

Gearhead **P**erformance

Vcenter-G135

Vertical machining center

- Travels: 1350 / 700 / 700 mm (X/Y/Z)
- Gearhead BT-50 / 6000 spindle
- Box slideways for all axes
- Maximum part weight 2200 kg
- Ø50 mm ballscrews
- Screw chip removers included



Vc-G135 Gearhead VMC for Heavy Cutting

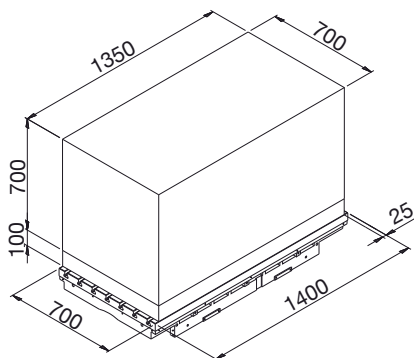
- ◆ Gearhead spindle with high torque output 498 Nm
- ◆ BT-50 spindle for heavy cutting
- ◆ A-shaped column with long Y-axis travel 700 mm
- ◆ Wide base with 4 slideways in Y-axis
- ◆ Machine weight 12100 kg

X/Y/Z AXES

- Travels: 1350 / 700 / 700 mm
- Rapid feeds: 20 / 20 / 18 m/min
- Ballscrew diameter: 50 / 50 / 50 mm
- Box slideways: 126 / 150 / 145 mm

ATC

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



TABLE

- Dimension: 1400 x 700 mm
- Max. load: 2200 kgs



Additional pads for column supporting



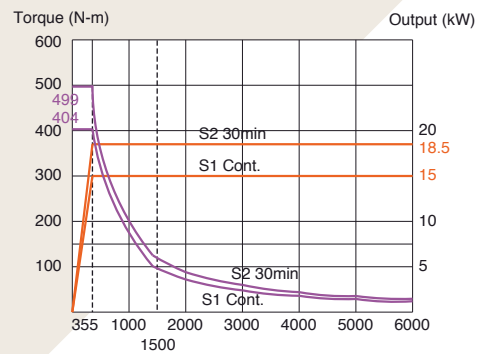
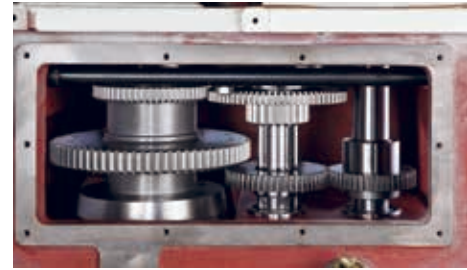
3 off Λ-covers (Rear-Y)



Magazine

GEARHEAD SPINDLE

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



Spindle Speed (RPM)

FANUC *ai15*

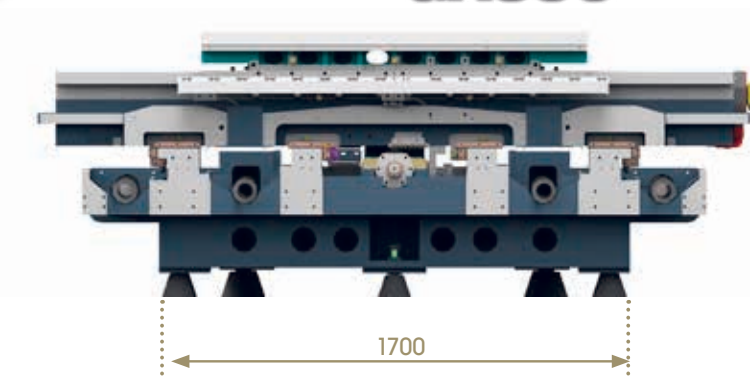
STRUCTURE

- Wide span column
- Boxway width 145 mm
- Large base 1700 mm
- Machine weight 11500 kg

