

*F*antastic *P*erformance

Vcenter-F76

Vertical machining center

- Travels: 760 / 500 / 510 mm (X/Y/Z)
- Rapid feeds 32/32/32 m/min
- 8000 rpm spindle output 15 kW (S3)
- Roller guideways and Ø40 mm ballscrews
- Screw chip removers included



Vc-F76 Fantastic VMC with high Performance

- Victor's own spindle (8000/10000 rpm)
- A-shaped column with long Y-axis travel 500 mm
- Roller type guideways
- High rapid feeds 32 m/min

X/Y/Z AXES

Travels: **760/500/510 mm**

Rapid feeds: **32/32/32 m/min**

Ballscrew diameter: **40/40/40 mm**

Guideways: **30/35/45 mm**

ATC

Capacity: **24 tools (opt. 30)**

Tool exchange time:

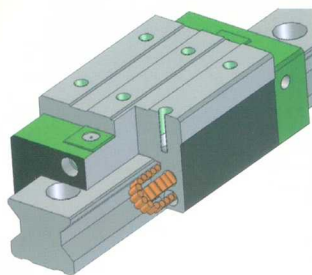
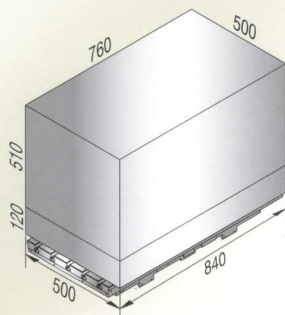
2.4 sec. (tool-tool)

5.7 sec. (chip-chip)

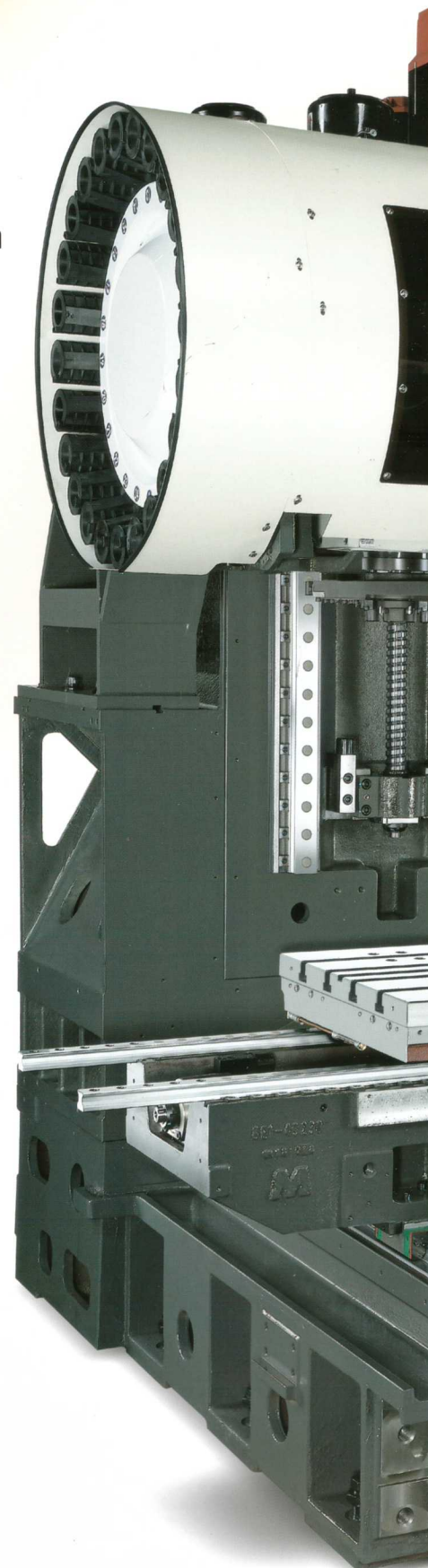
TABLE

Dimension: **840 x 500 mm**

Max. load: **500 kgs**



Roller guides

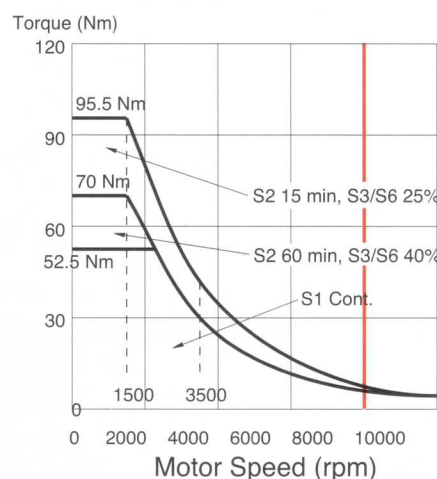
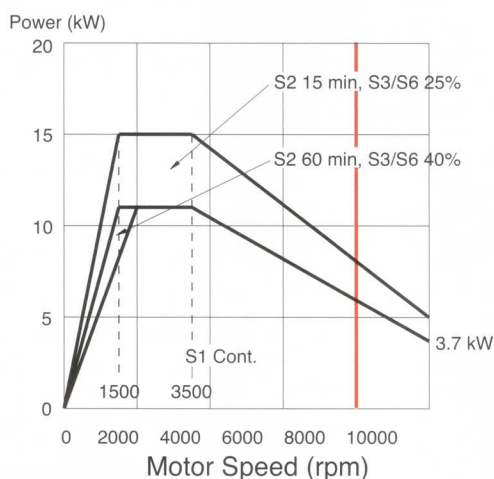


