



VERTICAL AC FIVE AXIS MACHINING CENTER



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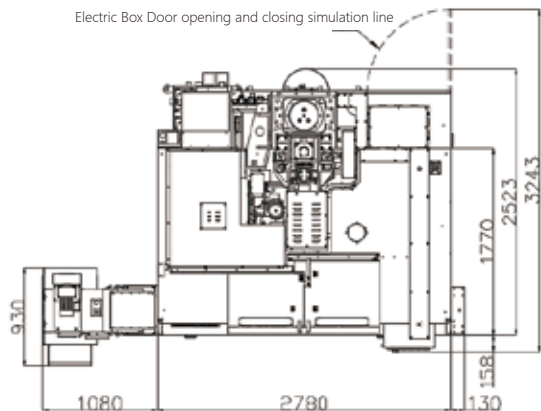
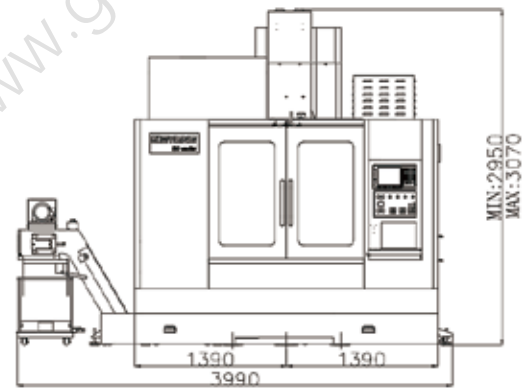
GFM400

Vertical AC five axis machining center



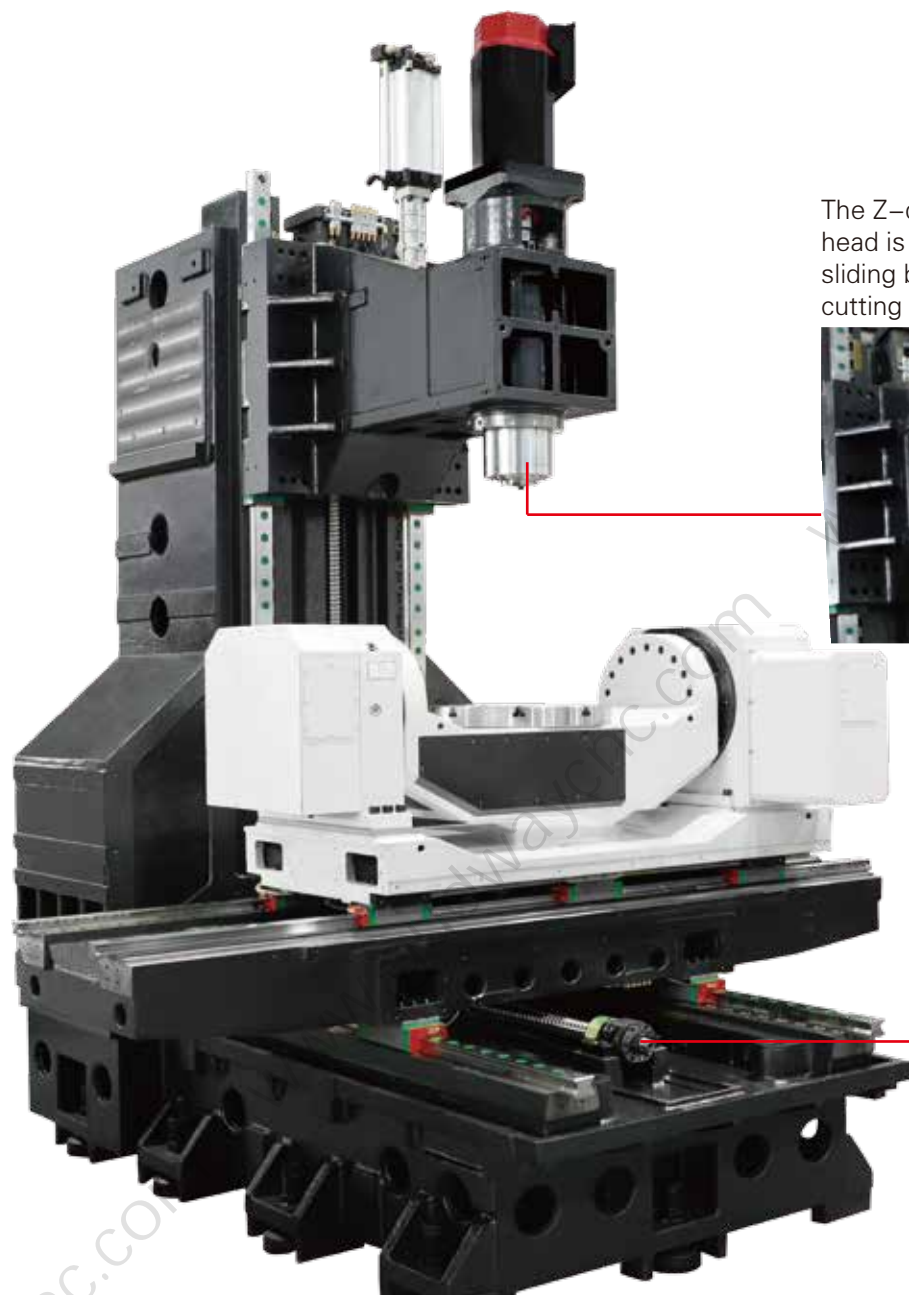
- The standard three axes are combined with cradle AC turntable. The system is configured with the **FANUC OiMF Plus** system, paired with the FANUC TCP tool following function.
- The Z-direction of the spindle head is fully supported by six sliding blocks, providing stable cutting force.
- Turntable base plate 3:55 large slope arrangement, compatible with movement space and convenient design of chip removal, intimate and reliable.
- Realize 90% of the processing requirements of five axial linkage processing, save a lot of time for workpiece turning and clamping to maximize the efficiency.

