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SLM□ □□□ □□ □□□□ 3D □□□ □□ □ □□□□ □□ □□□ □□□ □ □□ □□□ □□ □□□□□. □□ □□□ □□ □□□ □□□ □□□ □□□□□□. □□ □□□ □□□□ □□ □□□ □□ □□ □ □□ □□□ □□□ □□□□.

CARMANHAAS□ □□□□ QBH □□ □□, □□□ □□□ □ F-THETA □□ □□, □ □□□□, □□ □ □□ □□□□ □□ □□□□ □□□□ □□ □ □ □□□ □. □□□ 1000W (□□ □□ □□□)□ □□ □ □ □□□□.

□□ :

(1) □□ □□ 1KW□□ □□;

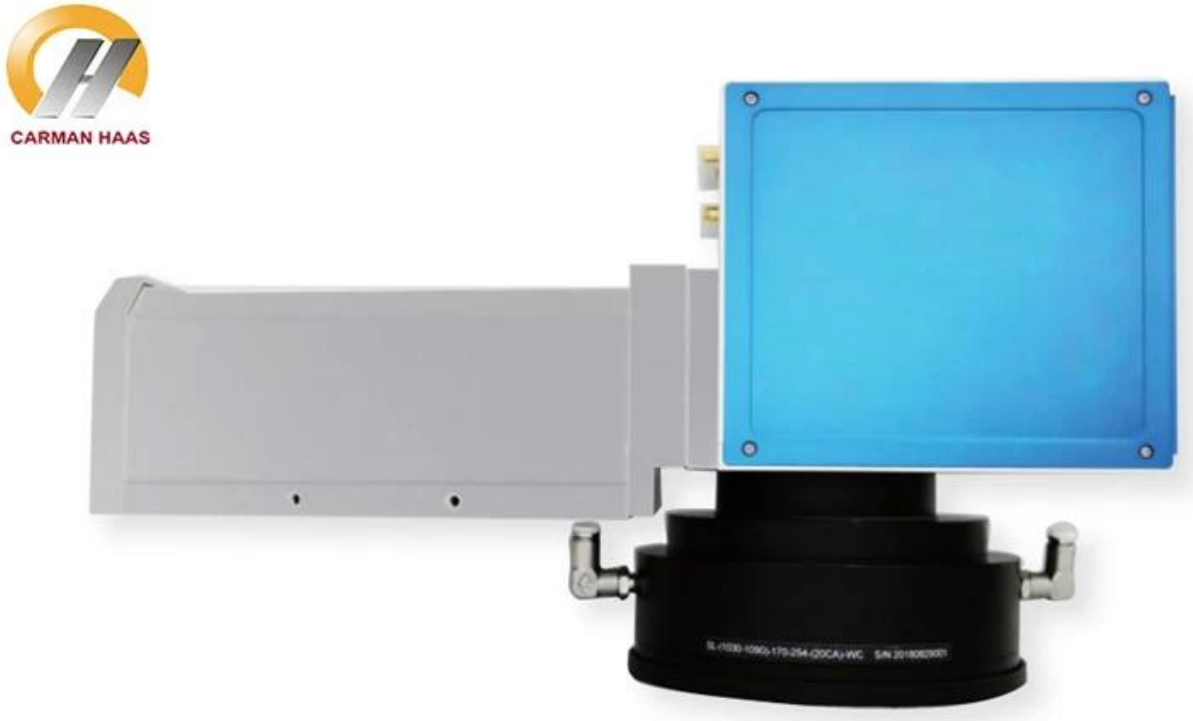
(2) □□ □□□, □□ □□□□;

