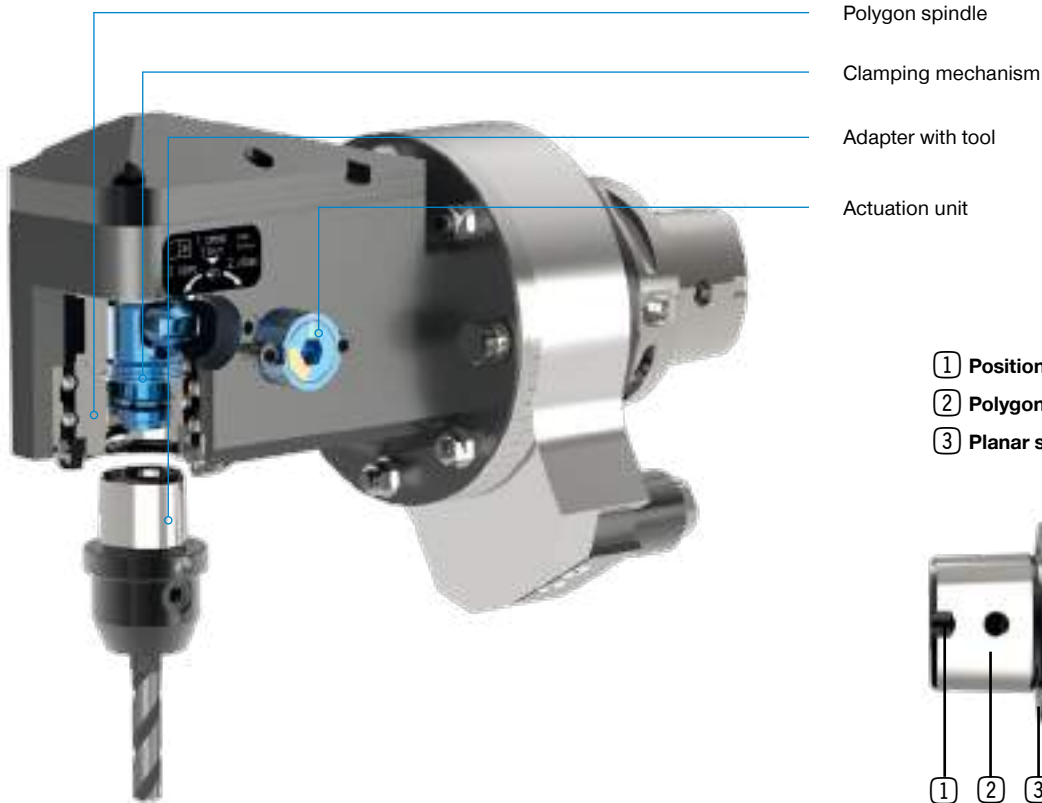


MODULAR QUICK CHANGE SYSTEM

BENZ CAPTO™

► SYSTEM DESIGN



► ABOUT BENZ CAPTO™

FIELD OF APPLICATIONS

Increase of efficiency and machining quality

The modular quick change system BENZ CAPTO™ guarantees an extremely compact design by being integrated into the spindle. Special clamping kinetics for clamping forces are noticeably below the required range of ISO/DIS 26623-2. BENZ CAPTO™ can be used for milling, drilling and turning, with up to 100 bar coolant pressure. The system is especially suited for heavy duty milling and machining.

SYSTEM OVERVIEW

► Technical data

Size	T [Nm]	Wrench size	Recommended VDI combination**
C3	320	SW 6	VDI 30
C4	580	SW 8	VDI 40
C5	1000	SW 10	VDI 50
C6	2000	SW 12	VDI 60

*transmittable torque of the polygon

** clamping system also for comparable BMT/CDI tools

▶ PRODUCT BENEFITS



All axes in one hand

Performance

- ▶ compact design/short implementation
- ▶ special clamping kinetics for clamping forces are noticeably below the required range of ISO/DIS 26623-2
- ▶ pressure of coolant up to 100 bar
- ▶ ideal for heavy milling

Precision

- ▶ stability and rigidity with high flexibility at the same time
- ▶ compact shape guarantees high cutting speeds and surface quality

