Product Description:

Carmanhaas Laser marking can be applied to the marking of all non-transparent materials. General optical system: Expanding the beam through the beam expander to improve the divergence angle, after the beam combines the indicator light into the galvanometer system for beam deflection and scanning,finally, the workpiece is scanned and focused by the F-THETA scan lens.

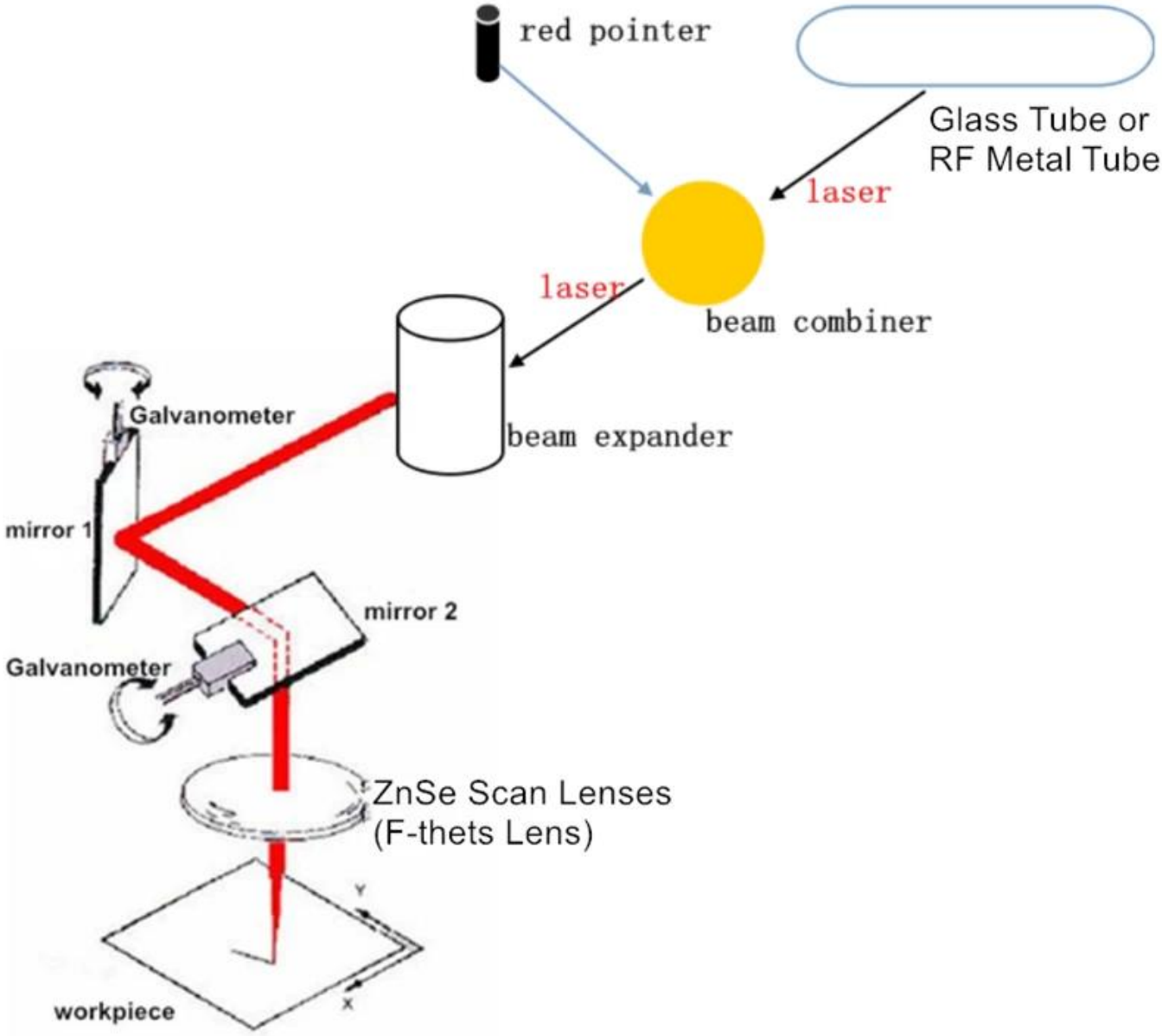
Laser marking optical components mainly include beam expander and F-THETA scan lens.The role of the beam expander is to enlarge the beam diameter and reduce the beam divergence angle. F-Theta scan lens achieves uniform focusing of the laser beam.

