VERTEX
ELECTROMECHANICAL

Document No.	VTX-CP-001
Revision	05
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COMPANY PROFILE & PREQUALIFICATION DOCUMENT

Electromechanical Contracting

Mechanical, electrical, plumbing and fire protection works, data centre infrastructure, low current systems, and BMS and KNX/EIB automation.

Electrical
MV / LV

HVAC
Mechanical

Plumbing
& Drainage

Fire
Protection

Data Centre
& ELV

BMS
& KNX/EIB

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DOCUMENT CONTROL

Document title	Company Profile & Prequalification Document
Document No.	VTX-CP-001
Revision	05
Issue date	29 August 2026
Prepared by	Vertex Electromechanical Company
Approved by	Board of Managers

REVISION RECORD

REV.	DATE	DESCRIPTION
05	29-08-2026	Issued for prequalification. Supersedes Rev. 04.

DISTRIBUTION

Owners, consultants and main contractors, for prequalification and tender evaluation.

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ABBREVIATIONS

BMS Building Management System · ELV Extra-low voltage (low current) · FAT Factory acceptance test · IST Integrated systems test · ITP Inspection & test plan · MIR Material inspection request · NCR Non-conformance report · PQP Project quality plan · PTW Permit to work · T&C Testing & commissioning · TAB Testing, adjusting & balancing · WIR Work inspection request

1.0 Company Overview

A Saudi limited liability company providing electromechanical contracting services from its head office in Dammam, Eastern Province.

Vertex Electromechanical Company (Vertex) was registered in Dammam in August 2026 under a foreign investment licence issued by the Ministry of Investment (MISA). The company executes mechanical, electrical, plumbing and fire protection works, together with data centre infrastructure, low current systems and building automation, for public, commercial, industrial and mission-critical facilities.

Vertex works as an MEP subcontractor to main contractors and as a direct contractor to owners for fit-out, upgrade and retrofit works. Packages can be awarded per discipline or as a combined building-services package under a single subcontract, with one project organisation responsible for coordination, testing and commissioning, and handover.

The company is managed by engineers and contract professionals with long experience on major projects in the Kingdom, including government programmes and multi-building facilities. Particular attention is given to testing and commissioning, control of interfaces between disciplines, and complete technical records at handover.

The founding shareholder, Bio Steel for General Contracting and Public Supplies (Egypt), is active in general, specialised and electromechanical contracting.

COMPANY DATA

Legal name	Vertex ElectroMechanical Company
Legal name (Arabic)	شركة فيرتكس إليكترو ميكانيكال
Legal form	Limited Liability Company
Commercial registration	25 August 2026
Head office	Al Jawharah District, Dammam 32422, Kingdom of Saudi Arabia
Unified No. (CR)	7055066851
MISA registration	24926256778
VAT registration	314985896200003
Paid-up capital	SAR 100,000
Founding shareholder	Bio Steel for General Contracting and Public Supplies (Egypt)
Website	www.vertex-em.com
Email	info@vertex-em.com

VISION

To be a leading electromechanical contractor in the Eastern Province for building services, data centre and intelligent building projects.

MISSION

To deliver safe, compliant and fully commissioned systems on programme, with complete records for operation and maintenance.

VALUES

Safety
Technical integrity
Responsibility for interfaces
Transparency with clients and consultants



Fig. 1.1 Typical chilled-water plant room: pumps, headers and motor control panels.

2.0 Scope of Services

Services offered for each system, from shop drawings to maintenance. Packages may be awarded per discipline or combined under one subcontract.

SYSTEM	SHOP DRAWINGS & CALCULATIONS	SUPPLY	INSTALLATION	TESTING & COMMISSIONING	MAINTENANCE
ELECTRICAL					
MV distribution: RMUs, transformers, MV cables	●	●	●	○	○
LV switchgear, MDBs, SMDBs, MCCs and DBs	●	●	●	●	●
Power and lighting distribution, wiring devices	●	●	●	●	●
Generators, ATS, UPS and central battery systems	●	●	●	○	○
Earthing and lightning protection	●	●	●	●	●
HVAC & MECHANICAL					
Chilled-water plant, pumps and piping	●	●	●	●	●
AHUs, FAHUs, FCUs, package, VRF and split units	●	●	●	●	●
Ductwork, ventilation, smoke control and pressurisation	●	●	●	●	●
Testing, adjusting and balancing (TAB)	–	–	–	○	–
PLUMBING & FIRE PROTECTION					
Water supply, drainage, booster and transfer pumps	●	●	●	●	●
Fire pumps, sprinklers, standpipes and hydrants	●	●	●	●	●
Clean-agent and kitchen hood suppression	○	●	●	○	○
LOW CURRENT & DATA CENTRE					
Structured cabling and active network equipment	●	●	●	●	●
Fire alarm, PA/VA, CCTV, access control and intercom	●	●	●	●	●
Data centre critical power and precision cooling	●	●	●	○	○
Integrated systems testing (IST)	–	–	–	●	–
BUILDING AUTOMATION					
BMS: controllers, field devices, head-end and integration	●	●	●	●	●
KNX/EIB lighting and room control	●	●	●	●	●

● Executed by Vertex ○ Executed with the equipment manufacturer or an approved specialist (accredited testing agency, NEBB/AABC-certified TAB agency, listed system supplier) under Vertex responsibility

CONTRACT ARRANGEMENTS

MEP subcontract

Full or partial MEP package under a main contractor.

