



YUAN LUNG

ROUTMAC

**YUAN LUNG MACHINERY WORKS.
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DOUBLE COLUMN CNC ROUTER

With advanced performance to help
you stay competitive.



YL-48122 (R+B+U)



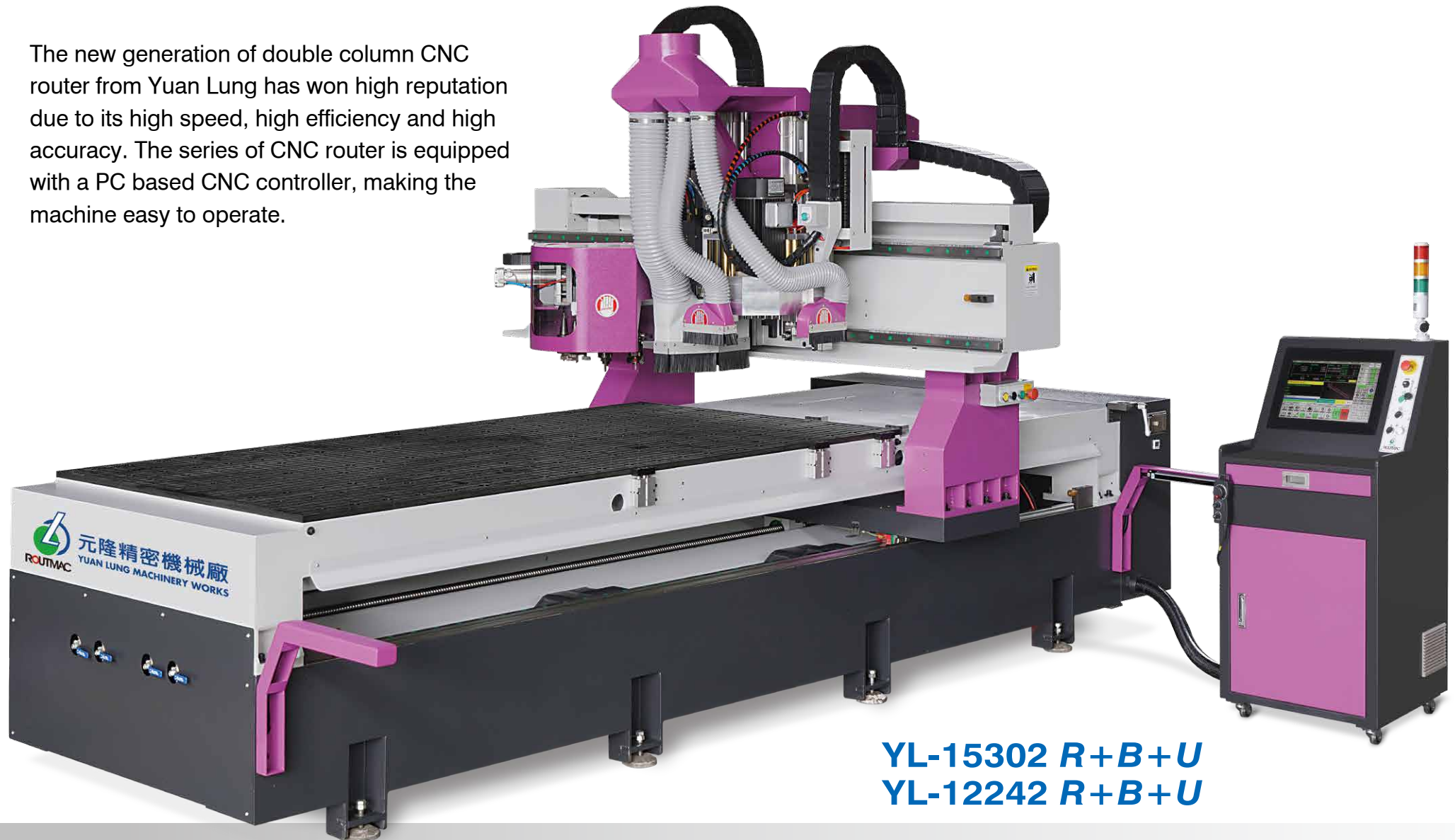
YL-12241 (R+U)



