

DAPRATM

Vol. II, Issue 1

News and Information about Marking Systems

The Mark-It REPORT

Product Spotlight: PryorMark HandHeld

Dapra Marking now offers an intelligent, portable Dot Peen Marking System to mark parts that cannot be brought to a fixed marking station. The HandHeld is a fully programmable, embedded system that is easily moved from one application to another in industrial environments. The lead screw-driven marking head is protected by a highly durable, lightweight case and offers precise dot placement unmatched by other portable marking systems.



Dapra's HandHeld Dot Peen Marking System can be easily moved from one application to the next.

The unit's total weight is 6 pounds, and the 2" x 1" marking area suits almost any application. Variable force control ensures optimum marking depth for most materials up to 62Rc. In addition to alphanumeric characters, the HandHeld can also mark Data Matrix codes when required.

The compact, ergonomic design is ready to use out of the box. User-friendly software allows operators to quickly load saved layouts from memory, choose different character sizes, font types and marking forces, as well as set up automatic serialization and date coding.

Requiring only a 110 VAC power source and no compressed air, the HandHeld is a fast, quiet and safe marking solution. Hardware options include V-locator plates for marking round components, a column and base for bench-mounted applications, and extended connecting cables up to 20' (9' is standard). Custom software and fixturing are also available.

Column/Base Option Adds More Flexibility to the HandHeld

Many customers need the flexibility to mark large parts by bringing the marking head to the part and also to mark small parts by placing them under the marking head in a fixed position. To meet this requirement, Dapra Marking provides a modified 2068 HandHeld Marking System with a column and base.

For this modification, two metal blocks are attached to either side of the HandHeld marking head. These blocks slide into a groove on a custom bracket attached to our standard 2068 cast column and base. A single hand screw is used to hold the marking head in place. This screw can be on either the right- or left-hand side of the bracket, depending on the preference of the operator.



The HandHeld easily slides in and out of the bracket. Although the front cover of the HandHeld must be removed to slide it into the column, the change from true hand-held marking to column-mounted marking should take no more than a few minutes.

Dapra Marking's HandHeld Dot Peen marking system is now available with a standard 2068 cast column and base.

**FINANCING
NOW AVAILABLE!**

Dapra Marking Systems offers flexible financing options, making it easier to acquire any of our marking solutions, from our low-cost Dot Peen Maxim III to our turnkey Diode-Pumped Laser Marking Systems. Please contact us for complete information on financing your next purchase from us.

AS9132: A New Standard for Dot Peen Marking of Data Matrix Codes

Direct part marking and traceability have been a major concern for many industries, including aerospace, medical and automotive. Today's marking and reading technologies make it possible to provide more automated part tracking and avoid the errors that commonly occur with manual tracking procedures.

For direct part marking of aerospace components, the ATA (Air Transport Association) issued SPEC 2000, Chapter 9, stating guidelines for permanent part identification using bar code technology, primarily Data Matrix symbologies. The concept is to mark a part with a "unique identifier" to allow "cradle-to-grave" tracking of serialized parts and facilitate the use of automated processes in parts handling. Chapter 9 specifies data content only and does not define quality or technical requirements for Dot Peen and other marking technologies. (For more details on SPEC 2000, visit www.spec2000.com.)

AS9132 is a standard defining uniform quality and technical requirements for Dot Peen marking relative to metal components using Data Matrix symbologies. This standard sets requirements to ensure electronic reading (scanning) of the symbol. Dapra has participated on the committees that have created these standards and continues to provide valuable input regarding marking and reading of Data Matrix symbologies to various industry organizations.

Dapra Marking offers standard and integrated Dot Peen Marking Systems that meet the AS9132 requirements. We can supply systems for marking Data Matrix codes and text only, as well as turnkey systems that can automatically mark, read and verify such codes. Dapra's Dot Peen Systems produce quality marks unsurpassed by other systems.

If you have direct part marking and tracking problems, contact Dapra Marking to discuss how we can provide the most intelligent marking solution for your application.



A "Who-to-Call" Guide Key Contacts at Dapra Marking Systems

This list of key contacts should simplify the process of contacting the member of Dapra Marking's staff who can best assist you.

All of the following can be reached by calling our Bloomfield, Connecticut, office at either **(800) 442-6275** or **(860) 286-8728**:

Department	Contact	Extension
Customer Service	Sue Machowski	254
Service/Repair	Richard Tatem (supervisor) Carl Williams	226 238
Custom Engineering/ Special Software	Kermit Bierut	234

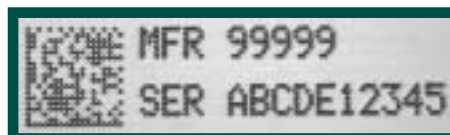
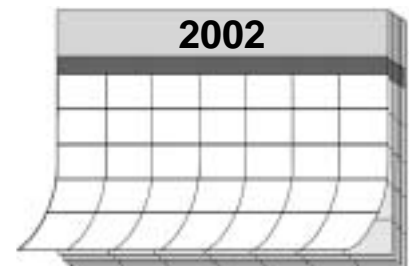
For Sales, choose the Territory Manager for the area in which you are located:

