



CO2 Beam Expander:

CO2 Beam Expander: This device is used to expand and collimate the CO2 laser beam. It consists of several optical components including mirrors and lenses, designed to optimize the beam quality and divergence. The expander is suitable for various CO2 laser wavelengths, including 10.6 micrometers.

The CO2 beam expander is made of ZSe. This material is chosen for its high thermal stability and low thermal expansion coefficient, ensuring precise alignment and performance under varying conditions.

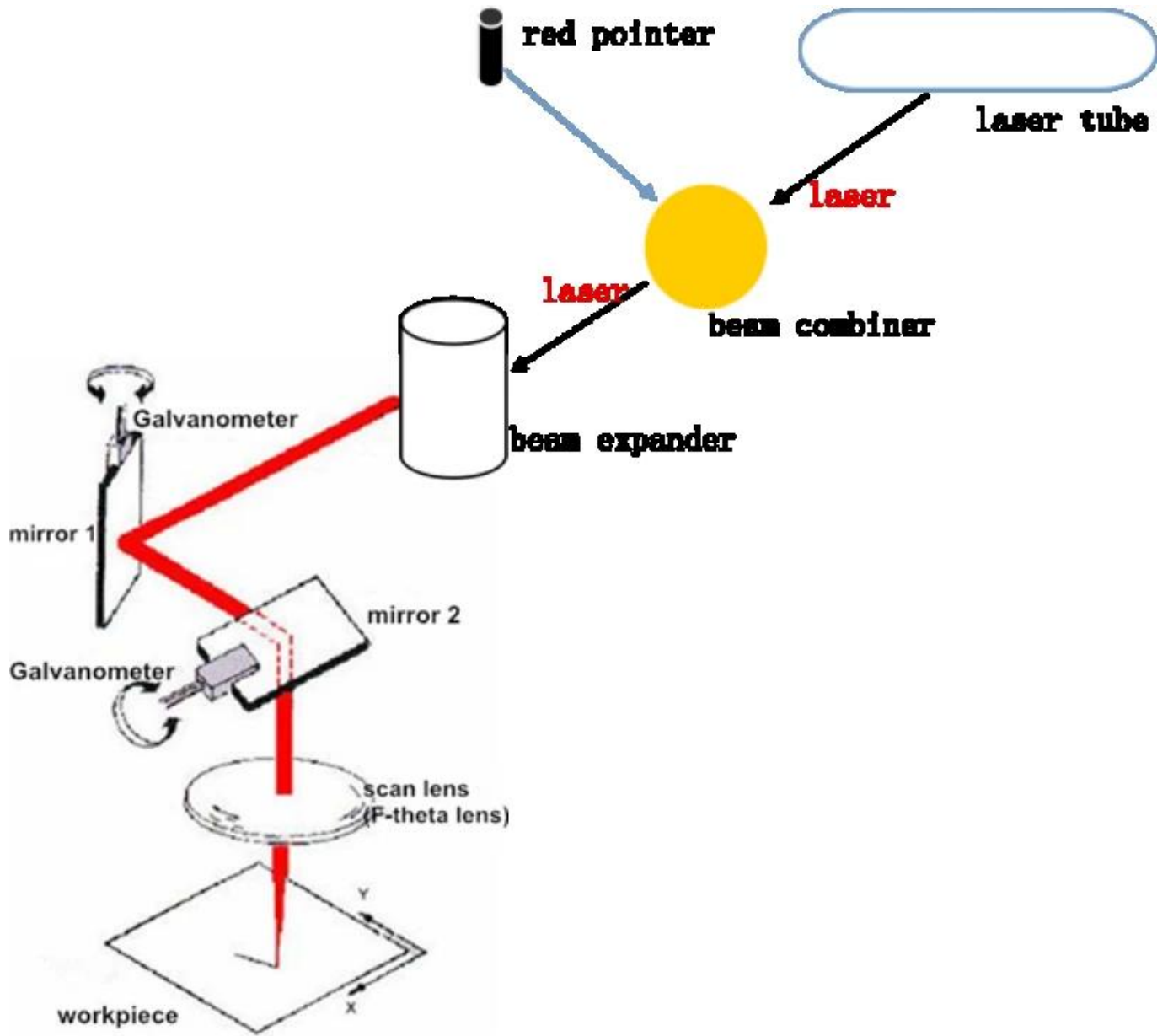
The CO2 beam expander is available in three different models: Carmanhaas 3. The models are designed to handle different beam sizes and wavelengths. The wavelength range is 355 nm to 1090 nm. The beam diameters are 9.3 um and 10.6 um.

The CO2 beam expander is used in various industrial applications, such as laser cutting, welding, and material processing. It provides a more uniform and parallel beam, which is essential for high-precision laser work.









