ELECTROCHEMICAL PART MARKING Catalogue 2013

MOVING MARKING TECHNOLOGY FORWARD

The Catalogue for Industrial Part Marking

Here at UMS we are advocates of "the right equipment to meet your exact application needs", ensuring you get the best results from your marking.

Wide Variety of Accessories

We have designed a large selection of accessories to meet your exact requirements. If you would like advice to help you select the right items please call us.

Free Sample Marking Service

You may wish to see the quality of mark that can be achieved on your component. Simply send us one with an example of what you want marked and we will mark and return it within a few days.

Other Marking Technologies

In addition to Electrochemical marking we also provide systems for Dot Marking (dot peen), Laser Marking, Paint Dot Marking for Pass/ Fail applications and Hand Stamps. Please call us for more details.

You Tube:


METALETCH
ME3000T
METALETCH
METALETCH
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STENCIL TAPE
www.ums.co.uk


CE


BGD/00453/AC


NEWCO
F7049/10


UK 5/8
US LIMP MOD


JAS-604/A4

Contents

Electrochemical Marking Technology

Electrochemical Marking is a well proven and trusted technology for marking a wide variety of metal components, for traceability and identification. Recent advances to this form of marking now enable full programmability, excellent comms, variable marking, automation and is approved for Aerospace applications. A leading Aero Engine manufacturer commented "electrochemical marking is a very cost effective and highly versatile form of marking from the smallest component up to large fabrications".

Fast High Quality Marks

Its versatility allows permanent fast marking, without compromising quality of part numbers, serial numbers, date/ batch codes, data matrix and logos all with one small footprint system which is fully portable. The systems produce either high definition oxide marks or below surface etch mark and in the case of many Aerospace applications, a combined light etch followed by black oxide mark for even greater permanency. Expect marking speeds of between 0.25 secs – 4 secs for most sized marks. All the equipment is modular enabling a system to be built to suit your exact needs.

Versatile Software

UMS stencil software enables you to create your own stencil templates and stencil data which can be instantly printed via a compact thermal printer up to 360dpi. We also have software for more sophisticated applications including data matrix which is approved for Aerospace use. You can download stencil template programs to a smart standalone keyboard so no PC is required on the shop floor. Our BRSK stencil packages are an alternative low cost and versatile stencil system producing instant disposable stencils, ideal for variable information, at 360dpi.

Application Examples

Oil & Gas

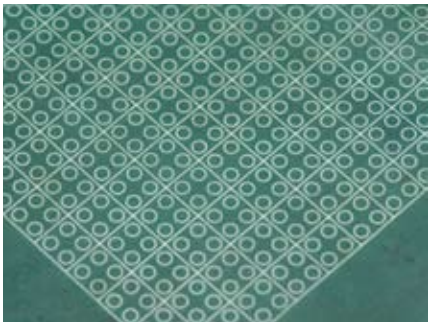
UMS provide marking equipment for drill bits, pipes, pumps, valves, and other drilling equipment as well as for oil field components. Marks can withstand harsh environments including salt water. Ideal for marking onto mating and hardened surfaces.

Aero-Engine Components

Human readable and data matrix marking on critical aero engine components where minimal stress, long life, high contrast data matrix mark is required. Complete mark and read systems available. Meets latest Aerospace standards.

Surgical Instrument/ Implant Marking

The marking does not deform the metal surface, combined with our electrolyte for stainless steel which has been lab tested and no cytotoxicity was found in accordance with BSEDISO10993.



Non destructive testing

Our ME96 marking unit is designed to mark strain grids, used for analysing stress in sheet metal forming. It is favoured for its clarity of mark which is essential in this type of application.

Food processing

Asset tagging and plant or product identification on food and cosmetic manufacturing and processing equipment.

Pipe & Tube Marking

Mark thin walled section easily. We supply a special marking head which wraps around the component and marks in one easy operation.

Nuclear

Electrochemical marking is ideal for nuclear marking applications due to its minimal stress and high visibility marking. Typical applications include pipe and tube marking. Our electrolytes are approved for nuclear marking applications.

Marking Kits

ME3000T Advanced Marking Kit

The most advanced and versatile electrochemical marking machine available for all your marking needs including 2d barcode/data matrix mark and read applications. From hand held to fully automated systems.

Additional features not available with the ME3000S Standard Kit

- 15 user definable programs (11 preset for common materials/applications). Programs can be locked down to prevent editing
- Clear twin line angled LCD display
- Can utilise UMS Stencil software range for creating stencil layouts and full software control over the marking unit and other third part devices (see Software)
- Using solo software can download stencil templates and marking data to a smart standalone keyboard to remove the need for a PC at the marking station. USB connectivity to allow your marking settings to be downloaded from a PC and also marking unit setting to be uploaded to a PC if required
- Combined marking option gives a light etch followed by a black oxide mark in one operation
- Meets latest Aerospace standards including Mil130 and UID
- Timer function in 25 second increments up to 29.75 secs for very fine marking control
- Audible buzzer on completion of mark
- Oxide delay function gives a higher quality mark for certain metals
- Resettable usage counter
- Multi-lingual – available in 6 languages
- 6 output voltage settings
- 20 Amp model available (10Amp model as standard)

ME3000T Marking Kit

Features

- Can be used with ME3000P Air Jig and custom jigs, Remote Start Handle and Pistol Marker
- Manual marking mode for fast marking of very large images
- 5v to 30v output voltages in 5v increments allows more precise settings, eg faster etch rate at higher voltage and better quality mark at low voltages on some metals
- Function indicator (oxide/etch), countdown timer and digital amp meter all designed for ease of use
- Electronic overload/reset function
- 110-230v mains input voltage

ME3000T Marking Unit

The ME3000T is usually supplied as a Kit with all the consumables you need to get started. The ME300T can be supplied as a unit, however, all consumables need to be purchased separately.

Compatible Accessories

- Stencils- page 25 - 29
- Marking Heads- page 18 - 24
- Electrolytes- page 30 - 32
- Software- page 12 - 13
- Spares- page 32 - 33

Description	Part Number
ME3000T 10amp programmable marking kit (with consumables & Kit box)	ME3000TK10
ME3000T 10amp programmable marking unit	ME3000T10
ME3000T 20amp programmable marking kit (with consumables & Kit box)	ME3000TK20
ME3000T 20amp programmable marking unit	ME3000T20

Package Options

You may just need a standard marking kit but the equipment is modular enabling a wide range of configurations to suit your exact application. It may be that you are using long life photographic stencils for applications where the information doesn't change but if you need to mark variable information, disposable stencils are a better option (used with stencil printer). Listed below are some of the most popular package options that other customers have chosen.

Description

ME3000T with ME3000P Air Jig

Ideal for semi-automatic marking for small to medium sized components. Typically supplied as a unit.
Part number : ME3000PT10 (10Amp)
ME3000PT20 (20Amp)

ME3000T Complete Marking Workstation with PC Stencil Software

A custom made workstation trolley to incorporate marking kit, software/PC, thermal printer Speak to us for exact spec to suit your requirements.

ME3000T Kit, UMS Stencil Software, Thermal Printer, PODs Stencil Paper

Ideal for variable information such as incremental numbering, data matrix etc with 2", 4" or 8"media width. Software enables custom templates and data to be created or downloaded. Utilises POD disposable stencil paper. Speak to us for exact spec to suit your requirements.

ME3000T Kit with BRSK Stencil Printer

Ideal for variable information such as incremental numbering with max print height of 27mm (36 mm stencil cartridge)and minimum character size of 4pt. Single and multi line text. Utilises BRSK stencil cartridges.