Handling

- ▶ fast tool change with additional locking mechanism (ratcheted)
- ▶ optically visible clamping position 100°
- ▶ starting torque: 50 Nm (C4)

Safety

- ▶ from 75 degrees onwards the clamping process is already so secure that the tool can be used in production
- ▶ visual markings > correct clamping of the tool is easily seen
- ▶ additional safety function > prevents uncontrolled falling out of the tool holder



Video



▶ BENZ CAPTO™ - in use

Scan the adjacent QR code with a smartphone and see a demonstration of BENZ CAPTO™ in action. Alternatively, you can visit our YouTube channel to view the video: www.youtube.com/BENZWerkzeugsysteme

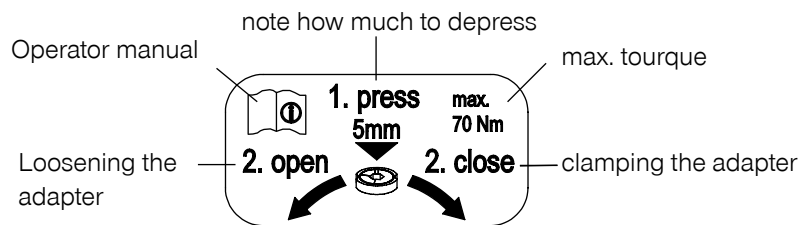
MODULAR QUICK CHANGE SYSTEM

BENZ CAPTO™

▶ TOOL CHANGE



▶ Step 1: Familiarize yourself with the symbols



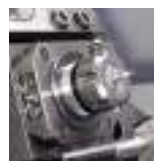
▶ Step 2: Cleaning of tool holder with compressed air

Clean the tool insert. Please note: Only clean around the edges of the Polygon. Never blow air centrally into the clamping mechanism!



▶ Step 3: Inserting the adapter

Inserting the adapter into the tool holder (in release position). The adapter is held in the base by a locking mechanism.



The locking mechanism holds the tool in the base



▶ Step 4: Loosening and changing the adapter

Align the marks on the adapter and the tool insert. The adapter is held in the base by a locking mechanism.

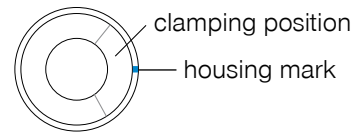
Note: this step is only necessary for Live Tools. Static BENZ CAPTO™ tools have a fixed polygon position.

▶ **TOOL CHANGE**



▶ **Step 5: Clamping of the adapter**

To do this press the mechanism and at the same time rotate by approx. 100 degree clockwise in the “close” direction. Optimal clamping force is achieved when applying the recommended torque. The tool is already clamped securely as soon as a 75 degree angle is achieved. Important: the mark on the housing has to be within the marked self-locking area.



▶ **Step 6: Loosening the adapter**

After machining you can loosen the adapter by pressing the mechanism and at the same time rotating counterclockwise in the “open” direction. This means the mark on the housing and the mark on the tool insert have to be lined up again. The adapter will be held in the tool after loosening until you take it out.

Note for clamping and un-clamping: for static Benz CAPTO™ tools it is sufficient to simply rotate, no pressure needs to be applied.

▶ **SAMPLE APPLICATION**

QUICK CHANGE



Tool Change for a driven tool with Modular Quick Change System BENZ CAPTO™.

BENZ CAPTO™

TOOL ADAPTERS

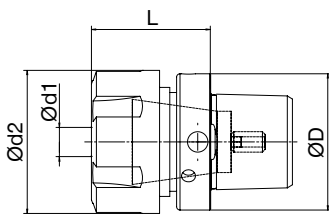


BENZ CAPTO™

TOOL ADAPTERS

Collet chuck 8° Type ER

- ▶ external clamping nut
- ▶ without gripper groove!



