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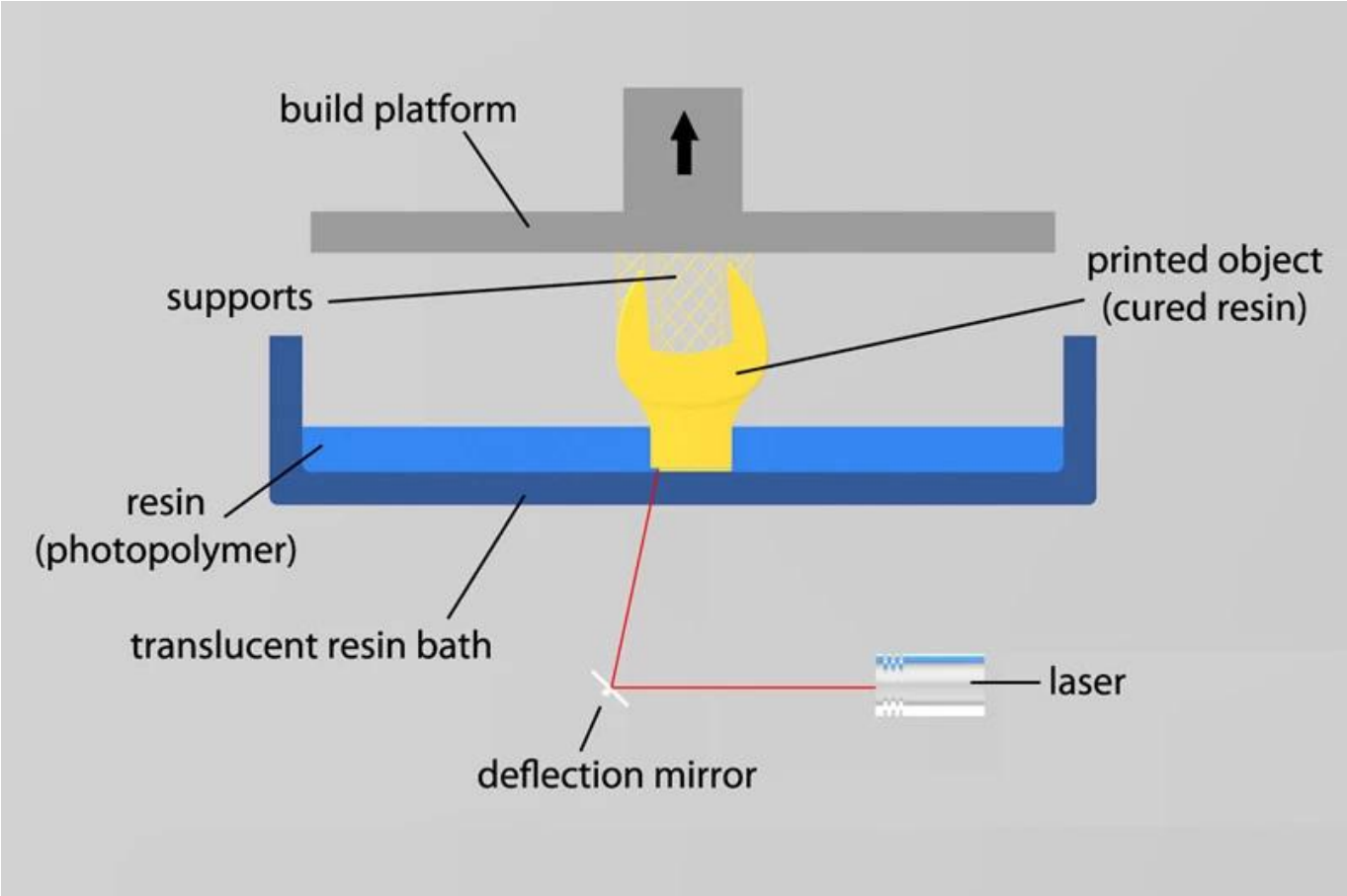
SLA (Stereolithography)□ UV □□□□ □ □□□ □□ □□ □□□ □□□□□ □□□□ □□ □□ □□□□□. □□□ □□ □□ □□ □□□ □□ □□ (CAM / CAD) □□□□□□ □□□□ UV □□□□ □ □□□ □□ □□□ □□ □□□□□ □ □□□ □□ □□□ □□□ □ □□□□□. □ □□□□ □□□□ □□□□□, □□□ □ □□ □□□ □□□□ □□□ 3D □□□ □□ □□ □□□□. □ □□□□□ 3D □□□ □□ □ □□□ □□□□ □ □□□□ □□ □□□□□.

