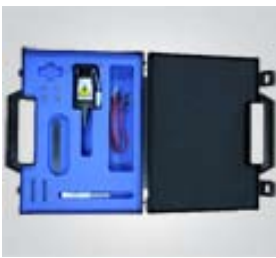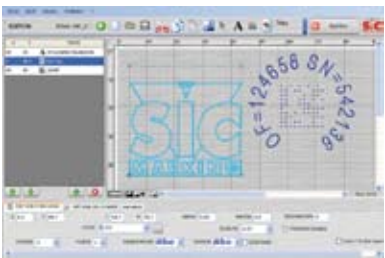## MACHINES

Multi stylus system

Maintenance kit

PC base software
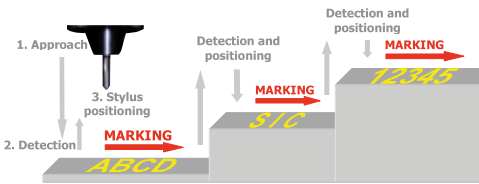
Z axis stroke 50 to 250 mm / 2 to 9.8 in

Barcode and Data Matrix reader

Stylus and guides

1. Approach
2. Detection
3. Stylus positioning
MARKING
MARKING

Detection and positioning
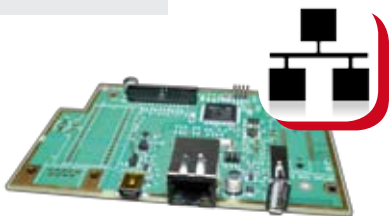
Detection and positioning
MARKING

Autosensing: Integrated probe for consistent distance between stylus / part.
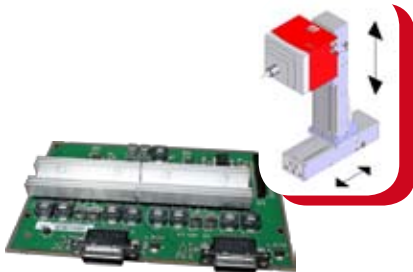
i113D for deep marking

CONTROLLERS

Ethernet card

Kit for mounting on DIN Rail

Card for controlling 3rd and 4th axis

APPLICATIONS

i141 mounted on column

Engine block marking by two i52

i83 mounted on Z axis

Mark today
Identify tomorrow

SIC MARKING, THE MARKING SOLUTIONS LEADER

SIC Marking is an international company dedicated to the development of permanent marking solutions & automated identification for complete traceability of industrial components.

SIC Marking has developed a full range of exclusive marking machines - dot-peen, scribing & laser technologies - and services.

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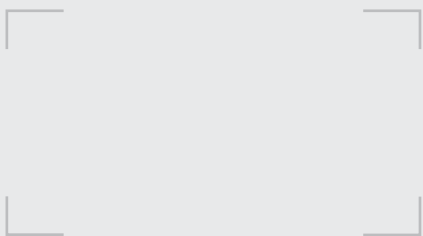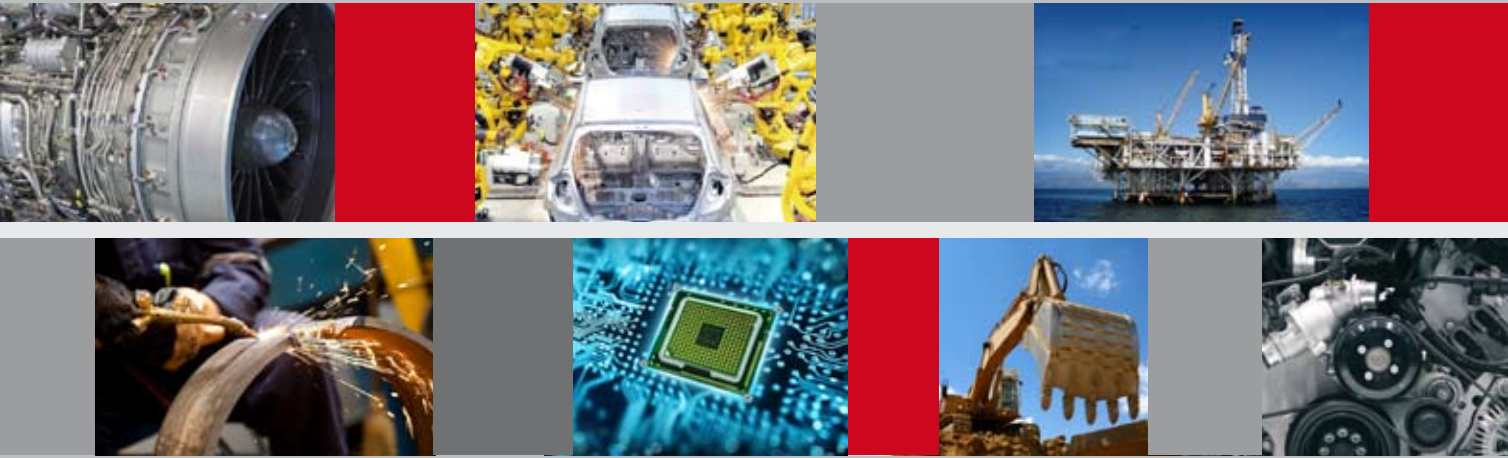INDUSTRIAL VISION
- SCRIBING
- LASER
- INDUSTRIAL VISION

