

安全第一 预防为主

GLU series Fixed crossrail Double Machining Center -Introduction





Main parameters :

Mode	GLU18	GLU23	GLU28
X travel	3200mm	3200mm、 4200mm	3200mm、 4200mm、 5500mm、 6500mm
Y travel	1700mm、 2200mm (OP)	2200mm 2700mm (OP)	2700mm 3200mm (OP)
Z travel	1000mm	1000mm	1000mm
Table width	1.5m	2m	2m、 2.5m(can choose two or three linear guideway)
Table length	3m	3m、 4m	3m、 4m、 5m、 6m
Gantry width	1800mm	2290mm	2790mm
Ram	T type	T type	T type (28×40、 28×60 can choose 380×380 square ram)
Spindle speed	6000rpm (4000rpm-square ram)		
Spindle power	15/18.5kW	22/26kW	
Spindle torque	490/605N.m	726/858N.m (730/862N.msquare ram)	



Machine parameter-GLU18×30



Item			Parameter	Item			Parameter
Processing	X travel	mm	3200	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	1700		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	1800		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	1500×3000		Position accuracy	Tool change time (T-T)	s
	Max. load	t	10	X axis		mm	0.018
	T slot	mm	22×160×9	Y axis		mm	0.015
Spindle	Driven system	-	Gear box	Repeatability position accuracy	Z axis	mm	0.015
	Spindle speed	rpm	6000		X axis	mm	0.012
	Spindle power	kW	15/18.5		Y axis	mm	0.010
	Spindle torque	Nm	490/605	Z axis	mm	0.010	
	Taper hole	-	BT50	Machine voltage		kVA	40
	Ram section	mm	350×35	Machine weight		t	30
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	945×420×510
	X/Y/Z rapid feed	m/min	15/20/15	Controller		-	FANUC 0i MF (a1)



Machine parameter-GLU23×30



Item			Parameter	Item			Parameter
Processing	X travel	mm	3200	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	2200		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	2290		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	2000×3000		Tool change time (T-T)	s	2.9
	Max. load	t	15		Position accuracy	X axis	mm
	T slot	mm	22×160×9	Y axis		mm	0.015
Spindle	Driven system	-	Gear box	Z axis		mm	0.015
	Spindle speed	rpm	6000	Repeatability position accuracy	X axis	mm	0.012
	Spindle power	kW	22/26		Y axis	mm	0.010
	Spindle torque	Nm	726/858		Z axis	mm	0.010
	Taper hole	-	BT50	Machine voltage		kVA	55
	Ram section	mm	350×350	Machine weight		t	35
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	945×475×510
	X/Y/Z rapid feed	m/min	15/20/15	Controller		-	FANUC 0i MF (a1)



Machine parameter-GLU23×40



Item			Parameter	Item			Parameter
Processing	X travel	mm	4200	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	2200		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	2290		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	2000×4000		Tool change time (T-T)	s	2.9
	Max. load	t	15		Position accuracy	X axis	mm
	T slot	mm	22×200×9	Y axis		mm	0.018
Spindle	Driven system	-	Gear box	Z axis		mm	0.015
	Spindle speed	rpm	6000	Repeatability position accuracy	X axis	mm	0.015
	Spindle power	kW	22/26		Y axis	mm	0.012
	Spindle torque	Nm	726/858		Z axis	mm	0.010
	Taper hole	-	BT50	Machine voltage		kVA	55
	Ram section	mm	350×350	Machine weight		t	40
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	1185×475×510
	X/Y/Z rapid feed	m/min	15/20/15	Controller		-	FANUC 0i MF (a1)



Machine parameter-GLU28×30



Item			Parameter	Item			Parameter
Processing	X travel	mm	3200	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	2700		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	2790		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	2000×3000		Tool change time (T-T)	s	2.9
	Max. load	t	15		Position accuracy	X axis	mm
	T slot	mm	22×200×9	Y axis		mm	0.018
Spindle	Driven system	-	Gear box	Z axis		mm	0.015
	Spindle speed	rpm	6000	Repeatability position accuracy	X axis	mm	0.012
	Spindle power	kW	22/26		Y axis	mm	0.015
	Spindle torque	Nm	726/858		Z axis	mm	0.010
	Taper hole	-	BT50	Machine voltage		kVA	55
Ram section	mm	350×350	Machine weight		t	38	
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	975×515×510
	X/Y/Z rapid feed	m/min	12/20/15	Controller		-	FANUC 0i MF (a1)



Machine parameter-GLU28×40



Item		Parameter		Item		Parameter	
Processing	X travel	mm	4200	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	2700		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	2790		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	2000×4000		Tool change time (T-T)	s	2.9
	Max. load	t	18		Position accuracy	X axis	mm
	T slot	mm	22×200×9	Y axis		mm	0.018
Spindle	Driven system	-	Gear box	Z axis		mm	0.015
	Spindle speed	rpm	6000	Repeatability position accuracy	X axis	mm	0.015
	Spindle power	kW	22/26		Y axis	mm	0.015
	Spindle torque	Nm	726/858		Z axis	mm	0.010
	Taper hole	-	BT50	Machine voltage		kVA	55
	Ram section	mm	350×350	Machine weight		t	43
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	975×515×510
	X/Y/Z rapid feed	m/min	12/20/15	Controller		-	FANUC 0i MF (a1)



Machine parameter-GLU28×50



Item			Parameter	Item			Parameter
Processing	X travel	mm	5500	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	2700		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	2790		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	2000×5000		Tool change time (T-T)	s	2.9
	Max. load	t	22		Position accuracy	X axis	mm
	T slot	mm	22×200×9	Y axis		mm	0.018
Spindle	Driven system	-	Gear box	Z axis		mm	0.015
	Spindle speed	rpm	6000	Repeatability position accuracy	X axis	mm	0.018
	Spindle power	kW	22/26		Y axis	mm	0.015
	Spindle torque	Nm	726/858		Z axis	mm	0.010
	Taper hole	-	BT50	Machine voltage		kVA	55
	Ram section	mm	350×350	Machine weight		t	47
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	1215×515×510
	X/Y/Z rapid feed	m/min	10/20/15	Controller		-	FANUC 0i MF (a1)



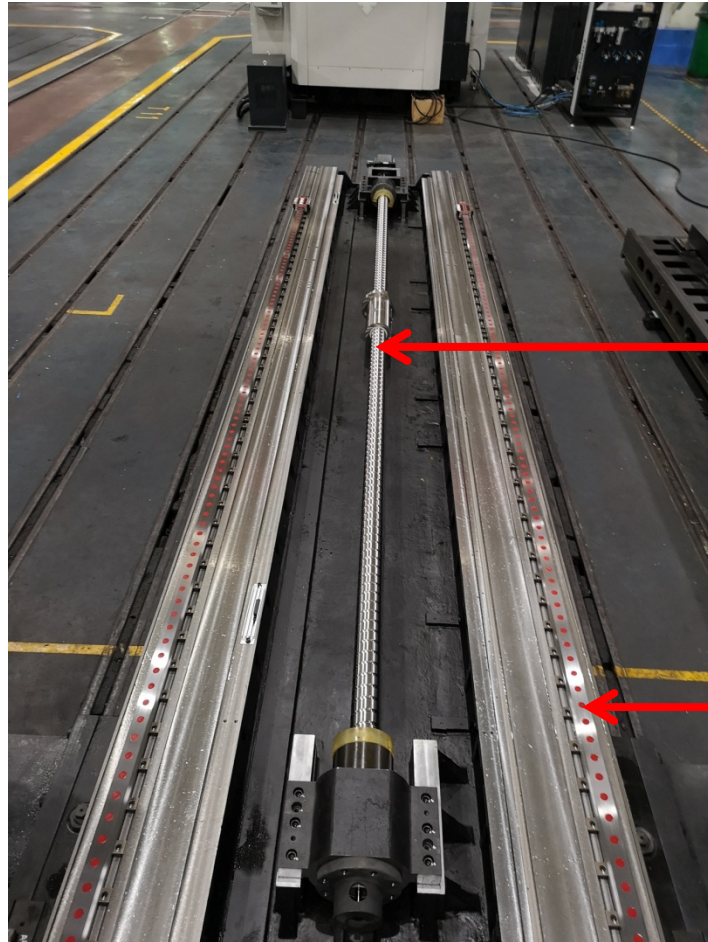
Machine parameter-GLU28×60



Item			Parameter	Item			Parameter
Processing	X travel	mm	6500	Tool magazine (OP)	Capacity	T	24/40
	Y travel	mm	2700		Driven system	-	BT50
	Z travel	mm	1000		Max. tool dia. (full/empty adj. position)	mm	Φ110/Φ220
	Gantry width	mm	2790		Max. tool length	mm	300
	Distance between spindle center and table surface	mm	250-1250(with long nose)		Max. tool weight	kg	20
Table	Table (A×B)	mm	2000×6000		Tool change time (T-T)	s	2.9
	Max. load	t	25		Position accuracy	X axis	mm
	T slot	mm	22×200×9	Y axis		mm	0.018
Spindle	Driven system	-	Gear box	Z axis		mm	0.015
	Spindle speed	rpm	6000	Repeatability position accuracy	X axis	mm	0.020
	Spindle power	kW	22/26		Y axis	mm	0.015
	Spindle torque	Nm	726/858		Z axis	mm	0.010
	Taper hole	-	BT50	Machine voltage		kVA	55
	Ram section	mm	350×350	Machine weight		t	52
Feed	X/Y/Z feed	m/min	10/10/10	Machine size		cm	1620×515×510
	X/Y/Z rapid feed	m/min	10/20/15	Controller		-	FANUC 0i MF (a1)



Structural features - ball screw and linear guideway -X axis



Span of linear guideway A

Model	Ball screw (mm)		Ball screw precision level	Brand
	Diameter	Pitch		
GLU18×30	63	30	C3	PMI
GLU23×30	63	30	C3	PMI
GLU23×40	80	40	C3	PMI
GLU28×30	63	30	C3	PMI
GLU28×40	80	40	C3	PMI
GLU28×50	80	40	C3	PMI
GLU28×60	80	40	C3	PMI

