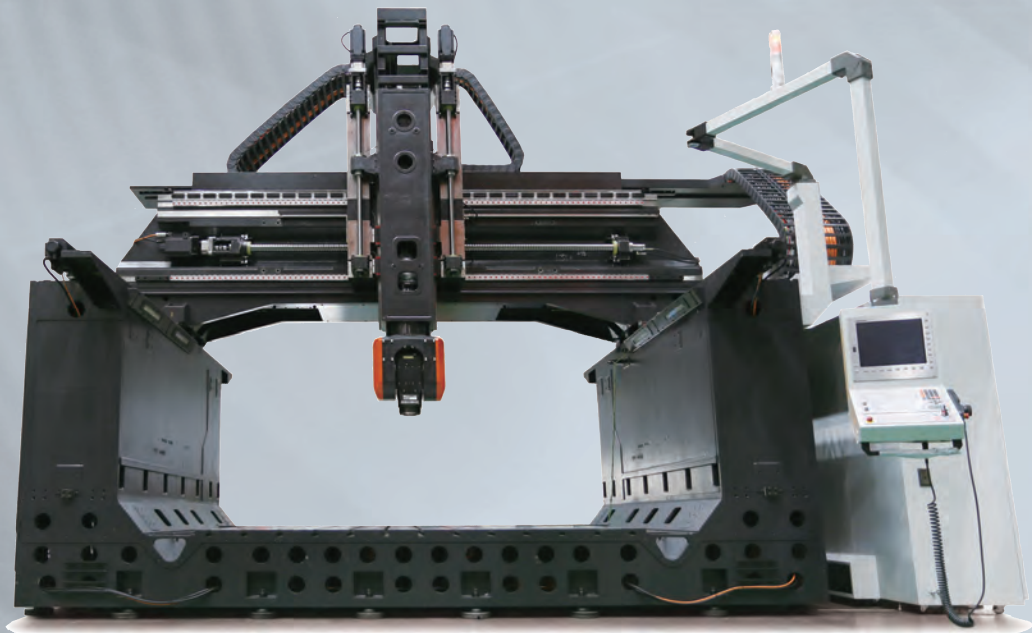
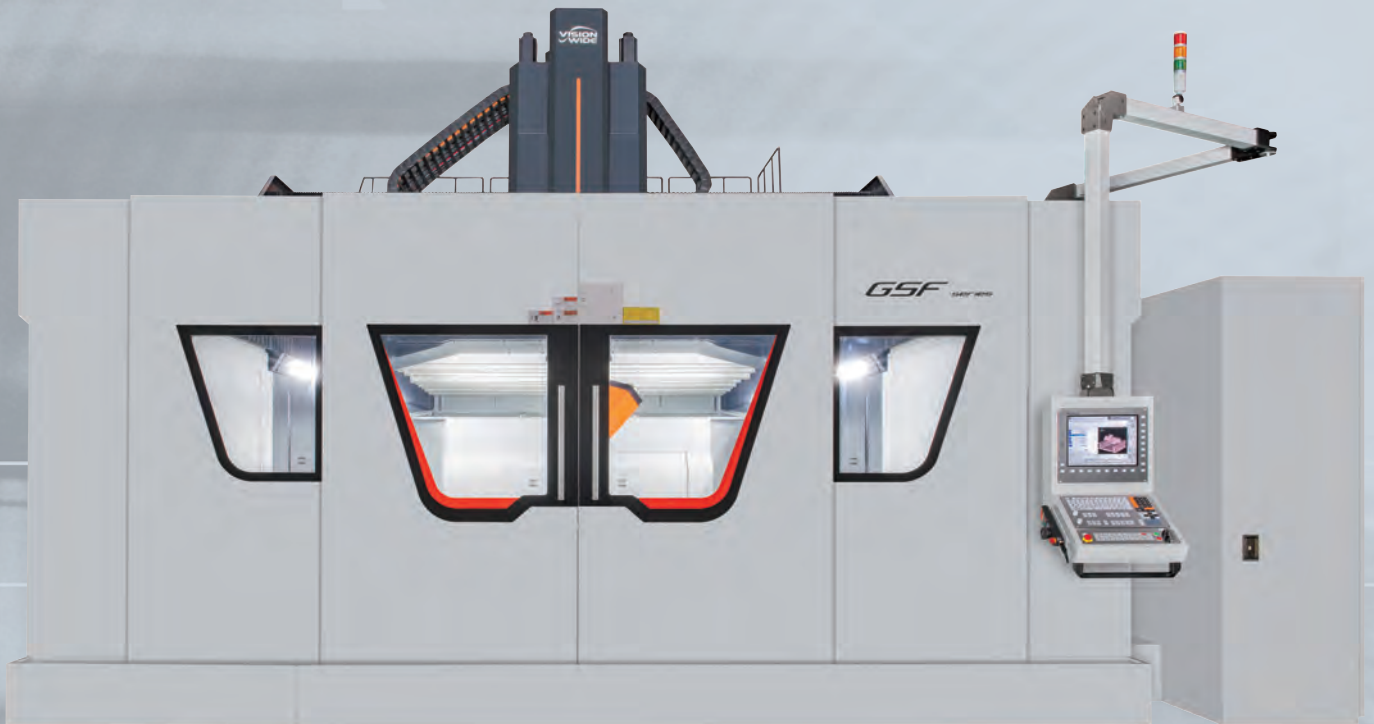


