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* The content of the catalogue is subject to change without notice.

NEWAY

PORTAL/GANTRY MACHINING CENTER

PM Series

Cat.NO: E-PM-2017-01


DRAGONCRANE 32t
NEWAY
PM1220HA
NEWAY
PM1220H
NEWAY
PM1220H

Contents

Portal machining center introduction

Strong and stable cast iron

Machine body, worktable, column, cross beam, saddle, ram all use high–strength cast iron, phenolic resinsand molding, well aging treatment, and optimized reinforcing ribs, insure magnificent anti–bending and anti–torque ability.

The optimized configuration

Diversification of three axis travel satisfy different sizes of work pieces. Rational combination of box guide way, linear guide way and ram meet the requirement of high speed cutting and heavy duty cutting.

Heavy load frame structure

All basic parts (machine body, worktable, column, cross beam, carriage, ram) are analyzed with Finite Element Analysis (FEA) for best performance under all environment.

Worktable moving, square box RAM
RAM section：400x400mm
Specialty: high speed, high rigidity
Best for: nonferrous metals, mould etc.

X axis: 2200/3200/4200/5200/6200
Y axis: 1200/1800/2300/2800
Z axis: 800/1000

PM Series CNC High Speed Portal Milling Center

High speed type

Worktable moving, square RAM
RAM section：450x450
Specialty：heavy duty cut, powerful torque
Best for：medium and large size casting, structural components etc.

X axis: 3200/4200/5200/6200
Y axis: 2700/3200
Z axis: 1250

PM Series CNC Heavy Duty Portal Milling Center

Heavy duty type

Gantry moving, square RAM
RAM section：500x500
Specialty：super heavy duty cutting, powerful torque
Best for：large size castings, structural components etc.

X axis: 8500–24500
(incremental spacing)
Y axis: 4500/5500

PM Series CNC Gantry Milling Center

Super heavy duty type

Gantry moving, square RAM
RAM section：450x450
Specialty： heavy duty cutting, powerful torque
Best for：large size casting, structural components etc.

X axis: 8500–24500
(incremental spacing)
Y axis: 4500
Z axis: 1250

PM Series CNC Gantry Milling Center

5 axes

PM12HA Series

High speed, High precision

- Mechanical & electric integration design, excellent appearance;
- Full process strict quality control system;
- Standardization, modularization, universalization design;
- One time clamping to finish various machining: milling, drilling, boring, reaming, tapping, etc. Suitable for plate type parts, disc type parts and housing type parts.

- Gantry type design, reasonable structure, high rigidity, high precision,powerful torque;
- Machine body, worktable, column, cross beam, saddle, ram all use high–strength cast iron, phenolic resin sand molding;
- International advanced machine design idea, most advanced and most reliable componenets are used.

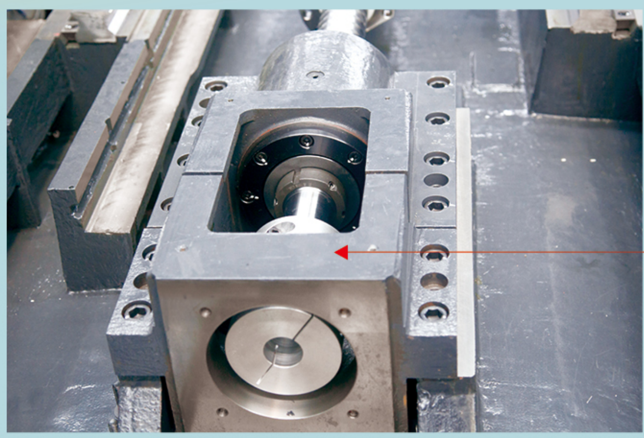
PM12HA Series

Powerful torque spindle

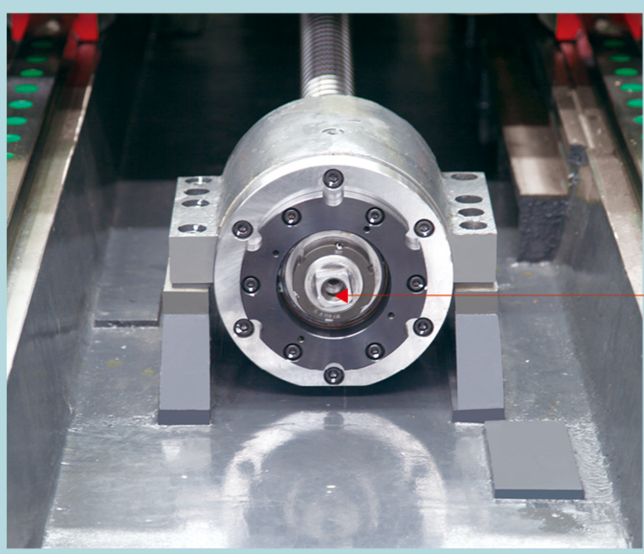
Max torque 1295N.m

Imported spindle unit, heavy duty cutting capacity, high spindle speed

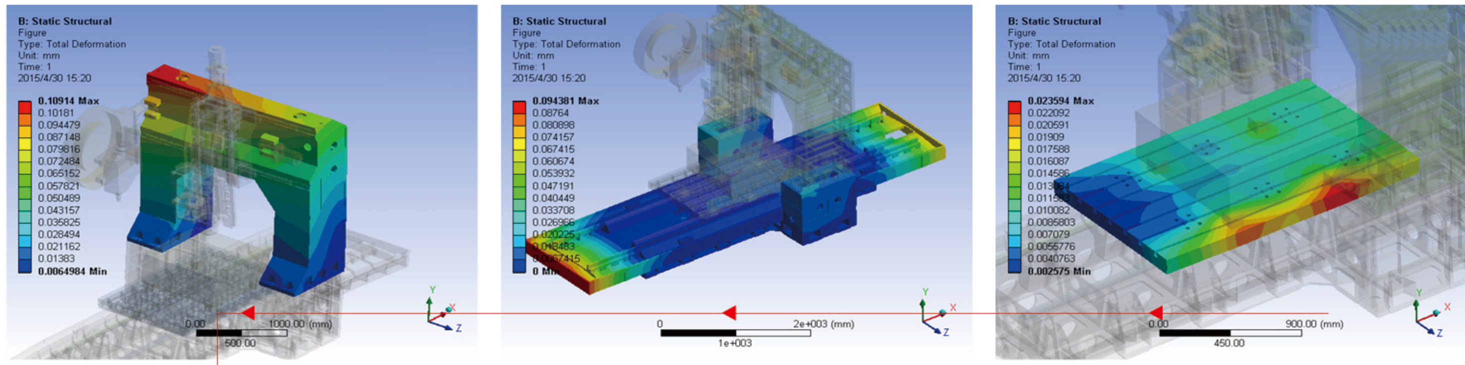
Optional 10000/15000/24000rpm spindle.



Split type motor base, reduce heat transfer and thermal deformation.

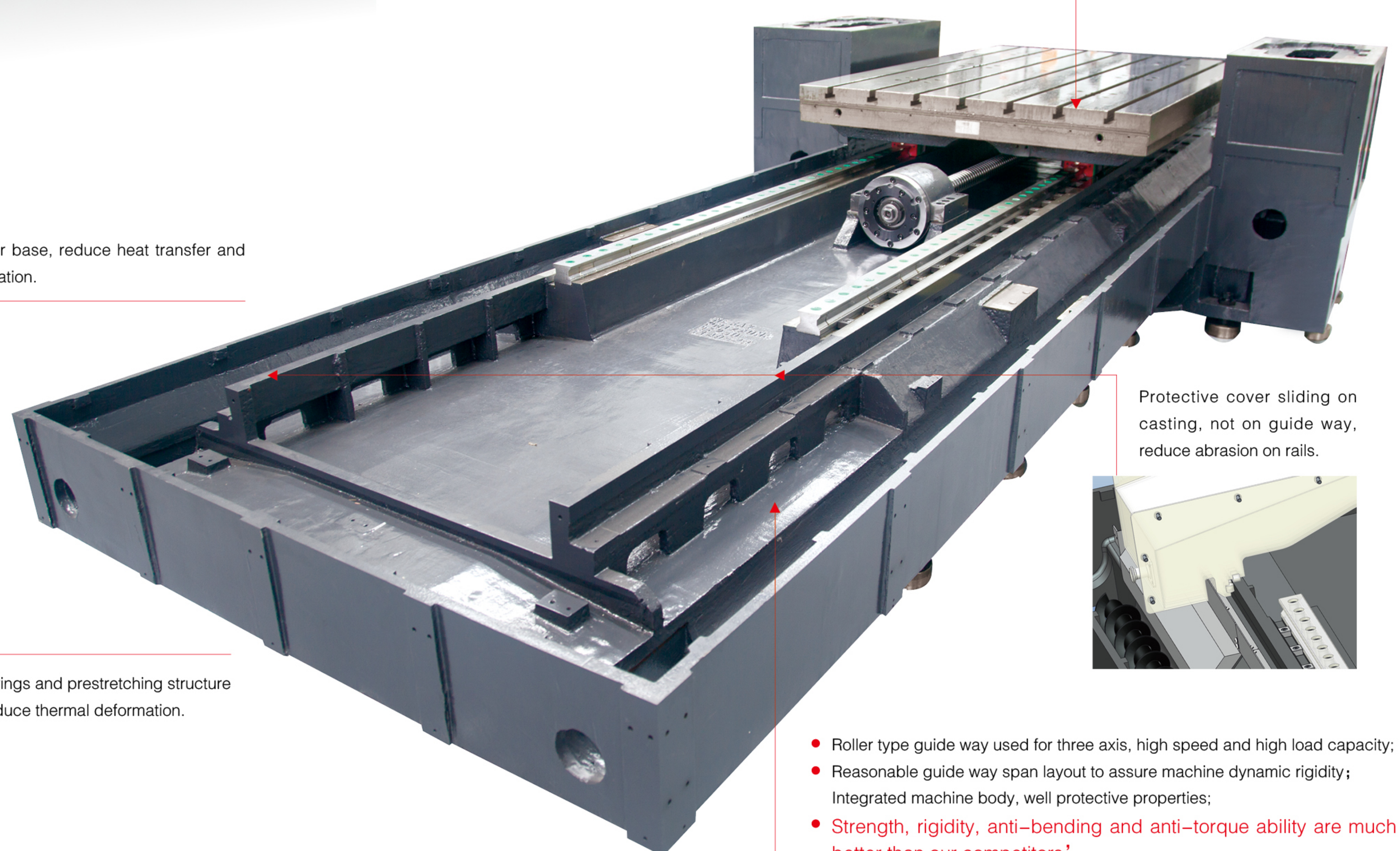


Each side 6 bearings and prestretching structure for ballscrew, reduce thermal deformation.



All structural components are analyzed by Finite Element Analysis (FEA) for best performance

Column and beam are integrated design with reinforcing ribs, insure rigidity and stable cutting ability.

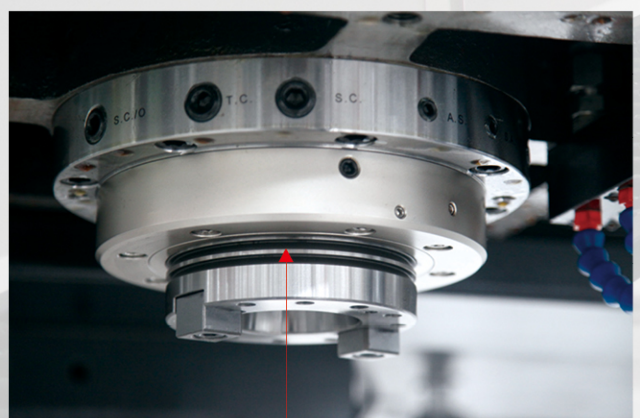


Protective cover sliding on casting, not on guide way, reduce abrasion on rails.

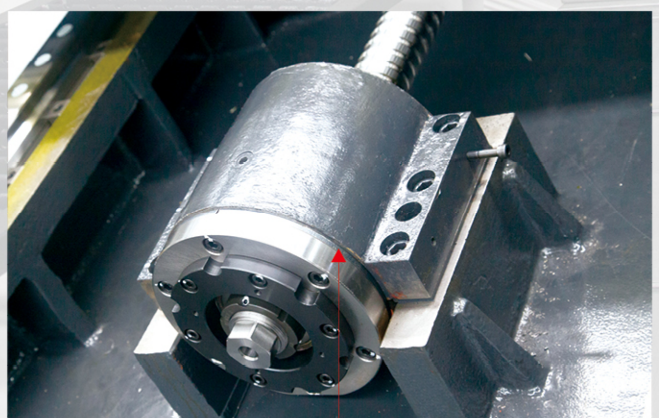
- Roller type guide way used for three axis, high speed and high load capacity;
- Reasonable guide way span layout to assure machine dynamic rigidity； Integrated machine body, well protective properties;
- Strength, rigidity, anti-bending and anti-torque ability are much better than our competitors’.