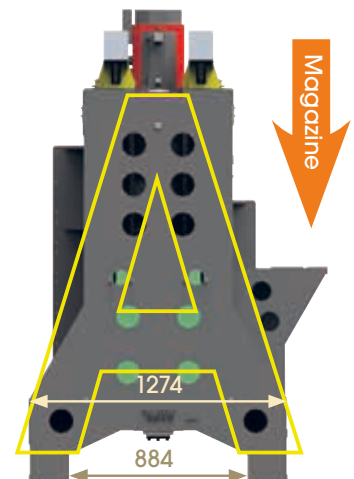


Certificated Casting

GA350



4 off boxways & screw removers



Wide column

Vcenter-G series with Gearhead

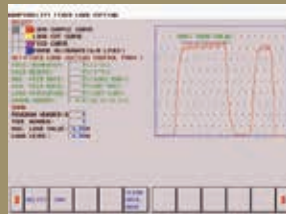
New Fanuc 0i-MF Plus (type-1) control includes:

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

Victor Taichung's GUI "VSS macros"



Smart workpiece measurement



Adaptive cutting at constant loading



Tool management



Renishaw® GUI



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



4th axis interface for rotary table



15" screen (opt.)



Linear scales



Chip conveyor



Machine Specification

Item	Unit	Vcenter-G135	
Travel	X axis travel	mm	1350
	Y axis travel	mm	700
	Z axis travel	mm	700
Distance	Spindle center to column	mm	792
	Spindle nose to table surface	mm	100 ~ 800
Table	Table work area	mm	1400 x 700
	Dimension of T-slot	mm	7 x 18 x 100
	Max. table load	kg	2200
Spindle	Spindle taper		BT-50 (opt. BBT-50)
	Spindle motor - cont/30min	kW	15 / 18
	Spindle speed	rpm	6000
Feed rate	Rapid feed rate - X/Y/Z	m/min	20 / 20 / 18
	Axis acceleration - X/Y/Z	m/sec ²	0.28G / 0.28G / 0.25G
	Axis feed motor - X/Y/Z	kW	3 / 3 / 3
	Cutting feedrate by table	m/min	15
	X/Y/Z ballscrew (dia. x pitch)	mm	50 x P10
	Tools	Max. tool length	mm
Max. tool weight		kg	15
Magazine capacity			24 (opt. 32, 40)
Max. tool diameter (without adjacent tools)		mm	127 (250)
Tool exchange time		sec.	4 (T-T), 11.3 (C-C)
Pull stud angle		deg.	45
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	30 (excl. CTS)
	Min/Max. air pressure	kg/cm ²	5.5 ~ 6.5
	Coolant tank capacity	L.	350
	Std. NC controller (Fanuc)		0i-MF Plus (10.4")
Machine	Floor space requirement (without conveyor)	mm	4293 x 2963
	Max. machine height	mm	3074
	Machine weight	kg	12100

Standard Accessories:

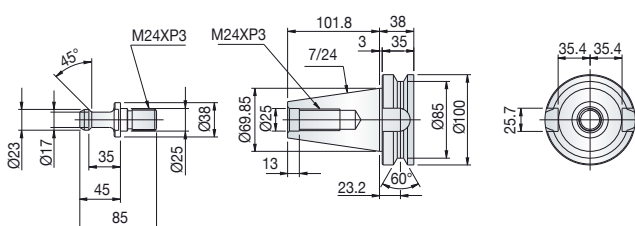
- Fully enclosed splash guard
- Fanuc 0i-MF Plus (10.4", type 1) control
- Spindle oil cooler
- Screw-type chip remover (left disposal)
- Bottom guarding flushing coolants
- Rigid tapping
- Remote MPG
- Hand tools and toolbox
- T nuts for table slot
- 3-step warning light
- Auto power off
- Leveling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

Optional Accessories:

- Air conditioner for electrical cabinet
- 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
- BigPlus® spindle

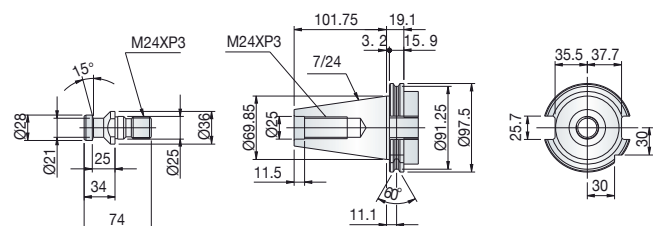
Tool Shank

BT-50



MAS-P50T (BT50, std.)