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رقم الجزء الوصف: BE-XXX-BYY: ZZZ-BB-A

يكون شعاع المتوسع -----

ثاني أكسيد الكربون، 10600nm، طول الموجي بالليزر: 10.6 يعني 10.6 XXX -----

طول الإسكان CA: إخراج شعاع المتوسع ----- ZZZ: الصيغة

نسبة التوسع (التكبير) في الأوقات BB -----

النوع: الوسيلة المتوسع شعاع زاوية الاختلاف قابل للتعديل؛ -----

.لا شيء يعني متوسع شعاع ثابت

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□□□□ □□□□ CO2 (10.6um)

Part Description	Expansion Ratio	Input CA (mm)	Output CA (mm)	Housing Dia(mm)	Housing Length (mm)	Mounting Thread
BE-10.6-D17:46.5-2X	2X	12.7	17	25	46.5	M22*0.75
BE-10.6-D20:59.7-2.5X	2.5X	12.7	20	25	59.7	M22*0.75
BE-10.6-D17:64.5-3X	3X	12.7	17	25	64.5	M22*0.75
BE-10.6-D32:53-3.5X	3.5X	12.0	32	36	53.0	M22*0.75
BE-10.6-D17:70.5-4X	4X	12.7	17	25	70.5	M22*0.75
BE-10.6-D20:72-5X	5X	12.7	20	25	72.0	M30*1
BE-10.6-D27:75.8-6X	6X	12.7	27	32	75.8	M22*0.75
BE-10.6-D27:71-8X	8X	12.7	27	32	71.0	M22*0.75









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非专业人士勿动。

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TRIOPTICS







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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 : **Camnan 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. Bayraktar*  
UDM 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 notified in case of any changes on the product(s)  
Address: Mulkikent 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:91320594MA1MF4EP56  
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>)

ISO 9001

ISO 9001



Beijing Zhongliantianrun Certification Center

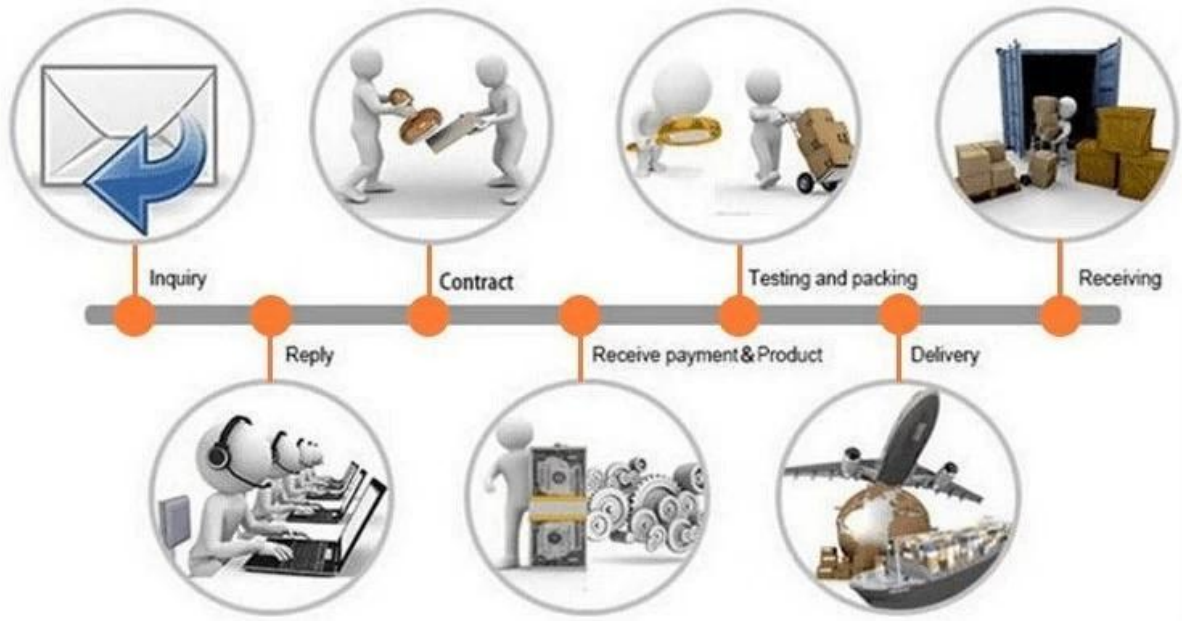
Room2603, 22nd Floor, 2nd Unit, Block 1, No.4 Yard, Qiyang Road, Chaoyang District, Beijing, P.R. China 100102

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>)



## Packing List





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- .... (1 ...)
- . ... (2 ...)
- . ... (3 ...)
- . ... (4 ...).

...

- (1) ... dhl, ups, tnt, ems ...
- (2) ... EXW, FOB, CNF, CIF ...

## FAQ

Q1. ...

A1: ...

Q2. How ...

A2: ...

Q3. How ...

A3: ...

Q4. How ...

A4: ...

Q5. May ...

A5: ... !

q6. can ...

A6: ...

Q7. How ... OEM ... ODM

A7: ... OEM / ODM ORDerS. ...

q8. ...

A8: ... T / T ...