PM16HA Series
PM20HA Series

Large internal space and working range

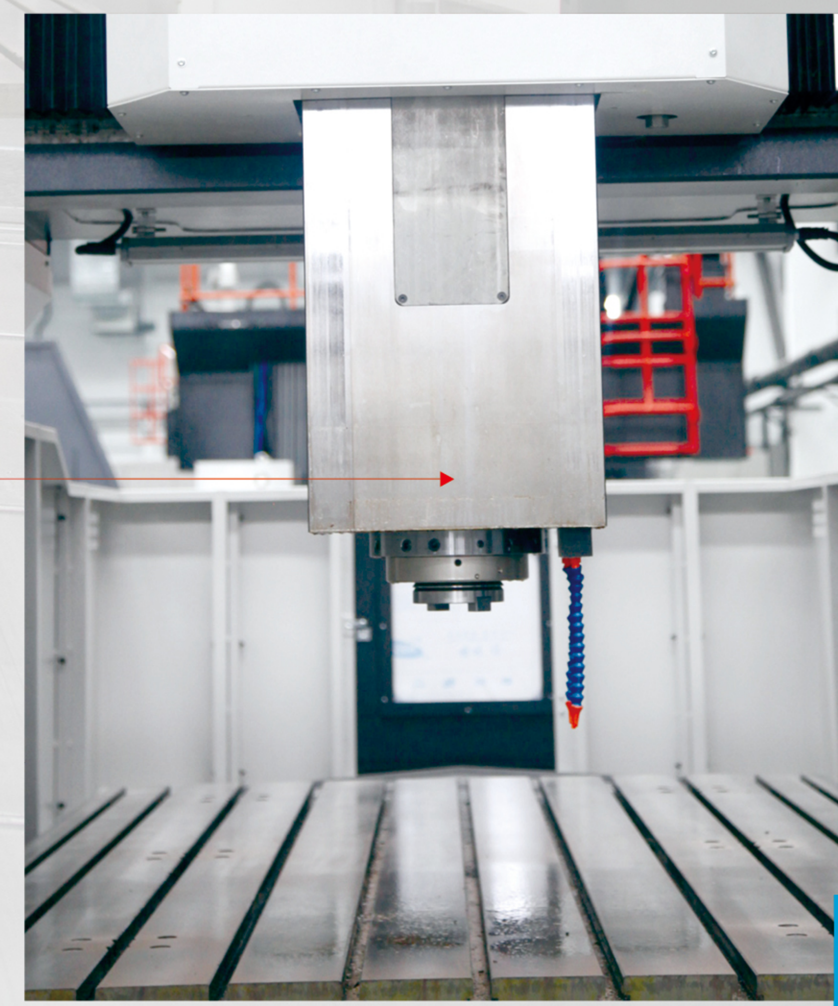


Famous brand spindle unit



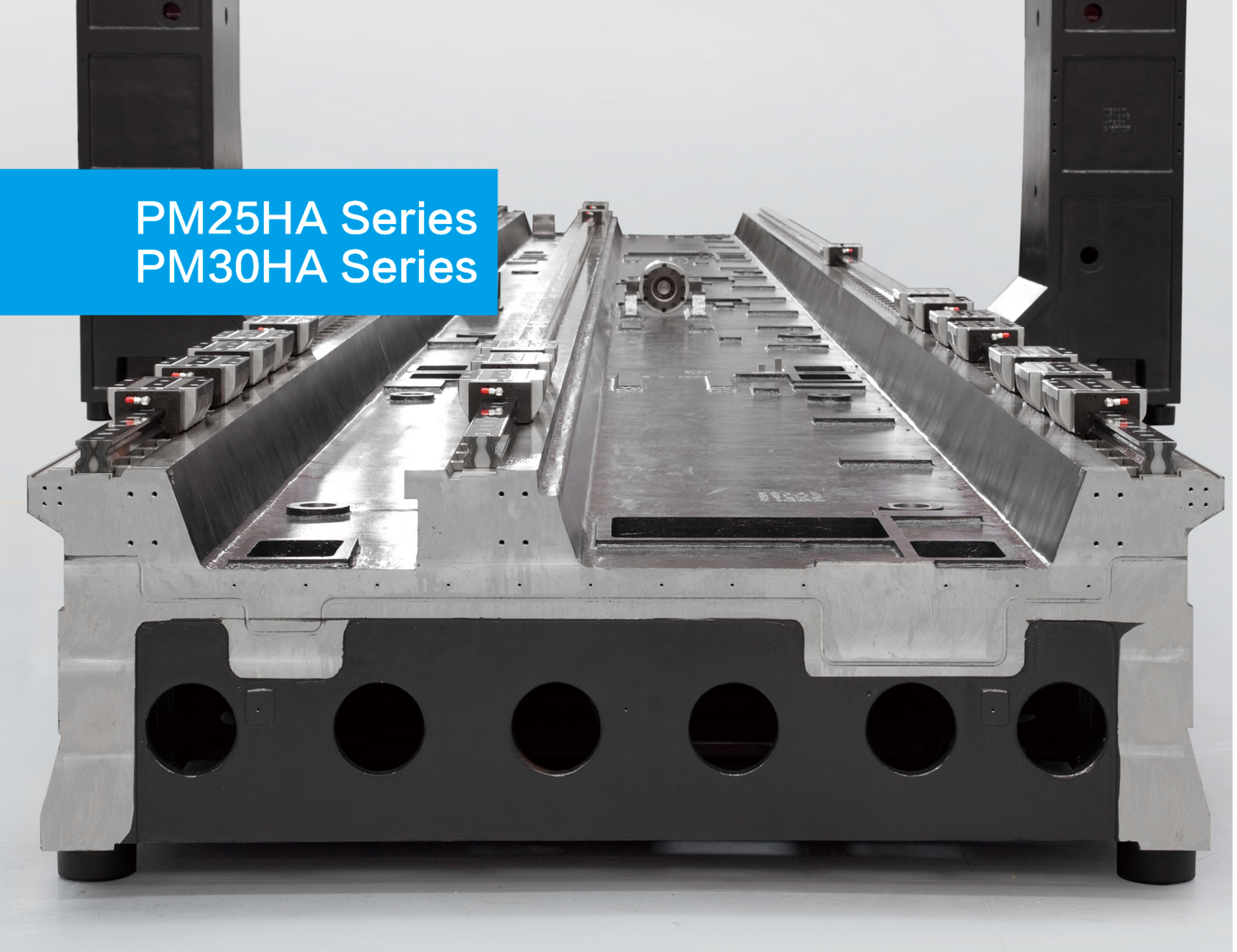
Prestretching structure

NEWAY FANUC CNC system



RAM section

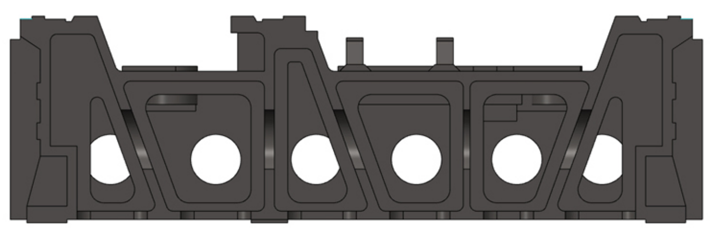
PM25HA Series
PM30HA Series



3 GUIDEWAY AND DENSE SLIDER DESIGN

Offer overall and even support, ensure rigidity and flatness of worktable

LONG TRAVEL BALL SCREW'S AUXILIARY SUPPORT SYSTEM

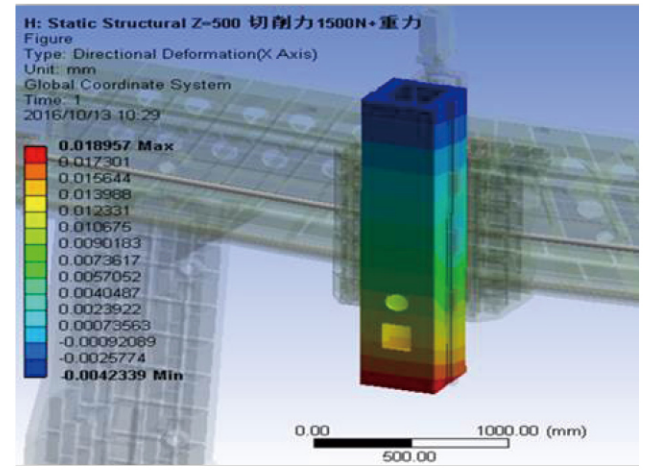


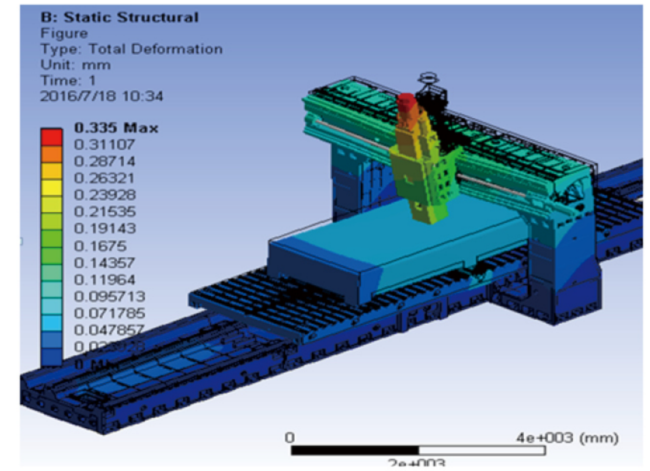
Auxiliary首字母大写 auxiliary support

6m travel, 2 auxiliary supports

Finite Element Analysis (FEA)

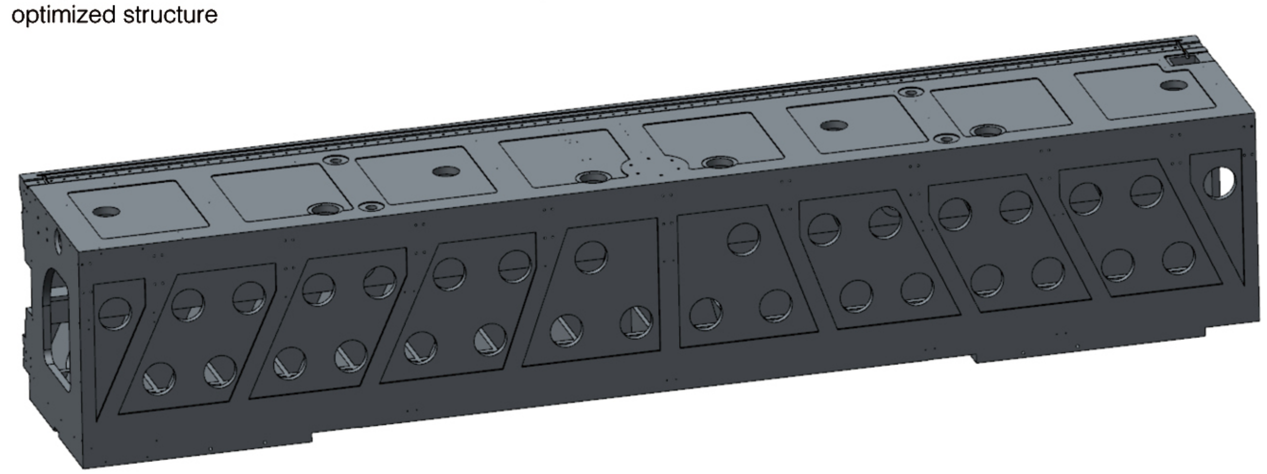
analyze and optimize machine stress, pursuit most optimized structure
cross beam is analyzed with topology optimize technology and special interior structure designed

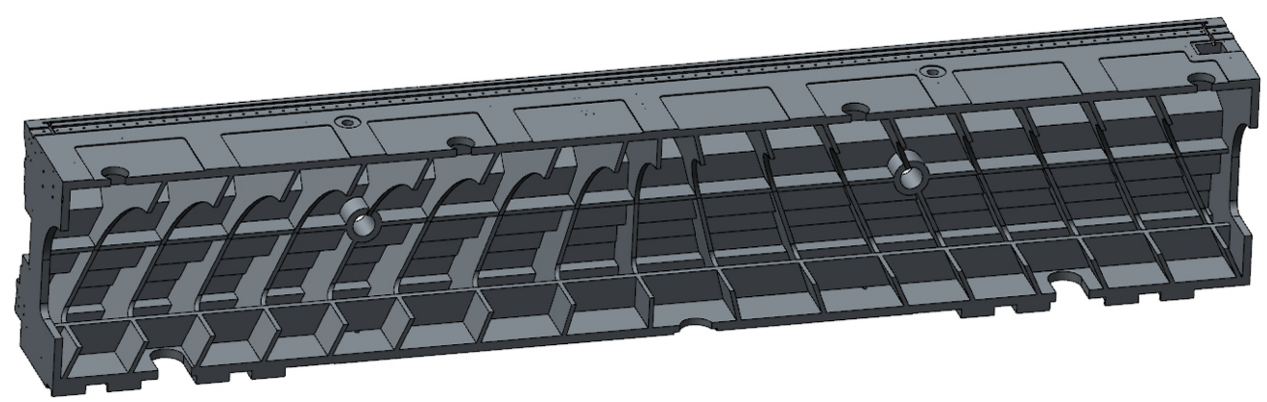




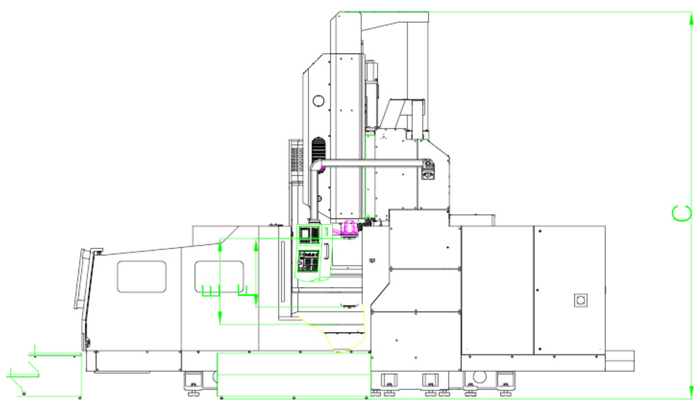
HERRINGBONE REINFORCEMENT RIBS

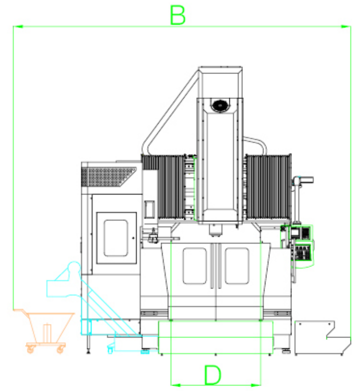
analyze and optimize the machine structure, pursue most optimized structure