SPINDLE

- Spindle output 15 kW
- BT-40 belt-driven 8000 rpm spindle
- NN type double roller bearings
- Victor Taichung's own spindle built in house
- Opt. with 10000 rpm spindle



Spindle Output Diagram



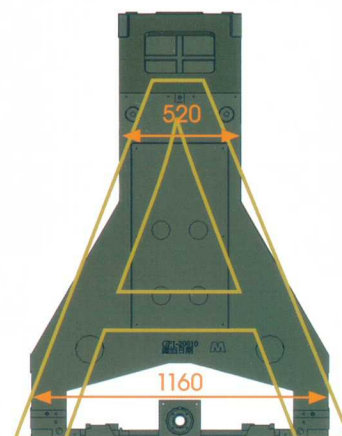
STRUCTURE

- Wide span column
- Certificated casting



Certificated Casting

GA350



Column with wide span

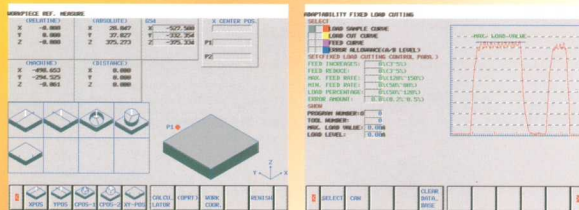
1166 mm

Vcenter-F series

Standard Accessories

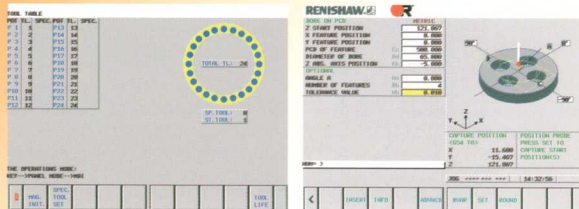
Fanuc Oi-MF plus (10.4") control with Manual Guide I (MGI)
+ AICC-2 (200 blocks) for user friendly operation

Victor Taichung's GUI "VSS macros"



Smart workpiece measurement

Adaptive cutting at constant loading



Tool management

Renishaw® GUI



Convenient maintenance



Arm type ATC + Coolant ring
+ LED lights



Bottom guarding flush

Optional Accessories



Spindle oil cooler



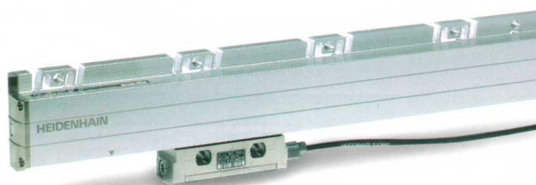
CTS (Coolants Thru. Spindle)



Auto tool length measurement



Auto part measuring



Linear scales



4th axis interface for rotary table



Chip conveyor

Machine Specification

Item	Unit	Vcenter-F76
Travel	X axis travel	mm 760
	Y axis travel	mm 500
	Z axis travel	mm 510 (opt. 690)
Distance	Spindle center to column	mm 565
	Spindle nose to table surface	mm 120 ~ 630 (opt. 810)
Table	Table work area	mm 840 x 500
	Dimension of T-slot	mm 4 x 18 x 100
	Max. table load	kg 500
Spindle	Spindle taper	BT-40
	Spindle motor - cont. / 25% (15 min)	kW 11 / 15
	Spindle speed	rpm 8000 (opt. 10000)
Feed rate	Rapid feed rate - X/Y/Z (Fanuc)	m/min 32 / 32 / 32
	Axis acceleration - X/Y/Z	m/sec ² 0.5G / 0.5G / 0.5G
	Axis feed motor - X/Y/Z	kW 2.5 / 2.5 / 3
	Cutting feedrate by table	m/min 20
	Linear guide width (X/Y/Z)	mm 30 / 35 / 45
Tools	Max. tool length	mm 300
	Max. tool weight	kg 7
	Magazine capacity	24 (opt. 30)
	Max. tool diameter (without adjacent tools)	mm 75 (150)
	Tool exchange time	sec. 2.4 (T-T), 5.7 (C-C)
	Pull stud angle	deg. 15 (JIS 40P)
	Tool selection method	Random
Accuracy (ISO 230-2)	Positioning accuracy (bi-directional)	mm 0.010
	Repeatability	mm 0.007 (±0.0035)
Machine	Power requirement	KVA 22 (excl. CTS)
	Min/Max. air pressure	kg/cm ² 5.5 ~ 6.5
	Coolant tank capacity	L. 220
	Std. NC controller (Fanuc)	0i-MF Plus (10.4")
	Floor space requirement	mm 2714 x 2782
	Max. machine height	mm 2578
	Machine weight	kg 5400