12094 (R+L)

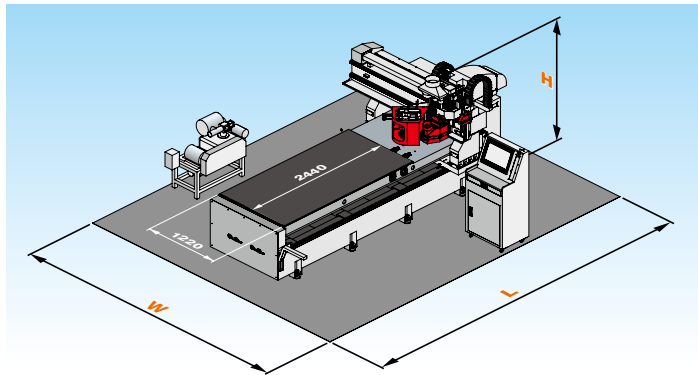
DOUBLE COLUMN CNC ROUTER

The new generation of double column CNC router from Yuan Lung has won high reputation due to its high speed, high efficiency and high accuracy. The series of CNC router is equipped with a PC based CNC controller, making the machine easy to operate.

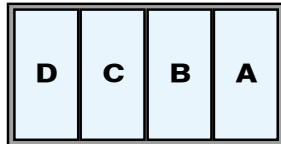
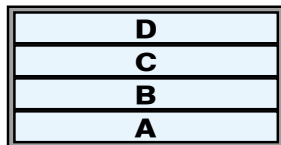


YL-15302 R+B+U
YL-12242 R+B+U

Specifications :



MODEL	YL-12242 R+B+U	YL-15302 R+B+U
Max. size can be machined on table	1220 x 2440 mm	1550 x 3060 mm
Length occupied	5500 mm	6100 mm
Width occupied	4500 mm	4800 mm
Height occupied	2500 mm	2500 mm



VACUUM TABLE

- The vacuum table type can be changed to meet customer requirement.
- Vacuum table can be divided into two vacuum areas, so that operator can change parts on one area when other area is used for machining.

MODEL		YL-12242 R+B+U	YL-15302 R+B+U
Capacity	Max. workpiece sizes	4' x 8' feet	5' x 10' feet
Travel	X-axis travel	1720 mm	1953 mm
	Y-axis travel	2870 mm	3480 mm
	Z-axis travel	280 mm	280 mm
	Spindle nose to table	200 mm	200 mm
	Distance between columns	1340 mm	1670 mm
Table	Table area	1220 x 2440 mm	1550 x 3060 mm
Feed Rate	Cutting feed rate	10 M/min	10 M/min
	X-axis rapid traverse	36 M/min	36 M/min
	Y-axis rapid traverse	36 M/min	36 M/min
	Z-axis rapid traverse	10 M/min	10 M/min
Spindle	Spindle speed (Variable)	1,000~24,000 rpm	1,000~24,000 rpm
	Spindle taper	ISO 30	ISO 30
ATC	Magazine type	Umbrella type	Umbrella type
	Tool shank	ER 32	ER 32
	Tool numbers	8 pcs	8 pcs
	Shelf	8 pcs	8 pcs
	Collect	8 pcs	8 pcs
Cutter	Router bit sizes	3~100 mm	3~100 mm
	Collet sizes	3~20 mm	3~20 mm
Boring unit	Power	2.5 HP boring unit 9V+4H+2S	2.5 HP boring unit 9V+4H+2S
	Vertical spindles	9 pcs (5 in X-axis, 4 in Y-axis)	9 pcs (5 in X-axis, 4 in Y-axis)
	Horizontal spindles	4 pcs (2 in X-axis, 2 in Y-axis)	4 pcs (2 in X-axis, 2 in Y-axis)
	Max. saw blade ø120 mm	2 pcs (1 in X-axis, 1 in Y-axis)	2 pcs (1 in X-axis, 1 in Y-axis)
Motor	Spindle motor (Made in Italy)	S6:9.6KW / S1:8KW	S6:9.6KW / S1:8KW
	X-axis motor	1.7 Kw	1.7 Kw
	Y-axis motor	2.4 Kw	2.4 Kw
	Z-axis motor	1.7 Kw	1.7 Kw
	Vacuum pump motor	50HZ:5.5KW/60HZ:6.4KW	50HZ:5.5KW/60HZ:6.4KW
Others	Air pressure required	6 Kgf/cm ²	6 Kgf/cm ²
	Packing Dimensions (LxWxH)	2250 x 4250 x 2250 mm	2485 x 4870 x 2250 mm
	N.W.	5000 kg	5300 kg
	G.W.	5500 kg	5800 kg

