

FloEFD Customer Success Stories: Manufacturing



Mechanical Analysis Division

11th November 2016

Fico Besi uses FloEFD to Achieve 40x Performance Enhancement with Laser PCB Depaneling System

- Fico, a member of the Besi Group, develops and markets a large range of chip packaging systems for mobile phones, PDAs, modems, computers & other electronic appliances. A new generation of machines used lasers for cutting PCBs and memory cards but dust created during operation was causing downtime for cleaning of windows.

Challenge: Increase machine maintenance interval from 15 minutes to 4 hours

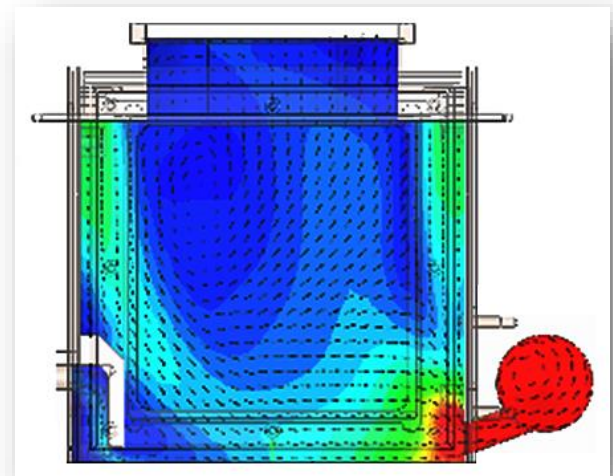
Solution: Used FloEFD Pro to simulate air cleaning process

Benefits: - Solved dust contamination problem and decreased maintenance frequency to 8+ hours
- Significantly increased process quality and exceeded customer requirements

"Normally this process would have been a matter of trial and error for a new design. However, once we proved to ourselves that we had a reliable model, we were able to dramatically speed up the process."

P. Venema, Engineer, Fico Besi

Manufacturing



Océ Replaces 90% of Physical Tests with FloEFD Virtual Tests



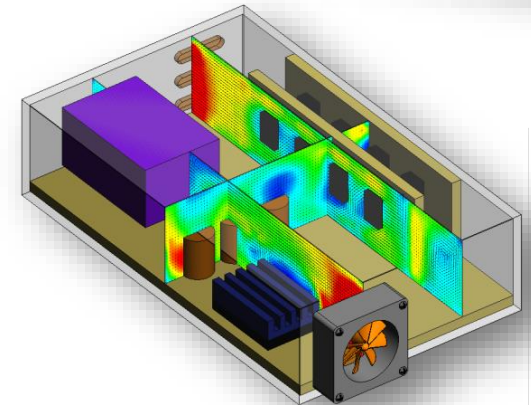
- Dutch printer manufacturer Océ is a leading provider of digital document management technology and services. The photoconductor of the printer must be loaded with high-voltage wires, which have to be constantly ventilated to function properly - they must be evenly cooled down the entire length; otherwise an annoying stripe appears on the print-out.

Challenge: Optimize airflow in printer to ensure high print quality

Solution: Test virtual models in FloEFD and build prototypes for only a handful of designs

Benefits: Save time and resources by replacing 90% of physical tests

Manufacturing



"We have now progressed so far that we only carry out 10% of the tests which were previously necessary. The simulation has thus also led to an enormous cost saving in terms of test set ups."

R. Hoffmann, Director of Development, Océ

Koyo Improve Oven Design for Heat Processing of LCD Glass

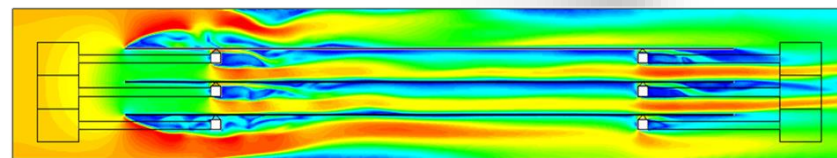
- [Koyo](#) is a world class Japanese equipment manufacturer who makes ovens for LCD Glass production.

Manufacturing

Challenge: Develop CFD capability to simulate thermal distribution

Solution: FloEFD

- Benefits:**
- The speed of conducting CFD analysis allows designers to study their designs very quickly
 - The product quality has improved and less redesign is required with more concepts being studied
 - Upfront analysis eliminated a need for experiment & produced cost savings of ¥3,000,000 to ¥5,000,000/year.



"In the last year, I received 59 concepts from the design team. I have already analyzed about half of them with FloEFD. It had a great benefit on the designers to improve their concept. The sales division is also excited because they use the results for marketing. These days FPD customers ask for CAE data to qualify the product quality."

Norihide Fujiyama, Koyo Thermo Systems