

## **Manz at productronica with laser direct imaging for printed circuit boards**

- **Years of experience in equipment manufacture for printed circuit boards in the primary market Asia**
- **Market leader for wet chemical processing equipment in Asia**
- **Successful installation of first equipment manufactured in Asia for customers in Germany**
- **Expansion of competence through laser direct imaging**

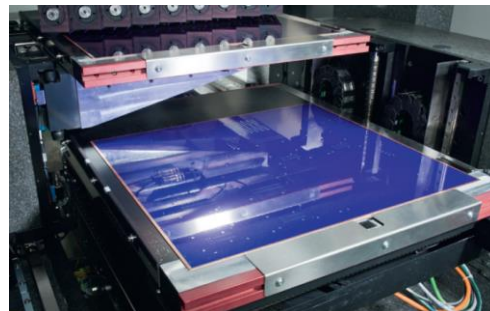
**Reutlingen, 5 November 2015.** Alongside wet chemical processing equipment, Manz AG is also showing its innovative process for laser direct imaging of printed circuit boards at productronica in Munich, the world's leading trade fair for the development and manufacture of electronics. The "*SpeedLight 2D*" process of the Reutlingen high-tech equipment manufacturer increases the efficiency and flexibility of product and production processes compared to conventional photo-lithography – and it can cut costs by up to 75 percent.

Manz has more than 25 years' experience in developing high-tech equipment for the manufacture of high-efficiency printed circuit boards. The primary market of Manz is Asia – in the Chinese plant in Suzhou both production and research and development activities for this segment are bundled. Thus Manz has established itself in Asia as a local partner of industry and with its comprehensive technology portfolio covers almost the complete value-added chain in the manufacture of printed circuit boards. In wet chemical processing equipment, Manz is even the market leader in Asia. Manz wet chemical equipment is characterized by high process reliability and throughput, simple operation and maintenance and low consumption of water and chemicals.

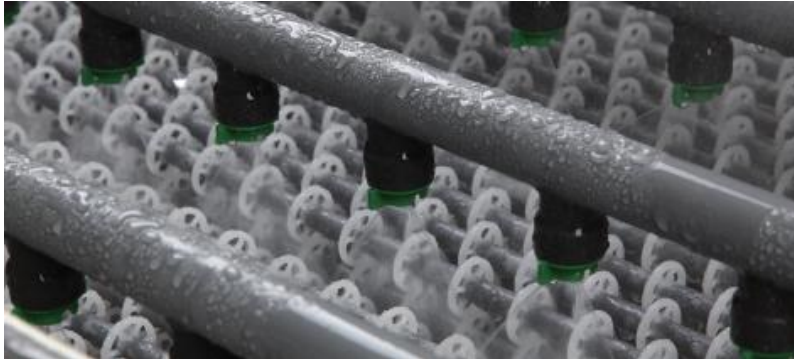
An important component of the technology portfolio of the high-tech equipment manufacturer of Reutlingen is the laser direct imaging of printed circuit boards. Manz acquired the technology for this in 2015 with the acquisition of KLEO Halbleitertechnik GmbH, Tettnang. With the *SpeedLight 2D* now being presented, Manz is reacting to the growing demand for production equipment for exposing high-resolution, large printed circuit boards. Thus the performance of printed circuit boards as well as production capacities can be increased.

*SpeedLight 2D* offers some technical highlights. Its twin-stage double table system ensures high throughput. While the first board is being exposed on one table, the next one is already being registered on the second. The exposure unit operates with 288 laser beams, which are mapped by nine polygon modules onto the board. This greatly increases throughput compared to photo-lithography – to 180 two-sided exposed panels per hour. Rotating at 50,000 rpm, the polygon mirrors have air bearings, so they suffer no wear while achieving consistently high precision. The laser source has a life of 60,000 hours, and if one of the 288 laser diodes needs to be replaced, it is very easy to do. Almost all wearing parts are designed to be replaced by the user himself. This increases the availability of the equipment and significantly reduces service costs.

At the start of the year, Manz took to the decision to expand its sales activities to Europe and the USA. This is progressing very promisingly; the first wet chemical equipment manufactured in Asia and the first equipment for laser direct imaging of printed circuit boards have already recently been installed for customers in Germany, including printed circuit board specialists RUWEL International or Würth Elektronik. Visitors to productronica in Munich can see *SpeedLight 2D* and wet chemical processing equipment for themselves at Manz AG's stand in Hall B1 Stand 221 from November 10th to 13th.



***SpeedLight 2D* from Manz for laser direct imaging of printed circuit boards increases the efficiency and flexibility of product and production processes and provides significant cost savings.**



**Wet chemical processing equipment in the manufacture of high resolution printed circuit boards.**

High-resolution photos are available from Stefan Richter, Storymaker GmbH:

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**Company profile:**

**Manz AG – passion for efficiency**

As one of the world's leading high-tech equipment manufacturers, Manz AG, based in Reutlingen, Germany, is a pioneer in innovative products for fast-growing markets. Founded in 1987, the company has expertise in seven technology sectors: automation, laser processing, vacuum coating, screen printing, metrology, wet chemical and roll-to-roll processing. Manz deploys and continuously develops these technologies in three strategic business segments: Display, Solar and Battery.

The company, led by founder Dieter Manz and listed on the stock exchange in Germany since 2006, currently develops and produces in Germany, China, Taiwan, Slovakia, Hungary and Italy. It also has sales and service branches in the USA and India. At the beginning of 2015, Manz AG had approximately 2,000 employees, around half of whom were employed in Asia. Manz's claim "passion for efficiency" offers the promise of production systems of the highest efficiency and innovation to its customers in dynamic, future-oriented industries. With its extensive expertise in the development of new production technologies and the related machines, the company substantially contributes to reducing the production costs of final products and making them accessible to large groups of buyers around the world.

[www.manz.com](http://www.manz.com)

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