

*F*antastic *P*erformance

Vcenter - F76 / F106 FX400

Vertical machining center

- **Travels (X/Y/Z):**
760 / 500 / 510 mm (F76)
1060 / 600 / 560 mm (F106)
600 / 500 / 500 mm (FX400)
- **Rapid feeds 32/32/32 m/min**
- **8000 rpm spindle output 15 kW (S3) (F76/F106)**
12000 rpm spindle output 15 kW (30 min.) (FX400)
- **Roller guideways and Ø40 mm ballscrews**
- **Screw chip removers included**



Vcenter-F series: Your First VMC with Fantastic Performance

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

X/Y/Z AXES

Travels: 760 / 500 / 510 mm (F76)
1060 / 600 / 560 mm (F106)

Rapid feeds: 32/32/32 m/min

Ballscrew diameter: 40/40/40 mm

Guideways: 30/35/45 mm (F76)
35/40/45 mm (F106)

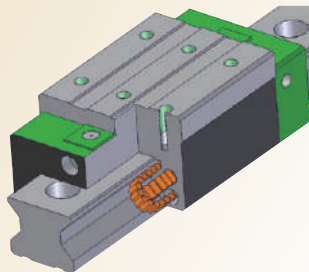
ATC

Capacity: 24 tools (opt. 30)

Tool exchange time:

2.4 sec. (tool-tool)

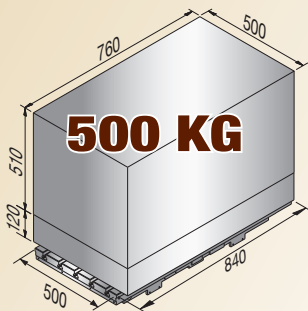
5.7 sec. (chip-chip)



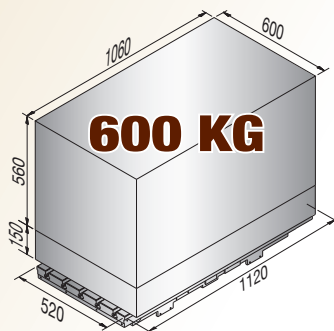
Roller guides

TABLE

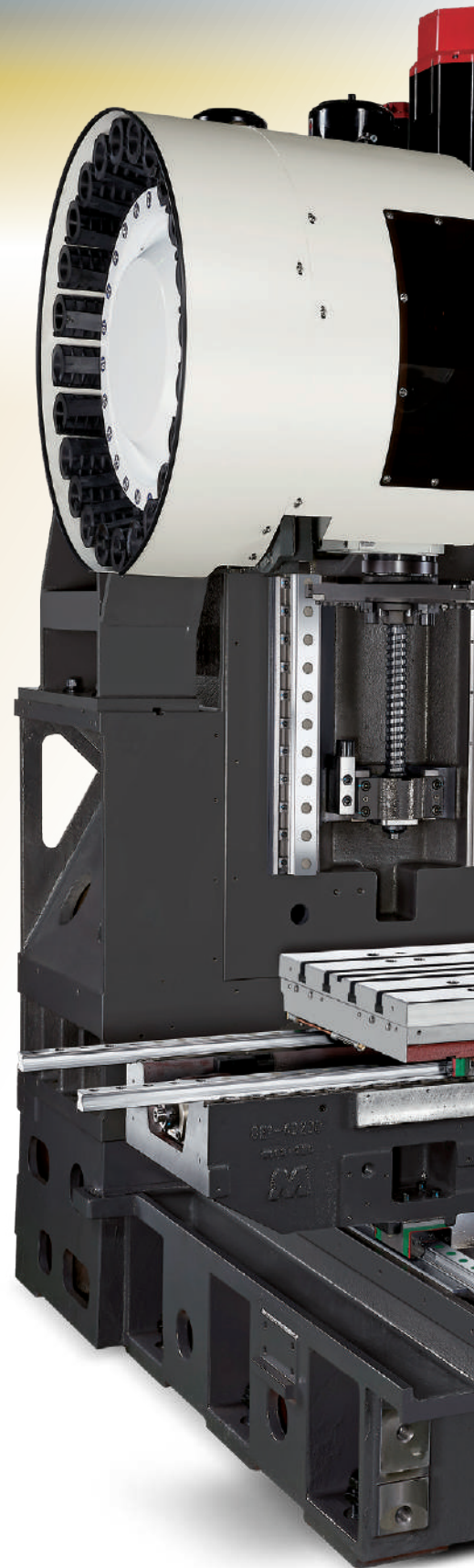
Max. load: 500 kgs (F76)
600 kgs (F106)



