



昆明机床  
KUNMING MACHINE TOOL

# Well-known Boring Machine Family

精  
密  
世  
家  
镗  
床  
典  
范

CNC Gantry Type Milling Machine  
Series XK(H) 24M

创为先 · 质为本 · 精为魂

Innovation As Priority · Quality As Essential · Precision As Soul

## XK (H) 24M Series CNC Gantry Type Boring and Milling Machine

Specialized in machining mould

High machining performance

Rapid feed speed : 24m/min

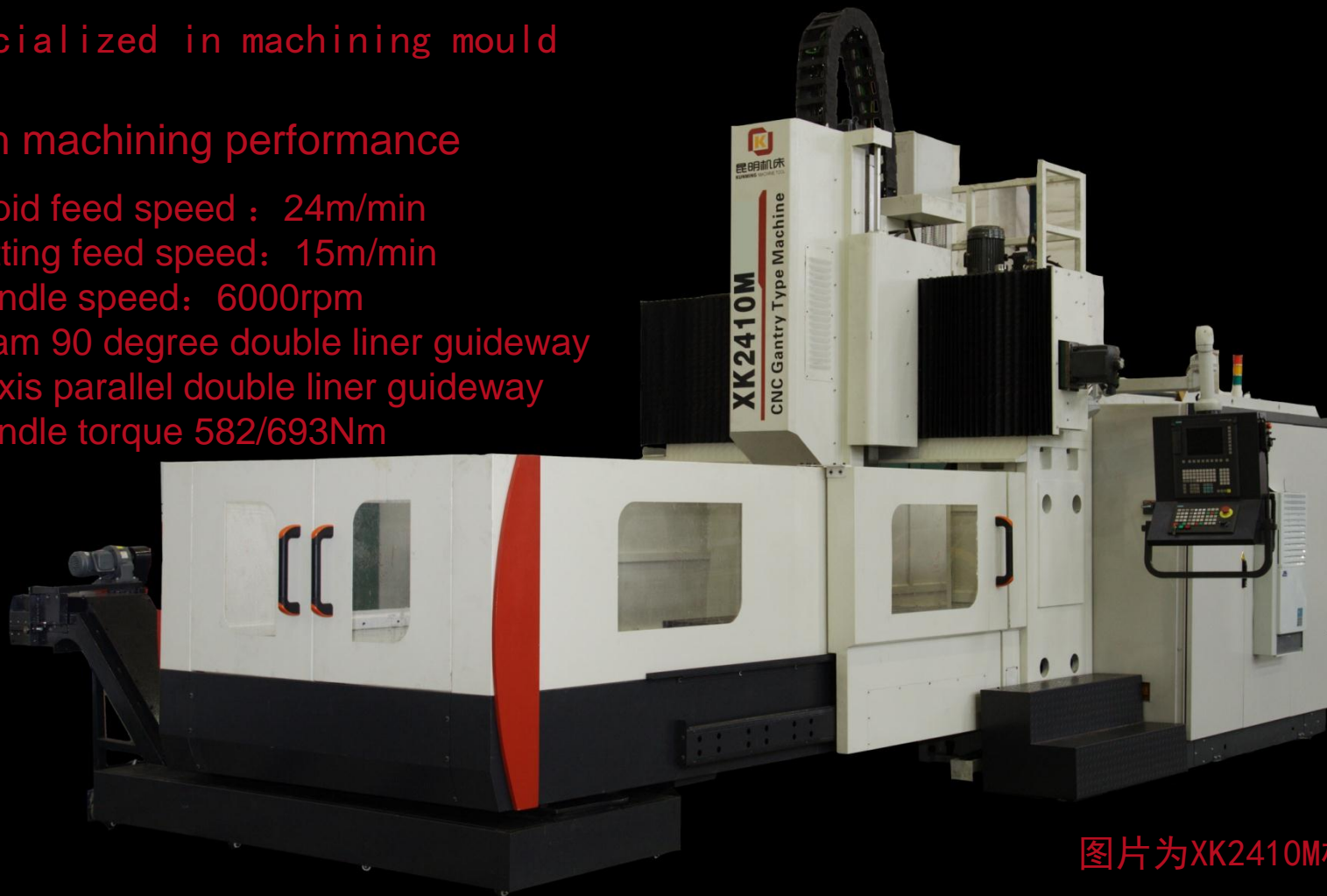
Cutting feed speed: 15m/min

Spindle speed: 6000rpm

Beam 90 degree double liner guideway

Z axis parallel double liner guideway

Spindle torque 582/693Nm



图片为XK2410M机型

