HORIZONTAL MACHINING CENTRE

H 1000

TAJMAC–ZPS

ECO friendly

- High efficiency
- High strength and rigidity
- High dynamic and thermal stability
- Long lasting high accuracy
- High reliability
- Model flexibility
- Ecologically friendly

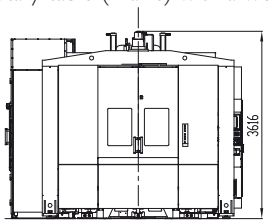
H 1000

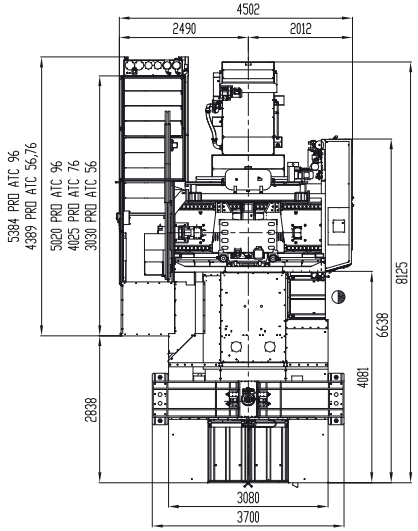
TECHNICAL DATA

The **H 1000** production horizontal machining centre is utilizable for the whole range of technologies from the power up to the high-speed machining.

- outstanding characteristic of damping and absorbtion of mechanical vibrations
- maximum rigidity and maximum value of natural frequencies of movable parts
- machine dynamical and thermal stability necessary for the modern progressive technology of machining
- machine modern design – linear guideways in all axes and ecological grease lubrication of guideways and ball screws

The machine conception includes the T-shape bed with slidable column (X-axis) along which moves the spindle head in the vertical direction (Y-axis). The movement in the Z-axis is carried out by the rotary table (B-axis) with a workpiece.





Machine with casette-type tool magazine

Travels	
X-axis (column)	1 400 mm
Y-axis (spindle head)	1 050 mm
Z-axis (table)	1 200 mm
Max. working feed	50 m/min
Rapid traverse	50 m/min
Acceleration	5 m/sec^2

Spindle				
Tool interface	ISO 50	ISO 50	HSK-A63	HSK-A100
Maximum speed	8 000 rpm	4 500 rpm*	18 000 rpm*	14 000 rpm*
Continuous output S1 / overloading S6 – 40 %	28/43 kW	17/25 kW	25/31 kW	25/37 kW
Torque S1 / overloading S6 – 40 %	342/526 Nm	893/1 313 Nm	159/197 Nm	159/236 Nm
Transmission type	planetary gearbox	planetary gearbox	electrospindle	electrospindle

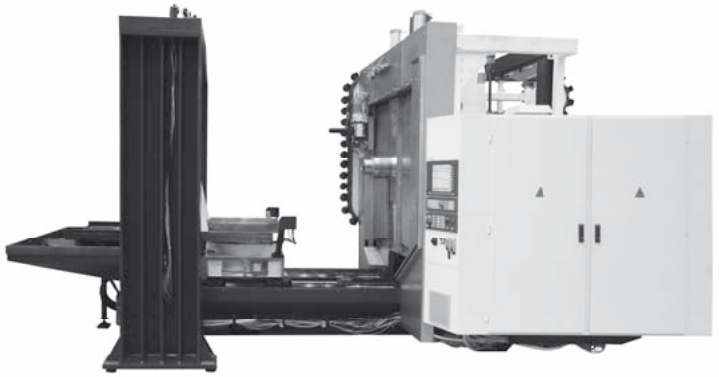
Rotary table with pallet	
Pallet dimensions	1 000 × 1 000 mm
Range of turning	360 °
Pallet max. load	2 500 kg
Workpiece max. size (diameter × height)	Ø 1 400 × 1 300 mm
Pallet change time	20 sec
Measuring accuracy (VDI/DGQ 3441)	**direct measuring**
Positioning accuracy (P)	0.008 mm
Repeatability (Ps max.)	0.005 mm
NC table positioning accuracy (P)	6 arc sec
Distances	
Spindle nose to rotary table axis	200 – 1 400 mm
Spindle axis to pallet clamping surface	70 – 1 120 mm
Working pallet to floor	1 250 mm
Tool magazine	
Number of tool pots in magazine	56
Tool interchange time	3.5 s
Tool maximum diameter:	
– fully occupied magazine	125 mm
– without adjacent tools	250 mm
Tool maximum lenght	650 mm
Tool maximum weight	30 kg
Power supplies	
Nominal voltage of mains	3 × 400 V/50 Hz, 3 × 480 V/60 Hz
Operational power input (depending on spindle and equipment)	35 / 48 / 53 / 66 kVA
Compressed air	0.6 – 0.8 MPa
Complementary data	
Machine floor layout	8 125 x 4 502 mm
Machine maximum height	3 616 mm
Machine weight	33 500 kg
Control system	SIEMENS, HEIDENHAIN*, FANUC*

STANDARD EQUIPMENT

- Direct measuring in X, Y, Z, B axes
- Electronic compensation of thermal dilatations
- Coolant unit for washing-off and tool cooling
- Tool outer cooling
- Air blasting of spindle hollow for tool clamping
- Worm-gear drive of rotary table (B-axis)
- Worm chip conveyors (2 pcs)
- Central rake-type chip conveyor
- Tool magazine – 56 tool pots
- Automatic pallet changer
- 2 pallets 1 000 × 1 000 mm
- Machine complete covering

OPTIONAL EQUIPMENT*

- Spindle for BIG-PLUS tools
- Chip container
- Work zone washing-off
- Coolant unit with filtration unit for tool cooling through spindle axis
- Tool cooling with oil mist
- Tool dimension checking probe
- Workpiece dimension checking probe
- Rotary table – 5th axis
- Tool magazine – 76, 96, 244 tools
- Supply of hydraulics into pallet
- Vapour exhaustion from work zone
- Hand-operated washing-off guns
- Collector of oil from coolant surface
- Climatization of electrical cabinet
- Tool management
- Rotary glass wiper
- Torque motor drive of B-axis rotary table
- Remote diagnostics
- Vibrodiagnostics



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

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