Techno Solutions .

Operations Profile

Delivering Integrated Building Systems

Across

Building Systems

Comprehensive HVAC and MEP engineering solutions

Façade Engineering

Advanced envelope and structural solutions

Smart Infrastructure

Integrated digital and automation systems

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Divisions

■ **Awtad** – Building Envelope & Modular Construction

■ **Sadan Systems** – HVAC │ MEP │ Optimization & Building Technology

■ **TS-BT** (Building Technologies) – Smart Systems │ Automation │ Digital Twin Integration

A unified Saudi systems integrator delivering compliant, efficient, and scalable infrastructure.

Who We Are

Techno Solutions is a **Saudi-based systems integrator** delivering engineering, modular, and digital building technologies.

We design and deliver **high-performance environments** for healthcare, housing, industry, and civic development—aligned with Vision 2030's drive for localization and sustainability.

> *From concept to commissioning, we build systems that perform, adapt, and last.*

Backed by over nine years of hands-on project execution, we offer full-cycle services—from design and systems integration to lifecycle optimization. We combine technical precision, regulatory fluency, and modular construction expertise to meet the complex needs of Egypt's built environment.

Our Solutions

Building Systems & Energy Infrastructure
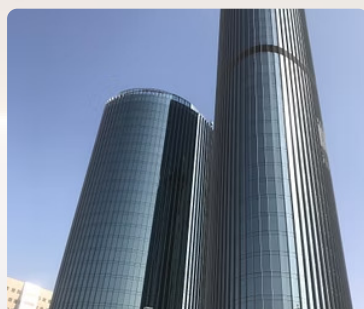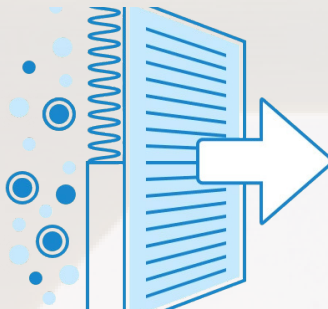
Façade & Envelope Engineering

Modular Construction & Interior Solutions

Project Management & Compliance

Smart Infrastructure & Digital Services

TECHNO SOLUTIIONS
IN CLEAN ROOMS, & HVAC SYSTEMS

Vision, Mission & Values

Vision

To lead Saudi Arabia's transformation toward intelligent, efficient, and sustainable infrastructure aligned with Vision 2030.

Mission

Integrate smart, modular, and energy-optimized systems across all sectors | Deliver compliant, scalable environments | Partner with clients and investors for future-ready development.

Smart Integration
Connect intelligent systems across sectors

Modular Design
Build flexible, plug-and-play components

Energy Optimization
Reduce consumption with efficient controls

Compliance & Scale
Ensure standards while enabling growth

Excellence
Unwavering commitment to superior quality and technical precision in every project we undertake

Integrity
Upholding transparent and ethical business practices that build lasting trust with our clients and partners

Innovation
Continuously developing pioneering solutions that address complex engineering challenges

Collaboration
Fostering effective partnerships and cross-functional teamwork to deliver integrated results

Sustainability
Embracing environmental responsibility through resource-efficient design and construction practices

Our Evolution

2017

Founded as a specialized engineering firm

2018-2020

Expanded into HVAC and interior systems for real estate and institutional sectors.

2020-2022

Added façade engineering, modular interiors, and energy optimization.
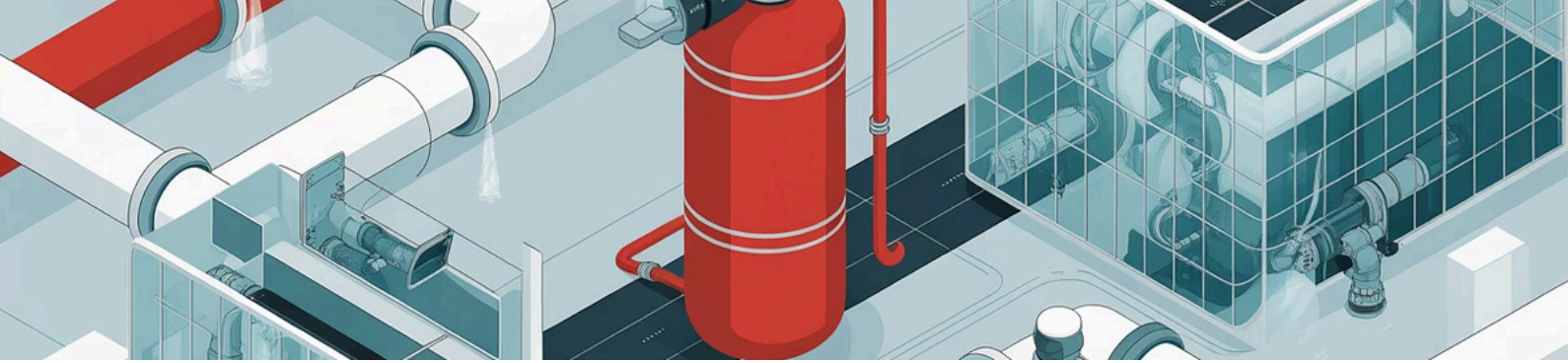
2022-2023

