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# BS-G3015H

Technical Proposal

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BS-G3015H 3000W Fiber Laser Cutting Machine (High Speed & CNC)

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Supplier :

Nanjing Bosslaser CNC Technology Co.,Ltd

安徽博斯激光科技有限公司

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## I : G3015H is a right Choice



Nanjing Bosslaser CNC Technology Co., Ltd. Bossor is a famous brand company in China, which is dedicated to development, production and sales of [sheet metal equipment](#). Located in Nanjing, Jiangsu Province, after 15 years development, it has been a famous and influential modern enterprise which owns two Subsidiary corporations - [Maanshan Durmapress Machinery Technology Co.,Ltd](#) and Nanjing Bosslaser CNC Technology Co.,Ltd .

Adhering to the advanced European design concept, Bossor follow the technology of Belgian R&D center, combine with the actual needs of customers, and make well-structured and high-quality sheet metal fabrication equipment. Most importantly, it makes us be the professional sheet metal processing equipment supplier.



## Why Choose G3015H

### Simple and efficient

Perfect Standard plane fiber laser cutting machine , which is popular in the industry . It has the highest speed among those with the same level



## II : Equipment Configuration List

Name	Quantity	Brand	Brand of Country
3000W Laser	1 set	IPG	Germany
Special Precision Cutting head for fiber	1 set	Precitec Procuter II Generation Head	Germany
Precise Rack	3 sets	YYC	Taiwan ,China
Reducer (Including gears)	3 sets	Alpha	Gemany
High speed servo motor and drive	4 sets	Yaskawa	Japan
High precision linear guide rail (tool)	3 sets	HIWIN	Taiwan ,China
Precision ball screw ( Z-axis )	1 set	HIWIN	Taiwan , China
Numerical control system	1 set	Bochu	China
Electrical control	1 set	Schneider	France
Gas circuit control	1 set	SMC	Japan
Mechanical platform and accessories of tool	1 set	BOSSOR	China
Water chilling unit	1 set	S&A	China

### Notes :

1. If customer purchase the above-metioned device , please purchase those with the designated brand and model .In case of any change of the brand , the customer shall be responsible for the impacts on the machine performance .
2. One year warranty for whole machine except fiber cable , lens , mirror and other consumable parts . Force majeure clause like natural disaster , war , human factor are also excluded .

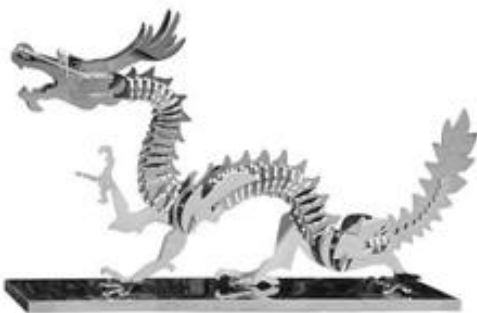
### III : Technical Parameters and specifications

No.	Performance index	Parameter
		BS-G3015H
1	Machining area (Length *width)	3000*1500mm
2	X-axis stroke	1505mm
3	Y-axis stroke	3005mm
4	Z-axis stroke	300mm
5	Positioning precision of X/Y axis	$\pm 0.02\text{mm/m}$
6	Repetitive positioning precision of X/Y axis	$\pm 0.02\text{mm}$
7	Maximum speed	140m/min
8	Maximum Acceleration speed	1.5G
9	Tool weight	7800KGS
10	Maximum load of workbench	1500KGS
11	Dimension ( Length * Width* Height)	8500*3650*2100
12	Number of Phases	3
13	Rated voltage of power source	380V
14	Frequency	50HZ
15	Protection rating of main power	IP54

#### Notes :

1. The accuracy with which the work-piece can be obtained depends to a certain extent on the type of workpiece , the pretreatment , the size of the sheet and the position of the sheet in the work area .