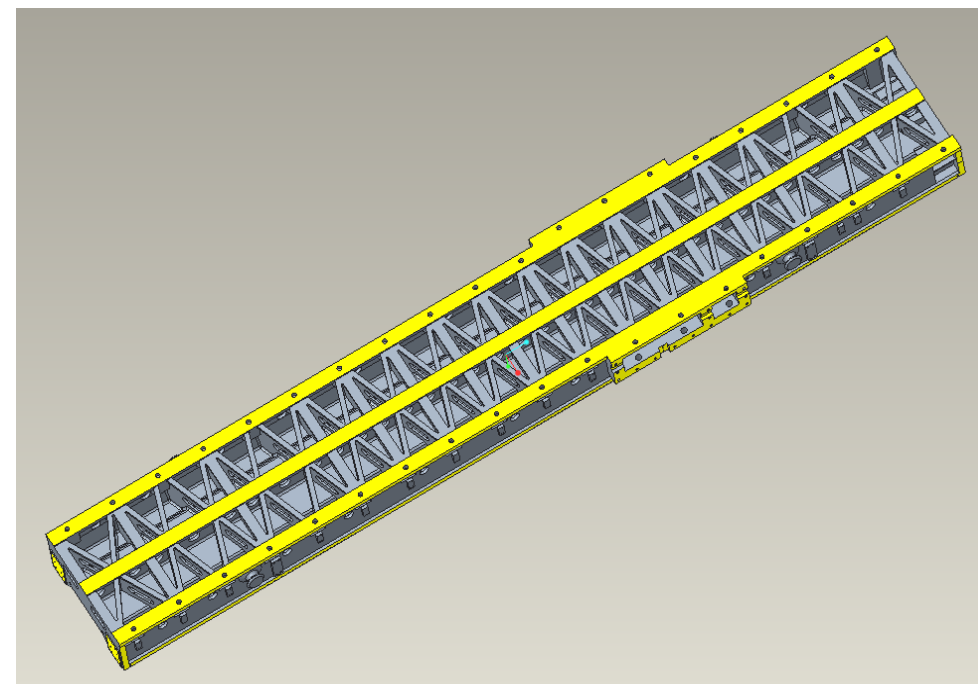
Model	Type	width (mm)	Slider type	precision level	No.	Span A(mm)	Brand
GLU18×30	MRS45	45	MRW55	G2	10	960	SCHNEEBERGER
GLU23×30	MRS45	45	MRW55	G2	10	1200	SCHNEEBERGER
GLU23×40	MRS45	45	MRW55	G2	12	1200	SCHNEEBERGER
GLU28×30	MRS45	45	MRW55	G2	10	1200	SCHNEEBERGER
GLU28×40	MRS45	45	MRW55	G2	12	1200	SCHNEEBERGER
GLU28×50	MRS45	45	MRW55	G2	14	1200	SCHNEEBERGER
GLU28×60	MRS45	45	MRW55	G2	18	1200	SCHNEEBERGER



Structural features - bed



Excellent rigidity, enable the bed of the GLU series with load advantages, especially GLU23/28, compare with the same specification Taiwan's brand is of nearly 20% higher load ability. ◦



The internal of the bed adopt cross ribs, which can not only maintain high rigidity, but also improve the lateral torsion resistance, reduce the amplitude of the workpiece in the lateral processing, and improve the machining accuracy.





When GLU28 series is selected with 2.5m worktable, bed guideway can be selected with three guideway structures, three groups of roller linear guideway sliders are densely distributed to support the workpiece load on average, and the worktable maintains the best rigidity and flatness under the processing conditions of different loads and positions of strong cutting.



The GLU28×50 and GLU28×60 bed's X-axis ball screw is equipped with follow-up auxiliary support, which solves the technical difficulties of machine movement positioning accuracy and load over tolerance caused by gravity sag in the screw center of large precision CNC double column machining center, thereby improving the transmission accuracy.



Structural features -reducer

reducer



X/Y axis drive system adopts motor + reducer imported from Germany+ integral type motor base, which has better assembly precision. Compared with the motor + belt drive structure, this former has better rigidity

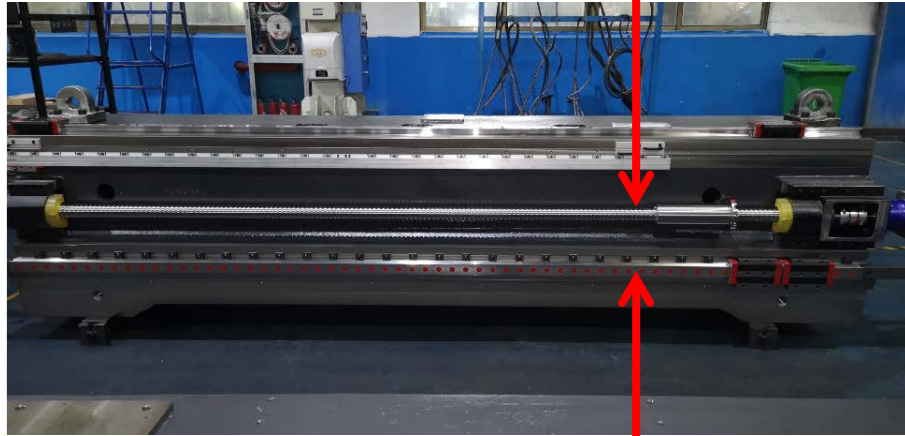
Belt drive mechanism



Motor + belt drive structure of other brands



Structural features - ball screw and linear guideway -Y axis



Model	Ball screw (mm)		Ball screw precision level	Brand
	Diameter	Pitch		
GLU18×30	50	12	C3	PMI
GLU23×30	63	20	C3	PMI
GLU23×40	63	20	C3	PMI
GLU28×30	63	20	C3	PMI
GLU28×40	63	20	C3	PMI
GLU28×50	63	20	C3	PMI
GLU28×60	63	20	C3	PMI

Span of linear guideway



Model	Type	width (mm)	Slider type	precision level	No.	Span A(mm)	Brand
GLU18×30	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER
GLU23×30	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER
GLU23×40	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER
GLU28×30	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER
GLU28×40	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER
GLU28×50	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER
GLU28×60	MRS55	53	MRW55	G2	4	623.5	SCHNEEBERGER



Structural features –crossrail



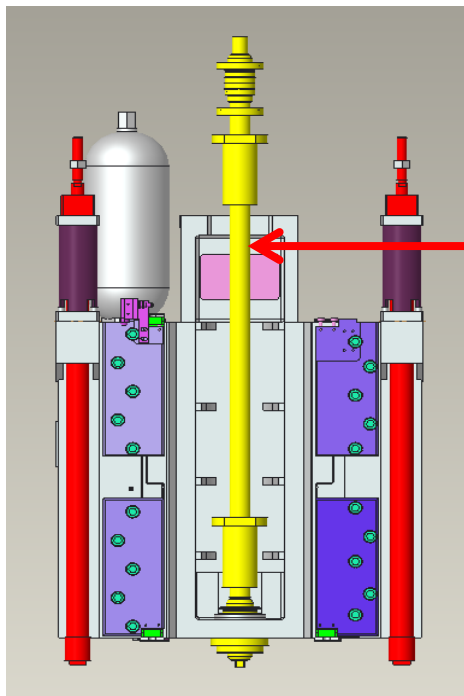
Arch way



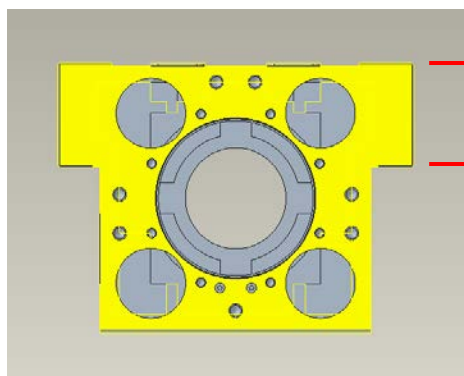
900mm

1. GLU18/23/28 series crossrail, thickness increased to 900mm; At the same time, through mechanical design and finite element method, a new cross section of the beam is designed, and at the same time, the arch bridge mode and internal reinforcement are added, which are perfectly combined.
2. GLU series crossrail, double guideway 90 degrees layout, give full play to the beam rigidity, and linear guideway itself with the best rigidity.
3. Drive structure with large pitch ball screw and large reducer, and high rigidity of crossrail.