## XK (H) 24M Model introduction

X K (H) 24 XX M

For Mould processing

Table width/100

Fix beam table moving

With ATC

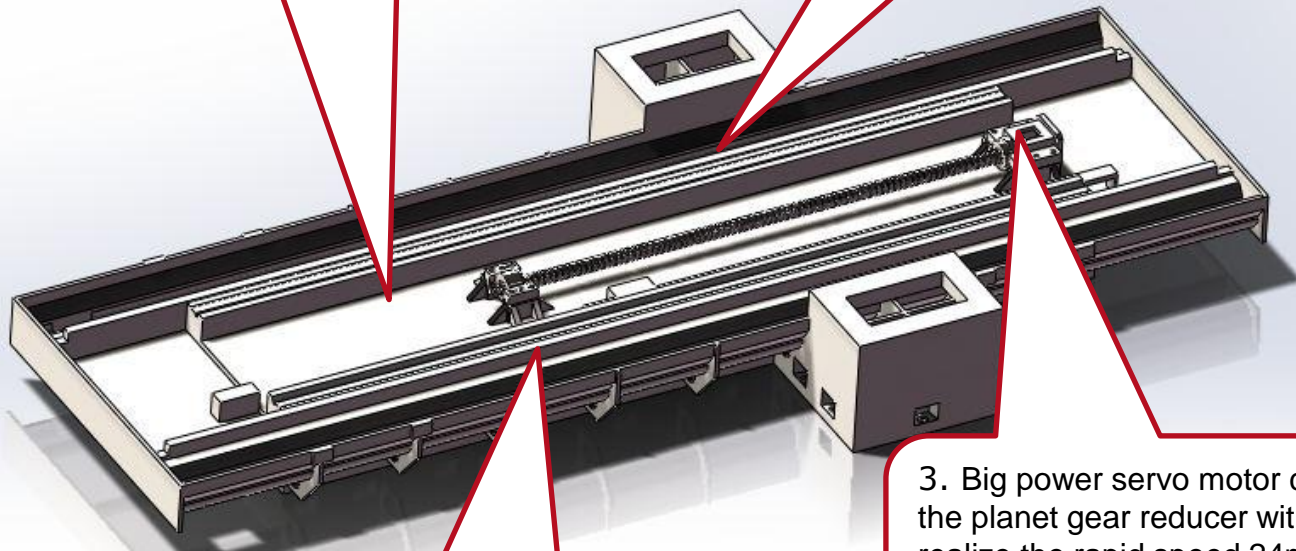
CNC

Milling Machine

## XK (H) 24M Machine Structure of Bed

1. Ultra bed width with superior rigid table to improve the table max loading capacity

2. Double heavy loading liner guideway design to ensure the X axis straightness



4. Oil water separate with semi closed protection area.

3. Big power servo motor coupling with the planet gear reducer with ball screw to realize the rapid speed 24m/min. Also this structure improve the positioning accuracy and repeatability