ITEM	Unit	GFM-400
X-axis travel	mm	700
Y-axis travel	mm	620
Z-axis travel	mm	600
A-axis travel	(°)	+30° ~ -120°
C-axis travel	(°)	± 360°
Spindle speed	rpm	10-12000
Rapid feed rate(X/Y/Z)	mm/min	36000/36000/36000
Rapid feed rate(A/C)	° /min	8000/8000



High-Precision

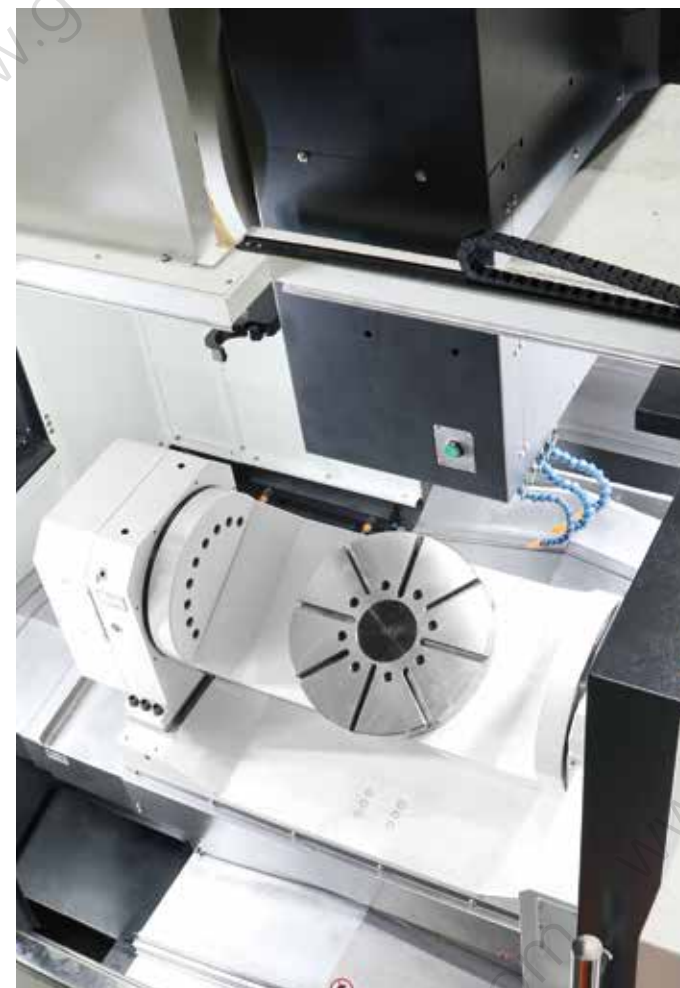
High-Rigidity



The Z-direction of the spindle head is fully supported by six sliding blocks, providing stable cutting force.