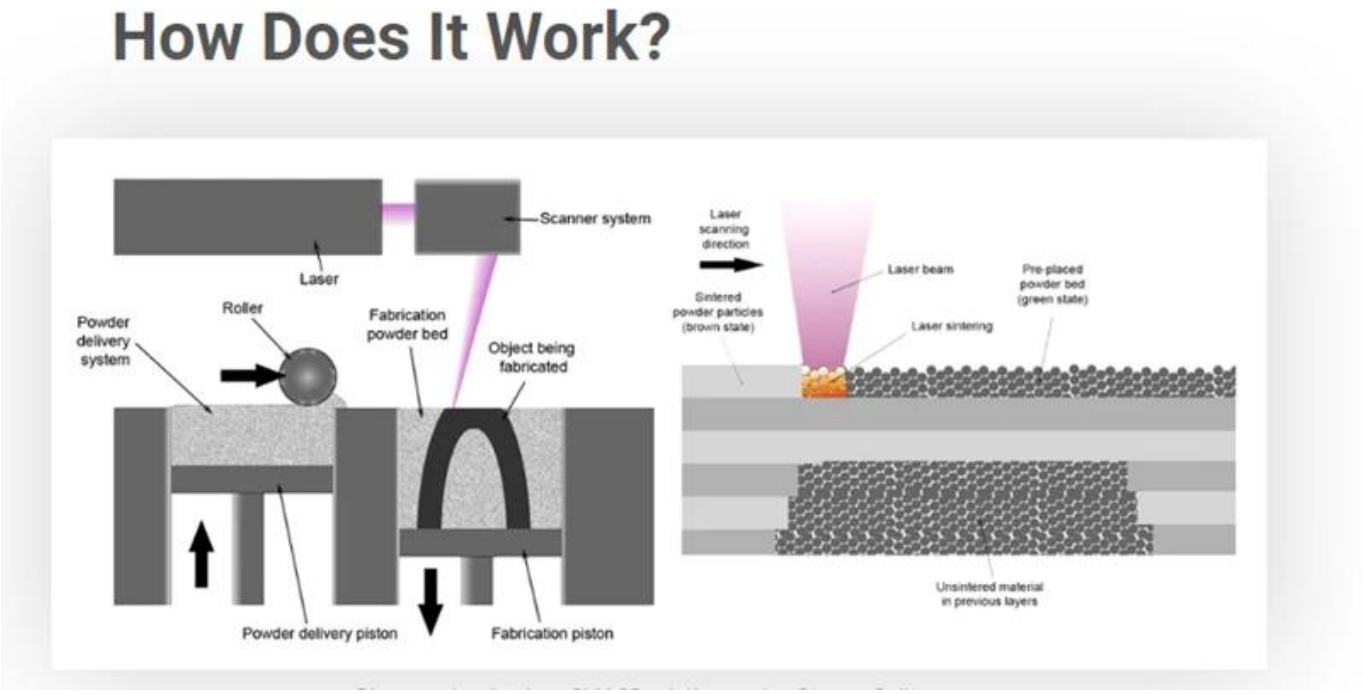
(3) □□ □□ □□ □□□ □□ 5000mm / s□□□.

(4) 1um□□□ □□□□□ □□□ □□ □□.

QBH □□ □□ □□□□ □□


CARMAN HAAS


CARMAN HAAS



□□□ □ □□ □□ :

1030-1090nm Galvo □□□ □□

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
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

