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Carmanhaas. □□ □□□ □□ □□ □□ □□ □□□□□ □□□ □□ □□ □□ □ □□□ □□□□ □□ □ □ □□□□. QBH □□, Galvo □□□, F-Theta □□ □□ □ □□ □□□□ □□□□□. □□□ □□ □□ □□□ □□□ □□ □□□□□ □□□ □ □□ □.

□□ □□□ □□ □□ □□ □□ Galvo □□□ □□ □□□ PSH10, PSH14, PSH20 □ PSH30□□□.

PSH10 □□ **-** □□ □□, □□ □ - □□□, □□□, □□, □□, □□□□□, □□□ □□ (3D □□), □□ □□□, □□ □□ □□ □□ □□ □□ □□□ □□□ □□□□□□

PSH14-H □ □□ □□ **-** 200W□□ 1kw (CW)□□□ □□□ □□□ □□; □□□ □□ □ □□ □□□ □ □□; □□ □□□ □□, □ □□ □□ □□□ □□□□ □ □□ □□□□□. □□□ □□ (3D □□), □□□ □□ □

PSH20-H □□□ □□ **-** 300W ~ 3kW (CW) □□□ □□□ □□; □□□ □□ □ □□ □□□ □ □□; □□ □□□ □□, □ □□ □□ □□□ □□□□ □□□ □ □□□□. □□□ □□ (3D □□), □□□ □□ □

PSH30-H □□□ □□ **-** 2KW□□ 6KW (CW) □□□ □□□ □□□ □□; □□□ □□ □ □□ □□□ □ □□; □□ □□ □□□ □□, □□ □□ □□□□□ □□□ □□ □□□□□. □□ □□, □□□ □□.

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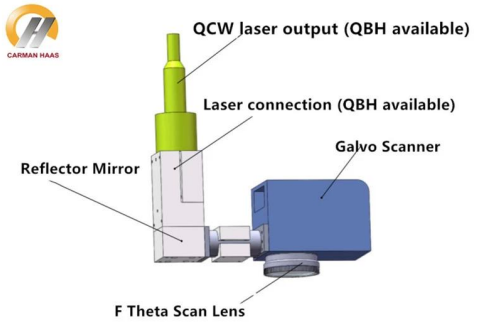
1. extriely □□ □□□□ (≤3urad / ℃); 8 □□ □□ □□ □□□ □□□□ ≤30 □□□
2. □□ □□□ □ □□□; □□□ ≤1 URAD; □□□ ≤ 2 Urad.
3.Super □□ :
PSH10 : 17m / S.
PSH14 : 15m / S.
PSH20 : 12M / S.
PSH30 : 9m / S.


CARMAN HAAS
QCW laser output (QBH available)
Laser connection (QBH available)
Galvo Scanner
Reflector Mirror
F Theta Scan Lens


CARMAN HAAS


CARMAN HAAS


CARMAN HAAS


CARMAN HAAS

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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/℃	≤ 3 urad/℃	≤ 3 urad/℃	≤ 3 urad/℃
Qver 8hours Long-Term Offset Drift （After 15min warn-up）	≤ 30 urad	≤ 30 urad	≤ 30 urad	≤ 30 urad
Operating Temperature Range	25℃±10℃	25℃±10℃	25℃±10℃	25℃±10℃
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

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(2) f-theta objective f = 163mm. □□ □□ □□ □□ □□ □□□ □□ □□□□.
(3) 1mm □□□ □□ □□□□ □□.

