VICTOR TAICHUNG

Management System
ISO 9001:2015
ISO 14001:2015
ISO 45001:2018

www.tuv.com
ID 0091003197

Gearhead Performance

Vcenter-G105/G135/G165

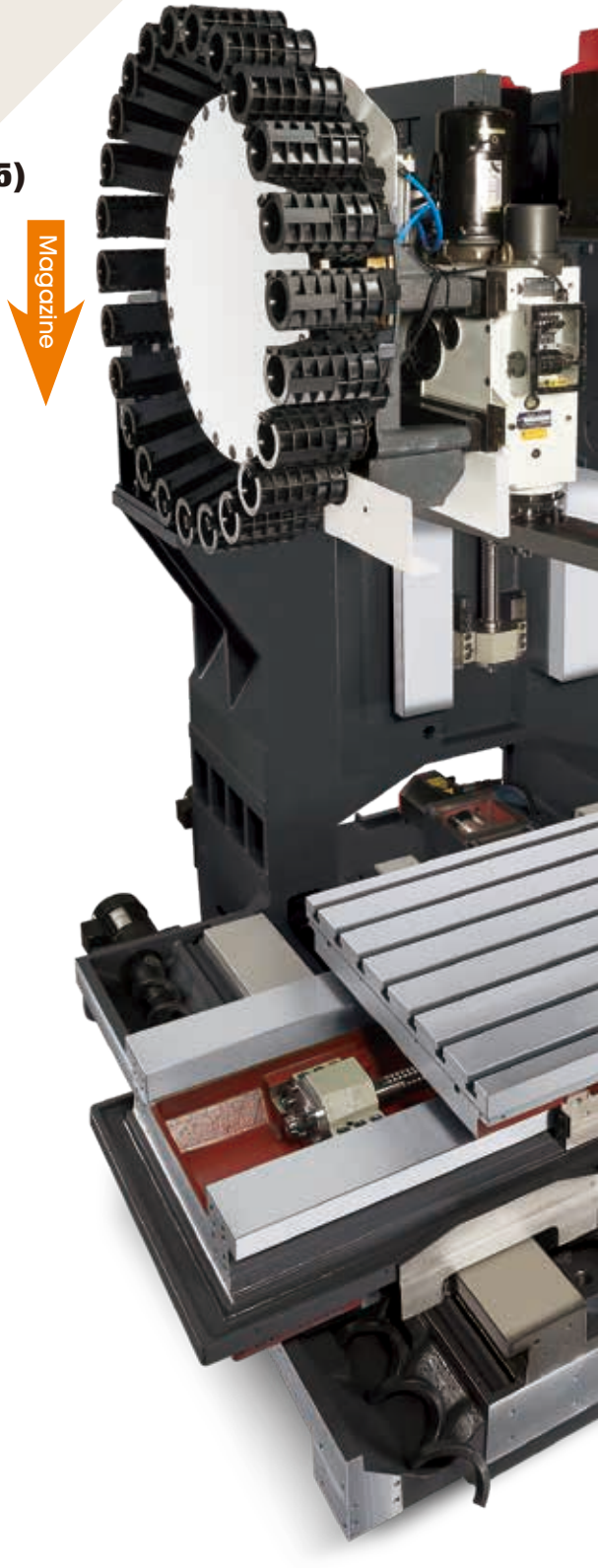
Vertical machining center

- Travels (X/Y/Z):
  1050 / 600 / 600 mm (G105)
  1350 / 700 / 700 mm (G135)
  1650 / 850 / 900 mm (G165)
- Gearhead BBT-50 / 6000 spindle
- Box slideways for all axes
- Ø50mm ballscrews
- Screw chip removers
- Maximum part weight:
  1200 kg (G105)
  2200 kg (G135)
  2500 kg (G165)

