



昆明机床
KUNMING MACHINE TOOL

Well-known
Boring
Machine
Family

CNC Boring and
Milling Machine

创为先 · 质为本 · 精为魂

Innovation As Priority Quality As Essential Precision As Soul

Series KiMi

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K

KMTC

i

Intergration

M

Maintenance Free

i

Intelligence



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2014 CCMT Exhibition



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KIMI Series A-2 and B-2, A-4 and B-4

CNC Transition Essentially

A Legend Product Between Premium CNC Machine and Automatic Machine





KiMi series configuration standardization

Main motor adopts super-synchronous speed motor, spindle stepless and accurate stop function.

X, Y, Z, W, U and B axes adopt Independent AC servo motor drive

Bed, column, saddle and table are adopt precision machine structure design, with great structure rigidity and stability.

X, Y, Z and B axes are all using linear grating and encoder, closed-loop control, accuracy stable and reliable.

Equipped main trend import CNC system, with four axes simultaneously function.

KIMI CNC Horizontal Boring and Milling Machine

A——with fixed facing head

Choosing A-2、A-4 customers:
High-pressure cock, Pump valve type, Petroleum machinery, Chemical machinery.
While above industries processing, the facing head using rate high, spindle and facing head change frequently, unnecessary use vertical milling head and other accessories, large diameter hole could be completed by facing head.

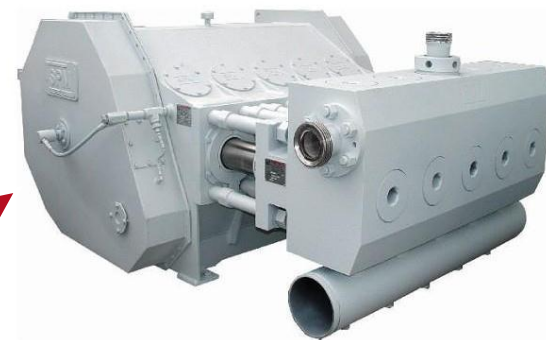
B——without facing head

Choosing B-2、B-4 customers:
Construction machinery, auto parts, aerospace, mould, motor and so on.
While above industries processing, spindle milling and boring work frequently, high rigidity of spindle required and overhang processing needed, use vertical and universal milling head, removable facing head, high versatility processing requirement.

