

**YSM Gantry Structure Characteristics:**

The double-column machining center has strong rigidity, symmetrical structure, and high stability. Through continuous optimization of the component structure, the dynamic performance of the product is improved, and high-power, high-torque, high-efficiency, and high-precision machining are realized. It is suitable for large-scale processing fields such as shipbuilding, metallurgy, mining machinery, power energy, construction machinery, heavy industry machinery, and more.



**Square ram structure 500x500MM**

The machine installs four-sided restraint quenching guide guideway and double-cylinder nitrogen balance device. The overall rigidity is strong. It has strong cutting ability and stable precision.



**Italy BF gearbox**

High-performance speed, low noise, expandable motor constant power range with easy installation. It can be used in conjunction with multiple series of motors and adapt to high-strength tension.



**Fully automatic side milling head**

The transmission gear is a Gleason spiral bevel gear. The transmission is stable, accurate. It has a long service life. The internal transmission key of the milling head is a quenched part with minimal backlash.



**Five-axis linkage double swing milling head**

A/C axis torque motor + electric spindle fork-shaped integrated structure; A/C axis installs torque motor structure; A/C axis hydraulic holding for high-speed cutting and high rigidity.

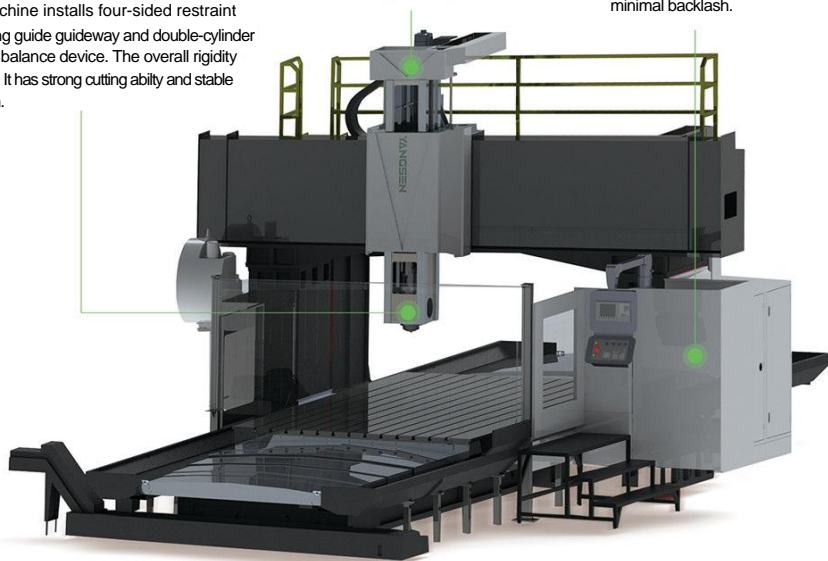


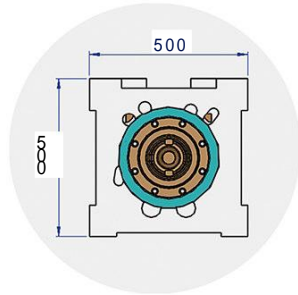
**Vertical and horizontal tool magazine**



**Spindle**

Using BBT50- 200 high rigidity spindle, 6 imported large steel ball bearings, super cutting ability.



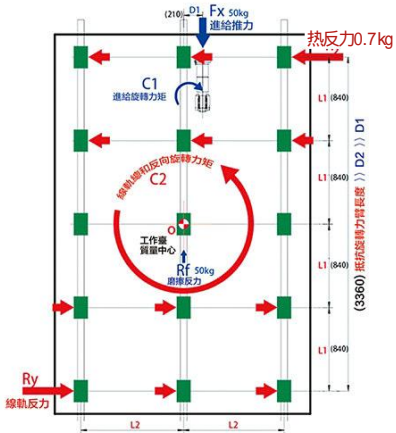


**Square ram**

- \* Bigger dimension 500\*500, the original size is 460\*460. It is a more heavy-duty design;
- \* The built-in direct connection design reduces the power transmission consumption from the spindle motor to the spindle.

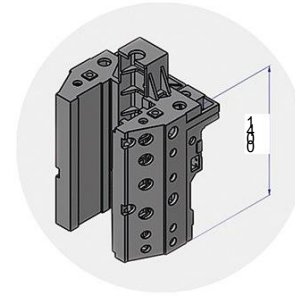
**Gantry moving nut structure**

The X-axis is driven by a moving nut, and three-point support is used in the middle to maintain the rotation accuracy of the ballscrew rod. At the same time, the load capacity is large, and the cutting vibration resistance is good. It can improve the dynamic characteristics of the machine tool and increase the accuracy, stability, and service life of the machine tool.



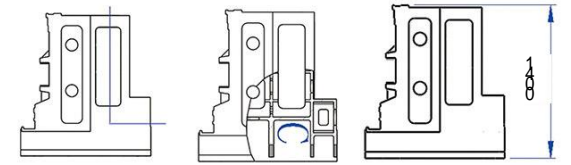
**Base structure**

- \* Compared with the double-guideway design, the rigidity is 50% higher;
- \* Compared with the four-guideways design, it is more symmetrical and evenly distributed, reducing the power loss caused by the resistance of the multi-guideway slider;
- \* 3m wide worktable, 2.1m base linear guideway. It is best ratio span of 0.7.



