Ryan precision

GLOBAL MARKETS

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SALES & SERVICE

139-2943-8020

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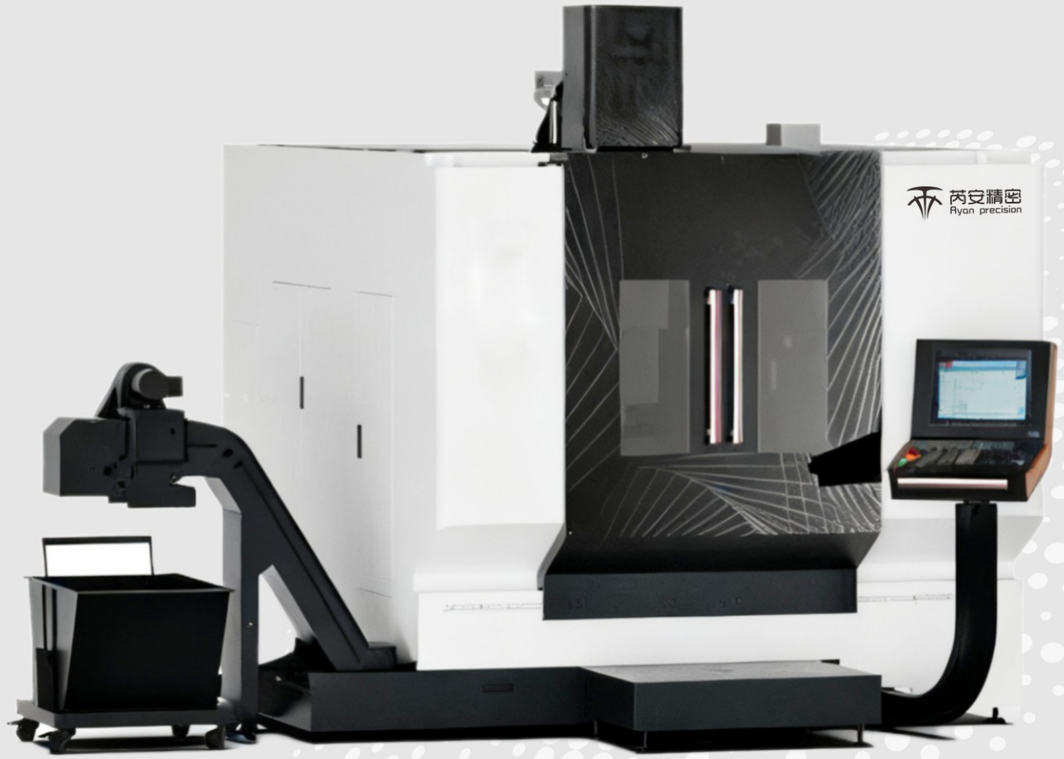
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HIGH-END CNC MACHINE TOOLS AND FLEXIBLE PRODUCTION LINES

RUIAN
PRECISION

COMPREHENSIVE CATALOG



DONGGUAN RUIAN PRECISION MACHINERY CO., LTD.

CONTENTS

ABOUT US 01

QUALITY INSPECTION 02

PRODUCT PREVIEW 04

VERTICAL MACHINING CENTER SERIES 06

5-AXIS MACHINING CENTER SERIES 08

DRILLING AND TAPPING CENTER SERIES 12

GANTRY MACHINING CENTER SERIES 14

HORIZONTAL MACHINING CENTER SERIES 16

VERTICAL AND HORIZONTAL MACHINING CENTER SERIES 18

QUALITY AND SERVICE 20



ABOUT RUIAN

PRECISION MACHINERY

Dongguan Ruian Precision Machinery Co., Ltd., established in April 2020, is a national high-tech enterprise integrating R&D, production, sales and service of intelligent equipment. Its precision equipment includes high-speed drilling and milling, vertical, horizontal, gantry and pentahedral machining centers.

Since its establishment, the company has pursued diligence, quality, innovation and shared success. Each machine is designed and manufactured for high precision, performance, efficiency and long service life.

A comprehensive management and quality assurance system, careful manufacturing and strict inspection underpin the quality of every machine and help customers stand out in competition.

