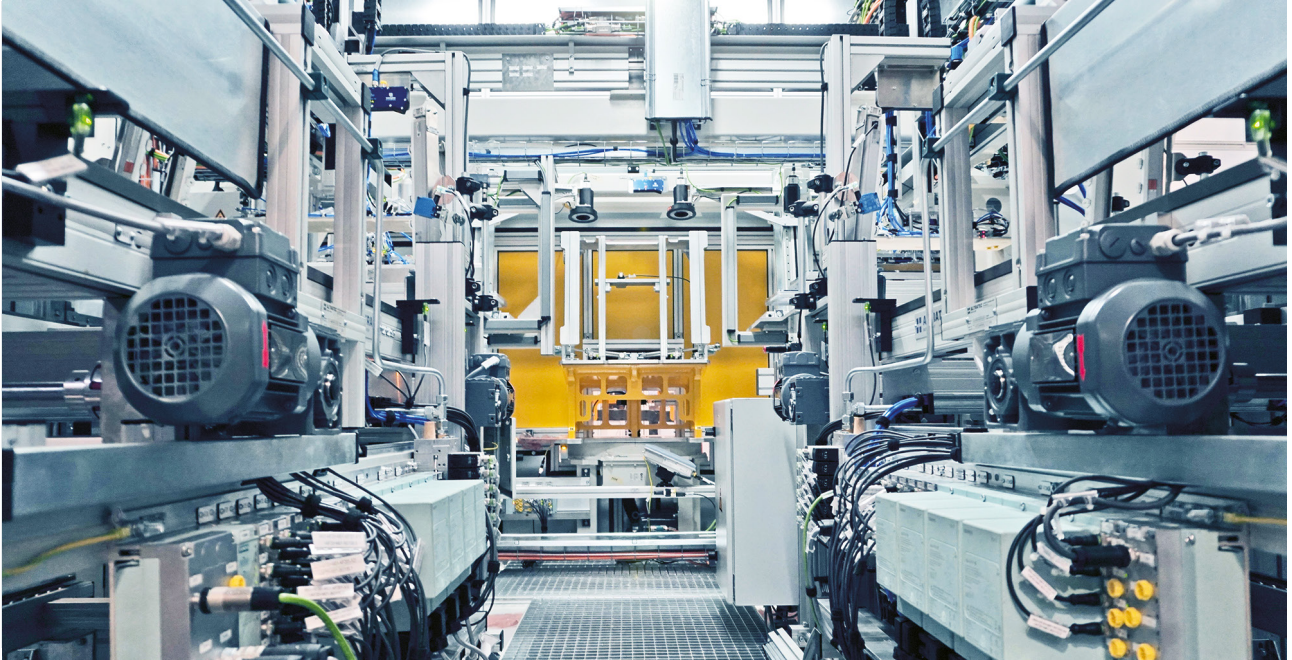


Stack and System Assembly



Assembly along the value chain

Stack and system assembly along the value chain

With our systems, cell elements consisting of an MEA and a bipolar plate (BPP) can be stacked efficiently and precisely. Therefore we have developed scalable stacking and assembly solutions with highly efficient cycle times to meet the complexity requirements of stack assembly caused by high accuracies with short cycles. As a result our patent-pending production solutions offer you speeds of more than 1 Hz per cell and thus an output of over 50.000 stacks per year, consisting each of 300-400 cells.

