COUTH

INDUSTRIAL MARKING

INDUSTRIELLE MARKIERUNG

MARCAÇAO INDUSTRIAL

MARCAJE INDUSTRIAL

MARCATURA INDUSTRIALE

MARQUAGE INDUSTRIEL

2008.09 ENGLISH

AENOR
ER
Empresa Registrada
ER-1842/2005

CERTIFIED
IQNet
MANAGEMENT SYSTEM
ISO 9001:2000

REFERENCES

ABB - ALCATEL - ALFA ROMEO - ALLIED SIGNAL - ASHHOCK LEYLAND - ASSA ABLOY - AUTOLATINA BABCOCK & WILCOX - BENDIX - BENTELER - BEHR - BLACK & DECKER - BMW - BOEING - BOGE BOSCH - BRAKES - BRAUN - BRIDGESTONE - BROSE - CASE - CATERPILLAR - CITROËN - COMAU CROMPTON GREAVES - CHRYSLER - DAMPERS - DANFOSS - DANOBAT - DBK - DECATHLON DELCO - DELPHI - DEUTSCHE BUNDESBANK - DEUTZ - EADS - EVVA - FAGOR - FAIREY AVIATION FAURECIA - FERODO - FERRARI - FIAT - FIRESTONE - FORD - GARRETT - GEARBOX GENERAL ELECTRIC - GENERAL MOTORS - GIBBS RIFLE - GKN - GRUNDFOSS PUMPS - HELLA HITACHI - HONDA - HONEYVELL - HUTCHINSON - ITT - IVECO - JACOBS - JOHN DEERE - JOHNSON CONTROLS KAHR ARMS - KAYABA ARVIN - KRAUSE - KRAUTKRAMER - KRUPP - KUBOTA - LENZE - LUCAS - MACK TRUCKS MAGNETTI MARELLI - MANNESMANN - MARPOSS - MASERATI - MERCEDES BENZ - METAL LEVE - MITSUBISHI MITUTOYO - MONDIAL PISTON - MONROE - NIPPON STEEL - NORGREN - OPEL - OTIS - PALL INDUSTRIES PARKER - PERKINS - PEUGEOT PIAGGIO VESPA - PORSCHE - POSCO - REMINGTON ARMS - RENAULT REXROTH - ROLLS ROYCE - SAAB SCANIA SANDVIK - SCHINDLER - SEAT - SHOWA EUROPE - SIEMENS SOMFY - SUZUKI - TARABUSI - TEFAL - TELEMECANIQUE - THYSSEN - TIMKEN - TOYOTA - TRW - TUBOS REUNIDOS VALEO - VB AUTOBATERIAS - VOEST ALPINE - VOLKSWAGEN - VOLVO - WESTFALIA - WESTINGHOUSE - YAMAHA...

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Spain Machine-Tool
Design National Award.

MC2000 SuperFast

As an achievement of our Research & Development department, we, COUTH are glad to present the new series of MC2000 SuperFast dot marking machines. These last-generation markers complete the MC2000 line with a world-patented range that is in the **lead for its marking speed.**

This system allows user to obtain **indelible marks** through percussion marking of successive dots.

It makes it possible to mark a large variety of characters and symbols or logos, in **different sizes and depths**, on almost all sorts of materials (metal, plastic, wood, etc.) and of shapes (flat, round, internal, etc.).

MC2000 SuperFast

GENERAL DESCRIPTION

We have designed the new series of electropneumatically operated MC2000 SuperFast markers to meet our customers' marking requirements within the supply chain and for other applications, where both the marking cycles and the available space for installing the system are limited.

The mechanical strength and simplicity of our MC2000 SuperFast marking units combined with their pneumatic drive enable adjustable high marking speeds (of up to 16 characters per second, according to the character height). Due to its minimum weight and volume, the marking unit is ideal for use in small rooms or, in its portable version, for marking products hard to transport given their size or weight.

By perfecting the mechanics of the marking unit, we achieved great toughness and highly reliable almost maintenance-free operation at more cost-effective prices.

Picture No. 1
MC2000 N 50x17 SuperFast Marking Unit.

Picture No. 2
MC2000 U 50x17 SuperFast marking unit with jogging and micrometric setting device.

ADVANTAGES

Our world-patented new MC2000 SuperFast series of marking machines has significant advantages over other products offered in the market, namely:

- **Maximum** marking **speed** (a world record).
- **Lowest weight and volume**.
- Mechanical **simplicity**.
- **Reliability** in operation.
- **A minimum** of maintenance.
- **Inexpensive prices**.

APPLICATIONS

• High-speed indelible marking on a large choice of materials: metals (with hardness of up to 62 HRC), plastic, wood, etc., with little deformation of the components.

• Our machines will mark flat, concave and convex surfaces.

• They permit you to mark hard-to-reach or hard-to-transport parts.

BASIC CHARACTERISTICS

• Adjustable speed: up to 16 characters per second according to character height.

• Microprocessor control.

• LCD contrast-controllable display.

• Pneumatic drive with vibratory cylinder in diameters of 7 - 10 – 14 - 20 mm according to the necessary marking force.

• The marking unit can work in any position.

• Character heights range from 0.5mm to 15.6mm, including multiple intermediate sizes.

• The Start and Pause/Stop controls are independent of the keyboard; this can be disconnected after introducing the mark data.

• Marking areas (in mm):50x17/25; 60x15; 100x17/25 and 160x17/25.

• Permanent marking of straight, curvy or oblique line within the marking area.

• Regrindable hard metal marking styli.

• Help menu-driven marking preparation.

• Large memory storage capacity.

• The controller has RS232 interface and programmable inputs and outputs enabling multiple possible links and automation functions.

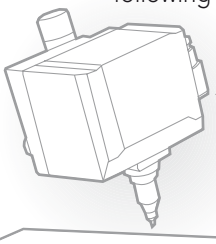
• Automatic return to the last marking programme in case of power failure.

• Optional presetting of the number of marks to make.

• Time and Date function for inserting the following data individually: minutes, hours, day, month and year, as well as day of the week, day of the year, week, shifts, etc.

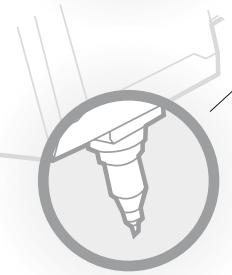
OPERATION

An MC2000 SuperFast marker essentially comprises the following interconnected elements:



1. A Marking Unit with pneumatically or electrically operated marking head, movable along a coordinate system.

2. A microprocessor-based **controller** with LCD contrast-controllable backlit display.



3. A Marking Head providing different marking depths and speeds.

- The system comes complete with a very simple software application specially designed for its use by non-qualified staff.
- A keyboard is available to type the texts to mark as well as to select and program – with appropriate wizards – all the necessary parameters for correct marking.
- Defining the home position of each marking line is possible either by entering the numerical values of the X and Y coordinates or by automatically saving the stylus position as determined with the keyboard's arrow keys.
- Our marking system can make a dry test run along the outline of each area to be marked.
- Once defined, the marking parameters can be saved, executed and changed as and when necessary.

Picture No. 3
MC2000 U 50x17 SuperFast marking unit with front manipulator.

Picture No. 4
MC2000 PV 50x17 SuperFast portable marking unit with vertical grip. Weight: 2.2kg.

Picture No. 5
MC2000 PV 50x17 SuperFast portable marking unit with vertical grip and support.

Picture No. 6
MC2000 PP 50x17 SuperFast portable marking unit with pistol grip. Weight: 2.2kg.

MC2000 SuperFast

Picture No. 7
MC2000 N 100x17 SuperFast marking unit.

EXTERNAL CONNECTIONS

The controller includes:

- An RS232C interface for communications with a PC and a PLC.
- Possible links to external automated systems using start and stop inputs in the pause and homing modes.
- A contact normally open during the marking process (Ready).
- Programmable inputs and outputs.

MODELS (See drawings on page 11)

BY CONFIGURATION OF THE MARKING UNIT:

N (Photos 1-7-12)

System with table and column. (Optional powered vertical travel of the marking head).

U (Photos 2-8-13)

Integrable system ready for its incorporation into assembly or production lines. Due to its usefulness for this type of applications, the support with jogging and micrometric stylus-to-workpiece distance setting device (Photo 14) is normally necessary.

Another highly recommendable accessory for many applications of these models is a front manipulator (Photo 3) or side manipulator (Photos 9-10), since it provides the marking head with an additional positioning travel to and from the marking area. This type of manipulators also permits increasing the actual marking area by moving the marking heads to different positions for marking a same workpiece.

Picture No. 8
MC2000 U 100x17 SuperFast marking unit with jogging and micrometric setting device.

P (Photos 4-5-6-11-15)

Portable equipment without table or column, with vertical grip PV (Photos 4-5) or with pistol grip PP. (Photos 6-11).

P+N (Photos 16)

For operation either as a desktop machine N or as a portable machine P.

BY MARKING AREAS:

50 x 17/25 mm. (Photos 1-2-3-4-5-6)

100 x 17/25 mm. (Photos 7-8-9-10-11)

160 x 17/25 mm. (Photos 12-13)

Accordingly, the specification of a model shall consist of the controller's mode of operation (MC2000 T2) followed by the marking unit's composition (N-U-PP-PV-P+N) and the marking area.

Picture No. 9
MC2000 U 100x17 SuperFast marking unit with side manipulator and jogging and micrometric setting device.

Picture No. 10
MC2000 U 100x17 SuperFast marking unit with side manipulator, column and support.

Picture No. 11
MC2000 PP 100x17 SuperFast marking unit with pistol grip. Weight: 2.7kg.

