

**BOSSARD**

Proven Productivity



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## Smart Factory Assembly

The digital transformation in assembly

“The pragmatic way to connect your assembly processes and make them process-reliable and paperless.”

*“Using the system, we can produce over 100 variants economically in a one-piece flow, easily add new variants and change existing variants, which is very important to us. The system acceptance among the employees is high and even new employees can be deployed on the production island without any problems.”*

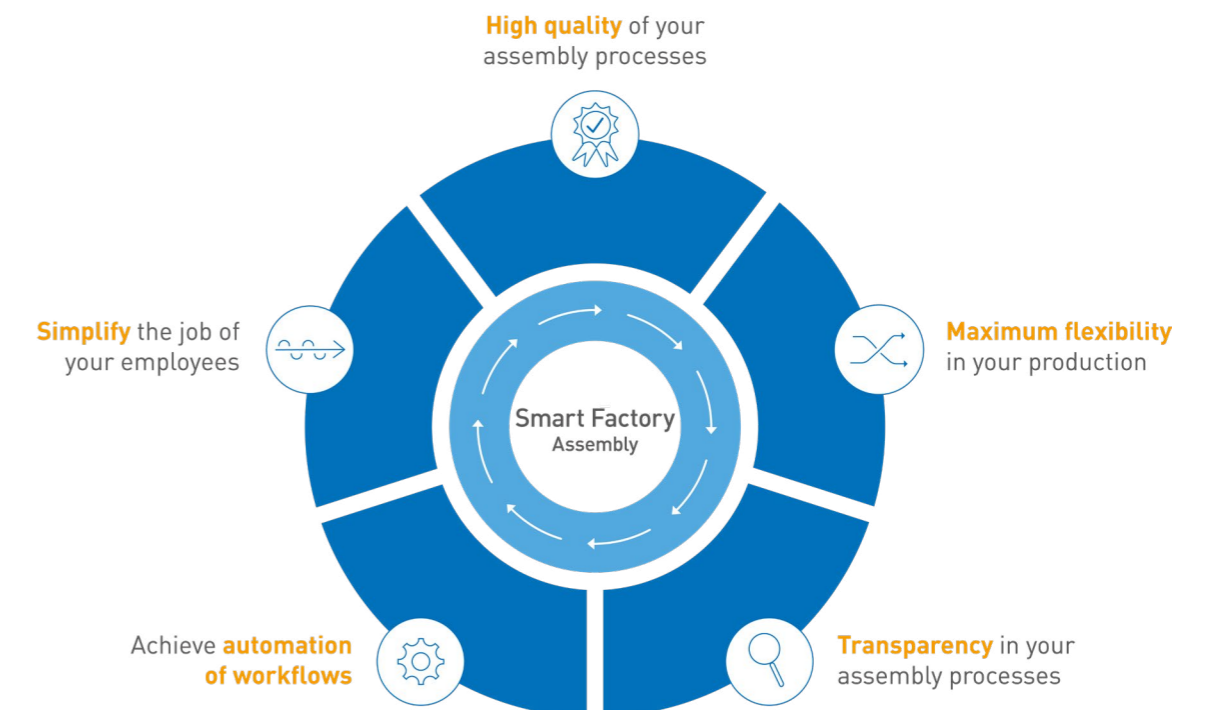
ZIEHL-ABEGG SE – Production planner

## Benefits in your assembly

Smart Factory Assembly simplifies the assembly process while increasing productivity. Our comprehensive solution provides digital work instructions, worker guidance and ensures real-time traceability in production to improve product quality.

