



昆明机床
KUNMING MACHINE TOOL

CNC Floor-type milling and boring machine

Introduction



Contents

Main specification

Main basic parts

Structure features

Main out-sourced parts

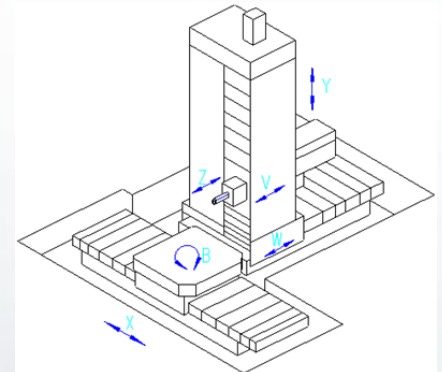
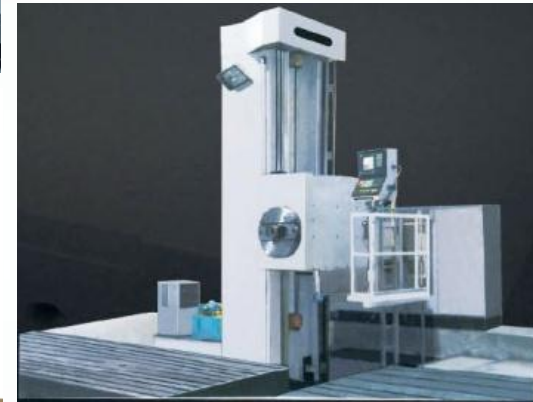
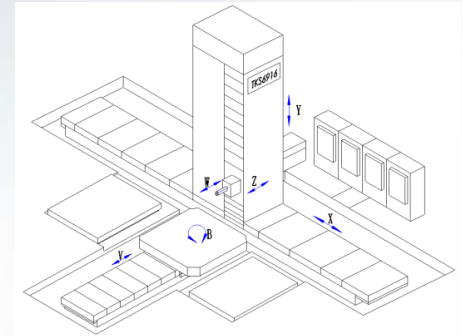
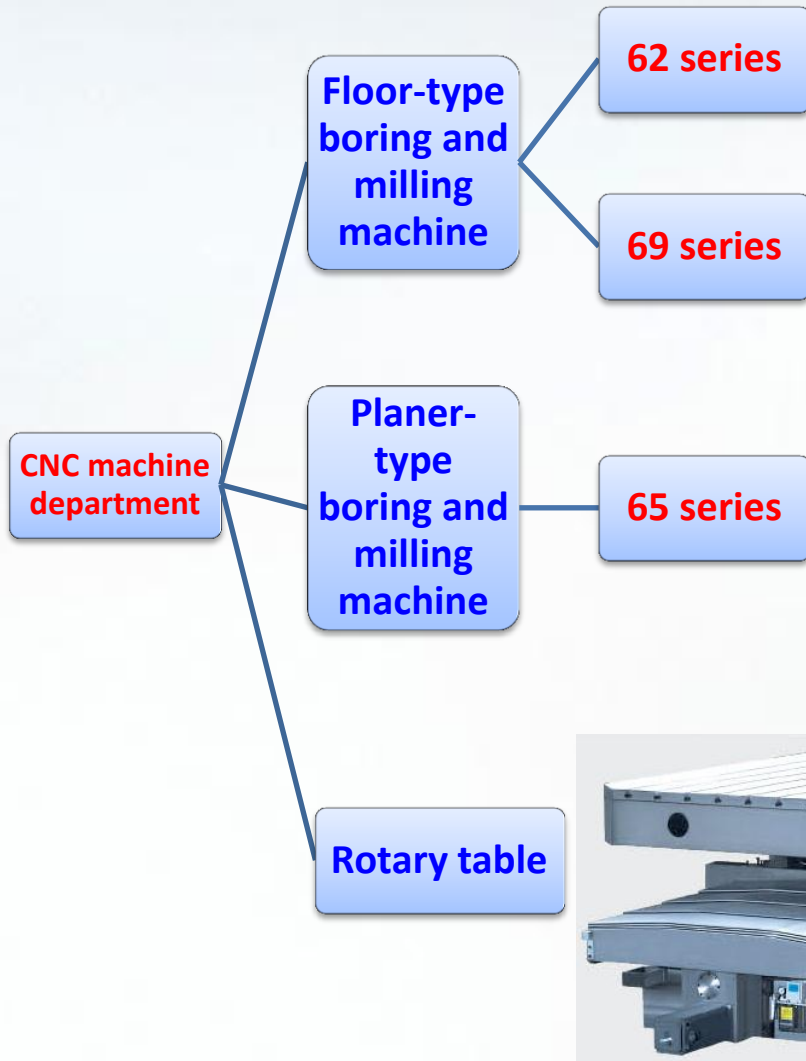
Appearance and covers

Sales performance

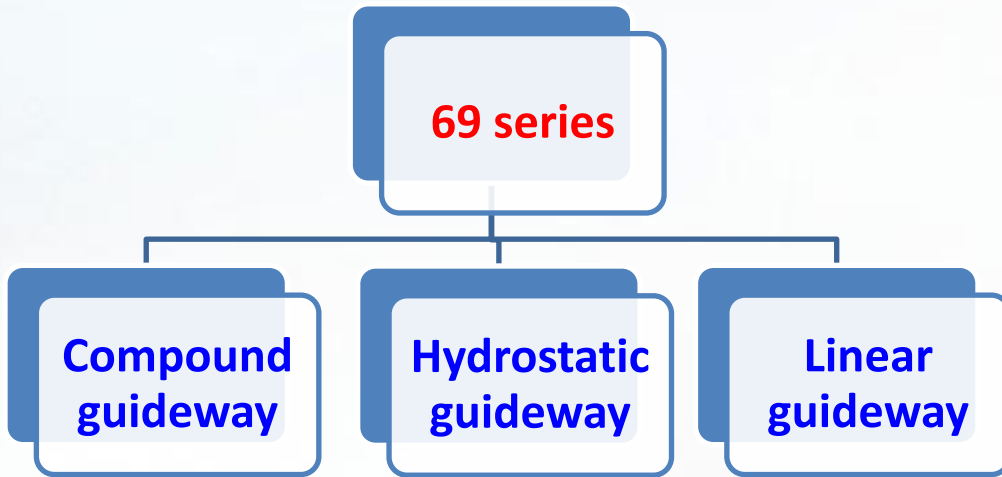
Application examples



1. Product type



1. Product type



1. Product type **69 series compound guideway boring milling machine**

Module	MXT		MLD		
Model	TJK/TK/TH6913	TJK/TK/TH6916C	TJK/TK/TH6916A	TJK/TK/TH6920A	TJK/TK/TH6922A
Boring spindle diameter mm	130	160	160	200	225
Milling spindle diameter mm	221.4	240	260	300	380
Taper	ISO 50		ISO 50	ISO 60	ISO 60
Main motor power KW	37	51	55/51/60	60/71	71
Spindle torque N.m	3150	4350	11000	12000	15000
RPM r/min	2-2000	2-1500/2000	2-1500/1250/1000	2-1500/1250/1000	2-1000
RAM size mm	420×480		480×580	480×580	580×700
Column travel X(mm)	4000+n×1000		4000+n×1000	4000+n×1000	4000+n×1000
Spindle head travel Y(mm)	2000-4000		3000-5000	3000-5000	4000-6000
RAM travel Z(mm)	800	1000	1100	1200	1250
Boring spindle travel W(mm)	800	800	900	1200	1250
Rapid speed X、Y(mm/min)	8000		8000/6000	8000/6000	8000/6000
Rapid speed Z、W(mm/min)	6000		4000	4000	4000
CNC system	SIEMENS 840Dsl, FANUC 31i, FAGOR 8065M				