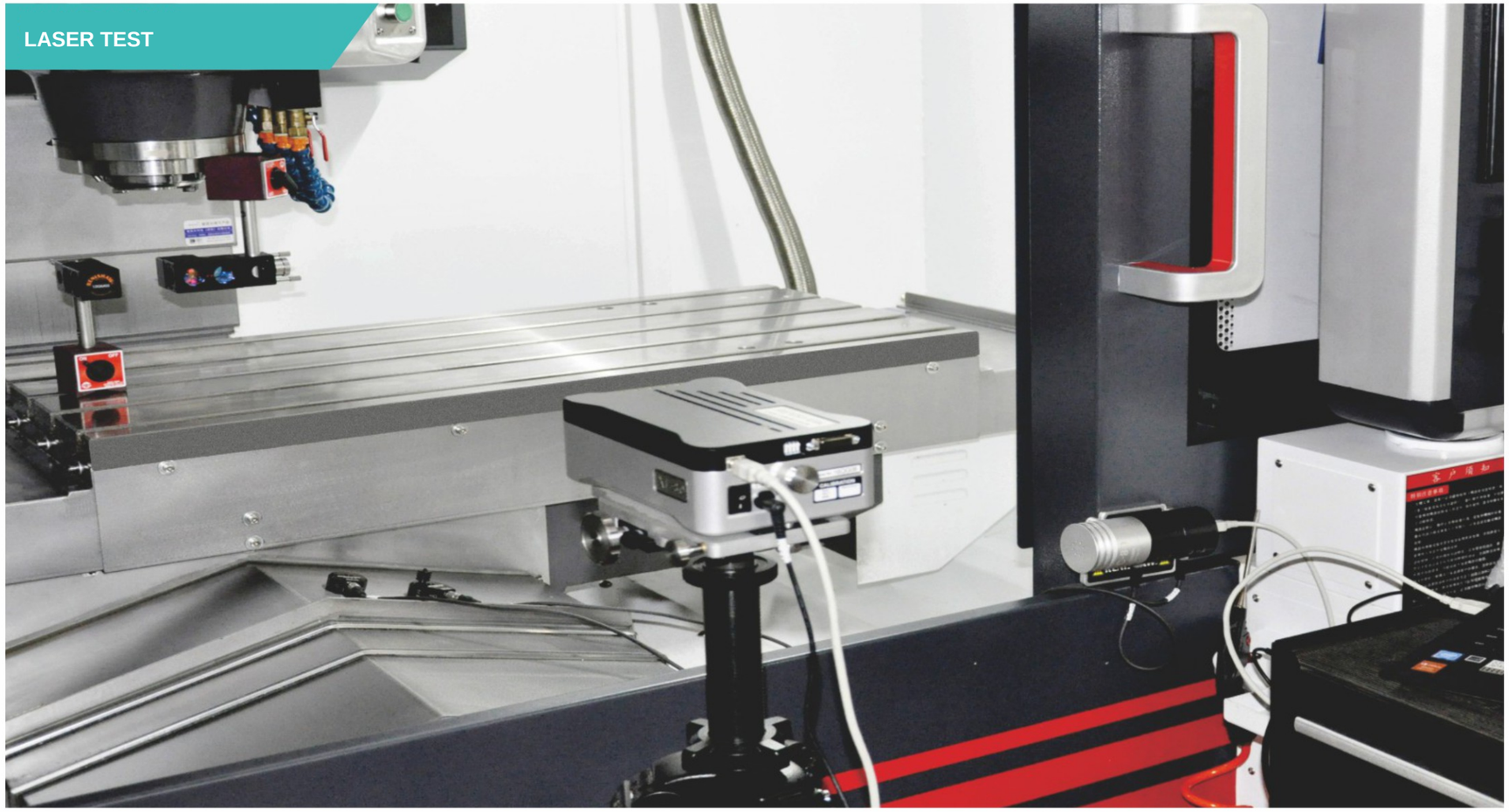
Ruian is committed to attentive, practical and professional service. Thank you for your support; we look forward to creating a bright future together.







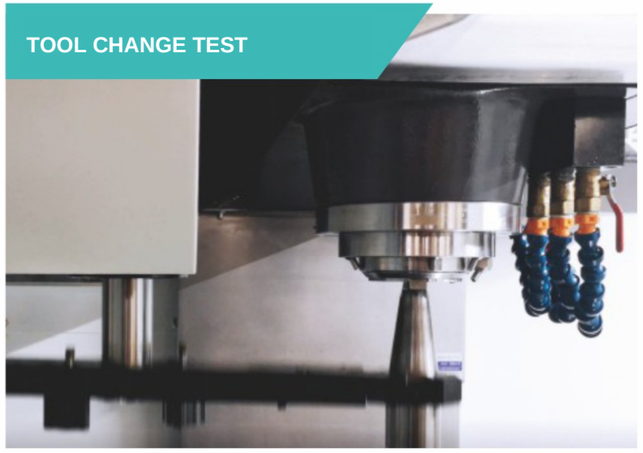




LASER TEST



BALLBAR TEST



TOOL CHANGE TEST

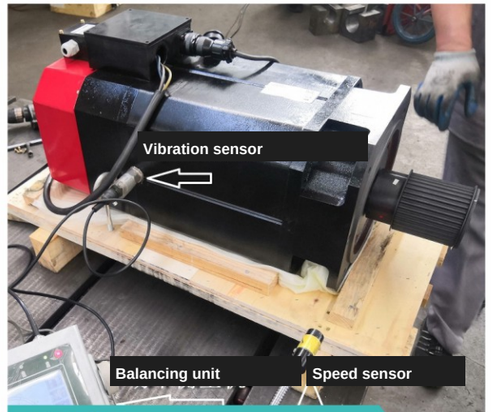
PRECISION INSPECTION IN EVERY DETAIL



3-AXIS GEOMETRIC ACCURACY



SPINDLE FACE RUNOUT



DYNAMIC BALANCING

The factory follows 6S management and ISO standards, using modular assembly and common components.