Vcenter-F76



Vcenter-F106



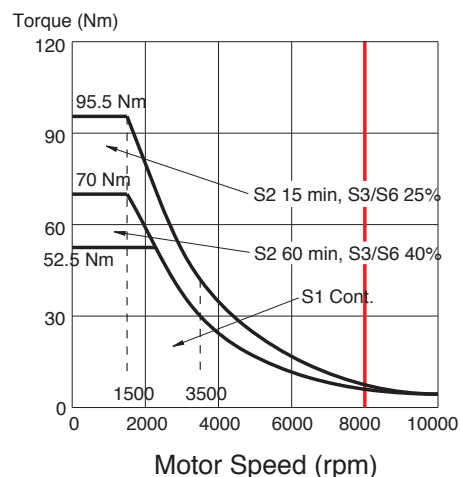
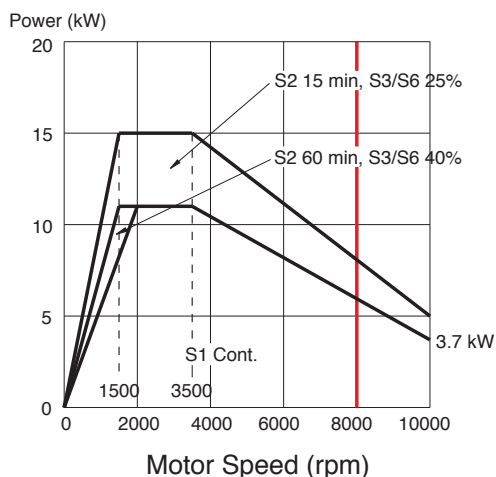


SPINDLE

- 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



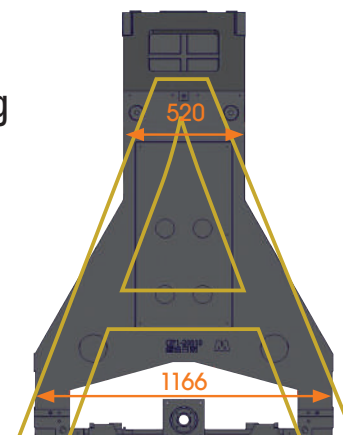
STRUCTURE

- Wide span column
- Certificated casting



Certificated Casting

GB300

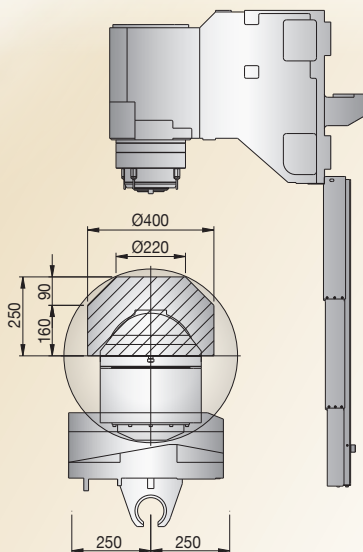
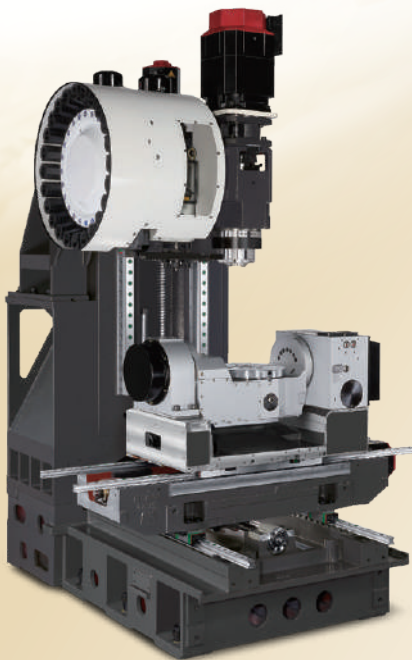


Column with wide span

1166 mm (F76)
1270 mm (F106)

Vcenter-FX400: Your First 5-axis Machine with Fantastic Performance

- Maximum part dimension: $\varnothing 400$ x H160 + $\varnothing 220$ x H250 mm
- Trunnion type tilting table $\varnothing 320$ mm
- Fanuc OiMF Plus control for 4+1 axis machining
- 12000 rpm BBT-40 spindle directly coupled to spindle motor