CARMANHAAS□ □□□□ □□ □□□ □□□ □ F-THETA □□ □□, □ □□□□, □□ □□ □□□ □□ □□□□ □□ □ □ □□□□.□□□ □□ □□)


build platform
supports
printed object
(cured resin)
resin
(photopolymer)
translucent resin bath
laser
deflection mirror

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355nm □□ □□□ □□

Model	PSH14-H	PSH20-H	PSH30-H
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
Typical Speed			
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
Precision			
Linearity	99.9%	99.9%	99.9%
Resolution	≤ 1 urad	≤ 1 urad	≤ 1 urad
Repeatability	≤ 2 urad	≤ 2 urad	≤ 2 urad
Temperature Drift			
Offset Drift	≤ 3 urad/℃	≤ 3 urad/℃	≤ 3 urad/℃
Qver 8hours Long-Term Offset Drift （After 15min warn-up）	≤ 30 urad	≤ 30 urad	≤ 30 urad
Operating Temperature Range	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
Input Power Requirement (DC)	±15V@ 4A Max RMS	±15V@ 4A Max RMS	±15V@ 4A Max RMS

355nm F □□ □□

Part Description	Focal Length (mm)	Scan Field (mm)	Max Entrance Pupil (mm)	Working Distance(mm)	Mounting Thread
SL-355-360-580	580	360x360	16	660	M85x1
SL-355-520-750	750	520x520	10	824.4	M85x1
SL-355-610-840-(15CA)	840	610x610	15	910	M85x1
SL-355-800-1090-(18CA)	1090	800x800	18	1193	M85x1

355nm □ □□□□

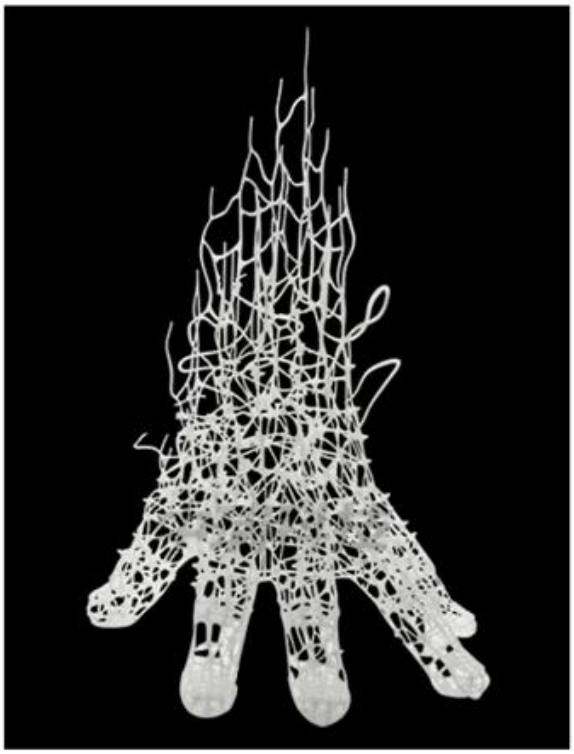
Part Description	Expansion Ratio	Input CA (mm)	Output CA (mm)	Housing Dia(mm)	Housing Length(mm)	Mounting Thread
BE3-355-D30:84.5-3x-A(M30*1-M43*0.5)	3X	10	33	46	84.5	M30*1-M43*0.5
BE3-355-D33:84.5-5x-A(M30*1-M43*0.5)	5X	10	33	46	84.5	M30*1-M43*0.5
BE3-355-D33:80.3-7x-A(M30*1-M43*0.5)	7X	10	33	46	80.3	M30*1-M43*0.5
BE3-355-D30:90-8x-A(M30*1-M43*0.5)	8X	10	33	46	90.0	M30*1-M43*0.5
BE3-355-D30:72-10x-A(M30*1-M43*0.5)	10X	10	33	46	72.0	M30*1-M43*0.5

