

# ANGLE HEAD FORTE WWX

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FORTE WWX / Design overview / Angle heads

## MODULAR DESIGN



### ANGLE HEAD BODY (SIZE)

05

07

15

20

### OUTPUT SPINDLE / CLAMPING SYSTEM



BENZ  
Solidfix®



BENZ  
CAPTO™



Collet chuck



HSK



Milling arbor



Weldon



Whistle  
Notch



KM™

### DRIVE CONE



SK  
DIN 69871



MAS BT



CAT



HSK  
DIN 69893



Coromant  
Capto®



KM™

### Specifications

Change the  
angle head



Machining



Number of  
output spindles



Axis angle

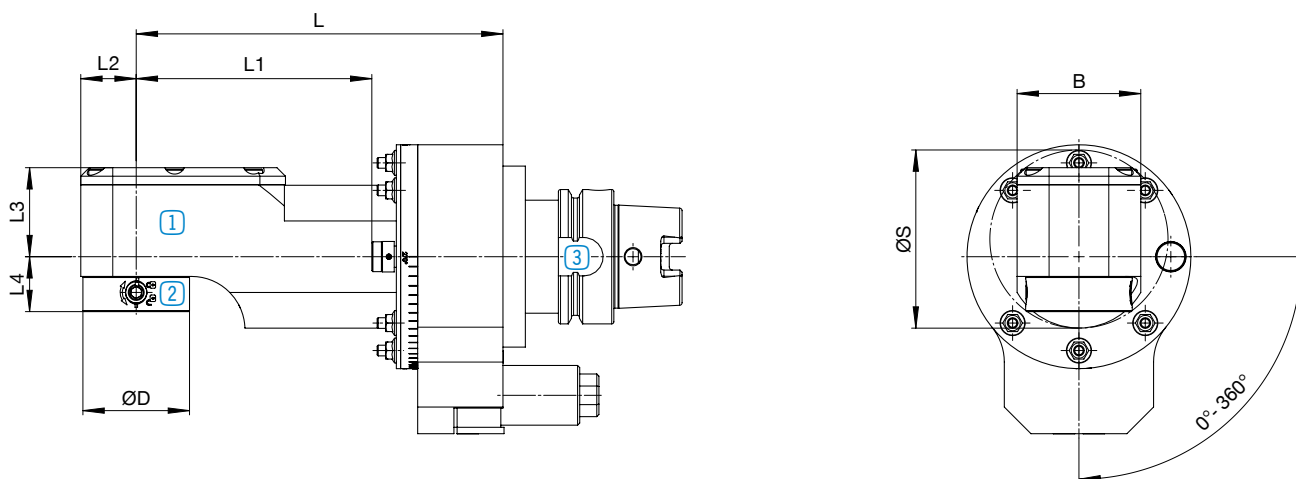