GSF

SERIES

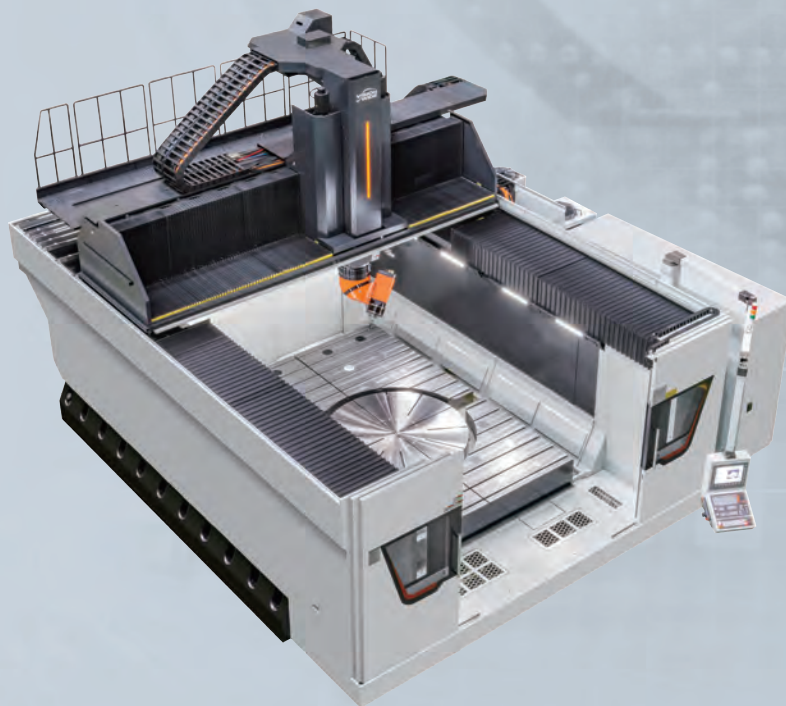
5-axis Gantry Type Machining Center



Continuous 2-Axis Head 5-Axis / 6 Axis Simultaneous Motion

- Built-in spindle with Direct-Driven B/C axis.
- No backlash on B/C axis.
- The minimal interference between workpiece and machine head.
- Thermal protection in all motors and bearing.
- Vibration protection in all bearings.
- 5-axis / 6-axis simultaneous dynamic accuracy reaches 0.04mm(TPCM).
- Rotation positioning accuracy $\pm 5''$ on B/C axis.

