

# Vertical Machining Centers LV-1060E



## Vertical Machining Centers

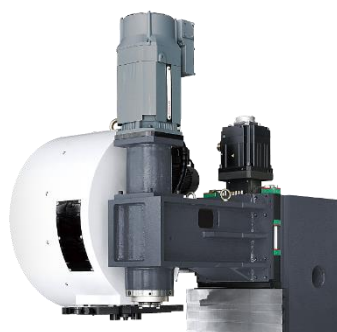
### Beautifully Constructed Throughout! Great Value!

The LV series features high rigidity incorporated with short nose spindle to dramatically increase cutting performance. This makes it easy to machine hard-to-cut materials and is the best choice for machining applications in various industries, such as mold, hardware, automotive parts, aerospace and medical equipment, etc.

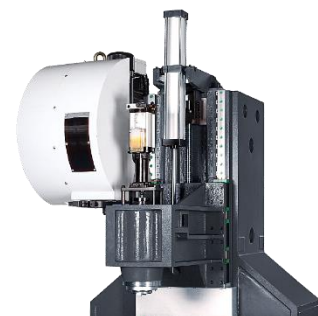
1. The optional bed construction design is able to resist inertia generated by high "G" with maximum stability.
2. The short nose spindle presents outstanding rigidity. It also may increase efficiency while lowering tool wear.
3. 36 meters rapid traverse on three axes greatly reduces machining time.
4. Stable automatic tool change system not only reduces non-cutting time, but also extends spindle life.
5. Front side chip exhaust with optimal chip exhausting angles and extra large chip flushing rate.



Coolant Jets Around Spindle



Direct-Drive Spindle



Z-axis Counterweight

### Taiwan Master Tool Magazines.

- The entire series of machine employs Taiwan master tool magazines.
- The tool pockets are manufactured from aluminum alloy and T6 treated for maximum durability.
- Front mounted air cylinder enables repair or maintenance to be accomplished in only 10 minutes.

### Short Spindle Nose

The short spindle nose design allows the spindle motor to fully develop transmission efficiency. As a result, machining accuracy is upgraded and spindle life is extended.

### Ball Screw, Linear Motion Guide

The silent ball screws and linear guide ways on three axes feature high rigidity, low noise, low friction and high sensitivity, providing an increase in machining speed and accuracy.

### Pneumatic counter-balance on Z-axis

The Z-axis is designed with no counter-balance weight in combination with servo motor drive with brake to improve Z-axis drive performance. Therefore, high speed and better surface finish can be achieved.

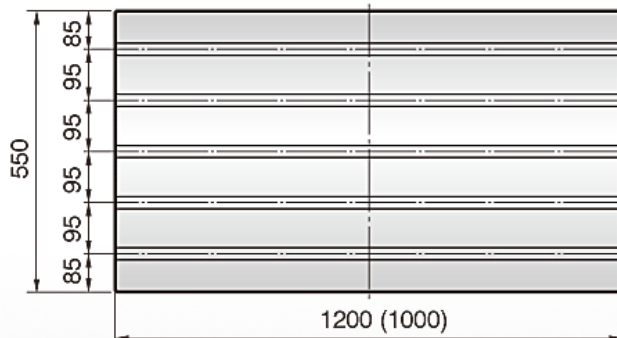
### Full-enclosed Guards

Fully enclosed guards ensure smooth movement at high speed and low noise. The guards isolate coolant and chips and provide a protection for linear ways and ball screws for extending their service life.

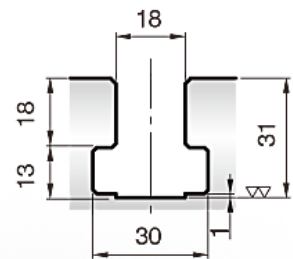


■ Table size :

**LV-1060E**  
**(LV-860E)**



**T-SOLT : 5**



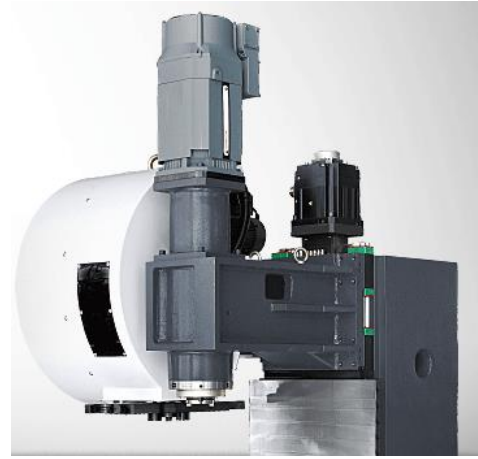
Unit:mm

### Direct-drive Spindle (optional)

With the direct-drive design, the motor is directly coupled to the spindle. This feature may eliminate noise and backlash problems usually occurred on a belt-drive or gear-drive system, while providing a full-power rotation.

