

Serhan ARIDICI

MECHANICAL ENGINEER · MECHANICAL DESIGN · R&D · PRODUCT DEVELOPMENT

Frankfurt am Main, GERMANY

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Summary

Mechanical Engineer with hands on experience in mechanical design, R&D, prototype development, production follow up and on site commissioning support for industrial systems. Skilled in turning technical requirements into manufacturable solutions through CAD design, engineering documentation, supplier and workshop coordination, testing and structured problem solving. Previous work includes clean tech process equipment, gasification system components, electromechanical test equipment and custom machinery. Based in Frankfurt am Main and available immediately, with English C1, German A2 and strong motivation to contribute to engineering projects in Germany.

Technical Skills

- **Mechanical Design:** 3D CAD design, machine design, mechanical assemblies, concept development, design for manufacturability, tolerance awareness, material selection, engineering documentation
- **R&D and Product Development:** requirement analysis, prototype development, design validation, testing support, improvement reports, root cause analysis, structured problem solving
- **Industrial Systems and Equipment:** process equipment, gasification systems, gas treatment units, heat exchanger, cyclone, buffer vessel, electromechanical test systems, custom machinery
- **Manufacturing and Commissioning:** technical drawings, supplier coordination, workshop follow up, production control, on site installation support, troubleshooting, local procurement, replacement part coordination
- **Software:** SolidWorks, COMSOL, MSC Adams, MATLAB, MS Office, basic Java

Languages

- **English:** C1 professional working proficiency
- **German:** A2 TELC
- **Turkish:** Native

Experience

Scandi Energy

Istanbul, TURKEY

R&D - SENIOR MECHANICAL DESIGN ENGINEER

03/2021 - 04/2022

- Contributed to the mechanical design and development of a renewable energy gasification system, including 27 machines and subsystems from the core gasification furnace to gas treatment units feeding the generators.
- Prepared improvement reports for existing machines and supported design updates based on operational, manufacturing and installation feedback.
- Assigned and followed up CAD and technical drawing tasks with engineers and technical draftsmen.
- Coordinated workflow between the R&D office, workshop and on site installation team.
- Supervised installation activities of manufactured equipment and supported commissioning related problem solving on site.
- Managed local procurement and manufacturing of replacement parts during installation and troubleshooting activities.

Career Transition and Relocation to Germany

Frankfurt am Main, GERMANY

PROFESSIONAL DEVELOPMENT AND JOB MARKET RE ENTRY

05/2022 - Present

- Prepared for re entry into full time engineering work following a career break, with full availability for engineering roles.
- Relocated to Germany in 2026 and focused on German language development, administrative transition and re-entry into the engineering job market.

TürkTraktör

Ankara, TURKEY

SENIOR PROJECT & MECHANICAL DESIGN ENGINEER

09/2017 - 06/2018

- Designed and developed an electromechanical brake pedal actuation system with adjustable load and speed profiles for tractor brake testing in the R&D department.
- Developed the system architecture using a linear actuator, servo motor, encoder and Arduino based control panel according to company test requirements.
- Prepared technical drawings in SolidWorks and supported engineering analysis using COMSOL and MSC Adams.
- Followed prototype manufacturing and presented test results and design outcomes to the company.

ALSATEKNİK Elektromekanik San. Tic. Ltd. Şti.

TRAINEE & MECHANICAL DESIGN ENGINEER

Bursa, TURKEY

08/2017 - 09/2017

- Researched current systems which the company aimed to produce.
- Developed more cost efficient design solutions.
- Technical drawings prepared by using SolidWorks and technical analysis done by using both COMSOL and MSC Adams.
- Controlled prototype manufacturing and presented the results to the company.

TOSKAR Machinery

TRAINEE & PRODUCTION ENGINEER

Bursa, TURKEY

08/2016 - 09/2016

- Planned daily workflow for CNC operators.
- Technical drawings revised according to customer requirements.
- Checked the quality of produced parts and prepared them for shipment.

Education

I.D. Bilkent University

B.SC. IN MECHANICAL ENGINEERING

Ankara, TURKEY

09/2010 - 06/2018

- Completed English preparatory program and B.Sc. curriculum in Mechanical Engineering. Degree recognition documentation for Germany can be provided upon request.

Akev Private High School

HIGH SCHOOL DIPLOMA IN SCIENCE

Antalya, TURKEY

09/2006 - 06/2010

- Awarded a four year full scholarship based on academic merit.

Extracurricular Activities

I.D. Bilkent University Social Responsibilities Projects

VOLUNTEER & PRESIDENT IN 2013

Ankara, TURKEY

04/2011 - 06/2018

- Worked mainly with children with intellectual disabilities and education of children projects.
- During the presidency year of the project, coordinated activities related to children with intellectual disabilities and supported the INAS World Basketball Tournament in Ankara.
- Numerous activities were organized to raise awareness about children with intellectual disabilities and the importance of education, especially in rural areas.

Turkish Underwater Sports Federation

CMAS PROFESSIONAL SCUBA DIVER

Antalya, TURKEY

06/2016 - Present

- Experienced and interested in scuba diving and underwater photography.