

Your specialist for climate control concepts, thermal simulation, design and development

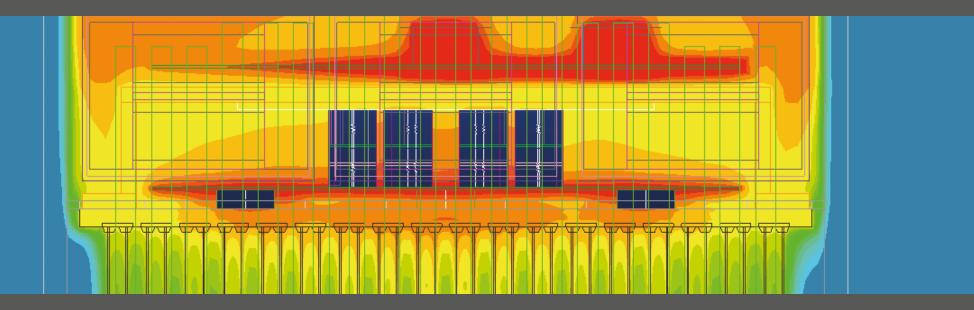


INDEX —

| THERMAL SIMULATION & CLIMATE CONTROL CONCEPTS | 2 |
|---|---|
| ENCLOSURE CLIMATE CONTROL | |
| ELECTRONICS COOLING | |
| FAN MANAGEMENT | |
| HEAT SINK CALCULATION | |
| | |
| DESIGN & DEVELOPMENT | 4 |
| PROJECT DEVELOPMENT | |
| PROTOTYPING | |
| LOW VOLUME ORDERS | |
| | |
| HELP & SUPPORT | 6 |
| ACOUSTIC ENGINEERING | |
| PRODUCT OPTIMIZATION | |
| TESTING & CERTIFICATION | |
| | |
| SHORT PROFILE | 8 |
| | |
| CREDENTIALS | 9 |

THERMAL SIMULATION & CLIMATE CONTROL CONCEPTS

PRACTICAL, EFFICIENT & INNOVATIVE



WE DEVELOP, OPTIMIZE AND VERIFY CLIMATE CONTROL CONCEPTS FOR OUR CLIENTS

Using 3D simulation software, we are able to analyze the cooling demands of products and systems and provide quick results. Thus, life spans of electronic components and entire technical systems can be extended without a high use of energy and attached maintenance costs.

ENCLOSURE CLIMATE CONTROL

The simultaneous increase of performance capability and power requirements of electronic components needs appropriate solutions for heat dissipation and for ensuring performance reliability. With 3D simulation systems, we are able to visualize processes, causes and whole prototypes.

ELECTRONICS COOLING

High thermal loads on components and their surroundings are occurring, due to constantly growing performance capabilities with increasing compactness. In the fields of electronics cooling, the CFD analysis applies to almost every aspect of designing components, boards, boxes, cabinets and fans.

FAN MANAGEMENT

With numerically correct settings of the actual operating point, operating states, efficiency, and flow fields can be calculated by their characteristic lines. This provides an accurate choice of fans and facilitates system adjustment and optimization.

HEAT SINK CALCULATION

Higher performance capabilities of components in combination with smaller dimensions and specific design and performance expectations, give direction to the necessary cooling technology. Heat sink calculation and design via CFD allows the inclusion of all relevant conditions and influencing factors.



DESIGN & DEVELOPMENT

PLANNING, CONCEPTING & DOCUMENTATION



WE DEVELOP, DESIGN OR SPECIFY MECHANICAL AND CLIMATIC SOLUTIONS

Whether for new designs or optimization — we provide an optimal integration of your products and systems, primarily in instrument engineering and enclosures. Our tool is Pro/Engineer®, one of the most common 3D CAD systems.

PROJECT DEVELOPMENT

We plan, draft and implement entire products and systems for our customers. With 3D simulation we demonstrate the general performance of products and prototypes and show improvement potential. With individually tailored concepts and solutions we assist you on your way from the idea to the final product, and implement product handling at the customer's request.

PROTOTYPING

Prototyping provides a more efficient progression during the phases of product development. We assist you on producing first samples up to production-ready prototypes. In cooperation with our suppliers and partners, we offer a holistic project and product development.

LOW VOLUME ORDERS

In addition to prototyping and initial tests regarding functionality and suitability, we also supply high-quality low volume orders, based on our extensive experience regarding material selection, technological processes and meeting required standards. If requested, we optimize a prototype to your requirements and initiate the entire process chain.



