



## 1. Technical Specifications of GMC6020 Gantry Type Machining Center

Model	GMC6020
Machining ranges Table travel(X-axis)	6200mm
Saddle travel(Y-axis)	2300mm
Spindle box travel(Z-axis)	1000mm
Spindle face to machining table	200-1200mm
Distance between two columns	2300mm
Worktable Size(Length x width)	2000x6000mm
Max. loading capacity	30000kg
T-slot size NO.*width	19x28mm
Spindle taper	BT50
Spindle speed	40-4500rpm
Max. Torque	770/882Nm
Spindle motor power	22/26kW
Spindle box cross section size	400*400mm
Cutting feed speed	1~6000 mm/min
Rapid traverse speed(X/Y/Z)	12/18/12 m/min
Positioning accuracy without linear scale	0.035/0.030/0.030mm
Positioning accuracy with linear scale	0.020/0.0175/0.020
Repeatability (X/Y/Z) without linear scale	0.019/0.015/0.015mm
Repeatability (X/Y/Z) with linear scale	0.013/0.011/0.011

Power capacity	80 KVA
Air pressure	6-8bar
Cooling tank capacity	1000L
Dimension(L xWx H)	14500x5500x6000mm
Machine Weight	55000kg

## 2. Standard accessories

- a). FANUC 0I MF;
- b). Hand-held operating unit;
- c). Pneumatic system;
- d). Air gun;
- e). Automatic lubrication system;
- f). Oil-water separation system;
- g). Spindle oil cooling system;
- h). Tool cooling system;
- i). Chain plate chip conveyor and scrap collection car;
- j). gear box made at home;
- k). ZF gear box;
- l). External spindle encoder positioning system;
- m). Built-in encoder feedback system;
- n). Beam rail shield;
- o). Bed rail shield;
- p). Foot-board of table;
- q). Tri-color lamp;
- r). Lighting system;
- s). Electric cabinet air-condition;
- t). Accessories;
- u). Standard technique documents;
- v). Basal Installation package;
- w).X Ball screw ancillary shoring;
- x).Beam safety fence and escalators;

## 3. Optional accessories

- 1). Heidenhain linear scale for X/Y/Z;
- 2). GIFU Chin type of ATC32;

- 3). GIFU Chin type of ATC40;
- 4). GIFU Chin type of ATC60;
- 5). 32T Vertical &Horizontal tool magazine;
- 6). FANUC 31i;
- 7) SIEMENS840DSL

