

# REA JET

INDUSTRIAL CODING AND  
MARKING SOLUTIONS -  
MADE IN GERMANY

## The World of Coding and Marking Product Overview



## REA JET – Industrial Coding and Marking Systems

Since our company was founded in 1982, we have been designing and developing industrial coding and marking systems for contact-free coding and marking of a wide variety of products and surfaces. Thousands of REA JET systems are being used throughout the world, ensuring efficient identification and traceability.

REA JET systems are not only the systems of choice in the tough everyday industrial world of steel, wood, rubber and plastic-processing factories, they also master sophisticated coding tasks such as in the pharmaceutical, food or packaging industries.

In our product range, we offer coding and marking systems that include large character ink jet printers (DOD), high resolution ink jet printers (HP print technology and piezo), small character ink jet printers (CIJ), laser systems, spray mark systems and labeling systems, thus providing coding and marking solutions for applications in all industrial areas.

Our REA VERIFIERS enable you to ensure the quality and hence readability of your barcodes and 2D codes.

REA JET sees itself as a system supplier. You obtain your tailor-made solution from a single source. In addition to providing a large number of standard coding and marking systems, implementing customized solutions is one of our strengths.

Apart from our state of the art technology, it is our highly qualified and committed employees from various specialty areas that make a significant contribution to the satisfaction of our customers and the success of our products.

By using high-quality components along with training your employees, we guarantee the best possible coding and marking results, together with high availability of the equipment, with a minimum maintenance overhead.

A fast and flexible response to customer requests, as well as expert and straightforward service assistance are additional hallmarks of the quality of REA products.

REA JET is the only medium-sized manufacturer to develop, produce and constantly improve a complete coding and marking product program at the company headquarters in Germany.

From suitable coding and marking systems, through a selection of inks (over 400 special inks can be supplied), to professional installation with customer-specific solutions (holding devices, positioning units, robotics etc.), as well as care and maintenance of the systems – whatever your needs, you have an expert partner in REA.

**“Industrial coding and marking solutions - made in Germany“ - we feel bound by this standard.**



The company headquarters of REA Elektronik GmbH, 30 km south of Frankfurt am Main



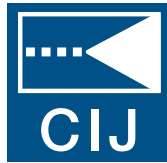
**Large Character  
Ink Jet Printers (DOD)**



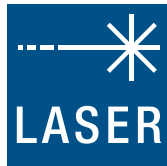
**High Resolution  
Ink Jet Printers (HP)**



**High Resolution  
Ink Jet Printers (Piezo)**



**Small Character  
Ink Jet Printers (CIJ)**



**Laser  
Systems**



**Spray Mark  
Systems**



**Barcode  
Verifiers**



**Labeling  
Systems**



**Inks +  
Consumables**

# The Standard in its Class: Large Character Ink Jet Printer (DOD)



The modular coding and marking systems for texts, dates or logos are available in printing heights up to 140 mm for each print head. The resolution meets the requirements of virtually all industrial applications for marking and coding.

These large character systems, with 7-, 16- or 32-nozzles print heads are easy to use, robust and, due to the modular construction of the system components, highly flexible.

## Applications:

- absorbent and non-absorbent surfaces such as paper, cardboard, metal, glass, ceramics, stone, wood, plastic, rubber, foils, carpet, textiles, non-woven fabric, organic surfaces etc.
- under extreme environmental conditions such as dust, humidity, vibration and temperature fluctuations

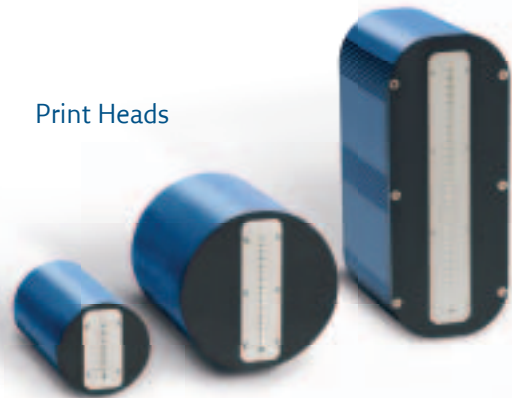
## Advantages:

- REA's patented swivel-armature technology: robust and reliable
- sparing use of consumables
- suitable for pigmented and non-pigmented inks
- product speeds up to 300 m/min.
- IP65 protection class
- REA Plug & Print technology (high system availability and process reliability via quick-change system for module components)
- REA Purge & Clean technology (rapid cleaning of the print head at the press of a button)
- REA DSC technology (dot-size control, freely adjustable drop size for economical use of consumables)

## Print Head Variants:

- 7-nozzles (one-line markings at heights of between 3 and 27 mm)
- 16-nozzles (one- to two-line markings at heights of between 3 and 67 mm)
- 32-nozzles (one- to five-line markings at heights of between 3 and 140 mm)

