

FRANCISCO SOLIS

frado.solis@gmail.com | 0430315683 | Cairns, QLD 4870 (Open to relocation) |
www.linkedin.com/in/franciscosolis | Bilingual in English and Spanish | full Australian work rights

MECHANICAL ENGINEER

Mechanical Engineer with over 5 years of experience delivering engineering design, project supervision, and maintenance management in mining and industrial sectors. Skilled in structural design, conveyor systems, API tanks, and steel frameworks using AutoCAD, SolidWorks, FEM/DEM software. Proven ability to optimize processes and lead multidisciplinary teams.

ACCOMPLISHMENTS

- Ensured project investments were met by closely monitoring progress and maintaining direct client communication.
- Reduced scaffolding modelling, calculation, and valuation times, minimizing equipment downtime by developing macros.
- Proposed an optimization for an industrial warehouse that led to a reduction of 50 tonnes in steel consumption.
- Reduced material search and processing time for engineering requirements through macro-based automation.

KEY SKILLS

Technical Skills

- Mechanical & Structural Design (AS 1692, AS 4100, AS 5131, AS 4041, API 650, ASME B31.3, AISC 360)
- Software: AutoCAD, NX, SolidWorks, SAP 2000, ANSYS, FEM/DEM Simulation
- Material Handling Systems, Conveyor Design, Equipment Layout
- Preventive & Corrective Maintenance Planning

Project & Safety Management

- Project Supervision & Coordination
- Engineering Documentation & Reporting
- WHS / OHS Compliance
- Process Optimization & Workflow Automation

Soft Skills

- Leadership & Team Collaboration
- Adaptability & Problem Solving
- Effective Communication & Client Liaison

WORK EXPERIENCE

MECHANICAL ENGINEER (FULLTIME)

January 2025 – Jun 2025

EPCM Company – Lima, Peru

PROJECT: COPPER CONCENTRATE RECEIVING, STORAGE AND SHIPPING FACILITY PROJECT AT MATARANI PORT FOR ZAFRANAL MINING COMPANY.

- Supervised the development and validation of engineering calculations for belt conveyors, apron feeders, chutes, and steel support structures.
- Designed air extraction and injection systems to mitigate dust emissions.
- Selected mechanical equipment for the port's material handling and dispatch zone.
- Prepared the engineering deliverables schedule and coordinated interdisciplinary planning.

MECHANICAL ENGINEER (FULLTIME)

November 2024 – December 2024

BYV IESEMIN Company – Lima, Peru

PROJECT: CONCENTRATOR PLANT EXPANSION PROJECT TO 3000 TPD, CATALINA HUANCA MINING COMPANY.

- Conducted structural analysis and mechanical verification for buildings supporting crushing equipment.
- Engineered and verified support structures for vibrating screens and crushers.
- Evaluated belt conveyor structures and designed compressed air tank installations.
- Managed engineering documentation and project schedules.

DESIGN ENGINEER (FREELANCE)

December 2023 – September 2024

INDEPENDENT – Arequipa, Peru

- Optimized Midwest sleeve for lime solids handling using DEM simulation – Yura Cement Company.
- Designed and calculated gantry and cantilever beams for crane systems – Caylloma Mining Company.
- Created specialized tools for mining truck maintenance – Ferreyros CAT.
- Performed structural calculations for industrial warehouses, metal roofing, and maintenance platforms – Caylloma Mining Company.
- Modelled and reported on ringlock scaffolding systems used in maintenance operations.

ENGINEERING SUPERVISOR (FULLTIME)

June 2022 – November 2023

IMCO SERVICES Company – Arequipa, Peru

PROJECT: MISCELLANEOUS ELECTROMECHANICAL WORKS SERVICE FOR CERRO VERDE MINING COMPANY.

- Supervised platform design projects and conducted interference studies and feasibility analyses in accordance with engineering codes (30 tonnes).
- Performed structural calculations for pipe assemblies and steelwork installations (100 tonnes).
- Reviewed and validated engineering plans, fabrication drawings, and installation methodologies.
- Coordinated with multidisciplinary teams and ensured compliance with project milestones.
- Led the detailed engineering of an API 650 tank for copper concentrate storage (60 tonnes).
- Managed engineering databases, monitored progress metrics, and generated status reports.