Description	Part Number
ME3000TK 10amp kit with BRSK Stencil printer PT3600	ME3000TKpt3600
ME3000T unit with BRSK Stencil printer PT3600	ME3000Tpt3600
ME3000T unit with BRSK Stencil printer PT9600	ME3000Tpt9600
ME3000TK 10 amp kit with BRSK Stencil printer PT9600	ME3000TKpt9600
ME3000T Marking kit with BRSK Stencil printer PT9700	ME3000TKPT9700
ME3000T Unit with BRSK Stencil Printer PT9700	ME3000TPT9700
ME3000T Marking kit with BRSK Stencil Printer PT9800	ME3000TKPT9800
ME3000T Unit with BRSK Stencil Printer PT9800	ME3000TPT9800

Kit Contents List

(Applies to ME3000T, ME3000S, ME3000B)

- One HM hand marking head with a pack of x10 spare grid pads. (See page 18)
- One Carbon marking head with a pack of x10 spare felt pads. (See page 19/ 20)
- Cordset
- Earthplate
- 1.6 amp x 20mm fuse for 220-240v use
- USB cable (supplied with ME3000T and DCM S/W Package)
- Footswitch (not ME3000B)
- Mains cable with plug
- Qty4 125ml bottles of electrolyte/ neutraliser of your choice (See page 30)
- One stencil, either a box of die impression stencil paper or a BRSK tape cartridge if sold as a Kit with a BRSK stencil Printer

ME3000S Standard Marking Kit

The ME3000S is suitable for applications where the metal to be marked does not change often as marking settings cannot be stored. It does have a timer to enable consistent marks to be produced on each component. See the ME3000T for additional features and versatility.

Description	Part Number
ME3000S 10 amp Timer controlled marking kit (with consumables and kit box)	ME3000SK
ME3000S 10 amp Timer controlled marking unit (without consumables or kit box)	ME3000S

Features

- Oxide or below surface etch marking
- Timer controlled from 1-10 seconds or manual control for continuous output
- Can be used with ME3000P Air Jig for semi-automatic marking
- Manual marking mode for fast marking of very large images
- 3 voltage settings with LED indicator
- Electronic overload/reset function
- 10 amp output
- 110-230v mains input voltage

Package Options

You may just need a standard marking kit but the equipment is modular enabling a wide range of configurations to suit your exact application. It may be that you are using long life photographic stencils for applications where the information doesn't change but if you need to mark variable information, disposable stencils are a better option (used with a stencil printer). Listed below are some of the most popular package options that other customers have chosen.

Description

ME3000S Kit with BRSK Stencil Printer

Ideal for variable information such as incremental numbering with max print height of 27mm and minimum character size of 4pt. Single and multi line text. Utilises BRSK stencil cartridges.

ME3000S Kit with ME3000P Air Jig

Ideal for semi-automatic marking of small to medium sized components.
Part Number: ME3000PS10
See page 6 for kit content list

ME3000S Kit, UMS Stencil Software, Thermal Printer, PODs Stencil Paper

Ideal for variable information such as incremental numbering, data matrix etc with 2", 4" or 8" media width. Software enables custom templates and data to be created or downloaded. Utilises POD disposable stencil paper. Speak to us for exact spec to suit your requirements.

Description	Part Number
ME3000SK kit with BRSK Stencil printer PT 3600	ME3000SKPT3600
ME3000S unit with BRSK Stencil printer PT3600	ME3000SPT3600
ME3000S unit with BRSK Stencil printer PT9600	ME3000SPT9600
ME3000SK kit with BRSK Stencil printer PT9600	ME3000SKPT9600
ME3000S Marking kit with BRSK Stencil printer PT9700	ME3000SKPT9700
ME3000S unit with BRSK Stencil Printer PT9700	ME3000SPT9700
ME3000S Marking kit with BRSK Stencil Printer PT9800	ME3000SKPT9800
ME3000S unit with BRSK Stencil Printer PT9800	ME3000SPT9800

Compatible Accessories

- Stencils- page 25 - 29
- Marking Heads- page 18 - 24
- Electrolytes- page 32 - 33
- Software- page 12 - 17
- Spares- page 32 - 33

ME3000P Semi-Automatic Marking System

The ME3000P is a compact semi-automatic air jig for marking batches of small to medium sized components which is used with the ME3000T or an ME3000S with the 8 pin accessory socket.

Description	Part Number
Pneumatically controlled marking jig for ME units (with 8 pin accessory socket)	ME3000P
Pneumatically controlled marking jig supplied with ME3000T 20amp (marking head extra)	ME3000PT20
Pneumatically controlled marking jig supplied with ME3000T 10amp (marking head extra)	ME3000PT10
Pneumatically controlled marking jig supplied with ME3000S 10amp (marking head extra)	ME3000PS10

Compatible Accessories

- (As per ME3000T) Marking Heads - page 19

Features

- Guided air cylinder with 50mm stroke allows fast setup changes and accommodates different sized components with minimum setup
- Delay timer function to allow the marking head to move into place and settle on the component before the mark is applied to ensure a high quality mark
- Electronically controlled pump delivers the exact amount of electrolyte needed
- Stainless base plate for direct earthing and with "T" slot for easy mounting of fixtures
- Utilises carbon marking head and can mark onto convex surfaces with SM3 marking head
- Can utilise all stencil types but ideally suited to stencil caps and frames
- Part Number – ME3000P (see ME3000S and ME3000T for package options)

ME3000B Marking Kit

The ME3000B is suitable for low volume marking applications. It has a similar specification to the ME3000S without the timer function. This means the operator needs to manually time the marking cycle to ensure marking consistency for each component.

Features

- Oxide or below surface etch marking
- 3 voltage settings with LED indicator
- Electronic overload/reset function
- 10 amp output
- 110-230v mains input voltage

See page 6 for Kit Content list

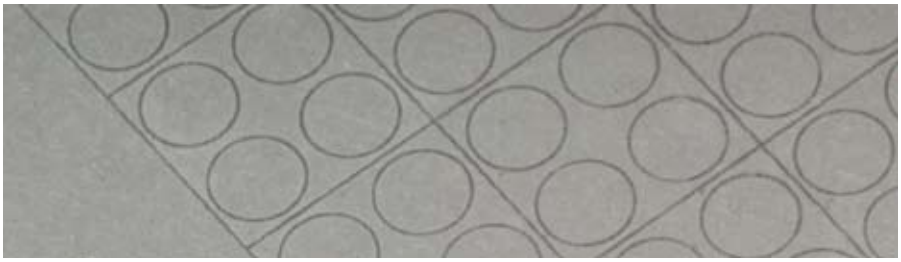
Description	Part Number
ME3000B 5 amp Non-timer oxide & etch unit with mains cable and cord set	ME3000B
ME3000B 5 amp Non-timer oxide & etch marking kit	ME3000BK
ME3000B unit with BRSK Stencil Printer PT3600	ME3000Bpt3600
ME3000BK kit with BRSK Stencil Printer PT3600	ME3000BKpt3600

ME96 Strain Grid Marking Kit

Strain grid marking is the standard method for analysing stress in sheet metal forming. Our large capacity strain grid unit is favoured for its ease of marking and speed of operation. A semi-automatic air jig version is also available.

Features

- 20Amp or 100 Amp output models available
- 280mm wide stainless steel roller marker with pistol control operated using a finger trigger
- Volt and amp meter
- Hand marker supplied to mark component ID or reference number on test piece



ME96 mark

Description	Part Number
100 amp strain grid marking kit	ME96
ME3000TK 20 amp strain grid marking kit 100mm roller	ME3000T20SG

ME96 Kit Contents

- Cord set UC8
- Heavy duty earth output cable
- Mains cable
- HM5 Hand Marking head and spare felt pads
- Stencil paper of choice
- Electrolyte, ME8 and ME5 with MN2 neutraliser
- Strain grid pattern
- 280mm roller with trigger handle attachment

See Stencil page 25 - 29 for further information

See Roller marker page 24 for further information

ME3000PC Automated Marking System

Utilising the ME3000T Advanced Marking Unit the ME3000PC can mark serial numbers, part numbers, date/ batch codes, datamatrix codes and even logos all in one operation. Ideal for nameplates and other flat surfaced components. Plus now available with cylinderical component fixture.