Print Heads



Ink Supply



Control Device



Input Terminal





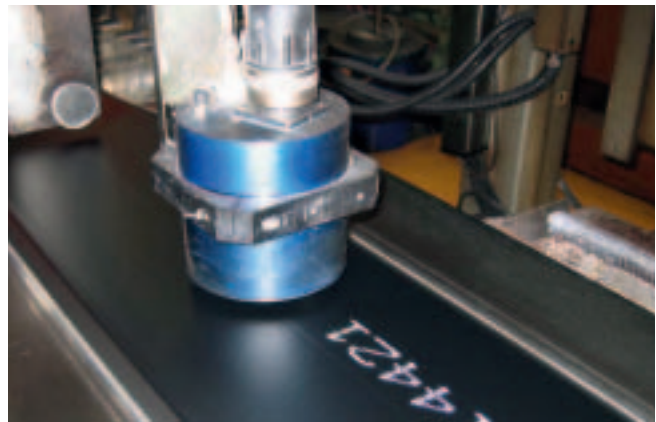
Coding of pipes (steel, plastic etc.)



Coding of aluminum plates



Marking of paper bags



Raw rubber tread coding



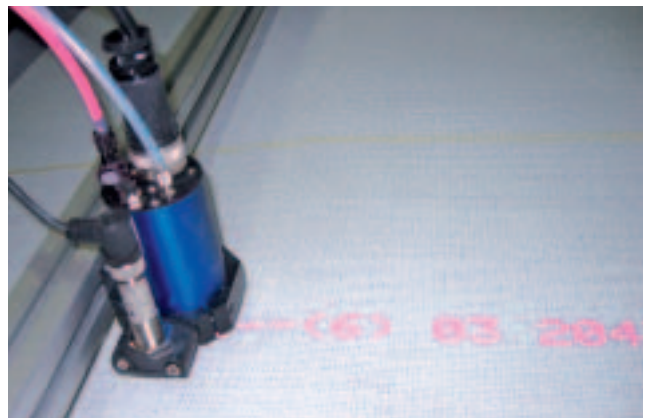
Coding of shrink hoods



Marking of concrete pipes



Coding of wood



Coding of sheeting

# Innovative, Maintenance-Free Product Marking: High Resolution Ink Jet Printers (HP)



The high resolution ink jet printers with HP print technology utilize the thermal ink jet technology that is trusted by millions of users of office printers. The robust stainless steel housing, the intuitive operation and well-conceived print head design make this coding and marking system suitable for unlimited industrial-strength applications. The system particularly proves its worth in the pharmaceutical,

food, wood, paper and packaging industries. For marking at a print height of 12.7 mm per cartridge. If greater print heights are required, several print heads can be cascaded. With its integrated Ethernet interface and full Unicode support, the HR print system is the system of choice for serialization tasks and track & trace projects.

## Applications:

- protection against counterfeiting and traceability
- ideally suited for serialization and track & trace applications
- high-quality code verification in a process using verifiers from REA VERIFIER (see page 16)
- for absorbent and non-absorbent surfaces
- alphanumeric texts, barcodes, 2D codes, DataMatrix codes and logos
- variable data such as date, time, counter, shift code, database contents
- highest print resolution up to 600 dpi, configurable in 16 levels

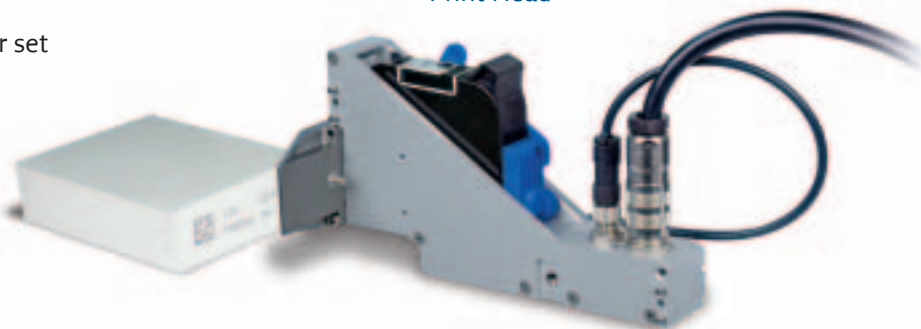
## Advantages:

- utilizes the HP thermal ink jet technology (TIJ) that is trusted by millions of users of office printers
- maintenance-free - every time you change a cartridge, you receive a new print head
- permanent storage of the various cartridge fill levels
- monitoring of cartridge locking
- highest operational reliability
- easy and intuitive operation due to central push-turn jog-dial knob
- international, due to Unicode character set and multi-voltage power supply
- XML-based data structure and communication
- state of the art interface technology, for integration into machinery and equipment
- controller in stainless steel housing with IP65 protection class
- optional accessories such as robust, easy-to-configure parallelogram for distance offset in different product positions during printing

Controller



Print Head







Marking of paper bags



Marking of wood



Coding of laminate



Marking of flour bags



Cardboard box coding using DataMatrix code



Barcode marking of paperboards



Coding of non-woven fabric



Coding of plastic profile plates

## Multi-Purpose and Multi-Line: High Resolution Ink Jet Printers (Piezo)



The high resolution piezo ink jet printers are ideal for marking paperboards. They enable you to change texts, barcodes and logos quickly and conveniently. One can print at a print height of up to 100 mm.

