



**TOP Well**

# Vertical Machining Centers

*LINEAR WAY SERIES*

**TOTAL SOLUTION**



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TOPWELL Machinery Co., Ltd

## TW-600

- X / Y / Z Travel : 610 × 460 × 480 mm
- Table dimension : 760 × 460 mm
- Spindle taper : BT40 / CAT40
- Spindle speed : 5.5/ 7.5KW / 8,000 /10,000/12,000
- ARMLESS ATC : 16, 20 tools
- ARM ATC : 24 tools



## TW-800

- X / Y / Z Travel : 800 × 460 × 480 mm
- Table dimension : 1000 × 460 mm
- Spindle taper : BT40 / CAT40
- Spindle speed : 5.5/ 7.5 KW / 8,000 /10,000/12,000
- ARMLESS ATC : 16, 20 tools
- ARM ATC : 24 tools



## TW-950



- X / Y / Z Travel : 1100 × 520 × 640 mm
- Table dimension : 1250 × 520 mm
- Spindle taper : BT40 / CAT40
- Spindle speed : 7.5/ 11KW / 8,000 /10,000/12,000
- ARMLESS ATC : 20 tools
- ARM ATC : 24、32 tools



## TW-1150

- X / Y / Z Travel : 1100 × 520 × 520 mm
- Table dimension : 120 × 520 mm
- Spindle taper : BT40 / CAT40
- Spindle speed : 7.5/ 11 KW / 8,000 /10,000/12,000
- ARMLESS ATC : 20 tools
- ARM ATC : 24、32 tools





## TW-1164

- X / Y / Z Travel : 1100 × 640 × 600 mm
- Table dimension : 1250 × 620 mm
- Spindle taper : BT40 / CAT40
- Spindle speed : 11/ 15KW / 8,000 /10,000/12,000
- ARMLESS ATC : 20 tools
- ARM ATC : 24、32、40 tools



## TW-1364

- X / Y / Z Travel : 1300 × 640 × 600 mm
- Table dimension : 1450 × 620 mm
- Spindle taper : BT40 / CAT40
- Spindle speed : 11/ 15 KW / 8,000 /10,000/12,000
- ARMLESS ATC : 20 tools
- ARM ATC : 24、32、40 tools



## 4.5KW Z Axis AC Servomotor DC barker with Z Axis AC Servomotor

For Fast Response For fast cutting. During 3-D contouring, the conventional counter balance makes vibration, and cause the bad finish of the work piece. the new design using the DC brake motor, and high-power servo motor can eliminate the vibration caused by counter balance, and ensure better finish of the work piece. Furthermore, the machine, work piece, and tool can when the power is suddenly off.



## X · Y Axis Ac Servo motor

3 KW X · Y Axis Ac Servo motor are using the high response drivers matter in low speed or high speed.



## Belt type spindle

P4 class angular contact high precision spindle bearings with standard spindle speed up To 8000rpm



## Direct type spindle

Hi-precision and hi-rigid spindle (12000 /15000rpm) for smooth cutting. (opt.)

### Spindle motor Coupling

The direct drive spindle motor with German coupling reduces the vibration, and noise, and improves he finish, and machining ability.

### With air blowout function

the at spindle nose, protecting spindle bearing against the varied and system. Also, the Multi-Nozzle spindle coolant ring for easy using.

AIR IN

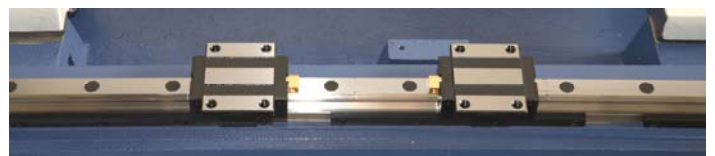


AIR OUT



## C 3 Class double Nuts Ball Screw

With high precision C3 class double nut ball screw, and applying suitable pre-tension, the ball screw backlash can be reduced and the accuracy can ensured.



## High Precision Linear guide ways

The high precision Japanese roller linear guide ways opt.) provides higher rigidity of the machine, and improve the machine stability, and machining ability.

● FANUC-0iM /18iM series controller

1. FANUC-0iM series

The up-to-date 0i-M series control has the high speed calculation capacity, and equipped with conversational program ( Manual Guide i ) etc. For the hardware is the most reliable control at the present. The PMC controlling program is developed by experienced engineer in order to meet the demand for general parts machining, car parts machining, simple die/mold machining, mock up job, and 3C product machining.



FANUC-0iM /31iIM

2. FANUC- 31iM series

The 31 iM series control can equipped with HPCC function (option) to improve the working time, and finish of the work piece. It can also do the complex 3D die / mold job. The better finish can be reach through the NURBUS function, and shorten the machining time, improve the working efficiency.

● Other Japanese control or European controls are available also.

We can install the Mitsubishi (Japan), Siemens (German), , Heidenhain (German) control.



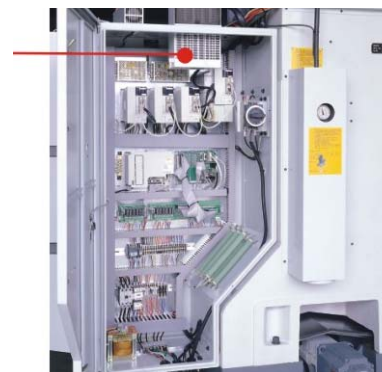
Mitsubishi 70M / 700M series



HEIDENHAIN

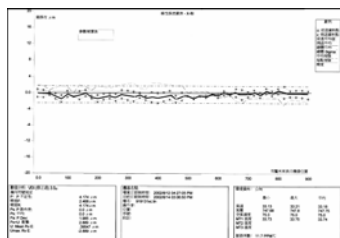
● CE standard electrical system, and thermal control air conditioner

- The TW Series : has high quality controlled electrical cabinet, and test run for 96 hours continuously. The electrical system is confirm with up-to-date CE regulation.
- The TW Series : is installed with thermal controlled air conditioner. It can solve the thermal problem of the electrical box entirely. It also can prevent the dust or chips go into the cabinet so that can extend, and stabilized all electrical components life.
- The user friendly operation panel is easy for operator to handling this machine without any unpredictable accident.