X/Y/Z AXES

Travels: **600/500/500 mm**
Rapid feeds: **32/32/32 m/min**
Ball screw diameter: **40/40/40 mm**
Guideways: **30/35/45 mm**

ATC

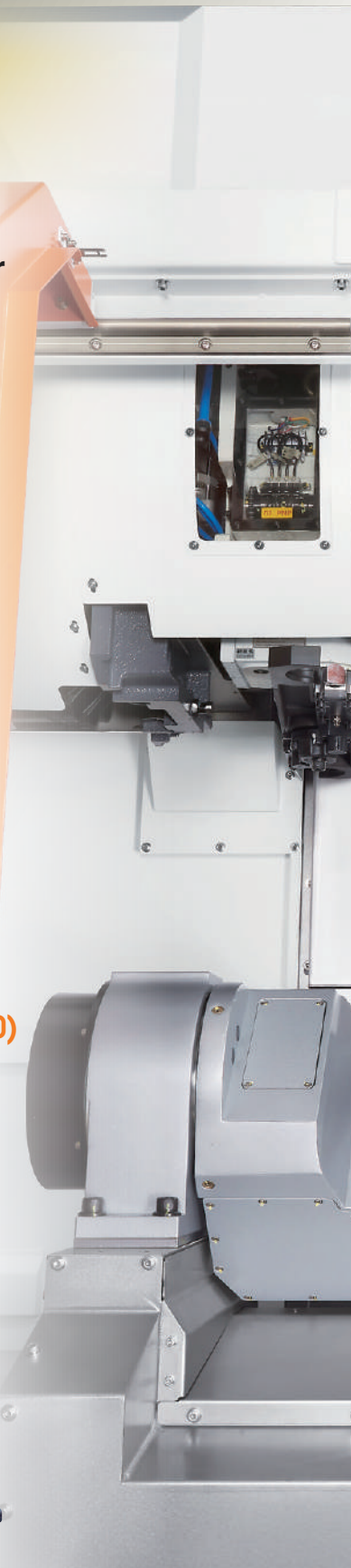
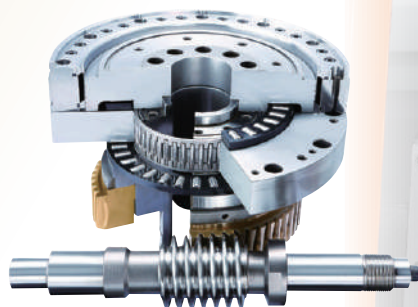
Capacity: **24 tools (opt. 30)**
Tool exchange time:
2.4 sec. (tool-tool)
5.7 sec. (chip-chip)

ROTARY TABLE

Dimension: **$\varnothing 320$ mm**

Table load: **200 kgs**

- Worm gear & shaft mechanism
- High wear resistance with copper alloy worm gear (patented CU80D) & fully lubricated worm shaft
- Dual-lead worm with minimal backlash

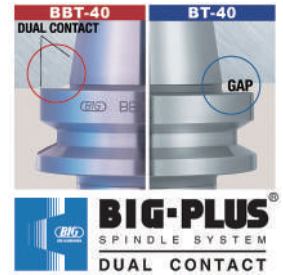




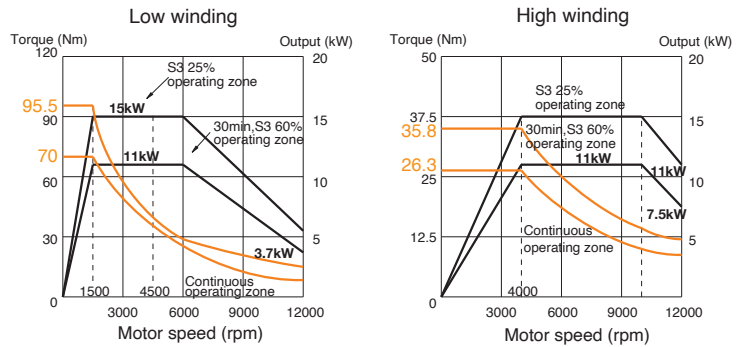
BigPlus[®] BBT-40 Spindle

15 kW (S3-25%)