The print heads of our systems work, irrespective of position. You can also print sideways, from above and from below. Various colors in solvent-free REA JET ink cartridges are available.

### Applications:

- serialization and track & trace applications
- high-quality code verification in a process using verifiers from REA VERIFIER (see page 16)
- porous and absorbent surfaces: paper, paperboards, wood, textiles, non-woven fabric, building materials etc.
- flexible alternative to labels and pre-printed paperboards

### Advantages:

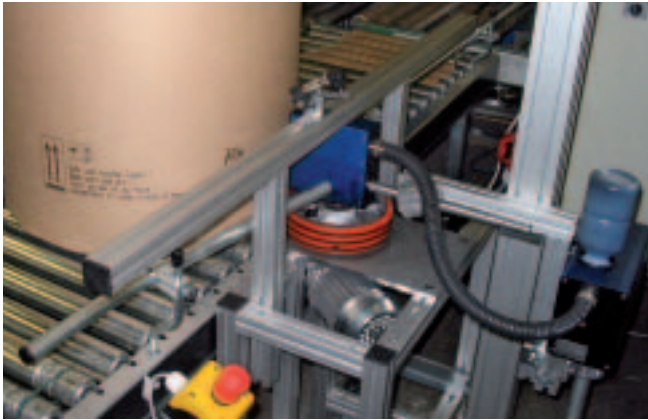
- low consumable costs
- solvent-free REA JET inks
- printing up to 100 mm and 42 text lines using a single print head
- very high print quality, sharp-edged with high-contrast
- prints barcodes in optimal quality
- Windows®-based text input
- simple data transfer and data backup using USB port
- up to 1000 mm-long supply line from print head to ink supply
- modular system structure
- data security for package marking using REA JET DataCon software: data management for print assignment from databases

### Print Head Variants - Print Heights:

- GK 768/256 - between 2 and 100 mm
- GK 384/128 - between 2 and 50 mm
- LK 192/32 - between 2 and 25 mm
- LK 224/32 - between 2 and 48 mm
- LK 352/32 - between 4 and 48 mm
- LK 192/32 SI - between 2 and 48 mm







Marking of fiber drums



Marking of paper bags



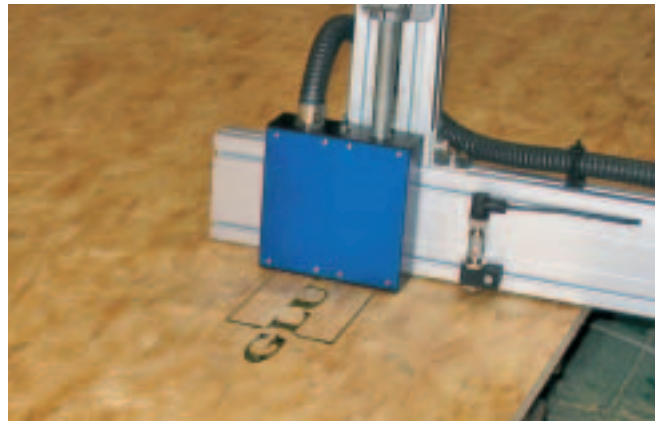
Marking of cardboard boxes



Marking of paper bags



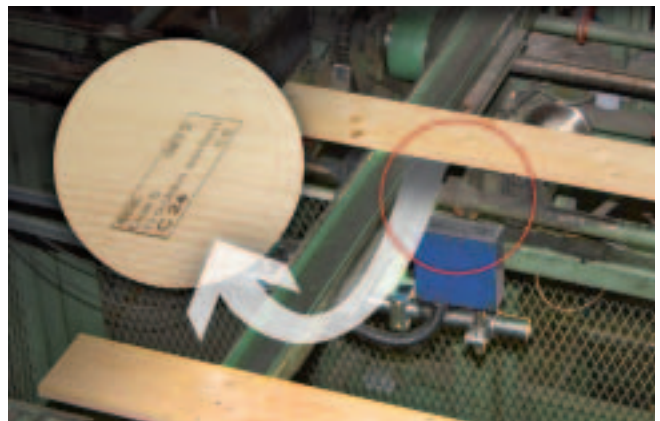
IPPC logo coding on wooden pallets



Coding of OSB boards



Paperboard marking with text and barcodes



CE marking on wood

## Small Characters, Big Impact: Small Character Ink Jet Printers (CIJ)



Continuous ink jet technology (CIJ) – few other coding and marking technologies have done as much to promote consumer safety and information in our daily lives. In the food and product packaging industry alone, the benefits are plain to see. This coding and marking technology enables contact-free printing of

1 to 4-line texts, dates, barcodes, DataMatrix codes and logos in high resolution, and with print heights of between 2 and 12 mm, at high speed and with very short drying times. It achieves especially good results on smooth surfaces such as foils, laminates, plastics or metals.

