

# Making Your Mark Is Serious Business

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The Identification of parts is quickly becoming a prerequisite for most companies and organizations. The time is now to seriously consider the most beneficial way to "make your mark".

From identifying your products, in-house tools, and equipment to providing value-added services by marking customer logos, diagrams, and specialty items, product identification can no longer be an afterthought. Product and part identification quickly eliminates errors, valuable time, and wasted material, while helping to streamline production and ultimately increase the company's bottom line.

Choosing the right marking system must be a careful consideration. The production application (parts, material, geometries, volume) must be well defined along with the environment in which the system will be working. Origin of manufacture, craftsmanship, service, and support also should be seriously investigated. As with all production machinery, the more it can do, the more economical the equipment becomes.

Most identification processes, such as steel stamping, dot peening, laser marking, impact marking (also known as "micro percussion machining"), and chemical etching, can permanently mark parts for "cradle-to-grave" traceability. The processes range from simple to complex, depending on production requirements.



Laser marking systems are suitable for fast, well-defined identification where quality matters and high-volume processing is required.

Steel stamping and dot peening can be ideal for simple marking on heavy metal and other materials where aesthetics of the mark is not an issue and the marked information does not change frequently during short periods. This method is generally performed in a production area where the brief noise generated by these methods has little or no effect.

Chemical etching involves dangerous solvents and consumables, is difficult to automate, and can only be used with conductive material. Delicate parts can be identified without damage or distress, although it is advised to review and consider any safety issues and requirements thoroughly.

Impact marking can streamline permanent marking on a wide variety of parts and materials of all sizes and shapes. For example, Online's LM-4400 permanent impact marker makes micro impacts into the substrate with its solid carbide "vibrating" pin. Micro bursts up to 400 times per second produce clean, crisp lines (logos or alphanumerics) and characters as small as 0.015". The system enables the operator to view the marking information on the screen prior to marking the product - all without mathematical equations or programming experience required.



## PARTS IDENTIFICATION

### Laser Marking Shines for Many Applications

Laser marking presents great technical advantages over traditional techniques by offering many different configurations, systems, and methods. This technology continues to grow, and with it, solutions to many marking problems. The definition of production applications is crucial in order to achieve the desired results. A knowledgeable consultant can assist with the proper method of identification and can suggest systems that offer a variety of processing abilities that may not have been previously considered, thereby adding to the overall cost-effectiveness of the system.

The two types of lasers that are frequently used are CO2 and Nd:YAG. Diode pumped lasers are another alternative and are becoming more available as the prices on the world market continue to decline. (The majority of these diode lasers are manufactured overseas.) Material and production applications will determine the laser best suited for the job.

Laser systems are typically used for fast, well-defined identification where the quality of the mark matters, making this method ideal for high-volume processing. This process has a wide range of applications from personalizing gifts and novelty items to 2-D and bar code identification programs. The expense of these systems compared to the savings that can be quickly achieved provides cost-effective solutions that provide benefits for all sectors of manufacturing.

Some laser systems can mark several hundred characters per second, and the time it takes to fill logos is essentially insignificant. There are lasers that can mark irregular surfaces with some forgiveness; however, these should be tested by the laser company being considered on the material/part that will be processed. Other laser systems have limits on



their material processing abilities that should be identified early in the research stage. Again: the more a system can do, the more cost-effective it will be.

Online's Laser Mate Series laser systems offer a variety of processing abilities, including a step-and-repeat table for high-volume production. A thorough evaluation helps to determine the proper laser wattage. Customized pallets complete the system, helping to accomplish the marking project quickly, easily, and consistently. The Z-axis height adjustment



is controlled through a programmable brushless motor, allowing the operator to set the Z height quickly by entering the thickness of the product and clicking a button.

Online Inc. designs, manufactures, and sells marking systems to meet the individual requirements of each customer because "one size DOES NOT fit all." Careful consideration is taken with each application to determine the proper method of processing; resulting in quality crafted turnkey systems ready for production. Using this long-forgotten approach, this company has successfully served many industries for over a decade with unbiased solutions to unique system requirements.

Choosing a marking system and supplier should be based upon the ability to meet requirements with well-designed, well-built systems that not only meet current needs but also can foresee the needs of the future. It is critical to make use of JIT (just-in-time) performance equipment in order to sustain a company in a global marketplace. *"In today's industry it is the service you can provide that retains clientele and makes a company stand out above the rest."*

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