



DOT PEEN & SCRIBING  
EQUIPMENT  
FOR TRACEABILITY



INTEGRABLE RANGE

# EXPERTS IN PERMANENT MARKING

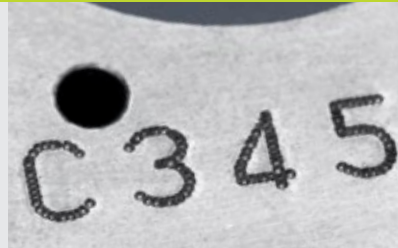
## TECHNIFORHELPSYOU MEETALLTRACEABILITY REQUIREMENTS

With their exceptionally long working life and durability, Technifor marking systems are capable of marking directly onto all components and industrial parts.

Technifor invented the dot peen marking technology over 30 years ago and remains the acknowledged experts in direct part marking (DPM) with a wide range of equipment for all applications.

## BENEFITS

- Permanent engraving that will last as long as the part
- Equipment easily adapted to production requirements
- Enhanced productivity: speed, simplicity and reliability
- Marking technology preserving the integrity of the parts engraved



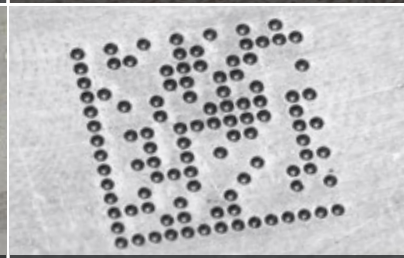
Pneumatic dot peen



Electromagnetic dot peen

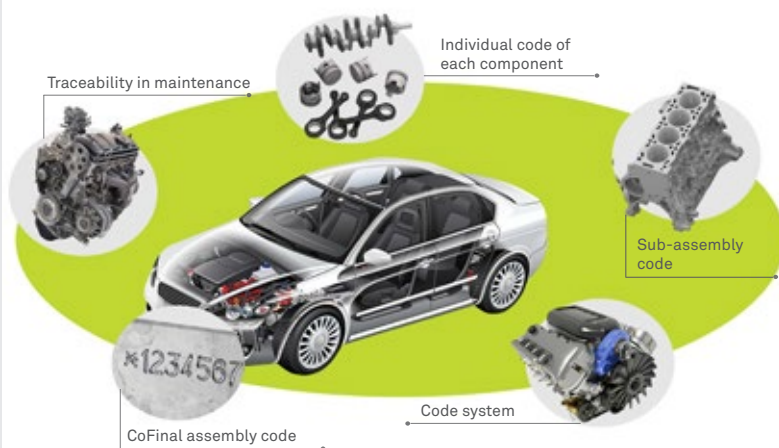


Scribing

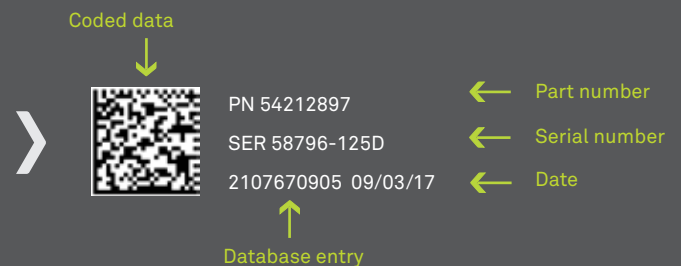


Marking - Reading - Verification

## Traceability throughout the working life



## Integrated solutions for part marking and reading



Technifor's systems guarantee a clear and constant marking of each part throughout the production line

2D codes are read and analysed throughout each stage of the manufacturing process with cameras integrated to the marking head

Technifor combines marking and vision systems as a complete integrated package solution.

# INTEGRATING: OUR KNOW-HOW

## IMPLEMENTATION SIMPLICITY

### Marking systems designed for integration

Our compact range of equipment can be easily integrated within any production configuration (line, indexed table, articulated arm, robot, etc).

Our marking machines are designed to be mounted in any direction and deliver consistent high quality.

Built-in communication ports enable easy connection to networks and PLCs.



“

Manufacturers and integrators choose the Technifor equipment for their speed, reliability and ease of integration on production lines.

