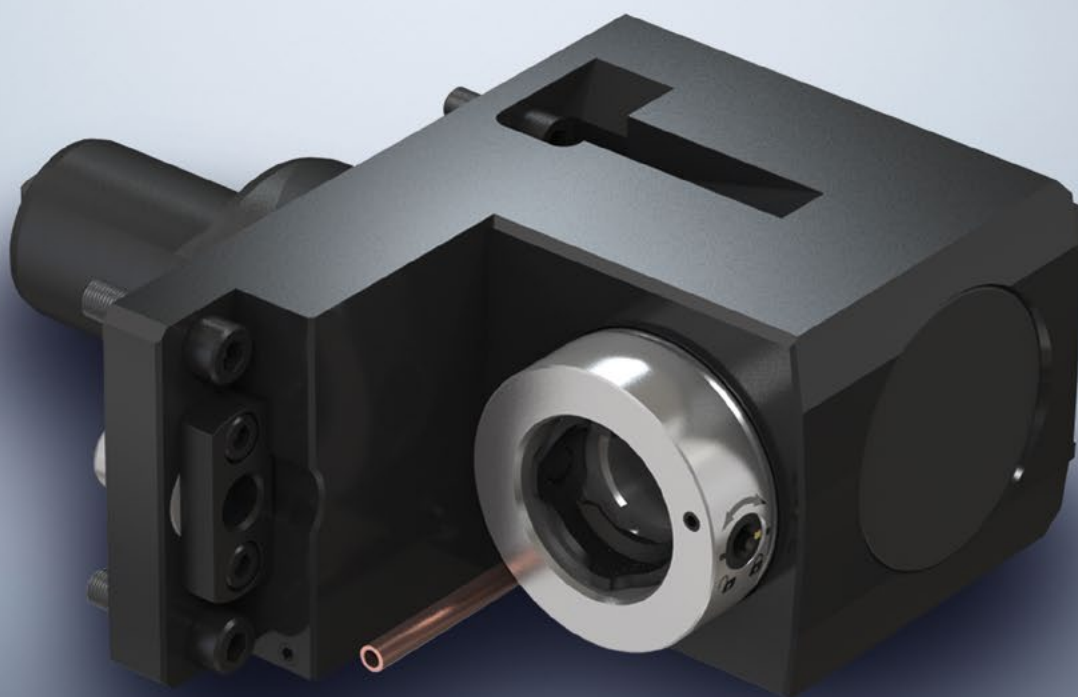


# MAZAK BMT 68

## 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 WOOD-WORKING, 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 MAZAK LATHES BMT 68


BENZ STANDARD PRODUCT RANGE - FITS FOR:

## MACHINES

<b>MAZAK QTC</b> M / MY / MS / MSY	100	200	250	300	350
------------------------------------	-----	-----	-----	-----	-----

<b>MAZAK QTE</b> M / MY / MS / MSY	100	200	300
------------------------------------	-----	-----	-----

<b>MAZAK QTU</b> M / MY / MS / MSY	100	200	250	300
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 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/downloads>



# BMT 68


Live Tools | Static Holders




## LIVE TOOLS

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# LIVE TOOL – BMT 68

## AXIAL

### TECHNICAL DATA



#### OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499

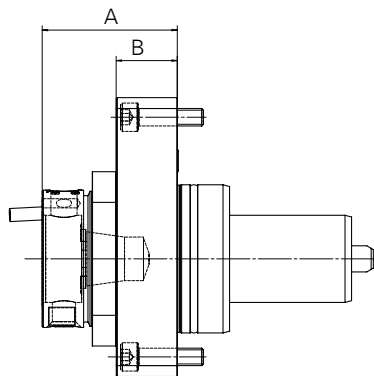


Other output spindles  
available upon request



PD	Performance data		
	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]
1	-	6500 / 6500	80 / 80
2	70	6500 / 6500	80 / 80

BENZ Solidfix® / Collet Chuck



Output spindle	Technical data				A <sub>max</sub> [mm]	B [mm]	PD	Order No.
	Size Spindle	i	EC 	IC 				
BENZ Solidfix®	S4	1:1	✓	-	62	28	1	114DA12941S4
	S4	1:1	✓	✓	62	28	2	114EA12941S4
Collet Chuck	ER32	1:1	✓	-	50,1	28	1	114DA12941E6A
	ER32	1:1	✓	✓	55,2	28	2	114EA12941E6A