355nm □□

□□ □□	□□eter (mm)	□□ (mm)	□□
355 □□	30	□	HR @ 355nm, 45 ° AOI
355 □□	20	5	HR @ 355nm, 45 °□□□
355 □□	30	5	HR @ 355nm, 45 °□□□

3D □□ □□ □□ □□

PHYSICAL CHARACTERISTICS (LIQUID STATE)	Appearance: White liquid Density: 1.10 g/cm³ @25℃ Viscosity: 450 CPS @25℃ Dp: ≥0.16 mm Ec: 8.5 mJ/cm²
MOLDING PERFORMANCE A MOLDING PERFORMANCE @355nm point laser @330mW power @5.0m/s scanning @No UV post-cure	Bending Modulus: 1500~1700 MPa Bending Strength: 55~60 MPa Notched Impact Strength: 60~68 J/m 1.2mm Bend Angle: 140~170°
MOLDING PERFORMANCE B MOLDING PERFORMANCE @90min UV post-cure	Bending Modulus: 2688~2790 MPa Bending Strength: 66~73 MPa Notched Impact Strength: 60~68 J/m Hardness: 88 Elongation at break: 10~15% HDT Heat deflection temperature: 52 ℃ Tg Glass transition temperature: 62 ℃ CTE Coefficient of thermal expansion: 93*E-6



PHYSICAL CHARACTERISTICS
(LIQUID STATE)

Appearance: White liquid
Density: 1.10 g/cm³ @25℃
Viscosity: 400 CPS @25℃
Dp: ≥0.16 mm
Ec: 7.9 mJ/cm²

MOLDING PERFORMANCE A

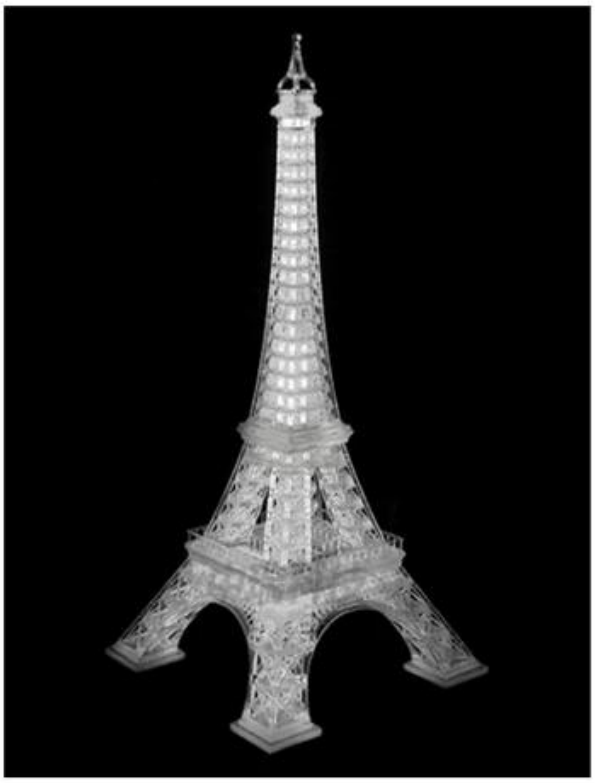
MOLDING PERFORMANCE
@355nm point laser
@330mW power
@5.0m/s scanning
@No UV post-cure

Bending Modulus: 2000~2300 MPa
Bending Strength: 75~85 MPa
Notched Impact Strength: 35~45 J/m
1.2mm Bend Angle: ≥170~180°

MOLDING PERFORMANCE B

MOLDING PERFORMANCE
@90min UV post-cure

Bending Modulus: 2813~3520 MPa
Bending Strength: 83~90 MPa
Notched Impact Strength: 42~50 J/m
Hardness: 87~92
Elongation at break: 13~20%
HDT Heat deflection temperature: 52 ℃
Tg Glass transition temperature: 62 ℃
CTE Coefficient of thermal expansion: 93*E-6



