

**A path
to Committed,
Collaborative
& Inventive Solutions
through Engineering.**



SmartEnCon
ENGINEERING

The background is a solid teal color with abstract geometric patterns. In the top-left corner, there are dark, thin lines forming a triangular structure. Scattered across the page are several horizontal arrows of varying lengths and opacities, some appearing as faint outlines and others as solid, light-teal shapes. The text is centered in the middle of the page.

Among the first choice
for Engineering Services & Solutions



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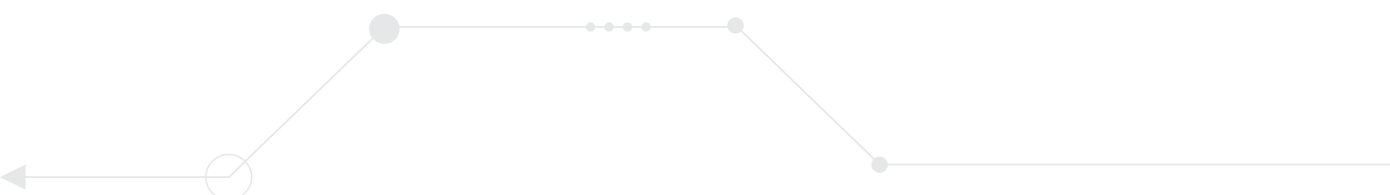


Why SmartEnCon?

A combination of an extremely dedicated, industry skilled team with cutting edge technical tools & expertise utilizing state-of-the-art software enables SmartEnCon to provide design and engineering services.

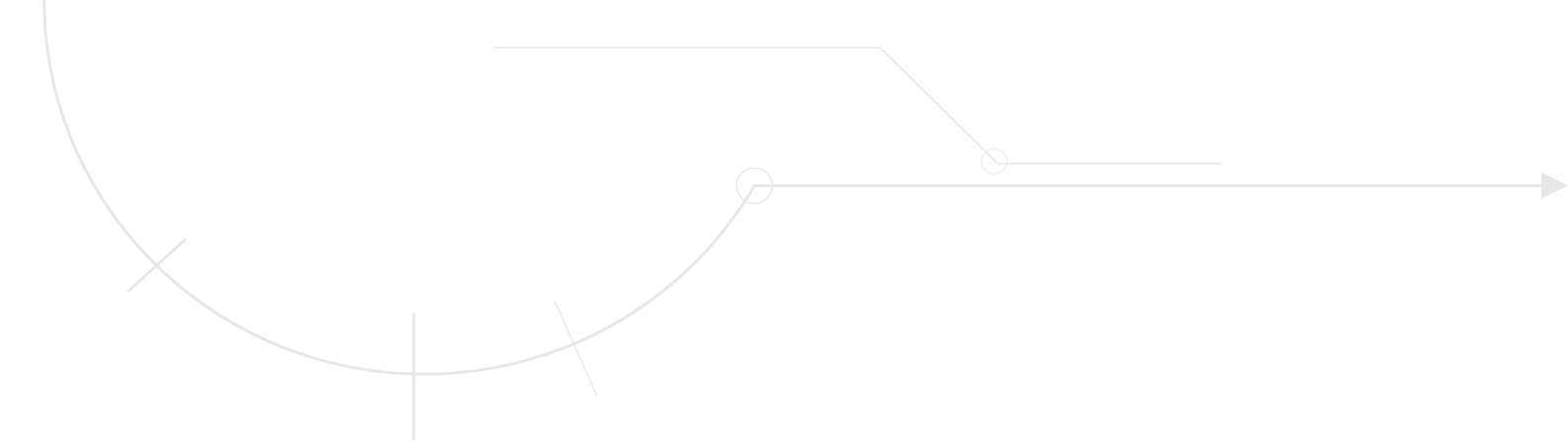
It is our commitment to provide integrated, effective & efficient safe solutions, using innovative technology & standardization, to better anticipate our clients' needs.

Drive innovation that propels our workforce in achieving ours and clients' targets. We pursue by taking these considerations into every project and deliver complete solutions.





Engineering Services



Our services extend to a wide array of clients throughout Saudi Arabia, spanning crucial sectors pivotal to the nation's economic and industrial progress. We possess the expertise and offer comprehensive services across various industries, such as oil and gas, petrochemicals, manufacturing, power and energy, water and waste-water treatment, construction and infrastructure, among others.

Our Domains of Expertise:

Mechanical Engineering

Design and analysis of mechanical systems, HVAC, piping & structural frameworks.

Electrical Engineering

Power systems, lighting design, electrical safety and efficiency optimizations.

Civil Engineering

Infrastructure, site development, structural integrity assessments and construction management.