# LIVE TOOLS – BMT 68

## AXIAL, OFFSET

### TECHNICAL DATA



#### OUTPUT SPINDLES



BENZ  
Solidfix®



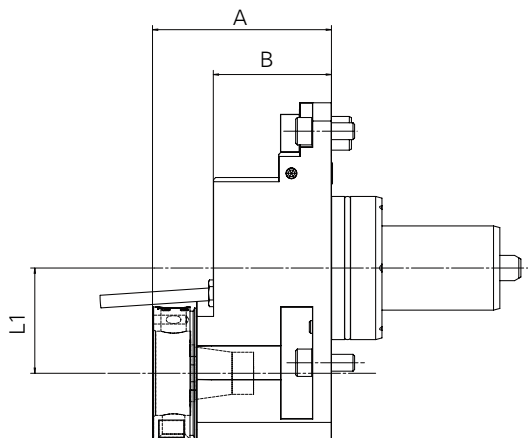
Collet chuck  
System ER  
DIN 6499

**i** Other output spindles  
available upon request



PD	Performance data		
	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]
<b>1</b>	-	6500 / 6500	50 / 50
<b>2</b>	100	6500 / 6500	50 / 50

BENZ Solidfix® / Collet Chuck




Output spindle	Technical data							PD	Order No.
	Size Spindle	i	EC 	IC 	A <sub>max</sub> [mm]	B [mm]	L1 [mm]		
BENZ Solidfix®	S4	1:1	✓	-	85	56	50	<b>1</b>	114DM12981S4R
	S4	1:1	✓	✓	106	77	50	<b>2</b>	114EM12981S4R
Collet Chuck	ER32	1:1	✓	-	82,1	56	50	<b>1</b>	114DM12981E6AR
	ER32	1:1	✓	✓	108,2	77	50	<b>2</b>	114EM12981E6AR

# LIVE TOOLS – BMT 68

## RADIAL



### TECHNICAL DATA



LENGTH L1

80

OUTPUT SPINDLES

BENZ Solidfix®

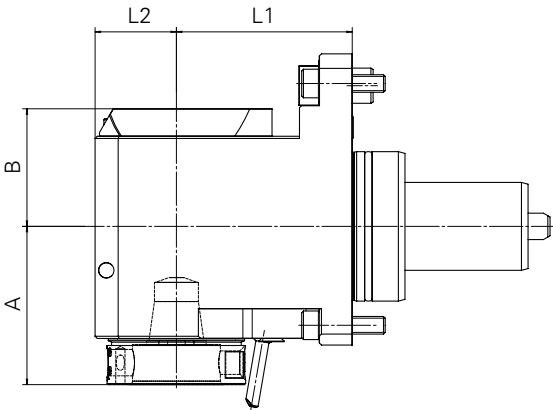
Collet chuck System ER DIN 6499

i

Other output spindles available upon request

Performance data			
PD	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]
1	-	6500 / 6500	70 / 70
2	100	6500 / 6500	70 / 70

BENZ Solidfix® / Collet Chuck



Output spindle	Technical data									Order No.
	Size Spindle	i	EC	IC	A <sub>max</sub> [mm]	B [mm]	L2 [mm]	L1 [mm]	PD	
BENZ Solidfix®	S4	1:1	✓	-	72	53,5	37	80	1	114FAX12949S4R
	S4	1:1	✓	✓	72	60	37	80	2	114GAX12949S4R
Collet Chuck	ER32	1:1	✓	-	71,1	53,5	37	80	1	114FAX12949E6AR
	ER32	1:1	✓	✓	76,2	60	37	80	2	114GAX12949E6AR

