

1-Saddle CNC Lathe

GENOS L II series

GENOS L250 II-e / GENOS L400 II-e



NEW GENOS L II series

High quality • stability • productivity ⊕Excellent operator-friendliness

L250 II-e

8" chuck



L400 II-e

10" chuck

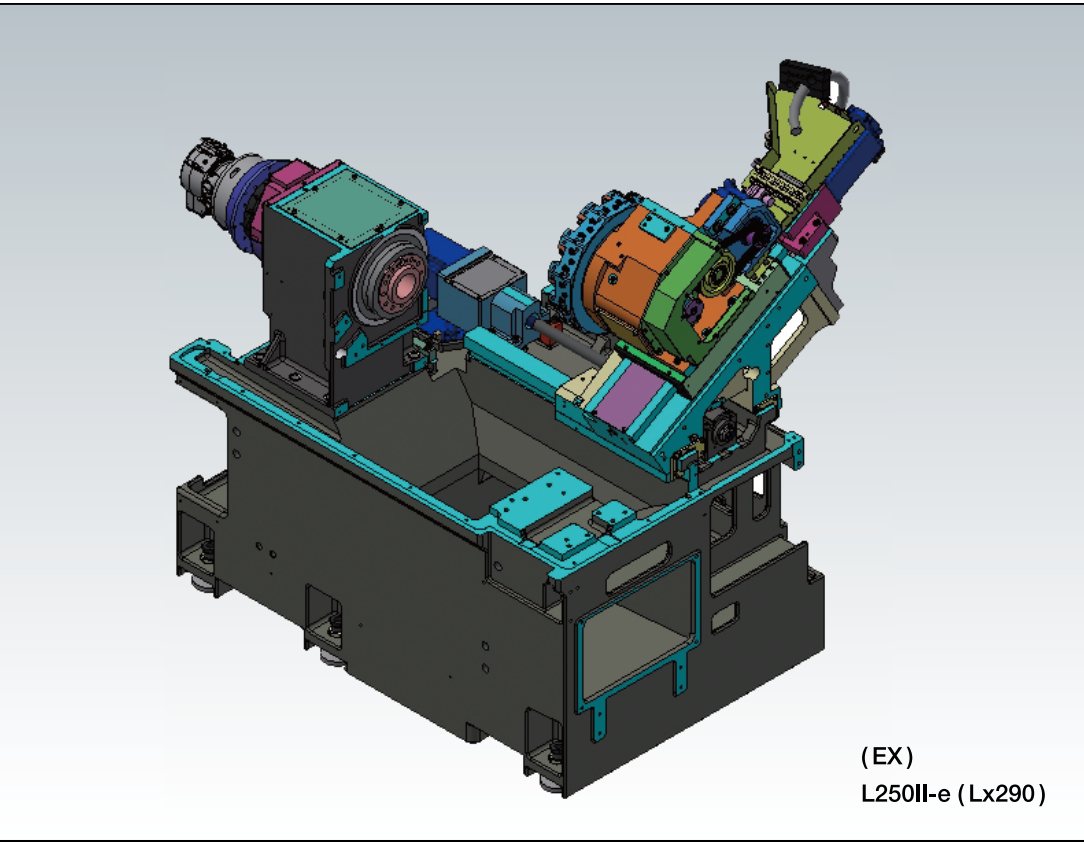


	Spindle	Turret	Tailstock
L250II-e(Lx290)	4500 min ⁻¹ JIS A2-6	V8(STD)	Hydraulic Live center MT No.4(OP)
L250II-e(Lx500)	7.5/5.5 kw (30min/cont.)	V12(OP)	Hydraulic Live center MT No.5(STD)

	Spindle	Turret	Tailstock
L400II-e(Lx500)	3000 min ⁻¹ JIS A2-8	V8(STD)	Hydraulic Live center MT No.5(STD)
L400II-e(Lx1100)	11/7.5 kw (30min/cont.)	V12(OP)	Hydraulic Dead center MT No.4(STD)

Achieve a powerful, high quality turning

Basic structure



(EX)
L250II-e (Lx290)

Spindle



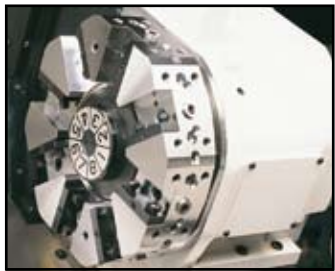
- **L250II-e**
 - Speed : 4,500min⁻¹
7.5/5.5 kw (STD)
(30min/cont.)
11/7.5kw (OP)
(10min/cont.)
 - Through hole dia. : Φ62mm
- **L400II-e**
 - Speed : 3,000min⁻¹
11/7.5 kw (STD)
15/11kw (OP)
(30min/cont.)
 - Through hole dia. : Φ80mm

Bed



- One piece solid cast-iron
- High rigidity and hardened rectangular Slide-way

NC turret



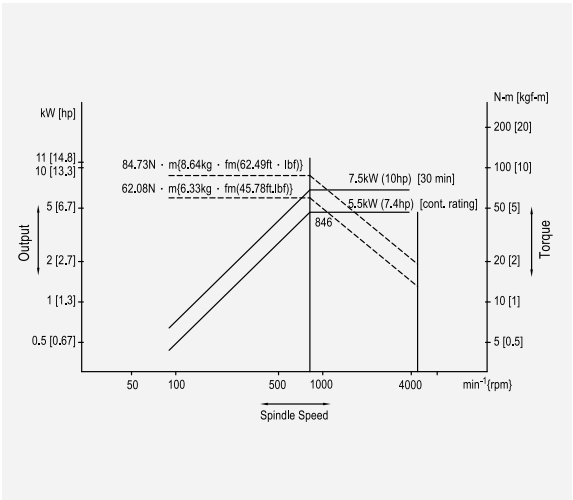
- V8 (STD)
- V12 (OP)
- Index time 0.3 sec

