

**Robert Bosch
Packaging Technology GmbH**
Stuttgarter Straße 130
71332 Waiblingen
Germany
Phone: +49 711 811-0
packaging@bosch.com

Further information and local contacts:
www.boschpackaging.com

Technical data subject to modification without notice.
Printed in USA. Any color variations are due to the limitations of the printing process.
Printed on 100% chlorine-free bleached cellulose manufactured in an environmentally friendly process.



The future of interaction.

HMI 4.0

The next generation of intelligent human
machine interfaces.



Welcome to the next generation – HMI 4.0

The factory of the future is intelligent and fully connected.

Industry 4.0 requires new solutions to support operators better than ever in their daily work. Although the HMI is only a very small part of a machine, it is a true gateway to the connected factory.

Please allow us to introduce you to the next generation HMI from Bosch Packaging Technology, the HMI 4.0. It is not only about software, not only about hardware – our HMI 4.0 is all about the best possible user experience. You will receive a state-of-the-art solution with a consistent look and feel, intuitive operation and full connectivity.



Guided workflow

Leads operators through each step of production processes, format changes, cleaning, maintenance etc.

Hardware and controls

Control concept similar to well-known consumer products such as smartphone or tablet.



Intuitive operator guidance

Clearly structured menu with uniform symbols; all production steps at a glance, all functions and information easy to be found.

Uniform navigation concept

Same navigation concept and basic functions integrated for each machine of a line, providing direct access and easy orientation while reducing training efforts. Flat hierarchies and role-specific menu facilitates operators' daily work.

Common look & feel

User-friendly design to simplify operations across all packaging and processing machines and lines.

Intuitive multi-touch

Intuitive, touch-sensitive surface: data can be entered with gestures, screen can be zoomed in and out with two fingers (pinch & stretch), navigation by swiping.



True user experience

For Bosch, users always come first.

This is why we have tailored our HMI 4.0 to your specific needs and requirements. We interviewed machine operators all over the world and observed their operating habits. The result is an easy-to-operate HMI for all your packaging and processing machines. With its standardized interfaces, the HMI 4.0 is a central element when connected to other solutions. This way, you will be fully prepared for upcoming industry 4.0 challenges.

We value your feedback continuously. If you have any comments, ideas or questions, please contact us. We look forward to speaking with you!

The HMI 4.0 at a glance

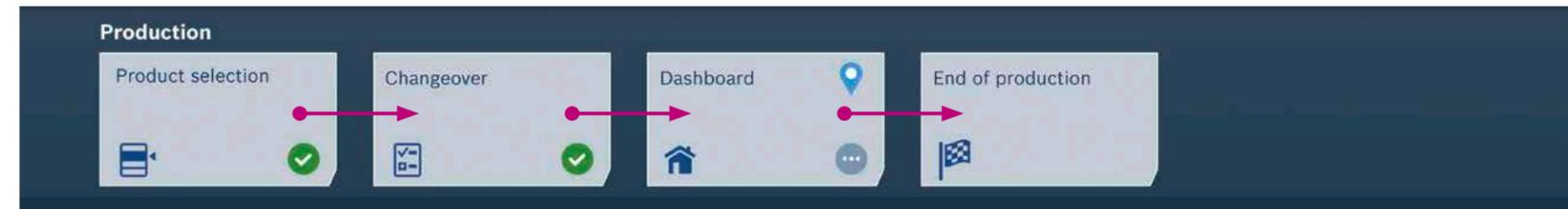
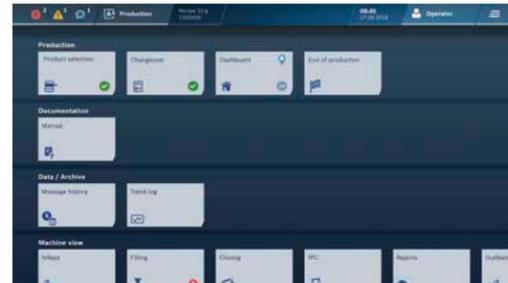
Guided workflow

Operators are automatically guided through each step of production sequences, which significantly facilitates their day-to-day work.

- ▶ From machine-related to task-oriented operator control
- ▶ Roll-specific HMI provides clear overview for each user
- ▶ Guided workflow for production, cleaning, maintenance, format changes etc.

User-centered design

The HMI is tailored to specific user roles such as operator or line manager. Hence only the processes relevant to the current user are displayed. Thanks to the clear menu structure, each user can quickly find all required functions and information.



Automatic forwarding in production sequence



Central dashboard

During production, all key information is summarized on the central dashboard. Content is made available in the most clear and comprehensible way on one main screen.

The operator receives an immediate overview of all production parameters and data. Interactive display modes and uniform symbols provide a clear picture of the production status.



The HMI 4.0 at a glance

Easy administration

Operators benefit from an easy, touch-operated user administration, and have quick access to both log-in and language selection. Multiple languages are available for users to adjust according to their local requirements.

Direct access

The HMI 4.0 offers users a direct access to manuals and format changeover lists. All recipe management parameters are clearly displayed. Moreover, operators can choose between different forms of reports.