1030-1090nm F □□ □□

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 □ □□□□

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 □□ □

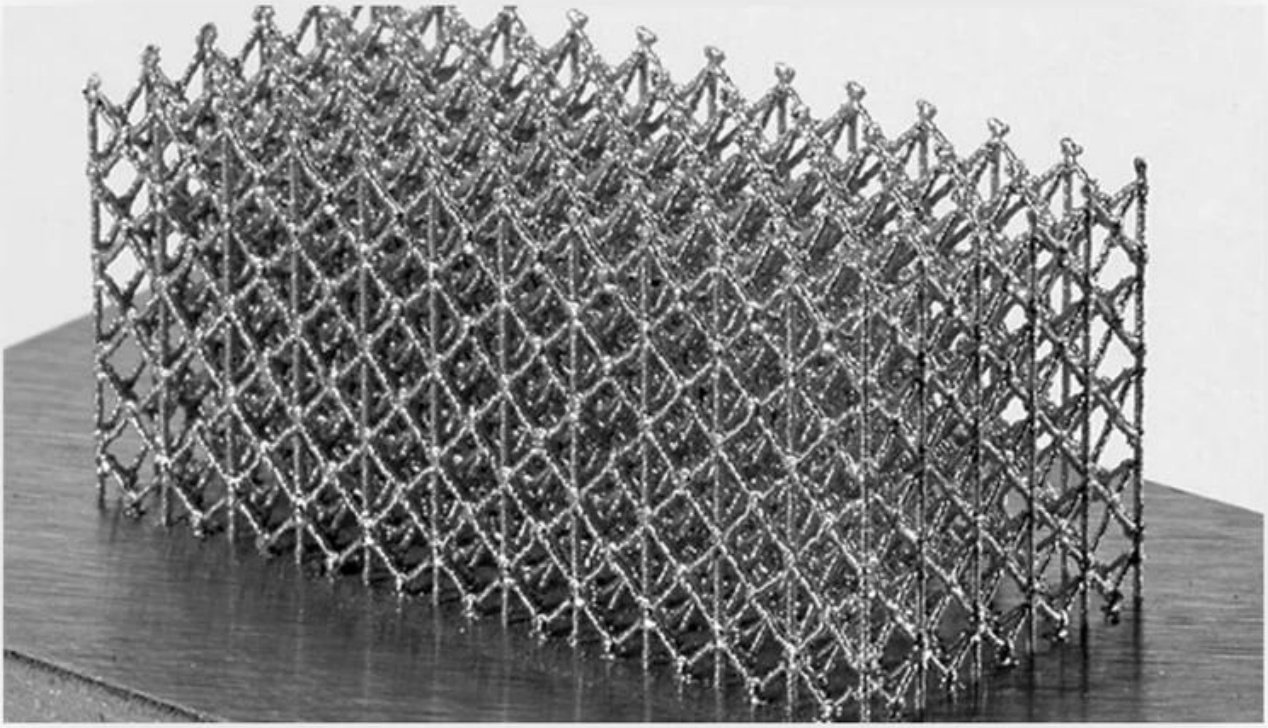
□□ □□	□□ (mm)	□□ (mm)	□□
□□ □	98	4	AR / AR @ 1030-1090nm
□□ □	113	5	AR / AR @ 1030-1090nm
□□ □	120	5	AR / AR @ 1030-1090nm
□□ □	160	8	AR / AR @ 1030-1090nm

1030-1090nm QBH □□ □□ □□

□□ □□	□□ □□ (mm)	□□□ □□□ (mm)	NA	□□
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

SELECTIVE LASER MELTING (SLM)