TURNKEY SOLUTIONS
- TURNKEY SOLUTIONS

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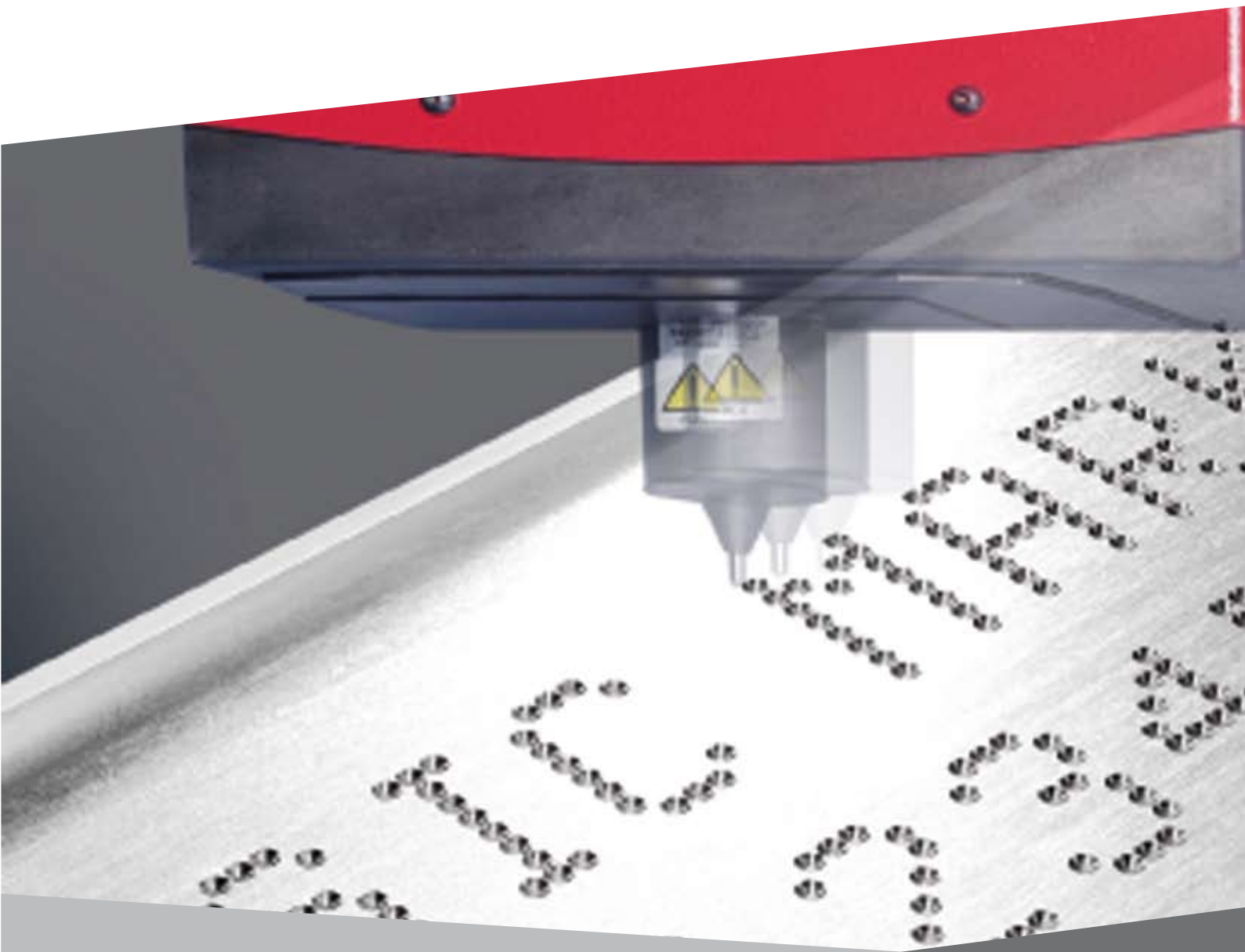
www.sic-marking.com

