PRESS RELEASE for LASYS 2012
Hall 4, Booth B31

WE THINK LASER

Hamburg/Munich, Germany, 12 June 2012: At the LASYS 2012, the international trade fair for system solutions in laser materials processing, ROFIN will present a number of new laser beam sources as well as system solutions out of all different business sectors.

Whether CO₂, solid-state, fiber or diode lasers, ROFIN provides all of the decisive key technologies and covers the entire spectrum of industrial lasers. The product portfolio ranges from industry standard laser beam sources to compact all-in-one system solutions. The company is structured by the application areas of the laser technology: Macro, Micro and Marking. Whether it is the use of high-power lasers in harsh industrial environments, filigree laser applications in the µm-range or the laser marking on different materials – with these three core competences ROFIN optimally meets all customer requirements in the field of laser technology.

THE POWER OF LIGHT

Small and Compact – the Fiber Laser FL 030 C

The ROFIN Macro Group presents a fiber laser as a compact version, the ROFIN FL 030 C, which has been specially developed for direct integration into existing machine concepts. With an output power of 3,000 W, the FL 030 C is available as a multi-mode laser with a 50 µm or 100 µm fiber. With beam qualities in the range of 2 up to 4 mm x mrad and its modular and robust design, the ideal tool for laser cutting but also for laser welding applications. By using the different diameters of the process fiber, the beam quality, the focus diameter as well as the Rayleigh length can be ideally adapted to the specific application task. The compact version of the ROFIN FL Series is also offered with 500, 750, 1,000 and 2,000 W output power, which covers the complete range of applications for processing thin materials.

The ROFIN fiber lasers are extremely compact, robust, highly efficient and meet the requirements of harsh industrial environments thanks to the modular and robust design.

Fast and Flexible – ROFIN’s Scanner Welding System

With the Scanner Welding System (SWS) ROFIN presents a highly flexible welding solution. The SWS is a fast beam deflection system used for robotically guided multi-spot welding and has been specifically developed for connection to the ROFIN fiber laser series, which is available with output powers of up to 4,000 W. The fiber laser is integrated into fully automated welding systems, in combination with a 3D scanner and the “RobotSyncUnit”. Complex shaped 3D components can be welded with the flexibility of the SWS.
By coupling all axes of the scanner with those of the robot as a guiding machine, the system commands a total of nine selectable axes. Regardless of whether we are talking about spot-, circular-, wave- or stitching seams – the seam geometry is freely programmable and can therefore be adjusted to strength and component requirements. Through very fast arrival at the next welding position and therewith minimized non-productive time, highest utilization of the welding process can be realized. The fast rotating mirrors in the scanner head enable extremely fast positioning of the laser beam in the range of some ms within the working field. The robot movements and speeds can be optimized by an optional offline programming of the application. Software functions also calculate the path inaccuracies of the robot, as its current position is reported back within the IPO cycle. Thus, repeat accuracies in the range of < 0.2 mm are possible.

The RobotSyncUnit is the ideal solution for programming, controlling and monitoring the SWS. As integrated operating and programming interface, the RobotSyncUnit takes care of an optimized interaction of the robot, scanner and laser. The type and supplier of the robot can be freely chosen.

The new scanner head doesn’t need an expensive flat field lens and therefore sets the new standard for scanner welding in harsh industrial environments of the automotive industry and other production environments.

**Easy to Integrate – the OEM Version of ROFIN’s SC Family**

The “sealed-off” lasers are ideal tools for light industrial applications such as cutting, drilling and marking. At the LASYS, ROFIN presents the **OEM 40 iX**, the latest model from the successful ROFIN SC Series. With its output power of 400 W and a beam quality of K > 0.8 the sealed-off CO₂ laser, based on the industrially proven Slab principle, is suitable for the processing of organic materials, plastics, ceramics, glass and metals.

