

Expert in the field of metal cutting machine tools



MILLING SERIES

PRECISION

Expert in the field of metal cutting machine tools

南京罗尔机械设备有限公司

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罗尔机械
ROLLEVER MACHINERY

ABOUT US

NANJING ROLL MACHINE TOOL CO.,LTD is a professional manufacturer and supplier of metal cutting machinery, which include CNC machining center,CNC lathe machine,manual lathe machine, pipe threading lathe , grinding machine, boring machine, gear making machine, EDM, radial drilling machine, universal milling machine,band saw,etc.

With over 10 years experience of exporting high quality CNC machines in international market,we service for customer all over the world ,such as Russia,Belarus,India,Vietnam,Turkey, Thailand,Poland,Slovakia,Hungary,Columbia,Mexico,Australia, Germany,Uzbekistan,Philippines....

Roll machine tool Committed to strict quality control and timely after-sales service,feedback would within 24 hours,Our mission is to provide customers with high quality,continuous and stable working machines.

Our company LOGO ROLLEVER means ROLL FOREVER.

HIGH SPEED HIGH PRECISION HIGH EFFICIENCY

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QUALITY INSPECTION

质量检测

The company has advanced testing equipment and a complete quality system. The company focuses on process control, strengthens process management, continuously optimizes production processes, improves production efficiency, and achieves lean production.



+ British Renishaw circular detector

Detecting the true roundness within the three planes (XY, XZ, YZ) of the machine tool can minimize the dynamic accuracy error of the machine tool and improve its geometric accuracy to the greatest extent possible

+ British Renishaw dual frequency laser interferometer

When conducting pitch error detection, the straightness of the linear axis guide rail in the XX and YY directions can be detected simultaneously, and the positioning accuracy and repeated positioning accuracy of the machine tool can be measured

+ German Zeiss coordinate measuring instrument (CONTARA-7106)

Used to detect precision components of machine tools, such as bearing seats, glands, motor flanges, spindles, etc. And the geometric tolerances and free surface tolerances of the whole machine processing sample.

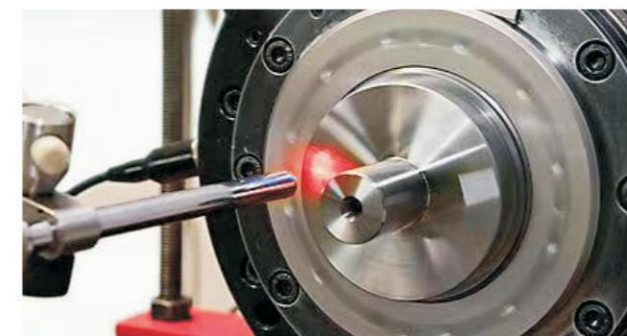
+ Taiwan fieldpaq II dynamic balance instrument

Dynamic balance vibration detection and correction for spindle dynamic balance system

HIGH PRECISION

高精度

During the assembly process, the machine tool undergoes dynamic balance testing, temperature rise testing, online vibration testing, and screw pre stretching technology to ensure good accuracy and precision retention of the machine tool



+ Dynamic balance test

Effectively reducing the vibration of the spindle during rotation and improving the surface smoothness of the processed workpiece



+ Online vibration detection

The machine tool undergoes online vibration detection during the assembly process to ensure compliance with high standard machining requirements



+ Torque wrench locking process standard

Torque wrench locking process standard, Ensuring the stability of assembly



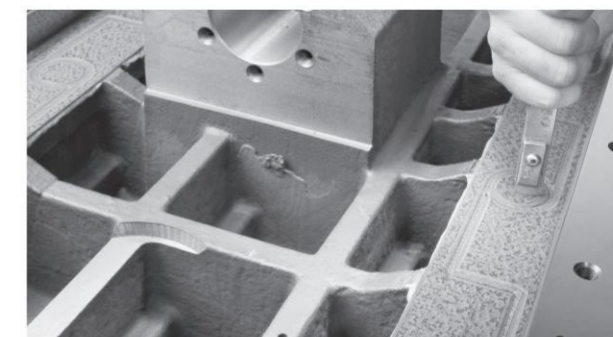
+ Double nut ball screw

High speed silent ball screw, no reverse clearance, high accuracy, fast speed



+ Pre stretching of lead screw

Effectively reducing the influence of screw heating on transmission accuracy, improving accuracy, and strengthening the influence of machine tool rigidity and thermal deformation resistance



+ Scraping

The important surface has been carefully scraped and polished to achieve maximum assembly accuracy, machine rigidity, and balanced load