**Slide features**

Large-size and heavy-duty design ensures that the upper part of the ram is firmly hugged by the three elongated sliders, and the lower part is supported by the four standard sliders.



**Nitrogen counterweight**

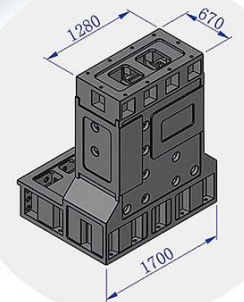
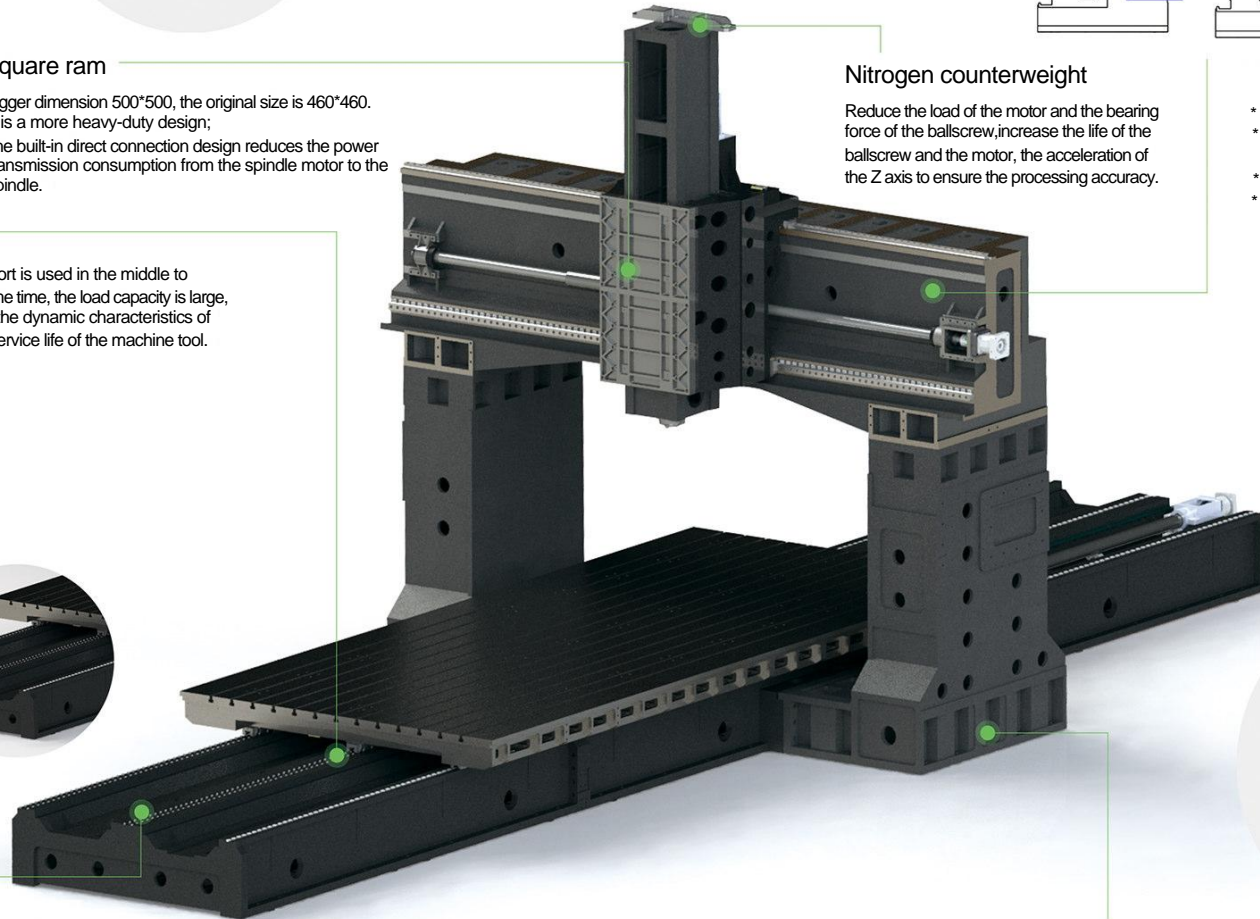
Reduce the load of the motor and the bearing force of the ballscrew, increase the life of the ballscrew and the motor, the acceleration of the Z axis to ensure the processing accuracy.

**Beam structure**

- \* Stepped L-shaped design improves rigidity;
- \* The concave C-shaped structure has better bending resistance;
- \* Large section design;
- \* Finite element analysis.



**Ballscrew support frame system**



**Column structure**

The 1.28m ultra-wide design of the column reduces the overall cutting vibration and makes the machine tool stable.



