### **Product Description:**

Carmanhaas could offer complete laser cleaning optical lens and system solution. Including QBH Module, Galvo Scanner, F-theta Scan lenses and Control System. We <u>Galvo Scan Laser Processing on</u> <u>Sale</u> are focus on high end industrial laser application.

Our Galvo Scanner standard model is PSH10, PSH14, PSH20 and PSH30.

**PSH10 version-** for high end industrial laser applications, such as precision marking, processing-on-the-fly, cleaning, welding, tuning, scribing, additive manufacturing (3D printing) , microstructuring, material processing, etc.

**PSH14-H high power version-** for laser power ranging from 200W to 1KW(CW); fully sealed scan head with water cooling; suitable for high laser power, dusted, or environmentally challenging occasions, e.g. additive manufacturing(3D printing), precise welding, etc.

**PSH20-H high power version-** for laser power ranging from 300W to 3KW(CW); fully sealed scan head with water cooling; suitable for high laser power, dusted, or environmentally challenging occasions, e.g. additive manufacturing(3D printing), precise welding, etc.

**PSH30-H high power version-** for laser power ranging from 2KW to 6KW(CW); fully sealed scan head with water cooling; suitable for super high laser power, extremely low drift occasions. E.g. laser welding.

### **Key Advantages:**

1.Extremely low temperature drift (≤3urad/°C); Over 8 hours Long-Term Offset Drift ≤30 urad 2.Extremely high resolution and repeatability; resolution≤1 urad; repeatability≤ 2 urad 3.Super high speed: PSH10: 17m/s PSH14: 15m/s PSH20: 12m/s PSH30: 9m/s

### Click Galvo Scanner Wholesales China to learn more



**Technical Parameters:** 

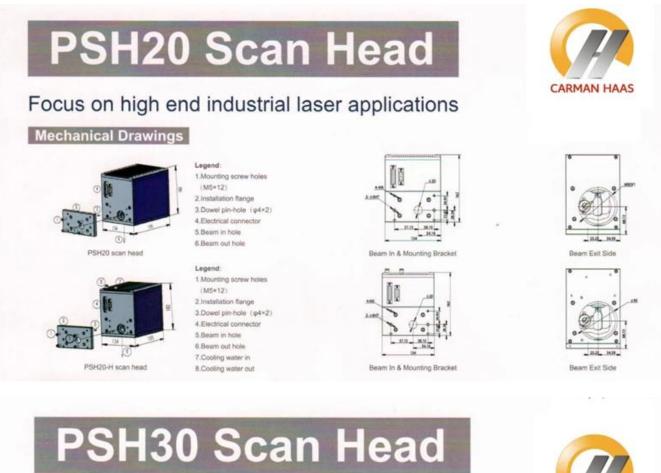
Model	PSH10	PSH14-H	PSH20-H	PSH30-H
	CW: 1000W @ fiber	CW: 1000W @	CW: 3000W @ fiber	CW: 1000W @ fiber
Input laser power	laser	fiber laser	laser	laser
(MAX.)	Pulsed: 150W @ fiber	Pulsed: 500W @	Pulsed: 1500W @	Pulsed: 150W @
	laser	fiber laser	fiber laser	fiber laser
Water cool/sealed	NO	yes	yes	yes
scan head	Sector Sector	2 - 1042	5407	
Aperture (mm)	10	14	20	30
Effective Scan Angle	±10°	±10°	±10°	±10°
Tracking Error	0.13 ms	0.19 ms	0.28ms	0.45ms
Step Response	≤ 0.27 ms	≤ 0.4 ms	≤ 0.6 ms	≤ 0.9 ms
Time(1% of full scale)	\$ 0.27 113	5 0.4 ms	2 0.0 ms	\$ 0.5 ms
		Typical Speed		
Positioning / jump	< 157 m/s	< 15 m/s	< 12 m/s	< 9 m/s
Line scanning/raster	< 12 m/s	< 10 m/s	< 7 m/s	< 4 m/s
scanning				
Typical vector	< 5 m/s	< 4 m/s	< 3 m/s	< 2 m/s
scanning				1
Good Writing quality	900 cps	700 cps	450 cps	260 cps
High writing quality	700 cps	550 cps	320 cps	180 cps
		Precision		
Linearity	99.9%	99.9%	99.9%	99.9%
Resolution	≤ 1 urad	≤ 1 urad	≤ 1 urad	≤ 1 urad
Repeatability	≤ 2 urad	≤ 2 urad	≤ 2 urad	≤ 2 urad
10 11	Т	emperature Drift		
Offset Drift	≤ 3 urad/°C	≤ 3 urad/°C	≤ 3 urad/°C	≤ 3 urad/°C
Qver 8hours			12	
Long-Term Offset	≤ 30 urad	≤ 30 urad	≤ 30 urad	≤ 30 urad
Drift (After 15min				
warn-up )				
Operating	25℃±10℃	25℃±10℃	25°C±10°C	25℃±10℃
Temperature Range		0.550,450,550,850,550,050,04		Design of Constants States
	Analog: ±10V	Analog: ±10V	Analog: ±10V	Analog: ±10V
Signal Interface	Digital: XY2-100	Digital: XY2-100	Digital: XY2-100	Digital: XY2-100
	protocol	protocol	protocol	protocol
Input Power	±15V@ 4A Max RMS	±15V@4A Max	±15V@ 4A Max	±15V@ 4A Max
Requirement (DC)		RMS	RMS	RMS