Pre-loading ball screw design maintains accuracy and reliability



Disc type working table

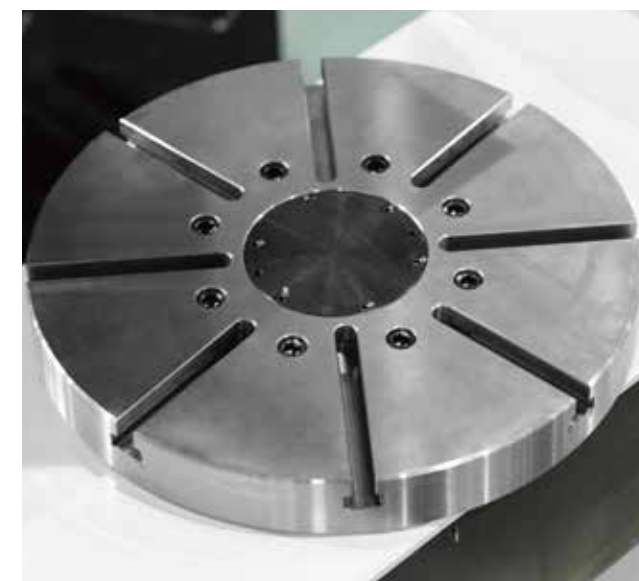
The diameter of the worktable is 400mm, and the 8-way radial positioning design makes the work-piece clamping convenient and reliable.

Wide rail and large span base

Large span base structure is adopted to provide strong bearing capacity for the machine and meet the high rigidity demand of heavy cutting.

Large rocker arm type turntable

Large span integrated casting molding, A-axis +30° ~ -120° swing, combined with C-axis ±360° movement, to meet the needs of complex surface continuous processing applications.



ITEM	UNIT	GFM-400
Worktable size(X*Y)	mm	Ø400
T slot size (width* distance *number)	mm	14H7 (8x45°)
Max. table load	kg	255 (Horizontal) 200 (Tilt)

Excellent control system User-friendly interface

High specification FANUC 0IMF Plus

Including: 10.4" color LCD Operation Panel, Ethernet interface, memory card socket, USB interface, rigid tapping, manual rigid tapping and various special interpolation and other high-specification. Fully and effectively meet the requirements of various uses.



■ Five-axis position and monitor screen



■ 5-axis type selection



■ Five axis center point theoretical value setting



■ Five-axis workpiece offset base parameter setting



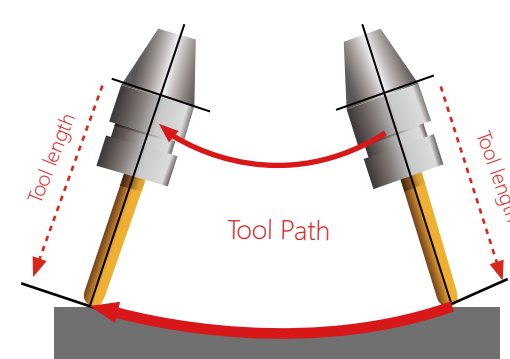
■ Five-axis one-button measurement



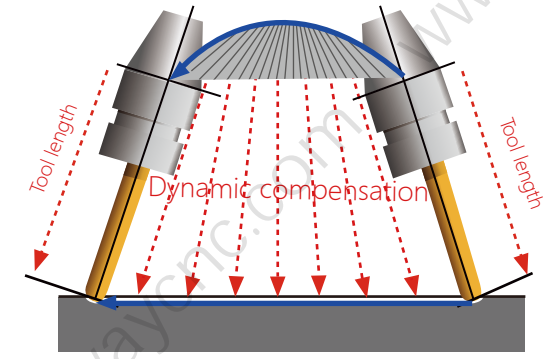
■ Complete protection circuit design, standardized power distribution, convenient and reliable maintenance.