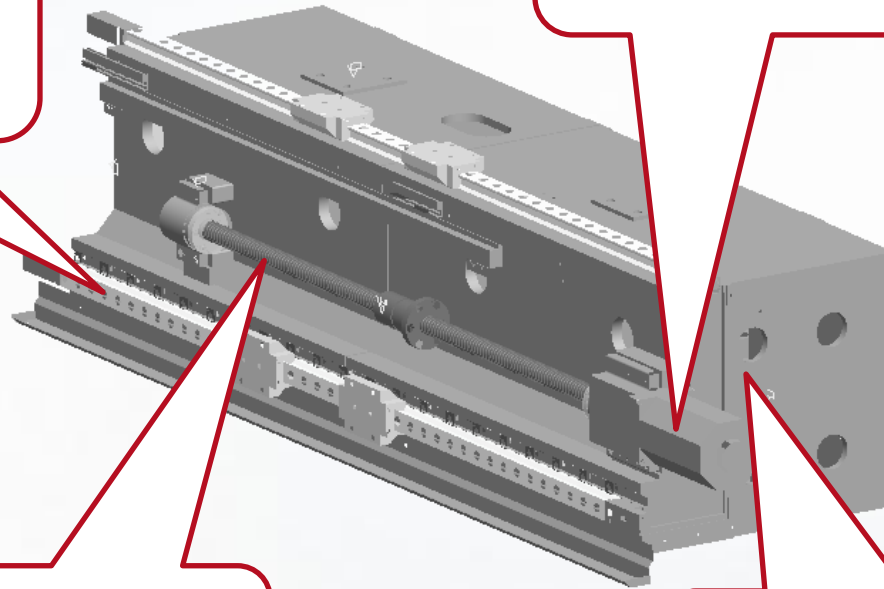
## XK (H) 24M Machine structure of Beam

1. 90 degree stair guideway structure design, improve the beam guideway span and improve the cutting loading rigidity.

2. Big power AC servo motor coupling ball screw improve the positioning and repeatability

4. Beam and column big cross section design to ensure the spindle and Y and Z axis supporting rigid

3. Integrated casting of beam and column ensure the stability in long time.



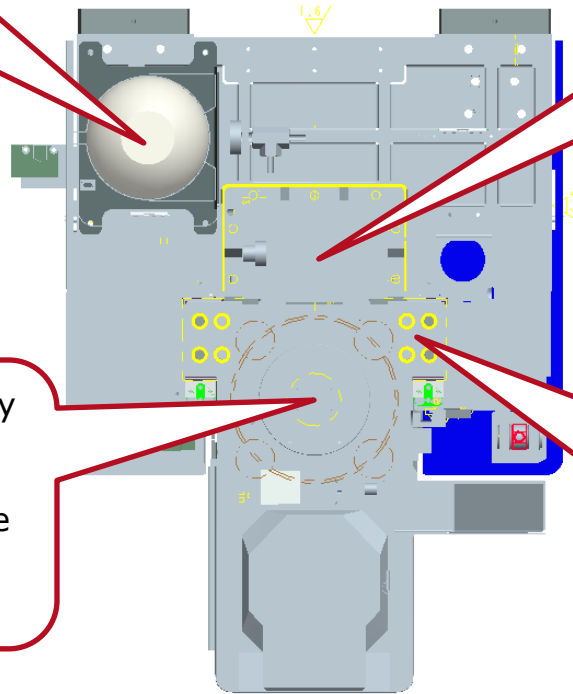
## XK (H) 24M Machine structure of Ram

1. Energy accumulator high speed balance system ensure Z axis moving stability , realize the Z axis power off protection.

2.Z axis drive adopt the AC servo motor drive the ball screw to realized the 15m/min cutting feed and 0.5g high acceleration and deceleration function.

4.Symmetric style center of gravity assignment, Z axis ball screw, spindle center and spindle motor locate at the center of ram ensure Z axis feed accuracy and heat balance.

3.Z axis double heavy loading liner guideway design reduce the spindle center to Z axis guideway, reduce the cutting arm force improve the cutting rigid



## XK (H) 24M Machine structure of Main drive

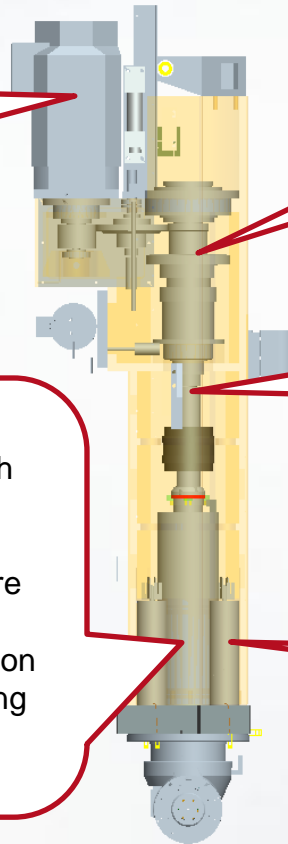
1. Main motor locate at the ram up end coupling with the transmission shaft in order to prevent the motor heat transmit into ram

2. Fine precision gear ISO 4 level speed change mechanism with high accuracy, high transmit rigid and high efficiency performance

3. Gear shaft and driving shaft premium balancing ensure the drive accuracy

4. Auto head clamping function

5. Spindle is made of nitride steel, after heat treatment; Spindle bearing with good rigidity, high precision; Spindle tool clamping is disc spring clamp, hydraulic release; In order to prevent the spindle rotates at high speed bearing temperature rise too high and the effect the precision of the spindle, adopts constant temperature oil circulation cooling device in order to reduce the heat, bearing and gear to ensure that the spindle rotation accuracy