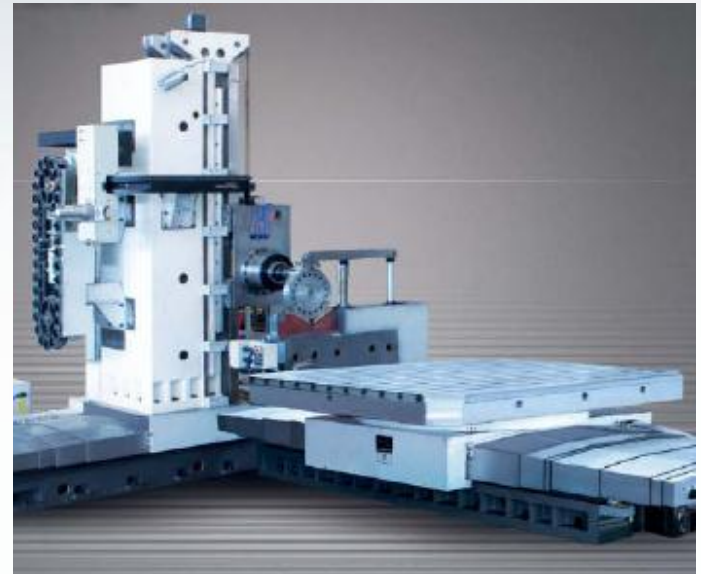
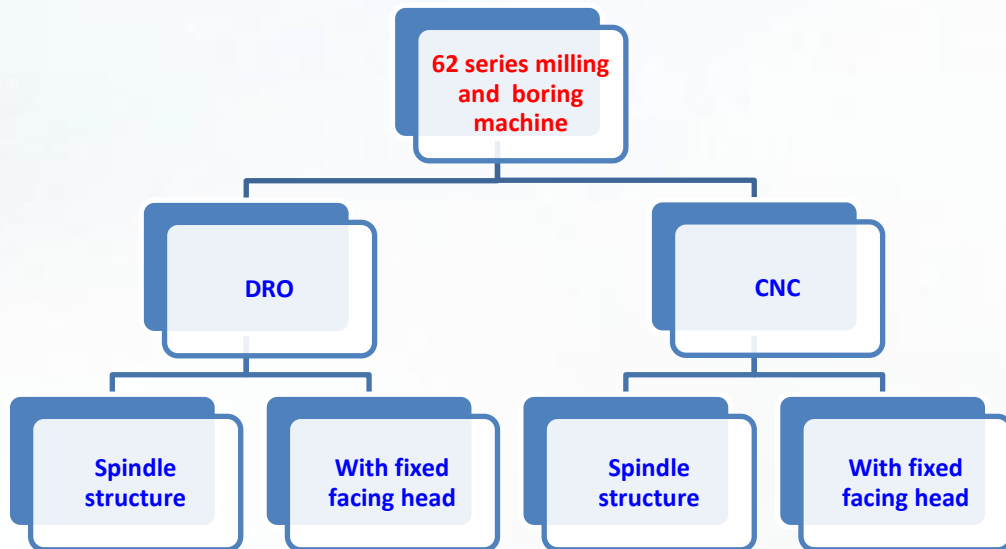
1. Product type Hydrostatic guideway boring milling machine

Module	TK6916J		TK6920J			TK6926	KFB325	
Model	TK/TH6916J	TK/TH6920J	TK/TH6916J	TK/TH6920J	TK/TH6922J	TK/TH6926	KFB300	KFB325
Boring spindle diameter mm	160	200	160	200	225	260	300	325
Milling spindle diameter mm	300	320	320	320	360	400	440	460
Taper	ISO 50	ISO 60	ISO 50	ISO 60	ISO 60	ISO 60	ISO 60	ISO 60
Main motor power KW	60	71	60	71	71	129	129/141	
Spindle torque N.m	10000	13000	10000	15000	15000	27000	27000/32000	
RPM r/min	2-1600	2-1400	2-1600	2-1400	2-1250	2-1000	2-1000	
RAM size mm	480×580		520×580			600×725	700×820	
Column travel X(mm)	4000+n×1000		4000+n×1000			4000+n×1000	4000+n×1000	
Spindle head travel Y(mm)	3000-5000		4000-6000			5000-7000	7000-10000	
RAM size Z(mm)	1200	1200	1400			1800	2200	
Boring spindle travel W(mm)	1000	1200	1200			1600	1800	
Rapid speed X、Y(mm/min)	10000(8000)		10000(8000)			10000(8000)	10000(8000)	
Rapid speed Z、W(mm/min)	6000		6000			6000	6000	
CNC system	SIEMENS 840Dsl, FANUC 31i, FAGOR 8065M					SIEMENS 840Dsl		

1. Product type 69series linear guideway boring milling machine

Module	TKS6916	TKS6920
Model	TKS/THS6916	TKS/THS6920
Boring spindle diameter mm	160	200
Milling spindle diameter mm	260	320
Taper	ISO50	ISO60
Main motor power KW	51	71
Spindle torque N.m	2600	4000
RPM r/min	2-2500	2-2000
RAM size mm	450×450	550×550
Column travel X(mm)	4000+n×1000	4000+n×1000
Spindle head travel Y(mm)	3000-4000	4000-6000
RAM size Z(mm)	1000	1500
Boring spindle W(mm)	800	1000
Rapid speed X、Y(mm/min)	20000、16000	16000、12000
Rapid speed Z、W(mm/min)	12000	12000
CNC system	SIEMENS 840Dsl, FANUC 3lib	

Machine types



1. Product type

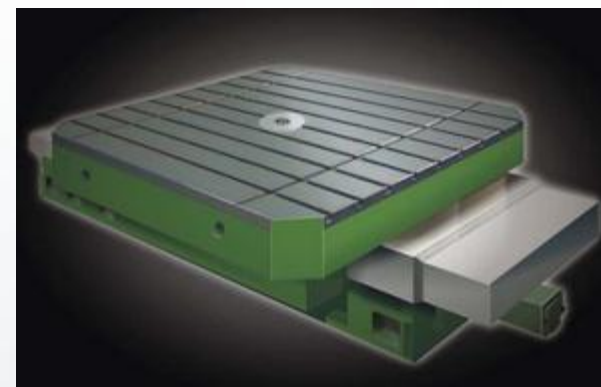
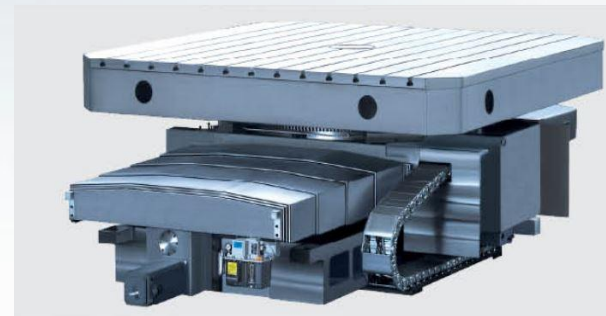
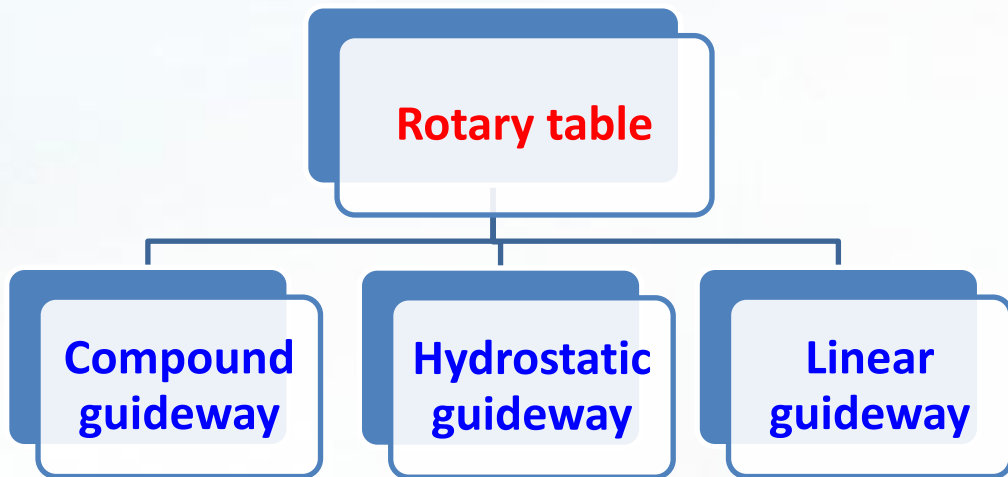
62 series milling and boring machine