With its integrated HF power supply and a total weight of 75 kg, the ROFIN OEM 40 iX is extraordinarily compact, lightweight, and can be integrated exceptionally well into system concepts in combination with scanners or other beam guidance components. Furthermore, the laser distinguishes itself by its high reliability and a long lifetime of the laser unit in industrial production.
FOCUS ON FINE SOLUTIONS

Performance – the Manual Welding Laser Setting the Benchmark

The Performance is still setting the benchmark in the manual welding laser market. After 20 years as an innovation and market leader in this segment the ROFIN Micro Group has rethought every detail. Manual laser welding is made easier, faster and more efficient – the Performance brings together a number of practical innovations with lots improvements in a completely new housing design. With its innovative laser technology, the Performance offers many welding functions that have been revised down to the last technical detail.

MPS – the Modular Processing System

The MPS (Modular Processing System) is designed as a versatile laser workstation for a comprehensive range of automated material handling processes. The complete system integrates laser sources, axis modules and control units in a compact housing. Due to its modular and flexible design it is the ideal basis for tailor-made solutions for welding, cutting, drilling and surface treatment. The spacious working chamber with a large pneumatic lift door provides enough space for clamping devices or parts magazines and also for large items. With high-end CNC-control, 4 different axis modules to choose from and a wide range of ROFIN laser sources, the MPS offers solutions for applications of all kinds.

At LASYS show the MPS is equipped with the ROFIN fiber laser StarFiber 200. This laser source can realize extremely high welding and cutting speeds with extremely small spot diameters. At the same time there is less power necessary and it comes to less heat input. There is a wide spectrum of applications for fine laser cutting like in the medical device technology for cutting of implants.

StarFemto – ROFIN’s Ultrashort Pulse Laser for Cold Material Processing in Industry

The ROFIN StarFemto laser system is especially designed for applications in industrial material processing requiring in particular highest precision and low thermal damage.

Cold material processing with femtosecond laser pulses is a most promising new technology for high-precision cutting and ablating of almost all kinds of materials e.g. in the medical device technology, photovoltaics, precision mechanics and semiconductor industry.

The StarFemto cuts sensitive materials like NiTi-shape memory alloys at highest speeds, excellent cut quality and requires almost no post-processing.
In addition, femtosecond lasers allow cutting of bio-absorbable polymers like polylactic acid and polyglycolic acids at very high precision.

**Special Show – “Future Trends – Made by Laser”**

The special show highlights that laser material processing is like no other technology able to realize innovative products in manufacturing, which are required for specific future trends e.g. medical device technology, energy, communication and environment. At this show ROFIN presents an innovative example of micro material processing in the future market medical device technology – a laser cut stent.

The stent cut with the ultrashort pulsed laser StarFemto in StarCut Tube is a medical implant to be embedded in hollow organs, in particular in blood vessels to guarantee blood through flow. These tubes are composed of special fabric, either metal (e.g. Nitinol) or polymers (e.g. PLGA) supported by a rigid or bendable structure. The latest development is drug-eluting stents to supply the body with vital pharmaceuticals.

**LASAG SLS GX 1500 – Revolutionary “Green Mix” Welding Laser LASAG SLS GX 1500 for Highest Precision and Reproducibility**

For demanding miniature and precision welds: the LASAG SLS GX 1500 uses the unique dual pulse technology, enabling the smallest spot diameter of up to 25 µm. Unique is the programmable wavelength-mix of 532 and 1064 nm, which is on the one hand responsible for the safe development of the laser beam for highly reflective materials such as copper and precious metals and on the other provides for the efficient utilization of the total available laser power for the welding process. The laser source LASAG SLS GX 1500 is particularly suitable for highly reproducible spot and seam welds in the medical and electronics industries.

**LASAG PWS Mini – the Compact Laser Workstation**

The desktop workstation LASAG PWS Mini incorporates a compact high accuracy design while maintaining great flexibility. The laser energy can be transmitted to the workpiece via single or multiple fiber optic delivery and is designed for laser processing precision miniature components.

Primary applications are found in the medical, dental, electronics, computer, communications, and micro machining industries requiring spot and seam welding as well as cutting and drilling. The workstation can be equipped with any standard LASAG laser source and is therefore extremely flexible in use.
LASAG LLBK 60 – Processing Head for High Peak Power and Beam Quality

The **LASAG LLBK 60** processing head was designed for precision welding, cutting and drilling with excellent viewing quality and many options of illumination allowing processing a broad range of specific applications. High precision connectors to the fiber and a wide variety of collimation and focusing modules enable best results in micro material processing.

