

Introduction

Dalian Yimei machinery Co., Ltd was established in last century 1960 which located in the beautiful seaport city, Dalian. The factory covers an area of more than 3000 square meters. In 1997 the company restructured from state-owned enterprises into private joint-stock enterprise. In 2009 the company passed the ISO9000 quality system certification and got the title of famous brand in Dalian city. Meanwhile the trade mark of YIMEI became the famous brand in Liaoning province. In 2010 the products passed the European CE certification.

We are a professional manufacturer of CNC vertical lathe and CNC turning and milling center machine specializing in CNC vertical lathe R&D, manufacturing, producing and technology application with completely independent intellectual proper rights. So far we had got over 30 projects in patent technologies. Our main products are CNC single column vertical lathe, double columns vertical lathe (specification is from 1000mm to 10000mm) as well CNC turning and milling center machine, etc. Our products are aimed to meet the demand of the medium & high market and to build high standard enterprise with high standard facilities. Our products have exported to over twenty countries and regions in the world such as USA, UK, Germany, Finland, Australia, Turkey, Russia.

With many years efforts and growing strength, in 2012 we built the second factory -- Dalian GEFF CNC machine tool Co., Ltd in double D port Dalian Economic Development Zone. New factory will further improve the product quality and series and have the ability to produce 16 meters and even 25 meters CNC vertical turning and milling center. Our leading products are single column and double columns vertical lathe with both conventional type and CNC type from 1000mm to 16000mm. The CXK series products with independent R&D including CNC vertical turning and milling center, CNC gantry machining center and CNC gantry guide way grinding machine have exceeded the domestic advanced level.

Abundant technique strength, excellent industry equipments and perfect testing condition supply the reliable guarantee for our excellent products. We will supply perfect one station service from R&D, production and delivery to after-sales service.

Quality makes company survive. Service makes company develop. YIMEI will hold quality-based concept and keep continuing technology innovation to supply numerical control and multifunctional featured products for customers. Super high quality, competitive price and thoughtful service are our constant pursuit.

Our aim is to provide honest, sincere service and perfect products .Our target is to be the “DMG” of China.

Sincerely hope to establish good cooperation with the persons of insight both domestic and abroad and create a new grand era.

Product Introduction

Dalian YIMEI Machinery Co., Ltd specialized in R&D, manufacturing, producing and application of CNC vertical lathe for many years so as to accumulate rich experiences. The products are widely used in aerospace, shipping, wind power, metallurgy, bearing, auto, engineering, mining, nuclear power, express way, etc. Holding the technology innovations concept, we keep improving independent R&D, designing and producing capacity and our technology has reached domestic advanced level. Superior processing equipment guaranteed the precision standard of products.

Our leading products are from 1000mm-16000mm CNC single and double columns vertical lathe with both conventional type and CNC type two series. Independent of CXK series machining centers own the ability to produce 16000mm even 25000mm CNC vertical turning and milling center machine. The company owns 8 meters gantry CNC guide way grinding machine, 8 meters gantry planning machine, 5 meters conventional guide way grinding machine, 3 meters surface grinding machine, CNC gantry machining center, CNC floor-typed milling and boring machine, laser interferometer, supersonic frequency quenching machine, etc. We supply completed after-sales service (pre-sales, after-sales, installation, debugging, training, maintenance) and quality warranty service.

Product catalog

CNC single column vertical turning and milling center

CNC double columns vertical turning and milling center

CNC high speed vertical lathe

Semi- closed CNC single column vertical lathe

CNC Fixed-beam double columns vertical lathe

CNC single column vertical lathe—professional type

CNC single column vertical lathe—Economic type

CNC double columns vertical lathe

Conventional single column vertical lathe

Conventional double columns vertical lathe

CJ series double columns vertical lathe technology

CNC floor-typed milling and boring machine

CNC gantry guide way grinding Machine

Components and products show

CNC single column vertical turning and milling center-----CXK125/CXK160/CXK200

Name	unit	CXK125	CXK160	CXK200
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1. CXK series CNC vertical turning and milling center is new type of combined machining center with multifunction, high precision and efficiency. It has compound functions including turning, milling, drilling, boring, grinding, etc.
2. X Y Z 3 linkages axis, and also can be added up to 5 linkages axis.
3. The main basic components and the main transmission adopt thermal symmetric construction with high stability.
4. The worktable has precision indexing and milling feeding function. And the worktable adopts hydrostatic guide way bearing.
5. The crossbeam has the grading positioning function.
6. Ram adopts high precision ball screw transmission. The machine is equipped with ATC auto turning and milling tool magazine with tool station 12-20 optional.
7. All the castings are treated by artificial thermal aging treatment.
8. The machining center adopts Siemens 840DSL system. (other systems available)
9. All the electric components, bearings, key parts, hydraulic parts are from international famous brand manufacturers.

Main technical specification

Worktable diameter	mm	1050	1400	1800
Max. turning diameter	mm	1250	1600	2000
Max. machining height	mm	1200	1400	1600
Main weight of workpiece	T	5	8	8
Main spindle motor power	Kw	28	28	28
Worktable speed while turning	r/min	1-400	1-315	1-250
Worktable speed while milling	r/min	0-5	0-5	0-4
Max. torque of worktable	mm	10500	12500	16000
Sectional dimension of ram	mm	280*280	280*280	280*280
Ram stroke	mm	800	1000	1250
Rapid moving speed of turret	mm/min	10000	10000	10000
Feeding speed of turret	mm/min	0.1-2000	0.1-2000	0.1-2000
Max. turning force	Kn	25	25	25
Milling axis rotary speed	mm/min	5-2000	5-2000	5-2000
Milling axis torque	nm	800	800	800
Milling axis power	Kw	16/28	16/28	16/28
Taper hole of milling axis	iso	BT50	BT50	BT50
Crossbeam stroke/grade	mm	800/5	1000/6	1200/7
Crossbeam lifting speed	mm/min	440	440	440
No. of milling tool in magazine		8-24	8-24	8-24
No. of turning tool in magazine	Position	6	6	6
X.Y.Z axis positioning accuracy	mm	0.01	0.01	0.01
X.Y.Z axis repeatability positioning accuracy	mm	0.005	0.005	0.005
C axis positioning accuracy	sec	±3”	±3”	±3”
CNC system	SIEMENS 840DSL			

Note: Concerning technical data can be changed as per customer’s need.

