

JAZO Cuts Design Time From 3 Weeks to 1 Day With FloEFD^{Pro}

MECHANICAL ANALYSIS
Engineering Fluid Dynamics

Design Challenge

JAZO Zevenaar B.V. is widely known for its expertise in designing, manufacturing and marketing protective housings for electricity, gas, telecommunications and boilers. These housings need to permit maximum airflow and at the same time fulfill stringent requirements for fire, rain, snow, dust and intruder protection. The housings are flexible and can be customized to fit any height – JAZO has about 50 profiles to match all customer requirements.

In developing these housings, minimizing pressure loss is a major design challenge. They rely on natural ventilation, so the higher the pressure loss, the less air flows into the housing. Therefore, engineers at JAZO needed to minimize pressure loss. To further complicate the matter, while maintaining a low pressure drop, the designers need to ensure that the housing is not see-through and is still 100% resistant to rain.

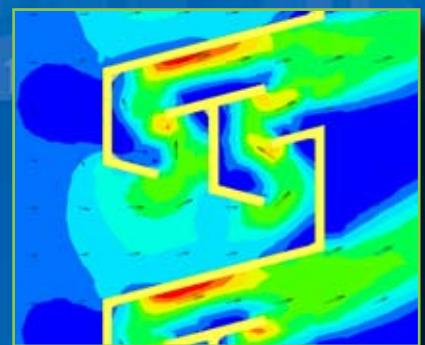
Solution and Benefits

With an extensive range of products, creating physical prototypes for each permutation is not financially feasible. In addition, JAZO's customers often request additional features for aesthetic reasons. The team now builds solid models and analyzes the airflow immediately inside Pro/ENGINEER using FloEFD^{Pro}. Therefore, they can communicate the form, fit and function of their designs with their customers in less than one day – that's a savings of 3 weeks for each test conducted. In Holland, physical prototypes may be tested at special organizations that are not only very expensive but also have long turnaround times. A one day session at these organizations costs around Euro 2,500. By using an integrated design and CFD process, JAZO has saved money and gained a competitive edge with their customers.

Customer Testimonial

" We can show the finished design to our customer complete with how it looks and works in just one day – that's a savings of 3 weeks and thousands of euros for each model. "

Henry Aaldering,
Technical Director, JAZO



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