Coolant feed for cutting  
edge

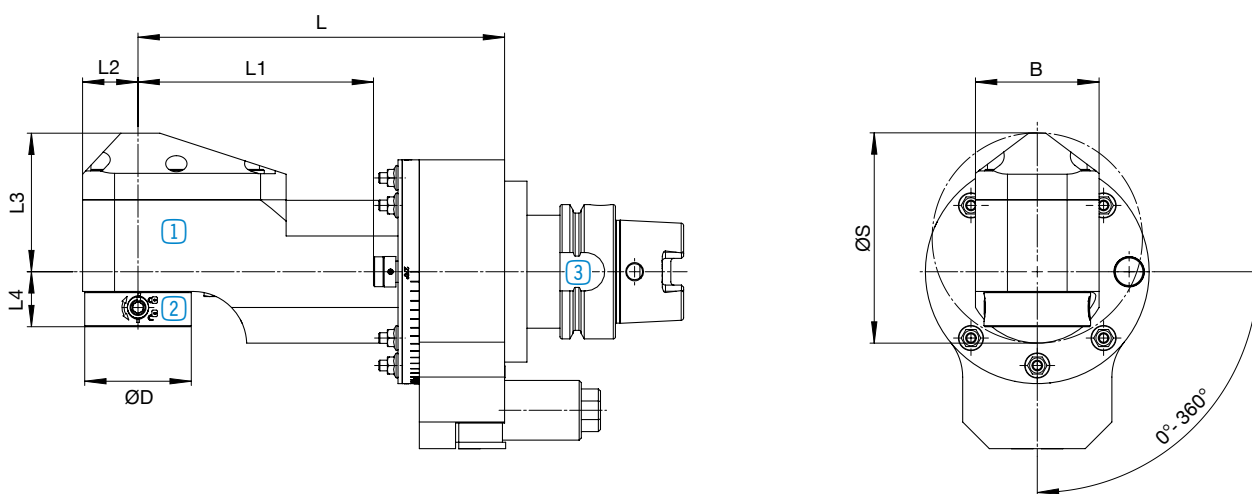


FORTE WWX

► Angle head without IC



► Angle head with IC



1 Angle head body  
P. 34



2 Output spindle /  
clamping system  
P. 36



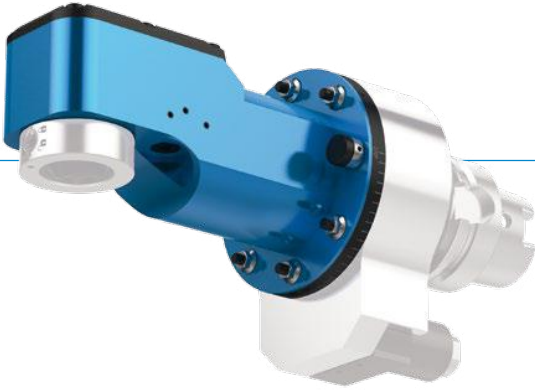
3 Drive cone  
P. 38



Other dimensions for angle heads with BENZ CAPTO™ output spindle. Dimensions available on request.

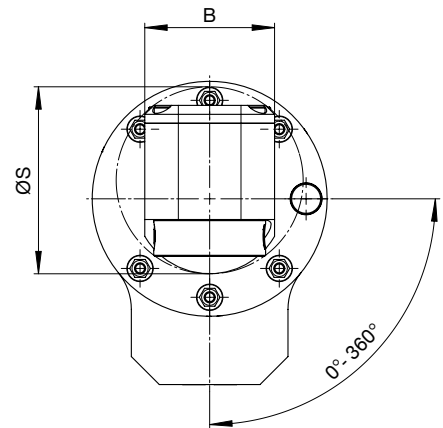
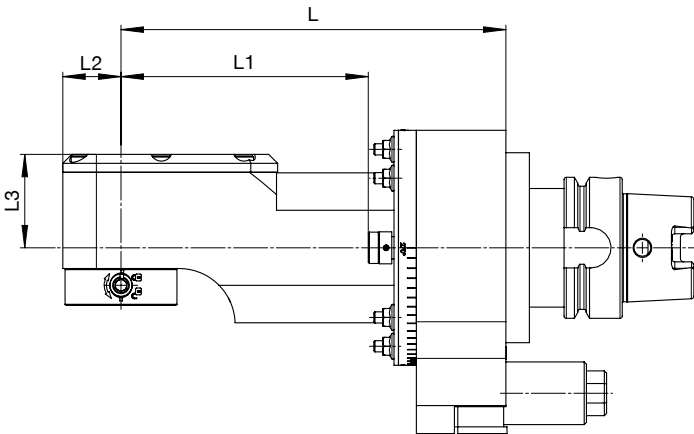
# ANGLE HEAD FORTE WWX

## ▶ ANGLE HEAD BODY (SIZE)

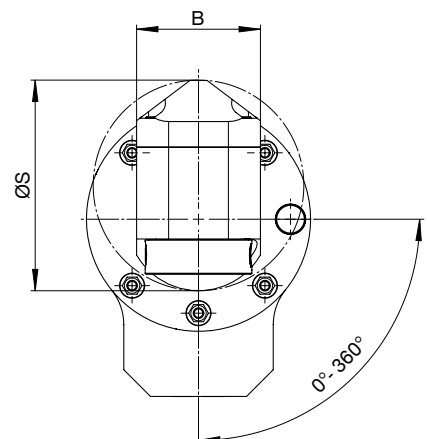
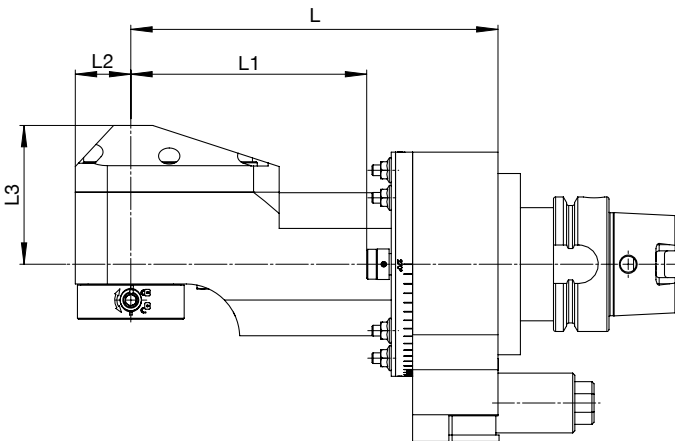