CNC double columns vertical turning and milling centre-----
-----CXK250/CXK320/CXK400/CXK500/CXK630/CXK800/CXK1000/CXK1250/CXK1600



- 1. CXK series turning and milling center is independent self-developed products by us. It is new type of compound machine tool with multifunction, high precision and efficiency.
- 2. CXK series have 3 axis which can perform turning, milling, boring, drilling, grinding all processes except bottom surface after clamping one time. It can be added up to 5 axis which can process more complex workpiece with equipment of double pendulum head.
- 3. The main basic components and the main transmission adopt thermal symmetric construction with high stability.
- 4. The worktable has precision indexing and milling feeding function.
- 5. C axis positioning accuracy is up to +/-6”.
- 6. With grating closed-loop feedback control function, positioning accuracy is 0.01mm.
- 7. The machine tool is equipment with ATC auto magazine, six turning tools and 24 milling tools.
- 8. Control system adopts Siemens 840 DSL system. (other systems available)
- 9. All the castings are treated by artificial thermal aging treatment.
- 10. All the electric components, bearings, key parts, hydraulic parts are from international famous brand manufacturers.
- 11. It is equipped with complete configuration and perfect after-sale service.

Main technical specification

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CNC high speed vertical lathe-----CKG 160/CKG125



1. CKG160 is suitable for cemented carbide tool and ceramic tool, etc. It can realize rough, semi-finishing and finishing process for the ferrous metal, nonferrous metal and part of the non-metallic parts such as internal and external cylindrical surface, conical surface, sectional surface, grooving, threading and surface of revolution.
2. Max. cutting speed reaches 2000m/min. Tool post rapid moving speed reaches up to 12m/min; machining accuracy reaches up to IT6 precision grade.
3. The worktable is thermal symmetrical structure with high rotation precision, large bearing capacity and small thermal deformation. Oil cooling device is equipped.
4. The main transmission is driven by AC spindle servo motor, and two gears variable speed adopts ZF imported gear box. High speed rotation work pieces carries on static and dynamic balance and adopts high precision transmission gear with grinding process to realize high efficiency transfer, low noise and smooth running under high speed rotation.
5. Feeding system is driven by servo motor with gapless transmission, grating closed-loop control and high precision operation.
6. Columns are thermal symmetric construction through FEM computation, effective vibration isolation measures with high rigidity and high anti-vibration capability.
7. CNC system adopts Siemens or Fanuc system or other system.
8. The machine tool is equipped with chip conveyor device, semi-closed protection cover and water cooling for procession work pieces.
9. As per customers' requirements we can offer tool magazine, butted-knife installation, milling and

boring function, worktable indexing and feeding function full closed-loop control, etc.

10. All the electric components, bearings, key parts, hydraulic parts are from international famous brand manufacturers.

Main technical specification

Model			unit	CXG125	CKG160	
Worktable diameter			mm	1000	1250/1400	
Max. turning diameter			mm	1250	1600	
Max. weight of work piece			T	5	8	
Max. height of work piece			mm	1000/1250	1250/1600	
Variable speed stage of worktable			2 gears + stepless			
Rotating range of worktable			r/min	2-400	2-400/2-315	
Max. cutting force of worktable			kn	16	25	
Max. torque of worktable			nm	12500	16000/25000	
Vertical tool post horizontal guide way pair			Sliding and rolling compound			
Vertical tool post	T-type ram	Horizontal stroke(X)	mm	-50----870	-50----1020	
		Vertical stroke(Z)	mm	700/800/1000		
		Tool carrier type	Electric tool carrier with 4/5/6 station			
	Square ram	Guide way pair	Sliding and rolling compound			
		Horizontal stroke(X)	mm	-50----870	-50----1020	
		Vertical stroke(Z)	mm	800/1000	1000/1250	
		Tool number in magazine	Pcs	4----12		
CNC controller			SIMENS/FANUC			
Main electric motor power			Kw	AC:28/DC:37	AC:28/DC:55	
Crossbeam stroke			mm	650/850	850/1200	
Crossbeam grading positioning number				5/6	6/7	
Crossbeam grading positioning pitch			mm	150	150	
Total power of machine			Kw	50	60	
Total weight of machine tool			T	18	27	

Semi-closed CNC single column vertical lathe-----CK5112E/CK5116E

数控单柱立式车床 CK5112E



1. The machine tool is equipped with semi-closed protection, chip conveyor, trolleys, work piece cooling water pump, oil temperature cooling refrigerator etc.
2. The worktable has waterproof function with square design which is convenient to collect cutting fluid.
3. Low voltage electrical apparatus is from international famous brand Siemens 828D or Fanuc OI-TD system.
4. The crossbeam rail surface and T-type ram guide way are treated by supersonic frequency quenching (>Hrc50). Sliding surface is sticking with plastic belt ,lasting and durable
5. The independent electric cabinet is equipped with air conditioning for refrigerating and free from influence of vibration.
6. Nanjing process or THK high-precision ball screw and imported bearings support.
7. Crossbeam is protected by white steel. All the lubrication parts apply time and ration oil by automatic lubricating pump.
8. Four gears mechanical variable speed + motor stepless variable speed .wider constant power range and larger torque. Four-station electric tool carrier and ATC, convenient and practical.
9. Has the function of constant liner cutting and processing screw-thread.
- 10.High-precision gear box (grade 6) and spiral bevel gear (grade6) with low noise and high accuracy rotation function.
- 11.All the casting use gray cast iron (square ram ductile iron) and treated by artificial thermal aging treatment.

- 12.All the electric components, bearings, key parts, hydraulic parts are from international famous brand manufacturers.
13. Complete configuration. Only using cutting tool and measuring tool can the machine run.
- 14.Optional function: constant hydrostatic guide way grating closed-loop, heightening lathe and lengthened ram.
- 15.Optional square ram with ATC tool magazine.