5-Axis
Machining



GSF Specification | GSF-xx27

	MODEL		Unit	GSF-1627	GSF-2227	GSF-3027	GSF-4027	GSF-5027	GSF-6027
1 TRAVEL									
1-1	X axis		mm	1,600	2,200	3,000	4,000	5,000	6,000
1-2	Y axis		mm	2,700					
1-3	Z axis		mm	1,000 / 1,200					
1-4	Distance from spindle nose to table	TAC8F-03-14	mm	Z1,000: 110~1,110 / Z1,200: 110~1,310					
		CM21X-05-10T	mm	-		Z1,000: 200~1,200 / Z1,200: 200~1,400			
		H810F-04-12	mm	Z1,000: 160~1,160 / Z1,200: 160~1,360					
		H810F-02-15	mm	Z1,000: 240~1,240 / Z1,200: 240~1,440					
		H810S-02-15 STD	mm	Z1,000: 275~1,275 / Z1,200: 275~1,475					
		H810S-01-24	mm	Z1,000: 240~1,240 / Z1,200: 240~1,440					
		H810F-01-24	mm	Z1,000: 240~1,240 / Z1,200: 240~1,440					
		H610F-01-24	mm	Z1,000: 225~1,225 / Z1,200: 225~1,425					
1-5	Distance between columns (port width)		mm	3,400					
2 TABLE									
2-1	Dimension		mm	1,600 x 2,700	2,200 x 2,700	3,000 x 2,700	4,000 x 2,700	5,000 x 2,700	6,000 x 2,700
2-2	T-slot(Width x Number x Pitch)		mm	28x11x250			28x15x250	28x19x250	28x23x250
2-3	Max. table load		kg/m ²	3,000					
3 SPINDLE			H810S-02-15						
3-1	Spindle motor(S1/S6)		kW	50 / 65					
3-2	Spindle speed		rpm	15,000					
3-3	Spindle taper		-	HSK-A100					
3-4	Spindle torque(S1/S6)		Nm	95.5 / 124					
4 FEED									
4-1	Cutting feedrate		mm/min	1-20,000					
4-2	Rapid traverse		m/min	XY:32 / Z:20					
5 ACCURACY									
5-1	Positioning accuracy(JIS-B6333)		mm	±0.005 / Full travel		±0.007 / Full travel			±0.008 / Full travel
5-2	Positioning accuracy(ISO 10791)		mm	P0.008			P0.010	P0.012	P0.015
5-3	Repeatability accuracy(JIS-B6333)		mm	±0.002					
5-4	Repeatability accuracy(ISO 10791)		mm	PS0.006				PS0.008	PS0.012
6 ATC									
6-1	Capacity		pcs	20 (32 / 40 / 60 Opt)					
6-2	Max. tool size-Full		mm	HSK-A63: Φ75 / HSK-A100: Φ125					
6-3	Max. tool size-Empty		mm	HSK-A63: Φ130 / HSK-A100: Φ250					
6-4	Max. tool length		mm	300					
6-5	Max. tool weigth		kg	HSK-A63: 8 / HSK-A100: 15					
7 OTHER									
7-1	Power requirement		kVA	130					
7-2	Pneumatic requirement		kg/m ²	6					
7-3	Machine net weight		kg	39,000	44,000	43,500	52,500	61,000	70,500
7-4	Machine gross weight		kg	43,500	48,500	48,000	57,500	66,500	76,500
7-5	Floor space (L x W x H)		m	6.9x8.6x5.5	7.5x8.6x5.5	9.1x8.6x5.5	10.1x8.6x5.5	11.1x8.6x5.5	12.1x8.6x5.5

Standard accessories and function

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> 1 HEIDENHAIN TNC460 controller 2 HEIDENHAIN DCM (Dynamic Collision Monitoring) 3 15,000rpm HSK-A100 spindle 4 2-axis head central monitoring protection system Spindle bearing vibration monitoring Spindle and motor temperature monitoring B/C-axis motor temperature monitoring Spindle cutting load software protection 5 Spindle cooler system 6 Spindle ring cutting coolant device | <ul style="list-style-type: none"> 7 Air blast through spindle 8 2-axis head rotary compensation system 9 Z-axis travel 1,000 mm 10 X/Z axis are driven by dual ballscrew and Y axis is driven by single ballscrew. 11 X/Y axis ballscrew cooling system 12 X/Y/Z axis high rigidity roller type linear guideway 13 X axis ballscrew support device (axis 4m above) 14 X axis dual linear scale, Y/Z-axis linear scale 15 Spindle and structure temperature thermal compensation system | <ul style="list-style-type: none"> 16 XYZ-axis travel hard limits protection 17 Centerized auto lubrication system 18 Independent lubrication oil collector for 3-axis 19 Wash gun & pneumatic interface 20 Vertical type tool magazine 20T 21 Swiveling arm type operation panel 22 Movable manual pulse generator 23 Air conditioner for electrical cabinet 24 Working lamp 25 Operation cycle finish and alarm light 26 RJ45 interface 27 Enclosed sheet metal guard without roof |
|--|--|--|

※ All specification and designs are subject to change without notice.