Spindle Motor Output / Torque

L250II-e

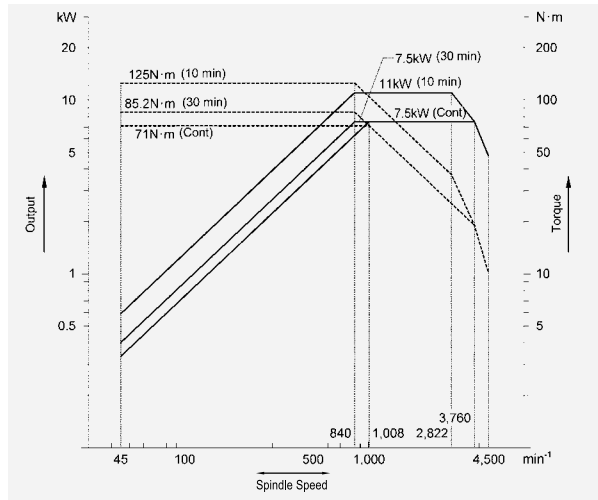
STD

4,500rpm⁻¹ VAC 7.5/5.5 KW (30 min/cont.)



OP

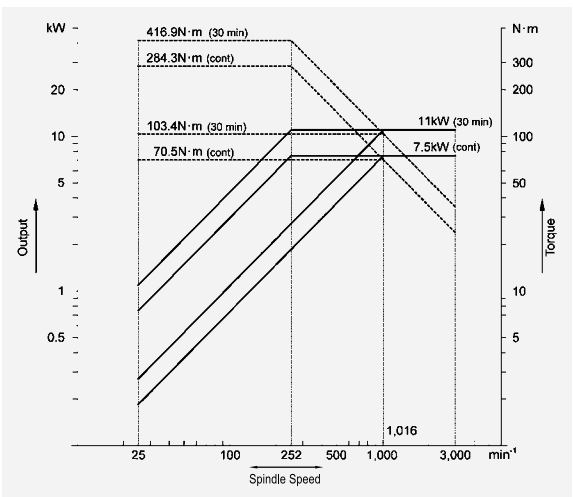
4,500rpm⁻¹ VAC 11/7.5/7.5 KW (10 min/30 min/cont.)



L400II-e

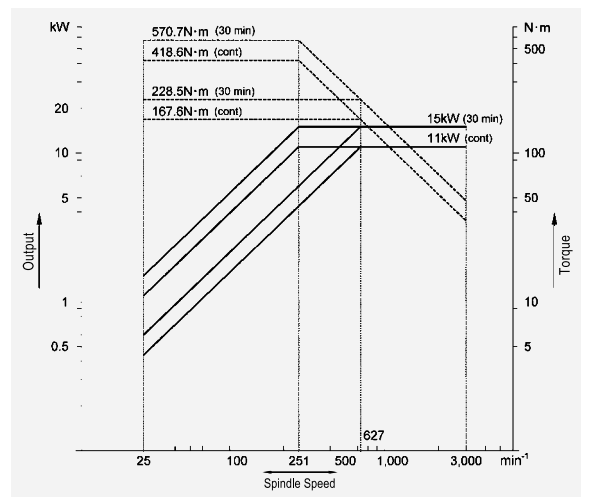
STD

3,000rpm⁻¹ VAC 11/7.5KW (30 min/cont.)



OP

3,000rpm⁻¹ VAC 15/11KW (30 min/cont.)



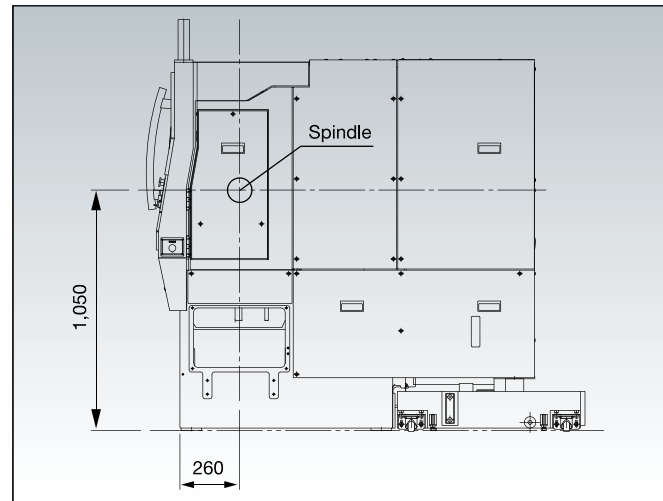
Capacity

Item	L250II-e	L400II-e	Note
Heavy duty turning (OD)	2.5mm ² (11/7.5kw)	3mm ² (15/11kw)	S45C V120 m/m
Roundness	under 1.0μm	under 1.4μm	
Turning dimensional change over time	under Φ10μm	under Φ10μm	8°C change

Easy to operate

Machine designed for good accessibility

Spindle access is good with 260 mm from the machine front face to the spindle center, reducing the work burden of operators.



GENOS L250II-e

Outstanding chip discharge

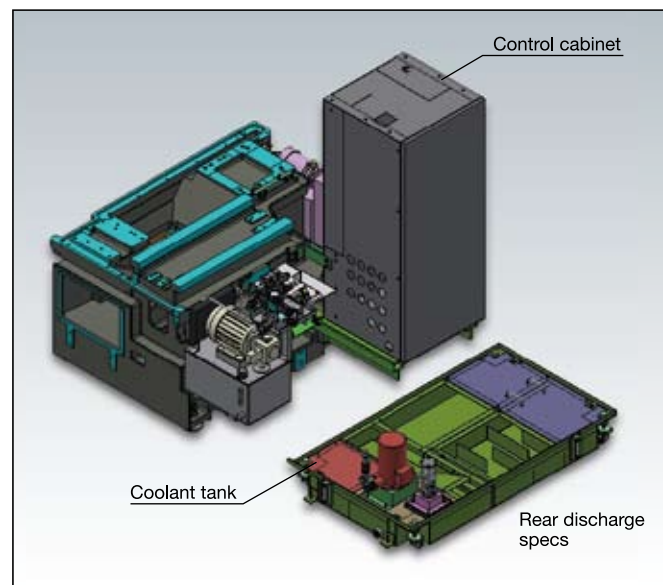
The chip discharge outlet is 2 times larger than on previous machines, minimizing chip accumulation. The cleaning frequency is reduced for maximum operation time.