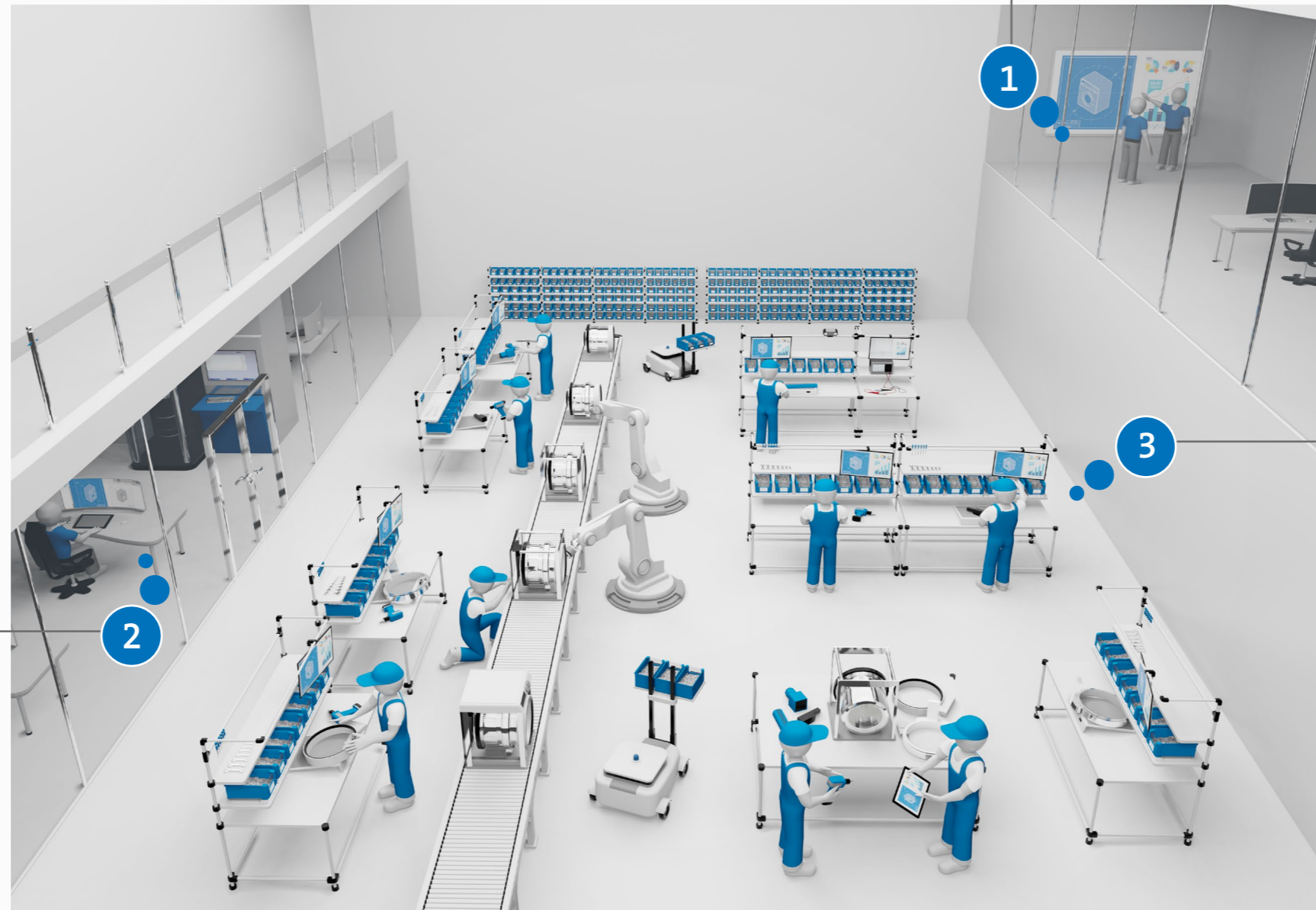
The core of digital work instructions is the simple breakdown of the assembly process into operational steps. At each step the system intuitively guides the operator through the assembly process. In addition all relevant assembly tools can be connected to the system. This enables total process

security and the resulting data creates transparency in order to identify the potential for optimization and ensure the traceability of production data.



## CONNECTED AND NETWORKED PRODUCTION

# The impact on your production



### Production Management

All production and quality data is automatically documented and stored in a production lifecycle file. This documentation can be quickly and easily accessed at any time, ensuring seamless traceability.

### Shop Floor

The production employee is supported throughout the entire process in order to eliminate as many sources of errors as possible. The work instructions can be specifically adapted to the respective assembly employee with respect to language, level of training and level of detail.

### Work Preparation Technical Writer

The central creation and management of digital work instructions enables easy control of all variants and their versioning. This can be conveniently performed from the office, allowing updates and modifications. Additionally, the modular setup facilitates the adoption of complete assemblies or work sequences from existing instructions, streamlining the efficient creation of work instructions.

## SIMPLIFY THE ASSEMBLY PROCESS

# Empowering solutions for complex challenges



Manual and analog tools can be replaced by automated, smart and digital solutions.



Paper-based work instructions can be replaced by digital and more efficient instructions.



Agile employee onboarding with best practices and guidance.



Managing complexity and variation across the assembly line.



Manual checklists can be replaced by automated quality control processes.