Main technical specification

Term	Unit	Semi-closed CNC single column vertical lath	
		CK5112E	CK5116E
Max. turning diameter	mm	1250	1600
Worktable diameter	mm	1000	1400
Max. height of work piece	mm	1000/1200	1200/1400
Rotating range of worktable	r/min	0.5—250	0.5----200
Stage number of mechanical variable speed		Four gear + stepless	Four gear + stepless
Max. cutting force of vertical tool post	Kn	25	25
Max. torque of worktable	nm	25000	25000
Horizontal stroke of vertical tool post	mm	850	1020
Vertical stroke of vertical post tool	mm	700	800
Tool station carrier form		4 station carrier	4 station carrier
Crossbeam stroke	mm	650/850	850/1050
Tool post rapid moving speed	mm/min	6000	6000
Crossbeam lifting speed	mm/min	440	440
Sectional dimension of tool bar(L*W)	mm	32*32	32*32
Main electric motor power	Kw	30/37	45/55
Water pump power	Kw	0.55	0.55
Chip conveyor power	Kw	0.37	0.37
Cooling refrigerator power	Kw	1.5	1.5
Positioning accuracy	mm	0.03	0.03
Repeatability positioning accuracy	mm	0.015	0.015
Machining accuracy		IT7	IT7
Overall size (L*W*H)	mm	4860*2877*3403	5260*3060*3690
Weight(about)	T	9	13.2

CNC Fixed-beam Double columns Vertical Lathe-----
-----CK5225/CK5231/CK5240/CK5250/CK5263/CK5280



1. The machine tool is suitable for discoid components to process cylindrical surface, conical surface, circular surface and complex surfaces, etc.
2. It is independent R&D production, modular design and adopts fixed-beam structure with the advantages of high rigidity and precision, stable running and high cost-efficiency, etc.
3. Worktable adopts 2 or 4 gear mechanical + AC variable frequency or DC stepless speed regulating to realize large torque with thread cutting and constant linear turning function.
4. Guide way of crossbeam and ram take auto lubricating pump to regularly lubricate. The guide way of worktable is divided into static and dynamic pressure guide.
5. High-precision ball screw adopts Technics Equipment Manufactory of Nanjing or THK Japan, and has imported bearing supporting.
6. It is equipped with high-precision gear box (grade6) and spiral bevel gear (grade 6) with low noise and high accuracy rotating function.
7. High quality castings are treated by artificial thermal aging treatment. Crossbeam guide way is treated by supersonic frequency process, lasting and durable.
8. Siemens 828D system is adopted (optional Fanuc Oi-TD) with 100% manual operation.

9. The independent electric cabinet is equipped with air conditioning for refrigerating, high quality electric parts and perfect distribution process to insure the high reliability.
10. Perfect processing and assemble process is kept to ensure the product quality with high stable and reliable.
11. Optional function: grating closed-loop imported bearing : lengthening ram and cooling oil.etc

Main technical specification

Fixed beam CNC vertical lathe	Unit	CK5225	CK5231	CK5240	CK5250	CK5263	CK5280
Max. turning diameter	mm	2500	3200	4000	5000	6300	8000
Worktable diameter	mm	2250	2830	3150/3600	4000/4500	4500/5000	6000
Max. height of work piece	mm	1000	1000	1000	1200/1600	1200/1600	1200/1600
Max. weight of work piece	T	16	16	16/32	32/50	32/50/80/100	100/150
Max torque of worktable	nm	63000	63000	63000/80000	80000/100000	80000/100000 /250000	150000/250000
Variable speed stage of worktable		4	4	4/2	2	2	2
Variable speed range of worktable	r/min	1-63	1-63	1-63	0.5-50	0.5-40	0.1-20
Max cutting force of right tool post	mm	35	35	35	35/50	35/50/80	80/120
Max cutting force of left tool post	mm	30	30	30	30/40	30/40/70	70/100
Servo feeding range	mm	0.1-2000	0.1-2000	0.1-2000	0.1-2000	0.1-2000	0.1-2000
Horizontal stroke of tool post	mm	1500	1850	2250	2750	3500	4450
Vertical stroke of tool post	mm	1000	1000	1000	1250/1600	1250/1600	1250/1600
Feeding stage of left tool post		18	18	18	18	18	Stepless
Fast moving speed of right tool post	mm/min	6000	6000	6000	6000	6000	6000
Max swivel angle of tool post	°	± 30	± 30	± 30	± 30	± 30	± 30
Positioning accuracy	mm	0.03	0.03	0.03	0.03	0.03	0.03
Repeatability positioning accuracy	mm	0.015	0.015	0.015	0.015	0.015	0.015
Machining accuracy		IT7	IT7	IT7	IT7	IT7	IT7
Main electric motor power	Kw	55	55	55/75	75/90	75/90/110	110
Guide way form of worktable	Static pressure						
Weight of machine (about)	T	25	29	35/45	50/55	60/70/120	150/180

CNC single column vertical lathe (Professional Type)-----
-----CK5112E/CK5116E/CK5123E/CK5126E