**i** More sizes on request.  
Higher speeds are possible as an option.

## ▶ Angle head without IC



## ▶ Angle head with IC



Size 05		▶ Technical data										
		L1 [mm]	L2 [mm]	L3 [mm]		B [mm]	ØS [mm]		L [mm]	EC*	IC	kg
M <sub>max</sub>	= 30 Nm	63,5		EK	IK		EK	IK	125	✓	✓	5
i	= 1:1	110,5	26	42	65	58	84	81	172	✓	✓	6
n <sub>max</sub>	= 8,000 min <sup>-1</sup>	170,5							232	✓	✓	7
p <sub>max</sub>	= 100 bar											

Size 07		▶ Technical data										
		L1 [mm]	L2 [mm]	L3 [mm]		B [mm]	ØS [mm]		L [mm]	EC*	IC	kg
M <sub>max</sub>	= 70 Nm	93,5		EK	IK		EK	IK	155	✓	✓	8.5
i	= 1:1	138,5	35	55	77	70	109	122	200	✓	✓	9.5
n <sub>max</sub>	= 6,000 min <sup>-1</sup>	191,5							253	✓	✓	10.5
p <sub>max</sub>	= 100 bar											

Size 15		▶ Technical data										
		L1 [mm]	L2 [mm]	L3 [mm]		B [mm]	ØS [mm]		L [mm]	EC*	IC	kg
M <sub>max</sub>	= 150 Nm	125,5		EK	IK		EK	IK	195	✓	✓	14
i	= 1:1	162,5	40	66	88,5	90	129	139	232	✓	✓	15
n <sub>max</sub>	= 4,000 min <sup>-1</sup>	262,5							332	✓	✓	17,5
p <sub>max</sub>	= 100 bar											

Size 20		▶ Technical data										
		L1 [mm]	L2 [mm]	L3 [mm]		B [mm]	ØS [mm]		L [mm]	EC*	IC	kg
M <sub>max</sub>	= 230 Nm	135,5		EK	IK		EK	IK	200	✓	✓	17
i	= 1:1	172,5	45	65,5	88,5	90	130	141	237	✓	✓	18
n <sub>max</sub>	= 3,000 min <sup>-1</sup>	272,5							337	✓	✓	21,5
p <sub>max</sub>	= 100 bar											



\*Optional: EC via spray nozzle

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## ▶ OUTPUT SPINDLE / CLAMPING SYSTEM



**i** Technical data for other output spindles / clamping systems on request:



Weldon

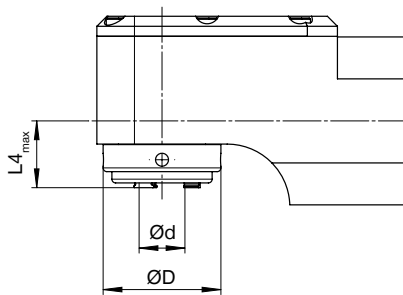


Whistle Notch



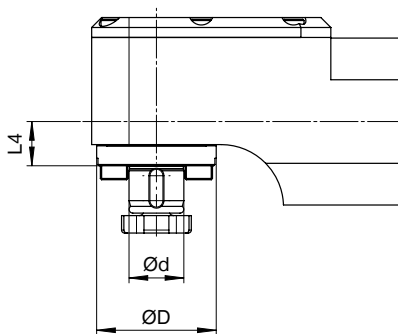
KM™

**i** We show you **preferable sizes** in the following tables. Smaller output spindles are possible at any time as an option.