硬轨加工中心系列

HARD RAIL

XYZ AXIS BOX GUIDE WAY VMC SERIES



质量 责任 信誉
QUALITY RESPONSIBILITY REPUTATION

MAIN CONFIGURATION



CONTROLLER: FANUC, MITSUBISHI, SIEMENS
SPINDLE: BT40/50 KENTURN, ROYAL, TD TAIWAN
XYZ AXIS BOX GUIDE: Adopting imported wear-resistant plates and heavy cutting guide rails, using precision scraping and lubrication to ensure high rigidity and stability
BALL SCREW: HIWIN/PMI TAIWAN MADE C3 LEVEL
ELECTRICAL PARTS: SCHNEIDER/SIEMENS
PNEUMATIC PARTS: JAPAN CKD/TAIWAN AIRTAG
ATC: OKADA/DEX TAIWAN
MPG handwheel: JAPAN brand

Application Industry
heavy duty, black metal

技术规格 Technical specification

ITEM	UNIT	VMC850B	VMC1060B	VMC1160B	VMC1270B	VMC1580B	VMC1690B
XYZ guide qty	pcs	2/2/2	2/2/2	2/2/2	2/4/2	2/4/2	2/4/2
XYZ axis travel	mm	800*500*550	1000*600*600	1100*600*700	1200*700*600	1500*800*700	1600*900*680
worktable size	mm	1050*500	1300*600	1300*600	1360*700	1700*800	1800*900
load capacity	kg	600	800	800	1200	1500	1600
T slot	mm	5-18/90	5-18/120	5-18/120	5-18/152.5	5-22/135	5-22/65
table to spindle nose	mm	105-605	180-780	180-780	150-750	170-870	160-840
spindle center to guide	mm	550	600	650	785	810	950
spindle taper		BT40	BT40	BT40	BT50	BT50	BT50
spindle speed	rpm	8000	8000	8000	8000	8000	8000
spindle motor	kw	11/15	11/15	11/15	15	18.5	18.5
XYZ axis motor	kw	2.0/2.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	4.5/4.5/4.5	4.5/4.5/4.5
XYZ rapid feed	m/min	14/14/16	14/14/16	16/14/16	10/10/12	10/10/12	12/12/12
cutting feed	m/min	0-8	0-8	0-8	0-8	0-8	0-8
position accuracy	mm	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300
repeat position	mm	±0.003	±0.003	±0.003	±0.003	±0.003	±0.003
ATC type		BT40-arm	BT40-arm	BT40-arm	BT50-arm	BT50-arm	BT50-arm
ATC capacity	pcs	24	24	24	24	24	24
power requirement	kva	25	30	30	35	40	40
air requirement	kg/cm	≥6	≥6	≥6	≥6	≥6	≥6
machine size	mm	2700*2850*3000	3100*3050*3150	3100*3050*3150	3500*3250*3200	4300*3550*3400	4500*3700*3500
machine weight	kg	5800	7000	7000	11000	12000	15000

NOTE: Please refer to the technical documentation for detailed technical parameters

立式加工中心 (两线一硬)

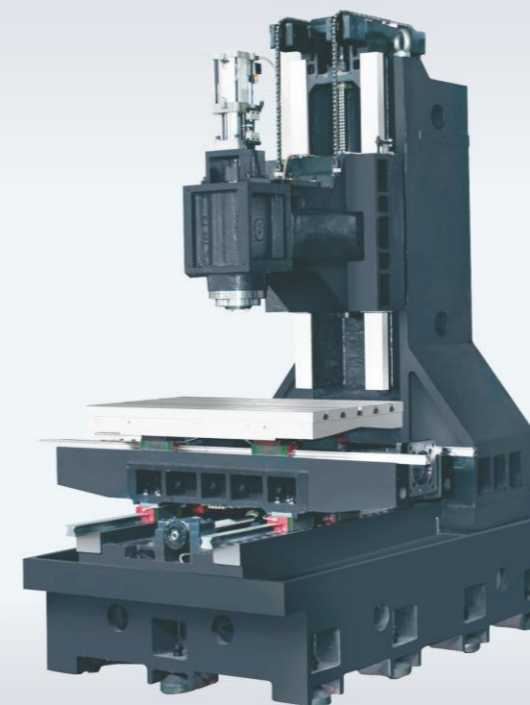
VERTICAL

XY AXIS LINEAR GUIDE WAY,Z AXIS BOX GUIDE VMC SERIES



质量 责任 信誉
QUALITY RESPONSIBILITY REPUTATION

MAIN CONFIGURATION



CONTROLLER: FANUC,MITSUBISHI,SIMENS
SPINDLE: BT40/50 KENTURN,ROYAL,TD TAIWAN
LINEAR GUIDE: HIWIN/PMI TAIWAN P4 ROLLER TYPE
BALL SCREW: HIWIN/PMI TAIWAN MADE C3 LEVEL
ELECTRICAL PARTS: SCHNEIDER/SIEMENS
PNEUMATIC PARTS: JAPAN CKD/TAIWAN AIRTAG
ATC: OKADA/DEX TAIWAN
MPG handwheel: JAPAN brand