### IV : Cutting Samples display



## V : Machining capacity

Materials	Maximum thickness(mm)	Cutting thickness suggested (mm)
Mild steel	22	20
Stainless steel	12	10
Aluminum	12	8
Brass	8	6
Copper	8	6

## VI : Cost Analysis

Items	Cutting of stainless steel (1mm)	Cutting of carbon steel (5mm)
Electricity fee	RMB 16/h	RMB 16/h
Expenses of cutting auxiliary gas	RMB 16/h(N2)	RMB 12/h(O2)
Expenses from lens protection and nozzle cutting	RMB 0.2/h	RMB 0.3/h
Total	RMB 32.2/h	RMB 28.3/h

If the cutting auxiliary gas is the compressed air dried , expenses are the actual operation expenses of the air compressor +fee of electricity consumed by the machine tool+consumables (lens protection and nozzle cutting).

Notes :

- 1 . The electric fee and gas fee in the Table above are based on the price in China and prices in different areas will be different
2. When the machine is cutting other thickness or different metal sheet , consumption of the auxiliary gas may be different

## VII : Description of Main Configuration

### 1. Body

Gantry machine body designed and manufactured for the high speed movement . Twice of aging treatment of reinforcement welding machine body to ensure the precision and stability of the long running . The rigidity is good , the higher acceleration can be accepted , the main body adopts the precise welding of steel structure , the stress failure treatment , the gantry milling of the heavy frame structure .

#### Welding of main body



Our Machine Body Adopt the strong plate welding structure to keep the working stability

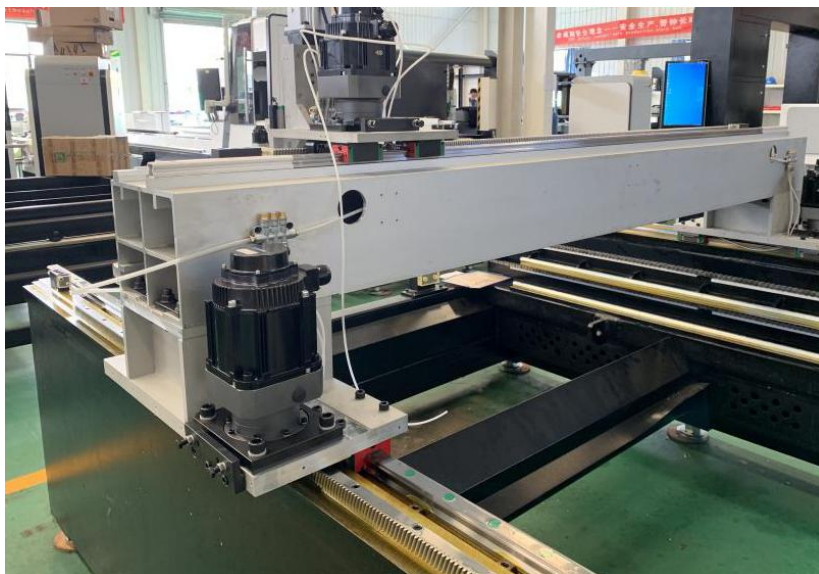


Welding of main body--- Stress Annealing --- Rough Machining --- Vibration aging--- Natural aging --- Precise processing

### 2. Beam

Integral steel mold pressure casting , light , flexible and efficient

After artificial aging , solution treatment and finishing , crossbeam owns good integrity, rigidity, surface quality, toughness and ductility . Aluminum alloy's metal characteristics of light weight and strong rigidity are helpful to high speed movement in processing, and high flexibility is beneficial to high-speed cutting of various graphics based on high accuracy , Light crossbeam can give equipment a high operation speed . improving processing efficiency to ensure processing quality .



### 3. Laser Source

The Fiber laser series of products developed by Raycus have following characteristics: High electro-optical conversion efficiency , high light beam quality,high energy density , wide modulation frequency , high reliability , long service life , free maintenance , customizable output fiber length , safe and reliable due to protective window QBH ,Small dimension , Easy installation ect.



Electro-optical conversion efficiency : > 25%

Power operating range : 10%~105%

Light beam mass : BPP < 2.5

Service life of pumping source : 100,000h

#### 4. Cutting Head



#### *ProCutter 2.0 - the latest generation in laser cutting*

The new ProCutter 2.0 generation impresses with its increased performance and new automation features. Faster, easier, more efficient, more enduring – this is how laser cutting is shaping up in the new generation, due to numerous developments.

