



KOMAX
HMI
software & networking

komax

KOMAX HMI

Customizable high-performance production machines are increasingly complex items of manufacturing equipment – which is why their operation needs to be simple, consistent and error-proof. In response, Komax has developed Komax HMI, the new operating software for fully automatic wire processing machines. The new human machine interface (HMI) facilitates the transition from complexity to maximum simplicity with a new operating philosophy. User guidance and customizable procedures guarantee perfect processes, step by step. Integration with a manufacturing execution system allows real-time data to be exchanged and analyses to be performed at any time, thereby creating maximum transparency across the production chain. HMI from Komax gives access to the machine's full performance potential in order to produce wire harnesses more flexibly, quickly and economically.

Simple, error-free operation

- The Komax Green Button guides the user clearly and accurately through the wire processing procedure
- The use-case-driven design eliminates input errors
- Input windows for third-party systems can be integrated into the workflow
- Clearly structured user interface for fast orientation

Flexible, customizable production

- The production process can be optimized and adjusted during operation
- Real-time data for simultaneous production, control and optimization

Reliable, transparent quality

- Open interface for data analysis in real time
- Comprehensive transparency across the entire production process
- Fully documented, traceable quality



FROM COMPLEXITY TO SIMPLICITY: A CONSISTENT OPERATING PHILOSOPHY



TRANSPARENCY



MONITORING



USABILITY



FLEXIBILITY



CENTRALIZATION





Reject	Priority	Job ID	Article ID	Progress	Details
		TK201	10 6204-0075	154	Details
		TK202	10 6204-0075	0/0	Details
		TK203	10 6204-0075	0/0	Details
		TK204	10 6204-0075	0/0	Details
		TK205	10 6204-0075	0/0	Details

The Green Button guides the user easily from the job list to the material changeover page, and from the verification sequence to production, until the job is completed.

SIMPLY LOGICAL THANKS TO THE KOMAX GREEN BUTTON

Centralized, error-free operation

Komax HMI is based on a use-case-driven design architecture. This operating philosophy prioritizes the most common tasks and processes. For instance, all information relevant to the stripping process is displayed concisely on the same page, thus providing a full overview at a single glance.

The Komax Green Button guides the operator through the entire production process with simple instructions. Each step of the process is automatically logged. The clear user guidance and the intuitive layout prevent the operator from making errors during setup, changeover and production.

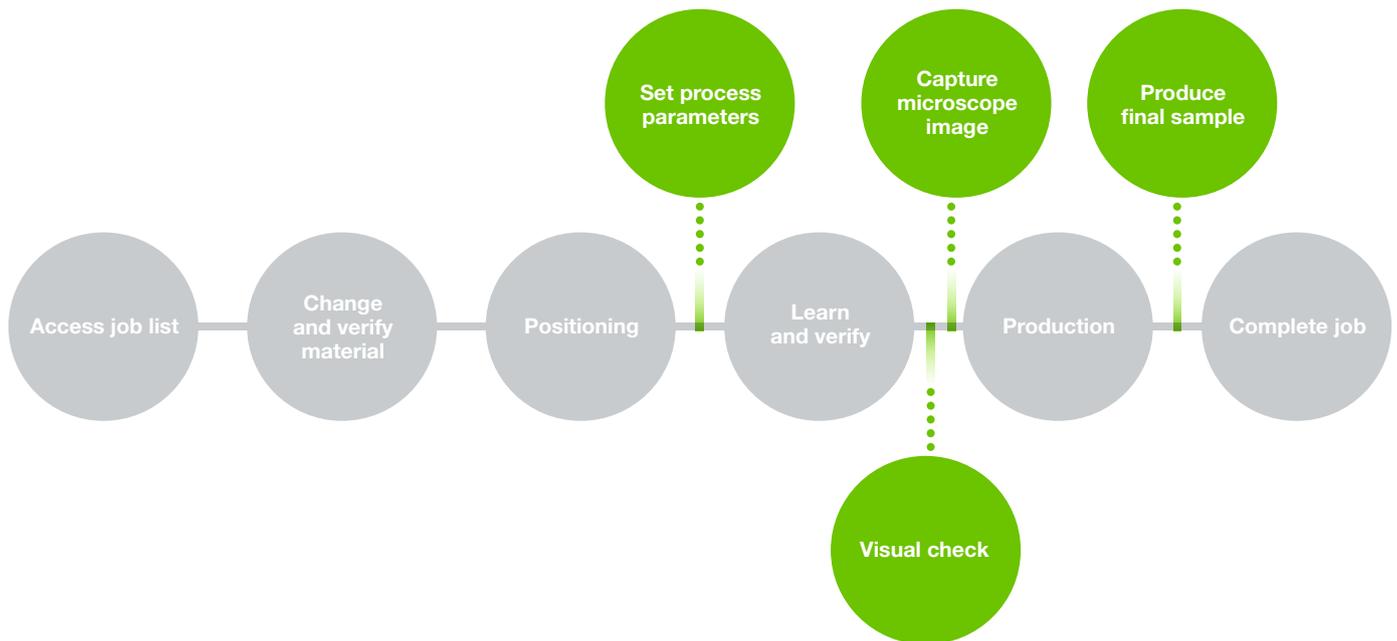
Input windows for third-party software can easily be integrated into Komax HMI, enabling all operations to be centralized. The operator no longer needs to monitor

multiple software programs and printed documents. Instructions and input fields are provided at the right step within the HMI workflow.