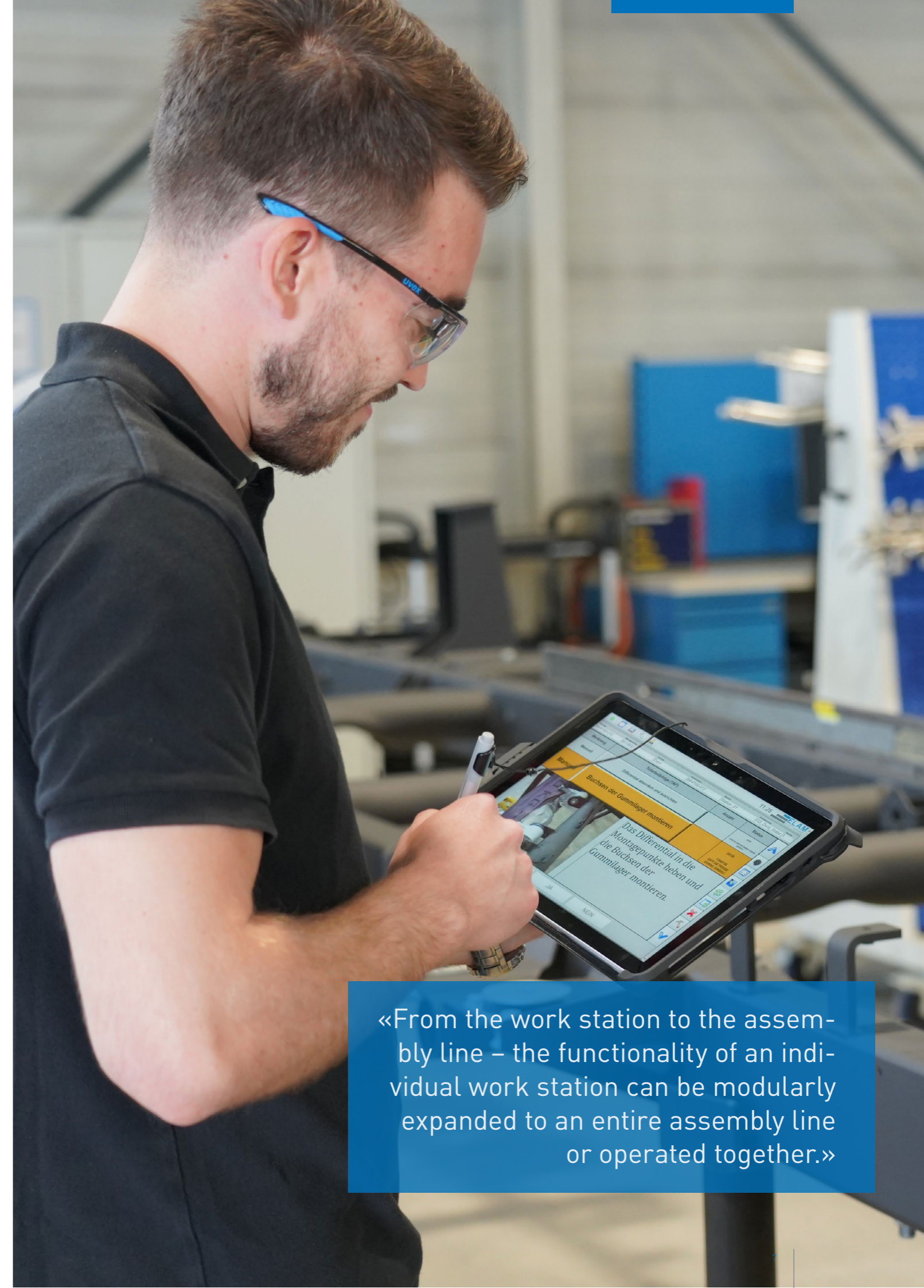


Full transparency and traceability of assembly operations.



*“Smart Factory Assembly is also very well suited for products with a high level of complexity, documented tests, and complete traceability that are produced in large quantities.”*

