

“Only the best result”

Aerzener Maschinenfabrik builds new production hall / high-speed doors meet highest quality demands

They are like heart valves for logistics: doors. Critical spots as far as noise emission and thermal bridges are concerned. They are the interface between internal and external logistics. Doors make life pulsate in the industry. If they get stuck, they cause an infarct. The successful partnership between two companies doing business worldwide shows how doors meet highest quality demands and how they have contributed to the approval of a 65 million Euro project because they were installed in the right place. These two companies were Aerzener Maschinenfabrik and Efaflex, specialist for door and safety systems.

“Our new production centre was built on greenfield sites near a residential area”, says Hermann Bartels. “Due to the increasing number of orders and the pressure for innovation, it was absolutely necessary to build this centre.” Bartels, production planner of Aerzener Maschinenfabrik, was among those who launched this project. “In order to first of all obtain the building permission, we had to comply with very strict conditions”, he says. “One of the most important things was sound insulation.” It was top priority to protect those residents against noise who live less than 100 metres away. During production, the sound level within the building rose to 77 dB, he says. The planners had to make sure that practically nothing of this noise would leave the building.

“Therefore, we have installed high-quality sound insulating materials everywhere, from the ceiling to the doors.” The planning team had searched for doors which are especially noise insulating. Bartels explains: “Because we had already fared very well with the high-speed doors of Efaflex in other areas of our works, we also rely on the partnership with the door specialist from Bruckberg for our new building.” “Utmost care with regard to consultation and the selection of the seven doors has resulted in tailored solutions for our project”.

By using these doors, the builder-owner has not only ensured best sound insulation but the planners have killed several birds with one stone:

“Our rotary blowers, compressors and gas metres are produced to the thousandth part of a millimetre. Even the slightest changes in temperature would already cause inaccuracies”, says Stephan Fahrenkamp, head of production planning. Therefore, the new production centre was fully air-conditioned and its temperature was constantly maintained at 22 degrees centigrade.

“Doors can also be unwelcome thermal bridges and can considerably affect the constant temperature within the hall”, he says. Bartels adds: “Five of the seven hall doors are spiral doors of the new SST generation. They have double-walled insulation laths which are thermally separated. By guaranteeing heat transfer

coefficients of 0.8 W (m²K) for their entire surface, they even exceed the required heat insulation parameters.” Since they move with a speed of up to 2.5 m/sec, the loss of heat during opening and closing the doors could nearly be ignored. Lock-like solutions even intensified this effect. For constructional reasons, four of the doors were installed as low-header versions.

“Our production centre is the most modern of the industry if one considers the general conditions”, says Bartels and proudly stresses every word. “Since we could start our planning from the very beginning, we have fallen back on many years of experiences and latest findings for our project. The result is only the best.”

Also with regard to safety, high-speed doors are the most modern ones available on the market. The doors are equipped with door light grids. They dispose of an infrared light curtain which almost covers the entire surface. If something interrupts the light beams – however small it may be – the door leaf stops and continues moving upwards with reduced speed. As far as safety is concerned, Efaflex has even provided three-fold protection. Induction loops in the ground make sure that the doors only close when the vehicles have the necessary safe distance. Transparent laths at breast and eye level additionally allow drivers to carry out a visual check.

In the new production centre of Aerzener Maschinenfabrik, all work processes are carried out – from processing to packaging the blank parts. This will henceforth help to avoid unnecessary driving from hall to hall. This also means, however, that the transport from the lock of the shipping area into the hall must not be delayed.

“Efaflex high-speed doors enable us to work smoothly. They are nearly maintenance-free”, says Bartels. “We are regularly in contact with the service. It is a pleasure working together with such competent people. We feel being in good hands.”



“We are a company which makes the greatest demands on the quality of its products. Therefore, we have exclusively used high-quality material for the construction of our new production centre.”

“The interplay of many components is necessary in order to guarantee smooth workflow in the hall. Perfectly working doors are imperative. Therefore, we have relied on the competence of Efaflex when it came to selecting the doors.”



Five of the seven hall doors are spiral doors of the new SST generation. They have double-walled insulation laths which are thermally separated. By guaranteeing heat transfer coefficients of $0.7 \text{ W (m}^2\text{K)}$ for their entire surface, they even exceed the required heat insulation parameters.

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