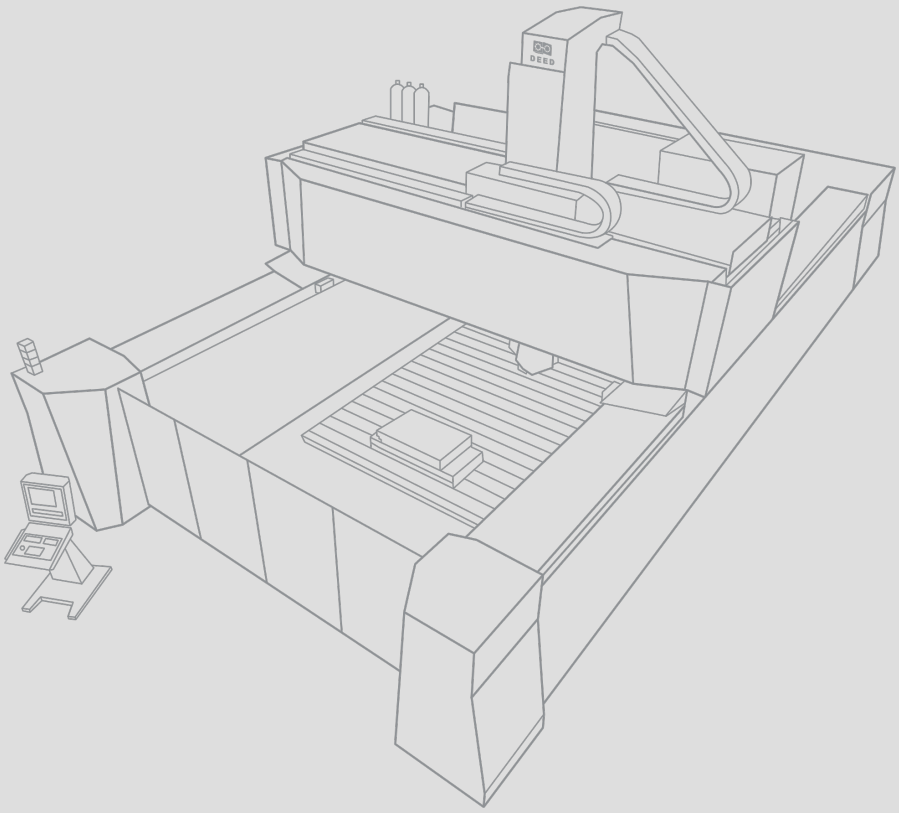
DEED BENELUX

GB SERIES

BRIDGE TYPE GANTRY MACHINING CENTER

3-AXIS & 5-AXIS

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

5 GB-S / GB-B Series bridge type gantry machining center

6 GB-S / GB-B Series: product advantages

7 GB-S Series (side-hung): technical parameters

8 GB-B Series (box-in-box): technical parameters

9 GB-S / GB-B Series: configurations

10 GB-SF5 / GB-BF5 Series bridge type five-axis gantry

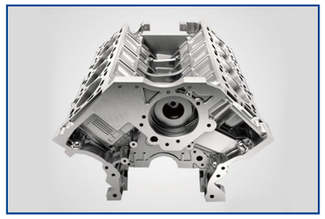
11 GB-SF5 / GB-BF5 Series: product advantages

12 GB-SF5 Series: technical parameters

13 GB-SF5 / GB-BF5 Series: configurations







Typical workpieces: large structural parts, connecting rods and engine blocks.

DEED BENELUX



GB-S / GB-B SERIES

BRIDGE TYPE GANTRY MACHINING CENTER

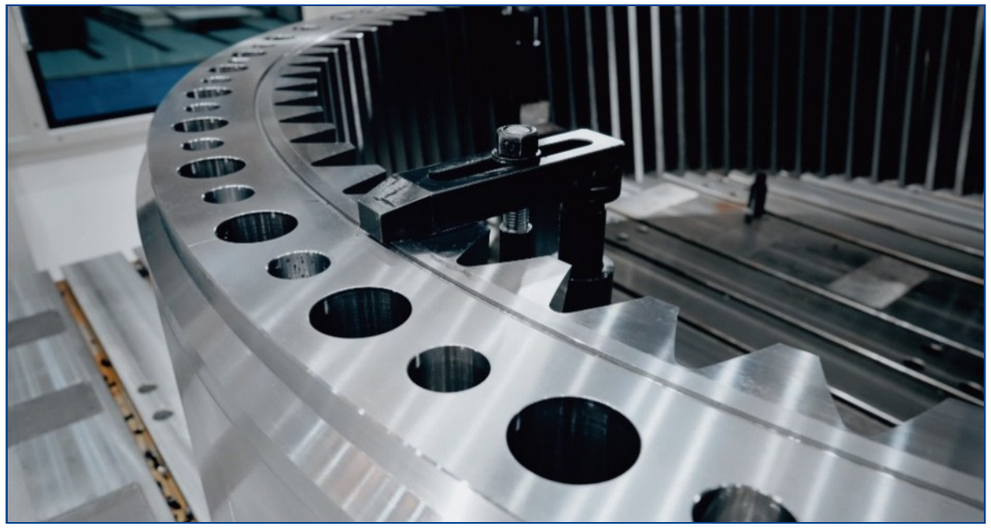
High precision, high rigidity, high efficiency