Application Industry
 Mould, other high precision parts

技术规格 Technical specification

ITEM	UNIT	VMC-850	VMC-1060	VMC-1160	VMC-1270	VMC-1380	VMC-1580	VMC-1890
guide way		XY axis linear guide Z axis box guide						
worktable size	mm	500*1000	600*1300	600*1200	700*1360	800*1400	800*1700	900*1800
T slot		5-18*90	5-18*100	5-18*120	5-18*122	5-18*135	5-22*135	5-22*165
load capacity	kg	500	800	800	1000	1000	1500	1600
XYZ guide qty		2/2/2	2/2/2	2/2/2	2/4/2	2/4/2	2/4/2	2/4/2
XYZ travel	mm	800/500/500	1000/600/600	1100/600/600	1200/700/600	1300/800/700	1500/800/700	1800/900/720
spindle nose to table	mm	110-610	70-670	95-695	87-687	100-800	130-830	100-820
spindle center to column	mm	560	655	655	785	850	810	950
XYZ ball screw		4012	4012	4012	5010	5010	5010	5512
spindle taper		BT40	BT40	BT40	BT50	BT50	BT50	BT50
spindle diameter	mm	Φ150	Φ150	Φ155	Φ155	Φ155	Φ155	Φ190
spindle speed	rpm	10000	10000	10000	8000	8000	8000	8000
spindle motor	Kw	11/15	11/15	11/15	15/18.5	15/18.5	15/18.5	15/18.5
cutting feed		10	10	10	10	10	10	10
XYZ rapid feed	m/min	24/24/18	24/24/18	24/24/18	24/24/18	24/24/18	20/20/15	20/20/15
ATC		BT40-24T	BT40-24T	BT40-24T	BT50-24T	BT50-24T	BT50-24T	BT50-24T
position accuracy	mm	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300
repeat position	mm	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300
machine size	mm	2700*2400*2800	3000*2800*2900	3000*2600*2900	3600*3000*3100	4000*3100*3200	4200*3100*3200	4800*3300*3300
machine weight	kg	5500	7500	6500	8500	11000	13000	15000

NOTE:Please refer to the technical documentation for detailed technical parameters

立式加工中心 (三线)

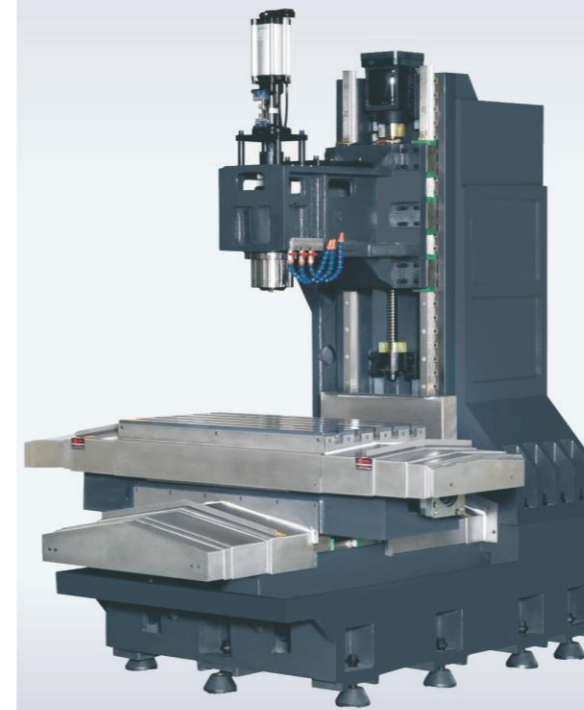
VERTICAL

XYZ AXIS LINEAR GUIDE WAY VMC SERIES



质量 责任 信誉
QUALITY RESPONSIBILITY REPUTATION

MAIN CONFIGURATION



CONTROLLER: FANUC, MITSUBISHI, SIMENS ETC
SPINDLE: BT40/50 KENTURN, ROYAL, TD TAIWAN
LINEAR GUIDE: HIWIN/PMI TAIWAN P4 ROLLER TYPE
BALL SCREW: HIWIN/PMI TAIWAN MADE C3 LEVEL
ELECTRICAL PARTS: SCHNEIDER/SIEMENS
PNEUMATIC PARTS: JAPAN CKD/TAIWAN AIRTAG
ATC: OKADA/DEX TAIWAN
MPG handwheel: JAPAN brand