OTHER CHARACTERISTICS

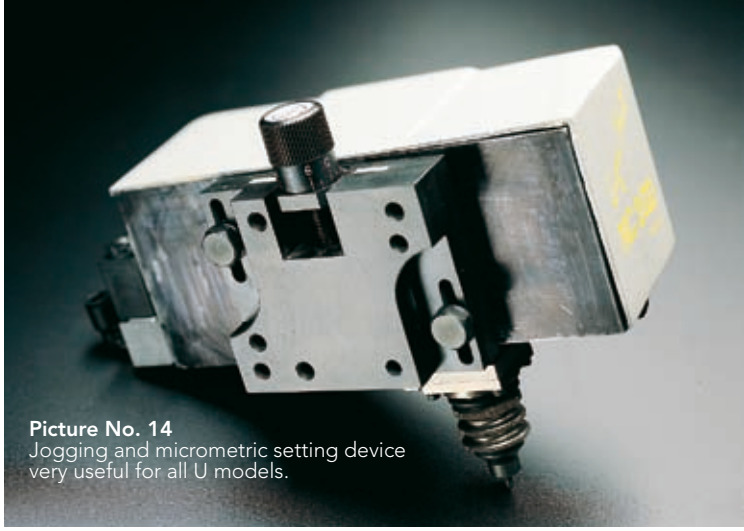
- Uploading of files to a PC through RS232 interface.
- Barcode reading and Data Matrix.
- Operation in graphics mode with Windows-supported CAD software.
- Logos.
- Selection among markable texts through the RS232 series interface.
- Previous option but through a parallel connection. This option makes it possible to execute other customised management programmes.

ACCESSORIES

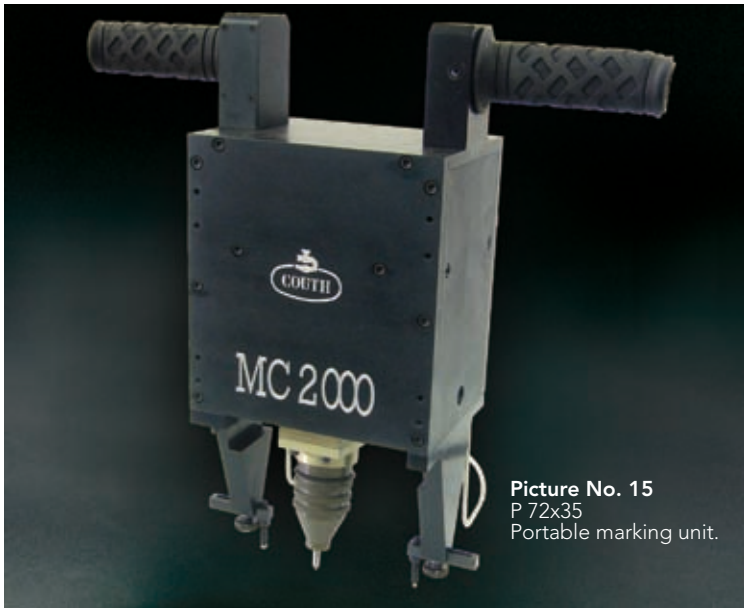
- Head with powered Z-axis and position indicator for N models.
- For models with U-type marking unit, the support with jogging and micrometric stylus-to-workpiece distance setting device (Photo 14) is normally necessary.
- Another very useful accessory for the U models is a front manipulator (Photo 3) or side manipulator (Photos 9-10) that permits moving the marking head to and from the marking area. This type of manipulators also permits increasing the actual marking area by placing the marking head at different locations for marking.
- Feeder for plates at least 0.3mm thick (according to size and quality) (Adjustable for plates in lengths varying from 30 to 105mm in length and 20 to 75mm in width, as standard. Special versions on request).
- Plate locator and magnetic dogs (Photos 12-16).
- Bracket for portable models (Photo 5).
- Revolving system for marking cylindrical objects.

MC2000 SuperFast

Picture No. 12
MC2000 N 160x17 SuperFast marking unit with plate locator.



Picture No. 14
Jogging and micrometric setting device very useful for all U models.



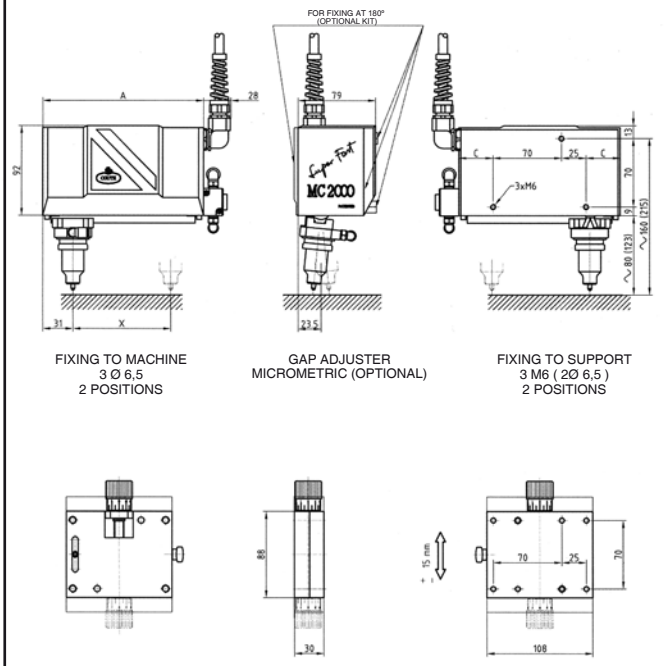
Picture No. 15
P 72x35
Portable marking unit.

Picture No. 13
MC2000 U 160x17 SuperFast marking unit with jogging and micrometric setting device.

Picture No. 16
MC2000 P+N 50x17 SuperFast marking unit. (Can operate as a desktop N or portable P machine).

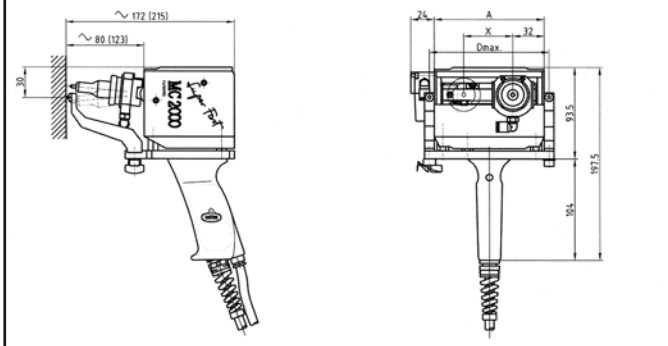
MODELS U

100x17 MARKING HEAD WITH N20 PNEUMATIC CYLINDER SHOWN



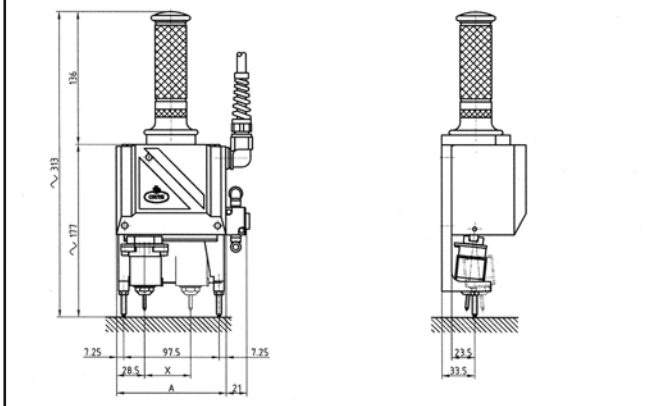
MODELS PP

50x17 MARKING HEAD WITH N14 PNEUMATIC CYLINDER SHOWN



MODELS PV

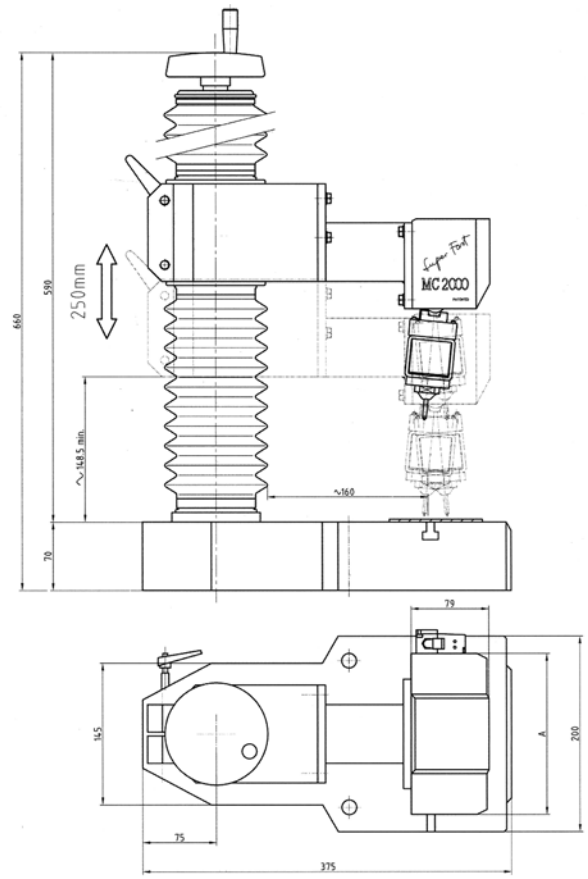
50X17 MARKING HEAD WITH S3 SOLENOID SHOWN



E=1/5

MODELS N

100x25 MARKING HEAD WITH S6 SOLENOID



MC2000 SuperFast

MODELS	DIMENSIONS AND WEIGHT				
MARKING HEAD PNEUMATIC OR SOLENOID AREA X xY	MODEL	A	C	D	WEIGHT KG
50 X 17(25)	U	112	8,5	-	1,7
	PP		-	82	2,1
	PV		-	-	2,3
	N		-	-	33,5
100 X 17(25)	U	165	35	-	2,2
	PP		-	122	2,6
	PV		-	-	2,8
	N		-	-	34
160 X 17(25)	U	222	63,5	-	2,7
	N		-	-	35

