YV04 Laser Series





Description & Benefits

Our DPSS (Diode-pumped solid state) Lasers utilize Nd:YV04 technologies, creating many advantages over other lasers. They can produce a precise mark without using large, external power supplies, which is energy-efficient. YV04 lasers can achieve a smaller spot size and higher energy density, which is ideal for reflective surfaces.

- · Highest Marking Speeds for Maximum Throughput
- · Smallest Footprint YVO4 Laser Marker Available
- · Complete System Warranty of 3 Years
- · Anneals Metal without Etching into the Surface
- Facilitates Color Change on Plastics without Foaming or Melting
- Enables one-layer-at-a-time Ablation of Coated Metals (Singlelayer Marking Depth Precision)

New YV04 Systems

The newest systems in the RMI Laser YV04 Laser Series are the A-10 and A-20. Expanding upon the technology and components from the current U-Series, the A-10 and A-20 have added application capabilities. The beam is specifically tuned to uniformly distribute energy making it optimal for annealing and ablating. This laser is strong enough to create dark marks on metals and is sensitive enough to get a color change on plastics without any foaming. The new laser systems have higher power and more stable than its predecessors along with having unmatched marking quality.



Versatility

They are by far our most versatile laser marker machines because they can anneal metals, ablate coated metals, and color change or foam plastics all with a single laser system. If versatility is what you need, then this is the laser system for you.



Plug and Play

With our Class I Enclosures and professional installation, setting up your RMI Laser is simple and easy. Experience out-of-the-box and marking in less than an hour!



Laser Marker Head



Controller



Class I Workstation

Marking Samples



YVO4 Laser Marking Systems

	A-10	A-20
Laser Source Built-in	Diode Pumped Nd:YVO ₄	Diode Pumped Nd:YVO ₄
Wavelength	1064 nm	1064 nm
Laser Source Output	10 W	20 W
Peak Power	≤ 75 kW	≤ 150 kW
Pulse width	~10 ns @ 10 kHz	~10 ns @ 10 kHz
100mm F-Theta Lens: Beam Spot Diameter Max Marking Area	30 μm - 50 μm 2.55 x 2.55 in. 65 x 65mm	30 μm - 50 μm 2.55 x 2.55 in. 65 x 65mm
163mm F-Theta Lens: Beam Spot Diameter Max Marking Area	40 μm - 60 μm 4.13 x 4.13 in. 105 x 105 mm	40 µm - 60 µm 4.13 x 4.13 in. 105 x 105 mm
254mm F-Theta Lens: Beam Spot Diameter Max Marking Area	60 μm - 80 μm 6 x 6 in. 150 x 150 mm	60 μm - 80 μm 6 x 6 in. 150 x 150 mm
330 mm F-Theta Lens: Beam Spot Diameter Max Marking Area		80 μm - 90 μm 7.9 x 7.9 in. 200 x 200 mm
420 mm F-Theta Lens: Beam Spot Diameter Max Marking Area		100 μm -120 μm 11.8 x 11.8 in. 300 x 300 mm
Lenses available (focal length)	100, 163, 254 mm	100, 163, 254, 330, 420 mm
Cooling System	Thermoelectric / Air	
Operational Temp Range*	~10 - 40 °C (~50 – 104 °F)	~10 - 35 °C (~50 – 95 °F)
Operational Humidity Range*	80% non-condensing	
Weight	12.8 lbs (5.8 kg)	16.2 lbs (7.3 kg)
Dimensions LxWxH**	229 x 142 x 163 mm (9.0 x 5.6 x 6.41 in.)	279 x 142 x 163 mm (10.98x 5.6 x 6.41 in.)

YV04 Laser Configuration Options

- Available with 100 mm, 163 mm, 254 mm, 330 mm, or 420 mm
 F-Theta Lenses
- 10 & 20 Watt Models
- · Class IV or Class I Configurations
- Plug and Play Rotary Chuck Adaptation
- Custom Optics: Add a Waveplate or Change the Beam Expander



Class IV Setup