Features

- Used with PC and UMS Stencil Software. Utilises ME 3000T 20Amp marking unit.
- Pump fed electrolyte delivery which is clean and mess free and even recycles excess electolyte
- Auto winds the stencil material directly from the printer and rewinds automatically after marking
- An automatic timer ensures the marking cycle time is correct giving consistent marks
- Only manual intervention to place the part
- System footprint is 700 x 550mm

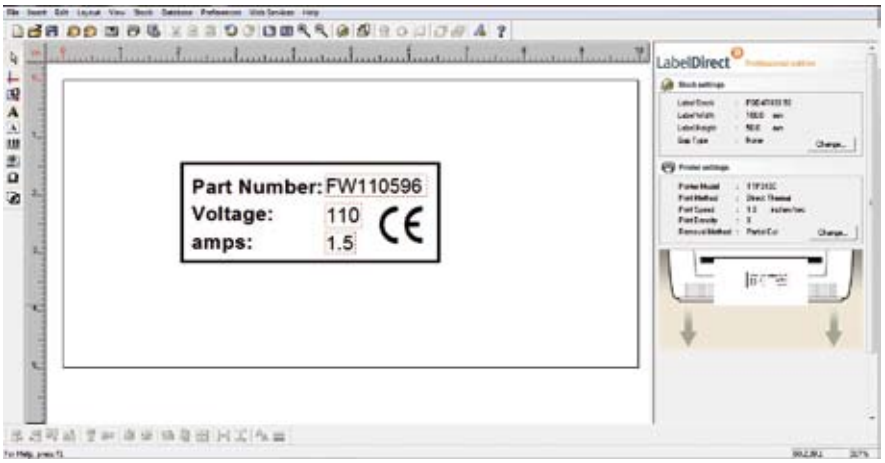
Description	Part Number
ME3000PC Semi automatic marking station	ME3000PC

Please contact UMS for further information regarding the ME3000PC

Software

UMS provide a range of Windows based software applications used for stencil production. Not all electrochemical marking applications require software for stencil production but the software options provide a high degree of functionality for variable marking applications including data matrix applications. For advice on the most suitable software for your application please give us a call and we will be happy to discuss your requirements with you.

UMS Label Direct



Label Direct is powerful yet easy to use stencil creation software which outputs stencils via exclusive TTP thermal printers, utilising our Print on Demand (POD) stencil material. Using direct printer control, it removes the need for a Windows printer driver and any associated settings complexity.

Features

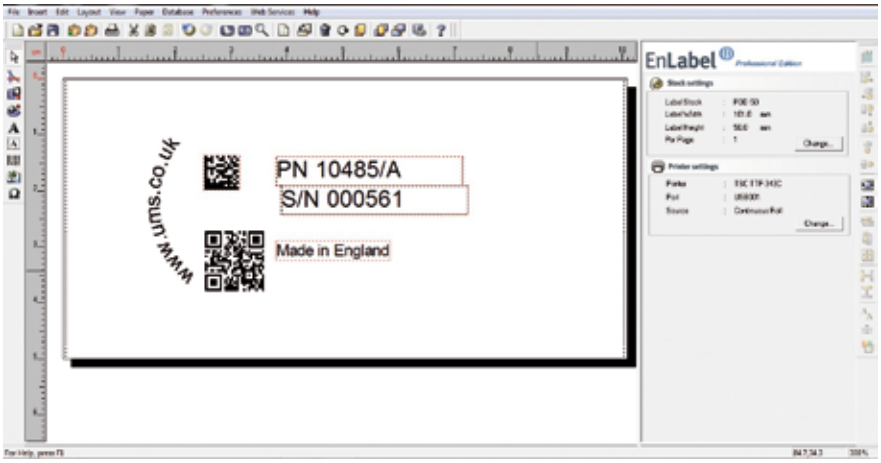
- Text can be placed on a straight line or set on a radius for annular shaped components
- For data matrix marking, data can be combined from several other elements and ASCII characters easily added to create data strings as used in Aerospace applications
- Page layout, paper size and printer settings are saved per file so just the variable information needs to be added before printing the stencil
- Automatic updating of incrementing numbers and date codes
- Import from .xls, .mdb, .csv, Paradox and Lotus files
- Stencils output using a high quality 2",4" or 8" thermal printer at 300dpi with cutter
- Printer can also be used for thermal and thermal indent labelling applications

- It has a comprehensive range of variable data types including incremental/decremental numbering, date/time, serial numbers, graphics and data matrix codes
- Features database integration with powerful search, filter and SQL queries. Multiple database types and OLEDB & ODBC for all others. Connection to spread sheets or text files (csv etc)
- 100% WYSIWYG design including accurate font representation
- Uses native printer command language which avoids the complexities of printer drivers whilst offering full control of your printer's features
- Full data matrix capability for Aerospace standards as well as simple 2d applications as used in Medical and general engineering applications
- Add non-printing elements and pictures if required to help the operator with instructions and placement of the mark on components
- Multiple data entry options, keyboard, 1d barcode, database etc.
- Very fast print speed
- Full software control of printer features and settings
- Onscreen print preview of stencil template appearance and orientation
- Use on any port or across a network
- Print only version for use where design is only authorised by certain personnel
- Password and user control of Design and or Print Only Audit history of stencils printed against time and user
- Design program and print program with password protection for the Design Program
- Also use for creating own in-house labels

If you need to print both pod stencils and labels, then you can connect two TTP printers to your PC and set up the files to connect directly to the appropriate printer without user intervention.
Note: UMS Label direct will only work with the UMS TTP pod / label printer range.

EnLabel

Fully featured stencil and label printing software which connects to multiple printers without the operator having to select the correct printer as each file stores your printer settings with it.

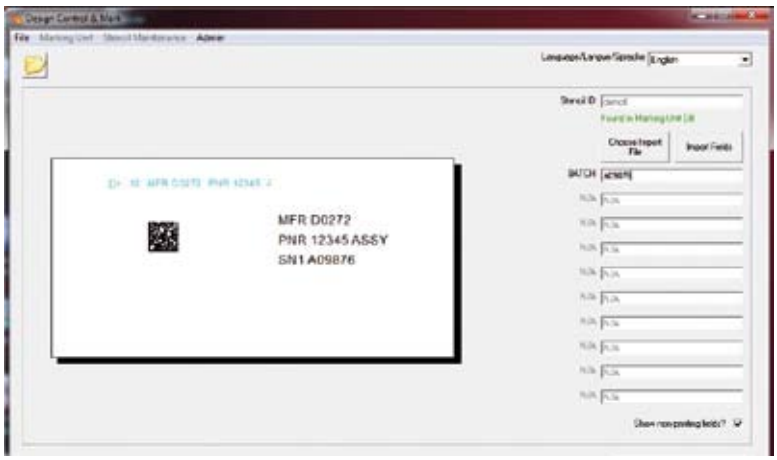


Features

- Two stencil printing options:
  - Via an exclusive TSC thermal printer, utilising our Print on Demand (POD) stencil material
  - Use our TF Die Impression stencil paper with a 24 pin dot matrix printer (quality dependent on printer but good for deep etch applications)
- Can also be used for multi coloured label printing and bag & tag printing applications (colour printer required) using any standard Windows® Printer driver
- Separate printing program avoids unauthorised changes to stencil layouts utilising a familiar Explorer style interface. The Design program can be password protected from users to stop unauthorised editing
- Wide range of data input options
  - Keyboard data entry
  - Option lists
  - Incrementing/decrementing numbers and serial numbers
  - Database integration
  - 1d / 2d barcode scanner
  - Time/date stamps
  - Macro scripts for custom data manipulation.
  - Linked elements
- 1d and 2d barcode printing including Aerospace standards as well as simple 2d applications and GS1 medical format.
- Add non-printing elements and pictures to help with instructions for marking or placement of the mark / label etc..
- Simple graphics: straight lines, box/rectangles, circles/ellipse
- Multiple database connectivity
- Import graphics files for printing or use on screen interface to create lines, circles or squares
- Text on an angle and on an arc