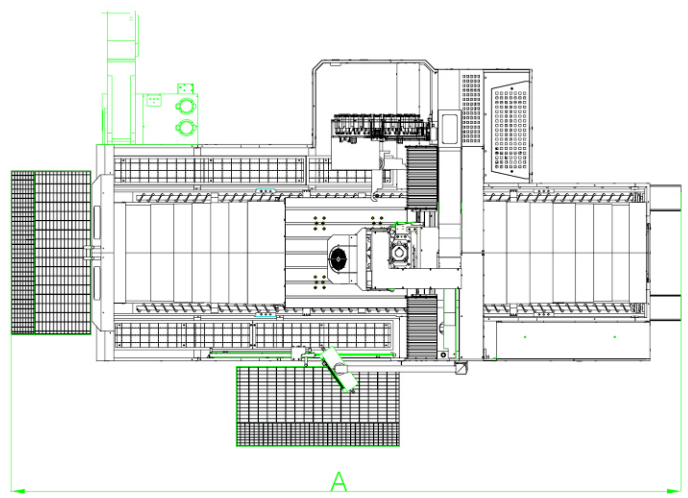


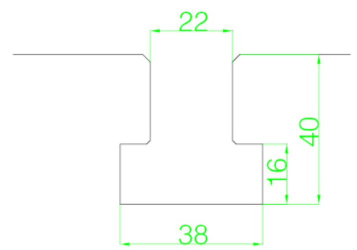


Machine dimension drawing









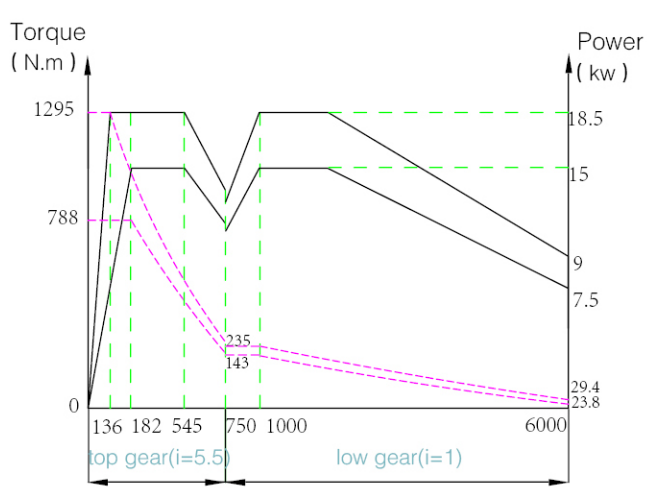
Work table T solt

Model	A	B	C	D	E	F
PM1220HA	7300	5500	4500	1400	1000	800
PM1230HA	9540	5500	4500	1400	1000	800
PM1240HA	11800	5500	4500	1400	1000	800

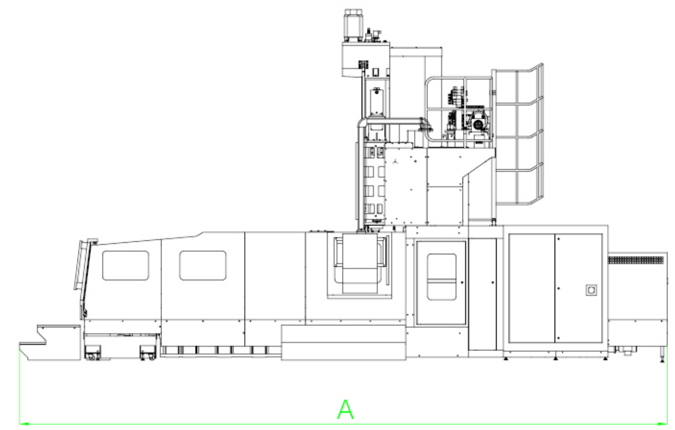
Spindle motor power Torque curve

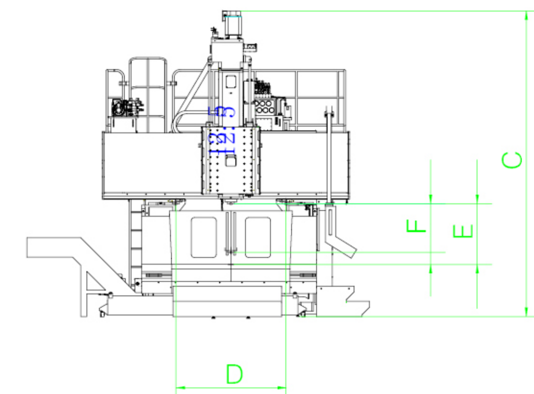
Power curve

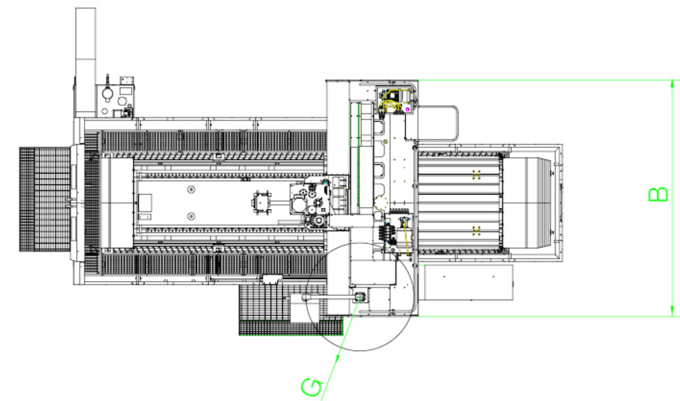
Torque curve

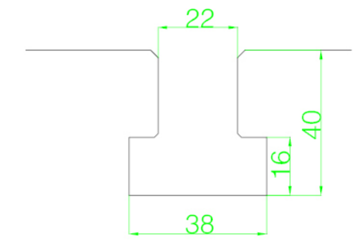


Machine dimension drawing









Work table T solt

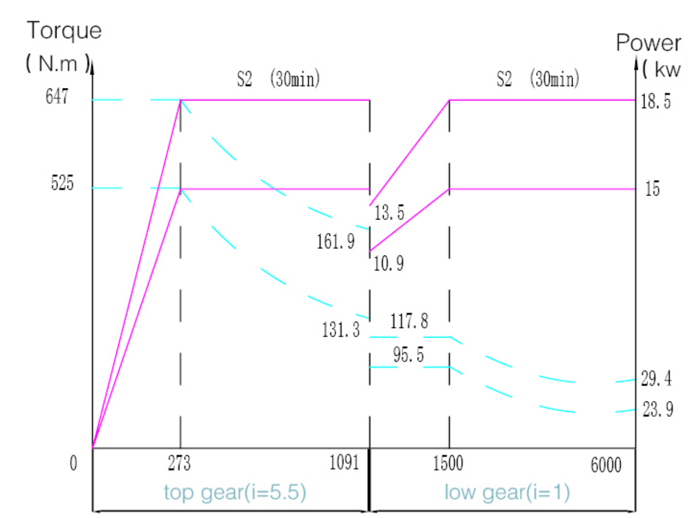
Model	A	B	C	D	E	F	G
PM1620HA	7500	4050	5050[5250]	1800[2300]	1000[1200]	800[1000]	950
PM1630HA	9500	4050	5050[5250]	1800[2300]	1000[1200]	800[1000]	950
PM1640HA	11500	4050	5050[5250]	1800[2300]	1000[1200]	800[1000]	950

[ ] option

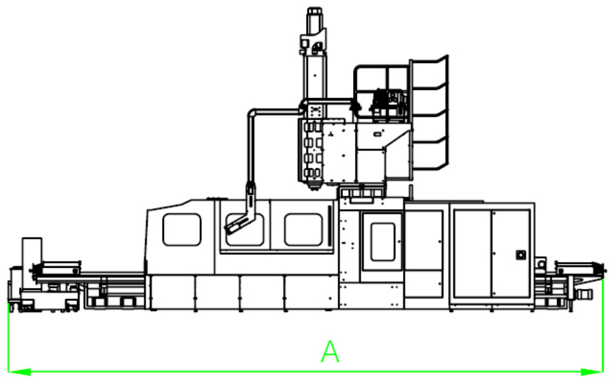
Spindle motor power Torque curve

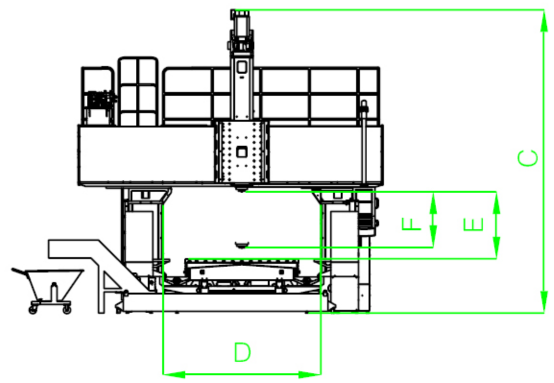
Power curve

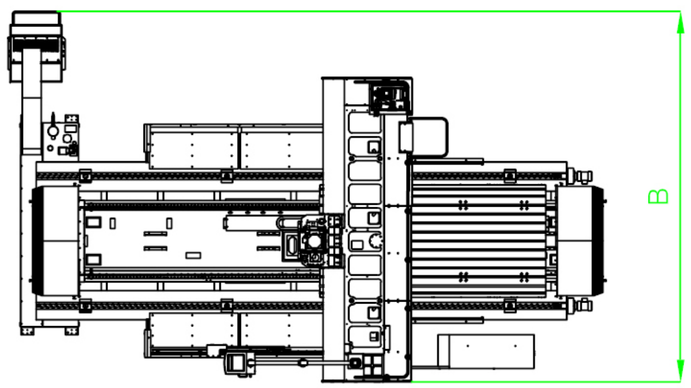
Torque curve

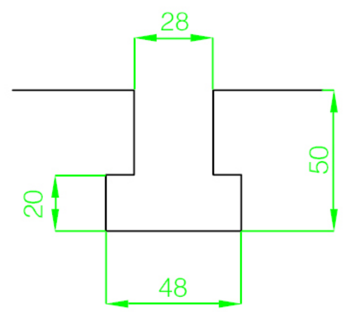


Machine dimension drawing









Work table T solt

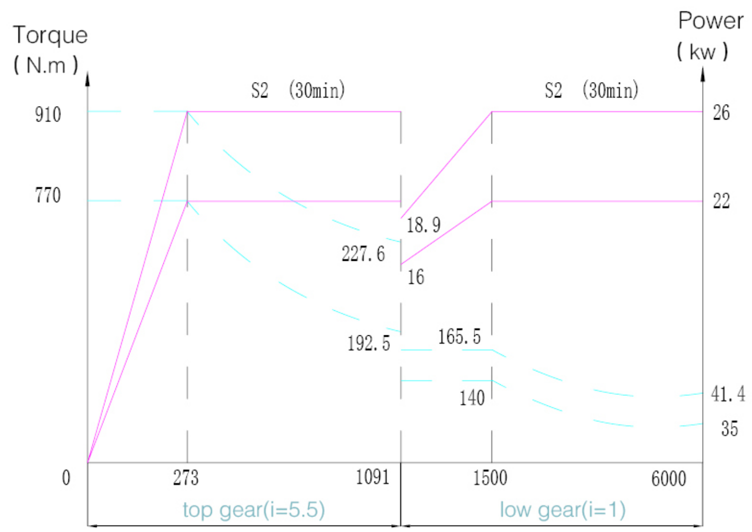
Model	A	B	C	D	E	F
PM2030HA	9000	5500	6000	2300[2800]	1000[1200]	800[1000]
PM2040HA	11000	5500	6000	2300[2800]	1000[1200]	800[1000]
PM2050HA	13000	5500	6000	2300[2800]	1000[1200]	800[1000]
PM2060HA	15000	5500	6000	2300[2800]	1000[1200]	800[1000]

