

## Product Information

### Product Description:

[gavlo scanner wholesales china](#), Carmanhaas has high end 2D laser scanning galvanometer, 3D laser scanning galvanometer, high power laser welding galvanometer, beauty galvanometer and laser cleaning solution.

Carmanhaas 2-axis Galvanometer Scanner Head including High Speed (A Series) and Standard Series, are designed for a board range of application including laser precision marking, laser cutting, laser welding, rapid prototyping, 3D printing, drilling location, laser cleaning, medical beauty and so on.

### Features:

- 1.Aperture: 7mm, 10mm, 12mm, 14mm, 16mm, 20mm, 30mm□
- 2.Good degree of Linearity, high resolution small drift, precise repetitive positioning□
- 3.Highest processing speeds in the industry to maximize production throughput□
- 4.High-accuracy & high-stability models available for precise scanning applications□
- 5.Wide range of cost-efficient, high-performance options for specific applications.

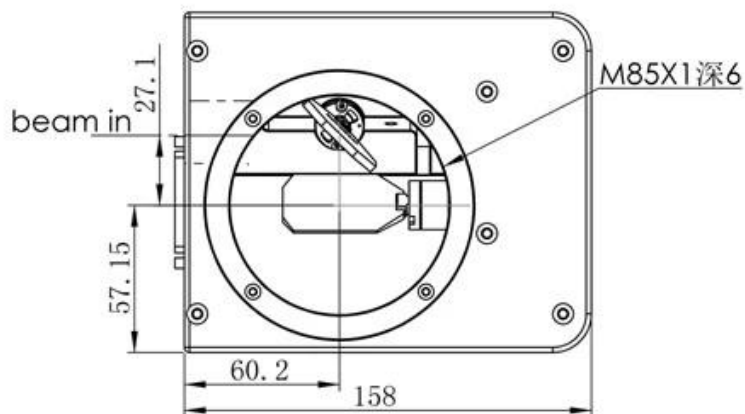
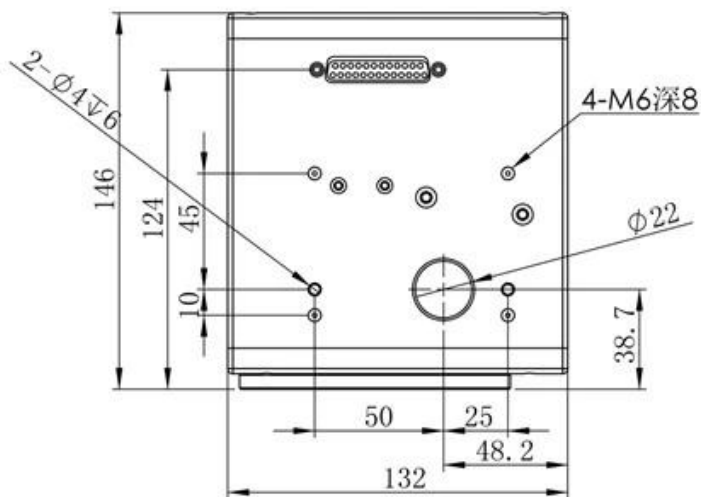
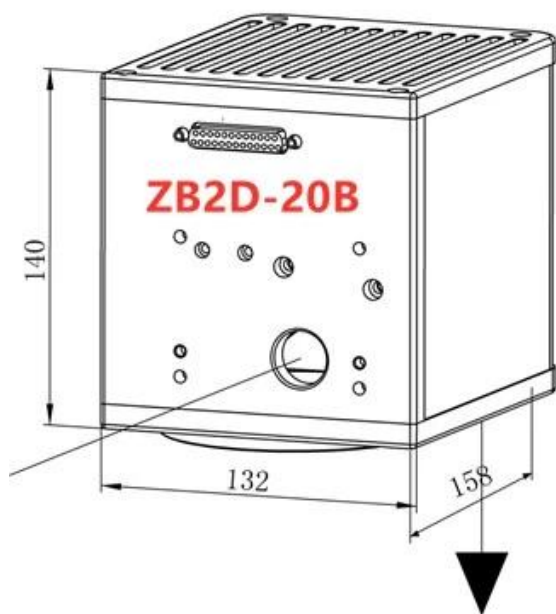
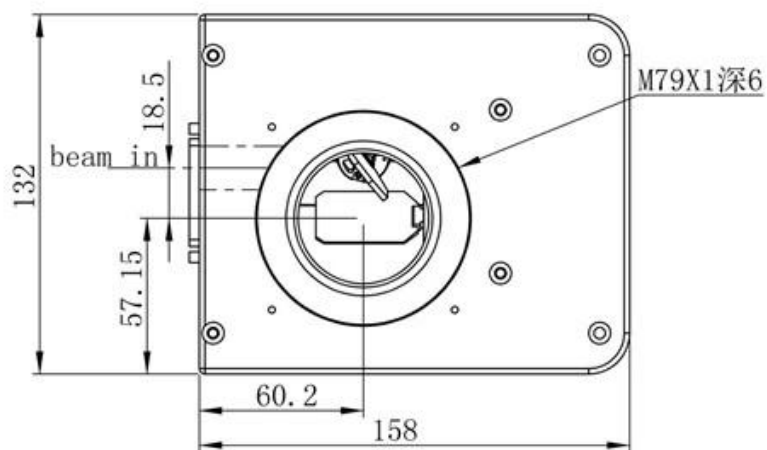
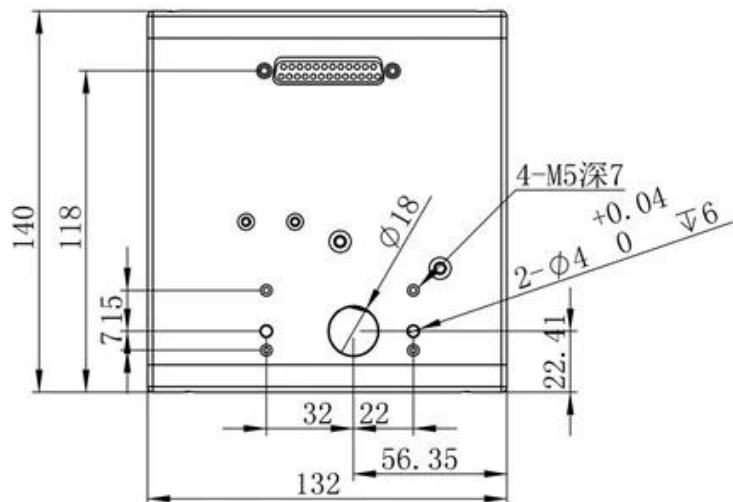
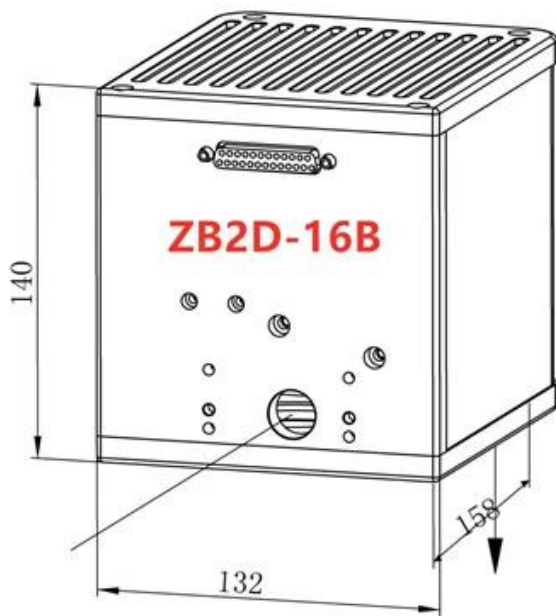
## Product Details