## Complete Angle Head Design

Yangsen CNC has a series of complete angle head specifications, in addition to automatic universal head, automatic 90-degree head, automatic extension head, five-face head, it has a series of manual and semi-automatic universal heads, 90-degree head, extended head.etc.to satisfy you various processing needs



Fully automatic 90° milling head (5°/2.5°/1°)

Subject	Units	KS-A87AG
Max rotation	rpm	3500
Rated power	kW	22
Rated torque	N.m	1000
Max bearing	N.m	1500



Fully automatic 90° universal milling head (5°/2.5°/1°)

Subject	Units	KS-A90-A87A
Max rotation	rpm	2000
Rated power	kW	22
Rated torque	N.m	1000
Max bearing	N.m	1500



Automatic dual-spindle milling head (5°/2.5°)

Subject	Units	KS-A90-A87A
Max rotation	rpm	2500
Rated power	kW	38
Rated	N.m	1000
Max bearing	N.m	1500



Fully automatic extension head (5°/2.5°/1°)

Subject	Units	KS-A75-A87A
Max rotation	rpm	2000
Rated power	kW	
Rated torque	N.m	1000
Max bearing	N.m	1500



Fully automatic extension head (5°)

Subject	Unit	KS-A70-A87
Max rotation	rpm	2000
Rated power	kW	22
Rated torque	N.m	1000
Max bearingtorqu	N.m	1500

Five-axis linkage double swing milling head



T70	Unit	Axis A	Axis C
Max torque	Nm	1000	1000
Max rotation	rpm	60	60
Tightening torque	Nm	4000	4000
Rotation range	/	±360	±360
Encoder	/	Absolute formula(Heidenham circular grating)	Absolute formula(Heidenham circular grating)
Positioning accuracy		8	8
Repetitionaccuracy2		4	4
<b>Main shaft</b>			
Rated power of main	kW	30	
Max torque of main	Nm	85	
Max rotation	rpm	18000	
Handle specification		HSA63	



Manual/semi-auto 90° side milling head		KS-A82A(Manual)	KS-A85B(Semi-auto)
Graduation(5°%2.5°)	Combined structure	M	M
Max speed:2500rpm	Blade beating mechanism	M	M
Rated power:22kW			
Rated torque:1000N.m	Axis-C rotation	M	Auto
Max bearing torque:1500			



Two-way spindle 90° milling head

Subject	Units	KS-A79
Max rotation	rpm	2000
Rated power	kW	38
Rated torque	N.m	1000
Max bearing	N.m	1500



Manual 90° universal milling head(5°)

Subject	Units	KS-A90
Max rotation	rpm	2000
Rated power	kW	22
Rated torque	N.m	1000
Max bearing	N.m	1500



Manual extension head(5°)

Subject	Units	KS-A75-T
Max rotation	rpm	2000
Rated power	kW	22
Rated torque	N.m	1000
Max bearing	N.m	1500



45° universal angle head(5°)

Subject	Units	KS-A73
Max rotation	Units	2000
Rated power	rpm	22
Rated torque	kW	1000
Max bearing	N.m	1500



90° manual extension head(5°)

Subject	Units	KS-A73
Max rotation	rpm	2000
Rated power	kW	22
Rated torque	N.m	1000
Max bearing	N.m	1500



Vertical and horizontal two-axis milling head(5°/2.5°)

Subject	Units	KS-A91
Max rotation	rpm	2500
Rated power	kW	22
Rated torque	N.m	1000
Max bearing torque	N.m	1500

### Advantages

The transmission gear is a Gleason spiral bevel gear. The transmission has strong stability, high precision, and longer service life;

The internal transmission key of the milling head is a quenched part;

Small backlash fit;

With two vertical and horizontal spindles, it offers vertical or horizontal processing at the same time. Making the five-face processing easier.





## YSM23/27 Series Parameters

Model			YSM-2013	YSM-2015	YSM-2217	YSM-2518	YSM-3018
Subject	Specifications	Units					
Travel	X-Axis	mm	2000	2000	2200	2500	3000
	Y-Axis	mm	1300	1500	1650	2000	2000
	Z-Axis	mm	800	800	800	960	960
	Spindle Nose to Worktable	mm	190-990	150-950	250-1050	140-1140	140-1140
	Three-Axis Guideway	/	XY Heavy Load Roller Linear Guideway Z-Axis T-Type Ram Box Way				
	Door Width	/	1300	1500	1660	1800	1800
Worktable	Worktable Size(L*W)	mm	2000*1000	2100*1200	2000*1300	2500*1600	3000*1600
	Maximum Table Load	mm	3	4	4	7	8
	T-Slot	mm	7-22*150	7-22*170	7-22*170	9-22*180	9-22*180
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000	6000	6000
	Spindle Drive Type	/	Belt(DDS/Geared)				
Feedrate	Rapid Traverse (X/Y/Z)	m/min	12/12/12	12/12/12	12/12/12	12/12/12	8/12/12
	Cutting Feedrate (X/Y/Z)	m/min	10	10	10	10	8
Tool Changer	ATC	/	24(Option:40/60)				
Motor	Spindle Motor	KW	15/18.5(143-236 Nm)				
	Three-Axis Servo Motor	KW	3/3/3 (36 Nm)				
Accuracy	Accuracy	mm	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015
	Repeatability	mm	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01
Power Required	Power Requirement	kva	40	40	40	45	45
	Air Pressure Requirement	kg/cm2	6A8	6A8	6A8	6A8	6A8
Others	External Dimensions	mm	6300*4480*4100	6300*4480*4100	6670*4650*4490	7240*4730*5140	8440*4730*5140
	Gross Weight	t	18.5	20	22	27	30

### Standard Accessories

- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Spindle Coolant System
- ★ M30 Auto Off
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart

### Options

- ★ Optical Linear Scale
- ★ Tool Breakage System
- ★ Oil Mist System
- ★ Air Conditioner
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table
- ★ 90° Manual Milling Head
- ★ 90° Auto Milling Head with AHC