Previous chip discharge
GENOS L250II-e

Simplified coolant tank maintenance

The coolant tank can be separated away from the machine for easier cleaning. The tank and the control cabinet share the same maintenance space to minimize the machine footprint.



GENOS L250II-e

Easy Operation

Front door with larger safety glass and linear guide watches cutting condition easily, also achieve steady door open /close.



GENOS L250II-e

High Productive Automatic System

Loader



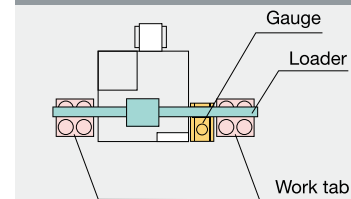
L400II (Lx500) 2 sets+ gantry loader
(2M 1L system)



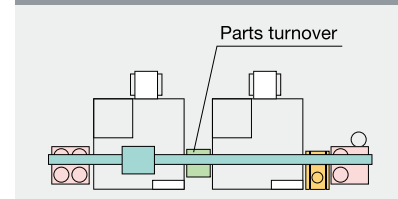
L250II (Lx500) 1 set+ gantry loader
(1M 1L system)

Loader Spec. Examples

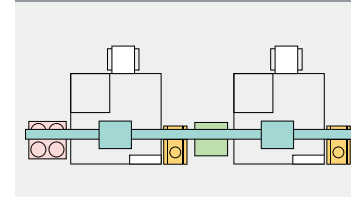
1-machine/1-loader cell



2-machines/1-loader cell



2-machines/2-loaders cell



- **Gantry loader specification**
Workpiece: $\phi 120 \times 80L$
Weight for flange: 3kg
shaft: 2kg
- **Work table specification**
Pallet set: 6~10P
Workpiece Size: $\phi 20 \sim 150mm$
Stack Hight: 350mm

Bar feeder



- Bar size**
- | | |
|----------|-------------------|
| L250II-e | $\phi 50mm$ (Max) |
| L400II-e | $\phi 68mm$ (Max) |

* Above specs. to discuss with our sales engineer.

Item	Model name		GENOS L250 II -e			GENOS L400 II -e	
	Spec. extension		L x 290	L x 290 with tailstock	L x 500	L x 500	L x 1,100
Capacity	Swing over bed	mm	ø450			ø520	
	Swing on carriage	mm	ø350			ø450	
	Max turning dia	mm	ø280 [ø220]			ø390 [ø310]	ø410 [ø330]
	Max work length	mm	290	290	500	500	1,100
Travels	X axis	mm	160 (140+20)			220 (195+25)	230 (205+25)
	Z axis	mm	330		520 [470]	520	1,144
Spindle	Spindle speed	min ⁻¹	45 ~ 4,500			25 ~ 3,000	
	Speed ranges		Infinitely variable			Auto 2 ranges	
	Spindle nose		JIS A2-6			JIS A2-8	
	Spindle bore dia	mm	ø66			ø80	
	Front bearing dia	mm	ø100			ø120	
Turret	Type		V8 [V12] Turret (NC)			V8 [V12] Turret (NC)	
	No. of tools	tool	8 [12]			8 [12]	
	OD tool shank	mm	□ 25x25			□ 25x25	
	ID tool shank dia	mm	ø40 [ø32]			ø40	
	Turret indexing time	sec/index	0.3/1			0.3/1	
Feedrates	Rapid traverse (X , Z)		X : 25 , Z : 30			X : 25 , Z : 30	
	Feedrate (X , Z)	mm/rev	0.001~1,000.000			0.001~1,000.000	
Tailstock	Tailstock quill diameter	mm	-	ø70	ø90	ø90	
	Tapered bore type		-	MT No.4	MT No.5	MT No.5	MT No.4 (dead center)
	Ouill travel	min	-	80	100	100	
Motors	Main spindle	kw	VAC 7.5/5.5 (30 min/cont.)			VAC 11/7.5 (30 min/cont.)	
	Axis drive (X , Z)	kw	X : 3.0 , Z : 3.0			X : 2.8 , Z : 3.5	X : 2.8 , Z : 4.6
	Coolant pump motor	kw	0.8			0.8	
Machine size	Height	mm	1,620	1,620	1,619	1,791	2,057
	Floor space	mm	1,482 × 1,843	1,482 × 1,843	2,076 × 1,832	2,280 × 1,860	3,537 × 2,350
	Weight (with CNC)	kg	2,800	2,900	3,800	4,500	6,000
CNC			OSP-P300LA-e				

[] : Optional Specifications

Spindle speed	(L250II-e)	Spindle low-speed specs (A2-6) to 3,000 min ⁻¹	Tailstock	Tailstock quill auto advance/retract confirmation, tailstock thrust high/low switchable
	(L400II-e)	Spindle low-speed specs (A2-8) to 2,000 min ⁻¹		
Spindle motor	(L250II-e)	VAC 11/7.5 kW (10 min/cont.)	Air blower	Chuck, turret, spindle bore
	(L400II-e)	VAC 15/11 kW (30 min/cont.)	Coolant	Pump : 0.8 kw Detection level, mist collector mount
Turret		V12		
Chucking		Auto chuck open/close with confirmation, chucking miss detection, chuck high/low pressure switch, spindle work stopper, chuck work stopper	Chip discharge	Conveyor (side, rear : hinge type L , H)
	Door auto open/close		Front door, Top door	
	Automation specs		Loader, Robot Work rest, bar feeder, parts catcher,	
Measuring		In-process work gauging, Touch Setter M (manual), A (automatic)		
Revolving centers	(L250II-e)	MT 4 (Lx290)		
	(L400II-e)	MT 5 (Lx1,100)		

GENOS L250II-e ~ L400II-e V8 turret / V12 turret

Drill sleeve

- MT No.1-H40 (H32)
- MT No.2-H40 (H32)
- MT No.3-H40 (H32)
- MT No.4-H40

Boring bar sleeves

- ø8-H40 (H32)
- ø10-H40 (H32)
- ø12-H40 (H32)
- ø16-H40 (H32)
- ø20-H40 (H32)
- ø25-H40 (H32)
- ø32-H40

Boring bar

- Boring bar ø40 (ø32 * V12)

ID-H40 (H32 * V12)

Offset ID H32

V8 turret

V12 turret (OP)

OD-I

OD-II

OD tool shank 25x25

• Commercially available items

GENOS L250II-e Lx290 (no tailstock [T spec]) with ID-H40.
 GENOS L250II-e Lx290 (with tailstock [C spec]) with offset H32.
 GENOS L400II-e with ID-H40.