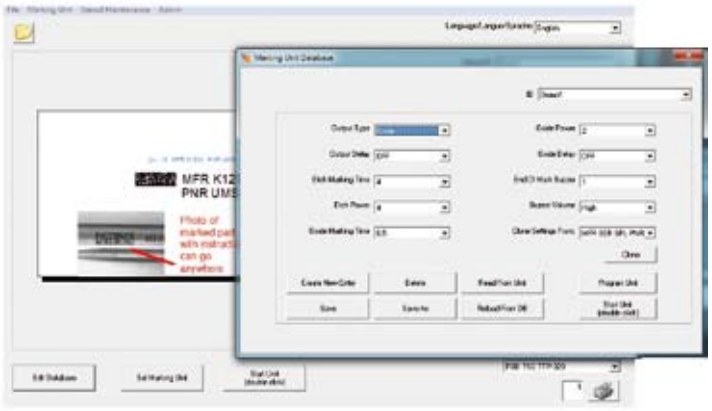
DCM (Design Control Mark)

DCM is often used for more complex applications, particularly where there are multiple metals being marked as the software can ensure the correct marking settings are used for each marking program setup. DCM is a front end dynamic database application utilising the features of EnLabel to create a stencil template.
It reduces operator error by only allowing the operator to enter the data to be marked. The software can link with the ME3000T marking unit so that when the stencil has printed, DCM recalls the correct program for that particular stencil in the ME3000T marking unit. This ensures the correct settings are used to mark the component.



Features

Formats data for encryption to ISO16022 (AIM), ATASpec2000, IAQG, Milspec / IUID format. Unlimited number of dynamic fields. Multi-lingual capability. Setup and configuration is password protected.



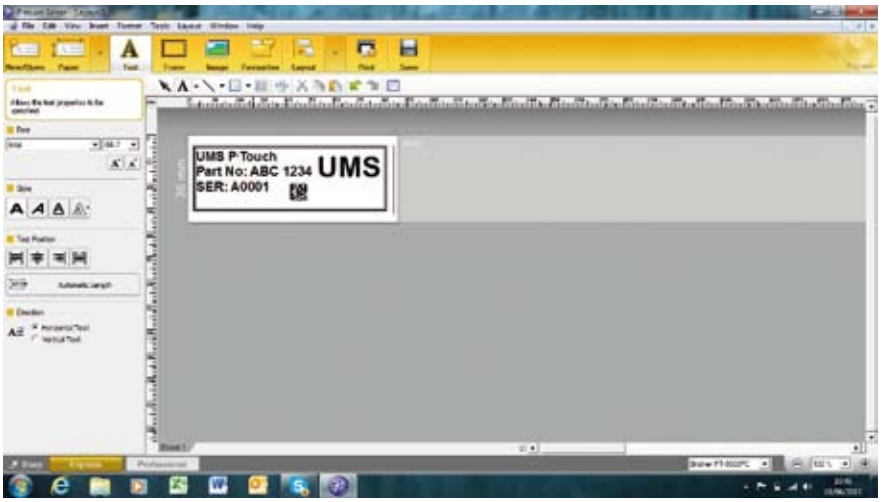
- The software has a simple interface for the operator to allow variable data to be added or imported from a csv file
- When the stencil is printed, the marking settings for the component are downloaded to the ME3000T significantly reducing the risk of operator error
- For datamatrix applications DCM automatically adds the non-printable wrappers as used in UID format for datamatrix encryption
- Formats data encryption to ISO16022 (AIM), ATASpec 2000, ASO132 (IAQG), ISO15415
- The marking settings can also be uploaded to the PC when correct
- The software can be controlled via a 1d barcode scanner without keyboard or mouse control
- Runs on Windows XP, Vista 32 bit, Win 2000, Windows NT, Windows 7
- This software replaces the E2DM software

UMS Solo 2 - Standalone System For Stencil Production

The Standalone Solo Keyboard allows stencil templates to be designed on a PC and transferred to the "Printer" directly, onto an SD card, then using the keyboard connected directly to the printer, simple PC independent stencils are produced. No PC is needed on the shop floor. The keyboard unit is used to recall the file and to add any variable information, then the stencil is printed via a thermal printer. The printer has dedicated software installed and additional fonts can be saved onto the SD card. It enables companies to design templates in any format with data matrix codes, images, text, symbols and other graphical elements all exactly as they will be printed. Utilises UMS Label Direct Solo 2 software and is easy to operate with almost all the features of UMS Label Direct for the PC software. Stencil content can be sourced at print time from database records, keyboard input and other sources. The system is highly secure as the template format cannot be changed and there is no access to the network or internet. Simple keyboard operation with custom display prompts, utilising an LCD screen. It has a small footprint and no mouse or monitor is required. It has a robust construction for industrial use. PC connects via USB (cable supplied) and the keyboard connects to the printer via RS232 interface.

BRSK Stencil Software

The practical yet powerful P-Touch Editor stencil software allows users to make customised stencil layouts for their marking applications and is supplied with BRSK stencil tape labelling systems.
It can also be used for a wide range of labelling applications using the P-Touch TZ laminated tapes.
Easy to incorporate graphics, logos, fonts and other files found on the user's PC.
Flexible printing quantity.
Microsoft® Add-in feature (for Windows only) allows for seamless integration with popular software packages such as Microsoft Word, Excel and Outlook.



Other features:

- Sequential numbering
- 1d and 2d barcodes
- Supported database formats:
- Windows®: xls, mdb, csv, txt, Microsoft® SQL Server Database
- Macintosh®: csv, txt, Mac OS® X Address Book
- You can import existing graphic files (BMP, JPG / JPEG, GIF, TIF/TIFF) you already have, or use enhanced symbols or clip-art files included in the P-touch Editor to create logos or custom art.
- Date/Time Function
- Text on an arc (with drag tool)
- Easy to create and store templates
- You can use the configured button to import data from Microsoft® Word®, Excel®, and Outlook® into P-touch Editor
- P-Touch Library (Windows only) allows you to view the content of the stencil without having to open it, this means that the stored stencils are easy to search through

