



MCU 700 next generation

Multifunctional five-axis machining centre

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Main features of the machine

• Rotary and tilting table for milling operations

- Increased rigidity and dynamics of the table
- Increased max. speed of A-axis from 25 to 80 min⁻¹
- Strengthened torque of drives of axes A and C by 50%
- Increased max. workpiece weight from 850 kg to 1,300 kg
- Table rotation within ±120° (in the rear position with a smaller workpiece)

Switchboard

- Integrated into the rear part of the machine, (decrease of the built width of the machine by 0.9 m)
- Decreased power needs of the machine from 80 kW to 55 kW (lower demands for protection and the section of the main electric supply cable)
- Quicker opening of the tool magazine screen, shorter time of tool replacement by 0.4 s.
- Newly designed cooling of the spindle, rotary and tilting table, and switchboard
- Control system Heidenhain TNC640 / Siemens Sinumerik 840D with a 19" touch screen
- New machine design, bigger windows into the working space



Technical specifications

X-axis travel		mm	700
Y-axis travel		mm	820
Z-axis travel		mm	550
Table clamping area		mm	Ø630
Maximum table load		kg	1,300
Rotary C-axis		0	360
Tilting A-axis		0	±120
Division accuracy		0	0.001
Maximum table aread	A-axis:	rom	80
Maximum table speed	C-axis:	rpm	100
Setting precision of coordinates X, Y, Z		mm	0.01
Repeated travel precision		mm	0.005
Travel range in axes X, Y, Z		mm.min ⁻¹	60,000
Rapid traverse X, Y, Z axes		mm/min	60,000
Range of the continuously variable speed of the spindle		rpm	20 – 10,000
Spindle taper			ISO 50
Spindle drive output (40%ED)		kW	20 / 26
Maximum torque S1 / S6		Nm	262 / 340
Maximum number of tools in the magazine			24
Maximum tool diameter in the magazine		mm	130
Maximum tool length in the magazine		mm	265
Max. tool weight with automatic exchange		kg	10
Machine plan dimensions		mm	4,200 × 2,500
Machine height		mm	3,600
Machine weight		kg	18,450
Total machine input		kVA	55
Working pressure of the pneumatic equipment		MPa	0.6
T-grooves (number × width × spacing)		mm	10 × 14 × 36°

Standard accessories

Electrical equipment 3 × 400V/50Hz		
CNC system Sinumerik 840 DSL		
Digital alternating regulating drives of the spindle and axes X, Y, Z, A, C - SIEMENS		
Direct measurement of the position of linear and circular axes		
Hydraulic unit – table axis strengthening		
Cooling unit for external cooling		
Temperature compensation		
Central clamping of tools		
Automatic lubrication of movable parts		
Manual wheel		
Manual workspace rinsing		
Accompanying documentation of subdeliveries		
Switchboard air-conditioning		
ETHERNET card		
Tool kit for operation		
Czech accompanying documentation on a CD		
Circulating cooling of the spindle		
Chip conveyor		
Tool magazine 24 (48*) positions		
Czech dialogue		
* Optional		



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