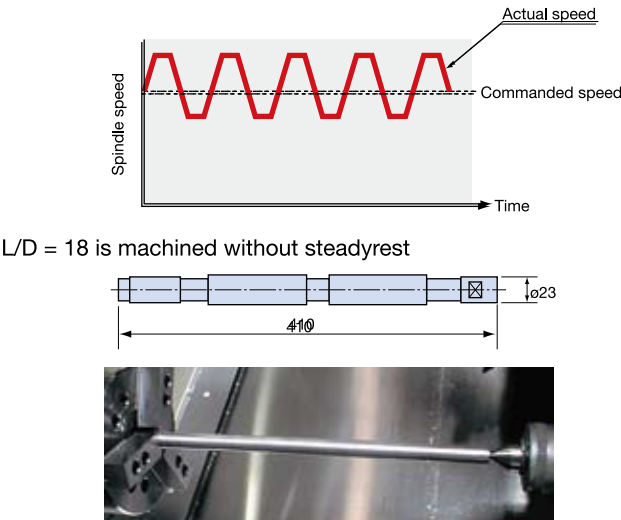
Details are under consideration

Hi-tech Okuma mechatronics for advanced machining applications

Variable spindle speed control

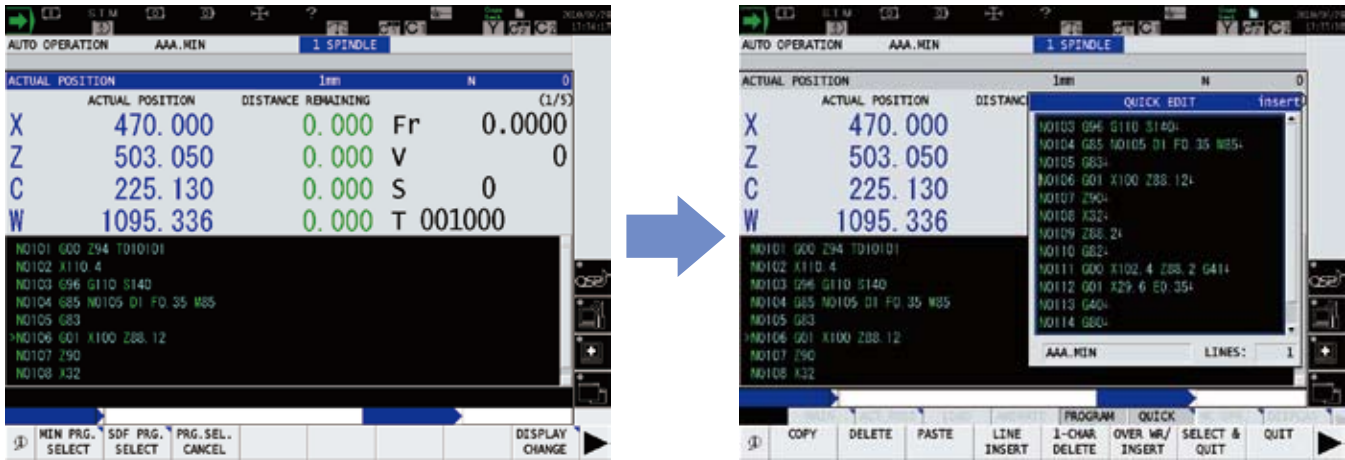
Reduce machining chatter

Holds down machining chatter as spindle speed is periodically changed and resonance points change, when cutting large, thin workpieces or small-diameter, long workpieces.



One touch editing

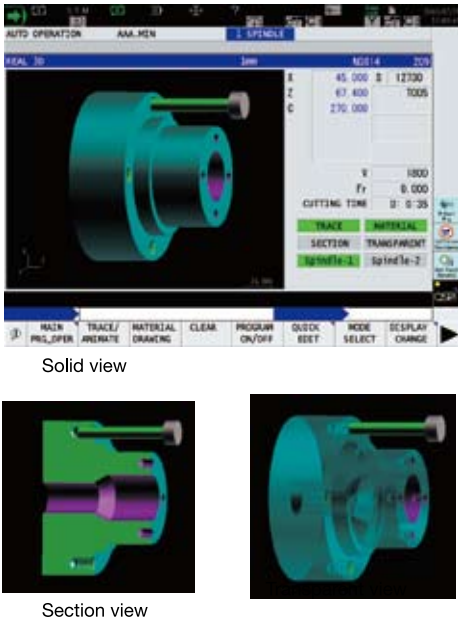
G/M programs can be edited with a single touch on the shop floor. Editing can be started immediately by moving the cursor to the program execution block or the block that produced an alarm during machining in automatic operation mode.