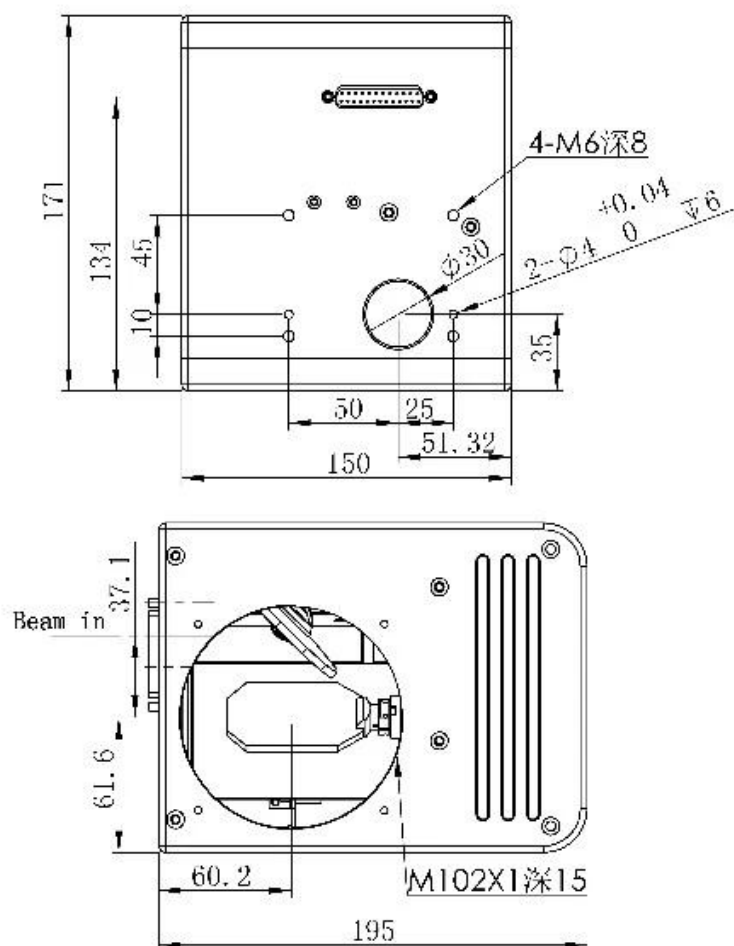
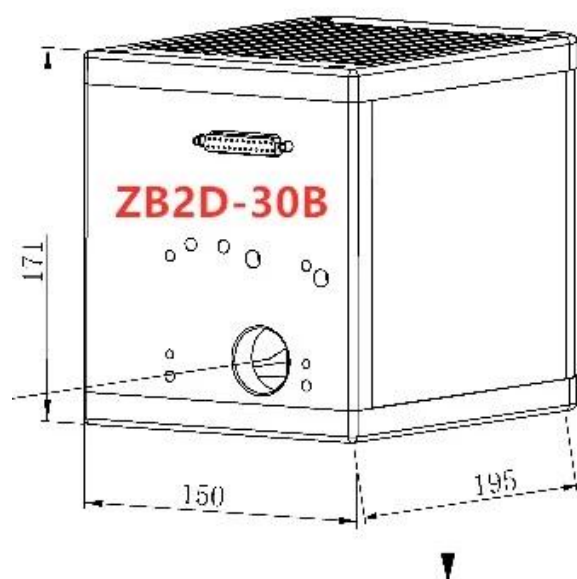


