Robotics
Laser Welding System

ATW Laser -1500 /2000 /3000R

A laser welder is an equipment that takes advantage of the laser beam as the heat source to weld and process materials, which enjoys high power intensity, quick energy release, and high processing efficiency. It is applied to welding carbon steel, stainless steel, aluminum, and other various metallic materials.

Features and Benefits

- The fiber laser enjoys high beam quality, small focusing laser spot, high locating precision, high welding speed, and firm and beautiful welds. It brings customers with the efficient and perfect solution.
- Handheld laser welding head, ergonomic design, flexible and convenient; longer welding distance to realize welding any part of the workpiece at any angle; capable of realizing tack welding, butt welding, lap welding, fillet welding, seal welding, and others
- Small welding HAZ, hard for distortion, effectively avoid darkening, traces on the back, and other problems; deep welding penetration, sufficient fusion, firm and reliable.
- High photoelectric conversion rate, low power consumption, simple operation, and easy to learn; greatly saved processing cost for long-term operation
- Highly stable wire feeder for realized precise wire feeding, automatic wire breaking, and anti-stick wire
- Single rotary knob to realize adjustment of frequently used parameters, convenient and quick; figure-based operation interface, concise and easy to understand
- JOB function, customer can save and recall welding programs
- Self-developed control system, collaborative work between master machine and wire feeder for optimal matching
- Robot interface: MODBUS, DEVICENET, ETHERNET, CAN, and other digital communication protocols, capable of cooperating with multiple kinds of robots

Technical Specification

	ATWLaser-1500R	ATWLaser-2000R	ATWLaser-3000R
Rated input voltage /frequency (V /Hz)	1 phase, AC220V+10%, 50Hz		3 phase, AC380V+10%, 50Hz
Input power of whole machine (KW)	6	7.5	10.2
Rated input current (A)	27	34	15.4
Laser output power (W)	100-1500	100-2000	100-3000
Laser cooling	Water cooling		
Water tank capacity of water cooler (L)	13		
Cable length (m)	10		
Welding mode	Continuous, pulsed, spot welding		
Center wavelength of laser	1070+10 or 1080+10 nm		
Pulse frequency (Hz)	1-5000Hz		
Duty cycle of pulse (%)	10-90%		
Shielding gas (L /min)	Argon, Nitrogen, Helium, and other gases,>15		
Maximum laser wobbling width (mm)	5	5	5 /8
Dimension (mm)	980*420*760	980*420*760	1110*530*1060
Range of wire feeding speed (m /min)	0.30-6.00	0.30-6.00	0.30-6.00
Weight (kg /lb)	90 /198	93 /205	145 /320