*DI Dr. Christian Rabitsch, Managing Director of WILD*

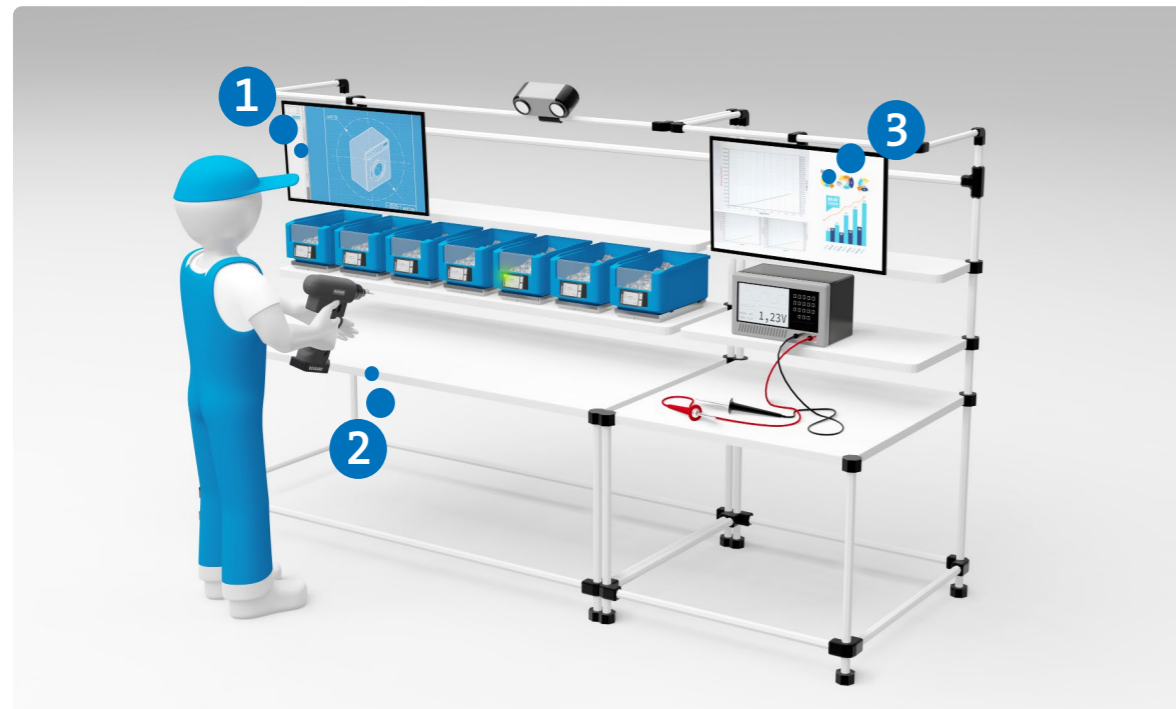


«From the work station to the assembly line – the functionality of an individual work station can be modularly expanded to an entire assembly line or operated together.»

## SMART FACTORY ASSEMBLY SOLUTION

# Digital assembly workplace

The core components of Smart Factory Assembly at a glance.



### 1 Digital and smart work instructions

Improve your processes by simulating and testing workflows. Reduce assembly errors and provide user-friendly guidance for beginners and professionals to increase productivity. Use employee feedback to refine your workflows and increase efficiency.

### 2 Connected smart tools and devices

Connect and integrate all assembly tools with Smart Factory Assembly, including smart screwdrivers, pick-to-light systems, scanners, and measuring equipment, for seamless interaction with ELAM Solution.

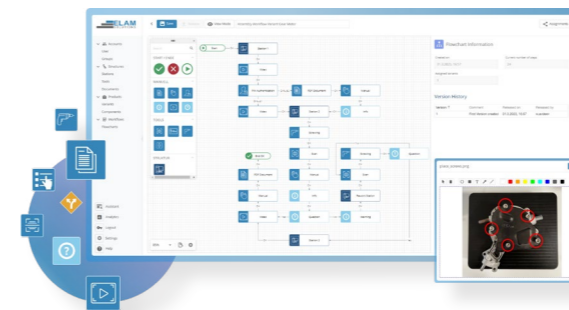
### 3 Traceability of quality data and continuous process improvement

Enhance your operations with real-time data that ensures product quality traceability, assembly transparency, and continuous improvement. Stay flexible, agile, and responsive to changes in your operations.

## Digital and smart work instructions

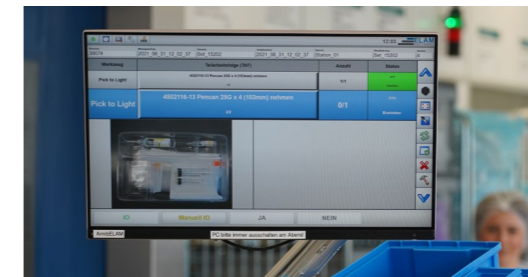
Whether it's new employees, new production processes, or small batch sizes with various orders, the assembly steps are efficiently and accurately executed, thanks to the graphic step-by-step instructions. Furthermore, the work steps are automatically documented.