Model			YSM-3023	YSM-4023	YSM-4027	YSM-6027	YSM-8027
Subject	Specification	Units					
Travel	X-Axis	mm	3000	4000	4000	6000	8000
	Y-Axis	mm	2300	2300	2700	2700	2700
	Z-Axis	mm	1000	1000	1 000	1 000	1250
	Spindle Nose to Worktable	mm	280-1 280	280-1280	280-1280	280-1280	280-1480
	Three-Axis Guideway	/	XY Heavy Load Roller Linear Guideway Z-Axis T-Type Ram Box Way				
	Door Width	/	2300	2300	2700	2700	2700
Worktable	Worktable Size(L*w)	mm	3000*2000	4000*2000	4000*2300	6000*2300	8000*2300
	Maximum Table Load	t	10	1 2	16	20	25
	T-Slot	mm	9-28*200	9-28*200	11-28*200	11-28*200	11-28*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000	6000	6000
	Spindle Drive Type	/	Belt(DDS/Geared)				
Feedrate	Rapid Traverse (X/Y/Z)	m/min	8/12/12	8/1 2/1 2	8/10/10	8/10/10	6/10/10
	Cutting Feedrate (X/Y/Z)	m/min	8	8	8	8	6
Tool Changer	ATC	/	24(Option: 40/60)				
Motor	Motor	KW	15/18.5(143-236 Nm)				
	Three-Axis Servo Motor	KW	3/3/3 (36 Nm)	6/3/3(38/36/36 Nm)			
Accuracy	Accuracy	mm	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015
	Repeatability	mm	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01
power Require	Power Requirement	kva	45	55	55	55	60
	Air Pressure Requirement	kg/cm2	6A8	6A8	6A8	6A8	6A8
Others	External Dimensions (L*W*H)	mm	8800*5560*5600	10870*5560*5600	10870*6000*5600	15350*6000*5600	17350*6000*5600
	Gross Weight	t	35	42	48	62	80

### Standard Accessories

- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Spindle Coolant System
- ★ M30 Auto Off
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart

### Options

- ★ Optical Linear Scale
- ★ Tool Breakage System
- ★ Oil Mist System
- ★ Air Conditioner
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table
- ★ 90° Manual Milling Head
- ★ 90° Auto Milling Head with AHC



## YSMV23/21 Series Parameters

Model			YSMV-2013	YSMV-3021	YSMV-5021	YSMV-5030	YSMV-7030
Subject	Specifications	Units					
Travel	X-Axis	mm	2000	3000	5000	5000	7000
	Y-Axis	mm	2100	2100	2100	3200	3200
	Z-Axis	mm	800	1000	1000	1000	1000
	Spindle Nose to Worktable	mm	190-990	200-1200	200-1200	250-1250	250-1250
	Three-Axis Guideway	/	X/Y/Z Heavy Load Roller Linear Guideway				
	Door Width	/	1300	2100	2100	3000	3000
	Type of Ram	/	T-Type				
Worktable	Worktable Size(L*W)	mm	2000*1000	3200*1700	5000*1700	4600*2600	6400*2600
	Maximum Table Load	t	3	8	12	18	20
	T-Slot	mm	7-22*140	9-22*180	9-22*180	13-28*200	13-28*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	60000	6000	6000	6000	6000
	Spindle Drive Type	/	Belt(DDS/Geared)	DDS			
Feedrate	Rapid Traverse (X/Y/Z)	m/min	BBT-50	12/15/15	12/15/15	12/15/15	6/15/15
	Cutting Feedrate (X/Y/Z)	m/min	6000	12	12	12	6
Tool Changer	ATC	/	24(Option: 40/60)				
Motor	Spindle Motor	KW	15/18.5(143-236 Nm)				
	Three-Axis Servo Motor	KW	3/3/3(36Nm)		6/3/3(38/36/36 Nm)		
Accuracy	Accuracy	mm	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.045/0.02/0.015
	Repeatability	mm	0.018/0.015/0.01	0.018/0.015/0.01	0.018/0.015/0.01	0.018/0.015/0.01	0.035/0.015/0.01
Power Required	Power Requirement	kva	45	45	50	50	50
	Air Pressure Requirement	kg/cm <sup>2</sup>	6^8	6^8	6^8	6^8	6^8
Others	External Dimensions (L*W*H)	mm	7600*3650*3550	8440*5850*5350	11600*5850*5420	11600*6050*5420	15750*6050*5420
	Gross Weight	t	18	28	36	50	45

### Standard Accessories

- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Spindle Nose Air Blow
- ★ M30 Auto Off
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart

### Options

- ★ Optical Linear Scale
- ★ Tool Breakage System
- ★ Oil Mist System
- ★ Air Conditioner
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table
- ★ 90° Manual Milling Head
- ★ 90° Auto Milling Head with AHC