Meticulous production processes, skilled assembly techniques and strict inspection procedures.







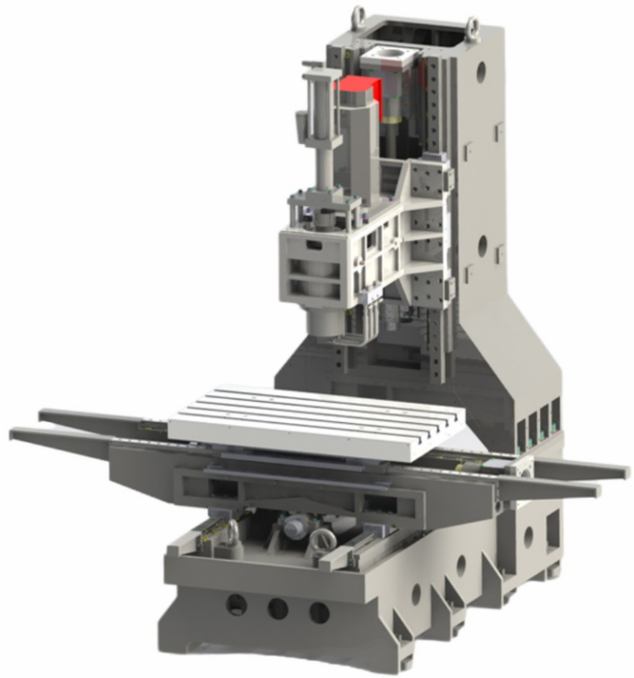




VERTICAL MACHINING
CENTER SERIES



PRECISION ENGINEERING
EXCEPTIONAL QUALITY



1. Six flange-type Z-axis guide blocks support powerful spindle cutting.
2. A counterweight-free headstock reduces vibration and inertial lag; a larger servo motor supports fast machine response.
3. A wide-span A-frame column, wider base and Y-axis rails, and increased spindle-slide spacing support stable cutting. The table slide spacing is designed around the Bessel support principle.
4. Precision pre-tensioned three-axis screws help limit thermal expansion and maintain positioning accuracy and repeatability.

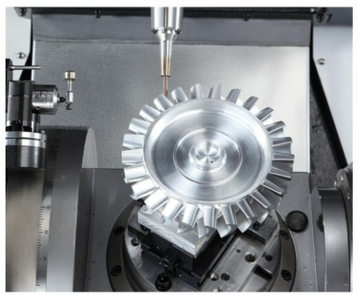
ITEM	UNIT	VMC645	VMC855	VMC966	VMC1060	VMC1165	VMC1270	VMC1370	VMC1580
X-axis travel	MM	600	800	900	1000	1100	1200	1300	1500
Y-axis travel	MM	450	550	600	600	650	700	800	800
Z-axis travel	MM	450	550	600	600	600	700	700	700
Table size	MM	700*420	1000*550	1000*550	1100*500	1200*600	1400*700	1400*800	1700*800
Maximum table load	kg	250	500	600	600	800	1000	1200	1500
Spindle nose to table	MM	135-585	120-670	120-720	120-750	130-730	120-820	120-820	135-835
Spindle center to column guide	MM	488	590	640	655	710	770	860	870
Spindle speed	rpm	STD 12000 / OPT 15000 direct	STD 8000 belt / OPT 10000 belt / OPT 12000 direct / OPT 15000 direct						
Spindle taper	/	BT40	BT40	BT40	BT40	BT40	BT40	BT40	BT50
Spindle motor power	KW	7.5	11	11	11	11	11	11	15
Spindle cutting torque	N.m	35.8-95.5	52.5-118	52.5-118	52.5-118	52.5-118	52.5-118	52.5-118	95.5-140
X/Y/Z axis motor power	KW	1.8/1.8/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0
X/Y/Z rapid traverse	M	48/48/48	36/36/36	36/36/24	36/36/36	36/36/36	36/36/36	36/36/36	24/24/24
Cutting feed rate	MM	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy	MM	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300
Repeat positioning accuracy	MM	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300
Number of tools	set	24	24	24	24	24	24	24	24
Controller	/	Mitsubishi / FANUC / SYNTEC							
Machine dimensions	MM	2000*2400*2600	2650*2822*2925	2580*2700*2440	2800*3200*2950	2900*3200*2950	2950*2990*3090	3800*3365*3100	4250*3881*3145
Approximate machine weight	kg	4000	4500	4700	5300	5800	6500	7000	8500

