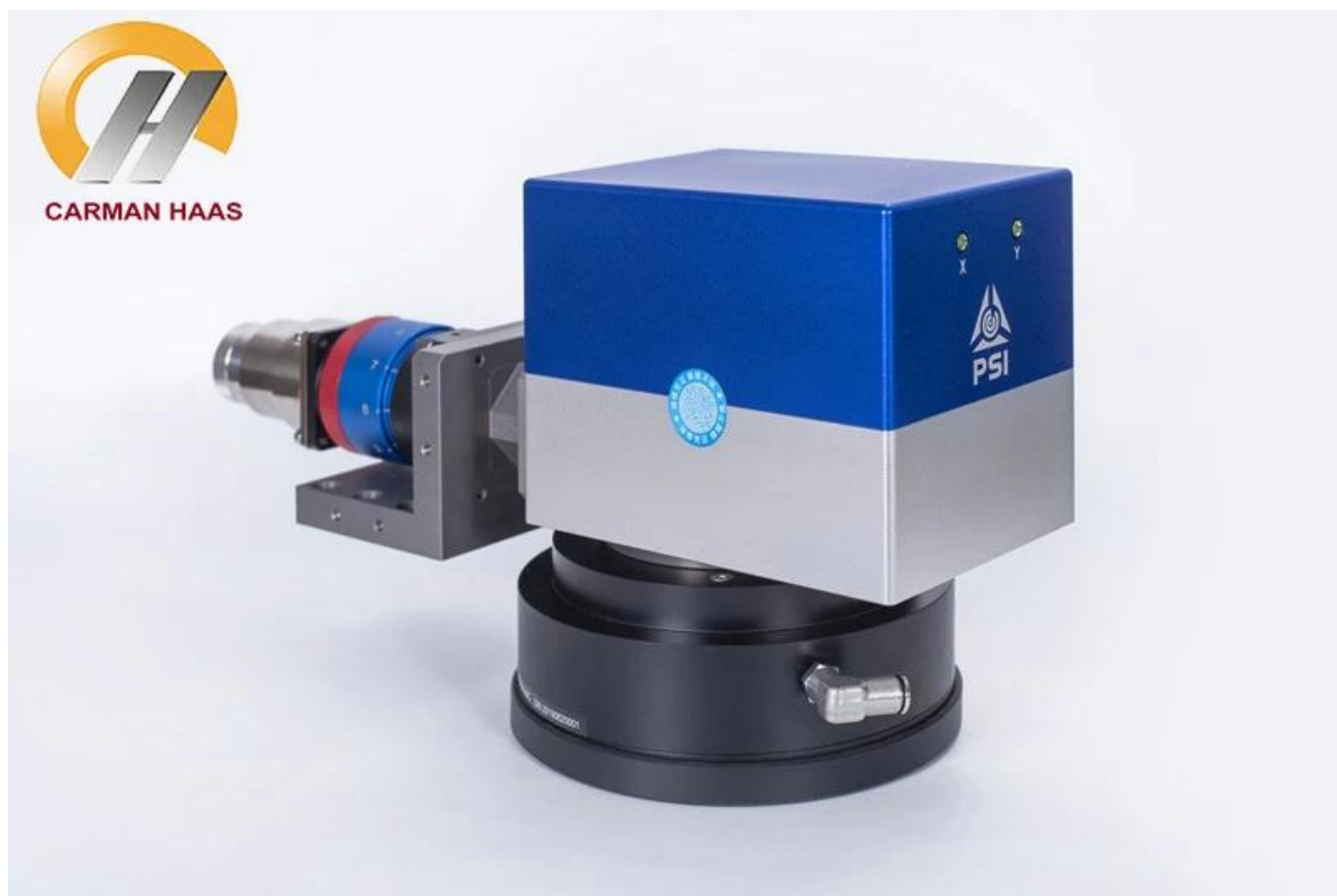


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Model	PSH14-H	PSH20-H	PSH30-H
Input laser power (MAX.)	CW: 1000W @ fiber laser Pulsed: 500W @ fiber laser	CW: 3000W @ fiber laser Pulsed: 1500W @ fiber laser	CW: 1000W @ fiber laser Pulsed: 150W @ fiber laser
Water cool/sealed scan head	yes	yes	yes
Aperture (mm)	14	20	30
Effective Scan Angle	±10°	±10°	±10°
Tracking Error	0.19 ms	0.28ms	0.45ms
Step Response Time(1% of full scale)	≤ 0.4 ms	≤ 0.6 ms	≤ 0.9 ms
<b>Typical Speed</b>			
Positioning / jump	< 15 m/s	< 12 m/s	< 9 m/s
Line scanning/raster scanning	< 10 m/s	< 7 m/s	< 4 m/s
Typical vector scanning	< 4 m/s	< 3 m/s	< 2 m/s
