Carmanhaas Laser Welding Factory China offer professional laser optical system with galvo scan laser processing. The entire system is a separate functional module that enables plug-and-play functionality. Processing by galvanometer scanning, mainly include: QBH collimation module / beam expander, galvanometer system, F-theta scan lens, in which QBH collimation module / beam expander realizes shaping of light source (diverging parallel or small spot becomes large spot), the galvanometer system realizes beam .

### Advantage:

(1)Material is Fused silica;

(2)High damage threshold coating (damage threshold: 40 J/cm2, 10 ns);

Coating absorption <20 ppm. Ensure that the scan lens can be saturated at 8KW;

(3)Optimized index design, collimation system wavefront  $< \lambda/10$ , ensuring diffraction limit;

(4)Optimized for heat dissipation and cooling structure, ensuring no water cooling below 1KW, temperature <50 °C when using 6KW;

(5)With a non-thermal design, the focus drift is <0.5mm at 80 °C;

(6) Welding F Theta Lenses Factory China Carmanhaas Complete range of specifications, customers can be customized.





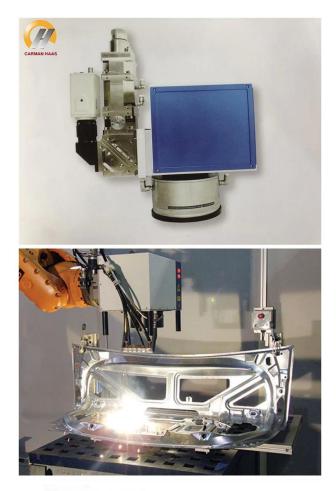
### **Technical Parameters:**

# 1030-1090nm F-Theta Lenses

Part Description	Focal Length (mm)	Scan Field (mm)	Max Entrance Pupil (mm)	Working Distance(mm)	Mounting Thread
SL-1064-100-170-(14CA)	170	100x100	14	215	M79x1/M102x1
SL-(1030-1090)-150-210-(15CA)	210	150x150	15	269	M79x1/M102x1
SL-(1030-1090)-175-254-(15CA)	254	175x175	15	317	M79x1/M102x1
SL-(1030-1090)-90-175-(20CA)	175	90x90	20	233	M85x1
SL-(1030-1090)-160-260-(20CA)	260	160x160	20	333	M85x1
SL-(1030-1090)-100-254-(30CA)-M102*1-WC	254	100x100	30	333	M102x1/M85x1
SL-(1030-1090)-180-348-(30CA)-M102*1-WC	348	180x180	30	438	M102x1
SL-(1030-1090)-180-400-(30CA)-M102*1-WC	400	180x180	30	501	M102x1
SL-(1030-1090)-250-500-(30CA)-M112*1-WC	500	250x250	30	607	M112x1/M100x1

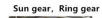
# **QBH Collimation Module**

Part Description	Focal Length (mm)	Clear Aperture (mm)	Max NA	Coating
CL2-(900-1100)-30-F60-QBH-A-WC	60	28	0.22	AR/AR@1030-1090nm
CL2-(900-1100)-30-F100-QBH-A-WC	100	28	0.13	AR/AR@1030-1090nm
CL2-(900-1100)-30-F125-QBH-A-WC	125	28	0.10	AR/AR@1030-1090nm
CL2-(900-1100)-38-F100-QBH-A-WC	100	34	0.16	AR/AR@1030-1090nm
CL2-(900-1100)-38-F125-QBH-A-WC	125	34	0.13	AR/AR@1030-1090nm
CL2-(900-1100)-38-F135-QBH-A-WC	135	34	0.12	AR/AR@1030-1090nm
CL2-(900-1100)-38-F150-QBH-A-WC	150	34	0.11	AR/AR@1030-1090nm
CL2-(900-1100)-38-F200-QBH-A-WC	200	34	0.08	AR/AR@1030-1090nm