HEAVY-DUTY 5-AXIS
MACHINING CENTER SERIES

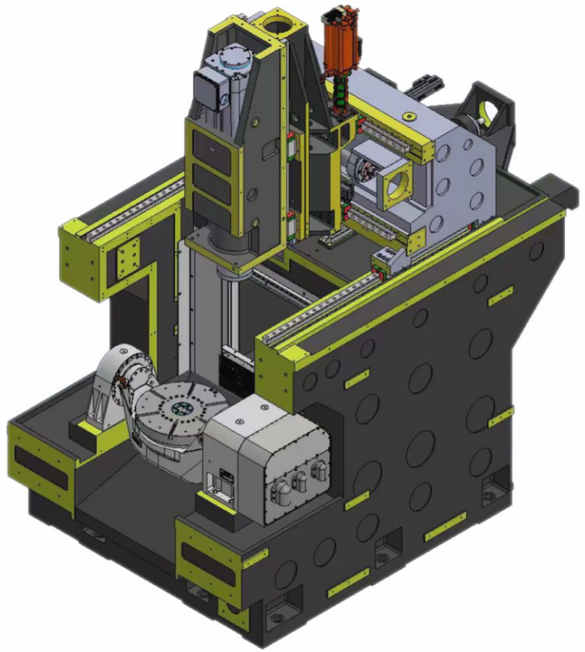


ENGINEERED FOR EFFICIENCY AND QUALITY









1 The bridge structure offers strong load capacity and long travel for large, heavy and complex workpieces.

2 Lightweight moving components respond quickly, reducing vibration and supporting high-precision machining.

3 The workpiece stays fixed while the spindle moves, supporting varied production and saving setup time and floor space.

ITEM	UNIT	TW400	TW500	TW650	TW800
X-axis travel	MM	500	550	700	850
Y-axis travel	MM	500	800	900	950
Z-axis travel	MM	450	550	500	600
A-axis travel	deg	±120	±120	±120	±120
C-axis travel	deg	Nx360	Nx360	Nx360	Nx360
Table diameter	MM	Φ400	Φ500	Φ630	Φ800
Maximum workpiece swing	MM	Φ640	Φ650	Φ800	Φ1000
Maximum workpiece load	KG	150	350	500	1200
Spindle nose to table	MM	100–550	150–700	120–620	180–780
Spindle speed	rpm	20000	20000	20000	20000
Spindle taper	/	HSK63	HSK63	HSK63	HSK63
Spindle motor power	KW	20	20	20	20
Spindle cutting torque	N.m	30/46	30/46	30/46	30/46
A/C axis motor torque	N.m	782/363	2440/782	1200/600	2200x2/2200
X/Y/Z axis motor power	KW	3.1/3.1/3.9	3.9/3.9/5.9	3.9/3.9/5.9	5.9/5.9/5.9
X/Y/Z rapid traverse	M	36/36/36	24/36/24	36/36/36	36/36/36
A/C rapid traverse	RPM	50/140	151/196	85/179	60/70
Cutting feed rate	MM	1–10000	1–10000	1–10000	1–10000
X/Y/Z positioning accuracy	MM	±0.005	±0.005	±0.005	±0.005
X/Y/Z repeat positioning accuracy	MM	±0.003	±0.003	±0.003	±0.003
A/C positioning accuracy	arc soc	±10	±10	±10	±10
A/C repeat positioning accuracy	arc soc	5	5	5	5
Braking method	/	Air / hydraulic			
Number of tools	set	24	32	32	32
Controller	/	SYNTEC / Siemens			
Machine dimensions	MM	3554*3450*3000	3854*3750*3300	4000*3676*3375	3938*3822*3547
Approximate machine weight	kg	7500	8500	10000	14000

5-AXIS MACHINING
CENTER SERIES





1 The vertical layout supports convenient clamping, tool changes and maintenance. Chips fall under gravity and are removed by the chip conveyor.

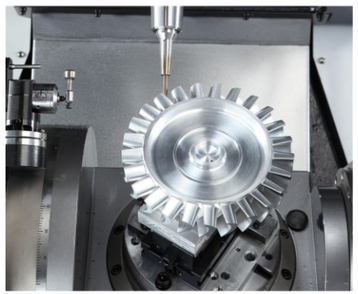
2 The compact footprint suits smaller or crowded workshops. Rapid setup and high-speed machining help produce small and medium complex parts, including molds and automotive components.

3 The simple structure offers lower purchase and transport costs than bridge or horizontal five-axis machines while meeting many complex machining needs.