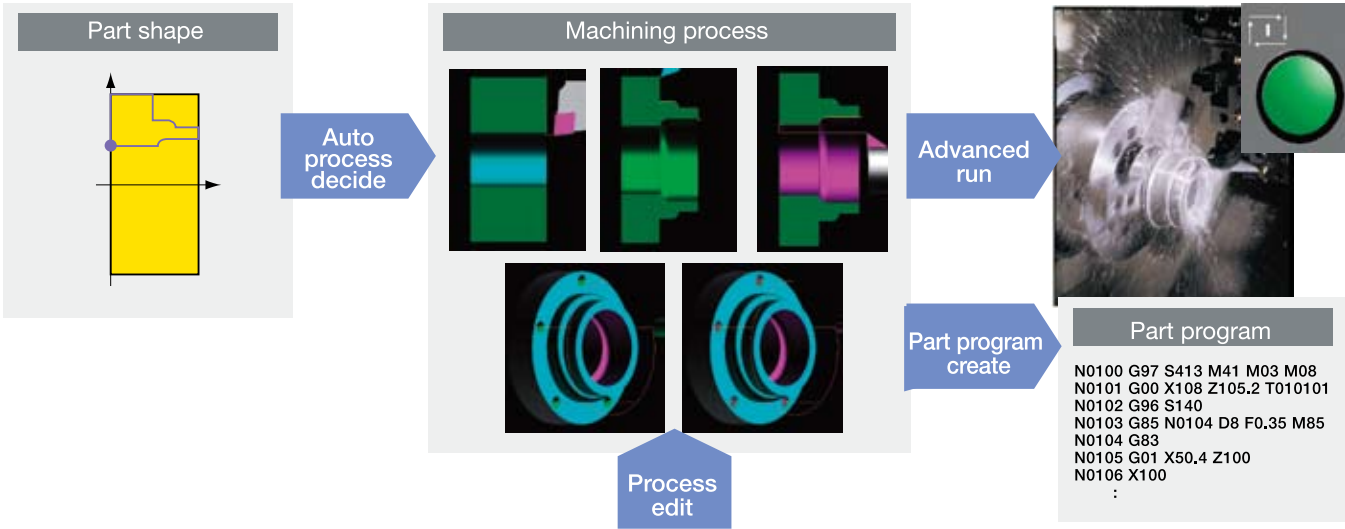
Real 3-D simulation (Optional)

Live-performance machining

In all operating modes (auto, MDI, manual, etc), the cutting conditions are displayed in real time. Switching between solids, section views, transparent models, and performing machining simulation (dry runs with the machine locked) lets you check part program accuracy.



Interactive operations Advanced One-Touch IGF-L (Optional)

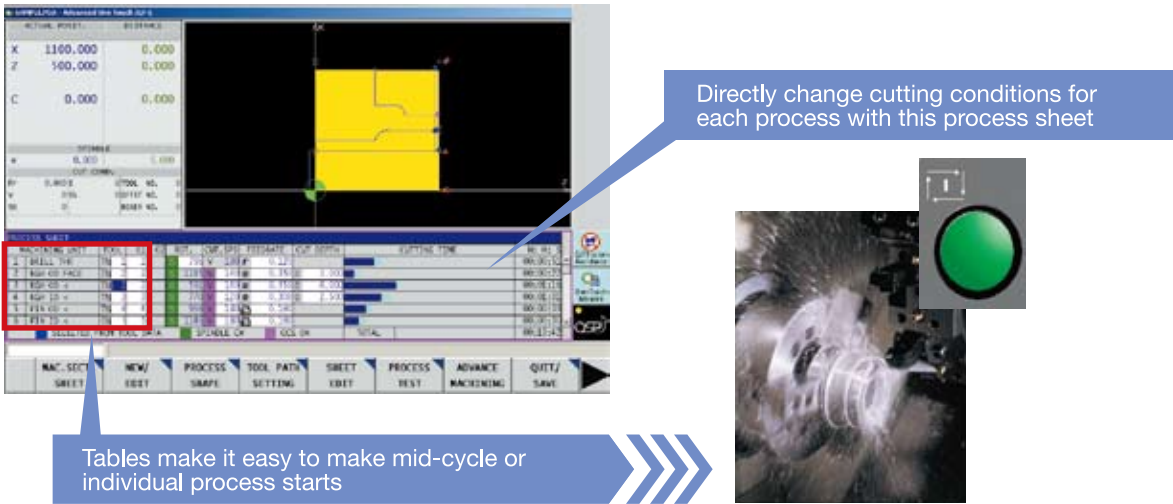


Part program create

After simple cutting data inputs (interactively), the required machining processes are determined and a part program is created (automatically).

Advanced run

To run the machine directly from the interactive part program screen. When a problem is detected it can be quickly corrected and checked, speeding up first part machining.



PROCESS SHEET <CONTINUOUS>	
MACHINING UNIT	TOOL
1 DRILL THR	TN 1
2 RGH OD FACE	TN 2
3 RGH OD <	TN 2
4 RGH ID <	TN 3
5 FIN OD <	TN 4
6 FIN ID <	TN 5

Continuous run

PROCESS SHEET <MID-CYCLE>	
MACHINING UNIT	TOOL
1 DRILL THR	TN 1
2 RGH OD FACE	TN 2
3 RGH OD <	TN 2
4 RGH ID <	TN 3
5 FIN OD <	TN 4
6 FIN ID <	TN 5

Mid-cycle start
(finishing repeated)

PROCESS SHEET <INDIVIDUAL>	
MACHINING UNIT	TOOL
1 DRILL THR	TN 1
2 RGH OD FACE	TN 2
3 RGH OD <	TN 2
4 RGH ID <	TN 3
5 FIN OD <	TN 4
6 FIN ID <	TN 5

Individual run
(machining repeated with this tool only)

OSP intelligent technology reduces operator burden

Processing preparation screen

Spindle Select / Place / Chuck parameter / Zero offset
Operation settings of the same screen



Processing operation screen

A screen corresponding to: Place / Main program / Real
3D simulation / One-touch IGF programming



Machine tool idling stop
ECO Idling Stop

Only the necessary unit run

Accuracy ensured, cooler off ECO Idling Stop

Intelligent energy-saving function with the Thermo-Friendly
Concept.
The machine itself determines whether or not cooling is needed
and cooler idling is stopped with no loss to accuracy.
(Standard application on machines with Thermo-Active
Stabilizer—Spindle)

