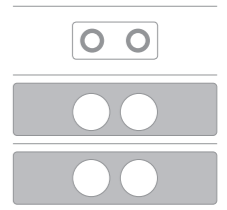
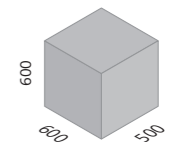




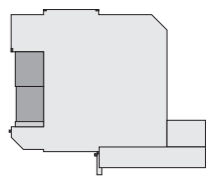
Working range		
X-axis	600 mm	
Y-axis (toolchange position)	600 mm (950 mm)	
Z-axis	500 mm	
Spindle distance	600 mm	
Workpiece carrier		
Swivel carrier / counterbearing with crown gear: swivel time 0 / 180°	approx. 3,75 s	
A- and U-axis, prepared for mounting a fixture plate, up to max.	ø 675 mm x 1 430 mm	
Drive system	Torque motor	
Load capacity	2 x 700 kg	
Speed range A-, U-axis	1 - 50 rpm	
C- / W-axis*	2 / 4 satellites	
Work spindle	HSK-A100 (Typ 1)	HSK-A100 (Typ 2)*
Speed range	1 - 10 000 rpm	
Spindle bearings ø	100 mm	
Power (duty cycle)	2 x 28 kW (25 %)	2 x 30 kW (25 %)
Torque (duty cycle)	2 x 340 Nm (25 %)	2 x 375 Nm (25 %)
Run up time 0 - n _{max}	1,75 s	1,70 s
Feed drive		
Drive system	Ball screw	
Rapid traverse X / Y / Z	60 m/min	
Axis acceleration X / Y / Z	8 / 9 / 13 m/s ²	
Max. feed thrust X / Y / Z	15 000 N	
Accuracy		
Position measuring system	Direct, absolute	
Positioning tolerance X / Y / Z	Tp = 0,008 mm	
Tool magazine		
Toolchange system	Pick-Up	
Capacity	2 x 28 (2 x 48 / 2 x 72 / 2 x 96)*	
Max. tool ø	110 / 250 mm (-o-)	
Max. tool length	425 mm	
Max. tool weight	20 kg	
Toolchange		
Chip-to-chip time	approx. 3,5 s	
Weight / Dimensions		
Total weight	approx. 18 000 kg	
Transport dimensions W x H x L	3,75 m x 3,30 m x 4,75 m	
Machine installed W x H x L	4,95 m x 3,60 m x 7,50 m	
Connected load		
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz	
Total connected load	105 kVA	
Mean air consumption	0,6 Nm ³ /min (6 bar)	
CNC control system		
Siemens	SINUMERIK 840D sl	
Fanuc*	31i	



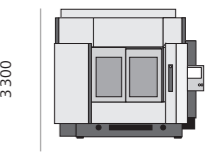
DOUBLE SWIVEL CARRIER
2 OR 4 ROTARY TABLES*



WORKSPACE PER SPINDLE

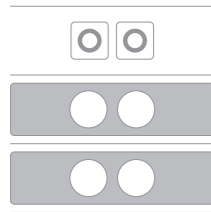


4 750

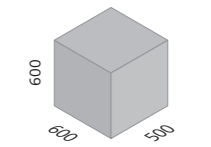


3 750

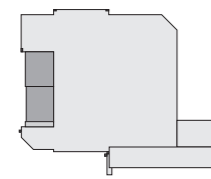
*optional, **on request, -o- occupancy of multiple magazine positions. Details depending on equipment. Technical data according to project planning. Deviation +/- 15% reserved. Subject to change without notice.



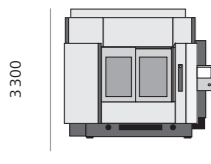
DOUBLE SWIVEL CARRIER
2 OR 4 ROTARY TABLES*