Introduced smart systems, BMS, and energy retrofit services

2025+

Repositioned as a Saudi integrator supporting Vision 2030 infrastructure and giga-projects

Throughout our journey, Techno Solutions has maintained a steady growth trajectory, expanding both our service offerings and market reach while building a reputation for reliability and technical excellence in the Egyptian building systems sector.

Who We Serve

Healthcare

Infrastructure built for infection control, patient safety, and accreditation readiness. Our healthcare solutions prioritize air quality, medical gas systems, and compliance with international standards.

Government & Institutional

Systems delivered for public housing, ministries, and civic infrastructure. We understand the unique requirements of government projects and deliver solutions that meet both budgetary and performance criteria.

Real Estate

Smart HVAC, modular interiors, and fit-out systems for compounds and residential towers. Our solutions enhance property value while optimizing operational costs for developers and property managers.

Pharma & Life Sciences

Validated cleanrooms and containment systems for GMP and ISO environments. We deliver critical infrastructure that ensures product integrity and regulatory compliance.

Education & Research

University labs, student housing, and modular academic spaces designed for flexibility, safety, and optimal learning environments.

Industrial & Infrastructure

Process-supporting MEP, utility, and energy systems that enhance operational efficiency and sustainability in manufacturing and processing facilities.

Core Services Overview

Integrated Systems

Our comprehensive approach to building systems includes:

- HVAC, MEP, Firefighting, Plumbing
- Medical gas, ventilation, energy controls
- Complete building system integration

Façade & Envelope

Expert solutions for building exteriors featuring:

- Fire-rated ACP/stone/GRC
- Thermal insulation, waterproofing, louvers
- Energy-efficient building envelopes

Modular Construction

Specialized prefabricated solutions including:

- Cleanrooms, clinics, interiors
- Turnkey fit-outs, rapid deployment
- Customized modular solutions

PMC & Compliance

Professional project management and regulatory expertise:

- BIM, VE, QA/QC, MoH & QCAP submissions
- Digital Twin, energy dashboards
- Regulatory compliance management

Technical Capabilities – HVAC & Electrical

HVAC Systems

Our HVAC expertise encompasses a wide range of solutions from standard comfort cooling to specialized applications:
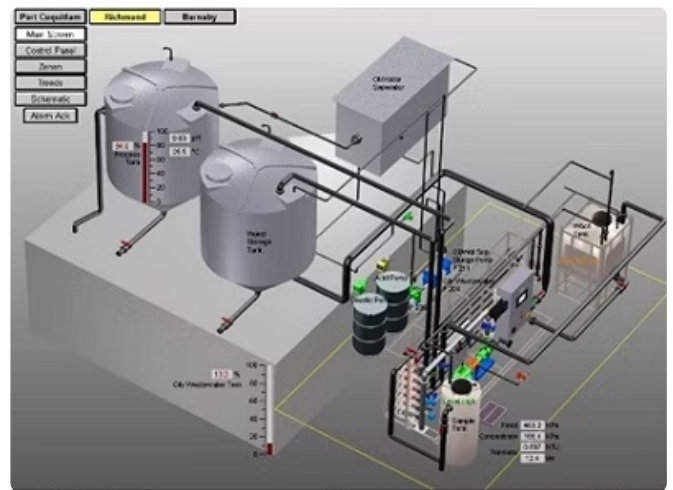
- Chilled water, VRF, CRAC, ventilation systems
- Cleanroom-grade airflow and pressurization
- ASHRAE, ISO, MoH, FDA-compliant design
- Energy-efficient system optimization

Electrical & Automation

We deliver comprehensive electrical solutions that prioritize safety, reliability, and smart integration:

- LV distribution, UPS, BMS integration
- EV charging, EcoStruxure, smart home integration
- Energy monitoring and optimization
- Power quality and backup systems

Cleanroom Airflow

Maintaining sterile environments through controlled air circulation and filtration.

