



SYNERGENIX

DESIGN SOLUTIONS

WE don't just deliver projects WE deliver peace of mind.



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INTRODUCTION

SYNERGENIX is an engineering consultancy specializing in the Food, Beverage, and Hygiene manufacturing industries. With over 15 years of hands-on experience in both greenfield and brownfield projects, we deliver comprehensive services from conceptual planning to project commissioning.

We are committed to helping clients achieve cost-effective, high-quality solutions by combining technical excellence, reliable execution, and a clientfirst mindset. Whether it's designing a new facility or upgrading an existing plant, we ensure every detail aligns with industry standards and operational needs.

At SYNERGENIX, we don't just deliver projects—we deliver peace of mind.

We at SYNERGENIX, Synergizing innovations and Technology for Futuristic Factory.

OUR VALUES



What We Stand For

Quality



We keep our word and deliver what we Integrity promise.



We aim not to meet but exceed expectations.



Expertise 15+ years of practical industry knowledge.



Innovation Smart solutions for complex project needs.



Sustainability We care about long-term impact & resources.



Client Focus Your goal is our top priority.



PROJECT APPROACH



Detailed **Engineering** Design

Tendering, RFP & Procurement Management

Vendor Coordination & **GFC** Package

Installation, Commissioning & Handover















- Site Feasibility
- Layout Development
- Cost Estimation
- Project Roadmap
- Drawing Development Spec & Layout
- Finalization **GAD & Interface Drawings**
- Design Deliverables
- Standards Compliance
- Inquiry Management
- Bid Evaluation

- Installation Supervision
- Pre-
- Commissionina
- Commissioning
- Operator Training
- Handover
- Documentation
- Final Sign-off





OUR SERVICES

ENGINEERING

Our multidisciplinary engineering team brings deep expertise across electrical, chemical, mechanical, civil, environmental, and industrial domains. With world-class specialists in each field, we support clients and projects across all sectors—offering both standalone engineering services and outsourced support for large contractors.



PROCUREMENT

With extensive experience in sourcing equipment and materials for projects, upgrades, shutdowns, and refurbishments, we offer reliable procurement support in demanding environments. Our specialist team manages both direct and "on behalf of" procurement globally—covering everything from niche technical equipment to essential raw materials.

CONSTRUCTION MANAGEMENT

We provide end-to-end construction management—from early planning and preconstruction to execution, commissioning, and closeout. As a trusted client partner, we ensure cost, quality, schedule, and safety goals are consistently achieved.

EQUIPMENT MANUFACTURING

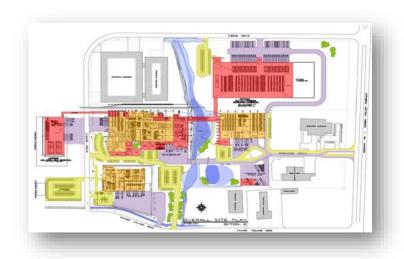
Our advanced manufacturing facility produces a wide range of industrial equipment, tanks, structures, platforms, and custom assemblies. We work with SS316L, SS316, SS304, carbon steel (CS), and mild steel (MS) to meet diverse project requirements. With strong quality control, precision engineering, and adherence to international fabrication standards, we deliver reliable and durable solutions across the process, infrastructure, water, and energy sectors. Our in-house capabilities ensure fast turnaround, full material traceability, and strict compliance with safety and engineering specifications.

OUR PACKAGES



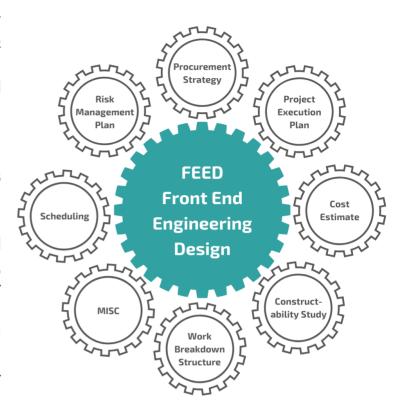
01 CONCEPT DESIGN/ MASTER PLANNING

- > Assessment of client needs and site conditions
- > Site selection assistance and layout optimization
- > Define project objectives, capacity, and product mix
- > High-level process flow and block flow diagrams
- > Space planning (process areas, storage, utilities, future expansion)
- > Preliminary regulatory, utility, and infrastructure assessment
- > Budgetary cost estimation and project timeline