# LIVE TOOLS – BMT 68

## RADIAL, RECESSED

### TECHNICAL DATA



LENGTH L1

80

OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499



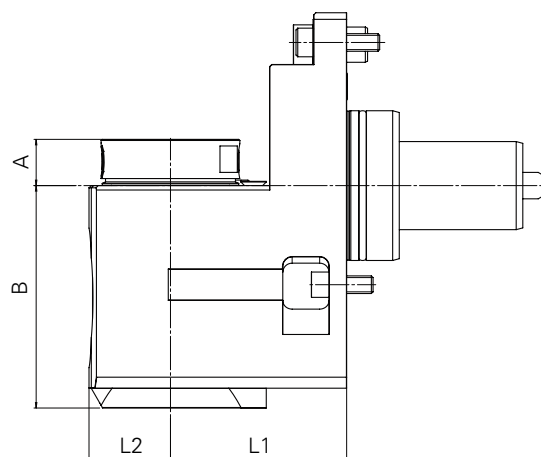
Other output spindles  
available upon request



Performance data

PD	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]
1	-	6000 / 6000	70 / 70
2	100	6000 / 6000	70 / 70

BENZ Solidfix® / Collet Chuck



Technical data

Output spindle	Size Spindle	i	EC 	IC 	A <sub>max</sub> [mm]	B [mm]	L2 [mm]	L1 [mm]	PD	Order No.
BENZ Solidfix®	S4	1:1	✓	-	21	101	37	80	1	114FBX12949S4L-80
	S4	1:1	✓	✓	21	111	37	80	2	114GBX12949S4L-80
Collet Chuck	ER32	1:1	✓	-	18,1	101	37	80	1	114FBX12949E6AL-80
	ER32	1:1	✓	✓	23,2	111	37	80	2	114GBX12949E6AL-80

# LIVE TOOLS – BMT 68

## RADIAL, DOUBLE

### TECHNICAL DATA



LENGTH L1

80

OUTPUT SPINDLES



BENZ  
Solidfix®



Collet chuck  
System ER  
DIN 6499



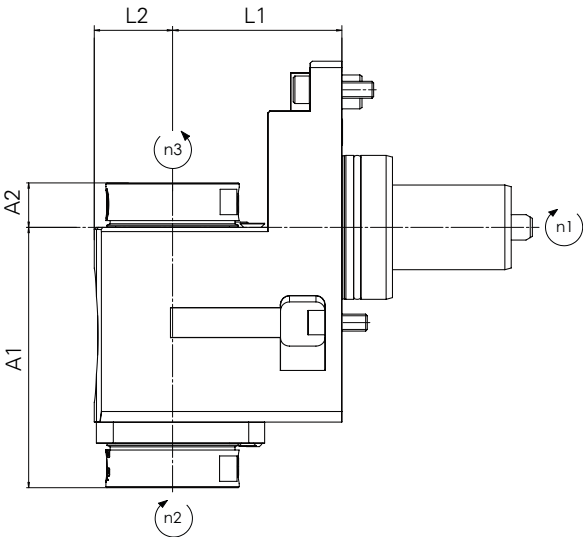
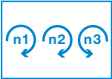
Other output spindles  
available upon request



Performance data

PD	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]
1	-	6000 / 6000	70 / 70

BENZ Solidfix® / Collet Chuck



Output spindle	Technical data				A1 <sub>max</sub> [mm]	A2 <sub>max</sub> [mm]	L2 [mm]	L1 [mm]	PD	Order No.
	Size	i	EC	IC						
BENZ Solidfix®	S4	1:1	✓	-	123	21	37	80	1	114FBX12949S4L2-80
Collet Chuck	ER32	1:1	✓	-	120,1	18,1	37	80	1	114FBX12949E6AL2-80

# LIVE TOOLS – BMT 68

## ADJUSTABLE

### TECHNICAL DATA



### OUTPUT SPINDLES



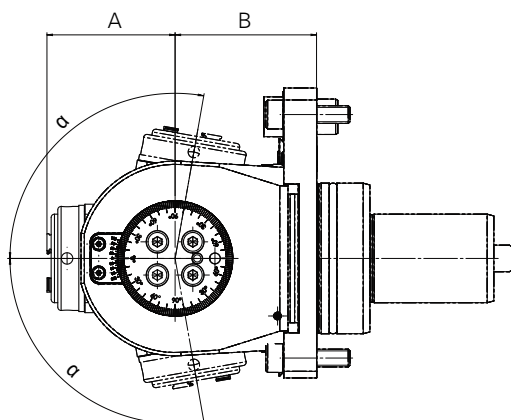
Collet chuck  
System ER  
DIN 6499

**i** Other output spindles  
available upon request



PD	Performance data		
	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / M <sub>2 max</sub> [Nm]
<b>1</b>	-	6000 / 4900	32 / 39
<b>2</b>	50	6000 / 4900	32 / 39