Applicable industry



Electrical motor industry



Petroleum valve, pump



High-pressure cock



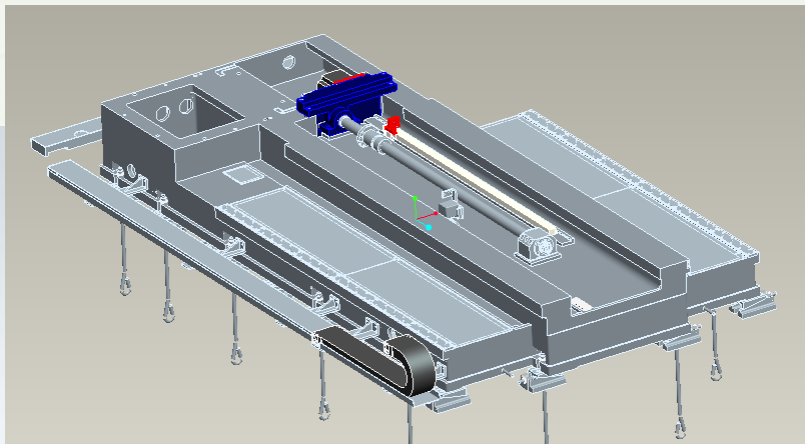
Water pump valve



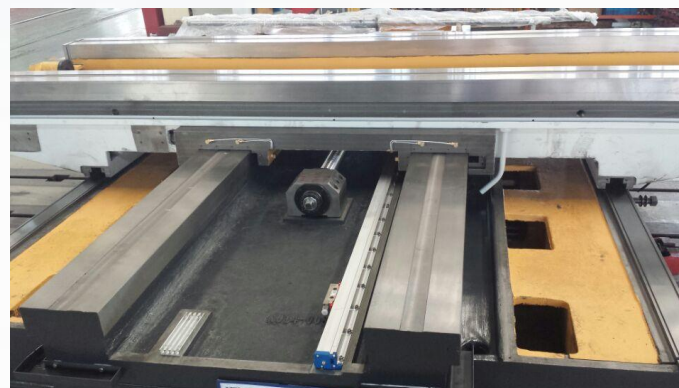
Speed reducer

Basic parts

高刚性基础组件

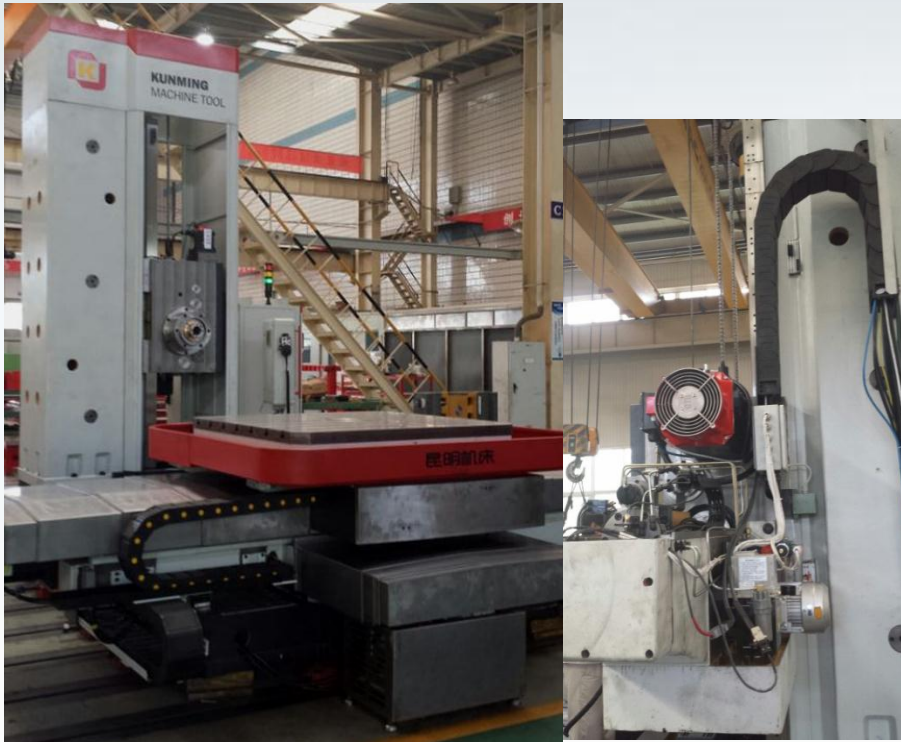


The bed, column, spindle head, table, down and up carriage and rear tail are made from premium cast iron through aging treatment which are all produced by KMTC, with sufficient bending and torsional strength.



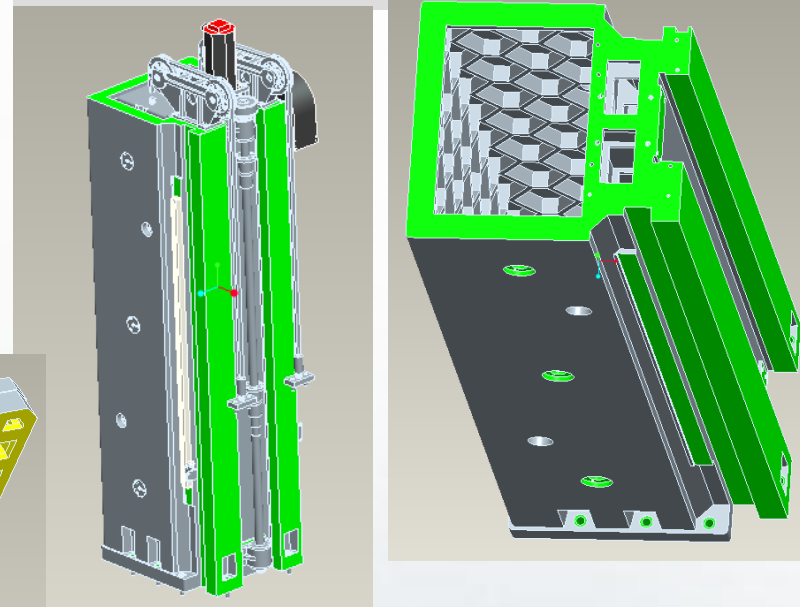
Machine is overall bed structure with fixed column, with high structure rigidity and stability, particularly suitable for coastal foundation (Sediments soft clay layer is widely distributed in coastal area, with characteristics of high water content, poor permeability, compressibility and low intensity, cause the foundation is not stable.)

Bed guideway (Z axis) of A/B-2, A/B-4 is 4 guideway structure, with smooth motion and strong ability of anti-overturning.