Process Control

System optimization, control strategies, automation and advanced process control.

Instrumentation

Measurement and control instruments design, specification and implementation for accurate process control.

Pre-Feasibility Studies

We conduct techno-economic feasibility studies and prepare feasibility reports & recommendations for new plant projects. Our studies cover process design, economic evaluation, environmental impact, safety, operability and sustainability. We develop preliminary concepts, flowsheets, material and energy balances, plot plans, P&IDs, & 3D models to determine the optimal conceptual design basis to support our customers to establish the level of investment & project's maturation that define its feasibility.

Basic Engineering Design (FEED)

We offer comprehensive insights into the viability of projects within the oil, gas, petrochemical and mining sectors. We merge techno-economic evaluation, environmental & social impact assessments, market & demand analysis, regulatory reviews, risk analysis and operational feasibility into a cohesive study.

This approach ensures that our clients receive detailed, actionable insights that cover every critical aspect of project planning and development, from sustainability and market potential to regulatory compliance and risk mitigation.

Our goal is to equip decision-makers with the information they need to proceed with confidence, ensuring that every project is both viable and strategically sound from the outset.

Detailed Engineering Design

We understand that Detail Engineering Design is the essential bridge between the Basic Engineering Design and construction phase of a project in order to convert the ideas into reality.

Detail Engineering includes the extraction of all the essential information from all the basic engineering drawings & calculations to provide the exact drawings in detail for all production, fabrication & erection items & in turn the details of entire project along with the precise bill of quantities & specifications for each of the equipment that needed, including all engineering deliverables needed for procurement, construction, pre-commissioning, commissioning and handing over of the plant.



Risk Assessment

Our risk assessment protocols include Hazard Identification (HAZID), safety reviews, quantitative risk assessments (LOPA), Hazard & Operability Analysis (HAZOP), safety case development and Safety Instrumented System (SIS) designs.

These assessments are crucial in identifying potential risks early in the project lifecycle, allowing for the implementation of mitigation strategies to ensure the safety and reliability of plant operations.

Project Management

Our project management services are tailored to manage the complexities of engineering projects from inception to completion. We offer full lifecycle project management, encompassing project planning, scheduling, cost control, procurement, contract management, construction management and project controls.

Our approach ensures that projects delivered on time, within budget and to the highest quality standards, with a strong focus on safety and compliance.

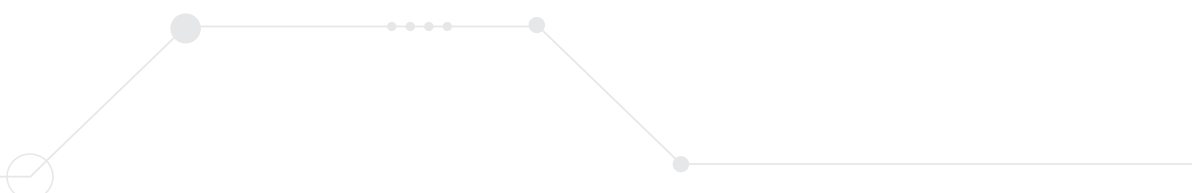
Procurement Services

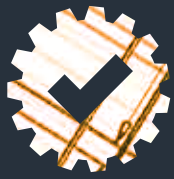
Our procurement services are tailored to meet the unique needs of industrial plant projects. We specialize in sourcing high-quality materials & equipment, ensuring they meet project specifications and standards.

Our procurement team works closely with suppliers to negotiate the best prices and terms, ensuring cost-effectiveness and timely delivery.

Construction Services

We offer comprehensive construction services for industrial plants, covering all stages from groundwork to final commissioning. Our team ensures that construction is carried out efficiently, safely, and in compliance with all regulatory standards. We focus on minimizing downtime and ensuring that the construction phase aligns seamlessly with the overall project timeline.





Projects

NSH, CORPORATE (Maaden Phosphate)

2024 - Ras Al khair, KSA



Design & engineering charges for simultaneous production of three grades in MWSPC granulation plants flexibility including hazop study and risk assessment at Maaden project.

