



## High-Tech Distribution and Consulting

### >focus< today on

#### GPP Chemnitz

GPP a Chemnitz, Germany based company develops and manufactures equipment for inspecting wafers, solar cells and photovoltaic modules. The inspections include camera based visual defect inspection and testing of electrical performance by utilizing electroluminescence.

#### SolarCellInspect

The GPP test system *SolarCellInspect* performs tests of wafers and solar cells. *SolarCellInspect* is available as ac stand-alone version and for seamless integration into automated cell testers and sorters (3600test/hour) to enable reliable quality assurance.



Control parameters include geometry, contour and colour test, discontinuities in fingers and busbars, frontprint and rearprint test and homogeneity of antireflex-coating.

#### SolarCellInspect.EL

*SolarCellInspect.EL* is a GPP electroluminescence based test system for the inspection of the material quality of monocrystalline and polycrystalline solar cells. Typical examples are microcracks, breaks, bad soldering, shunts and active/nonactive areas. Conventional visual inspection does not suffice to identify those defects.

#### SolarModuleInspect

*SolarModuleInspect* is a test system aimed at large-scale automated manufacturing facilities of PV-modules. It scans the entire surface of PV-modules or laminates and performs quality tests.



*SolarModuleInspect* detects distances between cells, dimensions of cells, the location of strings as well as connectors. Additionally the system inspects the surface of the PV-module, detecting bubbles inside the EVA foil, inclusions, flecks, marks and many more defects.

#### *SolarModuleInspect.EL*

is a GPP test system for detection of material quality of PV-modules. *SolarModuleInspect.EL* reliably detects quality characteristics of PV-modules. Such defects can cause short and long term power decrease, hot spot problems and many more errors. *SolarModuleInspect.EL* acts as final test for quality assurance of PV-modules. The test system can be used stand-alone or be integrated seam into large-scale manufacturing.

*SolarModuleInspect.EL* may also support you to ensure and record the excellent quality of PV-modules.

#### Semiconductor Wafer

For this area, GPP offers testing technology and inspection solutions to be used under clean room conditions including surface and wafer edge inspection and tread and roughness measurements using perthometer technology.

Even the least irregularities on the surface of a wafer cause quality problems. This is why surface inspections, e.g. of carriers during the polishing process are essential. An error classification makes it possible to exactly indicate the type of error in order to systematically improve the process.

The GPPVision module *Surface* serves the detection and classification of structures and irregularities in thickness under 1µm. Since this inspection system has been integrated in the polishing process, only carrier plates with a homogeneous mastic layer are used, which leads to a considerable increase in quality.

Please contact merconics to learn more about the unique features of the GPP product lines.

## Partners deliver success

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