### Specification Table

Model		Unit	JN-NV1050
Travel	X axis	mm (inch)	1050 (41.3)
	Y axis	mm (inch)	550 (21.7)
	Z axis	mm (inch)	600 (23.6)
	Spindle nose to table	mm (inch)	150-750 (5.9-29.5)
	Spindle centre to solid column surface	mm (inch)	566 (22.3)
Table	Working area	mm (inch)	1300*550 (51.2*21.7)
	Max.loading	kg	700
	T-slots(No.*Width*Pitch)	mm (inch)	5*18*125 (5*0.8*5.0)
Spindle	Tool shank	-	BT40 (BT50)
	Speed	rpm	6000
	transmission	-	Belt (Gear) Drive
	Bearing lubrication	-	Grease
	Cooling system	-	Oil cooled
	Spindle motor max.rating	kw (HP)	15 (20)
	Axis motor max.rating(MITSUBISHI)	kw	2.0 / 3.5 / 3.5
	Axis motor max.rating(FANUC)	kw	2.5/2.5/2.5(STD)3.0/3.0/4.0(OPT)
Feed rates	Rapids on X/Y/Z axis	m/min	36 / 36 / 3
	Max. Cutting feedrate	m/min	20 / 20 / 20
Tool magazine	Tool storage capacity	pcs	24
	Type of tool (optional)	type	BT40 (BT50)
	Max.tool diameter	mm (inch)	85 (3.3) arm
	Max.tool weight	kg	7
	Max. Tool length	mm (inch)	300 (11.8) arm
Avg.changing Time (ARM)	Tool to tool	sec.	2.5
	Air source required	kg/cm <sup>2</sup>	6 up
Accuracy	Positioning (VDI3341)	mm (inch)	0.01 (0.0004)
	Repeatability (VDI3341)	mm (inch)	0.005 (0.0002)
Dimension	Machine weight(net)	kg	7200 / 8000
	Power source required	kva	30
	Shipping Floor plan(L*W*H) water tank and chip conveyor not included	mm (inch)	2900*2500*2900 (114.2*98.4*114.2)
	Floor plan (L*W*H)	mm (inch)	3670*2520*2870 (144.5*99.2*112.9)

### **Configuration List**

#### Standard Accessories

Fanuc controller

Spindle speed 8000/10000/12000/20000 rpm(depend on machine model)

Automatic tool changer

Full splash guard

Heat exchanger for lectric cabinet

Automatic lubricating system

Spindle air blast system

Spindle oil cooler

Spindle air curtain

Spindle orientation

Coolant gun and air socket

LED light

Rigid tapping

Coolant system and tank

Cycle finish indicator and alarm lights

**Note**: Due to the continuous research and development of products and continuous technological innovation, the company has the right to change and the right to final interpretation, without prior notice.







# JIANGNAN CNC MACHINE TOOL CO., LTD. JIANGNAN TECHNOLOGY (SONGYANG) CO., LTD.

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# JN-NV1050

HIGH-SPEED HEAVY-DUTY MACHINING CENTER

- Structural design of high speed, heavy cutting and high precision
- Short nose spindle, high precision and rigidity
- Air blowing in the center of the spindle and air curtain protection of the spindle
- High speed and high precision performance control system
- Fully enclosed protection (oil mist reclaimer OP)

#### **■** High Performance Spindle

Blow air in the center of the spindle to keep the tool handle clean and improve the processing accuracy.

The air curtain protection of the spindle prevents dust from entering the spindle bearing and enhances the service life of the spindle.

The nozzles integrated around the spindle avoid adjusting the single nozzle when processing complex shapes



Three-axle guideway adopts Japanese THK45 roller ultra-high speed linear guideway, which has high rigidity, high load, high speed and low temperature.

Three-axle screw adopts Japanese THKSBN4012X superhigh speed super-silent ball screw. DN as high as 2200000 low noise low temperature rising speed rigidity.



Equipped with the highest performance high-speed and highprecision control system, FANUC Series Oi-MF system improves the accuracy, production efficiency and process safety.

The control system is equipped with CF card to increase the memory element

The control system has many kinds of error compensation. Achieve high precision processing.



Gear spindle speed change device provides strong torque at low speed and ensures stable rotation at high speed, so the processing range is wider.





#### ■ Introduction to Machine Tools

As a high-speed and high-precision heavy-duty cutting center. Nv1050 is competent for both high-performance heavy-duty cutting and all-round precision cutting, which also benefits from the design of high dynamic performance structure.

In order to achieve the above characteristics, all castings are optimized by finite element analysis (FEA). Symmetry, compactness, high rigidity and thermal stability are adopted in the design. The rigidity of the body of the integrated box bed is the basis to ensure that the machine tool does not deform. It can also ensure good shock absorption, high stability and high rigidity when it is processed continuously under heavy load. Reaction in the processing structure is stable milling performance. The constant quality of high precision production process is guaranteed.

This newly designed and highly efficient vertical machining center opens a new chapter in the field of standard vertical machining centers. It features high speed, high precision, simple operation, modern design, durable and fully automatic chip removal structure and unprecedented high performance ratio. From low-speed casting processing to high-speed aluminum alloy processing, it meets the extensive needs of various industries led by the automotive industry and shows its value of existence.







#### ■ Oil-Water Separation Box

Oil-water flow is designed in the machine tool to prevent 80% of the dirty oil from flowing into the water tank and mixing with cutting fluid to deteriorate, affecting the processing



#### ■ Machine Tool Chip Removal

In the design of shoulder row of machine tool, twin screw + chain plate chip removal machine is adopted.

Machine tool processing iron chips and coolant flow to both sides of chip removal screw with high inclination shield, and then discharged from outside of machine tool to garbage truck by chain plate chip removal machine, effectively reducing machine tool nonprocessing time and reducing the labor intensity of employees.





#### ■ Electric Cabinet

Closed electric cabinet, prevent any oil mist, water mist into the cabinet, in order to avoid damp electrical components and short circuit or damage.

Electrical standards meet the safety requirements, neat, orderly and reasonable layout.



#### ■ Electric Box

The air pressure system is centrally hung outside the protection, easy to manage and maintain.

The position of the oil injector is convenient to add lubricating oil, away from electrical components, ensuring safety and easy to use.



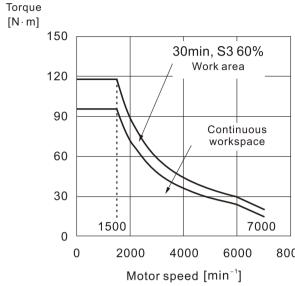
#### Water Tank

300L super large capacity labyrinth water tank, long-term provision of stable flow and low-temperature cutting fluid standard oil-water separator, to prevent the deterioration of cutting fluid, with green environmental protection.

# Output characteristics of spindle motor Output [KW]

20

15



### Machine Outward Size Diagram

2000

1500

0

Continuity

\_18.5kW\_

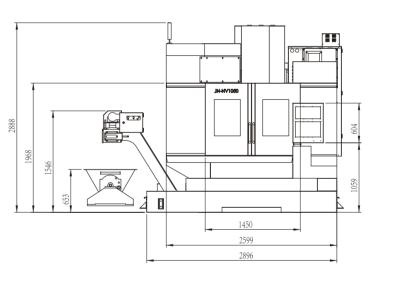
15kW

Continuous

workspace

4000

Motor speed [min<sup>-1</sup>]



30min. S3 60%

Work area

7000

8000

6000