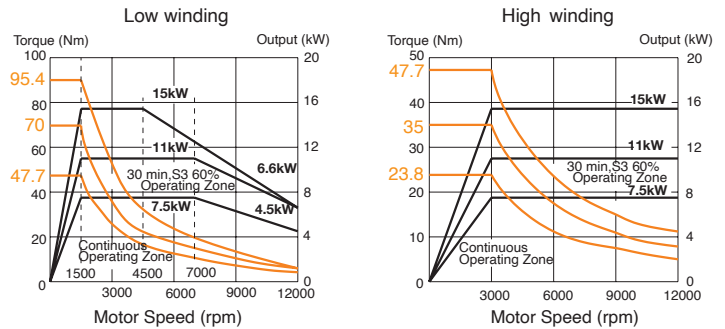
12000rpm



Fanuc α i12/12000 (std. without CTS)

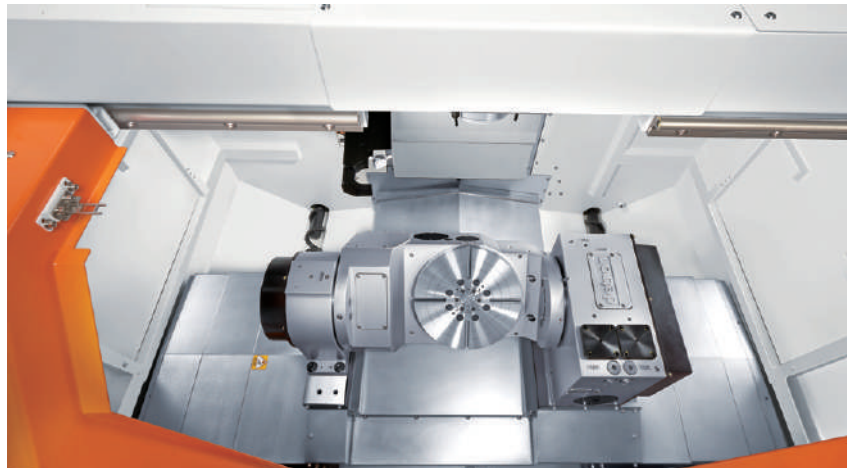


Fanuc α T8/12000 (opt. with CTS)



Chip & Coolant Disposal

- 2 screw chip removers
- High sloped angle bottom guarding

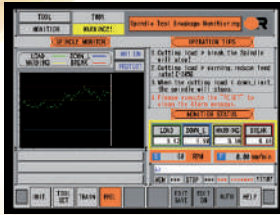


Vcenter-F series

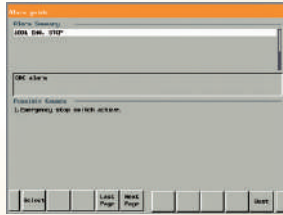
Standard Accessories

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"



Tool breakage detection



Alarm display with diagnosis



Tool management



Renishaw® GUI



Convenient maintenance



Arm type ATC + Coolant ring + LED lights



Bottom guarding flush (Vc-F106) + Screw chip removers

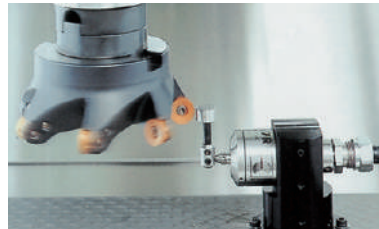
Optional Accessories



Spindle oil cooler
(std. for FX400)



