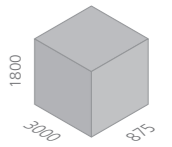




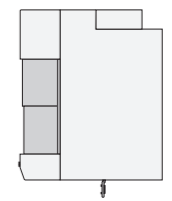
Working range	Rigid spindle	2-axis swivel head
X-axis	3 000 mm	3 000 mm
Y-axis	1 800 mm	1 800 mm
Z-axis	875 mm	875 mm
Spindle distance -		
Center of rotation of swivel carrier	425 mm - 1 300 mm	165 mm - 1 040 mm
Tool change position X / Y / Z	0 mm / 0 mm / -310 mm	0 mm / 0 mm / -50 mm
<b>Workpiece carrier</b>		
Swivel carrier with 2 opposing clamping surfaces	3 000 mm x 1 640 mm	3 000 mm x 1 640 mm
Swivel range (division of face gear)	0 - 358° (2°)	
Swivel range for loading in parallel to productive time	0° / 180°	-16° - 0° / 164° - 180°
Swivel time 0 / 180°	4.0 s	4.0 s
Max. load capacity	2 x 1 000 kg	2 x 1 000 kg
<b>Work spindle HSK-A63</b>		
Speed range / Run up time 0 - n <sub>max</sub>	1 - 17 500 rpm / < 0,65 s	1 - 20 000 rpm / < 0,9 s
Spindle bearings ø	80 mm	70 mm
Power / Torque (40 % ED)	35 kW / 80 Nm	34 kW / 40 Nm
<b>Swivel axis A / C</b>		
Variant / Drive system		Swivel head / torque motor
Speed range A / C		1 - 100 rpm
Max. drive torque A / C		580 Nm / 680 Nm
Holding torque axis clamped A / C		950 Nm
Swivel range A / C		± 105° / ± 135°
<b>Feed drive</b>		
Drive system	Linear motor	Linear motor
Rapid traverse X / Y / Z	120 m/min	120 m/min
Axis acceleration X / Y / Z	10 / 16 / 20 m/s <sup>2</sup>	8 / 14 / 15 m/s <sup>2</sup>
Max. feed thrust X / Y / Z	10 000 / 10 000 / 7 000 N	10 000 / 10 000 / 7 000 N
<b>Accuracy X / Y / Z (ISO 230-2:2014)</b>		
Position measuring system / Positioning tolerance	Direct, absolute / ≤ 0,010 mm	Direct, absolute / ≤ 0,010 mm
<b>Accuracy A / C (ISO 230-2:2014)</b>		
Position measuring system / Positioning tolerance		Direct, absolute / ≤ 20
<b>Tool magazine HSK-A63</b>		
Tool change system / Capacity	Pick-Up / 40 (80)*	Pick-Up / 40 (80)*
Max. tool ø	80 mm / 200 mm (-o-)	80 mm / 200 mm (-o-)
Max. tool length / weight	450 mm (500 mm)* / 10 kg	450 mm / 10 kg
<b>Tool change</b>		
Chip-to-chip time	approx. 4,1 s	approx. 4,2 s
<b>Weight / Dimensions</b>		
Transport dimensions W x H x L	5,80 m x 3,70 m x 4,10 m	5,80 m x 3,70 m x 4,10 m
Weight	approx. 27 000 kg	approx. 27 000 kg
Machine installed W x H x L	8,20 m x 4,80 m x 6,60 m	8,20 m x 4,80 m x 6,60 m
<b>Connected load</b>		
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz
Total connected load	approx. 105 kVA	approx. 105 kVA
Mean air consumption	0,5 Nm <sup>3</sup> /min (5,5 bar)	0,5 Nm <sup>3</sup> /min (5,5 bar)
<b>CNC control system</b>		
Siemens	SINUMERIK 840 D sl	SINUMERIK 840 D sl



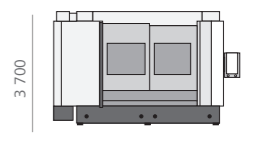
SWIVEL CARRIER



WORKSPACE PER SPINDLE



4 100



5 800

\*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.