

XXL Turbo Doors for Takeoff on Schedule **Stuttgart Airport relies on the door specialist Efaflex**

The neck-and-neck race between airports in the EU becomes more and more fierce. Guaranteed connection times for transfer passengers and a fast luggage check-in are only two items of the long list of decisive competitive criteria. The increasing number of passengers and the more and more restricted safety requirements cause additional and constantly increasing demands on logistics and infrastructure. In order to be up to international competition, Flughafengesellschaft Stuttgart relies, among others, on large-scale investments:

The new apron service and machinery hangar offers the most modern technology. "Time is money. The airplanes have to be loaded and unloaded as fast as possible," says Dirk Friedrichs. He and his team are responsible for supervising all new building projects at the airport. Therefore, the planners have attached great importance to selecting a technology for the 5,937 qm² building which is of the highest quality. "The doors are an especially neuralgic point. Therefore, we have decided for Efaflex products. Due to the high demands on the building, they are perfectly suitable from a technological point of view as well as with regard to their price-performance ratio.

The greatest importance was attached to the speed of the door movement. "The six largest openings of the hangar were closed by means of doors with a width of 7,000 mm and a height of 5,750 mm each. The door hangings with a surface of more than 40 qm² completely open within less than three seconds. This corresponds to an average speed of approx. 2.0 m/sec. Since the doors have such a large surface, the planners also attached great importance to a high wind load capacity. The high-speed turbo doors guarantee a trouble-free operation up to wind speeds of 120 km/h. Passenger stands, mobile conveyor belts, vehicles for de-icing the wings of the airplanes as well as goods trailers for luggage are housed in the apron service and machinery hangar. The hangar is constantly frequented by incoming and outgoing traffic; there is never enough time. Each of the doors opens and closes 15 to 20 times per hour. This makes a total of between 150 and 200 openings and closings per day. "We cannot afford working with unreliable doors," says Dirk Friedrichs. "Even the shortest failure would lead to disruptions and delays in aircraft handling and would therefore cost a lot of money."

With an average of 460 take-offs and landings per day, this would be extremely expensive. Stuttgart Airport is the seventh most important German airport. It is the state airport of Baden-Württemberg. 12 to 14 million passengers can check-in in four terminals every year. 42 airlines offer flights to 122 destinations in 31 countries. The first scheduled airplane landed on the 1,400 m runway of the then airport Böblingen-Hulb on 20th April 1925. Scheduled flights were offered there as early as in the 1930s. In 1936, the airport moved to its current location near the Southern border of the state capital. During the Second World War, the airport, which was an air force base then, was severely damaged. After 1945, it was expanded intensively. In the middle of the 1990s, the runway was extended to 3,345 metres; the new tower and a modern air cargo centre were inaugurated.

The new machinery hangar was handed over in October 2007. Until then, there had already been a hangar which was used identically. The doors of this old hangar were sectional doors which were controlled for going in and out by means of contact loops in the ground. The slow opening speeds caused waiting times and damages. In addition, it was always too cold in the building during winter. “The new hangar must be frost-free, this means that the temperature should lie between four and five degrees,” declares Dirk Friedrichs. “This is necessary so that the hydraulics of the vehicles are immediately ready for operation.” In order to keep the loss of energy as low as possible with so many opening cycles per day, the closing speed of 0.6 m/sec is very important. Transparent laths of acrylic glass ensure much daylight within the hangar.

Even before building the new hangar, the planning division had good experience with two doors of the specialist from Bruckberg. “Additional new plants are being planned,” says Friedrichs. “We look forward to a very successful cooperation with Efaflex.”



Dirk Friedrichs



High-speed turbo door EFA-STT

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