

VERTICAL MACHINING CENTER



SUZHOU GUDWAY CNC EQUIPMENT CO.,LTD

Add : No. 21 Xiexin Road, New District, Suzhou City, Jiangsu Province, China.

Tel : +86-0512-65580060

Email : info@gudwaycnc.com

Web : <http://www.gudwaycnc.com>

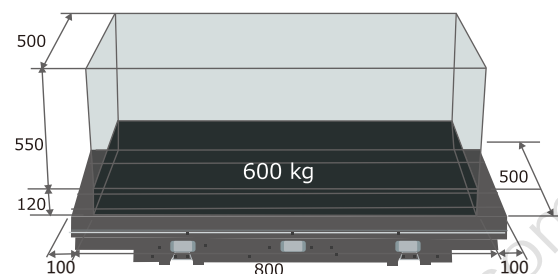
SUZHOU GUDWAY CNC EQUIPMENT CO.,LTD

The main features

GLV-855+

CNC Machine Center

Suitable for communication, medical equipment Auto parts, 3C product processing



■ GLV-855+ table size(X*Y-axis):1000x500mm



The structure design

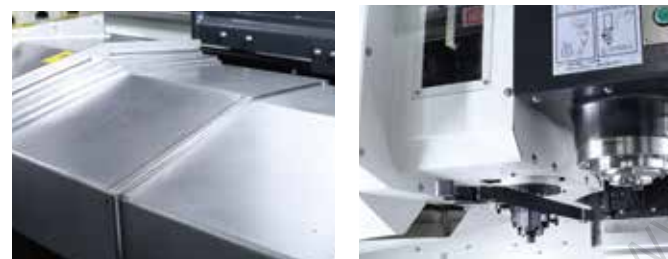
The three-axis motor and screw are designed with direct drive, which is better than gear or belt drive. Without gap and vibration issue, The three-axis rapid traverse up to 48,/min, Significant saving cutting time.

Ballscrew pre-tensioning design

C3 level $\phi 40 \times P16$ mm screw is adopted and the assembly process of pre-stretching at both ends is adopted to strengthen the axial rigidity and reduce the thermal extension of the screw.

Z-axis without counterweight design

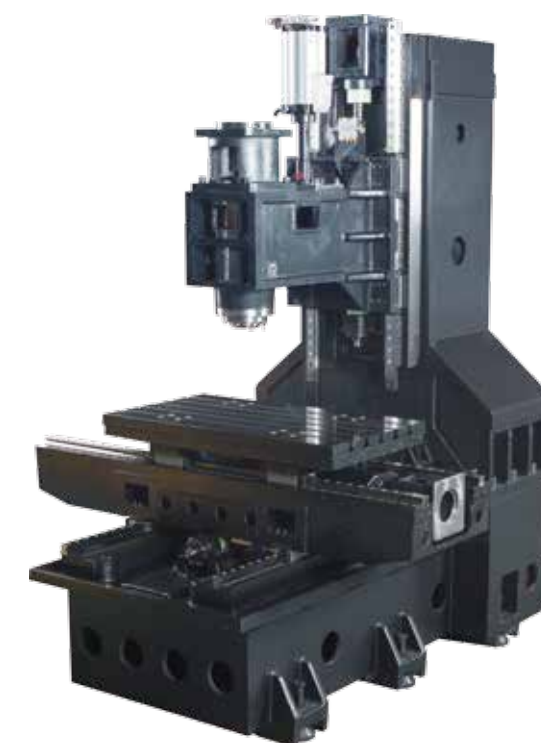
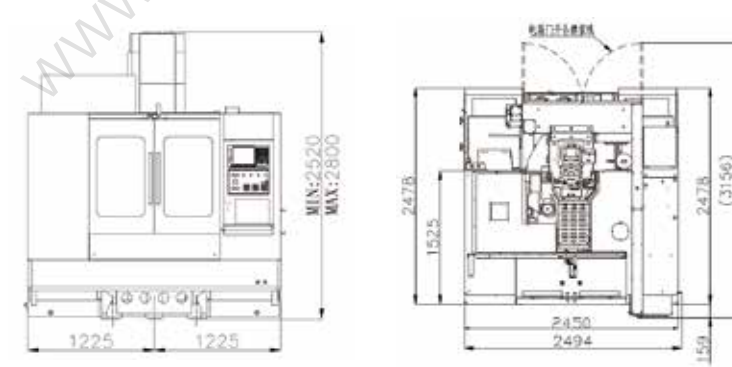
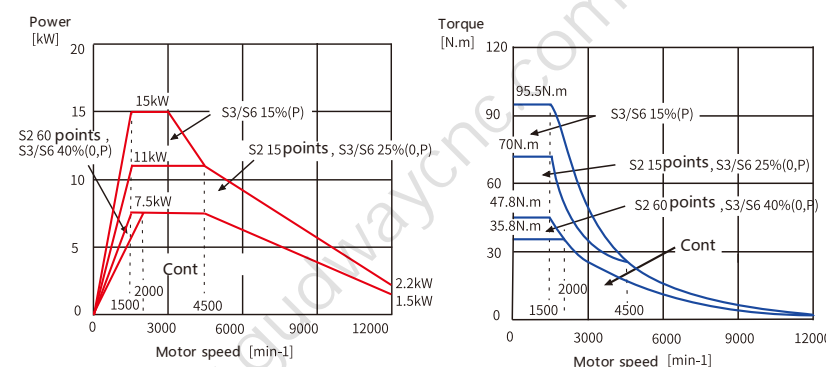
Adopt enlarges the motor, and has the brake servo motor to drive directly, executes the high speed It is stable and reliable when milling or drilling.



Small spindle nose design, better strength and rigidity. The spindle can choose the ring type coolant spray function, which can effectively extend the life of the tool.



