

## ■ Fiber Laser Welder 700W: Single Mode **NEW**



### ML-6811C

#### Single Mode Laser!

Implements high quality welding by small diameter and deep penetration!

### Features

The first line up as single mode.

Single mode is Gauss distribution in its beam profile.

Using small diameter fiber, the heat effect is less. The penetration is thin and deep compared with multi mode.

It's suitable for precise welding in battery parts and electronic parts that the needs are anticipated as not only welding but also cutting method.

### Features

- Single Mode Laser

Adopting single mode laser, easy to weld on narrow area and to reduce spatter.

- Dedicated chiller

The pairing with a dedicated chiller is needed to show its maximum ability. Please use the chiller that our company provide.

#### Standard Features

Waveform control	☐
Power monitor	☐
Controller	☐
External communications	☐
Fade-in/ Fade-out	☐

The chiller is delivered with its water piping, thus a customer doesn't need to prepare it.

- Laser power management

Managing laser power in focal point with power meter (optional), contributes to improvement of product quality.

- Scanning system

Employing the Galvo, implements high speed and high efficiency processing.

Enables to show its superior brightness according to dedicated optical component.

Wobble welding enables to reduce "quickly heating and cooling" and to restrain "crack".

- Reflection resistant structure

Equips a structure to restrain the reflection from work piece, according to original optical design.

Enables vertical emission, according to the structure which is less effect of reflection from work piece.

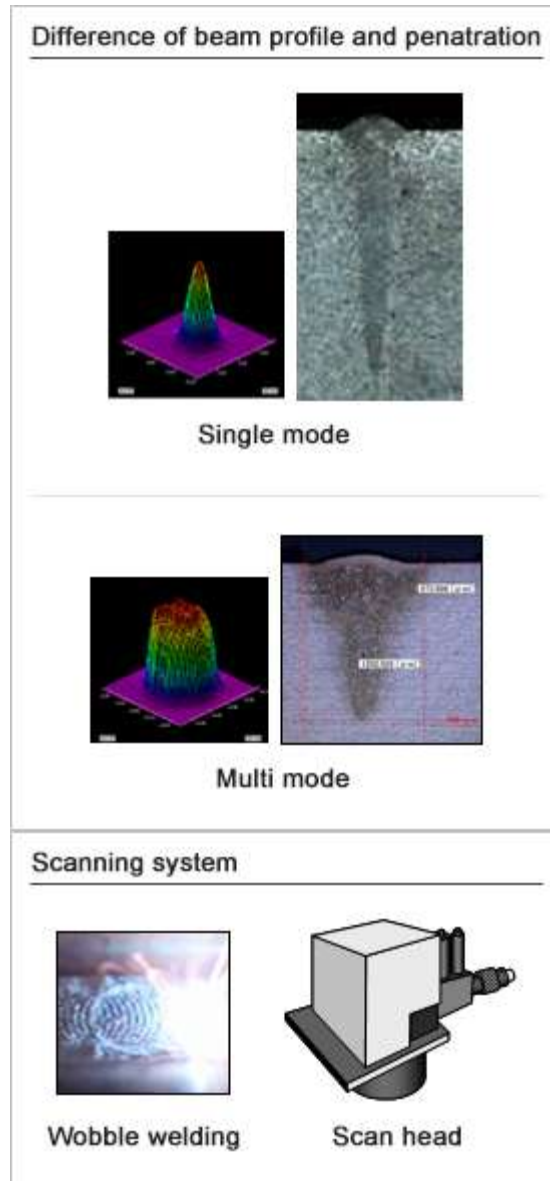
- Controlling function

Enables to set up various wave, according to the function.

Available for various way from high speed precise welding to cutting, according to modulation function.(frequency and waveform)

- Saving energy and space

Reduces energy consumption compared with previous machine,



according to design optimization.  
Ensures wider space to set up machines, according to light and compact design.

- Useful user interface

Large LCD touch screen allows to input settings easily.  
Japanese and English are available.  
Enables to use an extension cable.

## Specifications

Model	ML-6811C	
Maximum power	700W	
Mode	Single mode	
Pulse width	REPEAT	Standard:0.1 ~ 500.0ms (0.1ms steps)
		Setting switching:0.05 ~ 500.00ms (0.05ms steps)
	CW	Standard:0.1 ~ 1000.0s (0.1s steps)
		Setting swichging:0.001 ~ 10.000s (0.001s steps), 0.01 ~ 100.00s (0.01s steps), 1 ~ 10000s(1s steps)
Repeated number of pulse / modulation	1 ~ 1000pps	
Modulation function	1 ~ 5000Hz (rectangular wave, triangular wave, sinusoidal wave)	
Oscillation wavelength	Fundamental wavelength	
Positioning guide beam	Built in visible laser (red)	
Output stability	±2%less (Ambient temperature change+/-5°C in the range), (Water temperature:21to25°C), (Cooling water flow rate18 to 20 L/min), (Irradiation time 8 hrs in the range)	

Fiber optic delivery	Single fiber delivery / 2 timesharing
Number of schedule	256
Measurement function	Laser energy (J), Average power (W)
Counter	Displays the total number of outputs (9 digits), Displays the total number of acceptable outputs (9 digits) Displays the total LD ON time (7 digits), Displays the laser output time (7 digits)
Length of the laser controller cable	1m (standard) *Extension is option
Laser controller and language	Touch panel, Removal (Japanese and English are available)
Power supply / Beaker rated current	3-phase, 200-240V AC 50/60Hz / 40A
Power consumption	Maximum:4.0kW / Standby 1.0kW less
Cooling method	Water cooling (21 to 25°C)
Ambient temperature / Ambient humidity	5 to 40°C / 20 to 85%RH (non-condensing)

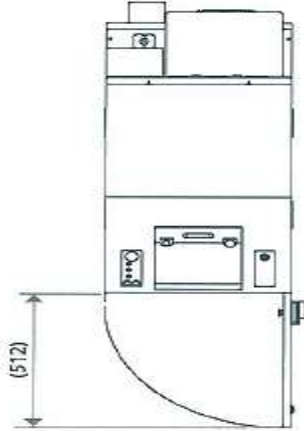
\*1: When the laser power supply cooling water is constant, eight hours

\*2: Depends on the branch

\*Specifications subject to change without notice.

# External view

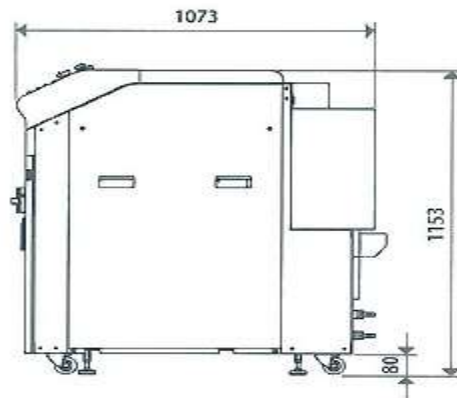
■ Dimensions in mm  
■ ML-6810C/6811C  
Top view



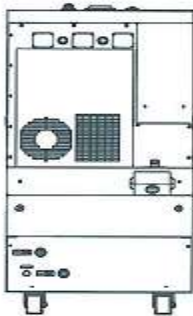
Front view



Right side view



Back view



Left side view

