

YOUR PARTNER FOR CHARGING SOLUTIONS

Pankl is your reliable partner for the development and production of all kinds of charging systems. From the development of highly specific requirements to cost-efficient manufacturing, we offer tailored solutions for your needs. Transferring our knowledge from motorsport to the very demanding requirements of aircraft applications.



Our Strengths:



Cost-Efficient & Affordable

With wide access to off-the-shelf components, we offer cost-efficient and affordable solutions without compromising on quality and reliability.



Customer-Oriented Design

Our charging systems are specifically designed to meet your requirements in terms of altitude, consumption, performance, lifespan, and weight.



Development „Build to Spec“

We develop charging systems according to your specific requirements and specifications.



Manufacturing „Build to Print“

Optionally we can manufacture based on your developments and ensure the highest precision and quality.



Development Expertise in Oil-Free Bearing Systems

Proven experience in design and integration of oil-free bearing technologies for aircraft applications.



High-Speed E-Motor System Integration

Deep expertise in the integration of high-speed electric motors.

✉ sales-turbo@pankl.com

🌐 www.pankl-turbosystems.com

Member of a big Company

Pankl Group is an established partner with a strong reputation for quality and reliability in aerospace applications.



Electric-Assisted Turbocharger

Improving performance & reducing emissions

- System voltage: 48V – 800V
- Electric Power: 7kW – 120 kW
- Max. speed: up to 180.000 rpm
- Boosting and Recuperation



Oil-free Air Management

Fuel Cell Systems or Cabin Air Management Systems

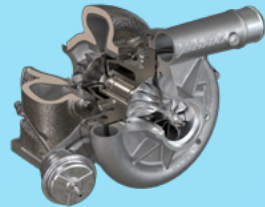
- System voltage: 400V – 800V
- Electric Power: 22kW – 80 kW
- Max. speed: up to 140.000 rpm
- Oil free foil bearings (sealed ball bearings optional)
- Layouts: Compressor only, 2-stage compressor & expander



High Performance Turbocharger

For several aviation aspects

- Increased power for quicker take-off
- Constant power during climb to high altitudes
- Increased efficiency/range @ passenger flight level
- Less weight & space compared to 2-stage system
- Robust and durable high-performance ball-bearing (floating bearings as option)
- Compressor efficiency above 80%
- Pressure ratio up-to 6.6



Development and Prototyping

Comprehensive System Engineering with state-of-the-art technologies from lot size one

- Matching & Concept Development
- Bearing Design & Rotordynamics
- Aero Development (CFD) & Thermal analysis (CHT)
- Structural analysis (HCF, LCF, TMF)
- System- and Component Testing capacities