Disc type tool magazine, can hold up to 24 tools in its basic configuration

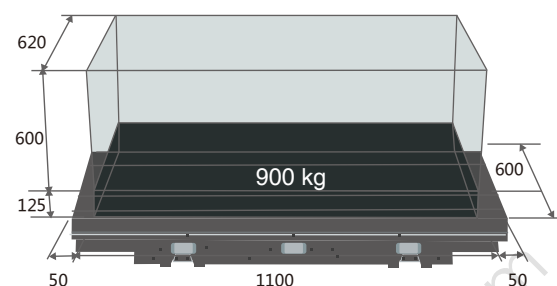


ITEM	Unit	GLV-855+	ITEM	Unit	GLV-855+
X-axis travel	mm	800	Spindle type		Direct driven
Y-axis travel	mm	500	Power of spindle motor	kW	7.5/11
Z-axis travel	mm	550	Rapid feed rate	m/min	48/48/48
Worktable size	mm	1000x500	Number of tools	pc	24
Max.loading capacity of working table	kg	600	Machine weight	T	5

GLV-1166/B

CNC Machine Center

By industry: Communication electronics, auto parts production, automation components processing



■ GLV-1166/B Worktable size(X*Y-axis):1200x600mm



The main features

High rigidity bed structure

Through FEM finite element structure analysis, a large number of stiffeners are used in the casting. The internal force structure of the machine is optimized to ensure the rigidity and thermal variation of the machine stability.

Screw pre-pull design

The three shafts are made of C3 ϕ 40xP12mm screw and prestretched at both ends with the process to strengthen the axial rigidity, reduce the thermal extension of the screw.

The spindle

The front end of the spindle is equipped with annular water spray, so that the cutting tool can be effectively cooled. Internal air curtain negative pressure design, prolong the service life, ensure the spindle for a long time. High speed operation is reliable.



Three axis roller line rail

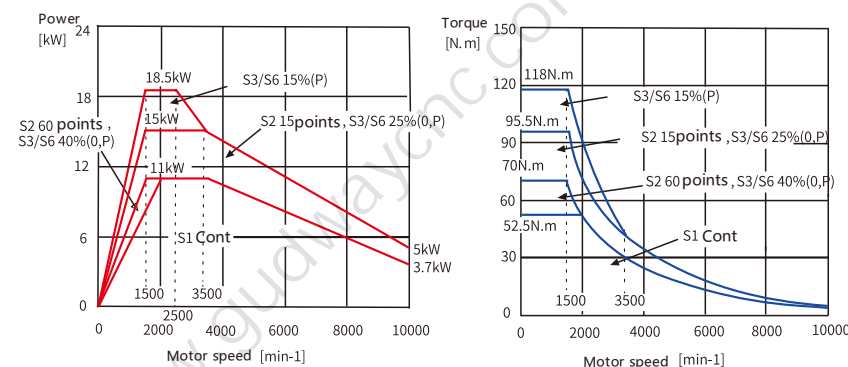
Roller linear guide rail, grating ruler additional reserved interface, precision grade Ball screw, perfect combination of rigidity and precision



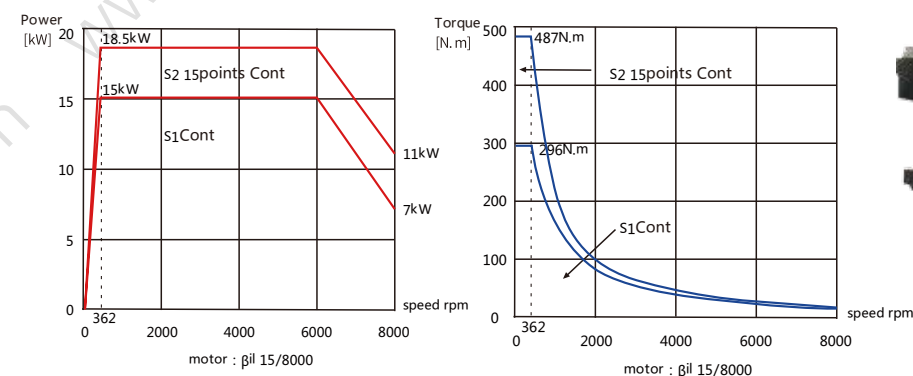
Machine base

Large span base structure, with two 45mm roller lines Rail provides the machine with strong loading capacity to meet the high rigid demand of heavy-duty machining

Belt spindle torque



Gear spindle torque

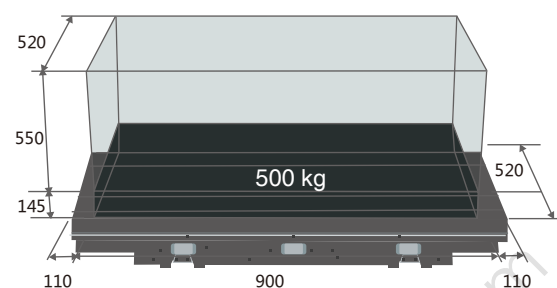


ITEM	Unit	GLV-1166/B	ITEM	Unit	GLV-1166/B
X-axis travel	mm	1100	Spindle type		belt driven spindle
Y-axis travel	mm	620	Power of spindle motor	kW	11/15 15/18.5
Z-axis travel	mm	600	Rapid feed rate	m/min	36/36/36
Worktable size	mm	1200x600	Number of tools	pc	24
Max.loading capacity of working table	kg	900	Machine weight	T	6.5

GLV-955S

CNC Machine Center

By industry: Mass production requirements for automotive parts, medical devices, aviation and communicationsElectronic, all kinds of precision mold processing production



■ GLV-955S Worktable size(X*Y-axis):1120x520mm



The main features

High speed, high precision, high rigidity

Three axis using heavy roller line rail, both heavy cutting rigidity and bearing capacity, and play High speed and high precision, low friction coefficient, high stability.

Roof splash cover design

The whole machine is designed with roof splash cover design, with better water resistance, and the chassis sits directly on the bottom To greatly reduce the leakage of chassis and ensure the cleanliness of workshop.

Inverted saddle design

X axis saddle design adopts inverted structure, the center of gravity is more stable, bearing contact The surface is more stable.