[ ] option

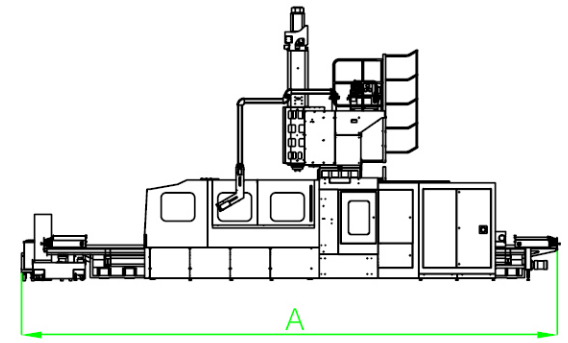
Spindle motor power Torque curve

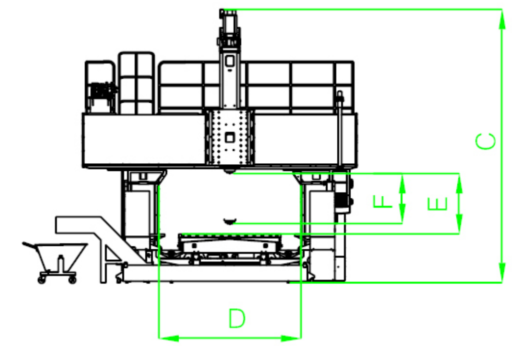
Power curve

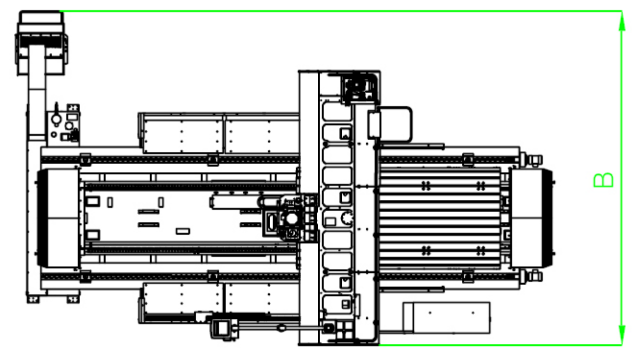
Torque curve

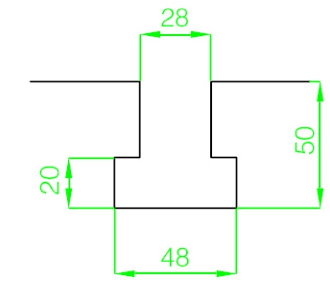


Machine dimension drawing









Work table T solt

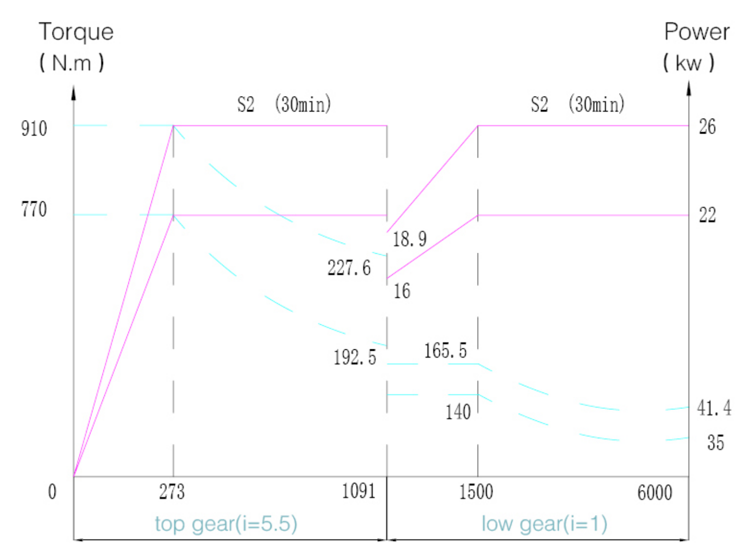
Model	A	B	C	D	E	F
PM2530HA	9000	6500	6000	2800 [3200]	1200 [1500]	1000[1250]
PM2540HA	11000	6500	6000	2800 [3200]	1200 [1500]	1000[1250]
PM2550HA	13000	7000	6500	2800 [3300]	1200 [1500]	1000[1250]
PM2560HA	15000	7000	6500	2800 [3300]	1200 [1500]	1000[1250]
PM2580HA	21000	7000	6500	2800 [3300]	1200 [1500]	1000[1250]
PM25100HA	25000	7000	6500	2800 [3300]	1200 [1500]	1000[1250]
PM3050HA	13000	7500	6500	3300 [3800]	1200 [1500]	1000[1250]
PM3060HA	15000	7500	6500	3300 [3800]	1200 [1500]	1000[1250]
PM3080HA	21000	7500	6500	3300 [3800]	1200 [1500]	1000[1250]
PM30100HA	25000	7500	6500	3300 [3800]	1200 [1500]	1000[1250]

[ ] option

Spindle motor power Torque curve

Power curve

Torque curve



Machine parameter

Item	unit	PM1220HA	PM1230HA	PM1240HA	PM1620HA	PM1630HA	PM1640HA	PM2030HA	PM2040HA	PM2050HA	PM2060HA	PM2530HA	PM2540HA
Worktable													
Worktable size	mm	1200×2000	1200×3000	1200×4000	1600×2000	1600×3000	1600×4000	2000×3000	2000×4000	2000×5000	2000×6000	2500×3000	2500×4000
Max loading capacity	kg	3500	5500	7000	8000	10000	12000	16000	20000	23000	26000	18000	22000
Processing range													
Worktable travel （X axis）	mm	2200	3200	4200	2200	3200	4200	3200	4200	5200	6200	3200	4200
Saddle travel（Y axis）	mm	1200	1200	1200	1800+300 [2300+400]	1800+300 [2300+400]	1800+300 [2300+400]	2300+400 [2800+400]	2300+400 [2800+400]	2300+400 [2800+400]	2300+400 [2800+400]	2800+400 [3200]	2800+400 [3200]
Spindle box travel（Z axis）	mm	800	800	800	800[1000]	800[1000]	800[1000]	800[1000]	800[1000]	800[1000]	800[1000]	1000[1250]	1000[1250]
Spindle face to worktable	mm	200 ~ 1000	200 ~ 1000	200 ~ 1000	200 ~ 1000 [200 ~ 1200]	200 ~ 1000 [200 ~ 1200]	200 ~ 1000 [200 ~ 1200]	200 ~ 1000 [200 ~ 1200]	200 ~ 1000 [200 ~ 1200]	200 ~ 1000 [200 ~ 1200]	200 ~ 1000 [200 ~ 1200]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]
Distance beween two columns	mm	1400	1400	1400	1800[2300]	1800[2300]	1800[2300]	2300[2800]	2300[2800]	2300[2800]	2300[2800]	2800[3200]	2800[3200]
Spindle													
Spindle taper		BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Spindle speed	r/min	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000
Max torque	N.m	788/1295	788/1295	788/1295	525/647	525/647	525/647	770/910	770/910	770/910	770/910	770/910	770/910
Spindle motor power	kW	15/18.5	15/18.5	15/18.5	15/18.5[22/26]	15/18.5[22/26]	15/18.5[22/26]	22/26	22/26	22/26	22/26	22/26	22/26
Ram section	mm	400×320	400×320	400×320	400×400	400×400	400×400	400×400	400×400	400×400	400×400	400×400 [420x420]	400×400 [420x420]
Rapid travel													
X、Y、Z axis rapid speed	m/min	24/24/15	15/24/15	15/24/15	20/18/15	20/18/15	15/18/15	15/15/12	15/15/12	12/15/12	12/15/12	15/12/12	15/12/12
ATC automatic tool change（options）													
Max diameter /length /weight of tool		24[32/40/60]			[24/32/40/60]								
Max diameter of tool (no adjacent tool)	mm/ mm/kg	Φ110/350/15	Φ110/350/15	Φ110/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15
Tool change time （tool to tool）	mm	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200
Machine accuracy GB/t17421.2–2000													
Positioning accuracy（X/Y/Z）	mm	0.012/0.012/0.012	0.017/0.012/0.012	0.022/0.012/0.012	0.016/0.016/0.016	0.020/0.016/0.016	0.025/0.016/0.016	0.020/0.020/0.016	0.025/0.020/0.016	0.030/0.020/0.016	0.035/0.020/0.016	0.020/0.025/0.020	0.025/0.025/0.020
Repositioning accuracy （X/Y/Z）	mm	0.008/0.008/0.008	0.012/0.008/0.008	0.016/0.008/0.008	0.010/0.010/0.010	0.012/0.010/0.010	0.016/0.010/0.010	0.012/0.012/0.010	0.016/0.012/0.010	0.020/0.012/0.010	0.024/0.012/0.010	0.012/0.016/0.012	0.016/0.016/0.012
CNC system		NEWAY FANUC / SIEMENS						NEWAY FANUC / SIEMENS					
Machine weight	kg	19000	23000	26000	28000	30000	35000	41000	45000	50000	55000	45000	50000

[ ] option

Machine parameter

Electric Spindle Series Parameter

Item	unit	PM2550HA	PM2560HA	PM2580HA	PM25100HA	PM3050HA	PM3060HA	PM3080HA	PM30100HA	PM1220V	PM1630V	PM2040V
Worktable												
Worktable size	mm	2500×5000	2500×6000	2500×8000	2500×10000	3000×5000	3000×6000	3000×8000	3000×10000	1200×2000	1600×3000	2000×4000
Max loading capacity	kg	25000	30000	35000	40000	30000	35000	40000	45000	3500	10000	20000
Processing range												
Worktable travel （X axis）	mm	5200	6200	8500	10500	5200	6200	8500	10500	2200	3200	4200
Saddle travel（Y axis）	mm	2800+400 [3300+400]	2800+400 [3300+400]	2800+400 [3300+400]	2800+400 [3300+400]	3300+400 [3800+400]	3300+400 [3800+400]	3300+400 [3800+400]	3300+400 [3800+400]	1200	1800+300[2300+400]	2300+400[2800+400]
Spindle box travel（Z axis）	mm	1000[1250]	1000[1250]	1000[1250]	1000[1250]	1000[1250]	1000[1250]	1000[1250]	1000[1250]	800	800[1000]	800[1000]
Spindle face to worktable	mm	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	200 ~ 1200 [250 ~ 1500]	150 ~ 950	170 ~ 970[170 ~ 1170]	170 ~ 970[170 ~ 1170]
Distance beween two columns	mm	2800[3300]	2800[3300]	2800[3300]	2800[3300]	3300[3800]	3300[3800]	3300[3800]	3300[3800]	1400	1800[2300]	2300[2800]
Spindle												
Spindle taper		BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	HSK-A63	HSK-A63	HSK-A63
Spindle speed	r/min	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	40 ~ 6000	10 ~ 18000	10 ~ 18000	10 ~ 18000
Max torque	N.m	770/910	770/910	770/910	770/910	770/910	770/910	770/910	770/910	87/130	87/130	87/130
Spindle motor power	kW	22/26	22/26	22/26	22/26	22/26	22/26	22/26	22/26	25/30	25/30	25/30
Ram section	mm	400×400 [420x420]	400×400 [420x420]	400×400 [420x420]	400×400 [420x420]	400×400 [420x420]	400×400 [420x420]	400×400 [420x420]	400×400 [420x420]	400×320	380×380	380×380
Rapid travel												
X、Y、Z axis rapid speed	m/min	12/12/12	12/12/12	10/12/12	10/12/12	12/12/12	12/12/12	10/12/12	10/12/12	30/30/24	20/20/20	15/15/15
Atc automatic tool change（options）												
Max diameter /length /weight of tool		[24/32/40/60]					[24/32/40/60]			24[32/40/60]	[24/32/40/60]	[24/32/40/60]
Max diameter of tool (no adjacent tool)	mm/mm/kg	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ105/350/15	Φ80 /300/8	Φ80/300/8	Φ80/300/8
Tool change time （tool to tool）	mm	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ150	Φ150	Φ150
Machine accuracy GB/t17421.2-2000												
Positioning accuracy（X/Y/Z）	mm	0.030/0.025/0.020	0.035/0.025/0.020	0.045/0.025/0.020	0.055/0.025/0.020	0.030/0.030/0.020	0.035/0.030/0.020	0.045/0.030/0.020	0.055/0.030/0.020	0.012/0.012/0.012	0.020/0.016/0.016	0.025/0.020/0.016
Repositioning accuracy （X/Y/Z）	mm	0.020/0.016/0.012	0.024/0.016/0.012	0.032/0.016/0.012	0.040/0.016/0.012	0.020/0.020/0.012	0.024/0.020/0.012	0.032/0.020/0.012	0.040/0.020/0.012	0.008/0.008/0.008	0.012/0.010/0.010	0.016/0.012/0.010
CNC system		NEWAY FANUC / SIEMENS					NEWAY FANUC / SIEMENS			NEWAY FANUC		
Machine weight	kg	58000	65000	85000	95000	62000	70000	90000	100000	19000	30000	45000

