

OPTIONS	352R	8WR	500WR
Long Table 1050		○	
High Column 860		○	○
Halogen Lamp 1灯	○	○	○
RPM 3000 (without inverter & cooler)		○	○
RPM 4000 (without inverter & cooler)		○	○
RPM 4000	●		
Main spindle Inverter (3.7 KW)	○	○	○
Main Spindle inverter (5.5 KW)		○	○
Oil Cooler	○	○	○
NT40 → BT40	○		
NT50 → BT50		○	○
Main Spindle Air Break		○	○
Chip Coil Conveyors	○	○	○
Side Guard	○		
Partition Type Coolant Tank 160L		○	
Partition Type Coolant Tank 180L		○	○
Table Splash Guard	○		
Table Splash Guard		○	○
Motor Power UP (5.5kw)		○	○
Air Blow (Manual)	○	○	○
External F I N type M Signal Output	○	○	○
Contour Programming	○	○	○
Playback Rotational move	○	○	○
Teaching program input & output	○	○	○
Teaching memory x10	○	○	○
Teaching memory x50	○	○	○
Teaching memory x100	○	○	○
Teaching memory x190	○	○	○
Scale feedback X & Y axes	○	○	○
Add coolant nozzle	○	○	○
Positioning Block	○	○	○
Designated color	○	○	○

## Specifications (352R/8WR/500WR)

Working Surface  
**1400x350 / 1400x400 / 1600x500**

Loading Capacity  
**500kg / 600kg / 600kg**

Table T-Slot Width & Pitch  
**18(h7) mm P80mm / 18x(h7)mm P80mm**

Number of T-Slot  
**4 / 5 / 5**

X & Y axes travel  
**750 x 350 / 850 x 400 / 1050 x 500**

Z Axis Travel (Spindle Vertical)  
**500 / 520 / 520**

Distance from Spindle nose to table top  
**115mm~615mm / 140mm~660mm**

Distance from floor to table top  
**820mm**

Max Spindle Speed  
**4,000min<sup>-1</sup> / 2,000min<sup>-1</sup> / 2,000min<sup>-1</sup>**

Tapered Bore  
**7/24 ISO No.40 / 7/24 ISO No.50**

Cutting Feed Rate (Auto)  
**1~4,000mm/min**

Rapid Traverse (X, Y)  
**6,000mm/min**

Control  
**FANUC System 20iFB**

Functions  
**Manual + Guidance**

Controlled Axes  
**2 axes (X & Y)**

Motor for Main Spindle  
**3.7kw**

Motor for X axis feed  
**1.2kW AC Servo**

Motor for Y axis feed  
**1.2kW AC Servo**

Motor for sliding surface oil pump  
**23W**

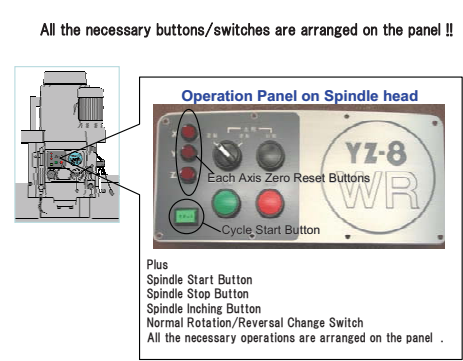
Required Power (Electric)  
**10kVA**

Floor Space  
**2400mm x 1680mm x 2315mm/  
 2950mm x 1870mm x 2475mm/  
 3350mm x 2020mm x 2475mm**

Weight (Approx)  
**2500kg / 3500kg / 4700kg**

# YZ-WR Series

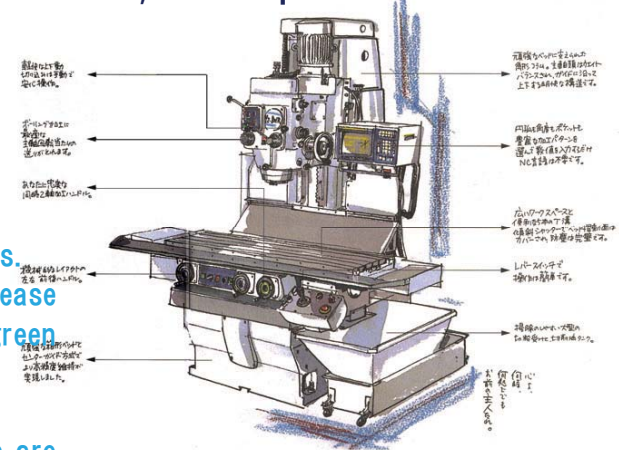
## Bed Type CNC Vertical Milling Machine



