REA

Integration-friendly coding and marking systems
Solutions for machine and systems engineering

Professional integration solutions for various industries and applications

REA systems are the first choice for industrial markings. They are robust and durable with cutting-edge technology. State-of-the-art interfaces and a modular design make them easy to integrate into machines and systems.

As a partner of internationally operating companies, REA is well positioned with eleven branches and more than 50 sales partners worldwide.

We draw upon our expertise to provide solutions that meet the requirements of individual process steps and of the process as a whole, even when these requirements are complex. We can also offer suitable systems in the areas of ink, lasers, labeling and code verification systems.

Marking of bottle caps

The REA JET HR High-Resolution Inkjet Printer marks absorbent and non-absorbent surfaces with the shortest drying time and best adhesion and legibility.


Laser system integrated into processing portal

REA JET laser systems are suitable for durable and reliable marking - for internal process control, unique identification of materials, serialization or seamless tracking.

Labeling of ready-to-ship tires

Labels are used particularly in places where contact-free coding and marking technologies do not provide an adequate solution. For example, when machine-readable 1D or 2D codes need to be put on rough or uneven surfaces, this is where labeling shows its true potential.
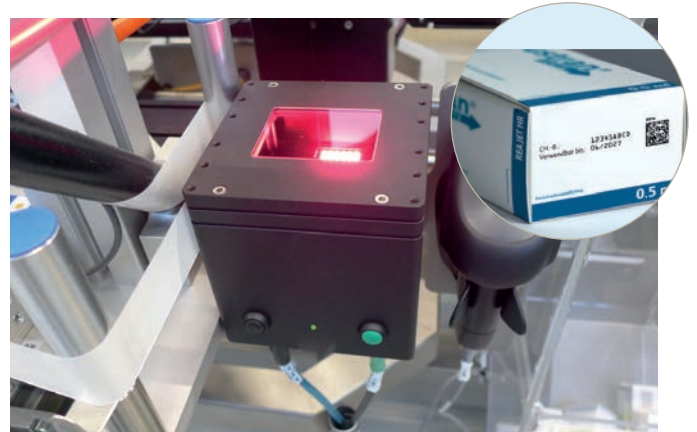
Code verification system integrated into packaging machine

REA VERIFIER code verification systems detect cost risks and error risks due to insufficient code quality. Whether mobile or completely installed in either production lines or machines, they check barcodes and Data Matrix codes to make sure they are legible and have the correct content.

REA JET TITAN Platform: The single operating concept for all REA JET technologies

TITAN

DOD **HI-RES** **CIJ** **LASER** **ST**

The global fields of application for REA coding and marking systems are diverse and cover all industries. Everything from the food and beverage industry to production of cosmetics and consumer goods to manufacturing of packaging materials and logistics.

Even when various technologies, coding and marking tasks and variable data are involved there is no problem.

The printing, spray marking and laser systems are controlled by the intuitive and single operating concept called REA JET TITAN Platform.

The advantages are plain to see: Once the operating logic for one technology or one REA JET product has been learned, all other technologies can be operated likewise without additional training effort. This saves time and money while reducing the risk of misuse considerably.

Everything that is state-of-the-art, a secure investment and future-proof is already included and integrated for global use: from the interface architecture and the design freedom of all international fonts, characters and languages, to the state-of-the-art remote control technology.

Ready for immediate use worldwide

- Full Unicode support: All world languages can be printed for companies with international customers
- Support for all True Type Fonts (TTF): the greatest possible design freedom for your print texts
- Uniform communication protocol for status monitoring across multiple devices, providing the option for customer-specific signal processing

- XML-based data structure and communication protocol: globally used standard for data compatibility
- Integrated WYSIWYG graphical user interface: realistic display of the print contents
- Integrated web server: makes it possible to use a PC, tablet or smartphone for operation

No restrictions on operability—from now on everything is even easier

Glove Operation
Central push-turn jog-dial knob for operation with gloves directly at the line

Touch Screen
Touch screen for operation directly at the production line

WLAN Browser Operation
Browser operation using mobile devices (PC, tablet, smartphone) with Wi-Fi/ WebGUI

PC Operation
Remote control from a PC workstation or production master control console over the network

Remote Maintenance
Remote maintenance and operation are possible

Keyboard Entry
For regularly recurring, extensive text input at the production line, use of international USB keyboards is possible

Maintenance-free product marking: High-Resolution Inkjet Printer (HP)

On non-absorbent and absorbent surfaces, the high-resolution REA JET HR series prints with the HP cartridge technology. It is maintenance-free because its print unit is replaced each time you change the cartridge.

