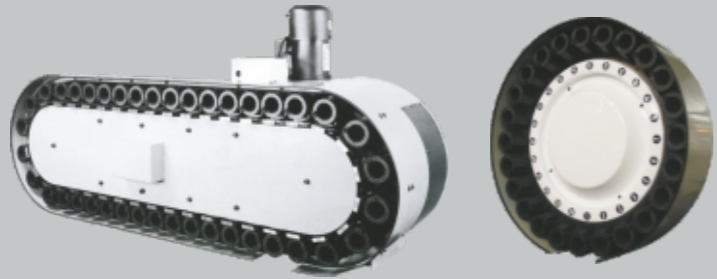
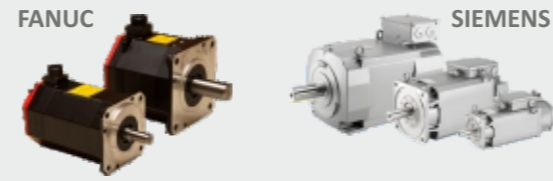


**SELECTABLE TOOL MAGAZINE**

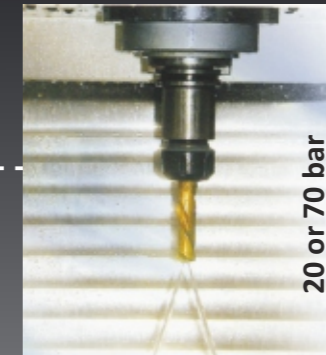


Machine	M400/M450	M500/M550	M650/M700	M800/1000/2000	GM350	VMC350
<b>Magazine</b>						
24 Arm - BT40	X	X	X	X		X
24 Arm - BT50			X	X		
32 Arm - BT40	X	X	X	X		X
32 Arm - BT50			X	X		
40 Chain - BT40		X	X	X		X
40 Chain - BT50			X	X		
60 Chain - BT40		X	X	X		X
60 Chain - BT50			X	X		
30 Pick up - BT40					X	