## XK (H) 24M Electrical parts

XK (H) 24M Series equipped with SIEMENS CNC system, SIEMENS AC drive system, PLC, 1FT7 High voltage AC servo motor and 1PH8 high voltage synchronization spindle motor

XK (H) 24M FANUC  $\alpha$  Series equipped with FANUC CNC system. The FANUC  $\alpha$  series import AC synchronization spindle motor and AC feed servo motor

X、Y、Z Axes adopts motor encoder to measure semi loop control ,spindle adopts the SIEMENS encoder (FANUC SYSTEM adopts Heidenhain encoder)

X、Y、Z axes can equipped with Heidenhain grating scale to measure full loop control



## XK (H) 24M series specification

Model		XK (H) 2410M			
Specification					
Table size	mm	1000x1500	1000x2000	1000x2500	1000x3000
Max loading capacity	Kg	2500	3000	4000	5000
T Slot size	mm	22	22	22	22
Table travel—X	mm	1500	2000	2500	3000
Ram carriage travel—Y	mm	1250+110	1250+110	1250+110	1250+110
Ram travel—Z	mm	800	800	800	800
Width of gantry	mm	1250	1250	1250	1250
Rapid speed (X/Y/Z)	m/min	24/24/24	24/24/24	24/24/24	24/24/24
Feed speed (X/Y/Z)	m/min	15/15/15	15/15/15	15/15/15	15/15/15
Standard motor power	kW	18.5/22	18.5/22	18.5/22	18.5/22
Option motor power	kW	22/26	22/26	22/26	22/26

## XK (H) 24M series specification

Model		XK (H) 2410M			
Specification					
Standard spindle speed	r/min	6000	6000	6000	6000
Standard spindle torque	Nm	582/693	582/693	582/693	582/693
Spindle taper		ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50
Shank specification		ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50
ATC capacity	mm	24/32/40	24/32/40	24/32/40	24/32/40
Max diameter of tool	mm	200	200	200	200
Max length of tool	mm	350	350	350	350
Tool change time	s	4	4	4	4
CNC system		SIEMENS 828D	SIEMENS 828D	SIEMENS 828D	SIEMENS 828D
Machine weight	Kg	16000	18000	20000	22000



## XK (H) 24M series specification

Model		XK (H) 2412M		
Specification				
Table size	mm	1250x2000	1250x2500	1250x3000
Max loading capacity	Kg	5000	6000	8000
T Slot size	mm	22	22	22
Table travel —X	mm	2000	2500	3000
Ram carriage travel—Y	mm	1450+110	1450+110	1450+110
Ram travel —Z	mm	800	800	800
Width of gantry	mm	1450	1450	1450
Rapid speed (X/Y/Z)	m/min	24/24/24	24/24/24	20/24/24
Feed speed (X/Y/Z)	m/min	15/15/15	15/15/15	15/15/15
Standard motor power	kW	18.5/22	18.5/22	18.5/22
Option motor power	kW	22/26	22/26	22/26



## XK (H) 24M series specification

Model		XK (H) 2412M		
specification				
Standard spindle speed	r/min	6000	6000	6000
Standard spindle torque	Nm	582/693	582/693	582/693
Spindle taper		ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50
Shank specification		ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50
ATC capacity	mm	24/32/40	24/32/40	24/32/40
Max diameter of tool	mm	200	200	200
Max length of tool	mm	350	350	350
Tool change time	s	4	4	4
CNC system		SIEMENS 828D	SIEMENS 828D	SIEMENS 828D
Machine weight	Kg	26000	28000	30000



