



SINCE 1928



1928

Established in Shanghai, start to produce hardware tools

1957

First milling machine model 57-3C



Supply military products for army

Move to Huangshan

1937

1966



2003

Turn to private company, start to produce CNC machining center

2018

NO.1 VMC quantity manufacturer in China



change the name to SINO for IPO

Merger Taiwan Campro, Jiaxing branch

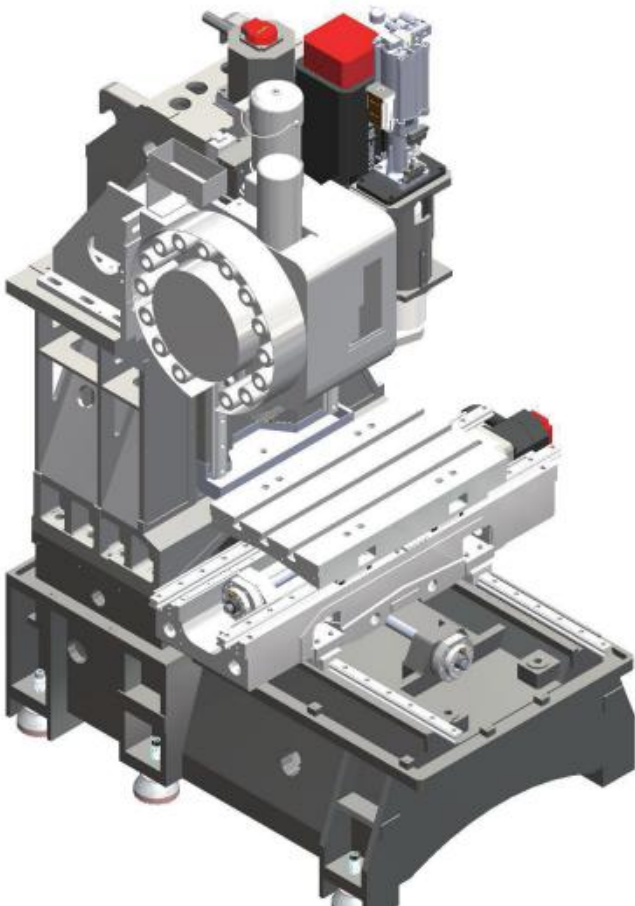
2017

2019

01
SVB500/650

SV Series Basic Features

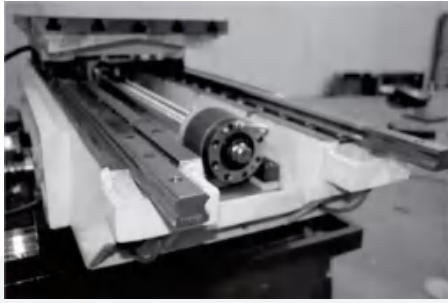
High Precision & High Speed Vertical Machining Center



- ◎ **Spindle Type**
SVB Belt type spindle 8000/10000rpm
SVD Direct dirve spindle 12000/15000pm
- ◎ **Rapid Traverse Rate (X/Y/Z axis)**
48/48/32 m/min
- ◎ **Travel (X/Y/Z axis)**
SV500 500/400/500 mm
SV650 650/500/520 mm

High Precision & High Speed Vertical Machining Center

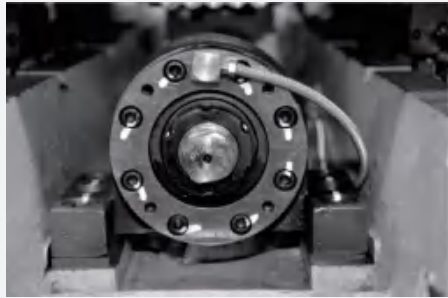
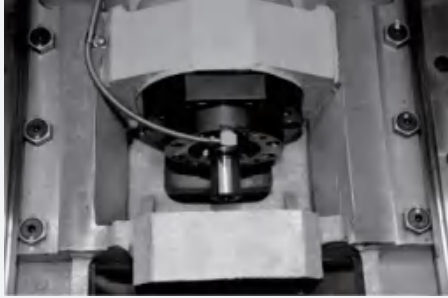
- ◎ SV series is the newly designed series of machine SINO cooperated together with TAIWAN company.
- ◎ The design concept, assembly know how and inspection method are all follow TAIWAN machine standard.
- ◎ Pagoda type structure design and reinforcing ribs inside to ensure rigidity. Large span of Y axis guideways to keep all the X axis travel is supported.



01

Preloaded and double Supported Ballscrew with Intergrated Housing

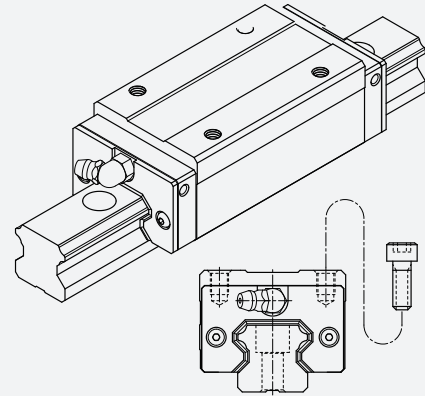
Preloaded and double supported ball screw with 2+2 precision angular contact bearing ensure outstanding positioning and repeatability with virtually no thermal growth. Intergrated ball screw housing ensure long stay accuracy.



02

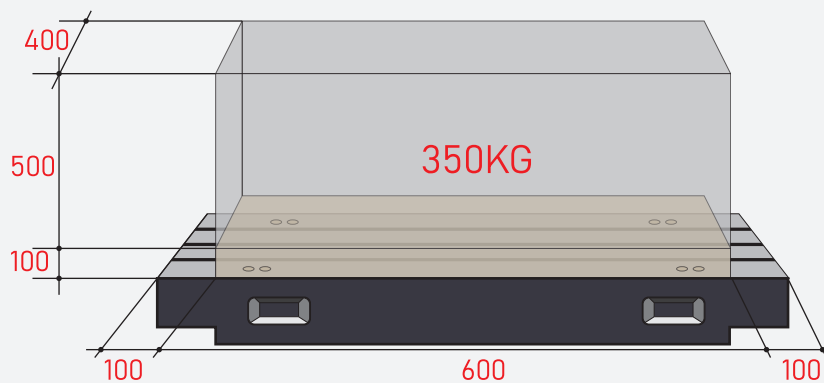
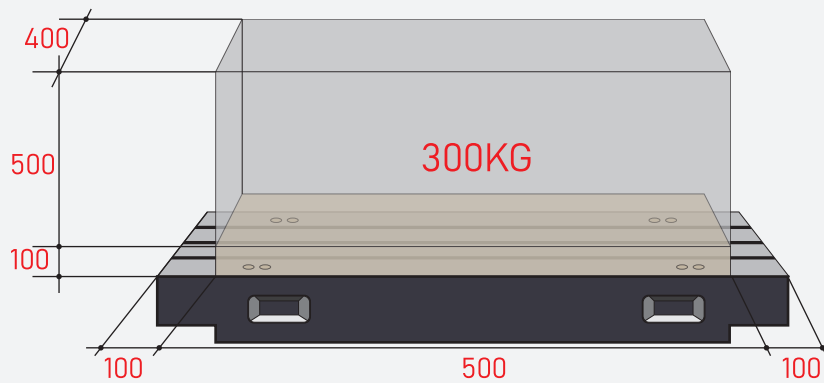
Lengthened and heavier load linear guideway sliders

Lengthened and heavier load linear guideway sliders than normal designed offer better dynamic loading performance. Dynamic rating load improved 22%, static rating load improved 33%.