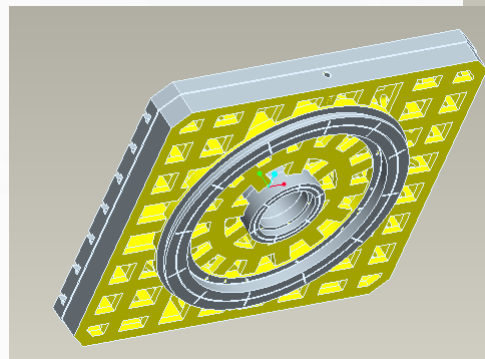


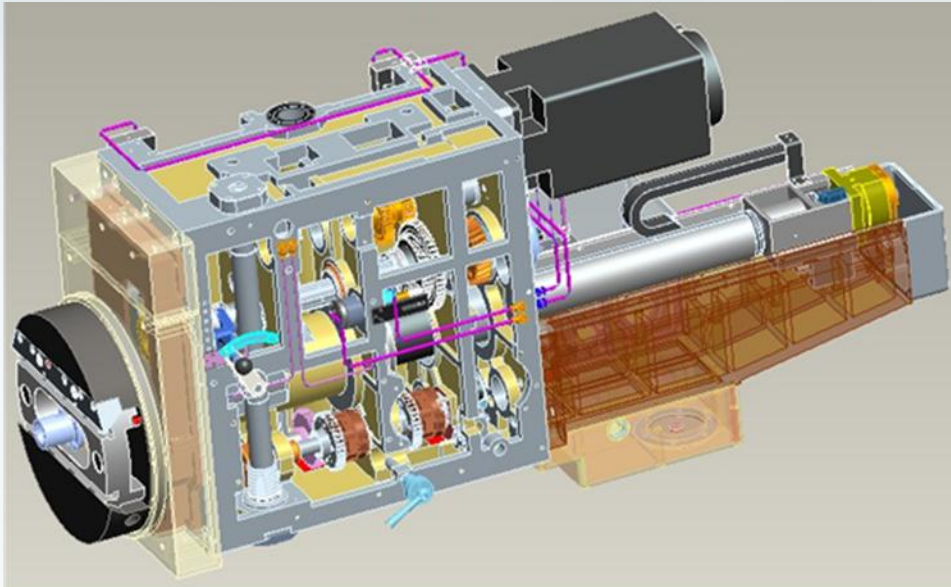
High rigidity basic components

Column: Column fixed on the bed, two guideway of column are rectangle, rear guideway impactation chilled steel guideway plate, inside column equiped balance weight, internal ribbed slab crisscrossing, with high anti distortion.



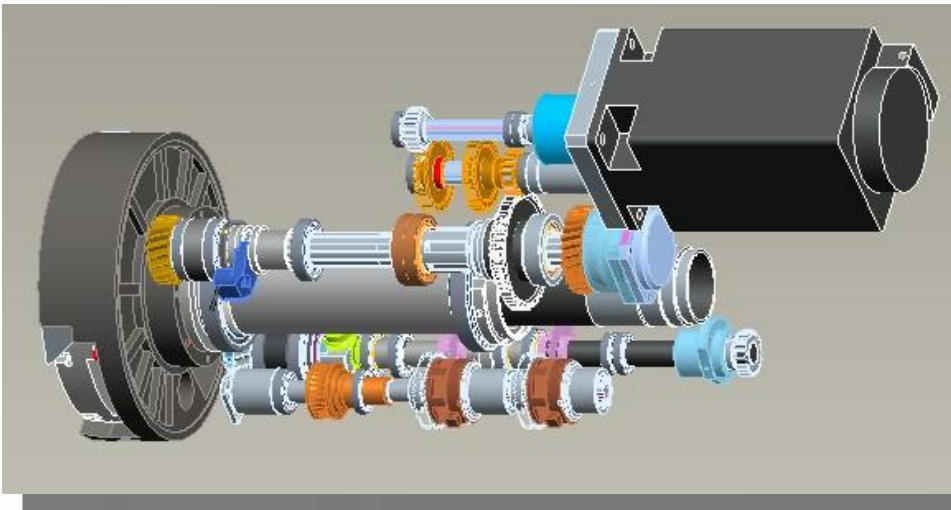
Work table: Worktable surface is square box type, internal ribbed slab crossing, reasonable layout with high anti distortion and high loading feature.



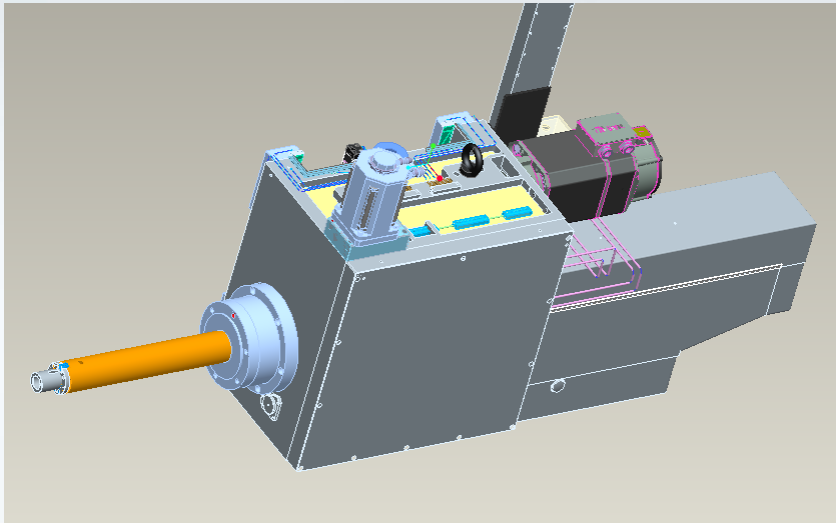


Spindle head with fixed facing head structure

Spindle head: Consist of spindle components, variable transmission mechanism, spindle and facing head slider feed distribution mechanism and so on.