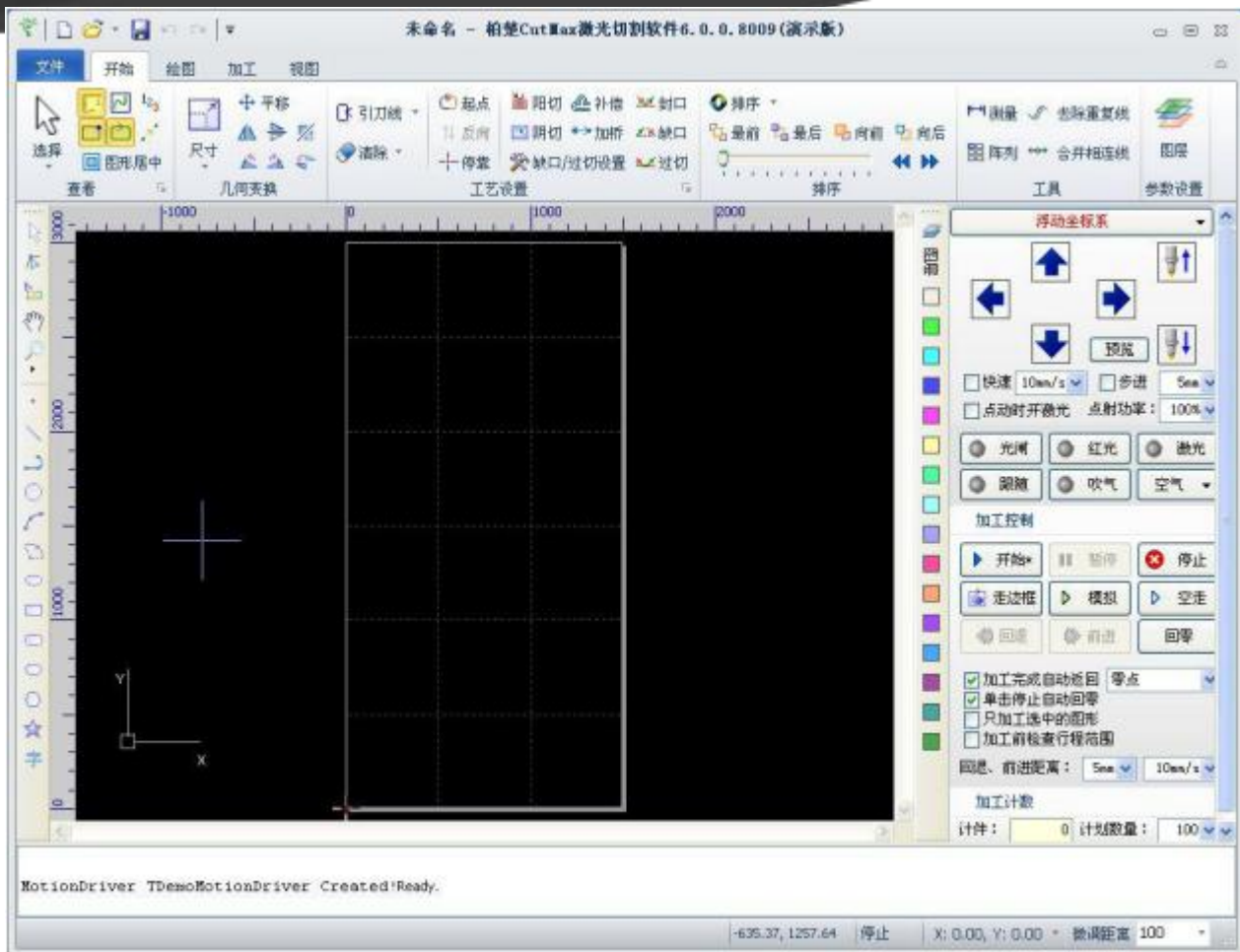
The reliability and power capability has been perfected – up to the maximum laser power of 15 kW. By default, the ability to exchange the nozzles automatically is now provided. Automated piercing with the PierceTec technology package ensures a fast, clean and reproducible process. Due to direct water cooling (CoolTec) of the sheet metal, permanent stable mild steel cutting is possible.