**Technical Parameters:**

Model	ZB2D-16B	ZB2D-20B	ZB2D-30B
Aperture (mm)	16	20	30
Typical scan angle	$\pm 0.35$ rad	$\pm 0.35$ rad	$\pm 0.35$ rad
Nonlinearity	$<0.5$ mrad	$<0.5$ mrad	$<0.5$ mrad
Tracking error	0.3ms	0.5ms	0.7ms
Step Response Time	$<0.65$ ms	-	-
Repeatability	$<15$ urad	$<15$ urad	$<15$ urad
Gain drift	$<50$ ppm/K	$<30$ ppm/K	$<30$ ppm/K
Zero drift	$<30$ urad/K	$<15$ urad/K	$<15$ urad/K
Long-term drift over 8hours (After 30 min warm-up)	$<0.1$ mrad	$<0.05$ mrad	$<0.05$ mrad
Marking speed	1.0m/s	1.0m/s	0.5m/s
Positioning speed	7m/s	4m/s	2m/s
Power requirements	$\pm 15$ VDC Max.5A	$\pm 15$ VDC Max.5A	$\pm 15$ VDC Max.5A
Digital Signal	XY2-100 or SPI	XY2-100 or SPI	XY2-100 or SPI
Analog Signal	$\pm 5$ V	$\pm 5$ V	$\pm 5$ V
Reflection wavelength	10600nm(10.6um) 9300nm(9.3um) 1064nm	10600nm(10.6um) 9300nm(9.3um) 1064nm	10600nm(10.6um) 9300nm(9.3um) 1064nm
Operating temperature	$25^{\circ}\text{C} \pm 10^{\circ}\text{C}$	$25^{\circ}\text{C} \pm 10^{\circ}\text{C}$	$25^{\circ}\text{C} \pm 10^{\circ}\text{C}$

### Mechanical Dimensions(mm)□

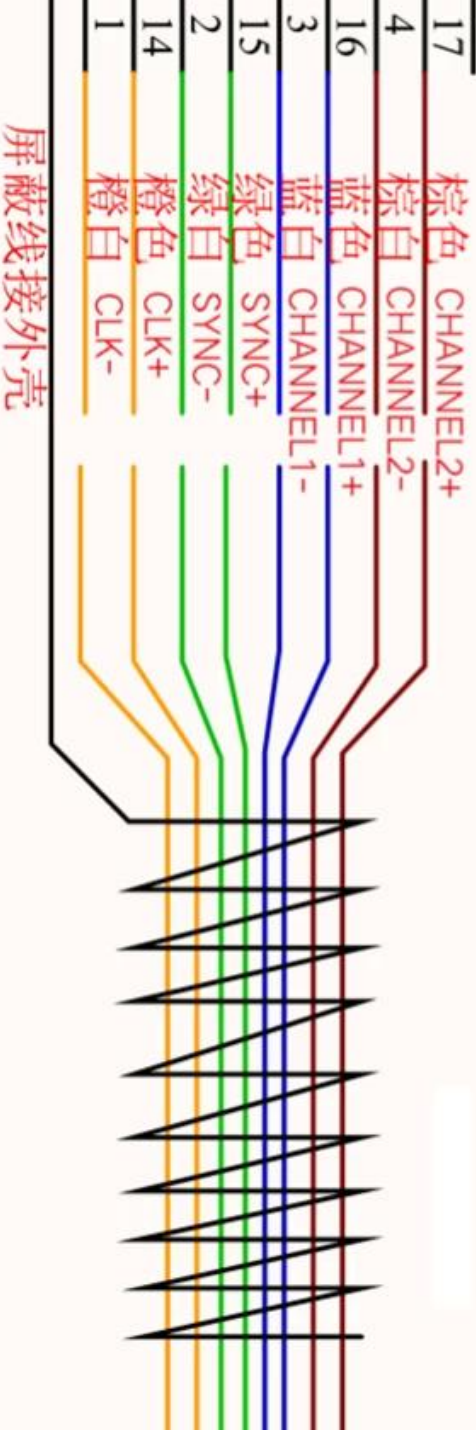
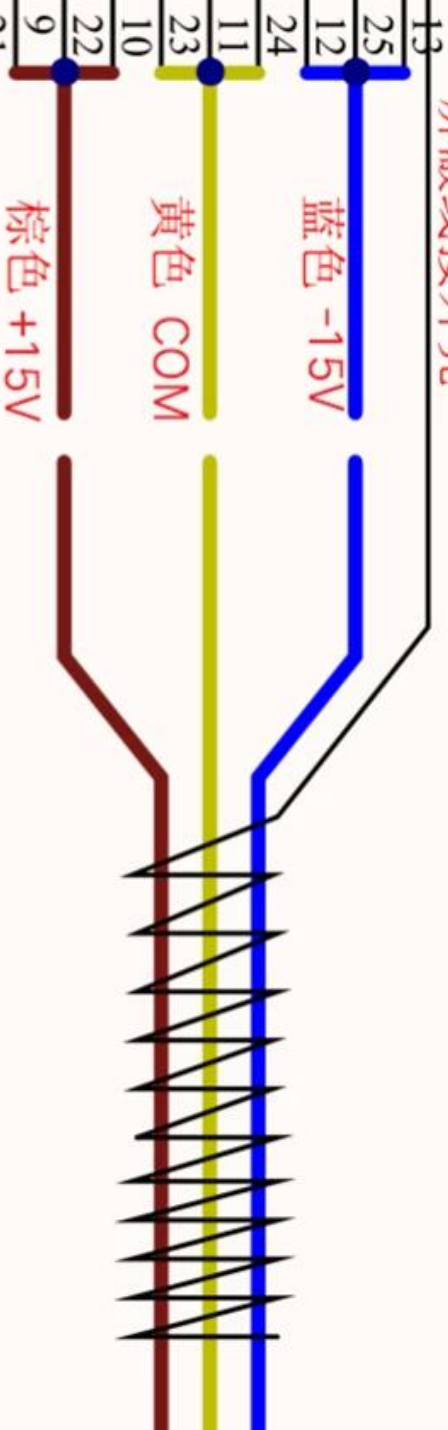


