

Manz Shows World Record at PV Taiwan 2011

- Manz presents world record thin-film solar module with 14 percent module efficiency
- Take the shortcut to success at Manz's CIGSforum
- Significant upgrade potential for PV manufacturers: Manz systems make old production lines profitable again

Taipei/Taiwan, September 26, 2011. Manz will attend at PV Taiwan 2011 in Taipei. The focus of the Manz display from October 5th to 7th, 2011 (TWTC Hall 1, Booth 603), is on the latest developments in CIGS thin-film technology.

With its CIGSfab, Manz offers its customers the only fully integrated production line for CIGS thin-film solar modules which can be operated profitably today. Manz will showcase the capabilities of it's CIGSfab in Hamburg in a first presentation of its world record thin-film module with an aperture efficiency of never-before-seen 15.1 percent (corresponds to 14% module efficiency). The CIGS solar module, with an original production format of 600x1200 mm and an output of 100 watts, was manufactured on mass production equipment in cooperation with Würth Solar at their plant in Schwäbisch Hall.

"Module manufacturers are currently seeing a dramatic drop in prices worldwide," says Dieter Manz, Founder and CEO of Manz AG. "The only companies that will survive financially are the ones positioned as cost leaders and offering the modules with the highest efficiency available. Our CIGSfab accommodates both requirements and, it is based on the most promising technology in thin film today."

Since entering into a partnership in the summer of 2010, Manz has worked intensively on making advancements to CIGS technology together with its partners, the Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) and the module manufacturer Würth Solar. The ZSW currently holds the world record for module efficiency, at 20.3%, which demonstrates the possibilities CIGS technology will offer in the future. "The challenge now for our cooperation efforts is to significantly reduce the gap between the laboratory values and the level of efficiency achieved in mass production," says Dieter Manz.

Manz is going to present the progress made so far at the CIGSforum event on Thursday, October 6th, 2011, at 10:00 a.m. Please register for Manz's CIGSforum at Grand Hyatt Taipei by visiting www.manz.com/cigsforum

In addition to the aforementioned technology, at the PVSEC Manz will also present its wide range of process machines and automation equipment which can be integrated into existing production lines for crystalline and thin-film solar modules. "After the decline in prices seen during the past few months, a large number of the production lines used around the world no longer operate economically. But they can be upgraded to make them more efficient, and as a result, profitable once again," says Dieter Manz. Cell and module manufacturers can achieve

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efficiency advantages primarily by increasing module efficiency, reducing material consumption, or through the systematic optimization of individual process steps. In order to achieve this Manz offers affordable automation systems, innovative laser technology, and high-performance inspection equipment.

About Manz

Manz AG, based at Reutlingen/Germany (ISIN: DE000A0JQ5U3), is a globally leading high-tech mechanical engineering company. The company, which was founded in 1987, has developed over recent years from an automation specialist into a provider of integrated production lines for the photovoltaic industry (crystalline and thin film), and for the manufacturing of flat screens. The development and manufacturing of production systems for lithium-ion batteries comprises a new business area. The Group of companies, which is managed by founder Dieter Manz, and which has been listed on the Germany stock market since 2006, currently manufactures in Germany, China, Taiwan, Slovakia and Hungary. There are also distribution and service branches in the USA, South Korea and India. The company employed around 1,900 staff as of the end of the second quarter 2011, 900 of whom are located in Asia. Revenue in the past financial year amounted to more than EUR 180 million. With their new "passion for efficiency" claim, Manz express their service commitment to provide ever more efficient production systems to their customers that operate in important sectors of the future.

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