Good Writing quality	700 cps	450 cps	260 cps
High writing quality	550 cps	320 cps	180 cps
<b>Precision</b>			
Linearity	99.9%	99.9%	99.9%
Resolution	≤ 1 urad	≤ 1 urad	≤ 1 urad
Repeatability	≤ 2 urad	≤ 2 urad	≤ 2 urad
<b>Temperature Drift</b>			
Offset Drift	≤ 3 urad/°C	≤ 3 urad/°C	≤ 3 urad/°C
Qver 8hours Long-Term Offset Drift ( After 15min warn-up )	≤ 30 urad	≤ 30 urad	≤ 30 urad
Operating Temperature Range	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
Input Power Requirement (DC)	±15V@ 4A Max RMS	±15V@ 4A Max RMS	±15V@ 4A Max RMS

### 1030-1090nm F-Theta Lenses

Part Description	Focal Length (mm)	Scan Field (mm)	Max Entrance Pupil (mm)	Working Distance(mm)	Mounting Thread
SL-(1030-1090)-170-254-(20CA)-WC	254	170x170	20	290	M85x1
SL-(1030-1090)-250-425-(30CA)-WC	425	250x250	30	475	M132x1
SL-(1030-1090)-142-277-(15CA)-WC	277	142x142	15	340	M85x1
SL-(1030-1090)-254-420-(15CA)-WC	420	254x254	15	509	M85x1
SL-(1030-1090)-230-420-(20CA)-WC	420	230x230	20	509	M85x1
SL-(1030-1090)-410-650-(20CA)-WC	650	410x410	20	562	M85x1

### 1030-1090nm Beam Expander

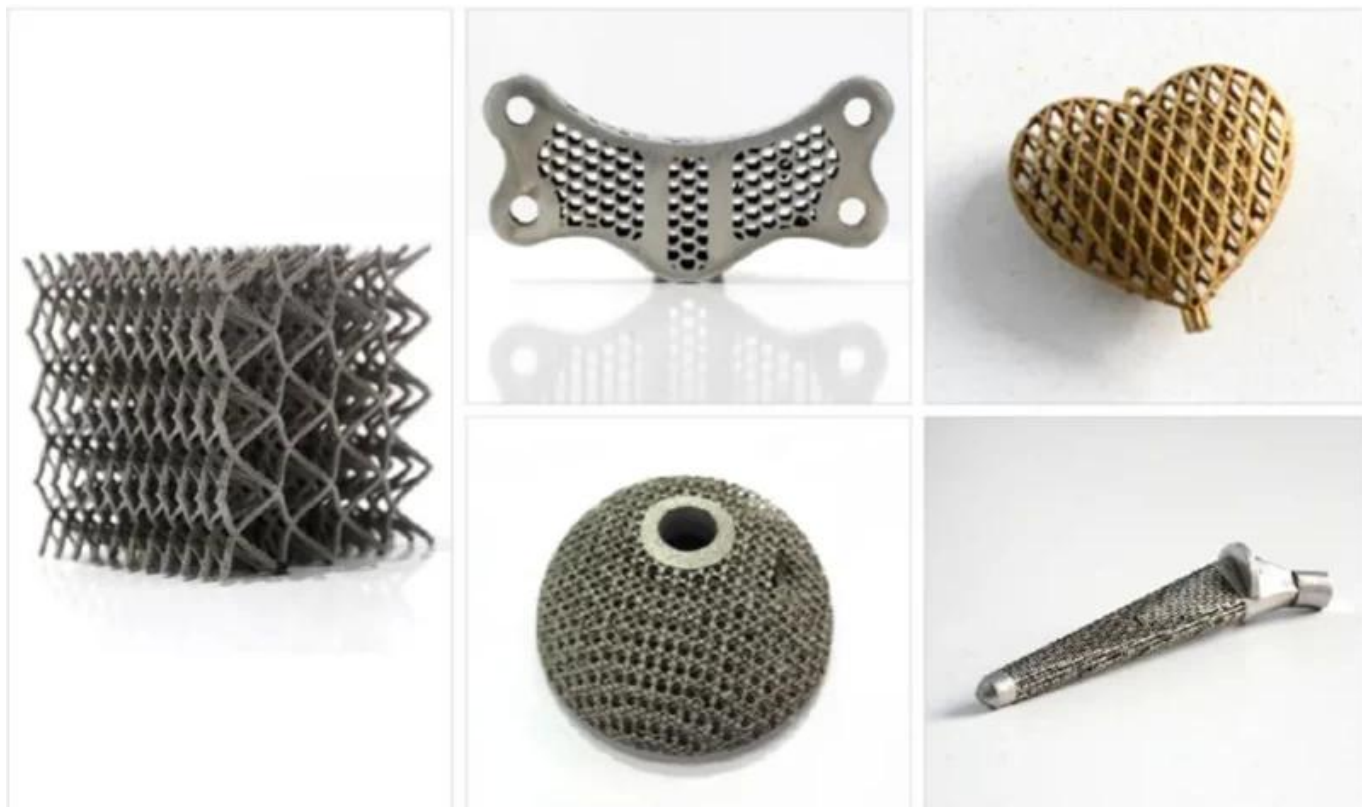
Part Description	Expansion Ratio	Input CA (mm)	Output CA (mm)	Housing Dia(mm)	Housing Length(mm)	Mounting Thread
BE-(1030-1090)-D26:45-1.5x-A	1.5X	18	26	44	45	M30x1 M43x0.5
BE-(1030-1090)-D53:118.6-2x-A	2X	30	53	49	118.6	M30x1
BE-(1030-1090)-D37:118.5-2x-A-WC	2X	18	37	59	118.5	M30x1