Spindle axes system: Adopt facing head spindle, hollow spindle and boring spindle three layers structure. Supporting bearing adopts high rigidity and precision tapered roller bearing, ensure axes system high rotation accuracy and rigidity. Tool clamping adopts disk spring clamp, hydraulic loose, tool change fast and convenient. Boring spindle material is 38CrMoAlA, after 30 procedures processing, grinding and polishing surface make it high rigidity and



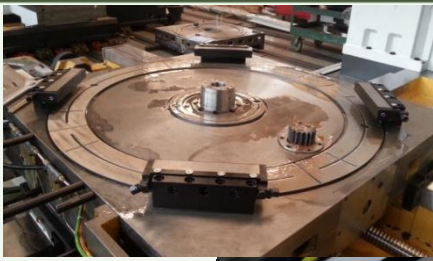
Spindle head without fixed facing head structure

Spindle head: Consist of spindle components, variable transmission mechanism, spindle feed distribution mechanism and so on.

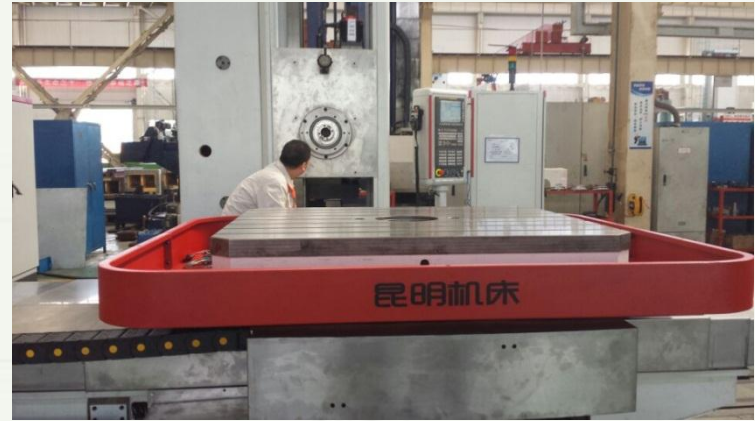


Spindle axes system: Adopt hollow spindle and boring spindle two layers structure. Supporting bearing adopts high rigidity and precision tapered roller bearing, ensure axes system high rotation accuracy and rigidity. Tool clamping adopt disk spring clamp, hydraulic loose, tool change fast and convenient. Boring spindle material is 38CrMoA1A, after 30 procedures processing, grinding and polishing surface make it high rigidity and abrasion resistance.

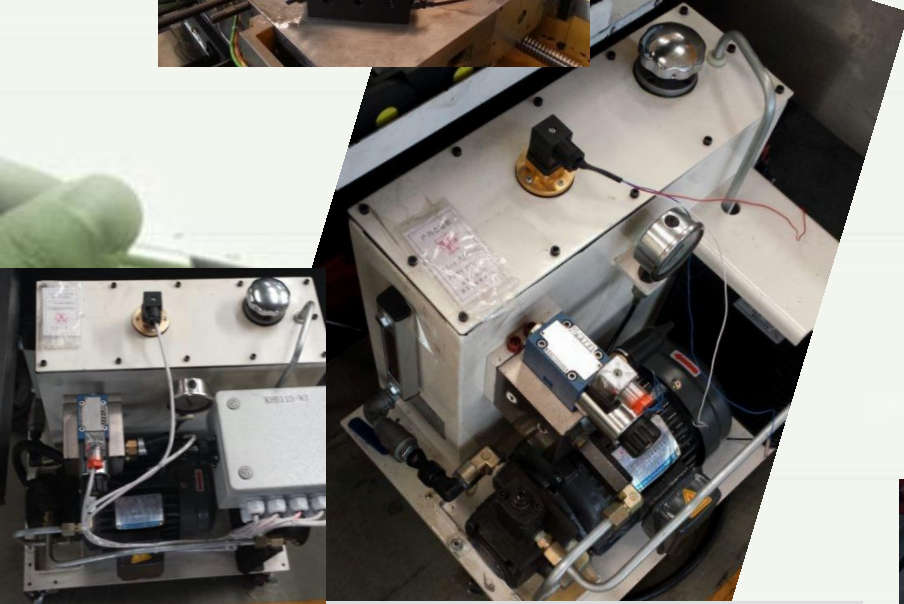
Two layers spindle structure is advantage for overhang cutting. (shaft sleeve can be installed)