数控单柱立式车床CK5123E

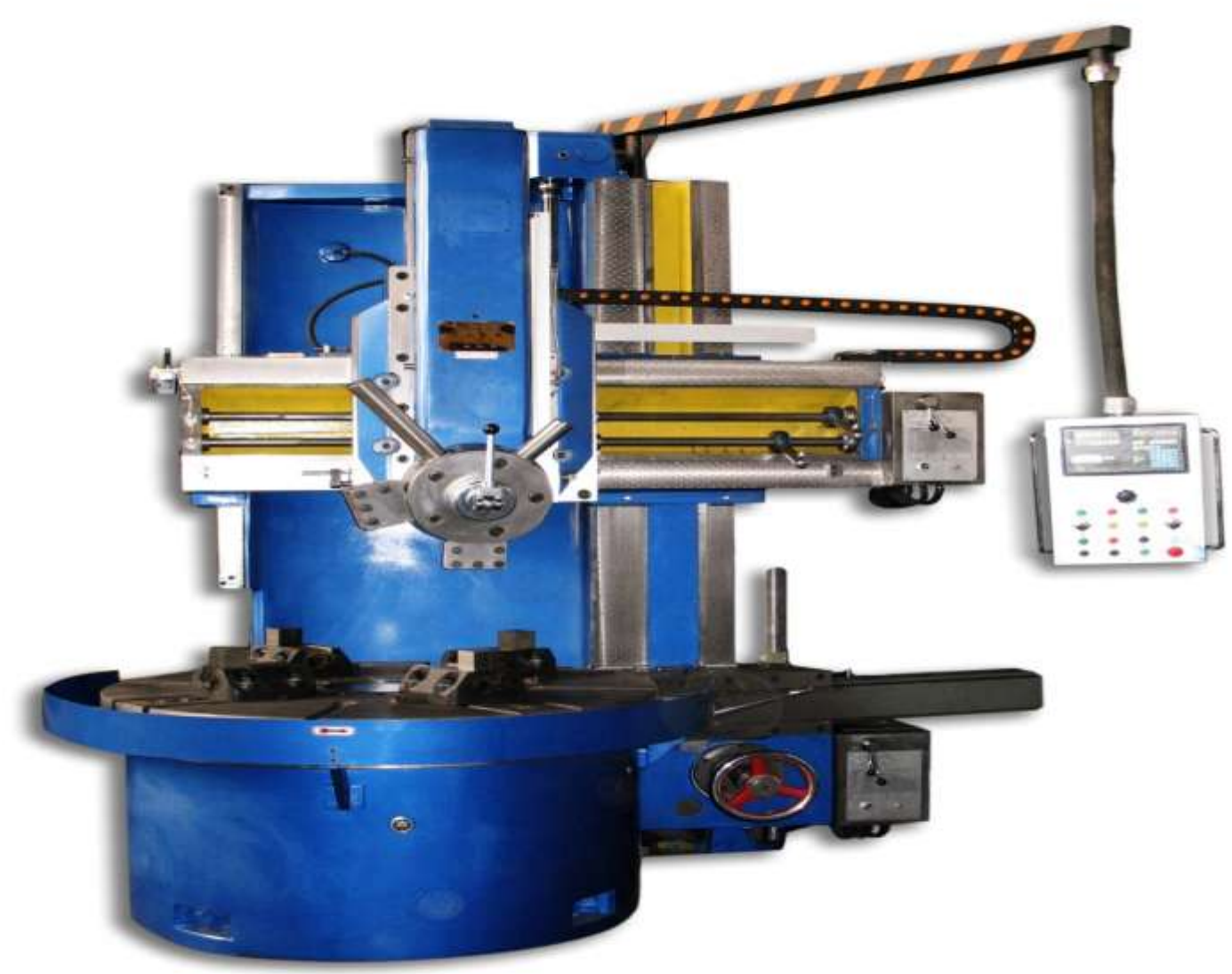
1. Professional design, mature technology and reliable quality, square ram type with electric tool carrier with four station type for option.
2. The worktable has waterproof function with constant linear speed turning and cutting thread function, etc.
3. The surface of crossbeam and T-type ram guide way are treated by supersonic frequency quenching (>HRC50). Sliding surface is sticking with plastic belt, lasting and durable. The material of square ram is QT600
4. Siemens 828d system is adopted (optional Fanuc Oi-TD system).
5. Both servo motor and drive adopt Siemens original manufactory products.
6. The independent electric cabinet is equipped with air refrigerator: free effect from vibration and convenient to maintenance
7. Crossbeam is protected by white steel: all the lubrication parts are supplied oil by automatic lubricating pump. It is equipped with independent hydraulic station.
8. Four gears mechanical variable speed + variable frequency motor stepless varied speed. wide range

- constant power and large torque.
9. High-precision gear box (grade6) and spiral bevel gear (grade6) with the advantage of low noise and high accuracy rotation function.
- 10.All the castings use gray casting iron (square ram ductile iron) through artificial thermal aging treatment
- 11.All the electric components, bearing, key parts ,hydraulic parts are from international famous brand manufacturers, complete configuration
- 12.Optional function: German Mecano button station, cross flow static pressure guide, semi-closed protection, chip conveyor, trolley, oil temperature cooling refrigerator, and hydraulic station etc.

Main technical specification

Term	Unit	CK5112E	CK5116E	CK5123E	CK5126E
Max. turning diameter	mm	1250	1600	2300	2600
Worktable diameter	mm	1000	1400	2000	2250
Max. height of workpiece	mm	1000/1200	1200/1400	1400/1600	1600/2000
Rotating range of worktable	r/min	0.5-250	0.5-200	0.5-100	0.5-80
Mechanical stage number of variable speed	Four gears +stepless				
Max. cutting force of tool post	Kn	25	25	25/32	25/32
Max. torque of worktable	nm	25000	32000	40000	45000
Horizontal travel of tool post	mm	850	1020	1400	1500
Vertical travel of tool post	mm	700	800	1000/800	1000/800
Tool carrier station form	4 station			Electric tool carrier with four station/square tool carrier	
Crossbeam travel	mm	650	850/1000	1050/1250	1250/1650
Tool post fast moving speed	mm	6000	6000	6000	6000
Crossbeam moving speed	mm/min	440	440	440	440
Sectional dimension of tool bar	mm	32*32/40*50			
Main electric motor power	Kw	30/37	45/55	45/55	45/55
Positioning accuracy	mm	0.03	0.03	0.03	0.03
Repositioning accuracy	mm	0.015	0.015	0.015	0.015
Machining accuracy	IT7				
Overall size	mm	2360*2277*3403	2660*2660*3698	3310*3245*4010	3675*3355*5100
Weight of machine tool	T	8	12.6/13.5	18/19	24/26

CNC single-column vertical lathe(Economic type) -----
-----CK5112E/CK5116E/CK5123E/CK5126E



单柱立式车床 C5112E

- 1. High cost performance and reasonable price
- 2. It is equipped with suspensions type of button station and integrated design for electric cabinet and lathe.
- 3. It adopts quenching crossbeam and T Ram (optional square ram) with paste plastic belt rail
- 4. Standard configuration is 16 grade mechanical variable speed, and five station tool carrier or square tool carrier.
- 5. Siemens 802c system is adopted (optional others).
- 6. Closed protection for crossbeam and auto lubrication for lubricated parts.
- 7. It carries out JB/T9934.2-1999 CNC vertical lathe technical condition and JB/T9934.1-1999 CNC vertical lathe precision inspection.
- 8. Optional function: variable frequency stepless speed, electric tool carrier and heightening bed, etc.
- 9. Reliable quality and perfect after sale service
- 10. Reasonable price