Standard Accessories:

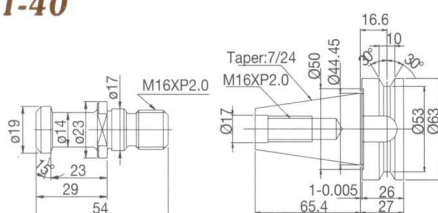
- Fully enclosed splash guard
- Fanuc 0i-MF Plus (10.4") control + Manual Guide i + AICC-2 (200 blocks)
- Auto power off
- Screw-type chip remover (left disposal)
- Air blow (manual control)
- Rigid tapping
- Remote MPG
- Hand tools and toolbox
- T nuts for table slot
- 3-step warning light
- Leveling pads

Optional Accessories:

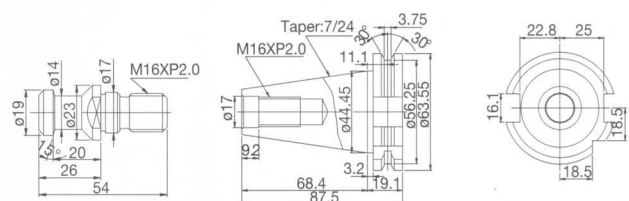
- Spindle oil cooler
- Air conditioner for electric cabinet
- Air blow (controlled by M-code)
- Chip conveyor with cart
- Coolant through spindle (CTS)
- 10000 rpm spindle
- 30 tool magazine
- Auto tool length measurement
- Auto part measuring
- Stop block for special tools
- 4th axis interface
- Auto door
- Oil skimmer
- Linear scales
- Air gun
- Coolant gun
- Rotary tables

Tool Shank

BT-40



SK-40



Victor Taichung's FANUC Oi-MF Plus (10.4") Control Specification

Standard

ITEM	SPECIFICATION	DESCRIPTION
Operation & Program Input:		
1.	Input / Output interface	RS-232, PCMCIA Card, USB
2.	Tool Offset Pairs	± 6-digit, 400
3.	Program Number	O4-Digit
4.	Sequence Number	N5-Digit
5.	M Code Function	M3 digit
6.	S Code Function	S5 digit
7.	T Code Function	T2 digit
8.	Program Display	Program name 31 characters
9.	Positioning	G00
10.	Linear Interpolation	G01
11.	Circular Interpolation	G02, G03
12.	Helical interpolation	Std.
13.	Skip Function	G31
14.	Reference Position Return	G28, G30
15.	Absolute / Incremental Programming	G90 / G91
16.	Plane Selection	G17, G18, G19
17.	Polar coordinate Command	G16.
18.	Workpiece Coordinate System	G52, G53, G54~G59
19.	Addition of Workpiece Coordinate System Pair	48 Pairs
20.	Optional Chamfering / Corner R	Std.
21.	Sub Program Call	4 folds nested
22.	Custom macro B	Std.
23.	Addition of Custom Macro Common Variables	#100~#199, #500~#999
24.	Canned cycle For Drilling	G73 / G74 / G76, G80-G89
25.	Small hole peck drilling cycle	G83
26.	Program Stop / Program End	M00 / M01 / M02 / M30
27.	Scaling	G51
28.	Rigid tapping	M29
29.	Coordinate System Rotation	G68
30.	Programmable mirror image	G50.1
31.	Manual Guide I (MGI) conversational programming	Std.
32.	Fine Surface Machining	Std.
33.	Smooth tolerance control+	Std.
Controlled Axes:		
1.	Controlled Axes	3 Axes (X, Y, Z)
2.	Simultaneous Controlled Axes	4 Axes

3.	Least Input Increment	0.001 mm
4.	Least command increment	0.0001 mm
5.	HRV Control	HRV3+
6.	Unexpected disturbance torque detection (AIR-BAG)	Std.
7.	Backlash compensation	Std.
8.	Stored pitch error compensation	Std.

Feed:

1.	Rapid Traverse Override	F0, 25%, 50%, 100%
2.	Feed Per Minute	G94 (mm/min)
3.	Feed rate Override	0~150%
4.	Spindle Override	50~120%
5.	Manual Handle Feed Rate	X1, X10, X100
6.	AI contour control (AICC, G05.1) (in total)	200 blocks

Edit Operation

1.	Part Program Storage Length (in total)	5120m
2.	Part Program Editing / Protect	Std.
3.	Memory Card Editing (Max. 63 programs.)	Std.