Software Options

Description	Pack Size	Part Number
UMS SOLO Packages		
1d barcode scanner for solo2 keyboard (RS232)		TPIMSOLOBCR
USB solo2 package with, keyboard, SD card and software	2" printer with cutter + 1 roll POD55R100	TPSOLO2-4-300
USB solo2 package with, keyboard, SD card and software	4" printer with cutter + 1 roll POD4R100	TPSOLO2-55-300
UMS Label direct Packages		
4" 200dpi thermal label printer + UMS label direct	With cutter fitted - ideal for low resolution PODs	TPIM245CLDC
4" 300dpi thermal pod printer + UMS label direct + 1 roll POD4R100	With cutter fitted - ideal for PODs	TPIM343CLDC
2" 300dpi thermal pod printer + UMS label direct + 1 roll POD55R100	With cutter fitted - ideal for PODs	TPIM323CLDC
4" 200dpi thermal label printer + UMS label direct	No cutter fitted low resolution labelling	TPIM245CLD
4" 300dpi thermal pod printer + UMS label direct + 1 roll POD4R100	No cutter fitted - ME3000PC or hi-resolution labelling	TPIM343CLD
2" 300dpi thermal pod printer + UMS label direct + 1 roll POD55R100	No cutter fitted - ME3000PC or hi-resolution labelling	TPIM323CLD
UMS DCM Packages		
2" 300dpi thermal pod printer with DCM software package	With cutter fitted + 1 roll POD55R100	TPIM323CDCMC
4" 300dpi thermal pod printer with DCM software package	With cutter fitted + 1 roll POD4R100	TPIM343CDCMC
POD software / hardware upgrade packages		
UMS label direct software program	WinXP / Win 7 32 / 64 bit	TTPODLD
Design Control & Mark Software- 'DCM' (includes EnLabel)	Replaced E2DM and PODS package - XP / Win 7 32/ 64 bit	TTPODCM
EnLabel Design and Print	Replaced POD Software - XP / Win 7 32/ 64 bit	TTPODSWFP
ME3000T firmware upgrade kit for DCM		ME3000TPICV6_51

See page 28 for images of the printers used in the above packages.

Marking Heads

Once you have chosen your marking kit it is important that you choose the correct marking head to help you achieve the best results. We manufacture a wide range of marking heads to suit most electrochemical marking applications depending on size of the mark, marking location and component shape.

Hand Marking Heads (HM Series)

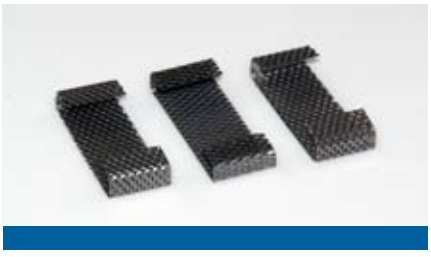
- Easy to use hand held marking head suited to low volume marking and deep etching on most surfaces
- The electrolyte is applied directly to the pad by the operator from a thin nozzle bottle
- Normally 5 - 6 marks can be obtained before the electrolyte needs to be replenished
- Tip: Choose the marking head size which as closely as possible matches the size of mark to be made

Description	Size (mm)	Part Number
HM Marking Heads	13 x 31	HM5
	16 x 38	HM6
	22 x 41	HM7
	15 x 64	HM8
Grid Pads		
For HM5 head	Pack of 10	HM51
For HM6 head	Pack of 10	HM61
For HM7 head	Pack of 10	HM71
For HM8 head	Pack of 10	HM81
Deep Etch Bridge		
For HM5 head	Pack of 5	HM52
For HM6 head	Pack of 5	HM62
For HM7 head	Pack of 5	HM72
For HM8 head	Pack of 5	HM82

HM Spares

Grid Pads

A combined perforated stainless steel and felt pad. Tip: Change regularly to avoid build up of oxide on the pad which will affect marking quality.



Deep Etch Bridge

Recommended for deep etch marking as it helps achieve a deeper mark.

Carbon Marking Heads

Similar functionality to the HM Series heads but the carbon head does not oxidise so felt pads will normally have a longer life. There are a large range of sizes and bespoke sizes can be made.

- Suitable for low or high volume applications
- An electrolyte reservoir can be fitted which can be cleaner and easier than hand applied electrolyte
- Bespoke heads can be machined to suit flat, concave or convex surfaces
- Can be manufactured with one or multiple electrodes on the same body and using several electrolyte feeds if required

Carbon Marking Head Spares

Handle Assembly

Can be used instead of the reservoir assembly.

Reservoir Assembly

Supplies electrolyte to the marking head for hand applied marking.

Terminal Ring

Contact pin for M7, M8, SM and the old CM range of marking heads to fit on cord set cables.

Felt Pads

Replacement felt pads for all sizes of heads.

Clamping Ring

Used for clamping the felt pad to the marking head.

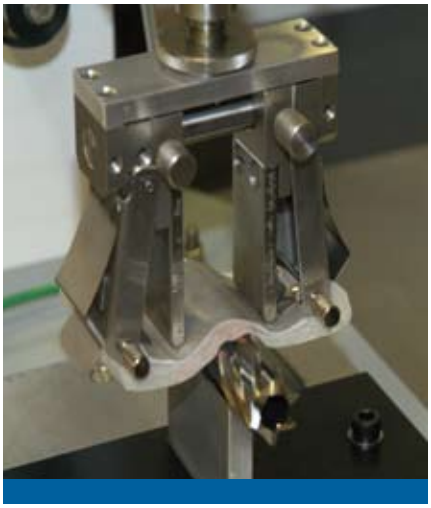
Machine head for ME3000P / PM / RSH	Hand marker with RA reservior assembly	Marking face size	Felt pad	Clamping rings
M8aa	M8ar	12mm x 12mm	C7a1	M8a2
M8bb	M8br	12mm x 24mm	C7b1	M8b2
M8cc	M8cr	12mm x 36mm	C7c1	M8c2
M8ff	M8fr	24mm x 48mm	C7f1	M8f2
M8ss	M8sr	24mm x 60mm	C7s1	M8s2
M8v	M8vr	35mm x 65mm	C8v1	M8v2
M6a	M6r	6mm x 12 mm	M6a1	M7a2
M6b	M6br	6mm x 24 mm	M6b1	M7b2
M6c	M6cr	6mm x 36 mm	M6c1	M7c2
Brass construction marking head				
M7dd		24mm x 24mm	C7d1	M7d2
M7ee		24mm x 36mm	C7e1	M7e2
M7h		36mm x 36mm	C7h1	M7h2
M7mm		12mm x 48mm	C7m1	M7m2
M7nn		12mm x 60mm	C7n1	M7n2
M7pp		12mm x 72mm	C7p1	M7p2
M7rr		12mm x 84mm	C7r1	M7r2
M7t		24mm x 72mm	C7t1	M7t2
M7ww		48mm x 48mm	C7w1	M7w2
M7xx		60mm x 60mm	C7x1	M7x2
M7yy		36mm x 98mm	C7y1	M7y2

Accessories	Part Number
 Reservoir assembly for all Carbon Head	RA
 Insulated stainless steel handle for carbon heads	HA
 Terminal rings	TR

Remote Start Handle (RSH)

The RSH is a marking handle which integrates the timer start button, earth connection and reservoir assembly enabling the complete marking operation to be carried out with one simple press of the button.
Can be used on the ME3000T/ME3000S and removes the need for a footswitch. Uses standard M series carbon marking heads or the Saddle Marking Head for marking curved surfaces.

Remote Start Handle Accessories



Saddle Marking Head

Ideal for applying marks to curved surfaces, eg pipes.