THE MARK OF EXCELLENCE

**PowerLine Prime 15 – an All-Round Attractive Marking Solution**

At LASYS 2012 the ROFIN Marking Group presents an extremely compact marking solution in the 15 W power class, the **PowerLine Prime 15**. This efficient air-cooled system is technically designed to mark in the existing configuration different materials with high quality and speed. The control of the PowerLine Prime 15 is performed with standard interfaces and is implemented as a 19” industrial standard. A short laser head and separable connections guarantee maximum integration. The PowerLine Prime 15 is equipped with a pilot laser and a variable beam expansion. The optimized pre-configuration ensures high throughput, is ready to use and available for delivery at short notice.

**PowerLine Prime 12 – an Ultra Compact Laser Marker with Excellent Beam Quality**

With the presentation of the **PowerLine Prime 12** at the LASYS, ROFIN offers a promising preview for a new, ultra-compact laser. The PowerLine Prime 12 will complement the PowerLine Prime Series shortly. The laser markers of the Prime Series are extremely compact and easy to integrate.

**High resolution due to TEM$_{00}$ fundamental mode**

The PowerLine Prime 12 is a diode-pumped laser marker with a wavelength of 1064 nm. The laser operates in TEM$_{00}$ fundamental mode. This ensures best focusability and high marking resolution. With excellent pulse stability, the PowerLine Prime 12 is the ideal tool for demanding marking applications on different materials.

**Flexible integration**

The PowerLine Prime 12 is equipped with standard interfaces and a 19” supply unit. The compact laser head and the detachable connections guarantee a high degree of integration.
Advanced technology at an attractive investment price and low operating costs
The PowerLine Prime 12 offers top technology at a very attractive price. Low operating costs and a flexible service concept turn this laser marker to an efficient alternative for challenging marking applications.

CombiLine Basic – Laser Marking more Affordable than Ever

ROFIN’s new CombiLine Basic offers the ideal technical solution for efficient, high-quality laser marking: a standing workstation with a large working chamber, an integrated laser marker and smart operation technology. Thanks to streamlined manufacturing processes and a focus on frequently required options, the CombiLine Basic is available at low investment costs.

Optimized for manual loading
The wide, motorized door provides easy access to a spacious working chamber and makes application setup a breeze. There is enough room even for bulky workpieces. A motorized z-axis precisely adapts the marking head position to varying workpiece heights.

Just smart
All components, including the laser marker, are controlled by an integrated computer running on Windows 7 Professional. With “VisualLaserMarker”, a sophisticated, industry-proven laser marking software, the definition of simple as well as complex marking layouts is a matter of minutes. It supports matrix-codes, bar codes, serial numbers and much more. The whole system is controlled via a 15" touch screen with smart operation technology.

Well thought-out and practice-driven
The CombiLine Basic accommodates air-cooled PowerLine F and PowerLine E laser markers in fundamental wavelength. As access to the rear side is not required, the CombiLine Basic can be positioned close to the wall. A regular single-phased power supply is all you need.
The press releases as well as the product pictures are available in digital form online at www.rofin.com.

Contact:

<table>
<thead>
<tr>
<th>Company</th>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROFIN Group</td>
<td>Corinna Brettschneider</td>
<td>+49-(0)40-73363-4380</td>
<td><a href="mailto:C.Brettschneider@rofin-ham.de">C.Brettschneider@rofin-ham.de</a></td>
</tr>
<tr>
<td>ROFIN Laser Macro</td>
<td>GF Rofin-Sinar Laser GmbH</td>
<td>+49-(0)40-73363-4138</td>
<td><a href="mailto:J.Platter@baasel.de">J.Platter@baasel.de</a></td>
</tr>
<tr>
<td>ROFIN Laser Micro</td>
<td>Julia Platter</td>
<td>+49-(0)8151-776-4280</td>
<td>D-82319 Starnberg</td>
</tr>
<tr>
<td>ROFIN Laser Marking</td>
<td>Laura Miller</td>
<td>+49-(0)8131-704-4234</td>
<td>D-85232 Bergkirchen</td>
</tr>
</tbody>
</table>