The spindle head is a symmetrical design to reduce thermal deformation due to temperature difference.

Floating type spindle tool knocking design prevents tool knocking force from directly exerting on the bearings, that results in extended bearing life.

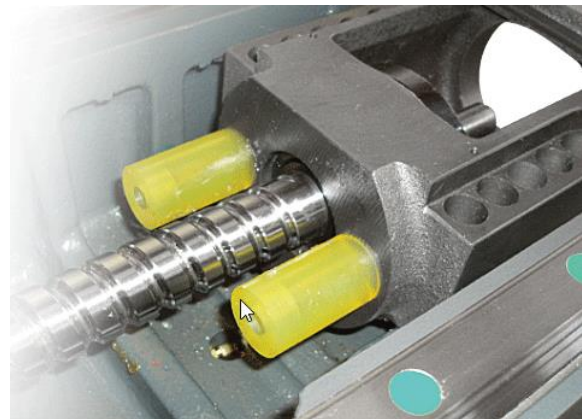


### Coolant Jets Around Spindle

The coolant jets around spindle device employs 4 coolant nozzles around the spindle, that provides the best cooling effect to the tool and the workpiece resulting in better machining quality.

### Collision Protection Device

The machine is equipped with a collision protection device which can absorb and reduce the collision force. The machine accuracy is still maintained if any axis malfunction happens.



### Large Capacity Coolant Tank

Cutting tank capacity of 200L, cutting calories can be quickly discharged.

Tank design uses door type, and placement of the rear side of the machine, saving space.

## Specification:

Model	LV-1060E
Control unit	FANUC OiMD
<b>Travel</b>	
X-axis travel	1000 mm
Y-axis travel	600 mm
Z-axis travel	600 mm
Spindle nose to table	120~720 mm
<b>Spindle</b>	
Type of spindle	BT-40
Spindle transmission	Direct Drive
Spindle R.P.M.	10,000 rpm
Spindle motor	11 kw
<b>Feed</b>	
X/Y/Z rapid traverse	36 / 36 / 36 M/min
Three axes ball screws (mm)	ø40 / P12 / C3
Three axes linear guide (P class)	X-axis ball screw: ball type 35 mm x 4 blocks Y, Z-axis ball screw: ball type 45 mm x 4 blocks
Three axes transmission method	Direct drive
Cutting feed rate	1~10,000 mm/min
<b>Table</b>	
Table size	1200 x 550 mm
T-slot (WxNo.xPitch)	18 x 5 x 95 mm
Table loading capacity	600 kg
<b>A.T.C.</b>	
Tool selection method	Arm type
No. of tools	24 pcs
Max. tool weight	7 kgs
<b>Miscellaneous</b>	
Coolant tank capacity	250 L
Max. machine weight	5600 kg
Machine size (LxWxH)	2950 x 2475 x 2950 mm
Air pressure	6 kg
Power requirement	25 KVA

### Standard Accessories:

- BT40 spindle
- 10,000 rpm Direct drive
- Rotary disc type (BT40, 24 tools)
- Built-in coolant nozzles
- Spindle oil cooler
- Automatic lubrication system
- M30 automatic power off
- Ethernet transfer
- LED work light
- Rigid tapping

### Option Accessories:

- 10,000/12,000 rpm direct-drive spindle
- Pneumatic counter-balance on Z-axis
- Programmable coolant nozzle adjustment
- Coolant through spindle (15 bar/20 bar)
- 4th axis rotary table and tailstock
- Automatic tool measuring device
- Increase height of column
- Screw type chip conveyor
- Link chain type chip conveyor
- Oil / fluid separation device
- Coolant gun and air gun

**INSPECTION**

**Dynamic roundness inspection**



**Laser inspection**