The **ProCutter 2.0 APP** is used to visualize the state of the laser cutting head and the query of error messages.

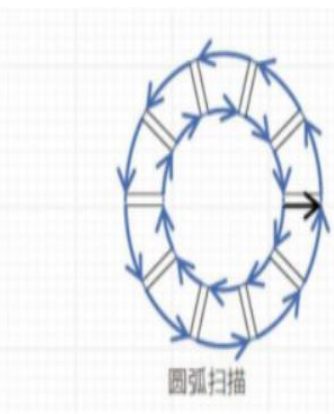
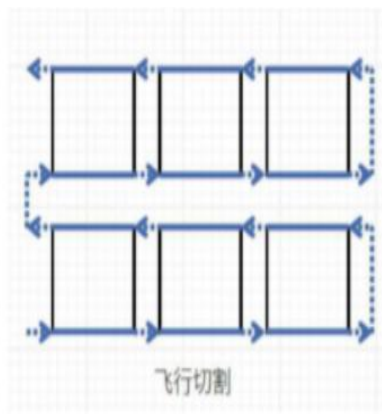
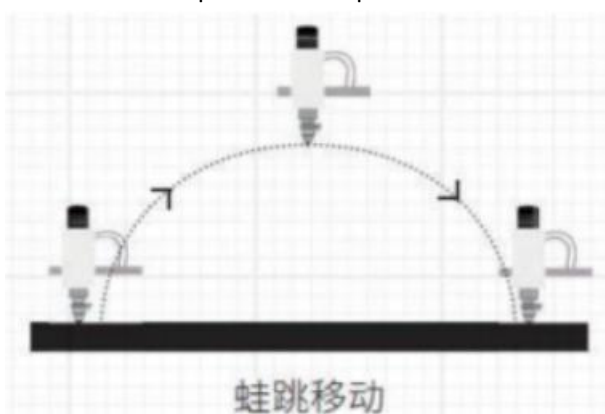
#### 5. System

Our Cypcut cutting system is the most popular numerical control system for laser cutting which has high integration , improved functions , simple operation , high stability and leading technology . Therefore , we may provide users with solutions with core competitiveness .





- ✓ Particular air pressure calibration function
- ✓ Multistage punching
- ✓ Laser energy control
- ✓ Adaptive edge search
- ✓ Leapfrog function
- ✓ Automatic corner acceleration and deceleration
- ✓ Fly-cutting
- ✓ Mechanical precision compensation