Model	TX6213	TX6213A	TJK/TK/TH6213 TJK/TK/TH6213A	TJK/TK/TH6216 TJK/TK/TH6216A	KFB130
Boring spindle diameter mm	130	130	130	160	130
Milling spindle diameter mm	221.44		221.44	260	221.44
Taper	ISO50	ISO50	ISO50	ISO50	ISO 50
Main motor power Kw	15	15	30	37	37
Spindle max torque Nm	2000	2000	2865	3500	3600
Spindle rpm	6.6~755	6.6~755	7-3000	7-1500	10~3000
Facing head diameter mm		670	800(A型)	800(A型)	
Facing head max torque Nm		3000	4000(A型)	4000(A型)	
X axis travel mm	3000+n×1000	3000+n×1000	3000+n×1000	3000+n×1000	3000+n×1000
Y axis travel mm	1600/2000/2500	1600/2000/2500	1600/2000/2500	2000/2500/3000	2000/2500/3000
W axis travel mm	900	900	900	900	900
U axis travel mm		200	300(A type)	300(A type)	
Rapid speed (X/Y/W)mm/min	1700	1700	9000	9000	10000/6000
Rapid speed (U) mm/min		1700	1000(A型)	1000(A型)	

1. Product type

KFB130 Main feature:

- ✓ Spindle RPM 10~3000rpm. Spindle adopts oil-air lubrication, has the function of thermal elongation compensation function.
- ✓ Main motor power 37KW, Spindle torque 3600Nm.
- ✓ Three gears mechanical transmission , large spindle torque, and small power gap.
- ✓ Y axis travel 2000、2500、3000mm, wide process range.
- ✓ With balance weight protection device, improved safety of machine.
- ✓ Machine is with few occupied space and beautiful appearance.
- ✓ Equipped with SIEMENS 840Dsl, complete function, high production efficiency.
- ✓ Brand new control panel design, convenient to use.
- ✓ High cost performance, X=6m, Y=2m, with 2m × 2m loading capacity=20t rotary table, Price is 1.6 ~1.8 million.



Compound guideway rotary table

Model	KRT20	KRT40	KRT60	KRT80	KRT100
Loading capacity T	20	40	60	80	100
Table size mm	1800×2000	2500×2500	3000×3000	3000×4000	4000×4000
	2000×2000	2500×3000	3000×3500	3500×4000	4000×4500
	2000×2500	3000×3000	3000×4000	4000×4000	4000×5000
Linear travel (V) mm	2000-4000	2000-4000	2000-4000	2000-4000	2000-4000
Rotation angle (B) °	360	360	360	360	360
Positioning accuracy (V) mm/mm	0.02	0.02	0.02	0.02	0.02
Positioning accuracy (B) "	10	10	10	10	10
Repeatability (V) mm	0.01	0.01	0.01	0.01	0.01
Repeatability (B) "	6	6	6	6	7
Rapid speed (V) mm/min	6000	4000	4000	4000	4000
Rapid speed (B) r/min	1.5	1	1	1	1

Hydrostatic guideway rotary table

Model	KRTJ045	KRTJ060	KRTJ080	KRTJ100	KRTJ160	KRTJ200
Loading capacity T	45	60	80	100	160	200
Table size mm	2500×2500	3000×3000	3000×4000	4000×4000	5000×5000	5000×5000
	2500×3000	3000×3500	3500×4000	4000×4500	5000×5500	5000×6000
	3000×3000	3000×4000	4000×4000	4000×5000	5000×6000	5000×8000
Linear travel (V) mm	2000-4000	2000-4000	2000-4000	2000-4000	3000-5000	3000-5000
Rotation angle (B) °	360	360	360	360	360	360
Positioning accuracy (V) mm/mm	0.02	0.02	0.02	0.02	0.02	0.02
Positioning accuracy (B) "	10	10	10	10	10	10
Repeatability (V) mm	0.01	0.01	0.01	0.01	0.01	0.01
Repeatability (B) "	6	6	6	6	6	6
Rapid speed (V) mm/min	6000	6000	6000	6000	6000	6000
Rapid speed (B) r/min	1.5	1.5	1.5	1	1	1

Linear guideway rotary table

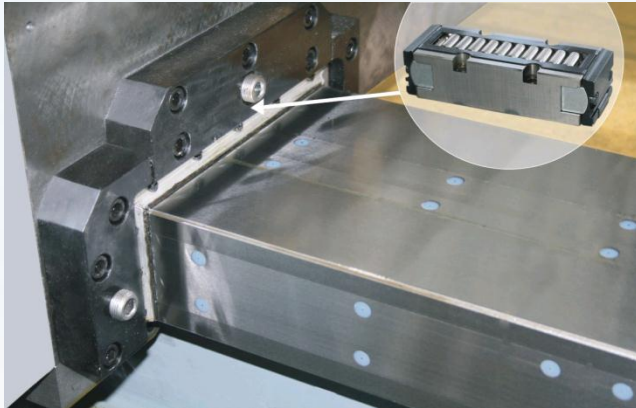
Model	KRTS025	KRTS040
Loading capacity T	25	40
Table size mm	2000×2000	2500×2500
	2000×2500	2500×3000
	2500×3000	3000×3000
Linear travel (V) mm	2000-4000	2000-4000
Rotation angle (B) °	360	360
Positioning accuracy (V) mm/mm	0.02	0.02
Positioning accuracy (B) "	8	8
Repeatability (V) mm	0.01	0.01
Repeatability (B) "	4	4
Rapid speed (V) mm/min	16000	12000
Rapid speed (B) r/min	3	2.5

Brief summary

Compare with domestic competitor, KMTC got advantages on main power, torque, spindle speed, positioning accuracy and repeatability. **The overall technological level is in the domestic leading position.** Compare with international famous competitor, KMTC got equal level with international advanced level on main power, torque, spindle RPM and Positioning accuracy