AVAILABLE MARKING HEADS

PNEUMATICALLY-OPERATED AND SOLENOID-OPERATED HEADS ARE NOT INTERCHANGEABLE

TYPE	PNEUMATIC VIBRATORY				SOLENOID	
SIZES / AREA X x Y	N7SB	N10SB	N14SB	N20SB	S3	S6
50 x 17 (25)	O	O	O	O	O	(O)
100 x 17 (25)	O	O	O	O	O	(O)
160 x 17 (25)	O	O	O	O	O	(O)

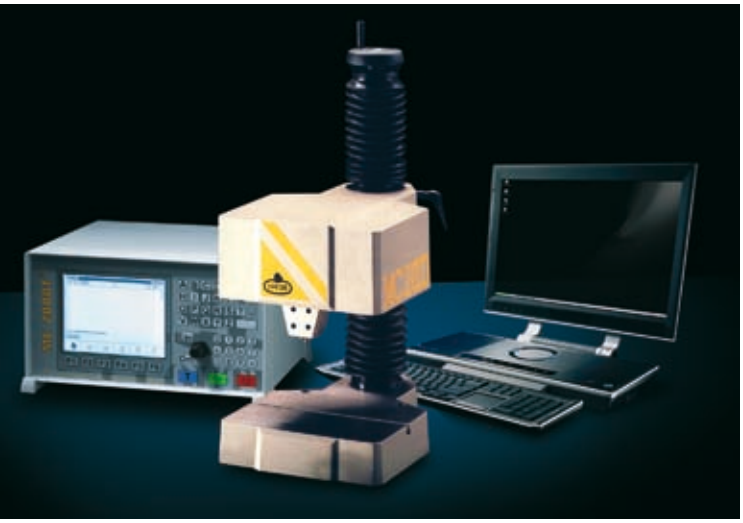
O AVAILABLE (O) OPTION ONLY FOR Y=25 - UNAVAILABLE


COUTH
MC2000

MC2000

Fruit of more than forty years of experience and of our research activities, we COUTH present a new generation of MC2000 numerically controlled marking machines as the most advanced technology in the industrial marking sector.

MC2000



Picture No. 17
MC2000 PC N 150x100 Model.

GENERAL DESCRIPTION

MC2000 is an electrically operated or pneumatically operated machine to make marks by indenting successive microdots or by scratching. It can mark a wide range of previously memorised characters and signs, in variable sizes and depths.

Almost all types of materials (metal, plastic, wood, glass, etc.) can be indelibly marked by repeated incision of a properly sharp hard metal stylus into the surface. Our system permits marking flat or rounded objects of great hardness and with important unevenness or differences in height, without exposing them to high stresses or deformation. As standard, MC2000 comprises 3 interconnected working units forming a desktop machine:

1) A MARKING UNIT, with coordinate-controlled movement of the marking head, which constitutes the mechanical part, with all necessary supports and attachments;

2) A CONTROLLER, with a drive system and microprocessor, including a backlit Liquid Crystal Display;

3) A MARKING HEAD, permitting different marking depths and speeds.

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OPERATION

Machine setup for the marking process is a simple operation that consists in loading, locating and fixing the workpiece on an adequate fixture and adjusting the distance from the stylus to the workpiece by means of a handwheel according to the selected penetration force.

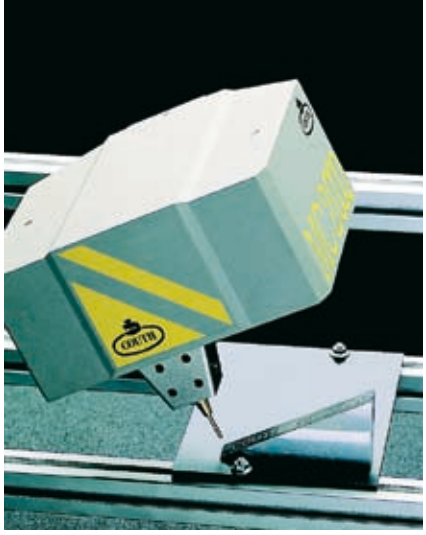
With the controller, you can enter the texts to mark as well as select and program – with appropriate wizards – all the necessary parameters for correct and effective marking.

You need to program the intended mark in one or several lines, whether straight or oblique or else curvy, at any desired radius and orientation. You further have to select the character size from 0.5mm to 15mm (others according to models), the marking force or depth among 9 gradual options, and the most suitable working speed. Other options include repetitive and correlative numbers changing after every mark or every so many marks, clock, dates, shifts, etc.

The home position and base of each marking line are definable by digital or experimental X and Y coordinates. To help centring the mark, the stylus can make a dry test run following the outline of each line to be marked. After defining the marking parameters, you can save, use and change them as and when necessary.

It is possible to mark characters at a high rate (of up to 16 per second for the smallest characters), creating a 5x7 dot or denser matrix, or by fixing the distance between dots according to the character size and the user's criteria. Dots may be joined to form a quasi-continuous line, and even to produce a mark by scratching.

Picture No. 18
P 200 x 35 portable marking unit.



Picture No. 19
U 150 x 100 marking unit
working in an inclined position.

Picture No. 20
U 90 x 60 marking unit.

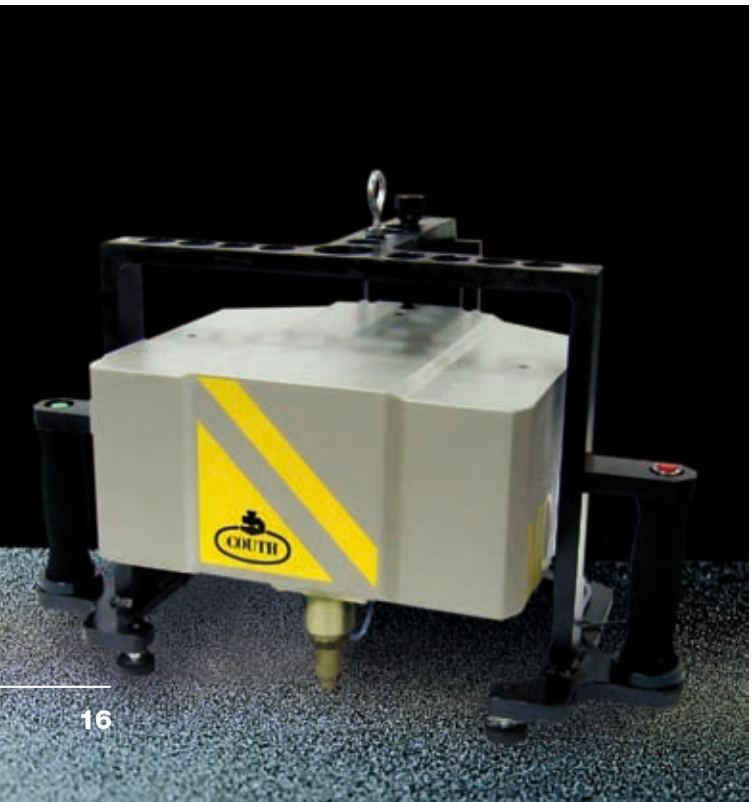
MC2000

LINKS TO EXTERNAL EQUIPMENT

The controller box features an RS232C series connector for data exchange with a PC or PLC. There is also a parallel input-output channel available for connection to external automated systems. In addition, the controller has a contact normally open during the marking process. As an option, the connections can be made by means of a multiple connector or single-pole terminals.

Moreover, for special applications, the controller has several optional programmable inputs and outputs, among other features.

Picture No. 21
P 90 x 60 portable marking unit.

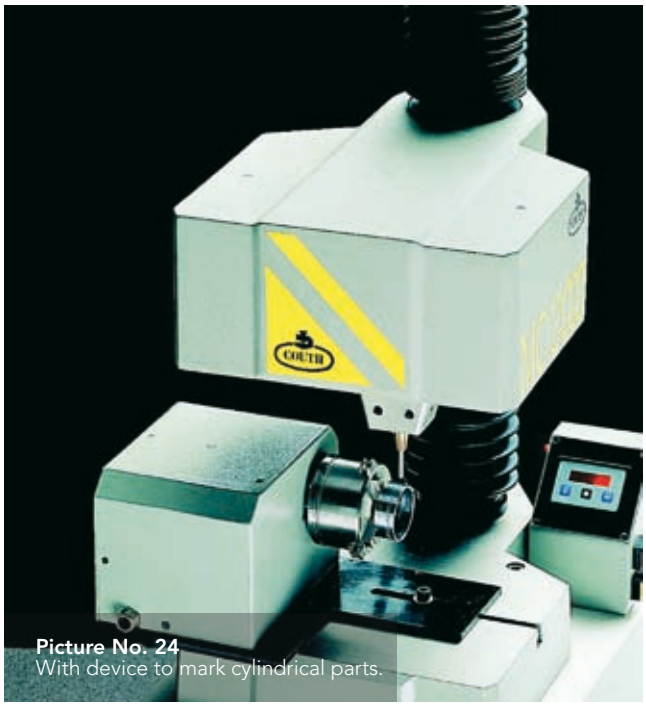


BASIC FEATURES

- Electric or pneumatic drive.
- Optional pneumatically operated models for deep incisions and special applications.
- On desktop models, the column is rotatable, making it possible to mark large-sized objects.
- The marking head of U models can adopt any orientation. In order to offset gravity on models with screw spindles, it is possible to adjust the tightness of the check nuts adequately.
- Accurate marking of dots, each of them always lying at the programmed coordinates.
- Characters are formed by indenting a succession of dots:
  1- in a 5 x 7 or 9 x 13 dot matrix
  2- or at a higher density of dots between the previous ones.
- Characters adjustable to suit optical character reading (OCR) systems.
- Models with usual measurements in mm and inches.
- Attachments and optional features to mark cylindrical surfaces. (Photos 24 and 31).
- Normal character sizes from 0.5mm.
- Optional models with sizes from 0.125 to 20mm in height.
- Marking speeds according to required quality and cycle times, of up to 16 characters per second for the smallest ones. Special models are available for applications requiring improved speed or accuracy.
- LCD contrast-controllable and scroll display.
- Marking in straight line at any angle of inclination or in circle, with programmable home positions, centres, radii and orientations of the characters.
- Help menu-driven preparation of the marking process, with mean values provided automatically.
- To help centring the mark, the stylus can make a dry test run following the outline of each line to be marked.
- Defining the coordinates for each marking line is possible either by entering their numerical values or by automatically saving the stylus position as determined with the keyboard's arrow keys.
- It is possible to disconnect the keyboard after defining the mark required, and then to operate the system only with the Start and Stop controls, the latter including a previous Pause stage that enables resuming the job if necessary.
- Automatic resetting to the last marking programme after a power failure, which enables proceeding with the process under the same conditions.
- Presetting, if required, of the mark count and read-out on the display.
- Time and Date function for inserting the following data individually: minutes, hours, day, month and year using 1 or 2 digits. Optionally, it will be possible to add other values like the day of the week, day of the year, week, shifts, etc.
- In addition to the keyboard characters and other signs available, it might be possible to add other options, such as logos, small letters, etc.
- The RS232 interface and the programmable inputs and outputs may serve to enable automated functions that might be necessary, including but not limited to selecting the text to be marked, barcodes, activating the solenoid valve, etc. (If interested, please contact us.)