Direct contract

Fit-out, upgrade and retrofit works for owners.

Specialist package

ELV, BMS, KNX/EIB and data centre packages.

Inspection & rectification

Defect investigation, method statements and remedial works.

3.1 Electrical Works

Supply, installation, testing and commissioning of medium- and low-voltage power distribution, standby power, lighting, earthing and lightning protection.



Fig. 3.1 Typical LV main distribution room during pre-commissioning checks.

SYSTEM	SCOPE
Medium voltage	13.8 kV ring main units, package substations, MV cables and terminations; coordination with SEC for connection and energisation
Transformers	Oil-immersed and cast-resin distribution transformers, 13.8/0.4 kV
LV switchgear	MDBs, SMDBs and MCCs to IEC 61439, Form 2 to Form 4 segregation; capacitor banks and harmonic filters; final distribution boards
Distribution	LV power and control cables, busbar trunking, cable trays and ladders, trunking and conduit systems
Standby power	Diesel generator sets, ATS and synchronising panels, UPS and central battery systems
Lighting	Interior, exterior, façade and street lighting; emergency and exit lighting; lighting control
Small power	Wiring devices, isolators and final connections to equipment
Earthing & LPS	Earth electrodes and pits, main and supplementary bonding, lightning protection systems

TESTING & COMMISSIONING

- Insulation resistance, continuity and polarity tests
- Earth fault loop impedance and RCD trip tests
- Switchgear functional and interlock tests, secondary injection of protection relays, contact resistance
- Earth electrode resistance by fall-of-potential method
- MV cable VLF withstand and sheath tests through an accredited testing agency
- Generator load bank test and ATS transfer tests
- Thermographic survey of switchgear under load before handover

CODES & STANDARDS

SBC 401 · IEC 60364 · IEC 61439 · IEC 62305 · SEC standards · NFPA 70 (where specified) · SAES-P series

KEY INTERFACES

SEC: substation, metering and energisation. Civil: cable trenches, duct banks, electrical rooms and sleeves. Mechanical: power supplies to chillers, pumps, AHUs and MCCs. Fire alarm: AHU shutdown, door release and lift homing. BMS: status of breakers, generators, UPS and energy meters.

3.2 HVAC & Mechanical Works

Central cooling plant, air distribution, ventilation and smoke control systems, installed and commissioned for performance under Gulf design conditions.



Fig. 3.2 Typical roof-mounted air-cooled chillers and chilled-water headers.

SYSTEM	SCOPE
Central plant	Air-cooled and water-cooled chillers, cooling towers, primary/secondary and variable-primary pumping, heat exchangers, expansion and chemical dosing units
Air handling	AHUs, FAHUs with heat recovery, FCUs, packaged units, VRF and DX split systems
Ductwork	GI ductwork fabricated to SMACNA pressure class, pre-insulated ductwork, fire and smoke dampers, VAV boxes, grilles and diffusers
Ventilation	Toilet and kitchen extract, car-park jet fan ventilation with CO monitoring, general supply and extract
Smoke control	Stair and lift-lobby pressurisation, smoke extract fans and dampers, interface with fire alarm
Piping	Chilled-water and condenser-water piping, valves, PICVs, insulation and cladding; refrigerant piping for VRF and DX systems

TESTING & COMMISSIONING

- Duct leakage tests to SMACNA procedures
- Hydrostatic test of chilled-water piping at the specified test pressure
- System flushing and chemical cleaning before connection to equipment
- Refrigerant piping pressure and vacuum tests
- Equipment start-up with the manufacturer's representative
- TAB of air and water systems by a NEBB or AABC certified agency
- Functional tests of control sequences with the BMS

CODES & STANDARDS

SBC 501 · SBC 601 / 602 · ASHRAE 62.1 · ASHRAE 90.1 · SMACNA · NFPA 90A · NFPA 92 · SAES-K series

CONDENSATE & DRAINAGE

Condensate drainage from FCUs and AHUs is installed with the specified falls, traps and cleanouts and is water-tested before ceilings are closed. Vertex also carries out site investigation of condensate and drainage defects on existing installations, with root-cause reports and rectification method statements.

3.3 Plumbing & Drainage

Domestic water, drainage and sanitary systems from the utility connection to the final fixture.



Fig. 3.3 Typical domestic water booster sets and sectional storage tanks.

SYSTEM	SCOPE
Water supply	Utility connection, ground and roof storage tanks, transfer and booster pump sets, PP-R, CPVC and copper distribution
Hot water	Central and point-of-use water heaters, circulation pumps and solar water heating where specified
Water treatment	Filtration, softening, UV and chlorination units
Drainage	Soil, waste and vent systems in uPVC and HDPE; storm-water drainage; sump and sewage ejector pumps; grease interceptors; manholes and connection to the municipal network or holding tanks
Condensate	Condensate drainage from HVAC equipment to approved discharge points
Fixtures	Sanitary ware and fittings, floor drains, irrigation connections

TESTING & COMMISSIONING

- Hydrostatic pressure test of water supply piping
- Water or air test of drainage stacks and branches
- Flushing and disinfection of potable water systems, with laboratory analysis of water samples
- Pump set performance and control tests

CODES & STANDARDS

SBC 701 | SBC 702 | National Water Company requirements | AWWA C651 / C652

KEY INTERFACES

National Water Company: meter and sewer connections. Civil: tanks, manholes, sleeves and drainage falls. Architectural: fixture setting-out and access panels. HVAC: condensate discharge points. Electrical: power to pumps and heaters. BMS: tank levels, pump status and leak alarms.