The digital assembly instructions can be created by you or automatically generated from the customer order through ERP integration. The centralized creation and management of smart instructions enable significant reduction in product variation complexity and efficient handling of changes.



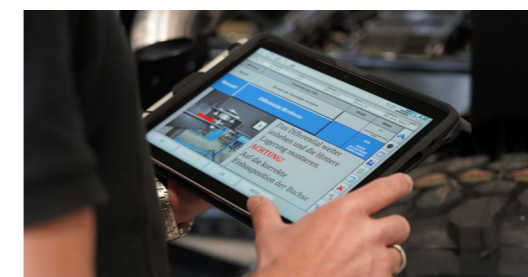
### Advantages

- Create smart workflows easily and efficiently.
- Minimize errors in the assembly process.
- Provide user-friendly guidance to support both beginners and experts.
- Enhance productivity and optimize processes.



### Fixed Display

- Typical workstation with screen
- Employee guidance step-by-step
- Optimal support of the employees and collection of quality data



### Mobile Devices

- Display work content on a tablet or mobile device
- Display work instructions, simple assemblies or drawings and parts lists
- Flexible use within the production line

## Connected smart tools and devices

The aim is to connect the assembly environment, which is parameterized and/or measured specifically for the respective assembly step.

The more assembly tools and testing equipment are connected with the system, the more one can leverage the following advantages:

- Faster setup of the work stations for the new order/product
- Correct parameterization of the tools based on the order
- Wide range of standardized plug-and-play device integrations
- Documentation of all relevant assembly and testing processes based on a product

Various tools and devices can be incorporated. Here are some common examples:

1. Position detection
2. Robots
3. Cameras
4. Pick to light
5. Nut changer / bit selector
6. Torque wrench
7. Testing and measuring devices
8. Printers
9. Presses
10. Scanners
11. Identification systems



Our broad knowledge of fastening technology allows us to provide competent advice on selecting the right tools for your needs.

In riveting and bolting technology in particular, we can provide objective advice and rely on a broad product range.



Smart riveting devices



Smart blind rivet nut

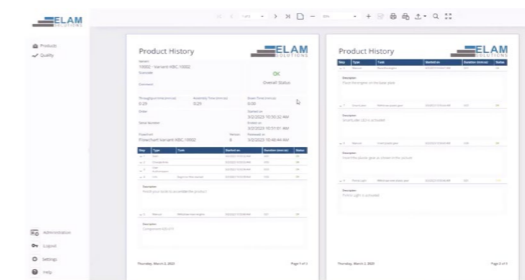
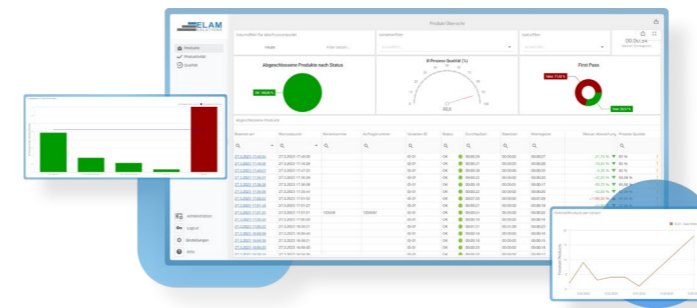


Battery screwdrivers

## Traceability of quality data and continuous process improvement

All production data is saved in a database and can be viewed at any time. Process deviations are immediately evident. The stored data corresponds to the specifications from the work instructions. If screwdrivers are controlled, for example, then the screw-related data is stored, such as the angle of rotation, tightening torque or screwdriving time. In addition, target values for screw connections can be specified and visualized using a screwdriving curve.

The aim of any production is to maximize efficiency. This requires a validated basis of production data for evaluation. Smart Factory Assembly helps to quickly and easily evaluate and visualize all data. It does not matter whether an overview of the individual work stations or the entire production process is required. The data regarding all possible procedures, process points and also quality indicators is stored in the Smart Factory Assembly database and can be quickly and easily retrieved.