◀ **Picture No. 22**
P 150x100 Portable marking unit.

Picture No. 23
Equipped for deep marking.



Picture No. 24
With device to mark cylindrical parts.

MODELS (See drawings on page 19)

BY CONFIGURATION OF THE MARKING UNIT:

N (Photos 17-25-26-32)

With table and column (Photos 25 and 26). (Optional powered vertical travel of the marking head and position indicator). (Photo 22).

U (Photos 19-20)

Integrable system ready for its incorporation into assembly or transfer lines (Photos 19 and 20) (As an option, we supply it with an adjustable head approach system). (Photos 19 and 20).

P (Photos 15, 18, 21, 22).

Portable.

P+N (Photos 29)

For operation either as a portable machine P or as a desktop machine N.

BY MARKING AREAS:

150 x 100 mm. (Photos 17-19-22-25).

90 x 60 mm. (Photos 20-21-26-29).

200/72 x 35 mm. (Photos 15-18).

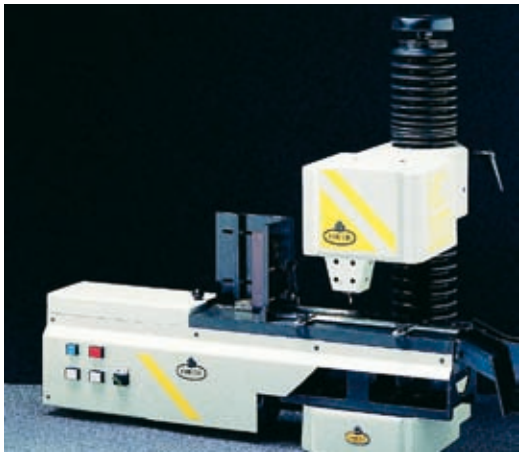
250 x 60/100/170 mm.

Accordingly, the specification of a model shall consist of the controller's mode of operation (MC2000T2) followed by the marking unit's configuration (N – U – P) and the marking area. The identification of the marking head required would complete this information.

Picture No. 25
N 150 x 100 marking unit.

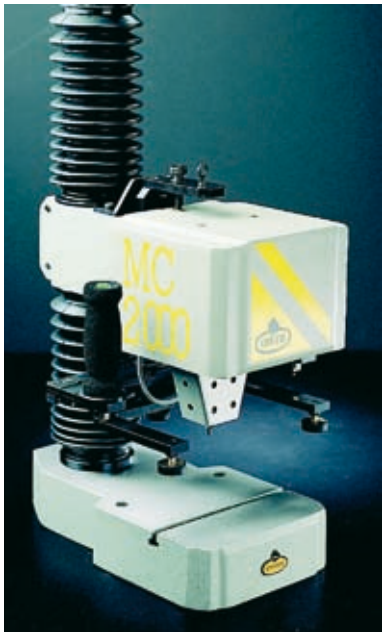
Picture No. 26
N 90 x 60 marking unit.

OPTIONS and ACCESSORIES



Picture No. 27
With plate feeder.

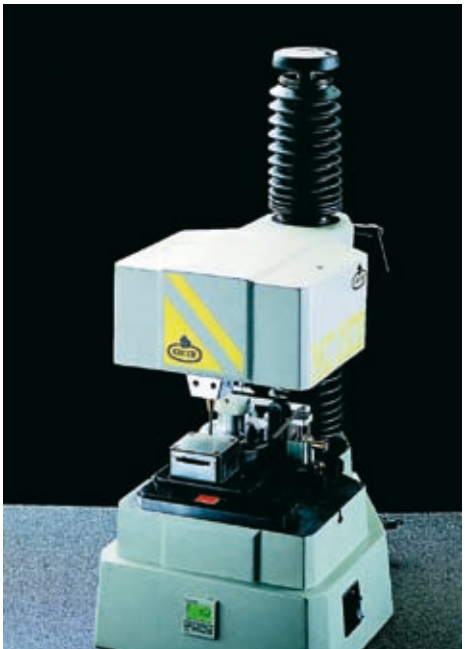
Picture No. 28
With protective bellows.



Picture No. 29
MC2000 P+N 90 x 60
Usable as a portable P or desktop N machine.

Picture No. 30
With marking head approach cylinder at different levels.

Picture No. 31
With device to mark cylindrical parts.



Picture No. 32
With powered travel of marking head.

AVAILABLE MARKING HEADS

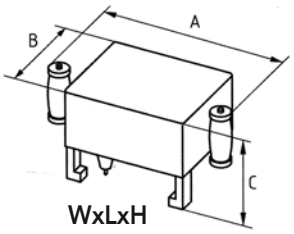
PNEUMATIC AND SOLENOID HEADS ARE NOT INTERCHANGEABLE

	TYPE	PNEUMATIC VIBRATORY					PNEUMATIC IMPACT			SOLENOID	
	MODELS MARKING HEADS / AREA X x Y	N7SB	N10SB	N14SB	N20SB	N34	I 17	I 30	I 40	S3	S6
SERIE SUPERFAST (Dimensions page 11)	50, 100, 160 x 17	O	O	O	O	-	-	-	-	O	-
	50,100, 160 x 25	O	O	O	O	-	-	-	-	O	O
DIMENSIONS SEE BELOW	90 x 60	O	O	O	O	O	O	-	-	O	O
	150 x 100	O	O	O	O	O	O	-	-	O	O
REQUEST DIMENSIONS	170 x 170	O	O	O	O	-	O	-	-	O	O
	250 x 60 (100) [170]	O	O	O	O	⊖[-]	O	-	-	O	O
	72 x 35	O	O	O	O	O	O	O	O	O	O
	200 x 35	O	O	O	O	O	O	O	O	O	O

O AVAILABLE ⊖[-] OPTION ONLY FOR Y=25 - UNAVAILABLE

MODELS P

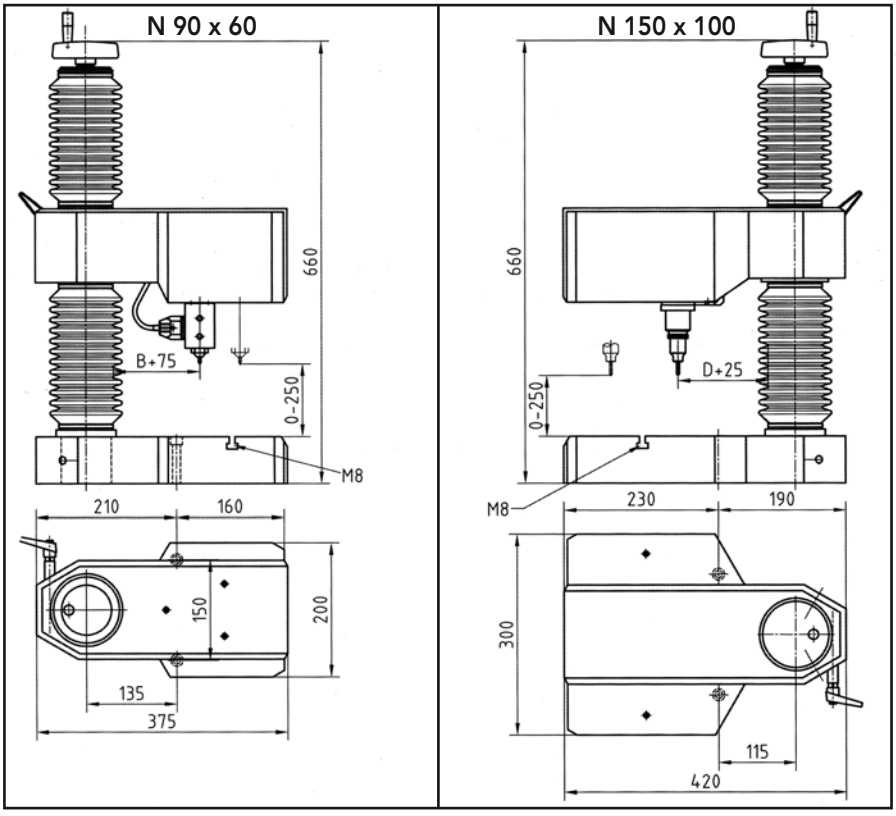
MARKING UNIT DIMENSIONS 150 x 100 and 90 x 60



