

Product Information

Product Description:

Carmanhaas [China Laser Cleaning Equipment on Sales Supplier](#) could offer complete laser cleaning optical lens and system solution. Including QBH Module, Galvo Scanner, F-theta Scan lenses and Control System. We are focus on high end industrial laser application.

We [Laser Cleaning Equipment on Sale Factory](#) 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.

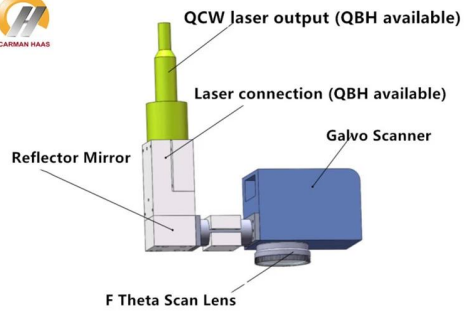
PSH14-H high power version- for laser power ranging from 200W to 1KW(CW); fully sealed scan head with water cooling; suitable for high laser power, dusted, or environmentally challenging occasions, e.g. additive manufacturing(3D printing), precise welding, etc.

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 ($\leq 3\text{urad}/^\circ\text{C}$); Over 8 hours Long-Term Offset Drift $\leq 30\text{ urad}$
- 2.Extremely high resolution and repeatability; resolution $\leq 1\text{ urad}$; repeatability $\leq 2\text{ urad}$
- 3.Super high speed:
PSH10: 17m/s
PSH14: 15m/s
PSH20: 12m/s
PSH30: 9m/s



Technical Parameters:

Model	PSH10	PSH14-H	PSH20-H	PSH30-H
Input laser power (MAX.)	CW: 1000W @ fiber laser Pulsed: 150W @ fiber laser	CW: 1000W @ fiber laser Pulsed: 500W @ fiber laser	CW: 3000W @ fiber laser Pulsed: 1500W @ fiber laser	CW: 1000W @ fiber laser Pulsed: 150W @ fiber laser
Water cool/sealed scan head	NO	yes	yes	yes
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 Time(1% of full scale)	≤ 0.27 ms	≤ 0.4 ms	≤ 0.6 ms	≤ 0.9 ms
Typical Speed				
Positioning / jump	< 157 m/s	< 15 m/s	< 12 m/s	< 9 m/s
Line scanning/raster scanning	< 12 m/s	< 10 m/s	< 7 m/s	< 4 m/s
Typical vector scanning	< 5 m/s	< 4 m/s	< 3 m/s	< 2 m/s
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
Temperature Drift				
Offset Drift	≤ 3 urad/°C	≤ 3 urad/°C	≤ 3 urad/°C	≤ 3 urad/°C
Over 8hours Long-Term Offset Drift (After 15min warm-up)	≤ 30 urad	≤ 30 urad	≤ 30 urad	≤ 30 urad
Operating Temperature Range	25°C±10°C	25°C±10°C	25°C±10°C	25°C±10°C
Signal Interface	Analog: ±10V Digital: XY2-100 protocol	Analog: ±10V Digital: XY2-100 protocol	Analog: ±10V Digital: XY2-100 protocol	Analog: ±10V Digital: XY2-100 protocol
Input Power Requirement (DC)	±15V@ 4A Max RMS	±15V@ 4A Max RMS	±15V@ 4A Max RMS	±15V@ 4A Max RMS

Note:

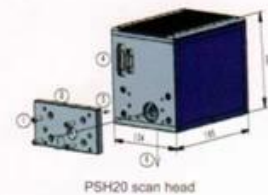
- (1) All angles are in mechanical degrees.
- (2) With F-Theta objective $f=163\text{mm}$. Speed value varies correspondingly with different focal lengths.
- (3) Single-stroke font with 1mm height.

Mechanical Dimensions(mm):

PSH20 Scan Head

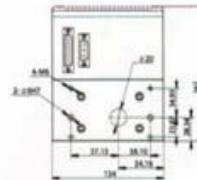
Focus on high end industrial laser applications

Mechanical Drawings

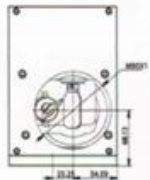


PSH20 scan head

- Legend:**
- 1. Mounting screw holes (M5×12)
 - 2. Installation flange
 - 3. Dowel pin-hole ($\phi 4 \times 2$)
 - 4. Electrical connector
 - 5. Beam in hole
 - 6. Beam out hole



