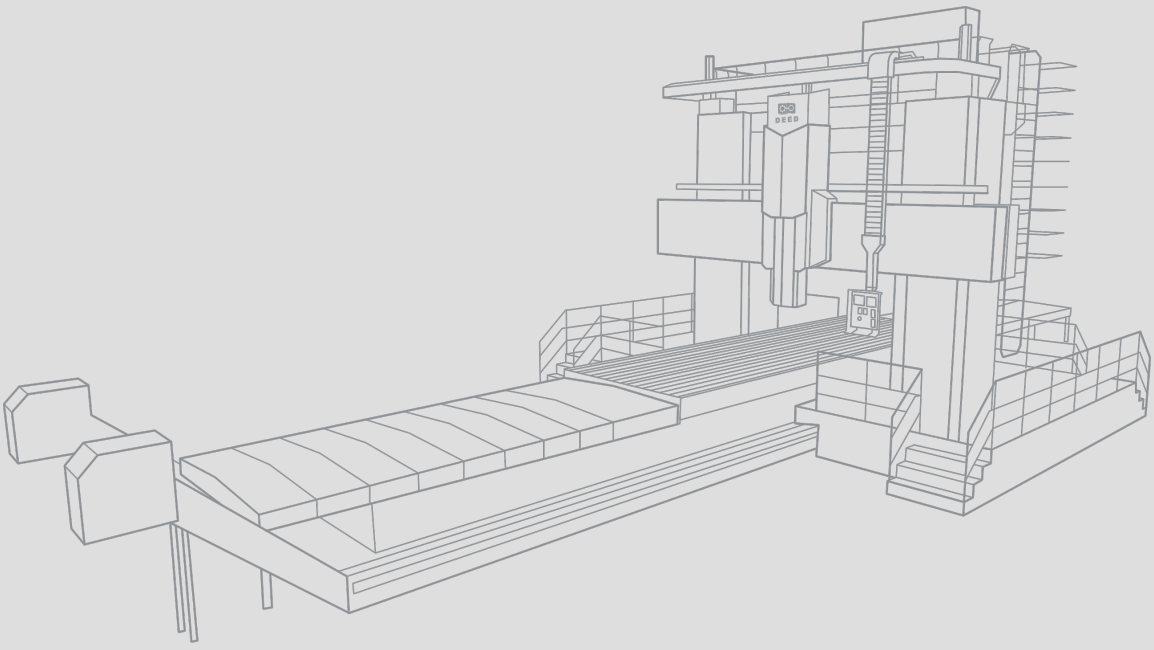
DEED BENELUX

G-MB / G-MC SERIES

GANTRY BORING & MILLING MACHINING CENTER

MOVING BEAM & MOVING COLUMN

ADVANCED GERMAN TECHNOLOGY WITH THE STRENGTH OF CHINESE MANUFACTURING



COMPANY PROFILE



Shandong Deed Precision Machine Tool Co., Ltd. is a high-end equipment enterprise integrating R&D, production and sales of high-end CNC machine tools, located in Yanzhou District, Jining City. The company takes high-speed vertical machining center, large scale gantry machining center, high-efficiency drilling & tapping machining center, high-precision turning center, high-precision five-axis linkage machining center, horizontal milling & boring machining center and horizontal machining center as the leading products, and serves a wide range of key industries such as aviation, aerospace, military, shipbuilding, automobile, construction machinery, rail transit, 5G, precision mold and others, both in the domestic and overseas markets. The company vigorously implements the development strategy of “going out and bringing in”, and has reached a comprehensive strategic cooperation with the well-known German CNC machine tool manufacturing enterprise ROTTLER to jointly develop high-grade precision machine tools of the world’s leading level and jointly explore the global high-end market. Establishing a high-end machine tool R & D center and manufacturing base in Germany - “Hipreed Technology GmbH”, fully implementing international operations and achieving the perfect combination of German technology and Chinese manufacturing. The company has five domestic and foreign R & D centers, with six provincial and municipal innovation platforms, with comprehensive R & D, experiment, testing, manufacturing advantages of high-grade machine tool research and development, new material development, advanced technology testing and reliability improvement. Through continuous innovation and breakthrough, it has undertaken 25 key government science and technology projects, obtained more than 200 intellectual property rights of various types, 15 scientific and technological achievement awards, and is in a leading position of the overall development and innovation ability in the industry. With strong technology and innovation advantages, the company has passed the ISO9001 quality management system certification, ISO14001 environmental management system certification and ISO45001 occupational health and safety management system certification. It has won more than 80 key awards such as the “National High-Tech Enterprise”, “National Specialized New Little Giant Enterprise”, the highest award of China’s machine tool industry the “ Spring Swallow Award”, “ Top 10 Product Quality of China’s Machine Tool Industry”, and “Chinese Machinery Industry Science & Technology Progress 2nd Award “ etc.