## XK (H) 24M series specification

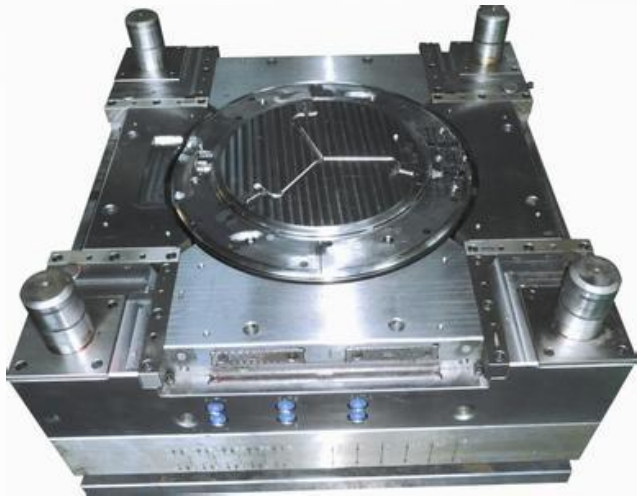
specification		Model		
		XK (H) 2415M		
Table size	mm	1500x2000	1500x2500	1500x3000
Max loading capacity	Kg	6000	8000	10000
T Slot size	mm	22	22	22
Table travel —X	mm	2000	2500	3000
Ram carriage travel—Y	mm	1650+110	1650+110	1650+110
Ram travel —Z	mm	800	800	800
Width of gantry	mm	1650	1650	1650
Rapid speed (X/Y/Z)	m/min	24/24/24	20/24/24	20/24/24
Feed speed (X/Y/Z)	m/min	15/15/15	15/15/15	15/15/15
Standard motor power	kW	18.5/22	18.5/22	18.5/22
Option motor power	kW	22/26	22/26	22/26



## XK (H) 24M series specification

Model		XK (H) 2415M		
Specification				
Standard spindle speed	r/min	6000	6000	6000
Standard spindle torque	Nm	582/693	582/693	582/693
Spindle taper		ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50
Shank specification		ISO7: 24 NO.50	ISO7: 24 NO.50	ISO7: 24 NO.50
ATC capacity	mm	24/32/40	24/32/40	24/32/40
Max diameter of tool	mm	200	200	200
Max length of tool	mm	350	350	350
Tool change time	s	4	4	4
CNC system		SIEMENS 828D	SIEMENS 828D	SIEMENS 828D
Machine weight	Kg	26000	28000	30000

**XK (H) 24M series  
Typical workpiece**

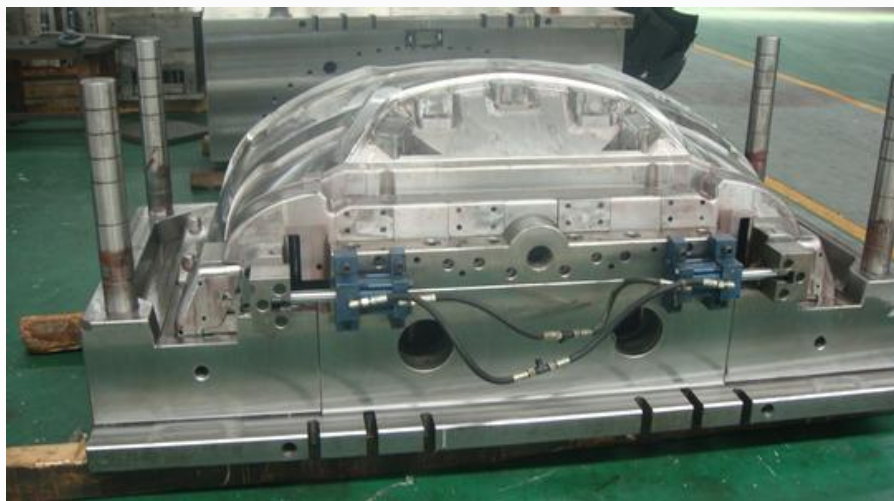
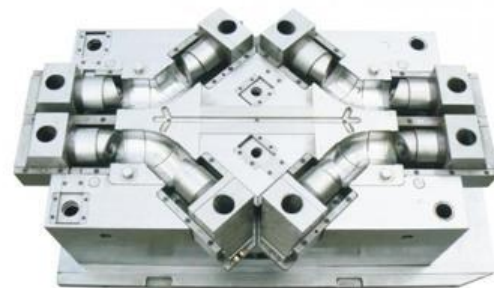
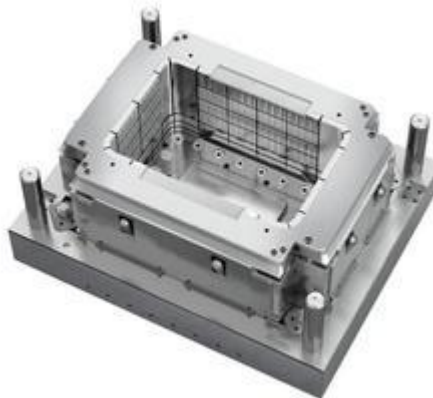




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# Thank You