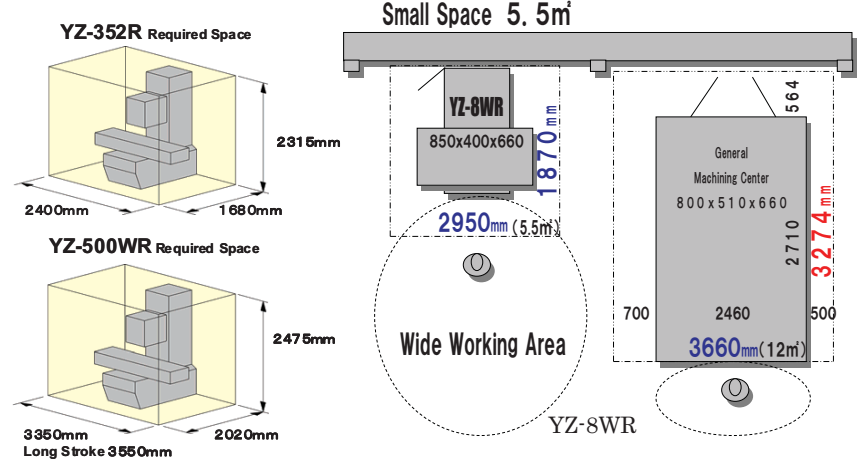
- 2 axes Servo Control
- Manual Operation
- Guidance Functions
- Teaching/Playback

WR series is suitable for machining with many varieties, small quantities

- Its efficient button, handle, and lever arrangement has been individually studied from the operator's view point.
- One hand operable buttons on the spindle head panel
- Guidance Function: Simple numeral input without NC Languages.
- Simultaneous cuts such as arcs & oblique can be done with ease even by manual operation(guidance function with yellow-green handle)
- Deep cutting is safe without use of CNC. Vertical movements are made manually and feature effortless, functional performance.
- Easy Manual Operation by individual levers & handles.
- Easy access to the work piece on the table.
- Less required floor space



## Floor Space Requirement



**Option**

- High Column**
- Long Table** (Standard / Long)
- Spindle Motor Power Up** (3.7KW~5.5KW)
- Main Spindle** (8WR・500WR)
- Chip Coil Conveyor**
- Long Stroke** (200mm Stroke up for X axis)
- Table Splash Guard**
- Side Guard**
- Partition Type Cutting Lubricant Device**

**Standard equipment**

- 3000rpm/4000rpm
- Lubricating oil cooling system for Spindle head

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Cutting ability	2000 min <sup>-1</sup> Standard Spec	(Taper: No.50 motor: 3.7kw)
Face Mill	φ100mm 5 Cutters	Face Mill φ200mm 10 Cutters
	Depth 5mm S 475 min <sup>-1</sup> F 250 mm/min 0.1mm/cutter	Depth 3mm S 250 min <sup>-1</sup> F 250 mm/min 0.1mm/cutter
Roughing	φ50mm 6 cutters	Endmill φ50mm 2 cutters
	Depth 50mm S 120 min <sup>-1</sup> F 40 mm/min 0.06mm/cutter	Depth 30mm S 120 min <sup>-1</sup> F 50 mm/min 0.2mm/cutter
Drill	φ40mm	Tap M24
	S 150 min <sup>-1</sup> F 30 mm/min 0.2mm/rev	S 150 min <sup>-1</sup> P 3mm

# Basic Structure

## Box Shaped Bed



The box-shaped bed becomes stable foundation of accuracy and rigidity.

- YZ bed has the symmetrical box center guide system.
- The wide guide ways promise long-term maintenance of high accuracy.
- All axial guides and sliding surfaces undergo scrape finishing by the hand of skilled workers.
- Cast iron is used as the basic material which is stabilized, superior in vibrating absorptivity & is the material that has the same coefficient of expansion as the steel.