## 6. Chiller

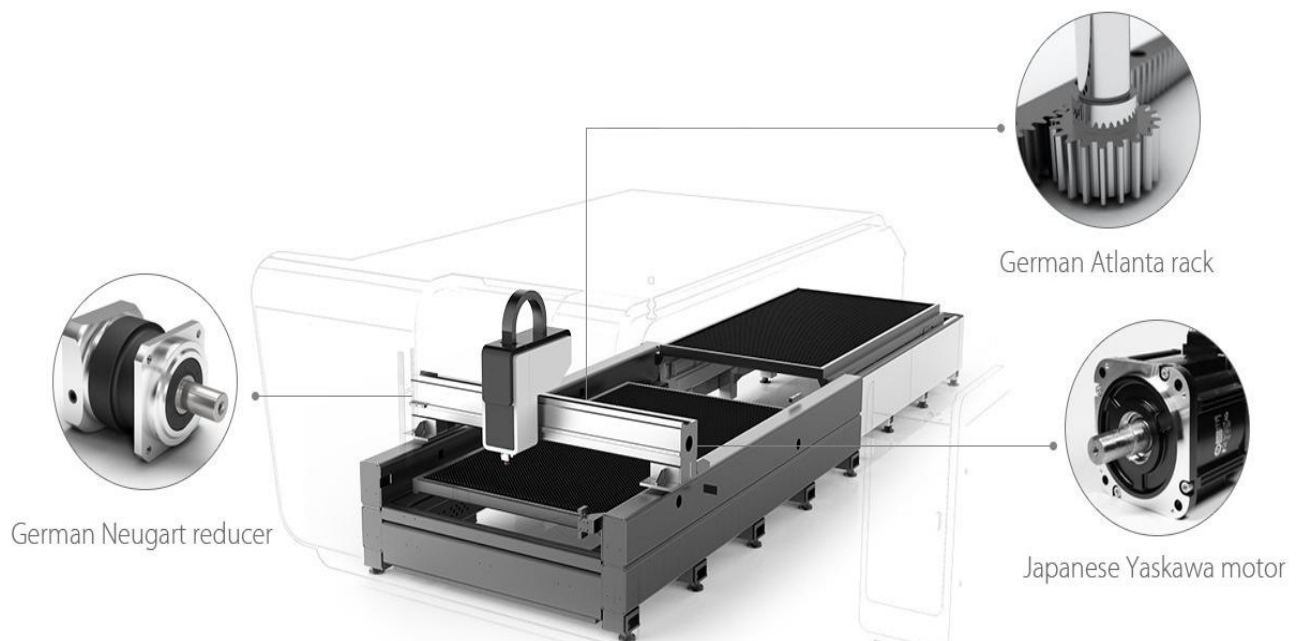


Professional laser chiller with good stability and high precision  
With two-way temperature control, it can control the laser and cutting head at different temperatures, more effectively ensuring the stability of the laser and cutting head

Features:

- Water pressure alarm
- High and low temperature alarm
- Voltage alarm
- Various fault alarm lights

