

■ 20W/50W Fiber Laser Marker



ML-7320DL/ 7350DL

To provide a fully air cooled high-powered, high-quality laser in a compact body. Beautiful black marking and deep engraving at high speed.

The highest power in AMADA MIYACHI's fiber laser marker series! High-speed marking shortens takt times.

The ML-7320DL/7350DL is a fully-air cooled fiber laser marker and the best suited for marking on metal parts, engraving on aluminum and stainless steel. As the beam quality improves from that of the conventional models, marking quality becomes much better than before. Great oscillation efficiency, which is one of the characteristics fiber laser has, supports saving of energy. Its 50W oscillator makes marking speed high and contributes to improvement in productivity.

In addition, the marking software installed is LM Draw 6 which is compatible with the conventional models. No troublesome work is necessary at replacement of the unit.

■ Features

- The highest power oscillator in AMADA MIYACHI's fiber laser markers enables high-speed deep engraving of aluminum and stainless steel.
- Improved beam quality makes marking more precise.
- Compact head unit. Space saving.
- High performance marking software LM Draw 6.
- CF card slot is equipped. It makes it easy to transfer, share and save the data used in the previous models.
- Multiple axes stage control with an optional motion control of X, Y, Z and θ axes.
- Lower maintenance cost according to full air cooling and low power consumption.
- Long-life LD unit reduces maintenance costs.
- IP5X structure.
- CDRH, CE and RoHS certified.



■ Standard Features

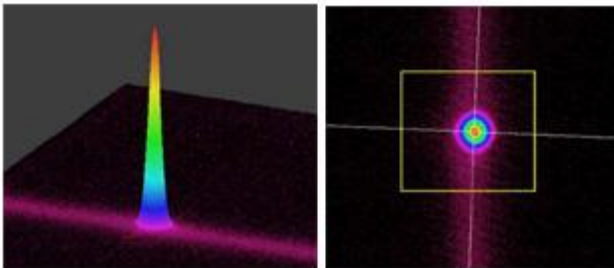
- Fiber laser
- Automatic backup function
- Multi-mode laser
- Fully air-cooled
- LMDraw6
- Saving maintenance
- Guide beam

Marking software LM Draw 6



Well-received marking software LM Draw 6 dedicated for DL series is equipped. You can freely design drawings, letters and 2D codes to laser mark. In addition, the software is compatible with the previous version and in addition, it equips the importing function to use former data.

Great beam quality



High quality beam profile.



Compact head unit



The whole length of the head unit is 40% more shorter than the conventional model (ML-7340CL). *Expander unit is excluded.

■ Applications

Marking on machine parts, tools, electronic parts, automotive parts and medical equipment; deep engraving of aluminum and stainless steel; cutting and drilling.

■ Marking area

fθ lens	f75 *1	f100	f150	f180	f270	f350
Scanning method	Galvanometer scanner					
Marking area (mm)	Φ39	Φ80	Φ120	□98	□140	□200
Working distance (mm)	93	108	170	176	313	412
Position resolution (μm) *2	1	2	2	2	4	4
Marking speed (mm/s) *3	0.01 to 5000	0.01 to 7000	0.01 to 10000	0.01 to 11000	0.01 to 18000	0.01 to 20000

*1 Available for the standard head unit only.

*2 Computed value. Not the actual position accuracy.

*3 Computed value. Confirm the appropriate speed for marking during actual marking operations.

■ Specifications

Model	ML-7320DL	ML-7350DL
Laser type	Yb Fiber Laser	
Oscillation wavelength	Fundamental wavelength	
Oscillation mode	Multi mode	
Maximum output	20W(Output from oscillator)	50W(Output from oscillator)
Oscillation type	Pulse oscillation	
Repetition frequency	20k to 200kHz	50k to 200kHz
Guide beam	Red LD laser	
Marking speed	550 letters per second (Height of letter: 1mm, f=160)	
External communication terminals	USB 1.1 (Full speed), RS-232C (Option), Compact flash card	
Cable length bet. Head and control unit	3m (Fix)	
Cooling method	Fully air cooled	
Power supply	Single-phase: 100-240 V AC -10%/+8%, Auto switching: 50/60 Hz	
Power consumption	270W or less	330W or less
Marking software (PC) *1	LM Draw 8 • Windows 7 Professional 32/64 bit or Japanese/English version(SP1) • Windows 8.1 32/64 bit Japanese/English version	
Font	TrueType font, DIN30640, JIS Z 8905, JIS Z 8904, JIS Z 8903, OCR-A, OCR-B, Round hand, Round gothic	
Marking characters	Alphabet, Number, Katakana, Hiragana, Chinese character (Round gothic of JIS first standard and second standard), Symbol	
Supported file formats	DXF(AutoCAD 2006 version or earlier), BMP, JPEG, GIF, TIFF	
Code types *2	Code39, Code128, ITF, Data matrix, QR code, Micro QR code	
Environmentally-resistant strengthened head	Standard Head: IP5X Water and Oil Proof Head Unit (option): IP67 and IPXXG (the JIS standard) *3	
Ambient temperature	5 to 35 °C (non-condensing and non-freezing)	
Ambient humidity	40 to 80% RH (non-condensing and non-freezing)	
Mass	<Control unit> 26kg, <Head unit> 4kg Water and Oil Proof Head Unit (option): approx. 7kg	