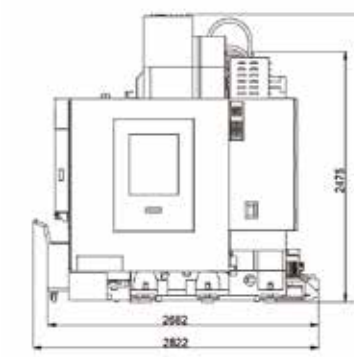
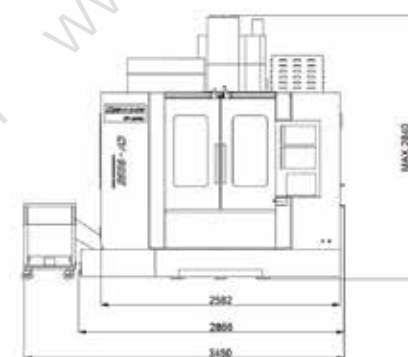
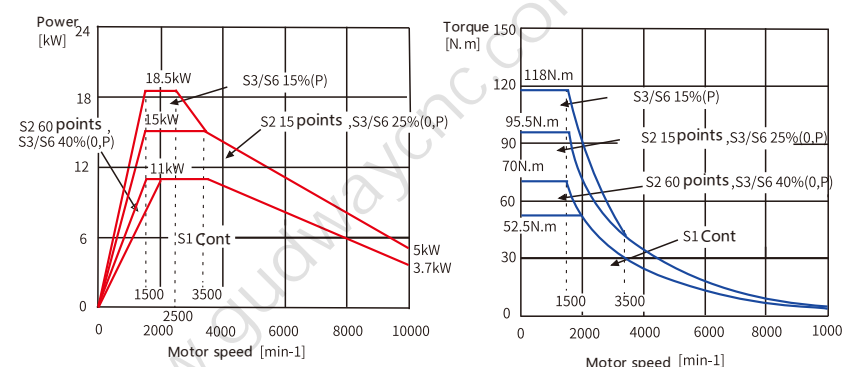
Connecting type bearing seat

Both sides of the bearing seat and saddle integrated design, combined with precision machining andHigh quality assembly process to ensure smooth parallel.



Bottom design (high flow flush)

Bottom three - way chip discharge design, with large slope plate and large flow pump group Close, so that the base chip discharge reliability is excellent.



ITEM	Unit	GLV-955S	ITEM	Unit	GLV-955S
X-axis travel	mm	1020	Spindle type		Direct driven
Y-axis travel	mm	520	Power of spindle motor	kW	11/15
Z-axis travel	mm	550	Rapid feed rate	m/min	36/36/36
Worktable size	mm	1120x520	Tool Magazine	pc	24/30
Max.loading capacity of working table	kg	500	Machine weight	T	5.5

The main features



Large and spacious space design
Chip dumping design of large inclined plane
Application of human factor engineering concept,
equipped with three-way chip screw for automatic chip removal

Humanized operation design, convenient tool loading, cleaning and near by operation accessibility, Embedded pedal space and high-efficiency LED work light. Open and bright, the whole machine conforms to ergonomic design.



Air filter unit



Three axis centralized lubrication system



Safety code Distribution arrangement



Oil cooler



Tool magazine air tank



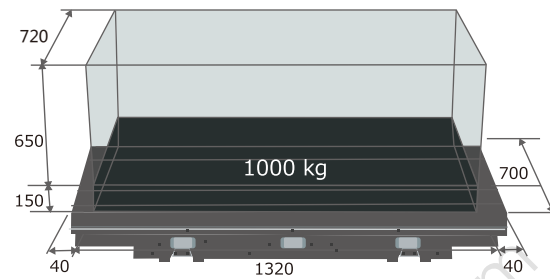
Standard water gun and air gun configuration

The main features

GLV-1370/B

CNC Machine Center

It is widely used in medical equipment, aerospace, automation components, mold processing and other auto parts.



■ GLV-1370 Worktable size(X*Y-axis):1400x700mm



High rigidity bed structure

Through finite element structural analysis, a large number of stiffeners are used inside the casting to optimize the internal stress structure of the whole machine and ensure the rigidity and thermal stability of the whole machine.

High rigid guide way

X / Y / Z axis adopts heavy-duty roller wire rail, which makes the machine more rigid in bearing gravity and cutting.

Precision grinding worktable

Super large worktable 1400x700, fully stable worktable, convenient processing and application.



3-axis roller guide way

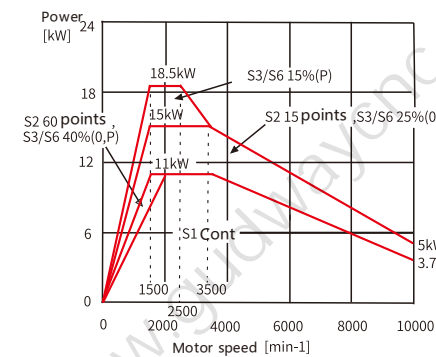
The three-axis adopts high rigidity roller rail, which has both the heavy cutting rigidity of hard rail and the high speed and high precision of rail.



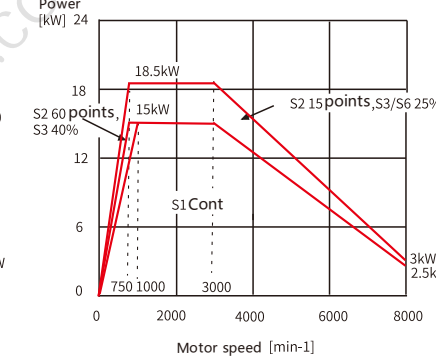
24 Tool magazine system (optional)

Disc type automatic tool changing system can be configured according to customer requirements, which is widely used.