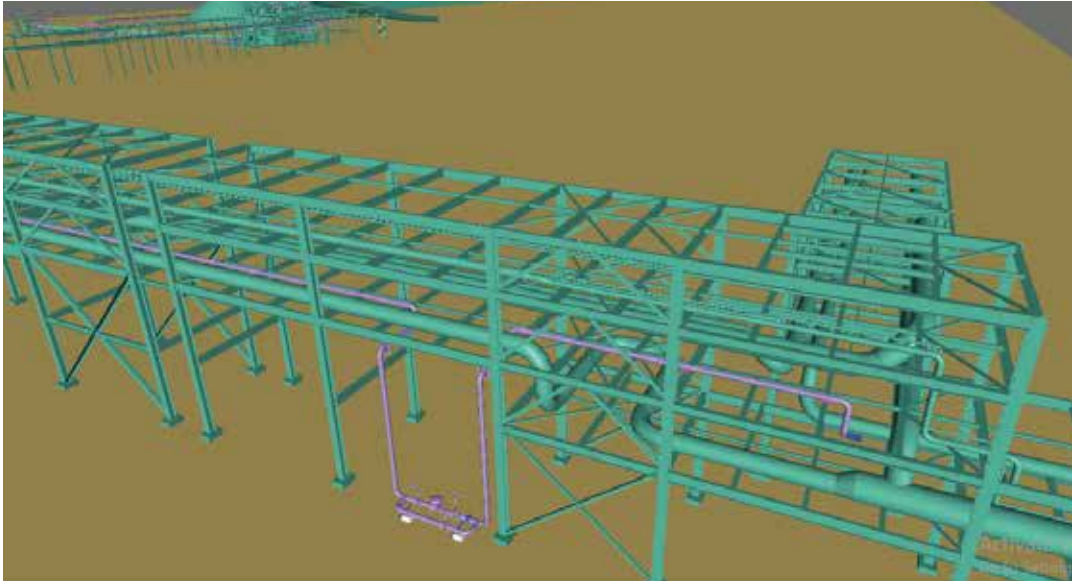
Overview:

The original Process Area consists of four granulation units which can produce diammonium phosphate (DAP) and eventually NPK. The units are arranged in pairs (two similar independent buildings, each ne containing two units).

The Engineering consist to replace the existing diverters by a new 3 way diverter that will allow to transfer product directly to the conveyor and not using the existing ones, action that will increase the flexibility of the plant allowing in produce 3 grades at the same time.

GulfAsia, (Maaden Phosphate)

2024 - Waad Al Shamal, KSA



Detail engineering of the system requirements for the new pipeline with the existing system and processes to achieve a complete system ready to operate in accordance with operational requirements.

Overview:

Design services for the installation of piping from main header to the stacker (1300 meters), where water spraying is required. The new pipeline from the NWC header, header pipe, needed to be extended to two sizing screens for water supply to the spraying system. Some branches from the same header were connected to stacker piping and a tank. The design team performed hydraulic calculations, determining pipe sizes and stress analysis, as well as conduct HAZOP prior to proceeding with the detailed design.

International System Company (ISE), (HADEED)

2024 - Jubail Industrial city, KSA



Detail engineering for the replacement of 6 No. Segment Cast Controllers and 4 spare at Saudi Iron and Steel Company (HADEED) and Tie-In of Chilled Water, Electrical Power & Control System with these segments.

Overview:

ASTC segment controllers were designed for CCM 5 of SPFP in HADEED. ASTC segment controllers regulate gaps of CCM 5 segments during casting. Equipment manufacturer has informed that the equipment is obsolete, and the spare parts are not available. ASTC segment controllers for segment no. 6 to segment no.11 at CCM 5 with latest version of hardware and software application having better diagnostic features were engineered.

NSH, CORPORATE (Maaden Aluminum, RAK)

2024 - Ras Al khair, KSA



Detail engineering and designing of Movable Access Platform to be utilized by the High voltage electrical team for the maintenance of the incomers.

Overview:

Detail engineering to allows safe access to areas difficult to reach, HV electrical incomers. Platforms was designed to suit any requirement where off-the-shelf fabricated platforms are not applicable, or when ladders or towers are not appropriate. The engineered designs using modular components allow the platforms to be delivered and constructed quickly and easily with minimal site disruption and ensure that it is safe to be utilized to work on live equipment. Proper grounding points and insulated material were selected for it.

Harisco, (TASNEE, Jubail Industrial city)

2024 - Jubail Industrial city, KSA



Detail engineering and designing for new lighting fixtures in order to have the better illumination/ Lux level in the HDPE.

Overview:

Additional lights to be installed in the HDPE plant as per illumination report and lux survey carried out. New lights were integrated with the existing lighting system and power DB. After the addition of new lighting fixtures Lux level in the area was improved. About 45 new lights were designed to utilize the existing available power, so ensure new power cables didn't need to run from substation for cost effective solution. For energy conservation LED type lights to be installed.



Certifications



Scope of activities:

Design Engineering Consultancy - Which includes conducting Feasibility and Conceptual Studies, Executing Basic to Detailed Engineering, Managing change and Performing Comprehensive Risk Assessments.



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We pledge to pursue by incorporating our strengths
into every project and deliver comprehensive solutions.

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