03

Worktable & Machining Area

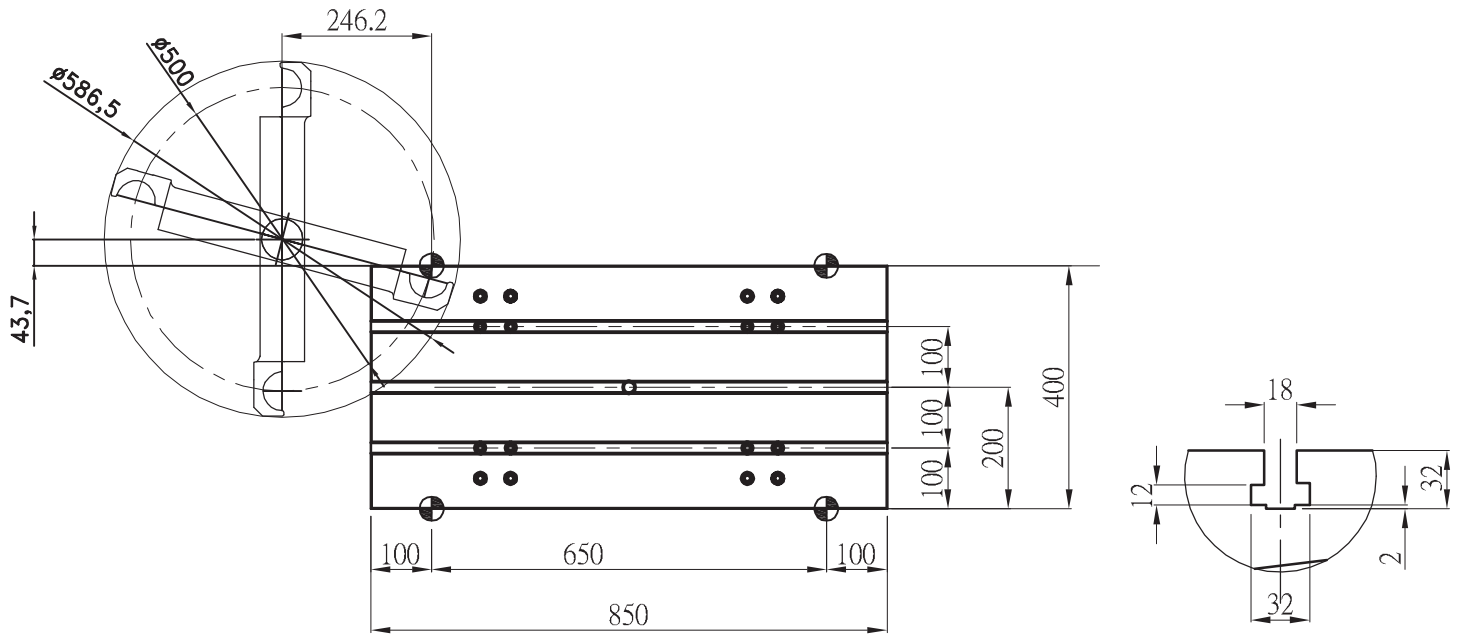


SPECIFICATIONS

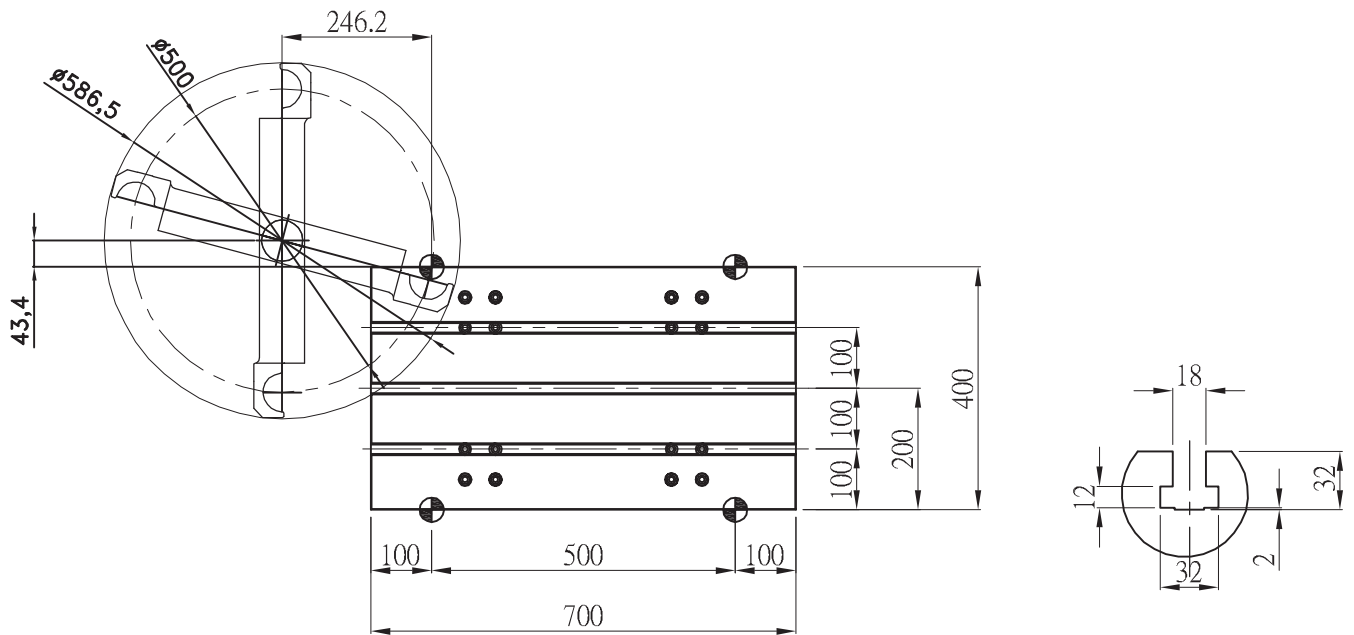
ITEM			SVB500	SVD500	SVB650	SVD650
Table	Table size	mm	700x400		850x400	
	Max. load capacity	kg	300		400	
	T-slots	mm	3x18-100			
	Distance from table surface to spindle	mm	100-600			
	Distance from table to floor	mm	900			
Spindle	Spindle taper		BT40			
	Spindle rpm	rpm	8000	12000	8000	12000
	Spindle power output	kw	5.5/7.5		7.5/11	5.5/7.5
	Spindle torque(FANUC)	N.M	26.3		35.8	26.3
	Spindle driving method		belt	direct	belt	direct
Feed	Travel (X/Y/Z)	mm	500/400/500		650/400/500	
	Distance from column to spindle center	mm	451			
	Rapid traverse rate	m/min	48/48/32			
	Slide type		LM guide			
ATC	Number of tools	T	16			
	Max. tool diameter	mm	78/120			
	Max. tool length	mm	220			
	Max. tool weight	kg	8			
	Tool change time	sec	2.5			
Accuracy	Positioning accuracy	mm	0.008			
	Re-positioning accuracy	mm	0.005			
Power supply	Air consumption	kg	6-8			
	Electric power supply	KVA	15			
	Voltage	V/HZ	380/50			
Machine	Machine dimension	mm	2100x2100x2550			
	Machine weight	kg	3900		4100	