SK-50 (ISO-50)



DIN69871A (SK50, opt.)



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	0-200%
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.

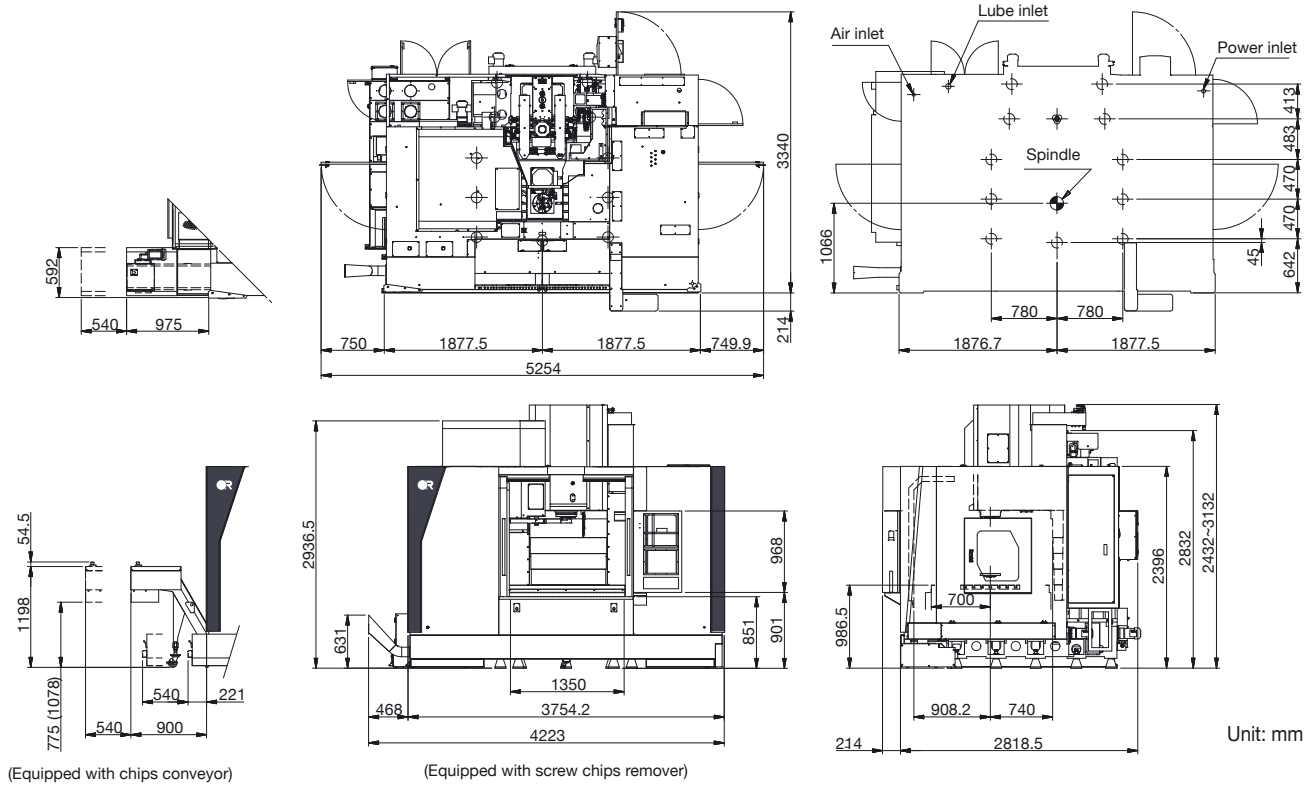
OPTIONS

ITEM	SPECIFICATION	DESCRIPTION
With hardware included:		
1.	Data server (with PCB and CF card 1GB)	<input type="checkbox"/> OI-M
2.	Ethernet/IP (to be linked to robot)	<input type="checkbox"/>
3.	PROFIBUS-DP (to be linked to robot)	<input type="checkbox"/>
4.	CC-Link (to be linked to robot)	<input type="checkbox"/>
5.	Fast Ethernet (required for SCADA Web with additional RJ45 port)	<input type="checkbox"/>
6.	15" LCD with Panel iH (iHMI) and touch screen	<input type="checkbox"/>
7.	AI contour control 400 blocks	<input type="checkbox"/>
Edit Operation:		
8.	Tool load monitoring (with Victor own PLC)	<input type="checkbox"/>
9.	Cylindrical interpolation (G7.1) (used on 4th axis)	<input type="checkbox"/>
10.	Addition of work-piece coordinate systems 300 sets	<input type="checkbox"/>
11.	Tilted working plane indexing command	<input type="checkbox"/>
12.	Memory card program entry count extension (Max. 1000)	<input type="checkbox"/>

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

Feature \ Controller	FANUC			HEIDENHAIN	
	Oi-MF Plus (type 1)	Oi-MF Plus (type 0)	31i-B	TNC-620	TNC-640
Block addressing time	1 ms	0.4 ms	0.4 ms	1.5 ms	0.5 ms
Preview contouring (look ahead blocks)	200	200 (Opt. 400)	600 (Opt. 1000 by HSP)	5000	5000
Graphic display	10.4"	15" (Opt. 10.4")	10.4" (Opt. 15")	15"	15" (Opt. 19")