Energy Optimization

Implementing efficient systems to reduce operational costs and environmental impact.

Technical Capabilities – Plumbing & Fire Protection

Plumbing & Medical Utilities

Our plumbing systems are designed for reliability, efficiency, and specialized applications:

- RO/DI, ultra-pure water, CIP, CEDS
- Medical/lab gas networks, sanitary ware systems
- Water conservation and recycling solutions
- High-purity water systems for pharma and laboratories

Fire Protection & Smoke Control

We prioritize life safety with comprehensive fire protection systems:

- Sprinkler, water mist, FM200, Novec, aerosol systems
- Smoke extraction, stairwell pressurization
- Fire-stopping and passive barriers
- NFPA-compliant designs and implementations

Reliability
Durable materials and fail-safe design

Efficiency
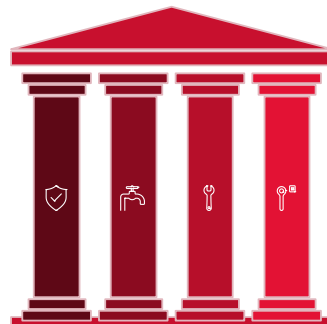Optimized flow and energy-saving fixtures

Specialized Systems
Custom solutions for industrial and HVAC needs

Maintenance & Support
Planned service and rapid response teams

Technical Capabilities – Façade & Modular

Our integrated approach combines aesthetic excellence with technical performance, delivering solutions that define the character of your facilities while ensuring functionality and compliance.

Façade & Envelope Systems

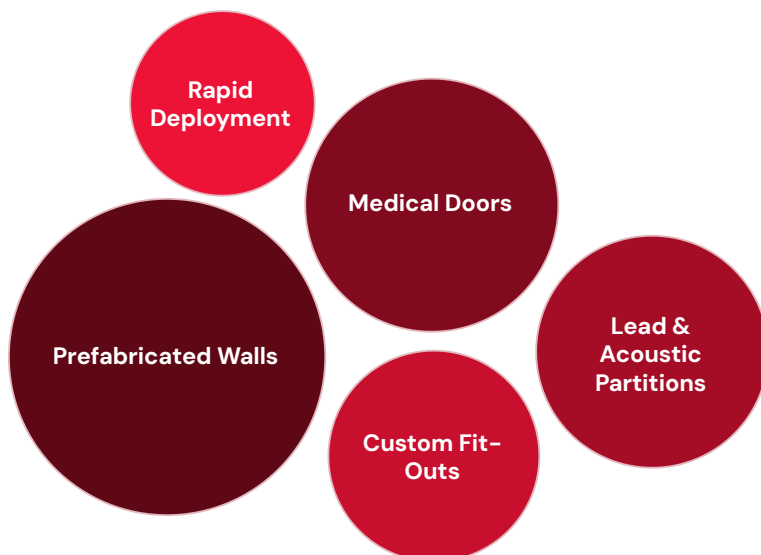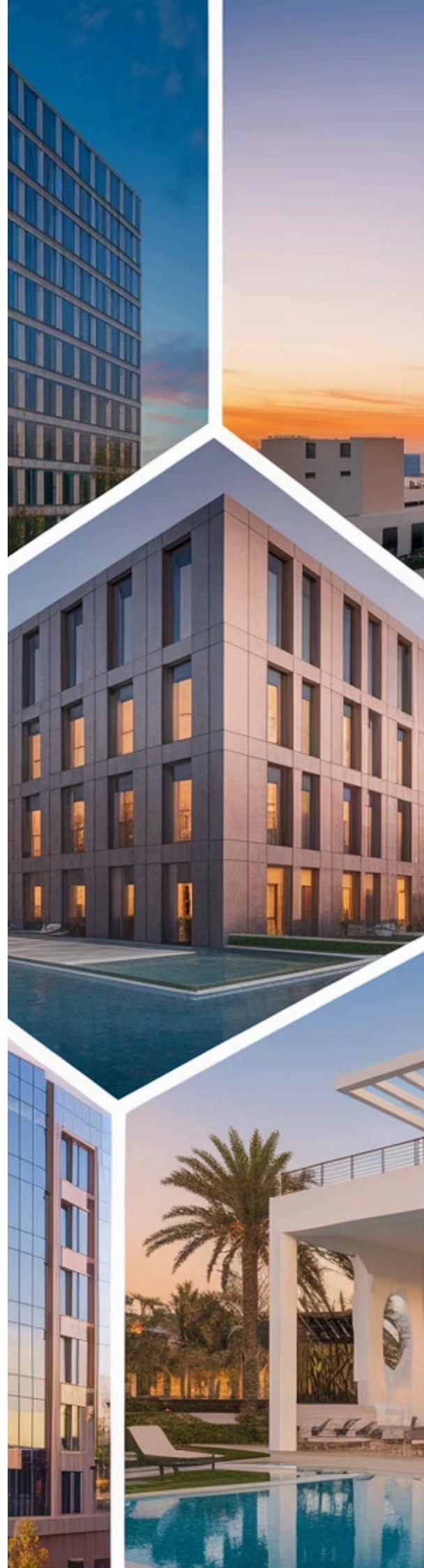Comprehensive solutions that combine aesthetics with performance:

- Curtain walls, fire-rated cladding, louvers
- Thermal insulation, vapor barriers
- Energy-efficient glazing systems
- Weatherproofing and moisture management

Modular & Interior Systems

Adaptable, high-performance interior solutions for specialized environments:

- Prefabricated walls, ceilings, medical-grade doors
- Lead-lined and acoustic partitions
- Custom fit-outs: studios, wellness, seclusion rooms
- Rapid deployment solutions for healthcare and laboratories

Rapid Deployment • Medical Doors • Prefabricated Walls • Custom Fit-Outs • Lead & Acoustic Partitions

Energy Optimization & Digital Infrastructure

Our comprehensive solutions enhance building performance through cutting-edge technology and sustainable practices.

Energy & IAQ Optimization

We implement solutions that enhance energy efficiency while maintaining optimal indoor air quality:

- Dehumidification, energy recovery, IAQ monitoring
- Retrofit strategies and performance dashboards
- Demand-controlled ventilation
- Energy modeling and optimization

PMC & Smart Infrastructure

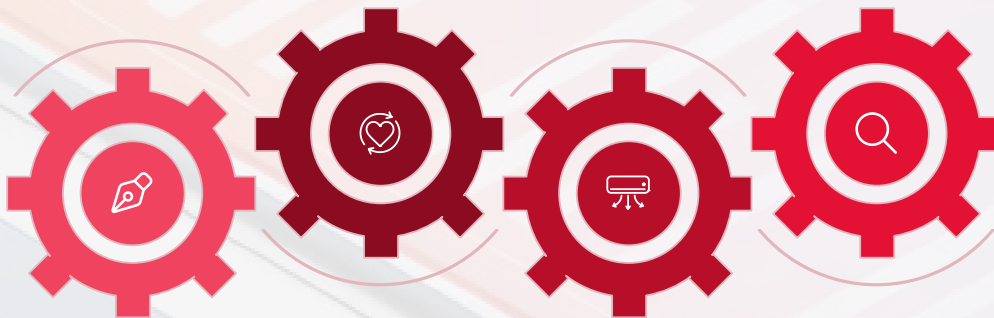Our digital solutions provide real-time insights and control:

- BMS, smart metering, digital twin platforms
- Lifecycle tracking, QA/QC, regulatory oversight
- Predictive maintenance algorithms
- Integration with building operations

Energy Recovery
Recycles thermal energy to improve system efficiency and save costs.

Retrofit & Visualize
Upgrade existing systems and visualize performance data for insights.

Humidification
Regulates moisture levels for optimal air quality and comfort.

IAQ Monitoring
Continuously tracks and analyzes indoor air quality parameters.

Project Delivery Lifecycle

Our comprehensive approach ensures excellence at every stage of your project:

Pre-Construction

- Engineering consultation, load studies, zoning strategy
- Design, BIM, VE, and QCAP/MoH submissions
- Regulatory pathway planning
- Value engineering and optimization

Construction & Execution

- Multi-phase coordination with tracked milestones
- On-site QA/QC, testing, authority inspections
- System integration and commissioning
- Regulatory compliance management

Post-Construction & Optimization

- Commissioning, TAB, Digital Twin integration
- FM training and lifecycle performance planning
- Handover documentation and warranties
- Ongoing support and maintenance

Our integrated approach ensures seamless transitions between phases, maximizing efficiency while maintaining the highest quality standards throughout the entire project lifecycle.