### Applications:

- non-absorbent and absorbent surfaces
- especially good marking results on smooth surfaces (plastics, metals, packaging foils)

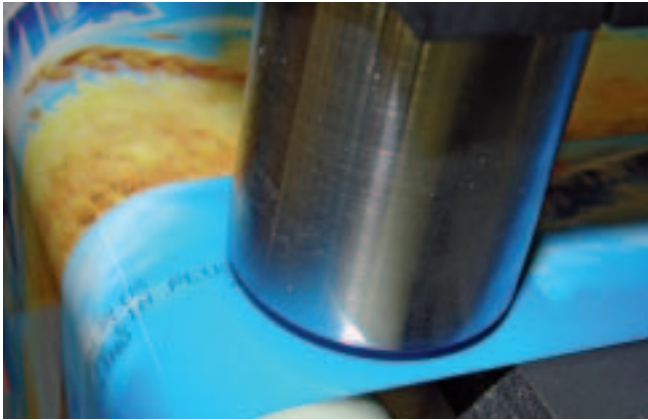
### Advantages:

- low consumable consumption
- fast-drying inks for extremely short drying times
- product speeds of up to 400 m/min. with excellent print quality
- WYSIWYG (What-You-See-Is-What-You-Get) display of the print text
- high process reliability in barcode printing
- print head suitable for mounting on linear motion devices
- service-friendly design
- automatic flushing routine after switching on and before switching off for best possible start-up behavior
- REA JET SC FlexiCart with print head cleaning station for safe use in production
- printer controllable via a PC in the network



FlexiCart (REA JET SC Stand)  
with integrated Print Head Cleaning Station





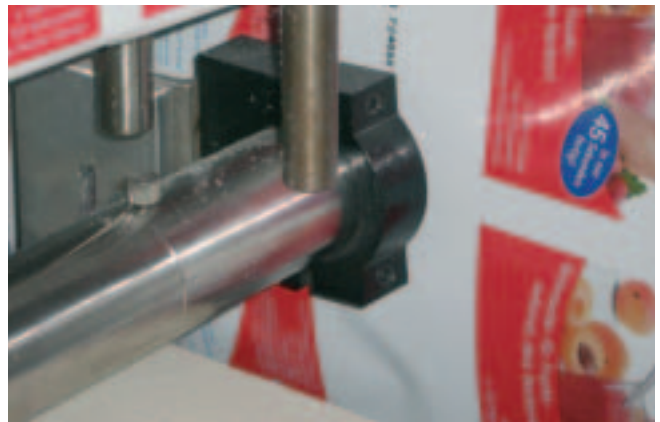
Marking of packaging foils



Marking of plastic paint buckets



Marking of cardboard boxes



Marking of packaging foils



Coding of tin cans



Coding of steel pipes



Marking of glass fiber fabric



Marking using pigmented ink on dark surfaces

Small Character  
Ink Jet Printers  
(CIJ)



# Tamper-Proof, Light-Based Coding and Marking: Laser Systems



Industrial coding and marking using laser systems has a crucial advantage: it is free of consumables and virtually maintenance-free, i.e. subsequent costs are low. Laser systems lend themselves to all types of marking on organic materials and plastics, glass,

anodized aluminum, metals and color removal on any surfaces. One of the main reasons for using laser systems is protection against counterfeiting, and traceability of products due to the permanence of the marking.

## REA JET CO<sub>2</sub>-Laser Applications:

- marking of glass, wood, engraving and color change marking of plastics (automotive, medicine, consumer goods)
- coding of cardboard boxes and outer packaging (e.g. in the pharmaceutical, cosmetic and food sectors)
- all kinds of wood marking
- coated substrates (e.g. anodized aluminum)
- direct marking of foodstuffs
- laser color change marking
- color mirror engraving

## REA JET Fiber Laser Applications:

- engraving and color change marking (annealing) of metals
- high-contrast marking of untreated plastics and plastics treated with laser additives
- layer removal: e.g. day and night design
- marking using laser transfer foils
- marking on laminate foils

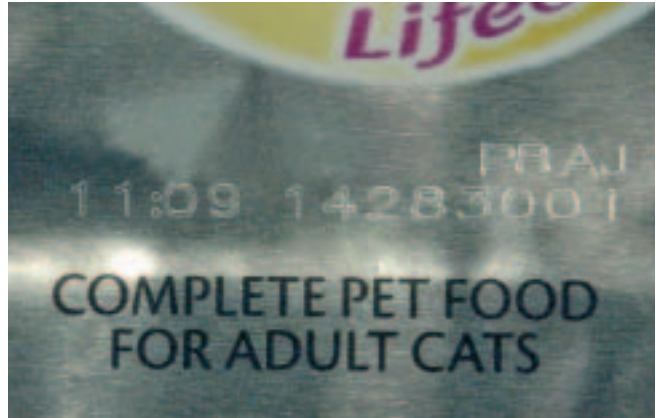
## Advantages of REA JET Laser Systems:

- simple and intuitive user interface
- no separate PC required
- product line-independent operating concept for flexible staff deployment
- ideally suited for track & trace applications
- permanent, tamper-proof coding and marking
- machine-readable codes (e.g. DataMatrix and barcodes) and logos in high resolution
- maximum freedom in design of texts and graphics: You are not tied to one character set
- very small design for versatile integration into your production process
- extremely long life expectancy despite minimum maintenance overhead
- no consumables: marking without inks and cleaning agents





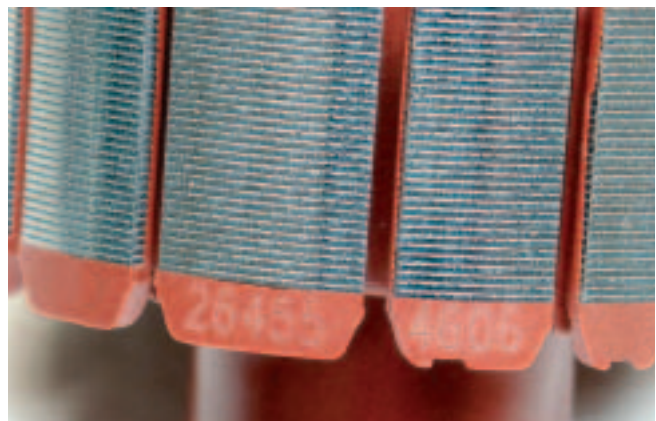
Marking of wood



Marking of laminate foils



Marking of plastics



Marking of electronic components



Marking of plastic profiles



Coding of paper



DataMatrix code marking on metal



Color mirror engraving in steel pipe production

# Dots, Lines, Extra-Large Marking: Spray Mark Systems



Color-coded markings are crucially important to many technical areas. In industrial applications, color-coded markings provide information about product quality and condition, regulate processes and determine procedures. Whether dot marking in red, indicating

inspected quality in green or colored line marking for pipes, profiles or continuous products – REA spray marking technology has even more to offer: Using spray mark heads as a spray mark block, one can write large texts, up to 700 mm in height. Dot by dot!

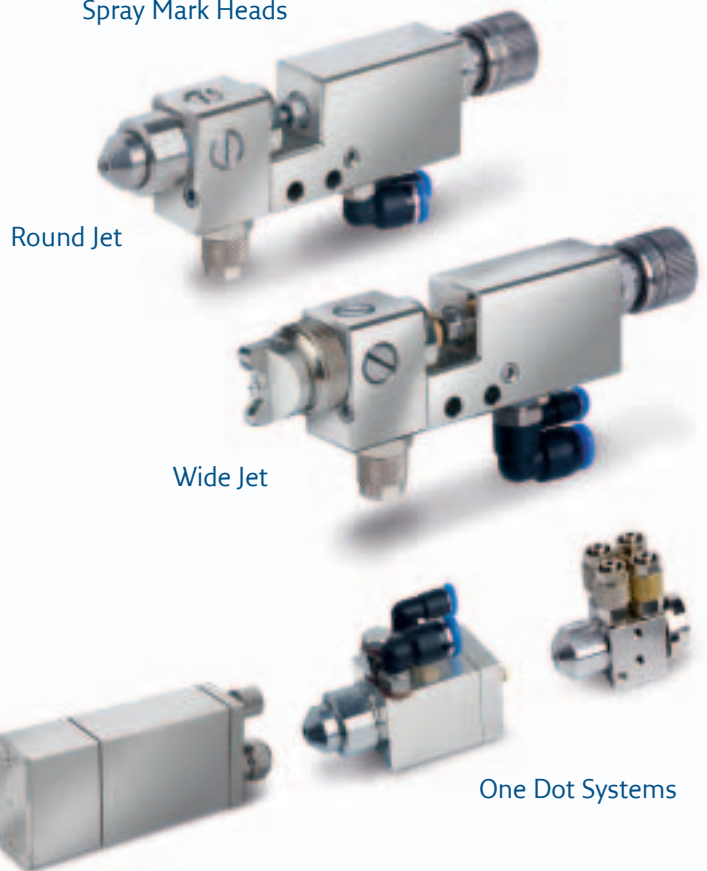
## Applications:

- absorbent and non-absorbent surfaces
- metallic surfaces up to temperatures of 1000 °C
- dots and solid lines with diameters of between 1 and 30 mm
- large texts with spray mark blocks
- colored line marking for pipes, profiles and continuous products
- multi-colored dot and line marking to differentiate between product types
- welded seam marking in the manufacture of metal profiles
- machine-detectable line markings for edge trimming
- applying location and position markings, as well as “bend here” and “cut here” markings
- two-dimensional application of contrast colors (“color mirror”) as a basis for subsequent processing
- applying primers, adhesives etc.