### Note:

(1)All angles are in mechanical degrees.

(2)With F-Theta objective f=163mm. Speed value varies correspondingly with different focal lengths. (3)Single-stroke font with 1mm height.

### **Mechanical Dimensions(mm):**

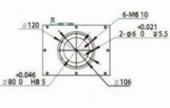


### Focus on high end industrial laser applications

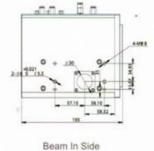


Mechanical Drawings





Installation flange



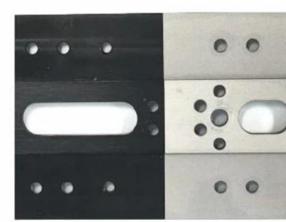


Beam Exit Side

# BEFORE

15





AFTER



BEFORE



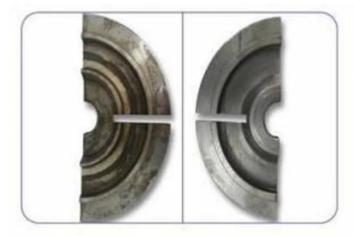
AFTER

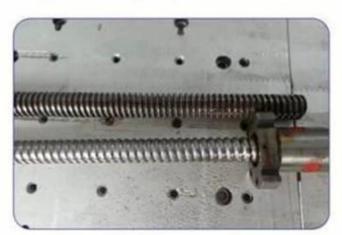




BEFORE

AFTER



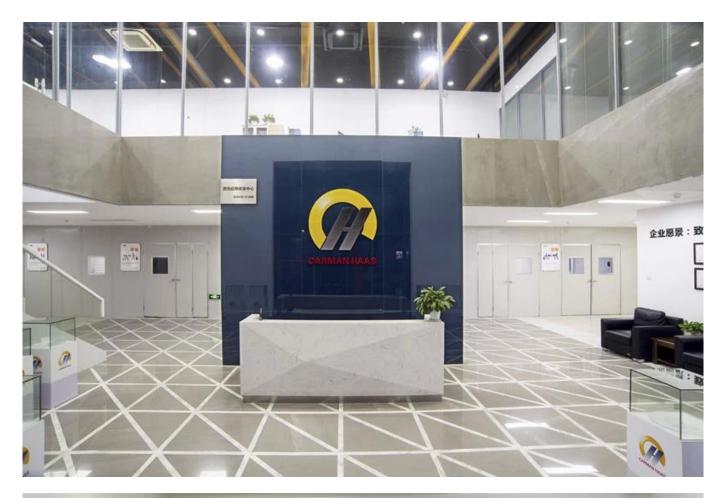




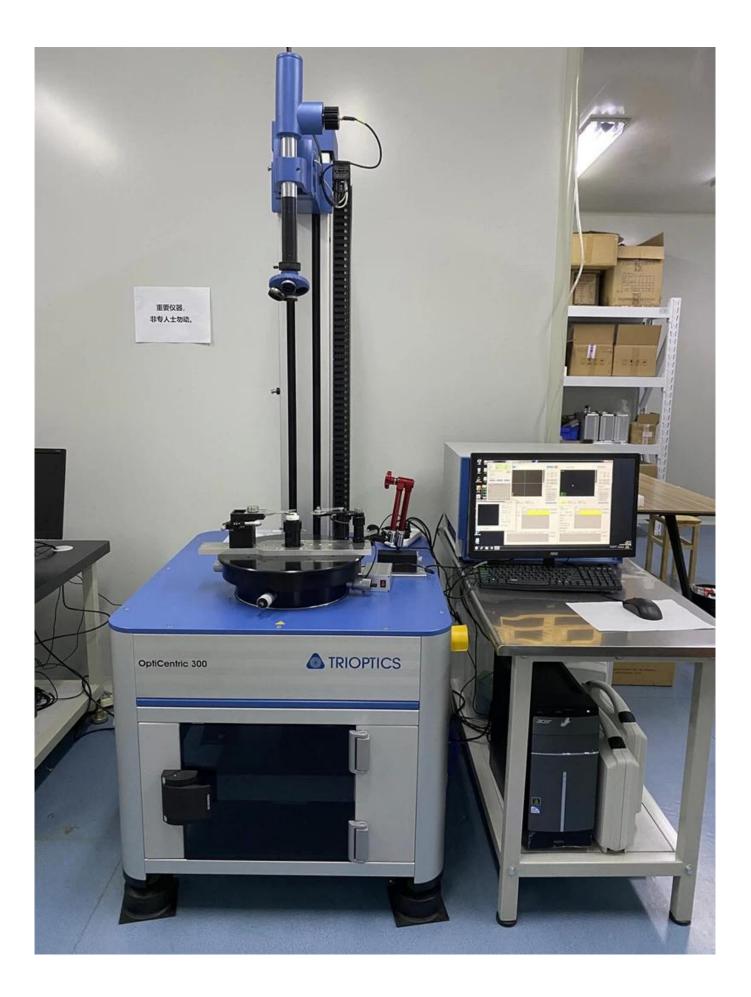


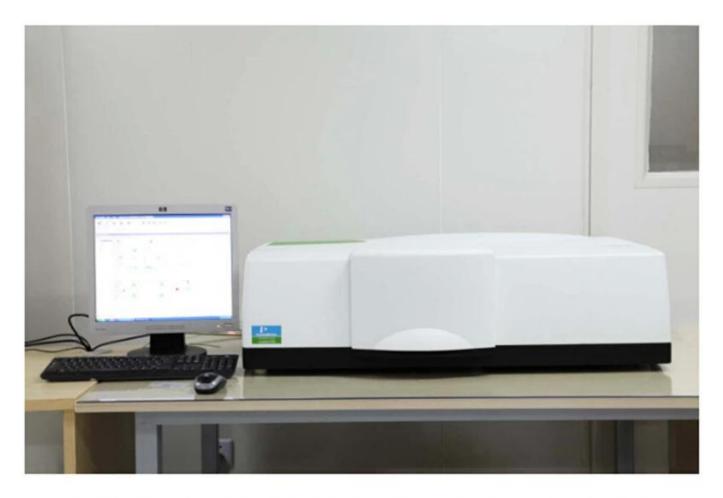
# Factory











PerkinElmer Lambda 950---Testing Transmission and Reflectivity



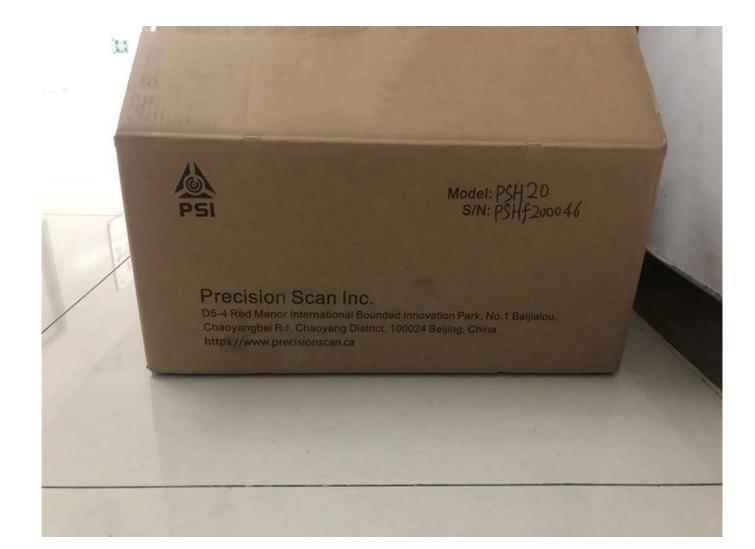


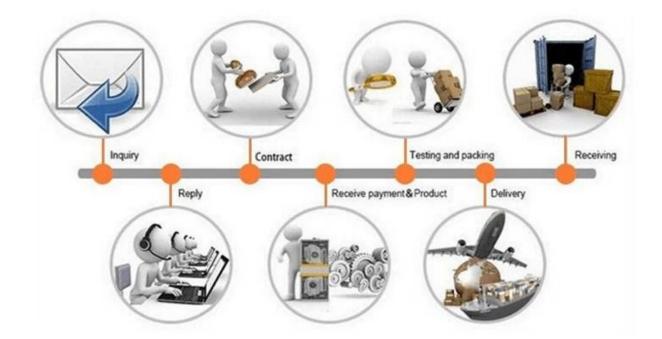


## **Packing List**











### **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, ets

(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.