The coding and marking system has no restrictions on its industrial suitability and is used primarily in the pharmaceuticals, food, wood, paper and packaging industries.

Fields of application of the REA JET HR:

- For absorbent and non-absorbent surfaces
- Counterfeit protection and traceability
- Ideally suited for serialization as well as Track & Trace applications
- Alphanumeric texts, barcodes, 2D codes (such as Data Matrix codes) and logos
- Variable data such as date, time, counter, shift code, database contents
- Maximum print triggering of up to 600 dpi
- Late Stage Customization – digital in-line printing of variable data
- High-quality verification of the code quality in a process with REA VERIFIER verification systems

Each print head can have a print height of 12.7 mm. Multiple print heads can be cascaded for larger print heights.

With its integrated Ethernet interface and full Unicode support, the fast HR printing system is the first choice for serialisation tasks and Track & Trace projects.

HR *pro* OEM controller for complete integration into control cabinets and machines

Advantages:

- Control using the REA JET TITAN Platform
- Easy assembly of the print head and controllers due to compact design and assembly flange
- Sturdy stainless steel housing design
- The wide-range power adapter (HR 2K/HR 4K) or 24 V version (HR *pro* OEM) means only one device version for all countries
- Full support for True Type Font and Unicode, including UTF-8
- Print height up to 50.8 mm (larger print heights on request)
- Maintenance-free – you get a new print unit each time the cartridge is changed
- Maximum operating reliability and availability
- Easy to take over print data with a USB scanner
- Various device versions for stand-alone operation, control cabinet installation and complete machine integration
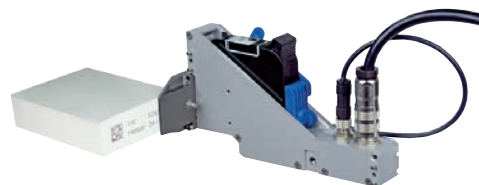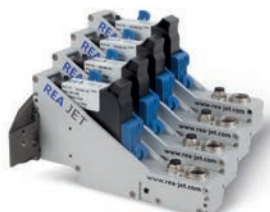- Ready to use for Industry 4.0

