Monode
MARKING PRODUCTS, INC.

3000 BenchDot™

Marktronic™ Bench-Top Dot Marking Range

BenchDot 60-60E / BenchDot 100-100E / BenchDot 150-150E / BenchDot 300-150E

BenchDot 60-60EZA / BenchDot 100-100EZA / BenchDot 150-150EZA / BenchDot 300-150EZA

BenchDot 100-100EZAV / BenchDot 150-150EZAV / BenchDot 300-150EZAV

BenchDot 60-60DP / BenchDot 100-100DP / BenchDot 150-150DP / BenchDot 300-150DP

SPEC2000

UID

intelligent marking solutions

Marktonic™ BenchDot™ Range

BenchDot™ series are robust dot marking machines designed for accuracy, speed, power and reliability. All models include a high quality ball screw mechanism with unique twin linear rails and twin linear bearings on each axis and a rigid cast column and base.

Wide range of marking windows
BenchDot™ series are available with standard marking windows of 60x60mm, 100x100mm, 150x150mm and 300x150mm.
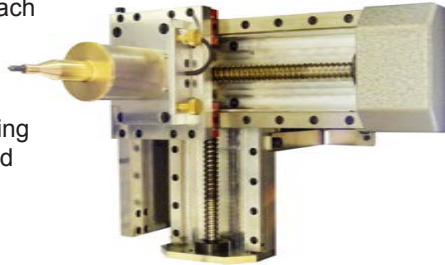
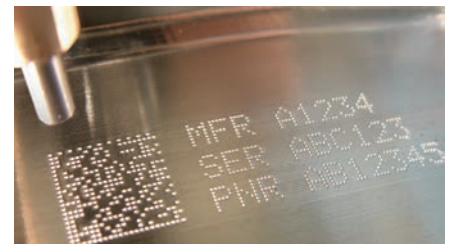*Mark using rotary axis and BenchDot™ series machine*

BenchDot™ E series: Electromagnetic dot marking
• Runs on standard mains current – no air supply required
• High consistency of marking depth
• Fully controlled number of dots per character and dot location
• Quieter than pneumatically operated machines

Models:
60-60E   100-100E   150-150E   300-150E

Data matrix code using BenchDot™ series machine

BenchDot™ EZA series: Electromagnetic dot marking, digital Z axis with AutoSense™
• Based on "E" series
• Powered programmable Z digital axis (marking head height adjustment)
• AutoSense™ system allowing self adjustment to variation of part batch height with the best precision, repeatability and consistency (especially well suited to Data Matrix marking)
• Mark different part levels with no manual adjustment

Models:
60-60EZA   100-100EZA   150-150EZA   300-150EZA

AutoSense™ Unit

BenchDot™ EZAV series: Electromagnetic dot marking, digital Z axis, AutoSense™ and VeriSmart™
• Based on "EZA" series
• Integrated in-process Data Matrix verification system (VeriSmart™)
• International standards: AS9132, JES131, AIM-DPM-Guideline, MIL-STD-130, ISO15434, ISO16022
• 5 mega-pixel sensor allows the verification of a wide range of codes
• Mark2Verify™ Windows© software provides simple traffic light feedback to the operator, verification results and advanced features

Models:
100-100EZAV   150-150EZAV   300-150EZAV
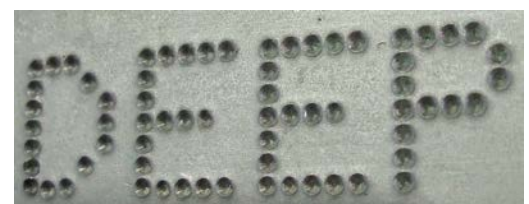

Traffic light feeback screen in Mark2Verify™

BenchDot™ DP series: Deep Pneumatic dot marking
• Pneumatic very deep marking: up to 1.5 mm in mild steel

Models:
60-60 DP   100-100DP   150-150DP   300-150DP

Deep mark with BenchDot™ DP series machine

Dot Marking Technology

Dot marking creates the mark by indenting a series of dots into materials to form alphanumeric characters, logos or 2D Data Matrix codes.