白车身 Body-in-White







Viscous damper Synchronization ring



Differential gear Planetary carrier









Recliner

Backrest



Seat Track Assembly

Factory

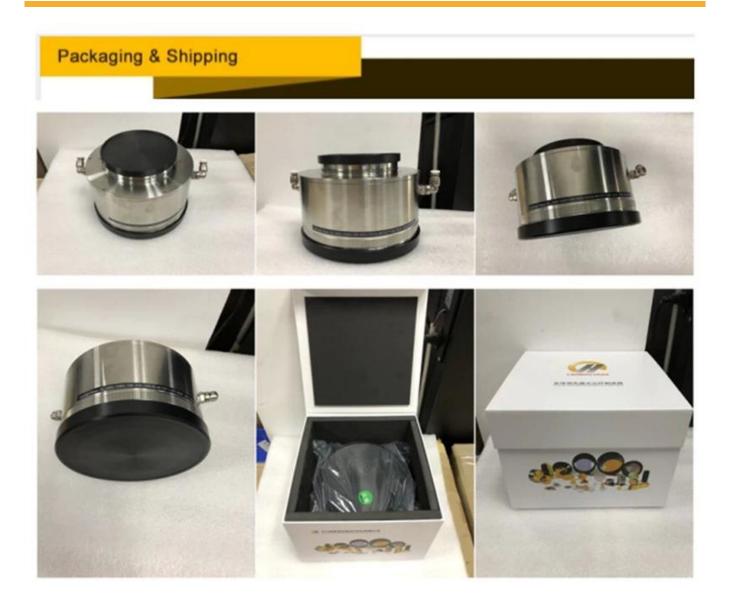


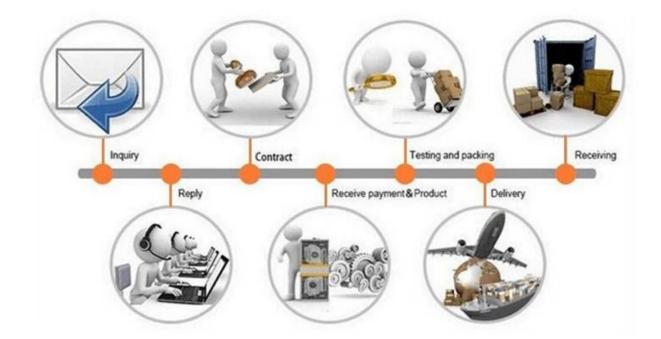






# **Packing List**







**Return Policy:** 

Should returns be required:

Step 1) Contact us with this website email.

Step 2) Provide as much detail as possible about the problem you are having.

Step 3) Authorization to return the item will be issued.

Step 4) Return the item for the agreed replacement or refund.

#### Logistics:

(1)For Laser Optics order delivery, can be optional with DHL, UPS, FedEx, TNT, EMS, ets

(2)For Laser machine order delivery,can be optional with terms of EXWork FOB,CNF,CIF By Air or by Sea based on the buyer's forwarders or ours.

FAQ

#### Q1.Are you a manufacturer?

A1: Yes, we **China Laser Welding Wholesales Factory** are professional and experienced manufacturer with our own molds and production lines.

#### **Q2.How about quality of products?**

A2: Our technicians and QC teams test the products one by one using aging line, professional devices and instruments to ensure the quality for all products.

#### Q3.How about price?

A3: We are a manufacturer and always offer our customers the most competitive prices.

#### **Q4.How to place an order?**

A4: Contact with online service, or sent email to us directly, we will reply to you with product price, specifications, packing etc. soon. Thank you.

#### Q5.May I send material to test marking performance?

A5: Yes! You are welcome to send material to test our superior quality and service.

#### **Q6.Can I visit your factory?**

A6: Yes, welcome to visit our factory at your convenient time.

#### Q7.How can I make OEM or ODM orders?

A7: We have different print processing for different OEM/ODM orders. Please contact us with online service or send email to us directly.

### Q8. How should I pay for my orders?

A8: You can pay by T/T would be available for qualified bank and MOQ required for each order.