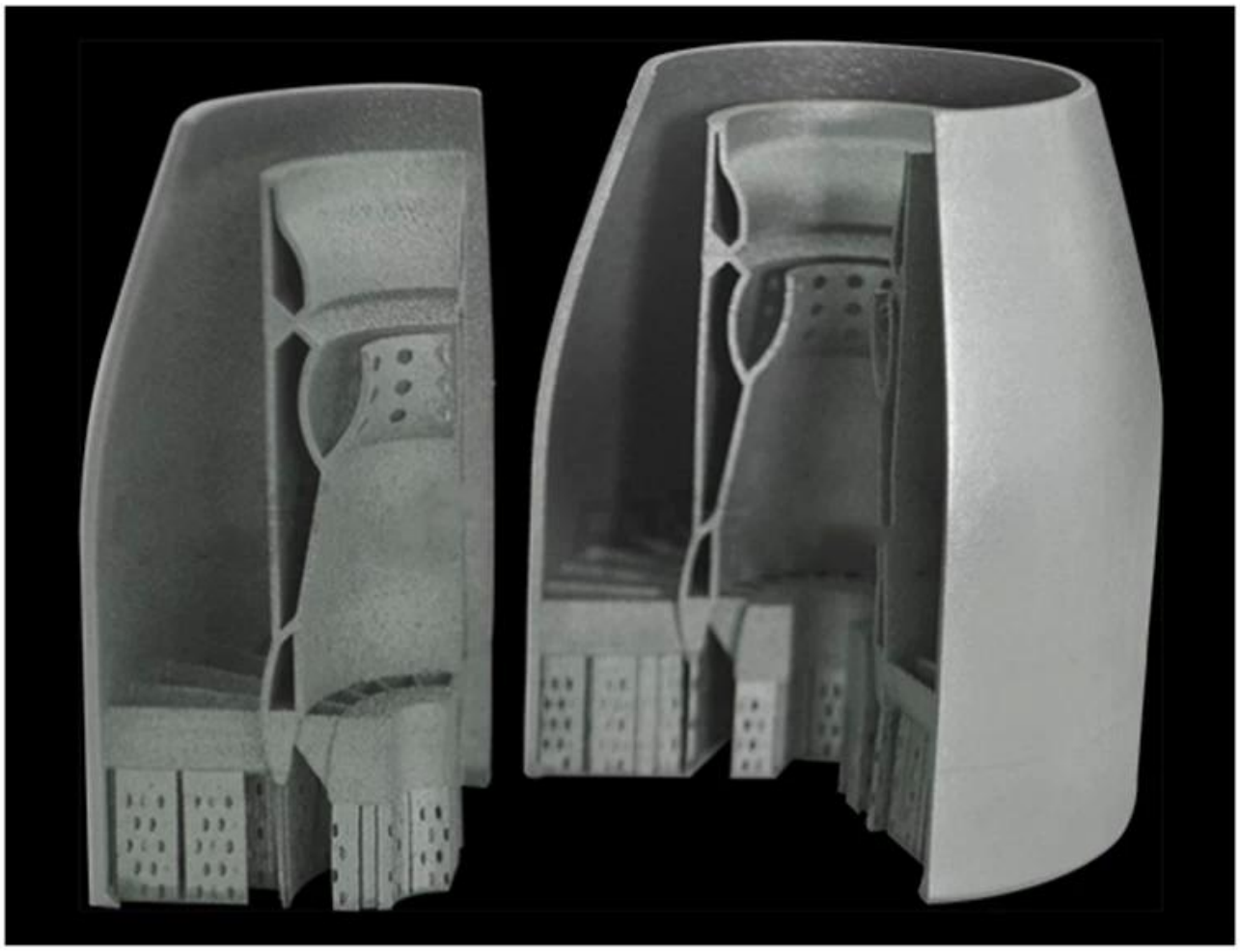
Pros and Cons



Stainless Steel

Die Steel

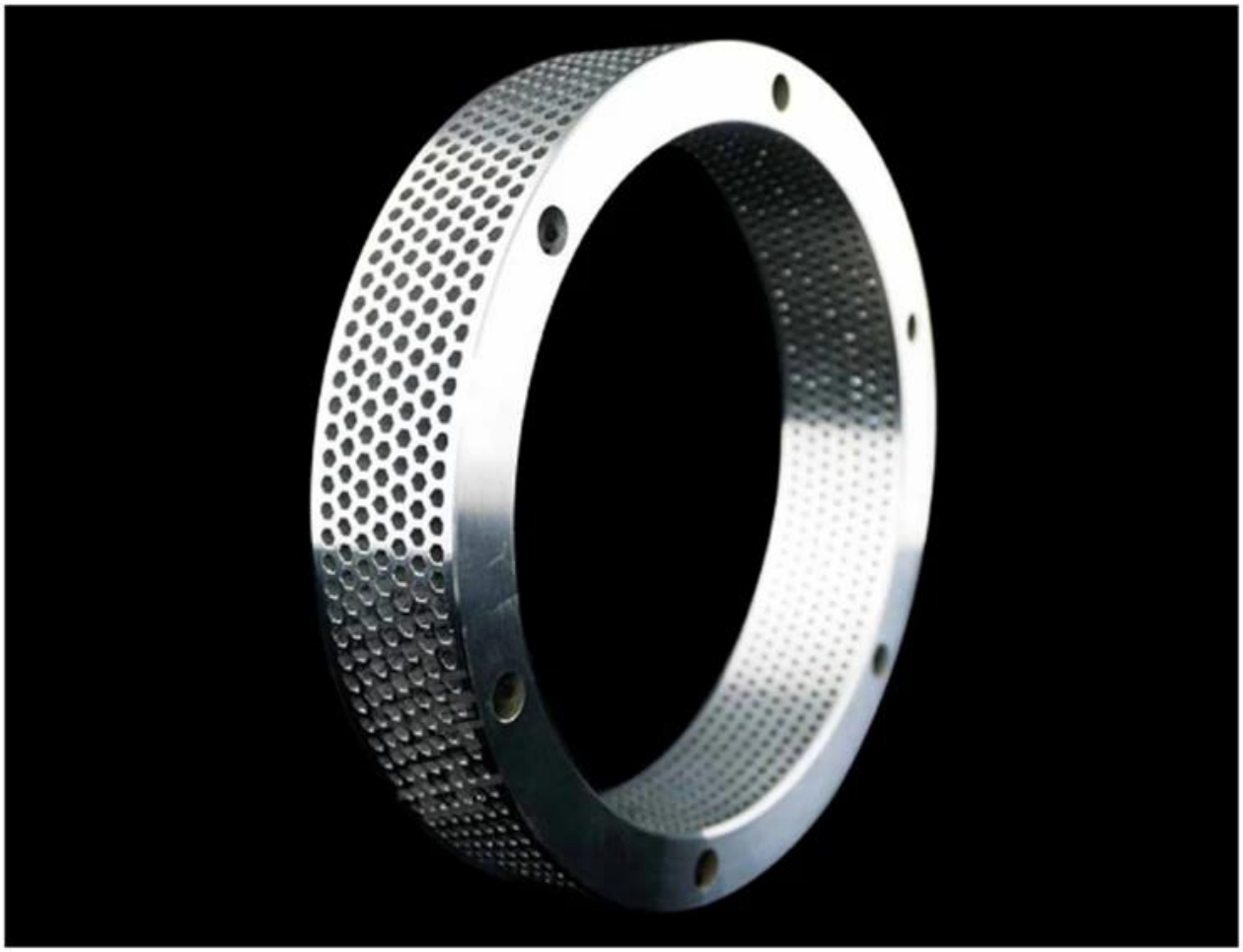