3.4 Fire Protection

Water-based and special-hazard fire suppression systems installed to Civil Defense requirements, using listed and approved equipment.



Fig. 3.4 Typical fire pump room with electric, diesel and jockey pump sets.

SYSTEM	SCOPE
Fire pumps	Electric, diesel and jockey pump sets with listed controllers, test headers and flow meters
Sprinklers	Wet, dry, pre-action and deluge systems; alarm valves, zone control valves and flow switches
Standpipes	Class I, II and III standpipes, landing valves and hose reels
External	Fire mains, hydrants and fire department connections
Special hazard	Clean-agent systems (FM-200, NOVEC 1230) and kitchen hood wet-chemical systems
Portable	Fire extinguishers and fire blankets

TESTING & COMMISSIONING

- Hydrostatic test of sprinkler and standpipe piping at 200 psi for 2 hours (NFPA 13 / 14)
- Flushing of underground fire mains (NFPA 24)
- Fire pump acceptance test at churn, 100% and 150% of rated flow (NFPA 20)
- Enclosure integrity test for clean-agent protected rooms (NFPA 2001)
- Alarm and supervisory signal tests with the fire alarm system
- Inspection and acceptance by Civil Defense

CODES & STANDARDS

SBC 801 · NFPA 10 · NFPA 13 · NFPA 14 · NFPA 20 · NFPA 24 · NFPA 2001 · UL / FM listed · SAES-B series

KEY INTERFACES

Civil Defense: drawing approval and final inspection. Fire alarm: flow and tamper switches, fire pump status, clean-agent release panels. Electrical: dedicated fire pump supply and transfer switch. Architectural: sprinkler positions in ceiling layouts. BMS: monitoring of pumps and valves.

3.5 Data Centre Infrastructure

Critical power, precision cooling and white-space infrastructure for data centres, server rooms and telecom facilities, commissioned through integrated systems testing.



Fig. 3.5 Typical data hall with contained cabinet rows and raised floor.

CRITICAL POWER

- UPS systems, modular and monolithic
- VRLA and lithium-ion battery systems
- Static transfer switches
- PDUs, RPPs and overhead busway
- A/B redundant distribution to rack
- Electrical power monitoring (EPMS)

PRECISION COOLING

- CRAH and CRAC units, fan walls
- In-row and rear-door cooling
- Hot and cold aisle containment
- Chilled-water and DX systems
- Leak detection
- Temperature and humidity monitoring

WHITE SPACE & LIFE SAFETY

- Raised floor and overhead cable trays
- Cabinets and containment
- Copper and fibre backbone, MDA/HDA/EDA cabling
- Telecom grounding and bonding
- VESDA and clean-agent suppression
- Access control, CCTV and DCIM

COMMISSIONING SEQUENCE

LEVEL	STAGE	TYPICAL ACTIVITIES
L1	Factory acceptance	FAT of UPS, generators, switchgear and cooling units where specified
L2	Site delivery & installation	Inspection on delivery, installation checks against approved drawings
L3	Pre-functional	Static tests, energisation, start-up by manufacturers
L4	Functional performance	System tests under load using load banks; redundancy checks per system
L5	Integrated systems test	Utility failure, generator start and transfer, UPS on battery, cooling failover and alarms to BMS/DCIM

Works executed to TIA-942, BICSI 002, ASHRAE TC 9.9 thermal guidelines and the Uptime Institute tier level specified for the project.

3.6 Low Current (ELV) Systems

Supply, installation, programming and commissioning of communication, security and life-safety systems, including containment, cabling and head-end equipment.



Fig. 3.6 Typical patching and active equipment cabinets.

SYSTEM	SCOPE
Structured cabling	Cat 6 and Cat 6A copper, OM4 and OS2 fibre, racks and patching; LAN and Wi-Fi active equipment
Fire alarm	Addressable panels, detectors, manual call points, sounders and strobes, aspirating detection, interface modules
PA / voice evacuation	Zoned PA/VA systems, amplifiers, speakers and background music
CCTV	IP cameras, NVR and VMS, video analytics and control-room video walls
Access control	Card and biometric readers, door hardware, turnstiles, barriers and intrusion detection
Communication	IP telephony, intercom and video door entry, nurse call, MATV and IPTV
Specialist systems	Car-park guidance, gate and barrier control, queue management, master clock and AV systems

TESTING & COMMISSIONING

- Permanent-link certification of copper cabling with test reports for every link
- Fibre loss and OTDR tests
- 100% device test of fire alarm and PA/VA systems
- Camera view, recording and retention verification
- Access control functional tests per door schedule

CAUSE & EFFECT INTEGRATION

- Fire alarm to access control: release of doors on escape routes
- Fire alarm to PA/VA: phased evacuation messages
- Fire alarm to HVAC: AHU shutdown, smoke fans and dampers
- Fire alarm to lifts: homing to the designated floor
- All ELV systems to BMS: status and alarm monitoring

CODES & STANDARDS

ANSI/TIA-568 · TIA-569 · TIA-606 · TIA-607 · ISO/IEC 11801 · NFPA 72 · EN 54 · IEC 62676 · ONVIF · SBC 801 · HCIS (where applicable) · SAES-T series

3.7 BMS & KNX/EIB Automation

Building management, energy monitoring and room automation on open protocols, from field devices to the operator workstation.



