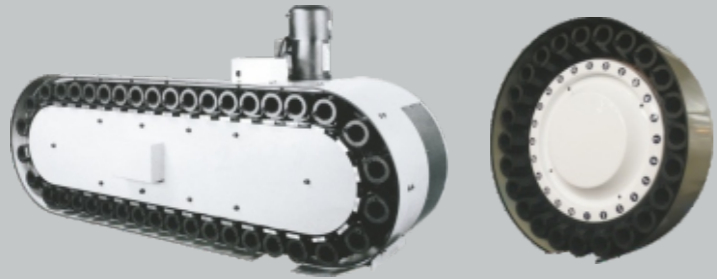
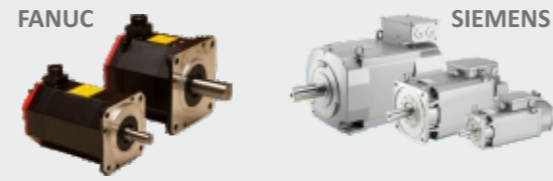


SELECTABLE TOOL MAGAZINE

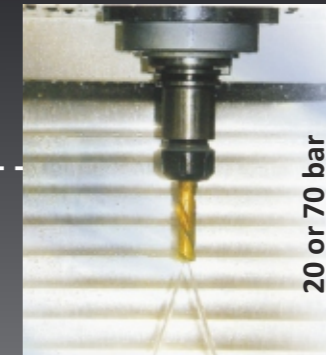


Machine	M400/M450	M500/M550	M650/M700	M800/1000/2000	GM350	VMC350
Magazine						
24 Arm - BT40	X	X	X	X		X
24 Arm - BT50			X	X		
32 Arm - BT40	X	X	X	X		X
32 Arm - BT50			X	X		
40 Chain - BT40		X	X	X		X
40 Chain - BT50			X	X		
60 Chain - BT40		X	X	X		X
60 Chain - BT50			X	X		
30 Pick up - BT40					X	

