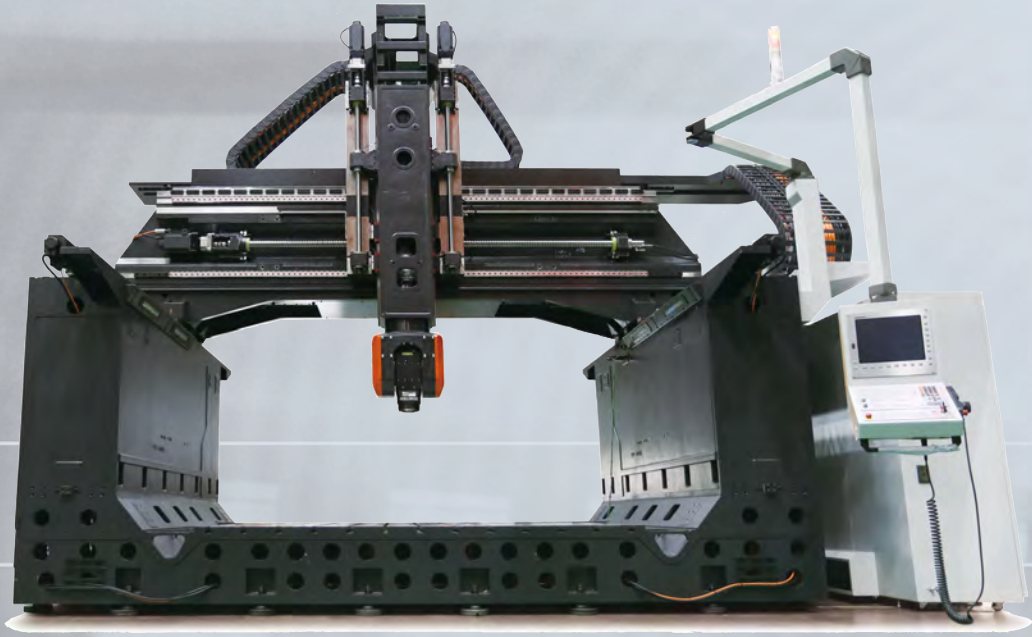


GSF

SERIES

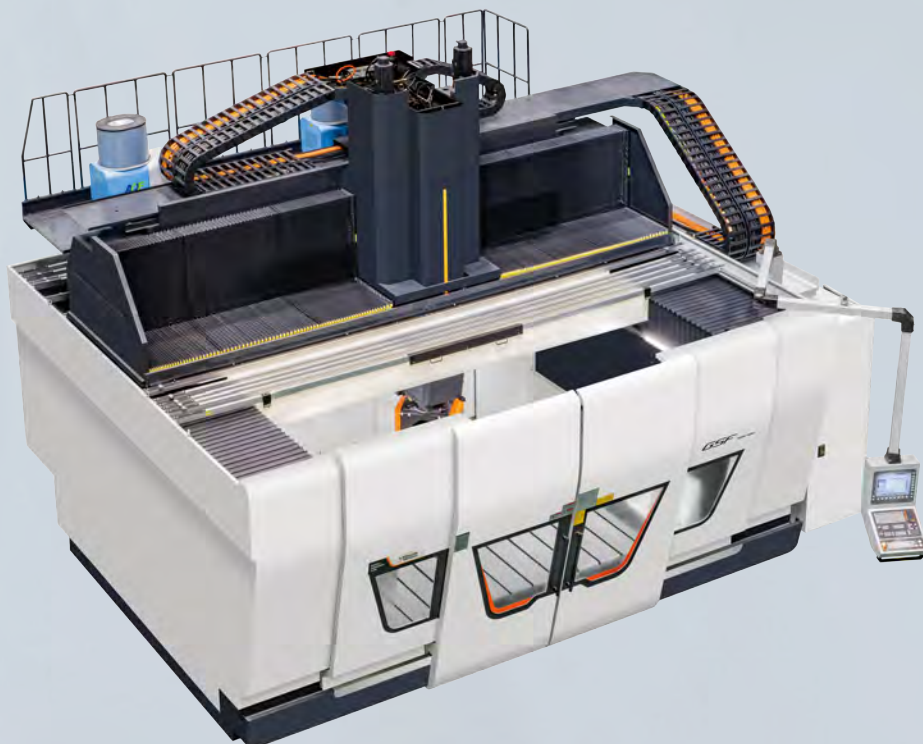
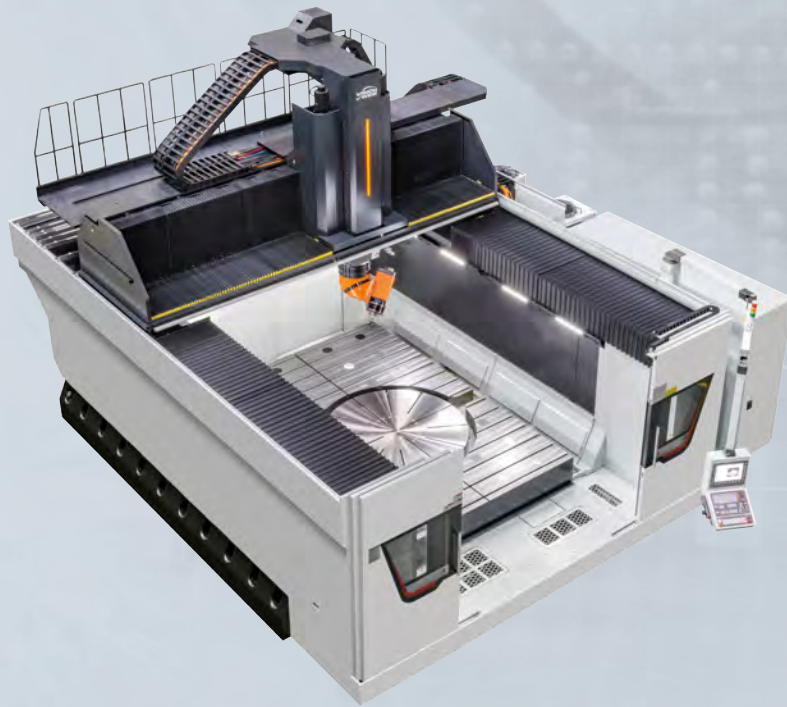
5-axis Gantry Type Machining Center