Beam In & Mounting Bracket

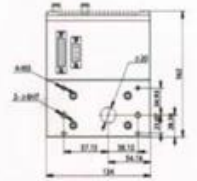


Beam Exit Side

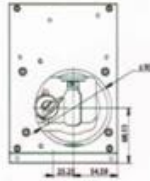


PSH20-H scan head

- Legend:**
- 1. Mounting screw holes (M5×12)
 - 2. Installation flange
 - 3. Dowel pin-hole ($\phi 4 \times 2$)
 - 4. Electrical connector
 - 5. Beam in hole
 - 6. Beam out hole
 - 7. Cooling water in
 - 8. Cooling water out



Beam In & Mounting Bracket

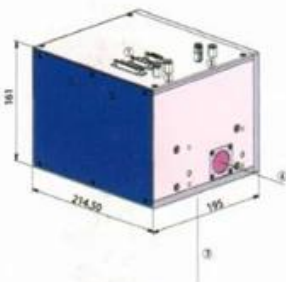


Beam Exit Side

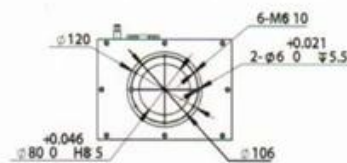
PSH30 Scan Head

Focus on high end industrial laser applications

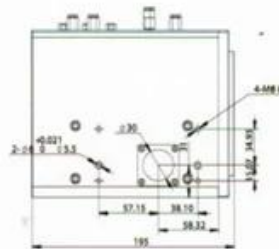
Mechanical Drawings



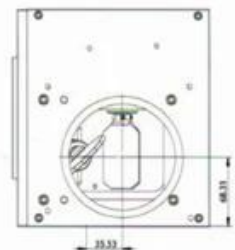
PSH30/PSH30-H scan head



Installation flange



Beam In Side



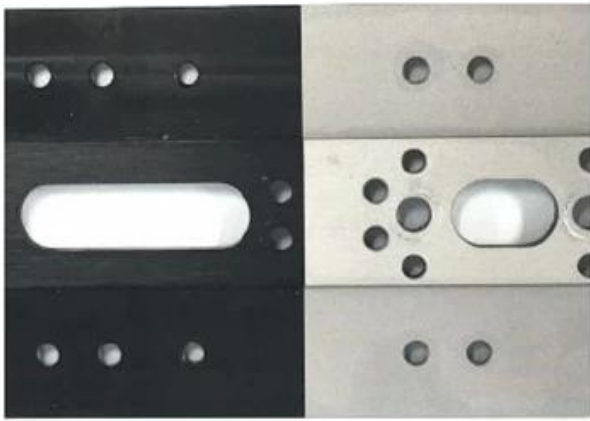
Beam Exit Side





BEFORE

AFTER



BEFORE

AFTER



BEFORE

AFTER



BEFORE



AFTER



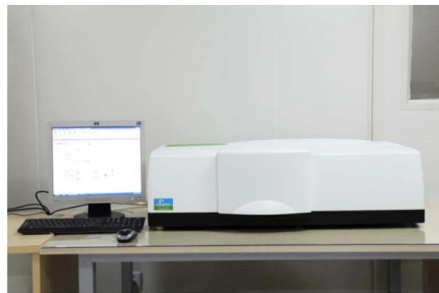
BEFORE

AFTER

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



CERTIFICATE

ATTESTATION CERTIFICATE OF MACHINERY AND LOW VOLTAGE DIRECTIVES

Technical file of the company mentioned below has been observed and audit has been completed successfully. 2006/42/EC Machinery Directive and 2014/35/EU Low Voltage Directive have been taken as references for these processes

Company Name : **Camman HAAS Laser Technology (Suzhou) Co., Ltd.**

Company Address : No 155, West Road Suhong, Suzhou Industrial Park, Suzhou City, Jiangsu , P.R.China

Related Directives and Annex : **Low Voltage Directive 2014/35/EU
Machinery Directive 2006/42/EC**

Related Standards : **EN ISO 12100:2010; EN 60204-1:2006+A1:2009+AC:2010**

Product Name : **Laser Marking Machine**

Report No and Date : **SD-90049717.09.08.2018**

Product Brand/Model/Type : **LMCH-3W,LMCH-5W,LMCH-10W,LMCH-15W,LMCH-20W,LMCH-25W,
LMCH-30W,LMCH-50W,LMCH-60W,LMCH-70W,LMCH-100W,
LMCH-120W,LMCH-150W,LMCH-200W,LMCH-300W,LMCH-500W**

Certificate Number : **M.2018.201.N6073**

Initial Assessment Date : **10.08.2018**

Registration Date : **13.08.2018**

Reissue Date/No :