**SPINDLE MOTORS**



**COOLANT THROUGH SPINDLE**



**CNC ROTARY TABLES**

**4-th axis**

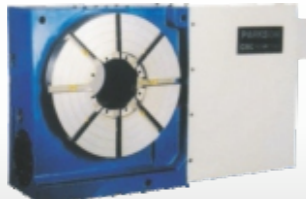


Table diameter:  
125; 170; 200; 250; 320 mm

**4-th & 5-th axes**

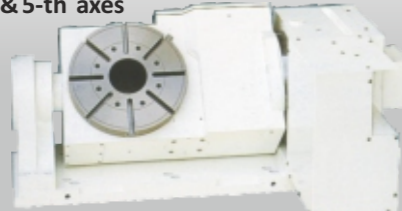


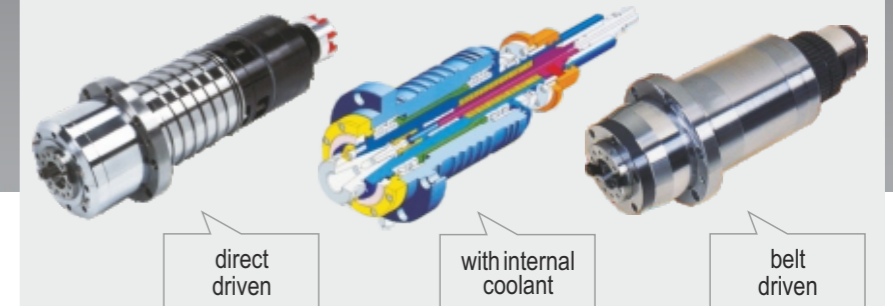
Table diameter:  
170; 200; 250; 320 mm

**AUTOMATIC PALLETTE CHANGER**

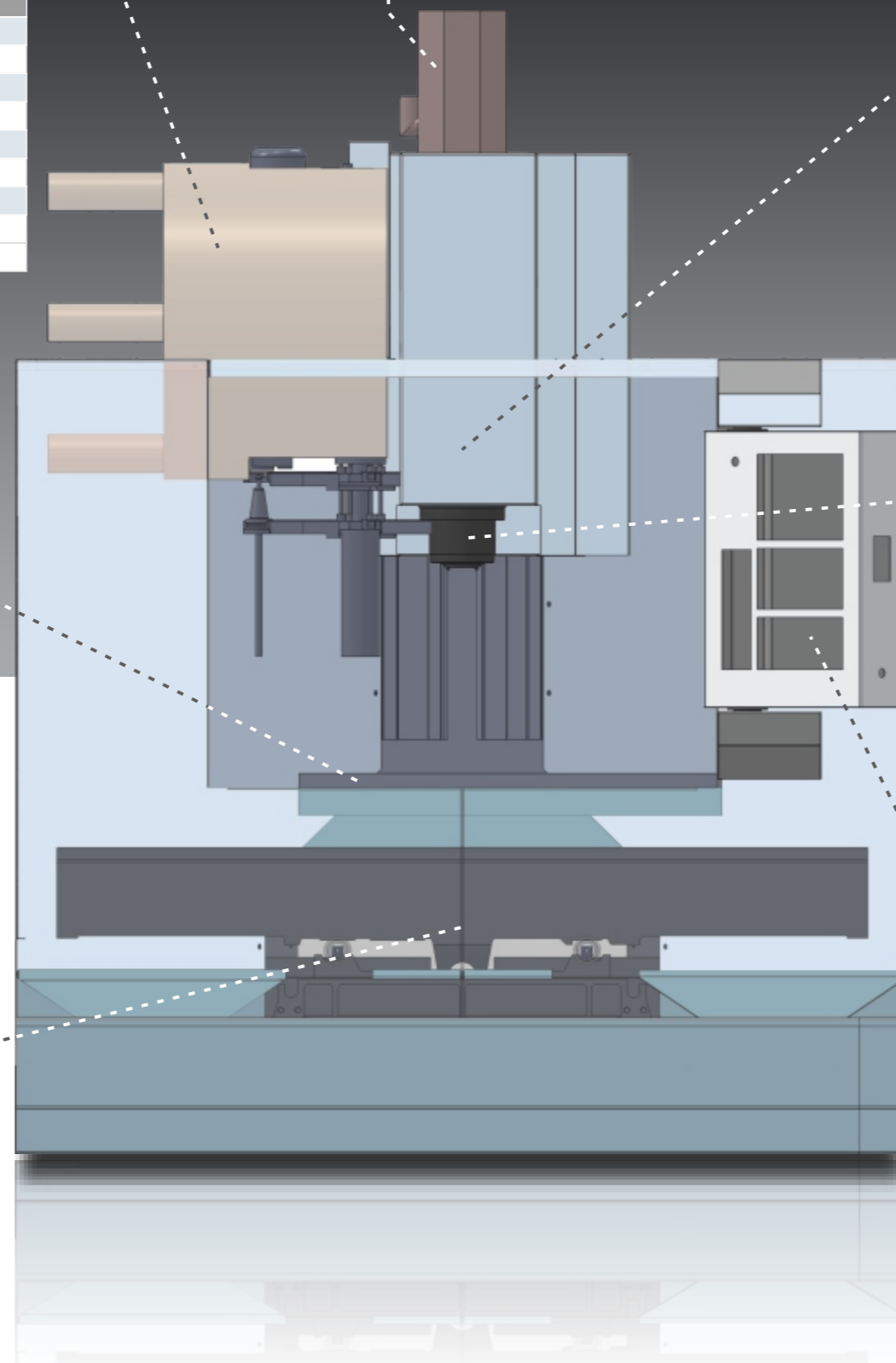


**SELECTABLE SPINDLE**

Toolholder ISO / SK / BT. Precise bearings. Minimum taper play. Increased tightening force.



**SELECTABLE CNC CONTROL**



RAIS SYSTEM  
**M400**

The vertical machining centers M400 and M450 RAIS are designed to perform various machining operations on small-size workpieces and shapes in high cutting speed conditions, with high precision positioning and excellent reliability.