GSF Specification | GSF-xx32

	MODEL		Unit	GSF-2232	GSF-3032	GSF-4032	GSF-5032	GSF-6032
1 TRAVEL								
1-1	X axis		mm	2,200	3,000	4,000	5,000	6,000
1-2	Y axis		mm	3,200				
1-3	Z axis		mm	1,000 / 1,200				
1-4	Distance from spindle nose to table	TAC8F-03-14	mm	Z1,000: 110~1,110 / Z1,200: 110~1,310				
		CM21X-05-10T	mm	-	Z1,000: 200~1,200 / Z1,200: 200~1,400			
		H810F-04-12	mm	Z1,000: 160~1,160 / Z1,200: 160~1,360				
		H810F-02-15	mm	Z1,000: 240~1,240 / Z1,200: 240~1,440				
		H810S-02-15 STD	mm	Z1,000: 275~1,275 / Z1,200: 275~1,475				
		H810S-01-24	mm	Z1,000: 240~1,240 / Z1,200: 240~1,440				
		H810F-01-24	mm	Z1,000: 240~1,240 / Z1,200: 240~1,440				
		H610F-01-24	mm	Z1,000: 225~1,225 / Z1,200: 225~1,425				
	H610S-01-24	mm	Z1,000: 225~1,225 / Z1,200: 225~1,425					
1-5	Distance between columns (port width)		mm	3,900				
2 TABLE								
2-1	Dimension		mm	2,200 x 3,200	3,000 x 3,200	4,000 x 3,200	5,000 x 3,200	6,000 x 3,200
2-2	T-slot(Width x Number x Pitch)		mm	28x13x250	28x11x250	28x15x250	28x19x250	28x23x250
2-3	Max. table load		kg/m ²	3,000				
3 SPINDLE								
H810S-02-15								
3-1	Spindle motor(S1/S6)		kW	50 / 65				
3-2	Spindle speed		rpm	15,000				
3-3	Spindle taper		-	HSK-A100				
3-4	Spindle torque(S1/S6)		Nm	95.5 / 124				
4 FEED								
4-1	Cutting feedrate		mm/min	1-20,000				
4-2	Rapid traverse		m/min	XY:32 / Z:20				
5 ACCURACY								
5-1	Positioning accuracy(JIS-B6333)		mm	±0.005 / Full travel	±0.007 / Full travel			±0.008 / Full travel
5-2	Positioning accuracy(ISO 10791)		mm	P0.008		P0.010	P0.012	P0.015
5-3	Repeatability accuracy(JIS-B6333)		mm	±0.002				
5-4	Repeatability accuracy(ISO 10791)		mm	PS0.006			PS0.008	PS0.012
6 ATC								
6-1	Capacity		pcs	20 (32 / 40 / 60 Opt)				
6-2	Max. tool size-Full		mm	HSK-A63: Φ75 / HSK-A100: Φ125				
6-3	Max. tool size-Empty		mm	HSK-A63: Φ130 / HSK-A100: Φ250				
6-4	Max. tool length		mm	300				
6-5	Max. tool weighth		kg	HSK-A63: 8 / HSK-A100: 15				
7 OTHER								
7-1	Power requirement		kVA	130				
7-2	Pneumatic requirement		kg/m ²	6				
7-3	Machine net weight		kg	46,000	45,500	55,000	64,000	73,500
7-4	Machine gross weight		kg	50,500	50,000	60,000	69,500	79,500
7-5	Floor space (L x W x H)		m	7.5x9.1x5.5	9.1x9.1x5.5	10.1x9.1x5.5	11.1x9.1x5.5	12.1x9.1x5.5

Standard accessories and function

- 28 Screw type chip conveyor on table sides
- 29 Caterpillar type chip conveyor / Water tank
- 30 Cutting fluid cooling system
- 31 Footswitch for tool clamping/uncclamping
- 32 Remote monitoring software-standard(CNC Talkbox)
- 33 Auto power off function
- 34 Z-axis retract function at power failure
- 35 Foundation pads and bolts kits
- 36 Adjustment tool and tool kits
- 37 Technical manuals
(operation, maintenance manual and circuit diagram)

Option accessories and function

- 1 24,000 rpm HSK-A63 spindle
- 2 12,000 / 14,000 HSK-A100 spindle
- 10,000 HSK-T100 spindle
- 3 Z-axis travel 1,200 mm
- 4 Vertical type tool magazine 32/40/60T
- 5 Coolant through spindle system:20 bar / 60 bar
- 6 Oil mist cooling device
- 7 Oil skimmer
- 8 Helical blade screw conveyor on table sides
- 9 Dual belt type chip conveyor / Water tank
- 10 without chip auger / without chip conveyor / without tank
- 11 Foot pad above chip groove

- 11 Foot pad above chip groove
- 12 Chip cart
- 13 Enclosed sheet metal guard with roof
- 14 Sub working table
- 15 XYZ-axis independent manual pulse generator
- 16 Remote monitoring software-professional(CNC Talkbox)
- 17 Auto tool length measurement
- 18 Auto workpiece measurement
- 19 Automatic correction software of rotary axis error
- 20 Spindle vibration protection device
- 21 Transformer
- 22 Oil mist recycle device
- 23 Intelligent feed machining function