

ACHMAD RIZAL IBADURRAHMAN

Address: Shah alam, Selangor, Malaysia.

Whatsapp / Phone: +601123578567 | Email: rizal112bagus@gmail.com

LinkedIn: [Achmad Rizal Ibadurrahman](#)

PROFILE

Mechanical Engineer with 5 years of experience in manufacturing for mining and oil and gas. I have a diverse range of skills, specializing in SolidWorks, Autodesk Inventor, Ansys CAE, AutoCAD Mechanical. I am also certified mechanical designer by Dassault Systemes as Certified solidworks professional (CSWP). I have successfully completed over 300 projects in engineering design, research, and reverse engineering. My passion for innovation and precision drives me to contribute my expertise to exciting engineering projects.

EDUCATION

Institut Teknologi Sepuluh Nopember | Surabaya, Indonesia

Industrial Mechanical Engineering (Bachelor of Applied Engineering)

Energy Conversion Engineering Study Program

WORK EXPERIENCE

OAG Group of Companies | Shah Alam, Malaysia (Onsite)

Research & Development Engineer | June 2025 – Present

- Design complex mechanical design for Field joint coating and chemical reservoir using Solidworks, ensuring 100% compliance with ISO safety standards.
- Conduct FEA simulation using SolidWorks Simulation to ensure can work safely.
- Manage design projects from concept to delivery, ensuring alignment with client expectations, budgets, and timelines.
- Collaborate with local vendors in Malaysia peninsular to fabricate the equipment, cutting lead times by 20%
- Create the buoy mold, resulting in a 15% reduction in material waste and saving the company budget production up to 15%

Project:

- Buoy for lifting 4000 kg offshore pipe, All-seas Project
- Buoy for lifting 1000 kg offshore pipe, PT. Timas Project
- FBE Coating for pipe sized 30"-34", 34"-38", McDermott Project
- Induction equipment 12", 14", 16", 30", 34", Mubarraz Project
- Blasting equipment 12"-16", 16"-20", 30"-34", 34"-38", Mubarraz Project

Aletek Pty Ltd | Indonesia – Australia (Remote)

Mechanical Design Engineer | February 2024 – June 2025

- Developed detailed 3D designs using SolidWorks assembly, sheet metal and surface.
- Developed detailed fabrication drawings and BOM while ensuring manufacturability of the design.
- Conducted simulations using SolidWorks Simulation and Ansys for product performance analysis.
- Achieved up to a 20% reduction in material usage through a more compact and efficient design.
- Delivered projects such as exhaust components (e.g., mufflers, engine pipes, manifolds) and insulation blankets for mining vehicles (e.g., Caterpillar, Komatsu).
- Collaborate with the project manager and fabrication division in the Research & Development project.
- Successfully completed 100 reverse engineering with the job scope engine pipe routing, diesel particulate filter and tail pipe, ensured the design meets the requirement and standard.

Project:

- Exhaust components such as muffler, engine pipe, manifold, turbo
- Insulation blanket for mining vehicle such as Caterpillar, Komatsu, Getman, XCMG, etc
- DPF Custom for Getman Remixer A64 series (Freeport Indonesia project)
- Diesel Particulate Filter Cooled for Jug-A-0, Digger
- DPF Custom for Tesmec TRS1475 surface miner with engine C18, including the engine pipe and tail pipe.

Mahle Compressors Hungary Kft | Balassagyarmat, Hungary (Onsite)

Mechanical Assembler | January 2023 - January 2024

- Assembled and inspected over 600 compressors daily for clients such as Volkswagen, Honda, and Volvo.
- Collaborated with quality assurance teams to implement assembly process improvements, reducing production delays by 15%.
- Conducted quality control inspections to ensure compliance with Mahle's stringent standards.
- Promoted to Mechanic 3 within six months for exceptional performance and technical expertise.
- Calibrated machine before operating and mechanical measuring instrument using CMM methods

Upwork & Fiverr | Remote

Mechanical Design Engineering (Freelance) | September 2021 – October 2025

- Designed product or mechanical parts and automotive parts using CAD software such as Fusion 360, Inventor and Solidworks, then processing on a 3D printing machine.
- Designed for manufacture using sheet metal and made sure manufacturability of design.
- Analyzed the design using CAE software such as solidworks simulation and ansys to ensure design worked properly and safely.

Project:

- Raspberry Pi enclosure optimized for 3D printing manufacturing.
- Designed up to 100 drones and frame drones for manufacturing purposes.
- Hop harvesting dryer for an agricultural project in Australia.
- Engineering drawing for vending machine fabrication.
- Pick and place machine
- Developed a conveyor line system for FMCG operations, optimizing material flow and efficiency.

TECHNICAL SKILLS

- **Software & Tools:** Solidworks, Solidworks Simulation, Solidworks PDM Autodesk Inventor, Ansys CAE, AutoCad, Fusion 360, All Microsoft softwares
- **Languages:** English (Fluent), Bahasa Indonesia (Native)
- **Core Competencies:** Design for Manufacturing, GD&T & Mechanical Tolerance Analysis, API & ASME Standards Compliance, Mentorship & Quality Control, Vendor & Stakeholder Management, Cross-functional Team Leadership, Mechanical Calculation.

CERTIFICATION

Certified SOLIDWORKS Professional / Mechanical Design (CSWP)

Issued: June 2024

Certificate Link: <https://intip.in/cswpmd>

Certified SOLIDWORKS Professional Advanced Sheet Metal (CSWPA-SM)

Issued: February 2024

Certificate Link: <https://intip.in/cswpa>