Structure features



Water tray for table



Hydraulic clamping of B axis supplied by independent hydraulic station

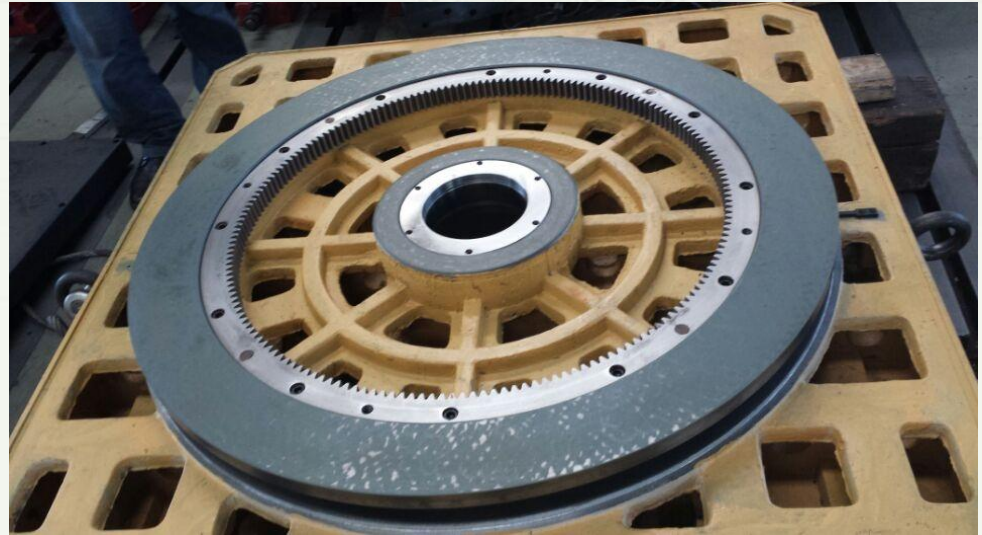


Table adopts plastic coated guideway, inner ring structure and square box structure design.

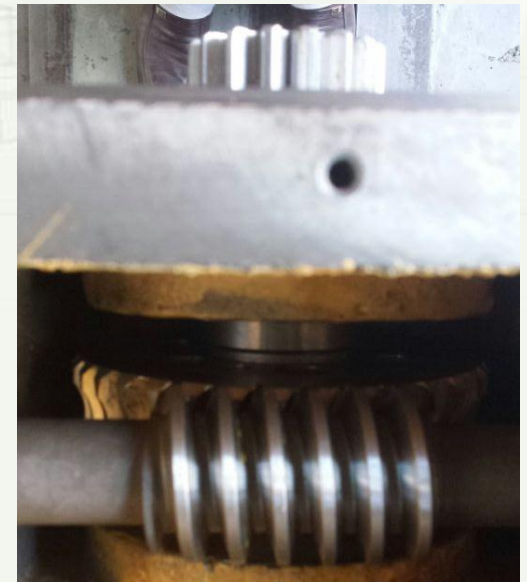
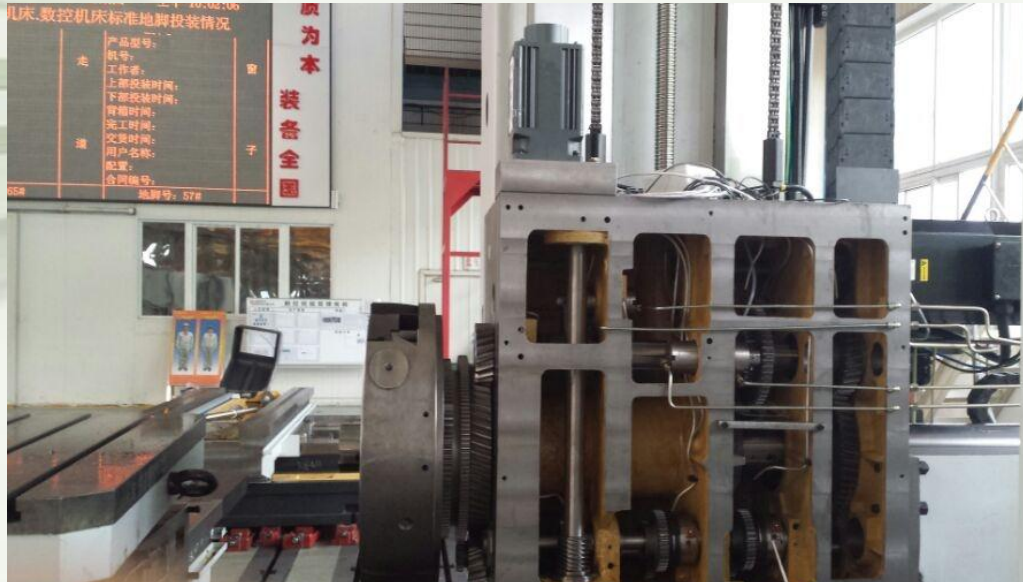


