

User report

"Doors make the best technical impression"

MTU Aero Engines has opted for EFAFLEX high-speed doors in the construction of its new 'blisks' competence centre.

Innovative technology, products in the premium segment and customised services connect MTU Aero Engines Munich with its service providers and suppliers: the 'blisks' competence centre at the company headquarters in Munich shall be put into operation at the beginning of April. The new 077 production hall will be externally closed using eight highly insulated EFAFLEX high-speed doors.

The high insulation properties of the high-speed doors' were an important factor in selection of the doors. Likewise, the quick opening and closing speed. "Blisks (blade integrated discs) are manufactured in this hall. These high-tech components, which are integrally milled from a single piece of material, are used more and more in modern engine compressors", explains Maximilian Stärfl, Structural Design Project Manager, who is responsible for the planning and structure of the new hall. "We need a constant temperature of 24° Celsius plus-minus 0.5° in the building where blisks are manufactured. Variations in temperature would lead to inaccuracies, which we absolutely cannot afford in engine technology."

The measuring cabins integrated into the hall, in which the components are scanned for irregularities using lasers, are subject to special temperature control since virtually no temperature variation can be allowed here. Perforated steel plates on the windows allow enough light into the hall while keeping unnecessary rays of sunlight outside. Even the smoke exhaust flaps in the buildings roof do not let any direct sunshine into the hall. A ventilation system, its central unit

mounted in the hall roof easily outweighing the size of three detached houses, ensures constant, draught-free ventilation. Jet nozzles gently distribute the fresh air throughout the building. The planners also opted for an airlock so that no temperature difference would occur even when the exterior doors are opened. When a vehicle enters, one door must first be closed before the second door can be opened. This is the case for direct access into the hall, as well as for the portals for delivery and collection of materials and products. The central lubrication system, in which shavings are filtered out of the lubricant, is likewise separated from the hall by an airlock.

The new 'blisks' production facility is the most modern production facility for these type of engine components worldwide. The heart of the production concept, based on optimised and automated process flows, is a 96 metre long main distribution system. The system's central computer calculates the allocation of work for the entire hall and transports the components to individual machines.

Energy efficiency and cost effectiveness were the absolute priority, not only in the manufacturing model but also for the planning and construction of hall 077. Well water cooling and heat production using a heat pump ensure, alongside the latest ventilation technology, means the new building saves almost two thirds in energy costs in comparison to older buildings. "The EFAFLEX doors fulfil the requirements and meet the benchmarks for exterior doors perfectly for this concept", stresses Maximilian Stärfl. Installation of doors from the high-speed door specialist based in the lower Bavarian town of Bruckberg began sporadically about 15 years ago. "In the last five years we have only installed EFAFLEX doors; now these make up about 80 percent of the doors fitted at the plant. Sure, it could be cheaper, but the doors make the best technical impression and EFAFLEX is the best door supplier from a quality point of view. In comparison with other manufacturers, these doors have shown the least down time."

Trust in its suppliers and service providers is indispensable for production at MTU Aero Engines. MTU manufactures engines of the highest quality, both for civil

and military aviation, looking after engines and replacement parts for the duration of their serviceable lives. With so many competences from a single source, MTU continuously reinforces its status as one of the market leaders in the field of civil aircraft engines. The development and manufacturing of particularly sophisticated components such as compressors and turbines rank among the core competences of the company, with its one hundred-year history. These components are used in many passenger aircrafts in short, medium and long-haul flights.

Press contact
at EFAFLEX:
Mr. Alexander Beck
0049 8765 – 82126
alexander.beck@efaflex.com

Press coordination
Link Communications,
Mrs. Ariane Müller
0049 38293 – 434149
info@link-communications.de