HELP & SUPPORT

COMPETENT, INDEPENDENT & FLEXIBLE



WE ANALYZE, ADVISE AND SUPPORT YOU AS AN INDEPENDENT ENGINEERING SERVICE PROVIDER

In the accompanying development support we face your visions with flexibility, competence and openness towards innovative solutions. With the aim of highest quality, we ensure fast product handling through to close corporation.

ACOUSTIC ENGINEERING

Solutions to acoustic problems are becoming a more crucial issue since noise is one of the most stressing factors in everyday life. Acoustically optimized products and systems clearly show a competitive advantage on the market. We improve design possibilities with technical measures for the usage of power electronics, while focusing on noise emission.

PRODUCT OPTIMIZATION

Almost every product or system possesses improvement potential. We analyze and optimize these potentials in order to increase the sustainability of your products and systems — for improving their performance, a more efficient usage of materials, or a more effective integration.

TESTING & CERTIFICATION

A successful verification is essential for the quality and functional reliability of products and systems. We test the full range of product and system characteristics, analyze the results and show optimization opportunities. We also arrange and accompany certification and approval processes at accredited testing laboratories for your products and systems.



Instead of just responding to changes, we want to actively help shape the future.

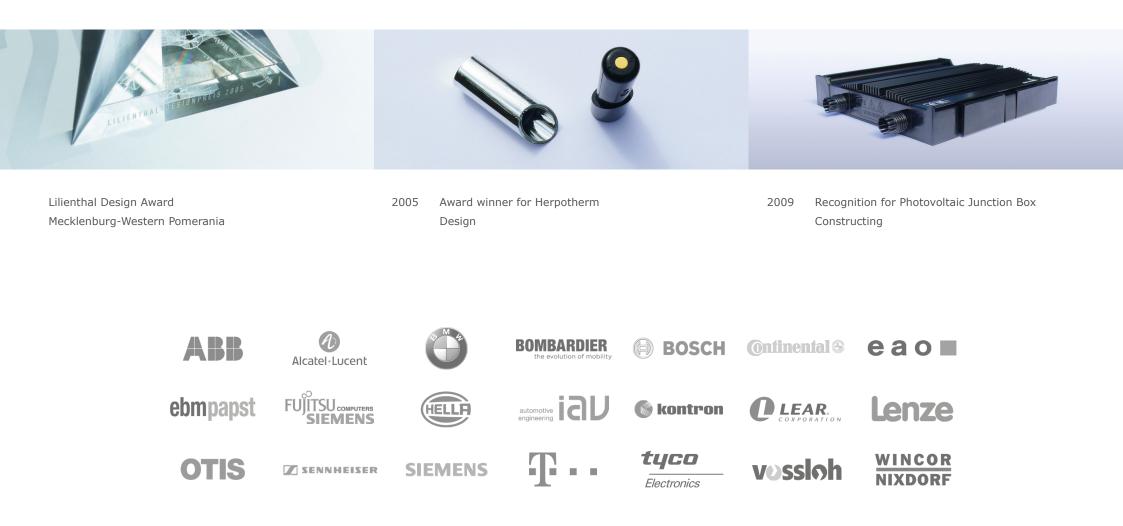
We offer our clients sector-independent engineering services for all aspects of product development. Since our establishment in 2002 (Inc. 2005), we provide future-oriented solutions for our clients, with innovative ideas and a strong commitment. Our core competencies are in the field of thermal simulation as well as designing and developing conceptual solutions for thermal management and climate control of components and devices.

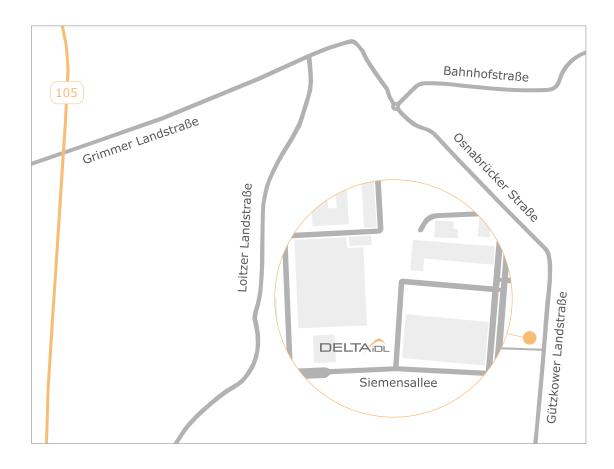
»Encompassing Product Development« — from a single source:

- Concept Development
- Product Development
- Thermal Simulation (CFD)
- Design
- Optimization
- Prototyping
- Low Volume Orders
- Testing & Certification

Experience the benefits from our flexible range of services!

CREDENTIALS







(1) +49 (0) 3834 513051 +49 (0) 3834 513050 office@delta-idl.de