”



## INNOVATION

Our Innovation and Technology Centre is constantly improving our systems to adapt to ever changing industrial requirements:

- To reduce time and costs of integration
- To facilitate communication with automated equipment
- To automatically mark parts of any size or shape

Operating without any requirement for regular maintenance even in the most demanding environments, Technifor systems provide you with error-free reliability.

## INTEGRATOR SUPPORT PORTAL

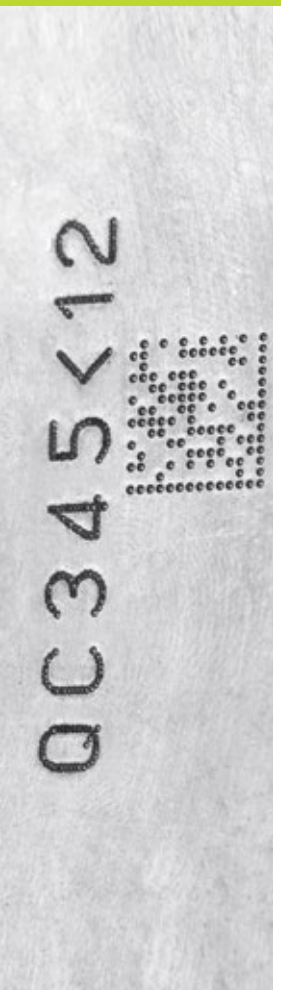
A dedicated web portal, available 24/7 provide integrators with practical information online, including integration guides, control instructions, PLC programming examples, manuals, etc.

Request access



# DOT PEEN SOLUTION XF510P

## PNEUMATIC



### COMPACT

The ideal solution for restricted spaces. Whether on the line or on a robotic arm the integration of the XF510p range is simple in any position reducing considerably the time and costs of installation.



### RAPID

The 5th generation XF510p heads are the fastest on the market, able to achieve speeds up to 5 characters per second with consistent marking quality on most material. High precision carriages and patented single-belt technology enable the XF510p range to achieve exceptional marking speeds without impact on quality.



### RELIABLE

Reliability and longevity of the XF510 range is widely recognised on the market with many thousand units installed worldwide. The XF510 is today the industry's choice for high-volume high-speed marking requirements.

## PNEUMATIC MICRO-PERCUSSION

	XF510CP	XF510SP	XF510DP
Dimensions (mm)	137x87x137	219x237x170	319x237x170
Weight (kg)	2.3	7.8	9.7
Marking area* (mm)	50 x 20	100 x 80	200 x 80
Character height	From 0.5mm(by stages of 0.01) to 45.9 mm		
Marking possibilities	Fixed/variable text - Dates - Counters - 2D Codes (Datamatrix, QR, $\mu$ QR, iQR, GM) - Logos ...		
Electrical power supply / power	110-230 V AC / 120 VA		
Compressed air supply	Normal operating pressure 6 Bar (87.023 PSI) nominal, 6.5 Bar (94.275 PSI) maximum		
Fonts	Continuous stroke or Dot by dot Unicode font (over 1400 characters available)		
Material hardness	$\leq$ 62 HRC		
Communication	Ethernet TCP/IP - 8E / 4S - RS232 - USB		

\* Other ranges available on demand



### THE + PRODUCT... 3D STYLUS

The 3D stylus is a very high amplitude stylus able to continuously mark parts with up to 16mm height variation.

No mechanical adjustment required, therefore eliminating the cost of automated height sensor and marking head movement - and making integration that much easier.

The 3D stylus marks 2D datamatrix codes very close in quality to those produced with electromagnetic technology. Code reading is made easier thanks to the uniformity and perfect alignment of the dots.