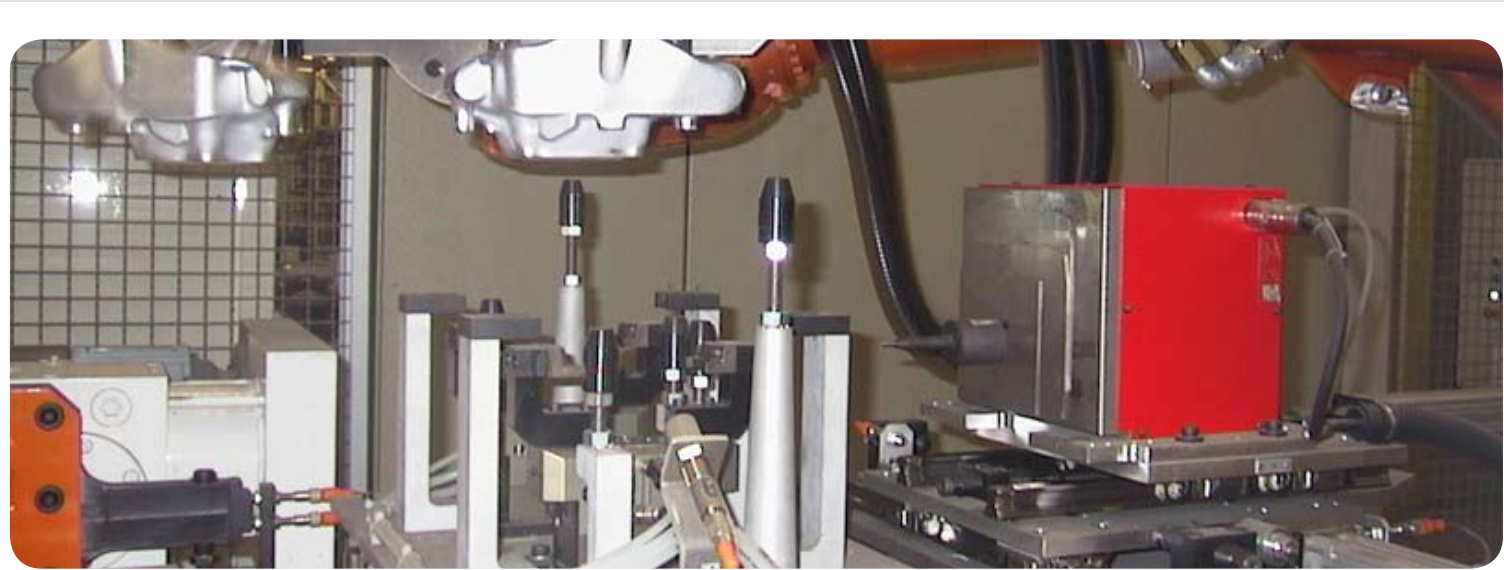
DOT PEEN   INTEGRATED

INTEGRATED SYSTEMS
Dot peen marking heads

e10 RANGE

e10-i52
e10-i83
e10-i83v
e10-i141

DOT PEEN TECHNOLOGY : FAST MARKING ON ALL MATERIALS!