90 x 60
340 x 220 x 280

150 x 100
495 x 310 x 305

MODELS N

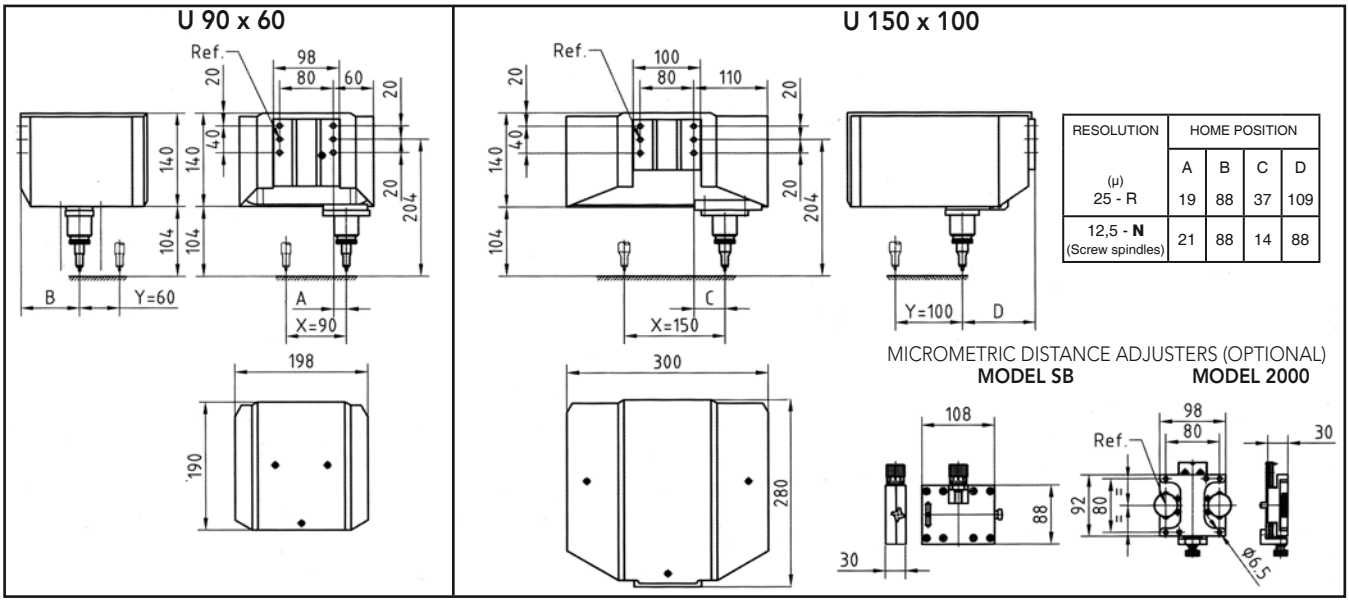


MC2000

AREA X x Y	WEIGHT Kg			
	U	PP	N	N+P
90 x 60	5,2	14,0	31,0	34,0
150 x 100	7,5	21,0	40,0	43,0

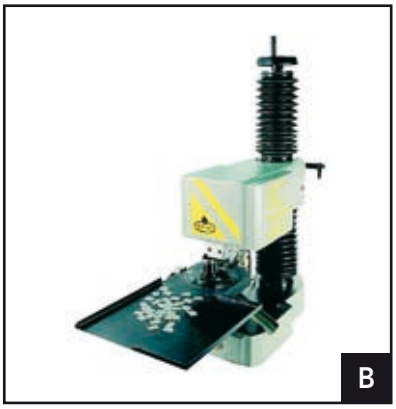
E=1/10

MODELS U



MC2000 / Examples of special layouts

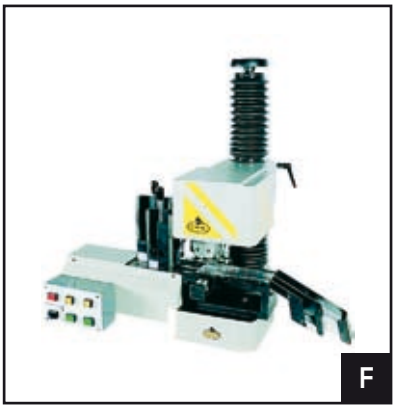

A


B


C


D


E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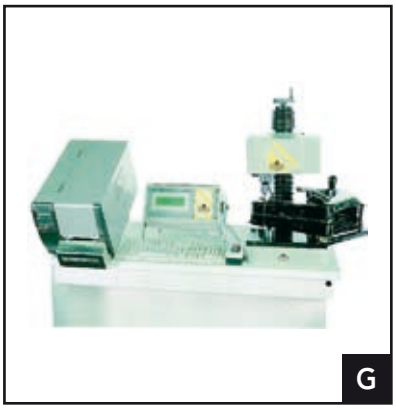
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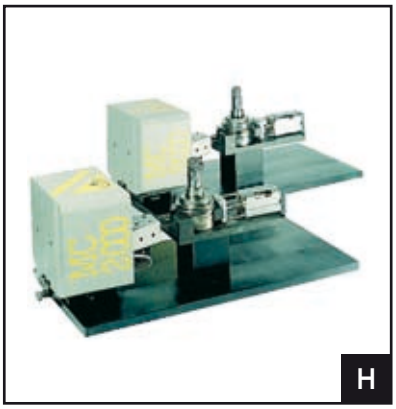

H


I


J

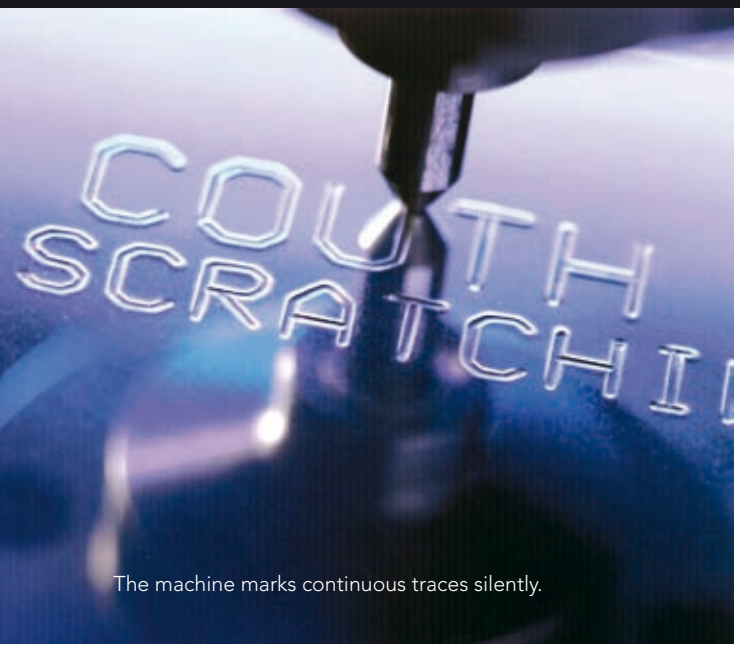

K


L

MC2000 SCRATCHING

Silent marking

MC2000 SCRATCHING



The machine marks continuous traces silently.

COUTH offers you a whole range of scratch marking machines featuring great accuracy, high speed and almost silent operation. Add to those features a marking quality comparable to engraving thanks to the continuous stroke the stylus makes and the high resolution COUTH's mechanics and control systems permit to achieve.

MODELS (See drawings on page 23)

BY CONFIGURATION OF THE MARKING UNIT:

N (Photos 34-36)

With table and column.

U (Photos 33-35)

Integrable version.

BY MARKING AREAS:

75 x 15 mm. (Photos 34-35).

80 x 80 mm. (Photos 33-36).

Picture No. 33
80x80 "U" Model (integrable).


Picture No. 34
75x15 "N" Model (table and support).


Picture No. 35
75x15 "U" Model (integrable).


Picture No. 36
80x80 "N" Model (table and support).

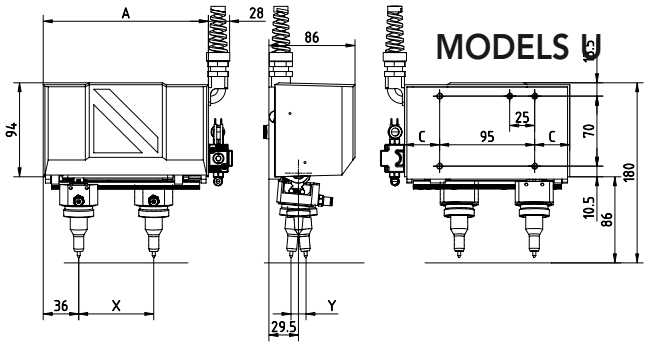
Both models are compatible with the MC2000T2 controller that expands their capabilities. Combined with this controller, the scratching machines can make special marks like 2D DataMatrix codes or very complex logos.

MODELS	DIMENSIONS AND WEIGHT			
MARKING HEAD PNEUMATIC OR SOLENOID AREA X xY	MODEL	A	C	WEIGHT Kg
75x15	U	165	35	1,7
	N		-	33,5
80x80	U	200	36,5	2,2
	N		-	34

