

Technical Data / Single Spindle SPECHT®

Machine type	SPECHT 500		SPECHT 600		SPECHT 700		SPECHT 800/800+
	Ball screw	Linear motor	Ball screw	Linear motor	Ball screw	Linear motor	Ball screw
Linear axes							
Working range X	mm	630		900		1350	1400
Working range Y	mm	630		730		730	1050 / 1400 (SPECHT 800+)
Working range Z	mm	860 (A-axis) 900 (B-axis)		860 (A-axis) 900 (B-axis)		860 (A-axis) 900 (B-axis)	1400
Axis speed max.	m/min	70	120	70	120	70	120
Axis acceleration X / Y / Z	m/s ²	6	15	6	15	X / Y 10 Z 6	X / Y 15 Z 10
Axis acceleration X / Y / Z with speed package	m/s ²	10	-	10	-	-	-
Rotary axes							
A-axis interference Ø max.	mm	Ø 900		Ø 1100		Ø 1100	Ø 1400
Workpiece / fixture width max.	mm	800		1100		1520	1680
A-axis load max.	kg	500		500		1200	2000
A-axis speed max.	rpm	80		80		80	40
B-axis interference Ø max.							
w/o pallet changer	mm	Ø 850		Ø 1150		Ø 1400	Ø 1500
with pallet changer	mm	-		Ø 1000		-	Ø 1300
B-axis workpiece height max.							
w/o pallet changer	mm	850		950		900	1475 / 1775
with pallet changer	mm	-		875		-	1300 / 1600
B-Achse surface Ø	mm	Ø 500		Ø 580		Ø 700	Ø 900
B-axis load max.	kg	500 / 600		500 / 600		1200 / 2000	3000
B-axis speed max.	rpm	80		80		80	40
A/B-axis interference Ø max.							
w/o pallet changer	mm	Ø 900 (A-axis) Ø 700 (B-axis)		Ø 1100 (A-axis) Ø 1000 (B-axis)		Ø 1100 (A-axis) Ø 1200 (B-axis)	Ø 1400 (A-axis) Ø 1400 (B-axis)
with pallet changer	mm	-		Ø 900 (B-axis)		Ø 1350 x 1100 *	-
A/B-axis workpiece height max.							
w/o pallet changer	mm	540		740		640	700
with pallet changer	mm	-		640		550	-
B-Achse surface Ø	mm	Ø 450		Ø 450		Ø 620	Ø 600
A/B-axis load max.	kg	250		250 / 200 **		800 / 650 **	1000
B-axis speed max.	rpm	80		80		80	40
Pallet changer							
Pallet change time (B-axis)	s	-		9		-	14,5
Pallet dimensions (B-axis)	mm	-		500 x 500 / 630 x 630		-	800 x 800
Pallet change time (A/B-axis)	s	-		12,5		15	-
Pallet dimensions (A/B-axis)	mm	-		500 x 500		630 x 630 / 630 x 800	-
Main spindle							
Motor spindle (HSK-A63)	rpm	18 000 / 16 000 / 10 000		18 000 / 16 000 / 10 000		18 000 / 16 000 / 10 000	-
Spindle power (40% duty)	kW	42 / 52 / 39		42 / 52 / 39		42 / 52 / 39	-
Spindle torque (40% duty)	Nm	67 / 123 / 180		67 / 123 / 180		67 / 123 / 180	-
Front bearing diameter	mm	Ø 80		Ø 80		Ø 80	-
Motor spindle (HSK-A100)	rpm	8000 (10 000) / 8000 / 8000		8000 (10 000) / 8000 / 8000		8000 (10 000) / 8000 / 8000	-
Spindle power (40% duty)	kW	52 / 38 / 53		52 / 38 / 53		52 / 38 / 53	-
Spindle torque (40% duty)	Nm	250 / 378		250 / 378		250 / 378	250 / 378 / 516
Front bearing diameter	mm	Ø 100		Ø 100		Ø 100	-
Motorspindel-Verstellspindel (HSK-A100)	rpm	6000		6000		6000	6000
Spindle power (40% duty)	kW	52		52		52	52
Spindle torque (40% duty)	Nm	250		250		250	250
Front bearing diameter	mm	Ø 100		Ø 100		Ø 100	Ø 100

* flattened, ** with pallet changer

Subject to change without notice

Machine type	SPECHT 500		SPECHT 600		SPECHT 700		SPECHT 800/800+
	Ball screw	Linear motor	Ball screw	Linear motor	Ball screw	Linear motor	Ball screw
Main spindle							
Gear spindle 2 steps (HSK-A100)	rpm	-	-	-	-	-	8000
Spindle power (40% duty)	kW	-	-	-	-	-	78
Spindle torque (40% duty)	Nm	-	-	-	-	-	2000 (454)
Front bearing diameter	mm	-	-	-	-	-	Ø 120
Gear spindle 2 steps (HSK-A100)	rpm	-	-	-	-	-	10 000
Spindle power (40% duty)	kW	-	-	-	-	-	47
Spindle torque (40% duty)	Nm	-	-	-	-	-	1153 (332)
Front bearing diameter	mm	-	-	-	-	-	Ø 100
Tool magazines							
Disc-type tool magazine		Disc (HSK 63 / HSK 100)		Disc (HSK 63 / HSK 100)		Disc (HSK 63 / HSK 100)	
Storage capacity		44 / 26		44 / 26		44 / 26	
Tool Ø max. – full	mm	Ø 90 / Ø 125		Ø 90 / Ø 125		Ø 90 / Ø 125	
Tool Ø max. – adjacent empty positions	mm	Ø 125		Ø 250		Ø 250	
Tool Ø max. – bridge tool	mm	Ø 250 x 100		Ø 250		Ø 250	
Tool length max.	mm	550		550		550	
Tool weight max.	kg	12 / 18		12 / 18		12 / 18	
Chip-to-chip time Ball screw Limo	s	3.8 / 4.2 (HSK 100)	3.3 / 3.7 (HSK 100)	4.2 / 4.4 (HSK 100)	3.7 / 4.1 (HSK 100)	5.0	4.5
Tool magazine O-chain sideward		(HSK 63 / HSK 100)		(HSK 63 / HSK 100)		(HSK 63 / HSK 100)	
Storage capacity		89 / 61		89 / 61		89 / 61	
Tool Ø max. – full	mm	Ø 80 / Ø 125		Ø 80 / Ø 125		Ø 80 / Ø 125	
Tool Ø max. – adjacent empty positions	mm	Ø 125		Ø 250		Ø 250	
Tool length max.	mm	550		550		550	
Tool weight max.	kg	12 / 18		12 / 18		12 / 18	
Chip-to-chip time Ball screw Limo	s	3.8 / 4.2 (HSK 100)	3.3 / 3.7 (HSK 100)	4.2 / 4.4 (HSK 100)	3.7 / 4.1 (HSK 100)	-	5.3
Tool magazine O-chain on top				(HSK 63)			
Storage capacity				81			
Tool Ø max. – full	mm			Ø 80			
Tool Ø max. – adjacent empty positions	mm			Ø 250			
Tool length max.	mm			550			
Tool weight max.	kg			12			
Chip-to-chip time Ball screw Limo	s			3.5	3		
Machine dimensions							
Machine width (sideward O-chain)	mm	2160		2260 (3120)		3200 / 3600	
Machine length (w/o pallet changer)	mm	4760		4760		4760	
Machine height	mm	3380		3540		3540	
Machine Weight	kg	12 000 – 14 000		14 000 – 16 000		18 000 – 22 000	
Electrical system							
Connection load	KVA	24		24		24	

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