TS Divisional Structure & Capabilities

TS Sadan – Façade & Envelope

Premium building envelope solutions combining aesthetic excellence with superior performance and protection.

- Architectural cladding systems
- Advanced waterproofing
- Thermal efficiency optimization

TS Awtad – Environmental & MEP

Comprehensive HVAC, MEP, and Indoor Air Quality solutions tailored for healthcare facilities and public infrastructure systems.

- Advanced mechanical engineering
- Healthcare environment optimization
- Integrated electrical systems

TS Digital – Smart Infrastructure & FM

Cutting-edge digital technologies for intelligent building management and performance optimization.

- Building Management Systems (BMS)
- Predictive maintenance analytics
- Digital twin implementation

All divisions are supported by shared planning, QA/QC, and regulatory teams that ensure integrated project delivery and compliance with Egyptian and international standards.

TS-Branded Products & Innovation Platforms

Our proprietary solutions deliver exceptional performance across critical environments.

AirClave™ – IAQ Systems

Our proprietary air purification solution combines electrostatic filtration with UV sterilization technology, designed specifically for healthcare environments and laboratories where air quality is critical.

TS FlowAir™ – Distribution

Advanced air distribution products including custom-engineered diffusers, terminals, and variable air volume units that optimize airflow and zoning in complex building environments.

TS Modular Interiors

Specialized modular interior solutions featuring lead-lined panels for radiation protection, IPC-rated surfaces for infection control, and integrated fit-out systems for healthcare and cleanroom applications.

SmartOps Platform

Digital dashboard system providing real-time monitoring of indoor air quality, energy consumption, and asset performance with predictive analytics and maintenance scheduling capabilities.

Why Techno Solutions

We pass where others pause

Built for approval. Designed for compliance. Our deep understanding of GGC & Egyptian and regional regulatory requirements means we design and implement systems that achieve first-time approval, avoiding costly delays and revisions.

We're structured for speed

In-house fabrication. Divisional delivery. Less friction. Our integrated approach and local manufacturing capabilities eliminate bottlenecks and dependencies on external suppliers, accelerating project timelines.
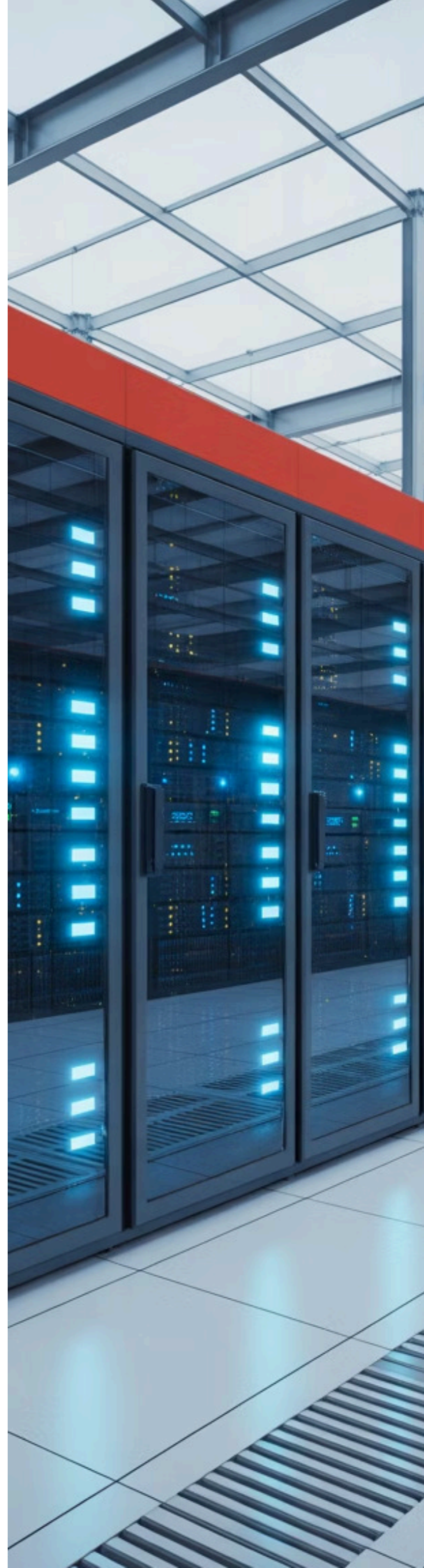
We deliver precision and scale