CATALOG

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7 G-MB Series: technical parameters

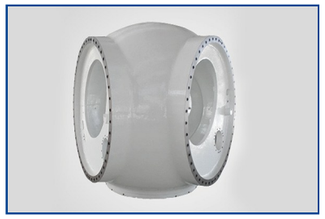
8 G-MB Series: configurations

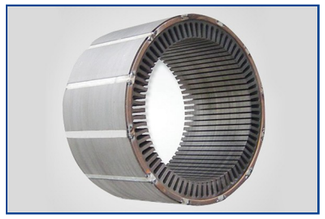
9 G-MC Series moving column gantry boring & milling center

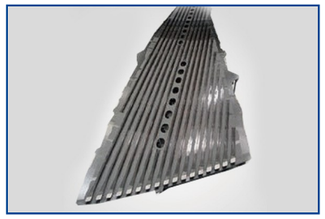
10 G-MC Series: product advantages

12 G-MC Series: technical parameters

13 G-MC Series: configurations

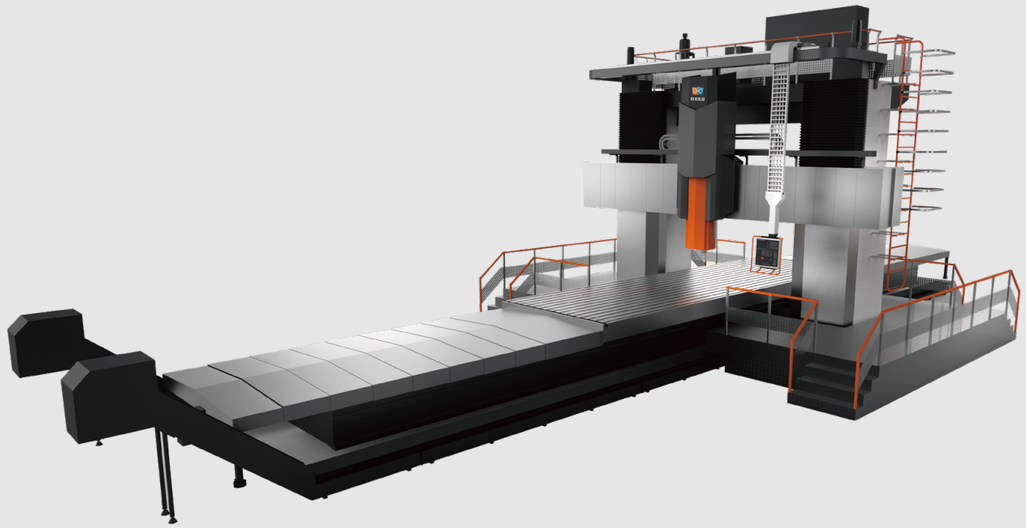






Typical workpieces: large housings, stator frames and structural parts.

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G-MB SERIES

MOVING BEAM GANTRY BORING & MILLING CENTER

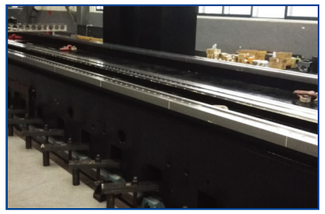
For medium & large parts with high height

Beam lifting (W axis) for maximum working height

PRODUCT OVERVIEW

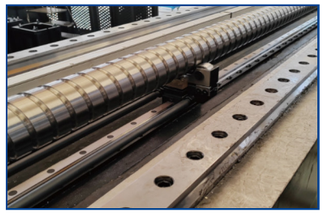
The G-MB series is designed for machining medium and large basic parts with a high build height. It is especially suitable for CNC machining of planes, curved surfaces, 3D surfaces and holes in large ferrous and non-ferrous parts, and is widely used for roughing and finishing of complex plates, boxes and frames in the machinery manufacturing industry.

