

## LASER MARKING FOR:

- ALL METALS
- PLASTICS
- CERAMICS
- COMPOSITES

## FAST CLEAN PERMANENT MARKS

The Ultra-Compact Laser Marking System delivers precision, non-impact marks on a variety of materials including metals and plastics. With the ability to mark linear and elliptical text, barcodes, 2D Data Matrices, QR codes, serial numbers, logos, and photo-quality graphics, the Ultra-Compact system has the versatility to meet almost any marking application.



## LASER TECHNOLOGY

RMI lasers feature several inherent advantages over other types of laser systems. Compared to traditional CO<sub>2</sub> and Nd:YAG lasers, RMI lasers are more energy efficient. This means RMI's markers achieve a precise mark while consuming less power. Lower power consumption eliminates the need for external power supplies and large cooling systems, making the RMI laser marker far smaller than comparable systems. RMI lasers achieve a smaller spot size and higher energy density than most competing systems. RMI technology is also key in extending the life of our laser diodes to more than 3 Years!

## MARKING

RMI's Ultra-Compact laser marker is ideal for short run production environments where low maintenance and ease of use are key to productivity.

## EASY TO USE

- Intuitive Software
- Targeting & Focusing Lasers
- UID Wizard
- Plug & Play Turnkey System



## Hardware Connectivity

- USB

## Applications

- Logos
- Sequential Serial Numbers
- UID & 2D Data Matrix Codes
- Barcodes

## DESKTOP LASER MARKING

The Ultra-Compact precision laser marker is a turnkey system that fits into tight workspaces, or can easily be moved between different production areas. The system requires only a standard 110V/220V outlet to operate and eliminates the use of bulky external chillers and power supplies.



## Security & Tracking

- UID - ISO & MIL Spec Certified
- TAS
- Error Free Marking
- Database Connectivity

## Graphics & File Formats

- Raster & Vector graphics
- True 508 DPI photos
- Photo Quality Images
- Graphics / Logos
- True Type fonts





### Marker Head

### Model UM-1...2 Watts

Laser Source	Built-in, Diode Pumped Nd:YAG
Wavelength	1064nm
Laser Source Output	Q-switched
Peak Power	Up to 20 kW
Q-switch pulse width	~8 ns @ 4kHz
F-Theta lenses available(back focal length)	60, 100, 163 mm
60 mm Lens Spot Size / Max Marking Area	~40 µm / 1.6 x 1.6" (40 x 40mm)
100 mm Lens Spot Size / Max Marking Area	~60 µm / 2.4 x 2.4" (60 x 60mm)
163 mm Lens Spot Size / Max Marking Area	~100 µm / 3.9 x 3.9" (100 x 100mm)
Cooling System	Thermoelectric/ Air
Operational Temperature Range*	~ 50–95° F (~10–35° C)
Operational Humidity Range*	80% non-condensing
Weight	11 lbs (5.0kg)†
Dimensions L x W x H**	9.65 x 5.16 x 8.03" (245 x 131 x 204 mm)†

### Power Supply

Operational Temperature Range	~ 50–95° F (~10–35° C)
Operational Humidity Range*	80% non-condensing
Power Source	AC 100 - 240V, 3A, 50/60Hz
Power Consumption	300 W max
Weight (with set of cables)	2.2 lbs. (1 kg)
Dimensions L x W x H**	9 x 7.2 x 3.1" (229 x 183 x 80 mm)

### Computer (optional)

PC notebook or Industrial PC; w/ Windows XP Pro  
 Power Source Notebook: AC 100 - 240V, 3A, 50/60Hz  
 PC: AC 115 / 230 selectable, 50 / 60 Hz  
 Software: SymbolWriter-Pro

### COMPARISON CHART OF LASER MARKING TECHNOLOGIES

SPECIFICATIONS	Nd:YAG (UM-1)	Nd:YVO <sub>4</sub> (U-10,U-15)	Nd:YVO <sub>4</sub> (U-5G)	CO <sub>2</sub>	Nd:YAG (Flash-lamp)	Nd:YAG (Diode-pumped)
Wavelength	1064nm	1064nm	532nm	10.6µm	1064nm	1064nm
Power (W)	2	10,15	6	10 - 100	50 ~ 100+	3 ~ 20+
Marking Spot (micron)	50-90	30-70	20-40	300	50-100	50-100
Resolution DPI(Dots Per Inch)	508	846	1,270	84	508-254	508-254
Energy Efficiency	High	High	High	Medium	Low	Medium
Cooling Efficiency	High	High	High	Medium	Low	High
Peak Power	Medium	High	High	Low	High	High
Operating Cost	Very Low	Very Low	Very Low	Medium	High	Low
Maintenance Intervals(hrs)	30,000+	30,000+	30,000+	< 5,000	300 -1,000	10,000+

### APPLICATIONS

Metals	•	•	•		•	•
Metals (High Reflectivity)	•	•	•			
Silicon			•			
Plastic	•	•	•		•	•
Composites	•	•	•			
Ceramics	•	•	•		•	
Rubber	•	•	•	•	•	•
Wood/Paper		•	•	•		
Glass			•	•		
Leather	•	•	•	•		

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\* Units stated at maximum output parameters  
 †without F-Theta lens  
 \*\*Allow a minimum of 2"(5cm) of open space around the Marker Head and Power supply for free air circulation. Additionally, ensure at least 4"(10cm) of open space at the rear of the Power supply and marker head for cable attachment and maintenance access.