Structural features - ball screw and linear guideway -Z axis



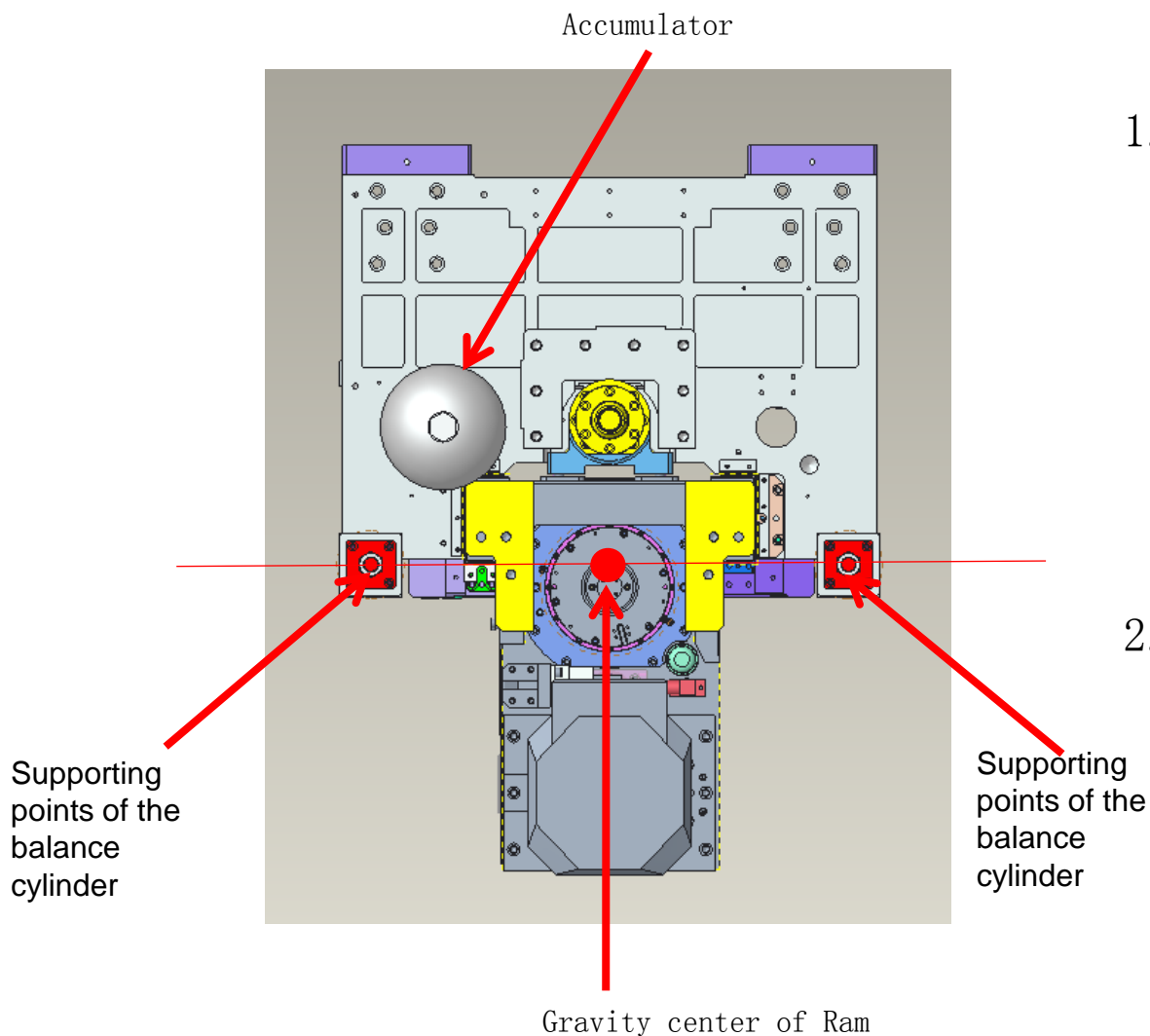
Model	Ball screw (mm)		Ball screw precision level	Brand	Ram guideway C
	Diameter	Pitch			
GLU18×30	50	10	C3	PMI	135
GLU23×30	50	10	C3	PMI	135
GLU23×40	50	10	C3	PMI	135
GLU28×30	50	10	C3	PMI	135
GLU28×40	50	10	C3	PMI	135
GLU28×50	50	10	C3	PMI	135
GLU28×60	50	10	C3	PMI	135



Ram guideway C



Structural features –saddle and ram



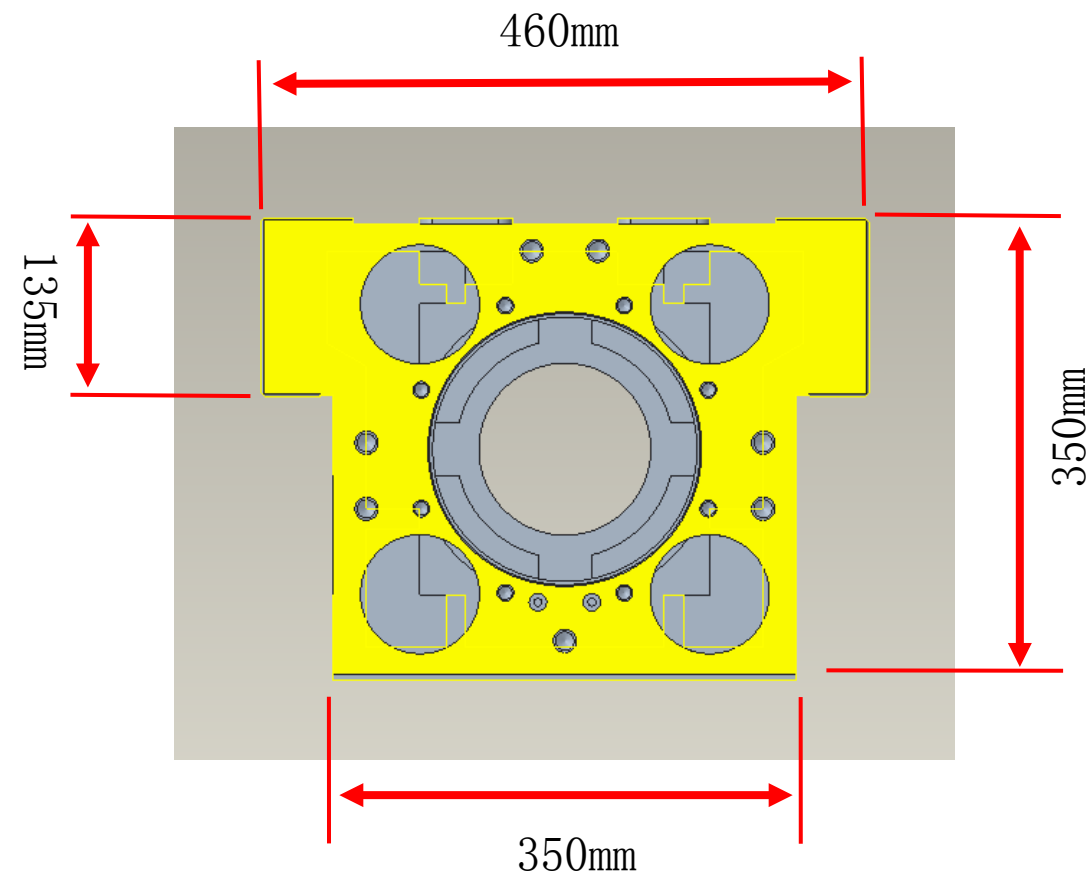
1. The two supporting points of the balance cylinder are in the same line with the center of gravity of the ram, satisfying the design concept of center of gravity drive, making the ram move up and down, eliminating the eccentric load torque of the guideway, and eliminating the vibration caused by friction force generated by the eccentric load torque of the guideway. Increased the machining accuracy of the machine tool.
2. The accumulator is placed on the saddle, which can greatly shorten the distance between the balance cylinder and the accumulator, greatly shorten the response time of the balance cylinder, and improve the stability of the acceleration and deceleration of the ram lift, which is very beneficial to the machining of the machine tool.



Structural features –saddle and ram

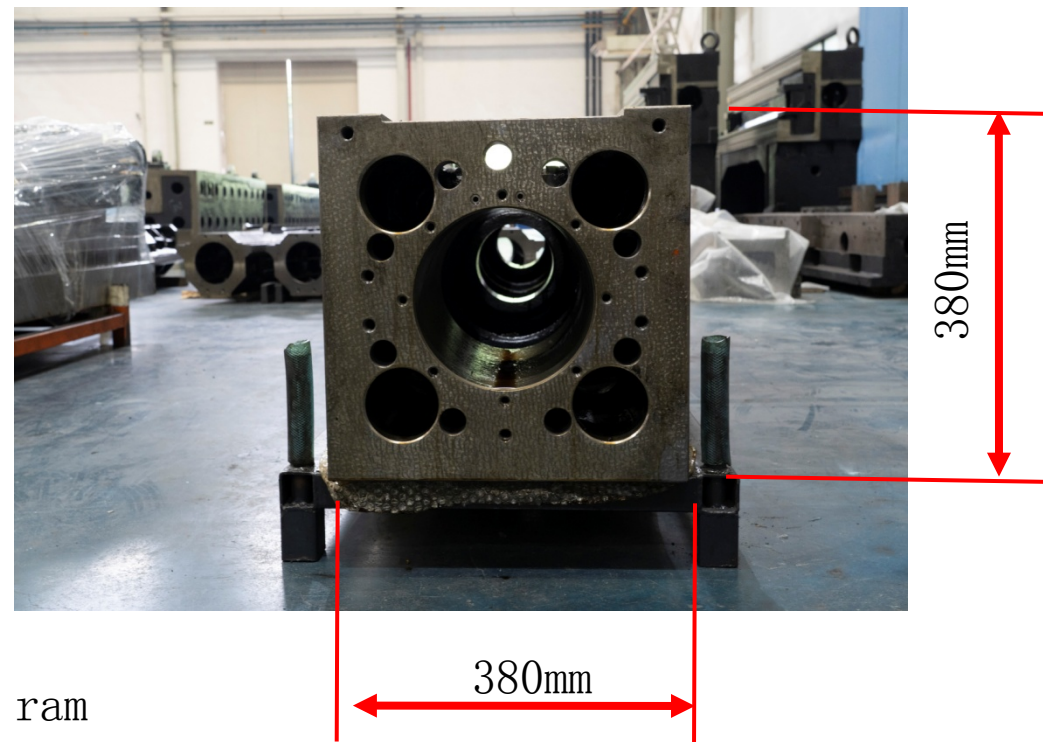


The gearbox is located at the upper part of the ram, which reduces the interference area when machine was processing the parts and facilitates the processing of deep cavity parts



The box way form of the ram ensures the rigidity and vibration resistance required to give full play to the high torque performance

Structural features –saddle and ram



GLU28 x 40, GLU28 x 60 can choose the square ram, the ram adopt high strength and high quality cast iron, resin sand molding, guide pairs adopt German Busak coated plate + medium frequency hardening guideway structure, strong lubricating system, with double hydraulic oil cylinder, large cross-section of square ram structure with seismic performance is good, but also fully meet heavy cutting of rigid demand.

Note: when selecting square ram, the spindle with short nose is rotated at 4000rpm with a full height of 150-1150mm.