Feed axis



机床-数控机床标准地脚安装情况	
产品型号:	机床号:
工作率:	上部安装时间:
下部安装时间:	拆卸时间:
完工时间:	交安时间:
用户名称:	配置:
合格证号:	编号号: 57#

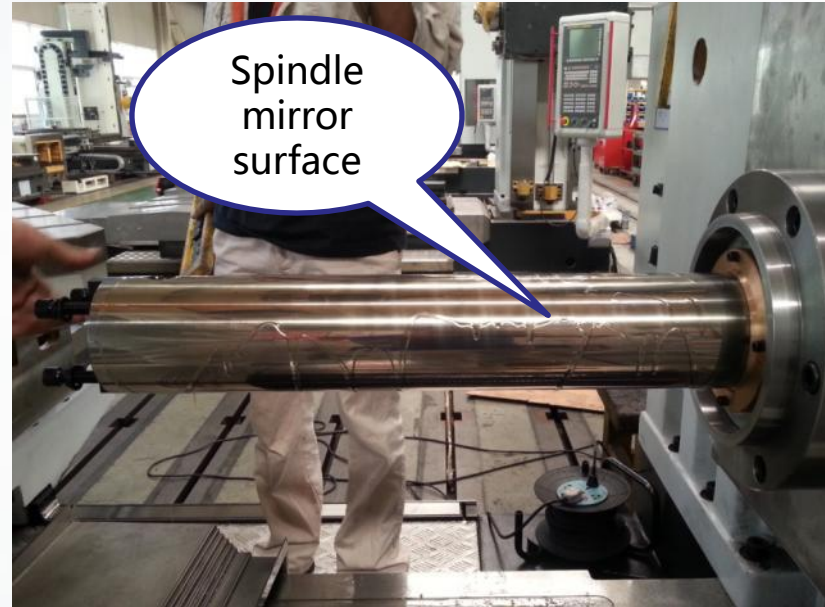
原为本
装备全国



X,Y,Z and W axes adopt Imported independent servo feed motor through timing pulley deceleration then drive the high rigid preloading ball screw rod to realize the feed motion.

U axis adopts Imported independent servo feed motor through planetary gearbox deceleration then drive the preloaded ball screw rod to realize the feed motion.

B axis: Automatic anti-backlash. A/B-2和A/B-4: Imported independent servo feed motor through gearbox



Material of spindle: Nitrided steel ,nitration case depth more than 1mm , hardness of spindle is higher than HV900