02 BASIC ENGINEERING PACKAGE (FEED ENGINEERING)

- > Development of PFDs (Process Flow Diagrams) and P&IDs (Piping & Instrumentation Diagrams)
- > Utility load calculations and preliminary sizing
- > Preliminary equipment sizing and specification sheets
- > General arrangement (GA) drawings for critical areas
- > Preliminary Plant Layout
- > Utility and service layout (compressed air compressors, steam Boilers, Chiller, Cooling Towers, Water Treatment, ETP/WWTP, HVAC, etc.)
- > Identification of critical control and safety systems
- > Bill of Quantities (BoQ) for major packages



03 PROCUREMENT SUPPORT AND VENDOR EVALUATION

- > Preparation of technical bid specifications
- > Floating RFQs (Request for Quotation) and bid evaluation
- > Technical review of vendor offers and compliance checks
- > Techno commercial evaluation and recommendation of vendor for selection
- > Finalization of vendor list and procurement schedule
- > Participation in FAT (Factory Acceptance Test), as needed
- > Vendor document review and approval support



04 DETAILED ENGINEERING DESIGN

- > Finalization of all engineering documents and drawings
- > Equipment datasheets and detailed specifications
- > Layout drawings including piping, electrical, HVAC, and civil
- > Structural and architectural detailing
- Instrumentation and control system design
- > Coordination across disciplines to eliminate clashes (3D model, BIM, if used)
- > Final BoQ and tender packages for procurement

Civil

- Site Grading Plan
- Earthwork and Excavation Layout
- Road and Pavement Design
- Storm water Drainage System
- Underground Utilities Layout (sewage, water lines, electrical ducts)

CSA

Boundary Wall and Security Infrastructure Design

Structural

- RCC Design (Foundations, Columns, Slabs, Beams)
- Structural Steel Design (Pipe Racks, Platforms, Canopies)
- Load Calculations and Structural Analysis
- · Equipment Foundation and Machine Base Design

Architectural

- Factory Building Layouts
 Office & Administration Building Design
- External and Internal Finishes (Flooring, Roofing, Wall Cladding)
- · Door, Window, Partition Layouts
- Accessibility and Egress Planning (Fire Exits, Ramps)

Mechanical

- HVAC System Design (Cooling/Heating Load Calculation, Ducting Layout)
- · Compressed Air System Design
- Steam Generation and Distribution System
- Utility Piping (Chilled Water, Hot Water, Treated Water, Process Water)
- Mechanical Equipment Installation Layout

Electrical

- Electrical Load Calculation
- Single Line Diagrams (SLD) for Power Distribution
- Substation and Transformer Layouts
- Internal and External Lighting Design
- Earthing and Lightning Protection System Design Fire Alarm and Security Systems (CCTV, Access ontrol)

MEP

Plumbing

- Water Supply and Distribution System
- Wastewater and Sewage System Design
- Rainwater Harvesting and Storm water Drainage
- Fire Fighting System (Sprinklers, Hydrants, Hose Reels)
- Sanitary Fixture Layouts (Washrooms, Pantry)

05 INTEGRITY ASSESSMENT

- > Post-installation inspection and integrity check
- > Testing of pipelines, tanks, and equipment for leaks and mechanical soundness
- > NDT (Non-Destructive Testing), pressure testing, and calibration
- > Validation of critical parameters and system readiness
- > Final punch-list clearance and certification
- > Support for statutory and regulatory approvals (if applicable)



