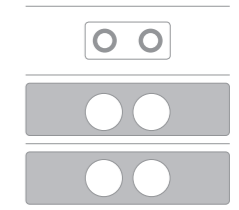
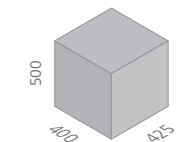




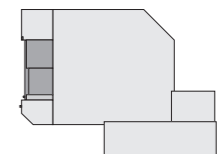
Working range	
X-axis	400 mm
Y-axis (toolchange position)	500 mm (775 mm)
Z-axis	425 mm
Spindle distance	400 mm
Workpiece carrier	
Swivel carrier / counterbearing with crown gear: swivel time 0 / 180°	approx. 3,5 s
A- and U-axis, prepared for mounting a fixture plate, up to max.	ø 550 mm x 1 030 mm
Drive system	Torque motor
Load capacity	2 x 450 kg
Speed range A-, U-axis	1 - 50 rpm
C- and W-axis*	2 / 4 satellites
Work spindle	
Speed range / Run up time n _{max}	1 - 17 500 rpm / <0,7 s
Spindle bearings ø	80 mm
Torque (40% duty cycle)	2 x 35 kW / 4 200 rpm
Torque (40% duty cycle)	2 x 80 Nm
Feed drive	
Drive system	Linear motor
Rapid traverse X / Y / Z	100 m/min
Axis acceleration X / Y / Z	13 / 12 / 23 m/s ²
Max. feed thrust X / Y / Z	10 000 / 20 000 / 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 36 (2 x 60 / 2 x 92 / 2 x 116)*
Max. tool ø	80 / 160 mm (-o-)
Max. tool length	300 mm
Max. tool weight	10 kg
Toolchange	
Chip-to-chip time	approx. 2,25 s
Weight / Dimensions	
Total weight	approx. 18 000 kg
Transport dimensions W x H x L	3,23 m x 3,05 m x 5,10 m
Machine installed W x H x L	4,35 m x 3,10 m 7,00 m
Connected load	
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz
Total connected load	approx. 133 kVA
Mean air consumption	1,0 Nm ³ /min (6 bar)
CNC control system	
Siemens	SINUMERIK 840 D sl



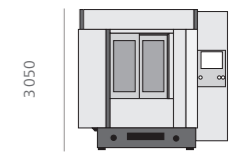
DOUBLE SWIVEL CARRIER
2 OR 4 ROTARY TABLES*



WORKSPACE PER SPINDLE



5 100

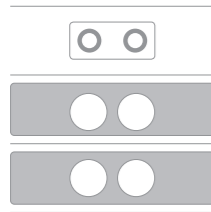


3 230

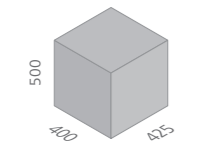
*optional, **on request, -o- occupancy of multiple magazine positions. Details depending on equipment. Technical data according to project planning. Deviation +/- 15% reserved. Subject to change without notice.

BA W04-22

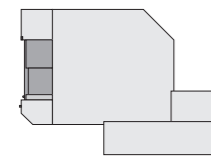
BA W04-42



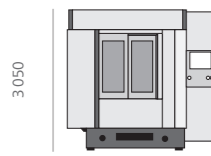
DOUBLE SWIVEL CARRIER
2 OR 4 ROTARY TABLES*