Marks Using BenchDot™ with 3000 Controller

Marking software features

- Multilingual user interface
- Straight, angled, arc & reverse marking
- Programmable character height and width: 0.15mm to 99.9mm in increments of 0.15mm
- Adjustable marking force (marking depth)
- Basic range of machine fonts (5x7, 7x9, Varidot + OCR versions) on embedded systems and full range of installed True Type fonts available in Traceable-IT™ PC Systems)
- Time and Date marking in various formats
- Variable and serial number marking
- Data Matrix coding
- Vector graphics & logos (.plt file format on embedded systems and .plt & .dxf on Traceable-IT™ PC Software)
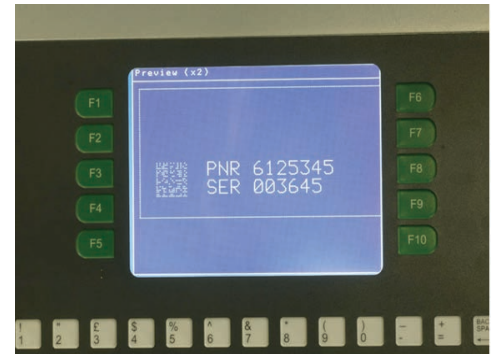

3000 series controller

BenchDot™ systems are extremely versatile with the ability to mark almost any shape part

Applications

- Permanently mark almost all engineering materials up to 62 HRc (cast iron, stainless steel, aluminium and titanium alloys, plastics…)
- Serial numbers, date codes, product reference, company logo, shift code, material batch…
- Identify small to large batches of components
- Marking on flat to uneven surfaces
- Circumferential marking device available (see options)

3000 Controller and interface

- No need for a PC
- Full Qwerty membrane keyboard (possibility of external keyboard)
- Very large and high contrast graphical screen allowing easy programming and previewing of marks
- Up to 1350 layouts (files)
- 2 x RS232 communication port
- Digital I/O (8 Input, 6 Output)
- Ethernet TCP/IP (optional)
- Vector graphics/logo import facility (.plt/.hpgl)
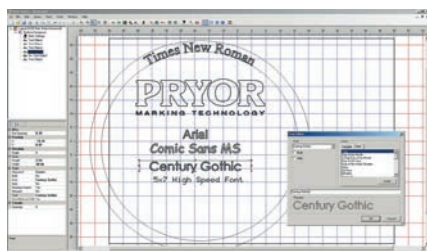
User interface in Traceable-IT™ (Advanced) software

Traceable-IT™ PC software (Optional)

Optional Windows© based software.
PC connected to 3000 controller.
Among extensive features:

- Drag and drop graphical interface
- Advanced trial run
- Graphics tools
- Vector graphic/logo import facility (.hpgl/.plt & .dxf)

## Traceable-IT™ Advanced (Optional)

- Supports all Windows true type fonts
- Database connectivity for marking data queries
- Database connectivity for duplicate data checking
- Security Password features
- Data logging for marking report generation

TECHNICAL SPECIFICATIONS

For more technical details, please visit our website at **www.monode.com**

Weight	Marking head/table/column: 34kg Controller: 10kg
Electrical Supply	220v 50Hz, 110v 60Hz
Marking Area	60x60mm / 100x100mm / 150x150mm / 300x150mm

Max. stylus pin to base distance is 415mm (Using 50mm stylus)
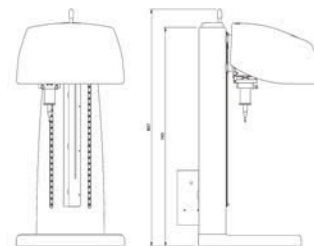
Options and Accessories

Stylus options:
Solid carbide stylii, with 50, 100 & 150mm lengths and tip angles of 60, 90 & 120 degrees as standard. All stylii are available with sharp tips for standard set-ups or with custom radius to minimise stress on materials and comply with IAQG standards. Other types & sizes can be made to order if required.

Circumferential (Rotary) axis:
Rotary attachment to allow marking around shafts, tubes and other circular components.

Automatic tag/plate feeder:
Electric or pneumatic fixture for automatically loading, clamping, marking and ejecting name plates and labels.

Standard Label Fixture:
Simple manually operated label fixturing.

Magnetic Bed Fixture:
Manually activated magnetic base plate, for holding ferrous items.

Data Matrix readers and verifiers:
hand held, modular or station readers and verifiers complying to all established standards of data matrix coding

Bar-code reader:
For retrieving marking information or commands from bar-codes. Directly connected to 3000 controller on embedded systems or PC when using Traceable-IT™.

Cold colour foil feeder:
For high contrast coloured marking on plastics & other suitable materials

T-slotted tables:
Extruded or machined aluminium T-slotted base

TCP/IP Ethernet connection:
10 BASE-T Ethernet port for connection to networks & PLC systems over long distances.

Traceable-IT™ Windows© software:
Traceable-IT™ Advanced Windows© software (see inside)

Also available from Monode Marking:

PortaDot™ Series   *InDot™/InScribe™ Series*   *Laser Series*   *Electro-Chemical Etch Series*   *Manual and Press Marking*

Monode
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When identification is critical for traceability or product impact, a quality mark is required. Monode combines creative engineering with a full range of marking solutions to meet your needs. Over a half-century of progress as a trusted "parts marking problem solver" ...that's Monode!

Quality Marking Equipment with Integrated Machine Vision Solutions