Main specification

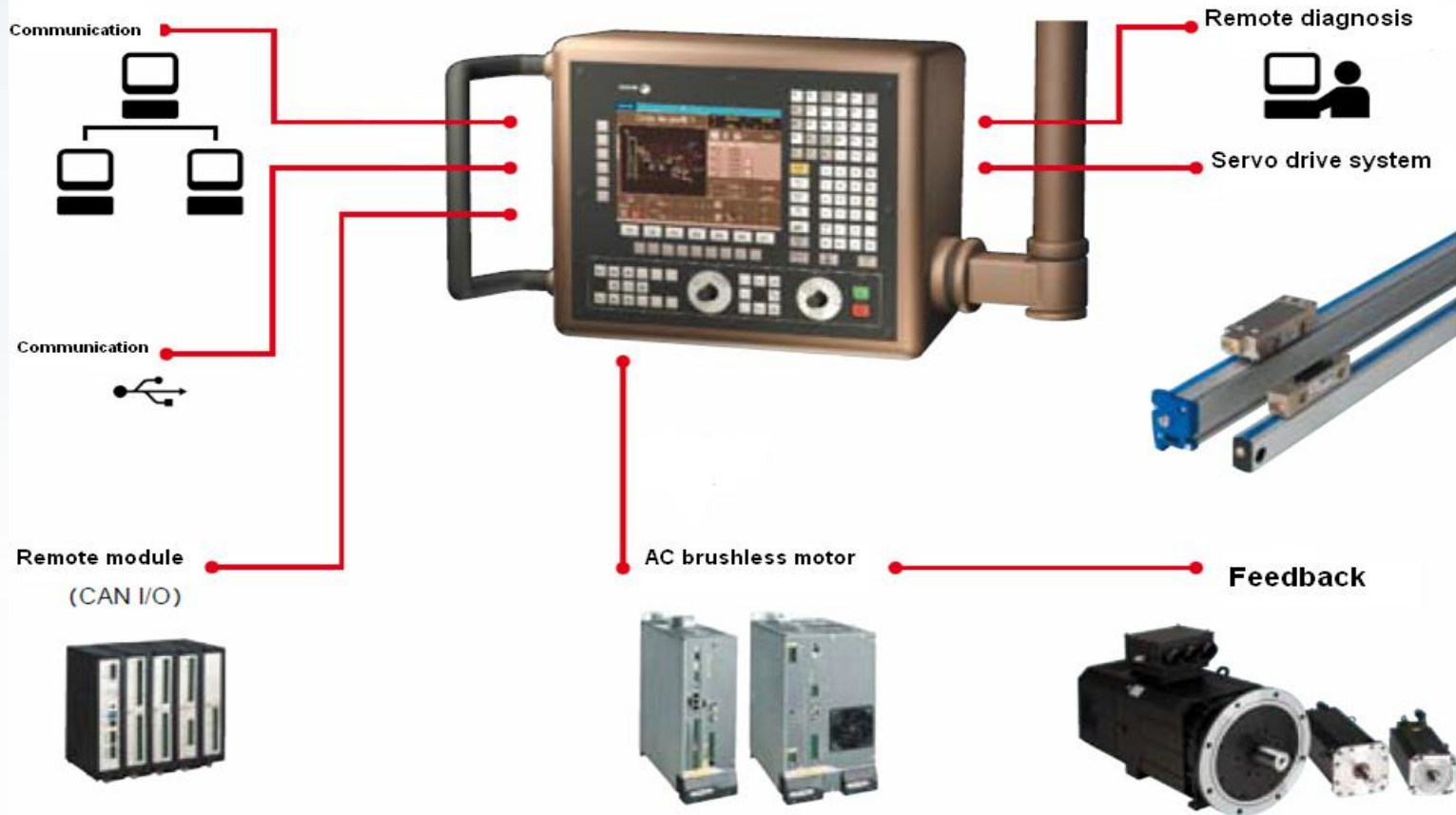
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Specification	units	KiMi B-1	KiMi A-2	KiMi B-2	KiMi A-4	KiMi B-4
Spindle diameter	mm	110	110	110	110	110
Spindle max speed	rpm	1500	1100	1100	1100	1100
Main motor power	kw	11	15	15	15	15
Spindle max torque	N.M	1518	1450	1450	1450	1450
Facing head diameter	mm	--	650	--	650	--
Facing head max torque	N.M	--	2175	--	2175	--
Facing head max speed	rpm	--	165	--	165	--
Table size	mm	900×1000	1250×1250	1250×1250	1250×1400	1250×1400
Max loading capacity	t	2.5	5	5	5	5
Table X axis travel	mm	1000	1400	1400	1800	1800
Spindle head Y axis	mm	900	1200	1200	1400	1400
Table Z axis travel	mm	1100	1200	1200	1400	1400
Spindle W axis travel	mm	550	600	600	600	600
Facing head U axis travel	mm	--	200	--	200	--
X、Y、Z positioning accuracy	mm	0.025	0.018	0.018	0.018	0.018
X、Y、Z repeatability	mm	0.015	0.012	0.012	0.012	0.012
Machine weight	T	12	17.5	17	19	18.5
Standard configuration						

FAGOR 8055i or FANUC 32i System •XYZ three axes loop control •B axis full loop control •Table servo drive Hydraulic auto clamp •Ball screw (domestic) •MECANO operation panel box	•Center lubrication station •Telescope of X and Z •Y axis armor protection •Indicator three color lights •3 axes simultaneously control •Spindle gear lubrication system •Water pan	•Hand held unit •RS232/USB interface •Spindle taper clean rod •General tools •Electric cabinet •Whole set foot wedge •operation , maintaining and programming manual SHENJI GROUP KUNMING MACHINE TOOL COMPANY LIMITED
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KiMi CNC system applications



Spain FAGOR8055 CNC system



Special Options

1	CTS (recommended when spindle speed reach 2000rpm), protection cover, external cooling and conveyor (below the spindle and parallel to X axis)
2	ATC:40tools
3	Imported spindle bearings and ball screws
4	CNC system optional 840D sl or FANUC 31i
5	External coolant and chip conveyor
6	Spindle diameter 130mm for B model