Main technical specification

Term	Unit	CK5112E	CK5116E
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Max. turning diameter of worktable	mm	1250	1600
Worktable diameter	mm	1000	1400
Max. height of workpiece	mm	1000/1200	1200/1400
Rotating range of worktable	r/min	5-160	5-160
Mechanical stage number of variable speed		16	16
Max. cutting force of vertical tool post	Kn	30 square ram/25 electric tool carrier	
Max. torque of worktable	Kn.	17.5	25
Horizontal stroke of vertical tool post	mm	850	1020
Vertical stroke of vertical tool post	mm	650	800
Tool station carrier form	Square tool carrier/electric tool carrier with 5 station		
Crossbeam stroke	mm	650/850	850/1050
Feeding speed of tool post	mm/min	0.1-500	0.1-500
Tool post rapid moving speed	mm/min	6000	6000
Crossbeam lifting speed	mm/min	440	440
Sectional dimension of tool bar	mm	40*40/32*32	40*40/32*32
Main electric motor power	Kw	22	30
Positioning accuracy		0.03	0.03
Repeatability positioning accuracy		0.015	0.015
Machining accuracy	IT7		
Overall size	mm	2360*2277*3403	2660*2660*3698
Machine weight	T	8	12/14

(DVT)CNC double columns vertical lathe-----
-----CK5240/CK5250/CK5263/CK5280



1. It adopts modern advanced technology for vertical lathe integrating mechanic, electric and hydraulic technologies as whole unit.
2. Siemens 828D or 840D CNC system Fanuc OI-TD system is adopted as well 100 % manual operation function.
3. 2-gear mechanical variable speed + DC motor stepless speed regulating with large torque to realize constant linear cutting
4. High-quality castings are treated by thermal aging treatment.
5. The guide on the crossbeam is sticking with chromium-tungsten manganese plate.
6. Left tool carrier is conventional and the right is CNC. Both can be CNC tool carrier.
7. The guide way of worktable uses constant current oil supplied by constant motor with accuracy and stability: hydraulic oil adopts refrigerator constant cooling effectively reducing the variant of worktable to ensure precision machining of worktable.
8. Each sliding lubrication parts adopts auto lubrication pump to supply oil in fixed quantity and time.
9. High-precision screw lead and imported bearings support
10. It carries out JB/T9934.2-1999CNC vertical lathe technical condition.
11. Gearbox uses high precision grinding gear.
12. Standard configuration: crossbeam with white steel protection and walking platform.
13. Import large quantities of functional components (Servo motor, servo drive, hydraulic, bearings, lead screw. planetary reducer, etc.)
14. Perfect after-sales service.

Main technical specification

Term	Unit	CK5240	CK5250	CK5263	CK5280
Max. turning diameter	mm	4000	5000	6300	8000
Worktable diameter	mm	3600	4000/4500	4500/5000/5700	6000/7200
Max. height of work piece	mm	2500/3150/4000	2500/3150/4000	3150/4000	4000/4500
Max. weight of workpiece	T	32/50	32/50	50/100/150	150/250
Max. cutting force of right tool post	Kn	50	50	50/80/120	120
Max. cutting force of left tool post	Kn	40	40	40/70/100	100
Max. total cutting force	Kn	90	90	150	220
Max. torque of worktable	nm	100000	100000	100000/150000/250000	200000/400000
Stage number of variable speed of worktable	Two gears				
Variable speed range of worktable	r/min	0.5-63	0.5-50	0.5-40	0.2-20/0.1-16
Feeding stage number	AV servo stepless				
Feeding range	Mm/min	0.1-2000	0.1-2000	0.1-2000	0.1-2000
Horizontal stroke of tool post	Mm	2200	2800	3450	4350
Vertical stroke of tool post	Mm	1250/1600/2000	1250/1600/2000	1600/2000	1600/2000/2500
Crossbeam moving speed	Mm/min	380	380	380	380
Tool post rapid moving speed	Mm/min	4000	4000	4000	4000
Max. swivel angle of tool post	°	± 30	± 30	± 30	± 30
Positioning accuracy	Mm	0.03	0.03	0.03	0.03
Repeatability positioning accuracy	Mm	0.015	0.015	0.015	0.015
Machining accuracy	IT7				
Main electric motor power	Kw	DC75	DC75	DC90/110	DC110/132
Overall size	mm	5840*5040*4380	6715*11620*8520	8100*13080*8520	1000*15000*8925
Weight of machine tool	T	92/96	108/115	118/127/178	270

CNC double columns vertical lathe -----CK5225E/CK5228E/CK5231E/CK5235E/CKQ5240E



1. This series products use modular design with function options. Right tool holder is NC tool post and the left is conventional tool post.
2. Right tool carrier is CNC type and left is conventional.
3. Siemens 828DSL CNC system (optional Fanuc OI-TD system)
4. 100% manual operation function, convenient and practical
5. four gears mechanical varied speed + large power DC motor stepless speed regulating with large torque to realize constant, linear speed turning
6. high quality castings by thermal aging treatment
7. The crossbeam guide way is treated by supersonic frequency quenching and guide way uses sliding and rolling compound type. The vertical tool post uses square ram to realize heavy cutting. The surface of sliding is sticking with plastic belt durable and lasting.
8. Crossbeam guide way, ram guide way and columns guide way are used auto lubrication pump to supply oil in fixed quantity and time.
9. Nanjing process or THK high-precision lead screw and imported bearing support.
10. The worktable uses static pressure guide way and cross flow oil is supplied by synchronous shunt motor with carrying capacity 16-20 ton.
11. The independent electric cabinet is equipped with air conditioning for refrigerating, high quality brand electric components with reliability.