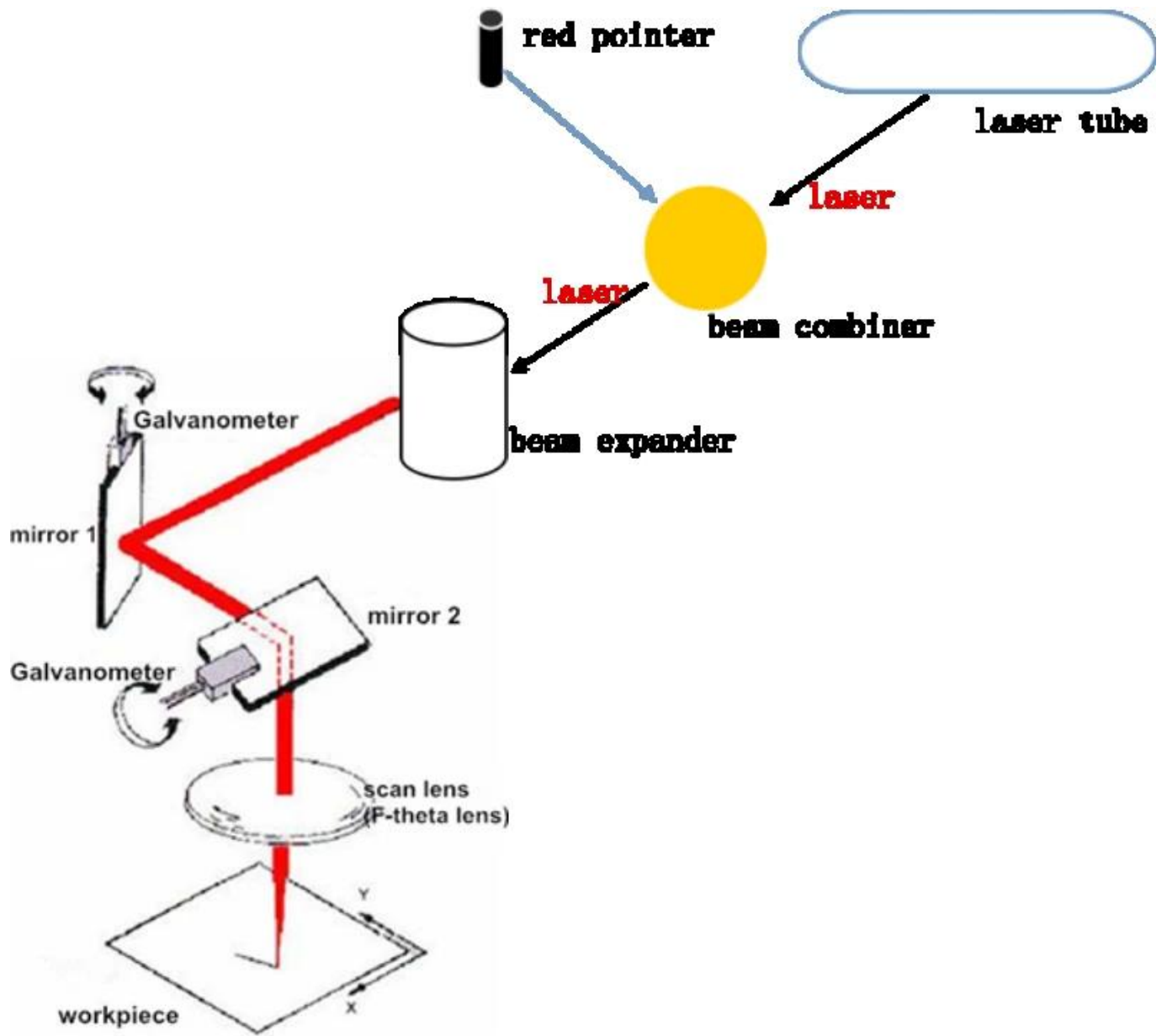


**Electrical interface definition:**



# 屏蔽线接外壳







**ZnSe F-theta Scan Lens**



**ZnSe Beam Expander**  
2X, 3X, 106um



**CO2 Glass Tube**  
Reci, Yongli, EFR, SPT  
60W-180W



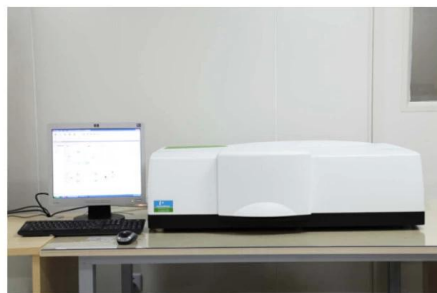
**Factory**







**TRIOPTICS OptiSpheric 2000 AF**  
---Testing EFL、R、Centering Error、Wedge Angle、BFL、MTF



**PerkinElmer Lambda 950**---Testing Transmission and Reflectivity



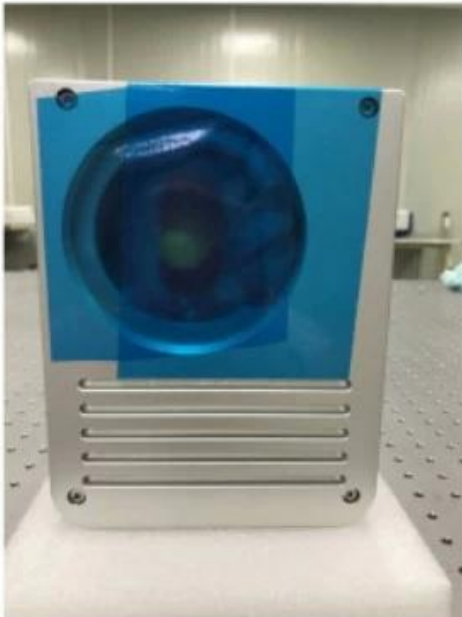
**Carmanhaas Coating Machine**

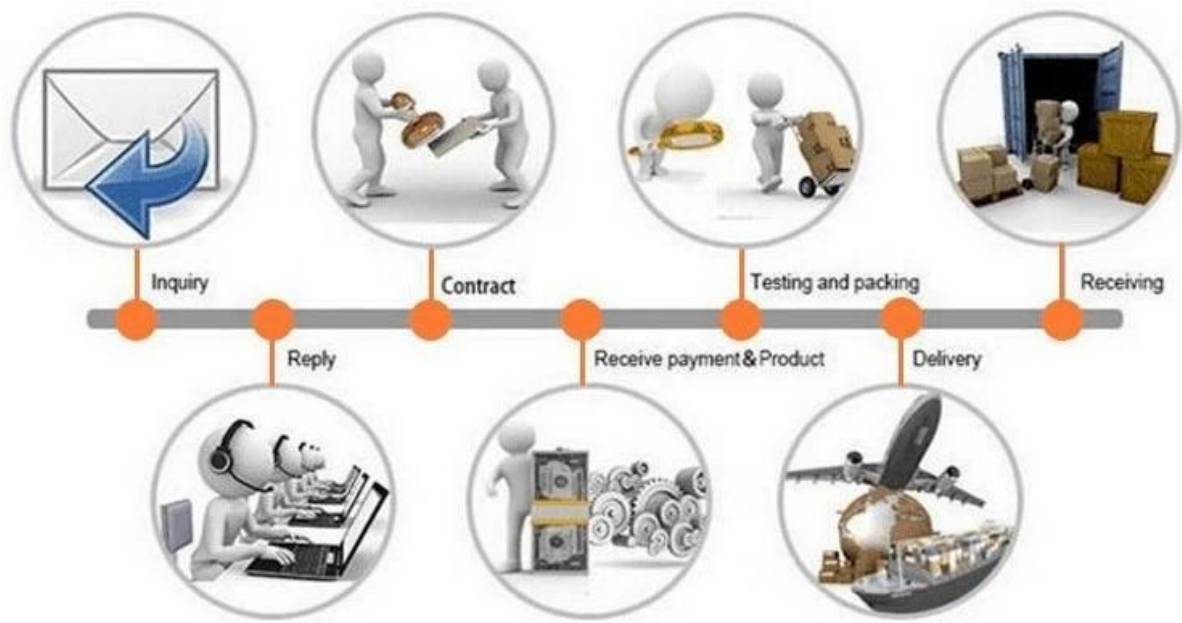
## Certificate&Exhibition



## Packing List

## Packaging & Shipping





**Return Policy:**



Should returns be required:

Step 1) Contact us with this website email.

Step 2) Provide as much detail as possible about the problem you are having.

Step 3) Authorization to return the item will be issued.

Step 4) Return the item for the agreed replacement or refund.

### **Logistics:**

(1)For Laser Optics order delivery,can be optional with DHL,UPS,FedEx,TNT,EMS etc

(2)For Laser machine order delivery,can be optional with terms of EXWork,FOB,CNF,CIF By Air or by Sea based on the buyer's forwarders or ours.

## FAQ

Q1.Are you a manufacturer?

A1: Yes, we are professional and experienced manufacturer with our own molds and production lines.

Q2.How about quality of products?

A2: Our technicians and QC teams test the products one by one using aging line, professional devices and instruments to ensure the quality for all products.

Q3.How about price?

A3: We are a manufacturer and always offer our customers the most competitive prices.

Q4.How to place an order?

A4: Contact with online service, or sent email to us directly, we will reply to you with product price, specifications, packing etc. soon. Thank you.

Q5.May I send material to test marking performance?

A5: Yes! You are welcome to send material to test our superior quality and service.

Q6.Can I visit your factory?

A6: Yes, welcome to visit our factory at your convenient time.

Q7.How can I make OEM or ODM orders?

A7: We have different print processing for different OEM/ODM orders. Please contact us with online service or send email to us directly.

Q8. How should I pay for my orders?

A8: You can pay by T/T would be available for qualified bank and MOQ required for each order.