Spindle dia $\phi 130$ with ATC



Equipped with facing head
and ATC

Variable options for customer

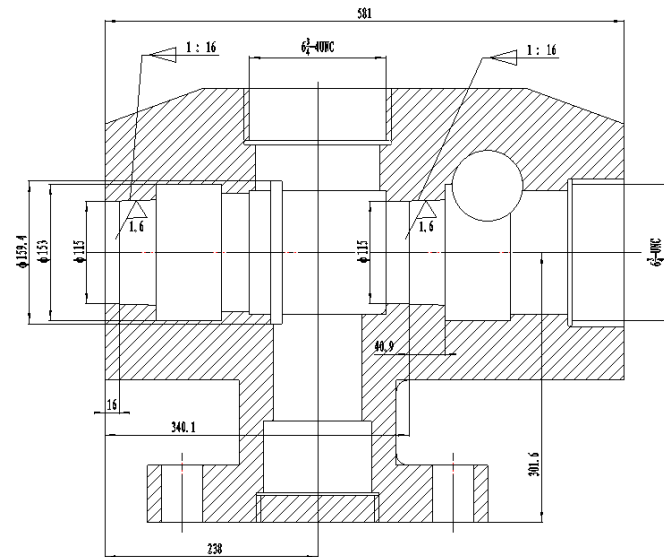
Series KiMi A type Typical utilization



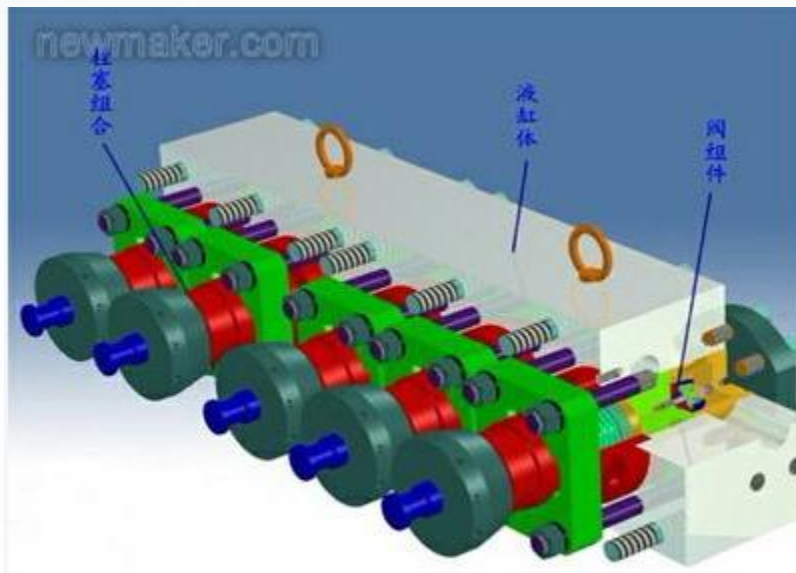
KiMi A series mainly focus on high pressure switch, water pump industry



Typical customer of KiMi Series

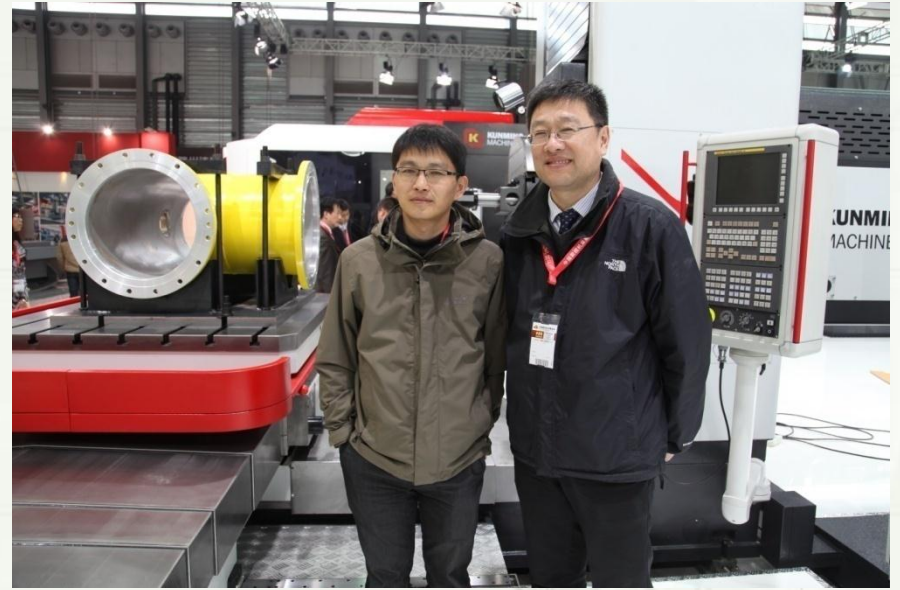


KiMi B mainly focus on petroleum valve and decelerator industry





Machine in work shop



CCMT 2014 Machine Tool Show
in Shanghai



Thank You