## YSM23/27 Square-Type Ram Series Parameters

Model			YSM-3023	YSM-4023	YSM-4027	YSM-6027	YSM-8027
Subject	Specification	Units					
Travel	X-Axis	mm	3000	4000	4000	6000	8000
	Y-Axis	mm	2300	2300	2700	2700	2700
	Z-Axis	mm	1000(Optional 1250)				
	Spindle Nose to Worktable	mm	340-1340	340-1340	340-1340	340-1340	340-1340
	Three-Axis Guideway		X/Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram				
	Door Width		2300	2300	2700	2700	2700
	Type of Ram		Square-Type Ram(400*460)				
Worktable	Worktable Size(L*W)	mm	3000*2000	4000*2000	4000*2300	6000*2300	8000*2300
	Maximum Table Load	t	10	12	12	18	18
	T-Slot	mm	9-28*200	9-28*200	11-28*200	11-28*200	11-28*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000	6000	6000
	Spindle Drive Type		DDS				
Feedrate	Rapid Traverse (X/Y/Z)	m/min	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10
	Cutting Feedrate (X/Y/Z)	m/min	8	8	8	8	8
Tool Changer	ATC		24(Option:40/60)				
Motor	Spindle Motor	KW	15/18.5(143-236 Nm)		22/26(140-286Nm)		
	Three-Axis Servo Motor	KW	3/3/3(36 Nm)		6/3/3(38/36/36 Nm)		
Accuracy	Accuracy	mm	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015	0.03/0.02/0.015
	Repeatability	mm	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01	0.02/0.015/0.01
Power Required	Power Requirement	kva	45	55	55	55	60
	Requirement	kg/cm <sup>2</sup>	6^8	6^8	6^8	6^8	6^8
Others	External Dimensions	mm	8800*5560*5720	10870*5560*5720	10870*6000*5720	15350*6000*5720	20100*6000*6320
	Gross Weight	t	36	42.5	48	62	80

### Standard Accessories

- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Spindle Nose Air Blow
- ★ M30 Auto Off
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart

### Options

- ★ Optical Linear Scale
- ★ Tool Breakage System
- ★ Oil Mist System
- ★ Air Conditioner
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 40T ATC
- ★ Rotary Table
- ★ 90° Manual Milling Head
- ★ 90° Auto Milling Head with AHC



## YSM28/32 Square-Type Ram Series Parameters

Model			YSM-3028	YSM-5028	YSM-7028
Subject	Specifications	Units			
Travel	X-Axis	mm	3000	5000	7000
	Y-Axis	mm	2800	2800	2800
	Z-Axis	mm	1000(Optional 1250/1500)		
	Spindle Nose to Worktable	mm	350-1350	350-1350	350-1350
	Three-Axis Guideway	/	X/Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram		
	Door Width	/	2800	2800	2800
	Type of Ram	/	Square-Type Ram (500x500)		
Worktable	Worktable Size(L*W)	mm	3400*2200	4600*2200	6400*2200
	Maximum TableLoad	t	10	14	20
	T-Slot	mm	11-28*200	11-28*200	11-28*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000
	Spindle Drive Type	/	DDS		
Feedrate	Rapid Traverse (X/Y/Z)	m/min	10/10/10	10/10/10	6/10/10
	Cutting Feedrate (x/Y/Z)	m/min	8	8	6
Tool Changer	ATC	/	24(Option: 40/60)		
Motor	Spindle Motor	KW	22/26(140-286 Nm)		
	Three-Axis ServoMotor	KW	6/3/3(38/36/36 Nm)		
Accuracy	Accuracy	mm	0.03/0.025/0.015	0.03/0.025/0.015	0.045/0.025/0.015
	Repeatability	mm	0.02/0.02/0.01	0.025/0.02/0.01	0.03/0.02/0.01
Power Required	Power Requiremen	kva	45	55	55
	Air Pressure Requirement	kg/cm2	6^8	6^8	6^8
Others	External Dimensions (L*W*H)	mm	8800*6050*5820(6320)	11600*6050*5820(6320)	15600*6050*5820(6320)
	Gross Weight	t	45	51	63

### Standard Accessories

- ★ Spindle Coolant System
- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Geared Box
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto.

### options

- ★ Oil Mist System
- ★ Workpieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90° Milling Head
- ★ Oil Skimmer
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 90° Manual Milling Head
- ★ Rotary Table

Model			YSM-5032	YSM-7032	YSM-9032
Subject	Specifications	Units			
Travel	X-Axis	mm	5000	7000	9000
	Y-Axis	mm	3200	3200	3200
	Z-Axis	mm	1000(Optional 1250/1500)		
	Spindle Nose to Worktable	mm	350-1350	350-1350	350-1350
	Three-Axis Guideway	/	X/Y Heavy Load Roller Linear Guideway Z-Axis Square Type Ram		
	Door Width	/	3200	3200	3200
	Type of Ram	/	Square-Type Ram (500x500)		
Worktable	Worktable Sze(L*W)	mm	4600,2600	6400,2600	8800,2600
	Maximum Table Load	t	20	25	30
	T-Slot	mm	13-28,200	13-28,200	13-28,200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000
	Spindle Drive Type	/	DDS		
Feedrate	Rapid Traverse (X/Y/Z)	m/min	10/10/10	6/1 0/1 0	6/10/10
	Cutting Feedrate (X/Y/Z)	m/min	8	6	6
Tool Changer	ATC	/	24(Option: 40/60)		
Motor	Spindle Motor	KW	22/26(140-286 Nm)6/3/3		
	Three-Axis Servo Motor	KW	(38/36/36 Nm)		
Accuracy	Accuracy	mm	0.035/0.025/0.015	0.045/0.025/0.015	0.045/0.025/0.015
	Repeatability	mm	0.025/0.02/0.01	0.03/0.02/0.01	0.03/0.02/0.01
Power Required	Power Requirement	kva	55	55	60
	Requirement	kg(tm2)	6^8	6^8	6^8
Others	External Dimensions (L*W*H)	mm	11600,6450,5820(6320)	15600,6450,5820(6320)	19600,6450,5820(6320)
	Gross Weight	t	56	66	76

### Standard Accessories

- ★ Spindle Coolant System
- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Geared Box
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto.