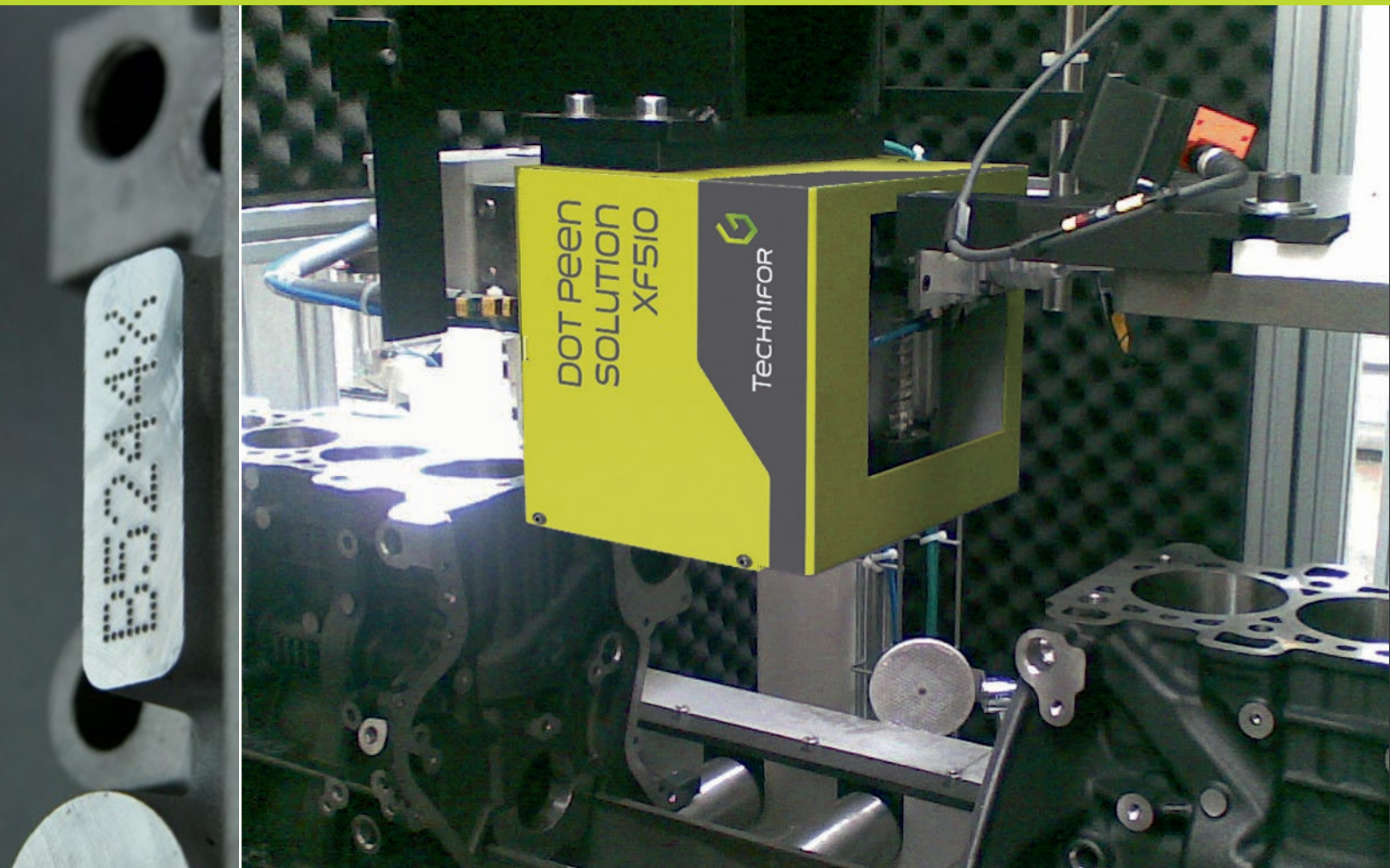


### TECHNOLOGICAL FOCUS

- Dot peening creates rapid and durable marking without any stress on the part
- Patented single-belt technology increases stylus acceleration speed and reduces marking time
- Quick reaction solenoid valves
- High-rigidity guide-rails
- Light and strong aluminium frame

# DOT PEEN SOLUTION XF510M

## ELECTROMAGNETIC



## QUALITY AND PRECISION

Designed to meet the most stringent industrial standards, the XF510m range engraves parts with the highest level of precision and quality. Its unique engineering and high quality components ensure a perfect alignment of the dots marked with perfect repeatability.



## VERSATILE

All engraving parameters such as marking force, accuracy and speed can be very precisely adjusted, enabling the XF510m range to be used on the hardest as well as most delicate materials.



## DATAMATRIX MARKING

The high performance solenoid developed for the XF510m range makes the machines ideal for the marking of high precision 2D codes (Datamatrix™, UID, QR...) for demanding applications such as aerospace, defence or nuclear.