PRODUCT ADVANTAGES



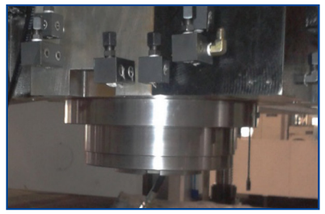
Mineral casting bed

The machine bed is made of a new mineral casting material with strong vibration absorption and excellent thermal stability, reducing distortion and ensuring vibration resistance and stability.



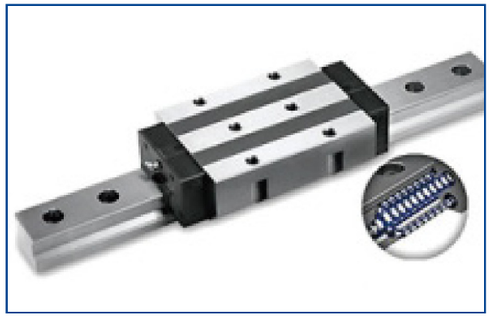
Ball screw drives

The Y, Z and W axes have ball screws, driven by AC servo motors via high-precision planetary gear reducers.



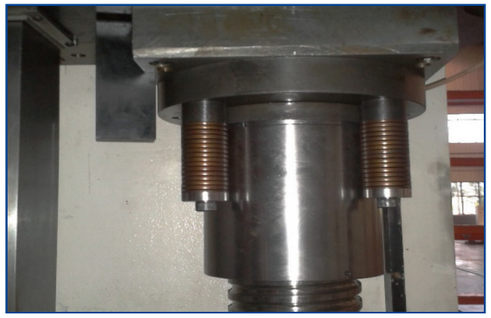
500 × 500 mm ram

Large-section square ram with high rigidity, high strength and small deformation, for rigid and stable heavy cutting.



Heavy-duty roller guideways

The X, Y and Z axes run on heavy-duty roller linear guides: fast traverse, high load capacity, strong vibration resistance and high motion precision, for lasting machine accuracy.



Synchronous beam lifting

The beam is lifted by two servo motors driving both sides, with double-side closed-loop linear scale detection for synchronous leveling. Anti-deformation machining of the guideways compensates for deformation of columns and beam under load.

TECHNICAL PARAMETERS

G-MB Series moving beam gantry boring & milling center | standard configuration

Configuration / Model		Unit	G4528MB	G6532MB	G8537MB	G10542MB
Processing range	X axis travel	mm	4500	6500	8500	10500
	Y axis travel	mm	3600	4000	4500	5000
	Z axis travel	mm	1250	1250	1500	1500
	W axis travel (beam lifting)	mm	1000–2000			
	Distance between columns	mm	2800	3200	3700	4200
Table	Table width	mm	2400	2800	3200	3500
	Table max. load	t	22	30	36	36
Spindle	Drive mode	/	Direct drive + reduction gearbox			
	Spindle taper	/	BT50			
	Max. speed	rpm	6000	4000	4000	3000
	Power (S1/S6)	kW	22/26	30/36	30/36	37/44.5
	Torque (S1/S6)	Nm	770/910	1365/1688	1365/1688	2500/3000
Feed	X/Y/Z/W rapid traverse	m/min	12/12/10/2	12/12/10/2	10/12/10/2	8/10/8/2

* Values shown apply to the standard configuration. Options are available on request. Travel of each axis and spindle parameters can be customized. The parameters are subject to the technical agreement.

Thanks to our direct contact with the factory, additional options and custom-made solutions are possible.
Please ask about the possibilities.