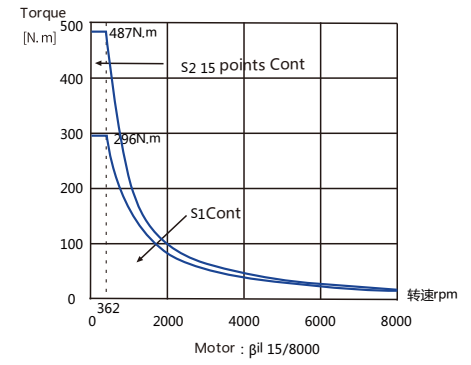
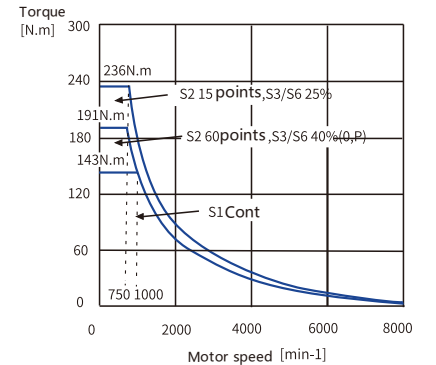
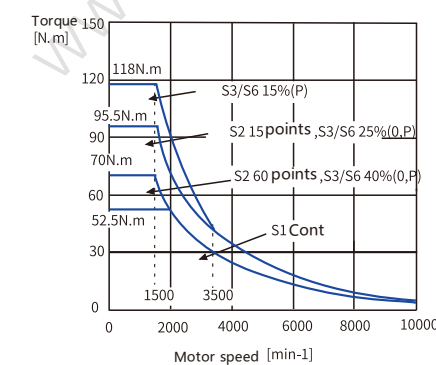
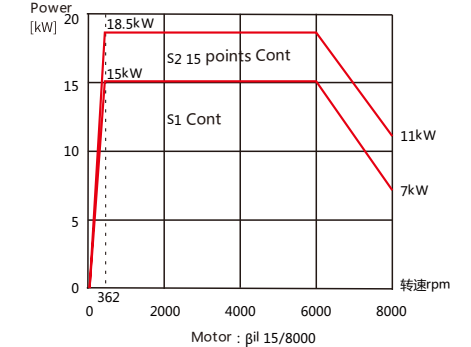
Belt spindle torque



Direct spindle torque



Gear spindle torque

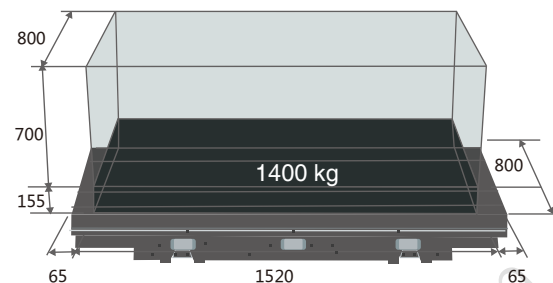


ITEM	Unit	GLV-1370/B	ITEM	Unit	GLV-1370/B
X-axis travel	mm	1320	Spindle type		belt driven spindle
Y-axis travel	mm	720	Power of spindle motor	kW	BT40:11/15 BT50:15/18.5
Z-axis travel	mm	650	Rapid feed rate	m/min	24/24/24
Worktable size	mm	1400x700	Number of tools	pc	24
Max.loading capacity of working table	kg	1000	Machine weight	T	9

GLV-1580B

CNC Machine Center

It is widely used in the mass production of automobile and locomotive parts, aviation and communication electronics, automatic parts and components processing, and all kinds of precision mold processing and production.



■ GLV-1580B Worktable size(X*Y-axi):1650x800mm



The main features

High rigidity bed structure

Through finite element structural analysis, a large number of stiffeners are used inside the casting to optimize the internal stress structure of the whole machine and ensure the rigidity and thermal stability of the whole machine.

High rigid guide way

Heavy duty 45mm roller wire rail is used for X/Y axis, and 55mm roller wire is used for Z axis. The rail makes the machine more rigid in bearing gravity and cutting.

Y-axis four rail full support

Y-axis saddle is fully supported by four rails, which is stable and reliable.

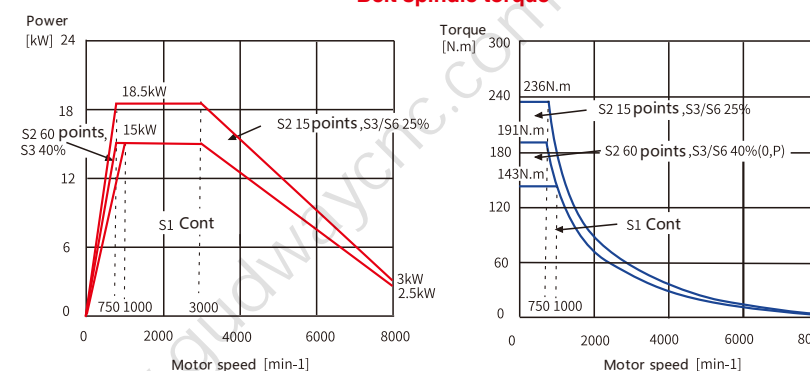


The spindle is equipped with a belt type 8000rpm spindle as standard, which has no noise and low vibration, and is suitable for high-speed milling and tapping.

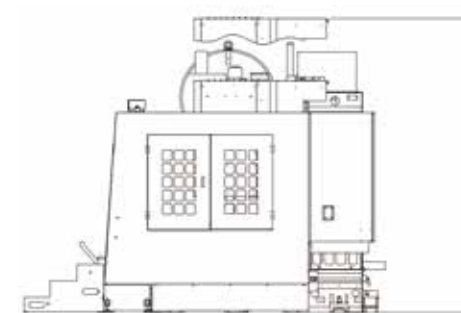
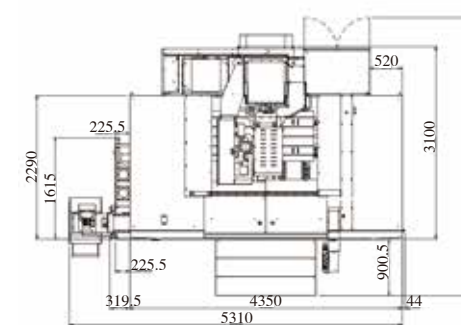
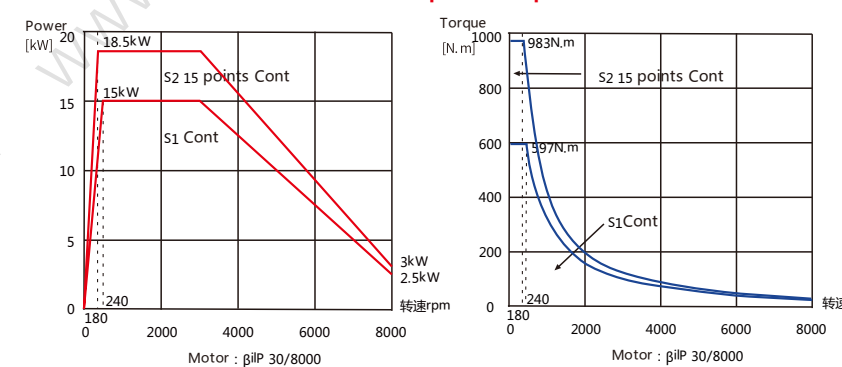


The spindle box adopts balance cylinder counter weight to keep the load consistent when the spindle box moves up and down, and avoid the vibration of the traditional balance system when running at high speed.