Victor Taichung – an established ISO 9001, 14001 & 45001 company

Vcenter-G series VMC with Gearhead for Heavy Cutting

- **Gearhead spindle with high torque output 498 Nm**
- **BigPlus® BT-50 (BBT-50) spindle for heavy cutting**
- **A-shaped column with long Y-axis travel**
- **Wide base with 4 slideways in Y-axis (G135, G165)**
- **Machine weight:**
  10000 kg (G105), 12100 kg (G135), 16500 kg (G165)



X/Y/Z AXES

- Travels:
  1050 / 600 / 600 mm (G105)
  1350 / 700 / 700 mm (G135)
  1650 / 850 / 900 mm (G165)
- Rapid feeds: 20 / 20 / 18 m/min
- Ballscrew diameter: 50 / 50 / 50 mm
- Box slideway width (X/Y/Z):
  80 / 150 / 125 mm (G105)
  126 / 150 / 145 mm (G135)
  120 / 152 / 150 mm (G165)

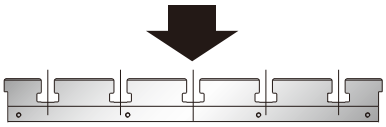
ATC

- 24 tools (opt. 32, 40)
- Column designed with a shoulder for carrying magazine
- Tool exchange time (G135):
  4.0 sec. (tool-tool)
  11.3 sec. (chip-chip)

Additional pads for column supporting

TABLE

1200 kg (G105)
2200 kg (G135)
2500 kg (G165)

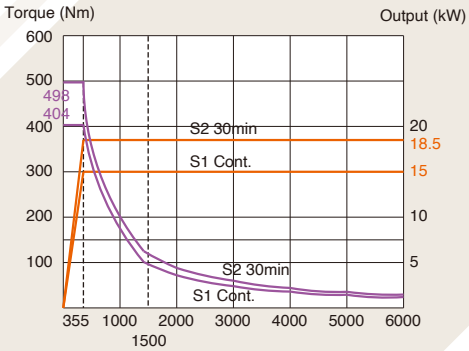


1100 x 600 mm (G105)
1400 x 700 mm (G135)
1700 x 800 mm (G165)

3 off Λ-covers (Rear Y, G135)

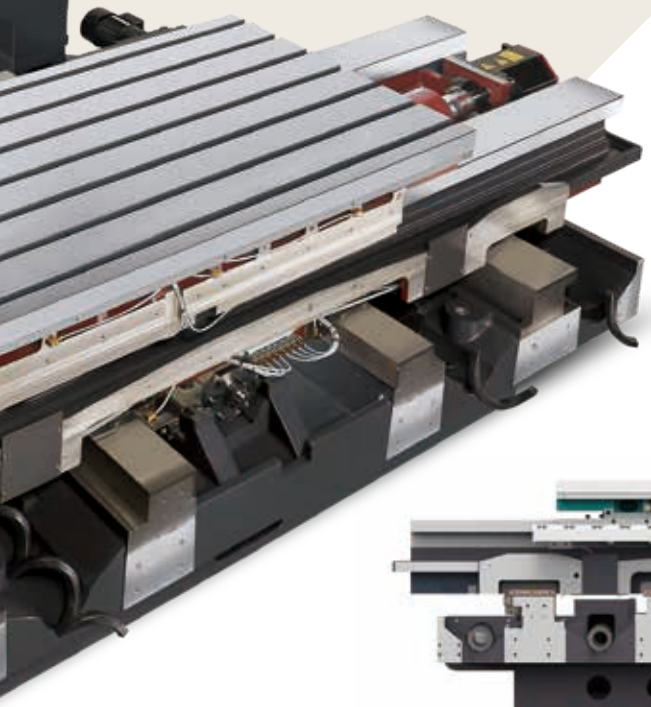
GEARHEAD SPINDLE

- High torque output 498 Nm
- Spindle power 18.5 kW
- BBT-50 / 6000 rpm spindle
- NN type double roller bearings
- Victor Taichung's own spindle built in house



Spindle Speed (rpm)