# ELECTRO-MAGNETIC MICRO-PERCUSSION

	XF510Cm	XF510Sm	XF510Dm
Dimensions (mm)	158x102x275	231x195x309	331x195x309
Weight (kg)	4.7	8.8	10.2
Marking area* (mm)	50 x 20	100 x 80	200 x 80
Character height	From 0.5mm (by stages of 0.01) to 45.9 mm		
Marking possibilities	Fixed/variable text - Dates - Counters - 2D Codes (Datamatrix, QR, $\mu$ QR, iQR, GM) - Logos ...		
Electrical power supply / power	110-230 V AC / 240 VA		
Fonts	Dot by dot Unicode fonts (over 14 000 characters available) - OCR fonts - 5x7		
Material hardness	$\leq$ 62 HRC		
Communication	Ethernet TCP/IP - 8E / 4S - RS232 - USB		

\* Other ranges available on demand



## THE + PRODUCT... AUTOMATED Z-AXIS

The motorised Z-axis is programmable to adjust the marking head to the required position. Automatic height adjustment is also possible thanks to a sensor fitted on the machine.

In addition the automated marking head can be mounted in any vertical or horizontal orientation, greatly simplifying the integration process.

The motorised Z-axis option reduces machine set-up time and guarantees marking consistency.



## TECHNOLOGICAL FOCUS

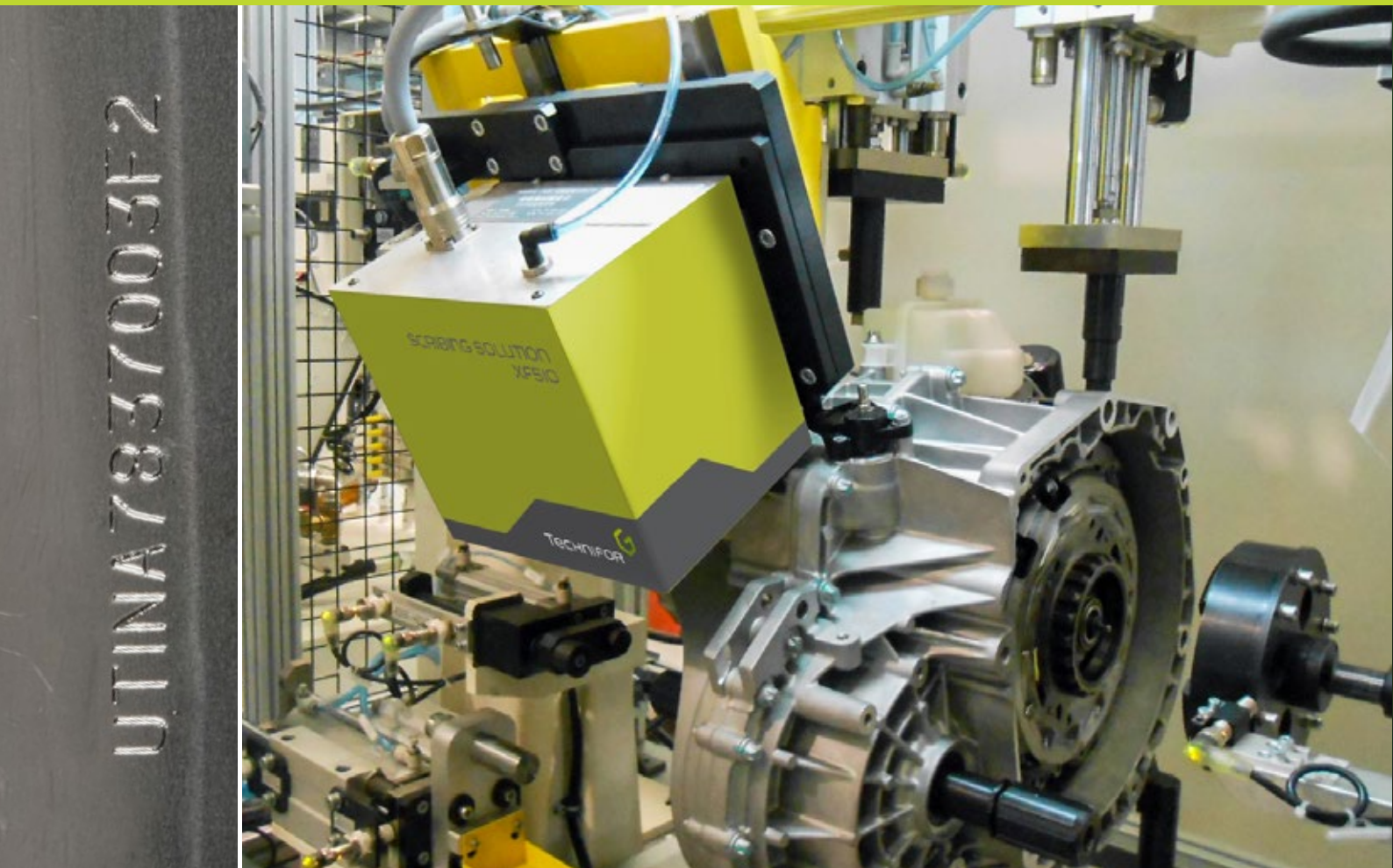
The electromagnetic technology enables dot-by-dot / indent marking without the need for compressed air.