12. With the independent hydraulic station it is easy to adjust, repair and maintain.
13. It carries out JB/T9934.1-1999 CNC vertical lathe precision inspection and JB/T9934.2-1999 CNC vertical lathe technical condition.
14. High precision gear box (6 grade) and spiral bevel gear (grinding gear 6 grade) with low noise and high rotation precision
15. independent R&D, producing, installing, debugging, training and perfect after sales service

Main technical specification

Term	Unit	CK5225E	CK5228E	CK5231E	CK5235E	CKQ5240E
Max. turning diameter	mm	2500	2900	3200	3500	4000
Worktable diameter	mm	2250	2250	2250/2830	2830/3150	2250/2830/3150
Max. height of work piece	mm	1600/2000/2500	2000/2500	2000/2500	2000/2500	2000/2500
Max. weight of work piece	T	16	16	16	16	16
Max. cutting force of right tool post	Kn	35	35	35	35	35
Max. cutting force of left tool post	Kn	30	30	30	30	30
Max. torque of worktable	Kn	63	63	63	63	63
Stage number of variable speed of worktable	Four gears+steples					
Variable speed range of worktable	r/min	0.5-63	0.5-63	0.5-50	0.5-50	0.5-50
Feeding range	mm/min	0.1-2000	0.1-2000	0.1-2000	0.1-2000	0.1-2000
Horizontal travel of tool post	mm	1400	1600	1730	1880	2250
Vertical travel of tool post	mm	1000/1250	1000/1250	1000/1250	1000/1250/1600	1000/1250/1600
Crossbeam moving speed	mm/min	350	350	350	350	350
Tool post rapid moving speed	mm/min	6000	6000	6000	6000	6000
Max. swivel angle of worktable	°	±30	±30	±30	±30	±30
Positioning accuracy	mm	0.03	0.03	0.03	0.03	0.03
Repeatability positioning accuracy	mm	0.015	0.015	0.015	0.015	0.015
Machining accuracy	IT7					
Main electric motor power	Kw	55	55	55	55	55
Guide way form of worktable	mm	Hydratic/static pressure				
Weight of worktable	T	32/34/35	35/36	36/40/48	39/41	45/48

Conventional single column vertical lathe -----C5112E/C5116E/C5120E/C5123E/C5126E



单柱立式车床 C5116E

出口型四轴数显

- 1. With perfect-technology, processing and assembly process, the quality is over domestic market in line.
- 2. The crossbeam guide and ram guide are treated by supersonic frequency quenching (HR≥50). Sliding surface is sticking with plastic belt, sustained precision and long life.
- 3. High quality castings adopt thermal aging treatment with no weight loss treatments.
- 4. Five angle station tool carrier uses high precision mouse teeth positioning plate with 120 equal dividing and positioning and perfect rigidity.
- 5. Standard equipment is 2 axis digital display (optional 4 axis digital display).
- 6. High quality electrical components and Japan Omron PLC control standardized wiring process with high reliability.
- 7. Electric rotary valve and 16 grade mechanical varied speed convenient, flexible and reliable.

8. It carries out JB/T4116-96 vertical lathe precision inspection and JB/3665-96 vertical lathe technical condition.
9. Complete configuration and perfect after sales service.
10. Optional function: German Mecano button station, lengthening ram and heightening bed, etc.

Main technical specification

Term	Unit	C5112E	C5116E	C5120E	C5123E	C5126E
Max. turning diameter of vertical tool post	mm	1250	1600	2000	2300	2600
Max. turning diameter off side tool post	mm	1100	1400	1800	2000	2400
Worktable diameter	mm	1000	1400	1800	2000	2250
Max. height of work piece	mm	1000/1200	1200/1400/1650	1250/1400	1400/1600/2000	1600/2000
Max. weight of work piece	T	3.2	5	8	8	10/16
Rotating Rang of worktable	r/min	6.3-200	5-160	3.2-100	3.2-100	2-63
Variable speed stage number of worktable		16	16	16	16	16
Feeding range of vertical and side tool post	mm/min	0.8-86	0.8-86	0.8-86	0.8-86	0.8-86
Feeding stage number of vertical and side tool post		12	12	12	12	12
Max. cutting force of vertical tool post	Kn	20	25	25	30	30
Max. cutting force of side tool post	Kn	20	20	20	20	20
Max. total cutting force	Kn	35	40	40	40	40
Max. torque of worktable	nm	17500	25000	32000	32000	45000
Feeding range of vertical and side tool post	mm/min	0.8-86	0.8-86	0.8-86	0.8-86	0.8-86
Horizontal travel of vertical tool post	mm	700	915	1200	1300	1500
Vertical travel of vertical tool post	mm	650	800/1000	800	800/1000/1300	1000/1300
Horizontal travel of side tool post	mm	630	630	630	630	630
Vertical travel of side tool post	mm	900	900	900	900	900
Crossbeam travel	mm	650	650/850/1100	850	1050/1250	1250/1650
Vertical and side Tool post rapid moving speed	mm/min	1800	1800	1800	1800	1800
Max. swivel angle of vertical tool post	°	±30	±30	±30	±30	±30
Crossbeam lifting speed	mm/min	440	440	440	440	440
Sectional dimension of tool bar	mm	40*40	40*40	40*40	40*40	40*50
Feeding electric motor power	Kw	1.3/1.8	1.3/1.8	1.3/1.8	1.3/1.8	1.3/1.8
Main electric motor power	Kw	22	30	30	30	37
Overall size(L*W*H)	mm	2360*2277*3403	2660*2660*3698	3135*3037*3910	3310*3245*4010	3675*3355*5100
Weight of machine tool	T	8	12.8/14/14.8	17	18/19/21	26/28

Note: Standard configuration of C5120E,C5123E and C5126E are without side tool post.