● Example of equipment that can use Idling Stop



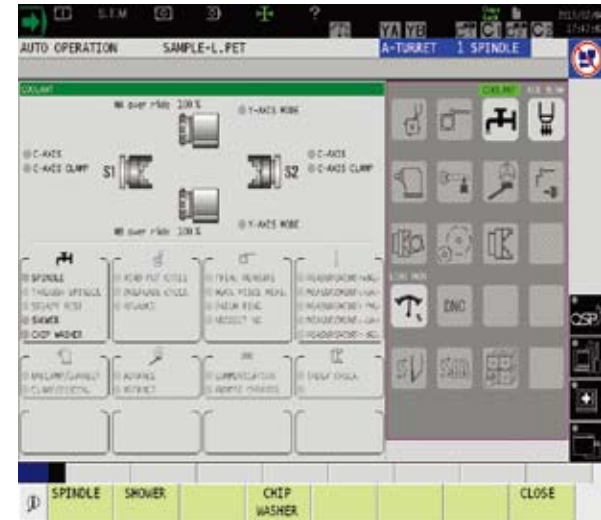
Tool data setting screen

Each tool, shape, type of processing, such as tool processing
data management



Mechanical operation panel screen

Based on the use frequency is high, the new layout screen
for operation

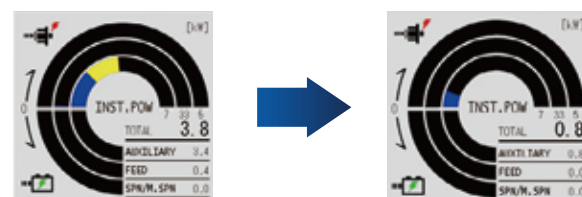


ECO suite

On-the-spot check of energy savings ECO Power Monitor

Power is shown individually for spindle, feed axes, and
auxiliaries on the OSP operation screen. The energy-saving
benefits from auxiliary equipment stopped with ECO Idling
Stop can be confirmed on the spot.

● Example of Power Monitor check



Before ECO Idling Stop

After ECO Idling Stop

The displayed values are one example.

OSP suite **OSP-P300LA-e**

In the shop floor production instructions, setup information, machining and utilization,
machine maintenance information and more.



suite apps

Actual Load, MacMan Monitor, Tool Data etc.

PERIODICAL MAINTENANCE	DAILY INSPECTION	COMPLET WORK
101. OIL	102. OIL	103. OIL
104. OIL	105. OIL	106. OIL
107. OIL	108. OIL	109. OIL
110. OIL	111. OIL	112. OIL
113. OIL	114. OIL	115. OIL
116. OIL	117. OIL	118. OIL
119. OIL	120. OIL	121. OIL
122. OIL	123. OIL	124. OIL
125. OIL	126. OIL	127. OIL
128. OIL	129. OIL	130. OIL
131. OIL	132. OIL	133. OIL
134. OIL	135. OIL	136. OIL
137. OIL	138. OIL	139. OIL
140. OIL	141. OIL	142. OIL
143. OIL	144. OIL	145. OIL
146. OIL	147. OIL	148. OIL
149. OIL	150. OIL	151. OIL
152. OIL	153. OIL	154. OIL
155. OIL	156. OIL	157. OIL
158. OIL	159. OIL	160. OIL
161. OIL	162. OIL	163. OIL
164. OIL	165. OIL	166. OIL
167. OIL	168. OIL	169. OIL
170. OIL	171. OIL	172. OIL
173. OIL	174. OIL	175. OIL
176. OIL	177. OIL	178. OIL
179. OIL	180. OIL	181. OIL
182. OIL	183. OIL	184. OIL
185. OIL	186. OIL	187. OIL
188. OIL	189. OIL	190. OIL
191. OIL	192. OIL	193. OIL
194. OIL	195. OIL	196. OIL
197. OIL	198. OIL	199. OIL
200. OIL	201. OIL	202. OIL

Maintenance Monitor that displays daily and regular check items



Actual Load



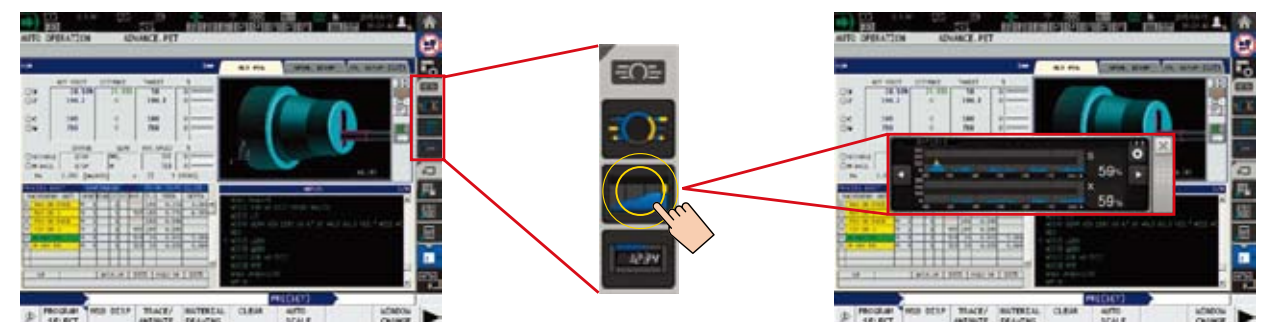
MacMan Monitor



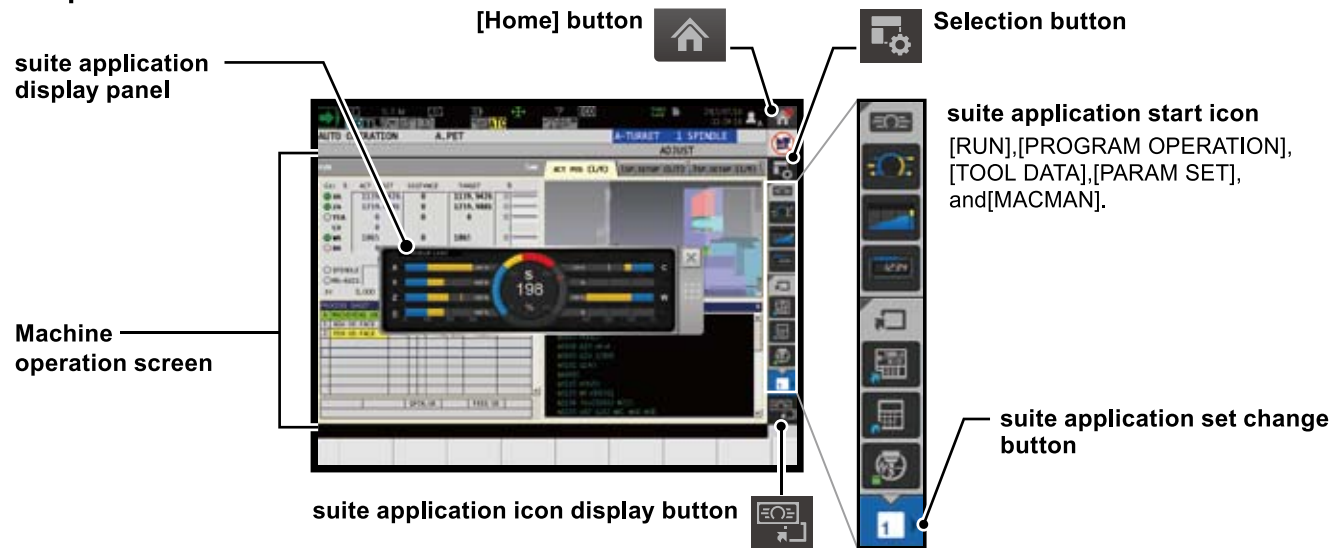
Tool Data etc.