Quality engineering and components define the XF510m range:

- Precision ball screws,
- High-accuracy guide-rails,
- Lightweight yet rigid aluminium frame.

# XF510R SCRIBING SOLUTION

## SCRIBING



### SILENT

High quality engraving with limited noise level is achieved with the XF510r scribing range. Ideal for marking applications on high resonance parts such as hollow metal structures and metal sheets.



### POWERFUL

High precision linear guide rails and overall robust engineering enable quality engraving with excellent repeatability. Proven reliability with many thousand units in operation in challenging environments.



### QUALITY

The XF510r range achieves both engraving depth and visual quality. Machining parameters are adjustable for optimum result: speed, resolution, force and positioning. Both light marking on plastic or deep engraving into stainless steel are easily achievable without impact on the integrity of the part. After-treatment on metals such as painting or sandblasting are possible with the engraving remaining visible.



	XF510CR	XF510SR	XF510DR
Dimensions (mm)	182x167x224	222x167x224	302x167x224
Weight (kg)	9	10	11.5
Marking area* (mm)	40 x 50	80 x 50	160 x 50
Character height	From 0.5mm (by stages of 0.01) to 45.9 mm		
Marking possibilities	Fixed/variable text - Dates - Counters - 2D Codes (Datamatrix, QR, $\mu$ QR, iQR, GM) - Logos ...		
Electrical power supply / power	110-230 V AC / 150 VA		
Compressed air supply	Normal operating pressure of 6 Bar (87.023 PSI) standard		
Fonts	Continuous stroke		
Material hardness	$\leq$ 62 HRC		
Communication	Ethernet TCP/IP - 8E / 4S - RS232 - USB		

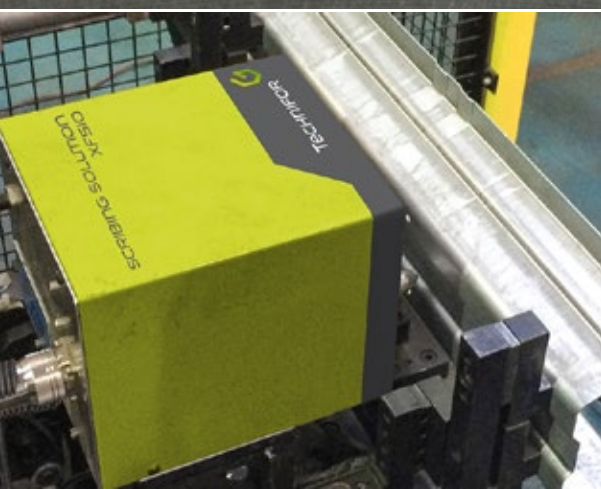
\* Other ranges available on demand



## THE + PRODUCT... TEXT AND DATAMATRIX MARKING

The XF510r range provides an unmatched marking speed, quality and reliability both for low and high volume production.

With the optional Datamatrix pack, code and characters are perfectly marked in a single operation and in record time.



## TECHNOLOGICAL FOCUS

Scribing is a quiet direct part marking process not requiring any consumables. XF510r range key points:

- High performance anti-burr styli with optional diamond tips
- Precision ball screws
- High rigidity guide rails
- Reliable long life-span construction
- Economical with low air consumption

# HEAVY DUTY SOLUTIONS XF530/SV510

## MAXIMUM POWER



## DEEP ENGRAVING

An extremely powerful stylus marking tool produces a wide and deep engraving, making these machines ideal for metal marking, prior or post treatment (painting, sandblasting, anodising...).