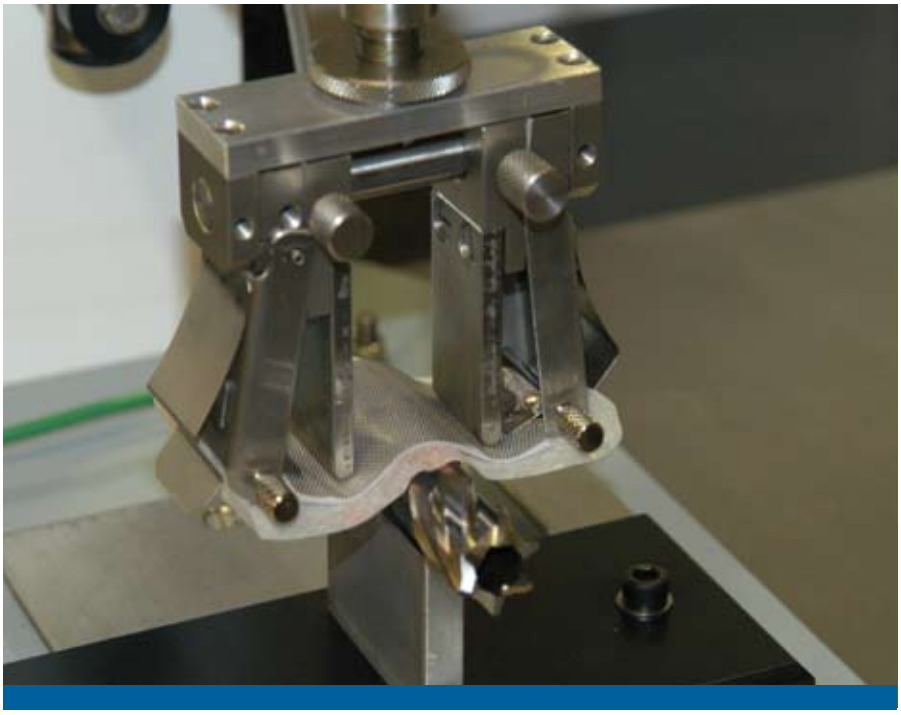
Carbon Heads

The RSH utilises the carbon marking heads, see page 19 - 20 for sizes and part numbers.

Description	Size	Part Number
Remote Start Handle	3m cable	RSH
Remote Start Handle	5m cable	RSH 5

Saddle Marking Head

- The Saddle Marking head is ideal for marking cylindrical parts on which the mark encompasses about 110˚ or less of the circumference
- The design of this marker permits the part to be cradled so the complete mark is made at one time The flexible side arms allow the stencil to wrap around the component
- Can handle a wide range of part diameters
- Can be used with the ME3000P and the Remote Start Handle Marking Head
- The woven mesh grid pad allows the mark to breathe during the marking cycle & helps produce a sharp clear mark
- Uses SM3 Stencils - see page 29



Saddle Marker

Aerospace pipe

Description	Width (mm)	Part Number
Saddle Marking Head		SM3
Replacement mesh grid pads (pkt of 5)	15	Sm3a
	20	Sm3b
	25	Sm3c
	30	Sm3d
	35	Sm3e
	45	Sm3f
	55	Sm3g
	60	Sm3h

Pistol Marker

Similar applications to the RSH but suited particulary to more vertical faces. The hand held Pistol Marker has a carbon marking head and gives freedom for the operator to move around with the marking head as it is connected to the marking unit with a 3m cable. It can be used with the ME3000T/ ME3000S or older units fitted with an 8 pin accessory socket and has an integral earth pin. It is supplied with an adjustable end stop to help locate the pistol marker on various shaped components.

PM01

PM

Description	Part Number
Pistol Marker with integrated earth pin, max marking head size M8f. Comes with 3m cable	PM
Pistol Marker with 1m earth cable for M6, M7, M8 and SMV marking heads. Comes with 3m cable	PM01

Rocker Marker – Large Marking Areas

The convex Rocker Markers are designed for large marking areas, such as logos or label designs and nameplates onto flat surfaces, to give a consistent high quality mark also. Due to the large area of mark, these are typically used with 20 Amp marking units.

Description	Size mm	Part Number
Rocker Marker	25 x 100	RM0
	50 x 100	RM1
	75 x 100	RM2
	100x 100	RM3
	150 x 100	RM4

Rocker Marker

Example of the mark

Roller Marker

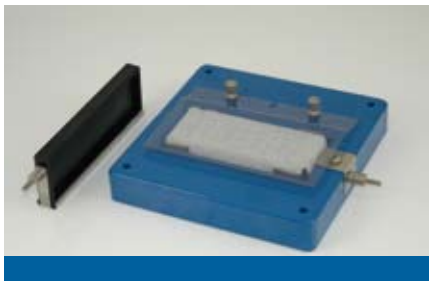
The Roller Markers are designed for large marking applications such as rules ideal for marking with long stencils, scales and used for strain grids. The Roller Marker is compact and easy to handle and can mark large areas in a shorter time.

Description	Size	Part Number
Roller Marker (heavy duty)	280mm wide	Roll280 (ME 96 only)
Roller Marker	100mm wide	Roll4
	150mm wide	Roll5

Roller Marker

Bench Fixture Marking Head – Small Components

This marker is used for small flat or round parts. Use for cylindrical parts where the mark will encompass more than 120° of the circumference of the part. Ideal for centre drills, hand taps and dowel pins. The bench fixture consists of a flat base with the necessary electrical connections and a reservoir for electrolyte. The plate and pad which fit into this well provide the marking surface. A stencil is placed over the pad and the cylindrical part is rolled over the stencil using the earth attachment.



LBF Standard Bench Fixture

Description	Size	Part Number
Standard Bench Fixture	Supplied with Grid Plate and Hand Earth Attachment	LBF

Description	Size	Part Number
Accessories		
Grid Plate for LBF		MU2
Thin Felt Pads for LBF (Polar)	Qty 5 per pack	MU21
Meduim Felt Pads for LBF	Qty 5 per pack	MU22
Earth attachment		BU5
Plastic location plate is cut to either be used as a backstop when rolling the component or a cut out made to the shape of a flat component for location		Plastic

Stencils

The stencil carries the image to be marked onto the metal surface. We supply several types of stencil which will vary to best suit the marking application.

Choosing the Right Stencil

Print on Demand (POD) and BRSK Stencils.- High resolution Disposable stencils

Variable information such as serial numbers , datamatrix, date/batch codes etc. up to 360 dpi output quality.

Photographic Long Life Stencils

Non changing information for high volume marking, eg part numbers, logos.

Die Impression stencils

Variable information, lower quality marking (typewriter or dot matrix printer required). Good for deep etch applications.

BRSK Disposable Stencils

The BRSK stencils are suited to variable data applications such as serial numbers, date codes etc. You can choose either a fully contained printer with QWERTY keyboard to print your instant stencils or a PC driven printer. Typically used for Oxide marking or light etch marking. The 360dpi print head gives exceptionally clear marks on small characters down to 4pt.

- Stencil cartridge tape widths of 18mm, 24mm and 36mm
- Small footprint thermal stencil printers up to 360dpi print quality
- Qwerty easy to use keyboard and software
- Multi line print and free PC editor software to enable templates to be setup and store marking files
- Stencil cartridge easy loading
- The stencil printers also produce high quality laminated labels for all your labelling needs

BRSK stencil printers at a glance

Feature	PT3600	PT9600	PT9700PC	PT9800PCN
				
	Most popular model suited to most applications	Suited to particularly tough environments	Versatile PC driven system	Similar to PT9700PC but adds networking as standard
Print speed	20mm/sec	20mm /sec	20mm /sec 80mm/ sec for paper Label printing on HG tapes	20mm /sec 80mm/ sec for paper Label printing on HG tapes
Print Quality	360 dpi	360dpi	360dpi	360dpi
Display	20 char, 3 line backlit LCD	20 char, 3 line backlit LCD	PC only	PC only
Stencil sizes (max print ht 27mm)	18, 24, 36mm	18, 24, 36mm	18, 24, 36mm	18, 24, 36mm
Fifteen 1 & 2d barcodes	Yes	Yes	Yes	Yes
Data download .xls, .mdb & sql Using PTouch Editor software	Yes	Yes	Yes	Yes
Memory	10240 char (100 files)	10240 char (100 files)		
Realtime clock & timestamp	Yes	Yes	Yes	Yes
Automatic cutter	Yes	Yes	Yes	Yes
Re-chargeable battery	No	Yes	n/a	n/a
Ports	USB	USB & RS232	USB & RS232C	USB, RS232C, USB-A
Mirror/vertical & rotate printing	Yes	Yes	Yes	Yes
Supplied with carry case	No	Yes	No	No
System requirements	PC use optional	PC use optional	Windows 2000 Prof (SP4 or higher), Windows XP or Vista, Mac OS X10.4 – 10.6, Win more than 70MB hard disk space	Windows 2000 Prof (SP4 or higher), Windows XP or Vista, Windows Server 2003/2008.Mac OS X10.4 – 10.6, Win more than 70MB hard disk space
Network ready	No	No	No	Yes