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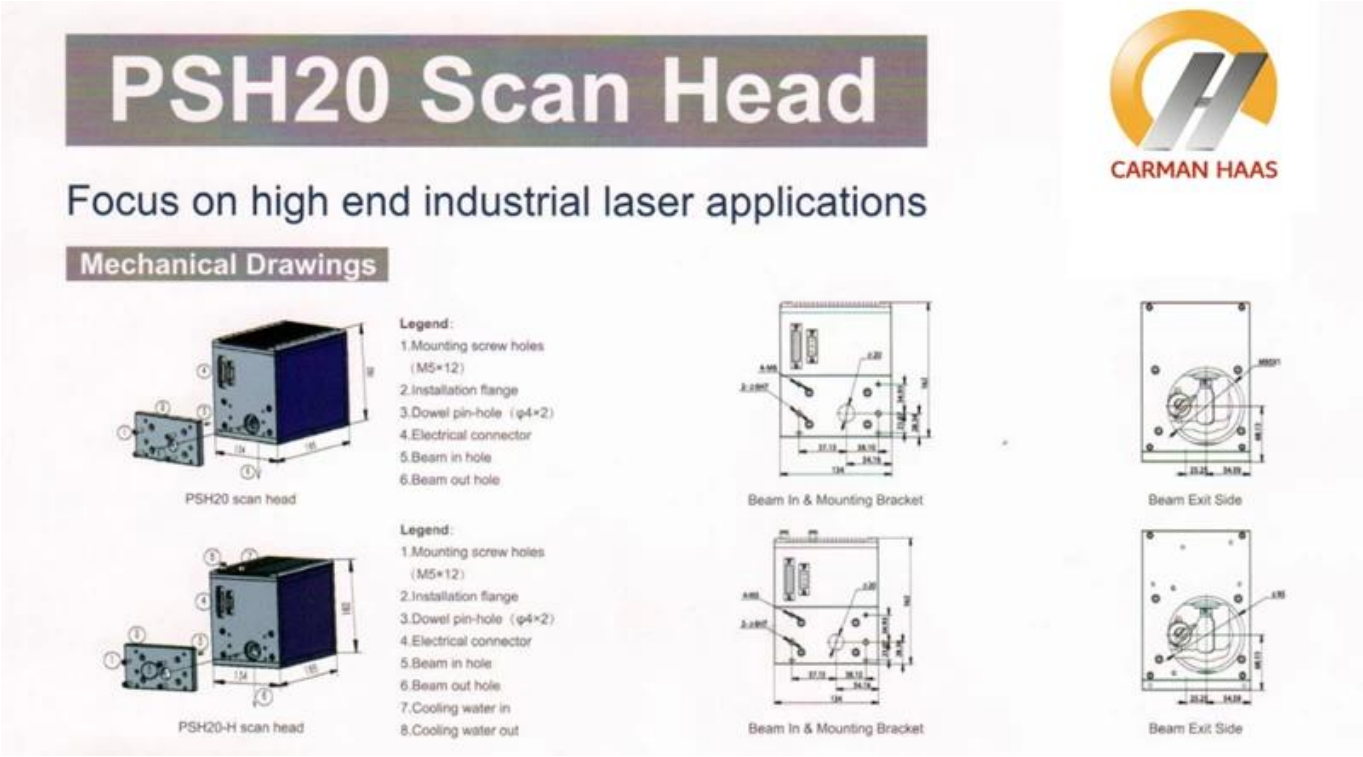