## Table

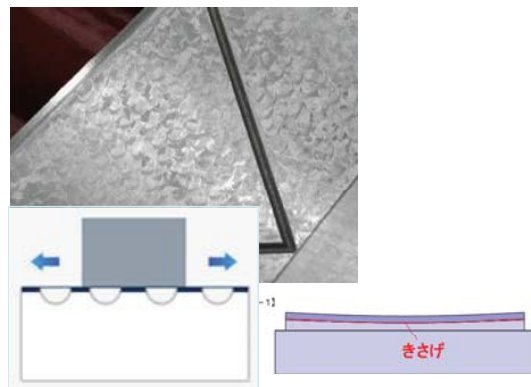
The entire table has been designed for high accuracy and easy operation.



- Long & wide table relieves operator's difficulty to clamp long-work and complicated shape work.
- To maintain machining accuracy, the table is extremely rigid and free of any warpage.
- The hale byte is used for finishing. Operator can easily remove work piece on the hale byte finished table.

## Scrape finishing

Scrape finishing supports long-lived high accuracy.



- The reason that our milling machines are loved long, is hidden and invisible in sliding surfaces and surface under the column.
- That hand finish called the scrape finishing improves the machine's precision in micron level that machining cannot achieve.
- Because all of the sliding surfaces are scrape finished, the long term high accuracy and long operating life are promised

## Mono-Lever / Manual Handles / Debag Handle



X axis & Y axis handles are independent and simple to use. One mono-lever allows operator to cut and feed as well as fast-feed from left to right and front to back as desired even by one hand.

Not only does it move each axis smoothly, but also you just push down the mono-lever to the desired direction for easy simple manual machining.

The yellow-green handle moves 2 axes of X Y simultaneously. Program debug check can also be very easily done with this handle. (3 axes machines) The feeding speed is linked to the speed of turning the handle, so it is convenient when prudent machining is necessary such as checking the interference of the tool.

# Guidance Function

## What is the guidance function??

- Just choose a function & Input Numerical Values
- enable to decrease number of tools with cutter compensation function
- Measurement Function calculates the datum point instantly
- Contour Programming (Option) corresponds most of 2D work
- The following map indicated
- Coordinate value automatically calculated
- Data not erased even after the power is turned off.

Isn't your valuable time wasted in doing difficult programming?

What is the guidance function?

A wide variety of pattern cycle menus allow operator to simply choose and input numerals.



Just input numerals and the cutting condition !

Arcs and oblique can be cut with ease by either lever or handle.

It is a convenience function that can operate simultaneous 2 axis machining such as the circular arc, oblique, and pocket machining without NC programming.

As the drawing, input numerals intuitively and machine quickly!

Friendly function of a wide variety of patterns is suitable for machining of many varieties and small quantities.

Simplicity input ! Quick start without programming ! Anyone can operate it!

NC Programming

- ◆Compilation of program and inputting could be troublesome.
- ◆The collision could occur due to program mistake.
- ◆Difficult coordinate calculation.

```
O500 : Main
G90G54G00X0Y0 ;
G43Z100H01M1 ;
S1000M3Z3;
G98G81R3Z-2F100K0 ;
M98P501 ;
G80Z200M5;
M1 ;

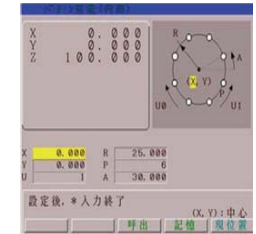
O501 : Sub
X21.651Y12.5 ;
XOY25 ;
X-21.651Y12.5 ;
X-21.651Y-12.5 ;
XOY-25 ;
X21.651Y-12.5 ;
M99 ;
```

Knowledge of the NC program is necessary. =Only operators with knowledge can use it.