Titanium Alloy



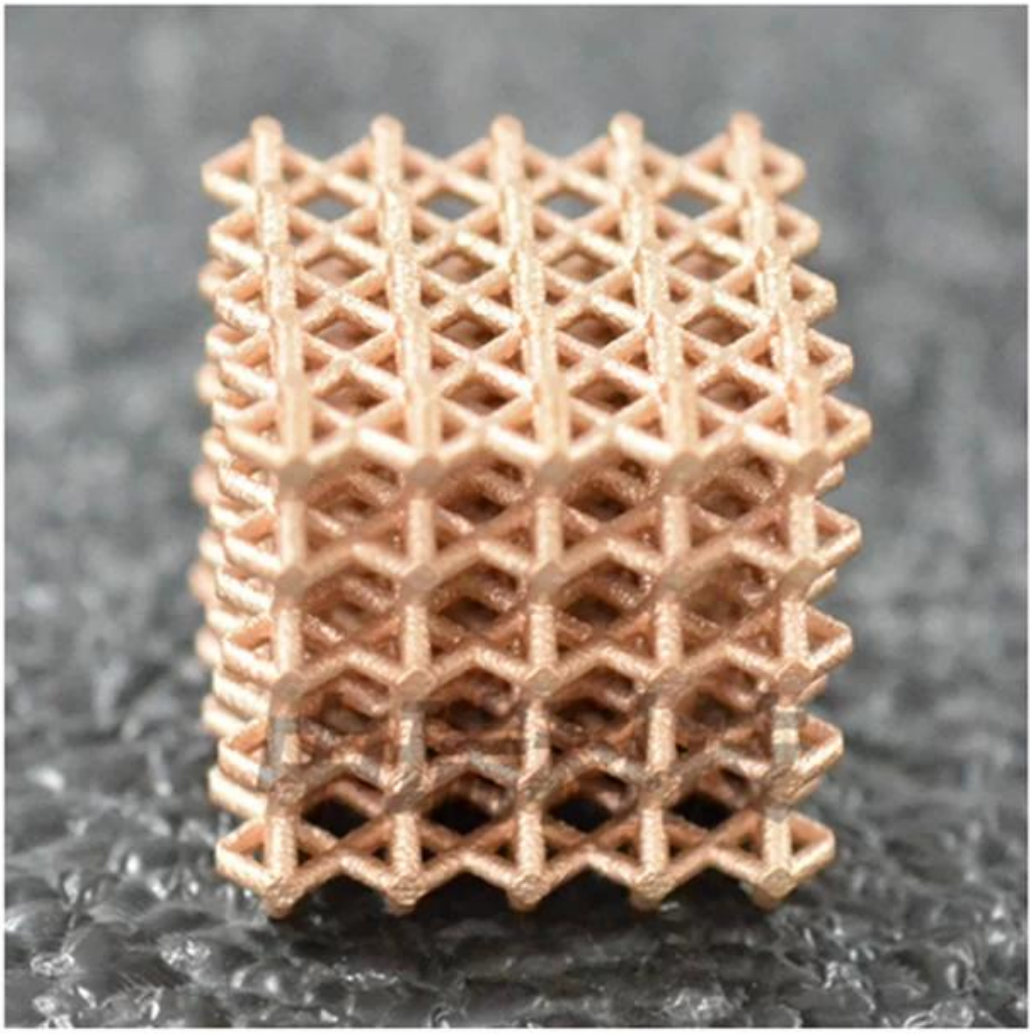
Aluminium Alloy ($AlSi_{10}Mg$)