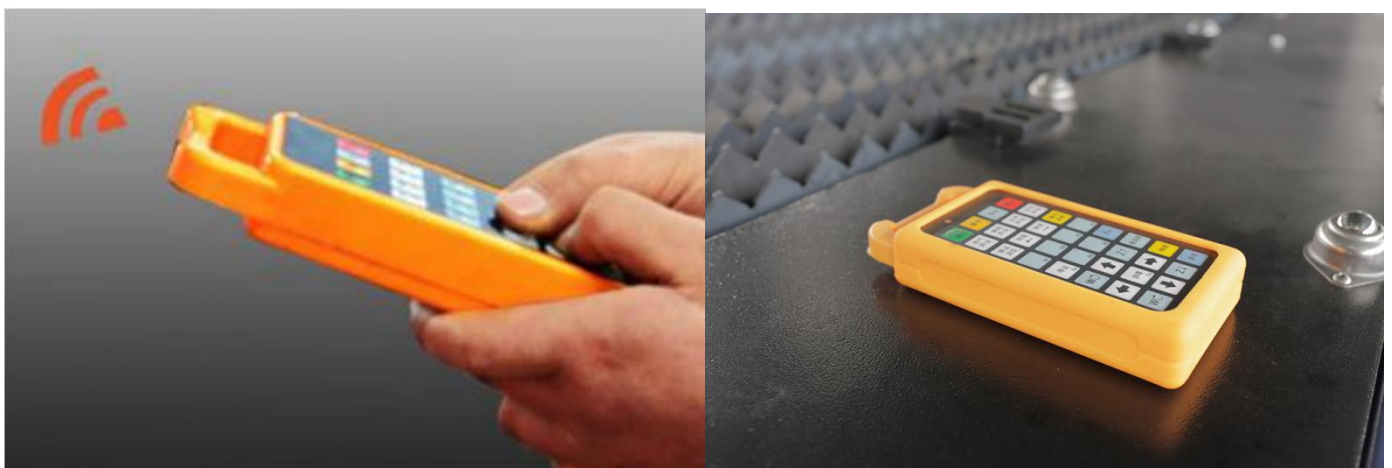
## 7. Air-Conditional



## 8. Automatic Follow up system



## 9. Wireless Controller



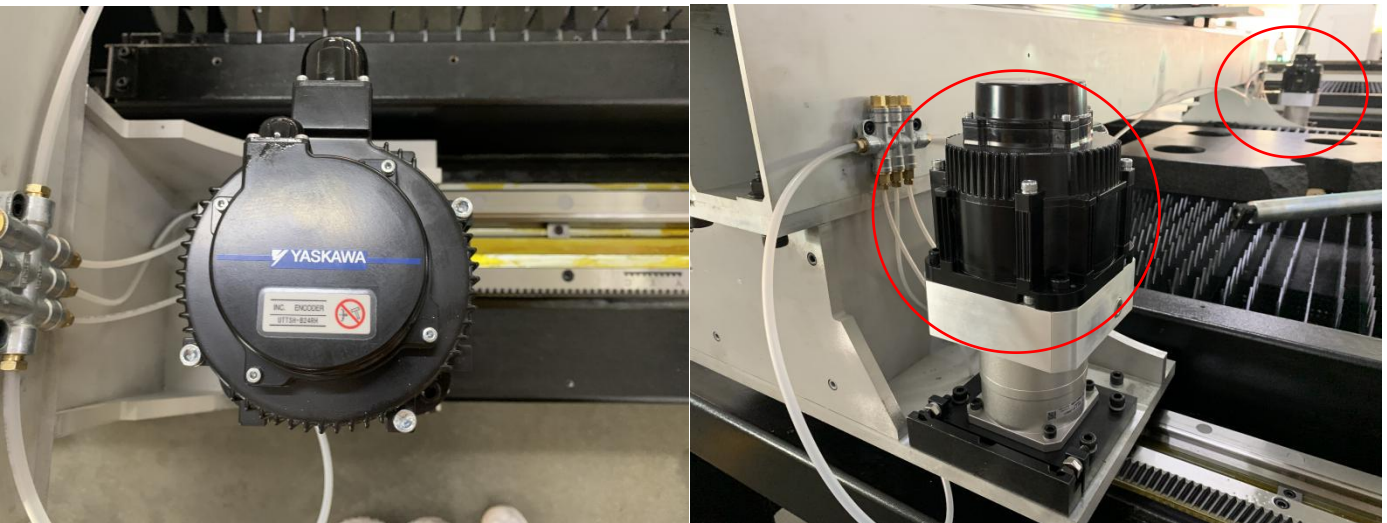
## 10. Working Table with Ball Bearing , easy for feeding material from edge



**11. Sawtooth blade table ,suitable for cutting any material , also can easy change future**

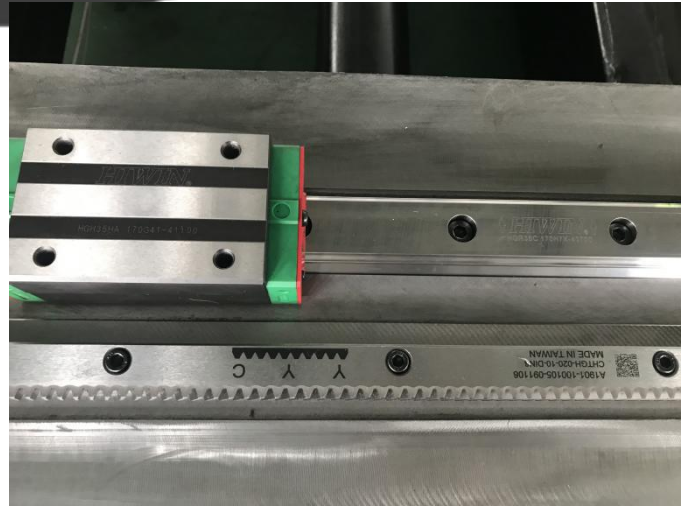
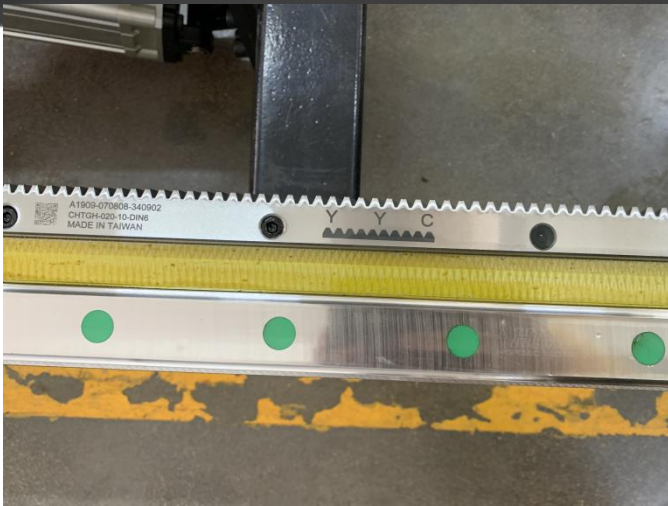