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	
TRAVEL									
X axis		mm	1,600	2,200	3,000	4,000	5,000	6,000	
Y axis		mm	2,700						
Z-axis		mm	1,000 / 1,200						
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							
Distance between columns (port width)		mm	3,400						
TABLE									
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	
T-slot (Dimension x Number x Pitch)		mm	28x11x250			28x15x250	28x19x250	28x23x250	
Max. table load		kg/m ²	5,000						
SPINDLE									
H810S-02-15									
Spindle motor (S1/S6)		kW	50 / 65						
Spindle speed		rpm	15,000						
Tool shank		-	HSK-A100						
Spindle Torque (S1/S6)		Nm	95.5 / 124						
FEED									
Cutting federate		mm/min	1-20,000						
Rapid traverse(X/Y/Z)		m/min	XY:32 / Z:20						
ACCURACY									
Positioning accuracy (JIS-B6333)		mm	±0.005 / Full travel			±0.007 / Full travel		±0.007 / Full travel	
Positioning accuracy (VDI3441)		mm	P0.008			P0.010	P0.012	P0.015	
Repeatability (JIS-B6333)		mm	±0.002						
Repeatability (VDI344)		mm	PS0.006				PS0.008	PS0.012	
ATC									
ATC capacity		pcs	20 / 32 / 40 / 60						
Max. tool size (Full tools)		mm	HSK-A63: Φ75 / HSK-A100: Φ125						
Max. tool size (Next pocket empty)		mm	HSK-A63: Φ130 / HSK-A100: Φ250						
Max. tool length		mm	300						
Max. tool weight		kg	HSK-A63: 8 / HSK-A100: 15						
OTHER									
Electric power consumption		kVA	130						
Pneumatic input pressure		kg/m ²	6						
Net weight		kg	39,000	44,000	43,500	52,500	61,000	70,500	
Machine gross weight		kg	43,500	48,500	48,000	57,500	66,500	76,500	
Max. 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	