SPECIFICATIONS

SVB500



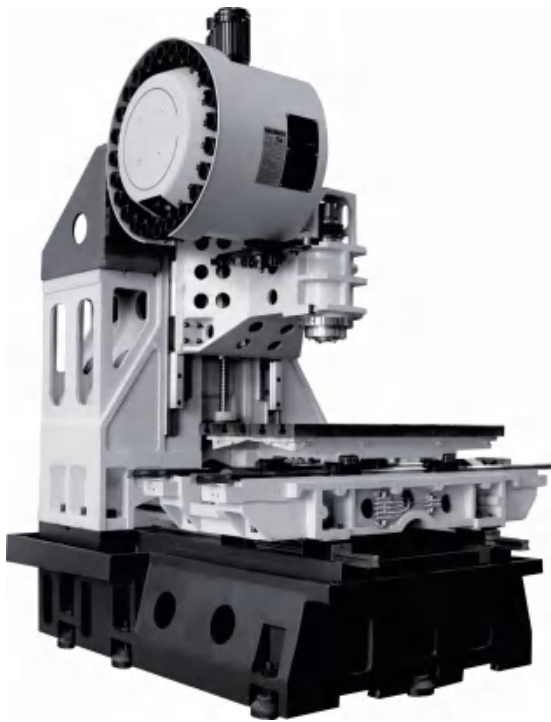
SVB650



02 P Series Basic Features

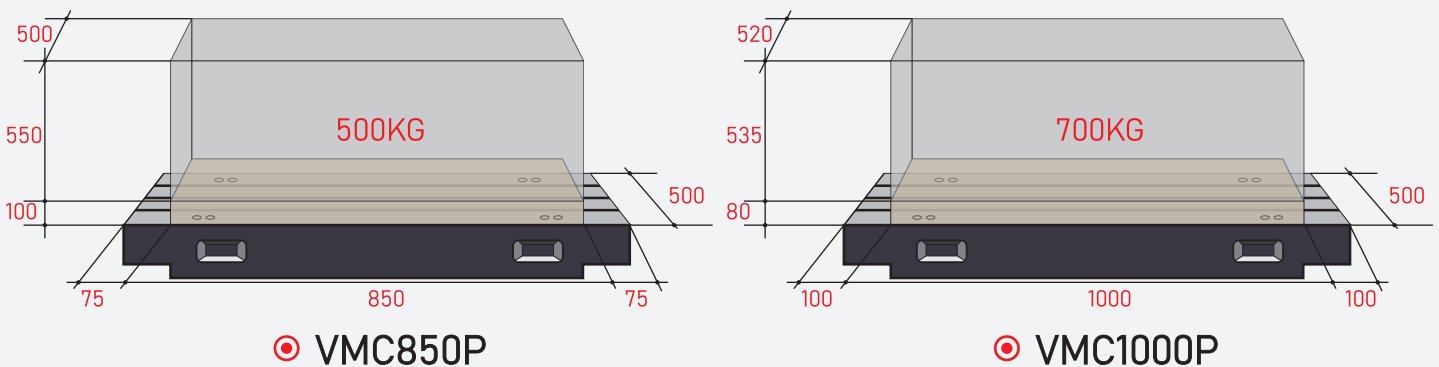
VMC850P/VMC1000P

Best Performance & Top Selling Vertical Machining Center



- **Spindle type**
VMC850P/VMC1000P Belt type spindle 8000/10000rpm
V8P/V10P Direct drive spindle 12000/15000rpm
- **Rapid Traverse Rate (X/Y/Z axis)**
48/48/32 m/min
- **Travel (X/Y/Z axis)**
VMC850P 850/500/550 mm
VMC1000P 1000/500/520 mm

Worktable & Machining Area



Best Performance & Top Selling Vertical Machining Center

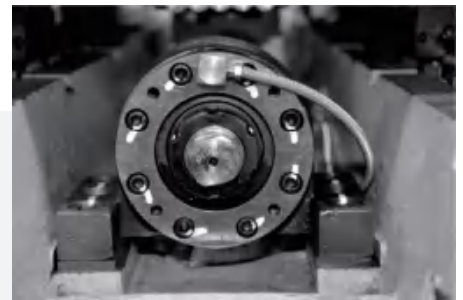
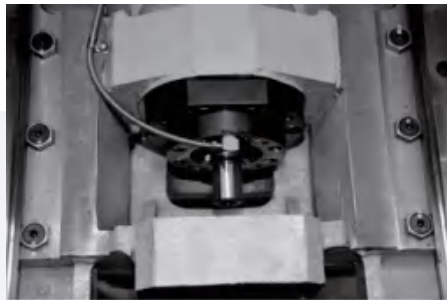
- P series is the top selling machine series due to its intergrated machining performance on rigidity and accuracy. It is designed by SINO independent R&D department who collects enough feedback from nearly 10000 sets SINO VMC in the market.



01

High power, high torque headstock

Large span of Z axis guideway and big contact ratio between spindle case and column ensure a high torque of headstock.



02

Preloaded and double anchored ball screw

3+2 precision angular contact bearing ensure outstanding positioning and repeatability with virtually no thermal growth.