suite operation

A highly reliable touch panel suited to shop floors is used.



Operation screen

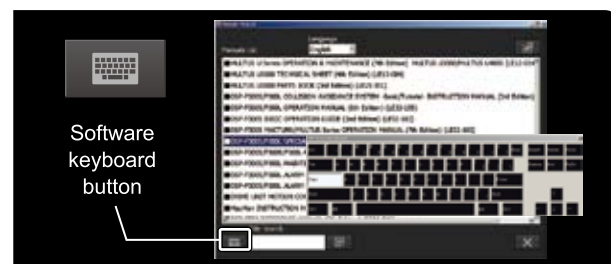


Selection screen



Manuals

You can display PDF instruction manual files on the screen. Manuals is a suite application that allows you to refer to PDF instruction manual files on the OSP screen.



Maintenance Monitor

The Maintenance Monitor displays items for daily inspections and regular inspections...etc. Touching the [INFO] button displays the PDF instruction manual file of relevant maintenance items.



OSP suite P300LA-e CNC

Standard Specifications

Basic Specs	Control	Turning: X,Z simultaneous 2-axis, Multitasking:X,Z,C simultaneous 3-axis
	Position feedback	OSP full range absolute position feedback (zero point return not required)
	Min/Max inputs	8-digit decimal, ±99999.999 to 0.001 mm (±3937.0078 to 0.0001 in.), 0.001° Decimal: 1 um, 10 um,1mm (0.0001,1 in.) (1°,0.01°,0.001°)
	Feed	Override: 0 to 200%
	Spindle control	Direct spindle speed commands (S4) override 50 to 200% Constant cutting speed, optimum turning speed designate
	Tool compensation	Tool wear : 32 sets, tool offset: 32 sets
	Display	15-inch color display operational panel, multi-touch panel
	Self-diagnostics	Automatic diagnostics and display of program, operation, machine, and NC system problems
	Program capacity	Program storage: 2 GB, operation buffer: 2 MB
	suite apps	Application to graphically visualize and digitize information needed on the shop floor
Operations	suite operation	Highly reliable touch panel suited to shop floors. One-touch access to suite apps.
	Programing	Program management, edit, multitasking, scheduled programs, fixed cycles, special fixed cycles, tool nose R compensation, M-spindle synchronized tapping, fixed drilling cycles, arithmetic functions, logic statements, trig functions, variables, branch statements, auto programming (LAP4), programming help
	Easy Operation	"Single-mode operation" to complete a series of operations Advanced operation panel/graphics facilitate smooth machine control
	Machine operations	MDI, manual (rapid traverse, manual cutting feed, pulse handle), load meter, operations help, alarm help, sequence, return, manual interrupt & auto return, threading slide hold, data I/O, chuck open/close during spindle rotation, spindle orientation (electric)
	MacMan	Machining Management: machining results, machine utilization, fault data compile & report, external output
	Communications/Networks	USB ports, Ethernet
	High speed/accuracy	Hi-G control
Energy-saving function	ECO suite	ECO Power Monitor **

** The power display shows estimated values. When precise electrical values are needed, select the on-machine wattmeter option.

Optional Specifications

		Kit specifications		
Programing		TE	TD	TEX
User task2		○	○	○
I/O variables (each 8 points)		○	○	○
Automatic programming (LAP4)		○	○	○
Inch/metric switching			○	○
Circular threading				
Tool offset compensation				
☐ 96 sets ☐ 200 sets (Standard 32 sets)				
Tool wear compensation				
☐ 96 sets ☐ 200 sets (Standard 32 sets)				
Program storage (capacity)		○	○	○
Standard : 2GB Operation backup : 2MB				
Milling-machine specs	Coordinate convert	—	—	—
	Profile generation	—	—	—
Advance One Touch IGF-L (Real 3-D simulation included)				
Real 3-D simulation			○	○
Monitoring				
Condition display with a 3-color (A-type) signal tower		○	○	○
NC operation monitor (counter, totaling)		○	○	○
NC work counter (M30)		○	○	○
Tool life management			○	○
Load monitor (spindle, feed axis)				○
Cycle time over check		○	○	○
DNC-T1 (Ethernet)		○	○	○
DNC-T* (PC-DNC) : part program transfer				
Additional RS-232-C channel				

