PROFILE

Intelligence with system
Automation for cell manufacture and module assembly

USK Karl Utz Sondermaschinen GmbH ranks as one of the leading providers of automated assembly systems in Germany. In addition to the photovoltaic sector, USK serves the needs of customers in the automobile and automotive supply industry.

We may not generate solar power ourselves. But we do deliver the production technology for the automated complete assembly of solar modules with integrated process tools to customer specification.

Products and services

Full service provider from design stage through to delivery and after-sales service for the full range of assembly technology - from manual through to semi-automated and fully automated systems.

PV expertise at a glance

- Plant technology for the assembly of cell-based solar modules up to a capacity of 500 MWp
- Automation for the manufacture of thin-film solar modules
- Automation solutions for wafer and cell manufacture
- Special plant and customised solutions (e.g. roll-to-roll)
- Manual assembly equipment for module manufacturing start-ups

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Saxon Photovoltaic Automation Cluster

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PRODUCTS AND INNOVATIONS

Intelligence with system

Automation for cell manufacture and module assembly

- PV automation in cell manufacture and module assembly using variable process technology to customer specification
- Complete supplier, from project planning stage, design, programming, procurement and assembly through to delivery, commissioning and service
- Automation of complete production facilities with only one partner for automation

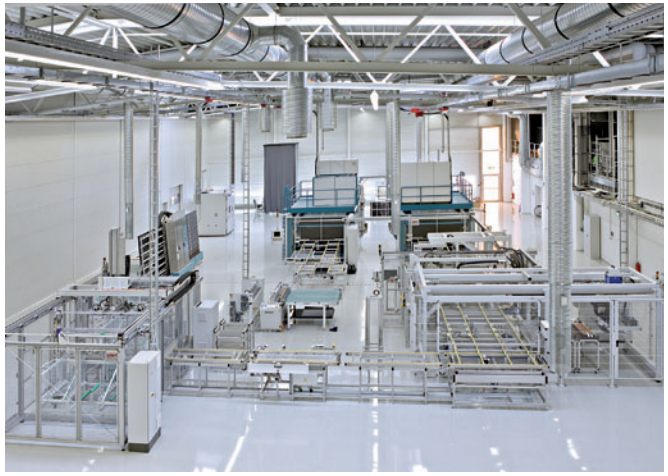
Automation solutions for wafer and cell manufacture

- Single-tool, cluster and assembly line automation
- Loading/unloading of coating lines designed for continuous operation
- Equipping of synchronised systems with carrier transport
- Integration of testing procedures
- Buffer systems for decoupling process stages
- Throughput of 3,600 cells per hour

Equipment for the assembly of cell-based solar modules

- Automated module assembly with systems up to 500MWp
- Complete solutions including glass substrate feeding via washing unit, film applicator, stringer and layup, laminator, connector box and frame assembly through to final testing and classification in batch storage area
- Integration of process machinery (stringer, laminator, flasher etc.) to customer specification
- Integrated testing processes (e.g. matrix electroluminescence)

Automation for the manufacture of thin-film solar modules



- Automation of thin-film solar module assembly
- Handling, transfer and assembly technology for all operations of interlinking and assembling of solar modules
- Manufacturing technology and process machinery to customer specification
- Continuous recording of product, process and machinery data
- Development and delivery of special machinery (e.g. roll-to-roll)