



PRESS RELEASE:

Orbotech Launches Precise™ 800, a Groundbreaking Automated Optical Shaping (AOS) Solution to Increase PCB Yield

The Precise™ 800 is a unique innovative implementation of digital additive manufacturing, enabling 3D Shaping of shorts and opens for Advanced HDI and Complex Multi-Layer PCBs

YAVNE, ISRAEL, MAY 18, 2016 | [ORBOTECH LTD.](#) (NASDAQ: ORBK), a leading provider of process innovation technologies, solutions and equipment serving the global electronics manufacturing industry, today launched the Precise™ 800 Automated Optical Shaping (AOS) System at CTEX 2016 in Suzhou, China. The Precise™ 800 is the first solution for advanced High Density Interconnect (HDI) and complex multi-layer PCB manufacturing that is capable of both removing (or ablating) excess copper ("shorts") and depositing missing copper ("opens"). This one-stop 3D shaping solution increases printed circuit boards (PCB) yield significantly by practically eliminating scrap, thus allowing PCB manufacturers to increase cost savings, lower their overall cost of ownership and achieve a faster return on their investment (ROI).

"The Precise™ 800 is a unique innovative implementation of digital additive manufacturing and represents a complete breakthrough in electronics micro-manufacturing production processes. It is based on an additive technology that was developed by Orbotech over a number of years," said Arik Gordon, Corporate Vice President and President of Orbotech's PCB Division. "Our customers are under continual pressure to produce cost-sensitive, ever-smaller, functionality-rich devices in high volumes. The Precise™ 800 meets their requirements by providing high-quality, meticulous shaping of PCBs that might otherwise have been scrapped."

The Precise™ 800's ability to automate the PCB shaping process swiftly and accurately is enabled by two new Orbotech proprietary technologies – 3D Shaping (3DS) Technology™ and Closed Loop Shaping (CLS) Technology™. 3DS™ is based on a series of processes, including 3D defect analysis, 3D laser shaping and 3D visualization. By comparing the shape of the defect to real-time computer-aided manufacturing (CAM) data and simultaneously conducting 3D analysis, 3DS™ automatically identifies where copper needs to be added. It then guides the system's laser to Orbotech's Precise Stick™, a high-quality metal carrier, for precise copper deposition. The results - which must meet strict manufacturing specifications for electrical characteristics, durability and visual properties - can be confirmed immediately with 3D visualization.

CLS™ leverages specialized image analysis algorithms to make real-time comparisons between the actual image and the design data (CAM) in order to detect the precise location of the shorts and opens. It then intelligently guides the system's laser to ablate excess copper with high accuracy.

The Precise™ 800 AOS System is now available to customers worldwide.

About Orbotech Ltd.

Orbotech Ltd. (NASDAQ:ORBK) is a global innovator of enabling technologies used in the manufacture of the world's most sophisticated consumer and industrial products throughout the electronics and adjacent industries. The Company is a leading provider of yield enhancement and production solutions for electronics reading, writing and connecting, used by manufacturers of printed circuit boards, flat panel displays, advanced packaging, micro-electro-mechanical systems and other electronic components. Virtually every electronic device in the world is produced using Orbotech systems. For more information, visit <http://www.orbotech.com/>.

Cautionary Statement Regarding Forward-Looking Statements

Except for historical information, the matters discussed in this press release are forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. These statements relate to, among other things, future prospects, developments and business strategies and involve certain risks and uncertainties. The words "anticipate," "believe," "could," "will," "plan," "expect" and "would" and similar terms and phrases, including references to assumptions, have been used in this press release to identify forward-looking statements. These forward-looking statements are made based on management's expectations and beliefs concerning future events affecting Orbotech and are subject to uncertainties and factors relating to Orbotech's operations and business environment, all of which are difficult to predict and many of which are beyond the Company's control. Many factors could cause the actual results to differ materially from those projected including, without limitation, cyclicalities in the industries in which the Company operates, the Company's production capacity, timing and occurrence of product acceptance (the Company defines 'bookings' and 'backlog' as purchase arrangements with customers that are based on mutually agreed terms, which, in some cases for bookings and backlog, may still be subject to completion of written documentation and may be changed or cancelled by the customer, often without penalty), fluctuations in product mix, worldwide economic conditions generally, especially in the industries in which the Company operates, the timing and strength of product and service offerings by the Company and its competitors, changes in business or pricing strategies, changes in the prevailing political and regulatory framework in which the relevant parties operate or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional or national basis, the level of consumer demand for sophisticated devices such as smartphones, tablets and other electronic devices as well as automobiles, the Company's global operations and its ability to comply with varying legal, regulatory, exchange, tax and customs regimes, the Company's ability to achieve strategic initiatives, including related to its acquisition strategy, the Company's debt and corporate financing activities; the final timing, outcome and impact of the criminal matter expected in mid- to-late 2016 and ongoing investigation in Korea, including any impact on existing or future business opportunities in Korea and elsewhere, any civil actions related to the Korean matter brought by third parties, including the Company's customers, which may result in monetary judgments or settlements, expenses associated with the Korean Matter, ongoing or increased hostilities in Israel and the surrounding areas, and other risks detailed in the Company's SEC reports, including the Company's Annual Report on Form 20-F for the year ended December 31, 2015, and subsequent SEC filings. The Company assumes no obligation to update the information in this press release to reflect new information, future events or otherwise, except as required by law.

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