VERTICAL MACHINING CENTRE

MCFV 2080

TAJMAC – ZPS

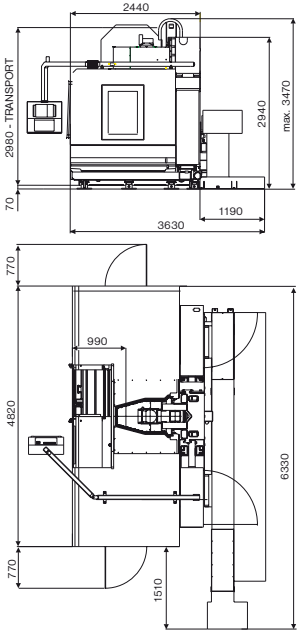
ECO friendly

- High performance
- High strength and rigidity
- High dynamic and thermal stability
- Long-lasting high accuracy
- High reliability
- Guards making manipulation with workpieces easy
- Model flexibility
- Ecologically friendly

MCFV 2080

SPECIFICATIONS

The **MCFV 2080** vertical machining centre is a highly productive machine for the complex chip machining. The work table, whose upper surface serves for the workpiece clamping, moves in the longitudinal direction (X-axis) along the guideways on the cross saddle. The cross saddle moves along the guideways on the base in the cross direction (Y-axis). The spindle head moves in the vertical direction (Z-axis) along the guideways on the column. All movements of the machine are realized by means of the linear guideways with rolling elements. Their dimensions and locations allow high load of the table, saddle and spindle head while the high accuracy of dimensions and quality of workpieces are kept even at the interrupted cut. This constructional solution also ensures the machine long service life. The measurements of positions in the X, Y and Z axes are performed directly by the incremental linear measuring units. The machine is equipped with the electronic compensation of thermal dilatations. The machine functions are controlled by the CNC control system which also enables the machining of the spatially complicated shapes when the tool follows the path resulting from the 3D CAD program output.



Travels	
X-axis (work table)	2 030 mm
Y-axis (cross saddle)	810 mm
Z-axis (spindle head)	810 mm
Distance of spindle nose to table	110 – 920 mm
Maximum working feed	30 m/min
Rapid traverse	30 m/min
Acceleration	3.5 m/sec^2
Table	
Working area	2 200 × 780 mm
Number of T-slots × width × span	5 × 18 mm × 160 mm
Maximum load	3 000 kg

Spindle							
Clamping taper	ISO 40 (HSK-A 80)	ISO 50	ISO 50	ISO 40	ISO 50	ISO 40	HSK–A 63
Maximum speed	10 000 rpm	8 000 rpm	3 500 rpm	12 000 rpm	8 000 rpm	15 000 rpm	18 000 rpm
Continuous output/overload S6 – 40 %	20/28 kW	17/25 kW	17/25 kW	17/25 kW	17/25 kW	25/31 kW	25/31 kW
Max. torque/overload S6 – 40 %	244/342 Nm	519/764 Nm	893/1313 Nm	96/141 Nm	143/210 Nm	159/197 Nm	159/197 Nm
Transmission type	planetary gearbox*			belt drive		electrospindle*	

Tool magazine	
Number of tool pots in magazine	24 pcs
Tool interchange time	4.5 sec
Tool maximum diameter:	
– fully occupied magazine	110 mm
– without adjacent tools	180 mm
Tool maximum length	300 mm
Tool maximum weight	15 kg
Total maximum weight	200 kg
Power supplies	
Nominal voltage of mains	3 × 400 V/50 Hz
Operational power input – acc. to the motor	35 kVA
Compressed air	0.6 – 0.8 MPa
Complementary data	
Floor layout of machine with chip conveyor	6 330 × 3 630 mm
Machine maximum working height	3 470 mm
Machine weight	14 300 kg
Control system	SIEMENS*, HEIDENHAIN, FANUC*

STANDARD EQUIPMENT

- SIEMENS digital drives
- Linear optoelectric measuring rulers
- Central lubrication system
- Tool magazine with tool change arm
- Tool holder automatic air blasting
- Coolant unit with tool cooling system
- Washing off of telescopic covers
- System of chip conveyors
- Electronic compensation

OPTIONAL EQUIPMENT*

- Spindle for BIG-PLUS tools
- SK 40 – tool magazine with capacity of 30 tools
- Casette-type tool magazine with capacity of 32, 42, 52 tools
- Clamping taper CAT 50, BT 50, CAT 40, BT 40, ISO 40
- Coolant unit with filtration unit for tool cooling through spindle axis
- High-speed spindle unit 50 000 rpm
- Tool cooling with coolant through spindle axis
- Tool cooling with air through spindle axis
- Tool cooling with oil mist
- Rotary table, 4th and 5th controlled axis
- Workpiece dimension checking probe
- Tool dimension checking probe
- Work zone washing-off
- Centrifugal separator of oil mist and emulsion aerosol from work zone
- Oil collector from coolant surface
- 2 tool magazines

Descriptions of illustrations and specifications may not always correspond with the machine latest version.

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