CONFIGURATIONS | G-MB

Standard configuration

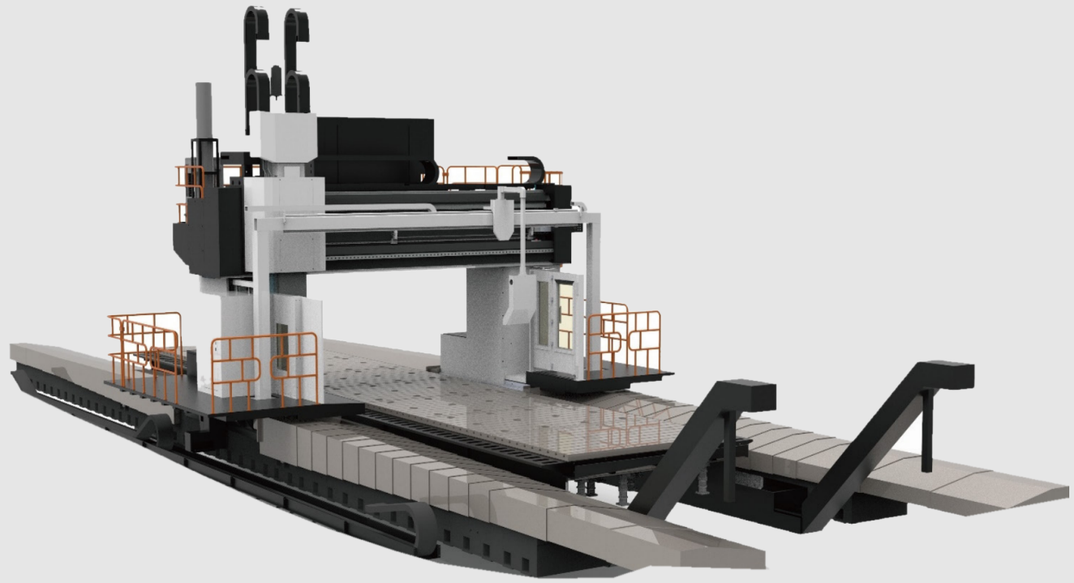
No.	Standard Configuration	No.	Standard Configuration
1	SIEMENS 828D control system	10	External protection
2	Wireless handwheel	11	Cleaning air gun
3	Spindle constant temperature system	12	Warning light
4	Automatic lubrication system	13	Working light
5	Z axis balance system	14	Electric cabinet air conditioner
6	Workpiece air cooling system	15	Spindle air curtain (dust-proof)
7	Workpiece water cooling system	16	Standard accessories
8	Automatic chip removal device	17	X/Y/Z/W axis linear scales
9	Internal protection		

Options

No.	Options	No.	Options
1	SIEMENS ONE or FANUC 31i control	10	Manual accessory milling heads: right-angle head, extension head, universal head, right-angle extension head, double-head right-angle milling head, vertical/ horizontal head; optional gear disc positioning
2	Chain type tool magazine 32T/40T/60T	11	Automatic/semi-automatic accessory milling heads: right-angle head, extension head, universal head, right-angle extension head
3	Vertical/horizontal tool magazine 40T/60T	12	Automatic milling head magazine
4	CTS 20/30/50 bar	13	Semi-automatic milling head magazine
5	Four-side semi-enclosed guarding	14	Workpiece cleaning water gun
6	Four-side fully enclosed guarding	15	Spindle ring spray
7	Oil-water separator	16	Foundation subsidence
8	Tool setter	17	CNC swing table (4th axis)
9	Online measurement		