▶ Technical data

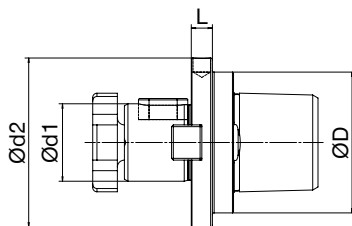
Order No.	Size	Type	D	d1	d2	L
550.130E330	C3	ER16	32	1-10	28	30
550.130E435	C3	ER20	32	2-13	34	35
550.130E544	C3	ER25	32	2-16	42	44
551.130E432	C4	ER20	40	2-13	34	32
551.130E535	C4	ER25	40	2-16	42	35
551.130E652	C4	ER32	40	2-20	50	52
552.130E534	C5	ER25	50	2-16	42	34
552.130E641	C5	ER32	50	2-20	50	41
552.130E758	C5	ER40	50	3-26	63	58
553.130E640	C6	ER32	63	2-20	50	40
553.130E746	C6	ER40	63	3-26	63	46

▶ ACCESSORIES

- ▶ see page 40ff.

Milling machine arbor

- ▶ without gripper groove!



▶ Technical data

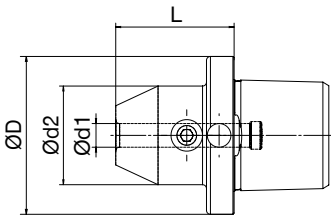
Order No.	Size	D	d1	d2	L
550.2311613	C3	32	16	34	13
550.2312217	C3	32	22	48	17
551.2312216	C4	40	22	48	16
551.2312719	C4	40	27	51	19
552.2312711	C5	50	27	55	11
552.2313222	C5	50	32	62	22
553.2312711	C6	63	27	63	11
553.2313216	C6	63	32	63	16

▶ ACCESSORIES

- ▶ see page 43

Weldon for parallel shanks DIN 1835 B

▶ without gripper groove!



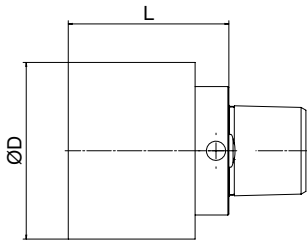
▶ Technical data

Order No.	Size	D	d1	d2	L
550.1400633	C3	32	6	25	33
550.1400833	C3	32	8	28	33
550.1401037	C3	32	10	35	37
550.1401242	C3	32	12	42	42
550.1401443	C3	32	14	44	43
550.1401651	C3	32	16	48	51
551.1400630	C4	40	6	25	30
551.1400830	C4	40	8	28	30
551.1401034	C4	40	10	35	34
551.1401239	C4	40	12	42	39
551.1401439	C4	40	14	44	39
551.1401643	C4	40	16	48	43
551.1401843	C4	40	18	50	43
551.1402045	C4	40	20	52	45
552.1400629	C5	50	6	25	29
552.1400829	C5	50	8	28	29
552.1401033	C5	50	10	35	33
552.1401238	C5	50	12	42	38
552.1401438	C5	50	14	44	38
552.1401641	C5	50	16	48	41
552.1401842	C5	50	18	50	42
552.1402044	C5	50	20	52	44
552.1402552	C5	50	25	65	52
553.1400628	C6	50	6	25	28
553.1400828	C6	50	8	28	28
553.1401032	C6	50	10	35	32
553.1401237	C6	50	12	42	37
553.1401437	C6	50	14	44	37
553.1401640	C6	50	16	48	40
553.1401841	C6	50	18	50	41
553.1402043	C6	50	20	52	43
553.1402552	C6	50	25	65	52