FANUC *αi*I 15



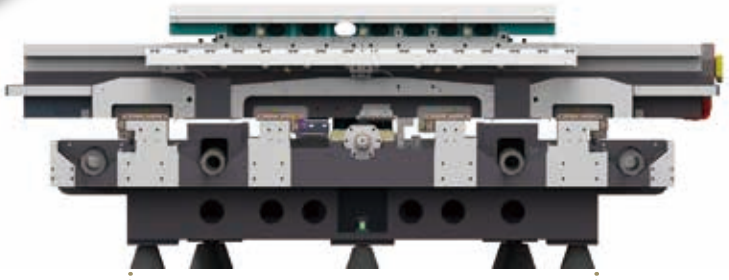
MEEHANITE

Certificated Casting

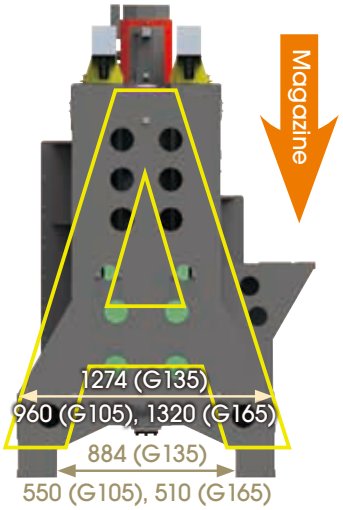
GA350

STRUCTURE

- Wide span column
- Large base
- Magazine mounted on shoulder



4 off boxways (G135, G165)



Wide column

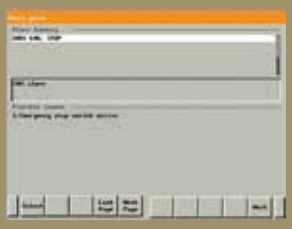
Vcenter-G series with Gearhead

New Fanuc 0i-MF Plus (type-1) control includes:

- **10.4" screen**
- **QWERTY keyboard**
- **Manual Guide i (MGI)**
- **AICC-2 (200 blocks)**
- **2GB CF card**
- **VSS Macros (Victor's GUI)**

Victor Taichung's GUI "VSS macros"

Tool breakage detection



Alarm display with diagnosis

Tool management

Renishaw® GUI

*Vc-G135

Heat exchanger + Enclosed rear guarding

Spindle oil cooler

Arm type ATC + Auto door for magazine + Coolant ring + LED lights

Bottom guarding flush + Screw chip removers

Optional Accessories

CTS (Coolants Thru. Spindle)

Auto tool length measurement

Auto part measuring

15" screen (opt.)