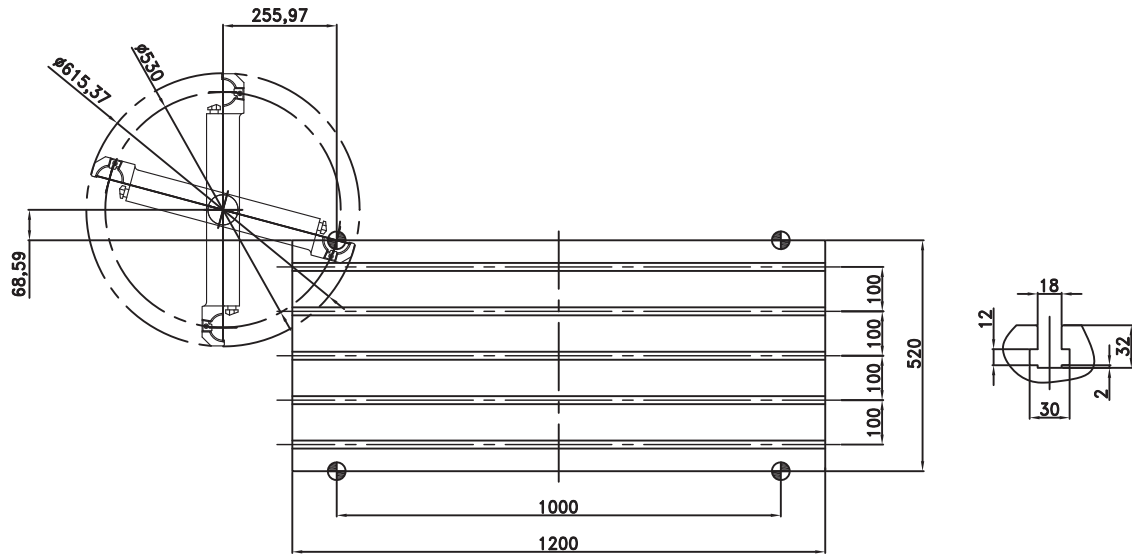
Intergrated ball screw housing ensure long stay accuracy.

SPECIFICATIONS

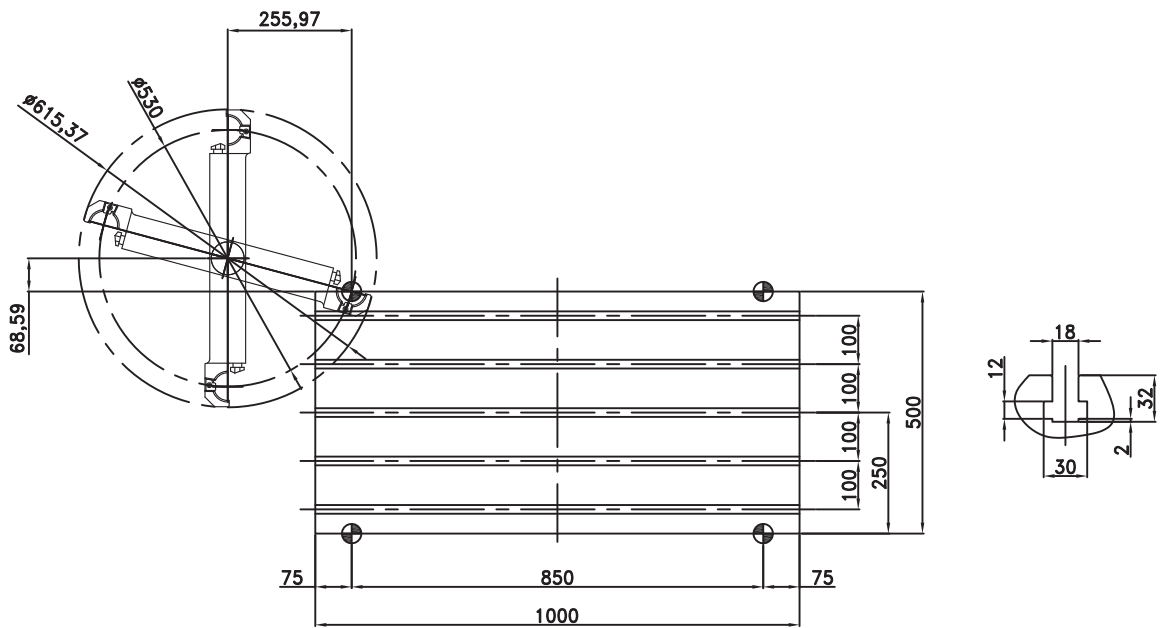
ITEM			VMC850P	V8P	VMC1000P	V10P
Table	Table size	mm	1000x500		1200x520	
	Max. load capacity	kg	500		600	
	T-slots	mm	5x18-100		5x18-100	
	Distance from table surface to spindle	mm	100-650		80-650	
	Distance from table to floor	mm	900		900	
Spindle	Spindle taper		BT40		BT40	
	Spindle rpm	rpm	8000	12000	8000	12000
	Spindle power output	kw	11/15	7.5/11	11/15	7.5/11
	Spindle torque	N.M	52.5	35.8	52.5	35.8
	Spindle driving method		belt	direct	belt	direct
Feed	Travel (X/Y/Z)	mm	850/500/550		1000/520/535	
	Distance from column to spindle center	mm	582		582	
	Rapid traverse rate	m/min	48/48/32		48/48/32	
	Slide type		LM guide		LM guide	
ATC	Number of tools	EA	24		24	
	Max. tool diameter	mm	78/120		78/120	
	Max. tool length	mm	300		300	
	Max. tool weight	kg	8		8	
	Tool change time	sec	2.5		2.5	
Accuracy	Positioning accuracy	mm	0.008		0.008	
	Re-positioning accuracy	mm	0.005		0.005	
Power supply	Air consumption	kg	6-8		6-8	
	Electric power supply	KVA	20		20	
	Voltage	V/HZ	380/50		380/50	
Machine	Machine dimension	mm	2460x2355x2860		2460x2355x2860	
	Machine weight	kg	5500		5800	