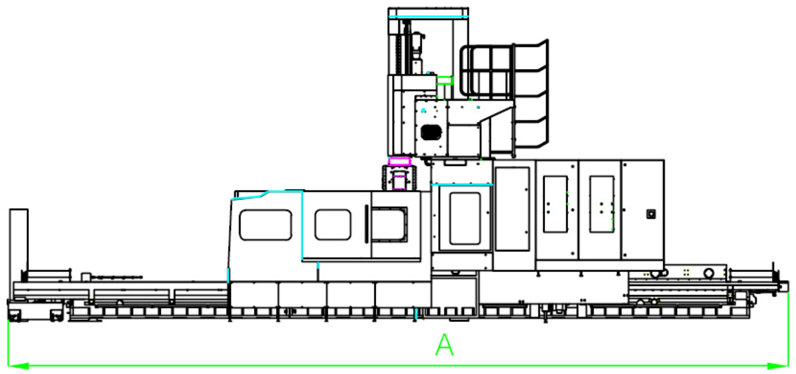
[ ] option

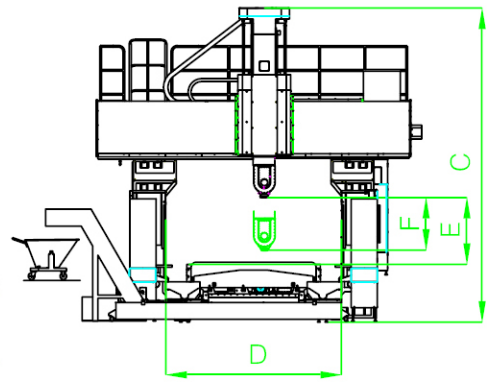
PM Series Portal Milling Center with 5 axes

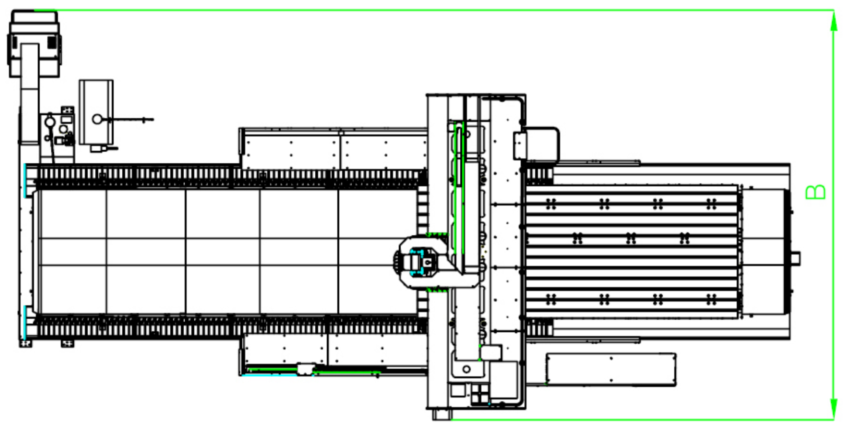
5 axes process

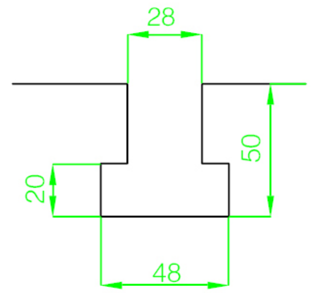
- worktable travels, portal frame milling center
- AC swivel head, dual torque motor + electric spindle, for complicated curve process
- roller guideway for 3 axes, good dynamic response performance, 4 guideways for Z axis, perfect balance of high rigidity and high response
- standardization, modularization, generalization, quick response made to order

Machine dimension drawing









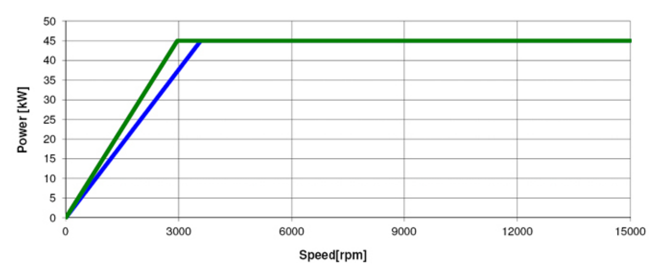
Work table T solt

型号	A	B	C	D	E	F
PM2040U	11000	5500	6000	2300[2800]	1000[1200]	800[1000]
PM2060U	15000	5500	6000	2300[2800]	1000[1200]	800[1000]
PM2560U	15000	7000	6500	2800 [3300]	1200 [1500]	1000[1250]
PM2580U	21000	7000	6500	2800 [3300]	1200 [1500]	1000[1250]

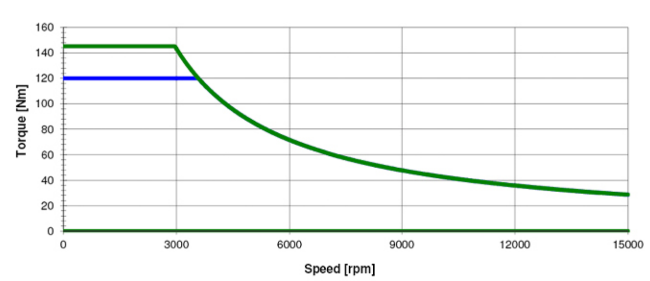
[ ] option

Spindle motor power Torque curve

Power curve



Torque curve



Machine parameter

Item	unit	PM2040U	PM2060U	PM2560U	PM2580U
Worktable					
Worktable load	kg	20000	30000	30000	35000
Worktable size	mm	2000x4000	2000x6000	2500x6000	2500x8000
Work range					
Worktable travel	mm	4200	6200	6200	8500
Carriage travel	mm	3200	3200	3200	3200
Spindle to worktable	mm	0–1000	0–1000	200–1200	200–1200
Columns span	mm	2800	2800	3300	3300
Spindle					
Tool shank		HSK A100	HSK A100	HSK A100	HSK A100
Speed	r/min	100–15000	100–15000	100–15000	100–15000
Max export torque	N.m	120/145	120/145	120/145	120/145
Spindle power	kW	45	45	45	45
A/c axis rotation angle	°	±105/±360	±105/±360	±105/±360	±105/±360
A/c axis angle positioning accuracy	Arc second	±5	±5	±5	±5
A/c axis angle repositioning accuracy	Arc second	±3	±3	±3	±3
Ram section	mm	420x400	420x400	420x400	420x400
Rapid traverse					
X，Y，Z axis rapid traverse	m/min	12/12/10	10/12/10	10/12/10	10/12/10
ATC					
Max tool dia/length/weight	mm/mm/kg	ϕ220/400/20	ϕ220/400/20	ϕ220/400/20	ϕ220/400/20
Max tool dia（empty neighbor cell）	mm	ϕ220	ϕ220	ϕ220	ϕ220
ATC time	s	3.55	3.55	3.55	3.55
Accuracy standard"GB/t17421.2–2000"					
Positioning accuracy（X/Y/Z）	mm	0.025/0.020/0.016	0.035/0.020/0.016	0.035/0.025/0.020	0.045/0.025/0.020
Re–positioning accuracy（X/Y/Z）	mm	0.016/0.012/0.010	0.024/0.012/0.010	0.024/0.016/0.012	0.028/0.016/0.012
CNC System		SIEMENS			
Machine weight	kg	45000	55000	65000	85000

Standard configuration

1、Swivel head hydro cooling system；
2、Electric spindle lubrication system；
3、Automatic chip conveying system；
4、Protection cover for x/y guide ways；
5、Coolant through spindle；
6、Safety fence for crossbeam and ladder；
7、Air cleaner；
8、Standard attachment；
9、Manual pulse generator；
10、Tri–colour lamp.

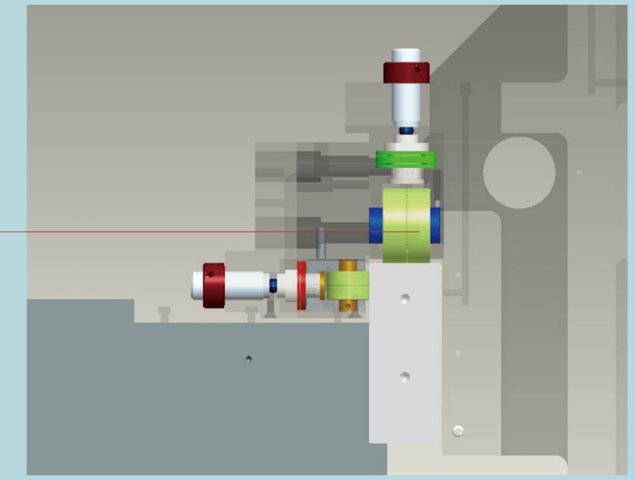
Options

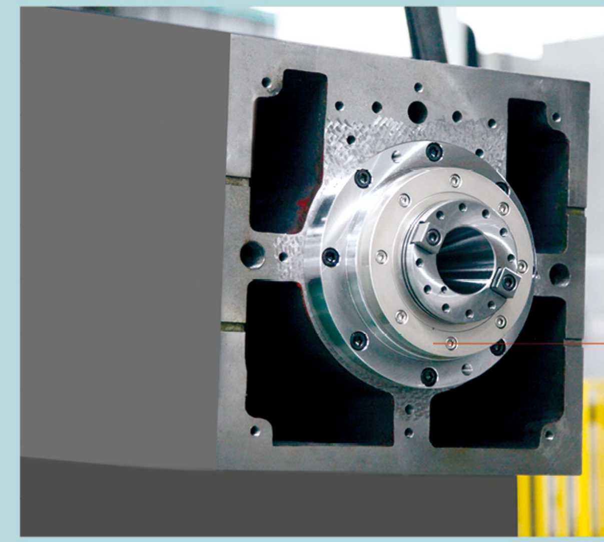
1、Optical scales for 3 axes；
2、Tool magazine；
3、Fanuc 31i control system.

PM Series CNC Heavy Duty Portal Milling Center

Heavy type, Heavy cutting, Powerful torque, Stable precision

- Large span stair structure embed steel guide way, magnificent anti-bending and anti-torque ability. Decompression structure for beam, reduce guide way abrasion. Improving dynamic response and cutting capacity;
- Full process strict quality control system;
- Symmetry layout double motors drive for Z axis, impact resistance, high precision, steady transmission;
- 450x450mm RAM section insure high rigidity for heavy cutting;
- Advanced structure for drive system, reduce thermal transmission and thermal deformation.

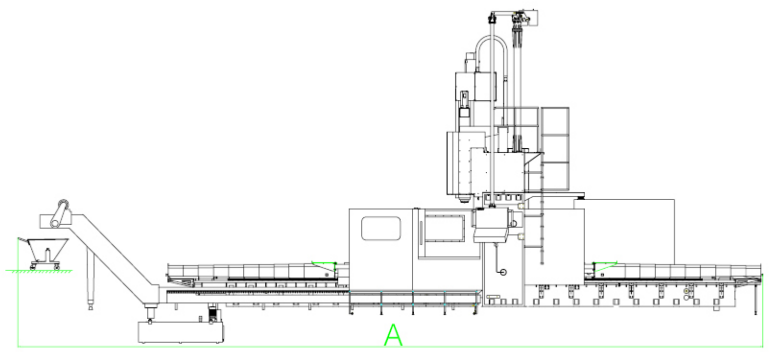


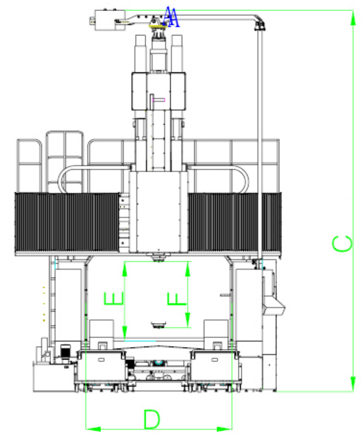


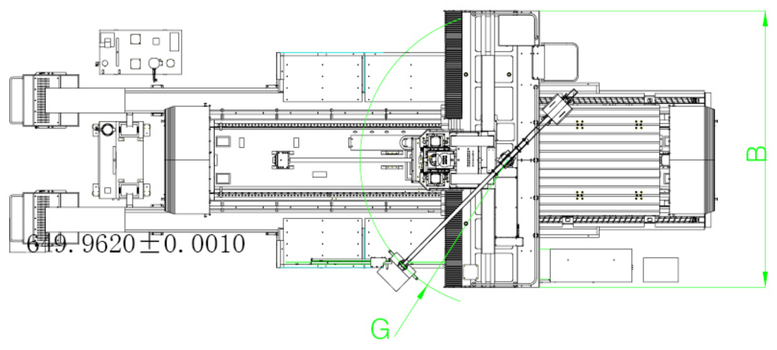
Decompression structure for beam, reduce guide way abrasion.