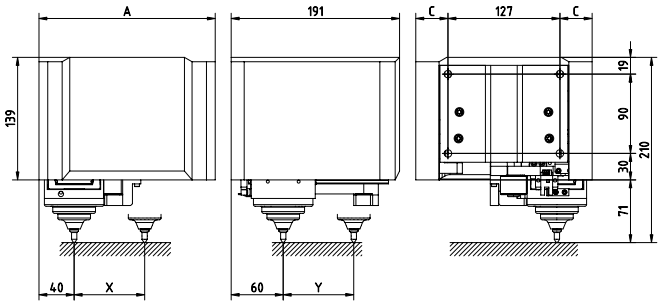
MC2000 Scratching

MODELS U

U 75x15

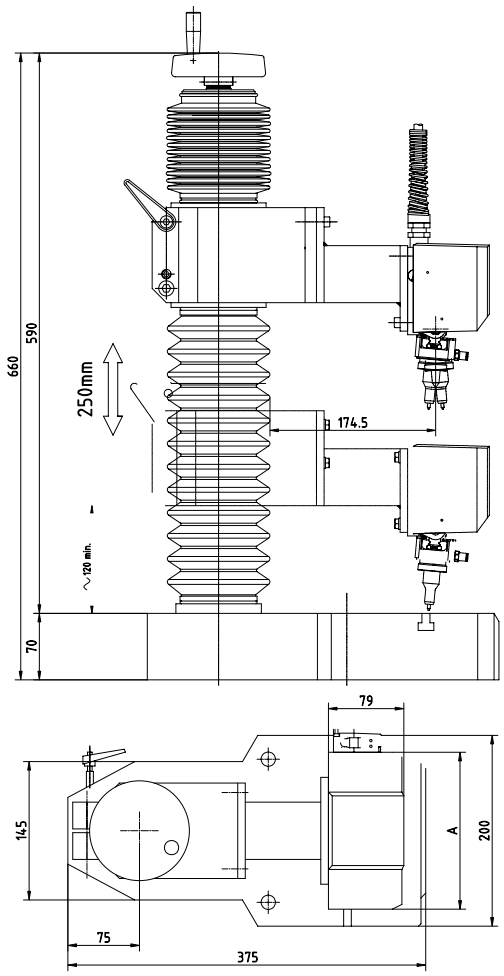


U 80x80

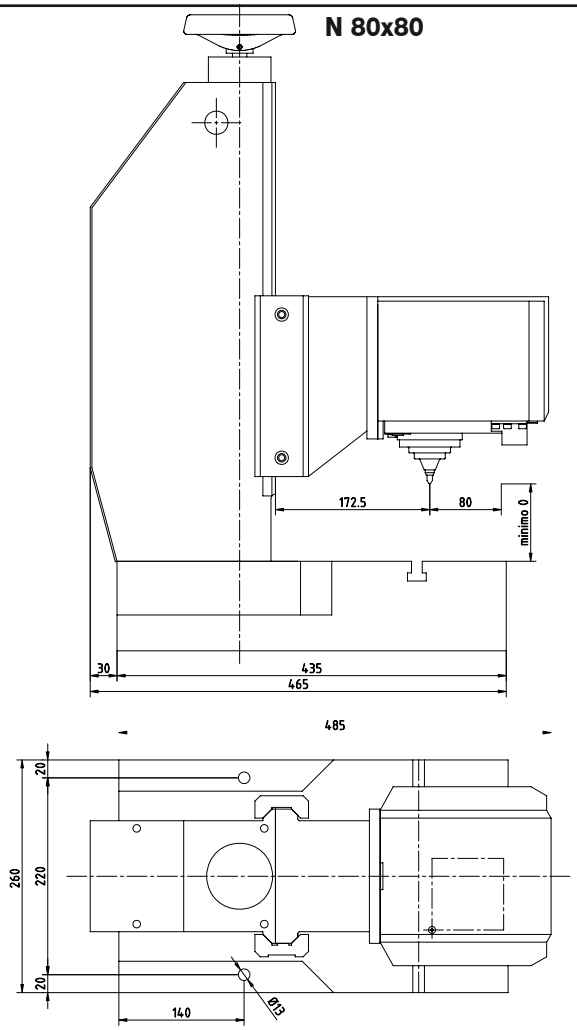


MODELS N

N 75x15



N 80x80



DATAMATRIX

Traceability is a set of actions and technical procedures aimed at identifying and recording the evolution of each unit product from its creation to the last stage of the supply chain. Traceability is therefore an essential element of quality control.

With adequate software, marking the Data MatrixTM code will be done optimally (whatever the machine model).

We have adequate etching units of accurate resolutions and marking heads, electromagnetically driven (with programmable force) or percussive and pneumatically operated, capable of indentation to any depth.

Data MatrixTM Coding

For various decades, the barcode has been a very useful data exchange tool in the industry, owing to its simplicity of use and data retrieval as well as due to its unquestionable profitability. However, it suffers from a certain fragility of the printing quality for applications in aggressive environments and the amount of data to be recorded on the products has increased significantly, exceeding the bar code capacity.

The marking technology that is gaining ground is 2D Coding. Whereas a conventional barcode represents the information in a single direction, two-dimensional coding widens the reach, by using an X-Y data matrix.

With a standard barcode, the only way to add information consists in increasing the length of the barcode, making it harder to read. Moreover, a very high contrast (80% up) is required to ensure correct reading of the code. Therefore, it does not take long for the barcode to deteriorate and even to become completely illegible.

By contrast, 2D coding can contain a much greater quantity of data. If a barcode can store 20 bytes of information on a given area, 2D coding will store 2000 bytes on the same area. Additionally, 2D coding features an error correction system and needs only 20% contrast to ensure correct reading.

Data Matrix™ is the 2D coding system developed by RVSI Acuity CiMatrix. It is a public domain code, which is converting itself into a standard. Its major characteristics include:

- The possibility of using a square or a rectangular matrix
- Storage of 1 to 3116 numerals or 2335 alphanumeric characters
- Reed-Solomon error correction, with data redundancy
- Excellent compatibility with dot markers for marking the code on metals, wood, plastics, etc.

One of its most frequent applications is the marking of codes in reduced spaces, such as on printed circuits, master boards, etc. A CCD of a video camera reads the code. Being an infinitely scalable symbol, it can be read from any distance, subject to an adequate combination of the matrix size and reading device.

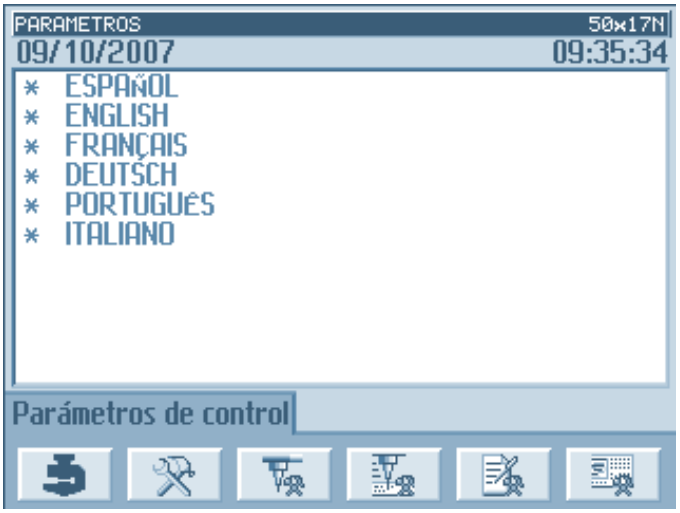
CONTROL UNIT

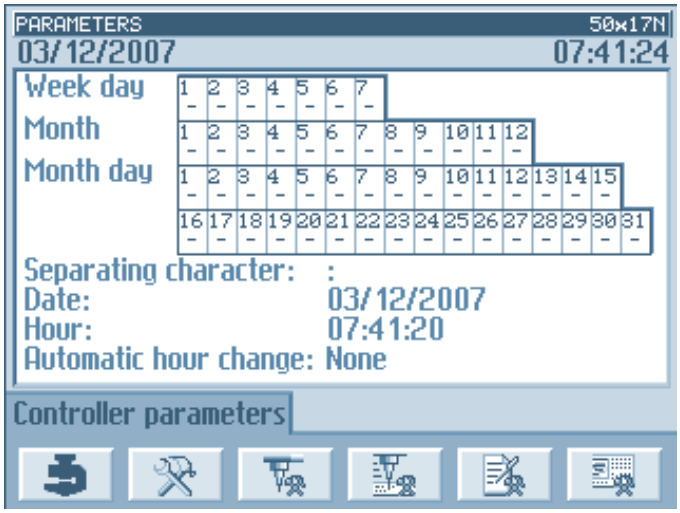
CONTROL UNIT

MC 2000T² CONTROLLER

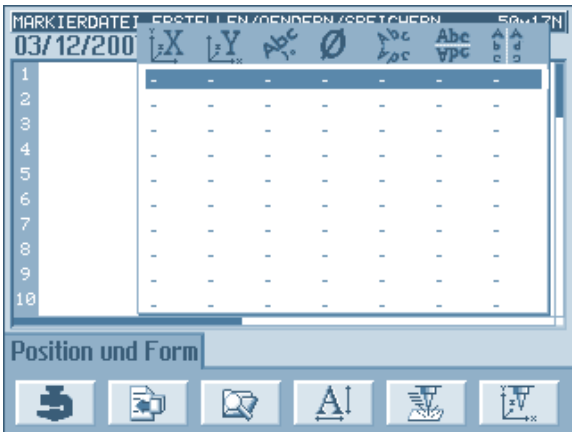
MC2000T² is the last-generation electronic controller for all MC2000 marking machines. COUTH's MC2000T² controller embodies the best properties of all previous COUTH control units and incorporates cutting-edge superior technology. It is therefore the most flexible and powerful tool of this kind in the market.

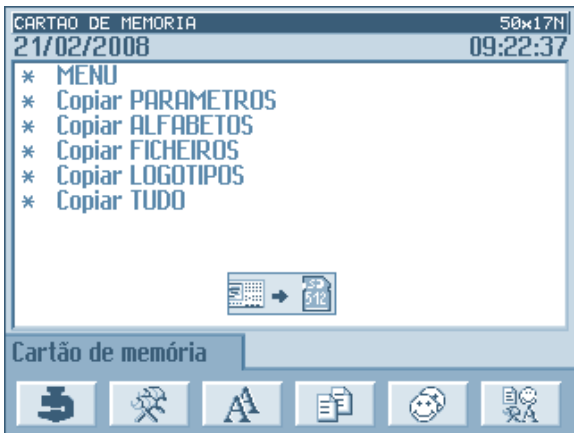
Its new vectorial-definition based marking system makes it possible to mark every kind of characters and logos in any size, without losing resolution at all.