Fig. 3.7 Typical BMS operator workstations and graphics.

Building Management System

- DDC controllers, sensors, actuators and control valves
- Chiller plant and pump sequencing, AHU and FCU control
- Monitoring of electrical, plumbing, fire, lift and ELV systems
- Energy and utility metering, trend logs and reports
- Head-end servers, operator workstations and graphics
- Integration over BACnet IP and MS/TP, Modbus RTU and TCP, LonWorks and OPC

KNX/EIB automation

- Lighting control: switching, dimming, scenes and DALI gateways
- Room control: HVAC, blinds, curtains and occupancy
- Villas, palaces, hotels and office buildings
- Touch panels, keypads and mobile application control
- ETS programming, commissioning and project file handover
- KNX to BMS integration through IP routers and gateways

STAGE	DELIVERABLES
Engineering	Points schedule, control schematics, network riser, sequence of operations, panel drawings
Commissioning	Point-to-point checkout, loop tuning, sequence verification, alarm and trend set-up
Handover	As-built schematics, database and ETS files, operator manuals and operator training

PROTOCOLS & STANDARDS

BACnet (ASHRAE 135) | Modbus | KNX (ISO/IEC 14543-3) | DALI (IEC 62386) | LonWorks | OPC UA | SBC 601

KEY INTERFACES

HVAC: sensors, control valves and VFDs. Electrical: energy meters, breaker status, generators and UPS over Modbus. Fire alarm: fire and smoke-mode signals. Lifts: status and alarms. ELV: IP backbone, VLANs and network security.

4.0 Codes, Standards & Authority Requirements

Works are executed to the contract specification and the editions referenced in it. The table lists the principal references applied by discipline.

DISCIPLINE	SAUDI CODES & AUTHORITIES	INTERNATIONAL STANDARDS	SAUDI ARAMCO PROJECTS
Electrical	SBC 401; SEC standards and connection requirements; SASO	IEC 60364, IEC 61439, IEC 60502, IEC 62305; NFPA 70 and NFPA 780 where specified; IEEE 81, IEEE 400.2	SAES-P series
HVAC	SBC 501; SBC 601 / 602 energy conservation	ASHRAE 62.1, ASHRAE 90.1; SMACNA duct construction and leakage; NFPA 90A, NFPA 92; AHRI; NEBB / AABC	SAES-K series
Plumbing	SBC 701, SBC 702; National Water Company requirements	AWWA C651 / C652; ASME B31.9 where specified	SAES-S series
Fire protection	SBC 801; General Directorate of Civil Defense	NFPA 10, 13, 14, 20, 24, 2001; NFPA 17A; UL / FM listings	SAES-B series
Fire alarm & PA/VA	SBC 801; Civil Defense	NFPA 72; EN 54	SAES-B series
ELV & security	HCIS directives for industrial facilities, where applicable	ANSI/TIA-568, 569, 606, 607; ISO/IEC 11801; IEC 62676; ONVIF	SAES-T series
Data centres	Owner and project requirements	TIA-942; BICSI 002; ASHRAE TC 9.9; Uptime Institute tier standards; NFPA 75	Project specification
Building automation	SBC 601	ASHRAE 135 (BACnet); ISO/IEC 14543-3 (KNX); IEC 62386 (DALI)	Project specification
HSE	Saudi Labor Law and MHRSD occupational safety requirements; Civil Defense	ISO 45001, ISO 14001 (framework)	Construction Safety Manual
Quality	Contract specification	ISO 9001:2015 (framework)	SAEP and Schedule Q requirements

APPROVALS & INSPECTIONS

- Civil Defense: fire protection, fire alarm and life-safety inspections
- SEC: MV connection, metering and energisation
- National Water Company: water and sewer connections
- Municipality: building completion requirements, as applicable
- Client and consultant witness inspections per the approved ITPs

ORDER OF PRECEDENCE

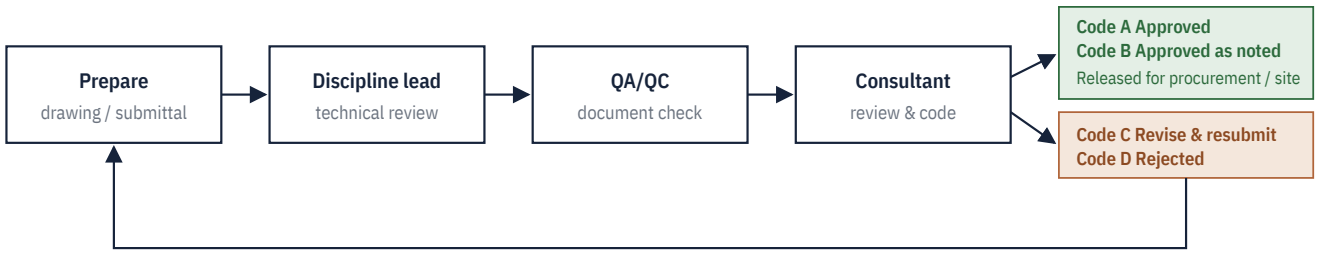
Where the contract documents and the references above differ, Vertex follows the order of precedence stated in the contract. Conflicts identified during shop drawing preparation are raised through a request for information (RFI) before work proceeds.