## INCREASED READABILITY

The engraving is clean and resistant to contaminants or rust. The depth achieved guarantees long term readability. From very small to large characters the identification is truly permanent. Ideal for anti-counterfeiting, normative and VIN marking.



## ADAPTABLE

The marking machines can adapt to specific requirements: integrated onto special purpose equipment, mounted on a column for benchtop applications or fitted with handles and positioning feet to become a portable system.

## SCRIBING AND MICRO-PERCUSSION

	SV510	XF530P	XF530m
Technology	Scribing	Pneumatic micro-percussion	Electromagnetic micro-percussion
Dimensions (mm)	321x245x239	343x170x221	
Weight (kg)	21	13.5	
Marking area* (mm)	120 x 40	200 x 50	
Character height	> 2mm	> 5mm	
Marking possibilities	Fixed/variable text - Dates - Counting devices - 2D DataMatrix code - Logos ...		
Electrical power supply	110-230 V AC		
Power	1 100 VA	120 VA	240 VA
Compressed air supply	Normal operating pressure: from 2 to 6 Bar (87.023 PSI) nominal	Normal operating pressure: from 5 (72 .519 PSI) at 7 Bar (101.526 PSI) nominal	N/A
Fonts	Continuous stroke	Continuous stroke or dot by dot	Dot by dot
Material hardness	≤ 62 HRC		
Communication	Ethernet TCP/IP - 8E / 4S - RS232 - USB		

\* Other ranges available on demand



### THE + PRODUCT... THE MOBILE SOLUTION

For marking of large size parts, non-detachable parts, on fixed position or moving parts on a production line, our systems will easily adapt to all requirements:

- Efficient positioning of the marking head with automated clamping and part detection sensors
- Marking head mounted on a PLC controlled robotic arm or moving bridge
- Connection to automated systems, barcode readers, cameras, etc...

Any part can be marked!



### FOCUS ON... V.I.N. MARKING

Vehicle Identification Number (VIN) is a unique 17 character identifier marked on several parts of the same vehicle.

The SV510 engraver is particularly suited for this application: easy to install either as standalone or integrated unit achieving silent, deep and permanent marking.

The WriteLine option automatically creates a historic log file checking and preventing data duplication.

# AN ADVANCED COMMUNICATION: CONTROL UNIT UC500

ETHERNET TCP/IP

PROFINET

RS232

- Dedicated I/O
- Digital 8E/8S



Accessory port

USB



## CONNECTED

Totally connected with your environment, the UC500 control unit is the best communicator on the market: its advanced connectivity ensures an easy integration into all production lines.



## TIME SAVING

Used throughout the world, plug and play modules (no PC, no communication adapter required) and pre-programmed commands for the majority of the automated systems: installation times are considerably reduced.



## COST REDUCTION

“Ready to install” solutions, which require no additional connection equipment. Industrial design and protected against electromagnetic disturbances, they require no filtration or any additional enclosure.

# INTELLIGENCE MANAGEMENT BUILT-IN MARKING PROGRAM T05



## INTEGRATED + AUTONOMOUS

The T05 program has been developed by Technifor for identification and traceability with end-users in mind.

- Easy programming: large built-in screen interface, intuitive operation with pull-down menus, icons, marking pre-visualisation and simulation
- Open communication and connectivity
- Autonomous mode, daily reboot will automatically load programmed files

## ACCURATE TRACEABILITY

Improving and simplifying traceability is what the T05 program does best:

- Pre-loaded optimised marking fonts for reducing cycle times
- One-click programming of dates, counters, serial numbering, logos, symbols...
- Automatic creation of 2D codes: Datamatrix, UID, QR, etc

T05 is fully customisable with supervisor / user modes with all advanced functions included: data import, I/O management, variable data, historic log and more



# MACHINE ACCESSORIES

From robotic cable to automatic Z-axis Technifor offers a wide range of optional accessories.

## FOR INTEGRATION

Motorised Z-axis, pneumatic positioning unit, elbow connector, height adjustment plate, robotic cables...

## FOR INCREASED PRODUCTIVITY

Electronic rotary device, automatic plate-feeder, wide range of marking tools, docking stations...