Co-Cr Alloy (MP1)

Ni-base Superalloy

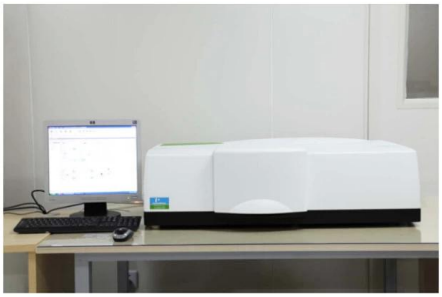


Chromium Bronze (QCr1)



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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CARMAN HAAS LASER
L-46
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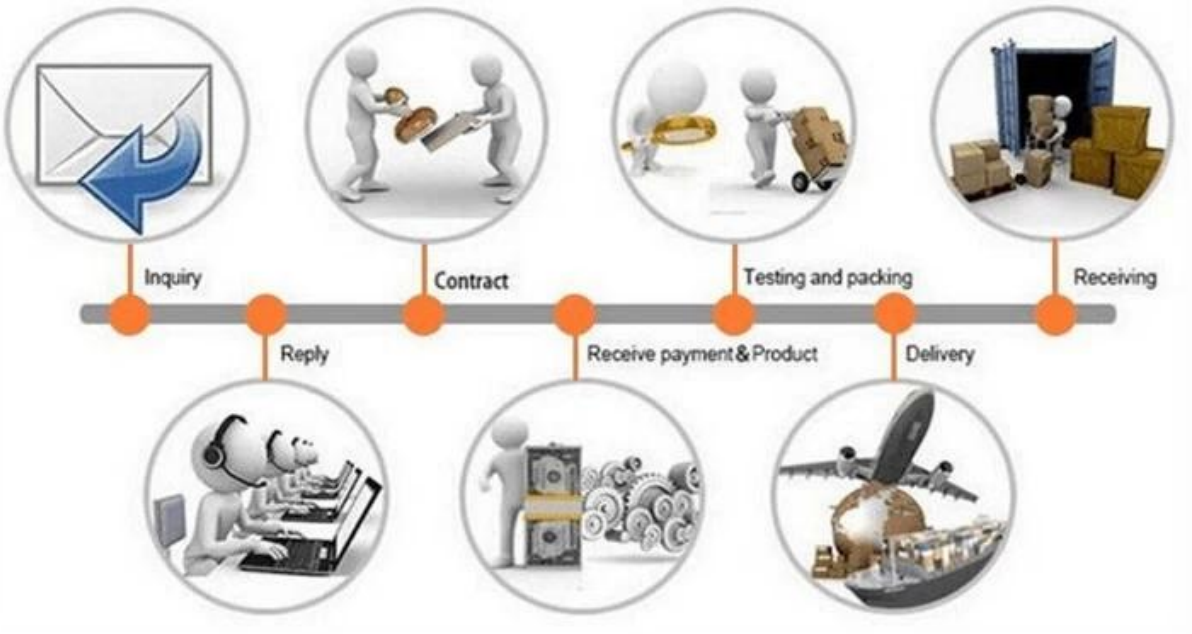
Inquiry
Contract
Testing and packing
Receiving
Reply
Receive payment & Product
Delivery


DHL
WORLDWIDE EXPRESS
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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 □ □□.