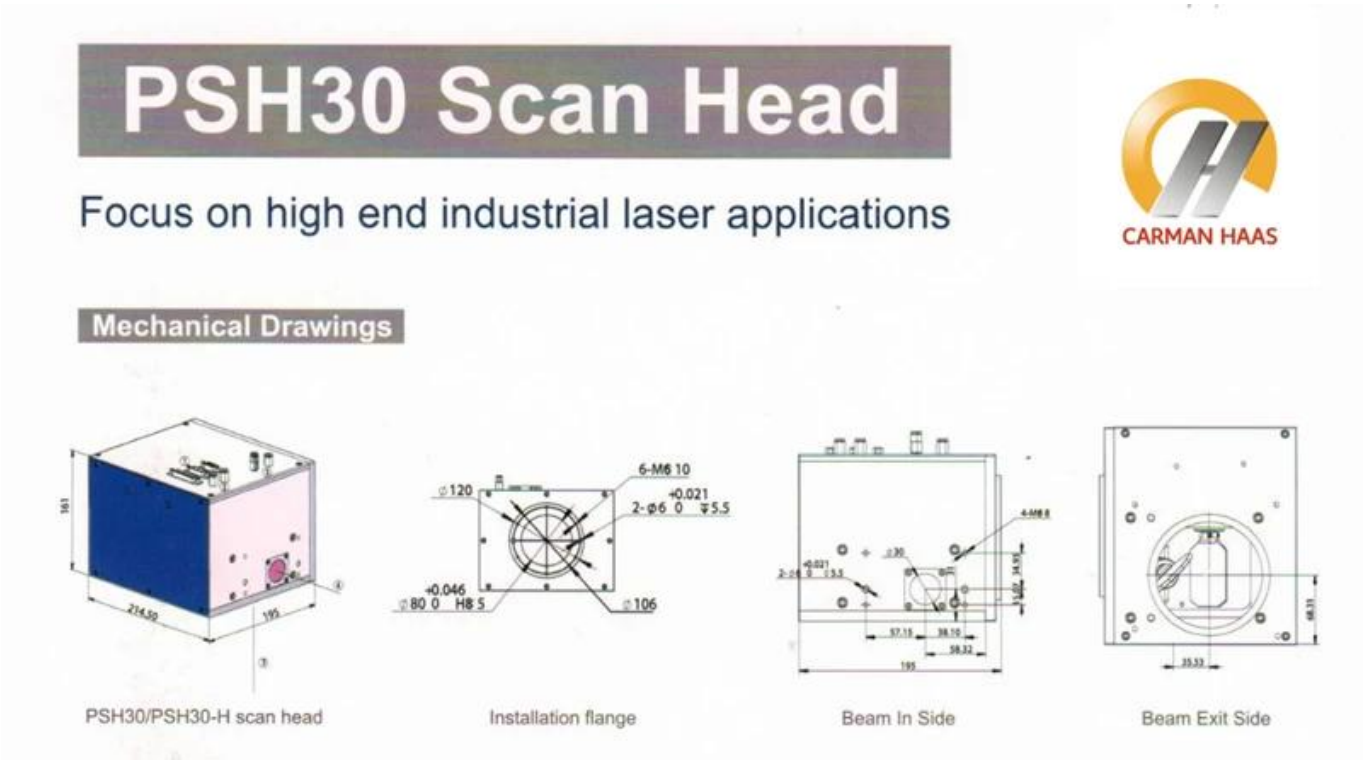

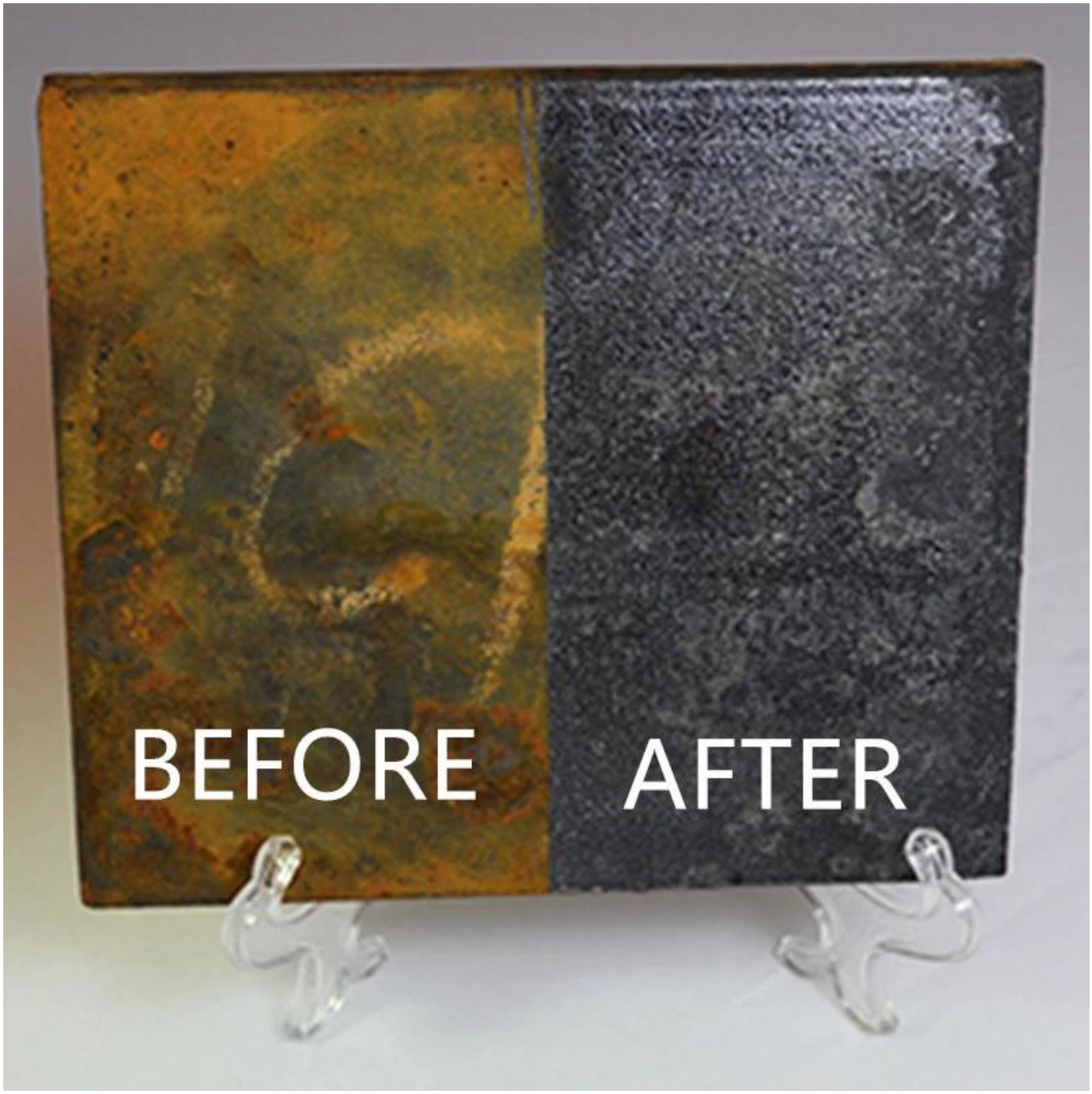
BEFORE
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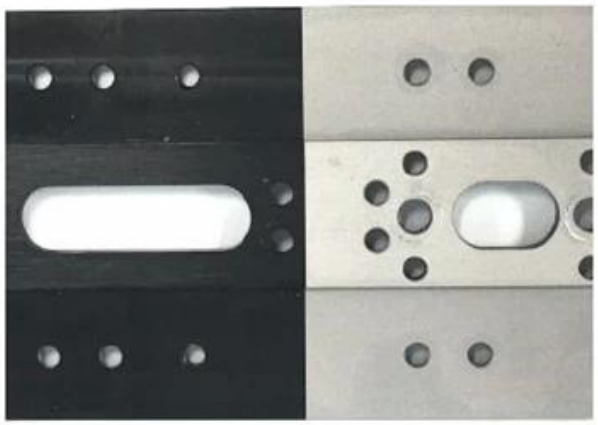