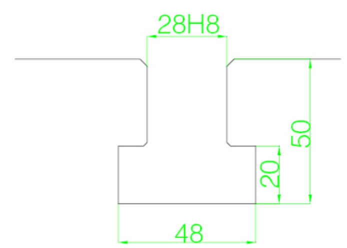
Famous brand spindle with 2000rpm speed and high torque to realize powerful cutting capacity

Machine dimension drawing









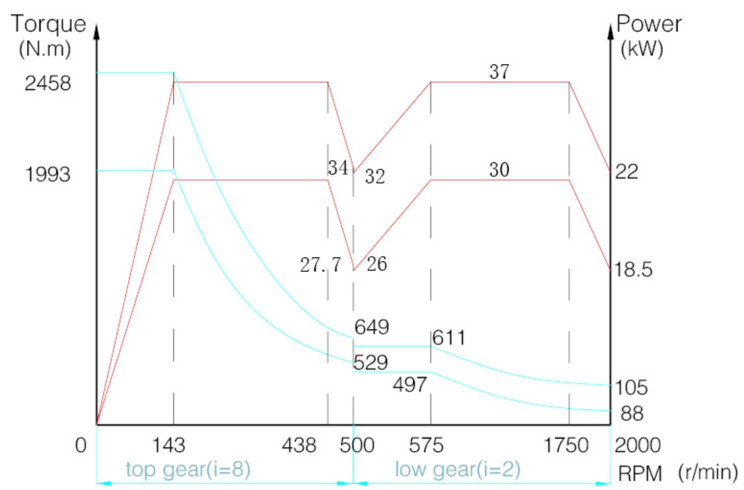
Work table T solt

Model	A	B	C	D	E	F	G
PM2030SA	8500	5000	7200	2700[3000]	1500	1250	2700
PM2040SA	12500	5000	7200	2700[3000]	1500	1250	2700
PM2050SA	15000	5000	7200	2700[3000]	1500	1250	2700
PM2060SA	17000	5000	7200	2700[3000]	1500	1250	2700

[ ] option

Spindle motor power Torque curve

Power curve
Torque curve



Machine parameter

Item	Unit	PM2030SA	PM2040SA	PM2050SA	PM2060SA	PM2560S
Worktable						
Worktable size	mm	2000×3000	2000×4000	2000×5000	2000×6000	2500×6000
Max loading capacity	kg	16000	20000	25000	30000	30000
Processing range						
Worktable travel（X axis）	mm	3200	4200	5200	6200	6200
Saddle travel（Y axis	mm	2700	2700	2700	2700	3200+400 [3700+150]
Spindle box travel（Z axis）	mm	1250	1250	1250	1250	1250
Spindle face to worktable	mm	250 ~ 1500	250 ~ 1500	250 ~ 1500	250 ~ 1500	250 ~ 1500
Distance beween two columns	mm	2700	2700	2700	2700	3200[3500]
Spindle						
Spindle taper		BT50	BT50	BT50	BT50	BT50
Spindle speed	r/min	20~2000	20~2000	20~2000	20~2000	20~2000
Max torque	N.m	1993/2458	1993/2458	1993/2458	1993/2458	1993/2458
Spindle motor power	kW	30/37	30/37	30/37	30/37	30/37
RAM section	mm	450×450	450×450	450×450	450×450	450×450
Rapid travel						
X、Y、Z axis rapid speed	m/min	10/10/10	10/10/10	12/10/10	12/10/10	8/10/10
ATC automatic tool change（options）						
Max diameter /length /weight of tool	mm/mm/kg	Φ125/350/20	Φ125/350/20	Φ125/350/20	Φ125/350/20	Φ125/350/20
Max diameter of tool (no adjacent tool)	mm	Φ225	Φ225	Φ225	Φ225	Φ225
Tool change time（tool to tool）	s	2.91	2.91	2.91	2.91	2.91
Machine accuracy GB/T17421.2–2000						
Positioning accuracy（X/Y/Z）	mm	0.030/0.035/0.030	0.035/0.035/0.030	0.040/0.035/0.030	0.045/0.035/0.030	0.045/0.035/0.030
Repositioning accuracy（X/Y/Z）	mm	0.015/0.017/0.013	0.019/0.017/0.013	0.023/0.017/0.013	0.027/0.017/0.013	0.027/0.017/0.013

CNC system		NEWAY FANUC / SIEMENS				
Machine weight	kg	46000	51000	55000	60000	75000

Standard configuration

1、ZF retarder
2、NEWAY retarder
3、Spindle and retarder cooling system
4、Auto chip conveyor
5、Z axis double–drive system
6、Air and coolant tool cooling system
7、X/Y axis guideway protection
8、Safety protection
9、Beam handrail and stairs
10、Hydraulic clamp/unclamp tool
11、 Air gun
12、Standard accessary
13、Rigid tapping
14、Transformer
15、MPG
16、Tri–colour light

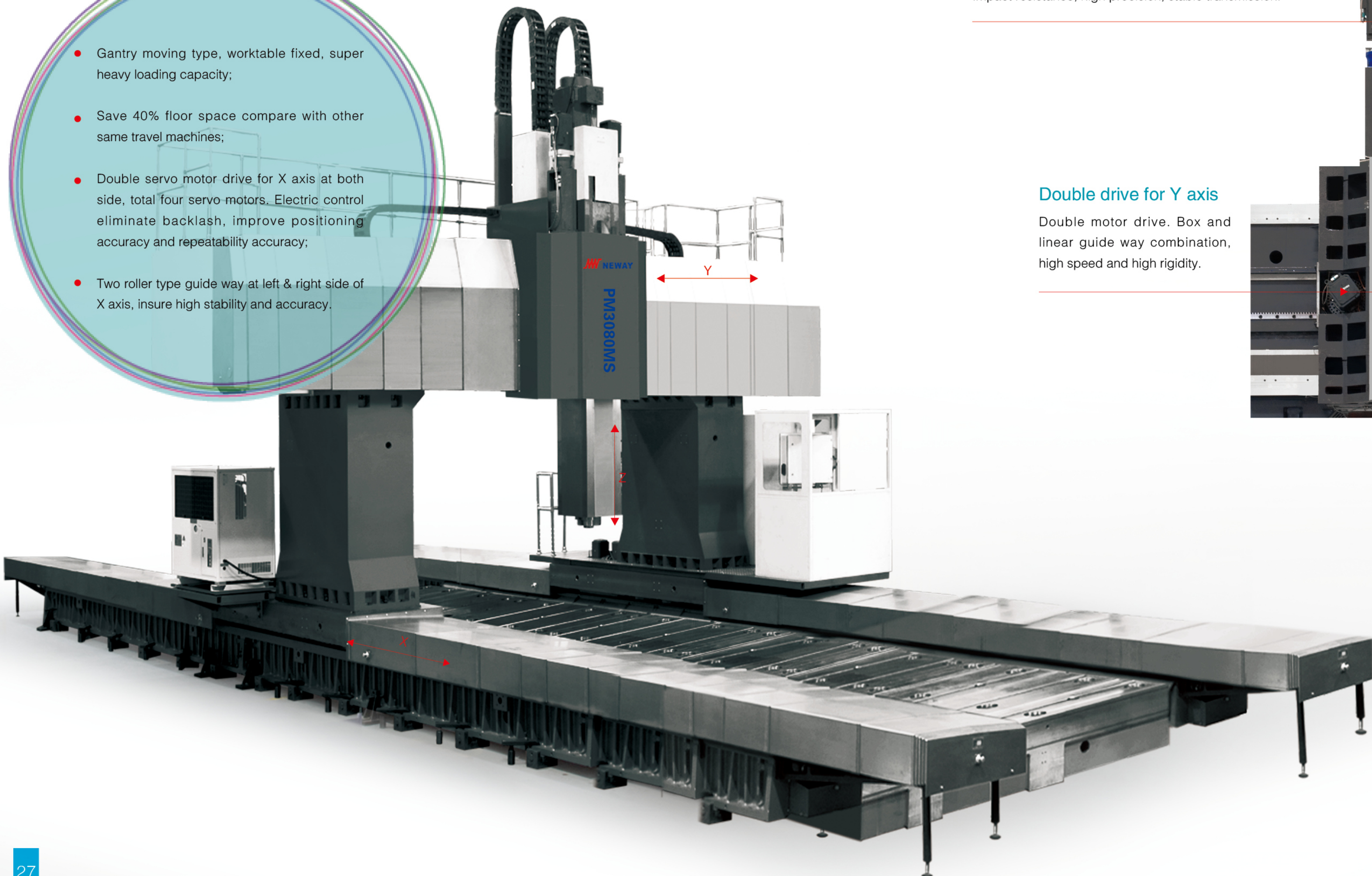
Options

1、 Three axis linear scale
2、Milling head
3、Tool magazine 32/40T
4、Rotary table
5、Coolant through spindle
6、Extended spindle
7、Column height increase by 300mm
8、 Y axis travel increase
9、Column span increase
10、Spindle motor increase to 37/45Kw
11、Spindle speed 20~3000RPM (FANUC system)
12、Full protection

PM Series CNC Gantry Milling Center

Heavy type, Heavy cutting

- Gantry moving type, worktable fixed, super heavy loading capacity;
- Save 40% floor space compare with other same travel machines;
- Double servo motor drive for X axis at both side, total four servo motors. Electric control eliminate backlash, improve positioning accuracy and repeatability accuracy;
- Two roller type guide way at left & right side of X axis, insure high stability and accuracy.

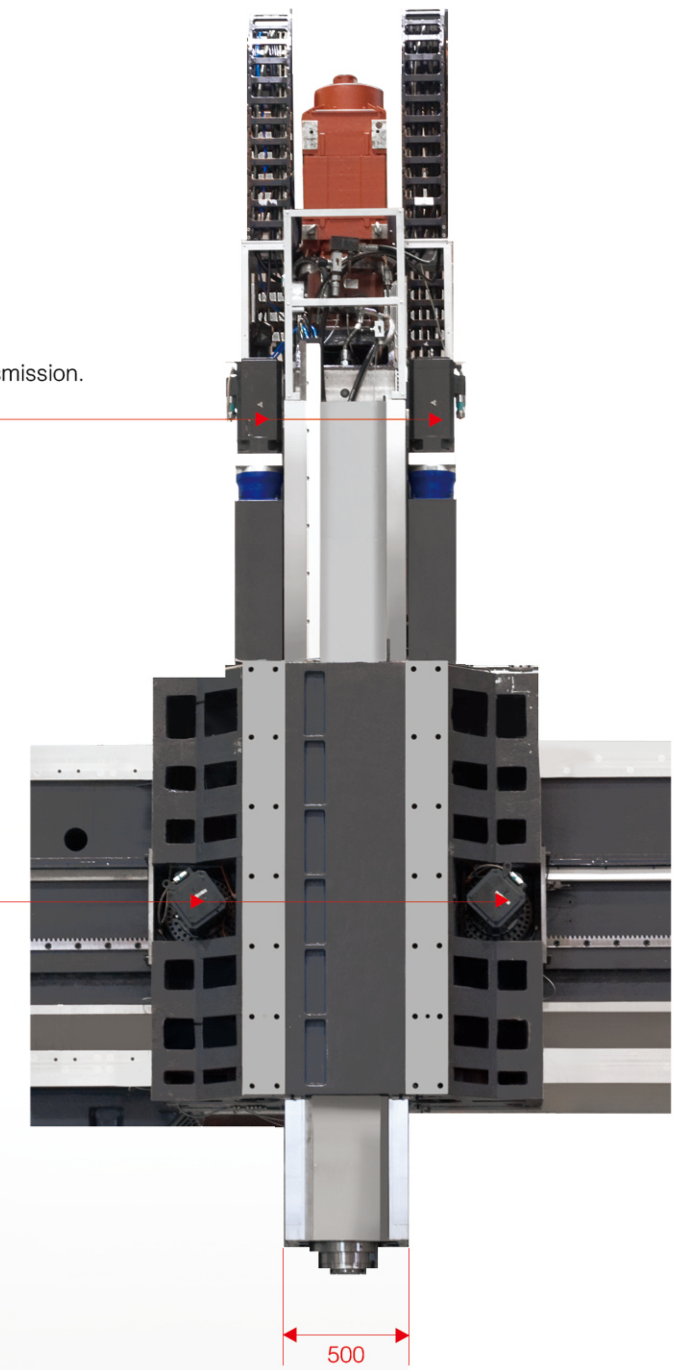


Double drive for Z axis

Double motor, symmetry layout，
Impact resistance, high precision, stable transmission.

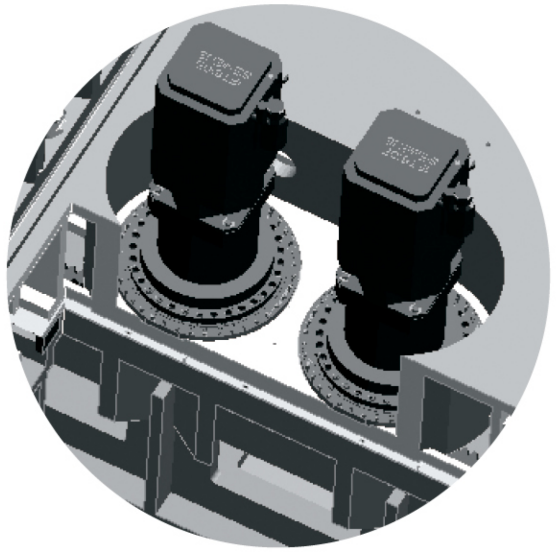
Double drive for Y axis

Double motor drive. Box and linear guide way combination, high speed and high rigidity.