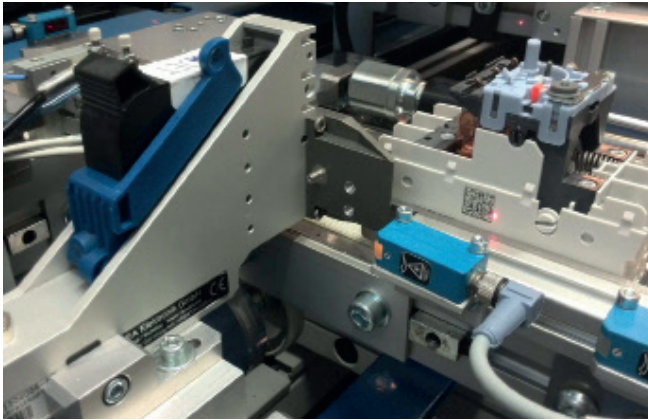HR controller for up to 2 print heads

HR print heads

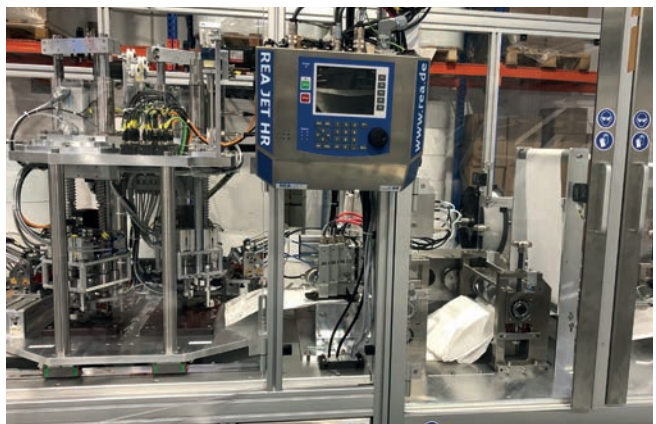HR controller for up to 4 print heads

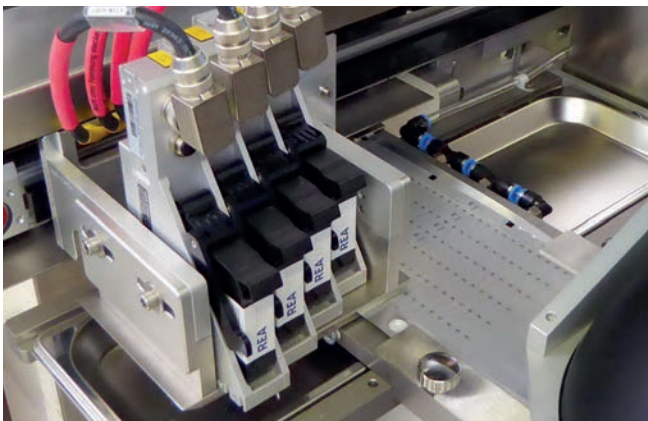Lateral marking of circuit breakers

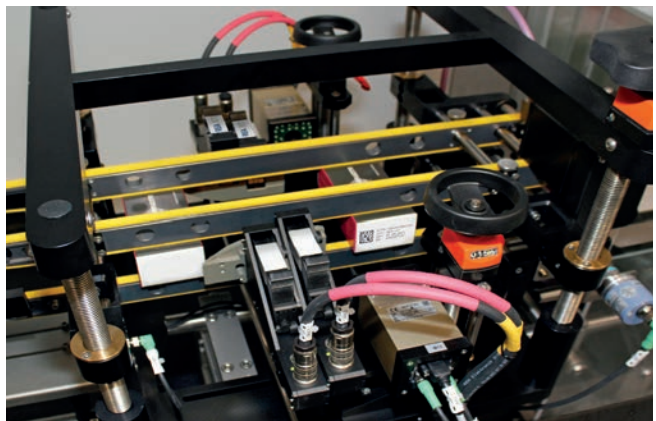HR *pro* OEM integrated into an envelope-filling machine

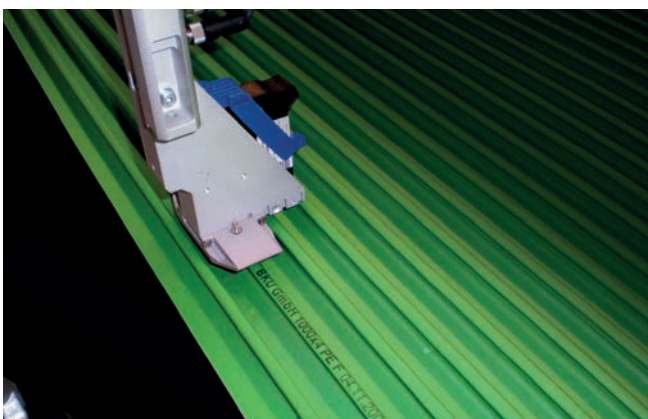HR *pro* OEM integrated into a packaging line
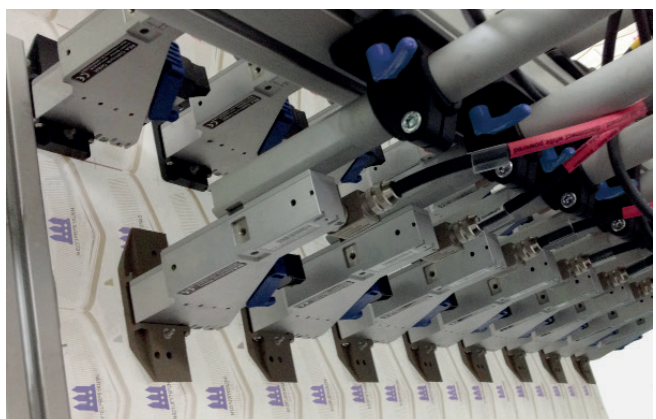

Marking of FFP2 respirator masks

Blister coding with cascaded HR print heads

Marking with Data Matrix code in a bottling system

Marking of plastic profiles

Label finishing with HR in a printing machine

Forgery-proof and durable marking with light: Laser systems

REA JET laser systems leave behind permanent and forgery-proof markings—not on the surface, but in the workpiece itself. They are nearly maintenance-free, which means low follow-up costs.

Laser systems are suitable for all kinds of markings on nearly any material and for color removal from all surfaces. It takes almost no time for the laser to create pin-sharp markings, even on moving parts, on hard-to-reach areas or on uneven surfaces, without changing the material properties of the part.