ITEM	UNIT	U260	U320
X-axis travel	MM	600	800
Y-axis travel	MM	450	550
Z-axis travel	MM	330	550
A-axis travel	deg	± 120	± 120
C-axis travel	deg	Nx360	Nx360
Table diameter	MM	Φ260	Φ320
Maximum workpiece swing	MM	Φ400	Φ430
Maximum workpiece load	KG	60	120
Spindle nose to table	MM	55-385	110-660
Spindle speed	rpm	20000	12000
Spindle taper	/	BT30	BT40
Spindle motor power	KW	5.5/7.5	7.5/11
Spindle cutting torque	N.m	17.5/43	35.8/70
A/C axis motor torque	N.m	259/121	782/363
X/Y/Z axis motor power	KW	3.1/3.1/3.9	3.1/3.1/3.9
X/Y/Z rapid traverse	M	48/48/48	48/48/48
A/C rapid traverse	RPM	60/386	50/140
Cutting feed rate	MM	1-10000	1-10000
X/Y/Z positioning accuracy	MM	± 0.005	± 0.005
X/Y/Z repeat positioning accuracy	MM	± 0.003	± 0.003
A/C positioning accuracy	arc sec	± 10	± 10
A/C repeat positioning accuracy	arc sec	5	5
Braking method	/	Air / hydraulic	
Number of tools	set	21	24
Controller	/	SYNTEC / Siemens	
Machine dimensions	MM	1750*2350*2600	2650*2822*2925
Approximate machine weight	kg	3500	5000

ENGINEERED FOR EFFICIENCY AND QUALITY





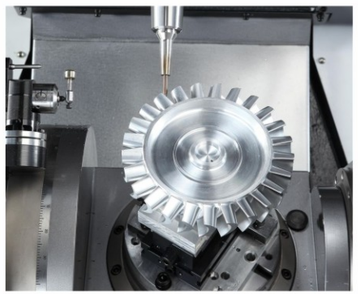


DRILLING AND TAPPING
CENTER SERIES



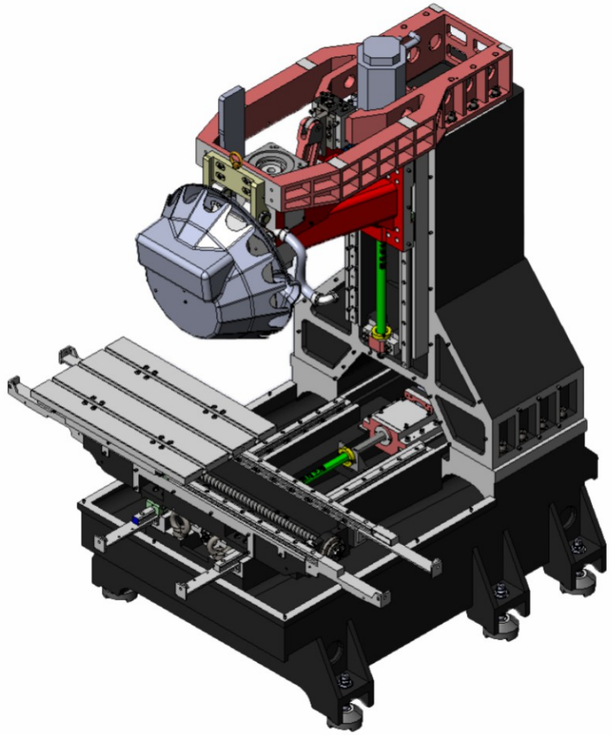
ENGINEERED FOR EFFICIENCY AND QUALITY







IMPORTED HIGH-PRECISION SCREW BEARINGS



1. Spindle speed: 15,000–24,000 rpm; rapid traverse: 48–60 m/min; tool change: 0.8–1.5 seconds. Suitable for aluminum, copper and plastics, including small hardware and consumer electronics parts.

2. The compact machine occupies one-half to two-thirds of the space of a conventional vertical machining center. It supports automatic feeding or robotic loading for 24-hour unattended production.

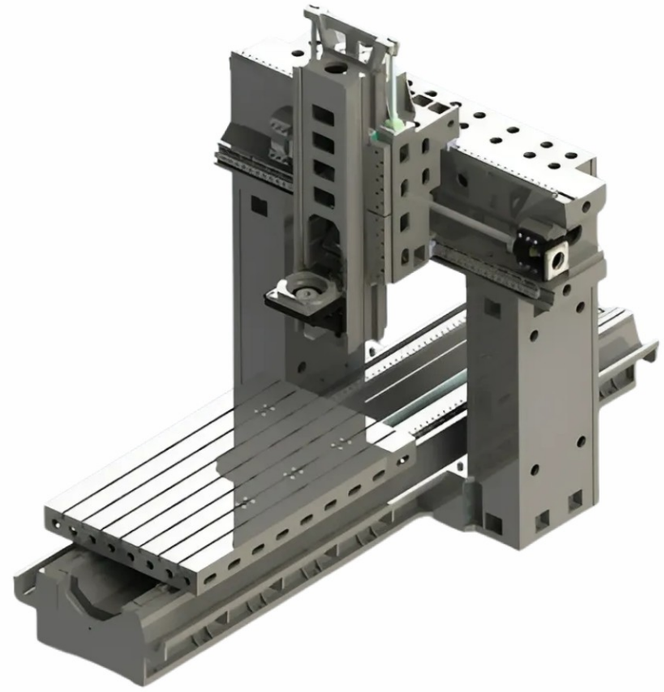
3. A 5.5–11 kW spindle motor, reliable construction and economical maintenance and tooling help control operating costs.

