

PRESS RELEASE

## Zoom Axis Enables Flexible-Seam-Width Welding

New scan system features additional degree of freedom for varying the spot size

**Puchheim, Germany, June 19, 2015 – SCANLAB AG and its subsidiary, Blackbird Robotersysteme GmbH, innovation-leading remote-welding-solutions provider, are premiering more new products at the Laser World of Photonics 2015 tradeshow in Munich, Germany. SCANLAB's 3D line of scan systems for robot-assisted welding applications gains a new family member – intelliWELD II FT. This new scan system features an integrated zoom axis for variable spot sizes, and thus flexible seam widths. Thereby the compact, industrially-suitable system construction ensures exceptional flexibility and optimal process adjustability, particularly for overlap weld joints widely favored by automakers and other branches. Plus, a modularly-designed, easily-expandable 19-inch rack version of Blackbird's ScanControlUnit is poised for market introduction.**



Remote welding – with scan heads mounted on industrial robots – is widespread in auto manufacturing, and offers considerable potential for other branches, too. Here, the scan system manages laser fine-positioning, thus eliminating time-robbing robot repositioning. This has significantly boosted beam utilization rates and manufacturing productivity over the past few years.

At the tradeshow in Munich, SCANLAB will exhibit a fully functional prototype of the intelliWELD II FT, which delivers more freedom and flexibility to users. The completely new additional zoom axis allows highly dynamic, step-less varying of spot size up to x 1.5 – accompanied by uniform intensity distribution ('top-hat' profile). This enables flexible width adjustment within a seam or for diverse seams on one or multiple workpieces.

### High-Performance Solution Platform for Remote Laser Welding

Over recent years, the combined system solution of intelliWELD scan heads and Blackbird's ScanControlUnit for industrial control has proven its value in 24/7 industrial deployment. The unique solution of a scan head with pre-focus optic is optimized for vision-assisted applications such as fillet welding, with precise seam tracking to an accuracy of 0.1 mm. The new scan system with integrated zoom axis logically extends SCANLAB's product range by adding an application-specific solution package for overlap welding.

The scan head's mechanics, too, fulfill all requirements for industrial manufacturing: a sealed housing with encapsulated optical path and a replaceable protective window with newly-developed protective window monitoring. The system is equipped with latest-

generation galvanometer scanners that offer advantages such as minimal position drift. The optical components accommodate disc and fiber lasers with up to 8-kW power. Additionally, integrated internal flash memory stores the scan head's configuration data and correction files. The intelliWELD II FT scan head will become available for ordering in Q4 2015.

Starting January 2016, Blackbird's field-proven ScanControlUnit will be available in a new modular 19-inch rack version. This enables exceptionally straightforward expandability, and rapid onsite module-swapping if service is required. The control panel will be separate from the control unit itself and even installable far away from robot cells, fully in accordance with customer needs.

**Print-quality images** can be downloaded at  
[www.scanlab.de/en/news-events/image-library](http://www.scanlab.de/en/news-events/image-library)

#### **Current SCANLAB Event Calendar:**

LASER World of PHOTONICS, June 22-25, 2015 in Munich, Germany,  
Hall A2 - Booth 322.

#### **About SCANLAB:**

With over 20,000 systems produced annually, SCANLAB AG is the world-leading and independent OEM manufacturer of scan solutions for deflecting and positioning laser beams in three dimensions. Its exceptionally fast and precise high-performance galvanometer scanners, scan heads and scan systems find application in industrial materials processing and the electronics, food and beverage industries, as well as biotech and medical technology.

For 25 years, SCANLAB has secured its international technology leadership through pioneering developments in electronics, mechanics, optics and software, as well as the highest quality standards.

#### **About Blackbird Robotersysteme:**

As a subsidiary of SCANLAB, Blackbird Robotersysteme offers solutions for remote laser welding with scan optics. These solutions enable integration of mirror-based beam deflection units into industrial manufacturing systems, particularly robot cells. The company's core competence is development of high-performance control technology and intuitive user software. In combination with 2D and 3D optics from SCANLAB, Blackbird provides a broad array of pre-integrated solutions for mechanical and plant engineering, automotive production and numerous other manufacturing industries around the world.

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