WORKSPACE PER SPINDLE



5 100

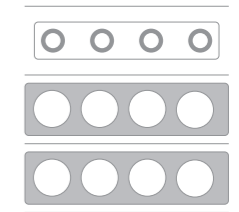


3 230

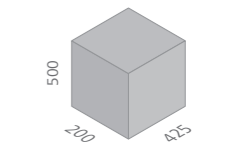
Working range	
X-axis	400 mm
Y-axis (toolchange position)	500 mm (775 mm)
Z-axis	425 mm
Spindle distance	400 mm
Workpiece carrier	
Swivel carrier / counterbearing with crown gear: swivel time 0 / 180°	approx. 3,5 s
A- and U-axis, prepared for mounting a fixture plate, up to max.	ø 550 mm x 1 030 mm
Drive system	Torque-Motor
Load capacity	2 x 450 kg
Speed range A-, U-axis	1 - 50 min ⁻¹
C- and W-axis*	2 / 4 satellites
Work spindle	
Speed range / Run up time n _{max}	1 - 17 500 min ⁻¹ / <0,7 s
Spindle bearings ø	80 mm
Torque (40% duty cycle)	2 x 35 kW / 4 200 min ⁻¹
Torque (40% duty cycle)	2 x 80 Nm
Feed drive	
Rapid traverse X / Y / Z	Linearmotor
Axis acceleration X / Y / Z	100 m/min
Max. feed thrust X / Y / Z	13 / 12 / 23 m/s ²
Max. Vorschubkraft X / Y / Z	10 000 / 20 000 / 2 x 5 000 N
Accuracy	
Position measuring system	Direkt, absolut
Positioning tolerance X / Y / Z	Tp = 0,008 mm
Tool magazine	
Toolchange system	Pick-Up
Capacity	2 x 36 (2 x 60 / 2 x 92 / 2 x 116)*
Max. tool ø	80 / 160 mm (-o-)
Max. tool length	300 mm
Max. tool weight	10 kg
Toolchange	
Chip-to-chip time	ca. 2,25 s
Weight / Dimensions	
Total weight	ca. 18 000 kg
Transport dimensions W x H x L	3,23 m x 3,05 m x 5,10 m
Machine installed W x H x L	4,35 m x 3,10 m 7,00 m
Connected load	
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz
Total connected load	approx. 133 kVA
Mean air consumption	1,0 Nm ³ /min (6 bar)
CNC control system	
Siemens	SINUMERIK 840 D sl

*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.

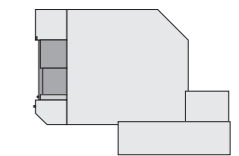
Working range	
X-axis	300 mm
Y-axis (toolchange position)	500 mm (775 mm)
Z-axis	425 mm (Z ₁ , Z ₂)
Spindle distance	200 mm
Workpiece carrier	
Swivel carrier / counterbearing with crown gear: swivel time 0 / 180°	approx. 3,5 s
A- and U-axis, prepared for mounting a fixture plate, up to max.	ø 550 mm x 1 030 mm
Drive system	Torque motor
Load capacity	2 x 450 kg
Speed range A-, U-axis	1 - 50 rpm
C- and W-axis*	2 / 4 satellites
Work spindle	
Speed range / Run up time n _{max}	1 - 17 500 rpm / 1,1 s
Spindle bearings ø	80 mm
Torque (40% duty cycle)	2 x 35 kW / 4 200 rpm
Torque (40% duty cycle)	2 x 72 Nm
Feed drive	
Drive system	Linear motor
Rapid traverse X / Y / Z	70 / 100 / 100 m/min
Axis acceleration X / Y / Z	10 / 10 / 22 m/s ²
Max. feed thrust X / Y / Z	10 000 / 15 000 / 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	4 x 18 (4 x 30 / 4 x 46 / 4 x 58)*
Max. tool ø	80 / 150 mm (-o-)
Max. tool length	300 mm
Max. tool weight	10 kg
Toolchange	
Chip-to-chip time	approx. 2,4 s
Weight / Dimensions	
Total weight	approx. 18 000 kg
Transport dimensions W x H x L	3,23 m x 3,05 m x 5,10 m
Machine installed W x H x L	4,35 m x 3,10 m 7,00 m
Connected load	
Operating voltage	3 x 400 Volt, 50 Hz, TN-S/TN-C Netz
Total connected load	approx. 156 kVA
Mean air consumption	1,0 Nm ³ /min (7 bar)
CNC control system	
Siemens	SINUMERIK 840 D sl



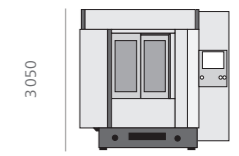
DOUBLE SWIVEL CARRIER



WORKSPACE PER SPINDLE



5 100



3 230

*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.