



LASER WELDER **Robot**

The information reserves the right to be modified without prior notice.

1. SCOPE OF SUPPLY

1.1 Configuration

Item	Components	Type & Spec	Quant.
1	Laser source	Everfoton	1
2	Laser fiber		1
3	Welding head	Qilin/Raytools	1
4	Robot	CRP Robot	1
5	Feeder	Customized by Penta Laser	1
6	Electrical System	Customized by Penta Laser	1
7	Chiller	Customized by Penta Laser	1
8	Product Certificate and Operation Manual	Penta Laser	1
9	Packaging	Penta Laser	1

1.2 Main Specifications

Item	Unit	Value			
Rated laser output power	W	1000	1500	2000	3000
Welding head focus	mm	200/250			
Working mode	mm	Wobble welding+wire feeding			
Power adjustable range	-	10-100 %			
Modulation frequency	Hz	50-5000			
Red light output power	mW	0.5-1			
Fiber cable length	m	≥9m			
Water tank capacity	L	13			25
Refrigerating fluid		R410A			
Cooling medium		Distilled water, deionized water			
Rated power	KVA	5.5	6.5	7.5	11.5
Working voltage	V	220V±10%		380V±10%	
Working environment temperature range	°C	10-40			
Working environment humidity range	%	0-80			
Main machine dimensions (L * W * H)	mm	860 x500x920			1100 x585x985
Machine Weight(not including robot)	Kg	120	140	150	210
Robot model		CRP-RAJ15-12-J		CRP-RA18-20-J	CRP-RA20-12-J
Robot working radius		1554mm		1821mm	2015mm
Robot repeat positioning accuracy		±0.05mm		±0.05mm	±0.08mm
Robot Weight		170KG		288KG	262KG

1.3 Complimentary spare parts and tools

1.3.1 Spare parts

SN	Name	Supplier	Quant.
13-001	Gas Nozzle	Penta Laser	2
13-004	Protective lens	Penta Laser	5
13-005	1.0KG MIG	Customized in China	1

1.3.2 Tools

SN	Name	Supplier	Quant.
12-001	Protective Goggles	Penta Laser	1set
12-002	Gloves	Penta Laser	2set

2. TRAINING

Online training, the training content is as follows:

- Laser welding process specific for the applications
- Laser safety
- Training on control system operating,daily check and maintenance.

3. SAFETY

Since the hand welder system belongs to Class 4 laser products, no enough safety protections, so the operation is very dangerous. Due to all the welding job would be done by hands, so the operator must follow operation guideline strictly, and be careful with the direct and the reflected laser beam. The buyer should be responsible for the safety of the operation.

Safety operation procedure:

1. When operating the handy welding system, the operator must wear safety goggles and gloves, and wear clothes made by flame resistant material.
2. The operation of the system must be done in a separate laser safety room, and no other people in the room, except the operator.
3. All the safety devices, buttons or signals must not be disabled.