Double columns conventional vertical lathe

-----C5225E/C5228E/C5231E/C5235E/CQ5240E



双柱立式车床

C5228E

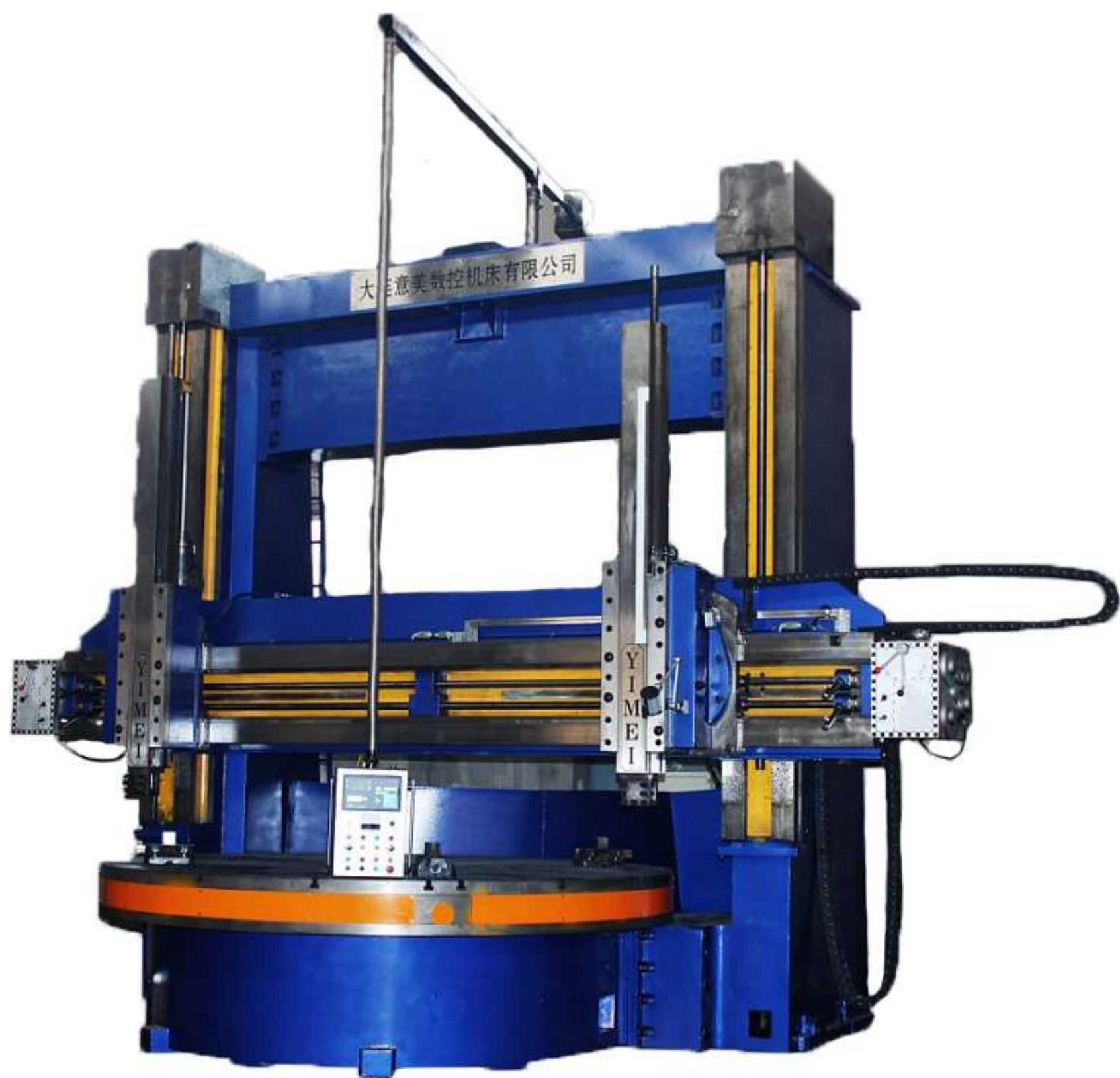
- 1 Modular design, product is mature, stable and reliable.
- 2 High quality casting by thermal aging treatment
- 3 The surface of cross beam guide is treated by supersonic frequency quenching, guide way is sliding and rolling compound type, vertical tool post uses ductile cast iron, the surface of sliding is sticking with plastic belt durable and lasting.
- 4 It is equipped with auto lubrication pump for each part of lubricated part.
- 5 High quality electrical parts and Japan Omron PLC control with high reliability
- 6 Divided into dynamic & static pressure guide and pure static pressure guide, dynamic pressure bearing 10 tons and static pressure bearing can be up to 16-20 tons.
- 7 Independent hydraulic station easy to adjust, repair and maintenance with grating display device.
- 8 High precision variable speed gear (6 grade) and grinding spiral level gear (7 grade) with low noise and smooth running.
- 9 Perfect processing and assembly technology maintains supersonic quality.
- 10 It carries out JB/T4116-96 CNC vertical lathe precision inspection and JB/3665-96 CNC vertical lathe technical condition.

11 complete configuration and perfect after sales service.

Main technical specification

Term	Unit	C5225E	C5228E	C5231E	C5235E	CQ5240E
Max. turning diameter	mm	2500	2900	3150	3500	4000
Worktable diameter	mm	2250	2250	2250/2830	2830/3150	2830/3150
Max. height of work piece	mm	1600/2000/2500	2000/2500	2000/2500	2000/2500	2000/2500
Max. weight of work piece	T	10/16	10/16	10/16	10/16	10/16
Max. cutting force of right tool post	Kn	35	35	35	35	35
Max. cutting force of left tool post	Kn	30	30	30	30	30
Max. total cutting force	Kn	65	65	65	65	65
Max. torque of worktable	nm	63000	63000	63000	63000	63000
Stage number of variable speed of worktable	16					
Variable speed range of worktable	r/min	2-63	2-63	2-63	2-63	2-63
Feeding range of tool post	mm	0.25-90	0.25-90	0.25-90	0.25-90	0.25-90
Horizontal travel of tool post	mm	1400	1600	1730	1880	2250
Vertical travel of tool post	mm	1000/1250	1000/1250	1000/1250	1000/1250/1600	1000/1250/1600
Crossbeam moving speed	mm/min	350	350	350	350	350
Tool post rapid moving speed	mm/min	1560	1560	1560	1560	1560
Max. swivel angle of tool post	°	±30	±30	±30	±30	±30
Main electric motor power	Kw	55	55	55	55	55
Weight of machine tool	T	32/35/37	34/36	36/40/42	43/45	48/50

CJ series double columns vertical lathe-----CJ5240/CJ5250/CJK5240/CJK5250



1CJ series vertical lathes are divided into CNC type and conventional type with economic useful, stable features with reasonable price and high cost performance, etc.

2The machine tool owes features of large worktable, big base, large bearing capacity and stability. The workpiece weight is 32 ton, maximum limit up to 40 ton.

3Left tool carrier is universal and the right is CNC control with function of cutting thread and constant linear turning.

