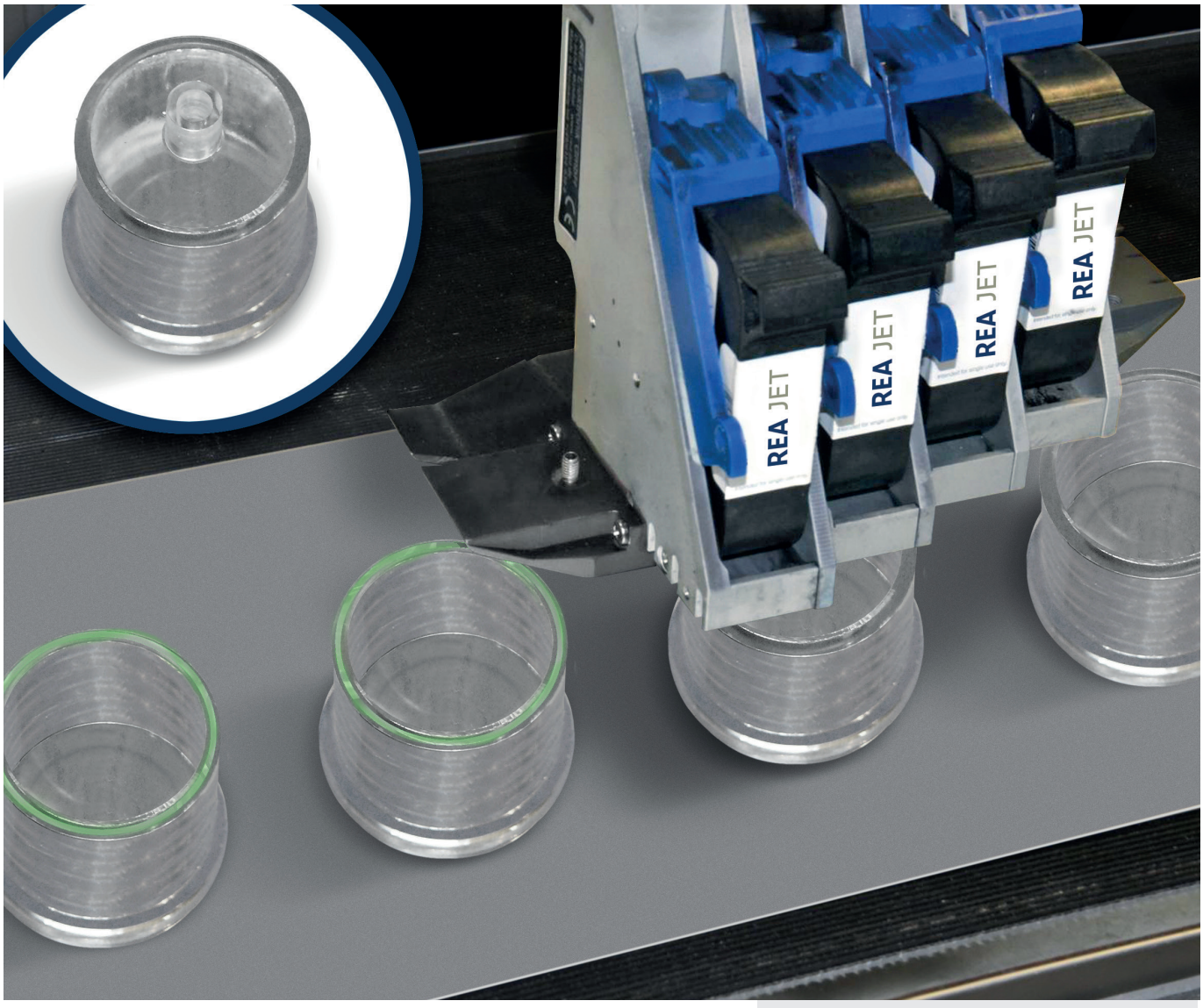
REA JET

INDUSTRIAL CODING AND MARKING SOLUTIONS – MADE IN GERMANY

REA JET Clearweld Primer

Digital HP cartridge technology for laser welding plastic parts



Primer coating using digital printing technology

By nature, traditional transparent plastics such as PE, PP, PC, PS and SAN have only a limited ability to absorb laser light, which means that plastic welding is either impossible or very difficult. A remedy for this is provided by reliable and economical application of a laser-absorbing primer.

REA JET has worked with partners Crysta-Lyn (United States) and TechnoScriptum (Germany) to develop a digital printing process for automated primer coating for pre-treatment of plastic parts.

The solution from REA JET allows transparent and laser-transparent plastic materials to be prepared with REA JET Clearweld Primer so that they can be welded using lasers. The primer has a high specific absorption of laser light and is also used for injection-molded plastic parts as well as nonwoven fabrics.

The system can be configured for the specific customer. It combines maximum precision with the reproducibility of digital printing technology for application of primers for laser welding applications.

A ready-to-use REA JET HR Clearweld system consists of:

- REA JET HR Clearweld controller with connection cable
- REA JET HR print head with print head cable
- Optional accessories, such as shaft encoder, product sensor, etc.
- REA JET HR Clearweld Primer cartridge

REA JET Clearweld Primer enables completely fog-free, aerosol-free and loss-free local application of primers. It is only applied where it is needed.

The specific coating information for the component is stored in digital installation settings as well as in digital print layouts. Users have flexibility and can make changes or control the system directly at the HR controller or through the network.

In this way, any component can be precisely calculated in advance.

HR controller

REA Clearweld technology

REA JET Clearweld Primer has already proven its worth in everyday industrial applications. In combination with the REA JET HR High Resolution Inkjet Printer, the customer receives significant advantages with regard to application precision and economical handling of primers.


HR print heads

Typical application areas

- Housings and components made of transparent plastics in medical and technical areas
- Nonwoven materials
- Laser welding serves as a substitute for adhesives
- Laser welding serves as a substitute for conventional welding methods
- Application width up to 12.7 mm per print head
- Potential for up to 8 print heads in a row with a total application width of over 100 mm

Advantages:

- Excellent optical quality of weld seam
- REA JET Clearweld Primer loses its color during the laser welding process
- No friction and no vibration during the welding – non-particulate welding process
- Homogeneous, ultra-precise and reproducible primer application is possible with fast drying and at high speeds
- Based on HP thermal inkjet printing technology, proven in millions of uses
- Spray-free digital application of the primer with a high level of contour sharpness and high degree of positioning accuracy
- Maintenance-free – you get a new print unit each time the cartridge is changed
- Optional bulk primer supply for interruption-free printing for large throughput volumes
- Easy and intuitive operation
- HR *pro* OEM controller for integration into control cabinets and machines

TechnoScriptum
Engineering office of Dr. Rolf Klein
Phone: +49 6078 938087
Email: rolf.klein@technoscriptum.de
www.technoscriptum.de

REA Elektronik GmbH
Phone: +49 6154 638-0
Email: info@rea-jet.de
www.rea-jet.com

V.04/2021 - Subject to change