5.0 Project Execution Methodology

Each project follows the same six stages, with defined records at every stage. Testing and commissioning requirements are planned at mobilisation and carried through each stage.

#	STAGE	KEY ACTIVITIES	RECORDS & DELIVERABLES
1	**Mobilisation**	Kick-off, project organisation, review of contract scope and interfaces, baseline programme, T&C strategy	Organisation chart, PQP, HSE plan, baseline programme, submittal schedule
2	**Engineering**	Review of drawings and specifications; shop and coordinated services drawings; calculations (load, voltage drop, short circuit, cable sizing, heat load, pump head, hydraulic); BIM coordination and clash detection where specified	Shop drawings, coordination drawings, calculations, RFIs
3	**Procurement**	Material submittals with compliance statements, vendor approval, factory tests where specified, tracking of long-lead items	Material submittals, purchase orders, FAT reports, MIRs
4	**Installation**	Method statements, ITPs, inspection at hold and witness points, interface control with other trades, progress reporting	Method statements, WIRs, checklists, daily and weekly reports
5	**Testing & commissioning**	Pre-commissioning, start-up, functional and integrated tests, witnessed by consultant, client and authorities	Test sheets, commissioning reports, snag lists
6	**Handover**	As-built drawings, O&M manuals, spare parts, warranties, operator training, defects liability support	As-built drawings, O&M manuals, training records, handover certificates

SUBMITTAL & APPROVAL WORKFLOW



PLANNING & CONTROL

Baseline programme in Primavera P6, three-week look-ahead, weekly progress against planned quantities, monthly progress report with manpower histogram and S-curve.

INTERFACE CONTROL

An interface register lists every interface between MEP, ELV, BMS, civil and specialist trades, with the responsible party, the related drawings and the test that closes it.

COMMERCIAL CONTROL

Monthly valuations against the BOQ, variation register with time and cost impact, and notices issued within the periods stated in the contract.

6.0 Testing & Commissioning

A T&C and Interface Manager leads commissioning on each project, supported by a commissioning engineer for each discipline. Test procedures and check sheets are submitted for approval before testing starts.

COMMISSIONING LEVELS

LEVEL	STAGE	ACTIVITIES	RECORDS
L1	Factory acceptance	FAT of major equipment where specified: switchgear, generators, UPS, chillers, fire pumps	FAT reports
L2	Delivery & installation	Inspection on delivery; installation checks against approved shop drawings	MIRs, installation checklists
L3	Pre-commissioning	Static tests, pressure tests, flushing, energisation, point-to-point checks	Pre-commissioning test sheets
L4	Functional performance	Start-up and functional tests of each system at design conditions	Functional test reports
L5	Integrated systems	Cross-system tests: power failure and recovery, generator start, UPS transfer, fire alarm cause and effect, BMS sequences	IST report with witness signatures

TYPICAL ACCEPTANCE TESTS

SYSTEM	TEST	REFERENCE
LV installation	Insulation resistance, continuity, loop impedance, RCD	IEC 60364-6
LV switchgear	Functional and interlock tests, secondary injection, contact resistance	IEC 61439, specification
MV cables	VLF withstand and sheath tests	IEEE 400.2, specification
Earthing	Earth electrode resistance	IEEE 81
Chilled water	Hydrostatic test, flushing and chemical cleaning	Specification
Ductwork	Leakage test	SMACNA
Air and water systems	Testing, adjusting and balancing	NEBB / AABC
Domestic water	Pressure test, flushing and disinfection	SBC 701, AWWA C651
Sprinklers, standpipes	Hydrostatic test, 200 psi for 2 hours	NFPA 13, NFPA 14
Fire pumps	Acceptance test at churn, 100% and 150% flow	NFPA 20
Clean agent	Enclosure integrity test	NFPA 2001
Fire alarm	100% device test, cause and effect	NFPA 72
Structured cabling	Permanent-link certification, fibre loss and OTDR	ANSI/TIA-568
BMS	Point-to-point checkout, sequence of operations	Points schedule, specification

All instruments used for acceptance tests hold valid calibration certificates traceable to national or international standards. Copies are submitted with the test records.

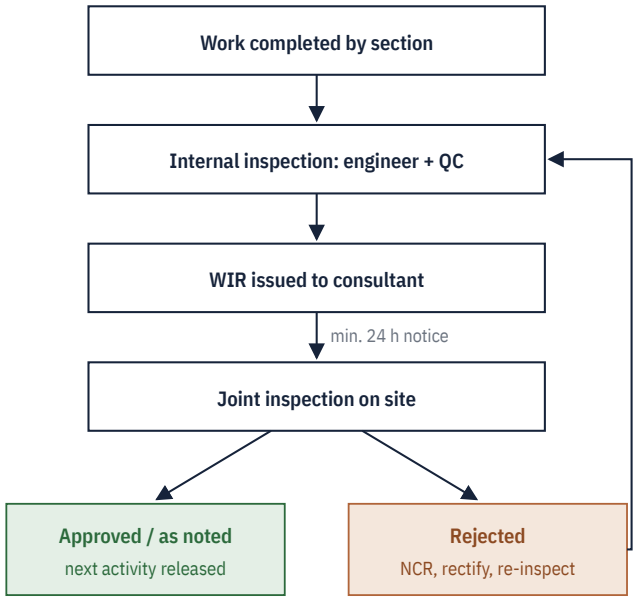
7.0 Quality Assurance & Quality Control

Quality is managed through a Project Quality Plan for each contract, based on company procedures structured to ISO 9001:2015.