### Options

- ★ Optical Linear Scale
- ★ Workpieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90° Milling Head
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC



## YSM38/42 Square-Type Ram Series Parameters

Model			YSM-5038	YSM-7038	YSM-9038
Subject	Specifications	Units			
Travel	X-Axis	mm	5000	7000	9000
	Y-Axis	mm	3800	3800	3800
	Z-Axis	mm	1250(Optional 1500)		
	Spindle Nose to Worktable	mm	350-1600	350-1600	350-1600
	Three-Axis Guideway	/	XY Heavy Load Roller Linear Guideway Z-Axis Square-Type Rim		
	Door Width	/	3800	3800	3800
	Type of Ram	/	Square-Type Ram (500x500)		
Worktable	Worktable Size(L*W)	mm	4600*3000	6400*3000	8800*3000
	Maximum Table Load	t	20	30	35
	T-Slot	mm	15-28*200	15-28*200	15-28*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000
	Spindle Drive Type	/		DDS	
Feedrate	Rapid Traverse (X/Y/Z)	m/min	8/10/10	6/10/10	6/10/10
	Cutting Feedrate (X/Y/Z)	m/min	8	6	6
Tool Changer	ATC	m/min	24(Option:40/60)		
Motor	Spindle Motor	KW	22/26(140-286 Nm)6/3/3		
	Three-Axis	KW	(38/36/36Nm)		
Accuracy	Accuracy	mm	0.03/0.025/0.015	0.045/0.03/0.015	0.05/0.03/0.015
	Repeatability	mm	0.025/0.02/0.01	0.03/0.02/0.01	0.035/0.02/0.01
Power Required	Power Requirement	kva	55	60	60
	Air Pressure Requirement	kg/cm <sup>2</sup>	6^8	6^8	6^8
Others	External Dimensions	mm	11600*7000*6320	15600*7000*6320	19600*7000*6320
	Gross Weight	t	66	77	91

### Standard Accessories

- ★ Spindle Coolant System
- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Geared Box
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto Off

### Options

- ★ Optical Linear Scale
- ★ Work pieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90° Milling Head
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table

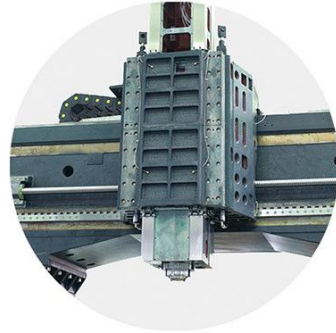
Model			YSM-5042	YSM-7042	YSM-9042
Subject	Specifications	Units			
Travel	X-Axis	mm	5000	7000	9000
	Y-Axis	mm	4200	4200	4200
	Z-Axis	mm	1250(Optional 1500)		
	Spindle Nose to Worktable	mm	350-1600	350-1600	350-1600
	Three-Axis Guideway	/	X\Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram		
	Door Width	/	4200	4200	4200
	Type of Ram	/	Square-Type Ram (500x500)		
Worktable	Worktable Size(L*W)	mm	4600*3000	6400*3000	8800*3000
	Maximum Table Load	t	20	30	35
	T-Slot	mm	15-28*200	15-28*200	15-28*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000
	Spindle Drive Type	/		DDS	
Feedrate	Rapid Traverse (X/Y/Z)	m/min	8/10/10	6/10/10	6/10/10
	Cutting Feedrate (X/Y/Z)	m/min	8	6	6
Tool Changer	ATC	/	24(Option: 40/60)		
Motor	Spindle Motor	KW	22/26(140-286 Nm)6/3/3		
	Three-Axis Servo Motor	KW	(38/36/36 Nm)		
Accuracy	Accuracy	mm	0.03/0.025/0.015	0.045/0.03/0.015	0.05/0.03/0.015
	Repeatability	mm	0.025/0.02/0.01	0.03/0.02/0.01	0.035/0.02/0.01
Power Required	Power Requirement	kva	60	60	60
	Requirement	kg/cm <sup>2</sup>	6^8	6^8	6^8
Others	External Dimension smm	mm	11600*8000*6320	15600*8000*6320	19600*8000*6320
	Gross Weight	t	70	82	95

### Standard Accessories

- ★ Spindle Coolant System
- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Geared Box
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED 3 Color Warning Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto Off

### Options

- ★ Optical Linear Scale
- ★ Workpieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90° Milling Head
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table



**Square Ram and Sliding Seat Structure**

- \* Dimension:500x500, Heavy-Duty Design;
- \* Direct-Driven Design;
- \* Large-Size and Heavy-Duty design ensures that the ram is firmly connected;
- \* Three extended sliders at the top and four standard sliders at the bottom.



**Gear Transmission**

High Precision, Heavy Load, High Speed, Low Noise, Longer Service Life.



**Dual Motor with Anti-Backlash Transmission Structure**

High Precision, Heavy Load, High Speed, Low Noise, Longer Service Life.



Vertical / Horizontal Automatic Tool Magazine



**Italy BF Gear Box**

High performance speed, low noise. It could expand motor constant power range. It is easy to install. The machine can be used in conjunction with multiple series of motors. It can adapt to high-strength tension, small size.