SPECIFICATIONS

VMC850P



VMC1000P



03

VMC1060B/VMC1160B

B Series Basic Features

Strong Rigidity & High Productivity Vertical Machining Center

◎ Spindle type

VMC1060B/VMC1160B Belt type spindle 8000/10000rpm

V10B/V11B Direct drive spindle 10000/12000/15000rpm

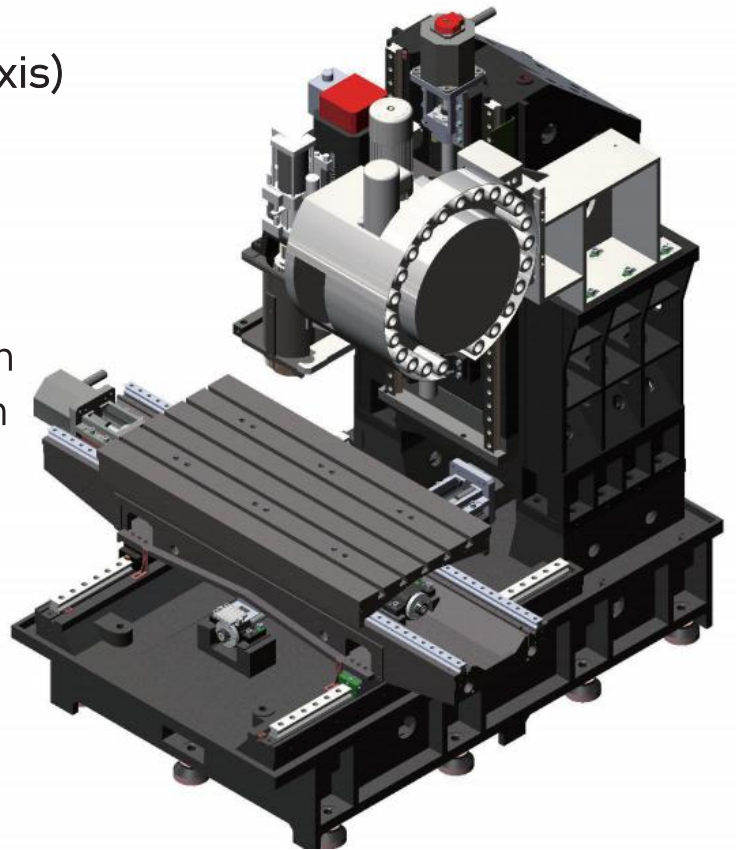
◎ Rapid Traverse Rate (X/Y/Z axis)

36/36/32 m/min

◎ Travel (X/Y/Z axis)

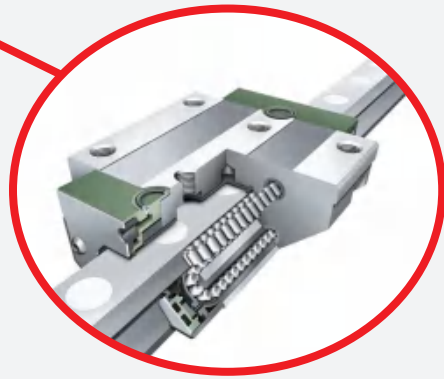
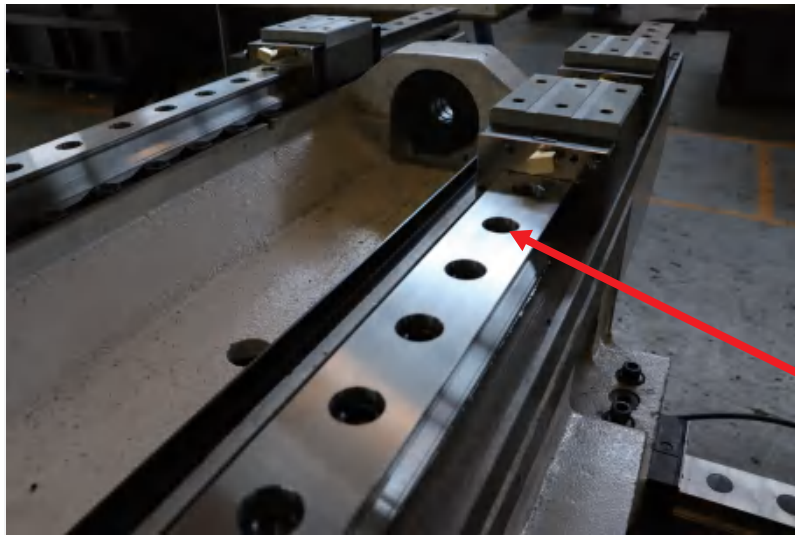
VMC1060B 1000/620/630 mm

VMC1160B 1100/620/630 mm



Strong Rigidity & High Productivity Vertical Machining Center

- ◎ B series is featuring high rigidity, heavy cutting ability and high operability. The strong base column construction has optimally-placed ribs to counter chatter and twisting during heavy-duty cutting. With three axis roller linear guideway and wide area motor, this vertical machining center can perform heavy-duty cutting and high-speed machining with high torque from low to high speeds.



01

Roller Type LM Guide

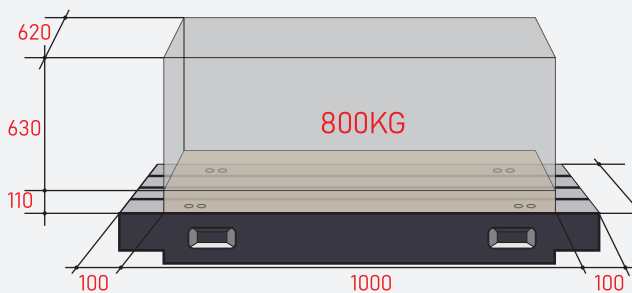
By roller linear contacting, the LM guideway can offer a better rigidity which ensure the fast feed rate and reduce cutting time.



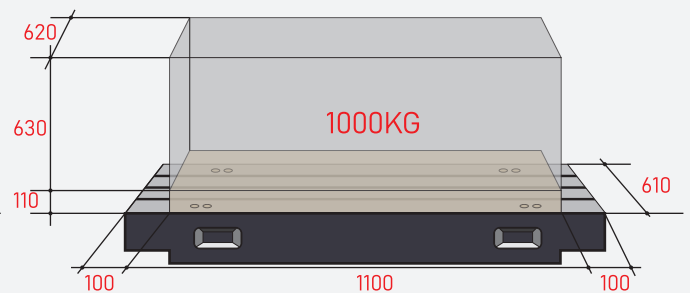
02

Short Nose Spindle and Wide Area Motor
BT40-150mm short nose spindle equipped with wide area motor offers a better rigidity on machining.