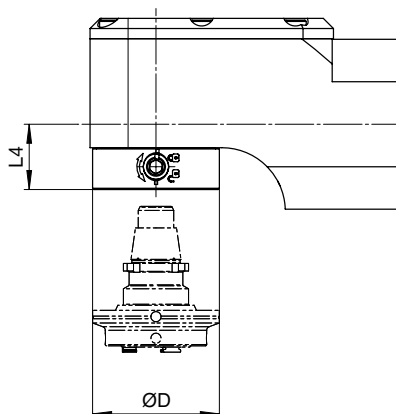
### ▶ Technical data

	Size	L4 <sub>max</sub> [mm]		ØD [mm]	Ød <sub>max</sub> [mm]
		EC	IC		
<b>Collet chuck</b>					
<b>ER25A</b>	05	20.75	25.75	47	16
<b>ER32A</b>	07	23.9	28.9	55	20
<b>ER40A</b>	15	31	35.9	70	30



### ▶ Technical data

	Size	L4 [mm]	ØD [mm]	Ød [mm]
<b>Milling arbor</b>				
<b>22</b>	05	17.75	48	22
<b>27</b>	07	21.5	60	27
<b>32</b>	15	32.5	75	32

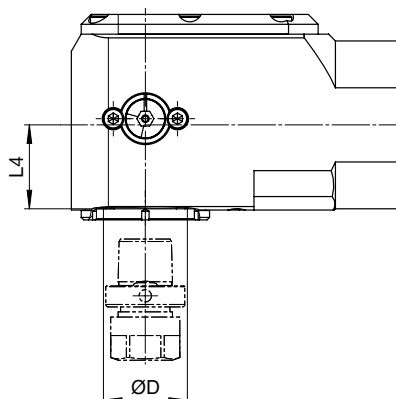


**i** For adapters and dimensions, see catalogue **BENZ Modular Tool Systems**



► **Technical data**

	Size	L4 [mm]		ØD [mm]
		EC	IC	
<b>BENZ Solidfix®</b>				
<b>S3</b>	05	25.75		50
<b>S4</b>	07	31		63
<b>S5</b>	15	35.5		75

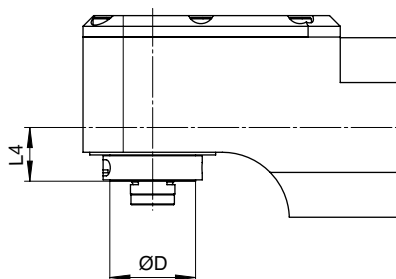


**i** For adapters and dimensions, see catalogue **BENZ Modular Tool Systems**



► **Technical data**

	Size	L4 [mm]		ØD [mm]
		EC	IC	
<b>BENZ CAPTO™</b>				
<b>C3</b>	05	34		32
<b>C4</b>	07	32		40
<b>C5</b>	15	39		50
<b>C6</b>	20	54		63



► **Technical data**

	Size	L4 [mm]		ØD [mm]
		EC	IC	
<b>HSK</b>				
<b>HSK 32</b>	05	20		32
<b>HSK 40</b>	07	24		40
<b>HSK 50</b>	15	35		50
<b>HSK 63</b>	15	42		63

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## ► DRIVE CONE



**i** Technical data for other machine interfaces on request.

### Type: Steep taper



	► Size			
<b>SK</b> DIN 69871	05	07	15	20
<b>SK 40</b>	✓	✓	-	-
<b>SK 50</b>	✓	✓	✓	✓



	► Size			
<b>MAS BT</b>	05	07	15	20
<b>BT 40</b>	✓	✓	-	-
<b>BT 50</b>	✓	✓	✓	✓



	► Size			
<b>CAT</b>	05	07	15	20
<b>CAT 40</b>	✓	✓	-	-
<b>CAT 50</b>	✓	✓	✓	✓

## Type: Hollow shank taper



**HSK**  
DIN 69893

	▶ Size			
	05	07	15	20
<b>HSK 40</b>	-	-	-	-
<b>HSK 50</b>	✓	-	-	-
<b>HSK 63</b>	✓	✓	-	-
<b>HSK 80</b>	✓	✓	✓	-
<b>HSK 100</b>	✓	✓	✓	✓



**Coromant Capto®**

	▶ Size			
	05	07	15	20
<b>C3</b>	-	-	-	-
<b>C4</b>	✓	-	-	-
<b>C5</b>	✓	✓	✓	-
<b>C6</b>	✓	✓	✓	✓
<b>C8</b>	✓	✓	✓	✓



**Kennametal™**

	▶ Size			
	05	07	15	20
<b>KM 40</b>	-	-	-	-
<b>KM 50</b>	✓	-	-	-
<b>KM 63</b>	✓	✓	-	-
<b>KM 80</b>	✓	✓	✓	-
<b>KM 100</b>	✓	✓	✓	✓