Collet Chuck



Output spindle	Technical data				A <sub>max</sub> [mm]	B [mm]	PD	Order No.
	Size Spindle	i	EC 	IC 				
Collet Chuck	ER25	1:0,816	✓	-	57,9	62	<b>1</b>	114FDX12949E5A
	ER25	1:0,816	✓	✓	62,9	62	<b>2</b>	114GDX12949E5A

# LIVE TOOLS – BMT 68

## RADIAL, BROACHING UNIT - BENZ LINA 4.0

### TECHNICAL DATA



LENGTH L1

80

OUTPUT SPINDLES

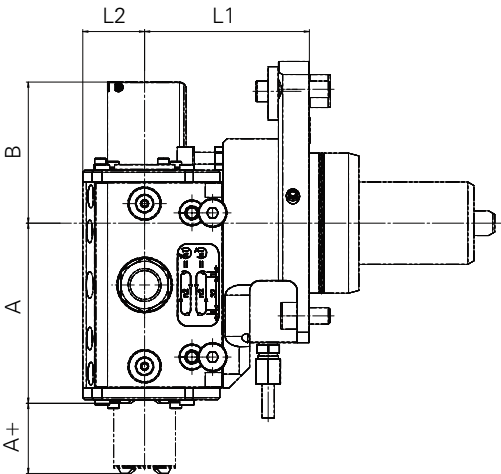


similar to prism  
Ø 30mm



Performance data			
PD	IC p <sub>max</sub> [bar]	n <sub>1 max</sub> / *n <sub>2 max</sub> [min <sup>-1</sup> ]	M <sub>1 max</sub> / F <sub>c max</sub> [Nm / N]
1	50	3000 / 1500	15 / 1700
2	50	2000 / 1000	23 / 1700