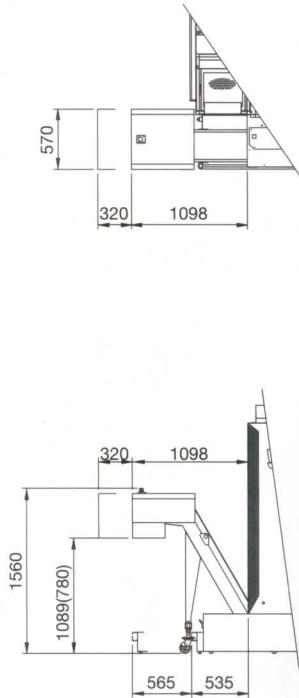
OPTIONS

ITEM	SPECIFICATION	DESCRIPTION
With hardware included		
1.	Data server (with PCB and CF card 1GB)	☐
2.	Ethernet / IP (to be linked to robot)	☐
3.	PROFIBUS-DP (to be linked to robot)	☐
4.	CC-Link (to be linked to robot)	☐
5.	Fast Ethernet (required for SCADA Web with additional RJ45 port)	☐
Without hardware included		
6.	Tool load monitoring (with Victor own PLC)	☐
7.	Cylindrical interpolation (G7.1) (used on 4th axis)	☐
8.	Addition of work-piece coordinate systems 300 sets	☐
9.	Tilted working plane indexing command	☐
10.	Memory card program entry count extension (Max. 1000)	☐

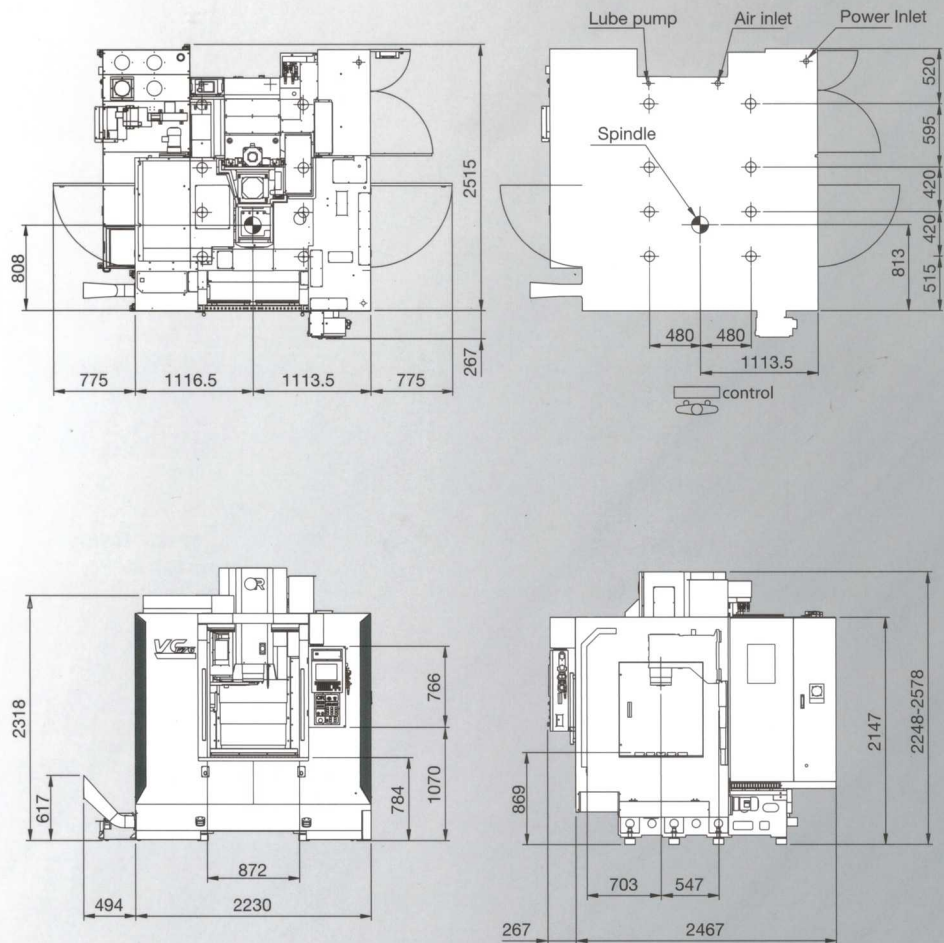
Machine Color Option



Machine Layout



chip conveyor



Unit: mm



THE VICTOR-TAICHUNG COMPANIES

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VictorTaichung profile:
Sales turnover: USD 101.5 mil's (in 2019)*
No. of employees: 806
*Exchange rate: 1 USD=30 TWD.