500mm



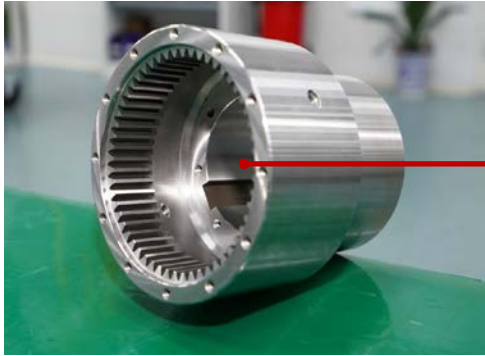
1100mm

1. Glu23/28 series column, with width of 1100mm and thickness of 500mm, adopt high-strength cast iron, resin sand molding, and reasonable internal rib layout, which fully meet the support rigidity of crossrail components and saddle components.
2. According to the size characteristics of the customer's parts, the columns can be selected for overall heightening to meet the requirements of parts processing.

Please note:

Heighten 200 mm: Full height is 450-1450mm(long nose spindle)
full height 550-1550mm(short nose spindle)
Heighten 400mm : (optional when choosing 380 square ram)
full height is 550-1550mm





self-made toothed coupling



Mechanical safety lock



Spindle taper hole: BT50

Broach force: $18000N \pm 10\%$

Maximum torque: 850N. M, short term overload 1000N.m

Maximum speed: 6000rpm

Inner diameter of spindle upper end bearing: 90mm

Inner diameter of lower end bearing of spindle: 100mm

Outer diameter of spindle: 205mm

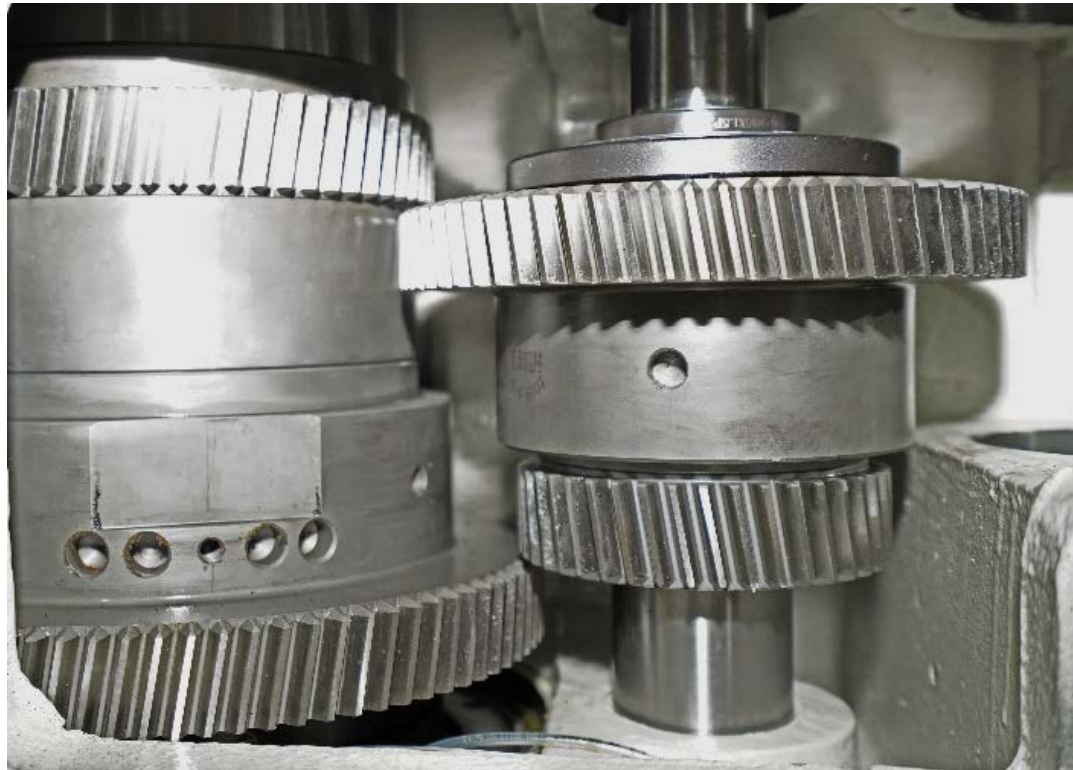
Distance from spindle face to table: 250-1250mm (long nose end);

350-1350mm (short nose)

Spindle cooling mode: oil cooling

1. The main drive is connected with a self-made toothed coupling, which is connected with the output shaft of the transmission box and the tail of the main shaft respectively at the upper and lower ends of the transmission shaft, so as to realize the power transmission of large torque.
2. The homemade production of coupling provides an effective guarantee for the matching of after-sales maintenance parts and reduces the dependence on purchased parts.
3. The spindle is equipped with mechanical safety lock, making the cutting cylinder safer

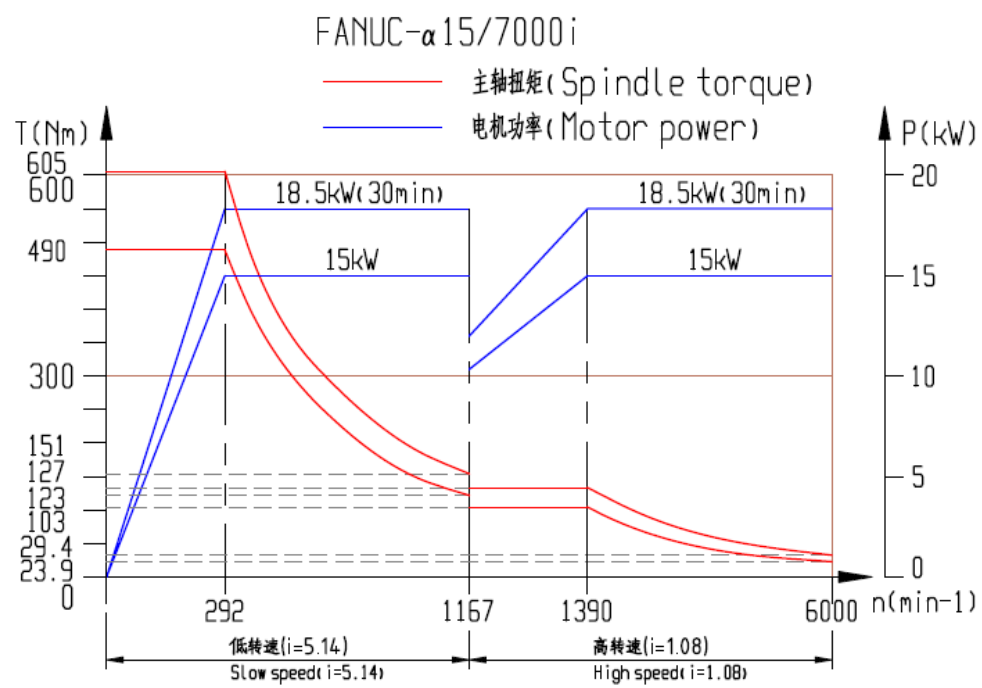




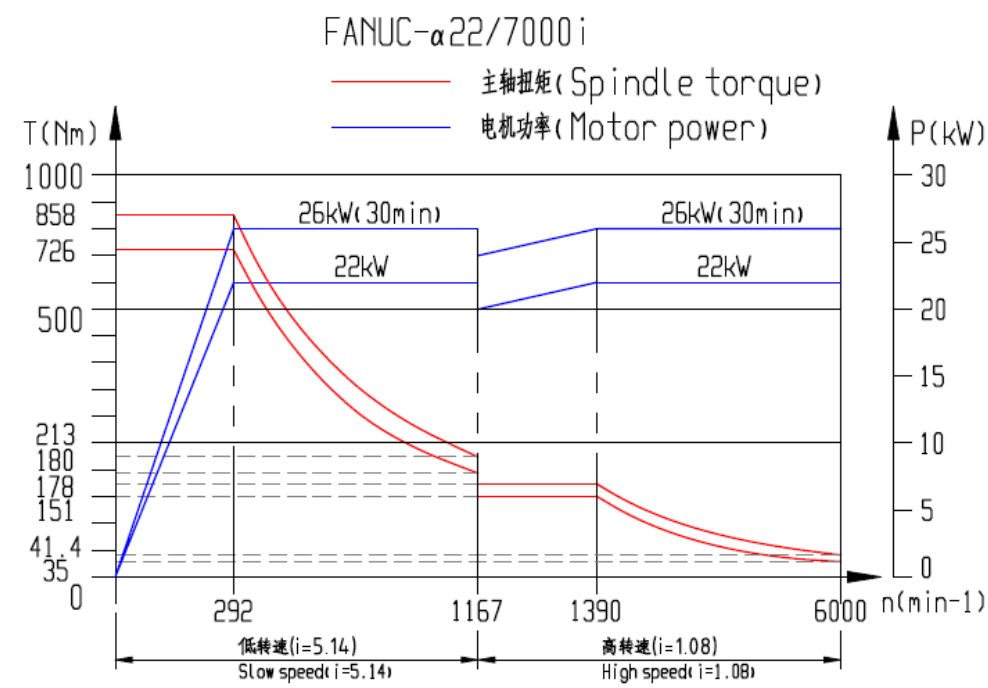
- 1, the latest generation of gear transmission, adopt DIN5 precision gear transmission, impact resistance;
2. Two-shift stepless speed change;
- 3, the maximum speed of 6000rpm, the maximum torque can reach 850n. m, can do heavy cutting;
4. Transmission bearing adopts NSK high-precision bearing imported from Japan;
- 5, equipped with a full range of oil cooling system, to achieve continuous high speed operation.