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-FX400	Vcenter-F76	Vcenter-F106	
Travel	X axis travel	mm	600	760	1060
	Y axis travel	mm	500	500	600
	Z axis travel	mm	500	510 (opt. 690)	560 (opt. 760)
	A/C axis travels	deg.	+30°~ -120°/ 360°	-	-
Distance	Spindle center to column	mm	547	565	627
	Spindle nose to table surface	mm	20 ~ 520	120 ~ 630 (opt. 810)	150 ~ 710 (opt. 910)
Table	Table work area	mm	Ø320	840 x 500	1120 x 520
	Dimension of T-slot	mm	12H7	4 x 18 x 100	5 x 18 x 100
	Max. table load	kg	200	500	600
Spindle	Spindle taper		BBT-40	BT-40	BT-40
	Spindle motor - cont./ 25% (15 min)	kW	11 / 15	11 / 15	11 / 15
	Spindle speed	rpm	12000	8000 (opt. 10000)	8000 (opt. 10000)
Feed rate	Rapid feed rate - X/Y/Z (Fanuc)	m/min	32 / 32 / 32	32 / 32 / 32	32 / 32 / 32
	Rotary rapid feed rate - A/C (Fanuc)	rpm	16 / 25	-	-
	Axis acceleration - X/Y/Z	m/sec ²	0.4G / 0.4G / 0.5G	0.5G / 0.5G / 0.5G	0.5G / 0.5G / 0.5G
	Axis feed motor - X/Y/Z/A/C	kW	2.5 / 2.5 / 3 / 1.4 / 1.2	2.5 / 2.5 / 3	2.5 / 2.5 / 3
	Cutting feedrate by table	m/min	20	20	20
	Continuous torque output	N-m	1260 / 700 (A/C)	-	-
	Braked torque (clamping)	N-m	1500 / 750 (A/C)	-	-
	X/Y/Z ballscrew (dia. x pitch)	mm	40 x P16 (X/Y/Z)	40 x P16 (X/Y/Z)	45 x P16 (X/Y) 40 x P16 (Z)
Linear guide width (X/Y/Z)	mm	30 / 35 / 45	30 / 35 / 45	35 / 45 / 45	
Tools	Max. tool length	mm	300	300	300
	Max. tool weight	kg	7	7	7
	Magazine capacity		24 (opt. 30)	24 (opt. 30)	24 (opt. 30)
	Max. tool diameter (without adjacent tools)	mm	75 (150)	75 (150)	75 (150)
	Tool exchange time	sec.	2.4 (T-T), 5.7 (C-C)	2.4 (T-T), 5.7 (C-C)	2.4 (T-T), 5.7 (C-C)
	Pull stud angle	deg.	15 (JIS 40P)	15 (JIS 40P)	15 (JIS 40P)
	Tool selection method		Random	Random	Random
Accuracy (ISO 230-2)	Positioning accuracy (bi-directional)	mm	0.010 (X/Y/Z) 0.0056° (A/C)	0.010	0.010
	Repeatability	mm	0.007 (±0.0035) 0.003° (A/C)	0.007 (±0.0035)	0.007 (±0.0035)
Machine	Power requirement	KVA	27 (excl. CTS)	22 (excl. CTS)	22 (excl. CTS)
	Min/Max. air pressure	kg/cm ²	5.5 ~ 6.5	5.5 ~ 6.5	5.5 ~ 6.5
	Coolant tank capacity	L.	220	220	300
	Std. NC controller (Fanuc)		Oi-MF Plus (10.4", type-1)	Oi-MF Plus (10.4", type-3)	Oi-MF Plus (10.4", type-3)
	Floor space requirement	mm	2720 x 2730	2714 x 2782	2796 x 3339
	Max. machine height	mm	2962	2578	2872
	Machine weight	kg	6100	5260	6250

Standard Accessories:

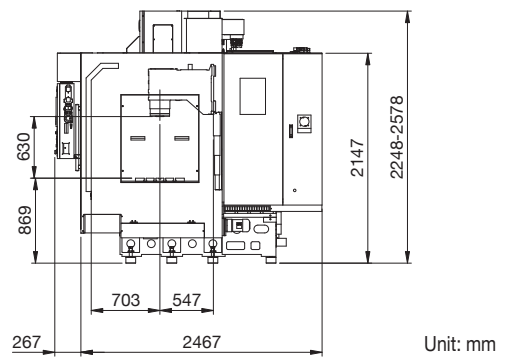
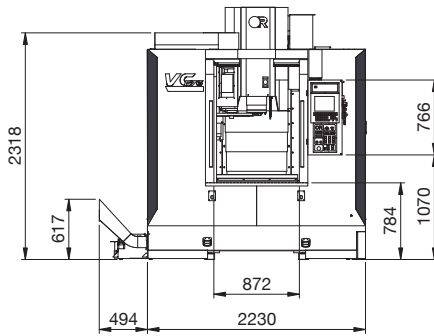
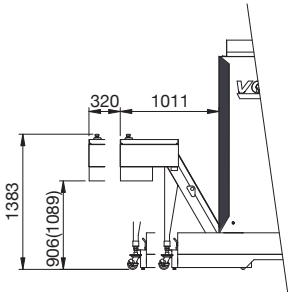
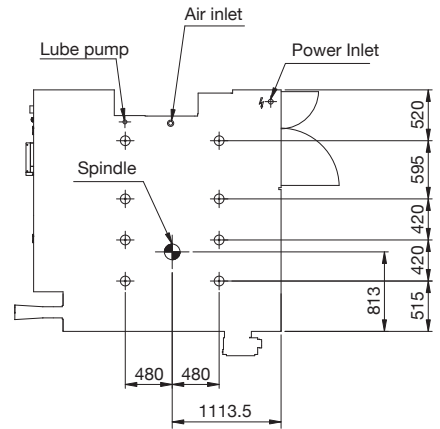
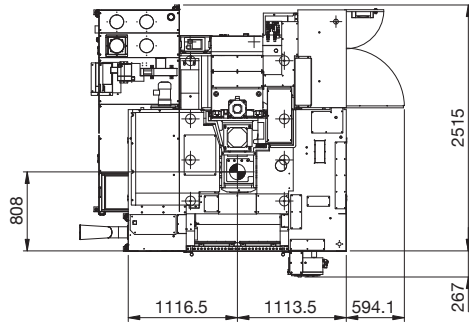
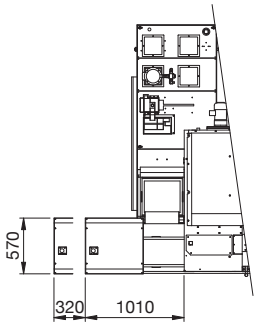
- Fully enclosed splash guard
- Fanuc Oi-MF Plus (10.4") control
- Screw-type chip remover (left disposal)
- Air blow (manual control)
- Rigid tapping
- Remote MPG
- Hand tools and toolbox
- T nuts for table slot
- 3-step warning light
- Leveling pads