2. Main structure

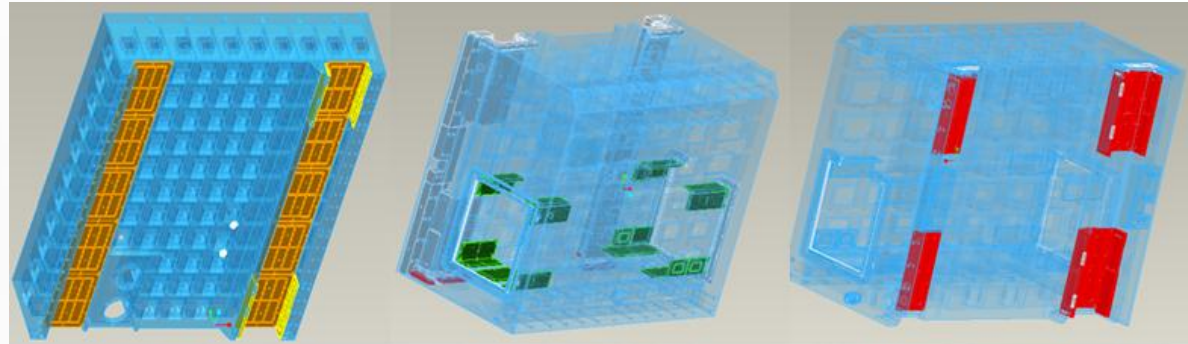
▲ Guideway type



Linear guideway



Compound guideway

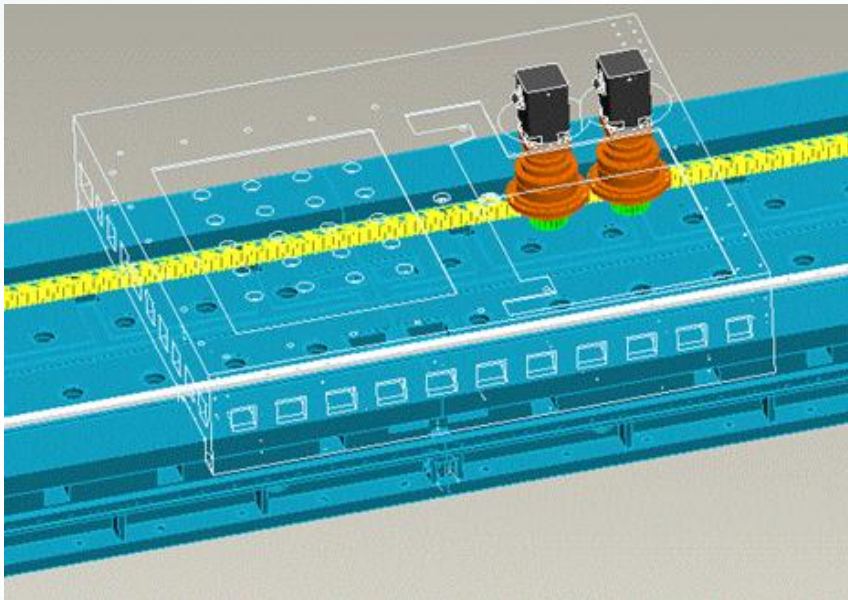
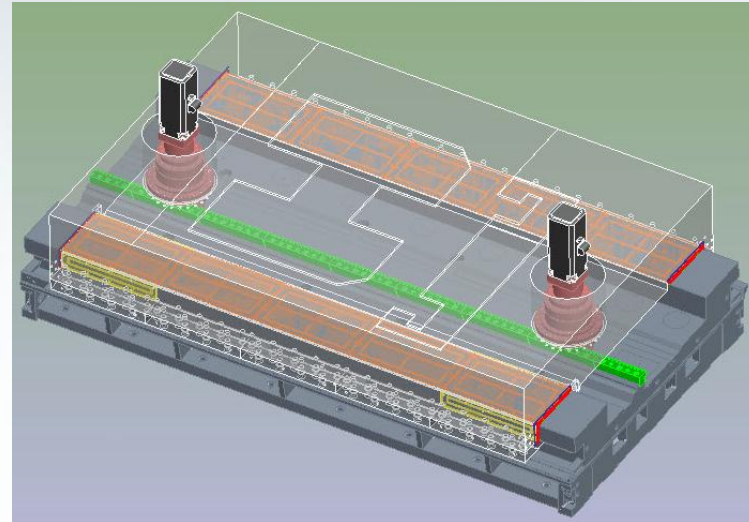


Hydrostatic guideway

2. Main structure

▲ X motion device

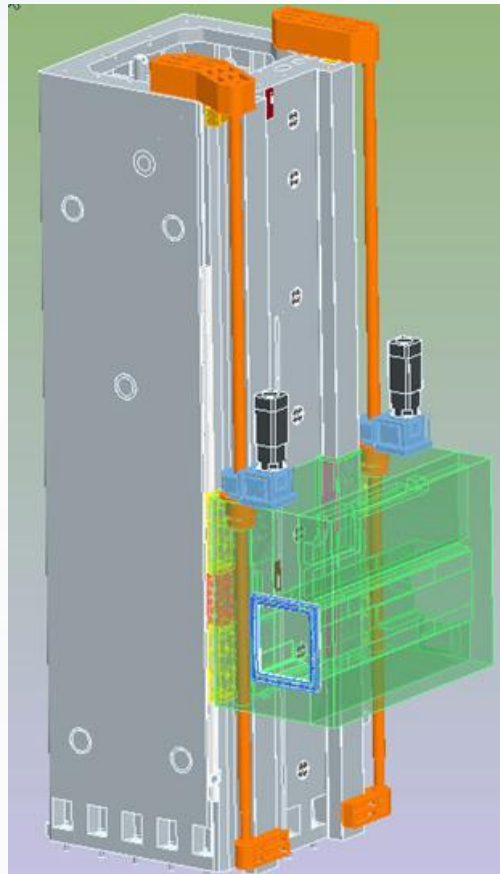
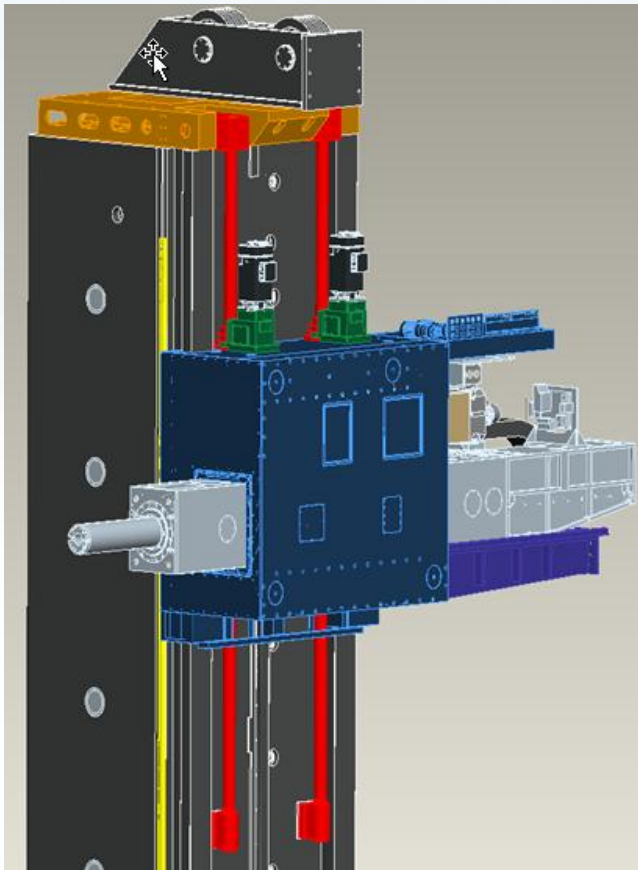
Duo motor + duo Reducer + duo
small gears + rack



2. Main structure

▲ Y axis motion device

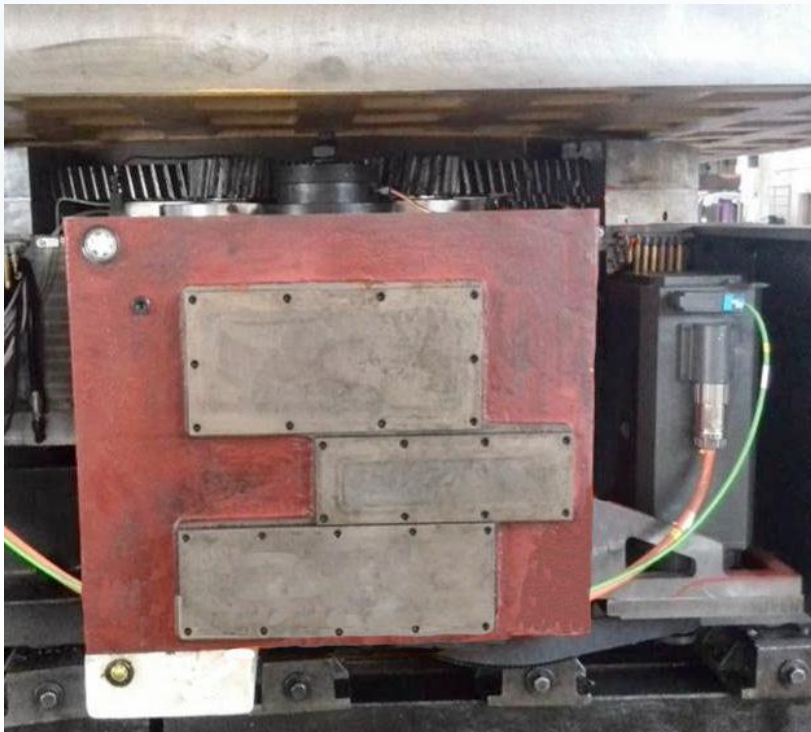
Single or duo ballscrew, fixed ballscrew and nuts rotation