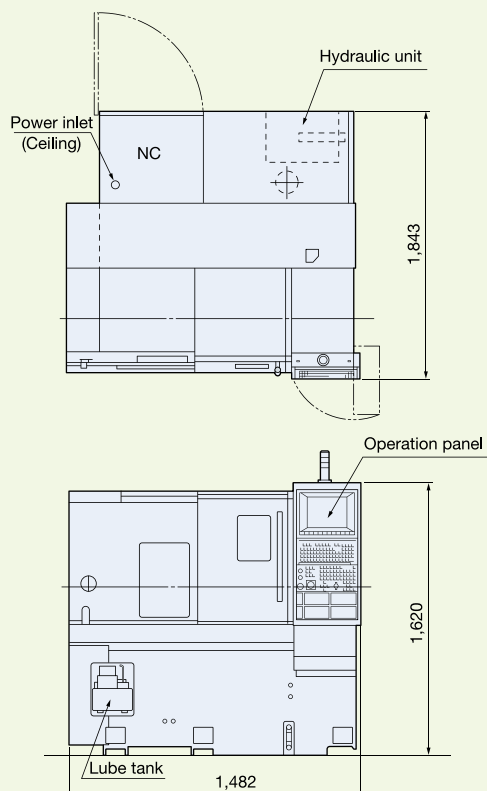
		Kit specifications		
Gauging		TE	TD	TEX
Auto work gauging/compensation				
☐ Internal ☐ External				
Touch setter tool tip				
☐ Manual ☐ Automatic				
Automation / Unattended Operation				
Auto chuck open/close				
Chuck pressure High/low switching				
Auto tailstock quill				
Tailstock quill pressure High/low switching				
Auto door open/close				
Air cleaner (Chuck,Turret,Tailstock,Spindle bore)				
Spindle orientation (Electric)		○	○	○
Extra M-codes				
☐ 2 sets ☐ 4 sets				
Auto power shut-off				
Cycle time reduction		○	○	○
Other*				
☐ Chuck open/close during spindle rotation				
☐ Auto tailstock quill thrust during spindle rotation				
☐ Bar feeder interface ☐ Loader interface				

* Need to discuss with sales engineer

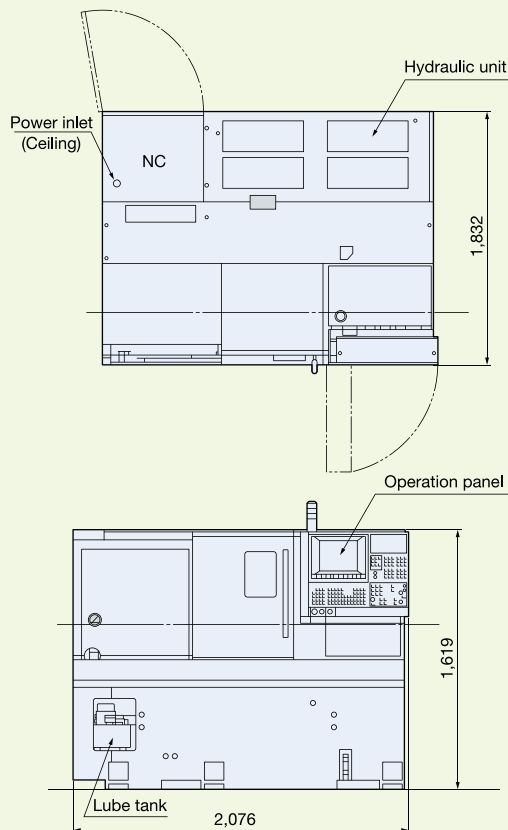
— None

○ Kit Corresponding

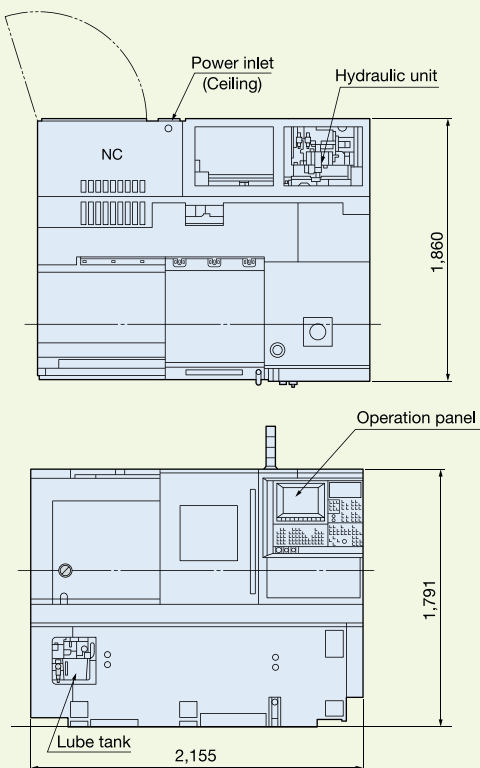
GENOS L250 II-e (L x 290)



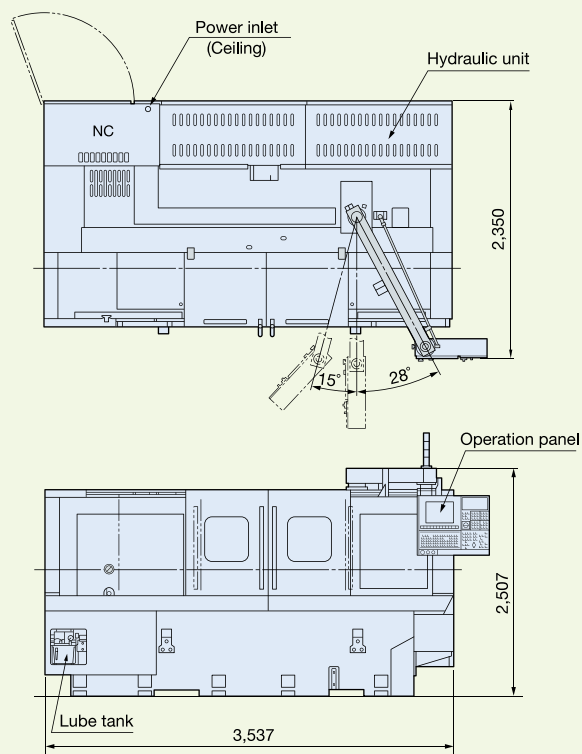
GENOS L250 II-e (L x 500)



GENOS L400 II-e (L x 500)



GENOS L400 II-e (L x 1,100)



TATUNG-OKUMA

TATUNG-OKUMA Co., Ltd.

No.14-2, Donghu Rd., Yingge Dist.,

239, New Taipei City, Taiwan

TEL: +886-2-2678-8688 FAX: +886-2-2678-8506

Website: www.tatung-okuma.com.tw

E-mail: toc@tatung-okuma.com.tw

Agent