4th axis interface for rotary table

Linear scales

Chip conveyor

Machine Specification

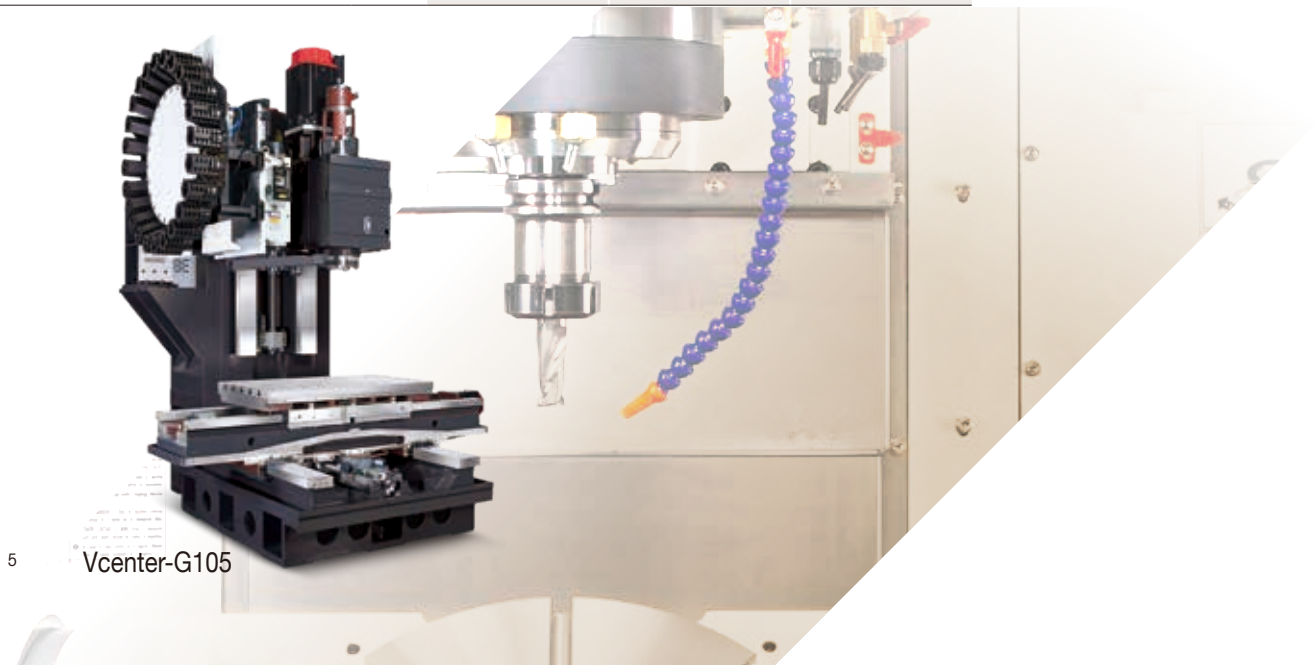
Item		Unit	Vcenter-G105	Vcenter-G135	Vcenter-G165
Travel	X axis travel	mm	1050	1350	1650
	Y axis travel	mm	600	700	850
	Z axis travel	mm	600	700	900
Distance	Spindle center to column	mm	680	792	872
	Spindle nose to table surface	mm	120 ~ 720	100 ~ 800	210 ~ 1110
Table	Table work area	mm	1100 x 600	1400 x 700	1700 x 800
	Dimension of T-slot	mm	7 x 18 x 100	7 x 18 x 100	5 x 22 x 150
	Max. table load	kg	1200	2200	2500
Spindle	Spindle taper		BBT-50	BBT-50	BBT-50
	Spindle motor - cont/30min	kW	15 / 18	15 / 18	15 / 18
	Spindle speed	rpm	6000	6000	6000
Feed rate	Rapid feed rate - X/Y/Z	m/min	20 / 20 / 18	20 / 20 / 18	20 / 20 / 18
	Axis acceleration – X/Y/Z	m/sec²	0.28G / 0.28G / 0.25G	0.28G / 0.28G / 0.25G	0.27G / 0.27G / 0.24G
	Axis feed motor - X/Y/Z	kW	3 / 3 / 3	3 / 3 / 3	3 / 3 / 3
	Cutting feedrate by table	m/min	15	15	15
	X/Y/Z ballscrew (dia. x pitch)	mm	50 x P10	50 x P10	50 x P10
Tools	Max. tool length	mm	300	300	400
	Max. tool weight	kg	15	15	15
	Magazine capacity		24 (opt. 32, 40)	24 (opt. 32, 40)	24 (opt. 32, 40)
	Max. tool diameter (without adjacent tools)	mm	127 (250)	127 (250)	127 (250)
	Tool exchange time	sec.	4.0 (T-T), 10.5 (C-C)	4.0 (T-T), 11.3 (C-C)	4.1 (T T), 12.3 (C C)
	Pull stud angle	deg.	45	45	45
	Tool selection method		Random	Random	Random
Accuracy (ISO 230-2)	Positioning accuracy (bi-directional)	mm	0.010	0.010	0.010
	Repeatability	mm	0.005 (±0.0035)	0.005 (±0.0035)	0.005 (±0.0035)
Machine	Power requirement	KVA	30 (excl. CTS)	30 (excl. CTS)	30 (excl. CTS)
	Min/Max. air pressure	kg/cm²	5.5 ~ 6.5	5.5 ~ 6.5	5.5 ~ 6.5
	Coolant tank capacity	L.	300	350	350
	Std. NC controller (Fanuc)		0i-MF Plus (10.4")	0i-MF Plus (10.4")	0i-MF Plus (10.4")
	Floor space requirement (without conveyor)	mm	3632 x 2728	4223 x 3033	4789 x 3553
	Max. machine height	mm	3200	3132	3670
	Machine weight	kg	10000	12100	16500

