

Specifications

Travel	Unit	G5	G700	G1000
X-axis	mm	550	750	1020
Y-axis	mm	600	600	700
Z-axis	mm	350	500	
Distance from spindle nose to table	mm	90~440	150~650	
Distance between columns	mm	640	850	1080

Table				
Table dimension	mm	650x600	810x620	1050x700
Max. table load	kg	500	500	800
T-slot (W*P*N)	mm	14x100x6	18x125x5	18x125x6

Spindle				
Spindle type	—	built-in	built-in	
Spindle speed	rpm	24000	20000	
Spindle motor (cont./15-min rated)	kW	10/12	18.5/22 MITSUBISHI	
Spindle taper	—	HSKE40	HSK63A	

Feed-rate				
Rapid federate (X/Y/Z)	m/min	24/24/18	32/32/32	
Cutting federate	mm/min	12000	20000	
Power of 3-axis motor	kW	1.6/1.6/3.0	3.5/3.5/3.5 MITSUBISHI	

ATC & Magazine				
ATC type	—	Umbrella	Umbrella	
ATC capacity	pcs	16T	16T	
Max. tool	mm	80/120	105/120	
Max. length of tool	mm	120	250	
Max. weight of tool	kg	1.5	3	
Tool taper	—	HSKE40	HSK63A	

Space and system requirement				
Pneumatic requirement	kgf/cm ²	6	6	
Power requirement	kVA	20	50	
Net machine weight	kg	5000	7000	9000
Max. space required	mm	3700x3270x2670	3950x4600x2950	3950x4600x2950

Standard Accessories

- G5
 - Mitsubishi M800 controller
 - 24000rpm, HSK40, built-in spindle
 - 16-tool, HSK40, Umbrella ATC
- G700/G1000
 - Mitsubishi M800 controller
 - 20000rpm, HSKA63, built-in spindle
 - 16-tool, HSKA63, Umbrella ATC
- Graphite vacuum system
- Grease lubrication system to ballscrews
- Air blow to spindle
- Cutting air blow
- Oil cooler to spindle
- Centralized automatic lubrication system
- 3-axis axial motor (abs.)
- Fully-enclosed cover
- Working lamp
- Status indication lamp
- MPG
- Ethernet and RS-232 interface
- Air conditioner to the electric cabinet
- Tool kits
- Leveling bolts and pads
- Operation manual
- One-year machine warranty (spindle warranty, followed the policy of spindle maker)
- Controller warranty (controller warranty, followed the policy of controller maker)

Optional Accessories

- FANUC 0iMF controller (G5)
- FANUC 31IMB controller
- SIEMENS 828D controller
- 25000rpm, HSK50 (IBAG), built-in spindle (G700/G1000)
- 30000rpm, SK30 (IBAG), built-in spindle
- 30000rpm, HSK40, built-in spindle (with thermal compensation)
- 3-axis Linear Scale (G700/G1000)
- Workpiece measurement device
- Tool length measurement device
- Transformer
- CE mark (applied to CE-required areas only)

* All data listed here are based on machines with standard accessories. Data will be altered according to different options. For detailed information, please refer to local dealers or Takumi sales.
* Takumi reserves the right on the modifications of the machine specifications.

TAKUMI : Professional Team and Outstanding Brand

Agent

G Series

G5 / G700 / G1000

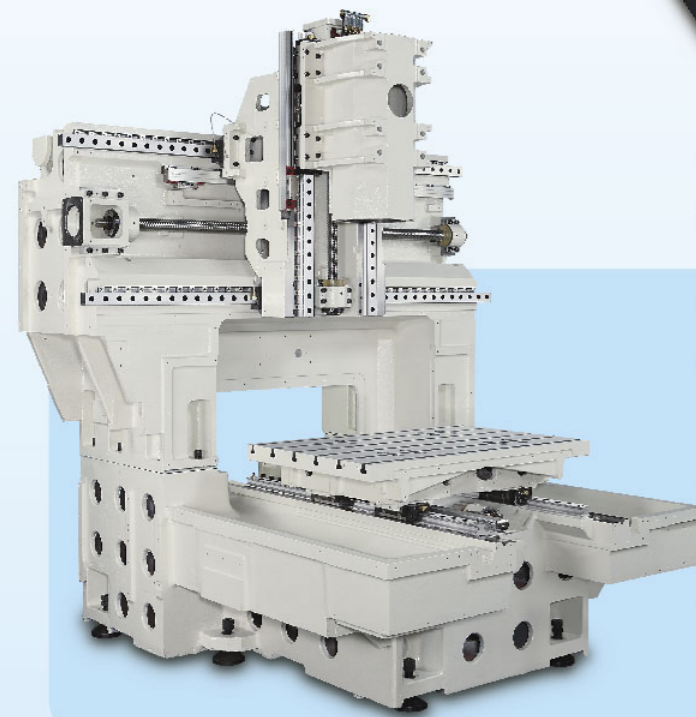
High-Speed Bridge-Type Graphite Machining Center (Dry Type)

3-Axis Linear Scale, High-Speed and High-Accuracy



The Embodiment of Technological Expert – The Perfect Combination for high-speed and high-accuracy machining

- Fully-enclosed covers make sure a safe, clean and healthy working environment and effectively reduce graphite particles' contamination to its minimum.
- User-friendly rotatable operation panel makes the operator work at every convenient and suitable angle.
- To satisfy differential demands from every different customer and market, Takumi has been devoted to the development of the brand-new high-efficiency and energy-saving graphite machining center which creates lots of benefits to the users.
- To compare with the copper to be used as the mold material, the graphite has many more advantages; such as: lower cost and higher accuracy, so it is wide-rangingly used.
- Every customer-oriented machine configuration wholly meets every customer's practical requirement.