ENGINEERING ASSISTANT (FULLTIME)

May 2020 – May 2022

IMCO SERVICES Company – Arequipa, Peru

PROJECT: MISCELLANEOUS ELECTROMECHANICAL WORKS SERVICE FOR CERRO VERDE MINING COMPANY.

- Tracked project schedules and coordinated mechanical installation work on-site.
- Conducted structural calculations and presented technical design alternatives.
- Created 3D models and structural calculation reports for scaffolding used in equipment maintenance.
- Evaluated and valued scaffolding components for assembly and support.
- Verified lifting equipment and designed support structures for mechanical components.

PROJECT: NEW TRUCK RECEPTION AND ITS CONNECTION TO THE RAIL RECEPTION UNLOADING CHUTE

- Engineered a 50-ton capacity gantry crane for autoclave equipment transfer (70 tonnes).
- Oversaw design and activities for an industrial building fitted with heavy-duty cranes (500 tonnes).
- Conducted structural analysis for conveyor belts – Cerro Verde (50 tonnes).
- Designed a chute system for tailings distribution – Anglo American (20 tonnes).
- Designed a 1.5M-gallon water storage tank – Southern Peru (186 tonnes).
- Designed electrical rooms for transportation and lifting conditions, following AISC and UBC97 codes (300 tonnes).

PROJECT: VARIOUS.

- Assisted with on-site measurements, material take-offs, and structural verification for mining equipment.
- Prepared engineering progress reports and supported project documentation.

EDUCATION

- Diploma: **ASME B31 – Piping Systems for Industrial Plants and Hydrocarbon Transport**
DMIA / January 2022 – May 2022 / Peru.
- Certification: **Scrum Fundamentals Certified (SFC)**
ScrumStudy / November 2021 / Online.
- Certification: **Certified Associate in Project Management (CAPM)**
Project Management Institute / August 2021 / Online.
- Diploma: **Strategic Maintenance Management**
TECSUP Institute / June 2021 – January 2022 / Peru.
- Course: **Design and Maintenance of Conveyor Belt Systems for Mineral Transport**
IDC Engineering Solutions / February 2021 – March 2021 / Peru.
- Course: **Design and Construction of Tanks and Silos according to API 650**
Sísmica Adiestramiento Panamá / March 2020 – June 2020 / Online
- Diploma: **Design and Structural Analysis of Steel Structures**
CINGCIVIL / January 2020 – June 2020 / Peru
- Program: **Industrial Plant Systems Design**
TECSUP Institute / June 2019 – December 2019 / Peru
- Diploma: **Mining Management and Administration**
Chamber of Commerce of Peru / April 2019 – July 2019 / Peru
- Program: **Safety Supervision in Industrial Environments**
Escuela de Alta Dirección Profesional / April 2019 – May 2019 / Peru
- Extension Program: **Programmable Logic Controllers (PLC)**
TECSUP Institute / February 2019 – March 2019 / Peru
- Bachelor of Science: **Mechanical Engineering**
San Agustín National University / March 2015 – December 2019 / Peru
High academic standing
2019 Student Mobility Scholarship, awarded by Universidad Nacional de San Agustín (UNSA)
2017 Permanence Scholarship, awarded by PRONABEC

PROFESSIONAL REFERENCES

- Wilson Cueto – Project Engineering Manager at IMCO SERVICES Company.
Phone: +51 982 882 319
wcueto@imcoperu.com
- Alexander Ortiz – Engineering Manager for Miscellaneous Projects at IMCO SERVICES Company.
Phone: +51 959 170 517
aortiz@imcoperu.com
- Ysmael Llatas – Project Engineering Manager at BYV IESEMIN Company.
Phone: +51 997 654 081
ingenieria.catalina@byv.com.pe
- Josue Lazo – Senior Project Manager at EPCM Company.
Phone: +51 992 708 064
josue.lazo@epcmperu.com