Fields of application of the REA JET CL CO_2 Lasers:

- Marking of glass, wood, rubber
- Engraving and color change of plastics (automotive, medical, consumer goods)
- Marking of folding boxes and outer packaging (e.g. in the areas of pharmaceuticals, cosmetics and food)
- Coated substrates (e.g. anodized aluminum)
- Direct marking of food
- Laser color change marking
- Color mirror engraving, e.g. in combination with the REA JET Spray Mark Technology

CL laser unit

CL laser unit with IP65 protection against dust and water spray

CL controller

Fields of application of the REA JET Fiber Lasers:

- Engraving and annealing marking on metals
- High-contrast marking of plastics
- Marking of ceramics
- Layer removal, e.g. day and night design
- Marking of foils

FL laser unit

Advantages:

- Control using the REA JET TITAN Platform
- Counterfeit protection and tracking of products
- Simplest mechanical integration due to compact design and variable connection
- Maximum print speeds due to digital mirror control
- Integrated pilot laser for easy and exact configuration of the system
- Machine conformity due to dual-channel interlock with Performance Level d
- Full support for True Type Font and Unicode, including UTF-8
- Network capability and interface protocols via Ethernet
- Freely configurable I/Os
- REA-Pi interface for integration into an OEM HMI
- REA-PLC interface for a PLC connection
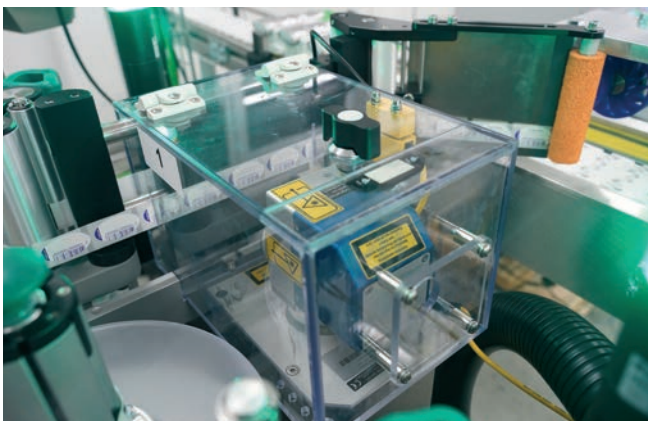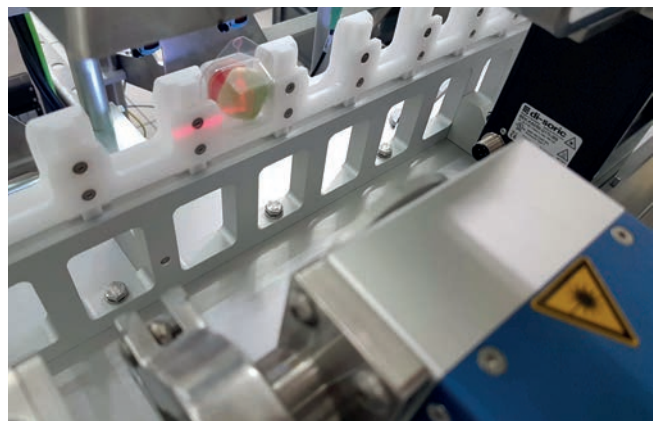
FL operating terminal

TITAN
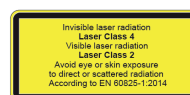
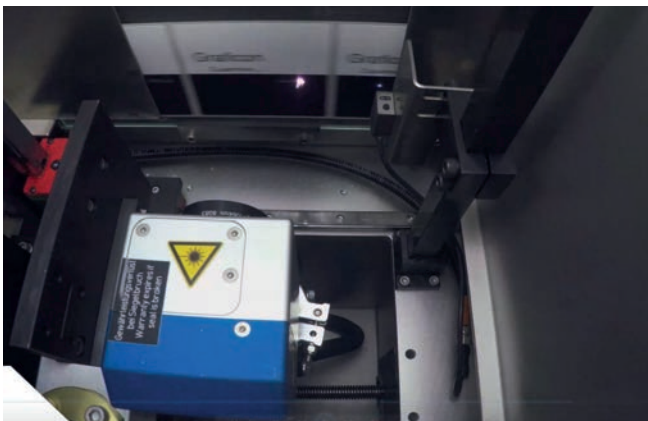CL laser integrated into a bottling system (glass marking)