*1 Windows is a registered trademark and a product of Microsoft, Inc.

*2 Data Matrix is a registered trademark and a product of International Data Matrix, Inc. QR code is a registered trademark and a product of Denso Wave Co., Ltd.

*3 No warranty is given to dust water and oil proofing in any environment.

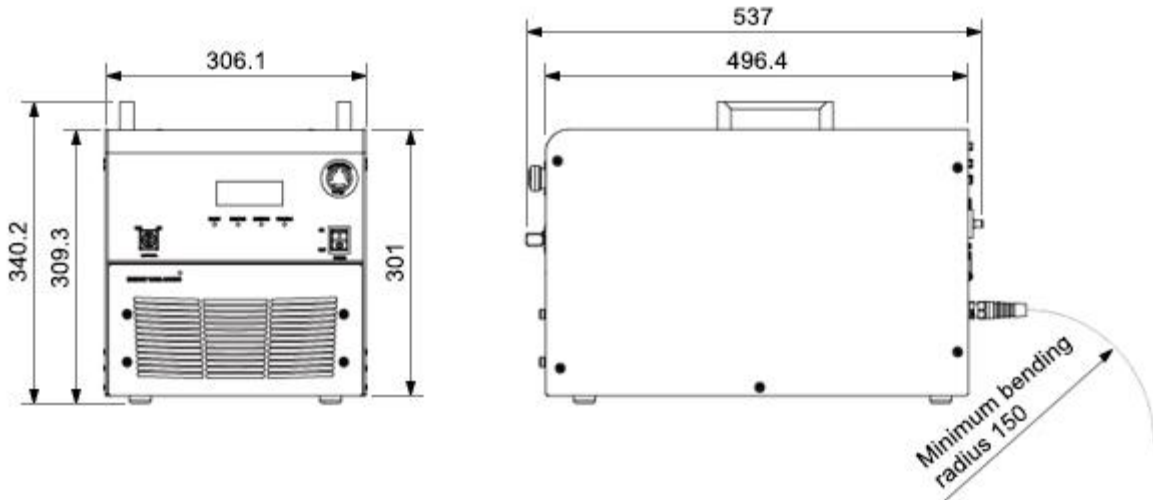
* Specifications are subject to change without notice.