Unique Mechanical Structure of High-Rigidity and High-Precision

- Roller-typed 3-axis linear guideway greatly achieves a quick motion response in acceleration and deceleration.
- Eliminating from the counter-balanced mechanism to the headstock reduces the possible vibration and motion stagnation, and makes the Z-axis motion response faster and more efficient.
- Inclusive of the base, column and beam, the casting irons of main structural components are of Meehanite grade and remove their internal stresses by heat treatment so as to ensure the long-lasting structural stability.
- Honeycombed design of beam together with a laddered layout of linear guideways gets a wider combinative span to the saddle so as to acquire a powerful and stable spindle machining capability.

high-graded particle-proof ballscrew and linear guideway extends a longer service hour

- linear guideways with the high-graded particle-proof design
- Ballscrews with a high-graded particle-proof scraper system
- Overlapping (scaly) telescopic cover ---
- bi-layer protection and seamless design
- (G700/G1000)

Unique Mechanical Structure of High-Rigidity and High-Precision

- The spindle, supplied by the professional spindle maker, is of high-precision and high-performance.
- Embedded automatic thermal compensation device (opt. in IBAG) effectively reduces the thermal transformation generated by heat; thus achieves the higher accuracy.
- The spindle cooling system ensures the thermal stability in operation, effectively restrains from the thermal variation; therefore, optimizes the machining.

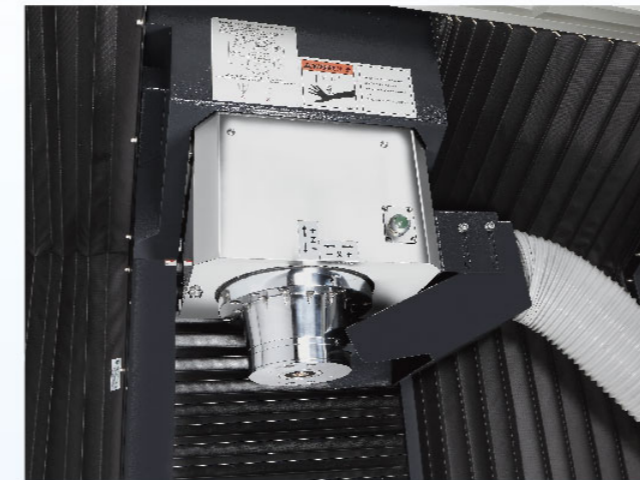
Layout of the particle vacuum system



Vacuum system on the table of G5 :

- With 2 6-inch particle-collection hoses
- with the large capacity of vacuum system

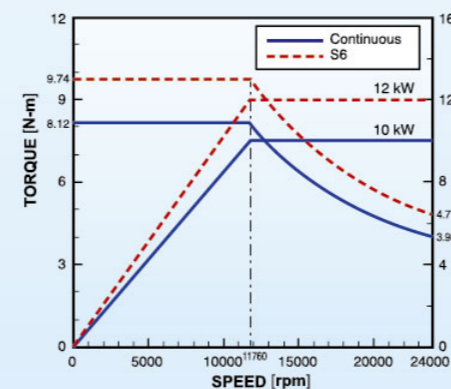
Reduce the environmental contamination without the tool interference.



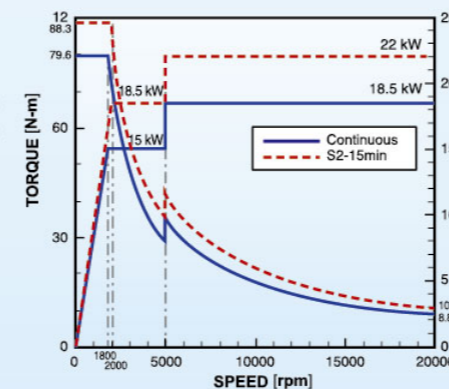
Vacuum system on the headstock of G700/G1000 :
The particle-collection nozzle keeps a distance at 150mm to the tool tip, which not only makes the particle-collection rate above 83% but also avoids from the motion conflict.