Marking of paper packaging sleeves

Best-by date marking of labels

Marking of plastics with an IP65 CO_2 Laser
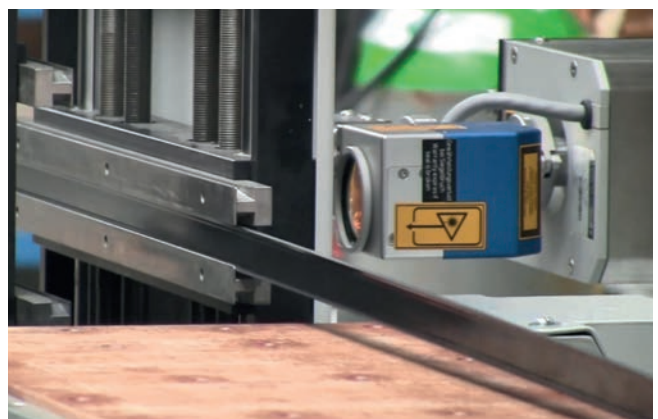

Fiber Laser marking of labels

CL laser integrated into a packaging machine

CL laser integrated into a wood processing center

Flexible marking of rubber bands

Customized solutions for logistics and automation: Labeling technology

LABEL

Just like our entire range of products, our labeling systems are also designed for reliable operation in demanding industrial environments. The systems have a modular design, durability as the result of using high-quality materials, and user-friendliness—all of which ensure that they can be used efficiently and flexibly. They are the first choice for a multitude of fully automated labeling applications in a wide variety of industrial areas.

REA LABEL DS print and apply system

REA LABEL DLS continuous labeler

REA LABEL ES label dispenser

Maximum flexibility – Labeling solutions for logistics and automation

Labeling technology solutions are developed and produced in the REA LABEL product line. The portfolio includes label dispensers, print and apply systems, pallet labelers, robotics, the area of special-purpose machine building, software solutions as well as thermal transfer printers and associated consumables such as labels and ink ribbons.

- Standard systems and implementation of customer-specific requirements by means of our own special-purpose machine building
- Precise labeling using advanced control technology
- Labeling applications: e.g. continuous, wrap-around, bottom, top, corner-overlap, front, cross-web labeling, etc.
- Shipping logistics, packages, servo labeling, pallets, small load carriers, cage pallets, robotic marking, 1:1 full-color printing, wood marking, bottles, grinding discs, canisters, etc.

Advantages:

- Customer-specific hardware and software solutions and special-purpose machine building
- Label dispenser for preprinted adhesive labels
- Labeling even at high speeds
- Can be expanded with REA coding and marking systems such as REA JET HR inkjet printers or REA laser systems
- In-line printing and application in continuous flow
- Integration of thermal transfer printing modules is possible
- Can be combined with the REA VeriMax inline code verification system
- Modular systems for any intended use
- High-speed servo labeler
- Label presence check and code reading
- Pallet Labeler Unit can be flexibly integrated
- State-of-the-art interfaces and seamless integration
- Intuitive operation
- Customized robot solutions for labeling tasks

Pallet labeling in accordance with CCG/GS1 conformity

Combination of REA LABEL ES with an REA JET HR printer

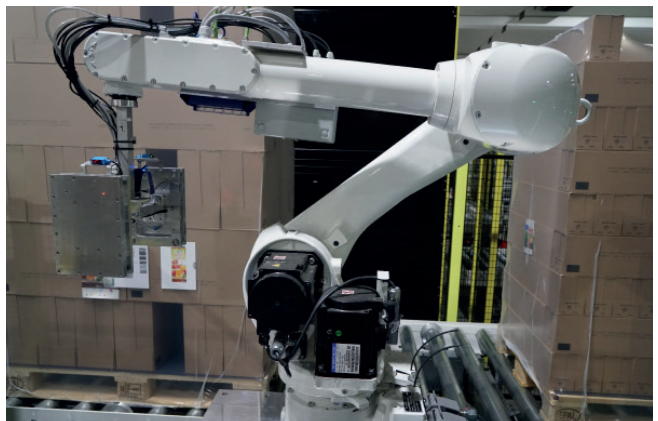Labeling solution integrated into a packaging system

Multi-sided canister labeling

Labeling of wooden boards with continuous labelers

Labeling of food packaging

Robotics: labeling with GS1 and color labels

Pallet labeling at various heights

2-sided GS1 pallet labeling

REA VERIFIER code verification systems: Quality assurance of 2D matrix codes and 1D barcodes

VERIFY

Nearly all products in our lives today carry coded information. Manufacturer data, product IDs, prices, article numbers and additional data are translated into machine-readable barcodes and 2D codes. These have to be read at checkout counters in supermarkets and at many points of corporate goods logistics—quickly, reliably and without error.