## Advantages:

- large selection of media such as inks, paints, lacquers, adhesives, resins, hot mark paints and annealing paints
- integrated flushing facility ensures immediate operational readiness
- quick-change system for module components
- REA Plug & Print technology (high system availability and process reliability)
- exactly reproducible spray results due to precision notch setting

Spray Mark Heads

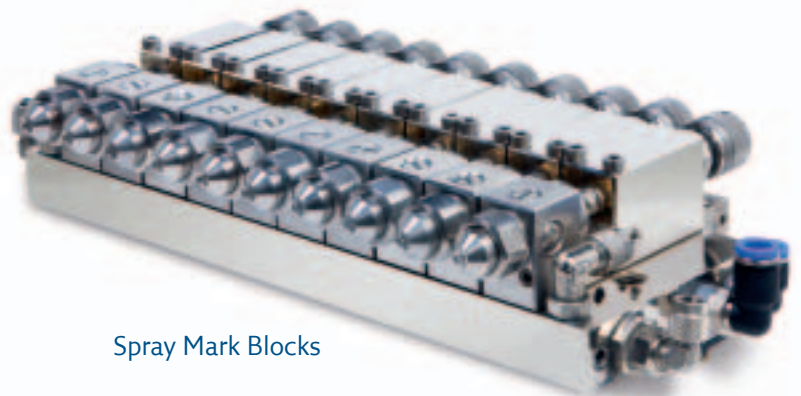


Round Jet

Wide Jet

One Dot Systems

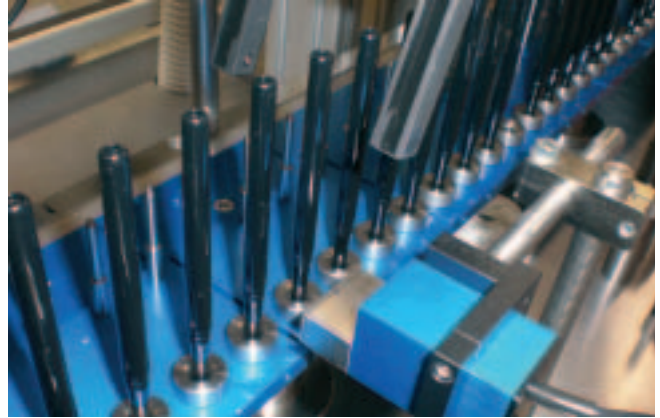
Spray Mark Blocks



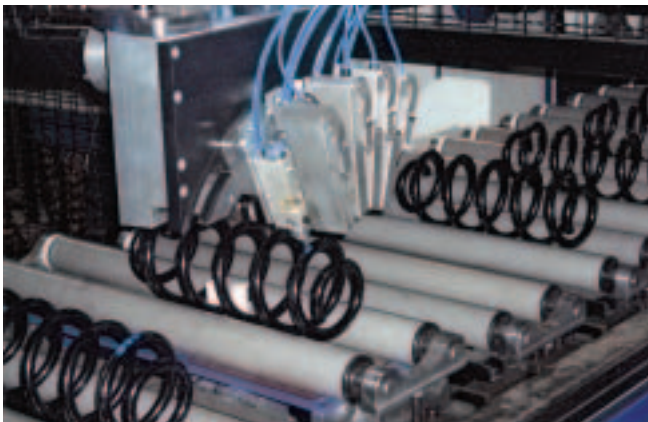




Marking of aluminum ingot



Precision application of oil to plastic parts



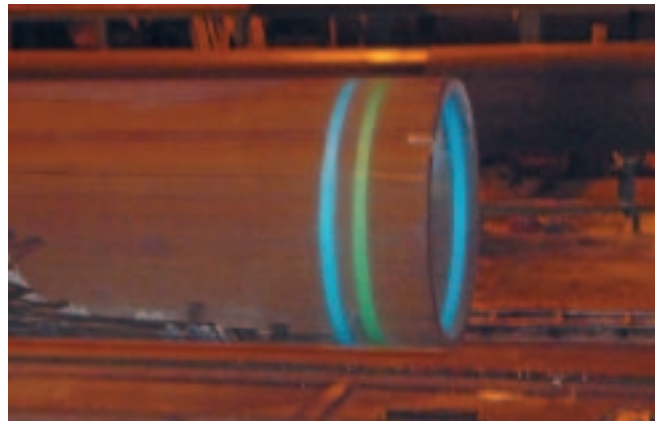
Marking of steel springs for type classification



Rope marking for length coding



Marking of steel coils



Ring marking of steel pipes



Marking of drive shafts



Color-coded marking of refractory bricks

# Verifying Code Quality: Barcode Verifiers



Nearly all products in today's world provide coded information. Manufacturer data, product IDs, prices, article numbers and so on are translated into machine-readable barcodes and 2D codes. This information needs to be read at supermarket checkouts and at many places in operational goods logistics in an

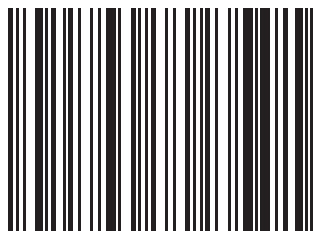
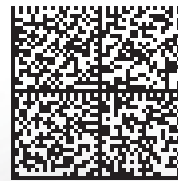
error-free, fast and reliable manner. 99% of applications in use are covered by fewer than 10 different code types with defined quality criteria. REA's code verifying devices, also called verifiers, are the market leaders. Verifying codes in time avoids cost and error risks.