Optional Accessories:

- Spindle oil cooler (std. for FX400)
- Air conditioner for electric cabinet
- Air blow (controlled by M-code)
- Auto power off
- Chip conveyor with cart
- Coolant through spindle (CTS)
- 10000 rpm spindle (excl. Vc-FX400)
- 30 tool magazine
- Auto tool length measurement
- Auto part measuring
- Stop block for special tools
- 4th/5th axis interface
- Auto door
- Oil skimmer
- Linear scales
- Air gun
- Coolant gun
- Rotary tables
- Fanuc OiMF Plus (10.4", type-1) control (Vc-F76/F106)
- Fanuc OiMF Plus (15", type-0) control
- Siemens control 840D SL (full 5-axis control)

Machine Layout

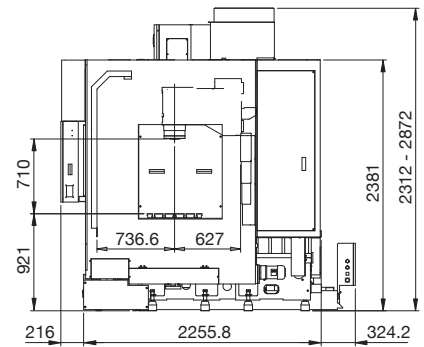
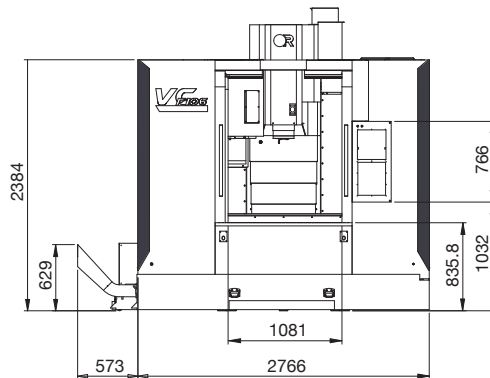
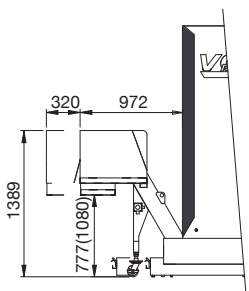
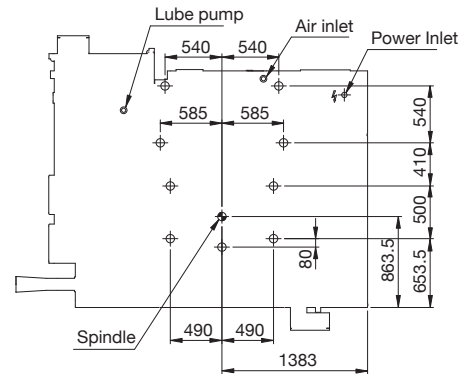
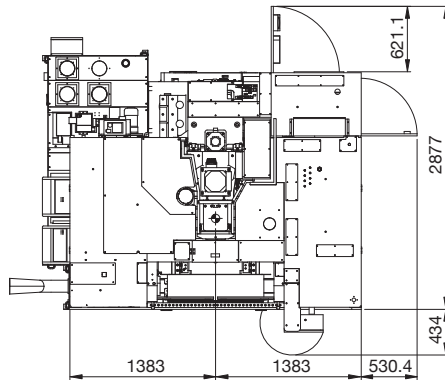
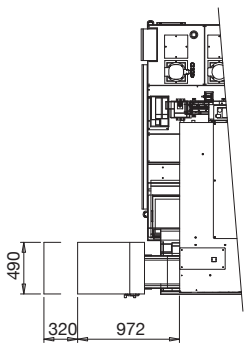
Vcenter-F76