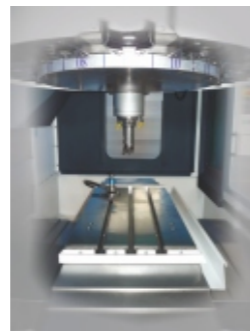


Optimum construction; minimum heat deformation; absence of vibrations in working process; high geometry accuracy.

Directly driven spindle assembly and high precision bearings: minimum run out of the spindle taper; improved smoothness of operation under high-speed machining conditions; increased tool durability.

Telescopic guards along the three axes: long life of the ball screws and the linear guide ways.

RAIS SYSTEM  
**M450**



All ball screws - high precision, class P3, Ø32 mm OD, with a double nut, pre-loaded to control backlash. High precision of positioning and smooth operation.

Automated air blow during tool change ensures cleaning of the spindle taper and holder.

Directly coupled to the ball screws AC servo motors along all axes: guaranteed excellent interpolation accuracy.

Fully enclosed splash guard. Swivel panel of the CNC control. Maximum convenience for adjusting and operation purposes.

High-quality housing castings of gray cast iron. Optimum ribbed base, column and spindle casing; guaranteed maximum rigidity and minimum bending under applied load conditions.

Linear guideways along the three axes - size 25, zero clearance. Stable cutting under full load conditions. Minimum friction when in motion. High precision and high speed with no need for adjustment during operational life.



TECHNICAL PARAMETERS	UNIT	M400	M450
<b>CAPACITY</b>			
X axis travel	mm	500	600
Y axis travel	mm	400	450
Z axis travel	mm	460	500
Spindle nose to table	mm	150 - 650	150 - 650
Table size	mm	760 x 400	760 x 450
T - slots: number / size / pitch	mm	3 / 18 / 93	3 / 18 / 93
Max workpiece weight	kg	350	350
Guideways		Linear	Linear
Floor to table	mm	930	930
<b>SPINDLE</b>			
Spindle speed range	rpm	8000 / 12 000* / 15 000**	8000 / 12 000* / 15 000**
Main motor power (100% ED / 30 min.)	kW	7.5 / 11	7.5 / 11
Main motor torque (100% ED / 30 min.)	Nm	35.8 / 70	35.8 / 70
Spindle taper		SK40 / ISO40 / BT40	SK40 / ISO40 / BT40
<b>ATC</b>			
Tool capacity		24 / 32***	24 / 32***
Max tool diameter	mm	90	90
Max tool diameter (adjacent pockets empty)	mm	110	110
Max tool length	mm	250	250
Max tool weight	kg	6	6
<b>FEED</b>			
Rapid traverse X / Y / Z	m/min	30 / 30 / 30	30 / 30 / 30
Max cutting feedrate	m/min	10	10
Z axis motor power (100% ED)	kW	2.5	2.5
Z axis motor torque (100% ED)	Nm	20	20
X / Y axes motor power (100% ED)	kW	1.4	1.4
X / Y axes motor torque (100% ED)	Nm	11	11
<b>SIZE</b>			
Machine weight	kg	3100	3200
Machine dimensions (approx.): L x B x H	mm	2000 x 2000 x 2300	2000 x 2000 x 2300
<b>CNC CONTROL</b>			
		Fanuc Oi (Fanuc 32i / Siemens 828D / Siemens 840D / Heidenhain iTNC620)****	
<b>ACCURACY OF THE MACHINE</b>		DIN8605-8607	DIN8605-8607

(\*) with direct drive  
 (\*\*) with motor spindle  
 (\*\*\*) option  
 (\*\*\*\*) on customer request

**OPTIONAL ACCESSORIES**

- 4-th axis, table diameter 125 / 170 mm
- 4-th & 5-th axes, table diameter 125 mm
- Tool magazine 32 tools with arm
- Direct drive spindle 15000 rpm
- Chip conveyor
- Coolant trough spindle with pump 20 Bar
- Tool setter
- Touch probe with infra-red connection