Main technical specification

Term	Unit	CJ5240	CJ5250	CJK5240	CJK5250
Max. turning diameter	mm	4000	5000	4000	5000
Worktable diameter	mm	3600	4500	3600	4500
Max. height of work piece	mm	2500/3150	2500/3150	2500/3150	2500/3150

Max. weight of work piece	T	32	32	32	32
Max. cutting force of right tool post	Kn	35	35	35	35
Max. cutting force of left tool post	Kn	30	30	30	30
Max. total cutting force	Kn	65	65	65	65
Max. torque of worktable	nm	80000	80000	80000	80000
Stage number of variable speed of worktable	Two gears+stepless				
Variable speed range of worktable	r/min	0.5-50	0.5-40	0.5-50	0.5-40
Feeding stage number of vertical tool post	mm	Left 18/right stepless			
Horizontal stroke of tool post	mm	2350	2800	2350	2800
Vertical stroke of tool post	mm	1300/1600	1300/1600	1300/1600	1300/1600
Tool post rapid moving speed	mm/min	Left 1560 Right 6000			
Crossbeam moving speed	mm/min	350	350	350	350
Vertical tool post moving degree limit	°	±30	±30	±30	±30
Main electric motor power	Kw	DC75			
Overall size	mm	5800*5000*4600	6800*5600*4600	5800*5000*4600	6800*5600*4600
Weight of machine tool	T	62/65	72/75	62/65	72/75

数控落地镗铣床 TK6216E



1TK6216E boring and milling machine is integrated mechanic, electric and hydraulic technologies as a whole unit, mainly used for cutting the hole of large and medium boring parts, especially suitable for heavy cutting machine tool. It can completely finish machining of many processes like milling, boring, drilling, reaming and expanding, etc. more convenience work with rotary worktable.

2 X axis uses5 hydrostatic guide way: Y axis is sticking with plastic.

3 X Y Z axis are driven by ball screw lead.

4Main transmission 4 gear +mechanical various speed +AC frequency stepless speed regulating.

5 High quality castings are treated by thermal aging treatment.

6 Siemens CNC 802D and 3 axis linkage

7 Advanced electric device, top level components with high reliability

8The spindle uses BT50 tool holder broach with center water outlet and rigid tapping function.

9 Equipped with ptional ATC magazine and grating closed loop function etc.

10 Optional component, platform and rotary worktable

Main technical specification

Name	Unit	TK6216
Boring axis diameter	mm	160
Boring axis taper hole	mm	ISO50#
Max. torque of boring axis	n.m	13000
Main column travel(X)	mm	4000-16000 or 4000-16000 customize
Spindle box travel(Y)	mm	2200-4000 2200-4000 customize
Boring axis travel(Z)	mm	1200
Spindle rotary speed	r/min	3.2-800
Boring axis feeding range(Z)	mm/min	0.1-2000
Boring axis fast feeding speed(Y)	mm/min	6000
Spindle box feeding range(Stepless Y)	mm/min	0.1-2000
Spindle box fast feeding speed	Mm/min	6000
Main column feeding range(Stepless X)	Mm/min	0.1-2000
Vertical column fast feeding speed	Mm/min	6000
Main electric motor power(AC frequency servo)	kw	30/37
Total capacity of machine tool	kw	50
Overall size	mm	13480*4480*6100
Weight of machine	T	75
CNC system	Siemens 802D	

Note : Roller ball screw was used for transmission below 6000mm travel of axis while over 6000mm was adopted gear rack transmission.

CNC fixed-beam gantry guide-way grinding machine-----MKW53 series



1 MKW53 series machines are mainly used for grinding various forms of guide rail and large plane. the high grinding precision and efficiency with better universal function is the ideal equipment in the lathe industry.

2It adopts gantry layout and closed frame structure with high quality castings by thermal aging treatment. The guide way of worktable is hydrostatic and crossbeam is in-laid steel plate. Quality casting parts were treated by supersonic frequency quenching process. Long life and high precision.

3 There are two pallets on the beam separately installed with surrounding grinding head and universal grinding head and wheel dressers. Double grinding head respectively travels along pallet rail for vertical lifting movement and pallet along cross rail for horizontal movement.

4 Longitudinal movement of worktable is driven by hydraulic, stepless and smooth moving with oil temperature control device.

5 Surrounding grinding head vertical feeding, horizontal feeding movement, grinding wheel dressing feeding, universal grinding head vertical feeding movement, transverse feeding movement and revolve graduation all driven by AC servo system. Each feeding shaft can do fasting feed movement and continuous feed movement.

6 Siemens 840D CNC system is adopted (optional others). Not only for auto grinding cycle but also can

realize electric hand wheel manual control with 100% manual operation function.

7 Modular design, worktable increases one gear every one meter. Other functions with customer required: spindle motor frequency control, bump grinding CNC axis closed-loop control, grinding wheel online dynamic balance, etc

Main technical specification :

Model		Unit	MKW5312	MKW5316	MKW5320	MKW5325
Worktable	width	mm	1250	1600	2000	2500
	length	mm	2000--8000	2500--8000	3500--16000	4500-16000
Machining Size	width	mm	1400	2000	2400	3000
	length	mm	2000--8000	2500--8000	3500--16000	4500--16000
	height	mm	800	1000	1200	1200
Horizontal Grinding head	Gantry width	mm	1600	2200	2600	3200
	Spindle electric motor power	Kw	22	22	22	22
	Spindle rotary speed	r/min	1300	1300	1300	1300
	Min micro feeding number	mm	0.005	0.005	0.005	0.005
	Grinding wheel size	mm	ϕ500*100*203	ϕ500*100*203	ϕ500*100*203	ϕ500*100*203
Vertical grinding head	Spindle electric power	Kw	11	11	11	11
	Spindle rotary speed	r/min	1450/2970	1450/2970	1450/2970	1450/2970
	Grinding wheel size	mm	ϕ400*50*127	ϕ400*50*127	ϕ400*50*127	ϕ400*50*127
	Min micro feeding number	mm	0.005	0.005	0.005	0.005
Swivel angle of vertical grinding wheel head		°	±110	±110	±110	±110
Control system		SIEMENS 840D/810D				