Dot peen marking is achieved with an electromechanically fired carbide stylus assembly against the surface of the workpiece.

This type of marking (text, digits, logo, 2D datamatrix code) is made of a succession of dots. Each dot is created by the impact of the stylus on the surface. The force is given by a controlled pulse through an electromagnet, in order to punch the magnet toward the surface. A spring returns the stylus assembly to the start position, waiting for the next pulse. Frequency can vary depending on the force selected and the speed of X and Y axis movement.

SIC Marking dot peen technology is unique by the fact that the electrical current is measured between each pulse in order to control the impact consistency.
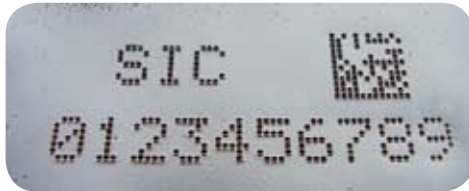
INTEGRATED SYSTEMS

Our integrated marking systems are designed to be easily integrated on automated lines and allow heavy use. Their easy integration and high performance make them major products for industrial use. They meet the needs of custom requirements, and incorporate fixed-mounted camera systems for automated reading.

HIGHLIGHTS ....

■ **Robust and reliable**
• Fully enclosed system
• Protective bellows
• Designed for heavy use in industrial environments

■ **Simple and user-friendly**
• Straightforward integration
• Compact (i52)
• Removable robotic cable
• Simple programming

■ **Wide range of options**

■ **High performances**
• 100% electromagnetic technology (No air supply required)
• Precise and accurate guides
• Long stylus for part distance/tolerance variations
• High speed
• Powerful integrated software
• Wide marking window
  (150 x 100 mm / 5.9 x 3.9 in for i141)

■ **Low cost of ownership**
• No consumables
• Reduced maintenance

SUITABLE WITH QUALITY STANDARDS
■ DT05-89
■ XP Pr EN9132
■ AQG SPEC 2000
■ ISO/IEC 16022
■ UID
■ DATAMATRIX ECC 200
...

i52

292 mm / 11.1 in

129 mm / 5.1 in   74 mm / 2.9 in
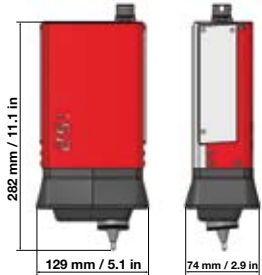
■ ADVANTAGES OF i52 ....

• **ULTRA COMPACT**
• Straightforward integration: 3 mounting faces
• Fast and consistent marking
• Marking window 50x20 mm / 2x0.8 in

i83 / i83A

202 mm / 7.9 in   225 mm / 8.9 in

256 mm / 10.1 in   184 mm / 7.2 in

■ ADVANTAGES OF i83 /i83A ....

• **HIGH SPEED AND PRECISION**
• Accurate drive mechanism
• Integrated robotic connector for better protection
• Aerospace standards
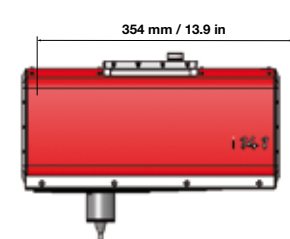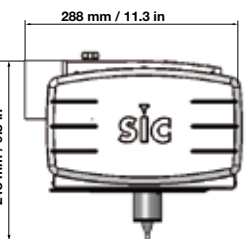• Marking window 80x70 mm / 3.1x2.7 in

i83v / i83vA

202 mm / 7.9 in   225 mm / 8.9 in

256 mm / 10.1 in   184 mm / 7.2 in

Fixed-mounted camera

Internal view

■ ADVANTAGES OF i83v / I83vA ....