Territory	Manager	Phone
Southeast (FL, GA, TN, NC, LA, AR, SC, AL, MS, VA)	Mike DiBenedictis	(704) 655-8401
Western Midwest (IL, WI, MN, ND, NE, KS, SD, IA, MO, W.MI)	Rick Pentz	(800) 442-6275 x244
Eastern Midwest (W.PA, IN, WV, KY, OH, E.MI)	Rick Pentz	(800) 442-6275 x244
Northern New England (ME, VT, NH)	Ray Boudreau	(800) 442-6275 x251
Northeast/Mid-Atlantic (CT, MA, RI, MD, NY, DE, NJ, E.PA)	Ray Boudreau	(800) 442-6275 x251
South-Central (TX, OK)	Rick Pentz	(800) 442-6275 x244
West (CA, OR, WA, AZ, NV, CO, WY, NM, ID, MT, UT)	Paul Carrocino	(714) 281-8739

Mark Your Calendar:

See Dapra Marking Systems in action at IMTS 2002

Dapra Marking Systems invites you to visit our booth (# C-5708) in the North Hall of the IMTS 2002 Show. This event will be held in Chicago from September 4-11. We will be exhibiting standard and integrated Dot Peen and Laser Marking Solutions.



Dapra Marking offers a variety of standard and turnkey systems to mark Data Matrix codes for permanent traceability.

New from Dapra: More Power Options Available for Diode-Pumped Laser Marking Systems

Dapra Marking now offers three Diode-Pumped Nd:YAG Laser Marking Systems – the PryorMark LP5 (5-watt output), the PryorMark MP10 (10-watt output) and the PryorMark HP20 (20-watt output).

Each PryorMark Laser System is optimally matched to the customer's individual marking application. Both standard and customized Class 1 enclosures are available. Enclosure choice is based on whether the system will be used as a fully automated integrated system or a manually operated one. Additional options include powered rotary attachments, programmable Z-axis and indexing tables. Vision systems are also available for integration.

The LP, MP and HP models are based on patented technology, resulting in highly efficient beam generation from a single-phase power source. This power source does not need the additional cooling options associated with outdated lamp-pumped systems. These unique features make the Dapra Laser Marking Systems compact, low-operating-cost answers to a wide range of marking requirements.



Q & A Diode-Pumped Laser Marking

What is the difference between diode-pumped and lamp-pumped lasers?

A lamp-pumped system uses a flash lamp to excite the gain medium. In a diode-pumped system, LED (light emitting diode) arrays are used to excite the gain medium.

What is the gain medium used in Dapra Marking's Laser Marking System?

The gain medium is Nd:YAG (Neodymium-doped, Yttrium Aluminum Garnite), a crystal that is capable of absorbing light energy from a diode source and then emitting a more intense beam of light.

Is a chiller required to operate the diode-pumped laser?

Due to the energy efficiency and the limited heat loss of the Dapra Laser System, external chillers are not required. The diode-pumped system uses standard convection cooling.

What is the diode module life?

The diode module has an expected life of 10,000-15,000 hours of use, compared with 600-800 hours of use from a lamp-based laser system.

Is a diode-pumped laser system more efficient than lamp-based systems?

The Dapra system has a high optical excitation efficiency (OEE), in which more of the energy used to create the laser beam ends up on the beam and not as heat loss. The OEE is 30-50%, compared with 2-3% for lamp-based systems.

Is the diode-pumped laser system more accurate?

This type of laser beam creation uses a patented method of beam generation that is one of the most efficient available. A higher-than-normal output of laser light from the gain medium is achieved, producing a high-intensity beam with high beam accuracy.

What types of material can be marked with a Dapra Diode-Pumped Laser System?

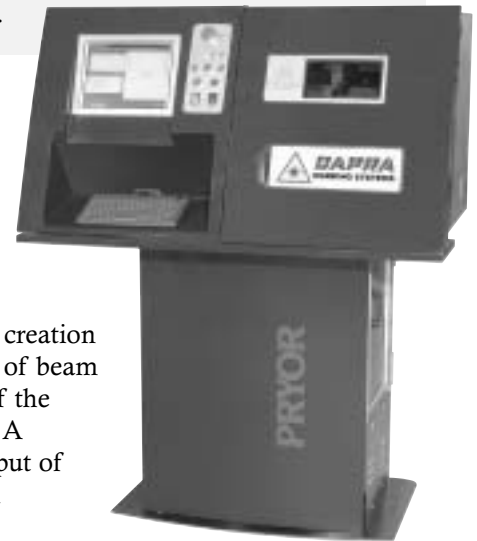
This system is capable of marking many materials, including steels (carbon, alloy and stainless), nickel alloys, titanium, aluminum, carbide, ceramics and plastics (see below).

What type of power supply is required to operate the laser system?

The system can be operated from a standard 110 or 240 VAC power supply.

Is the laser system easy to integrate?

Yes; the physical size of the unit is small, making it easy to integrate into Class 1 enclosures or workstations where space is restricted, especially in automated marking applications.



Carbide Tooling



Anodized Aluminum



Painted Label



Foam