Worktable & Machining Area



⊙ VMC1060B



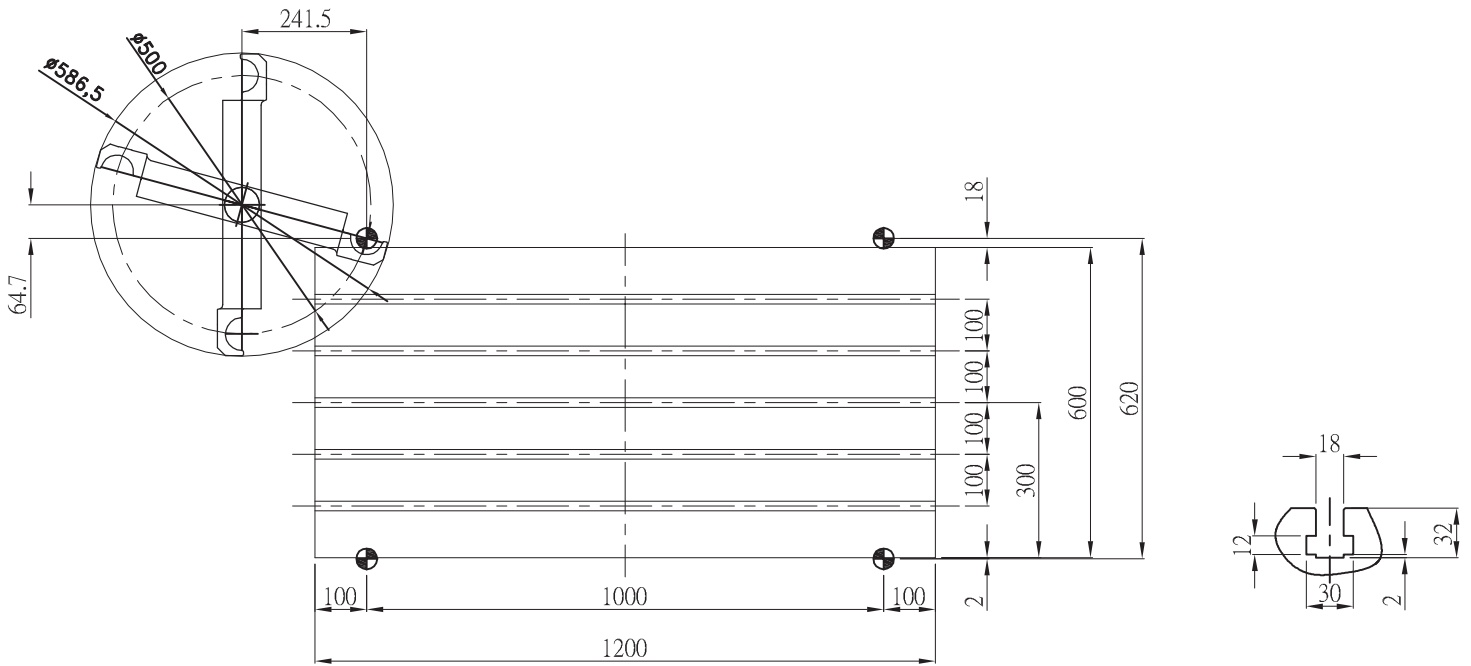
⊙ VMC1160B

SPECIFICATIONS

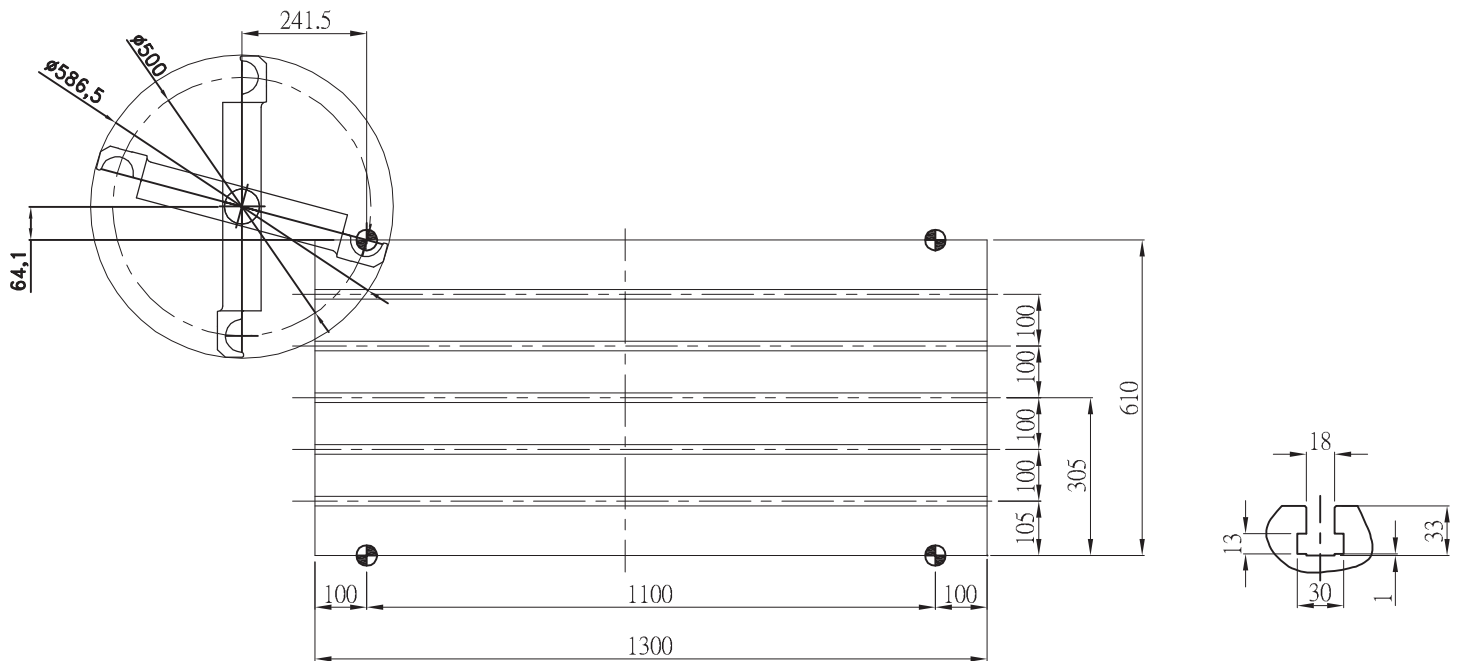
ITEM			VMC1060B	V10B	VMC1160B	V11B
Table	Table size	mm	1200x600		1300x610	
	Max. load capacity	kg	800		1000	
	T-slots	mm	5x18-100		5x18-100	
	Distance from table surface to spindle	mm	110-740	120-750	110-740	120-750
	Distance from table to floor	mm	900		900	
Spindle	Spindle taper		BT40		BT40	
	Spindle rpm	rpm	8000	10000	8000	10000
	Spindle power output	kw	11/15 wide area	11/15	11/15 wide area	11/15
	Spindle torque(FANUC)	N.M	105	52.5	105	52.5
	Spindle driving method		belt	direct	belt	direct
Feed	Travel (X/Y/Z)	mm	1000/620/630		1100/610/630	
	Distance from column to spindle center	mm	667		667	
	Rapid traverse rate	m/min	36/36/32		36/36/32	
	Slide type		LM guide		LM guide	
ATC	Number of tools	T	24		24	
	Max. tool diameter	mm	78/120		78/120	
	Max. tool length	mm	300		300	
	Max. tool weight	kg	8		8	
	Tool change time	sec	2.5		2.5	
Accuracy	Positioning accuracy	mm	0.008		0.008	
	Re-positioning accuracy	mm	0.005		0.005	
Power supply	Air consumption	kg	6-8		6-8	
	Electric power supply	KVA	20		20	
	Voltage	V/HZ	380/50		380/50	
Machine	Machine dimension	mm	2850x2500x2850		3000x2500x2750	
	Machine weight	kg	6800		7000	