From chilled water to digital twin dashboards. Our comprehensive service range means clients work with a single partner from infrastructure design through to digital monitoring and optimization.
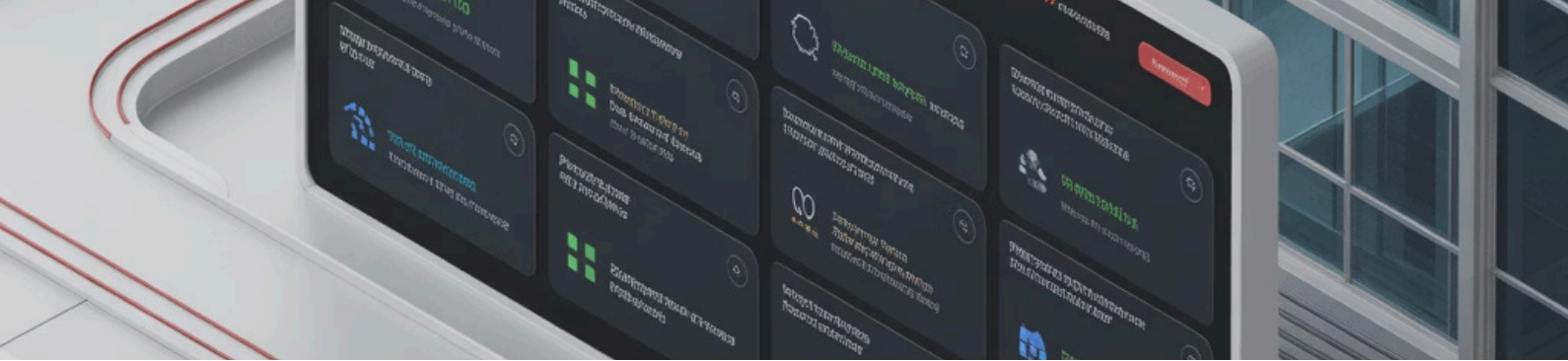
We've done it—across Egypt and the Gulf

Local presence. Regional proof. Proven execution. Our track record of successful implementations across diverse projects and geographies demonstrates our capability to deliver consistently.

Standards

Our services and solutions adhere to the highest international and regional regulatory frameworks, ensuring compliance across all project phases.

International Standards

- ASHRAE - American Society of Heating, Refrigerating and Air-Conditioning Engineers
- ISO - International Organization for Standardization
- NFPA - National Fire Protection Association
- FDA - Food and Drug Administration (standards for pharmaceutical facilities)

Healthcare Regulations

- MoH - Ministry of Health
- GAHAR - General Authority for Healthcare Accreditation and Regulation (Egypt)
- CBAHI - Central Board for Accreditation of Healthcare Institutions (KSA)

Agricultural & Environmental

- QCAP - Quality Control of Agricultural Products (Egypt)

Key Areas of Compliance:

- Infection Prevention & Indoor Air Quality
- GMP Cleanroom Validation
- Electrical & Life Safety Standards
- Authority Approval Documentation
- Energy Efficiency Standards
- Environmental Protection Regulations

Let's Build the Future —Together

Pre-construction and feasibility

Engage our team early to optimize designs, identify regulatory pathways, and establish realistic budgets and timelines. Our expertise in the Egyptian regulatory landscape can prevent costly revisions later in the project lifecycle.

Turnkey execution and approvals

Leverage our integrated service model for seamless delivery from concept to commissioning. Our divisional structure ensures specialized expertise while maintaining coordinated implementation.

Retrofitting and digital FM onboarding

Transform existing facilities with energy-efficient upgrades and smart building technologies. Our digital solutions provide ongoing visibility into building performance and maintenance needs.

Together, we can drive innovation and sustainability in every project, ensuring resilience and adaptability in a rapidly evolving regulatory and technological landscape. Join us in shaping a smarter, safer, and more connected future.

Smarter, Safer Future

Drive Innovation
Foster creative solutions

Sustainable Practices
Reduce environmental impact

Enhance Resilience
Withstand change and shocks

Regulatory Adaptability
Navigate evolving rules