Application Industry

Semiconductor, medical, and high-precision industries

技术规格 Technical specification

ITEM	UNIT	VMC850	VMC855	VMC1160	VMC1370	VMC1580	VMC1690
XYZ guide type	mm	3 axis heavy duty roller type linear guide					
worktable size	mm	500*1000	550*1000	600*1200	700*1400	800*1600	900*1800
T slot		5-18*102	5-18*90	5-18*100	5-18*110	7-22*110	5-22*165
load capacity	kg	500	600	800	1000	1500	1600
XYZ guide way	mm	35/35/35	35/45/45	45/45/45	45/45/45	55/45/55	55/45/55
XYZ travel	mm	800/500/500	800/550/550	1100/600/600	1300/700/700	1500/800/700	1600/900/800
spindle nose to table	mm	110-610	120-670	120-720	140-840	170-870	185-985
spindle center to column	mm	524	590	650	840	855	950
XYZ guide qty		2/2/2	2/2/2	2/2/2	2/2/2	2/4/2	2/4/2
spindle taper		BT40	BT40	BT40	BT50	BT50	BT50
spindle Dia	mm	Φ 140	Φ 150	Φ 150	Φ 155	Φ 155	Φ 190
spindle speed	rpm	10000	10000	10000	8000	8000	8000
spindle motor	kw	7.5/11	11/15	11/15	15/18.5	15/18.5	15/18.5
rapid feed	m/min	48/48/36	36/36/36	36/36/36	30/30/24	20/20/20	20/20/15
position accuracy	mm	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300
repeat position	mm	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300
XYZ ball screw	mm	3616	4016	4012	4012	5010	5512
XYZ motor	Kw	2/2/2.5	3/3/3	3/3/3	3/3/3	3/3/3	3/3/3
ATC	pcs	BT40-24T	BT40-24T	BT40-24T	BT50-24T	BT50-24T	BT50-24T
CNC		FANUC 0I MF PLUS as standrad					
Voltage		380V, 3PHASE, 50HZ					
Machine size	mm	3600*2300*2600	3800*2450*2800	4000*2450*2800	4300*2800*2900	5200*3100*3200	5500*3200*3300
Machine weight	kg	5200	5500	6000	7500	12500	15000

NOTE: Please refer to the technical documentation for detailed technical parameters

龙门加工中心系列

CANTRY

GANTRY MACHINING CENTER SERIES

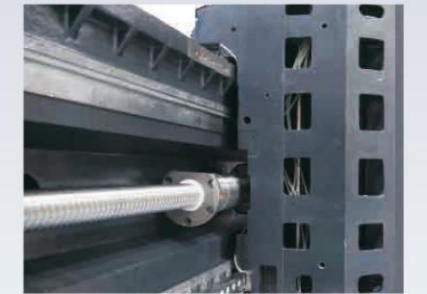


质量 责任 信誉
QUALITY RESPONSIBILITY REPUTATION

WIDE RANGE OF MODELS TO MEET CUSTOMER REQUIREMENT

Cross beam stepped structure design

◎ The Y-axis guide rail is designed in a stepped shape, with the minimum distance between the lower guide rail and the center of the spindle. Combined with heavy-duty roller sliders, it effectively offsets the flipping torque during processing