Belt spindle torque



Gear spindle torque

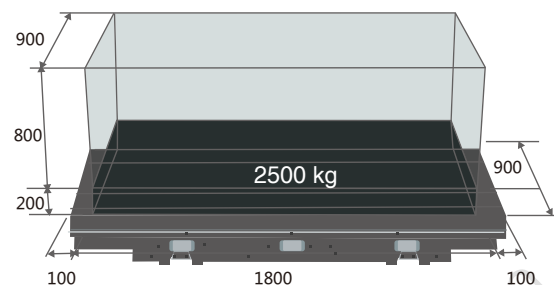


ITEM	Unit	GLV-1580B	ITEM	Unit	GLV-1580B
X-axis travel	mm	1520	Spindle type		belt driven spindle
Y-axis travel	mm	800	Power of spindle motor	kW	15//18.5
Z-axis travel	mm	700	Rapid feed rate	m/min	20/20/20
Worktable size	mm	1650x800	Number of tools	PC	24
Max.loading capacity of working table	kg	1400	Machine weight	T	11

GLV-1690B/1890B

CNC Machine Center

It is widely used in heavy cutting and precision machining of large mechanical parts, automation parts, mold frame, mold base, automobile and locomotive parts, aerospace, etc.



■ GLV-1890B Worktable size(X*Y-axis):2000X900mm



The main features

Full set gear head (optional configuration)

Gear type high and low gear continuously variable speed gear spindle; Wide spindle speed range and high horsepower; In low speed cutting, increase the torque output of the spindle motor with gear ratio, and in high speed machining, output at 1:1 speed, Have the ability of low speed heavy cutting, but also high-speed machining.

Floating clamp design

The floating clamping/unclamping system is adopted to ensure the accuracy of the spindle bearing and prolong its service life. The internal part of the gear head is cooled by forced circulation to control the thermal variable of the spindle in the minimum range to ensure long-term machining accuracy.

Z-axis adopts nitrogen counterweight structure.

Avoid shaking of the balance weight of the balance weight structure and imbalance caused by chain wear. The machine is more stable and reliable with higher accuracy and rigidity.



3-axis linear guide-way

The three-axis adopts high rigidity roller rail, which has both the heavy cutting rigidity of hard rail and the high speed and high precision of rail.

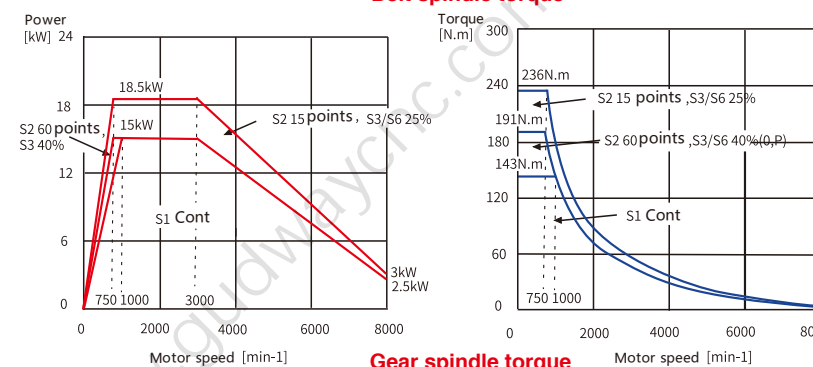


High speed and high precision guide way

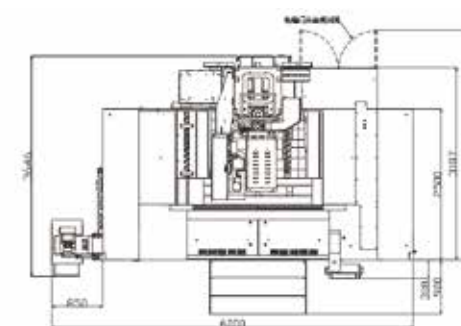
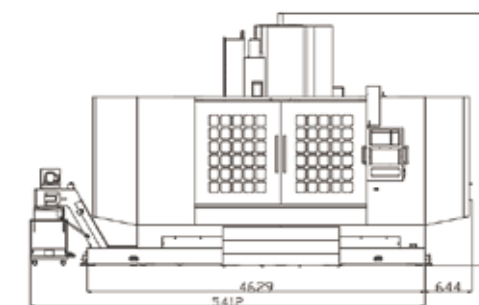
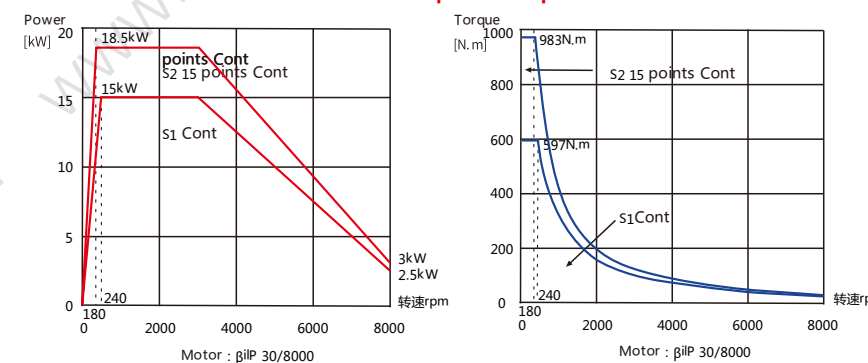
Y-axis is supported by four 55mm roller guide and eight sliding blocks. With long span column, X/Z axis is supported by six sliding blocks, which has the heavy cutting rigidity and bearing capacity of hard rail machine, and has the characteristics of high-speed, high-precision and long service life of line rail.



