



LIGHTWELD MODEL COMPARISON GUIDE



LightWELD
Handheld Laser Welding



LightWELD XC
Handheld Laser Welding & Cleaning



LightWELD XR
Extended Range Handheld Laser Welding & Cleaning

Are you ready to weld & clean at THE SPEED OF LIGHT?

Call to schedule a DEMO today with our laser welding specialist.

METRIC CONVERSIONS & DEFINITIONS

MM	IN (fraction)	IN (decimal)
50	1 - 31/32	1.97
40	1 - 37/64	1.57
15	19/32	0.590
6.35	1/4	0.25
6	15/64	0.236
5	13/64	0.197
4	5/32	0.157
3	1/8	0.118
2	5/64	0.079
1	3/64	0.039

µm/um = Micron or micrometer which is a length of measurement equal to one millionth of a meter (1000µm/um is equal to 1mm).

nm = Nanometer which is 1/1000 of a micron or one-billionth of a meter.

CONTACT US TODAY
800-569-1322

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Laser Type (Welding mode)	Air-Cooled Ytterbium Continuous Wave 1070 nm Fiber Laser	
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: 5 m (16 ft) optional 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-1500-5 Meter: Working Pressure 69-138 kPa, (10-20 psi) 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 -4° F to 140° F 41° F to 95° F	
Ease of Aluminum Weld	Moderate	Easy
Single-Side, Single Pass Material Weld Capability	Stainless steel, mild steel, galvanized steel, aluminum up to 4 mm, copper up to 1 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	