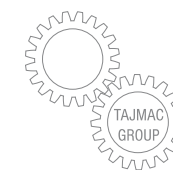




- Multifunctional 3- to 6-axis solution
- 1- or 2-axis CNC head
- Milling and turning technology
- Fixed or rotary table
- Highly productive over head gantry type machining centre
- High dynamics and temperature stability
- Fully symmetrical machine framework
- Box in box cross rail design
- High machining accuracy
- Direct scales measuring in all axes
- Easy loading of large workpieces
- Utilisation of HSC technology
- Fully enclosed work zone
- Minimal floor space requirement
- Ecologically friendly product

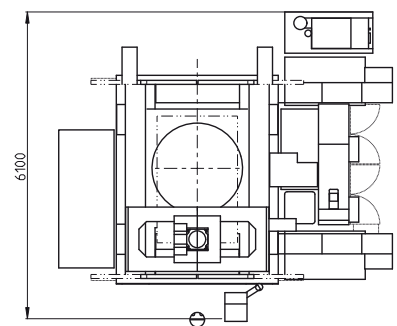
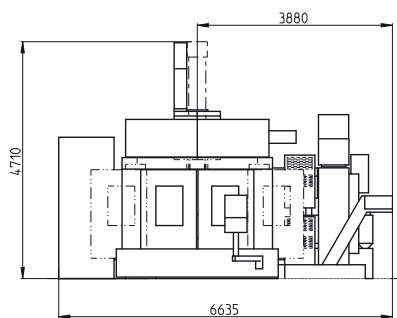


## STANDARD EQUIPMENT

- HSK-A100 spindle unit
- Two rake swarf conveyors
- Air supply through spindle centre
- Fully enclosed work zone
- Automatic tool magazine
- Vibration diagnostics

## OPTIONAL EQUIPMENT\*

- Double-axis CNC head
- Spindle axis cooling with 5.5 MPa
- Spindle axis cooling with 7 MPa
- Workpiece probe
- Tool probe
- Fixed table 2 520 × 1 600 mm with an integrated rotary table Ø 1 500 mm
- Tilttable rotary table with
- Extraction of oil mist from working area
- External oil mist cooling
- Spindle axis oil mist cooling
- Manual rinsing nozzle
- Extended capacity tool magazine
- Remote diagnostics



Operating travel	3 axis Spindle Unit Fixed Table	5 axis* 1 Axis head Integrated Rotary Table	5 to 6 axis* 2 Axis head Fixed Table / Integrated Rot. Table
X axis – binder	mm 2 300	2 300	2 300
Y axis – cross slide	mm 1 500	1 400	1 400
Z axis – slide ram	mm 1 050	1 050	1 050
<b>Traverses</b>			
Operating traverse at axes X, Y, Z		50 m/min	
Fast traverse X, Y, Z		50 m/min	
Acceleration at axes X, Y, Z		5 m/s <sup>2</sup>	
<b>Clearances</b>			
Spindle face from table	mm +200 to +1 250	-330 to +720	-130 to +920
Work table from the floor		805 mm	
<b>Tool magazine</b>			
Number of positions in magazine		48	
Tool exchange time		3.5 s	
Max. tool diameter		160 mm	
Max. tool length		380/615 mm	
Max. tool weight		15 kg	
Max. weight of all tools in magazine		600 kg	
<b>Gauging accuracy (VDI/DGQ 3441)</b>			
Gauging system		direct	
Positioning accuracy at axes X, Y, Z		0.008 mm	
Repeated accuracy at axes X, Y, Z		0.006 mm	
Positioning accuracy at B axis		5.4 arc. sec	
Positioning accuracy at C axis		5 arc. sec	
<b>Fixed table</b>			
Table dimension	2 520 × 1 600 mm		
Maximum table load	15 000 kg		
Number of T-shaped notches × width	12 × 18 mm		
Dimension of the second T-shaped notch from the right	18 H7 mm		
Spacing of T-shaped notches	125 mm		
<b>Rotary table – milling</b>			
Work surface	Ø 1 800 mm		
Max. table load	10 000 kg		
Max. rotation speed	50 rpm		
Max./permanent torque	8 840/6 640 Nm		
<b>Rotary table – turning</b>			
Work surface	Ø 1 800 mm		
Max. table load	5 000 kg		
Max. rotation speed	250 rpm		
Max./permanent torque	8 840/6 640 Nm		
<b>Pneumatic unit</b>			
Inlet air pressure	0.6 – 0.8 MPa		
Operating pressure	0.55 MPa		

## Power supply

Supply voltage	3 × 400 V/50-60 Hz
Operating input power	90 kVA
Current under full machine load	170 A

## Machine transport dimensions

Length	4 700 mm
Width	3 250 mm
Height with dismantled Z-axis bracket	3 700 mm

## Weight data

Machine without tool magazines and electric cabinet	29 000 – 36 000 kg
Electric cabinet	800 kg
Swarf link conveyor	(2 × 250) 500 kg
Spindle unit cooling apparatus without fluid	95 kg
Brackets with operating units (cooling, lubrication,...)	120 kg
Independent rack magazine for 40 tools	850 kg
Control panel including arm	85 kg

## Additional data

Machine floor space	6 635 × 6 100 mm
Max. machine operating height	5 100 mm
Control system	SINUMERIK, HEINDEHAIN

## CNC HEAD PARAMETERS

	HSK-A63	HSK-A100*
Spindle		
Performance S1	21 kW	27 kW
Performance during overload S6 – 40 %	27 kW	31 kW
Torque S1	100 Nm	130 Nm
Toque during overload S6 – 40 %	130 Nm	150 Nm
Max. spindle speed	18 000 rpm	10 000 rpm
Nominal speed	2 000 rpm	2 000 rpm
Gear type	electrospindle	electrospindle
Spindle reinforcement for turning	–	900 Nm

## B axis

B axis range	+ 110 / -110 °
B axis tilt rate	60 rpm
Maximum torque	800 Nm
Moment when reinforced	4 000 Nm
Reinforcement - reinforcing pressure	5 MPa

Description, illustrations and numerical data may not always correspond with the machine latest version.