BENZ CAPTO™

TOOL ADAPTERS

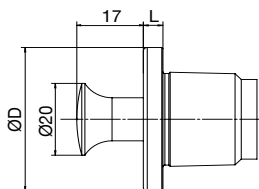
Blank



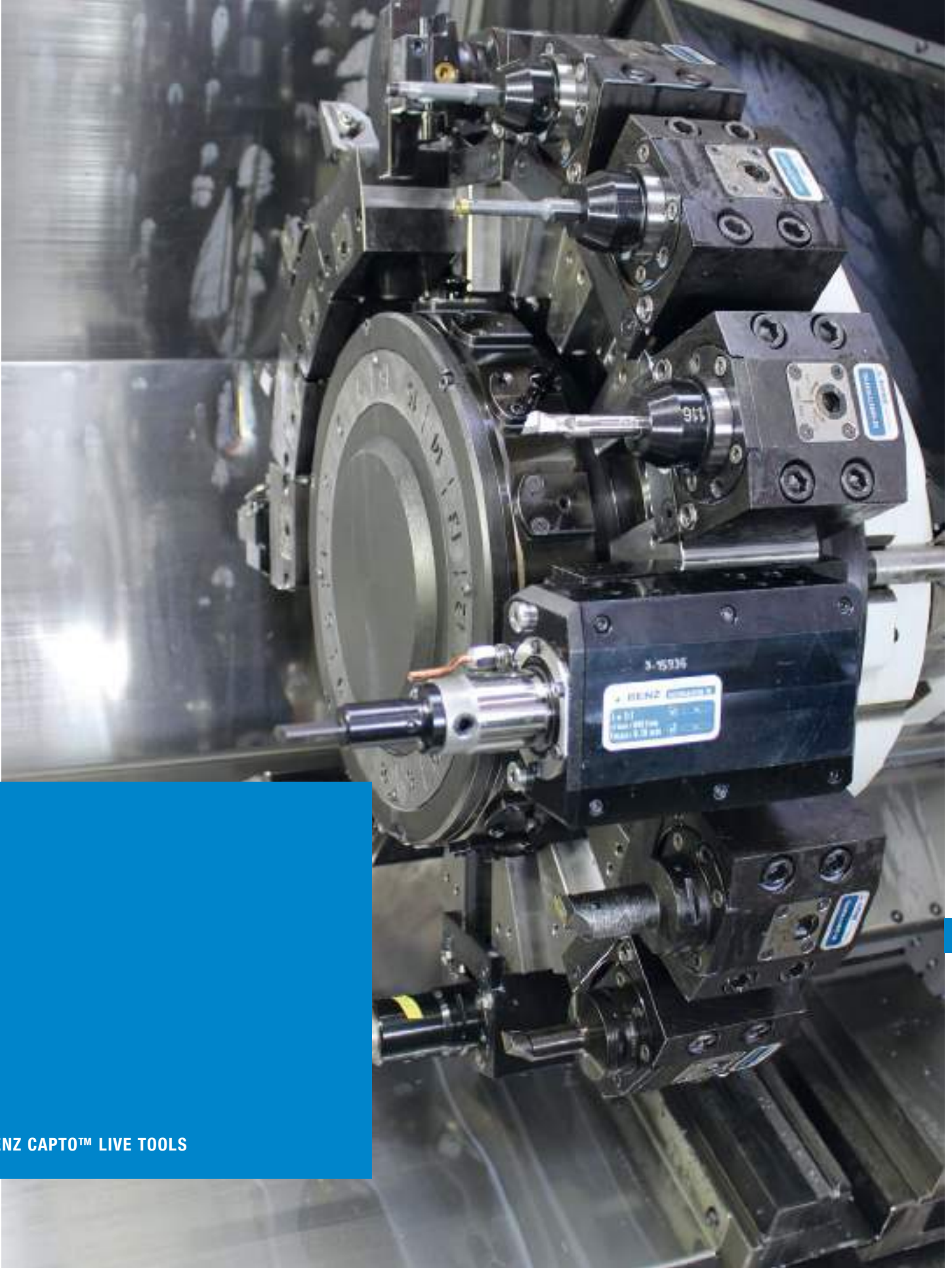
Order No.	▶ Technical data		
	Size	D	L
550.1024750	C3	47	50
551.1025763	C4	57	63
552.1027267	C5	72	67
553.1029267	C6	92	67

Closing plug (made out of steel)

▶ made of steel



Order No.	▶ Technical data		
	Size	D	L
550.581S	C3	32	5
551.581S	C4	40	5
552.581S	C5	50	6
553.581S	C6	63	7



BENZ CAPTO™ LIVE TOOLS

ACCESSORIES

MODULAR SYSTEMS



ACCESSORIES

COLLET CHUCK ADAPTERS

Clamping wrench inside clamping nut



▶ Technical data	
Order No.	fits for collet chuck ER
B136-E1AX	11
B136-E3AX	16
B136-E4AX	20
B136-E5AX	25
B136-E6AX	32

Hook wrench DIN 1810B inside clamping nut



▶ Technical data	
Order No.	fits for Solidfix® Adapter
D01810B025028	S1 x ER11
D01810B034036	S2 x ER16
D01810B045050	S3 x ER16
D01810B040042	S3 x ER20
D01810B058062	S4 x ER20
D01810B045050	S4 x ER25
D01810B058062	S5 x ER32