SPECIFICATIONS

VMC1060B



VMC1160B



04 Common Basic Features

SINO VMC

Common Basic Features for all SINO VMCs

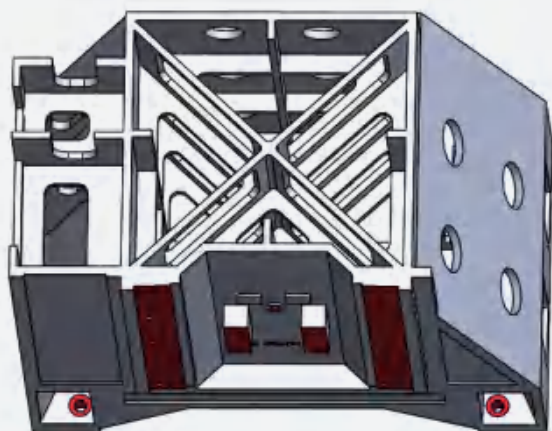


01

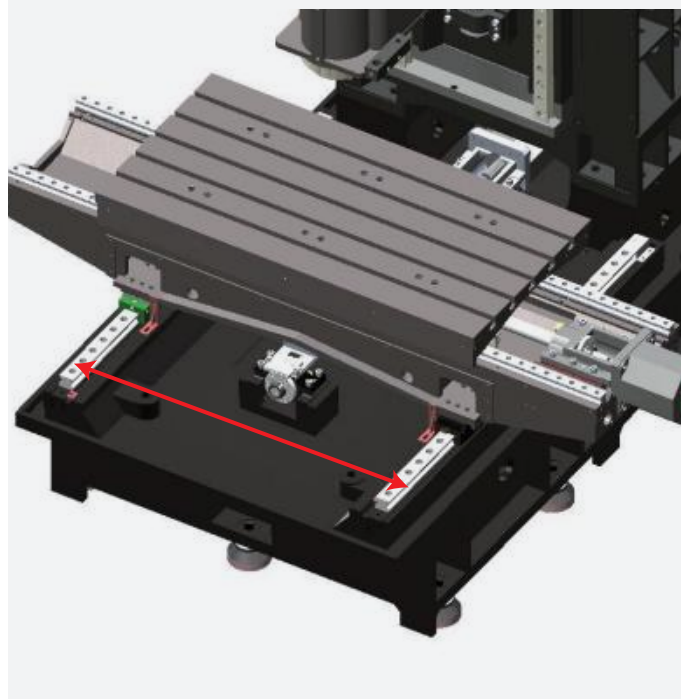
High Rigidity Structural Design

Large pagoda machine column and base ensure the highest stability during high speed movement

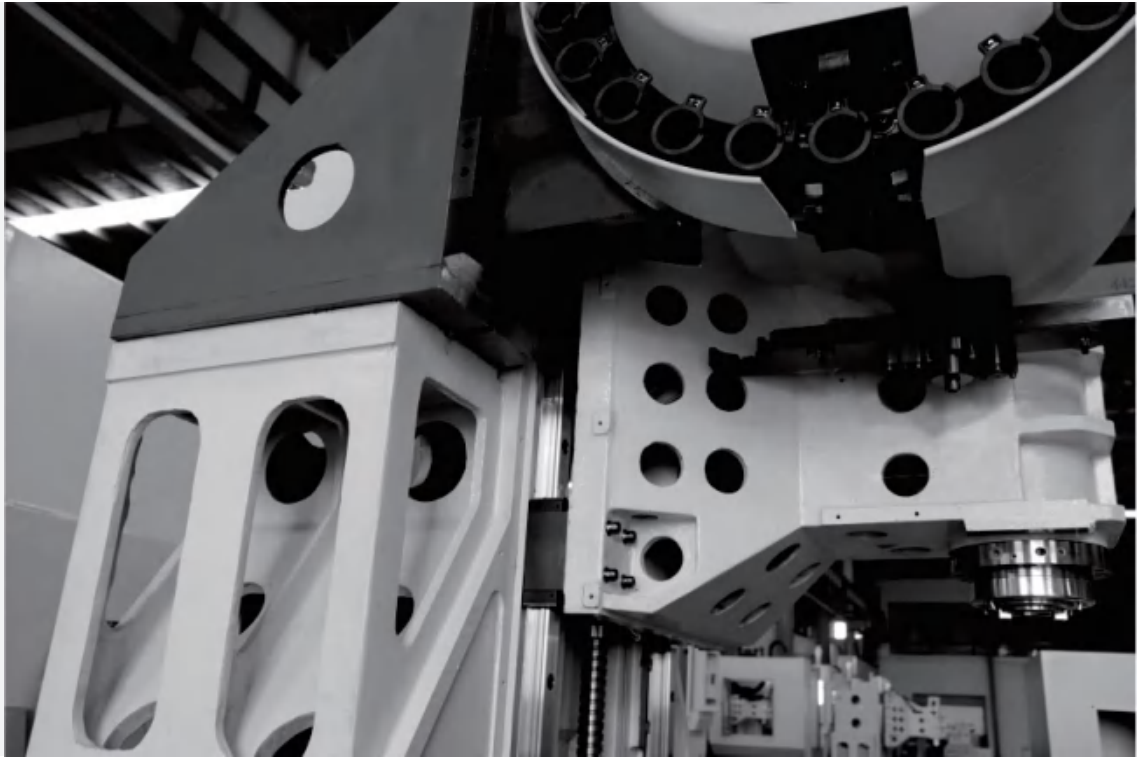
- ⦿ The reinforcing ribs inside ensures strong enough rigidity.



- ⦿ The large span of Y axis guideways to keep all the X axis travel is supported

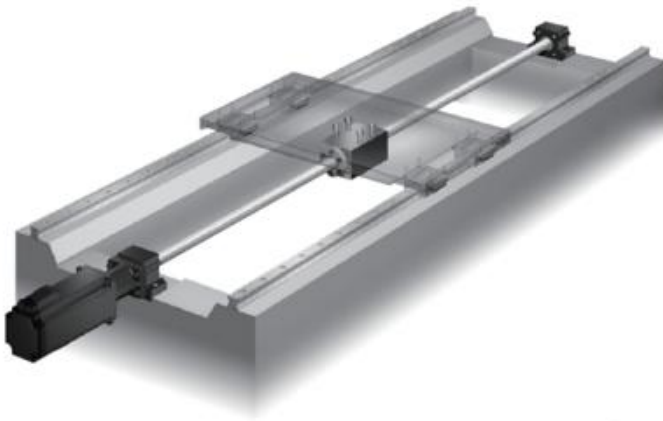


02



Shoulder Carrying Tool Magazine

Shoulder carrying tool magazine can ensure Z axis geometric accuracy and perfect stability, rigidity and the minimum deformation when column loaded with tool magazine weight.