Expiry Date : **12.08.2023**

U. Singh
UDM International Certification
Auditing Training Centre Industry
and Trade Inc. Co.

The validity of the certificate can be checked through www.udem.com.tr. The CE mark shown on the right can only be used under the responsibility of the manufacturer with the completion of EC Declaration of Conformity for all the relevant Directives. This certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 10 years from the registration of certificate. This certificate only covers the product(s) stated above and UDEM must be notified in case of any changes on the product(s).
Address: Mithakeet Mahabul 2073 Sokak (Baki 93 Sokak) No:10 Çankaya - Ankara - TURKEY
Phone: +90 0312 443 03 90 Fax: +90 0312 443 03 76
E-mail: info@udemtd.com.tr www.udem.com.tr



Certificate of Approval

Certificate No.: 10119Q12565R0M

Awarded to

**Carman Haas Laser Technology(SuZhou)
Co., Ltd.**

Organization Code Certificate No. / Unified Social Credit Code:91320594MA1MF4EP56
Add.No.155, West Road Suhong, Suzhou Industrial Park, Suzhou City, Jiangsu Province, P.R. China. 215000

Beijing ZhongLianTianRun Certification Center (ZLTR) certify that the
Quality Management System of the above organization has been assessed and found to be
in accordance with the requirements of the standard:
GB/T19001-2016 / ISO9001:2015

SCOPE OF CERTIFICATION/REGISTRATION

The Research and Development and Production of Optics Lenses (Except the limits of national laws and regulations.)

This certificate is made valid when used with certification scopes and the requirements of applicable laws and regulations. These requirements include, but are not limited to, administrative permits, scopes of qualifications, and CCC requirements.

Subject to operation conditions in requirements conformity with Quality Management System,

This Certificate is valid for a period of three years only,

Date from: Mar 13th,2019 To: Mar 12th,2022

The effectiveness of this Certificate shall be Validated by periodic surveillance audit of ZLTR for maintenance.

Information of this certificate can be found on the official website of Beijing Zhonglian Tianrun Certification center (<http://www.zltr.com.cn>)



Beijing ZhongLianTianRun Certification Center

Room2003, 22nd Floor, 2nd Unit, Block 1, No.4 Yard, Qiyang Road, Chaoyang District, Beijing, P.R. China 100022

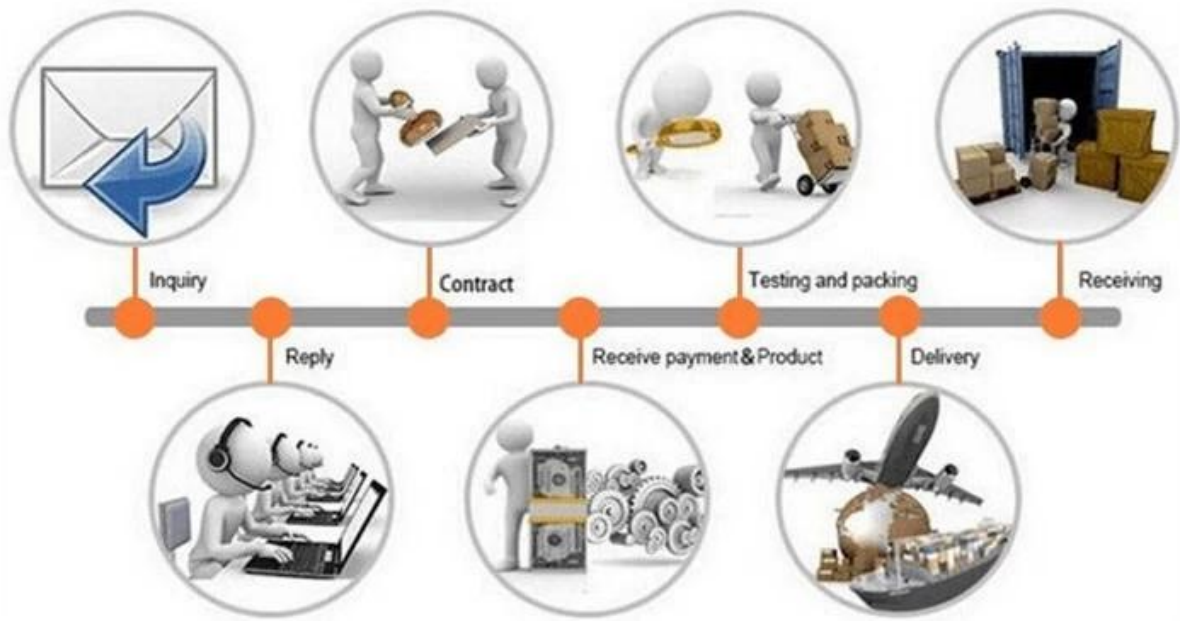
Information of the center can be found on the official website of Certification and Accreditation Administration of the People's Republic of China (<http://www.cnca.gov.cn>)

ISO 9001

ISO 9001



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.