## Applications:

- code quality verification according to international standards and GS1 specifications
- verifying codes to ensure accuracy in terms of content
- spot checks during production, using mobile devices
- incoming and outgoing goods inspection

## Advantages:

- avoidance of rejects due to timely detection of incorrect coding
- low complaint risk
- measurement report with evaluation of the code criteria (e.g. also for ISO certification)
- legal certainty due to compliance with quality standards (ISO/IEC, GS1 etc.)
- fully mobile application



Verifier



REA ScanCheck 3  
(universal, for barcodes, mobile)



REA MLV-2D  
(for 2D codes and barcodes)



REA Check ER  
(for barcodes, mobile)



REA PC-Scan/LD3  
(precision verifier for barcodes)



# REA VERIFIER



Verifying DataMatrix codes on mailing bags



Verifying DataMatrix codes on label sheets



Measuring barcodes on print sample sheets



Quality inspection of barcodes



Verifying barcodes on metal barrels



Verifying barcodes in shipping and receiving



Flexible on-site barcode verification



Flexible measurement of barcodes

Barcode Verifiers



## Custom Made Solutions for Logistics: Labeling Systems



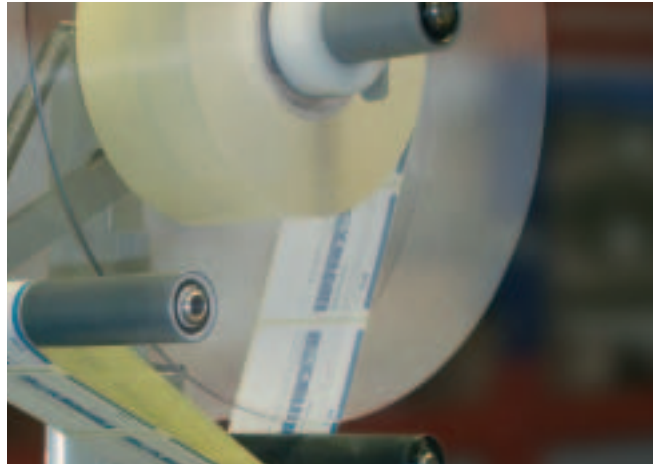
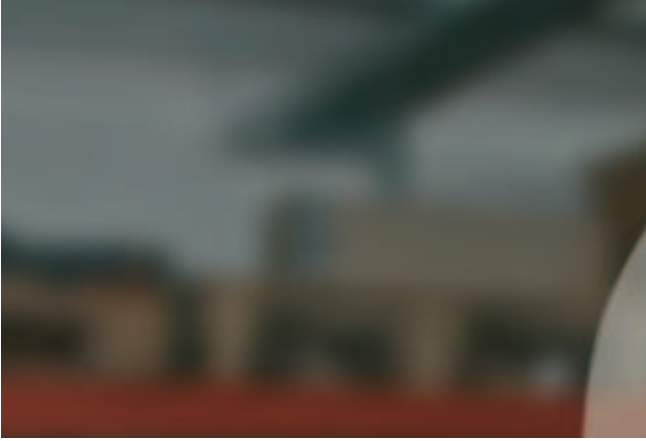
Like our entire range of products, our labeling systems are also designed to operate reliably in demanding industrial environments. The modular structure of the REA JET labeling systems, their robustness due to the

use of high-quality materials and their user-friendly handling ensure that they can be deployed efficiently and flexibly in a large number of fully automatic labeling applications.



Pallet labeling in conformity with CCG/GS, 1 stop for 2 at right angles

# REA JET





## A Comprehensive Assortment: Inks, Paints and Consumables



REA JET develops and distributes inks, paints and cleaning agents worldwide, for virtually all coding, marking and spray mark applications. Chemical compatibility and interaction with all the components of the REA JET product families are the top priorities when it comes to approval for processing in REA JET coding and marking systems, ensuring trouble-free operation of REA JET industrial printers in your pro-

duction. To guarantee the reliable and safe operation of our systems, original REA JET inks, paints and cleaning agents must be used. The over 400 standard and special inks in our product range enable us to provide our customers with a wide offering. Modern development and testing methods provide continuous assurance of the quality of our consumables.

- with over 400 standard and special inks in our product range
- packaging sizes: from the HP cartridge to the 200 liter (50 gallon) drum
- industry solutions and formulations for medical and pharmaceutical packaging, building materials, plastics, foodstuffs, tire industry, metal, wood, stone, carpet, non-woven fabric, and all kinds of other packaging
- customer-specific developments of inks and paints
- modern development and testing methods assure the quality of our inks, paints and cleaning agents

### **Please note:**

- inks and paints have an extremely varied chemical composition and must “fit” your product
- criteria such as drying speed, UV resistance, storage life, material compatibility, printing precision, degree of coverage, color etc. must be matched to your specific requirements and on-site conditions
- our experts will create print samples under field conditions before recommending a suitable comprehensive solution

# REA JET





## Always On Call: Service by Our Specialists



A fast and flexible response to customer requests, coupled with straightforward and expert assistance, are services that underscore the quality of REA JET products.