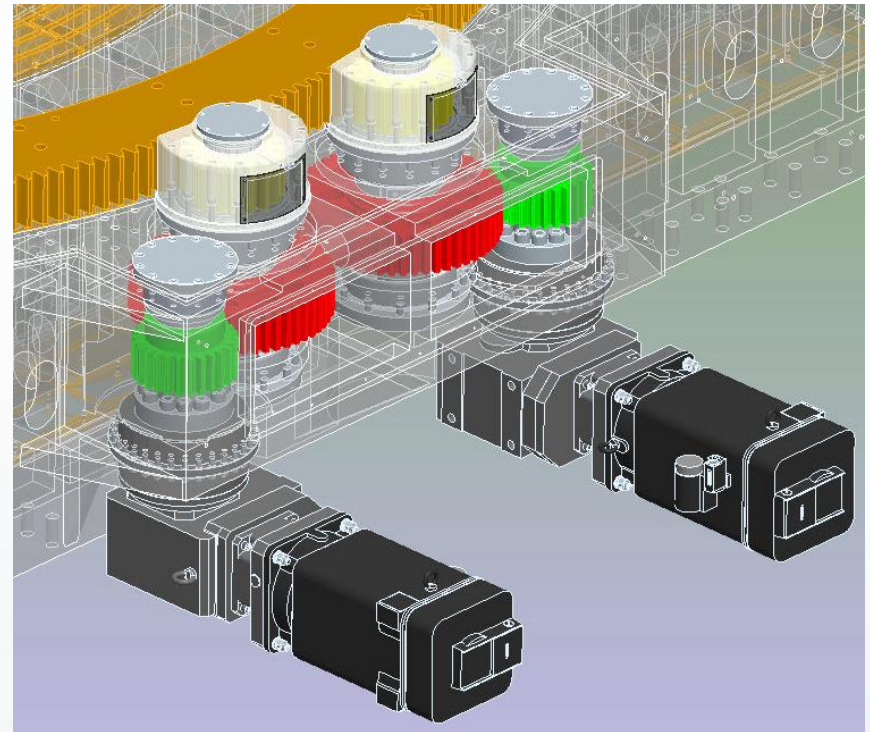
2. Main feature

▲ B axis motion device

Single motor + precision reduction tube + duo small gear + large ring gear transmission mechanism.

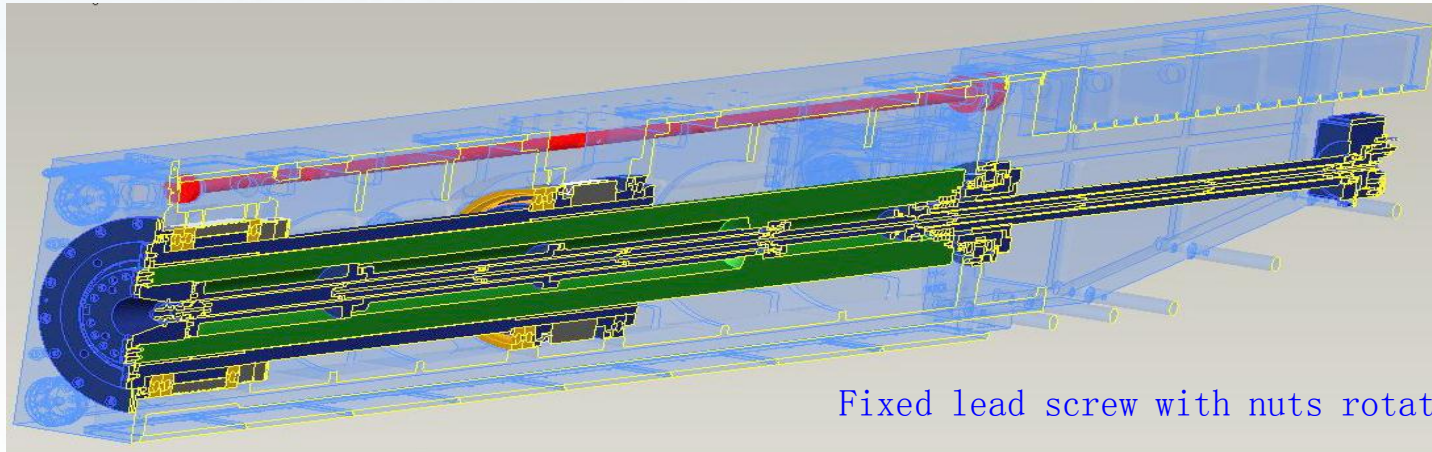


Duo motor + planetary reducer + duo small gear + large ring gear transmission mechanism.