03

Preloaded, Directly Coupled and Double Anchored Ball Screw

In order to eliminate thermal growth and increase accuracy, all axes are driven by high precision double anchored ballscrews.

The pretensioned and double anchored design provides outstanding positioning and repeatability with virtually no thermal growth.

The ball screws are directly coupled to the servo motor. This eliminates the need for any transmission parts which may impact machine accuracy and efficiency.

05 Machining Capability

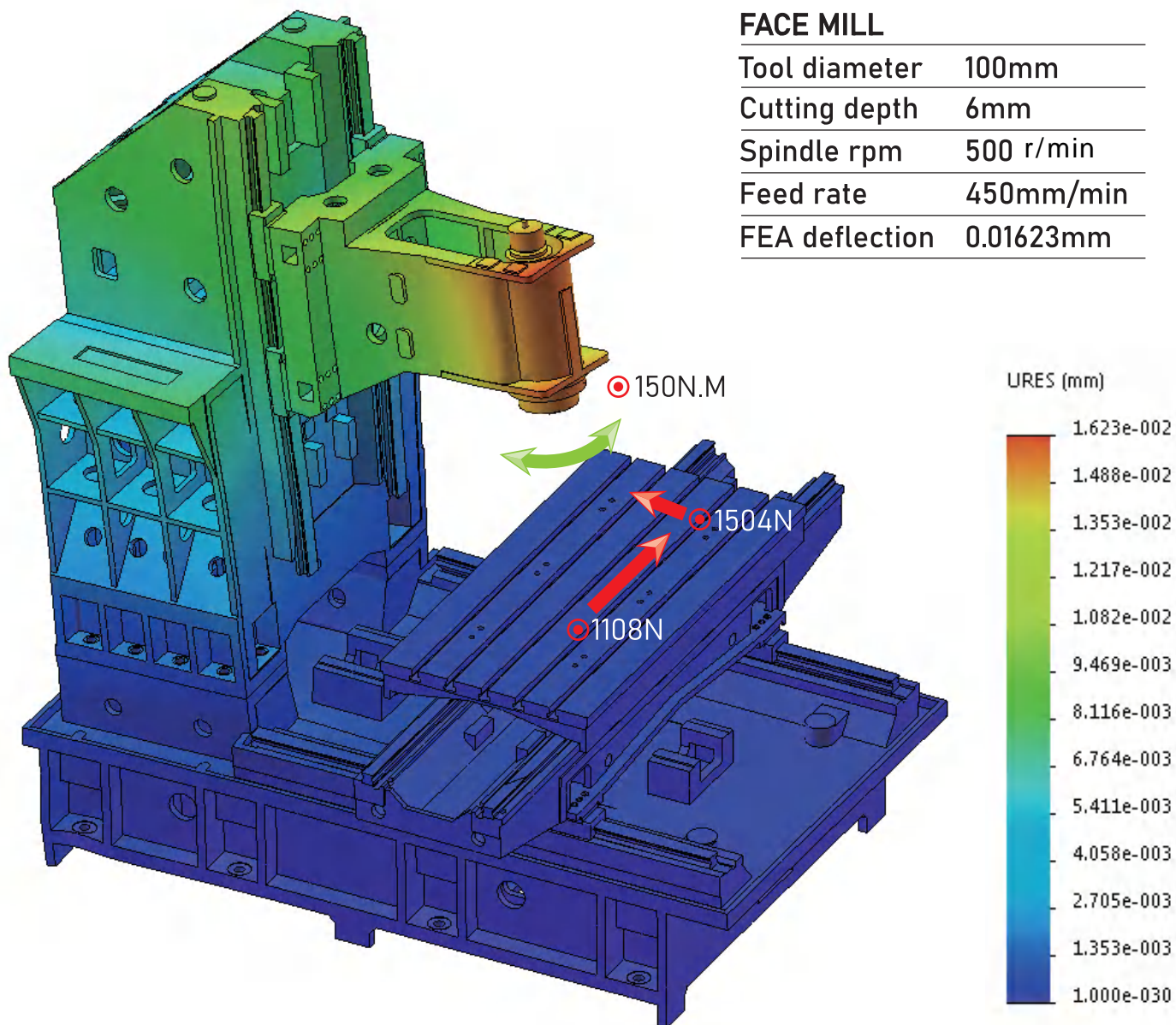
SINO VMC

Oriental Cutting Test Data

The FEA analysis is adopted to ensure the best mass arrangement and rib construction of the machine for constant stability under the intensive load of heavy-duty cutting.

FACE MILL

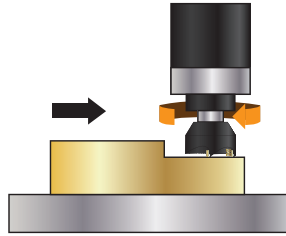
Tool diameter	100mm
Cutting depth	6mm
Spindle rpm	500 r/min
Feed rate	450mm/min
FEA deflection	0.01623mm



◎ **VMC850P**

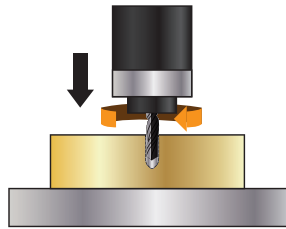
FACE MILL (Material: C45)

Tool diameter	φ100-7Z
Cutting depth	4 mm
Cutting width	80 mm
Cutting speed	400 mm/min
Spindle rpm	800 r/min
Spindle load	135%



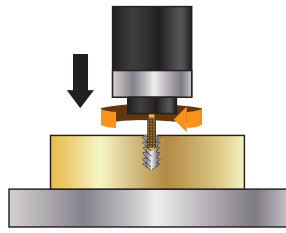
DRILL (Material: C45)

Tool diameter	φ37 U drill
Bore depth	90 mm
Cutting speed	160 mm/min
Spindle rpm	1600 r/min
Spindle load	118%



TAP (Material: C45)

Tap spec./ pitch	M24xP3.0
Cutting depth	60 mm
Cutting speed	600 mm/min
Spindle rpm	200 r/min
Spindle load	95%



◎ **VMC1060B**

FACE MILL (Material: C45)

Tool diameter	φ100-7Z
Cutting depth	6 mm
Cutting width	80 mm
Cutting speed	500 mm/min
Spindle rpm	600 r/min
Spindle load	118%

DRILL (Material: C45)

Tool diameter	φ59 U drill
Bore depth	90 mm
Cutting speed	100 mm/min
Spindle rpm	1000 r/min
Spindle load	115%

TAP (Material: C45)

Tap spec./ pitch	M36xP4.0
Cutting depth	60 mm
Cutting speed	800 mm/min
Spindle rpm	200 r/min
Spindle load	110%

◎ **Sample Workpieces**





MACHINERY DIVISION



SINO
CNC MACHINERY