Standard Accessories:

- Fully enclosed splash guard
- Fanuc 0i-MF Plus (10.4", type 1) control
- Spindle oil cooler
- Screw-type chip remover (left disposal)
- Bottom guarding flushing coolants
- Rigid tapping
- Remote MPG
- Hand tools and toolbox
- T nuts for table slot
- 3-step warning light
- Auto power off
- Leveling pads

Optional Accessories:

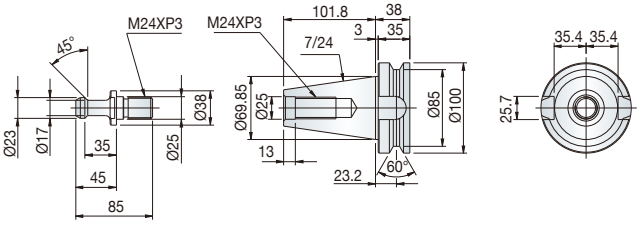
- Air conditioner for electrical cabinet
- Fanuc 0i-MF Plus (15", type-0) control
- Chip conveyor with cart
- Coolant through spindle (CTS)
- 32 or 40 tool magazine
- 4th / 5th axis interface
- Auto door
- Table shower
- Oil skimmer
- Linear scales
- Air gun
- Coolant gun
- Stop block for special tools
- Auto tool length measurement
- Auto part measuring



Vcenter-G105

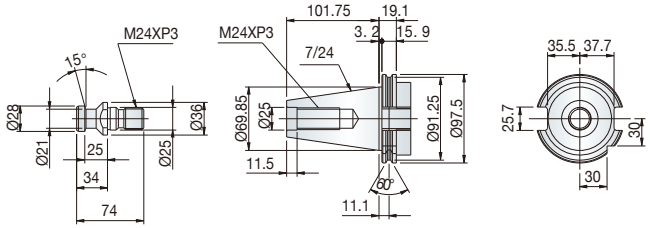
Tool Shank

BT-50



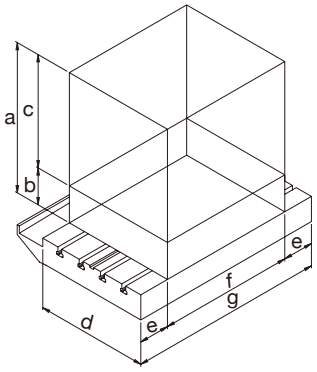
MAS-P50T (BT50, std.)

SK-50 (ISO-50)



DIN69871A (SK50, opt.)

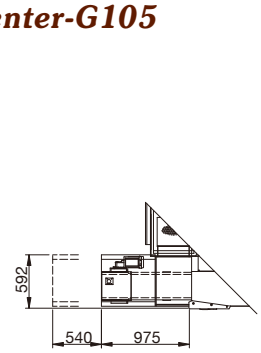
Machining Range

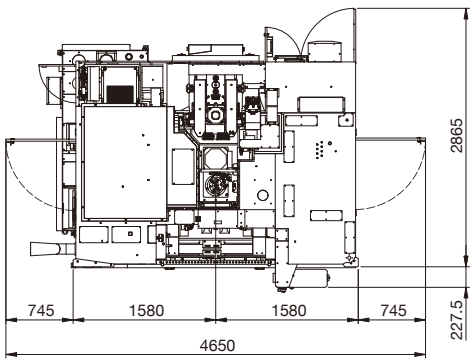


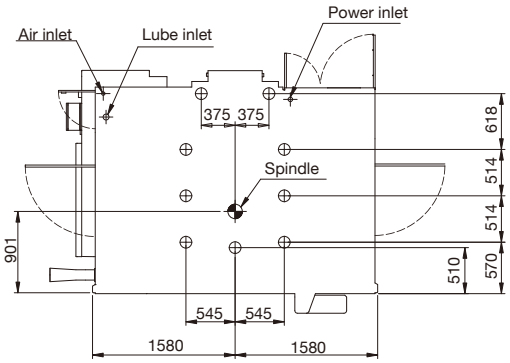
Model	Vc-G105	Vc-G135	Vc-G165
a	720	800	1110
b	120	100	210
c	600	700	900
d	600	700	800
e	25	25	25
f	1050	1350	1650
g	1100	1400	1700