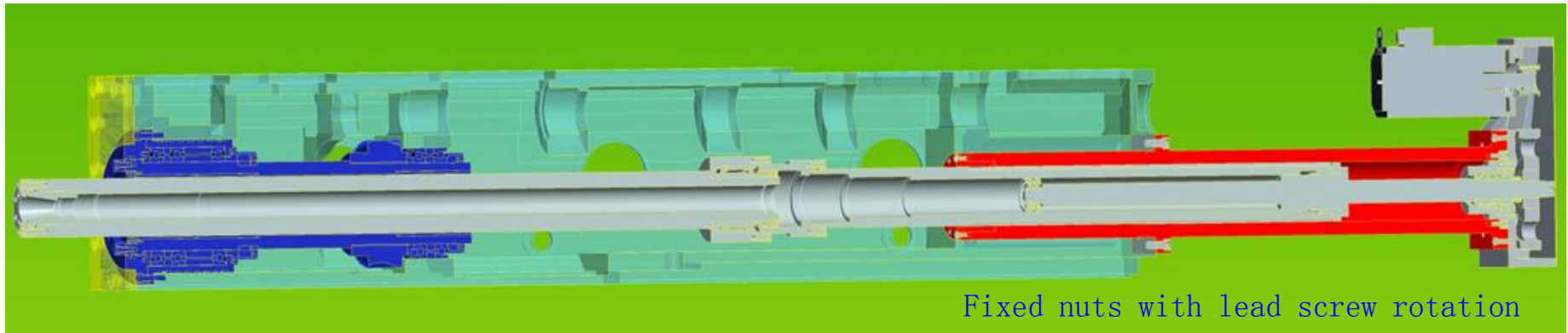


2. Main feature

▲ W axis motion device Adopt Coaxial zero torque feed structure



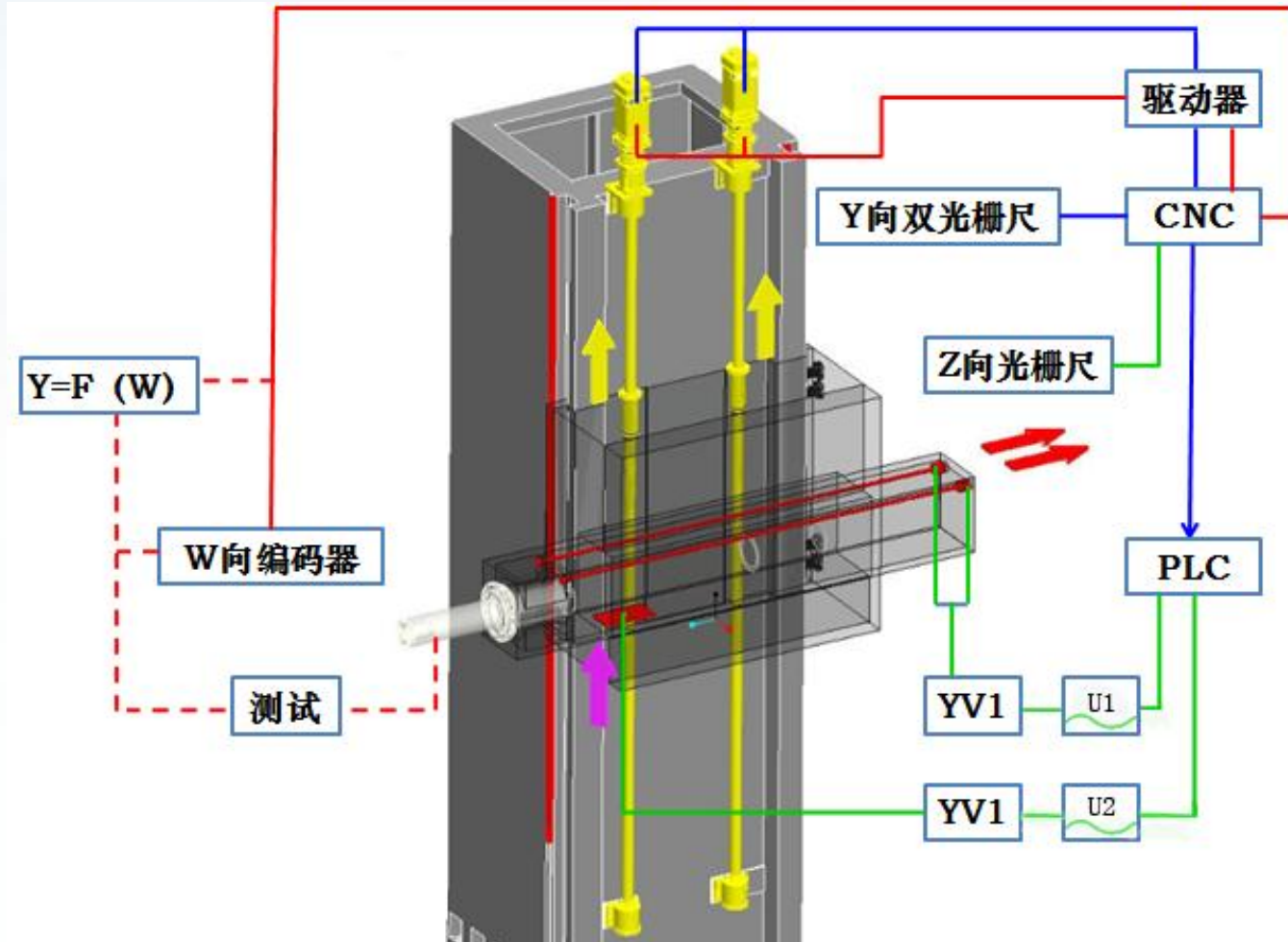
Fixed lead screw with nuts rotation



Fixed nuts with lead screw rotation

2. Main feature

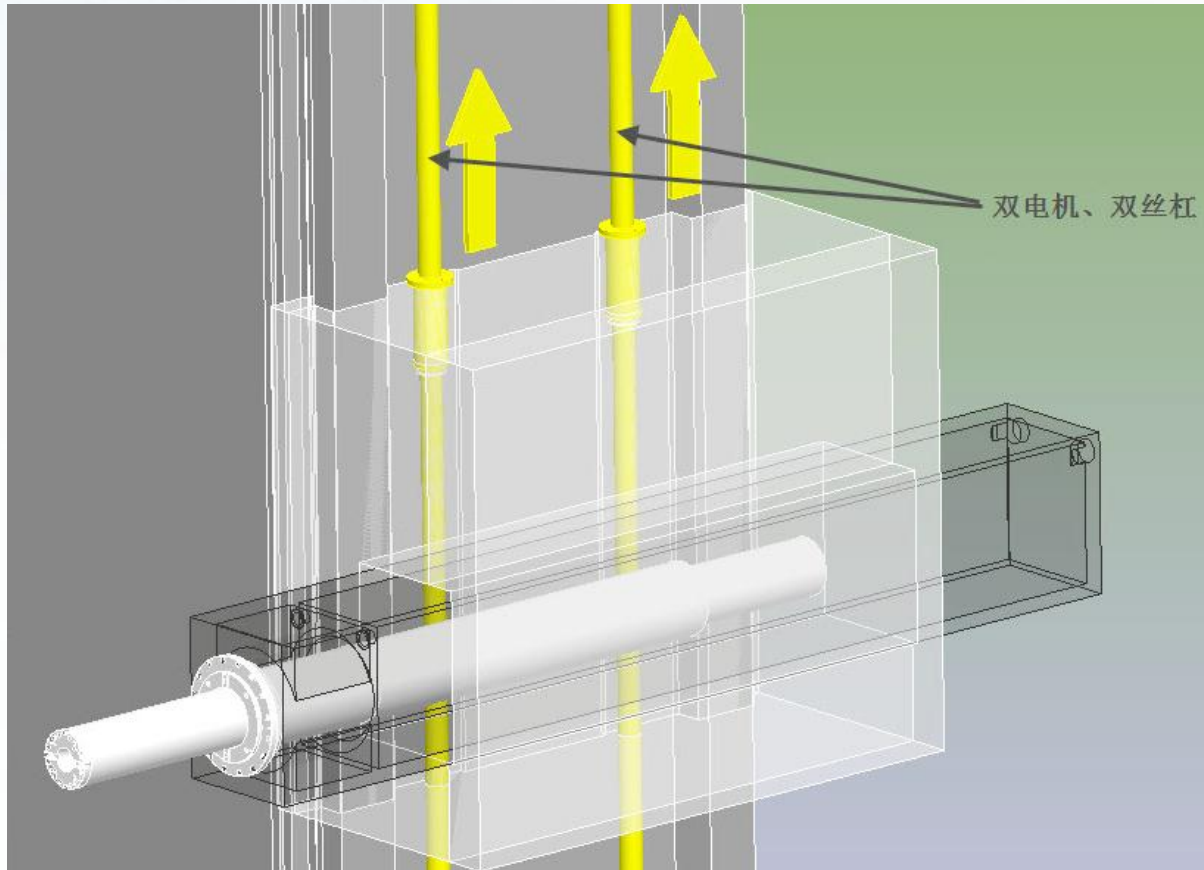
Multiple precision compensation structure



2. Main features

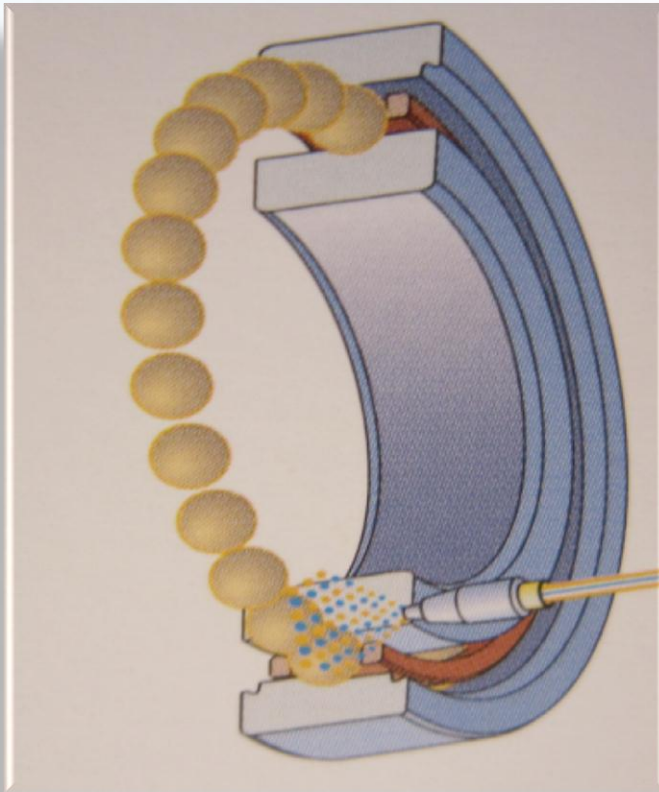
▲ Multiple precision compensation structure