The user interface is divided into machine configuration, product specification and production. The clear and intuitive layout allows for quick orientation.

Images of parts and articles, as well as the machine and its modules, make data entry and monitoring simple and clear, for example when it comes to the specification of parts and articles. The language settings can be changed virtually instantaneously, allowing several users to use the same machine and perform tasks in their preferred language.

The new operating philosophy of Komax HMI results in error-free production with close to no rejects and maximum utilization of capacity.



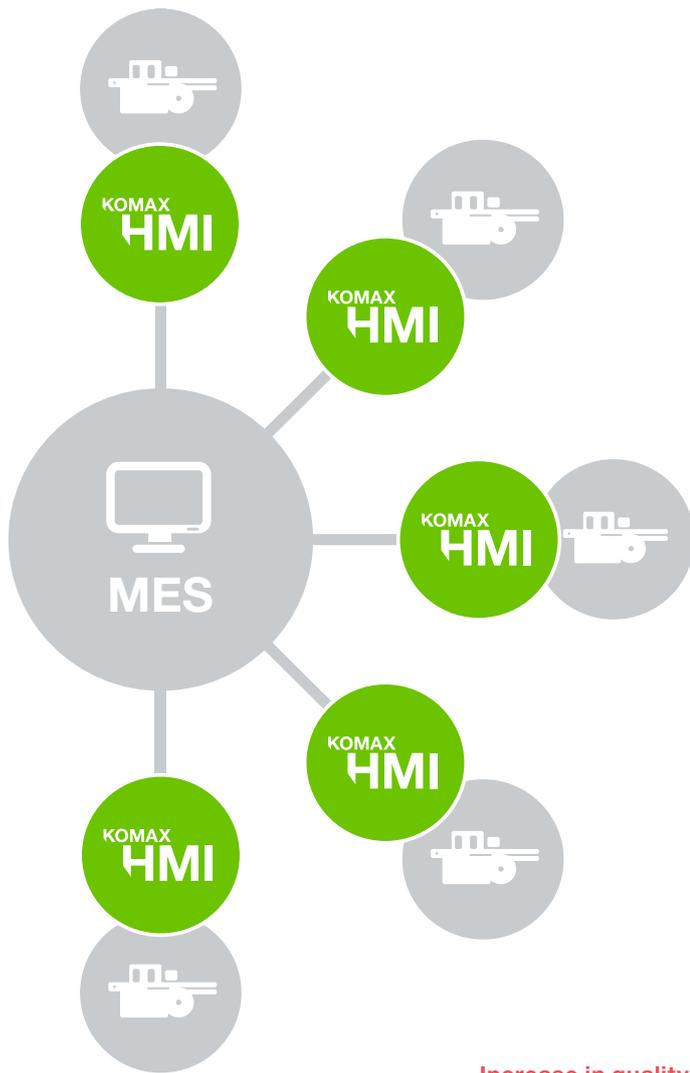
Customization and optimization during operation

Production processes tend to be rather rigid; however, with HMI from Komax, the basic workflow can be easily extended with additional steps. This enables the production process to be modified, redesigned, supplemented and optimized as required – even in real time. This makes the production process highly flexible.

In the event of a fault, the manufacturing execution system can insert additional tasks into the workflow. Komax HMI then prompts the operator to perform additional checks or produce extra samples for quality checks via the Green Button.

In order to ensure further safety, all relevant information and intervention options can be allocated to each operator through the permission editor feature.

FULL TRANSPARENCY DURING THE PROCESS



Increase in quality and productivity thanks to real-time data

All parameters for the production process can be specified in a manufacturing execution system, such as Komax MES. The same interface is used to upload and download the resulting quality and production data to and from the MES, so that all information related to the production process is always available.

This transparency enables constant monitoring, immediate analysis and prompt optimization of production. The quality measurements, such as the force curve of every crimp and an image of every seal, are displayed and documented in real time and are completely traceable.

This allows for full utilization of the machine's capacity and provides a firm basis for a significant increase in quality and productivity.

Ongoing monitoring and optimization

Komax HMI makes generating reports easy. Powerful features allow close monitoring of the wire processing flow. The quality monitor constantly keeps track of the current quality measurements of all modules used in the production process. All measurement values and images, such as strip quality monitoring, can be followed on the screen in real time during production.

The performance monitor compares the effective production rate with the theoretical piece output, while the scrap monitor provides information about the number of rejects. Furthermore, the interaction countdown is also displayed, giving the operator the opportunity to prepare for the next job.



Komax – leading the field now and in the future

As a pioneer and market leader in the field of automated wire processing, Komax provides its customers with innovative and sustainable solutions for any situation that calls for precise contact connections. Komax manufactures series and customer-specific machinery for various industries, catering for every degree of automation and customization. Its range of quality tools, test systems, and intelligent networking solutions complete the portfolio, and ensure safe and efficient production. Komax is a globally active Swiss company with development and production facilities on several continents. It supports customers locally in more than 60 countries with its extensive distribution and service network, ensuring the availability and value of their investments after equipment commissioning through standardized service processes. Komax includes more than 30 companies worldwide and employs around 1700 members of staff.

40
YEARS
CUTTING
EDGE



Market segments

Komax offers outstanding competence and solutions for various areas of application and draws on them to generate the desired value-added for the entire process and optimize economic efficiency in line with customer requirements. The main markets of Komax are as follows: automotive, aerospace, industrial and telecom & datacom. With this breadth of experience, customers obtain expert knowledge for process optimization and access to the latest technologies.

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