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DEED BENELUX



G-MC SERIES

MOVING COLUMN GANTRY BORING & MILLING CENTER

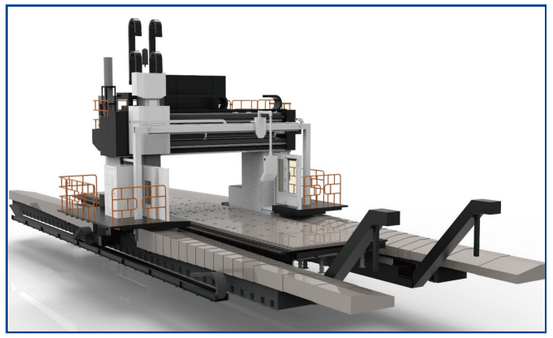
For medium and large parts

Big power, big torque, large travel, small footprint

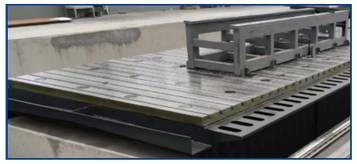
PRODUCT OVERVIEW

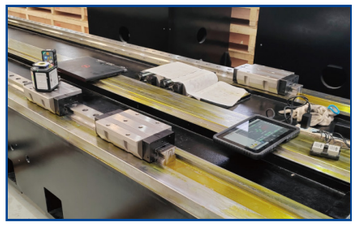
The G-MC series is designed for big power, big torque, large travel, high efficiency, high precision, high rigidity, heavy cutting and high load capacity, with a small footprint. It performs milling, boring, drilling, tapping and 3-axis simultaneous machining, and is widely used for medium and large parts in energy, engineering, casting, transportation, aerospace, defence and shipbuilding.

PRODUCT ADVANTAGES

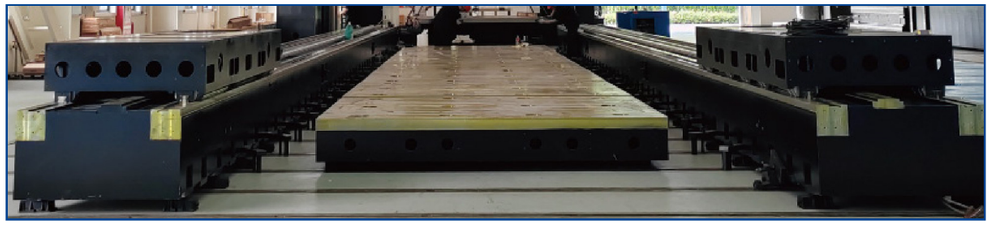


Moving gantry, fixed table
Left and right carriages, columns and beam form a rigid gantry frame that travels along the left and right bed guideways (X axis). The beam carries a saddle with a vertical spindle box (ram head): the saddle moves along the beam (Y axis) and the spindle box moves vertically on the saddle guideways (Z axis).



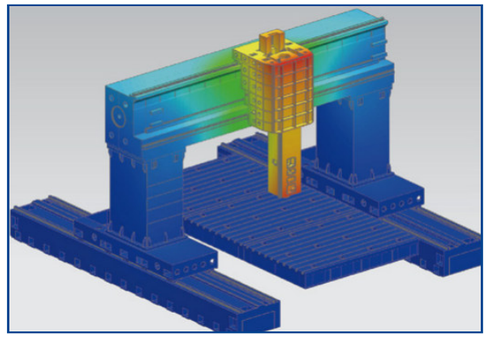




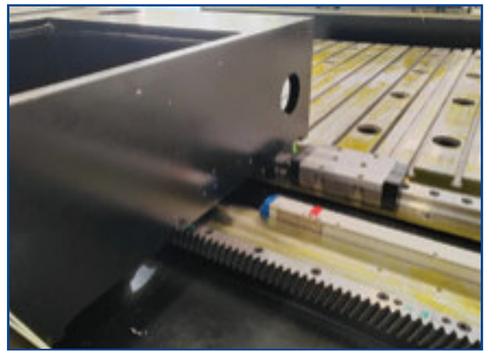


- Mineral casting beds
  The left and right machine beds are made of a new mineral casting material. Compared with traditional, energy-intensive cast iron it offers better vibration absorption, thermal stability, corrosion resistance and precision retention.
- Split worktable on the foundation
  The segmented worktable is fixed on the foundation and carries very high loads. The gantry travels along the beds, so the X axis can reach ultra-long strokes for large and heavy parts.

