



Worldwide Laser Announces the Etching and Contrasting Ability of our LP9000 Series ND:YAG and Fiber Laser Systems

Worldwide Laser LP9000 Series of Lasers including ND:YAG and Fiber Laser Systems have the ability to etch various patterns while contrasting the appearance of the mark.

Gilbert, AZ (PRWEB) January 13, 2009 -- In this applications news letter we show some of the laser marking and laser etching ability of Worldwide Laser YAG and Fiber Laser Systems the LP9000 Series of Lasers, please note all the different patterns and appearances that can be achieved.

Web site www.wlsc.com

Call 480.892.8566 option 5.

Laser etch close up view

Laser etch overall view

The above application we exercised an ND: YAG Diode Laser using 25 watts of power to etch a pattern in aluminum. This type of laser uses a galvo head for beam steering with 160mm focus lens, and approximate 6.8" focus distance. The character height for the marking was .344" and the marking was complete in .50 seconds with one pass. An AutoCAD DXF file was imported into the laser marking software for etching the pattern.

The ND: YAG Diode Laser is positioned on a steel laser frame stand with an aluminum table top surface of 24"x 24" and a fixture that allows the laser to move up and down to the correct focus distance to mark an object.

Annealed mark

Engraved Mark

In this application 304 stainless steel wheels were marked with an ND: YAG Diode Laser. We used a 160mm focus lens with an approximate 6.8" focus distance, character height of .1396", and a laser marking field of 4.3" square. The marks were completed in .28 seconds. The annealed mark was completed at a different frequency than the engraved mark. In this application the final system included loading, handling and a transfer system for the products resulting in a full turn key laser system installed at the customer's location.

2-D bar code on metal

2-D bar code on metal

This barcode application used an ND: YAG Diode Laser using 40 watts of power and a galvo head for beam steering system with 160mm focus lens resulting in an approximate 6.8" focus distance. A marking area of 4.3" square was used to laser etch a 2-D data matrix bar code into a black oxidized metal part, the bar code is approximately .75" square and readable with a hand held 2-D wedge type bar code reader the cycle time for the mark was approximately 20 seconds.

Sample Company Logo Information



In this application several different laser power and frequency settings were used to achieve different effects and looks for company logo and information. The various effects are clear and the ability of the LP9000 series of YAG and Fiber lasers to produce varied surface appearance is clear as well. This marking was completed with approximately 40 watts of ND: YAG Diode Laser power the longest cycle time was 45 seconds using a 160mm lens with 4.3" square marking field and galvo head for beam delivery.

Lead frame overall

Lead frame close up

In this application a 10 watt Fiber laser was used to mark the lead frames. A 160mm focus lens was coupled with a galvo head beam delivery resulting in an approximate 6.8" focus distance and 4.3" square marking field. The laser marking is accomplished on the fly or while the product is moving and each three character mark was completed in .075 seconds the laser mark is a permanent surface mark with very slight engraving

3/8 laser mark on sockets

product detail marked on aluminum label

In both these applications an ND: YAG Diode Laser was utilized with a galvo head for beam delivery and 160mm focus lens yielding an approximate 6.8" focus distance and 4.3" square marking field for the sockets 20 watts of laser power completed the marks in .44 seconds for the aluminum labels 10 watts of power completed the .071" tall characters over the label in .15 seconds. The laser system for the sockets included a class I station and a jig for holding the parts. The laser system for the aluminum labels utilized the custom Worldwide Laser tape feeding system to provide both end users with complete turn key laser marking stations.

With the LP9000 series of YAG and Fiber lasers many different metals can be quickly laser marked and laser etched with a wide variety of logos, bar codes, designs, company information and other details.

The LP9000 series of YAG and Fiber lasers are easy to operate with windows based software can be galvo based or coupled with x-y tables [and other motion systems are maintenance and expense free after installation and are fully backed with complete service, support and warranty from Worldwide Laser which has been building and servicing YAG and Fiber lasers in 14 countries on 3 continents for the past 23 years. If you have any requirements for marking metal or are marking metal with any other method than lasers let the laser engineers at Worldwide Laser explain the benefits of laser marking we can laser mark or laser etch any of your products in our applications lab and show you how affordable laser systems really are especially when considering items such as our operating and capital leases for equipment. Please review the laser marking and laser etching applications in this news letter and then contact us at Worldwide Laser

Worldwide Laser offers leasing for all laser systems from 24 months to 60 months and either operating leases where costs can be expensed and not affect balance sheet or capital budgets or capital leases, often times these leasing options can lower the daily and monthly costs of laser system ownership and allow for the purchase and installation of the laser system. Let the Worldwide Laser sales team and administrative staff offer leasing cost options on complete laser systems for your operations visit our web site www.wlsc.com and click on the leasing



icon for an online leasing application form.

About Worldwide Laser Worldwide Laser headquartered in Gilbert Arizona and founded in July of 1986 builds Laser cutting, laser marking, and laser etching systems types of systems are Co2, YAG, Fiber and UV. [9.3nm,10.6nm,1064-1067nm and 355nm Worldwide Laser Co2 [LP8000 series laser systems are either galvo head or fixed beam systems utilizing sealed beam Co2 laser tubes [from Synrad or Universal. Worldwide Laser is one of the only remaining manufacturers of T.E.A. mask Co2 [LP2000 series lasers can be driven either by spark gaps or thyratrons. In the mask T.E.A. business Worldwide Laser is one of the leading suppliers for new and refurbished parts or beam delivery components for Lumonics Laser Mark Series Lasers. Co2 lasers from Worldwide Laser can either be sealed beam or T.E.A. Co2 and can be utilized for high speed and high quality laser marking or laser cutting. Worldwide Laser also builds diode and lamp pumped YAG [LP9000 series lasers along with Fiber lasers for various laser marking, laser cutting, and laser etching operations. We provide YAG laser systems that range from 6 watts to 600 watts. Worldwide Laser offers Galvo based and Fixed beam laser systems with complete product handling. Newly added are the LP9000U series of UV lasers at the 355nm wavelength which are idea for many aerospace, medical, and plastic industries applications. Worldwide Laser has installed systems and service operations in 12 countries on 3 continents in addition to the United States . Worldwide Laser offers custom laser controller software & laser consulting and we can provide windows-based laser controller software for all of our Co2, YAG, Fiber, & UV laser systems.

For added information contact 480.892.8566 option 5, e-mail info@wlsc.com or visit our web site www.wlsc.com

Let the laser experts at Worldwide Laser design and install the correct laser marking solution for your products at Worldwide Laser we know lasers!

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