Data storage	5120m (2MB)	5120m (2MB)	2560m (1MB) Opt. 10240m (8MB)	Min. 2GB	Std. 21GB (by SSRD) Opt. 144GB (by HRD)
Memory extension	Std. (CF card, 2GB)	Std. (CF card, 2GB)	Std. (by CF card)	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.	Opt.	Opt.	Opt. (Std. for 19")
Conversational function	Manual guide I (MGI) + VSS macros	Panel iH (iHMI) + MGI + VSS macros	MGI + VSS macros	Std.	Std. + SmartNC
Data transfer interface	PCMCIA + USB	PCMCIA + USB	PCMCIA + USB	USB	USB

Machine Layout




Machine Color Option



Standard

RAL-7024

VICTOR TAICHUNG profile:
 Sales turnover: USD 156 mil's (in 2020)*
 No. of employees: 796
 *Exchange rate: 1 USD=28.5 TWD.




TAIWAN
<http://www.victortaichung.com>
 E-mail :info@mail.or.com.tw
 Victor Taichung Machinery Works Co., Ltd.
 No. 1, Jingke Central 2nd Rd.,
 Nantun Dist., Taichung 40852,
 TAIWAN, R.O.C.
 TEL : 886-4-23592101
 FAX : 886-4-23593389

FRANCE
 Victor France
 TEL : 33-1-64772000
 FAX : 33-1-64772063

GERMANY
 Victor GmbH
 TEL : 49-2261-478434
 FAX : 49-2261-478327

SOUTH AFRICA
 Victor Fortune (PTY) Ltd.
 TEL : 27-11-3923800
 FAX : 27-11-3923899

MALAYSIA
 Victor Machinery (M) SDN. BHD.
 TEL : 60-3-56337180
 FAX : 60-3-56337191

THAILAND
 Victor (Thailand) Co. Ltd.
 TEL : 66-2-9263735
 FAX : 66-2-9032373

INDONESIA
 PT. Victor Machinery Indonesia
 TEL : +62-21-88958504
 FAX : +62-21-88958513

USA
 Fortune International Inc.
 TEL : 1-732-2140700
 FAX : 1-732-2140701

CHINA
 Victor Taichung
 Machinery (Shanghai)
 TEL : 86-21-59768018
 FAX : 86-21-59768009