Tool Center Point Control(TCP)

The 3+2 axis four linkage, Tool Center Point Control(TCP) is a necessary function to simplify multi-axis linkage machining. Customers can realize one-time tool compensation. The processing conditions set up by the system calculation automatic dynamic compensation, in order to achieve the product complex surface processing application needs and practice five-axis fixed four-axis linkage, greatly enhance the user's operation convenience.



TCP OFF



TCP ON

- TCP function can ensure the security and efficiency of angle conversion. The accurate center point can guarantee good machining precision.
- Tool center point
Command G43.4 H1 L1 G01 X_ Y_ Z_ B_ F_

- In the processing of cylindrical or cavity type workpiece, can give a fixed tilt, the system with real-time control of the tool attitude, real-time compensation, the application of 4-axis linkage processing.

Five Axis Parameter Setting



- High-Rigidity

- High-Quality

- High-Efficiency

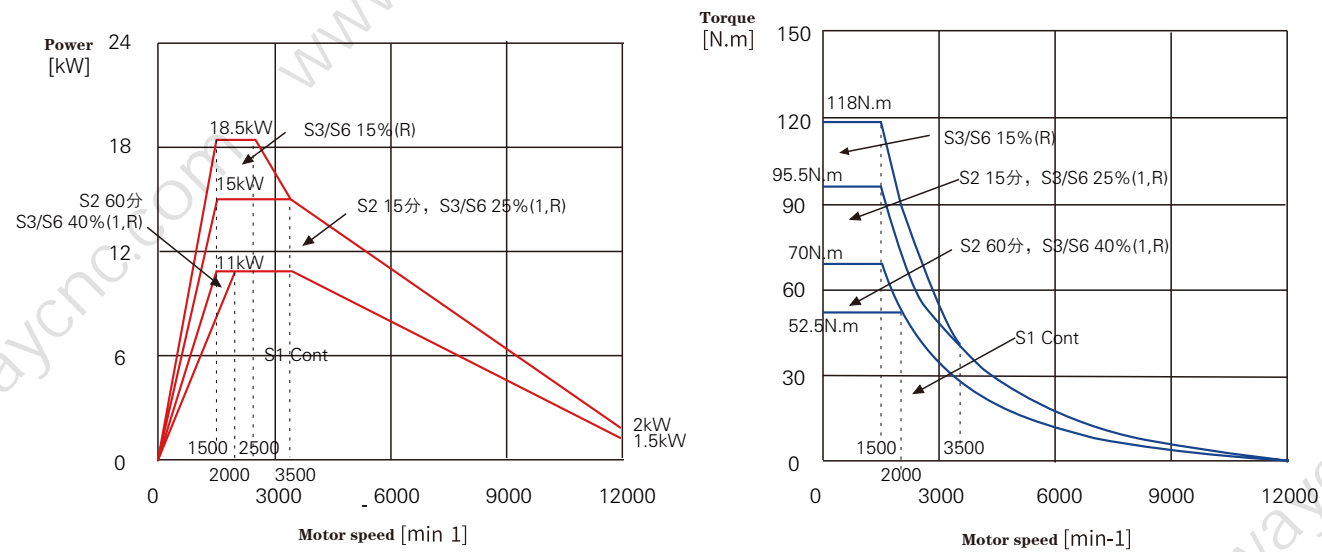


Complex processing procedures Flexible five-axis operation



■ The A-axis motion perpendicular to the X-axis, the swing amplitude from $+30^\circ \sim -120^\circ$. The C-axis perpendicular to the main axis, which can be positive and negative rotation 360° .