Belt spindle torque



Gear spindle torque



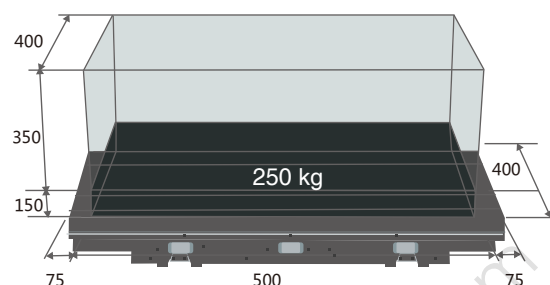
ITEM	Unit	GLV-1690B/ GLV-1890B	ITEM	Unit	GLV-1690B/ GLV-1890B
X-axis travel	mm	1600/1800	Spindle type		belt driven spindle
Y-axis travel	mm	900	Power of spindle motor	kW	15/18.5
Z-axis travel	mm	800	Rapid feed rate	m/min	20/20/20
Worktable size	mm	1800x900/2000x900	Number of tools	pc	24
Max.loading capacity of working table	kg	2000/2500	Machine weight	T	15/15

The main features

GLV-500/700

CNC Tapping Center

Suitable for communication, electric hand tools, medical devices, automation parts, 3C semiconductor parts



■ GLV-500 table size(X*Y-axis):650x400mm



High inertia motor

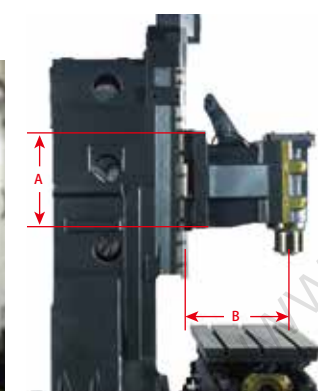
With large pitch lead screw, the three axis acceleration is up to 1G, and it takes only 0.2 seconds to accelerate from static to 48 meters / minute.

Three shaft direct drive

No other transmission clearance, ensuring high accuracy and high speed stability

Linear guide way

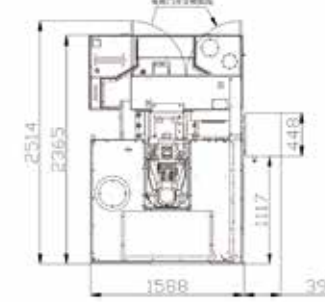
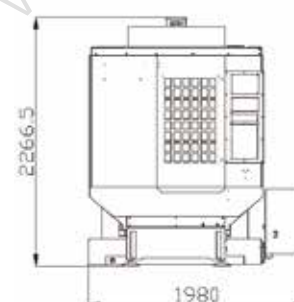
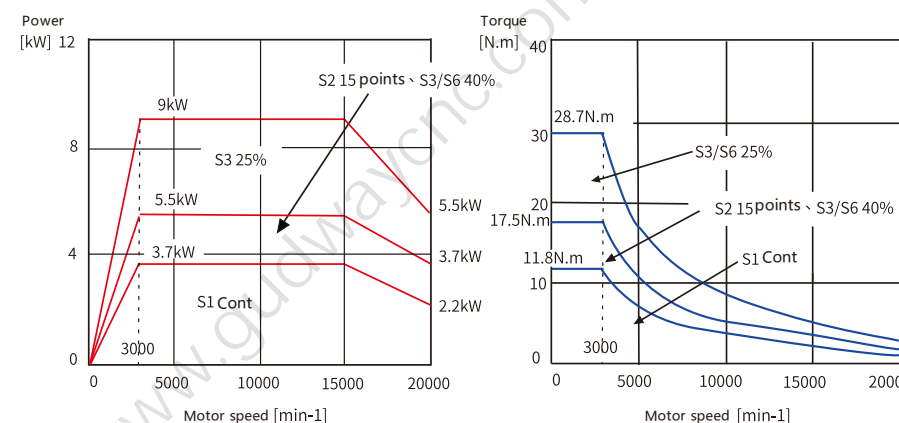
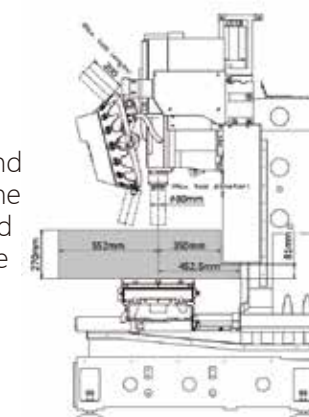
precision guide way and screw rod, with uniform surface texture in arc cutting and inclined cutting, suitable for high-speed operation



Auto tool change system

Standard configuration: 21 tools servo tool magazine, fast, simple, reliable and long service life

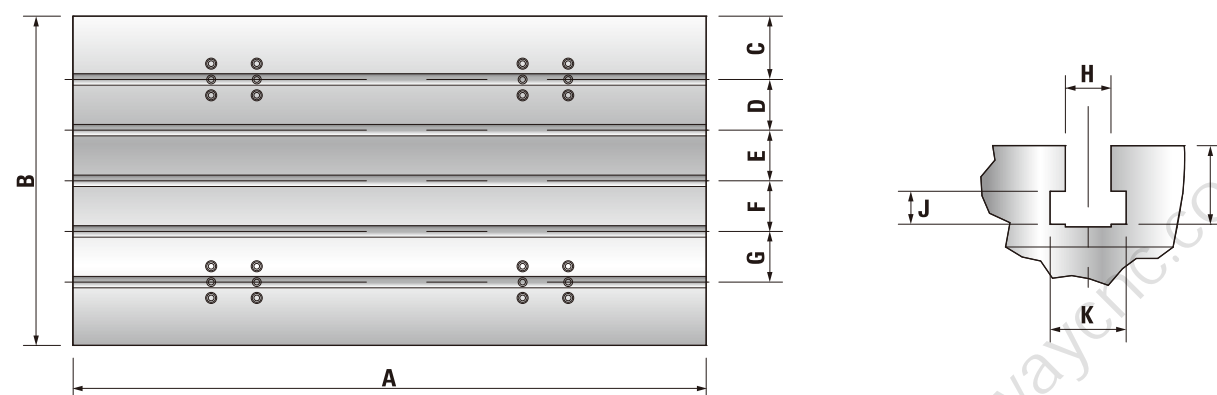
The design of the best contact ratio between the main shaft head and the column provides the best cutting rigidity and accuracy stability of the main shaft head