※ 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	
TRAVEL								
X axis		mm	2,200	3,000	4,000	5,000	6,000	
Y axis		mm	3,200					
Z-axis		mm	1,000 / 1,200					
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						
Distance between columns (port width)		mm	3,900					
TABLE								
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	
T-slot (Dimension x Number x Pitch)		mm	28x13x250	28x11x250	28x15x250	28x19x250	28x23x250	
Max. table load		kg/m ²	5,000					
SPINDLE								
			H810S-02-15					
Spindle motor (S1/S6)		kW	50 / 65					
Spindle speed		rpm	15,000					
Tool shank		-	HSK-A100					
Spindle Torque (S1/S6)		Nm	95.5 / 124					
FEED								
Cutting federate		mm/min	1-20,000					
Rapid traverse(X/Y/Z)		m/min	XY:32 / Z:20					
ACCURACY								
Positioning accuracy (JIS-B6333)		mm	±0.005 / Full travel	±0.007 / Full travel			±0.008 / Full travel	
Positioning accuracy (VDI3441)		mm	P0.008	P0.010	P0.012	P0.015		
Repeatability (JIS-B6333)		mm	±0.002					
Repeatability (VDI344)		mm	PS0.006			PS0.008	PS0.012	
ATC								
ATC capacity		pcs	20 / 32 / 40 / 60					
Max. tool size (Full tools)		mm	HSK-A63: Φ75 / HSK-A100: Φ125					
Max. tool size (Next pocket empty)		mm	HSK-A63: Φ130 / HSK-A100: Φ250					
Max. tool length		mm	300					
Max. tool weight		kg	HSK-A63: 8 / HSK-A100: 15					
OTHER								
Electric power consumption		kVA	130					
Pneumatic input pressure		kg/m ²	6					
Net weight		kg	46,000	45,500	55,000	64,000	73,500	
Machine gross weight		kg	50,500	50,000	60,000	69,500	79,500	
Max. 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	

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

Standard Accesories and Functions

- 1 HEIDENHAIN TNC640 controller
- 2 HEIDENHAIN DCM (Dynamic Collision Monitoring)
- 3 HST810x15,000 rpm/HSK-A100
- 4 2-axis head central monitoring protection system:
 - Spindle and motor temperature monitoring
 - B/C-axis motor temperature monitoring
 - Spindle cutting load software protection
- 5 2-axis Head rotation error mechanism chain correction
- 6 Z-axis travel 1,000 mm
- 7 Spindle and structure temperature
- 8 thermal compensation system
- 9 Air blast through spindle Spindle cooler system
- 10 Spindle ring cutting coolant device
- 11 Cutting fluid cooling system
- 12 X axis ball screw support device (axis 4m above)
- 13 X axis dual linear scale, Y/Z-axis linear scale
- 14 XYZ-axis travel hard limits protection
- 15 X/Z axis is driven by dual ballscrew and
Y axis is driven by single ballscrew.
- 16 Centerlized auto lubrication system
- 17 Independent lubrication oil collector for 3-axis
- 18 Wash gun & pneumatic interface
- 19 Enclosed sheet metal guard without roof
- 20 Vertical type tool magazine 20T
- 21 Screw type chip conveyor on table sides
- 22 Caterpillar type chip conveyor / Water tank
- 23 Swiveling arm type operation panel
- 24 Air conditioner for electrical cabinet
- 25 Working lamp
- 26 Operation cycle finish and alarm light
- 27 Movable manual pulse generator
- 28 RJ45 interface
- 29 Footswitch for tool clamping/unclamping
- 30 Remote monitoring software-standard
- 31 Auto power off function
- 32 Tool axis retract function at power failure
- 33 Foundation pads and bolts kits
- 34 Adjustment tool and tool kits
- 35 Technical manuals
(operation, maintenance manual and circuit diagram)

Optional Accesories and Functions

- 1 SIEMENS 840D SL controller
- 2 HST810x12,000 rpm/HSK-A100
- 3 HST810x24,000 rpm/HSK-A63
- 4 HSD610x24,000 rpm/HSK-A63
- 5 Automatic correction software of rotary axis error
- 6 Spindle cutting vibration protection device
- 7 Z-axis travel 1,200 mm
- 8 Vertical type tool magazine 32T
- 9 Coolant through spindle system: 20/ 60 bars
- 10 The interface of coolant through spindle
- 11 Coolant through spindle system 20 / 60 bars+
air through 6 bars
- 12 Oil skimmer
- 13 Oil mist cooling device
- 14 Enclosed sheet metal guard with roof
- 15 Helical blade screw conveyor on table sides
- 16 Dual belt type chip conveyor / Water tank
- 17 Foot pad above chip groove
- 18 Chip cart
- 19 Sub working table
- 20 Auto tool length measurement
- 21 Auto workpiece measurement
- 22 Transformer
- 23 Transformer and Voltage Stabilizer
- 24 Oil mist recycle device
- 25 Adaptive Feed Control (AFC)
- 26 Auto warm up