Power torque diagram

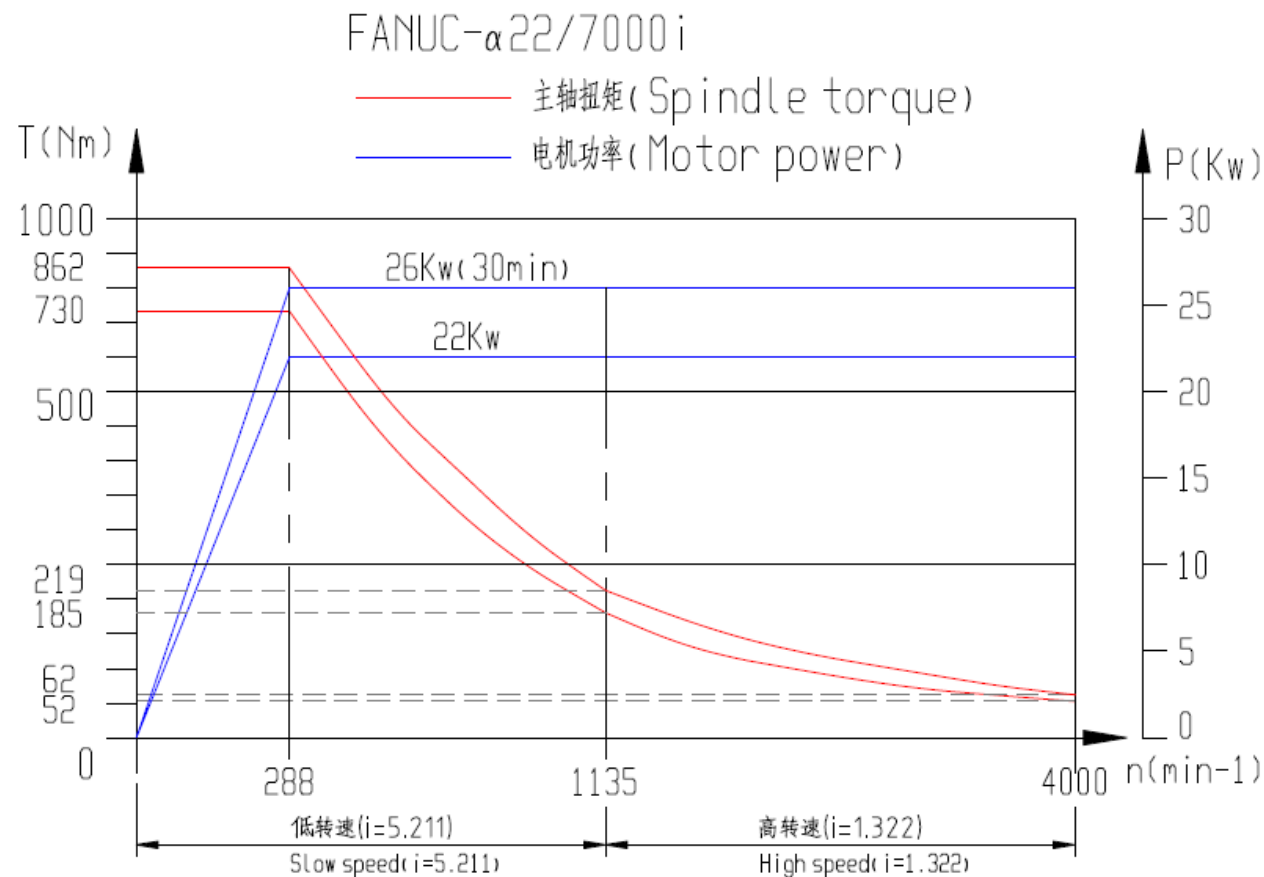


GLU18



GLU23/28

Power torque diagram



Power and torque diagram of GLU28×50、GLU28×60 with square ram



Power and torque of three axis-FANUC



Model	Axis	Type	Power kW	Torque Nm	Max torque Nm	Model	axis	电机型号	Power kW	Torque Nm	Max torque Nm
GLU18×30	X	aiF 22/3000	4	22	77	GLU28×40	X	aiF 30/4000	7	30	83
	Y	aiF 22/3000	4	22	77		Y	aiF 22/3000	4	22	77
	Z	aiF 30/4000	7	30	83		Z	aiF 30/4000	7	30	83
GLU23×30	X	aiF 30/4000	7	30	83	GLU28×50	X	aiF 40/3000	6	38	130
	Y	aiF 22/3000	4	22	77		Y	aiF 22/3000	4	22	77
	Z	aiF 30/4000	7	30	83		Z	aiF 30/4000	7	30	83
GLU23×40	X	aiF 30/4000	7	30	83	GLU28×60	X	aiF 40/3000	6	38	130
	Y	aiF 22/3000	4	22	77		Y	aiF 22/3000	4	22	77
	Z	aiF 30/4000	7	30	83		Z	aiF 30/4000	7	30	83
GLU28×30	X	aiF 30/4000	7	30	83						
	Y	aiF 22/3000	4	22	77						
	Z	aiF 30/4000	7	30	83						

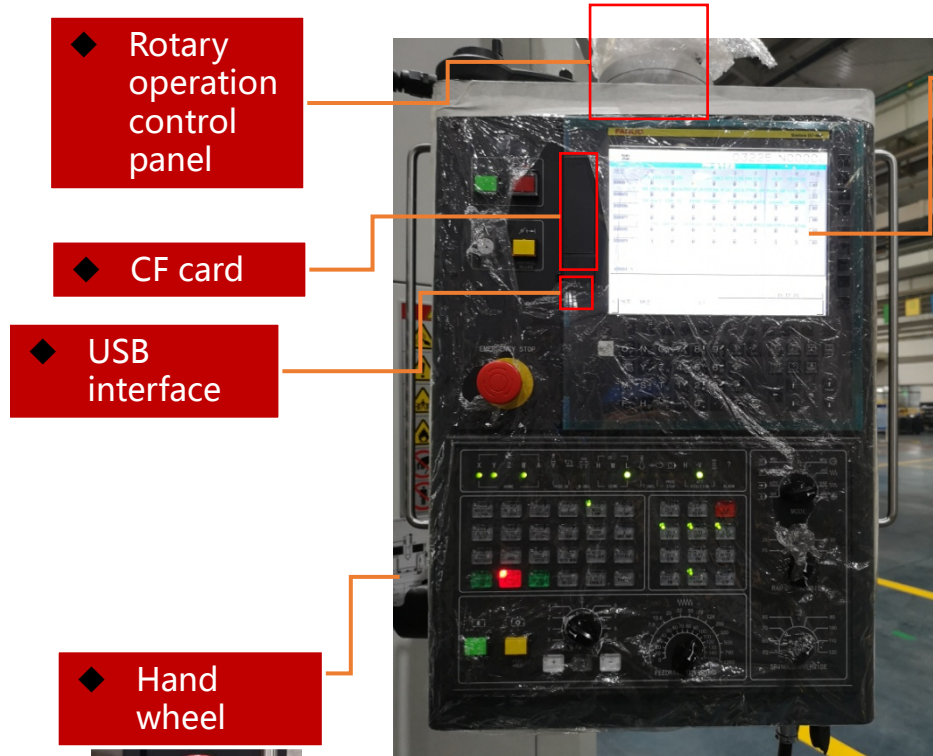


Power and torque of three axis-SIEMENS



Model	axis	type	Power kW	Torque Nm	Max torque Nm	Model	axis	type	Power kW	Torque Nm	Max torque Nm
GLU18×30	X	1FT7102-5AF71-1DG0	6.28	20/30	120	GLU28×40	X	1FK7105-2AF71-1RG1	8.17	20/30	120
	Y	1FT7102-5AF71-1DG0	6.28	20/30	120		Y	1FK7101-2AF71-1RG1	4.87	20/30	120
	Z	1FT7086-1AF71-1DH0	5.65	18/28	120		Z	1FT7086-1AF71-1CH0	5.65	18/28	120
GLU23×30	X	1FK7105-2AF71-1RG1	8.17	20/30	120	GLU28×50	X	1FK7105-2AF71-1RG1	8.17	26/48	150
	Y	1FK7101-2AF71-1RG1	4.87	20/30	120		Y	1FK7101-2AF71-1RG1	4.87	20/30	120
	Z	1FT7086-1AF71-1CH0	5.65	18/28	120		Z	1FT7086-1AF71-1CH0	5.65	18/28	120
GLU23×40	X	1FK7105-2AF71-1RG1	8.17	20/30	120	GLU28×60	X	1FK7105-2AF71-1RG1	8.17	26/48	150
	Y	1FK7101-2AF71-1RG1	4.87	20/30	120		Y	1FK7101-2AF71-1RG1	4.87	20/30	120
	Z	1FT7086-1AF71-1CH0	5.65	18/28	120		Z	1FT7086-1AF71-1CH0	5.65	18/28	120
GLU28×30	X	1FK7105-2AF71-1RG1	8.17	20/30	120						
	Y	1FK7101-2AF71-1RG1	4.87	20/30	120						
	Z	1FT7086-1AF71-1CH0	5.65	18/28	120						

Controller-FANUC 0i



◆ Rotary operation control panel

◆ CF card

◆ USB interface

◆ Hand wheel

◆ 10.4" TFT LCD capacitive non-touch screen

operation control panel



System package		FANUC 0i a1	
Standard		Option	
No	Name	No	Name
1	Inserted Ethernet interface	1	RAM (2M)
2	10.4" TFT LCD capacitive non-touch screen	2	High speed processing 400
3	CF card + USB slot+RS232	3	Data-sever
4	R660 Mold package 200	4	
5		5	



Milling case



Material	45# steel	Rotation	300rpm	Tool	Φ125 disc mill tool
Width	110mm	Depth	5mm	Distance ram go down	400mm
Cutting speed	950mm/min	Mental remove rate	522cm ³ /min	Power	20kw



Material	QT400	Rotation	300rpm	Tool	Φ125 disc mill tool
Width	110mm	Depth	8mm	Distance ram go down	350mm
Cutting speed	720mm/min	Mental remove rate	633cm ³ /min	Power	22kw

Material	45# steel	Rotation	420rpm	Tool	Φ63 corn mill tool
Width	50mm	Depth	30mm	Distance ram go down	400mm
Cutting speed	180mm/min	Mental remove rate	270cm ³ /min	Power	21kw

Material	QT400	Rotation	420rpm	Tool	Φ63 corn mill tool
Width	50mm	Depth	30mm	Distance ram go down	350mm
Cutting speed	400mm/min	Mental remove rate	600cm ³ /min	Power	17kw



Material	HT200	Rotation	600rpm	Tool	Φ125 disc mill tool
Width	108mm	Depth	3mm	Distance ram go down	400mm
Cutting speed	900mm/min	Mental remove rate	292cm ³ /min	Power	15kw