• Dimensions and design characteristics shown on this catalog are subject to change without prior notice.

MODEL IDENTIFICATION

YL - **12** **24** **2** / **R** + **B** / **C** + **A** / **S**

Machining Size

1209 : 1220 x 900 mm



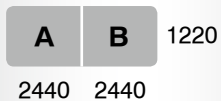
1224 : 2440 x 1220 mm



1530 : 3060 x 1550 mm



4812 : 4880 x 1220 mm

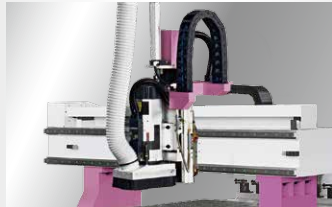


A : 1220 x 2440 mm

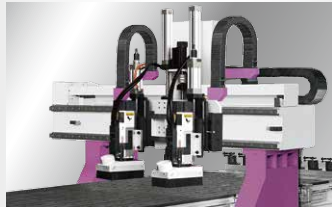
B : 1220 x 2440 mm

Spindle Q'ty

1: Single spindle



2: Double spindles



3: 4 Spindles



4: Spindle+line boring unit



Spindle

HSD ES 951
(S6: 9.6 KW / S1: 8 KW)
24000 rpm Single spindle



Line Boring Unit

9 vertical boring units+4 hori.
boring units +2 sawblades
(order code: 9V4H2S)



9 vertical boring units+8 hori.
boring units (order code: 9V8H)



9 vertical boring units
(order code: 9V)

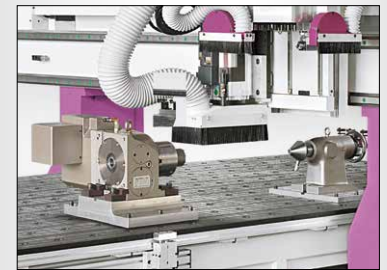


18 vertical boring units+6 horizontal
boring units+1 sawblade
(order code: 18V6H1S)



C-Axis (4th Axis)

Available to equip with C-axis
(4th axis)



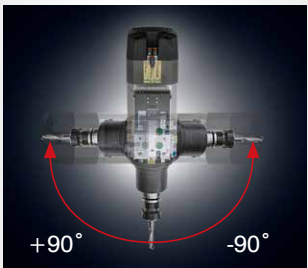
+ **U** / **L** + **N**

Angular Axis

The spindle can be rotated to a vertical or horizontal position for machining.

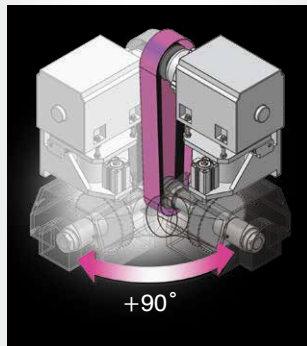


The Spindle can be rotated to various angles for machining with rotating range $\pm 90^\circ$



Spindle Shaper

Allows for vertical or horizontal machining. (Suitable for fitting with shaper cutter or sawblade)



Umbrella Type Tool Magazine

- Fast tool change.
- Tool loading capacity: 8 tools.



