WICK-MACHINERY

RL RED LION®

ABOUT WICK-MACHINERY GMBH

The Wick-Machinery success story began in Austria in 1971. The company is now one of the leading machine builders with a focus on filling machines and filling equipment and supplies customers worldwide in the cosmetics, diagnostics, chemical and food industries. Development and construction of filling machines and control cabinets including parts production and assembly, carried out centrally at the two sites in Vienna and Himberg, Austria. Wick-Machinery is internationally renowned for the design of individual customer solutions that are perfectly tailored to the respective application.

WICK machinery

CUSTOMER

Wick-Machinery GmbH
WWW.WICK-MACHINERY.COM

LOCATION

Vienna and Himberg, Austria

OBJECTIVES

- Find a scalable HMI solution that could easily integrate into all their machines.
- Offer the ability to communicate with multiple pieces of equipment in the manufacturing process.
- Help improve data acquisition and data management capabilities in the filling process.

RESULT

A turnkey product/software solution that allowed the integration of additional hardware components to enhance the production of closing and filling processes.

THE
PROBLEM

Filling and closing processes are demanding, the machines are used in different operations and often have to be individually designed. Wick-Machinery was looking to update their different filling machines with HMIs (Human Machine Interface) for a flexible, but at the same time, uniform solution. In addition to providing a simple and user-friendly platform, the HMI interface must be able to handle data acquisition and data management functions of additional hardware components, such as a barcode scanner, a scale, and a printer.

In addition, the new HMI solution had to communicate with different machine controllers as well as easily integrate into the application-specific automation and IT environment of the respective filling system. It was also important that the HMI was available in various models and display sizes with the same features, so they would easily fit into the different sized machines. The HMI solutions on existing equipment could have been expanded to include these necessary functions, but that came at a great expense. Wick-Machinery was looking for an all-in-one solution that could do all of the above and fulfill additional customer-specific tasks depending on the type of machine.

THE
SOLUTION

Despite the complex specifications, Wick-Machinery found the optimum solution with help from the automation specialists at Reliste GmbH in Brunn am Gebirge, Austria - a complete HMI solution with flexible application. They were able to quickly create an operating solution using the CR3000 HMI series from Red Lion that met all of Wick's requirements and worked to quickly implement the solution.

The CR3000 HMI Series from Red Lion ® offers display sizes of 4", 7", 10" and 15" and is powered by Crimson® automation software. Red Lion's Crimson is an innovative and intuitive software for programming automation environments. It provides real-time data acquisition and data processing of auxiliary devices, in this case, barcode scanners, label printers or the ingredient scales. A user-specific and independently operating automation environment can be created with a few clicks.

Crimson captures and converts industry-standard protocols for interfacing to processes, SCADA and ERP systems, and data logging systems, regardless of manufacturer. Protocol conversion includes more than 300 protocols and offers more than 1000 combinations, and connection to the most popular cloud providers such as Cumolocity and Azure via a pre-configured MQTT is easy. Crimson provides the user with an expandable operating platform, as additional interfaces to the automation and IT environment can be easily implemented. The result is a flexible, all-in-one HMI solution consisting of the CR3000 HMI powered by Crimson software.

THE
RESULT

This all-in-one solution using Red Lion's CR3000 HMI helps provide management, control, documentation and traceability information to Wick Machinery. It automatically manages the various filling recipes through pre-programmed machine settings, for example determining the amount of liquid to be filled per bottle. To load the corresponding amount, the machine operator scans the barcode on the order via the connected barcode scanner. The fill quantity is controlled with a scale that communicates via the CR3000. The CR3000 also interfaces with a label printer so individual labels can be created for each filled bottle. The system then automatically checks the weight of each bottle, intervenes to regulate it if necessary, and creates the associated documentation. Since each filled bottle is given a label with a unique ID, quality control can trace faulty batches back to an individual bottle. The data logging feature of the CR3000 assists with traceability and can help provide data necessary to facilitate recall actions. In addition, the HMI solution documents the number of bottles filled per shift.

