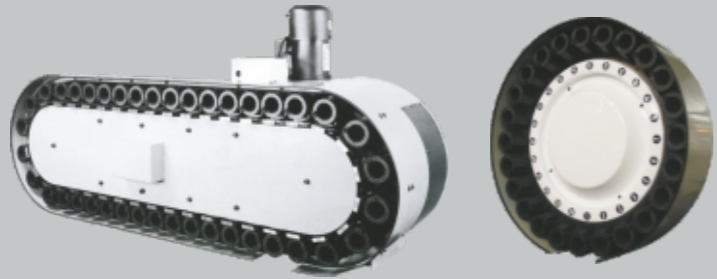


SELECTABLE TOOL MAGAZINE



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

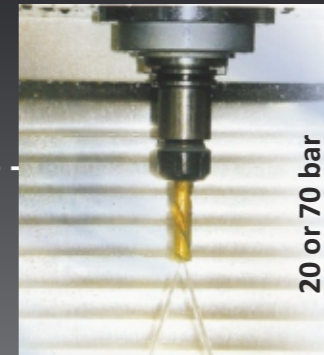
FANUC



SIEMENS



COOLANT THROUGH SPINDLE



20 or 70 bar

CNC ROTARY TABLES

4-th axis



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

4-th & 5-th axes

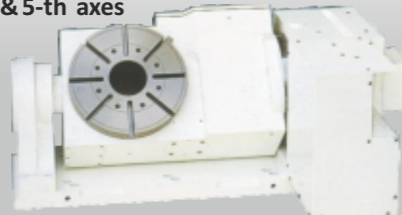


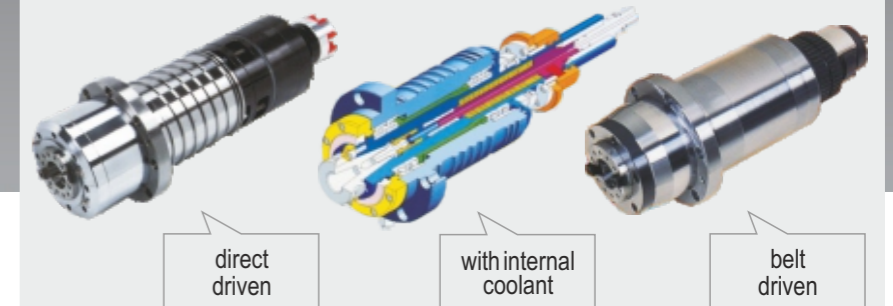
Table diameter:
170; 200; 250; 320 mm

AUTOMATIC PALLETTE CHANGER



SELECTABLE SPINDLE

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



direct driven

with internal coolant

belt driven

SELECTABLE CNC CONTROL



SIEMENS

FANUC

HEIDENHAIN

RAIS SYSTEM
M800
M1000
M2000

The vertical machining centers M800, M1000 and M2000 RAIS are designed to perform various machining operations on large-size work pieces in high cutting speed and feed conditions.



Optimum machine design: minimum temperature deformation; absence of vibrations in working process; high and stable geometry accuracy.

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

All ball screws - high precision, class P3, Ø50 mm OD, with a double nut, pre-loaded to control backlash. Screw pre-tensioned to compensate for temperature variations.



Two-step gear box. All gear wheels are hardened and precisely ground to size. Low noise and excellent smoothness during the process. High torque.

Reinforced spindle assembly. 4 - 6 slide way configuration on Y axis.

Fully enclosed electrical cabinet with heat exchanger, accordance to CE requirements.



Wide and hardened precise grinded prismatic slide ways on the three axes. Guaranteed stable work by heavy cutting conditions. Super high grade "Turcite-B" fitted to X, Y, Z slide ways.

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



TECHNICAL PARAMETERS	UNIT	M800	M1000	M2000
CAPACITY				
X axis travel	mm	1600	2000	2200
Y axis travel	mm	800	900	1000
Z axis travel	mm	800	800	800
Spindle nose to table	mm	200 - 1000	250 - 1050	250 - 1050
Table size	mm	1800 x 840	2200 x 850	2400 x 1000
T - slots: number / size / pitch	mm	5 / 22 / 100	5 / 22 / 100	5 / 22 / 100
Max workpiece weight	kg	2200	2500	3000
Guideways		Flat	Flat	Flat
Floor to table	mm	900	900	910
SPINDLE				
Spindle speed range	rpm	6000	6000	6000
Main motor power (100% ED / 30 min.)	kW	15 / 18.5	15 / 18.5	15 / 18.5
Main motor torque (100% ED / 30 min.)	Nm	71.6 / 117.8	71.6 / 117.8	71.6 / 117.8
Spindle taper		SK / ISO / BT50	SK / ISO / BT50	SK / ISO / BT50
ATC				
Tool capacity		24 (32 / 40 / 60)*	24 (32 / 40 / 60)*	24 (32 / 40 / 60)*
Max tool diameter	mm	125	125	125
Max tool diameter (adjacent pockets empty)	mm	200	200	200
Max tool length	mm	300	300	300
Max tool weight	kg	15	15	15
FEED				
Rapid traverse X / Y / Z	m/min	20 / 20 / 15	20 / 20 / 15	20 / 20 / 15
Max cutting feedrate	m/min	10	10	10
Z axis motor power (100% ED)	kW	3	3	3
Z axis motor torque (100% ED)	Nm	27	27	27
X / Y axes motor power (100% ED)	kW	3	3	3
X / Y axes motor torque (100% ED)	Nm	27	27	27
SIZE				
Machine weight	kg	14 000	16 000	24 000
Machine dimensions (approx.): L x B x H	mm	4400 x 3300 x 3300	5500 x 3435 x 3310	6130 x 4200 x 3660
CNC CONTROL				
		Fanuc 0i (Fanuc 32i / Siemens 828D / Siemens 840D / Heidenhain iTNC620)**		
ACCURACY OF THE MACHINE		DIN8605-8607	DIN8605-8607	DIN8605-8607

(*) option
 (**) on customer request

OPTIONAL ACCESSORIES

- 4-th & 5-th axes, table diameter 320, 350 mm
- Tool setter
- Touch probe with infra-red connection
- Direct drive spindle 6000 rpm
- Tool magazine 32, 40 or 60 tools with arm
- Coolant trough spindle with pump 20 or 70 Bar