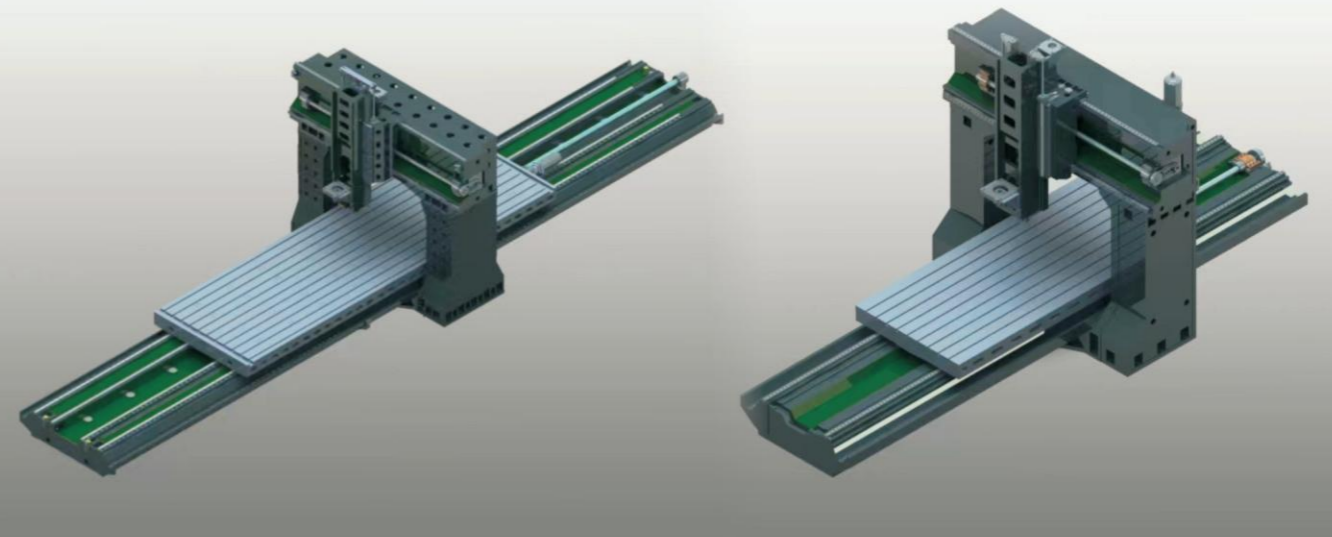
Top push pre tensioned structure

◎ Top push pre stretching structure with multiple bearings at both ends, ensuring the rigidity of the screw and effectively absorbing thermal deformation;
◎ Effectively reducing the influence of screw heating on transmission accuracy, improving accuracy, and strengthening the influence of machine tool rigidity and thermal deformation resistance



Long stroke ball screw auxiliary support system

◎ Solved the problem of lead screw sagging and deflection, ensuring stable transmission accuracy;
◎ 4m travel with 1 set ball screw auxiliary support system;
◎ 6m travel with 2 set ball screw auxiliary support system.



技术规格 Technical specification

MODEL	UNIT	GMC2013	GMC2015	GMC2518	GMC3018	GMC3220	GMC3028	GMC4022	GMC4028	GMC5024	GMC5030	GMC6026	GMCL6030	GMC8024	GMC8030
X axis travel	mm	2000	2100	2500	3000	3200	3000	4000	4000	5000	5000	6000	6000	8000	8000
Y axis travel	mm	1300	1500	1800	1800	2100	2800	2200	2800	2400	3000	2600	3000	2400	3000
Z axis travel	mm	800	800	800	1000	1000	1000	1000	1250	1250	1250	1250	1250	1250	1250
column width	mm	1300	1500	1800	1800	2000	2800	2200	2800	2400	3000	2600	3000	2400	3000
spindle nose to table	mm	190-990	150-950	150-950	220-1220	180-1180	250-1250	250-1250	220-1470	220-1470	220-1470	220-1470	220-1470	220-1470	220-1470
worktable size	mm	2000*1000	2100*1200	2500*1600	3000*1600	3000*1800	3000*2400	4000*1800	4000*2400	5000*2200	5000*2600	5000*2300	6000*2600	8000*2200	8000*2600
T slot	mm	7*22*140	7*22*170	9*22*180	9*22*180	9*22*190	13*28*200	9*22*180	13*28*200	11*28*200	13*28*200	11*28*200	11*28*220	11*28*200	13*28*200
worktable load	kg	3000	5000	7000	7000	8000	15000	12000	18000	20000	20000	22000	20000	28000	30000
spindle taper	trpe	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
spindle taper		BT50-190,optional with ZF gear box						BT50-190,optional with ZF gear box							
spindle speed	rpm	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
spindle motor	kw	15/18.5	18.5	18.5	22	22	22/26	22/26	22/26	22/26	22/26	22/26	22/26	22/26	22/26
XYZ rapid feed	m/min	20/20/15	15/15/15	12/12/10	12/12/10	12/12/10	10/10/10	10/10/10	10/10/10	10/10/10	6/8/8	6/8/8	6/8/8	6/8/8	6/8/8
cutting feed	m/min	5-8000	5-8000	10-10000	10-10000	10-10000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000
ATC		BT50-ARM TYPE						BT50-ARM TYPE							
position	T	24(32/40)	24(32/40)	24(32/40)	24(32/40)	24(32/40)	24(32/40/60)	24(32/40/60)	24(32/40/60)	24(32/40/60)	24(32/40/60)	24(32/40/60)	24(32/40/60)	24(32/40/60)	24(32/40/60)
Max tool		Length/Diameter/Weight:350mm/(110/220mm) /15kg						Length/Diameter/Weight:350mm/(110/220mm) /15kg							
voltage		380V, 3 PHASE,50HZ						380V, 3 PHASE,50HZ							
power capacity	KVA	40	50	50	60	60	60	60	60	60	60	60	65	60	65
machine height	mm	3700	3700	4000	4000	5000	5100	5200	5200	5200	5200	5200	5500	5200	5500
machine weight	kg	15000	18500	22000	25000	30000	43000	43000	48000	48000	56000	56000	60000	65000	70000