Description	Size	Part Number
Stencil Cartridges		
18mm BRSK Stencil Cartridge Max character size 9mm (36pt size)	18mm x 3m long	BRSK18
24mm BRSK Stencil Cartridge Max character size 12mm (48pt size)	24mm x 3m long	BRSK24
36mm BRSK Stencil Cartridge Max character size 19mm (36pt size)	36mm x 3m long	BRSK36

Note: See ME3000T and ME3000S on page 6 and 8 for BRSK Stencil Printer packages. Please contact us for pricing if you already have an electrochemical marking kit and wish to add or replace a printer.

Print on Demand Disposable Stencils (POD Stencils)

POD stencil material is slightly more robust but similar to the BRSK stencils and stencils are produced using PC software with a 300dpi thermal printer with a standard width stencil of 2"(55mm), 4" (106mm) or 8" (210mm). The 4 software options provide a high degree of functionality for variable marking applications including data matrix (Aerospace compliant), text on an arc, database connectivity etc. See page 12- 17 for more information on software options.

Description	Pack Size	Part Number
POD stencil material		
Pod stencil material 55mm wide x 100m	rolls x2	POD55R100
Pod stencil material 106mm wide x 100m	roll x1	POD4R100
Pod stencil material 224mm wide x 100m	roll x1	POD8R100
Pod stencil material 224mm wide x 100m	rolls x6	POD8R100PK01

POD Stencil Printers

4" 300dpi stencil printer with cutter fitted

2" 300dpi POD stencil printer with cutter fitted

8" 300dpi POD Stencil printer with cutter fitted

Description		Part Number
POD stencil printers		
2" 300dpi thermal pod stencil printer with driver - No software	No cutter fitted - ME3000PC or hi-resolution labelling	TPIM323C
2" 300dpi thermal pod stencil printer with driver - No software	With cutter fitted - ideal for PODs	TPIM323CC
4" 300dpi thermal pod stencil printer with driver - No software	No cutter fitted hi-resolution labelling	TPIM343C
4" 300dpi thermal pod stencil printer with driver - No software	With cutter fitted - ideal for PODs	TPIM343CC
8" 300dpi pod stencil printer	With cutter	TPIM384CC

Die Impression Disposable Stencils

Suitable for variable data marking applications such as serial numbers, date codes etc. The stencil is produced using a typewriter or dot matrix printer so the quality will only be as good as the printer or typerwriter. It is often used for deep etch marking or short batch runs.

Description	Size	Part Number
Light grade Blue BEM stencil paper	60mm x 6m roll	BEM606
Tractor fed Blue light grade stencil paper	133mm x 250m roll	TF133250
	133mm x 10m roll	TF133
	63mm x 10m roll	TF6310
	63mm x 250m roll	TF63250
	95mm x 10m roll	TF9510
	95mm x 250m roll	TF95250
Heavy duty grade Turquoise stencil paper	60mm x 180mm x 100 Sheets	LST60180
	60mm x 10m roll	LST6010

Photographic Long Life Stencils

These long life stencils are ideal for production marking for constant data such as part numbers and logos. The stencil is produced from an artwork processed at UMS. The life of these stencils varies but with most oxide marking several thousand marks can be made from a single impression.

The stencil can be made into several formats depending on the application:

Stencil Sheets

Normally has four impressions of the same image on a single sheet of stencil paper. Large range of sizes range from 60mm x 180mm to 290mm x 650mm. Please contact us for further details.

SM3 Stencils

Used with the SM3 Marking Head for marking on convex surfaces. Sizes range from 20mm wide to 60mm wide. Please contact us for further details.

Stencil Frames

Stencil frames are used with the ME3000P for machine placement of the stencil prior to marking onto flat surfaces. Large range of sizes from 19mm x 40mm to 175mm x 200mm.

Stencil Caps

Mainly used with the Carbon M7 & M8 Heads and ME3000P semi automated marking unit or automated production line systems where the stencil cap is fitted over the Carbon electrode, making positioning easier and giving consistent marking. They can be used for hand applied marking and can be supplied as curved caps for text on a radius. Large range of sizes from 5mm x 12mm flat stencil cap to 80mm x 80mm. Please contact us for further details.

Strain Grid Stencils

Used for analysing stress in metal forming. Used with ME96 and ME3000T (20amp version). Bespoke strain grid stencils can be made on request althrough we have a wide range of standard patterns. A large range of sizes from 100mm x 280mm to 400mm x 280mm pattern size.

Artwork & Plate Options for Photographic Stencils

Our Art Department will take your camera ready artwork of the image to be marked or we can produce an artwork for you. Once the artwork has been approved we will produce the finished stencil for you. There is also a small one off Plate charge which is part of the stencil making process. Please contact us for a quote.

Electrolyte Solutions

The correct selection of electrolyte is extremely important as this is a critical factor in determining the quality of the mark. We supply a range of electrolytes for marking on most metals, as well as a number of approved high purity electrolytes for Aerospace and Nuclear industries. Neutralising is required with some electrolytes which are supplied in a handy "Neutrawipe" dispenser. All electrolytes are water based and full material safety data sheets are available on request. The electrolyte selection chart should assist with the selection of the right electrolyte or call us for more specific advice.

Electrolyte Options (See electrolyte selection chart for more detailed information)

Electrolyte	Part Number 1 litre bottle	Part Number 6x 125ml bottles
ME2	me02	me02 - 125
ME3	me03	me03 - 125
ME4	me04	me04 - 125
ME5	me05	me05 - 125
ME6	me06	me06 - 125
ME8	me08	me08 - 125
ME9	me09	me09 - 125
ME10	me10e	me10 - 125
ME11	me11	me11 - 125
ME12	me12	me12 - 125
ME13	me13	me13 - 125
ME17	me17	me17 - 125
ME20	me20	me20 - 125
ME21	me21	me21 - 125
ME22	me22	me22 - 125
ME23	me23	me23 - 125
ME24	me24	me24 - 125
ME25	me25	me25 - 125
ME26	me26	me26 - 125
ME27	me27	me27 - 125
ME28	me28	me28 - 125

Aerospace Approved Electrolytes	Part Number 1 litre bottle	Part Number 6x 125ml bottles
MA1	ma01	ma01 - 125
MA2	ma02	ma02 - 125
MA3	ma03	ma03 - 125
MA4	ma04	ma04 - 125
MA5	ma05	ma05 - 125
MA6	ma06	ma06 - 125

