOD / COMPOSITE AND ALUMINIUM

#### EXCHANGEABLE UNITS

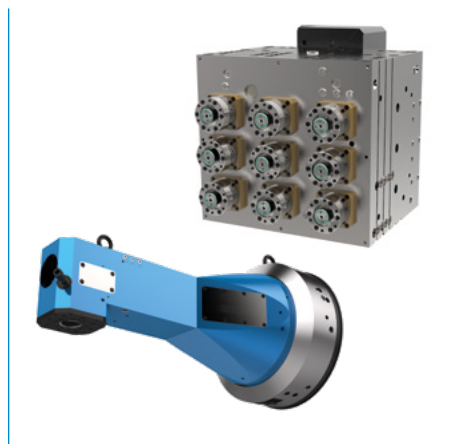
- Angle heads 90°
- Swivel heads
- Multi-spindle heads
- Multi-axis heads
- Sanding units
- Floating head units

**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!

## MACHINE TOOLING TECHNOLOGY



METAL

### 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 multiple-spindle and large-angle heads as well as large drill heads.

**COMPONENTS.** Attachment units complete our range.



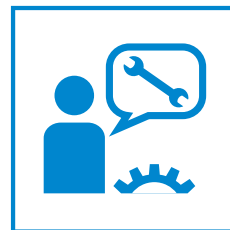
METAL / WOOD / COMPOSITE AND ALUMINIUM

### 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



METAL / WOOD / COMPOSITE AND ALUMINIUM

### SERVICE

- Repair service
- Rapid Repair Kit
- 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 Rapid Repair Kits 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.



# OVERVIEW

## PICTOGRAMS & ABBREVIATIONS

### UNIT SPECIFICATIONS

<b>Type of machining</b>	 <p><b>Drilling</b> is suitable for boring machining</p>	 <p><b>Milling</b> is suitable for milling machining</p>	 <p><b>Threading</b> is suitable for thread machining</p>	 <p><b>Broaching and slotting</b> is suitable for machining by broaching and slotting</p>
<b>Number of output spindles (tool holding fixtures)</b>	 <p><b>1</b> one output spindle</p>			
<b>Axis angle</b>	 <p><b>0°</b> Unit for machining tasks at a 0° angle</p>	 <p><b>90°</b> Unit for machining tasks at a 90° angle</p>	 <p><b>± 0</b> Unit for machining tasks at an adjustable angle 0° ± max. α°</p>	
<b>Drive for spindle</b> <b>Direction of rotation</b>	 <p><b>clockwise / clockwise</b> synchronized rotation</p>	 <p><b>clockwise / counterclockwise</b> counter-rotation</p>		
<b>Coolant feed for cutting blade</b>	 <p><b>Extern (EC)</b> The tool is cooled using an external feed line (spray nozzle)</p>	 <p><b>Combination (EC+IC)</b> The tool is cooled by a combination of both internal and external systems</p>		
<b>Turret data</b>	 <p><b>Width across/</b> Turret width</p>	 <p><b>Drive length</b> of the tools shank in the turret</p>	 <p><b>Turret type</b></p>	

### ABBREVIATIONS

$M_{max}$	Maximum torque
$i$	Gear ratio
$n_{max}$	Maximum speed
$f_c$	Feed
$p_{max}$	Maximum pressure (bar)
EC	External cooling
IC	Internal cooling
p.	Page
✓	Possible
-	Not possible
SW	Width across flats
mm	Millimeter

## Usage note – general

The contents of this catalog are not legally binding and are intended solely for informational purposes. Any final agreement will be in the form of a written order confirmation from BENZ GmbH, which occurs only subject to the respective current General Terms and Conditions of Sale and Delivery of BENZ GmbH. These can be found online at [www.benz-tools.de](http://www.benz-tools.de).

All of the products listed in this catalog are designed for their intended use, e.g. machines for precision machining. The recognized technical regulations for safety and professional work must be followed for use and installation.

Furthermore, the respective laws, guidelines from TÜV, guidelines from the respective trade association and VDE stipulations shall apply.

The technical data listed in this catalog must be observed by the user. The conditions of use may not fall below or exceed the specified data. If information is missing, it cannot be assumed that there are no upper or lower limits or no limitations for specific use cases. Consultation is required in these cases.

Disposal is not included in the price, which would have to be taken into account accordingly in the event of return to or disposal by BENZ GmbH.

### TECHNICAL DATA AND FIGURES

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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 2014/30/EU on electromagnetic compatibility. The protective goals of EC Directive 2014/35/EU 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.

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