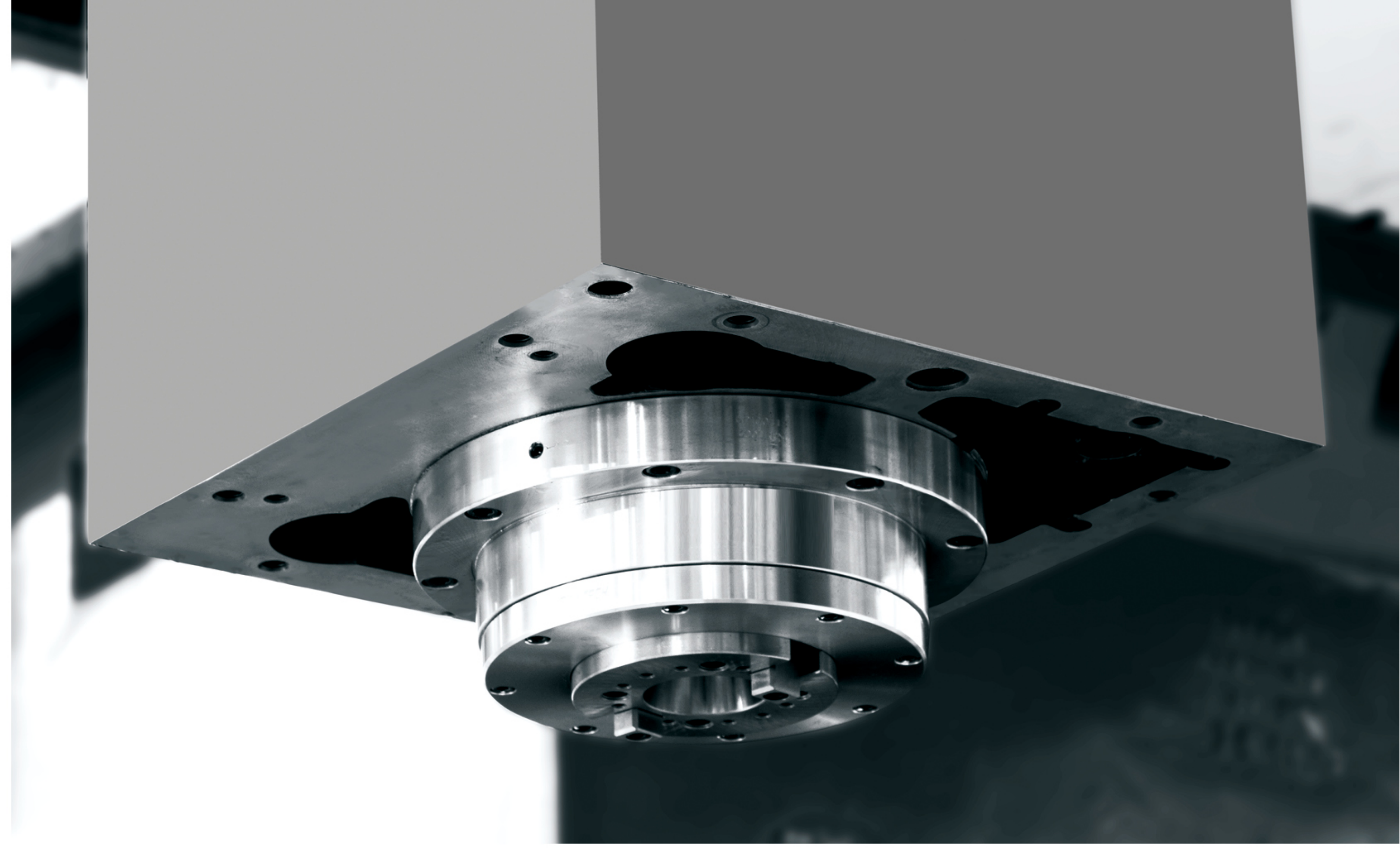


High rigidity spindle unit design

500*500mm super large RAMsection structure, four sides box guide way with plastics skills. Reduce the vibration when RAM moving, insure machining precision, special design for heavy cutting.



Double servo motor drive for X axis at both side, total four servo motor. Electric control eliminate backlash, improve positioning accuracy and repeatability accuracy.

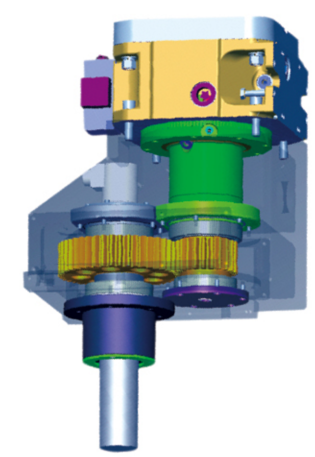


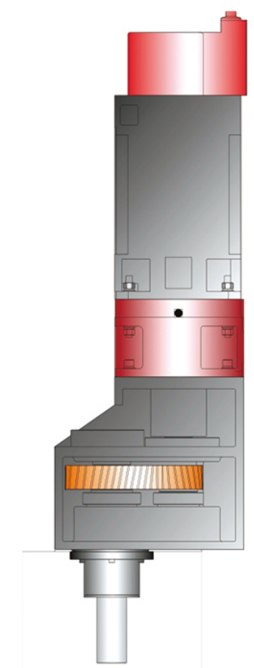
Y axis with large span embed steel stair guide way

Large span embed steel stair guide way
guide way stair gap 100mm,
Well anti-bending and anti-torque ability.

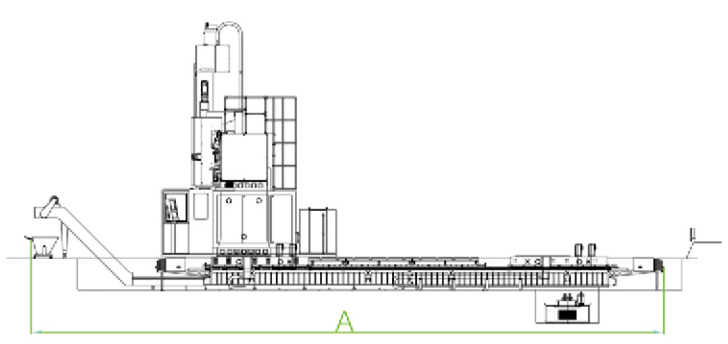
Main drive

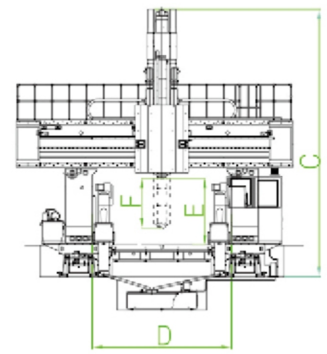
ZF gear box for main drive system (1:1 & 1:4 two gear shifts) and combined with NEWAY gear box (1:2), improve spindle output torque. Germany coupling used for spindle and gear box, reduce noise and fault.

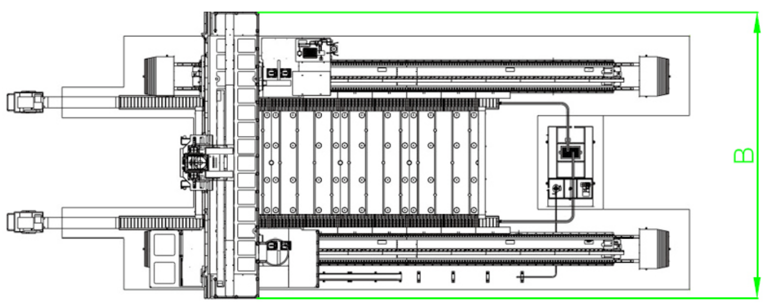


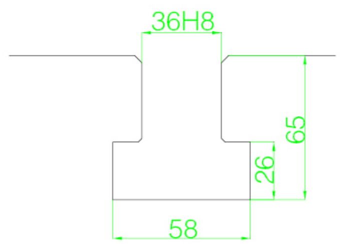


Machine dimension drawing







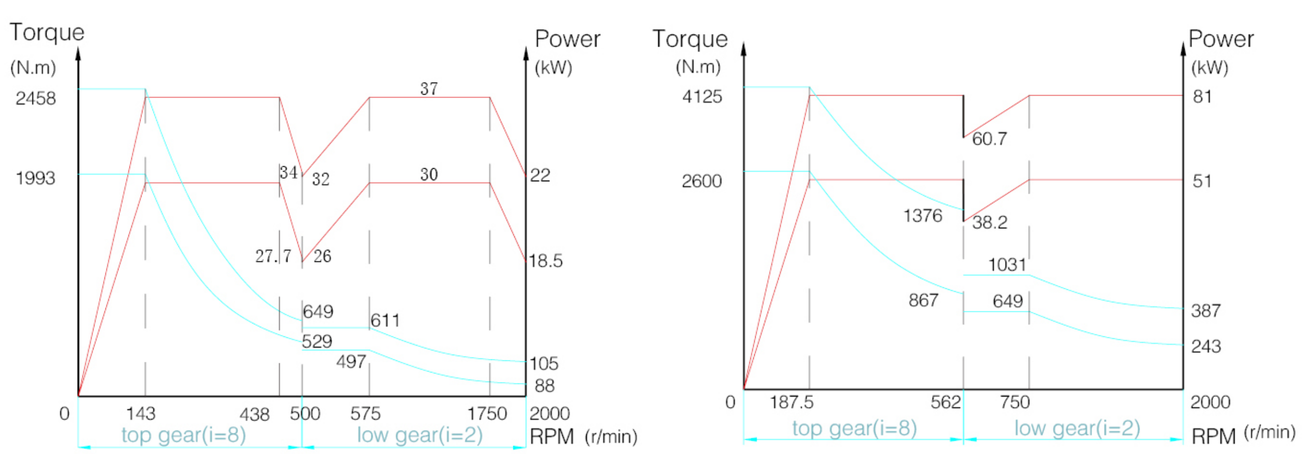


Work table T solt

Model	A	B	C	D	E	F
PM3080MSA	19050	7500	8300	4200	1750	1250
PM30100MSA	21050	7500	8300	4200	1750	1250
PM30120MSA	23050	7500	8300	4200	1750	1250
PM3080MS	19050	8500	8500	4200	2000	1500
PM30100MS	21050	8500	8500	4200	2000	1500
PM30120MS	23050	8500	8500	4200	2000	1500

Spindle motor power Torque curve

Power curve
Torque curve



Machine parameter

Item	Unit	PM3080MSA	PM30100MSA	PM30120MSA	PM3080MS	PM30100MS	PM30120MS
Worktable							
Worktable size	mm	3000 x 8000	3000 x 10000	3000 x 12000	3000 x 8000	3000 x 10000	3000 x 12000
Max loading capacity	kg/m^2	15000	15000	15000	15000	15000	15000
Processing range							
Worktable travel （X axis）	mm	8500+500	10500+500	12500+500	8500+500	10500+500	12500+500
Saddle travel（Y axis	mm	4500	4500	4500	4500+450	4500+450	4500+450
Spindle box travel（Z axis）	mm	1250	1500	1500	1500	1500	1500
Spindle face to worktable	mm	500 ~ 1750	500 ~ 1750	500 ~ 1750	500 ~ 2000	500 ~ 2000	500 ~ 2000
Distance beween two columns	mm	4200	4200	4200	4200	4200	4200
Spindle							
Spindle taper		BT50	BT50	BT50	BT50	BT50	BT50
Spindle speed	r/min	20 ~ 2000	20 ~ 2000	20 ~ 2000	20 ~ 2000	20 ~ 2000	20 ~ 2000
Max torque	N.m	1993/2458	1993/2458	1993/2458	2600/4125	2600/4125	2600/4125
Spindle motor power	kW	30/37	30/37	30/37	51/81	51/81	51/81
RAM section	mm	450 x 450	450 x 450	450 x 450	500 x 500	500 x 500	500 x 500
Rapid trave							
X、Y、Z axis rapid speed	m/min	12/10/10	12/10/10	12/10/10	12/12/10	12/12/10	12/12/10
ATC automatic tool change （options）							
Max diameter /length /weight of tool	mm/mm/kg	Φ125/350/20	Φ125/350/20	Φ125/350/20	Φ125/350/20	Φ125/350/20	Φ125/350/20
Max diameter of tool (no adjacent tool)	mm	Φ225	Φ225	Φ225	Φ225	Φ225	Φ225
Tool change time （tool to tool）	s	2.91	2.91	2.91	2.91	2.91	2.91
Machine accuracy GB/T17421.2-2000							
Positioning accuracy（X/Y/Z）	mm	0.050/0.045/0.030	0.055/0.045/0.030	0.060/0.045/0.030	0.050/0.035/0.025	0.055/0.035/0.025	0.060/0.035/0.025
Repositioning accuracy （X/Y/Z）	mm	0.030/0.025/0.013	0.034/0.025/0.013	0.038/0.025/0.013	0.030/0.025/0.015	0.034/0.025/0.015	0.038/0.025/0.015

CNC system		NEWAY FANUC / SIEMENS					
Machine weight	kg	110000	130000	145000	120000	140000	155000

Standard configuration

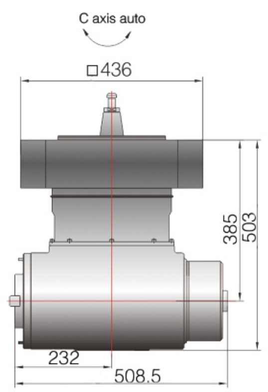
1、ZF retarder
2、NEWAY retarder
3、Spindle and retarder cooling system
4、Auto chip conveyor
5、X axis double gear rack and wheel, double-drive system
6、X/Y axis guideway protection
7、Beam handrail and stairs
8、Optical scale
9、Hydraulic clamp/unclamp tool
10、Air gun
11、Standard accessary
12、Rigid tapping
13、MPG
14、Tri-colour light