Material	HT200	Rotation	200rpm	Tool	Φ125 disc mill tool
Width	120mm	Depth	4mm	Distance ram go down	400mm
Cutting speed	500mm/min	Mental remove rate	240cm ³ /min	Power	10.4kw



Customer cases

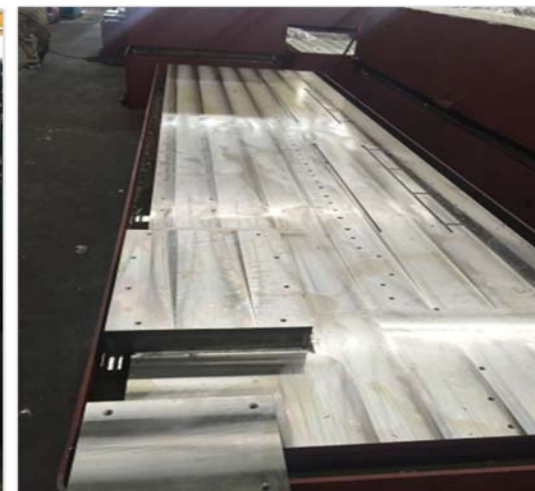


General machinery – woodworking machinery



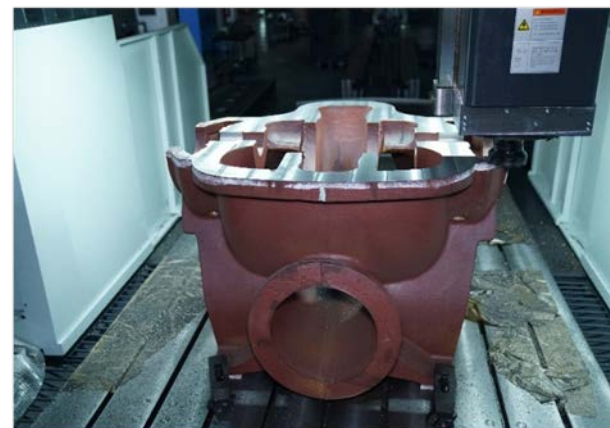
Customer cases

General machinery – laser cutting equipment



Customer cases

General machinery -others



Customer cases

mold parts - stamping die





Simple enclosure
(ST)



Full enclosure without top cover



Full enclosure with top cover

Note:

1. GLU28×50 and GLU28×60 cannot be equipped with full enclosure with top , but only with simple enclosure or full enclosure

2. Full enclosure with top is recommended when machine with CTS



Option configuration—Auto milling head

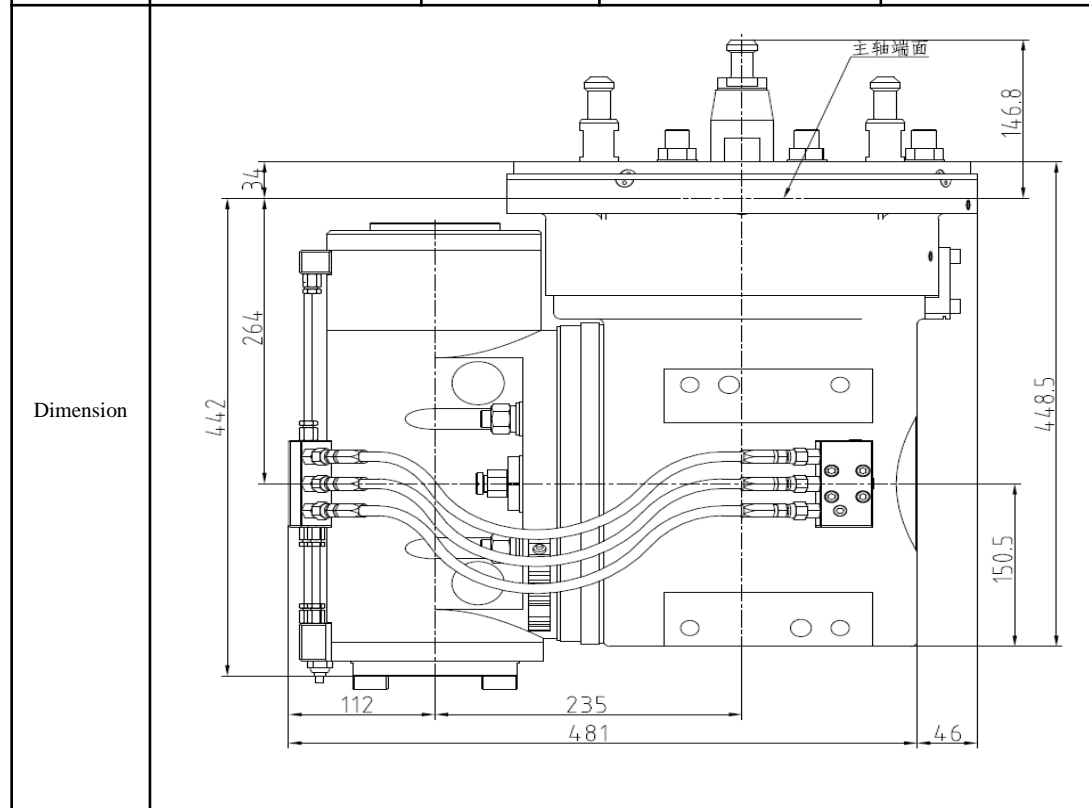
Name	Main function	Description		Note
short nose Fully automatic Right-angle milling head	Automatic changeable head Automatic transfer delivering tool Nasal automatic cooling Nose air curtain Spindle air blowing	C axis automatic indexing	360°	Can be used in GLU
		Indexing	5°	
		Max. power	15KW	
		Speed	2000r/min	
		Taper	ISO 50	
		Max. torque	500Nm	
Dimension				



Option configuration—Semi auto 3+2 milling head



Name	Function	Description		Note
short nose Fully automatic Universal milling head	Automatic changeable head	C axis automatic indexing	360° rotate	Can be used by GLU
		Indexing	5°	
	Automatic delivering tool	Max. power	15KW	
	A axis automatic rotation	Speed	2000r/min	
	C axis manual rotation	Spindle taper	ISO 50	
	Nose air curtain Spindle air blowing	Max. torque	500Nm	
		A axis manual indexing	±90° rotate (5°)	
		Position	Scale position	

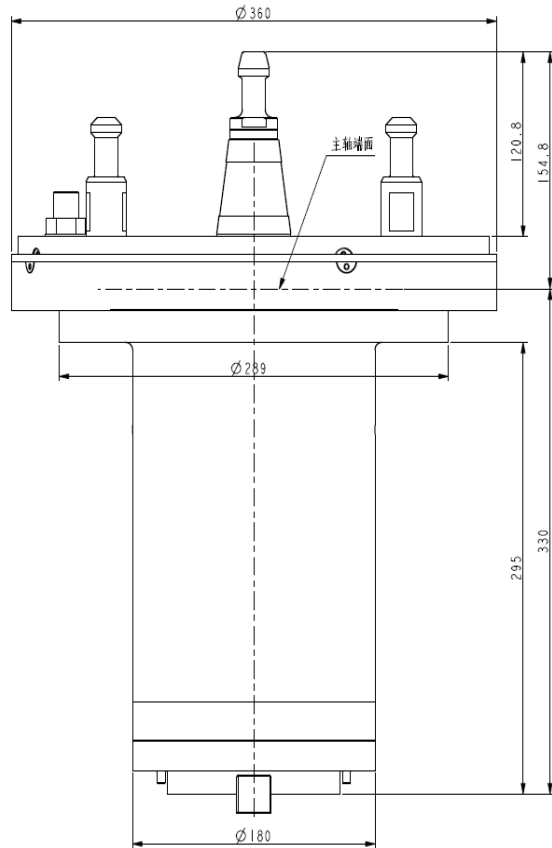


Option configuration—Auto milling head



Name	Function	Description		Note
short nose Fully automatic Extended milling head	Automatic changeable head Automatic delivering tool	Max. power	15KW	Can be used by GLU
		Speed	3500r/min	
		Spindle tape	ISO 50	
		Max. torque	600Nm	

Dimension



Option configuration—Manual milling head

Name	Function	Description		Note
Manual Right-angle milling head	Manual change head Manual transfer	C axis automatic indexing	360° rotate	Can be used by GLU
		Position	Double pin positioning /90°	
		Max. power	20KW	
		Speed	2000r/min	
		Spindle taper	ISO 50	
		Max. torque	800Nm	
Dimension	<p>Technical drawing of the manual milling head. The drawing shows a top view with a square footprint of 355x355 mm. The height of the head is 271 mm, and the total height including the motor housing is 305 mm. The base has a diameter of 230 mm. The distance from the center to the side mounting points is 223 mm, and the distance from the center to the front mounting points is 164 mm. A label '主轴端面线' (Main spindle end face line) points to the spindle axis.</p>			



Option configuration—Manual milling head



Name	Function	Description		Note
Manual deep boring and milling head	Manual change head Manual transfer	C axis automatic indexing	360° rotate	Can be used by GLU
		Position	Double pin positioning /90°	
		Max. power	7.5KW	
		Speed	800r/min	
		Spindle taper	ISO 50	
		Max. torque	500Nm	
Dimension				