QUALITY SYSTEM ELEMENTS

ELEMENT	APPLICATION
Project Quality Plan	Organisation, responsibilities, procedures and records for the project
Method statements	Sequence, resources, inspection and safety for each activity
ITPs	Hold, witness and review points agreed with the consultant
Material control	Approved submittals, MIR on delivery, storage and traceability
Inspection	Internal inspection, then WIR to the consultant
Non-conformance	NCR, root cause, corrective and preventive action, close-out
Calibration	Register of instruments with certificates and due dates
Document control	Transmittals, revisions, RFI and submittal logs
Audits	Internal audits of site quality records

INSPECTION WORKFLOW



EXTRACT FROM A TYPICAL ITP: LV CABLING AND SWITCHGEAR

#	ACTIVITY	ACCEPTANCE REFERENCE	VERTEX QC	CONSULTANT	RECORD
1	Receiving inspection of cables and switchgear	Approved material submittal	I	W	MIR
2	Cable tray and support installation	Approved shop drawing	I	R	Checklist
3	Cable pulling, dressing and glanding	Specification, manufacturer data	I	W	WIR
4	Insulation resistance test before termination	IEC 60364-6	P	H	Test sheet
5	Termination and torque check	Manufacturer torque values	P	W	Torque record
6	Switchgear functional and protection tests	IEC 61439, specification	P	H	Test report

P Perform · I Inspect · H Hold point · W Witness point · R Review of records. Certification of the company quality management system to ISO 9001 is planned.

8.0 Health, Safety & Environment

A project HSE plan is prepared for every contract and aligned with the client's HSE requirements before mobilisation.

HSE POLICY

Vertex Electromechanical Company is committed to preventing injury and ill health, protecting the environment and complying with Saudi regulations and client requirements on every site. Work does not proceed where it cannot be done safely, and every employee and subcontractor has the authority to stop unsafe work.

Board of Managers · August 2026

CONTROL OF PRINCIPAL RISKS

ACTIVITY	PRINCIPAL CONTROLS
Work on electrical systems	Permit to work, lock-out tag-out, test before touch, insulated tools, arc-flash PPE rated for the task
Work at height	Scaffolds erected and tagged by competent persons, certified MEWP operators, full-body harnesses, edge protection
Hot work	Hot-work permit, fire watch, extinguisher at the point of work, removal of combustibles
Confined spaces	Entry permit, gas testing, standby attendant and rescue plan for tanks, pits and manholes
Lifting operations	Lift plans, third-party certified cranes, operators, riggers and lifting gear
Pressure testing	Exclusion zones, calibrated gauges, relief valves and controlled pressurisation
Heat stress	Water, shade and rest breaks; no outdoor work in direct sun between 12:00 and 15:00 from 15 June to 15 September, per MHRSD

PROGRAMME

- Site induction for all personnel and visitors
- Daily toolbox talks and task risk assessments
- Weekly inspections and monthly HSE audits
- Incident reporting and investigation, including near misses
- Emergency response plan and drills
- Monthly statistics: man-hours, LTIs, recordable incidents

COMPLIANCE & ENVIRONMENT

- Saudi Labor Law and MHRSD occupational safety requirements
- Civil Defense requirements for temporary works and storage
- Saudi Aramco Construction Safety Manual on Aramco projects
- Waste segregation and licensed disposal
- Refrigerant recovery; no venting to atmosphere
- Spill kits at fuel and chemical storage

HSE ORGANISATION

The HSE Manager reports directly to the Board of Managers, independent of the project line. HSE officers are deployed on each site in the number required by the contract and client standards. First-aiders and fire wardens are appointed for every work area, and subcontractors work under the Vertex HSE plan.

9.0 Management & Key Personnel

NAME	POSITION	EXPERIENCE AND RESPONSIBILITY
Eng. Essam Mohamed Nagib Amer Mohamed essam.nagib@vertex-em.com	Manager	Over 18 years in MEP execution on major projects in Saudi Arabia, in senior management roles on large government projects. Responsible for electrical, mechanical and low current works, contract administration, testing and commissioning, and interface management.
Emad Fikry Ibrahim Khattab emad.khattab@vertex-em.com	Manager	Registered manager under the Articles of Association, holding the company's administrative, commercial, banking and contracting authorities.
Hossam Hassan Abdelsayed Mohamed Yassin hossam.yassin@vertex-em.com	Partner	Partner and shareholder. Background in contract management, subcontract administration, claims, technical documentation and project controls on large construction programmes in the Kingdom.
Mostafa Taha Mohammed mostafa.taha@vertex-em.com	Partner	Partner and shareholder.

CVs of the managers and partners are provided in Attachment C.

10.0 Manpower Resources

Planned mobilisation capacity. Project manpower is scaled to the scope and programme of each award and shown in a histogram submitted with the tender.