Collet nuts for tools with internal coolant DIN 6499 System Regofix internal



▶ Technical data						
Order No.	ER	Clamping range	B	C	I1	I2
B135-E3AXC	16	1-10	12,5	M24 x 1	22,5	7,2
B135-E4AXC	20	1-13	13,5	M28 x 1,5	24,0	7,3
B135-E5AXC	25	2-16	13,8	M32 x 1,5	25,0	7,3
B135-E6AXC	32	2-20	14,9	M40 x 1,5	27,5	7,6
B135-E7AXC	40	4-26	16,6	M50 x 1,5	30,5	7,3

ACCESSORIES

COLLET CHUCK ADAPTERS

Clamping wrench external clamping nut



Order No.	Technical data			
	fits for collet chuck ER			
B136-M1				11M
B136-M2				16M
B136-M3				20M
B136-E4				20
B136-E5				25
B136-E6				32
B136-E7				40

Hook wrench DIN 1810B external clamping nut



Order No.	Technical data			
	fits for Solidfix® Adapter			
D01810B030032				S1 x ER11M
D01810B030032				S1x ER16M
D01810B040042				S2 x ER20M
D01810B040042				S2 x ER20
D01810B045050				S3 X ER25
D01810B058062				S4 x ER32
D01810B068075				S5 x ER40

Collet nuts for tools with internal coolant DIN 6499 System Regofix external



Order No.	Technical data			
	ER	Clamping range	d1	l1
B135-H3A	16	1-10	28	22,5
B135-H4A	20	1-13	34	24,0
B135-H5A	25	2-16	42	25,0
B135-H6A	32	2-20	50	27,5
B135-H7A	40	4-26	63	30,5

Seal Rings



▶ Technical data

Order No.	ER	fits clamping range	increments
B137-E3...	16	1-10	0,5 mm
B137-E4...	20	1-13	0,5 mm
B137-E5...	25	2-16	0,5 mm
B137-E6...	32	2-20	0,5 mm
B137-E7...	40	4-26	0,5 mm

▶ ORDER SAMPLE

HOW TO ORDER CORRECTLY

- ▶ Get the right order no. according to this scheme:

Order No.	B137-	<input type="checkbox"/>	<input type="checkbox"/>
ER 32		E6	
∅ 8-8,5 mm			0850

ACCESSORIES

MILLING MACHINE ARBOR

Hook wrenches



Order No.	Technical data	
	Size	∅
D01810B040042	S2	40-42
D01810B045050	S3	45-50
D01810B058062	S4	58-62
D01810B068075	S5	68-75

Wrench DIN 6368 for Shell arbor wrenches



Order No.	Technical data	
	d1	
D06368-080	16	
D06368-100	22	
D06368-120	27	
D06368-160	32	

Key block DIN 2097 for milling machine arbors



Order No.	Technical data			
	d1	L	B	H
B245-66	16	8,5	8	11
B245-81	22	11	10	8,6
B245-126	27	10	12	9,3
B245-117	32	12	14	14

ACCESSORIES

SHRINKING COLLET

Insert, Base holder

- ▶ Base holder and respective insert are needed!



▶ Technical data		
Order No.	Size	Type
B136-426E-DSE	S1 / S2	Insert TER 16
B136-428E-DSE	S3	Insert TER 20
B136-430E-DSE	S4	Insert TER 25
B136-470E-DSE	S5	Insert TER 32
B136-4XXE-DSG	S1 - S5	Base holder with length adjustment

Additional accessories

- ▶ Diebold-shrinking devices with stored parameters for shrinking of the TER-collet chucks
- ▶ fluid cooler FKS 03
- ▶ adapter rings

- ▶ **Additional accessories on request**
Please contact our sales team

BENZ MODULAR QUICK CHANGE SYSTEMS

PRODUCT SAMPLES

▶ PRODUCT SAMPLE

MACHINING
CENTER



BENZ right angle head
FORTE WWX 90° recessed
with Modular Quick Change
System BENZ Solidfix®
HSK-A63 machine
connection

▶ PRODUCT SAMPLE

LATHE



Radial tool with Modular
Quick Change System
BENZ CAPTO™ with VDI
machine connection Sauter
Trifix Revolver with fixed
flange connection