Characteristic Chart of Spindle Motor

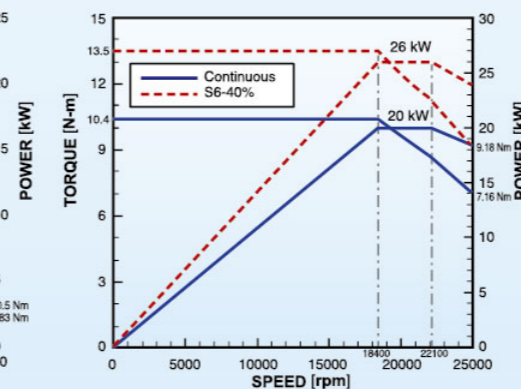
• Built-in spindle, 10/12 kw, 24,000rpm (opt. G5)



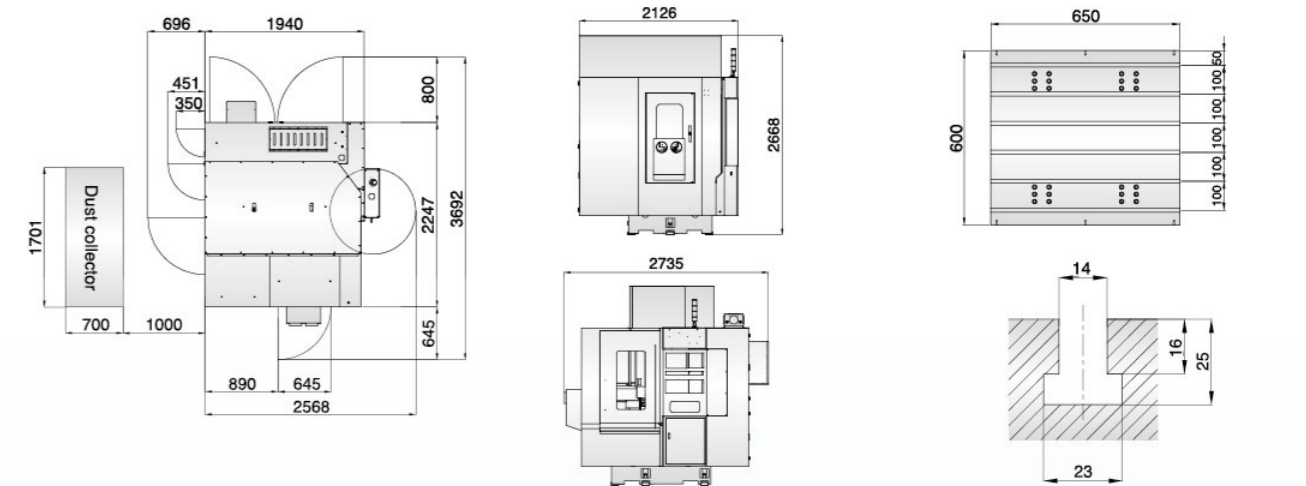
• Built-in spindle, 18.5/22 kw, 20,000rpm (std. G700/G1000)



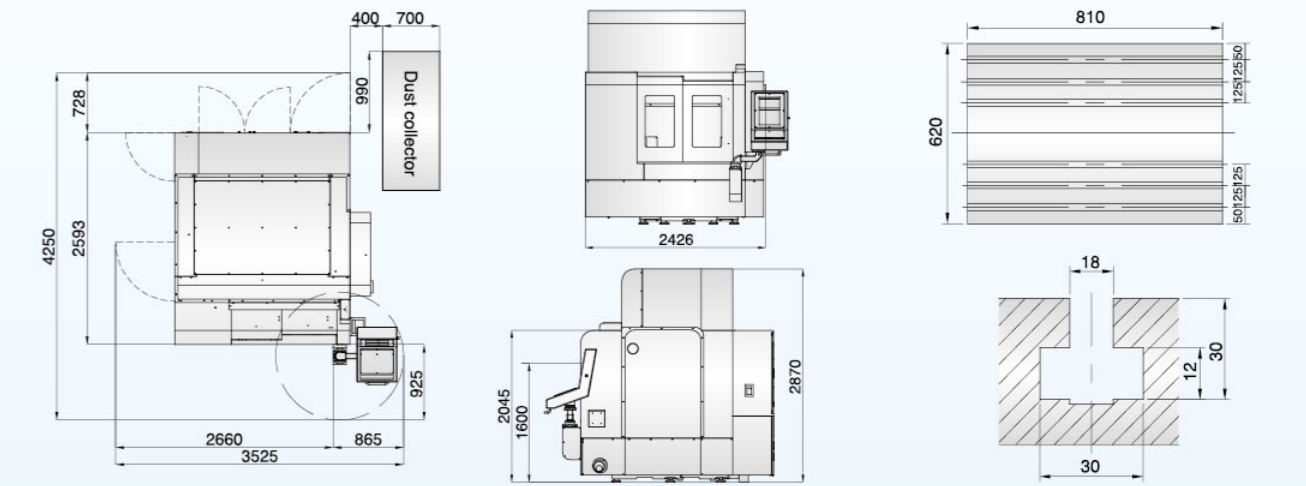
• Built-in spindle, 20/26 kw, 25,000rpm (opt. G700/G1000)



G5 Dimension Table & T-slot



G700 Dimension Table & T-slot



G1000 Dimension Table & T-slot