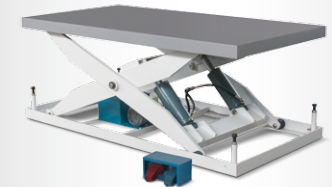
Linear Magazine

- Tool loading capacity: 8 or 10 tools.
- Accommodates ISO 30 tool shank.



Hydraulic Lifting Table

For material infeed.



Belt Type Outfeed Conveyor Table

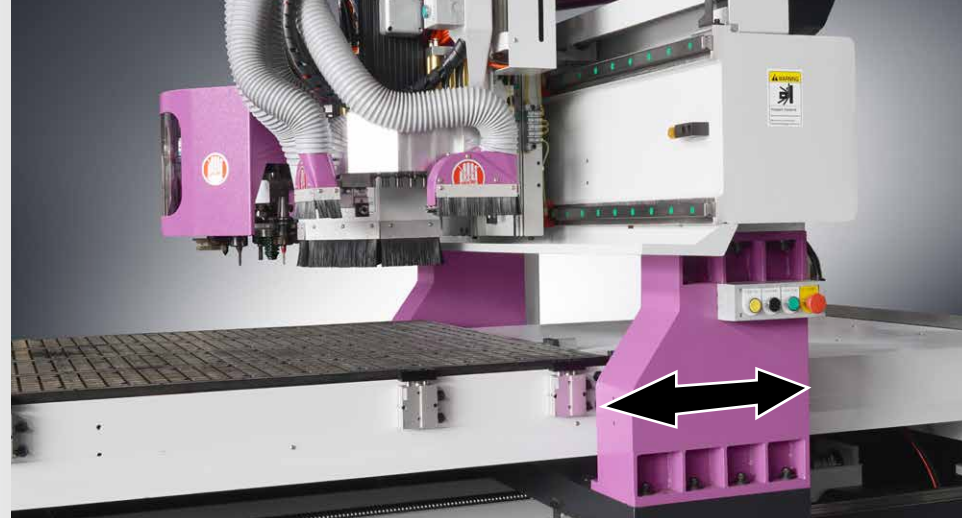




HSD HIGH-FREQUENCY SPINDLE (ES-951)

POWER S6: 9.6 KW / S1: 8 KW

- The HSD high-frequency spindle provides a maximum speed up to 24,000 RPM as standard.
- Italian-imported HSD high frequency spindle.
- The spindle accepts ISO 30 tool shank.
- The spindle is air cooled.
- It provides tool shank cleaning effect when changing tool.



MOVING COLUMNS

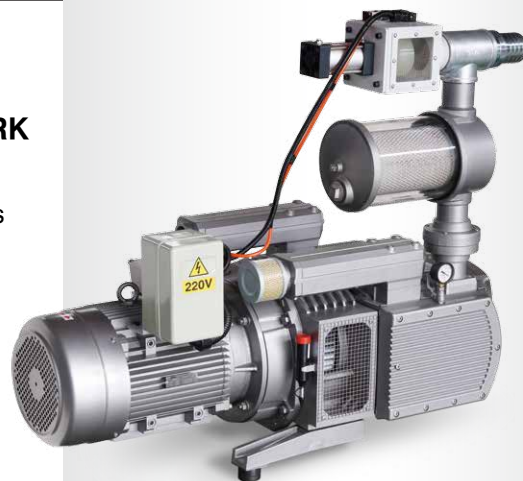
- The moving-columns structure greatly saves occupied area of the machine.
- The double column movement is transmitted through precision screw and linear guide ways, featuring great rigidity and stability.



CONNECTION PORT OF NETWORK INTERFACE

The controller provides network online transmission function.

DIGITAL VACUUM PRESSURE GAUGE



VACUUM MOTOR

Equipped with an electronic detection switch to make sure the workpieces have been fixed securely.