PHYSICAL CHARACTERISTICS
(LIQUID STATE)

Appearance: Transparent liquid Pale Purple
Density: 1.10 g/cm³ @25℃
Viscosity: 190 CPS @25℃
Dp: ≥0.18 mm
Ec: 6.9 mJ/cm²

MOLDING PERFORMANCE A

MOLDING PERFORMANCE
@355nm point laser
@150mW power
@5.0m/s scanning
@No UV post-cure

Appearance: High Transparency
Transmittance: 85% (MAX)
Bending Modulus: 1500~1700 MPa
Bending Strength: 45~55 MPa
Notched Impact Strength: 25~35 J/m
1.2mm Bend Angle: 140~170°

MOLDING PERFORMANCE B

MOLDING PERFORMANCE
@90min UV post-cure

Bending Modulus: 1890~2340 MPa
Bending Strength: 55~62 MPa
Notched Impact Strength: 40~55 J/m
Hardness: 79
Elongation at break: 10~15%
HDT Heat deflection temperature: 52 ℃
Tg Glass transition temperature: 62 ℃
CTE Coefficient of thermal expansion: 93*E-6

Real ABS (ABS Like)

PHYSICAL CHARACTERISTICS
(LIQUID STATE)

Appearance:	Bright yellow liquid
Density:	1.10 g/cm³ @25℃
Viscosity:	400 CPS @25℃
Dp:	≥0.16 mm
Ec:	7.9 mJ/cm²

MOLDING PERFORMANCE A
MOLDING PERFORMANCE
@355nm point laser
@330mW power
@5.0m/s scanning
@No UV post-cure

Bending Modulus: 2000~2300 MPa
Bending Strength: 75~85 MPa
Notched Impact Strength: 35~45 J/m
1.2mm Bend Angle: ≥170~180°

MOLDING PERFORMANCE B
MOLDING PERFORMANCE
@90min UV post-cure

Bending Modulus: 2813~3520 MPa
Bending Strength: 83~90 MPa
Notched Impact Strength: 42~50 J/m
Hardness: 87~92
Elongation at break: 13~20%
HDT Heat deflection temperature: 52 ℃
Tg Glass transition temperature: 62 ℃
CTE Coefficient of thermal expansion: 93*E-6

Red Wood (Tooling Board Like)

PHYSICAL CHARACTERISTICS
(LIQUID STATE)

Appearance:	Epoxy Tooling Board Like (Pink) liquid
Density:	1.10 g/cm³ @25℃
Viscosity:	400 CPS @25℃
Dp:	≥0.16 mm
Ec:	7.9 mJ/cm²