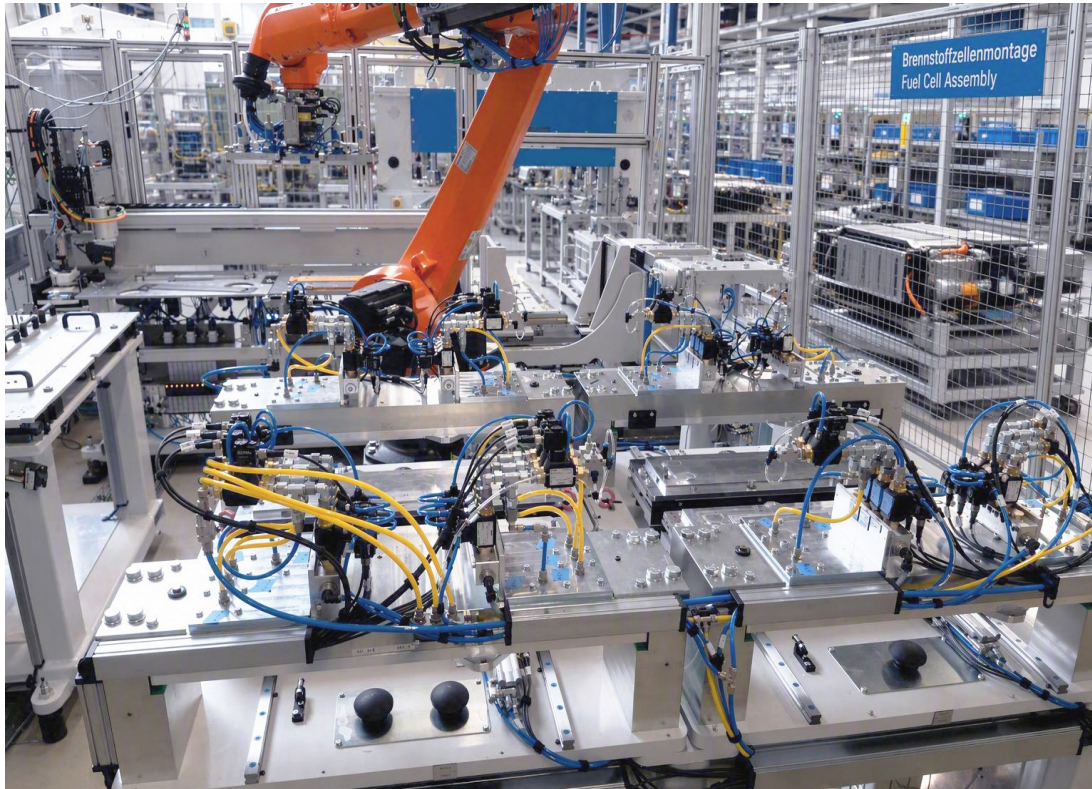
Our technical concepts make it possible to mechanically align cell components and thus minimize complex positioning processes. If mechanical alignment is not possible, we use camera systems for position detection and automated position correction.

System assembly refers to all process steps that comprise the assembly of auxiliary systems (balance-of-plant) for the operation of a stack.

Once the system assembly is complete, it is referred to as a fuel cell system. Classic process steps during system assembly are the installation of the air and hydrogen supply (cathode or anode circuit), the cooling water circuit, the electronics including the inverter and covers or sealing components.

With us you get the whole supply chain from one source.

Innovative Solutions for Stack and System Assembly



Our solutions

- MEA / BPP adjustment + fitting unit
- Stacking with mechanical alignment
- Stacking with camera aided alignment
- Pressing
- Leaktest stack
- Fixing stack (e.g. weld lashing belt or bolt)
- Assembly housing + Leak testing
- HV Test
- Manual assembly aids
- Leak testing + EOL stack, conditioning (break-in)
- Final assembly
- EOL complete system

Data Acquisition and Line Control

- DATA ACQUISITION AND LINE CONTROL: The Advanced Data Management system (ADM) is a mixture of a Manufacturing Execution System (MES), Supervisory Control and Data Acquisition (SCADA) tool, which controls your production and evaluates your manufacturing and quality data
- It can be connected with additional production lines like MEA-/ BPP-manufacturing, Stack-Assembly, etc. for a holistic production control

What we stand for...

- Experience and Expertise in the field of hydrogen technology for over 10 years
- Delivery of professional pre-project consulting services
- Experiences in investment cost and support in complete factory planning
- Serving the entire production value chain alongside our partners and supplier network
- Innovative products and design concepts for customized requirements
- Reliable turnkey solution provider for manual or mass production systems

We are the **H** of Hydrogen

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