NOTE:Please refer to the technical documentation for detailed technical parameters

卧式加工中心系列

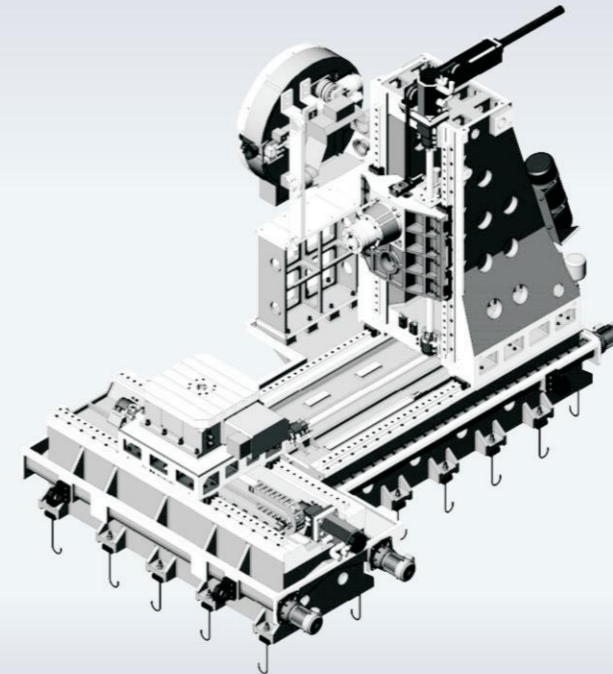
HORIZONTAL

MACHINING CENTER SERIES



质量 责任 信誉
QUALITY RESPONSIBILITY REPUTATION

MAIN CONFIGURATION



CONTROLLER: FANUC, MITSUBISHI, SIMENS ETC
SPINDLE: BT50 KENTURN, ROYAL, TD TAIWAN
LINEAR GUIDE: HIWIN/PMI TAIWAN P4 ROLLER TYPE
BALL SCREW: HIWIN/PMI TAIWAN MADE C3 LEVEL
Rotary table: PARKSON/DETRON TAIWAN
ELECTRICAL PART: SCHNEIDER/SIEMENS
OPTIONAL: EXCHANGE PALLET(2 TABLES)

技术规格 Technical specification

ITEM	UNIT	HMC630	HMC800	HMC1000
worktable		630*630 (Opt 2 table)	800*800 (Opt 2 table)	1000*1000
X axis travel	mm	1200	1300	2000
Y axis travel	mm	800	800	1400
Z axis travel	mm	1000	1300	1200
worktable index	°	STD:1°;OPT:0.001°	STD:1°;OPT:0.001°	STD:1°;OPT:0.001°
spindle nose to worktable center	mm	100-1100	150-1450	350-1550
spindle center to worktable	mm	130-930	100-900	0-1400
load capacity	kg	1200	2000	3000
T slot	mm	5-18*100	7-20*100	7-22*125
XYZ ball screw	mm	X:5010/Y:5010/Z:5010	X:5512/ Y:5512/ Z:5512	X:6310/Y:5010/Z:6316
position accuracy	mm	±0.005/300	±0.005/300	±0.005/300
repeat position	mm	±0.003/300	±0.005/300	±0.005/300
spindle speed	rpm	6000	6000	6000
spindle	mm	BT50/190	BT50/190	BT50/190
machine weight	kg	12000	16800	22000

NOTE: Please refer to the technical documentation for detailed technical parameters

高速钻攻系列

HIGH-SPEED

DRILLING AND TAPPING SERIES



质量 责任 信誉
QUALITY RESPONSIBILITY REPUTATION

MAIN CONFIGURATION



- CNC CONTROLLER: MITSUBISHI/FANUC
- SPINDLE: BT30,20000/24000RPM
- LINEAR GUIDE: HIWIN/PMI TAIWAN P4 ROLLER TYPE
- BALL SCREW: HIWIN/PMI TAIWAN MADE C3 LEVEL
- ELECTRICAL PARTS: SCHNEIDER/SIEMENS
- PNEUMATIC PARTS: JAPAN CKD/TAIWAN AIRTAG
- MPG handwheel: JAPAN brand