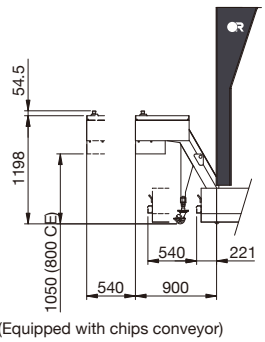
Machine Layout

Vcenter-G105

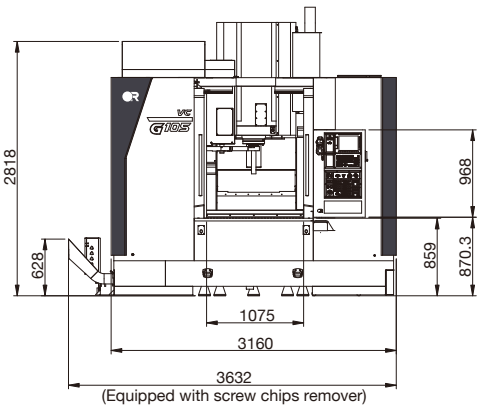




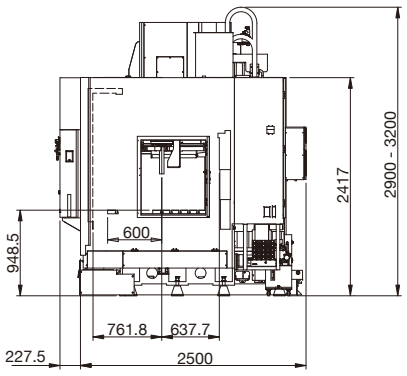




(Equipped with chips conveyor)



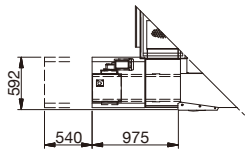
(Equipped with screw chips remover)