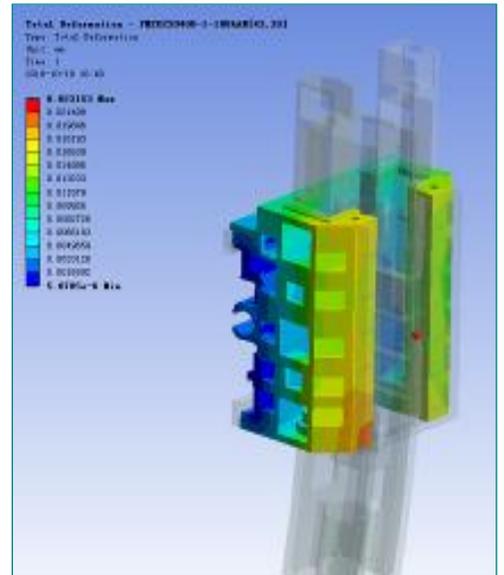
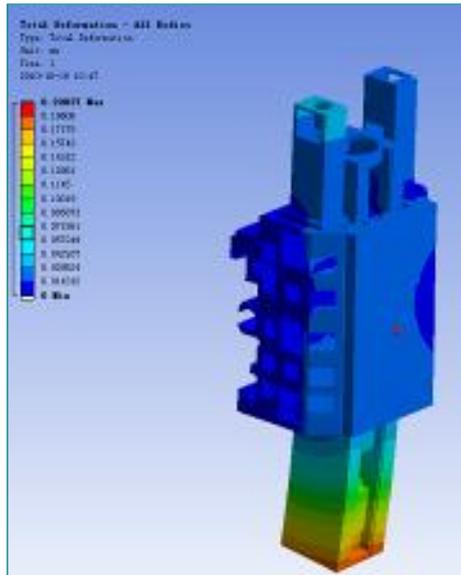
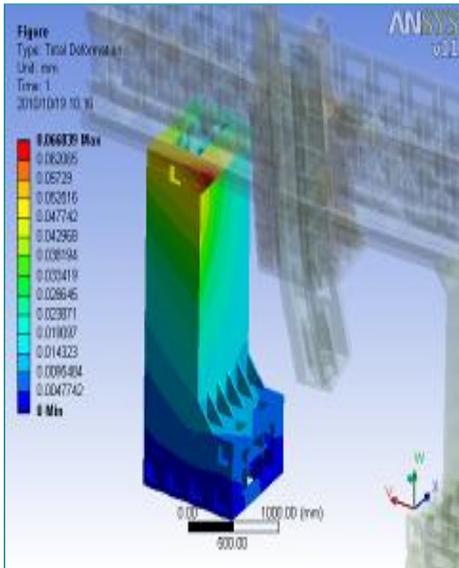
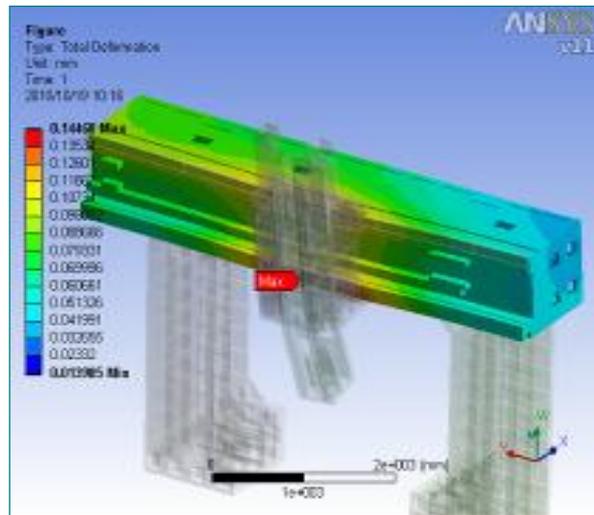
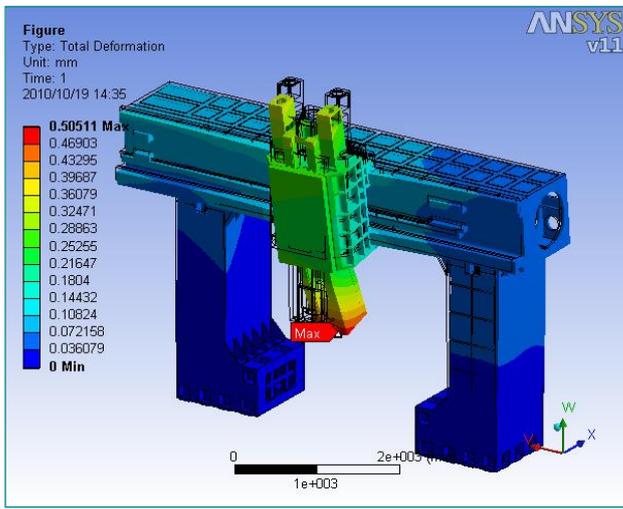
#### 4. Product Presentation

Square Ram structure; high rigidity structure design; double guide way design; X-axis nut rotation;  
Screw support, high torque spindle, Z-axis double motor drive, rigid spindle head design;  
Y-axis cast iron stair structure guide way;

#### 5. The machine's main body parts structure outlay



**Castings:** Finite element analysis provides the basis structures with optimization which assures the dynamic and static stiffness and stability of the machine.



## Machine Bed



Large

span, slider support, heavy loading, linear guide.