47	205	252
Management, engineering and staff	Supervision and skilled trades	Total planned strength

MANAGEMENT, ENGINEERING & STAFF	NO.
Managers	2
Project Managers	3
Discipline Lead Engineers (Elec / Mech / ELV / BMS)	4
Site Engineers	10
T&C / Commissioning Engineers	3
BMS & KNX Programming Engineers	3
QA/QC Engineers & Inspectors	3
HSE Officers	3
Planning & Document Control	3
Draftsmen / BIM Modellers	4
QS, Estimation & Procurement	4
Finance, HR & Administration	5
Total	**47**

SUPERVISION & TRADES	NO.
Foremen & Supervisors	12
Electricians & Cable Jointers	45
ELV / Data Technicians	25
HVAC Technicians & Duct Fitters	25
Plumbers & Pipe Fitters	25
Fire-fighting Fitters	12
BMS / Controls Technicians	6
Welders	6
Insulators	8
Helpers	35
Drivers & Storekeepers	6
Total	**205**

Direct employment through Qiwa and GOSI. Trades may be supplemented through licensed Saudi manpower companies and approved specialist subcontractors. Saudisation is maintained in line with Nitaqat requirements.

RECRUITMENT

Engineers recruited by transfer of sponsorship from within the Kingdom, with SCE registration verified before appointment.

TRADE COMPETENCE

Tradesmen trade-tested on joining. Electricians, welders and riggers authorised for their tasks only after competence checks.

WELFARE

Accommodation and site transport provided to MHRSD standards, with wages paid through the Wage Protection System.

11.0 Plant, Tools & Test Instruments

Plant and instruments planned for mobilisation. Test instruments carry valid third-party calibration certificates before use on site.

ELECTRICAL TEST INSTRUMENTS	QTY
Insulation resistance tester, 5 kV	4
Multifunction installation tester (loop / RCD)	4
Earth resistance tester	2
Primary / secondary current injection test set	1
Power quality analyser	2
Thermal imaging camera	2
Digital multimeters and clamp meters	20
Phase rotation testers	6

LOW CURRENT, DATA & CONTROLS	QTY
Copper / fibre cable certifier (Cat 6A)	2
OTDR	1
Fibre fusion splicer	2
Network and PoE testers	4
KNX / ETS programming kits	4
BMS commissioning laptops and BACnet tools	4

MECHANICAL & PIPING	QTY
Hydrostatic test pumps	4
Vacuum pumps and refrigerant recovery units	4
Anemometer / balometer kit	2
Pressure gauges and data loggers (sets)	10
Pipe threading machines	4
Pipe grooving machines	4
Welding machines (arc / TIG)	6

INSTALLATION PLANT & TRANSPORT	QTY
Cable pulling winches	2
Cable drum jacks and roller sets	6
Hydraulic crimping tools	8
Core drilling machines	4
Mobile scaffold towers	10
Scissor lifts	2
Portable generators	3
Pickup trucks	4
Crew transport buses	2

CALIBRATION CONTROL

Each instrument is entered in the calibration register with serial number, certificate number and due date. Instruments past their due date are withdrawn from use. Heavy plant such as cranes and manlifts is hired from approved suppliers with valid third-party inspection certificates.

12.0 Experience

Vertex was registered in August 2026. The experience of the managers and partners is summarised in 12.1 and detailed in their CVs in Attachment C.

12.1 Experience of key personnel

AREA	EXPERIENCE
Electrical works	Management of electrical execution, including LV power panels, distribution and the related subcontract packages, on large government projects
Mechanical works	Management of HVAC, plumbing and fire-fighting packages
Low current systems	Management of ELV works on large multi-building facilities
Testing & commissioning	Planning and execution of T&C, and coordination of interfaces between disciplines and with the consultant
Contract administration	Subcontract administration, addenda, scope and BOQ reconciliation, variations and claims, including extension-of-time submissions
Procurement	Vendor selection, material submittals and subcontractor coordination
Planning & control	MEP and external-works programmes, progress measurement and reporting

12.2 Target project types

SECTOR	TYPICAL FACILITIES
Government & security	Administrative buildings, security and correctional facilities, training centres
Mission-critical	Data centres, server rooms, telecom buildings, control rooms
Healthcare & education	Clinics, hospitals, schools and university buildings
Commercial & hospitality	Office buildings, retail, hotels and serviced apartments
Residential	Compounds, villas and palaces, including KNX/EIB automation
Industrial & utilities	Warehouses, workshops, plant support buildings and utility facilities

13.0 Statutory Registrations

Copies of the principal certificates. Originals with QR verification codes are enclosed in Attachments A and B.

CERTIFICATE	ISSUING AUTHORITY	NUMBER	VALIDITY	STATUS
Commercial Registration	Ministry of Commerce	7055066851	Issued 25 Aug 2026	ACTIVE
Investment Registration	Ministry of Investment (MISA)	24926256778	Valid to 15 Apr 2027	ACTIVE
VAT Registration	ZATCA	314985896200003	Effective 01 Sep 2026	REGISTERED
Zakat Registration	ZATCA	–	Issued 25 Aug 2026	REGISTERED
National Address	Saudi Post (SPL)	–	Valid to 21 Feb 2027	VALID



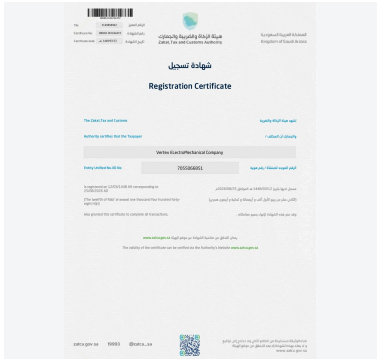
Commercial Registration



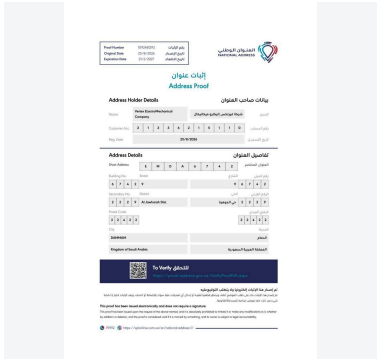
Investment Registration (MISA)



VAT Registration (ZATCA)



Zakat Registration (ZATCA)



National Address (SPL)

14.0 Prequalification Document Register

Documents submitted with this profile. The attachments follow this register.