Clear notification, less downtime

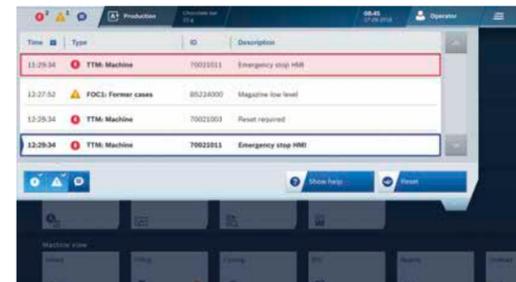
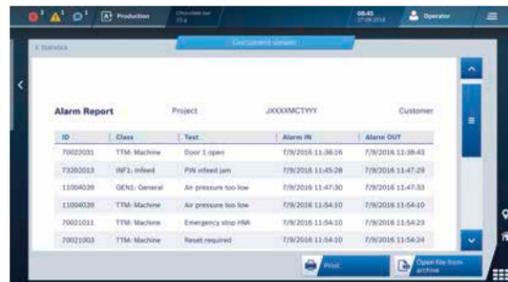
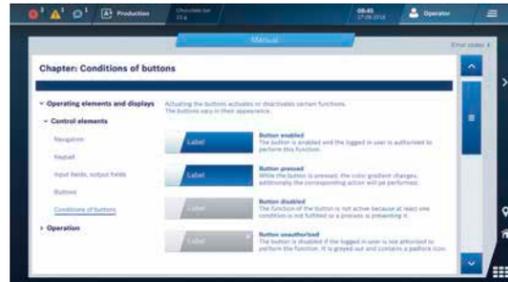
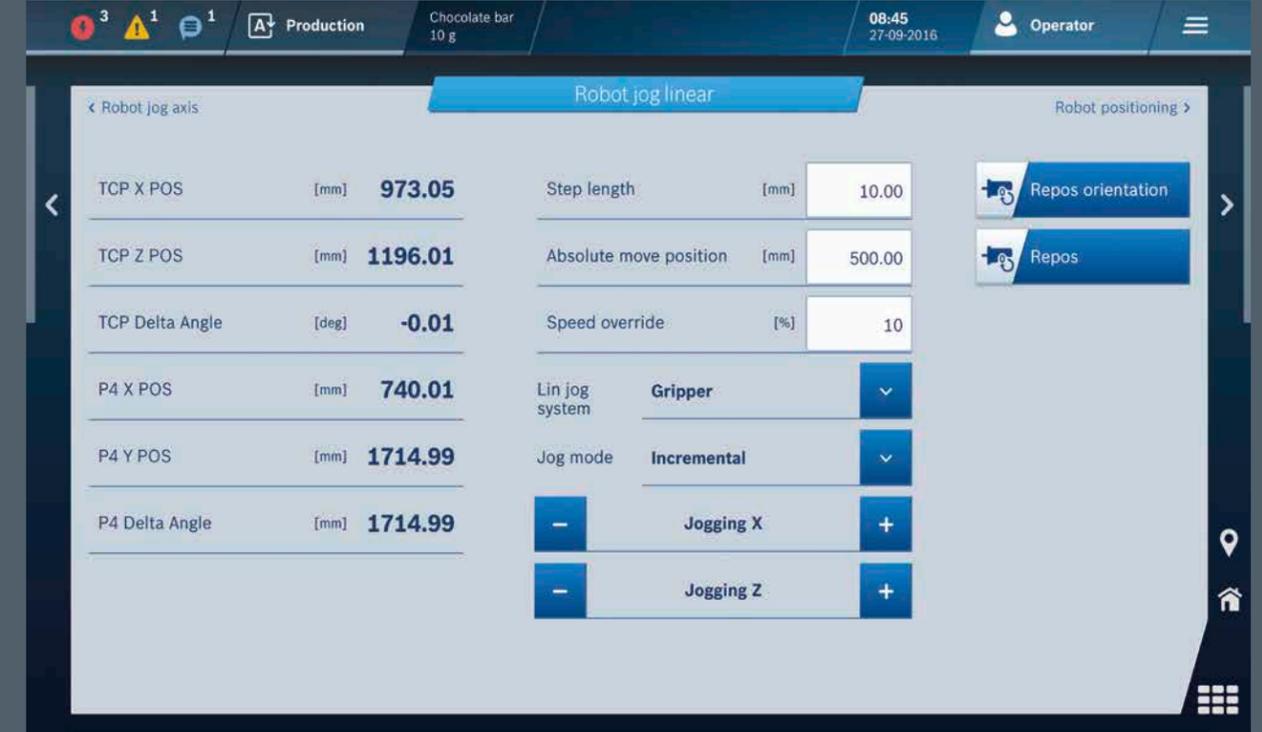
In case of production downtime, operators immediately receive a notification including information about the causes, as well as troubleshooting support. The precise display of the stop reason reduces start-up time.

Differentiated feedback helps users to react quickly and appropriately. In the detailed alarm view, all active messages are listed, and help is available for each message. Moreover, the comment section enables users to add their own notes and share them with others.

Easy maintenance

The maintenance overview provides operators with a clear representation of all values and functions.

For service staff, operation is easy and self-explanatory. Operators have direct access to the wiring/circuit diagram, which they can zoom in and out by pinch & stretch.



Further functionalities

- ▶ Comprehensive documentation: different forms of reports are available, e.g. for alarms, format and recipe parameters, batches etc.
- ▶ Operating safety thanks to minimum touch size (14 x 14 mm)
- ▶ PackML interface: standardized on all machines according to OMAC Base State Model, esp. in the food sector
- ▶ Fully FDA 21 CFR Part 11 compliant: if required, all electronic records are available for validation activities