■ External view

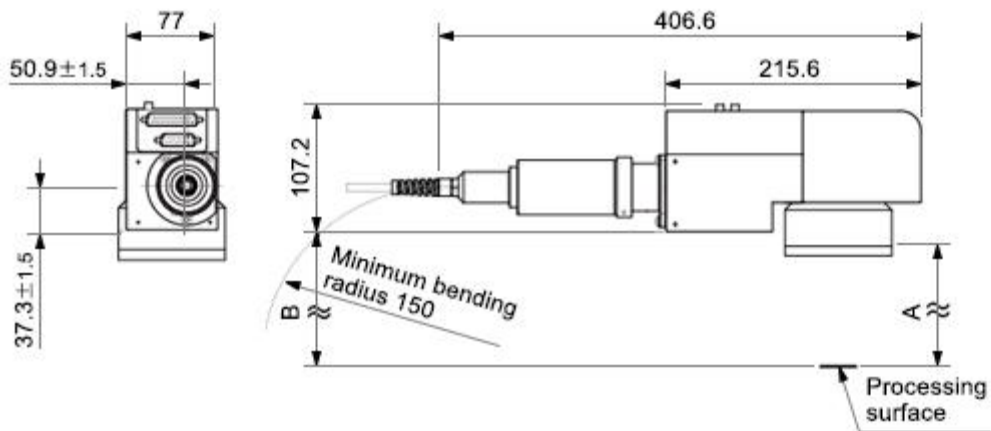
■ Dimensions in mm

■ ML-7320DL/50DL

Control unit <Mass: 26kg>

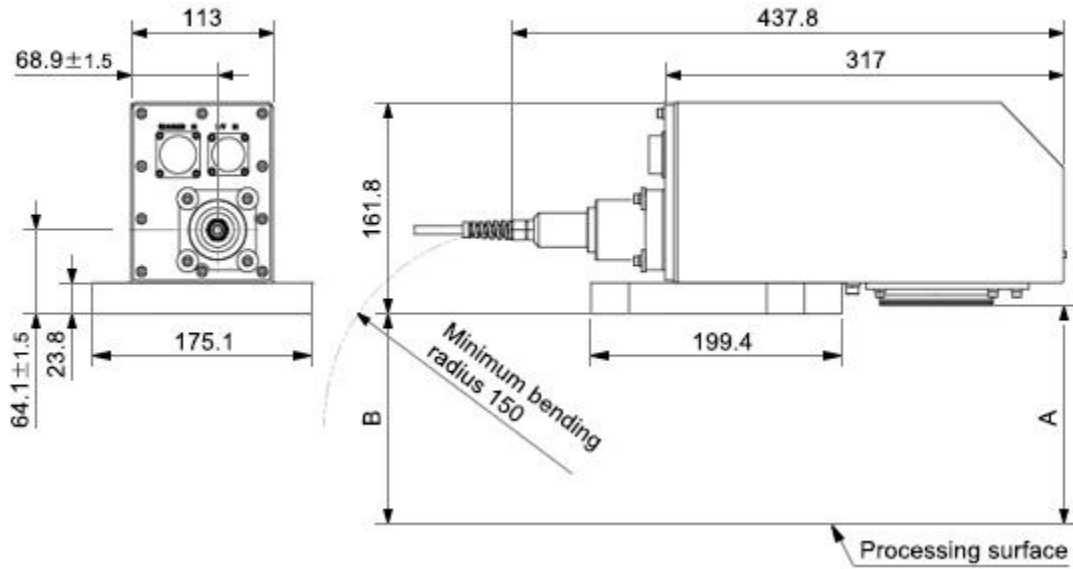


Standard Head unit <Mass: 4kg>



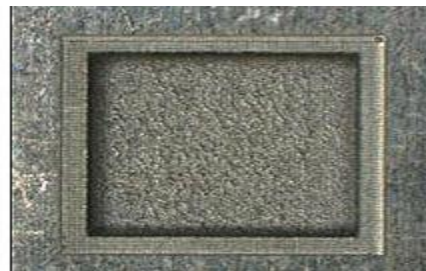
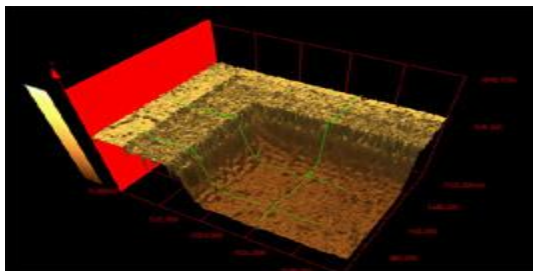
Dimension	φ lens					
	φ75	φ100	φ150	φ160	φ270	φ350
A	93±1	108±1	170±2	178±2	313±3	412±6
B	118±1	139±1	202±2	196±2	368±3	443±6

Water and Oil Proof Head unit (Option) <Mass: 7kg>



Dimension	φ lens				
	100mm	150mm	180mm	270mm	350mm
A	108±1	170±2	178±2	313±3	412±8
B	113±1	178±2	170±2	342±3	417±8

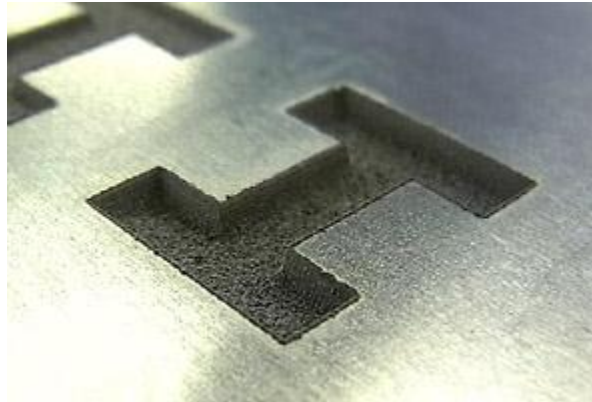
■ Sample



Deep engraving with sharp edges of aluminum.



Clear 2D marking on aluminum.



Deep engraving of aluminum. (1.8mm deep, 40 times marking)

■ Related Products



[ML-7320CL/7340CL](#)



[ML-7064A](#)



[ML-7111A](#)



[ML-7112AH/AI](#)