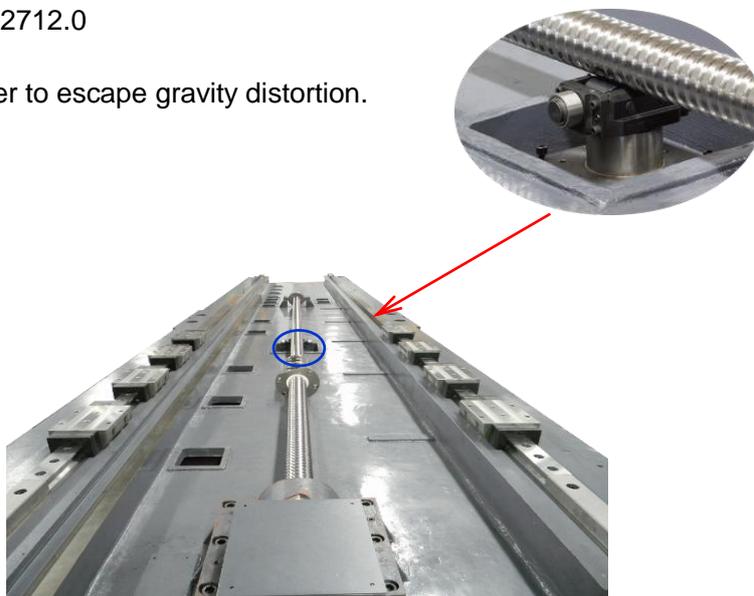
The machine adopts the structure of fixed gantry-frame and movable machining table.

High rigidity and stable accuracy.

Finite element analysis and reasonable distribution of the ribs can meet high torque demand of the machine.

Patented Item: Patent NO.: ZL200920232712.0

For X axis ball screw we use center supporter to escape gravity distortion.



### Beam and column

Adopt heavy-loaded roller guide ways which can provide heavy carrying capacity, high sensitivity, small vibration with high-speed, non-crawling with low-speed and high positioning accuracy.



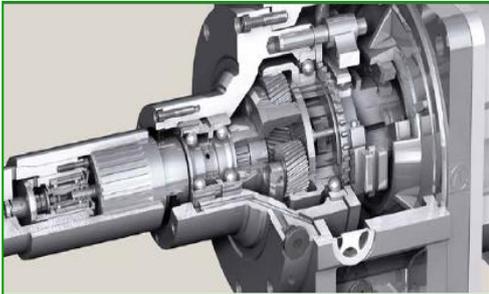
### Spindle ram

Spindle ram section 400x400mm /The box way design/ Two Air cylinder for balancing;



## Spindle and ZF gear box

The imported spindle from Taiwan has large torque, high speed, noiseless and the working capacity for boring, milling and drilling.



The imported ZF gear box from Germany

The imported thermal circular cooling system

Improve the thermo stability.



## THK (Japan) Ball screw & linear guideway

High precision and stable machining

Rolling type rails, heavy loading, high precision,

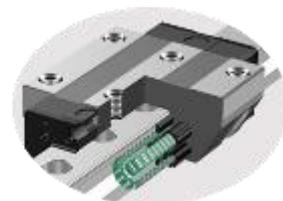
High rigidity for heavy cutting



X/Y/X C3 level Screw diameter\* pitch: 63\*20/63\*20/63\*10

X/Y/Z Linear rails model: SRG55/SRG55/SGR55

X/Y/ Blocks quantity: 12/4/4



Patented item

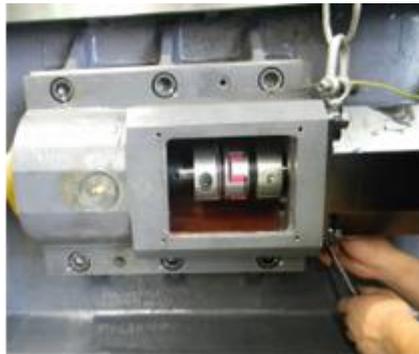
Patent number:

1. ZL201120160052.7 (the device of adjust the position)

2. ZL201120149634.5 (bolt)



NSK (Japan) bearings ,R+W(Germany) couplings and ALFA(Germany) reducer for three driving system



Spindle house and ZF gear box cooling system to control the temperature rising during working, improve the thermal stability of machine tool, big power hydraulic and big water tank.



Hydraulic station adopted brand parts, good stability

Low failure rate& noise, stable movement and high reliability

Double-chains' type chip conveyor and IGUS made chains for 3 axis cables and pipes.



### Options for customer

Milling head/ATC/Linear scales and so on, please check with us for more details for options.



Angle head



Attachment head



Turret come from Taiwan

32 chain turret (40 or 60 tools for opinion)



Grating scale