

Machine Specification

Model		GENOS M460-VE-e	GENOS M560-V-e	GENOS M660-V-e
Travels	X-axis (ram saddle R/L) mm	762	1,050	1,500
	Y-axis (table front/back) mm	460	560	660
	Z-axis (spindle vertical) mm	460		660
	Table top to spindle nose mm	150-610		150-810
Table	Max work dimension mm	1,000 x 460	1,300 x 560	1,530 x 660
	Floor to table top mm	800		850
	Max load capacity kg	700	900	1500
Spindle	Spindle speed min ⁻¹	8,000 [12,000, 15,000]		
	Speed ranges	Stepless		
	Tapered bore	7/24 taper No.40		
	Bearing dia mm	Ø70		
Feedrate	Rapid traverse(X,Y,Z) m/min	X,Y:40, Z:32		
	Cutting feedrate(X,Y,Z) m/min	X,Y,Z:32		
Motors	Spindle(10 min/cont) kW	11/7.5 [22/18.5]		
	Feed axes(X,Y,Z) kW	X,Y,Z:3.5		X,Y,Z:4.4
ATC	Tool shank	MAS BT40		
	Pull stud	MAS 2		
	Tool capacity tool	20 [32]		
	Max tool dia (w/adjacent) mm	Ø90		
	Max tool dia (w/o adjacent) mm	Ø125		
	Max tool length mm	300	400	
	Max tool weight kg	8		
	Max tool moment N-m	7.8 (8kg x 100mm)		
Machine size	Tool selection	Memory random		
	Height mm	2,746		3,295
	Floor space mm	2,225 x 2,810	2,564 x 3,194	3,035 x 3,335
	Weight kg	6,500	7,700	11,000
CNC		OSP-P300MA-e		

[] : Optional

Standard Specifications and Accessories

Item	Description
Spindle speed	50-8,000 min ⁻¹
Rapid traverse	7/24 taper No. 40, 11/7.5 kW (10 min/cont)
Spindle cooling system	X-Y: 40 m/min, Z: 32 m/min
Air cleaner (filter)	Oil controller
Spindle oil-air lubrication system	Including regulator
TAS-S	Thermo Active Stabilizer - Spindle
TAS-C	Thermo Active Stabilizer - Construction
Automatic tool changer	20-tool magazine
ATC magazine shutter	
Tool unclamp package	
Coolant supply systems tank capacities *1	M460-V-e : 190 L (100 L effective), 250-W pump (50HZ/60HZ) M560-V-e : 230 L (120 L effective), 250-W pump (50HZ/60HZ) M660-V-e : 460L (270L effective), 390-W pump (50HZ) / 620-W pump(60HZ)
Coolant nozzle	Flexible nozzles (5)
Chip flusher system *1	Table both sides
Chip pan *	M460-V-e : 60 L (effective) M560-V-e : 69 L (effective) M660-V-e : 92 L (effective)
ATC air blower	Nozzle type
Chip air blower	
Foundation washers (with jack bolts)	8 pcs
3-lamp status indicator	Type C (LED signal tower)
Work lamp	Fluorescent
Full enclosure shielding	With coiling
Tapered bore cleaning bar	
Hand tools	
Tool box	
Operation panel with color LCD	
Pulse handle	

*A required option

*1. Use water-based coolant.

Optional Specifications

Item	Description	Item	Description
#40 spindle 50-12,000/50-15,000 min ⁻¹	22/18.5 kW [10 min/cont]	Thru-spindle coolant system*2	1.5 MPa, 7.0 MPa
#50 spindle 50-6,000 min ⁻¹	11/7.5kW [10 min/cont] only M660-V-e)	Chip air blower (thru-spindle)	(includes thru-spindle coolant system)
#50 spindle 50-12,000 min ⁻¹	26/18.5 kW [10 min/cont] only M560-V-e/M660-V-e)	Oil-hole coolant system	
Dual contact spindle	BIG-PLUS® *1 (spindle nose)	Semi-dry coolant system	
ATC capacity	32-tool/48-tool only M660-V-e)	Shower coolant system	
Tool shank	CAT-40/ CAT-50	Workpiece washing gun	
Pull stud specs	MAS1 / JIS / CAT	Tool breakage detection,	Touch sensor activated
NC rotary table (A-axis)	Please specify type details	auto tool length compensation	
Preps for NC rotary table	Includes 1 additional axis	Auto zero offset/auto gauging	W/ auto tool length offset (Renishaw probe)
In-machine chip discharge	Coil conveyors (2 pcs, table L/R)	Auto door (front operation)	
Off-machine chip discharge	Lift-up conveyor (rear right)	Machining Navi	M-g
Chip bucket for above		High-crossrail specs	+200 m/m (only M560-V-e)

*1. Please select this optional BIG-PLUS specification when using BIG-PLUS toolholders. *2.OKUMA pull studs required.

Recommended chip conveyors

Please contact an Okuma sales representative for details.

○ : Standard △ : Selectable

		Steel	FC	Al/Nonferrous metal	Mixed (general use)
Chip shape					
In-machine	Chip flusher (Std)	—	○ (wet)	○	—
	Coil (Opt)	○	○ (dry/wet)	—	○
Off-machine (optional)	Hinge	○	—	—	△ (*4)
	Scraper	—	○ (dry)	—	—
	Scraper (drum filter)	—	○ (wet) with magnet	△ (*3)	—
	Hinge + Scraper (drum filter)	△ (*1)	△ (wet) (*2)	○	○

*1. When there are many fine chips *2. When chips are longer than 100 mm *3. When chips are not longer than 100 mm *4. When there are few fine chips
Caution: fire prevention measures are necessary when using oil-based coolants.

Off-machine lift-up chip conveyors

Type	Hinge	Scraper	Scraper (drum filter)	Hinge + Scraper (drum filter)
Shape				

Note: The machine may need to be raised (platform) depending on the type of chip conveyor.

ATC tool dimensions

● Max tool size (adjacent tools) In tool magazine	● Max single tool size No adjacent tools	● Max tool mass moment
<p>○ M460-VE-e / M560-V-e (No. 40)</p>	<p>○ M460-VE-e / M560-V-e (No. 40)</p>	<p>○ M460-VE-e / M560-V-e / M660-V-e (No. 40)</p>
<p>○ M660-V-e (No. 40)</p>	<p>○ M660-V-e (No. 40)</p>	<p>7.84 N·m 78.4 N (8 kg)</p>

* Commercially available milling chucks may interfere with the ATC tool change arm and tooling outer portions. Please check dimensions with tool manufacturer documentation before use.

Mass including shank may be up to 78.4 N (8 kg), and the position of center of gravity at that time may be up to 100 mm from the datum diameter (ø44,45).

Unit: mm