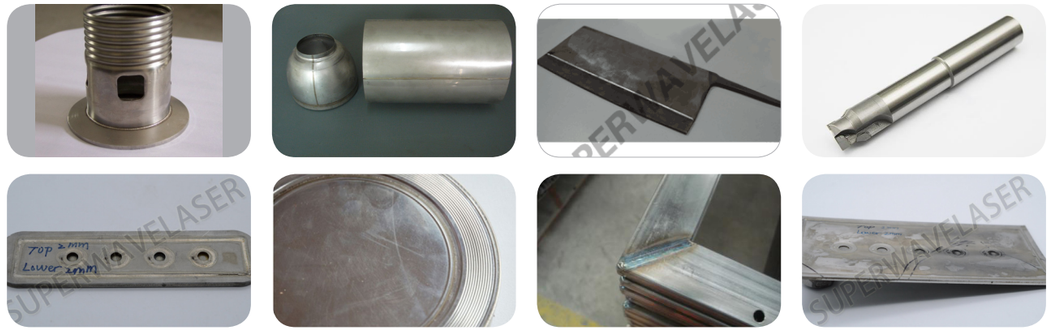
SW Continuous Wave Fiber Laser Welder

SW-CW Series



MODEL TYPE	SW-CW500	SW-CW750	SW-CW1000	SW-CW2000	SW-CW3000
LASER POWER	500	750	1000	2000	3000
RANGE OF POWER ADJUSTMENT	5-95%				
LASER WAVELENGTH	1070nm±5nm				
LASER MODEL	Multi-mode				
FIBER CABLE	10				
MAX FOCAL DIAMETER	≦ 5				
OPERATION MODEL	Continuation / pulse				
CONTROL SYSTEM	AD				
WELDING SPEED	0~120mm/s				
FIBER CABLE CORE DIAMETER	50um				
CHILLER HEAT EXCHANGE CAPACITY	1	1.5	2	4	5
COOLING SYSTEM	Water cooling				
WATER TEMPERATURE	20-25℃				
POWER SUPPLY	AC 220V±10%,50/60Hz				
TEMPERATURE OF WORKING ENVIRONMENT	10-35℃				
WORKING ENVIRONMENT HUMIDITY	≦ 95%				

SAMPLES



Advantages

Output fiber laser power stability, electro-optical conversion rate up to 30%,Its conversion rate is 8 times of YAG.

Beam quality is excellent, non-Gaussian light, multi-module fiber transmission.

Maintenance-free operation.

Plug and play design, rich I / O interface.

Low cost of use,almost no consumptive material, daily maintenance-free,reducing the cost of debugging when production line stops.

Long lifetime, high precision, pump source lifetime >100,000 hours.

Operational principle

CW-fiber laser welder emits laser by the fiber cable, welding for workpiece with multi-point or multi-surface. It has the advantages of good beam quality, uniform and small spot size, easy to install and move, etc. The fiber transmission can effectively suppress the focal motion of the focused beam caused by the beam mode changes that cause by the thermal lens effect of the laser source, improve the quality and stability of welding. All-fiber infrastructure design and solid metal casing ensure that this laser system can be used in online industrial production environment and provides excellent protection against a wide range changes of shock, dust, vibration and temperature .

The traditional laser source consist of the lens, laser rods and other components. What’ s different is that fiber laser source integrates all this components. A several meters of fiber cable replaced the laser rod, other components are also replaced by fiber optic parts. All of that make up a laser resonator. The benefits of the design is that there is no need for para-position, calibration and cleaning the optical lens surface after the laser source is installed. It means that post-maintenance is rarely or even not needed at all.