DIRECT DRIVE OF SERVO MOTOR

- The servo motor directly drives the ball screw and is transmitted through a coupling for backlash free transmission.
- Use of Germany made fully enclosed wire channel.





AUTOMATIC LUBRICATOR

- The automatic lubricator delivers lubrication oil to all slideways and feed screws, resulting in extremely smooth movements on 3 axes.
- Lubrication frequency and oil flow may be adjusted as desired.



VOLTAGE STABILIZER + TRANSFORMER (Optional)

- For some areas where voltage from power source is unstable, the voltage stabilizer is recommended to stabilize voltage and prevent machine shut down.
- The standard voltage for this machine is 220V. Other voltages should be converted to 220V through the transformer.

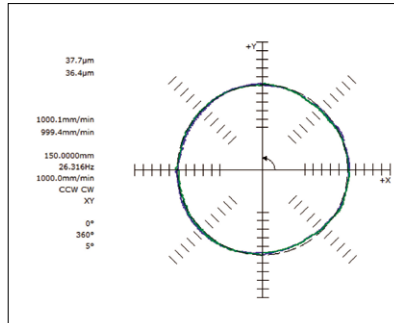
MASSIVE BASE CONSTRUCTION

- The exclusively designed extra large base structure provides a solid support for the entire machine. This design also features the optimal rigidity and stability of structure.
- The base is tempered to relieve internal stress, ensuring that the base is deformation free.



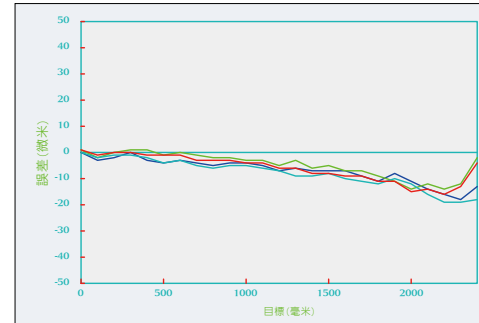
MANUAL TOOL ALIGNMENT DEVICE

This device will ensure cutting depth accuracy to reach 0.01 mm.



BALL BAR TESTING

- A ball bar testing equipment is applied to inspect circularity and geometric accuracy.



LASER INSPECTION

- Each machine is subject to laser inspections for positioning accuracy, repeatability, screw pitch error and backlash.
- Full travel positioning accuracy: ± 0.03 mm.

AIR CYLINDER COUNTER-BALANCE

The spindle head is counter-balanced by an air cylinder which upgrades machining stability and accuracy.



CAROUSEL TYPE TOOL MAGAZINE

- Tool loading capacity: 8 tools.
- Tool shank: ISO 30
- With the use of Japanese made spring, even for a long cutterhead, it will not fall when performing tool change.
- Tool disk is one-piece fabricated from aluminum alloy.



AUXILIARY SWITCHES

- The moving column end is equipped with an auxiliary switch box, making it convenient for the operator to operate the machine at the outfield end without need to return to the main operation box.
- 4 auxiliary switches including: vacuum switch, cycle start switch, feed hold switch and emergency stop switch.



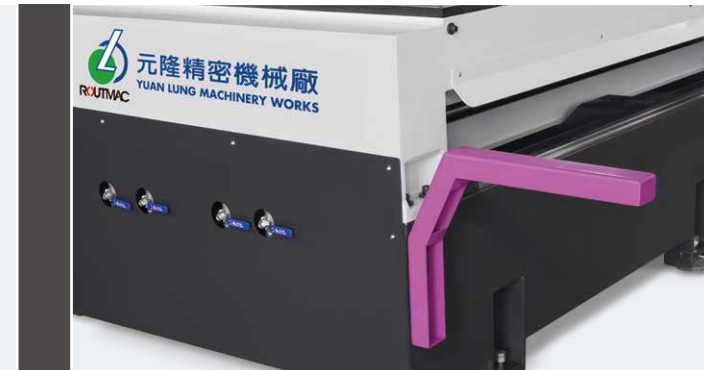
HOME POINT POSITIONING AIR CYLINDER

- Air change at home point allows panel to position accurately.
- Repetitive panel positioning eliminates troublesome panel repositioning.