chip conveyor

Unit: mm

Vcenter-F106



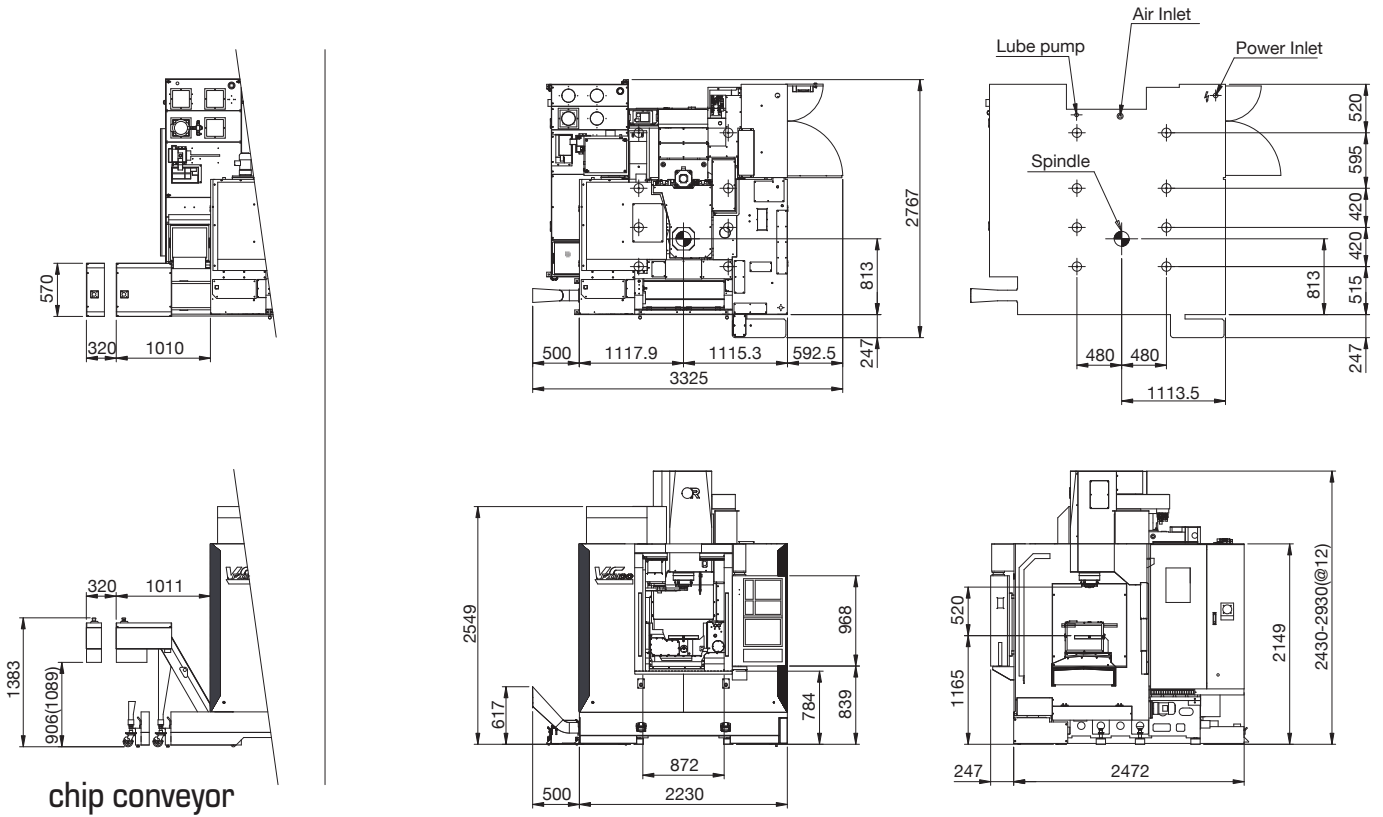
chip conveyor

Unit: mm

Machine Layout

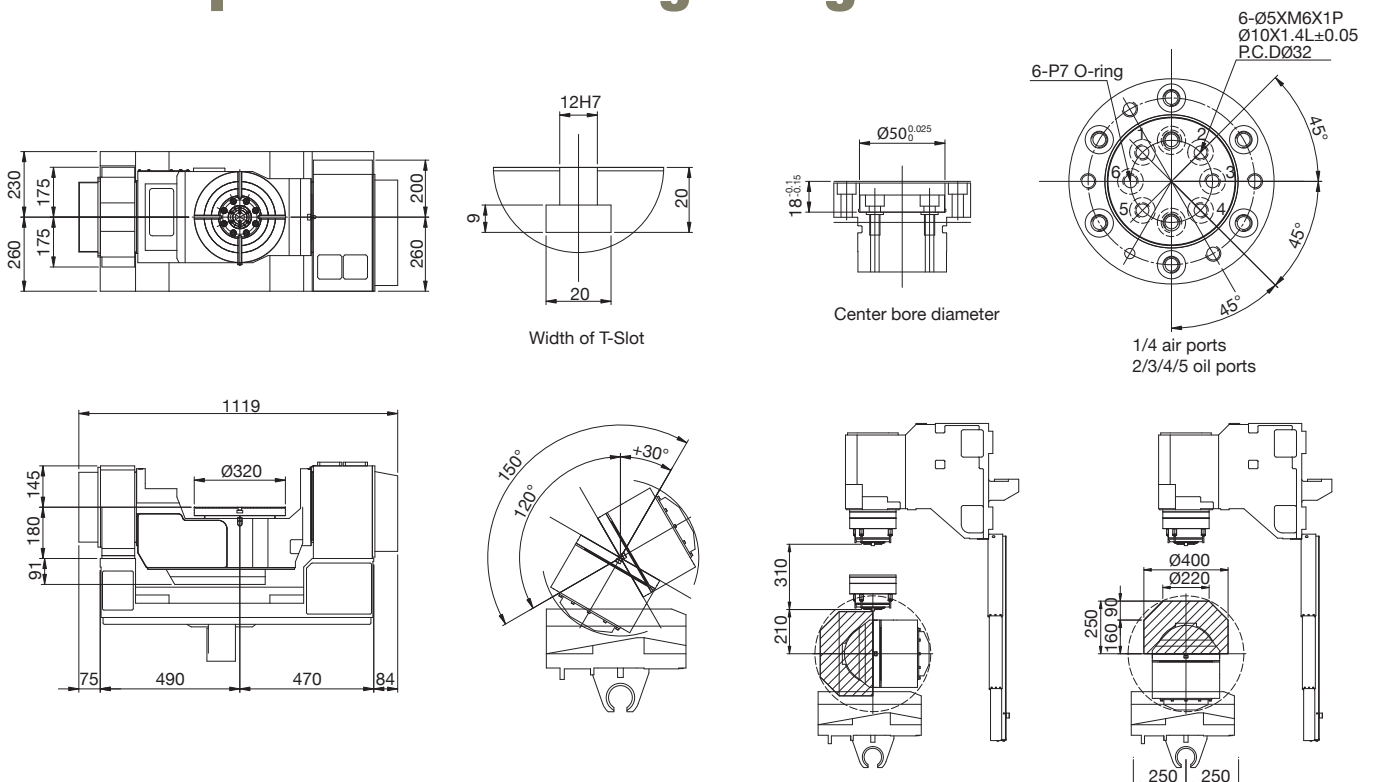


Vcenter-FX400



Unit: mm

Table Spec & Machining Range





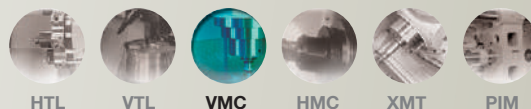
ONWARD RISE

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.

 **VICTOR TAICHUNG** profile:
 Sales turnover: USD 190 mil's (in 2022)*
 No. of employees: 764
 *Exchange rate: 1 USD=30 TWD.



THE VICTOR-TAICHUNG COMPANIES



HTL VTL VMC HMC XMT PIM

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