• **IDEAL FOR DATAMATRIX**
• Accurate drive mechanism
• Reading after marking without movement
• Aerospace standards
• Marking window 80x70 mm / 3.1x2.7 in

i141 / i141A

288 mm / 11.3 in   354 mm / 13.9 in

248 mm / 9.8 in

■ ADVANTAGES OF i141 / I141A ....

• **LARGE MARKING WINDOW**
• Accurate drive mechanism
• Marking window 150x100 mm / 5.9 x 3.9 in

MECHANICAL TECHNICAL FEATURES

	i52	i83	i83v	i141
Marking window	50 x 20 mm / 2 x 0.8 in	80 x 70 mm / 3.1 x 2.7 in	80 x 70 mm / 3.1 x 2.7 in	150 x 100 mm / 5.9 x 3.9 in
Weight	3.2 Kg / 7.7 lbs	7.8 Kg / 17.2 lbs	7.9 Kg / 17.4 lbs	12 Kg / 26.5 lbs
Robotic cable	5 m / 16.4 ft (10 m / 32.8 ft and 15 m / 49.2 ft in option)			
Carbide stylus 60 mm / 2.4 in	(optional up to 150 mm / 5.9 in - limited to 80 mm / 3.1 in for i52)			
Protection bellows	Rubber	Stainless steel	–	Stainless steel
Part detection (in option)	–	Autosensing system (i83A)	Autosensing system (i83vA)	Autosensing system (i141A)

Standard Characteristics

• Color screen
• USB port - Easy transfer of marking files
• Connectivity - Current standards communication
• Fully programmable
• Sand-alone operation (no PC required)
• Cutting-edge microprocessor: quick start and smooth browsing
• Marking history and self-diagnosis functions (maintenance help, configuration and statistics)
• Markings variety (DataMatrix, angular, circular, alphanumeric, logos, etc.)
• Industrial membrane keyboard
• Fully enclosed controller IP40 (no opening, no fans)
• 100% compatible with previous machine range

e10 R specific features

• Reduced size (can be easily integrated)
• 2 possible configurations: connectors can point upwards or downwards
• Adapted for vertical mounting in electrical cabinet
• Kit for mounting on DIN rails (optional)

e10

e10 R

Ideal for the integrated range

■ Color screen   ■ **USB connection on the front panel:** import/Export marking files - Keyboard external plug   ■ **Full connectivity :** compatible with different communication protocols

ELECTRONIC TECHNICAL FEATURES

	e10	e10 R
Dimensions (d x l x h)	322 x 380 x 112 mm / 12.7 x 15 x 4.4 in	112 x 380 x 222 mm / 4.4 x 15 x 8.7 in or 140 x 380 x 222 mm / 5.5 x 15 x 8.7 in with Rail DIN Kit (option)
Weight	5 kg / 11 lbs	
LCD screen resolution	480 x 272 pixels	
Keyboard	Qwerty integrated, membrane overlay	
Power	300 Watt	
Power supply	Single phase, 85 to 260 VAC, 50 to 60 Hz	
Number of controlled axis	2 (3rd and 4th axis optional)	
Operating temperaure	From 5 to 40°C / 40 to 105°F	

SOFTWARE

Memory	7110 Kb
Text	Incrementation, date codes
Logos	Download from PC/USB key
Data Matrix	Up to 348 characters, 48 x 48 dots
Fonts	4x6, Arial, Comic, Comic_B, Courier, OCR, OCR_BOLD, OCRA
Style	Angular, radial, inverse, mirror
Character size	From 0.1 mm to 99 mm (restricted by marking window size)
Impact force	9 adjustable levels
Depth	Up to 0.5 mm (depending on material marked)
Resolution between dots	0.05 mm / 0.002 in
Work shift management	10 shifts/24h
Password	3 security levels
Historical function	Exportable Excel file
Maintenance assistance	Self-diagnosis
Software	17 languages

COMMUNICATION

Ports	RS232, RS422, USB (RS485 Profibus and TCP/IP Ethernet in option)
Inputs/Outputs	8/8
External keyboard input	USB
External output	5V – 0.5A and 48V – 3A
Soft on PC	Marking files creation, controller/PC or USB key transfer, historical function