Application Industry
Precision molds, aerospace field

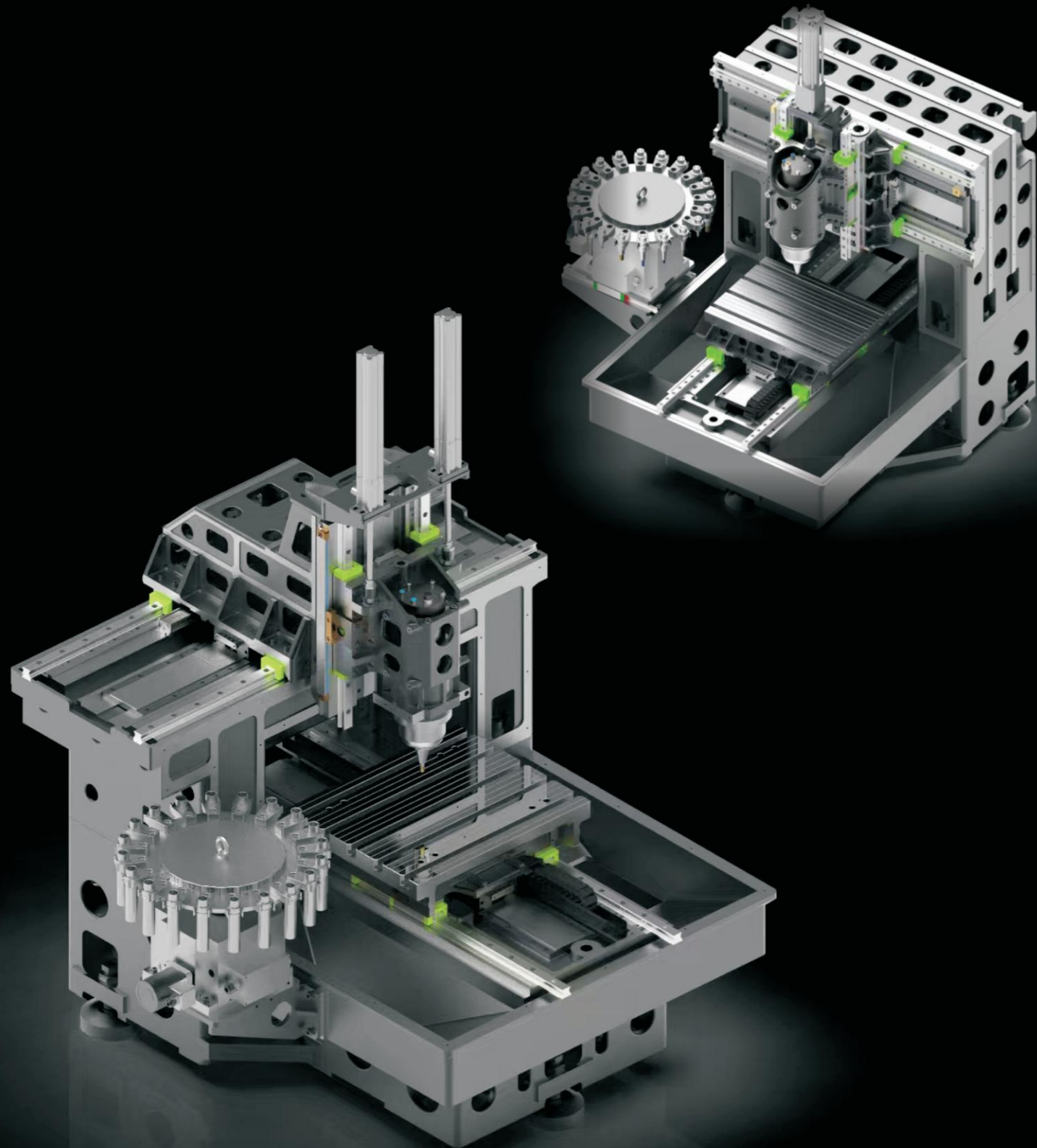
技术规格 Technical specification

ITEM	UNIT	T-500	T-600	T-700
X axis travel	mm	500	600	700
Y axis travel	mm	400	400	400
Z axis travel	mm	300	300	350
spindle nose to table	mm	155-455	145-545	145-545
spindle center to column	mm	420	450	450
worktable size	mm	600*400	700*400	800*400
load capacity	kg	250	300	500
T slot	mm	3-14/100	3-14/100	3-14/100
spindle taper		BT30	BT30	BT30
spindle speed	rpm/min		20000/24000	
spindle power	kw	5.5	5.5	5.5
XYZ axis motor	kw	1.5/1.5/3.0	1.5/1.5/3.0	1.5/1.5/3.0
controller		MITSUBISHI M80;FANUC OI MF		
XYZ rapid feed	m/min	48/48/48	48/48/48	48/48/48
cutting feed	mm/min	0-12000	0-12000	0-12000
position accuracy	mm	±0.005/300	±0.005/300	±0.005/300
repeat position	mm	±0.003/300	±0.003/300	±0.003/300
air pressure	Kg/cm ²	≥6	≥6	≥6
ATC position	T	21	21	21
machine weight	T	3.5	3.8	4.2
machine size	mm	1950*2480*2380	2000*2600*2380	2250*2700*2500