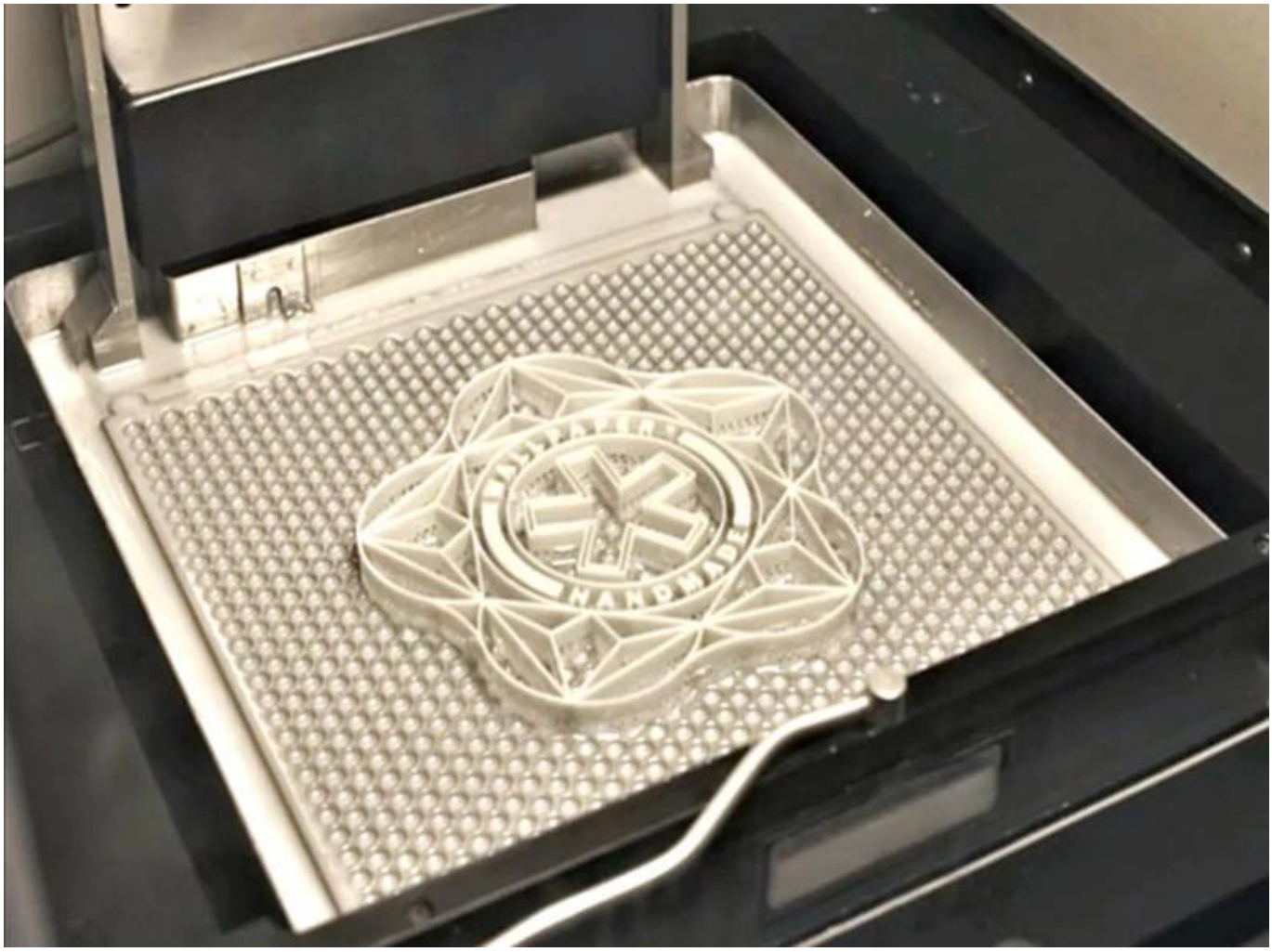
MOLDING PERFORMANCE A
MOLDING PERFORMANCE
@355nm point laser
@330mW power
@5.0m/s scanning
@No UV post-cure

Bending Modulus: 2000~2300 MPa
Bending Strength: 75~85 MPa
Notched Impact Strength: 35~45 J/m
1.2mm Bend Angle: ≥170~180°

MOLDING PERFORMANCE B
MOLDING PERFORMANCE
@90min UV post-cure

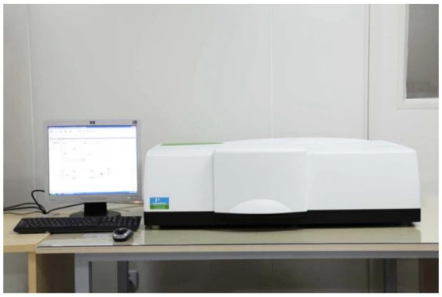
Bending Modulus: 2813~3520 MPa
Bending Strength: 83~90 MPa
Notched Impact Strength: 42~50 J/m
Hardness: 87~92
Elongation at break: 13~20%
HDT Heat deflection temperature: 52 ℃
Tg Glass transition temperature: 62 ℃
CTE Coefficient of thermal expansion: 93*E-6

Desktop FDM
Industrial FDM
Desktop SLA
Industrial SLA
Industrial SLS


HANDY SIDE

TRIOPTICS OptiSpheric 2000 AF

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



PerkinElmer Lambda 950---Testing Transmission and Reflectivity

Carmanhaas Coating Machine

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

SERIGRAFIA
SIGN
FUTURETEXTIL
Brazil
CARMAN HAAS LASER
1-121
CARMAN HAAS Laser
Technology (Suzhou) Co., Ltd.
4116
Laser Korea 2019

MAKTEK
eurasia
Turkey
SIGNiSTANBUL
PEKLAMA
Russia
RAYLOGIC
YAROV
INTERNATIONAL PAVILION
CARMAN HAAS LASER
L-46
CARMAN HAAS LASER TECHNOLOGY CO., LTD.