Gravity displacement compensation of spindle head



2. Main feature

- ▲ Spindle head feature
Spindle bearing oil-air lubrication



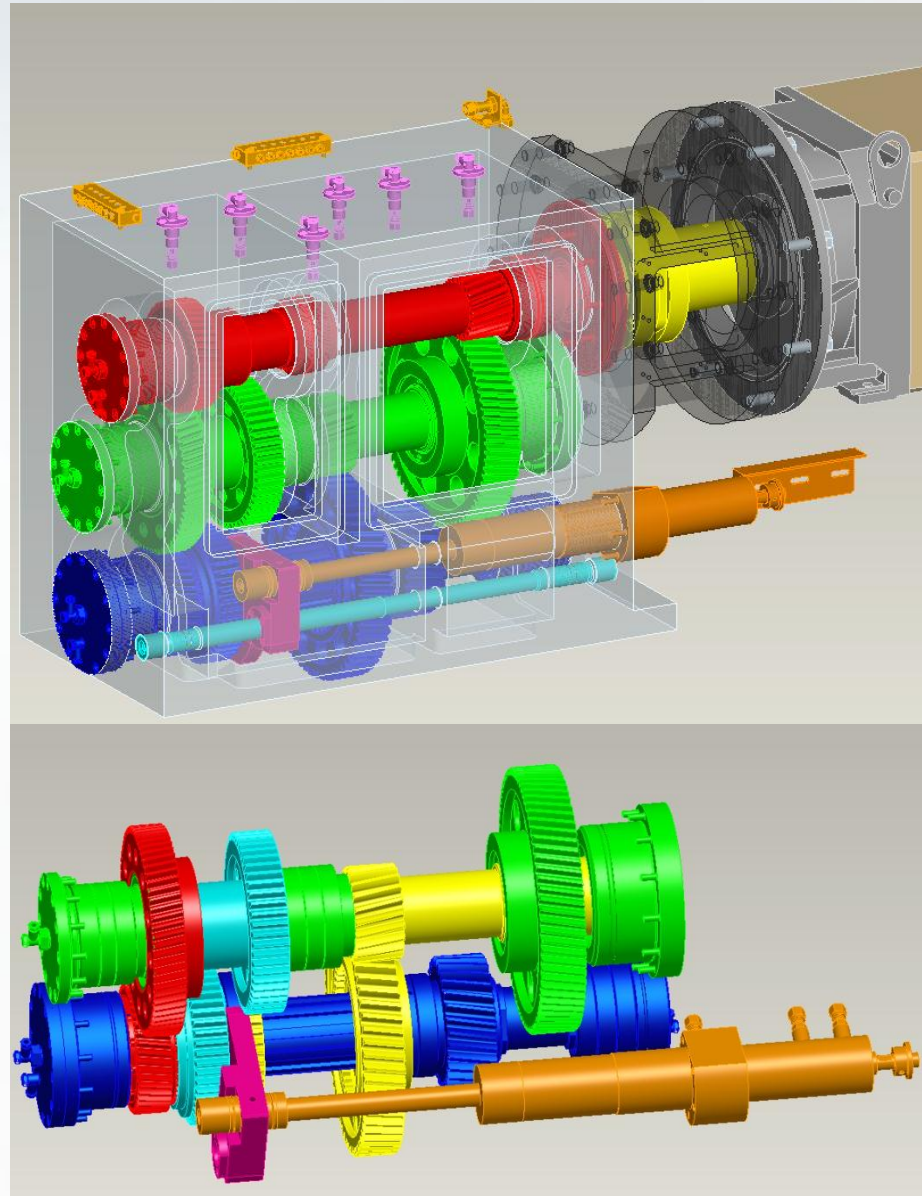
2. Main feature

▲ Three gears transmission

Wide speed range,

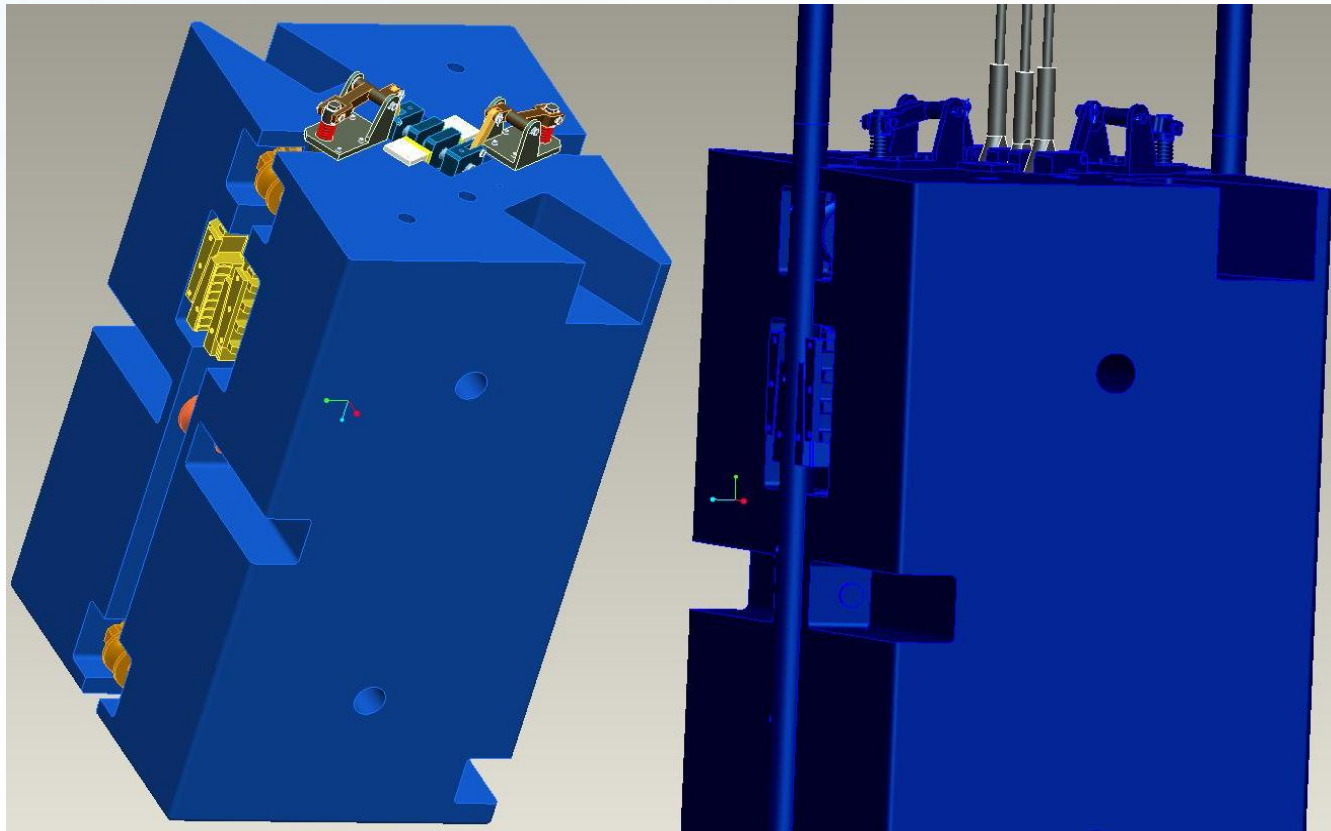
Large spindle torque,

Small power gap.