INFRARED RAY OPTICAL GRATING

During the machine is running, the optical grating is used to prevent any personnel from entering into the working range of the machine. If a person enters into the range, the machine will shut down automatically.



MANUAL CHANGE OF VACUUM VALVE

To change the vacuum suction area by means of manual vacuum valve.

PC Based CNC Control

User-Friendly Operation

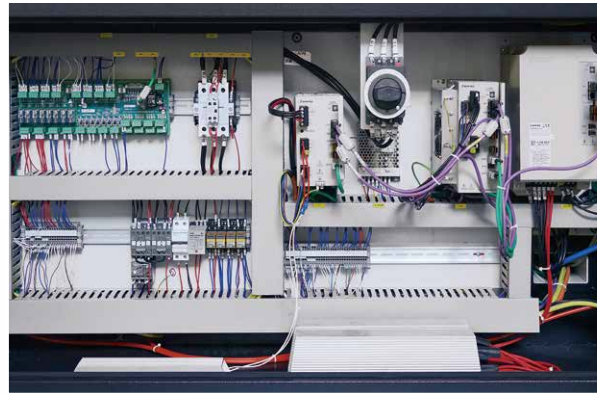
The machine is equipped with a PC based CNC control with powerful functions.

Functions of Windows CE System

- Open type human-machine interfacing.
- USB transfer interface allows for transferring data through internet.
- Chinese / English display.
- Programs can be transferred through network with the use of USB.
- Start and stop control for automatic machining cycle and single block execution.

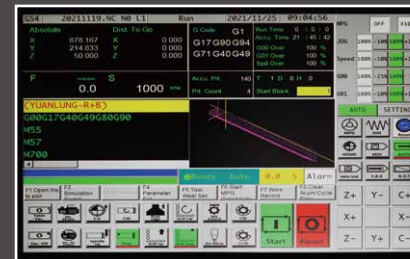
CONTROL BOX

- Use of general standard PC keypad, mouse and screen for increasing convenience of operation.



ADVANCED CONTROLLER

- This machine is equipped with a new generation CNC controller in combination with the use of high performance servo motor, providing high precision machining performance.



COMPUTER SCREEN

- It provides Chinese and English display.

SPINDLE LOAD MONITORING

This function allows for monitoring the spindle load status at any time during cutting. In case overload occurs, the machine stops automatically.



CUTTING TOOL COOLING

An air blow tube is equipped at the side of the spindle, which provides direct cooling on the cutting tool. Once the spindle starts running, air blow starts automatically.



PLC-I / O-BIT

- Allows for instant monitoring of operation status.
- Convenient for checking when conducting maintenance.



MPG HANDWHEEL

- The MPG handwheel provides convenient cutting. It is used to move 3 axis, actual cutting test and 3 axis feed speeds adjustment.
- Minimum setting unit: 0.001 mm.

