

MCM Tank 5AX_TH_1600 (YL) 5 Axis Horizontal Machining Centre with extended Y Axis stroke and Tilting Head

SPECIFICATION

MCM Tank 5AX_TH_1600 (YL)

Work Area

X-axis stroke	1600mm
Y-axis stroke	1500mm
Z-axis stroke	1850mm / 1960mm (depending on the type of pallet)
X/Y/Z axes thrust	2000daN
X/Y/Z rapid feed speed	50m/min
X/Y/Z axes acceleration	5m/s ²

Pallet

Pallet dimensions	800 x 1000mm, 1000 x 1000mm, 1250 x 1250mm, dia 1000mm, dia 1250mm
Max. fixture height	1400mm
Max. fixture rotation diameter	1200mm
Max. fixture dimensions	2000 x 1500mm (TBD according to automation solution)

Rotary Table

Maximum rotation speed	20rpm (worm screw transmission) 40rpm (torque motor transmission - Option)
Maximum load allowed on pallet	2000kg / 2500kg
Minimum resolution	0,0001 degrees

TILTING HEAD UNIT

Option 1 - Worm Screw Transmission

Rapid rotation speed	20rpm
A-Axis tilting angle (standard version)	175 degrees (+80 / -95)
Maximum torque (standard version)	8700Nm
Minimum resolution	0,0001 degrees

Option 2 - Torque Motor Transmission

Rapid rotation speed	40rpm
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A-Axis tilting angle (standard version)	175 degrees (+80 / -95)
Maximum torque (standard version)	3600Nm
Minimum resolution	0,0001 degrees

Option 3 - Torque Motor Transmission

Rapid rotation speed	35rpm
A-Axis tilting angle (standard version)	175 degrees (+80 / -95)
Maximum torque (standard version)	10,000Nm
Minimum resolution	0,0001 degrees

COMMON DATA FOR ALL AXIS CONFIGURATIONS

Accuracy (as per ISO 230-2 Standards)

Accuracy of positioning - linear axis (A)	5µm
Systematic positional deviation - linear axis (M)	3µm
Repeatability - linear axis (R)	4µm
Accuracy of positioning - circular axis (A)	4 arc sec
Systematic positional deviation - circular axis (M)	2 arc sec
Repeatability - circular axis (R)	3 arc sec

Spindle

Tool taper	HSK 100 / ISO 50 / HSK 63
Max. speed	From 6000rpm to 30000rpm
Max. power	Upto 115kW
Max. torque	Upto 1300Nm
Accessories included	Variable preloading bearings

Tool Magazine

Type	Modular rack with tool movement system and exchange arm
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Tool taper	HSK 100 / ISO 50 / CAPTO C6
Number of tools (standard version)	80 / 99
Number of tools (Option - upto)	399 - 599 - 999
Tool mass	35kg (HSK 63 15)
Maximum length	460 / 550/600mm (Depending on the configuration) (HSK 63 350)
Maximum diameter	325mm (HSK 63 200)
Tool changing time	2.5sec (HSK 100) / 3.0 (ISO 50)
Coolant Treatment Unit (Basic Version)	
Chip conveyor type	Scraping type
Total tank capacity	1500 litres
Filter type	Self cleaning (40 microns)
Standard low pressure system	
Flow rate	300litres/min (to be divided into the various machine functions)
Pressure	2 bar
Piece washing	300 litres/min (250 microns)
with nozzles	
Standard high pressure system	
Flow rate	28 / 40 litres/min
Pressure	20 / 80 bar

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