## Always Up to Date: Individual Product Training



We offer training courses that are individually tailored to our customers' requirements and requests, for the complete REA JET and REA VERIFIER product ranges.

Providing proper training of your staff will allow for increased uptime of your equipment. Appropriate handling of the system, maintenance and care during operation and knowledge of troubleshooting measures when failure occurs will ensure the maximum possible availability of the coding and marking equipment.

## No Matter What Location: Worldwide in Use

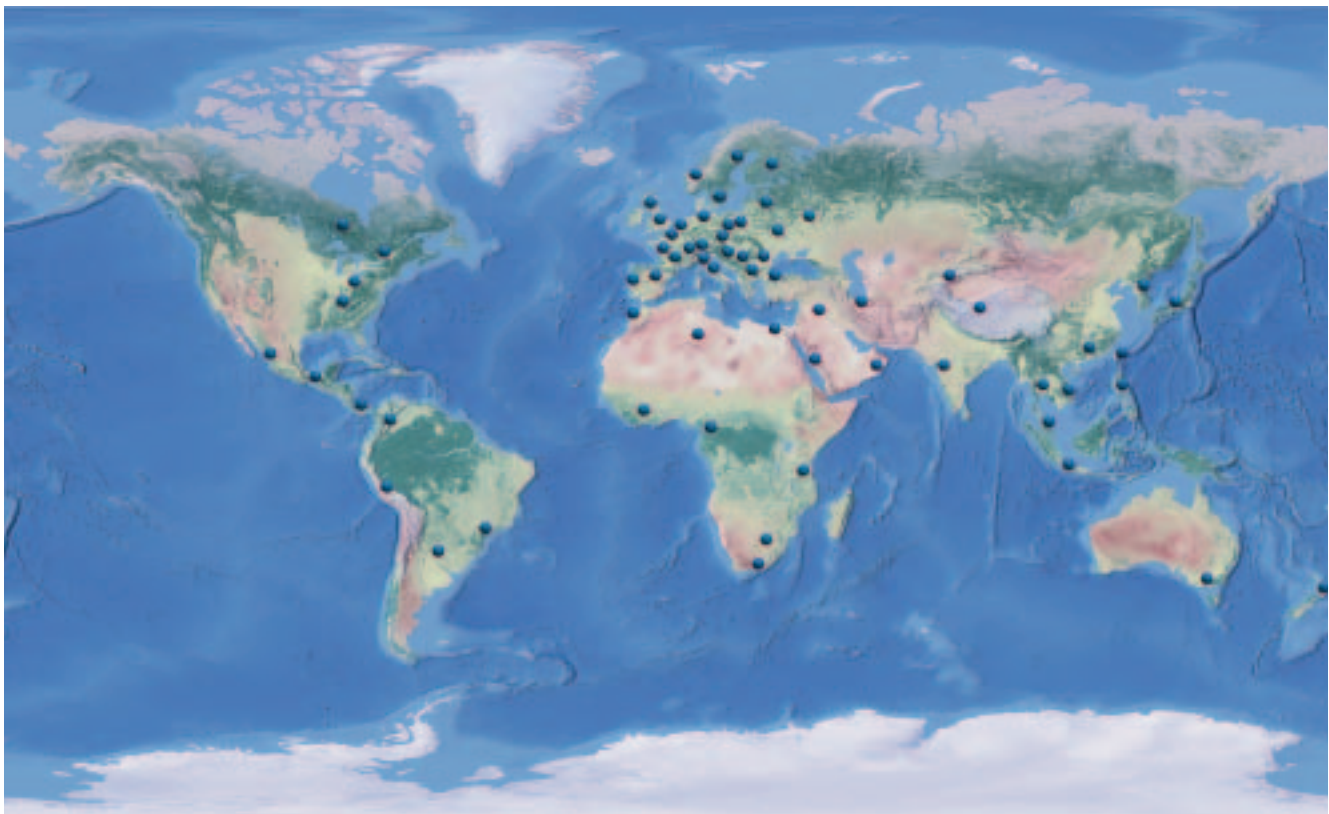
REA is an international company, which is represented by its own subsidiaries and qualified distribution partners in all continents of the world. This enables us to guarantee a reliable consultancy and service network, thereby ensuring the necessary proximity to the markets and our global customers.

The brand name REA JET stands for a comprehensive product range of industrial coding and marking systems. Our industrial printers have been deployed in an extremely wide variety of applications, in virtually all industries, for more than 25 years.

From the rough environmental conditions in the steel-producing industry, right through to the pharmaceutical environment of strict specifications, REA JET systems are used every day.

We offer our customers solutions that enable them to meet the various coding and marking requirements of industry and commerce in an efficient and economically appropriate way. Our solutions range from the standardized system configuration through to custom made special solutions, in combination with suitable printing inks for distinctive coding and marking.

Our solutions thus make an important contribution to the unique identification and traceability of products within internal logistics and worldwide commodity flows.



Worldwide REA JET subsidiaries and distribution partners



# REA JET



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