ITEM	UNIT	T6	T7
X-axis travel	MM	600	700
Y-axis travel	MM	400	400
Z-axis travel	MM	350	350
Table size	MM	700*420	780*420
Maximum table load	kg	250	250
Spindle nose to table	MM	150-500	150-500
Spindle center to column guide	MM	439	439
Spindle speed	rpm	STD 20000 direct	
Spindle taper	/	BT30	BT30
Spindle motor power	KW	7.5	7.5
Spindle cutting torque	N.m	35.8-95.5	35.8-95.5
X/Y/Z axis motor power	KW	1.8/1.8/3.0	1.8/1.8/3.0
X/Y/Z rapid traverse	M	48/48/48	48/48/48
Cutting feed rate	MM	1-10000	1-10000
Positioning accuracy	MM	±0.005/300	±0.005/300
Repeat positioning accuracy	MM	±0.003/300	±0.003/300
Number of tools	set	21	21
Controller	/	Mitsubishi / FANUC / SYNTEC	
Machine dimensions	MM	1800*2547*2924	2000*2574*2925
Approximate machine weight	kg	3000	3200

GANTRY MACHINING
CENTER SERIES



PRECISION AND EFFICIENCY FOR LARGE WORKPIECES



1 The twin-column gantry has a wide table and long X-axis travel for large workpieces. The fixed table simplifies setup; lifting devices and custom attachments can be added.

2 The rigid gantry frame supports heavy workpieces and helps limit deformation during machining.

3 A rigid beam and columns, precise spindle movement and high-precision guides support milling and boring of large workpieces.

4 Vertical, horizontal or universal milling heads can support five-face machining or five-axis linkage, completing milling, boring, drilling and tapping in one setup.

ITEM	UNIT	1012	1016	2015	2017	2019	3017	3019	4025	4027
X-axis travel	MM	1200	1600	2200	2200	2200	3200	3200	4200	4200
Y-axis travel	MM	1100	1100	1500	2100	2300	2100	2300	3000	3000
Z-axis travel	MM	800	800	800	1000	1000	1000	1000	1000	1000
Table size	MM	900 × 1400	900 × 1800	1300x2200	1600 × 2200	1800 × 2200	1600 × 3200	1800 × 3200	2200 × 4000	2500 × 4000
Maximum table load	T	1.6	2	5.5	4	4	6	6	17	19
Gantry column spacing	mm	1100	1100	1500	1800	2000	1800	2000	2500	2700
Spindle nose to table	MM	140–940	140–940	150–950	70–1070	70–1070	70–1070	70–1070	250–1250	250–1250
Spindle speed	rpm	STD 8000 belt				STD 6000 belt				
Spindle taper	/	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Spindle motor power	KW	11.0–15.0	11.0–15.0	11.0–15.0	11.0–15.0	15–18.5	15–18.5	15–18.5	15–18.5	15–18.5
Spindle cutting torque	N.m	105	105	105	105	143	143	220	220	220
X/Y/Z axis motor power	KW	3*3*3	3*3*3	3*3*3	3*3*3	3*3*3	5.5*5.5*5.5	5.5*5.5*5.5	5.5*5.5*5.5	5.5*5.5*5.5
X/Y/Z rapid traverse	MM	12*12*12	12*12*12	12*12*12	10*10*10	10*10*10	10*10*10	10*10*10	8*10*12	8*10*12
Cutting feed rate	MM	1–10000	1–10000	1–10000	1–10000	1–10000	1–10000	1–10000	1–8000	1–8000
Positioning accuracy	MM	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005	300/ ± 0.005
Repeat positioning accuracy	MM	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003	300/ ± 0.003
Number of tools	set	24	24	24	24	24	24	24	24	24
Controller	/	Mitsubishi / FANUC / SYNTEC / Siemens								
Machine dimensions	MM	4364*3600*3770	5682*4093*4250	6528*4410*4200	6820*4900*4730	6710*5110*4125	8482*4800*4750	8835*5625*5000	10387*5556*5980	10900*6567*5250
Approximate machine weight	T	12	13	14	18	20	22.5	23	32	35

HORIZONTAL MACHINING
CENTER SERIES



HIGH RIGIDITY, HIGH TORQUE AND HEAVY CUTTING



1. A fourth axis enables machining multiple faces in one setup. Continuous milling, drilling, boring and tapping reduce setup changes and help maintain dimensional consistency.