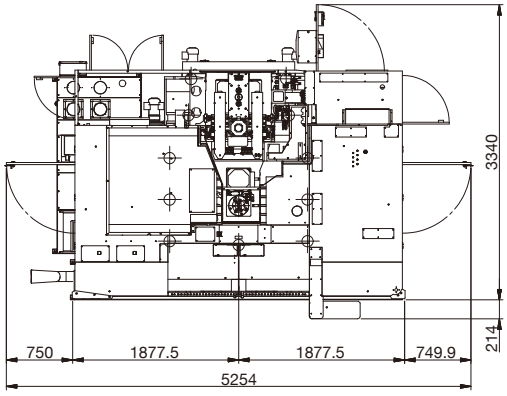


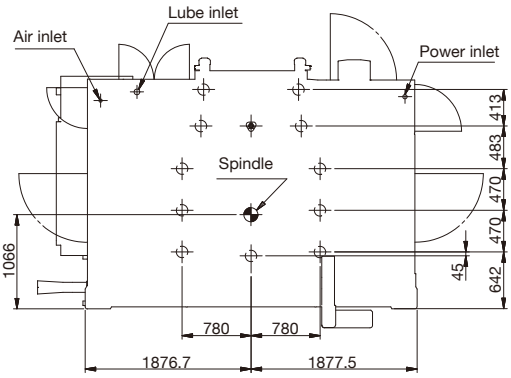
Unit: mm

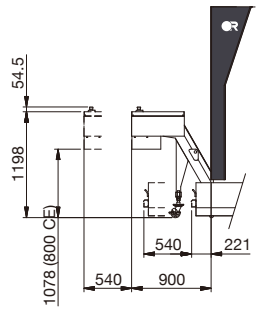
Machine Layout

Vcenter-G135

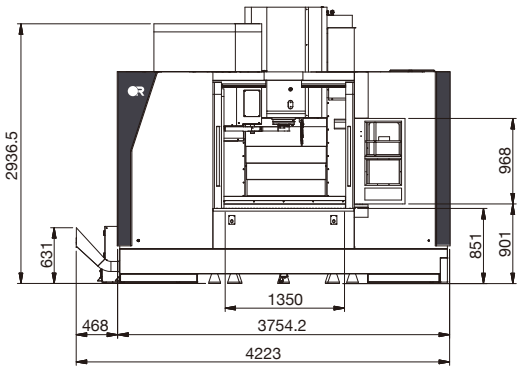




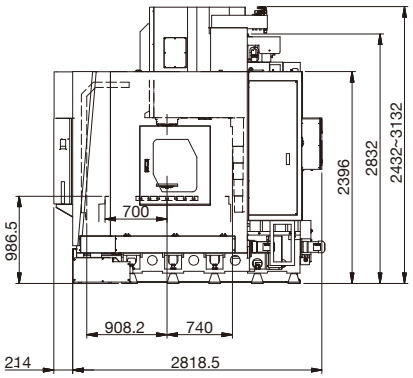




(Equipped with chips conveyor)

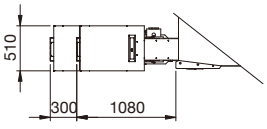


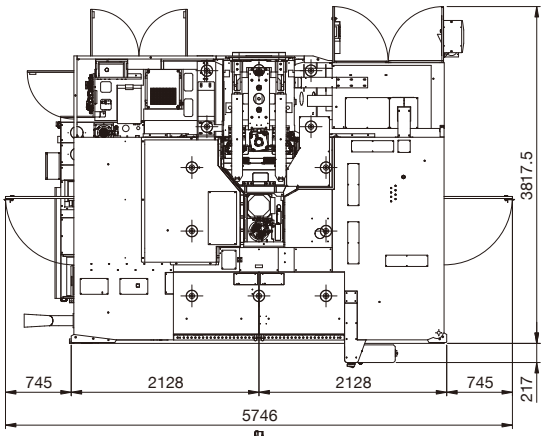
(Equipped with screw chips remover)