PRODUCT ADVANTAGES

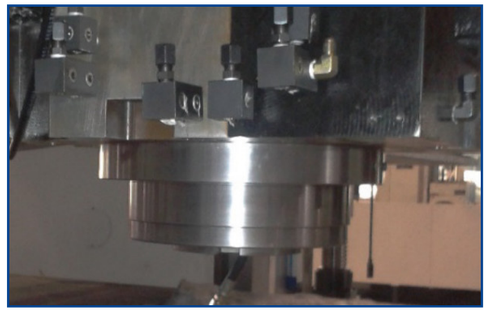


FEA-optimized welded structure
Carriages, beam, saddle and spindle box are all welded from high-quality steel plate. Finite element analysis (FEA) optimizes the structure for rigidity with lightweight moving parts, meeting static and dynamic rigidity requirements and improving dynamic response and motion accuracy.



Dual-motor X axis drive
The X axis is driven synchronously by two servo motors, left and right, through double reducers and rack and pinion. Backlash in both directions is eliminated electrically by the dual-motor control, greatly improving positioning accuracy and repeatability.

Heavy-duty roller guideways
All three axes run on heavy-duty roller linear guides: fast traverse, high load capacity, good vibration damping and high motion accuracy for lasting precision.



Direct drive + reduction gearbox
BT50 spindle with direct drive and reduction gearbox, up to 2500/3000 Nm (S1/S6) for heavy cutting.

TECHNICAL PARAMETERS

G-MC Series moving column gantry boring & milling center | standard configuration

Configuration / Model		Unit	G12532MC	G12542MC	G12552MC	G12562MC	G12572MC	G12582MC
Processing range	X axis travel	mm	12500					
	Y axis travel	mm	3500	4500	5500	6500	7500	8500
	Z axis travel	mm	1250	1500	1500	1500	1500	1500
	Distance between columns	mm	3200	4200	5200	6200	7200	8200
Table	Table width	mm	2000	3000	4000	5000	6000	7000
	Table load	t/m²	5	10	10	15	15	15
Spindle	Drive mode	/	Direct drive + reduction gearbox					
	Spindle taper	/	BT50					
	Max. speed	rpm	6000	4000	3000	3000	3000	3000
	Power (S1/S6)	kW	22/26	30/36	30/36	37/44.5	37/44.5	37/44.5
	Torque (S1/S6)	Nm	770/910	1365/1688	2000/2500	2500/3000	2500/3000	2500/3000
Feed	X/Y/Z rapid traverse	m/min	10/10/10	10/10/10	10/10/8	10/10/8	8/10/8	8/10/8

* Values shown apply to the standard configuration. Options are available on request. Travel of each axis and spindle parameters can be customized. The parameters are subject to the technical agreement.

Thanks to our direct contact with the factory, additional options and custom-made solutions are possible.
Please ask about the possibilities.

CONFIGURATIONS | G-MC

Standard configuration

No.	Standard Configuration	No.	Standard Configuration
1	SIEMENS 828D control system	10	External protection
2	Wireless handwheel	11	Cleaning air gun
3	Spindle constant temperature system	12	Warning light
4	Automatic lubrication system	13	Working light
5	Z axis balance system	14	Electric cabinet air conditioner
6	Workpiece air cooling system	15	Spindle air curtain (dust-proof)
7	Workpiece water cooling system	16	Standard accessories
8	Automatic chip removal device	17	X axis linear scale
9	Internal protection	18	Foundation subsidence: table surface level with workshop floor

Options

No.	Options	No.	Options
1	SIEMENS ONE, FANUC 31i or FANUC 0i-MF Plus (0)/(1) control	10	Manual accessory milling heads: right-angle head, extension head, universal head, right-angle extension head, double-head right-angle milling head, vertical/ horizontal head; optional gear disc positioning
2	Disc type tool magazine 24T/30T	11	Automatic/semi-automatic accessory milling heads: right-angle head, extension head, universal head, right-angle extension head
3	Chain type tool magazine 32T/40T/60T	12	Automatic milling head magazine
4	Vertical/horizontal tool magazine 40T/60T	13	Semi-automatic milling head magazine
5	CTS 20/30/50 bar	14	Workpiece cleaning water gun
6	Oil-water separator	15	Spindle ring spray
7	Y/Z axis linear scales	16	CNC swing table (4th axis)
8	Tool setter	17	Enclosed operator cabin
9	Online measurement		

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NOTES

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