NOTE:Please refer to the technical documentation for detailed technical parameters

HIGH SPEED

MACHINING CENTER SERIES



- ◎ The overall casting is made of high-grade mihanna cast iron material, which undergoes long-term tempering heat treatment to eliminate internal stress, ensuring high rigidity and high precision durability.
- ◎ The base adopts a large span design, and the workbench is fully supported, ensuring the stability of machining accuracy.
- ◎ HSK Ultra High Speed Spindle.
- ◎ Precision grinding and quenching treatment on the workbench enhance the surface hardness and wear resistance of the workbench.

技术规格 Technical specification

ITEM	UNIT	H600	H900
XYZ travel	mm	600*500*350	900*600*420
spindle table	mm	660*500	940*600
load capacity	kg	500	800
T slot	mm	5-18/100	6-18/100
spindle nose to table	mm	140-490	240-665
spindle taper		HSK E40	HSK A63
spindle speed	rpm/min	30000	20000
speed motor	kw	11	20
XYZ motor	kw	3/3/3	3/3/3
3 axis rapid feed	m/min	30	30
cutting feed	m/min	5-12	5-12
position accuracy	mm	±0.0025	±0.0025
repeat position	mm	±0.0015	±0.0015
ATC type		Umbrella	Umbrella
ATC position	pcs	20	24
power requirement	kva	20	30
air requirement	kg/cm	6-8	6-8
machine size	mm	2200*2400*2500	2600*2550*2800
machine weight	kg	6500	8500
controller		SIEMENS	SIEMENS

NOTE: Please refer to the technical documentation for detailed technical parameters

标准及选择配置

Standard and optional configuration



SIEMENS
西門子控制器系列



三菱电机
三菱控制器系列



FANUC
发那科控制器系列



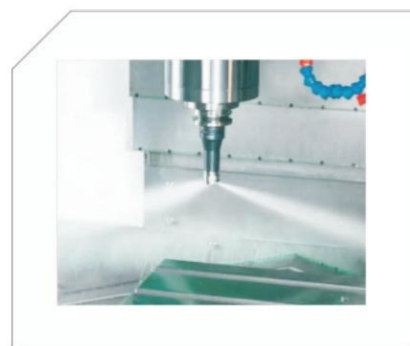
electrical cabinet A.C



spindle oil cooler



Oil water separator



coolant trough spindle(CTS)



Oil mist collector



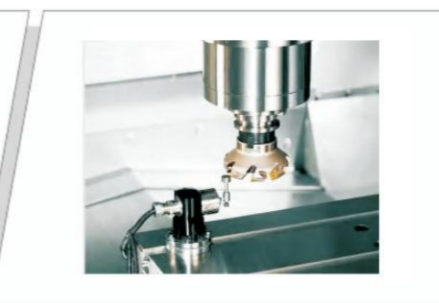
chain type chip conveyor

Standard configuration

FANUC Oi MF PLUS	telescopic protection	rigid tapping
operation manual	enclosed guard	tool box
working lamp	schneider electrical part	coolant tank
spindle positioning	heat exchanger	cutting liquid
Blowing air for spindle	RS232 port	auto lubricator
3 color alarm lamp	CF card interface	hand-wheel
transformer	network interface	



linear incoder



tool setter



Wcs touch probe



angle head



directly spindle



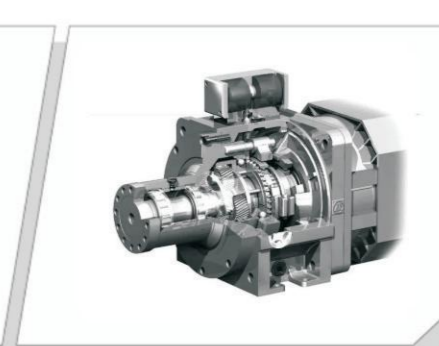
Spindle ring spray



4 axis rotary table



5 axis turntable



ZF gear box

Optional configuration

CNC SIEMENS,MITSUBISHI,SYNTEC..	linear encoder	5 axis turntable
electrical cabinet A.C	tool setter	ZF gear box
spindle oil cooler	Wcs touch probe	Voltage regulator
Oil water separator	angle head	cutting tools
coolant trough spindle(CTS)	directly spindle	
Oil mist collector	Spindle ring spray	
chain type chip conveyor	4 axis rotary table	