06 EQUIPMENT MANUFACTURING AND SUPPLY

- > Post-installation inspection and integrity check
- > Testing of pipelines, tanks, and equipment for leaks and mechanical soundness
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- > Validation of critical parameters and system readiness
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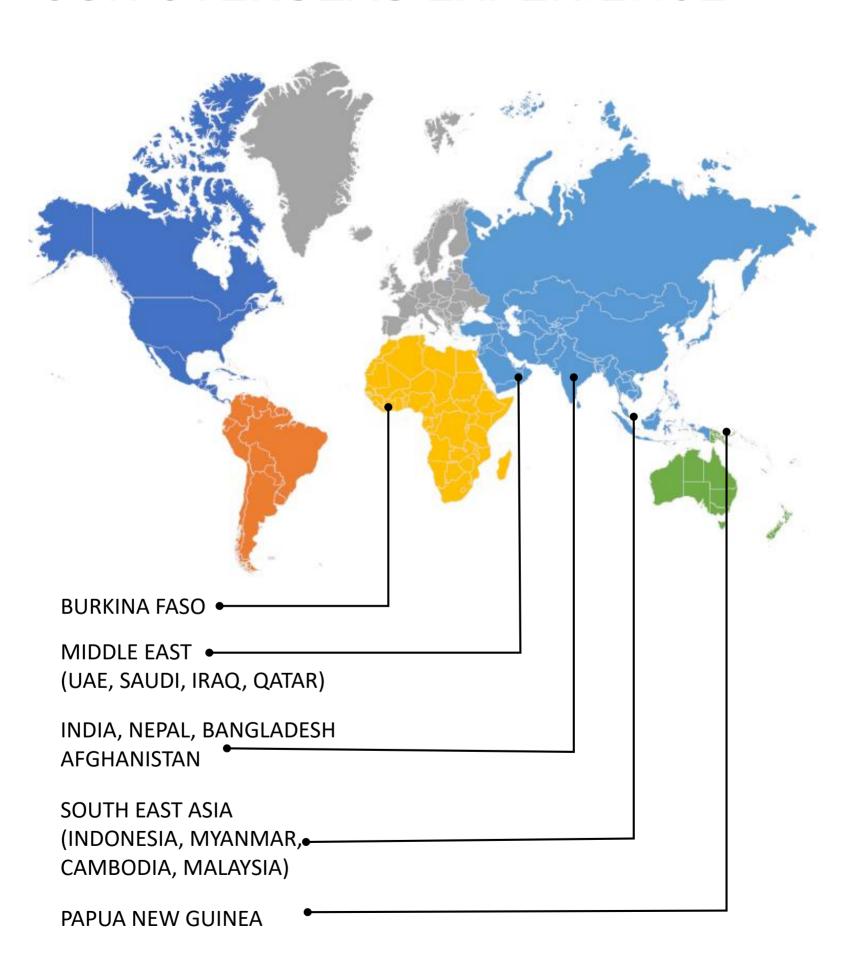


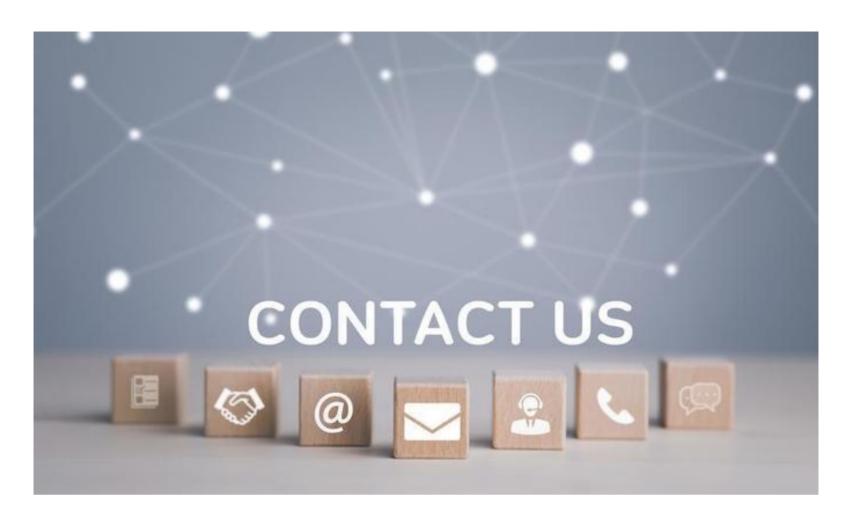
07 TURNKEY PROJECT MANAGEMENT

- > End-to-end project coordination from initiation to handover
- > Scheduling, budgeting, and resource planning
- > Contractor management and construction supervision
- > Safety and quality control on site
- > Monitoring progress through KPIs and regular reporting
- > Commissioning coordination and performance testing
- > Handover of project deliverables and documentation



OUR OVERSEAS EXPERIENCE







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