Optional Equipment

A wide range of equipment to select



HORIZONTAL SAWBLADE ASSEMBLY



4H 4-DIRECTION HORIZONTAL MILLING ASSEMBLY



3-SPINDLE BORING UNIT



UNIVERSAL MILLING HEAD



CS-2500 OIL MIST SPRAYER



TOOL ALIGNMENT DEVICE FOR CNC MACHINE



ISO 30 STANDARD TOOL ARBOR

ISO 30 MOULDING TOOL ARBOR

1H1S SIDE SAWBLADE ASSEMBLY



5V LINEAR MULTI-SPINDLE BORING UNIT



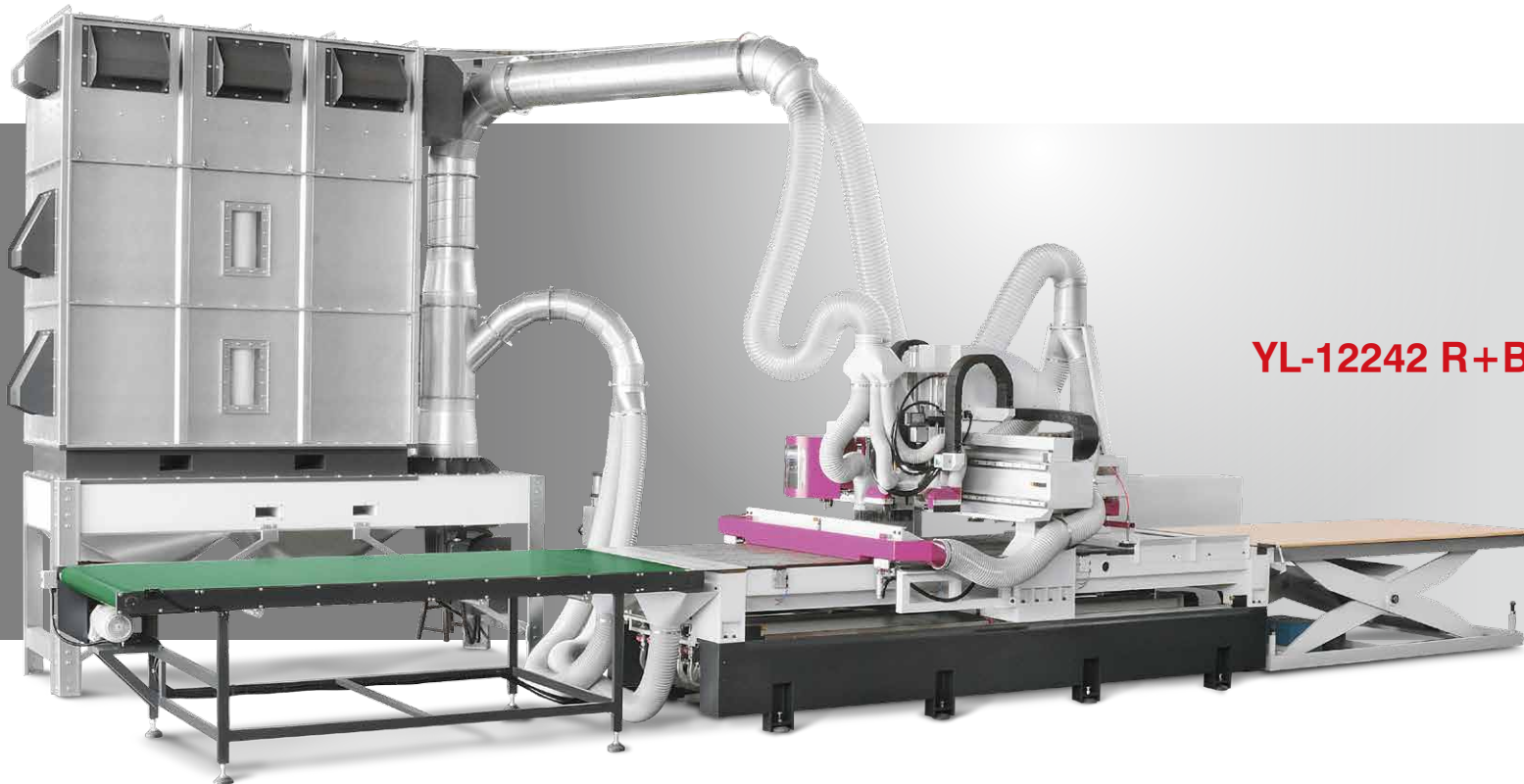
PANEL OUTFEED MECHANISM

- After machining, the panel is pushed out automatically.
- The panel outfeed mechanism is equipped with dust suction hood.



SUCTION CUPS FOR PANEL INFEEED

- The panel infeed is operated by vacuum suction cups.
- Equipped with 6 oversized suction cups with diameter of $\varnothing 130$ mm, providing powerful suction capacity.



YL-12242 R+B+U+N