Spindle Torque Graph



Standardization Processed

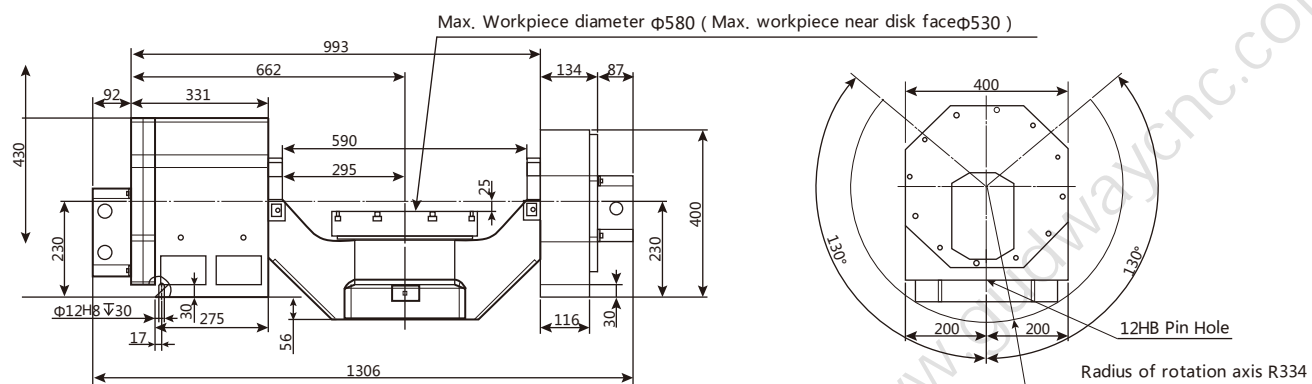
Normalization Detailed



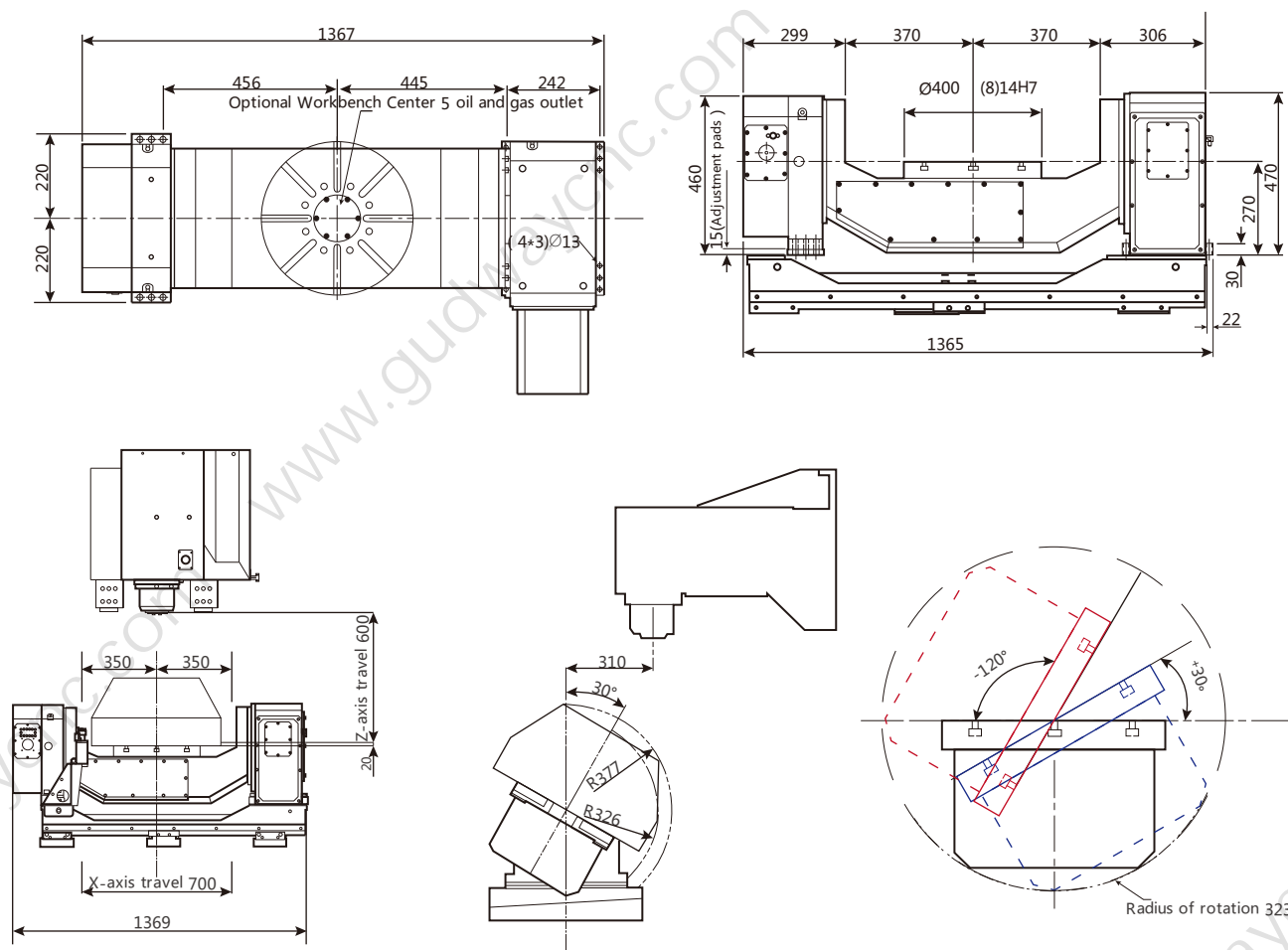
AC five axis machining center

Specifications and parameters

GFM350A



GFM400



Mechanical specifications

ITEM	UNIT	GFM-350A	GFM-400
Travel			
X-axis travel	mm	700	700
Y-axis travel	mm	520	620
Z-axis travel	mm	550	600
The angle of rotation of the a axis	(°)	+30° ~ -120°	+30° ~ -120°
The angle of rotation of the c axis	(°)	±360°	±360°
Spindle			
Distance for spindle center to worktable	mm	40~590	20~620
Spindle type		belt driven spindle	Direct driven
Spindle Taper	ISO	BT40	BT40
Spindle speed	rpm	10~10000	10~12000
Spindle motor power	kW	11/16.5	11/15
Power (X/Y/Z)	kW	5.9/5.9/5.9	3/3/3
Power (A/C)	kW	3.5/5.3	1.8/2.5
Tool magazine			
Tool magazine capacity (STD/ OPT)	Pc	24/30	24/30
Tool specifications	#ISO	BT40	BT40
Tool length	mm	300	300
Tool diameter/adjacent tool space	mm	φ80/φ150	φ80/φ150
Tool weight	kg	8	8
Worktable size			
Table size X*Y	mm	φ350	Disk diameter φ350
Center hole dimensions	mm	φ46	φ100
T slot arrangement	mm	12H7(8X45°)	14H7(8X45°)
Table load	kg	100	255(Horizontal)200(Tilt)
Spindle feed			
