



Industrial Engineer

Location: Paarl, Western Cape
Closing Date: 19 December 2025

About Sirius Engineering

Sirius Engineering (Pty) Ltd is a project engineering and management partner for the food & beverage industry. Our in-house capabilities cover all aspects of project development and evaluation, feasibility studies, concept-to-detail engineering, tender processing, and project management. Our industry experience dates back to 1995 and covers several geographical areas in South Africa.



Our professional team includes industrial engineers, mechanical/mechatronic engineers, structural engineers, architects and project managers, as well as a project coordination and contract management division.

We are a company that focuses on employing strong individuals who add value both in-house and to our customers, with a focus on building long-lasting relationships with our customers. We provide a unique experience that allows employees to continuously learn new skills and enhance their existing ones. To remain at the forefront of our industry, we strive to foster an innovative environment that encourages employees to experiment with and utilise new techniques and technologies.

The typical project lifecycle inside of Sirius Engineering is provided below.

Phase 1: Feasibility and Conceptual Design

The main goal of this first step is to figure out the project's scope and feasibility. This phase is essential for establishing the foundation and ensuring the project's feasibility from both a business and an engineering perspective.

- **Concept Design:** A detailed examination of the customer's existing processes or required processes is performed. A Functional Specification (FS) is a typical output of this phase, where the plant capabilities are provided, stipulating the required equipment and warehouse capacities and details surrounding the specific processes and activities required to reach the client's vision. During this stage, conceptual process flow diagrams and facility layouts are generated.
- **Concept Budget & Timeline:** After the concept has been approved by the client, an order of magnitude budget (typically 85% accurate) is generated. This budget provides the client with a clear indication of the expected expenditure required to implement the functionality designed during the concept design. Along with the budget, a concept timeline is also submitted to indicate to the client how long the project will take to go through the following stages.
- **Feasibility Report & Approval:** All the information is compiled into a project report, including the functional specification, budget, and timeline, which the customer can then use to determine if the project is feasible and request capital to execute it.

Phase 2: Detailed Design

Once the conceptual design is approved, the project moves into the detailed engineering phase. This is where the functional requirement is changed to a technical requirement.

- **Process and Instrumentation Diagrams (P&IDs):** PFDs are developed into detailed P&IDs, showing all process equipment, piping, instrumentation, and control systems.
- **Facility and Hygienic Design:** Engineers focus on the physical layout of the facility, ensuring it meets hygienic design principles. This includes zoning for different cleanliness levels, selecting sanitary materials (like stainless steel), and designing for easy cleaning (e.g., Clean-in-Place or CIP systems).

- **Specifications and Procurement:** Detailed specifications for the building and all equipment, instruments, and materials are finalised. This part is followed by the formal tendering and procurement process, where contractors and suppliers are appointed.
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Phase 3: Commissioning and Construction 🧑‍🔧

This phase includes building the facility and testing all equipment.

- **Construction and Installation:** Construction of the facility, including civil works, structural erection, and the installation of process equipment, piping, and electrical systems.
 - **Factory Acceptance Testing (FAT):** Equipment is tested at the vendor's site before it is shipped to the plant. The client and engineering team witness these tests to verify that the equipment meets specifications.
 - **Site Acceptance Testing (SAT):** Once the equipment is installed at the plant, it is tested again to ensure it works correctly in its final location and integrates with other systems.
 - **Commissioning:** The individual pieces of equipment and sub-systems are started up and tested. This ensures everything is properly installed and functioning as designed.
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Phase 4: Start-Up and Close-Out ✨

The final phase involves transitioning the new facility from an engineering project to a fully operational production facility.

- **Start-Up and Validation:** The first production runs are conducted. This phase confirms that the plant can consistently produce a safe, high-quality product at the designed capacity.
- **Training and Handover:** The project team provides training to the plant's operators and maintenance staff. All final documentation, including "as-built" drawings and operational manuals, is handed over to the client.
- **Project Close-Out:** The project is formally closed out. This includes a final review, a wrap-up of contracts, and a post-mortem analysis to capture lessons learnt for future projects.

Role Description

The role we are looking to fill will involve interaction with every phase of the project life cycle, but it will primarily focus on the business development phase, which is phase 1. You will be required to work on the development team as an industrial engineer, assisting with the feasibility and concept design of new projects. The ideal person for this role is someone who is self-driven and self-managing and taps energy out of finishing tasks to drive sprint projects, and has the ability to work on multiple projects at the same time.

In this role, you will see projects materialise from the conceptual phase to the implementation phase, where the design has been turned into a working facility.

Key Responsibilities

- Process modelling.
- Business process modelling.
- Process capacity modelling.
- Warehouse modelling.
- De-bottlenecking studies.
- Facility design.
- Compile functional design specifications.
- Compile project reports.
- Data gathering and interpretation.
- Travel in South Africa and abroad.

Requirements

- Degree in Industrial Engineering.
- 0 to 3 years relevant experience.
- Excellent verbal and written communication.
- Proficient in Microsoft Office Packages (especially Excel, Word, Project).
- Proficient in a CAD Package – preferably AutoCad.
- Good team player.
- Self-driven and self-motivated.

Remuneration

A competitive remuneration package will be offered befitting the successful candidate's qualifications and experience.

Contract Description

The successful candidate will be employed full-time at our offices in Paarl.

Please forward your CV to personnel@siriuseng.co.za on or before 19 December 2025.

Visit our website www.siriuseng.co.za for more information on our company.