

New! ABB FlexPicker-System Solar

Flexible robotic plug-and-play solution for the production of solar cells

Munich, June 11, 2008. From June 12-14, ABB will unveil a compact cell as a highly-versatile plug-and-play solution in Munich at Intersolar, the world's largest trade fair for solar technology. The standardized cell was specially designed for loading, unloading and handling processes in automated production lines for solar cells.

With the huge demand for solar power, the photovoltaic industry is under enormous pressure to lower production costs while simultaneously increasing productivity and quality. For years ABB has been making advancements in the development of innovative solutions for the use of robots – among other areas – in the production of solar cells. With the compact cell “FlexPicker-System Solar” ABB has succeeded in designing a standard solution for solar cell manufacturing plants.

The base frame of this standard solution is a low-vibration, symmetrically designed steel structure with the dimensions 1400 x 1400 x 220 cm (lxwxh). The system has three levels of equipping. The lower third offers enough room for the ABB IRC5 control unit without housing. This includes the “Panel Mounted Controller” and other control components such as image processors, PLC components or converters for activating the conveyor system.

At the working level, the middle section, a tunnel-like construction is planned which allows for flexible adaptation to customer requirements. Six plates fastened directly on the base frame make it possible to connect customer-specific conveyor belts or other conveyor systems directly to the plug-and-play solution. The control panel of the IRC5 control unit is also on this level, mounted on a side beam of the structure. The control panel can be mounted on any one of the four corner beams of this level as required. Also found on the working level is the FlexPendant and

the mechanical interface for the conveyor system. Electrically monitored service doors ensure compliance with the strict safety requirements. The robot stops immediately as soon as the door is opened. The system starts up again only after it has received confirmation via automated inquiry that all doors are properly closed. Acrylic doors on the opposite sides (operator sides) provide the operators with a large area for viewing work processes.

The heart of the plug-and-play solution – the ABB FlexPicker 360 – is found on the upper third of the structure. The robot is inverted facing downward, mounted on the top crossbar. Mounting plates for cameras, e.g. for imaging and evaluation systems, electrical installations, pneumatics, etc., offer customers individual equipping possibilities. A hinged flap with lock also secures access to the robot.

The system's metal facings are variable and symmetric. Customers have nearly unlimited options for the design and color. All side panels are equipped with friction closures and are therefore very easy to dismantle for servicing and maintenance. The panels on both operator sides are designed as doors and flaps.

A wide range of options are planned such as an integrated break drawer, mounting plates for pneumatics and electrical installations, panel PCs and ABB PickMaster Software.

FlexPicker-System Solar will be available at the end of 2008.



About ABB Robotics

ABB is a leading supplier of industrial robots - also providing robot software, peripheral equipment, modular manufacturing cells and service for tasks such as welding, handling, assembly, painting and finishing, picking, packing, palletizing and machine tending. Key markets include automotive, plastics, metal fabrication, foundry, electronics, machine tools, pharmaceutical and food and beverage industries. A strong solutions focus helps manufacturers improve productivity, product quality and worker safety. ABB has installed more than 160,000 robots worldwide.

About ABB

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 110,000 people.

Note: All information according to US-GAAP.

We would appreciate receipt of a specimen copy!

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