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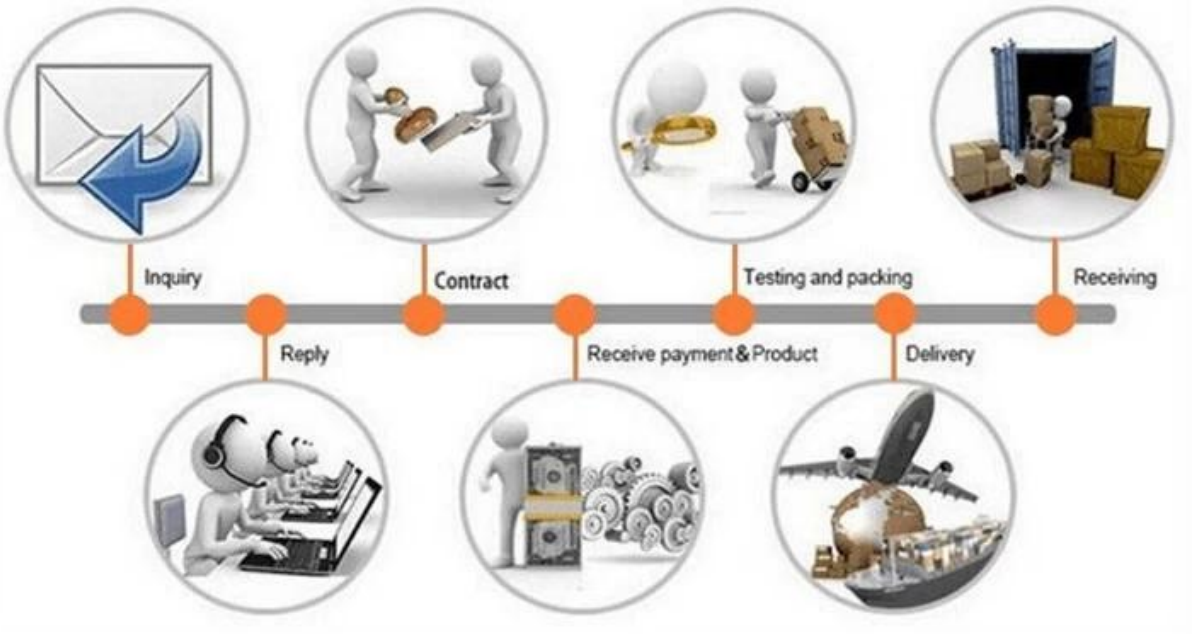
Inquiry
Contract
Testing and packing
Receiving
Reply
Receive payment & Product
Delivery

DHL
WORLDWIDE EXPRESS
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EMS
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(1) □□□ □□ □□ □□, □□ DHL, UPS, □□□, TNT, EMS, ets

(2)□ □□ □□□ □□ □□ □□, □ □□ □□ □□ □ □□ □ □ □□ FOB, CNF, CIF □□ □□ □□ □□ □□ □□ □ □□ □□□ □□□ □□□ □□ □□ □.

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Q1. □□□□□□□□?

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

Q2. □□□ □□□ □□?

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

Q3. □□□ □□?

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

Q4. □□□□ □□?

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

Q5. □□ □□□ □□□□□ □□ □□□ □□ □ □□□□?

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

Q6. □□□ □□ □ □ □□□□?

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

Q7. □□□ OEM □□ ODM □□?

A7 : □□□ □□ □□ □□ □□ OEM / ODM orders. □□□ □□□□ □□□□□ □□ □□□□ □□□□□□.

Q8. □□ □□□ □□□ □□□□□?

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