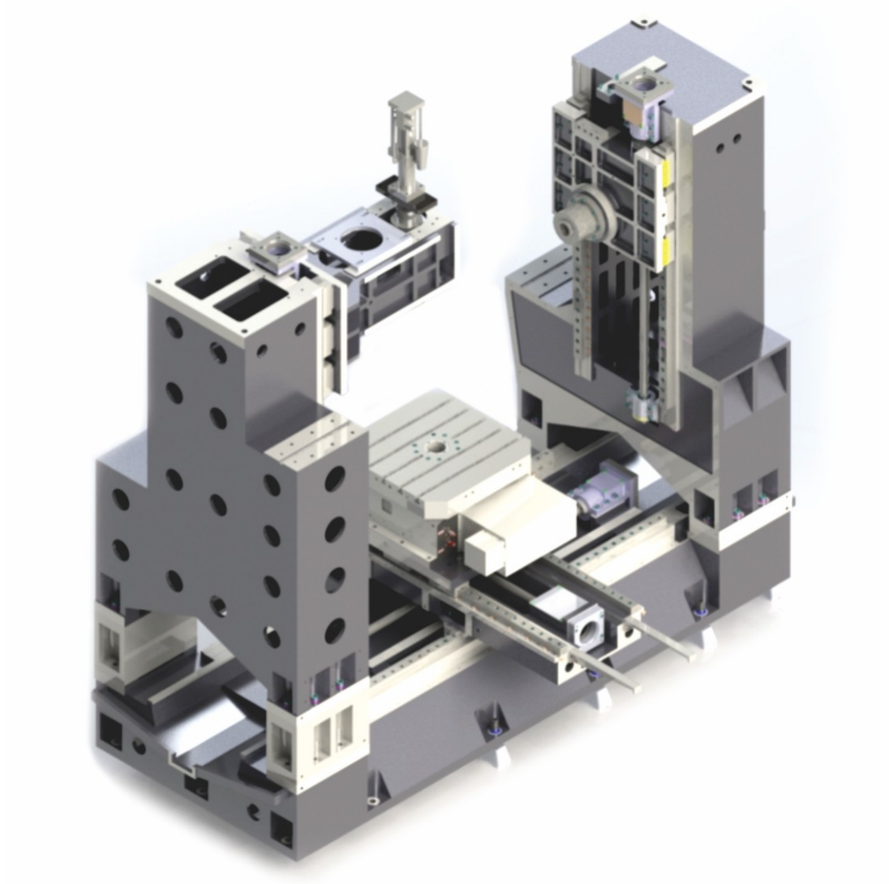
2. The horizontal spindle lets chips fall into the chip chute, reducing their effect on precision and tools. Suitable for steel and cast iron.

3. Suitable for gearbox housings, engine blocks and other box-shaped components with complex holes and contours.

4. Can integrate with robots and automated material storage for automated loading, unloading and workpiece transfer in larger production runs.

ITEM	UNIT	1165	1290	1380	1580	1814
X-axis travel	MM	1100	1200	1300	1500	1800
Y-axis travel	MM	650	900	1000	1000	1400
Z-axis travel	MM	750	700	800	800	900
Table size	MM	650*1200	700*1360	810*1500	810*1700	900*2000
Maximum table load	kg	800	1000	1500	1500	1600
Spindle center to table surface	MM	310-1060	60-960	370-1370	370-1370	20-1420
Spindle face to table center	MM	175-825	150-850	220-1020	220-1020	200-1100
Spindle speed	rpm	STD 8000 belt	STD 6000 belt	STD 8000 belt	STD 8000 belt	STD 6000 belt
Spindle taper	/	BT40	BT50	BT50	BT50	BT50
Spindle motor power	KW	11.0-15.0	11.0-15.0	15.0-18.5	15.0-18.5	15.0-18.5
Spindle cutting torque	N.m	105	105	143	143	143
X/Y/Z axis motor power	KW	3*3*3	3*3*3	3*3*3	3*3*3	3*3*3
X/Y/Z rapid traverse	MM	24*14*24	12*12*12	24*14*24	24*14*24	12*12*12
Cutting feed rate	MM	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy	MM	300/±0.005	300/±0.005	300/±0.005	300/±0.005	300/±0.005
Repeat positioning accuracy	MM	300/±0.003	300/±0.003	300/±0.003	300/±0.003	300/±0.003
Number of tools	set	24	24	24	24	24
Controller	/	Mitsubishi / FANUC / SYNTEC / Siemens				
Machine dimensions	MM	3853*2836*3694	4797*3628*3750	5113*5073*4205	4445*4168*4443	4945*4355*3666
Approximate machine weight	kg	6000	8000	9000	9500	12000

