



“High demands on cooling capacity with a small installation depth of the industrial PC?”

That’s when I called Elektrosil.”

Elektrosil did not only develop a cooling solution with perfectly matched fans of different sizes, but also a design that enabled minimal assembly time. In addition, local production led to short supply chains.

THE CHALLENGE

For its modular high-end industrial PCs (IPC) - used as monitoring and control systems in production and manufacturing as well as in onshore and offshore areas - the customer needed an easy-to-install cooling solution that reliably adapted to the power requirements and also had a low installation depth.

THE SOLUTION

Elektrosil developed the overall solution of a fan tray consisting of several axial fans and an innovative mounting concept, which significantly reduced the installation time.

Optimum cooling performance was achieved by the coordination of the fans. By using fans with PWM and tacho, the operating range could be variably set and adjusted. The speed control enabled a cooling performance tailored to the operating situation while reducing noise and extending the service life.

“Through our flow-based system simulations, we succeeded in achieving the interaction of differently sized fans in the fan tray without backflow,” recalls Claudius Klose, product manager for cooling solutions. „This enabled us to quickly realise and test the first

prototypes, and to manufacture the pre-series and series with a high vertical range of manufacture at our location in Hamburg.”

The cooling solution, which is ideally suited to the customer, prevents the high-end IPC from overheating and thus prevents failures. In this way, the developed system solution contributes to the reliable operability of the end product in every field of application.

OUR STRENGTHS

- Development of customised system solutions, interdisciplinary and from a single source
- Development of fast, pragmatic solutions
- Extensive expertise in the ventilation and airflow sector
- In-house prototyping, production of pre-series and series directly at the Hamburg site

Are you also looking for a custom-fit solution for your system and a competent partner? Then give us a call: +49 40 840001-0.

Project information

- Client: a large European industrial company
- Sector: Industry
- Project size: 30,000 units
- Product areas: Cooling solutions
- Services: Flow simulations and thermal analyses, manufacturing, logistics, development, construction, customised packaging

Elektrosil's services

- Application consultation, development assistance, design-in support
- Quality assurance
- Engineering and production
- Completely customised applications