Example : Circumference

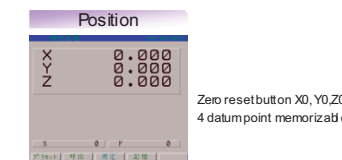
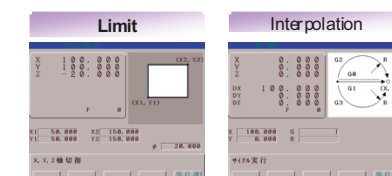
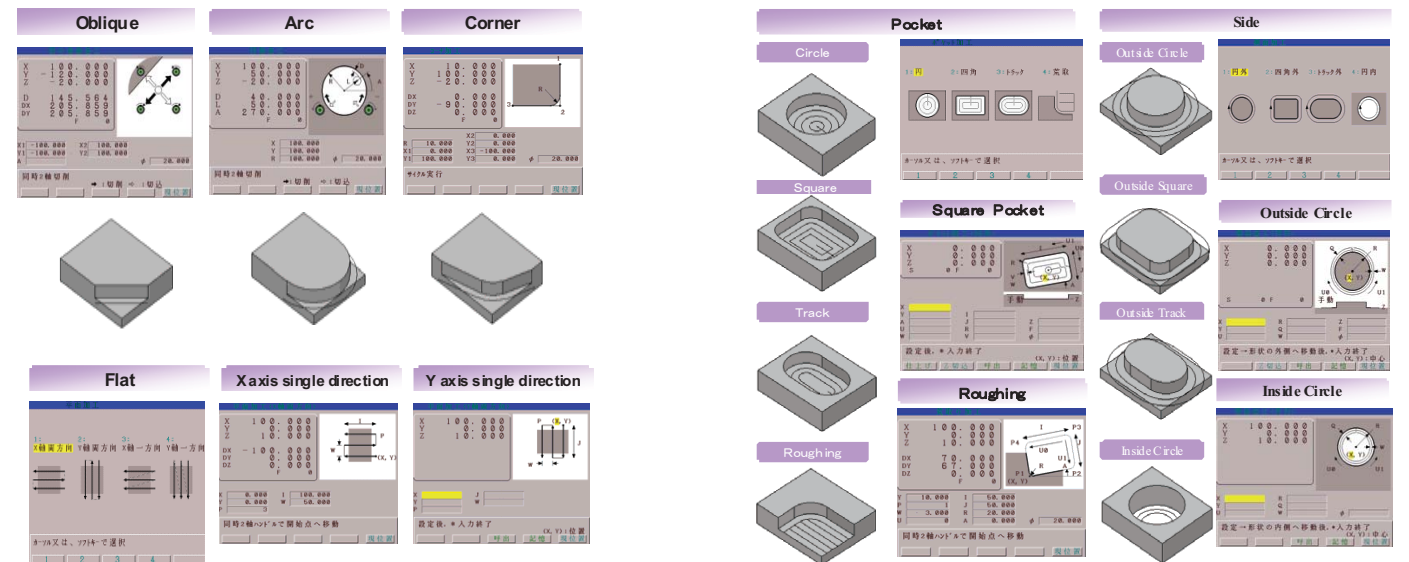
Guidance Function

- ◆Simple input without G-code
- ◆Less possibility of the collision due to program mistake
- ◆Coordinate value automatically calculated.

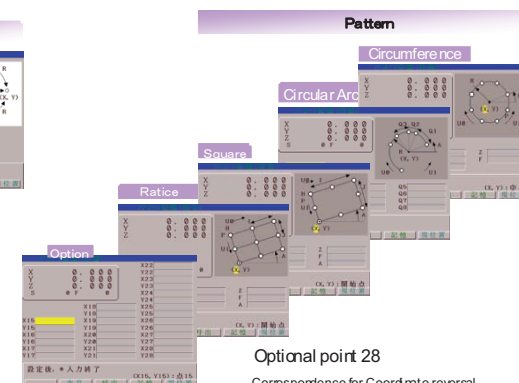


(X, Y) : Circular central coordinate  
(U) : Portable direction  
(R) : The radius of PCD  
(P) : Hole quantity  
(A) : Angle of the 1st hole

For NC language unnecessary, anyone can operate. =Any operator can use it.

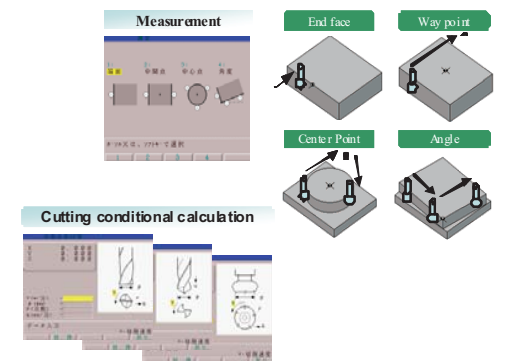


Zero resetbutton X0, Y0,Z0  
4 datum point memorizati



Optional point 28

Correspondence for Coord rate reversal,  
Coord rate movement, Bunde elimination



Indicate tool RPM/lead rate  
It calculates optimum condition