## CODE-READING

1D and 2D cameras, readers and verifiers - stand alone or integrated

## PROTECTION AND SAFETY

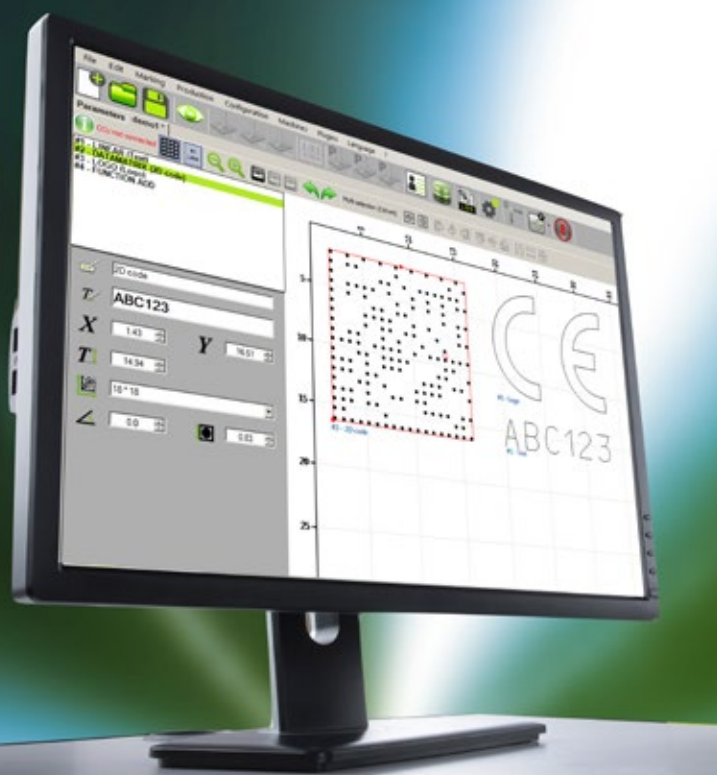
Protective boots, metallic shutters, remote control button box, oil and dust separator filters, ...

## FOCUS ON

### STYLI AND TIPS MARKING TOOLS

The widest range available on the market

- Styli for different forces
- Long reach styli for difficult access
- High speed oscillation styli for faster speeds
- Unique 3D stylus to mark uneven parts with up to 16mm level variation



## PC SOFTWARE: GRAVOTRACE

With Gravotrace Windows™ based software create your marking files on your PC.

- Create job templates with visualisation of the engraving on the part
- Import data from a network database
- One-click functions: variables, counters, shifts, date and time, 2D code and more...



Download your free software



# A GLOBAL WORLDWIDE PARTNER

## OUR SERVICES

Feasibility study, sample marking and expert advice: Technifor works in partnership with all their customers thanks to a worldwide network of subsidiaries.

Dedicated application centres equipped with the latest marking systems run tests on the most demanding marking applications.



## CUSTOMISED SOLUTIONS

Our engineering team develop marking solutions customised to individual specific requirements. One-off turn-key solutions with hardware and software customisation leave our factory on a daily basis.



## INSTALLATION AND TECHNICAL SUPPORT

Highly experienced teams on five continents provide on-site training and assistance.

Technical documentation and software available in more than 20 languages 24/7 on our dedicated customer support Web portal.



## MAINTENANCE CONTRACT AND WARRANTY

Extended warranty and maintenance contract service plans are available in addition to the parts and labour factory warranty coming with all new equipment.

Technifor warranty fully covers parts and labour - no surprises.

# ABOUT TECHNIFOR

Since 1981 when it invented the dot peen marking technology, Technifor has designed and manufactured high-speed high-reliability marking equipment. Technifor range of products and technologies is consistently expanding and widely used by the largest industrial corporations.

Technifor's technologies include dot peen, mechanical and laser engraving.

A brand of the Gravotech Group, Technifor benefits from a global network established in over 100 countries. A leader in the fields of engraving and permanent marking, Gravotech integrates the complexity of your needs into simple solutions.

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We are committed to offering the highest level of technology to help you increase your productivity and reactivity.

”

G rard Guyard - President



## CONTACT US

T L : +33 (0)4 78 55 85 50  
contact@gravotech.com  
www.technifor.com



**Gravotech Marking**  
466 rue des Mercières - Z.I. PERICA  
69140 Rillieux-la-Pape  
FRANCE

**Technifor**   
GRAVOTECH GROUP