

	LightWELD Handheld Laser Welding	LightWELD XC Handheld Laser Welding & Cleaning	LightWELD XR Extended Range Handheld Laser Welding & Cleaning
Laser Type (Welding mode)	Air-Cooled Ytterbium Continuous Wave 1070 nm Fiber Laser ¹		
Laser Output (Welding mode)	1500 W Average Power, with 2500 W Peak Power Class 1 Red Guide Beam		
Laser Output (Cleaning mode)	—	2500 W Peak Power Pulse frequency up to 50 kHz Pulse duty cycle up to 20%	
Umbilical Cable	Utilities Bundle from Base Unit to Head including: Fiber Laser Delivery, Process Gas, Process Head Control Signals and Safety Interlock Circuits - Length: 10 m (~32 ft)		
Cooling	Air Cooled – No External Chiller Required		
Weld Head	Handheld Wobble Welding Head Collimating Length 40 mm, Focus Length 120; Spot size 150 µm Incorporating Safety Control Sensors and Laser-on Indicator User-changeable nozzles for planar, internal corner, and external corner welds	Handheld Wobble Welding Head Collimating Length 50 mm, Focus Length 120; Spot size 60 µm Incorporating Safety Control Sensors and Laser-on Indicator User-changeable nozzles for planar, internal corner, and external corner welds	
Weld Head Cleaning Nozzles	—	Set of three nozzles for wide-angle scanning	
Spot Size	150 µm		60 µm
Wobble Length	Adjustable up to 5 mm		
Cleaning Scan Length	—	Adjustable up to 15 mm	
Process Gas	Argon, Nitrogen, Argon + CO2 mix For LHW-1500-10 Meter: Working Pressure 103-207 kPa, (15-30 psi)		
User Interface	Front Panel Controls of Laser Power, Mode, Wobble Length and Wobble Frequency: (Rotary knobs with digital display). Laser On/Off key Switch, E-Stop Button. - Status Indicator Lights		
Computer Connection	Ethernet Connection to Web Page Interface Allowing Viewing/Adjustment of Process Mode Settings and System Status and Alarm Signal		
Safety	Class 4 Laser Device. Customer responsible for standard ANSI Z136.1 safety precautions. System features include key for laser ON/Off, 2-step laser operation trigger (Enable and Fire), Part-head contact safety circuit, Facility door interlock circuit		
Operating Environment	Storage temperature -20 to 60 °C. Operating range +5 to 35 °C		
Ease of Aluminum Weld	Moderate		Easy
Single-Side, Single Pass Material Weld Capability	Stainless steel, mild steel, galvanized steel, aluminum up to 4 mm		Stainless steel, mild steel, galvanized steel, aluminum up to 6.35 mm, copper up to 2 mm
Facilities Requirements	Electrical: 220 V, 1 Ph, 50/60 Hz, < 30 Amp		
Weld Base Unit (W x D x H)	316 x 641 x 534 mm (12.4 x 25.2 x 21 in)		
Weld Module Weight	53 kg, (118 lbs)		
Accessories	Safety Glasses, Power Connecting Plug, Ethernet Cable		

1. Laser made in USA