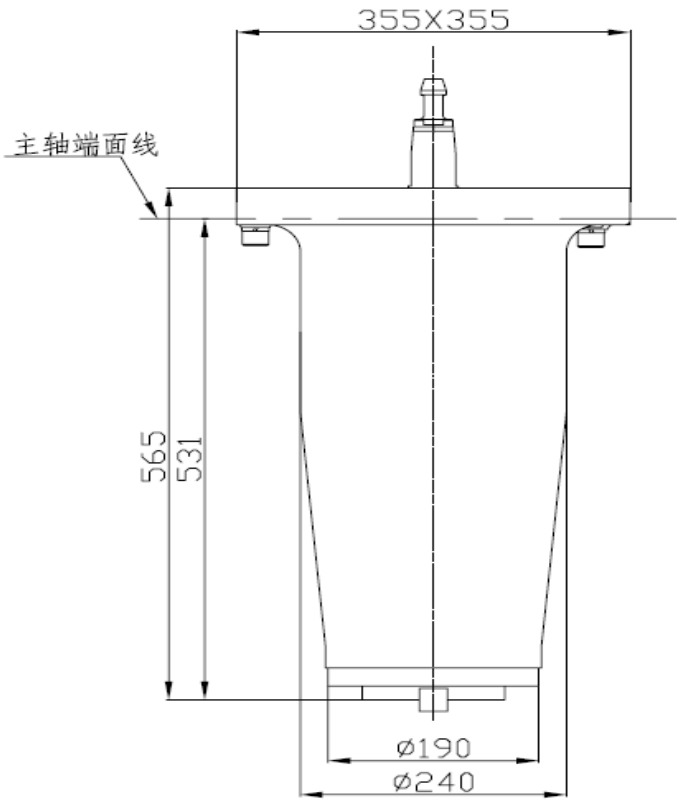
Option configuration—Manual milling head



Name	Function	Description		Note
Manual universal milling head	Manual change head Manual transfer	C axis manual indexing	360° rotate	Can be used by GLU
		Position	Double pin positioning /90	
		Max. power	15KW	
		Speed	1000r/min	
		Spindle taper	ISO 50	
		Max. torque	1000Nm	
		A axis manual indexing	±90° rotate	
		Position	Scale position	
Dimension				



Option configuration—Manual milling head

Name	Function	Description		Note
Manual extended milling head	Manual change head	Max. power	15KW	Can be used by GLU
		Speed	1500r/min	
		Spindle taper	ISO 50	
		Max. torque	1000Nm	
Dimension				





Head library

Note: choose B-type enclosure as option



Vertical head library

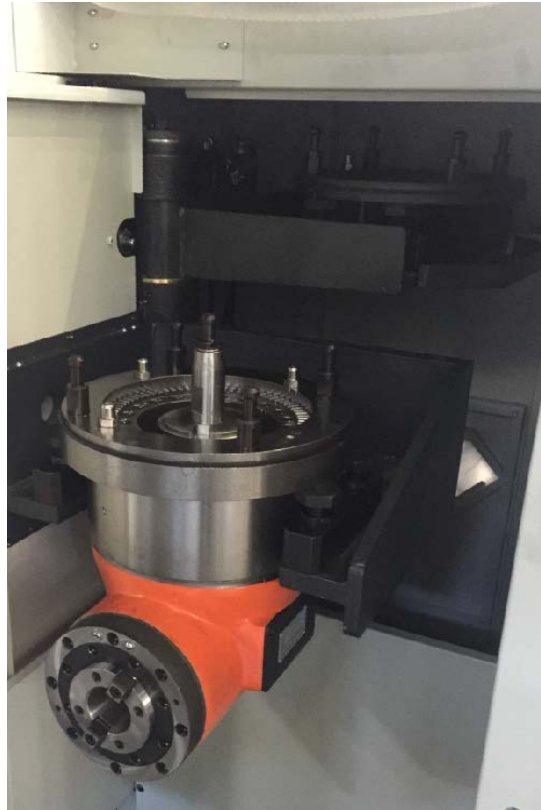
Note: choose B-type enclosure as option



Vertical/horizontal head library

Note: choose B-type enclosure as option, full enclosure with top not available





Two station rotated head library



Two station table fixed head library



Single shaft head library

Machine configuration



Standard configuration		Option configuration	
1	Controller : FANUC 0i	1	Controller : FANUC 31i
2	Gear box drive	2	SIEMENS 828D/840Dsl
3	Long nose spindle	3	24/40 arm type ATC
4	Z axis hydraulic balance system	4	40 Vertical/horizontal ATC
5	spindle oil chiller	5	Column heighten
6	Pneumatic, hydraulic and centralized lubrication system	6	Cross rail (Y axis) extended
7	Simple splash guard	7	380 square (Z axis travel 1000mm)
8	Internal Helix chip conveyor	8	CTS
9	External chain chip conveyor	9	Linear scale
10	cutting cooling	10	Fourth axis
11	3-color light, working light	11	Full enclosure
12	Standard attachments	12	Auto milling head
13	Common maintain tools	13	Manual milling head
		14	Two station auto rotated head library
		15	Workpiece probe
		16	Tool probe
		17	Oil skimmer
		18	Water gun
		19	Air gun
		20	Air conditioner