THE
COMMENT FROM
WICK–MACHINERY
GMBH MANAGEMENT

"We are very satisfied with the new operating solution for our filling lines. The Red Lion CR3000 HMI solution that Reliste provided us is a turnkey solution in a relatively short time. The product includes our desired range of features and functions, connects to all the necessary interfaces, and can very easily be adapted to our customers' automation and IT environment thanks to its Crimson software. Depending on the size of the line, we will now use the CR3000 with 4", 7", 10" or 15" displays on all our filling lines."
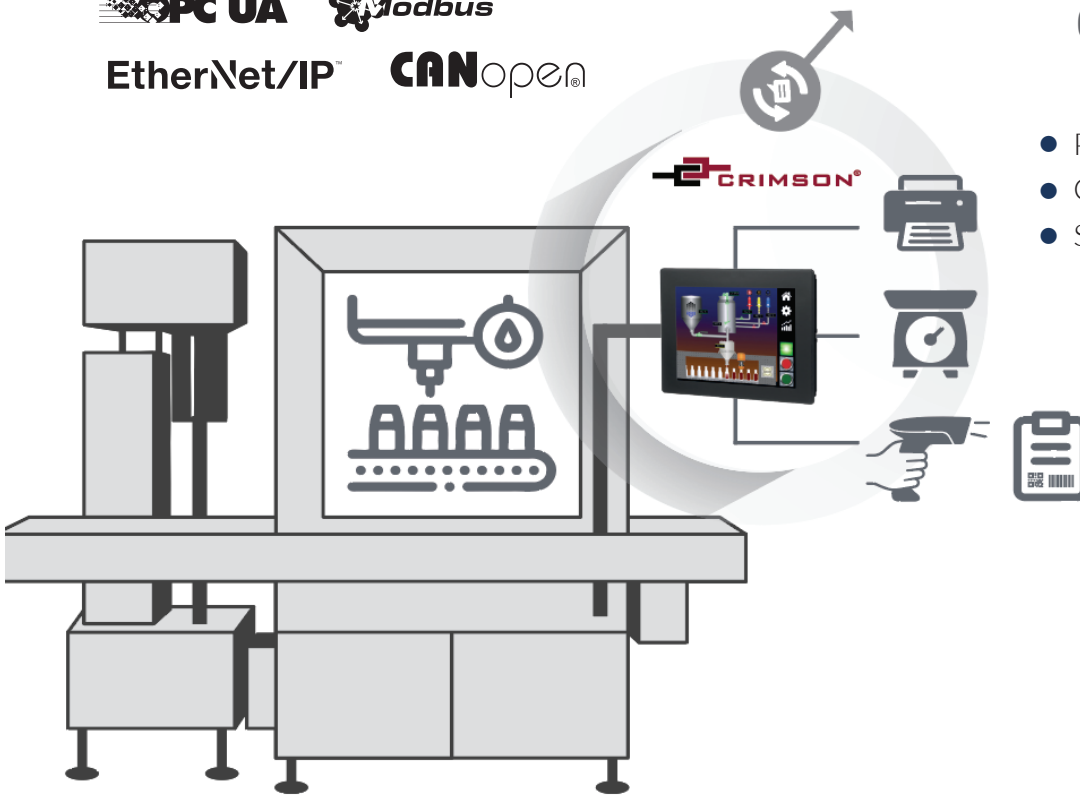
THE
DIAGRAM

Communicate & Convert

- 300 protocols
- IT/OT Convergence
- Cloud Connection

MQTT

OPC UA **Modbus**

EtherNet/IP **CAN**open

CRIMSON

Control & Monitor
Analyze

- Print individual label per bottle
- Check and correct filling weight
- Scan filling recipe

RL RED LION®

www.redlion.net