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ELECTROLYTE	ME2	ME3	ME4	ME5	ME6	ME8	ME9	ME10	ME11	ME12	ME13	ME14	ME15	ME16	ME17	ME20	ME21	ME22	ME24	ME25	ME26	ME27	ME28	MA1	MA2	MA3	MA4	MA5
METALS																												
Aluminum				DE/O																			DE		DE			
Aluminum Bronze				DE		BP			WO																DE			
Bronze				DE						DE	DE														DE			
Brass				DE		O								BP									DE		O			
Cadmium				O																					O			
Cad & Plate				DE/O		O								BP										O				
Carbide	O	O	O	O	C	C				C													O			O		O
Cast Iron		O				O					DE											O	O	O				
Chrome Plate			WO/DE								DE			DE						O								
Chemical Blacked										DE	DE					WO			WO									
Colbolt													O	O														O
Colbolt Chrome										DE	DE														DE			
Copper				DE		BP								DE													O	
Hastelloy																										O		O
High Speed Steel		O				O				DE	DE	DE	O	O	O			O							C		C
High Carbon Steel		O				O						DE	O		O		O	O										C
Inconel																												C
Magnesium			DE	DE																								
Mazac				DE		O				DE	DE	DE					WO	O								O		O
Mild Steel		O				O												O				O	O					
Monel											DE														O			
Molybdenum																											O	
Nickel	O																								O			
Bright Nickel	O																											
Nickel Tin	O		O																						DE			
Nickel Steel		O		DE						DE	DE	DE																C
Nimonic																												C
Pewter																												
Polished Carbon Steel		O				O									O			O							DE			
Silver & Silver Plate			O	DE			O																			O		O
Stainless Steel	O				O	O	O	O	O	DE	DE		O	DE				O					DE/O			C		C
Stainless Hi Chrome		O			O			O														O			O			
Stellite			WO																									
Tin			O	WO/O								O															O	
Titanium							O				DE				O						O	O				O	O	O
Titanium Nitride		O			O	O					DE																	
Zinc	O																					O		O				
Zinc Plate																						O						
Zinc Colour Passivation			C																				O	O				
Zinc Clear Passivation																							O	O				
Zirconium																											O	
Nobium Ziconium Alloy																											O	
Neutraliser	2	1 & 4	1 & 2	2	1 & 4	none	1 & D1	1	1	1	1	1	1	1	1 & 4	1 & 4	1	1	1 & 4	1	1 & DI	DI	none	DI	DI	DI	DI	DI
Stencil Cleaner	5	6	5 or6	5	6	5	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	5	6	5	6	6	6

CODES

O = Oxide

DE = Deep Etch

C = Compound- Etch + Oxide

BP = Black Plated (reverse output cables and use ETCH) - Use stainless steel electode

WO= White Oxide

MN1 and MN2 should be applied approximately 2 parts neutraliser to 1 part electrolyte used

MN4 is an immersion neutraliser and corrosion inhibitor

CODES FOR AEROSPACE GRADE ELECTROLYTES

MA1
MA2
MA3 (equivalent to RR33)
MA4 (equivalent to 59L)
MA5 (equivalent to RR66)

MA grade electrolytes are high purity solutions mainly used for aerospace / nuclear applications

CODES FOR NEUTRALISERS

1 = MN1
2 = MN2
4 = MN4
DI = De-ionised water

STENCIL CLEANERS

6 = MS6
5 = MS5

This chart is for reference only. Surface finish and stencil type will affect the quality of the mark. Please refer to individual product sheets for more information.

technical@ums.co.uk
www.ums.co.uk

Neutralisers

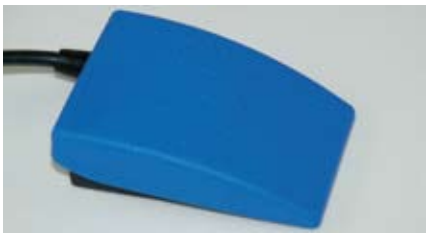
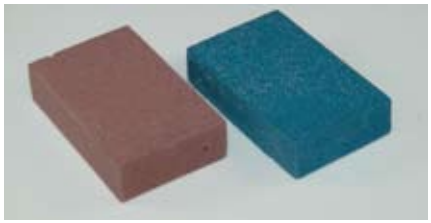
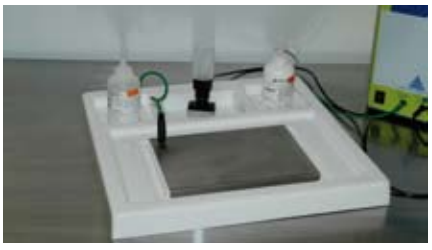
Neutraliser removes excess electrolyte and balances the pH to prevent corrosion. Try our handy and convenient "Neutrawipes". Please refer to the electrolyte guide to see which metals require neutralising.

Neutralising solutions	Part Number 1 litre bottle	Part Number 6x 125ml bottles
MN 1 Neutraliser	mn01	mn01 - 125
MN 1 Neutraliser wipes	Neutrawipe MN1 1pack	Neutrawipe MN1 6pack
MN 2 Neutraliser	mn02	mn02 - 125
MN 4 Neutraliser	mn04	mn04 - 125
De Ionised Water	di01	di01 - 125

Stencil cleaner	Part Number 1 litre bottle
MS05 Stencil Cleaning Solution	ms05
MS06 Stencil Cleaning Solution	ms06

Electrochemical Marking Spares

Description	Size	Part Number
		
Cord Sets Replacement earth and marking head leads	1m	UC8
	2m	UC9
	3m	UC12
Felt pads For use with all marking heads but mainly Rocker and Roller.		
Felt pads with 6mm thick felt (sizes in mm)	150 x 200	FP2C21P
	300 x 300	FP3C21P
	350 x 400	FP4C21P
Felt pads with 1mm thick felt (sizes in mm)	150 x 200	FP2D21P
	300 x 300	FP3D21P
	350 x 400	FP4D21P
	280 x 500	FP5D21P
		
Terminal Rings for Marking Heads	Pack of 5	TR

Description	Size	Part Number
 Footswitch For use with the ME3000T/ ME3000S marking units. Allows hands free control to start marking cycle.	2m cable	FS7
	5m cable	FS8
 Earth Plate Connects to the output cord set cable (green cable) enabling the component to be placed on the earth plate to complete the electrical circuit. This is used when the conventional earth clip on the cord set cannot be used.		Earthplate
Mains Cable		
UK 5 amp mains cable	1.5m Cable	01CBLE083
US main cable	1.5m Cable	01CBLE101
Euro 3 pin mains cable with	1.5m Cable	01CBLE044
 Cleaning Blocks Used for smoothing and cleaning the component surface prior to marking if necessary. Coarse grade in blue and finer grade in brown.	Course blue	CBC
	Fine brown	CBF
 Work tidy We have introduced a very useful moulded work tidy for electrochemical marking to hold 125ml electrolyte bottles and the marking head. It also has an integral earthplate.	355m x355m	MEWT01

Contact details

To place an order please contact:
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England

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Repairs/ Service:	support@ums.co.uk
Accounts:	accounts@ums.co.uk
Trading Hours:	8.30am - 5pm Monday - Thursday
	8.30am - 4pm Friday

Quotes

All quotations, verbal and written, are valid for thirty days unless otherwise agreed.

Prices

Prices are subject to change without notice. Prices are strictly net and subject to VAT at current rate.

Payment terms

Net thirty days for approved accounts. Pro-forma or credit card payment for first time purchases. All goods remain UMS property until payment is received in full.

Delivery / Shipping

UMS understand the importance of items being delivered on time. This is why UMS are providing a range of delivery options to ensure that your order arrives as soon as possible. We aim to despatch all consumable items for next day delivery, if the order is received by 12 noon subject to stock. An order acknowledgment with delivery date will be provided on receipt of all machine orders. Delivery times quoted are only intended as a guide, as UMS do not accept liability for delays beyond our control.
Please contact us for full Terms + Conditions.

For further information or latest offers please contact us or see www.ums.co.uk

A British Company, Universal Marking Systems has 50 years experience in the design, manufacture and supply of industrial marking systems, with representation worldwide. We are committed to technical innovation and service excellence for both standard and integrated systems. UMS also supply a range of other marking technologies including dot peen, laser, dot paint and manual marking.

MOVING MARKING TECHNOLOGY FORWARD

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