

Volkan Cakir

Mechanical Design Engineer



Contact

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Languages

- Turkish (native)
- English (fluent)
- German (limited)

Software

- SolidWorks
- Ansys
- AutoCAD
- MS Office
- Rhinoceros
- Autodesk Inventor
- Catia
- Star CCM
- Python
- Fortran

Skills

- Machine & Product Design (CAD)
- Tooling
- Mechanical Analysis (FEA)
- Flow Analysis (CFD, CAE)
- CAM programming
- DFM
- GD&T
- Metal Manufacturing
- Production Development
- Hydraulic & Pneumatic
- Project Management
- Problem Solving
- Analytical Thinking

Profile

Dedicated and practical Mechanical Engineer with 11 years of experience and extensive knowledge of engineering principles, specifications, and design/quality standards. Experienced and proficient in CAD, CAE, Automotive, Metal Machining, Metal Forming, Aluminium, Extrusion, Marine, CNC, Machinery and Sheet metal industries.

Experience

- 2017 - Present Senior Mechanical Engineer, R&D - Aykim Metal Inc., Turkey
- *Designing and developing milling machines, CNC machines, stamping die, bending tools, embossing molds, welding & assembly fixtures, jigs, gauges, automation systems, hydraulic & pneumatic systems.*
 - *Performing FEA and CFD analysis for design optimizations and production processes. (Tool fatigue failure dropped by 80%)*
 - *Achieving 35% increase in production using Lean Production, adeptly developed and optimized CAM programs for CNC manufacturing.*
 - *Managing feasibility, prototyping and quality (PPAP & APQP) stage of new automotive projects with customer. Coordinating with production teams to evaluate and improve production techniques. 50+ automotive projects seamlessly transitioned into production.*
 - *Establishing and maintaining customer relationships to address and resolve quality. Participating and contributing in FMEA and 8D meetings for problem-solving and improvement efforts.*
- 2015 - 2017 Research Assistant - Istanbul Technical University, Turkey
- *Studied on hydrodynamics and mechanics of ship and propeller.*
 - *Performing CFD analysis for Supercavitation behavior of foils and propellers led to increase in efficiency by 5-10%.*
 - *Conducted analyses related to ship structures, machinery systems, marine power generation.*
- 2014 - 2015 Marine Engineer - Cicek Shipyard, Turkey
- *Designing of outfitting systems such as electrical, HVAC, plumbing, and fire protection, ensuring compliance with industry regulations and standards.*
 - *Participated in testing and trial voyages of ships, analyzed performance data, and provided recommendations for improvements.*

Education

- 2014 - 2016 MSc in Marine Engineering, ITU
Thesis: Performance Prediction of Supercavitating Blade Sections for Marine Current Turbine (Grade: 3.3/4)
- 2009 - 2014 BSc in Naval Architecture and Marine Engineering, Istanbul Technical University (ITU), Turkey

Certification/Training Programs

- Ansys Workbench – Engineering Academy.
- Fluent Advance Ansys Course – Engineering Academy.
- SolidWorks Advanced course – ITU Design class.
- IATF 16949 – Kalmer Juran Inc.
- VDA QMC – MBT Inc.
- ISO 9001 – Kalmer Juran Inc.
- Lean Six Sigma Green Belt - SS Amsterdam Academy.