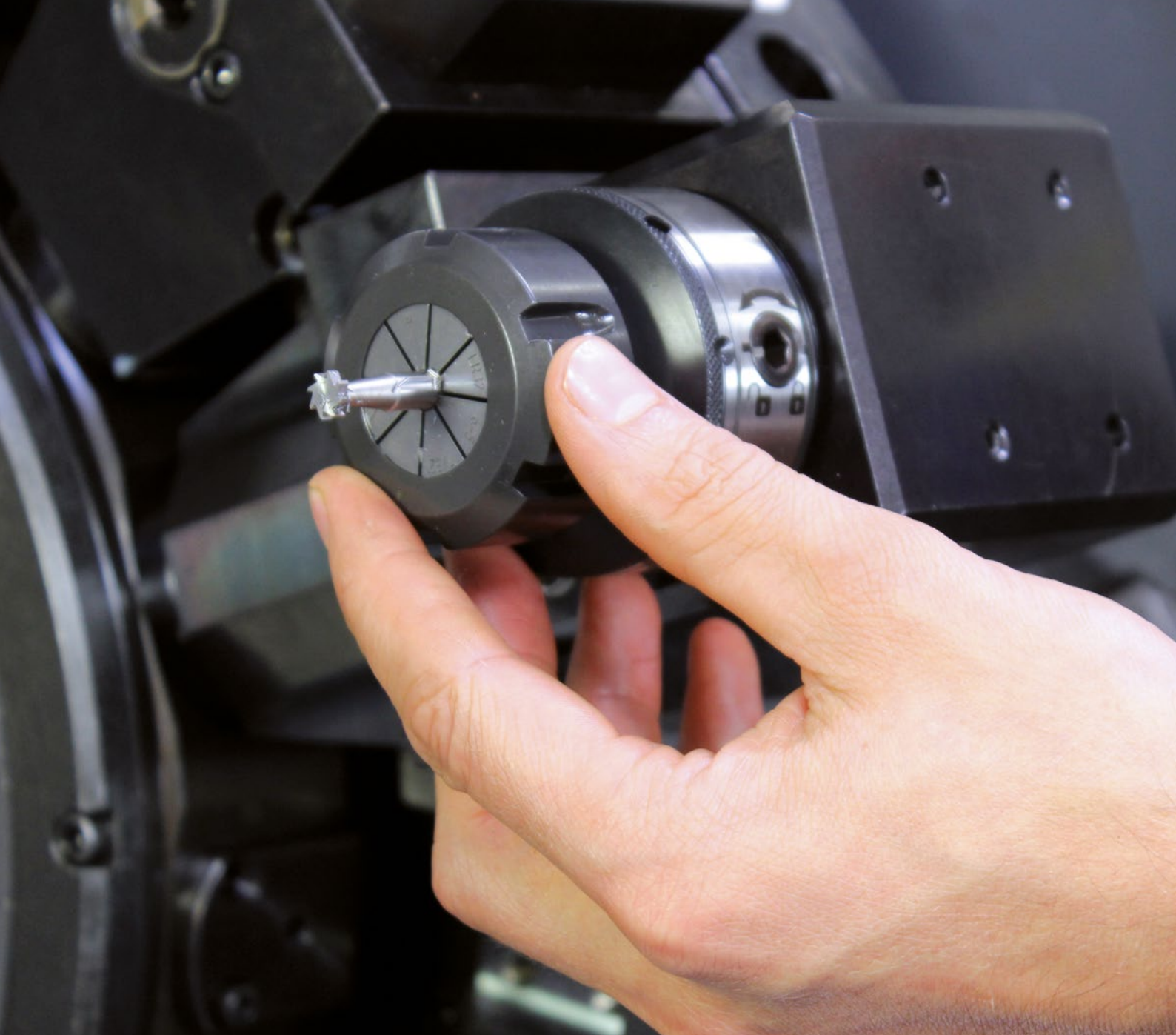
\*number of double stroke per minute



Technical data											Order No.
Typ	Size	i	EC	IC	**Hub	A	B	L2	L1	LD	
	Stößel				[mm]	[mm]	[mm]	[mm]	[mm]		
GS	30	2:1	✓	✓	32	34	68,5	30	80	1	114GS12902B2R-80
GSL	30	2:1	✓	✓	51	116,5	87,5	30	80	2	114GSL12908B2R-80

\*number of double stroke per minute

\*\*usable working stroke



# ACCESSORIES

Practical additions for your interchangeable unit

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 live tool from the machine is avoided, as only the adapter with cutting tool is changed. Replacing

the change adapter saves you several live tools.


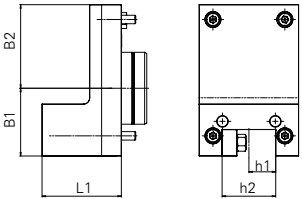
**Your advantage:** One live tool instead of several – and therefore lower investment costs compared to exchanging the complete unit!

A large selection of adapters and matching accessories can be found in our catalogue [BENZ Modular Quick Change Systems](#)


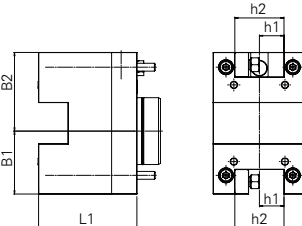


# STATIC HOLDERS – BMT 68


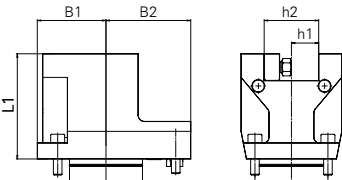
## O.D. TURNING TOOL | SINGLE

Model	Drawing	Technical data					EC	IC	Order No.
		h1 [mm]	h2 [mm]	L1 [mm]	B1 [mm]	B2 [mm]			
		25	50	75	64	79	✓		114A129560001
		25	50	75	64	79	✓		114A129560003



## O.D. TURNING TOOL | 2 TOOLS - MAIN & SUB SPINDLE

Model	Drawing	Technical data					EC	IC	Order No.
		h1 [mm]	h2 [mm]	L1 [mm]	B1 [mm]	B2 [mm]			
		25	50	100	64	80	✓		114A129567001
		25	50	100	64	80	✓		114A129567002



## FACE AND I.D. TURNING TOOL | SINGLE

Model	Drawing	Technical data					EC	IC	Order No.
		h1 [mm]	h2 [mm]	L1 [mm]	B1 [mm]	B2 [mm]			
		25	50	98	64	79	✓		114A129559001
		25	50	98	64	79	✓		114A129559003

