

HATIM ALDIN

Mechanical Engineer | Equipment & System Design | FEA | DFM/DFA

Richmond, TX

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EXPERIENCE

Mechanical Design Engineer

De Nora Water Technologies (Contract)

SUGAR LAND, TX | NOV 2025 – FEB 2026

- Redesigned and integrated skid-based mechanical systems, coordinating piping, structural, and electrical enclosure interfaces
- Developed and modified piping and weldment designs to meet system requirements and manufacturing constraints
- Updated 45+ vendor drawing packages, ensuring fit, interface alignment, and compliance with U.S. manufacturing standards
- Reviewed and corrected offshore-produced drawings to align with design intent and fabrication requirements
- Supported system performance by evaluating design changes and ensuring manufacturability and operational reliability
- Managed design files and revisions using Autodesk Vault to support controlled release and traceability

Mechanical Design Engineer

Emerson Rosemount Measurement Solutions

HOUSTON, TX | NOV 2023 – MAY 2025

- Owned mechanical design changes across the full product lifecycle, from concept through validation and release
- Managed 100+ Engineering Work Requests (EWRs), serving as primary owner for design changes and documentation
- Maintained 1,000+ SolidWorks models in PDM, ensuring revision control, traceability, and release integrity
- Led cross-functional design reviews and resolved integration issues across mechanical, electrical, and manufacturing systems
- Diagnosed and resolved 50+ technical failures through root cause analysis and engineering redesign
- Prepared CSA- and ATEX-compliant drawings and labels to support regulatory approval and production readiness
- Contributed to validation builds, production ramp-up, and release activities
- Designed and validated 30+ resin prototypes to verify fit, function, and manufacturability

Mechanical Engineer

Metarock Laboratories, Inc.

HOUSTON, TX | JULY 2018 – NOV 2023

- Led end-to-end design of high-pressure mechanical systems, including pressure vessels and integrated assemblies
- Designed ASME Section VIII pressure vessels with focus on pressure integrity and material selection
- Supported design and development of high-pressure and HPHT systems, including fluid pressurization up to 30,000 psi
- Developed P&IDs and system layouts for integrated mechanical and instrumentation integration
- Contributed to rock testing systems involving fluid pressurization, vacuum systems, and instrumentation for material evaluation
- Delivered complete high-pressure test systems including valve panels, enclosures, and instrumentation-integrated assemblies
- Designed ball screw assemblies for pump-driven systems, enabling controlled motion in high-pressure test setups
- Generated 500+ production-ready CAD models and drawings with full revision control and manufacturability
- Applied GD&T, DFM/DFA, and FEA to optimize component design and structural performance
- Prepared FAT procedures, test reports, and user manuals to support system validation and customer delivery
- Built and validated prototypes using SLA and SLS 3D printing to verify fit, function, and manufacturability
- Coordinated vendors and suppliers across 15+ projects, resolving design and manufacturing challenges to meet delivery timelines

Founder & Technical Lead

Revlive (Independent Venture)

HOUSTON, TX | JAN 2026 - Present

- Developing an internal engineering document control and workflow system to improve revision management and traceability
- Designed role-based workflow engine for document review, revision, approval, and controlled release

Mechanical Engineering Intern

AGMC BMW

DUBAI, UAE | 2017

- Resolved daily service cases and supported hands-on engine component repairs
- Analyzed service data and proposed issue resolutions to improve turnaround

EDUCATION

Bachelor of Science in Mechanical Engineering

Minor in Engineering Management

American University of Sharjah

SHARJAH, UAE | May 2018

Associate of Arts in Business Administration

American University of Kuwait

KUWAIT CITY, KUWAIT | May 2013

ADDITIONAL INFORMATION

Skills: Mechanical System Integration, Hardware Development Lifecycle, Prototyping & Validation, Root Cause Analysis, DFM/DFA, GD&T, FEA, CAD (SolidWorks, Inventor, AutoCAD), PDM/Revision Control, ASME Section VIII, P&IDs, Manufacturing Processes (machining, weldments), 3D Printing (SLA, SLS)

Certifications: Six Sigma Process Improvement, Swagelok Tube Fitting Assembly