ITEM	Unit	GLV500/700	ITEM	Unit	GLV500/700
X-axis travel	mm	500/700	Spindle type		Direct driven
Y-axis travel	mm	400	Power of spindle motor	kW	3.7/5.5
Z-axis travel	mm	350	Rapid feed rate	m/min	48/48/48
Worktable size	mm	650x400/850x400	Number of tools	pc	21
Max.loading capacity of working table	kg	250	Machine weight	T	2.8/3.2

Vertical series

Workbench parameters

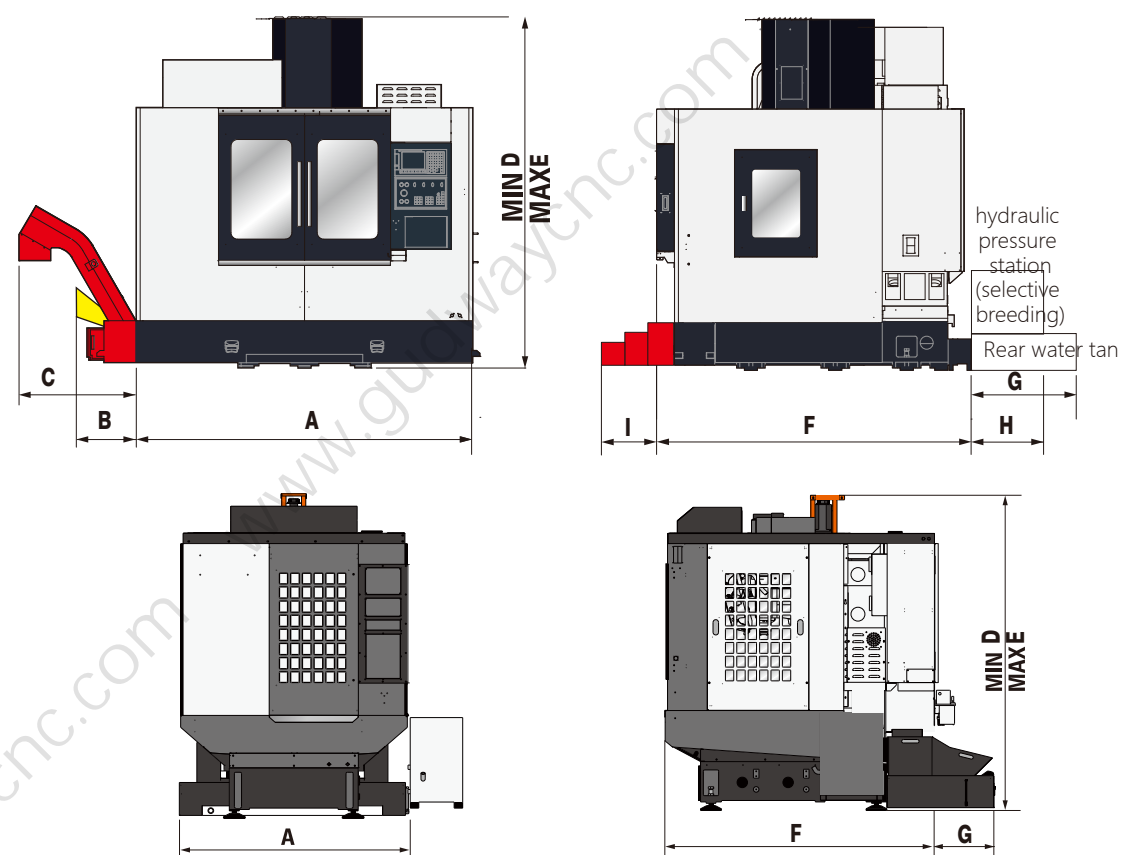


Vertical series

Workbench parameters

type	A	B	C	D	E	F	G	H	I	J	K	T Number of T-Slots
GLV-855+	1000	500	90	80	80	80	80	18	31	13	30	5
GLV-1166/B	1200	600	100	100	100	100	100	18	31	13	30	5
GLV-1266/B	1300	600	100	100	100	100	100	18	31	13	30	5
GLV-955S	1120	520	60	100	100	100	100	18	31	13	30	5
GLV-1370/B	1400	700	100	125	125	125	125	18	31	13	30	5
GLV-1580B	1650	800	100	150	150	150	150	18	31	13	30	5
GLV-1690B	1800	900	130	160	160	160	160	22	39	17	37	5
GLV-1890B	2000	900	130	160	160	160	160	22	39	17	37	5
GLV-500	650	400	75	125	125	-	-	14	25	10	24	3
GLV-700	850	400	75	125	125	-	-	14	25	10	24	3

Model appearance dimension diagram (front row/rear row/side row)



Model appearance dimension diagram (front row/rear row/side row)

type	A	B	C	D	E	F	G	H	I
GLV-855+	2500	395	1050	2520	2800	2455	345	550	--
GLV-1166/B	2780	--	1450	2750	2865	2580	570	550	--
GLV-1266/B	3420	--	1150	2750	2865	2580	570	550	--
GLV-955S	2585	345	--	2475	2840	2610	--	550	--
GLV-1370/B	3750	--	900	2920	3030	2950	1135	550	--
GLV-1580B	4400	--	900	3026	3325	3450	--	800	900
GLV-1690B	5200	--	800	3465	3465	3710	--	800	900
GLV-1890B	5200	--	800	3465	3465	3710	--	800	900
GLV-500	1630	--	--	2270	2270	2100	350	550	--
GLV-700	2050	--	--	2270	2270	2100	350	550	--

Due to the difference of the purchase items, the exact parameters are subject to the contract!