VERTICAL AND HORIZONTAL
MACHINING CENTER SERIES

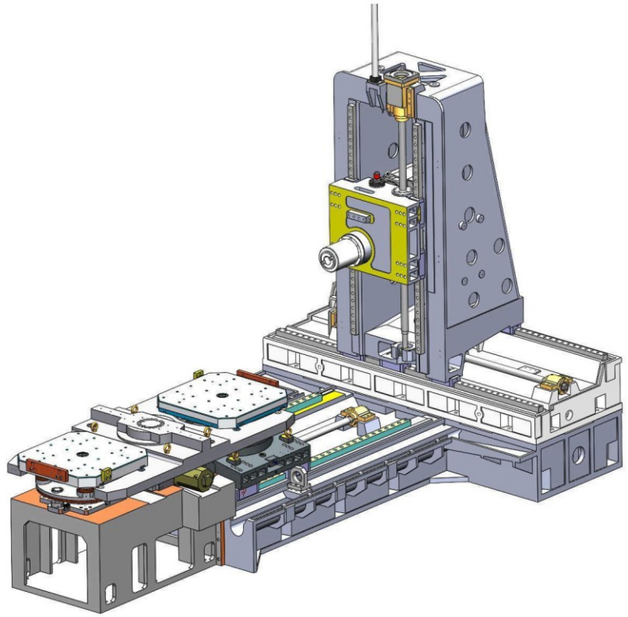


ENGINEERED FOR EFFICIENCY AND QUALITY

1 Vertical and horizontal machining in one machine saves equipment investment and floor space.

1 Multiple operations in one setup reduce clamping errors and production time.

1 Quick changeovers suit small and medium batches of different parts.



1 Parallel machining and clamping reduce waiting time and improve equipment utilization and productivity.

2 Precision positioning and a common reference help reduce vibration and thermal deformation.

3 Reduced manual intervention supports continuous production and flexible automation.

ITEM	UNIT	LW630	LW800	ZT630	ZT800
X-axis travel	MM	1100	1300	1100	1400
Y-axis travel	MM	1000	1300	900	1100
Horizontal / vertical up-down travel	MM	750	1000/800	1100	1200
Table size	MM	630*630	800*800	630*630	800*800
Number of tables	/	1	1	2	2
Maximum table load	kg	800	1500	1200	2000
Horizontal spindle center to table surface	MM	20–770	370–1370	80–980	100–1200
Horizontal spindle face to table center	MM	210–1210	250–1550	100–1200	150–1350
Vertical spindle center to vertical column guide	MM	700	865	–	–
Vertical spindle center to horizontal column guide	MM	1162	1360	–	–
Vertical spindle face to table surface	MM	105–855	385–1185	–	–
Vertical spindle speed	rpm	8000	8000	–	–
Horizontal spindle speed	rpm	8000	8000	6000	6000
Vertical spindle taper	/	BT40	BT50	–	–
Horizontal spindle taper	/	BT40	BT50	BT50	BT50
Spindle motor power	KW	11.0–15.0	11.0–15.0	15.0–18.5	15.0–18.5
Spindle cutting torque	N.m	105	105	143	143
X/Y/Z axis motor power	KW	3*3*3	3*3*3	3*3*3	5.5*5.5*5.5
X/Y/Z rapid traverse	MM	24*14*24	24*14*24	20*20*20	14*14*14
Cutting feed rate	MM	1–10000	1–10000	1–10000	1–10000
Positioning accuracy	MM	300/±0.005	300/±0.005	300/±0.005	300/±0.005
Repeat positioning accuracy	MM	300/±0.003	300/±0.003	300/±0.003	300/±0.003
Table indexing	°	1 or 0.001	1 or 0.001	1 or 0.001	1 or 0.001
Number of tools	set	24*2	24*2	32	32
Controller	/	Mitsubishi / FANUC / SYNTEC / Siemens			
Machine dimensions	MM	4891*4025*3275	5113*5074*4206	7100*5400*3533	7077*5525*3600
Approximate machine weight	kg	8500	12000	11000	23000

QUALITY AT EVERY STAGE

Building stability and durability into every machine

R&D QUALITY CONTROL

FEA, EMA, MAC, KGM, CSA and MQT support development by a professional R&D team.

MANUFACTURING QUALITY

In-house control covers rough and finish machining, heat treatment and final grinding.

INCOMING COMPONENT INSPECTION

Electronic collimators and coordinate measuring machines support inspection; spindles, heads, tool magazines and angle heads are made in-house.

ASSEMBLY QUALITY CONTROL

Hand scraping, electronic collimator calibration, assembly checks, PWM9 testing and final self-inspection.

FINISHED PRODUCT INSPECTION

Laser, dynamic circular and rotary correction checks are followed by final inspection.

QUALITY ASSURANCE AND VALIDATION

Functional tests, cutting and machining accuracy checks, customer-part trials and shipment inspection support customer requirements and quality standards.

INTELLIGENT CONTROLLER MANAGEMENT

HARTROL, HART and NETICT networking enable remote diagnostics and management.

SERVICE THROUGHOUT

YOUR MACHINE'S LIFECYCLE

Thank you for choosing Ruian Precision. We are committed to quality products and attentive service.

BEFORE SALES

We assess your requirements and working environment, then recommend or customize a suitable machine and processing plan.

DURING DELIVERY

We provide technical training and maintenance guidance, as well as installation and commissioning support.

AFTER SALES

We maintain service records, advise on product updates and improvements, and provide follow-up visits and equipment maintenance.

CNC MACHINE TOOL DEVELOPMENT AND MANUFACTURING