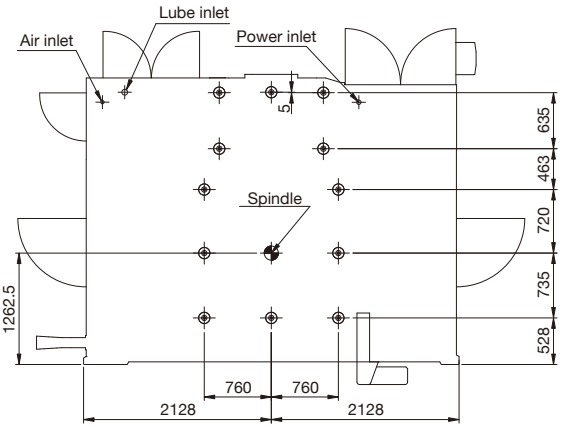


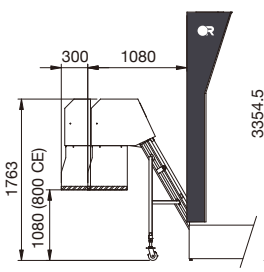
Unit: mm

Vcenter-G165

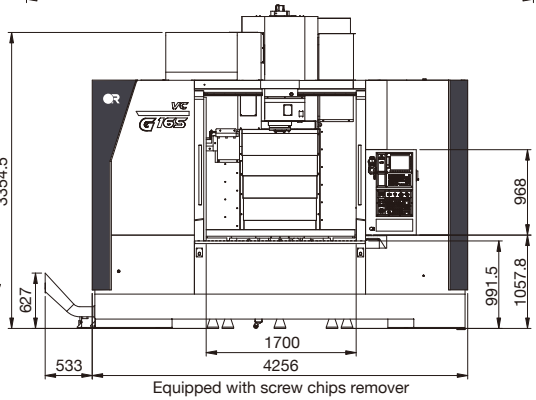




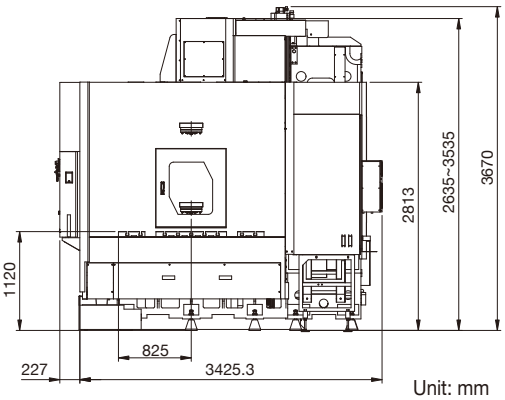




Equipped with chips conveyor



Equipped with screw chips remover



Unit: mm

Victor Taichung's FANUC 0i-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	0~200%
4.	Spindle Override	50~200%
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:		**0i-M**
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)	☐
6.	15" LCD with Panel iH (iHMI) and touch screen	☐
7.	AI contour control 400 blocks	☐
Edit Operation:		
8.	Tool load monitoring (with Victor own PLC)	☐
9.	Cylindrical interpolation (G7.1) (used on 4th axis)	☐
10.	Addition of work-piece coordinate systems 300 sets	☐
11.	Tilted working plane indexing command	☐
12.	Memory card program entry count extension (Max. 1000)	☐

Control Features for Fast Contour Milling (Victor Taichung's standard)

Feature \ Controller	FANUC			HEIDENHAIN	
	0i-MF Plus (type 1)	0i-MF Plus (type 0)	31i-B Plus	TNC-620	TNC-640
Block addressing time	1 ms	0.4 ms	0.2 ms	1.5 ms	0.5 ms
Preview contouring (look ahead blocks)	200	200 (Opt. 400)	1000	5000	5000
Graphic display	10.4"	15" (Opt. 10.4")	15" (Opt. 19")	15"	15" (Opt. 19")
Data storage	5120m (2MB)	5120m (2MB)	10240m (4MB) Opt. 20480m (8MB)	Min. 2GB	Std. 21GB (by SSRD) Opt. 144GB (by HRD)
Memory extension	Std. (CF card, 2GB)	Std. (CF card, 2GB)	Std. (CF card, 2GB)	Opt. (by USB)	N.A.
DATA SERVER	Opt. (by CF Card)	Opt. (by CF Card)	Std.	Std	Std.
Ethernet link	Std.	Std.	Std.	Std.	Std.
Touch panel	N.A.	Incl.	Incl.	Opt.	Opt. (Std. for 19")
Conversational function	Manual guide I (MGI) + VSS macros	iHMI + MGI + VSS macros	iHMI + MGI + VSS macros	Std.	Std. + SmartNC
Data transfer interface	PCMCIA + USB	PCMCIA + USB	PCMCIA + USB	USB	USB

ONWARD RISE

To ensure the return on investment, Victor Taichung has invested considerably in setting up a distribution network in terms of global vision local touch for our sales and service supports worldwide. Besides the qualified exclusive agents around the world, Victor Taichung has 7 overseas subsidiaries to provide our customers efficient after-sales service and technical supports.

Machine Color Option

Standard

RAL-7024

VICTOR TAICHUNG profile:
Sales turnover: USD 207 mil's (in 2021)*
No. of employees: 778
*Exchange rate: 1 USD=28 TWD.

THE VICTOR-TAICHUNG COMPANIES

HTL VTL **VMC** HMC XMT PIM

TAIWAN
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VICTOR TAICHUNG was also marketed under the brand names VICTOR (outside North America) and FORTUNE

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