GB-S side-hung type and GB-B box-in-box type

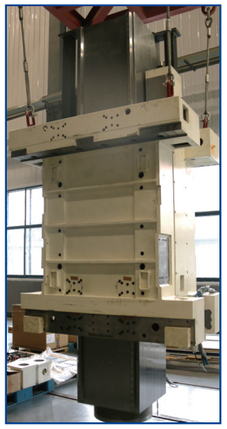
PRODUCT OVERVIEW

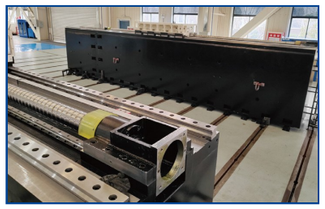
This bridge type gantry boring and milling center is designed for high speed, high precision, high rigidity and high reliability. It works continuously with stable accuracy under specified environmental conditions and is mainly used in the locomotive, wind power, aviation, aerospace and electric power industries, especially for precise machining of large structural parts and large molds.

PRODUCT ADVANTAGES









- One-piece mineral casting base
  Excellent vibration absorption, thermal stability and strong rigidity.
- Box-in-box structure
  Thermally symmetric structure with multi-axis center-of-gravity drive.
- Square ram
  Large-section square ram supported by large heavy-load roller guideways.

Two versions

The **GB-S** (side-hung type) is the compact version for X travels from 2500 to 8000 mm. The **GB-B** (box-in-box type) is built for larger workpieces, with X travels up to 13500 mm, table loads up to 15 t/m² and spindle torque up to 2500/3000 Nm.

TECHNICAL PARAMETERS

GB-S Series side-hung bridge type gantry | standard configuration

Configuration / Model		Unit	GB2525S	GB3030S	GB4035S	GB8040S
Processing range	X axis travel	mm	2500	3000	4000	8000
	Y axis travel	mm	1900	2400	2900	3400
	Z axis travel	mm	1000	1250	1250	1250
	Distance between columns	mm	2500	3000	3500	4000
Table	Table width	mm	1500	2000	2500	3000
	Table load	t/m²	5			
Spindle	Drive mode	/	Direct drive + reduction gearbox			
	Spindle taper	/	BT50			
	Max. speed	rpm	6000			
	Power (S1/S6)	kW	22/26			
	Torque (S1/S6)	Nm	770/910			
Feed	X/Y/Z rapid traverse	m/min	20/20/15			

* Values shown apply to the standard configuration. Options are available on request. Travel of each axis and spindle / five-axis head 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.

TECHNICAL PARAMETERS

GB-B Series box-in-box bridge type gantry | standard configuration

Configuration / Model		Unit	GB4540B	GB4545B	GB5550B	GB12555B	GB13560B
Processing range	X axis travel	mm	4500	4500	5500	12500	13500
	Y axis travel	mm	3000	3500	4000	4500	5000
	Z axis travel	mm	1500				
	Distance between columns	mm	4000	4500	5000	5500	6000
Table	Table width	mm	3000	3500	4000	4500	5000
	Table load	t/m²	5	5	10	10	15
Spindle	Drive mode	/	Direct drive + reduction gearbox				
	Spindle taper	/	BT50				
	Max. speed	rpm	4000	4000	3000	3000	3000
	Power (S1/S6)	kW	30/36	30/36	30/36	30/36	37/45
	Torque (S1/S6)	Nm	1365/1688	1365/1688	2000/2500	2000/2500	2500/3000
Feed	X/Y/Z rapid traverse	m/min	15/15/15	15/15/15	15/15/12	12/15/12	12/15/12

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

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CONFIGURATIONS | GB-S / GB-B

