

## User report

### "Our staff ought to go home healthy"

Waelzholz Group uses high-speed doors from EFAFLEX to optimise production processes

In the last few years C.D. Waelzholz KG has developed its German production plants in a targeted manner. Significant investments have gone into innovative operational equipment and the optimisation of production processes in order to expand the Group's technological leadership further. In the leading position it has achieved, the company bears responsibility both for dealing attentively with its total of 1,900 employees while also making sparing use of raw materials and resources. Therefore at the headquarters in Hagen all exterior doors that no longer met their current requirements were replaced with highly modern, automatically closing high-speed doors from EFAFLEX. In the course of this measure, a particularly smooth and efficient logistics process was achieved, that makes a very significant contribution to keeping the employees healthy and helps to save significant amounts of heating energy.

"Here, the total of 35 doors close various production areas off from one another and also serve as hall closures in many places," explains Claudius Schweinoch. At the Hagen location, he is responsible for the planning of new structures in the plants. "For the exterior doors in particular, we demand high opening and closing speeds from the manufacturer in order to prevent draft air. To us, it is very important to send our staff home healthy after they have done their work." Additionally, good security protection as well as access control options were part of the requirements specified. High-speed spiral doors of the EFA-SST® series offer these features as standard. "We are very satisfied with the doors from EFAFLEX," says Claudius Schweinoch. "The folding doors we used to have were

a constant problem for us. It took what felt like an eternity for them to open and close again." And when closed the insulation they provided was anything but modern. The highest heat loss took place in the loading areas when doors were open; the six doors there have to complete thirty to forty opening cycles per hour. "So it is easy to imagine how low the energy loss is now with door opening speeds of 3 m/s. The high opening speeds are perfected coordinated by the laser scanners," says Claudius Schweinoch. "They have really proved their worth and are now standardised across the plant. We will add them to already existing doors as well."

The patented EFA-SCAN® laser scanner was developed by the EFAFLEX engineers as the world's first laser scanner used horizontally for high-speed doors. The compact device covers the entire area in front of the door without missing anything, combining intelligent movement detection with reliable approach area protection in one.

EFA-SCAN® reacts like a fast impulse generator within the dynamic detection zone: if a moving object is detected, the scanner is triggered in a split second and the door opens. The geometry and logic of this detection zone can be programmed individually on site with a remote control up to a maximum of 10 x 10 metres. EFA-SCAN® detects every movement & evaluates distance, direction and speed in order to ensure an opening impulse of pinpoint accuracy. However, this impulse doesn't occur when vehicles or people merely pass along the façade. Right in front of the door EFA-SCAN's® variably configurable laser safety field secures the entire surface, as wide as the door and prevents the door from closing as soon as it detects both moving and stationary obstructions. In this way, EFA-SCAN® provides protection from accidents while also preventing damage to the door. Complex software logarithms virtually prevent false triggering due, for example, to rain, snow or extraneous light. The system scans the horizontal plane at a detection angle of 95° while simultaneously scanning the same area

at 6° in the vertical plane. Thanks to 16,000 measurements a second, the laser scanner doesn't miss a thing.

Owing to the building stock, the requirements for integration of new doors are not always "off the shelf" at the Hagen plant. If there isn't sufficient space in the hall for the door structure, the entire door can be installed outside the hall. "The EFAFLEX sales team and its customer service team have adapted very well to our specific requirements," explains Claudius Schweinoch. "Moreover, the customer service is very fast and extremely flexible."

And that is exactly what the staff at C.D. Waelzholz GmbH in Hagen expect. As part of an international group, the company needs reliable partners. With nine locations on four continents, the technological leader impresses its customers from a wide variety of industries, offering comprehensive engineering and other related services. For historical reasons, several Waelzholz plants are concentrated at the headquarters in Hagen. The nucleus of the company lies in the district of Hagen-Hohenlimburg. Approximately 75 per cent of the production volume of the Waelzholz Group is produced at the Hagen production sites. The portfolio of the Hagen plants includes a wide range of cold-rolled, untempered and martensitically tempered strip steels, flat wire products and profiles. Additionally, special technologies, such as LIN rolling or flash tempering, enable the manufacture of highly specialised products.

Caption: Claudius Schweinoch

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