Extended Angle Milling Head



Two-Way Spindle Angle Milling Head



Automatic Hydraulic Angle Milling Head





## YSMD42 Moving Column Series Parameters

Model			YSMD-6042	YSMD-8042	YSMD-10042	YSMD-12042
Subject	Specifications	Units				
Travel	X-Axis	mm	6000	8000	10000	12000
	Y-Axis	mm	4200	4200	4200	4200
	Z-Axis	mm	1500	1500	1500	1500
	Spindle Nose to Worktable	mm	350-1850	350-1850	350-1850	350-1850
	three-Axis Guideway	/	X\Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram			
	Door Width	/	4200	4200	4200	4200
	Type of Ram	/	Square-Type Ram(500*500)			
Worktable	Worktable Size(L*w)	mm	6000*3500	8000*3500	10000*3500	12000*3500
	Maximum T able Load	t	50	50	50	50
	T-Slot	m m	36*200	36*200	36*200	36*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000	6000
	Spindle Drive Type	/	DDS			
Feedrate	Rapid Traverse (X/Y/Z)	m/min	6/8/8	6/8/8	6/8/8	6/8/8
	Cutting Feedrate (X/Y/Z)	m/min	6	6	6	6
Tool changer	ATC	/	24(Option: 40/60)			
Motor	Spindle Motor	KW	17-42	17-42	17-42	17-42
	Three-Axis Servo Motor	KW	5.2/5.2/5.2	5.2/5.2/5.2	5.2/5.2/5.2	5.2/5.2/5.2
Accuracy	Accuracy	mm	0.04/0.035/0.02	0.04/0.035/0.02	0.055/0.035/0.02	0.06/0.035/0.02
	Repeatability	mm	0.03/0.025/0.015	0.035/0.025/0.015	0.04/0.025/0.015	0.045/0.025/0.015
Power Required	Power Requirement	kva	60	60	60	60
	Air Pressure Requirement	kg/cm <sup>2</sup>	6^8	6^8	6^8	6^8
Others	External Dimension (L*W*H)	mm	10000x5860x5800	12000x5860x5800	14000x5860x5800	16000x5860x5800
	Gross Weight	t	95	105	115	125

### Standard Accessories

- ★ Spindle Coolant Syster
- ★ Rigid Tapping
- ★ Dual LED Work Ligh
- ★ Geared Box
- ★ Automatic Lubricating Syster
- ★ Heat Exchange for Electric Cabinet
- ★ LED 3 Color Warning Liqh
- ★ Leveling Bolts and Pads
- ★ Semi-Emclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto Off

### Options

- ★ Optical Linear Scale
- ★ Workpieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90°Milling Head
- ★ CTS
- ★ Chip Conveyor Syster
- ★ OI Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table

Model			YSMD-14042	YSMD-16042	YSMD-18042	YSMD-21042
Subject	Specifications	Units				
Travel	X-Axis	mm	14000	16000	18000	21000
	Y-Axis	mm	4200	4200	4200	4200
	Z-Axis	mm	1500	1500	1500	1500
	Spindle Nose to Worktable	mm	350-1850	350-1850	350-1850	350-1850
	Three-Axis Guideway	/	X\Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram			
	Door Width	/	4200	4200	4200	4200
	Type of Ram	/	Square-Type Ram(500*500)			
Worktable	Worktable Size(L*W)	mm	14000*3500	16000*3500	18000*3500	21000*3500
	Maximum Table Load	t	50	50	50	50
	T-Slot	mm	36*200	36*200	36*200	36*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000	6000
	Spindle Drive Type	/	DDS			
Feedrate	Rapid Travers e (X/Y/Z)	m/min	6/8/8	6/8/8	6/8/8	6/8/8
	Cuting Feedrate (X/Y/Z)	m/min	6	6	66	6
Changer	ATC	/	24(Option: 40/60)			
Motor	Spindle Motor	KW	17-42	17-42	17-42	17-42
	Three-Axis Servo Motor	KW	5.2/525.2	525.2/5.2	5.2/525.2	5.2/525.2
Accuracy	Accuracy	mm	0.07/0.035/0.02	0.08/0.035/0.02	0.09/0.035/0.02	0.10/0.035/0.02
	Repeatability	mm	0.055/0.025/0.015	0.065/0.025/0.015	0.075/0.025/0.015	0.085/0.025/0.015
Power Required	Power Requirement	kva	60	60	60	60
	Air Pressure	kg/cm <sup>2</sup>	6^8	6^8	6^8	6^8
Others	External Dimensions (L*W*H)	mm	18000x5860x5800	20000x5860x5800	22000x5860x5800	24000x5860x5800
	Gross Weight	t	135	145	155	170

### Standard Accessories

- ★ Spindle Coolant Syster
- ★ Rigid Tapping
- ★ Dual LED Work Ligh
- ★ Geared Box
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED 3 Color Warning Ligh
- ★ Leveling Bolts and Pads
- ★ Semi-Emclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto Off

### Options

- ★ Optical Linear Scale
- ★ Workpieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90°Milling Head
- ★ CTS
- ★ Chip Conveyor Syster
- ★ OI Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table