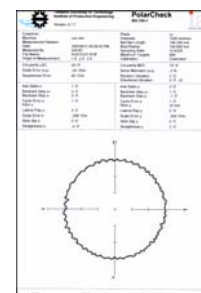
● High standard inspection quantity insurance

● Laser Linear inspection



Laser linear inspection Report

● Ball-Bar testing



Ball-Bar testing Report

## Specifications

Model	TW – 600	TW – 800	TW – 950	TW – 1150
X Axis travel	610mm	800 mm	900 mm	1100 mm
Y Axis travel	460mm	460mm	520 mm	520 mm
Z Axis travel	480mm	480mm	560 mm	560 mm
Spindle nose to table top	120– 600 mm	120– 600 mm	120 - 680 mm	120 - 680 mm
Table dimension	760X460 mm	1000X460 mm	1100X520 mm	1200X520 mm
T-slots (widex no.x pitch)	14 x 4 x 100 mm	14 x 4 x 100 mm	18 x 5 x 100 mm	18 x 5 x 100 mm
Table load capacity	300kgs	400kgs	600kgs	800kgs
Spindle nose	BT40 / CAT40 / ISO40		BT40 / CAT40 / ISO40	
Main motor	5.5Kw / 7.5Kw		7.5Kw / 11Kw	
Spindle RPM	8,000 (opt.10,000 / 12,000 / 15,000)		8,000 (opt.10,000 / 12,000 / 15,000)	
Rapid feed	36x36X32 m/min		32x32X32 m/min	
Cutting feed	1 ~ 10,000 mm		1 ~ 10,000 mm	
AC servo motor	1.8X 1.8 X 3Kw (Z Axis DC Brake)		3X 3 X 4Kw (Z Axis DC Brake)	
Coolant system	580W		580W	
Lubrication system	25W		25W	
ATC No. of tool . (Armless)	16、 20		16、 20	
ATC No. of tool ,(Arm)	16、 24		24、 32	
Positioning	±0.005mm		±0.005mm	
Repeatability	±0.0025mm		±0.0025mm	
Air pressure	5Kg / cm <sup>2</sup> over		5Kg / cm <sup>2</sup> over	
Machine weight	3,860Kgs	4,080Kgs	5,860Kgs	6,070Kgs
Floor space ( L x W x H )	2200x2100x2700	2200x2500x2700	2200x2720x2840	2200x2940x2860
CNC controller	● Fanuc 0i / 31i ● Mitsubishi 70S / 700S			

■ Specification and design characteristics are subject to change without prior notice.

### ■ STANDARD ACCESSORIES :

- Alarm light for abnormal situation
- Complete splash guard
- Adjusting tools and box
- External MPG (Manual pulse generator)
- Electrical / Machine Operation Manual
- RS-232 Interface
- Spindle air blast (M08)
- M30 Auto power off
- Heat exchanger cabinet
- Leveling bolts & pads
- Work light
- Coolant unit
- A.T.C. Unit
- Auto lube system

### ■ OPTIONAL ACCESSORIES :

- Auto-tool length measurement
- 4<sup>TH</sup> Axis NC Rotary table
- Power source transformer

## Specifications

Model	TW – 1164	TW – 1364
X Axis travel	1100mm	1300 mm
Y Axis travel	640mm	640mm
Z Axis travel	600mm	600mm
Spindle nose to table top	120– 720 mm	120– 720 mm
Table dimension	1250X620 mm	1450X620 mm
T-slots (wide x no. x pitch)	18 x 5 x 125 mm	18 x 5 x 125 mm
Table load capacity	800kgs	1000kgs
Spindle nose	BT40 / CAT40 / ISO40	
Main motor	11Kw / 15Kw	
Spindle RPM	8,000 (opt.10,000 / 12,000 / 15,000)	
Rapid feed	32x32X32 m/min	
Cutting feed	1 ~ 10,000 mm	
AC servo motor	3X 3 X 4Kw (Z Axis DC Brake)	4X 4 X 4Kw (Z Axis DC Brake)
Coolant system	580W	
Lubrication system	25W	
ATC No. of tool . (Armless)	16、 20	
ATC No. of tool .(Arm)	24、 32、 40	
Positioning	±0.005mm	
Repeatability	±0.0025mm	
Air pressure	5Kg / cm <sup>2</sup> over	
Machine weight	7,450Kgs	8,380Kgs
Floor space ( L x W x H )	3250x3500x2840 mm	3260x37400x2860 mm
CNC controller	● Fanuc 0i / 31i ● Mitsubishi 70S / 700S ● INTEK M-450	

■ Specification and design characteristics are subject to change without prior notice.

### ■ STANDARD ACCESSORIES :

- Alarm light for abnormal situation
- Complete splash guard
- Adjusting tools and box
- External MPG (Manual pulse generator)
- Electrical / Machine Operation Manual
- RS-232 Interface
- Spindle air blast (M08)
- M30 Auto power off
- Heat exchanger cabinet
- Leveling bolts & pads
- Work light
- Coolant unit
- A.T.C. Unit
- Auto lube system

### ■ OPTIONAL ACCESSORIES :

- Auto-tool length measurement
- 4<sup>TH</sup> Axis NC Rotary table
- Power source transformer

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