CONTROL UNIT





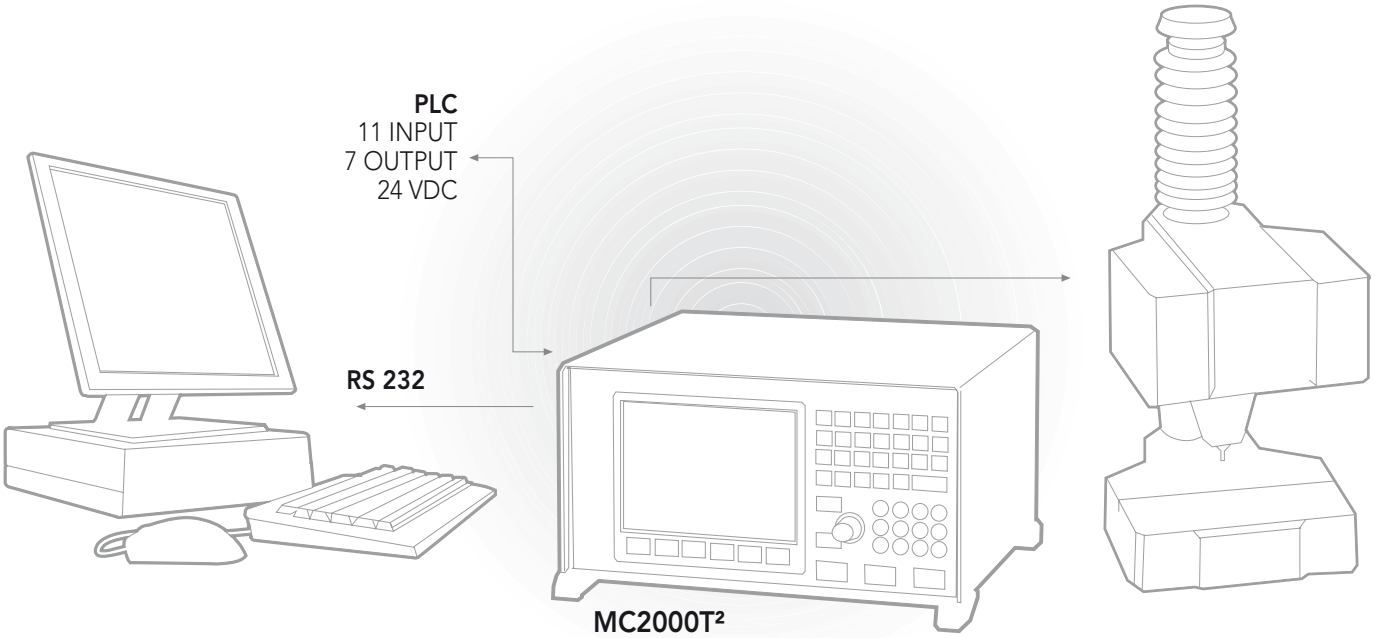
CHARACTERISTICS

- Stand-alone unit. No PC needed for its operation.
- Control unit suitable for any COUTH marking machine.
- Pneumatic or electromagnetic drive of striker, depending on mechanics.
- Graphic menu-driven.
- Menus in several languages.
- Vectorial marking without losing resolution whatever the size.
- Straight, oblique or arched line and symmetrical marking
- Marking of serial numbers, prior setting of range and recurrence, shifts, time, date, week...
- Marking of logos and special characters.
- Square and rectangular DataMatrix codes marking.
- Choice of fonts. Possibility of creating customised fonts.
- Adjustable character compression, expansion, spacing, italic and dot density.
- Adjustable speed and impacting force.
- Plug-in and built-in Start/Stop push-button box.
- Slave mode of operation with PC or PLC.
- RS232 series interface, adaptable to RS485, Ethernet, Profibus...
- 11 input signals and 7 output signals, all programmable for connection to PLC.
- Socket for external keyboard connection.
- Socket for barcode or DataMatrix code reader connection.
- Connector for plate feeder, rotating devices, jogging systems...
- 40-line files (75 characters/line)
- Storage of up to 500 files
- PC-compatible SD Card for storage and transfer of settings, files, logos...
- RoHS standard compliant SMD technology.
- Complies with CE mark European Directive.
- Power supply: 110/220V, 50/60Hz.
- 120mmx90mm, 320x240pixel grey scale display.
- Dimensions (width x height x depth -mm-) 280x160x261.
- Weight: 5.450kg

CONTROL UNIT

Integration

Our MC 2000T² controller allows for connection to a PC, PLC or automaton through a serial interface or through two digital input and output signal connectors.



1 – Series Connection

The MC 2000T² communications protocol makes it possible to manage the entire marking process of several marking units simultaneously from a PC or PLC.

This is a robust, 100% reliable communications protocol featuring a large set of commands that permit changing all and any of the controller's general parameters as well as the marking parameters.

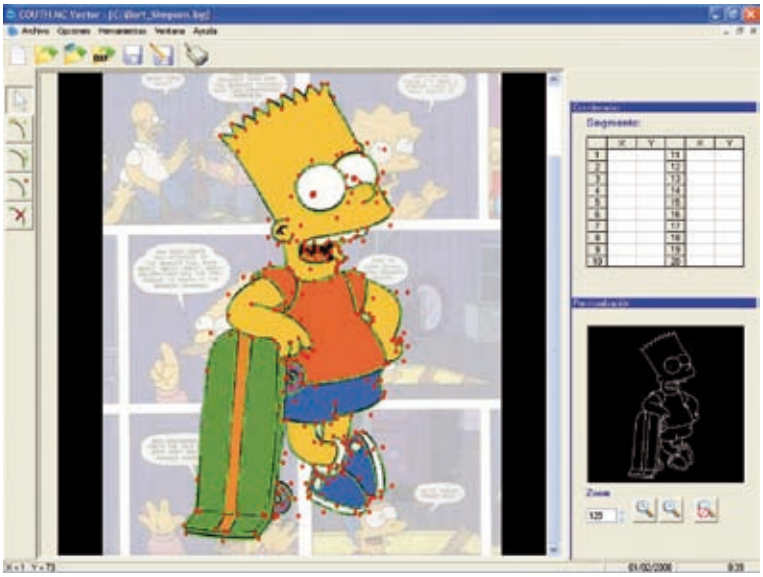
The MC 2000T² controller can also operate on the communications protocols of Couth MC 2000C, MC 2000L and MC 2000T controllers in applications where these types of controllers must work together.

By default, the MC 2000T² controller uses an RS232 interface that is however easily adaptable to RS485, Ethernet, Profibus connections among others.

2 – Digital Input and Output Connection

A set of 11 input and 7 output digital signals and three timers provide a solution to manage the entire marking process from a PLC or automaton.

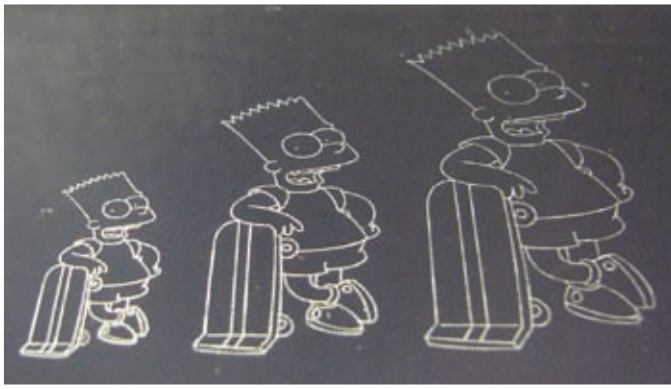
In addition to fixed meaning signals (Error, pause, ready, reset and binary marking), the programmable inputs and outputs in combination with the timers give users an option to control various external electromechanical devices or to create simple automatisms.

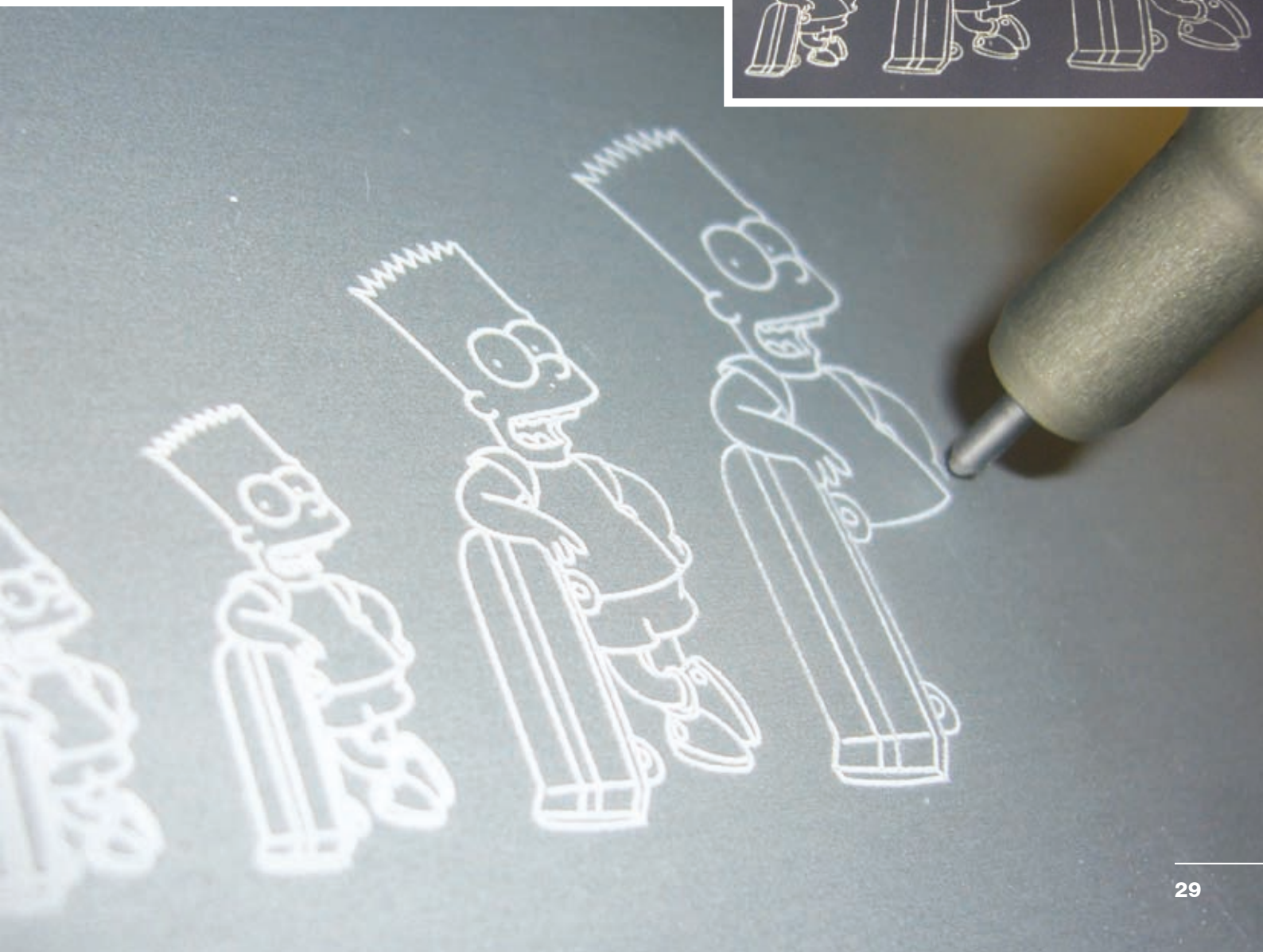


MCVECTOR SOFTWARE

With the MCVector logo-creation software application specially designed by Couth for the MC 2000T² controller, users can take full advantage of a vectorial definition based marking system.