SPINDLE MOTORS



COOLANT THROUGH SPINDLE



CNC ROTARY TABLES

4-th axis

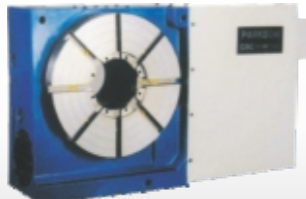


Table diameter:
125; 170; 200; 250; 320 mm

4-th & 5-th axes

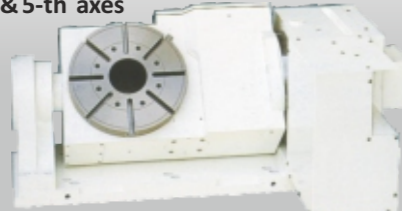


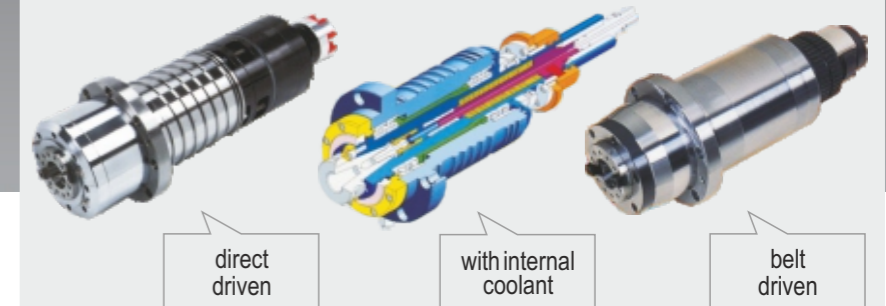
Table diameter:
170; 200; 250; 320 mm

AUTOMATIC PALLETTE CHANGER

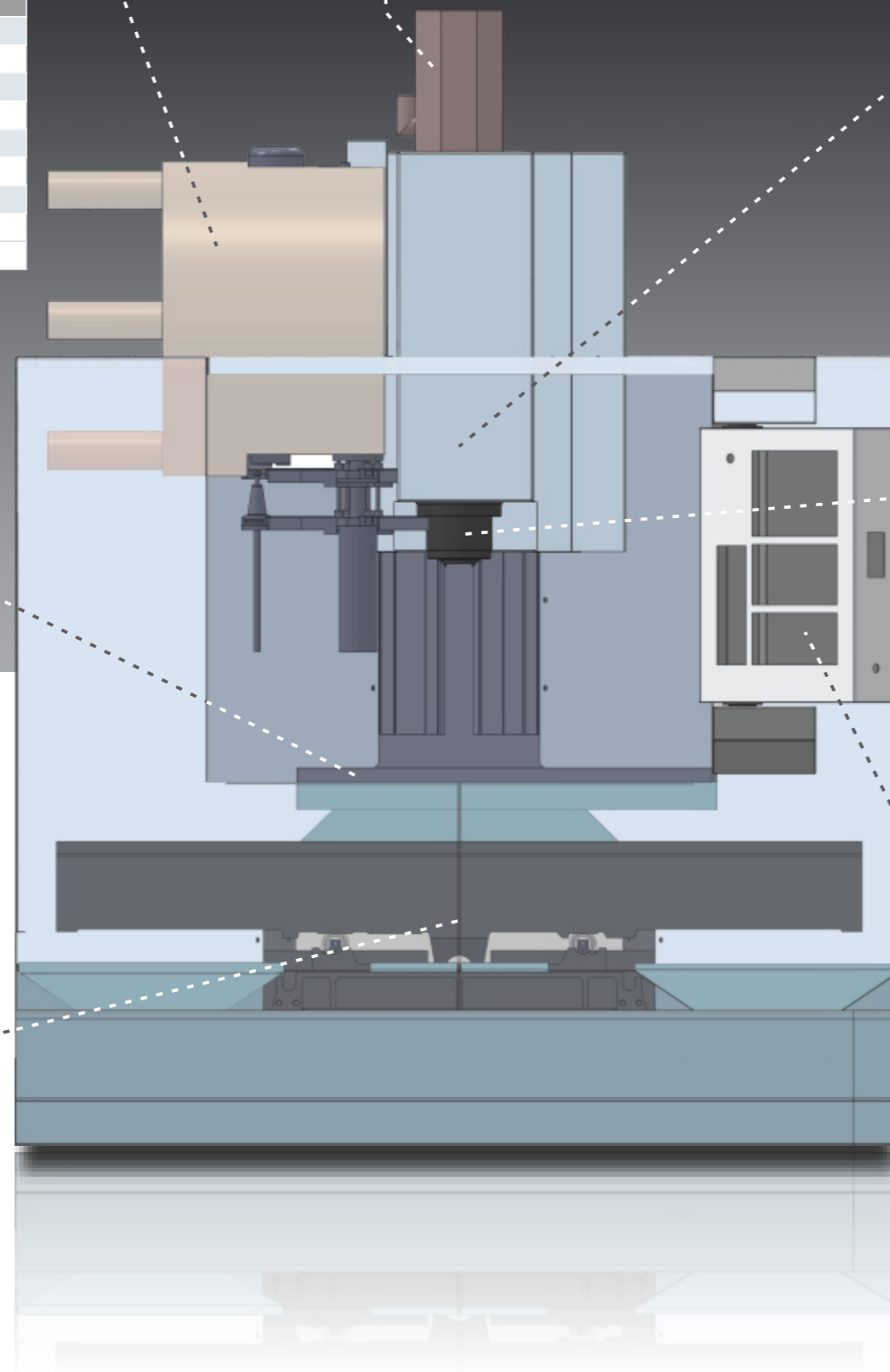


SELECTABLE SPINDLE

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



SELECTABLE CNC CONTROL



RAIS SYSTEM
M650



The vertical machining centers M650 and M700 RAIS are designed to perform various machining operations on medium and large-size work pieces in high cutting speed and feed conditions.

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



RAIS SYSTEM
M700



Reinforced spindle assembly with precise grinded parts. Increased size of bearings. High processing speeds under heavy operating conditions.

Telescopic guards along the three axes: long life of the ball screws and the linear guide ways; fast and efficient flushing of chips by means of coolant liquid.

24 ATC fast tool change magazine - 2.8 sec. Automated air blow during tool change.

Fully enclosed machine guarding design provides a save, dry, clean working environment. Swivel panel of the CNC control. Highest convenience for easy setup and manipulating.

Wide and hardened precise grinded flat slide ways on all axes. Stable work by heavy cutting conditions. Super high grade "Turcite-B" fitted to X, Y, Z slide ways gives 40 % greater stability.

All ball screws - high precision, class P3, Ø40 mm OD, with a double nut, pre-loaded to control backlash. High precision of positioning and smooth operation.

Directly coupled to the ball screws AC servo motors along all axes. Excellent interpolation accuracy.

Guaranteed precision and stability in the long transverse stroke of the four flat guideways surfaces on Y-axis.



TECHNICAL PARAMETERS	UNIT	M650	M700
CAPACITY			
X axis travel	mm	1100	1300
Y axis travel	mm	700	700
Z axis travel	mm	610	710
Spindle nose to table	mm	130 - 740	130 - 840
Table size	mm	1300 x 650	1500 x 650
T - slots: number / size / pitch	mm	5 / 18 / 100	5 / 18 / 100
Max workpiece weight	kg	1000	1000
Guideways		Flat	Flat
Floor to table	mm	820	820
SPINDLE			
Spindle speed range	rpm	8000 / 6000*	8000 / 6000*
Main motor power (100% ED / 30 min.)	kW	11 / 15	11 / 15
Main motor torque (100% ED / 30 min.)	Nm	52.5 / 95.5	52.5 / 95.5
Spindle taper		SK40 / ISO40 / BT40 (50)*	SK40 / ISO40 / BT40 (50)*
ATC			
Tool capacity		24 (32 / 40 / 60)**	24 (32 / 40 / 60)**
Max tool diameter	mm	100 / 125*	100 / 125*
Max tool diameter (adjacent pockets empty)	mm	150 / 200*	150 / 200*
Max tool length	mm	300	300
Max tool weight	kg	7 / 15*	7 / 15*
FEED			
Rapid traverse X / Y / Z	m/min	20 / 20 / 15	20 / 20 / 15
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	2.5	2.5
X / Y axes motor torque (100% ED)	Nm	20	20
SIZE			
Machine weight	kg	9000	9000
Machine dimensions (approx.): L x B x H	mm	3200 x 2800 x 3080	3200 x 2800 x 3080
CNC CONTROL			
Fanuc 0i (Fanuc 32i / Siemens 828D / Siemens 840D / Heidenhain iTNC620)***			
ACCURACY OF THE MACHINE		DIN8605-8607	DIN8605-8607

(*) option with BT / ISO 50
 (***) option
 (***) on customer request

OPTIONAL ACCESSORIES

- 4-th & 5-th axes, table diameter 320 mm
- Coolant trough spindle with pump 20 Bar
- Tool setter
- Tool magazine 32, 40 or 60 tools with arm
- Touch probe with infra-red connection
- Direct drive spindle 10 000 rpm
- ZF gear box
- Chip conveyor