### 1030-1090nm Protective Window

Part Description	Diameter(mm)	Thickness(mm)	Coating
Protective Window	98	4	AR/AR@1030-1090nm
Protective Window	113	5	AR/AR@1030-1090nm
Protective Window	120	5	AR/AR@1030-1090nm
Protective Window	160	8	AR/AR@1030-1090nm

### 1030-1090nm QBH Collimating Optical Module

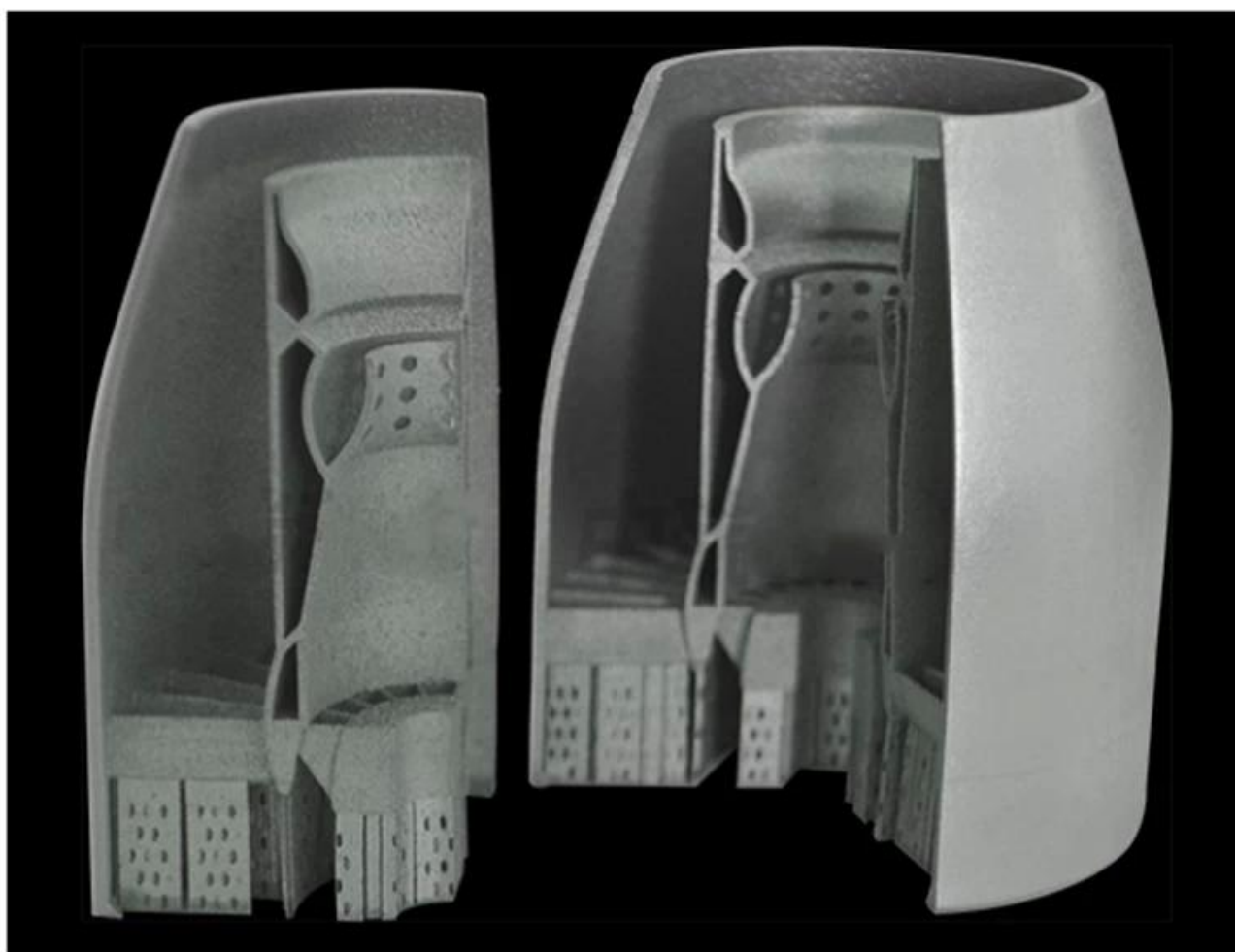
Part Description	Focal Length (mm)	Clear Aperture (mm)	NA	Coating
CL2-(1030-1090)-30-F60-QBH-A-WC	60	28	0.22	AR/AR@1030-1090nm
CL2-(1030-1090)-30-F75-QBH-A-WC	75	28	0.17	AR/AR@1030-1090nm
CL2-(1030-1090)-30-F100-QBH-A-WC	100	28	0.13	AR/AR@1030-1090nm
CL2-(1030-1090)-38-F75-QBH-A-WC	75	34	0.22	AR/AR@1030-1090nm
CL2-(1030-1090)-38-F100-QBH-A-WC	100	34	0.16	AR/AR@1030-1090nm
CL2-(1030-1090)-38-F125-QBH-A-WC	125	34	0.13	AR/AR@1030-1090nm