This software application enables users to create their own logos quickly and easily and to transfer them from the PC to the controller's memory for future reuse.






SOUTH
SOUTH

IMPACT MARKING, PRESSURE and ROLL MARKING

Standard and special marking, numbering, punching machines and assembly lines, etc.

MC 35

MC 21

MC 19

MC 18N

MC 30

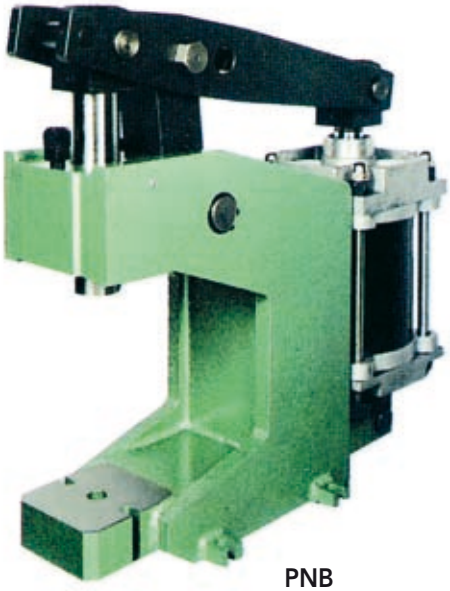
MC 18

MC 11

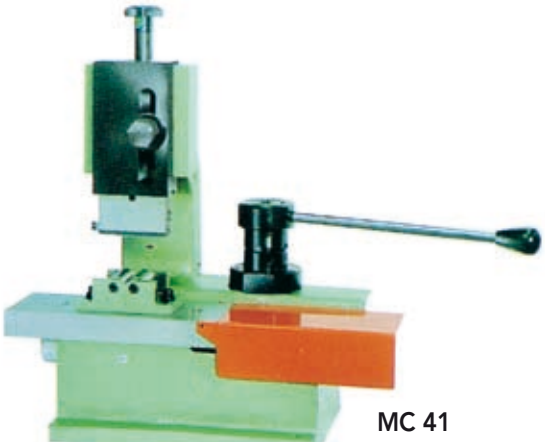
MC 35U

MC 21U

MC 19U

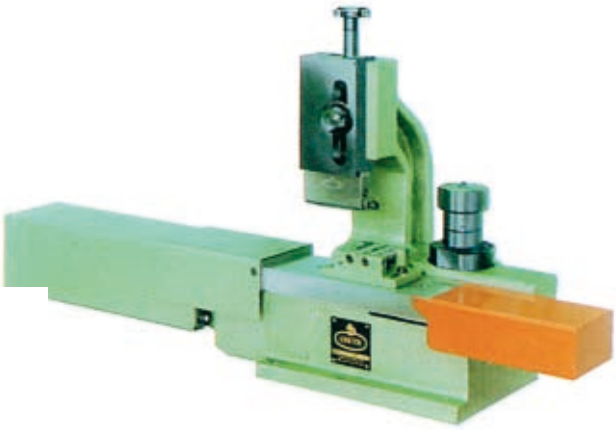


PNB



MC 41

PN 50/20



MC 41N

MC 150

MC 70

MC 70C

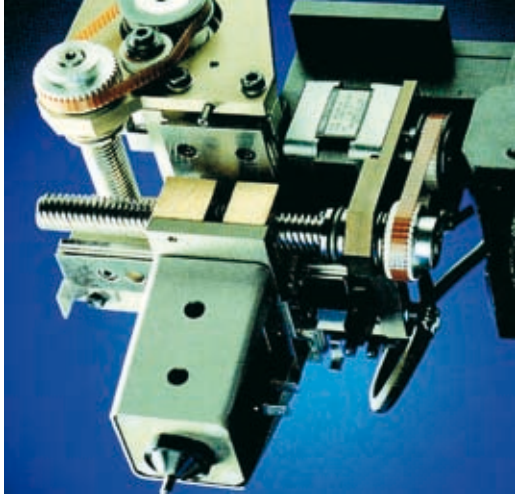
Numbering Heads, Types, Engraving Tools...

NUMBERING HEADS
Numbering mechanisms with automatic or manual advance, or a mixture of the two. For marking letters or numbers on to components of whatever shape, wherher metal, plastic, etc.

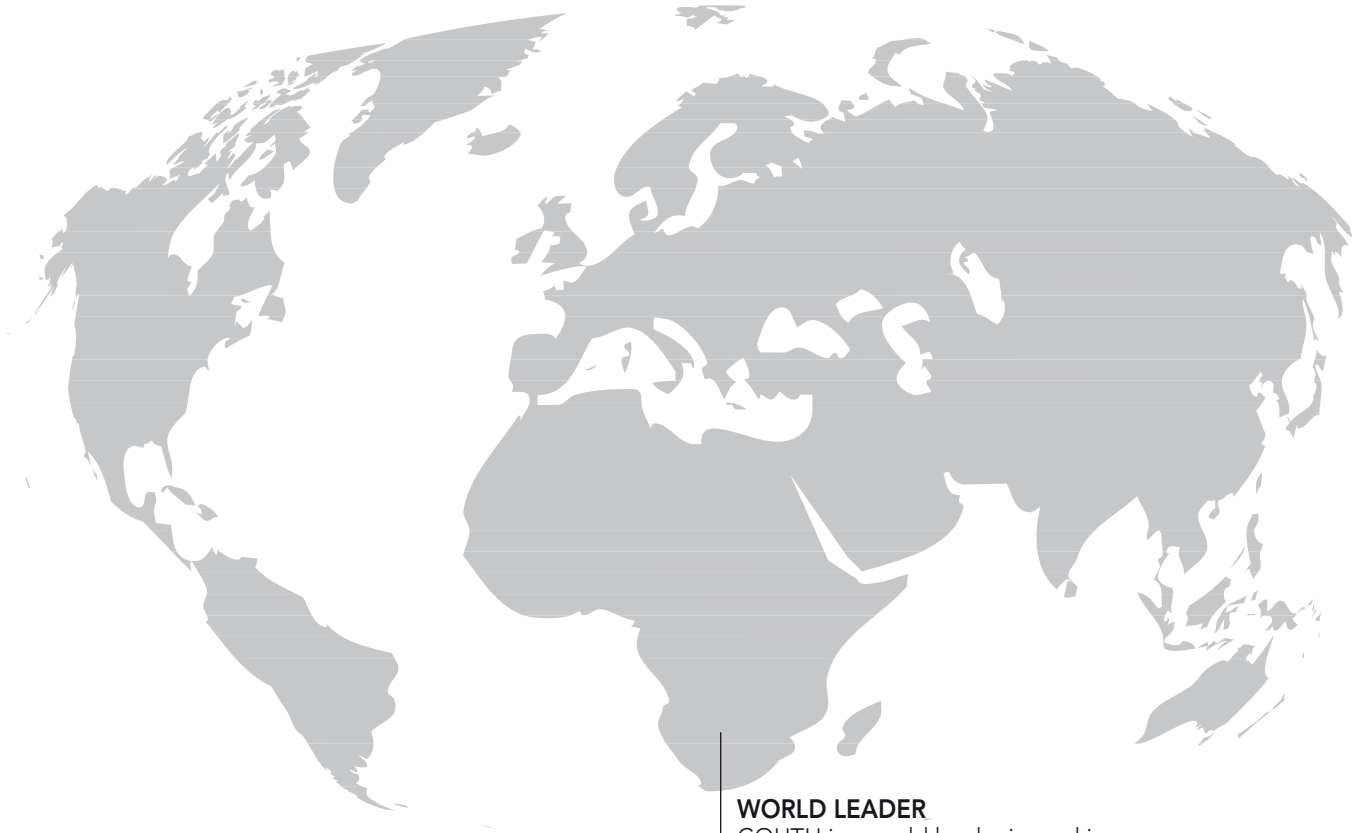
TYPES AND TYPEHOLDERS
Standard types from 1 mm to 5 mm in height for marking all types of components and materials. (Available invidually or in sets). Standard or special typeholders, for manual or mechanical marking.

INDUSTRIAL ENGRAVED DIES
Engraved metal dies for the reproduction of marks and signs on to all types and shapes of components and materials.

AUTOMATIC CENTRE PUNCH MC 8
Manual centre punches with adjustable impact for use with control signs. Use of interchangeable signs.



KNOW-HOW + EXPERIENCE + PRODUCT RANGE + QUALITY + SERVICE = WORLD LEADER



WORLD LEADER
COUTH is a world leader in marking and traceability systems.
We have a global network of local offices and dealers, ensuring our permanent presence on the major markets.

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