Carsten Homuth often uses the expression “step by step”. As technical project manager, he has accompanied Mohn, based in Meinerzhagen, Germany, on its way to becoming one of the market leaders for hygiene sluices, washing systems, and stainless steel plant equipment for the food processing industry. On a step-by-step basis, he also refitted the product range to run on control systems with the LOGO! logic module. These two things go hand in hand with each other.

People don’t think about technology very much when it comes to food. Nevertheless, the digital future is also advancing in the food industry. The German company Mohn is taking an important step in this direction with LOGO! 8 and the use of its web server-based control.

Be it a bakery, butcher’s shop, or chocolate factory; if food is being produced, hygiene sluices for personnel are to be found. When you enter one of these sluices, brushes embedded into the floor spring into action and start cleaning your shoes. The turnstile allows entry only after all prescribed hygiene steps have been carried out – which includes washing hands, disinf ecting, and drying. In this way, the sluice ensures that no germs or impurities are brought into the production area.
Making customer wishes come true

“In the past, we used printed circuit boards for the control system,” says Carsten Homuth. But they were rather temperamental. If a printed circuit board failed, faults in the operational process followed. “In addition, every customer has specific requirements and wants to integrate the sluice into their plant differently.” That’s why Homuth started looking for a more durable and flexible solution, and found it with the LOGO! 8. “With our HIGHLINE hygiene sluice, we are able to implement everything the customer wants.”

And that can amount to quite a lot. Time tracking control and access authorizations, as well as a wide variety of rinsing times or the addition of cleaning agents and disinfectants that can be individually controlled: “With LOGO! 8, you no longer have rigid specifications, but can create settings that are precise to the second, simply by using the display,” says Homuth.
Innovation saves energy and resources

This is interesting for innovation driver Mohn, particularly with regard to the use of energy and resources: “We are the only company on the market that can do without detection sensors in optical form for shoe sole cleaning,” explains Homuth. With printed circuit boards controlling the process, the sensor only detects when someone enters the sluice. The brushes then run for a preset time interval, even if the employee steps out after only half the time has elapsed. HIGHLINE, on the other hand, responds immediately using the LOGO! controller, stopping the motors and the addition of cleaning agents. With up to 5,000 cleaning cycles per day, this translates into enormous savings potential. In times in which companies are increasingly struggling with cost efficiency and their ecological footprint, this is a great selling point, remarks Homuth.

"With LOGO! 8, you no longer have rigid specifications, but can create settings that are precise to the second, simply by using the display.“

Carsten Homuth, technical project manager at Mohn GmbH

“Our experience has been positive in every respect”

This also applies to the network interfaces of LOGO! 8. The customer can bring up consumption data or change settings from anywhere in the company via Industrial Ethernet. Mohn can even access the controller remotely and conduct remote maintenance. While the German company tended to supply small and medium-sized enterprises in the past, today Mohn hygiene sluices are delivered to the global players of the food industry. Remote maintenance is an important issue with these customers, along with worldwide availability of spare parts.

“We are pleased to have taken this step together with Siemens,” sums up Project Manager Homuth. “Our experience has been positive in every respect.” In the meantime, LOGO! 8 has become the standard at Mohn. The HIGHLINE range, a high-end product for use in large companies, was followed by the more economical ECOLINE variant. Step-by-step, other products followed – such as washing troughs with Legionella rinsing and rail gates controlled by holding solenoids.
Making smart machines with LOGO! 8

Another big step towards the future has been taken with the new generation LOGO! 8, which has an integrated web server that can be custom-configured by the user. Using the matching software, LOGO! Web Editor, the customer can set up a dedicated website for their control system and access it at any time and from anywhere from their PC, smartphone, or tablet. Everyone is talking about “smart home” and the “Internet of things” at the moment – at Mohn, they are fast becoming reality: As of spring 2019, the HIGHLINE personnel hygiene sluice is available with an optional web server function.

Whether you want to rearrange the icons or integrate your own photos and graphics, you can customize your web server with LOGO Web Editor even if you don’t have HTML skills. “Once you’ve worked with it a bit, it’s no problem at all,” says Homuth, reporting his experience with the software. “You don’t have to be an IT professional to get the results that you want.”

Innovation you can touch at IFFA 2019

These results can be seen in early May in Frankfurt. At IFFA 2019, the world’s leading trade fair for the meat industry, Mohn will be presenting the HIGHLINE personnel hygiene sluice with web server functionality. “Our biggest innovation at the moment, the web server-based machine controller, will be available there live and in action,” Carsten Homuth is pleased to say. He’s also sure it won’t be the last step taken towards the future with LOGO!