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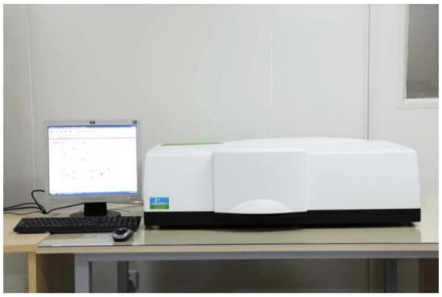
BEFORE AFTER

TRIOPTICS OptiSpheric 2000 AF

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



PerkinElmer Lambda 950---Testing Transmission and Reflectivity

Carmanhaas Coating Machine

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 Accredited CCN

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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Messe München
LASER PHOTONICS INDIA
卡门哈斯


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Brazil
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Russia
RAYLOGIC
YAROV
INTERNATIONAL PAVILION
CARMAN HAAS LASER
L-46
CARMAN HAAS LASER TECHNOLOGY CO., LTD.

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Inquiry
Contract
Testing and packing
Receiving
Reply
Receive payment & Product
Delivery


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WORLDWIDE EXPRESS
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Q1. □□□□□□□?

A1 : □, □□□ □□ □□□ □□ □ □□ □□□ □□ □□□□□ □□ □ □□□□□□□.

Q2. □□□ □□□ □□□□□?

A2 : □□□ □□□□ QC □□ □□ □□□ □□□ □□□□ □□ □□ □, □□ □□ □ □□□ □□□□ □□□ □□□ □□□□□□.

Q3. □□□ □□□□□□?

A3 : □□□ □□ □□□□ □□ □□□□ □□ □□□□□ □□□ □□□□□.

Q4. □□□ □□□ □□□ □□□□□?

A4 : □□□ □□□□□ □□ □□ □□ □□□□ □□ □□□ □□ □□, □□, □□ □□ □ □□ □□□□□. □□□□□.

Q5. May MARKING □□□ □□□□□ □□ □□□ □□□ □?

A5 : □! □□□ □□□ □□□ □□□□ □□□□□ □□ □□□ □□ □□ □ □□□□.

Q6. □□□ □□ □ □ □□□□?

A6 : □, □□□ □□□ □□□ □□□ □□□ □□□□ □□ □□□□□.

Q7. OEM □□ ODM □□□ □□□ □ □ □□□□?

A7 : □□ OEM / ODM ORD□ □□ □□ □□□ □□ers. □□□ □□□□ □□□□□ □□□□ □□ □□ □□□□□□.

Q8. □□□ □□□ □□□□□□□?

A8 : □ □□□ □□□ □□□ □□ □□ □ MOQ□ □□□ □□□ T / T□ □□ □ □ □□□□.