

PRESS RELEASE (K, 2016 in Dusseldorf/Germany)

Hall 4, Booth E 30

Industrial Laser Marking and Welding of Plastics

Gilching, October 2016: At the leading trade fair for plastics and rubber 'K' in Dusseldorf, ROFIN showcases new powerful solutions for industrial laser marking and welding of plastics. Come over and visit ROFIN at booth E30 in hall 4 to see the extended range of laser sources, flexible integration packages for challenging welding applications and the new 3D marking solution.

Market-leading manufacturers are counting on ROFIN's polymer welding solutions

In addition to its stand-alone solutions based on the successful MPS laser workstations, ROFIN focuses on flexible integration packages for polymer welding. As always, ROFIN offers customer-tailored complete solutions from a single source. This includes application evaluation and design, selection of suitable laser sources, design of customer-specific clamping devices, control software configuration with integrated collapsing height measurement and visualization, production line integration and commissioning.

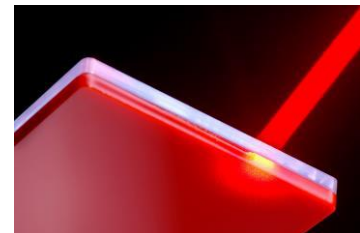


Fig 1: Laser Welding of Plastics

ROFIN's application engineers have extensive know-how with quasi-simultaneous as well as contour welding applications. Collapsing height measurement and logging are proven standards as well as cross-checking with part-specific tolerances. If requested, a coaxially integrated pyrometer will record real-time temperature graphs which can be used for closed-loop process control. More and more leading customers rely on polymer welding solutions by ROFIN. This is true for mass production, like manufacturing printer cartridges, as well as for welding safety-related parts at well-known automotive suppliers. Electronics and sensor technology also rank among ROFIN'S key markets for its laser polymer welding solutions, which can be extended for marking tasks if required.

2nd generation 3D marking solution enters new performance class

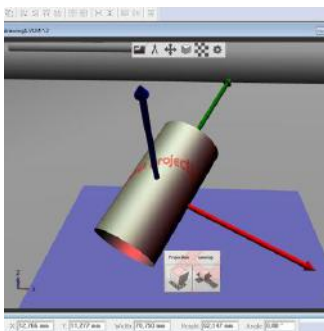


Fig. 2: VLM 3D editor

With its new VLM (Visual Laser Marker) 5.3 release ROFIN offers an exceptionally powerful solution for 3D marking of irregularly shaped surfaces. All 3D tools and the required WYSIWYG viewer have been integrated into VLM, which now, for instance, visualizes the angle of incident and handles flexible calculation and preview of axis kinematics. VLM now offers Unwrapping, a very promising alternative to parallel-projection for calculating 3d marking layouts. It's based on the UV mapping algorithm which is used for mapping two-dimensional images onto arbitrarily shaped objects. The user just selects projection method and surface (VLM imports all common CAD file formats) and the laser marking software calculates and visualizes the marking result. Z correction data is no longer required.

Additionally, ROFIN will integrate new powerful 3D scanners upon request. The scanners can be used for capturing the marking surface as well as for automated position correction in series production. After scanning and teaching the reference part, the control software will detect position deviations of subsequent pieces and automatically adjust the marking layout.

Extended range of UV and short pulse laser sources

ROFIN's PowerLine E UV marking laser source features 355 nm wavelength and extremely small spot sizes. This allows for character heights less than 100 µm. With its high repetition rate, the laser source is ideal for high-speed marking of plastics (ABS, PA) in industrial production lines with short cycle times. The compact, air-cooled PowerLine Pico laser sources aim at applications in semiconductor and medical device manufacturing on very thin substrates, which require minimum heat affected zones, least possible structural changes and maximum process control.



Fig. 3: Example of a free-form marked object

Desktop laser marker for plastic materials - EasyMark



Fig. 4: EasyMark – the compact laser marker, also for plastic materials

EasyMark's modular concept realizes a huge working area within an extremely compact housing. The system can be optionally equipped with a rotation axis, different optics and camera solutions like "SmartView" or Viewing Camera. It accommodates completely air-cooled laser sources with power ranging from 10 to 50 W. The system can be optionally equipped with an integrated, full-fledged CAD suite.

Visit us at

K Düsseldorf
19. – 26.10.2016
Hall 4, Booth E 30



4720 signs (incl. space character)

The press releases as well as the product pictures are available in digital form online at http://www.rofin.com/product_news.

Contact:

Susanne Löttsch
ROFIN-BAASEL Lasertech GmbH & Co KG
Zeppelinstraße 10-12
82205 Gilching
Tel. +49 8105 3965-4220
Fax +49 8105 3965-4159
s.loetzsch@rofin.de