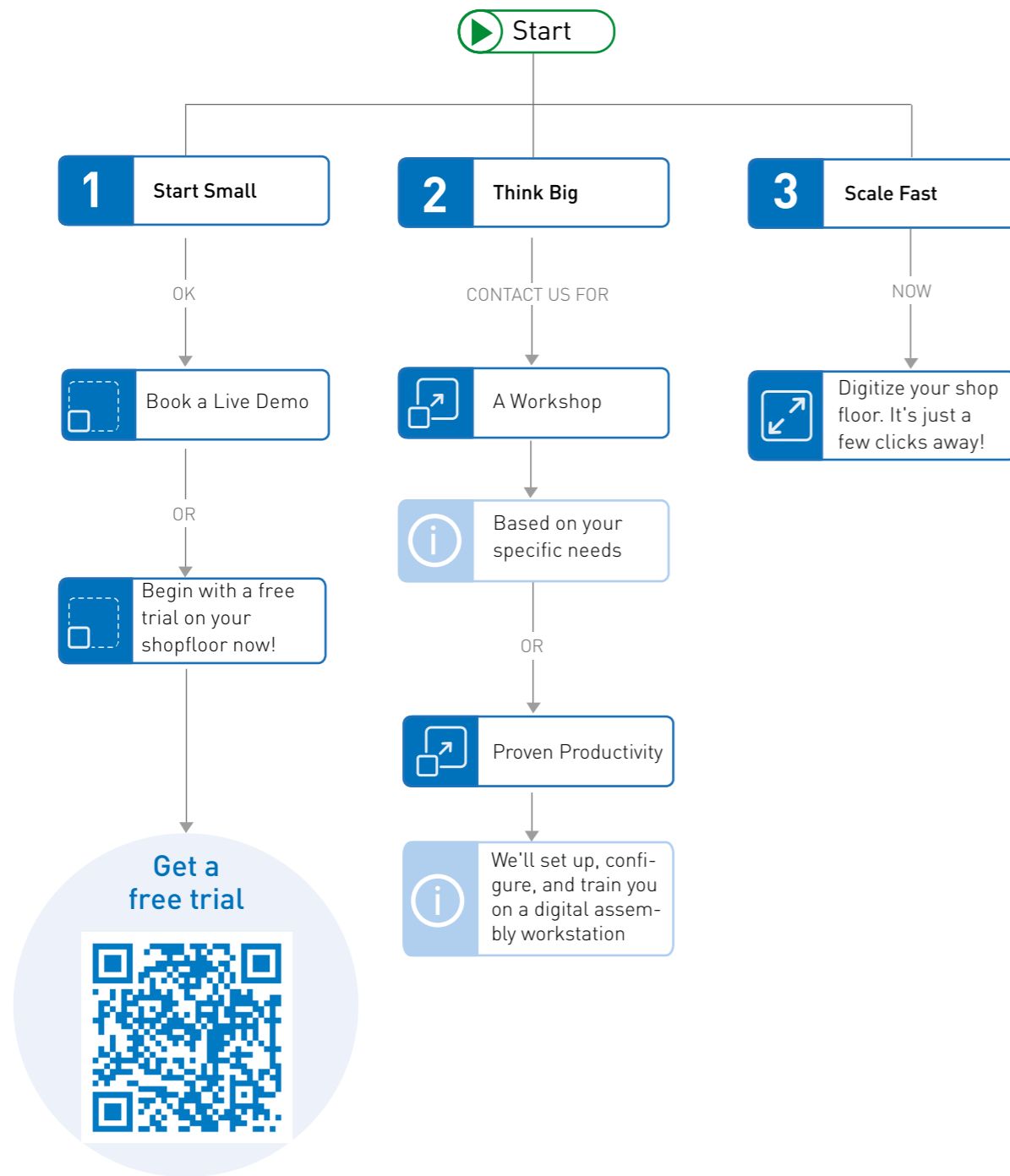


### Advantages

- Identify areas for improvement in your operations
- Trace product quality throughout the process
- Achieve transparency in the assembly process
- Make data-driven decisions in real-time
- Respond with flexibility and agility

THREE MOVES TO ACHIEVE YOUR GOAL

Targeted, pragmatic and no risk



OUR OFFER

Solutions tailored to your needs

Experience the power of Smart Factory Assembly: Improve your assembly process with unmatched transparency, efficiency and reliability. Discover the benefits by testing our ELAM solution on your production floor.

	FREE	Basic	Pro	Enterprise
	Jump in and give the software a try!	Get Smart Fastening or Smart Documents	All standard IOT tools and devices	Smart Assembly
Quality data base	✓	✓	✓	✓
Smart work instructions	✓	✓	✓	✓
Static documents	✓	( ✓ )	✓	✓
Bossard Smart tools		( ✓ )	✓	✓
Standart IoT Portfolio		✓	✓	✓
Custom IoT devices				( ✓ )
Production operation dashboards	✓		✓	✓
Automated work instructions				✓
ERP/ MES integration				✓
Software customisation				( ✓ )

Get a free trial

Contact us for more information

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