

Customized UID marking

Creation of 2D matrix codes



ID-Integration Inc. Jet City Laser

Company ID-Integration Inc., located in Mukilteo, WA, USA, is a parts-marking system integrator specializing in Unique Identification (UID) and Spec 2000 parts marking requirements. The company sells marking and reading equipment as well as software to support any UID challenge. Furthermore, their affiliate company Jet City Laser features full job shop services for UID tags as well as direct part marking on www.uid2go.com. Jet City Laser offers over 30 years of experience to help guarantee high quality certified UID nameplates and labels.

The application

UID specifications dictate that parts meeting certain criteria must be traceable by means of a unique identifying 2D code. Among other bits of data, the 2D code consists of a part number and a serial number. This pertinent data can be specified through engineered drawings or by a detailed written specification. Jet City Laser then creates the appropriate UID protocol in a popular software package called "Bar Tender". As a next step the information is marked on a part itself or on a tag. Tags are very popular, with anodized aluminum being among the most commonly used tag materials.



Trotec Case Studies

The challenge

Marking parts that vary in geometry and are made from different materials causes many challenges for the marking system. It must be able to create marks that are 100% readable in order to guarantee full verification—markings must be perfectly legible to the reading system. Cells within the 2D code have to be of excellent quality and contrast must be very good. Especially on anodized aluminum it is extremely difficult to achieve the requested level of contrast.



The Trotec solution

Jet City Laser works with other laser systems too, but the Trotec FineMarker Strong has proven to be the best solution. The excellent beam quality and precision controls of the Nd:YVO₄ flatbed system provide a unique advantage for outstanding marking quality and contrast on a large range of materials including anodized aluminum. These extraordinary results are difficult to achieve with other laser systems.

The open architecture design of the Trotec FineMarker flatbed system allows the operator to use the "Bar Tender" software to create the UID code and any other information needed. The combination of the Trotec FineMarker and "Bar Tender" software has proven to be an effective tool for Jet City Laser to mark and verify 2D bar codes and become the most experienced UID user in the world. Increasing business demanded faster process times and by working with Trotec and optimizing techniques, Jet City Laser now produces three times the product when compared to original volumes.

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