Standard configuration

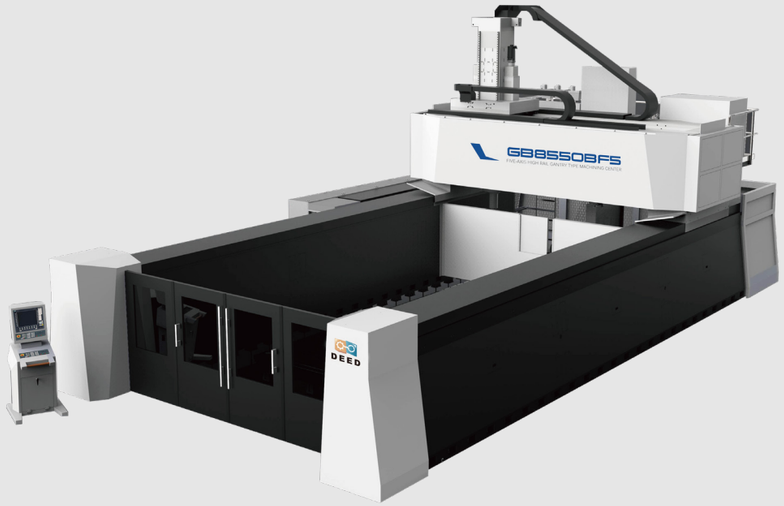
No.	Standard Configuration	No.	Standard Configuration
1	SIEMENS 828D control system	10	External protection
2	Wireless handwheel	11	Cleaning air gun
3	Spindle constant temperature system	12	Warning light
4	Automatic lubrication system	13	Working light
5	Z axis balance system	14	Electric cabinet air conditioner
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 axis linear scales
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	Umbrella type tool magazine 16T/20T/24T	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	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	Tool setter
6	Four-side enclosed guarding	15	Online measurement
7	Fully enclosed guarding	16	Spindle ring spray
8	Oil-water separator	17	CNC swing table (4th axis)
9	Workpiece cleaning water gun		

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DEED BENELUX



GB-SF5 / GB-BF5 SERIES

BRIDGE TYPE FIVE-AXIS GANTRY MACHINING CENTER

Designed for high-precision machining

and high profile accuracy

PRODUCT OVERVIEW

This bridge type five-axis gantry is designed for high speed, high precision, high rigidity and high reliability, and works continuously with stable accuracy under specified environmental conditions. It is mainly used for precision machining in the automotive, aviation, aerospace, electric power and large mold industries, especially for high-precision, high-speed milling of continuous 3D surfaces on heavy and long workpieces.

PRODUCT ADVANTAGES





"Box-in-box" symmetric structure

Multi-axis center-of-gravity drive integration technology.

The beam and Y axis slide use a split-frame "box-in-box" structure: by grinding and matching the middle bracket a micro-interference fit is achieved, increasing contact rigidity.

The X, Y and Z axes are all driven at the center of gravity, giving a fully symmetric arrangement of structure and drives for high-precision operation.

- Five-axis head
  Electro spindle HSK-A100, 12000 rpm, 63/76 kW, 200/241 Nm, A/C axis ±100° / ±360°.
- One-piece mineral casting base
  Excellent vibration absorption, thermal stability and strong rigidity.

TECHNICAL PARAMETERS

GB-SF5 Series side-hung five-axis gantry | standard configuration
For aluminium alloy, cast iron and steel

Configuration / Model		Unit	GB2525SF5	GB3030SF5	GB4035SF5	GB8040SF5
Processing range	X axis travel	mm	2500	3000	4000	8000
	Y axis travel	mm	1700	2200	2700	3200
	Z axis travel	mm	1000	1250	1500	1500
	Distance between columns	mm	2500	3000	3500	4000
Table	Table width	mm	1500	2000	2500	3000
	Table load	t/m²	5			
Five-axis head	Drive mode	/	Electro spindle			
	Spindle taper	/	HSK-A100			
	Max. speed	rpm	12000			
	Power (S1/S6)	kW	63/76			
	Torque (S1/S6)	Nm	200/241			
	A/C axis swing angle	°	±100 / ±360			
	A/C axis max. speed	rpm	30/30			
Feed	X/Y/Z rapid traverse	m/min	20/20/20			

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

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CONFIGURATIONS | GB-SF5 / GB-BF5

Standard configuration

No.	Standard Configuration	No.	Standard Configuration
1	SIEMENS ONE 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 axis linear scales
9	Internal protection	18	Foundation subsidence: table surface level with workshop floor

Options

No.	Options	No.	Options
1	Electro spindle 24000 rpm, HSK-A63	7	Oil-water separator
2	Chain type tool magazine 32T/40T	8	Workpiece cleaning water gun
3	Vertical/horizontal tool magazine 40T/60T	9	Tool setter
4	CTS 20/30/50 bar	10	Online measurement
5	Four-side enclosed guarding	11	Oil-mist collector
6	Fully enclosed guarding	12	Calibration ball, test bar and square

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NOTES

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