WORKSPACE PER SPINDLE



4750

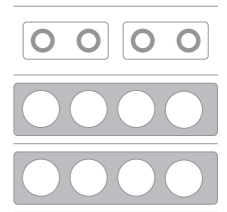


3750

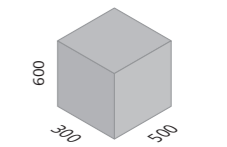
Working range		
X-axis	600 mm	
Y-axis (toolchange position)	600 mm (950 mm)	
Z-axis	500 mm (Z ₁ , Z ₂)	
Spindle distance	600 mm	
Workpiece carrier		
Swivel carrier / counterbearing with crown gear: swivel time 0 / 180°	approx. 3,75 s	
A- and U-axis, prepared for mounting a fixture plate, up to max.	ø 675 mm x 1 430 mm	
Drive system	Torque motor	
Load capacity	2 x 700 kg	
Speed range A-, U-axis	1 - 50 rpm	
C- / W-axis*	2 / 4 satellites	
Work spindle		
	HSK-A100 (Typ 1)	HSK-A100 (Typ 2)*
Speed range	1 - 10 000 rpm	
Run up time 0 - n _{max}	1,75 s	1,70 s
Spindle bearings ø	100 mm	
Power (duty cycle)	2 x 28 kW (25%)	2 x 30 kW (25%)
Torque (duty cycle)	2 x 340 Nm (25%)	2 x 375 Nm (25%)
Feed drive		
Drive system	Ball screw	
Rapid traverse X / Y / Z	60 / 60 / 70 m/min	
Axis acceleration X / Y / Z	8 / 9 / 12 m/s ²	
Max. feed thrust X / Y / Z	15 000 / 15 000 / 2 x 8 000 N	
Accuracy		
Position measuring system	Direct, absolute	
Positioning tolerance X / Y / Z	Tp = 0,008 mm	
Tool magazine		
Toolchange system	Pick-Up	
Capacity	2 x 28 (2 x 48 / 2 x 72 / 2 x 96)*	
Max. tool ø	110 / 250 mm (-o-)	
Max. tool length	425 mm	
Max. tool weight HSK-A100	20 kg	
Toolchange		
Chip-to-chip time	approx. 3,50 s	
Weight / Dimensions		
Total weight	approx. 18 000 kg	
Transport dimensions W x H x L	3,75 m x 3,30 m x 4,75 m	
Machine installed W x H x L	4,95 m x 3,60 m x 7,50 m	
Connected load		
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz	
Total connected load	105 kVA	
Mean air consumption	0,6 Nm ³ /min (6 bar)	
CNC control system		
Siemens	SINUMERIK 840 D sl	
Fanuc	31i	

*optional, **on request, -o- occupancy of multiple magazine positions. Details depending on equipment. Technical data according to project planning. Deviation +/- 15% reserved. Subject to change without notice.

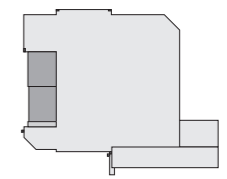
Working range		
X-axis	300 mm	
Y-axis (toolchange position)	600 mm (950 mm)	
Z-axis	500 mm	
Spindle distance	300 mm	
Workpiece carrier		
Swivel carrier / counterbearing with crown gear: swivel time 0 / 180°	approx. 3,5 s	
A- and U-axis, prepared for mounting a fixture plate, up to max.	ø 675 mm x 1 430 mm	
Drive system	Torque motor	
Load capacity	2 x 700 kg	
Speed range A-, U-axis	1 - 50 rpm	
C- / W-axis*	4 satellites	
Working spindle		
	HSK-A63	HSK-A80
Speed range	1 - 10 000 rpm (1 - 17 500 rpm)	1 - 10 000 rpm
Run up time 0 - n _{max}	0,3 s (0,7 s)*	0,8 s
Spindle bearings ø	80 mm	90 mm
Power (duty cycle)	4 x 35 kW (40%)	4 x 42 kW (10%)
Torque (duty cycle)	4 x 80 Nm (40%)	4 x 200 Nm (10%)
Feed drive		
Drive system	Ball screw	
Rapid traverse X / Y / Z	60 / 60 / 70 m/min	
Axis acceleration X / Y / Z	7 / 7 / 12 m/s ²	
Max. feed thrust X / Y / Z	15 000 / 15 000 / 2 x 10 000 N	
Accuracy		
Position measuring system	Direct, absolute	
Positioning tolerance X / Y / Z	Tp = 0,008 mm	
Tool magazine		
Toolchange system	Pick-Up	
Capacity	4 x 14 (4x 24 / 4x 36)*	
Max. tool ø	85 / 160 (-o-)	85 / 240 (-o-)
Max. tool length	425 mm	
Max. tool weight	10 kg	12 / 18 kg
Toolchange		
Chip-to-chip time	approx. 3,50 s	ca. 3,60 s
Weight / Dimensions		
Total weight	approx. 18 000 kg	
Transport dimensions W x H x L	3,75 m x 3,30 m x 5,25 m	
Machine installed W x H x L	4,95 m x 3,60 m x 7,50 m	
Connected load		
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz	
Total connected load	133 kVA	
Mean air consumption	1,0 Nm ³ /min (6 bar)	
CNC control system		
Siemens	SINUMERIK 840 D sl	
Fanuc	31i	



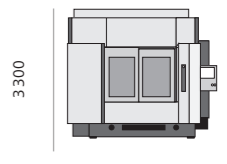
DOUBLE SWIVEL CARRIER
4 ROTARY TABLES



WORKSPACE PER SPINDLE



5250



3750

*optional, **on request, -o- occupancy of multiple magazine positions. Details depending on equipment. Technical data according to project planning. Deviation +/- 15% reserved. Subject to change without notice.