**12. Japanese Dual-servo Drive (Dual drivers for Y axis , faster and more powerful)**



**13. HIWIN Square rail and YYC Gear**

(Remark: YYC and HIWIN all have the series Number to make sure all is real 100%,we warmly welcome to check the original )



## VIII : Quality Inspection

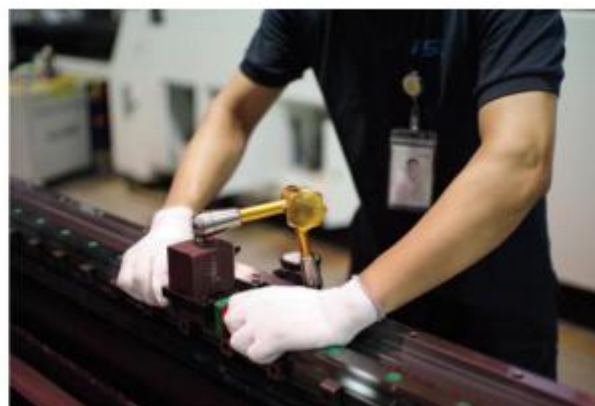
**1. Before assembly , detect and inspect whether the beam machining form and location tolerance falls into the design range to ensure the equipment quality .**

The body beam collimator detects the guide rail surface and measures the straightness of the guide rail to ensure the accuracy of each equipment .



### 2. During Assembly

Installation detection and fixation of guide rail and rack . The professional technicians assemble such important precision parts such as guide rail and rack and adjust them with a dial indicator so as to ensure rack & Pinion is assembled properly .



### 3. Assembly Completion Detection

Laser interferometer - It has such advantages as high measurement accuracy and speed , etc . Interferometer , mainly laser

as light source , constitutes a measuring system with interference . A laser interferometer with various refractive mirror to the linear position , speed , angle , flatness , straightness , parallelism and perpendicularity measurement work , and can be used as calibration of precision machine tool or measuring instrument .



Laser interferometer - Detect the rack accuracy , compensate and correct the error and ensure the rack accuracy .

## IX : Spare parts and accompanying documents

### 1. Spare parts and special tools

No.	Material Name	Unit	Quantity
1	Protective mirror	Piece	2
2	Nozzle	Bottle	≥10
3	Isopropyl alcohol	Piece	1
4	Lens wiping paper	Pack	1
5	Dust-free swab (cloth leftover)	Bottle	1
6	Compressed air	Piece	1
7	Manual grease gun	Piece	1
8	Open wrench with single end	Piece	1
9	300MM monkey wrench	Piece	1
10	Socket head wrench (9 pieces)	Set	1
11	Cross screw driver	Piece	1
12	Tool kit	Piece	1
13	Fiber protective goggle	Piece	1

### 2. List of accompanying documents

Certificate of quality of tool	One copy
Packing list of tool	One copy
Spare parts	One copy

## X : Warranty & After-sales Services

### 1.Contractual Conditions:

- The Machine Manual Log must be completed correctly and in its entirety
- Use of original BOSSOR. spare parts and consumables
- Compliance with the technical requirements as specified in the 'Checklist for Machine

As specified in the terms of the attached BOSSOR. General Contractual Conditions, the guarantee period is 24 months or a maximum of 4000 working hours, whichever of these two criteria are reached first. No guarantee or responsibility will be accepted after this period.

### 2.Supplies not included:

- The present offer excludes the cementing process, the materials and the manpower for the electrical, pneumatic and hydraulic connection of the peripherals, the internal lifting procedures and, in general, all other matters not specified in the present offer.

## XI : BS Customers



Syria Customer Factory

USA customer Factory



Brazil customer loading



Syria second customer buying