## Die Steel



# Titanium Alloy



# Aluminium Alloy ( $AlSi_{10}Mg$ )



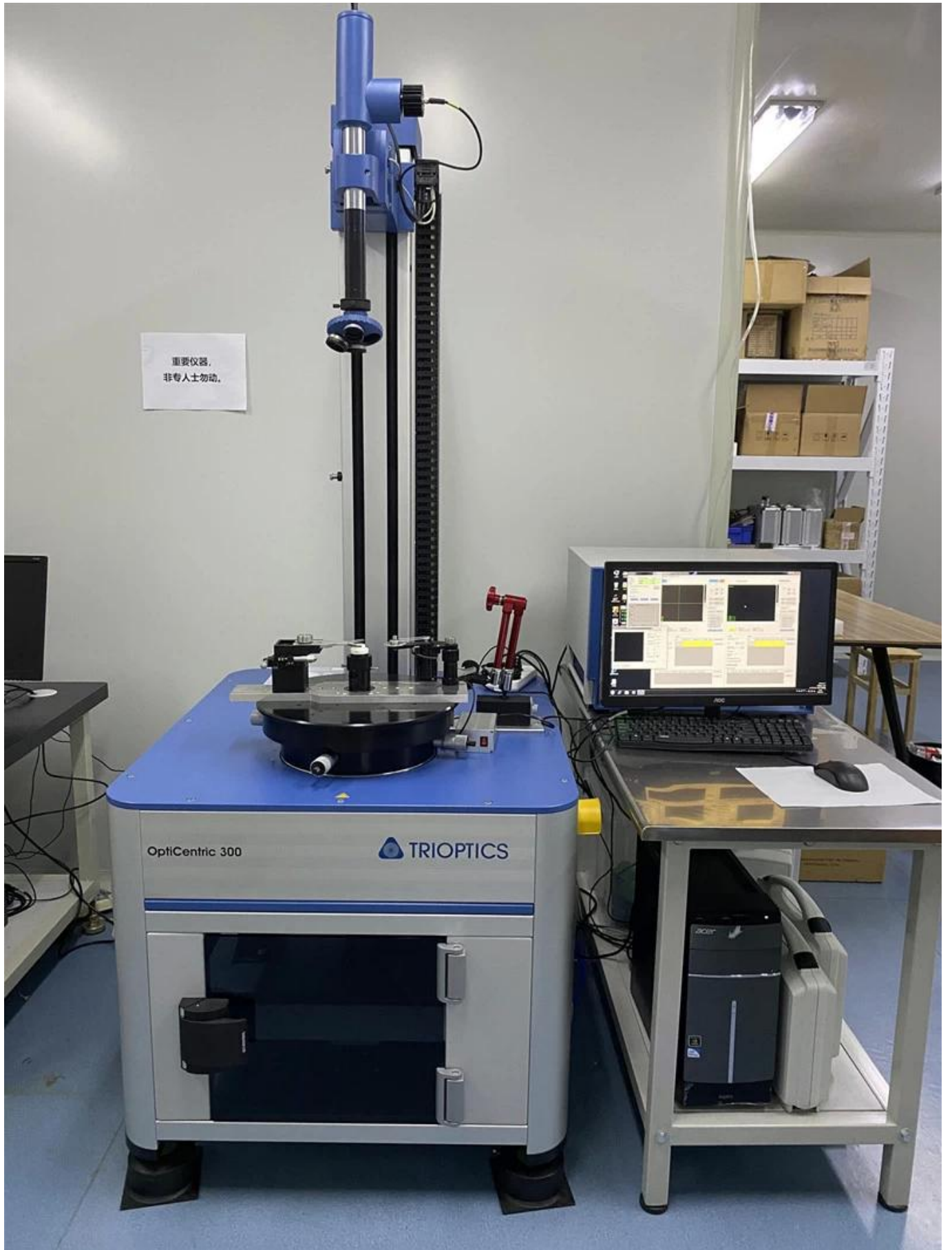
## Co-Cr Alloy ( MP1 )











重要仪器,  
非专业人士勿动。

OptiCentric 300

TRIOPTICS





PerkinElmer Lambda 950---Testing Transmission and Reflectivity



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# 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**

  
UDEM International Certification  
Auditing Training Centre Industry  
and Trade Inc. Co.

The validity of the certificate can be checked through [www.udem.com.tr](http://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 15 years from the registration of certificate. This certificate only covers the product(s) stated above and UDEM must be noticed in case of any changes on the product(s)  
Address: Mulkimerit Mahallesi 2073 Sokak (Eski 93 Sokak) No:10 Çankaya - Ankara - TÜRKİYE  
Phone: +90 0312 443 03 90 Fax: +90 0312 443 03 70  
E-mail: info@udemtd.com.tr www.udem.com.tr



## Certificate of Approval

Certificate No.: 10119Q12565ROM

Awarded to

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

Organization Code Certificate No. / Unified Social Credit Code:91320594M1MF4EP56  
Add.:No.155, West Road Suhong, Suzhou Industrial Park, Suzhou City, Jiangsu Province, P.R. China. 215000

Beijing ZhongLian TianRun 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

Room2603, 22nd Floor, 2nd Unit, Block 1, No.4 Yard, Qiyang Road, Chaoyang District, Beijing, P.R. China 100102

Information of this certificate 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





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- .Exportation certificate (1 certificate)
- .Exportation certificate (2 certificates)
- .Exportation certificate (3 certificates)
- Exportation certificate (4 certificates).

Exportation certificate:

- (1) The exportation certificate is issued by the Ministry of Commerce, China (MOC) dhl ups tnt ems ets
- (2) Exportation certificate is issued by the Ministry of Commerce, China (MOC) CNF CIF

### Exportation certificate

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Q3.How

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