## YSMD46 Moving Column Series Parameters

Model			YSMD-6046	YSMD-8046	YSMD-10046	YSMD-12046
Subject	Specifications	Units				
Travel	x-Axis	mm	6000	8000	11000	13000
	Y-Axis	mm	4600	4600	4600	4600
	Z-Axis	mm	1500	1500	1500	1500
	Spindle Nose to Worktable	mm	350-1850	350-1850	350-1850	350-1850
	three-Axis Guideway	/	X\Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram			
	Door Width	/	4600	4600	4600	4600
	Type of Ram	/	Square-Type Ram(500*500)			
Worktable	Worktable Size(L*w)	mm	6000*3500	8000*3500	10000*3500	12000*3500
	Maximum Table Load	t	50	50	50	50
	T-Slot	mm	36*200	36,200	36*200	36*200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50
	Spindle R.P.M.	rpm	6000	6000	6000	6000
	Spindle Drive Type	/	DDS			
Feedrate	Rapid Traverse (X/Y/Z)	m/min	6/8/8	6/8/8	6/8/8	6/8/8
	Cutting Feedrate (X/Y/Z)	m/min	6	6	6	6
Tool Changer	ATC	m/min	24(option:40/60)			
Motor	Spindle Motor	KW	17-42	17-42	17-42	17-42
	Three-Axis Servo Motor	KW	5.2/5.2/5.2	5.2/5.2/5.2	5.2/5.2/5.2	5.2/5.2/5.2
Accuracy	Accuracy	mm	0.04/0.035/0.02	0.04/0.035/0.02	0.055/0.035/0.02	0.06/0.035/0.02
	Repeatability	mm	0.035/0.025/0.015	0.035/0.025/0.015	0.04/0.025/0.015	0.045/0.025/0.015
Power Required	Power Requirement	kva	60	60	60	60
	Air Pressure Requirement	kg/cm <sup>2</sup>	6^8	6^8	6^8	6^8
Others	External Dimensions (L*W*H)	mm	10000x5860x5800	12000x5860x5800	14000x5860x5800	16000x5860x5800
	Gross Weight	t	98	108	118	128

### Standard Accessories

- ★ Spindle Coolant System
- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ M30 Auto Off
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Waring Light
- ★ Geared Box
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ Leveling Bolts and Pads

### Options

- ★ Optical Linear Scale
- ★ Workpieces Probe
- ★ OilMist System
- ★ Manual/Semi-Auto 90°Milling Head
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table

Model			YSMD-14046	YSMD-16046	YSMD-18046	YSMD-21046
Subject	Specifications	Units				
Travel	X-Axis	mm	15000	17000	19000	22000
	Y-Axis	mm	4600	4600	4600	4600
	Z-Axis	mm	1500	1500	1500	1500
	Spindle Nose to Worktable	mm	350-1850	350-1850	350-1850	350-1850
	three-Axis Guideway	/	X\Y Heavy Load Roller Linear Guideway Z-Axis Square-Type Ram			
	Door Width	/	4600	4600	4600	4600
	Type of Ram	/	Square-Type Ram(500*500)			
Worktable	Worktable Size(L*w)	mm	14000*3500	16000*3500	18000*3500	21000*3500
	Maximum Table Load	t	50	50	50	50
	T-Slot	mm	36*200	36*200	36*200	36,200
Spindle	Spindle Type	type	BBT-50	BBT-50	BBT-50	BBT-50 6000
	Spindle R.P.M.	rpm	6000	6000	6000	6000
	Spindle Drive Type	/	DDS			
Feedrate	Rapid Traverse (X/Y/Z)	m/min	6/8/8	6/8/8	6/8/8	6/8/8
	Cutting Feedrate (X/Y/Z)	m/min	6	6	6	6
Tool Changer	ATC	/	24(option:40/60)			
Motor	Spindle Motor	KW	17-42	17-42	17-42	17-42
	Three-Axis Servo Motor	KW	5.2/5.2/5.2	5.2/5.2/5.2	5.2/5.2/5.2	5.2/5.2/5.2
Accuracy	Accuracy	mm	0.07/0.035/0.02	0.08/0.035/0.02	0.09/0.035/0.02	0.10/0.035/0.02
	Repeatability Power Requirement	mm	0.055/0.025/0.015	0.065/0.025/0.015	0.075/0.025/0.015	0.085/0.025/0.015
Power Required	Power Requirement	kva	60	60	60	60
	Air Pressure Requirement	mm	6^8	6^8	6^8	6^8
Others	External Dimensions (L*W*H)	kg/cm <sup>2</sup>	18000x5860x5800	20000x5860x5800	22000x5860x5800	24000x5860x5800
	Gross Weight	t	138	148	158	173

### Standard Accessories

- ★ Spindle Coolant System
- ★ Rigid Tapping
- ★ Dual LED Work Light
- ★ Geared Box
- ★ Automatic Lubricating System
- ★ Heat Exchange for Electric Cabinet
- ★ LED3 Color Waring Light
- ★ Leveling Bolts and Pads
- ★ Semi-Enclosed Guard
- ★ Dual-Screw Type Chip Conveyor
- ★ Chain Type Chip Conveyor and Cart
- ★ M30 Auto Off

### Options

- ★ Optical Linear Scale
- ★ Workpieces Probe
- ★ Oil Mist System
- ★ Manual/Semi-Auto 90°Milling Head
- ★ CTS
- ★ Chip Conveyor System
- ★ Oil Skimmer
- ★ Auto Parts Probe Measuring System
- ★ 20T/40T/60T ATC
- ★ Rotary Table .5