## CUT-OFF HOLDER

Model	Drawing	Technical data				EC	IC	Order No.
		SH [mm]	L1 [mm]	B1 [mm]	B2 [mm]			
		32	86	100	79	✓	✓	<a href="#">114A129583001</a>

## BORING BAR HOLDER | SINGLE

Model	Drawing	Technical data					EC	IC	Order No.
		Ød [mm]	L1 [mm]	L2 [mm]	B1 [mm]	B2 [mm]			
		25	123	95	63,5	79	✓	✓	<a href="#">114A129578006</a>
		32	123	95	63,5	79	✓	✓	<a href="#">114A129578002</a>
		40	123	95	63,5	79	✓	✓	<a href="#">114A129578004</a>

# PRODUCT GROUPS

## TOOLING & MACHINE TOOLING TECHNOLOGY

### TOOLING TECHNOLOGY



METAL

#### 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.



METAL

#### 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.



WOOD / COMPOSITE AND ALUMINIUM

#### EXCHANGEABLE UNITS

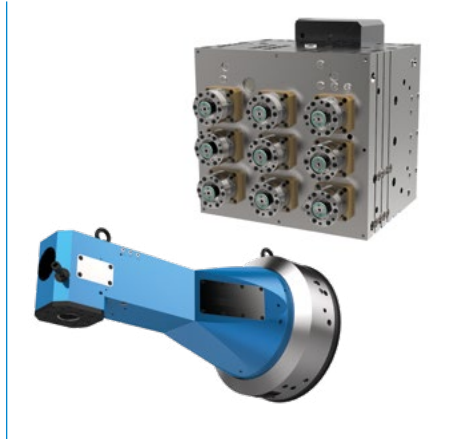
- Angle heads 90°
- Swivel heads
- Multi-spindle heads
- Multi-axis heads
- Sanding units
- Floating head units

**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

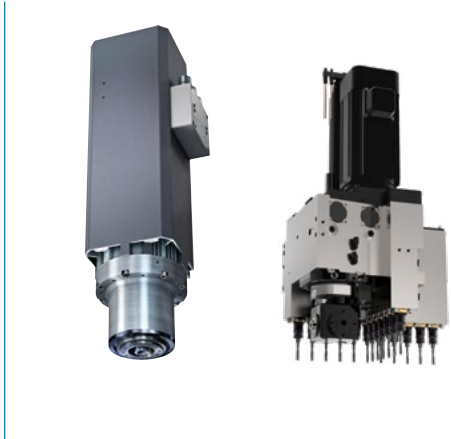


METAL

### 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.



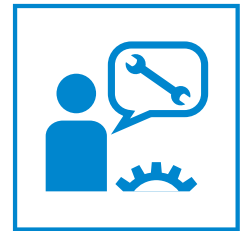
METAL / WOOD / COMPOSITE AND ALUMINIUM

### 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












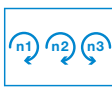


- Repair service
- Rapid Repair Kit
- Preventive maintenance
- Spare part management
- Global service
- Service hotline

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

Type of machining				
	<b>Drilling</b> The unit is suitable for boring machining	<b>Milling</b> The unit is suitable for milling machining	<b>Threading</b> The unit is suitable for thread machining	<b>Broaching and slotting</b> The unit is suitable for machining by broaching and slotting
Number of output spindles (tool holding fixtures)				
	<b>1</b> The unit has one output spindle	<b>2</b> The unit has two output spindles		
Axis angle				
	<b>0°</b> Unit for machining tasks at a 0° angle	<b>90°</b> Unit for machining tasks at a 90° angle	<b>± 0°-100°</b> Unit for machining tasks at an adjustable angle 0° ± max. α° adjustable angle.	
Drive for spindle Direction of rotation				
	clockwise / clockwise synchronized rotation	clockwise / counterclockwise counter-rotation	clockwise / clockwise / counterclockwise counter-rotation	
Coolant feed for cutting blade				
	<b>Extern (EC)</b> The tool is cooled using an external feed line (spray nozzle)	<b>Combination (EC+IC)</b> The tool is cooled by a combination of both internal and external systems		

### 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
S.	Page
✓	Possible
-	Not possible
mm	Millimeter

## Usage note – general

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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.

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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 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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The contents and data are valid at the time of printing. Edition 09/2023

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