Options

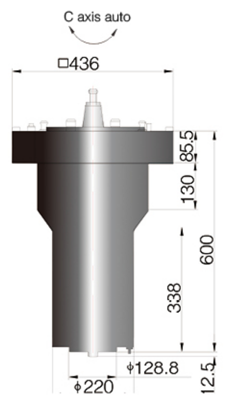
1、Milling head
2、Extended spindle
3、Tool magazine 32/40T
4、Rotary table
5、Coolant through spindle

Modularized milling head

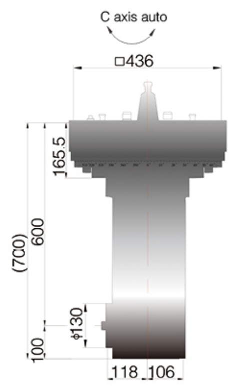
NEWAY milling head



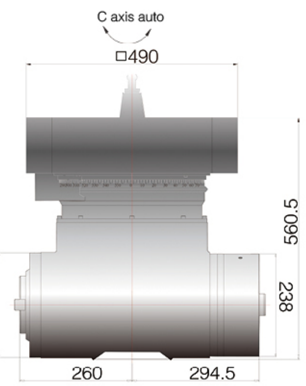
NWM–AR5–75
Automatic head change, tool clamp
25kW 2000rpm 750N.m



NWM–AE–75
Automatic head change, tool clamp
25KW 2000rpm 750N.m

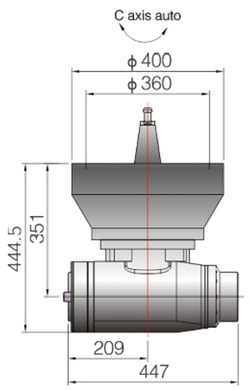


NWM–AER5–75
Automatic head change, tool clamp
25KW 800rpm 500N.m

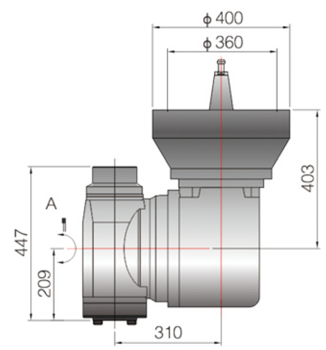


NWM–AR5–150
Automatic head change, tool clamp
30KW 2000RPM 1500N.m

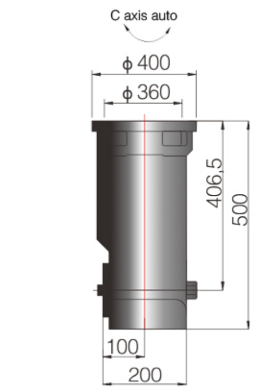
NEO milling head



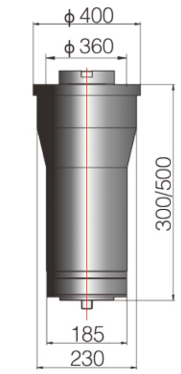
756A/755A
Automatic head change, tool clamp
3500rpm 600N.m



756A/758A
Automatic head change, tool clamp
3500rpm 600N.m

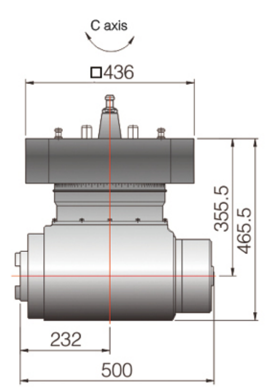


756A/755A003
Automatic head change, tool clamp
3500rpm 600N.m

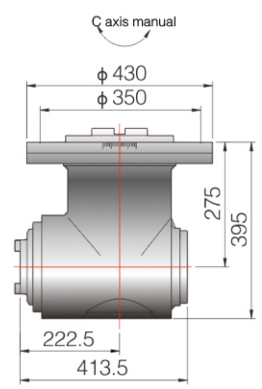


756A/762A
Automatic head change, tool clamp
3500rpm 600N.m

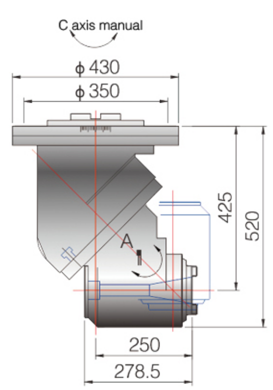
Europe milling head



TX1–THE Automatic head change, tool clamp, C axis auto
TMX1–THE Automatic head change, manual tool clamp, C axis manual
25Kw 2000rpm 750N.m

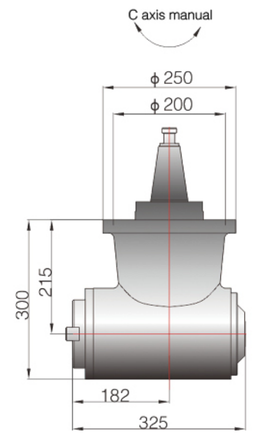


TM1–THE–M manual head change, manual tool clamp
30Kw 2000rpm 1500N.m

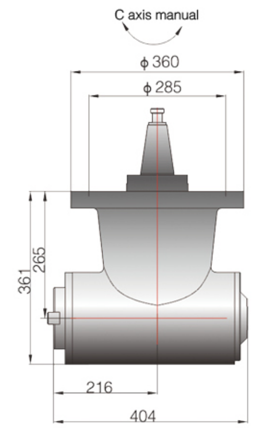


TM2–HT45–M manual head change, manual tool clamp
25Kw 2000rpm 750N.m

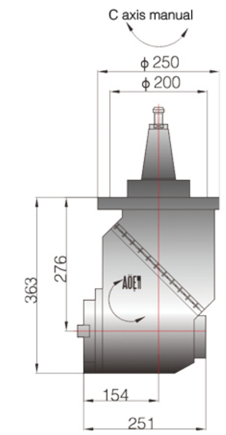
Economical milling head



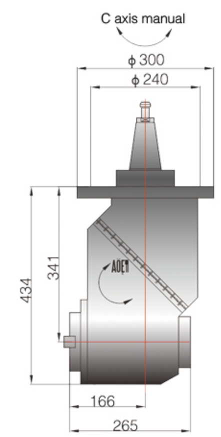
N75
manual head change, tool clamp
38kW 2000rpm



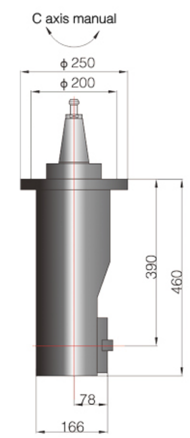
N76
manual head change, tool clamp
55kW 2000rpm



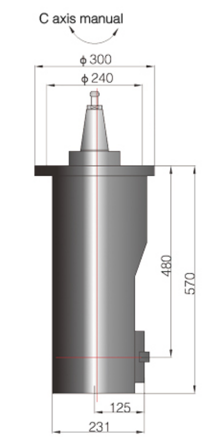
C45
manual head change, tool clamp
38kW 1200rpm



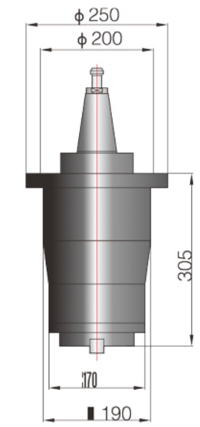
C50
manual head change, tool clamp
42kW 1200rpm



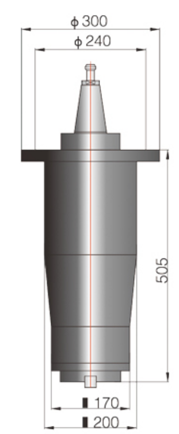
A73
manual head change, tool clamp
38kW 800rpm 40T



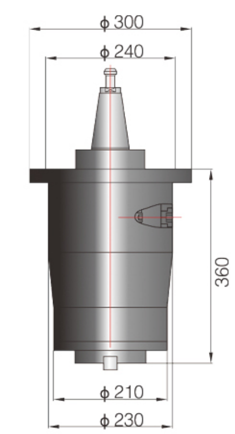
N74
manual head change, tool clamp
38kW 2000rpm 50T



E73N
manual head change, tool clamp
38kW 2000rpm built–in unclamp



E75N
manual head change, tool clamp
38kW 2000rpm built–in unclamp



K73S
manual head change, tool clamp
63kW 2000rpm external unclamp

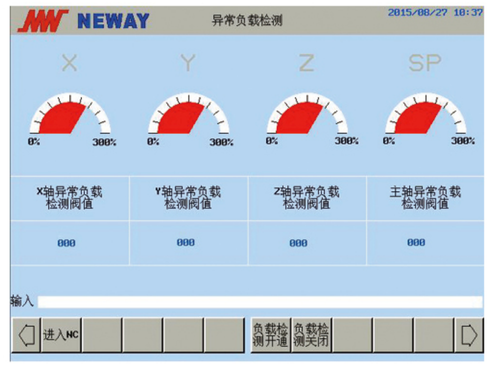
Intelligentize application

Intelligentize design to give customer friendly operation interface, help customer improve productivity and reduce the breakdown.

1) Maintenance

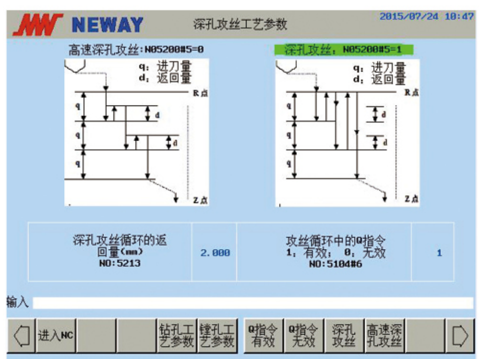
- Operate authority
- Set maintain date
- Automatic remind

2) Abnormal load protection



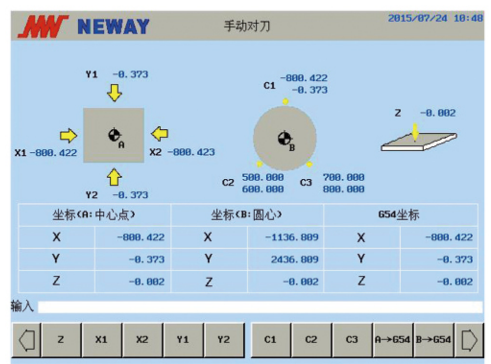
- Set protection value
- Shutdown protection

3) Processing craft selection



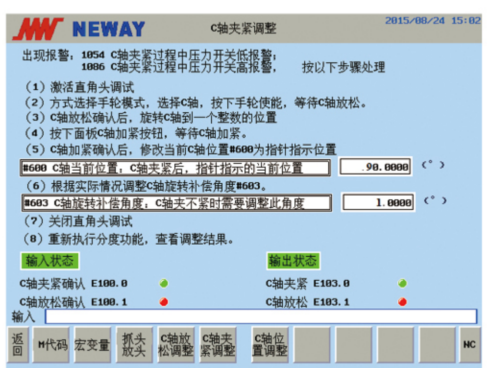
- Select suitable processing craft

4) Workpiece coordinate set



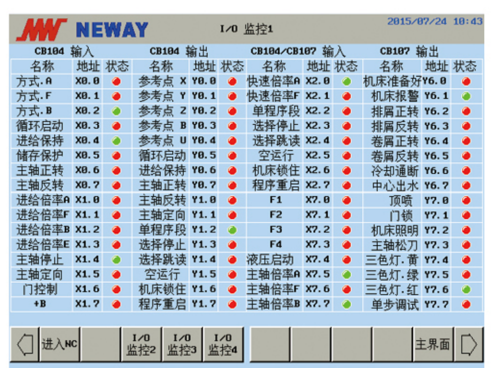
- Centre of square coordinate
- Centre of roundness coordinate

5) Troubleshooting



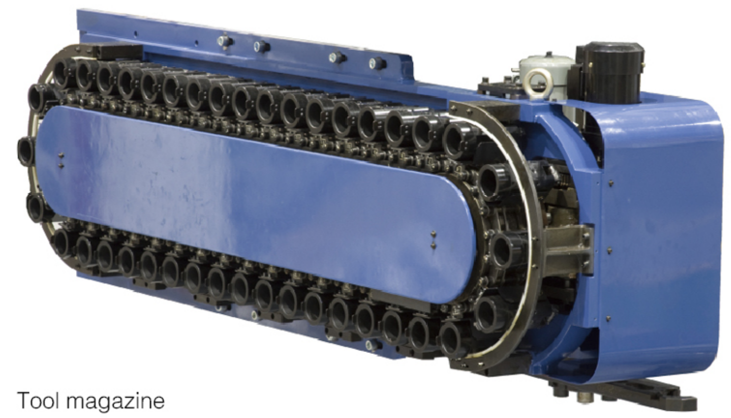
- Complex fault follow the steps

6) I/O Quick diagnosis



- Real time monitor I/O

Optional



Tool magazine

Fourth axis

Optical scales

Accessory milling head

Rotary table

Tool measure