

Yamazaki Mazak Variaxis i600 SmoothX CNC 5 axis milling machine

Manufacturing year 2019

1583 hours

FEATURES/PERFORMANCE

Maximum workpiece diameter 700 mm

When machining workpieces with maximum diameter, on the surface of the workpiece, in case of VARIAXIS i-600, C40

maximum workpiece height 450 mm

range of movement in X-axis direction (right/left movement of the tool) 510 mm

range of movement in Y-axis direction (forward/backward movement of support) 910 mm

Travel range in Z-axis direction (up/down movement of spindle) 510 mm

Travel/direction of A-axis (tilting table) 0,0001° -120° - + 30° (cda. on A-axis)

Displacement/division in C-axis direction (table rotation) 0,0001° ±360° (cda. in C-axis direction)

Max. distance from top of shaft to top of table (horizontal table) 580 mm

Min. distance from top of shaft to top of table (horizontal table) 70 mm

Max. distance from top of shaft to middle of table (vertical table) 530 mm

Min. distance from top of shaft to middle of table (vertical table) 20 mm

Max. table load (uniform load) 500 kg

SPINDLE

Shaft taper hole taper 7/24, 40. sz.

Maximum shaft speed (standard equipment) 12 000 min⁻¹

Minimum shaft speed (standard equipment) 35 min⁻¹

Main motor (AC inverter motor) continuously measured 15,0 kW

FORWARD SPEED

Speed fast (X/Y/Z) 60/60/56

Fast speed (A/C) 18000°/min

Chip feed speed (X/Y/Z) 56 m/min

Cutting feed speed (A/C) 18000 7min

Number of spindles controlled simultaneously 5

Splitting positioning time (A) 0.55 s/90° (without clamping/unclamping time)

If the workpiece depends on the table, the setting of the parameter setting choice function is "workpiece table level 1." (Workpiece mass: VARIAXIS i-600 300 kg (661 lbs))

Positioning splitting time (C) 0.4 s/90°, 0.7 s/180° (without clamping/unclamping time)

If the workpiece depends on the table, the setting of the parameter setting choice function is "workpiece table level 1." (Workpiece mass: VARIAXIS i-600 300 kg (661 lbs))

TABLE

Number of channels T 5 SCREW CHANGER AND SCREW MAGAZINE

Tool storage capacity (standard) 30 Tool storage capacity (optional) 40/80/120

Details of tool magazines with 70 or more parts require separate negotiation.

Type of tool holder MAS BT40 or CAT 40. sz.

Maximum tool diameter (without neighbouring tool) 130 mm

Maximum tool length (from the reference surface of the tool) 300 mm

TANK CAPACITY

Lubricant tank capacity (shaft bearing) 1,80 L

Shaft cooling oil tank capacity 56,0 L

Coolant tank capacity 500,0 L

PRECISION

Positioning accuracy (X/Z) X: 0.012 mm/ Z: 0.012 mm

Positioning accuracy (Y) Y: 0.016 mm

Positioning accuracy (A) 14 s
Repeatability (X/Z) X: 0.007mm/ Z: 0.007mm
Repeatability (Y) Y: 0.009 mm
Repeatability (A) 8 s
Repeatability (C) 8 s

DIMENSIONS OF THE MACHINE

height (from floor level) 3 187 mm
Width 2 200 mm
Length 3 980 mm
Weight 13,000 kg

POWER SUPPLY

Frequency 50/60 Hz±1 Hz
Capacity (standard equipment) continuous measurement 52.90 kVA

AIR SOURCE

Pressure 0.5 - 0.9 MPa
Capacity (standard equipment) 360 l/min

Palette changer (optional)
Number of pallets 2
Maximum workpiece diameter 600
the maximum height of the workpiece 425
Maximum table load (uniform load) 300
Pallet size 400mm x 400mm
Vane surface type Threaded hole
Threaded hole size M16xP2
Threaded hole number 20
Threaded hole pitch 80 mm
Reference hole size 50 mm
Pallet change time 19.0 s
workbench height from the floor 975 mm
machine height (with pallet changer) 3 187 mm
Machine width (with pallet changer) 2,841 mm
Machine length (with pallet changer) 5 112 mm
Machine weight (with pallet changer) 15,800 m

STANDARD EQUIPMENT OF THE MACHINE

The basic equipment of the machine includes the following devices:
D140 FOUNDATION KIT (BOLT & FOUNDATION PLATE)
AS092 Automatic on/off + preheating
SD120 A set of adjustment tools
MM007 Tool magazine numerical display panel (tool ID NOT ACCESSIBLE)
AS250 Automatic reset tool changer
EL110 Power transformer for the European market
N0823 USB I/F (1-connection)
M0575 GUIDE ROLLERS
YL910 Y Axis Travel 35.8"(910mm)
SD073 One set of documentation (CD)
SR325 SHAFT SPEED12000 RPM (#40)
SD728 Mazak standard color (F white/S black)
SD755 Global Security Measures
SD811 CE signal (noise filter)
CC050 Upper case
AS028 Work area door lock with switch

SD030 Work area lighting lamp
CC010 All cases
AT729 Tool magazine with 30 places
M0551 Main shaft ball radiators (X,Y,Z axis)
SO010 Shaft radiator unit with liquid
SD010 Total cooling system
CS164 BATHROOM COOLING 4.5bar(64PSI),30L(8GAL)
MT061 AUTOMATIC TOOL LENGTH MEASUREMENT.& INTERRUPTION SENSOR
MB268 Preparation for Mazak B Rmp600 monitoring system
N0143 G37. AUTOMATIC TOOL LENGTH MEASUREMENT
MB621 Maza-Check
SF077 Absolute positioning system
AS258 Auto Reset Workpiece Clamp (2 Requests)
NC322 19" LCD color monitor (touch)
MZ200 Displacement sensor
NO097 EIA/ISO package
N0116 Function F)EIA/ISO Simultaneous 5-axis
SD113 Smart protective screen
N0827 LAN CONNECTION
NC201 Mazatrol SmoothG CNC
SI019 Shaft positioning on multiple points (Code M/1 degree)
N0512 DIRECT ENTRY DIMENSIONS FROM THE DRAWING
N0838 SD memory I/F (1 socket) + USB I/F (1-socket)
NP325 Soft Smooth standard

OTHER EQUIPMENT OF THE MACHINE

00000 VARIAXIS 1-600 - SmoothX Basic machine
SR328 SHAFT SPEED12000RPM 252NM (186FTLBS)
MO084 Sequential manual control (wired/detachable)
PL083 Signal lamp (3-COLOR SIGNAL LAMP, SQUARE)
AT729 Tool magazine with 40 places
MM006 Tool ID display panel (touch screen)
CS807 Cooling System Interface (Europe)
CS140 Washing gun
CS011 Air jet workpiece
CS208 Air jet through shaft in operation
CS527 High pressure cooling (between 15-70 bar adjustable in 3 steps) V30c-J
PL010 Sound signaling end of operation
MB269 RACKET SENSOR (RMP600) RADIO TYPE
CV528 Chip Removal Preparation (Back, Consep2ws)
CV167 Chip remover with rear removal (Consep2ws)
NP326 5-axis machining package in case of SmoothX
N0442 Taper constant B)G00
NO091 Synchronized internal threading B)S
N0148 Dynamic balancing EIA 2 (1 is contained)
MA302 Displacement Eia/Iso Wpc
NO056 Mazak Api
NO610 Compensation of workpiece adjustment error