Rapid feed rate(X/Y/Z)	mm/min	36000/36000/36000	36000/36000/36000
Rapid feed rate(A/C)	°/min	--	8000/8000
Cutting feed rate	mm/min	1-10000	1~10000
Others			
Electricity demand	kVA	30	30
Control system		A new five-axis system	FANUC Oi-MF
Machine weight	T	6.5	7.2
Tank capacity	L	250	300
External dimensions	mm	3450x2825	3990x2580(front drain)

Standard options

A chip truck	●	Three-axis roller track	●
Working lamp	●	M30 auto power-off system	●
Warning Light	●	Three axes lubrication system	●
Spindle cooler	●	Direct spindle speed 12000rpm	●
Clean water gun	●	Base oil-water separation design	●
Working airsoft	●	24 automatic tool exchange system	●
Secure door locks	●	Fully Enclosed protective sheet metal	●
ring type coolant system	●	Spindle air curtain negative pressure system	●
Electric box heat exchange	●	Spindle external programmable air blowing	●
Cutting fluid cooling system	●	system	

Purchase items

Fully enclosed top cover	○
Upgrade to 30 the tool magazine	○
Oil Mist Recovery Unit	○
Disc type oil skimmer	○
Spindle center water outlet	○
Chassis chip flushing device	○
Front track chip removal system	○
Motor spindle speed 15000/20000rpm	○
Air-conditioning	○
three-axis /A/C axis Linear scale	○