Product Name	Part Description	Focal Length	Scan Field	Input Beam	Diameter	Mount Thread
Scan Lens	SL-10.6-50-75-48D	75	50*50	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-70-100-48D	100	70*70	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-90-130-48D	130	90*90	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-110-150-48D	150	110*110	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-140-230-48D	230	140*140	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-175-250-48D	250	175*175	14/20mm	48mm	M85*1

Scan Lens	SL-10.6-210-300-48D	300	210*210	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-250-360-48D	360	250*250	14/20mm	48mm	M85*1
Scan Lens	SL-10.6-300-430-48D	430	300*300	14/20mm	48mm	M85*1

Specification	Standards
Diameter Tolerance	+ 0.0, -0.13
Thickness Tolerance	+/- 0.25mm
Paraxial Focus Length	+/- 2%
Centration	3 arc minutes
Clear Aperture	> 80%
Surface Flatness	lamda/20 @ 10.6um
Surface Qualiy	40-20 scratch and dig
AR/AR Coating	R<0.5% per surface @10.6um

Detail Image


red pointer
Glass Tube or
RF Metal Tube
laser
laser
beam combiner
beam expander
Galvanometer
mirror 1
mirror 2
Galvanometer
ZnSe Scan Lenses
(F-thets Lens)
Y
X
workpiece

Lens Cleaning

1.For light pollution (dust, fiber particles) were flexible cleaning.

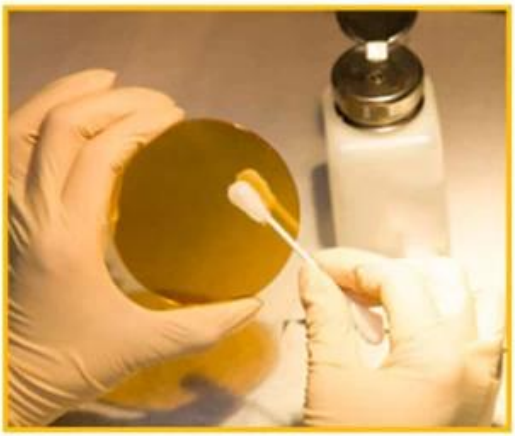
Using a blowing balloon, Blow off scattered contaminants on the surface of the optical element.

2.For light pollution (stains, fingerprints) were flexible cleaning.

Propanol, acetone glue with a cotton swab or alcohol to gently wipe the surface.

3.For moderately polluted (saliva, oil) in moderate-intensity cleaning.

Infiltrating distilled white vinegar with a cotton swab, wipe the surface a little pressure.

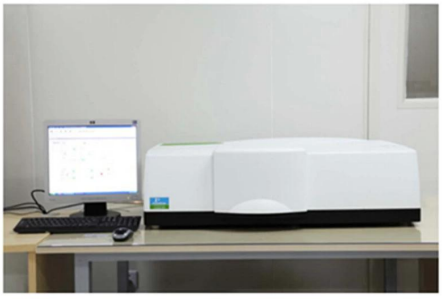


Packaging 3

Comapny Information:

TRIOPTICS OptiSpheric 2000 AF

---Testing EFL、R、Centering Error、Wedge Angle、BFL、MTF



PerkinElmer Lambda 950---Testing Transmission and Reflectivity

Carmanhaas Coating Machine

Trade Shows

慕尼黑上海光博会
LASER PHOTONICS CHINA
LASER PHOTONICS
Messe München
LASER PHOTONICS INDIA

SERIGRAFIA
SIGN
FUTURETEXTIL
Brazil
CARMAN HAAS Laser
Technology (Suzhou) Co., Ltd.
Laser Korea 2019

MAKTEK
eurasia
Turkey
SIGNiSTANBUL
Russia
RAYLOGIC
YAROV
CARMAN HAAS LASER

CERTIFICATE

ATIESTATION
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	: **Carman 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. 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: Mutlukent Mahallesi 2073 Sokak (Eski 93 Sokak) No:10 Çankaya – Ankara – TURKEY
Phone: +90 0312 443 03 90 **Fax:** +90 0312 443 03 76
E-mail: info@udemltd.com.tr www.udem.com.tr

ISO 9001

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)

SCC Accredited CB-MS
OCSM Accrédité CCN
Accredited CB-MS (Certification Body – Management Systems)

IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

Beijing Zhongliantianrun Certification Center ISSUED BY

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