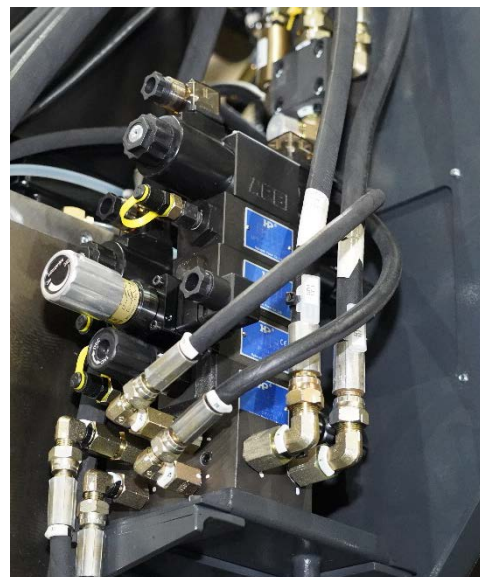
Higher energy efficiency

Normally closed Hydraulic station system



Hydraulic lubrication pneumatic integration unit

Spindle Pressure retaining valve system



Hydraulic valve assembly integration unit

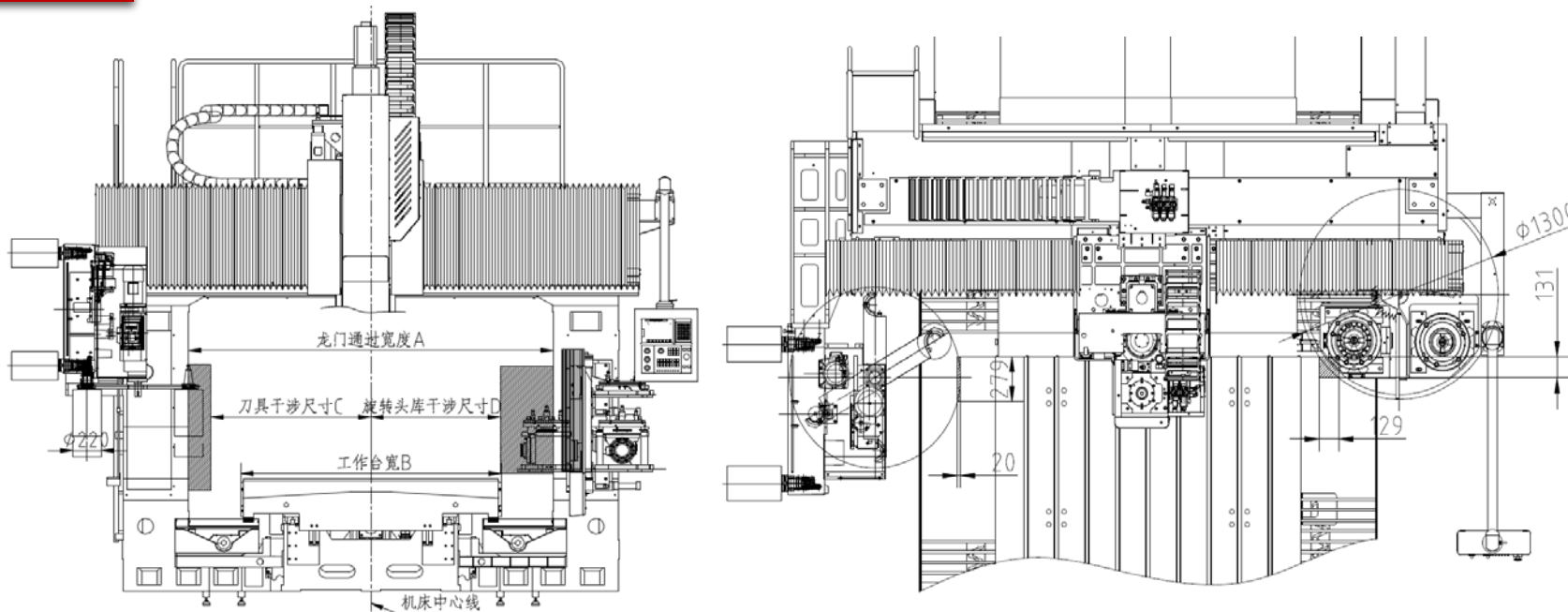
Accumulator Balance system



Capsule accumulator system

Processing scope

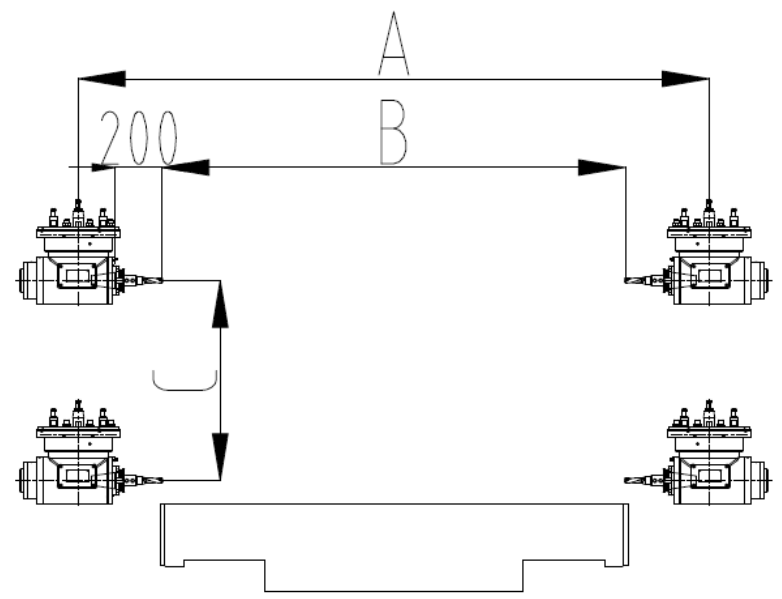
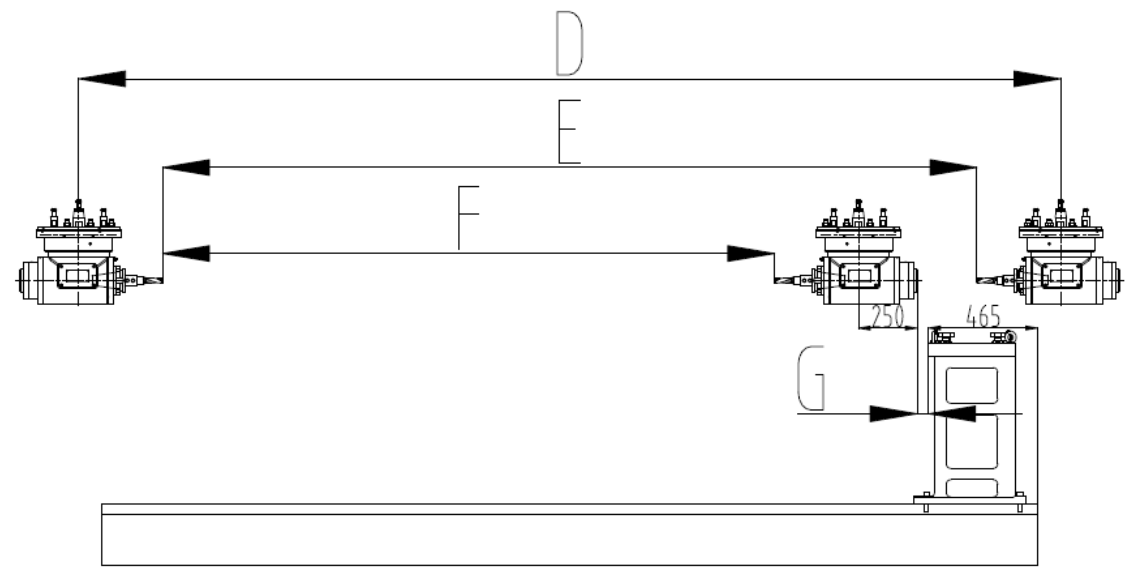
Select dry
area map



	Gantry width A (mm)	Table width B (mm)	24/40 Tool change tool interference area C (mm)	head library Interference region D (mm)	
				Auto 90 milling head	Auto universal head
GLU18 series	1800	1500	730	495	645
GLU23 series	2290	2000	980	745	895
GLU28 series	2790	2000	1230	995	1145



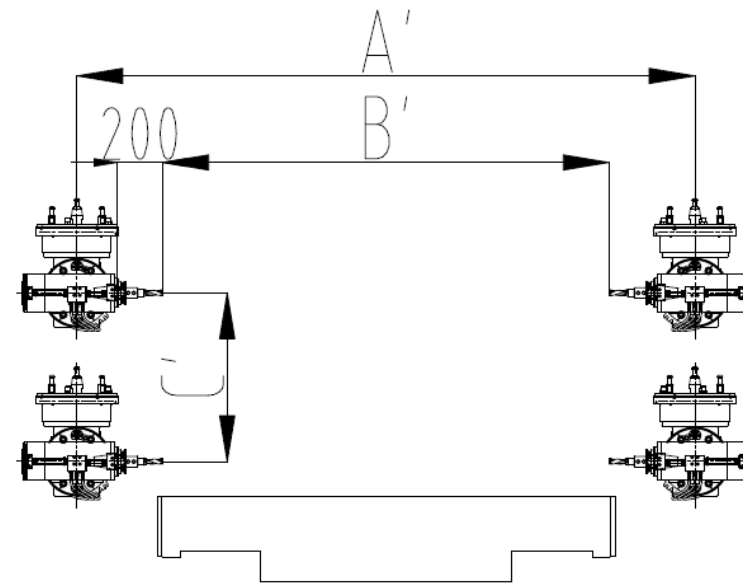
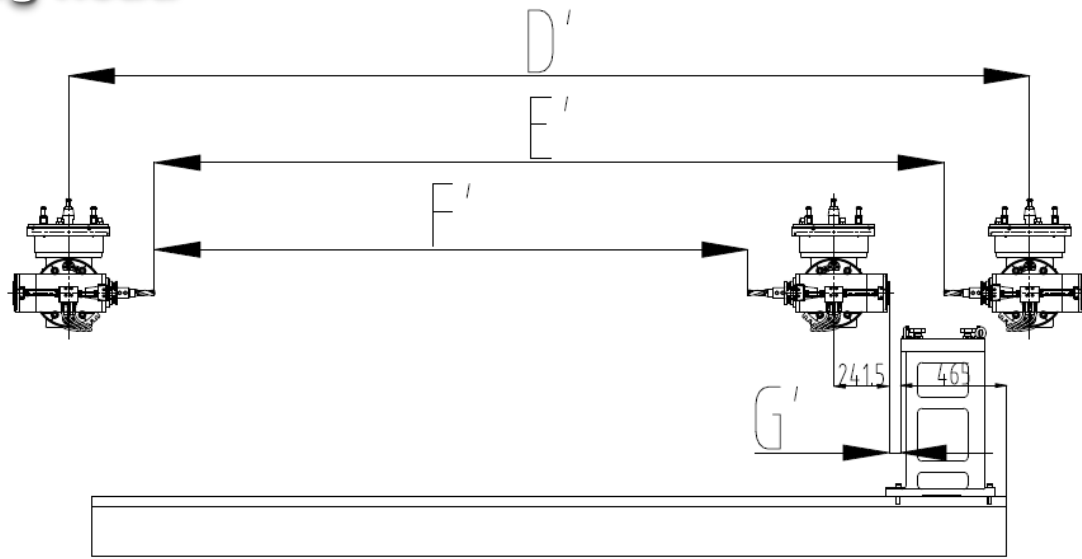
Processing scope with auto head



Size Model	Y axis travel A(mm)	Y axis processing scope B (mm)	Z axis processing scope C(mm)	X axis travel D(mm)	X axis processing scope E(mm)	X axis processing scope with head holder F(mm)	Safety scope G(mm)
GLU18×30	1700	976	854	3200	2476	1611	50
GLU23×30	2200	1476	854	3200	2476	1611	50
GLU23×40	2200	1476	854	4200	3476	2611	50
GLU28×30	2700	1976	854	3200	2476	1611	50
GLU28×40	2700	1976	854	4200	3476	2611	50
GLU28×50	2700	1976	854	5500	4776	3911	50
GLU28×60	2700	1976	854	6500	5776	4911	50

Note: the tool length is 200mm

Processing scope with semi auto 3+2 milling head

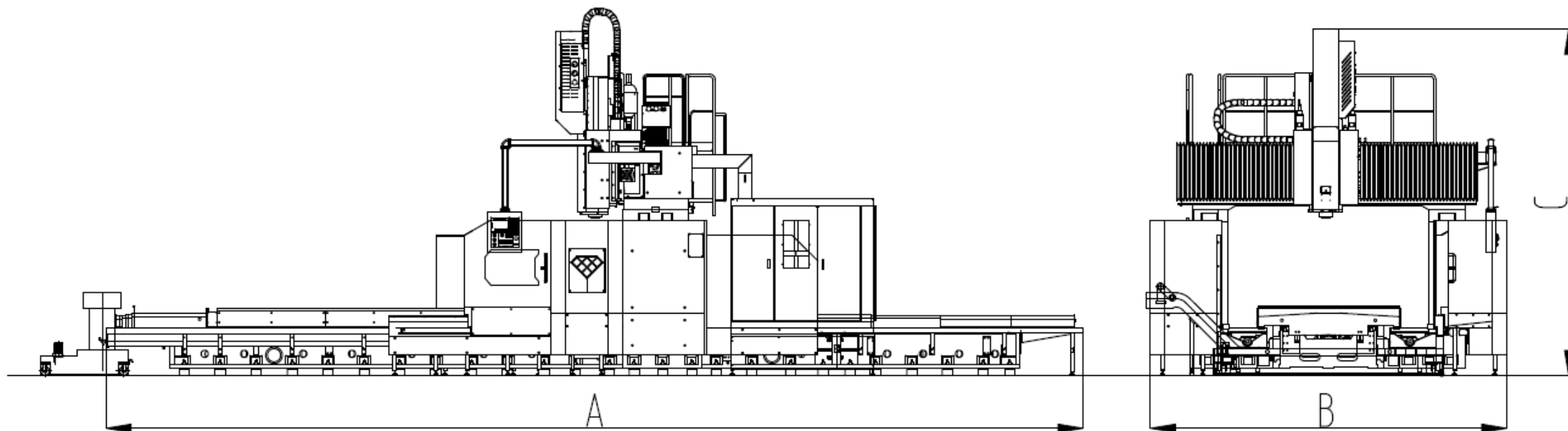


scope Model	Y axis travel A(mm)	Y axis processing scope B (mm)	Z axis processing scope C(mm)	X axis travel D(mm)	X axis processing scope E(mm)	X axis processing scope with head holder F(mm)	Safety scope G(mm)
GLU18×30	1700	944	705	3200	2444	1588	50
GLU23×30	2200	1444	705	3200	2444	1588	50
GLU23×40	2200	1444	705	4200	3444	2588	50
GLU28×30	2700	1944	705	3200	2444	1588	50
GLU28×40	2700	1944	705	4200	3444	2588	50
GLU28×50	2700	1944	705	5500	4744	3888	50
GLU28×60	2700	1944	705	6500	5744	4888	50

Note: the tool length is 200mm



Machine size



Mode \ size	Length A(cm)	Width B(cm)	Height C(cm)
GLU18×30	945	420	510
GLU23×30	945	475	510
GLU23×40	1185	475	510
GLU28×30	975	515	510
GLU28×40	1215	515	510
GLU28×50	1480	515	510
GLU28×60	1620	515	510

Note: Machine length A and width B do not include chip conveyor

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Haitian WeChat public number

Thank you !
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