Mechanical Specifications

ITEM	UNIT	GLV-855+	GLV-1166/B	GLV-1266/B		GLV-955S	GLV-1370/B	GLV-1580B	GLV-1690B	GLV-1890B	GLV-500	GLV-700
Travel												
X-axis travel	mm	800	1100	1200		1020	1320	1520	1600	1800	500	700
Y-axis travel	mm	500	620	620		520	720	800	900	900	400	400
Z-axis travel	mm	550	600	600		550	650	700	800	800	350	350
Worktable size												
Table size X*Y	mm	1000x500	1200x600	1300x600		1120x520	1400x700	1650x800	1800x900	2000x900	650x400	850x400
Table load	kg	600	900	1000		500	1000	1400	2000	2500	250	250
T-slot(slot width x number of slots x distance)	number	18x5x80	18x5x100	18x5x100		18x5x100	18x5x125	18x5x150	22x5x160	22x5x160	14x3x125	14x3x125
Spindle												
Spindle speed	rpm	12000	10000/8000	10000/8000		12000	10000/8000	8000	8000	8000	20000	20000
Spindle taper hole		Direct driven	belt driven spindle	belt driven spindle		Direct driven	belt driven spindle	belt driven spindle	belt driven spindle	belt driven spindle	Direct driven	Direct driven
Spindle motor	kW	7.5/11	BT40:11/15 BT50:15/18.5	BT40:11/15 BT50:15/18.5		11/15	BT40:11/15 BT50:15/18.5	15/18.5	15/18.5	15/18.5	3.7/5.5	3.7/5.5
Spindle bore specifications		BT40	BT40/BT50	BT40/BT50		BT40	BT40/BT50	BT50	BT50	BT50	BT30	BT30
Distance for spindle nose to work bench	mm	120-670	BT40:125-725 BT50:145-745	BT40:125-725 BT50:145-745		145-695	BT40:150-800 BT50:170-820	155-855	200-1000	200-1000	150-500	150-500
Spindle feed												
Rapid feed rate (X.Y.Z)	m/min	48/48/48	36/36/36	36/36/36		36/36/36	24/24/24	20/20/20	20/20/20	20/20/20	48/48/48	48/48/48
Cutting feed rate	mm/min	10000	10000	10000		10000	10000	10000	10000	10000	10000	10000
Tool magazine												
Tool magazine capacity		Arm24	Arm24	Arm24		Arm24/30	Arm24	Arm24	Arm24	Arm24	Arm type21	Arm type21
Tool diameter/adjacent tool space	mm	Ø80 / Ø150	BT40 Ø80/Ø150 BT50 Ø110/Ø200	BT40 Ø80/Ø150 BT50 Ø110/Ø200		Ø80 / Ø150	BT40:Ø80/Ø150 BT50:Ø110/Ø200	Ø110 / Ø200	Ø110 / Ø200	Ø110 / Ø200	Ø80 / Ø80	Ø80 / Ø80
Tool length	mm	300	300	300		300	300	350	350	350	200	200
Tool weight	kg	8	BT40: 8 BT50: 15	BT40: 8 BT50: 15		8	BT40:8 BT50:15	15	15	15	3	3
Accuracy												
Positioning precision	mm	±0.005	±0.005	±0.005		±0.005	±0.005	±0.01	±0.01	±0.01	±0.005	±0.005
Reproducibility	mm	±0.003	±0.003	±0.003		±0.003	±0.003	±0.005	±0.005	±0.005	±0.003	±0.003
Others												
Controller		0i-MF/M80	0i-MF/M80	0i-MF/M80		0i-MF/M80	0i-MF/80	0i-MF/80	0i-MF/80	0i-MF/80	0i-MF/M80	0i-MF/M80
Air pressure requirements	kg/cm ²	6	6	6		6	6	6	6	6	6	6
Electricity demand	kVA	25	30	30		30	30	50	50	50	20	20
Machine weight	T	5	6.5	6.8		5.5	9	11	15	15	2.8	3.2

Deyung reserves the right to alter the all designs, specifications and option list, without further notice.

GLV series Standard configuration

1 Rigid tapping	7 Roof full splash cover guard	13 Toolbox
2 Machine cleaning water gun	8 Spindle air curtain negative pressure system	14 Transformer
3 Portable air gun	9 Ground bolts and spacers	15 Operating status light
4 Arm type tool magazine with 21 pockets	10 Electric box heat exchange	16 Automatic lubrication system
5 Disc type tool magazine with 24 pockets	11 Working light	17 Chip tray and water tank
6 M30 auto power-off system	12 Mechanical, electrical and operating instructions	

Optional configuration

1 Screw type chip conveyor	8 Disc type tool magazine with 30 pockets	14 Spindle oil cooler
2 Crawler type chip conveyor	9 Spindle oil cooler	15 NC rotary table (4-axis)
3 Coolant through spindle ring type coolant system	10 Automatic door	16 Oil mist collector
4 10000rpm belt driven spindle	11 Oil mist collector	17 Disc type oil and water separator
5 15000rpm Built-in spindle	12 ATLM measurement system	
6 20000rpm Built-in spindle		

Standard configuration

1 Roof full splash cover guard	6 Operating status light	11 Spindle air curtain negative pressure system
2 Automatic lubrication system	7 M30 auto power-off system	12 Electric box heat exchange
3 Ground bolts and spacers	8 Portable air gun	13 Chip tray and water tank
4 Toolbox	9 Machine cleaning water gun	14 Screw type chip conveyor
5 Working light	10 Transformer	

Optional configuration

1 Disc type tool magazine with 30 pockets	6 Spindle ring water spray	11 Oil mist collector
2 Spindle oil cooler	7 Crawler type iron chip conveyor	12 NC rotary table (4-axis)
3 Coolant through spindle(CTS)	8 Screw type chip conveyor	
4 ATLM measurement system	9 10000rpm belt type spindle	
5 Oil and water separator machine	10 16000rpm Built-in motor spindle	