The REA VeriMax is a state-of-the-art matrix and barcode verification system and was specially developed for fully integrated installation in production lines. Its small dimensions allow it to fit into any machine.

Thanks to its fast feedback during production, it is possible to optimize the print quality and ensure that 2D matrix codes and barcodes correspond to the regulatory provisions and can be automatically read and processed at high first-pass reading rates.

The REA VeriMax evaluation software, which is optimized for touchscreens, allows you to view and manage the measured values. Integration into the machine's GUI is possible.

## Fields of application of the REA VeriMax:

- Can be used when mobile or fully integrated into machines and systems
- Code quality testing of 1D and 2D codes according to international standards, GS1 and other specifications
- Use in quality control for incoming and outgoing goods
- Automated spot checking
- Inspection of codes for correct content
- Ensures high first-pass reading rates

Advantages:

- Checks optional parameters for optimizing the printing process
- Prevents rejects through timely detection of incorrect labeling
- User interface and reports in multiple languages
- Settings for user-defined profiles, for easy operation and faster selection
- Measurement report with evaluation of the code criteria (e.g. also for ISO certification)
- ISO/IEC 15415, ISO/IEC 15416, ISO/IEC 15418, ISO/IEC 29158 (DPM)
- Legal security through compliance with quality standards
- Specific code selection for fulfillment of the requirements of the pharmaceutical industry
- REA Audit Trail Software with Active Directory connection (21 CFR Part 11)
- Includes report-oriented programming interface with detailed documentation for integration into the machine software

REA VeriMax (for 2D codes and barcodes, for installation in machines and systems)
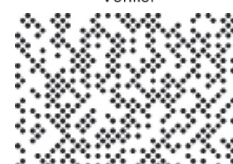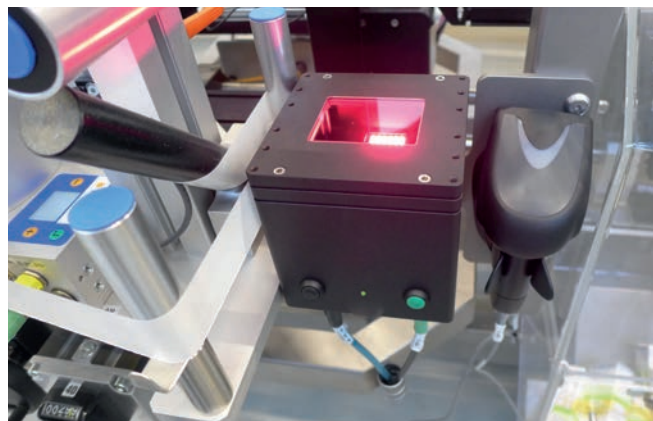
Code verification system integrated into packaging machine

Seamless integration into the machine's GUI

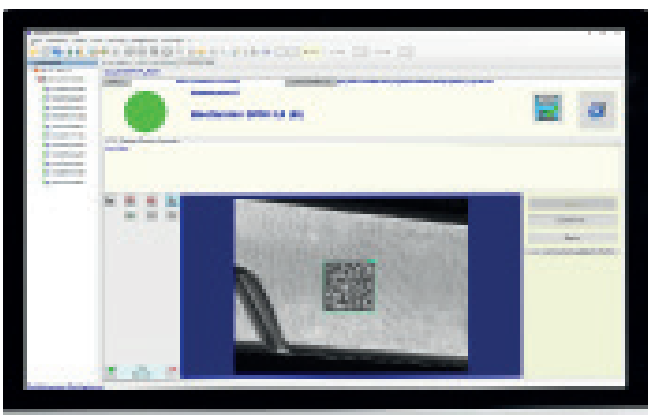Code verification on shipping labels

VeriMax integrated into a pharmaceutical packaging line

REA VeriMax integrated into a production plant

REA VeriMax with positioning aid

Display of test results in REA TransWin 32 Software

Code verification in the pharmaceutical industry

REA

PRINT | APPLY | VERIFY

REA Elektronik GmbH

Teichwiesenstrasse 1

64367 Muehltal

Germany

T: +49 6154 638-0

F: +49 6154 638-195

E: info@rea-jet.de

www.rea.de