Main feature

- ▲ Spindle head feature
Balance weight protection



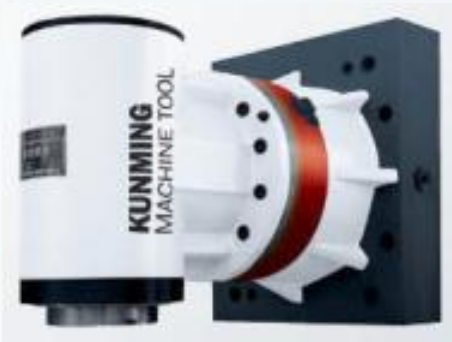
▲ High Efficient



Automatic clamping and milling head change

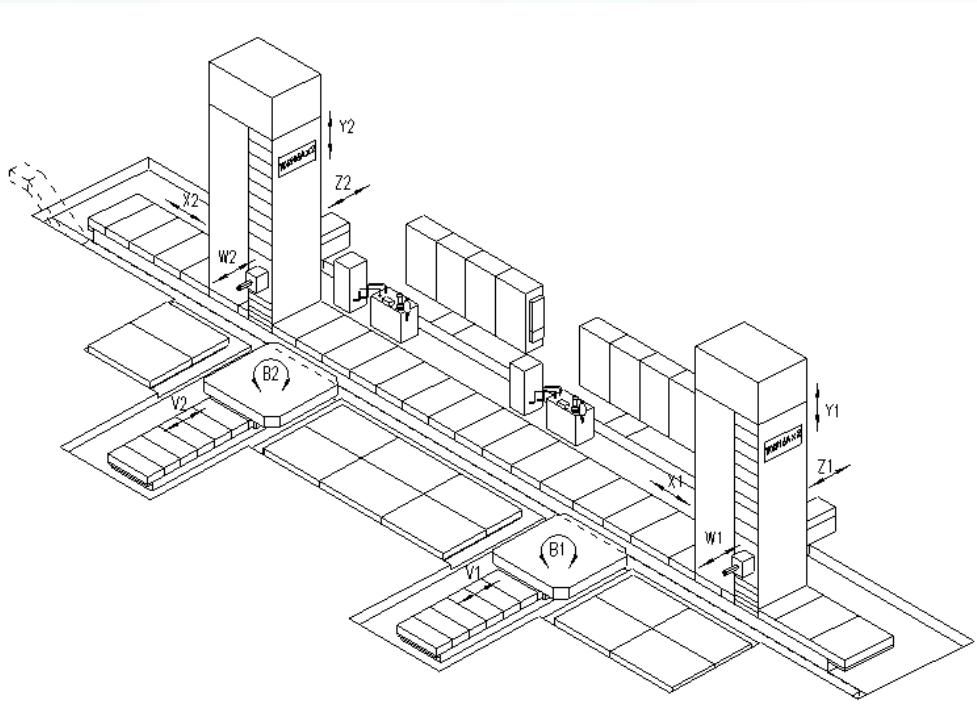


▲ Wide processing range



▲ Flexible deformation

Double column and
Double sided



Main parts machining



Basic parts



Main parts machining



Basic parts machining



Main parts machining



Tube parts machining



Main parts machining



Tube parts machining



Floor Borers Main parts machining



Hole machining of RAM



Main parts machining



Axis machining



Main parts machining

Axis machining



Main parts machining



Gear machining



Brief summery

Basic parts of KMTC are made of Cast iron, spindle head and RAM are made of Nodular cast iron. Structure of basic parts were the formation of finite element analysis, calculation and optimization, have the feature of high rigidity and strength.

Machine Application



Large punching machine



Machine Application



Large punching machine



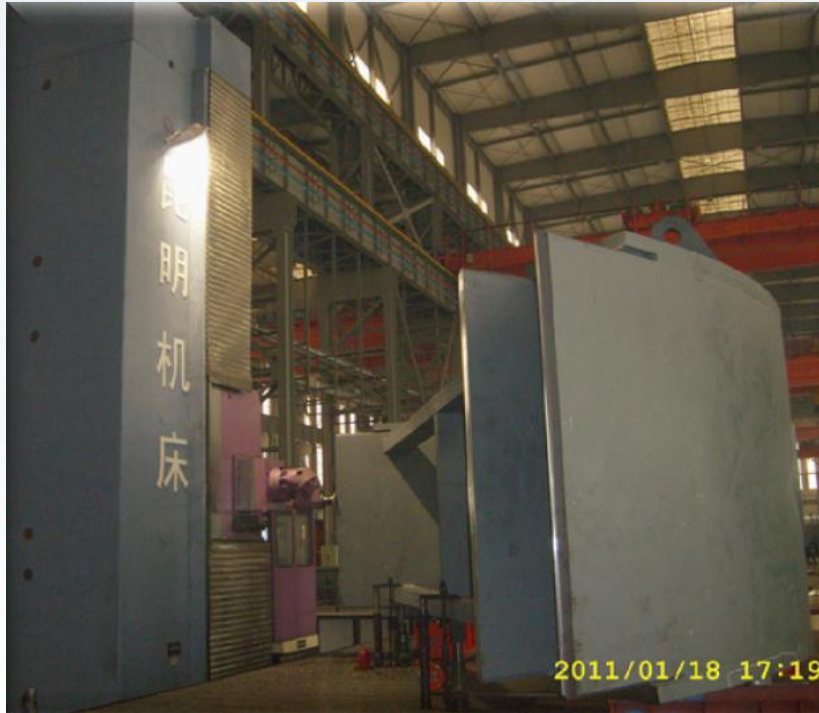
Machine Application



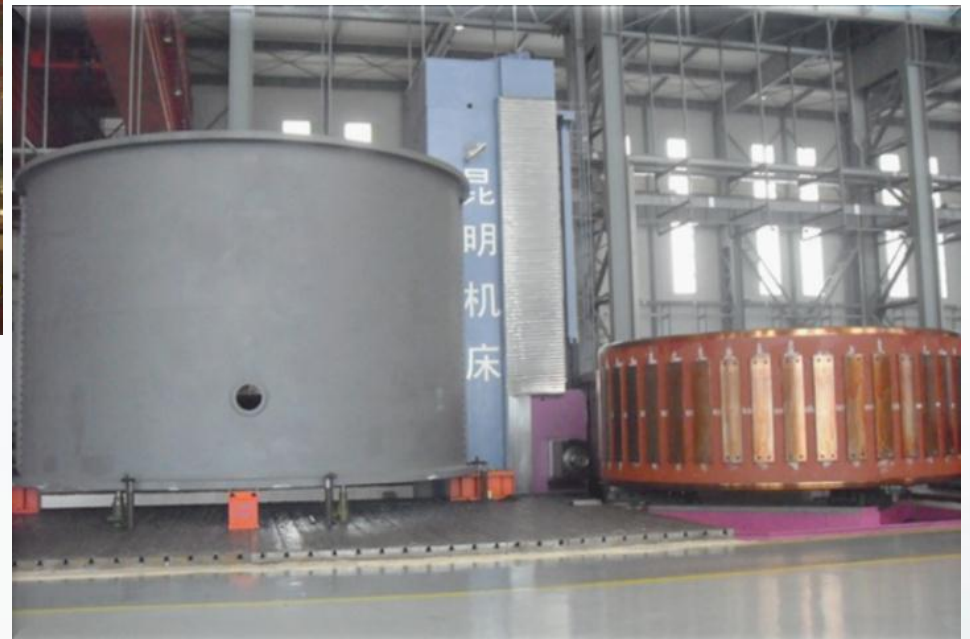
The shipbuilding industry



Machine Application



Mining machinery



Machine Application



Energy industry



Machine Application



Construction machinery



Machine Application



Large tube, plate parts



Machine Application



Five axis machining



Machine Application



Large hole and surface



5. Sales performance

No.	Type	Sales number	Unit
1	62 series	96	Sets
2	69 series	876	Sets

Brief summery

Floor-type boring and milling machine has been widely used in aviation, aerospace, marine, energy, rail transportation, military, engineering machinery and other military defense and national economic construction.

62 series have sold 96 sets, 69 series have sold 847 sets. KMTC Has made an important contribution to the development of national high-endassembly manufacturing

THANKS !



THE END