REF.	DOCUMENT	LOCATION
A-01	Company Profile & Prequalification Document, VTX-CP-001 Rev. 05	This document
A-02	Commercial Registration Certificate	Attachment A
A-03	MISA Investment Registration Certificate	Attachment A
A-04	VAT and Zakat Registration Certificates	Attachment B
A-05	National Address Certificate	Attachment B
A-06	MHRSD (Qiwa) Certificate	Attachment B
A-07	CVs of key personnel	Attachment C

UNDERTAKING

Vertex Electromechanical Company undertakes to keep all statutory registrations valid for the duration of the prequalification and of any contract awarded, and to submit renewed certificates on issue.

A

Corporate Documents

Attachment A. Commercial registration and investment licence.

REF.	DOCUMENT	PAGE
A-02	Commercial Registration Certificate	24
A-03	MISA Investment Registration Certificate	25

A-02 · COMMERCIAL REGISTRATION CERTIFICATE



A-03 · MISA INVESTMENT REGISTRATION CERTIFICATE

وزارة الاستثمار
Ministry of Investment

رقم تسجيل الاستثمار Investment Registration Number (IR)	24926256778
رقم المنشأة Entity ID	1582612
تاريخ الإصدار Issue Date	15 Apr 2026
تاريخ التحديث Update Date	15 Apr 2027
حالة التسجيل Registration Status	Active

Print Date 12 Aug 2026

Investment Registration Certificate
شهادة تسجيل الاستثمار

اسم المنشأة	فيرتكس إليكترو ميكانيكال	رقم الهاتف Phone	
Entity Name	Vertex ELectroMechanical		
الكيان القانوني Legal Entity	شركة ذات مسؤولية محدودة		
الموقع Location	الدمام		
رأس المال Capital	100000 SAR		
البريد الإلكتروني Email	biosteelco2030@hotmail.com		

	أسماء الشركاء Shareholders Names	رقم المستثمر Investor No	الجنسية Nationality	النسبة Percentage
1	بايو ستيل للمقاولات العامة والتوريدات العمومية Bio Steel for General Contracting and Public Supplies	1585170	مصر Egypt	100.0 %

You can verify this document and find more details about the investment registration and its related activities by visiting the Ministry of Investment's website or by scanning the QR code at the top.

يمكنكم التحقق من صحة هذه الوثيقة ومعرفة تفاصيل أكثر عن بيانات التسجيل الاستثماري والأنشطة المرتبطة به من خلال زيارة موقع وزارة الاستثمار أو مسح الرمز أعلاه.

وزارة الاستثمار
Ministry of Investment

رؤية VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

1 of 1

B

Statutory Certificates

Attachment B. Tax, national address and MHRSD certificates.

REF.	DOCUMENT	PAGE
A-04	VAT Registration Certificate (ZATCA)	27
A-04	Zakat Registration Certificate (ZATCA)	28
A-05	National Address Certificate (SPL)	29
A-06	MHRSD (Qiwa) Certificate	—

A-04 · VAT REGISTRATION CERTIFICATE (ZATCA)

100261181255684

TIN	3149858962	الرقم المميز
Certificate No.	100261181255684	رقم الشهادة
Certificate date	25/08/2026	تاريخ الشهادة

هيئة الزكاة والضريبة والجمارك
Zakat, Tax and Customs Authority

المملكة العربية السعودية
Kingdom of Saudi Arabia

شهادة تسجيل في ضريبة القيمة المضافة

VAT Registration Certificate

تشهد هيئة الزكاة والضريبة والجمارك بأن المكلف أدناه مسجل في ضريبة القيمة المضافة بتاريخ ٢٠٢٦/٠٨/٢٥ م

The Zakat, Tax and Customs Authority certifies that taxpayer below is VAT registered on 25/08/2026 AD

Taxpayer Name	Vertex ELectroMechanical Company	اسم المكلف
VAT Registration Number	314985896200003	رقم التسجيل الضريبي
Effective Registration Date	2026/09/01	تاريخ نفاذ التسجيل
Taxpayer Address	Dammam،Al Jawharah Dist.،9،32422	عنوان المكلف
CR / License Contact / ID No	7055066851	رقم السجل التجاري / الرخصة / العقد / الهوية
Tax Period	Quarterly-ربع سنوي	الفترة الضريبية
First Filing due date	2026/10/31	تاريخ استحقاق أول إقرار ضريبي

ملاحظة: كمكلفين مسجلين في ضريبة القيمة المضافة, لا يجوز لكم تحصيل ضريبة القيمة المضافة من عملائكم قبل تاريخ نفاذ التسجيل في الضريبة. و في حال تبين غير ذلك ستقوم هيئة الزكاة والضريبة و الجمارك بتنفيذ الغرامات المستحقة

Note: As a VAT registered taxpayer, you are not allowed to collect VAT from your customers prior to the effective date of the tax registration. If otherwise approved, The ZAKAT,Tax and Customs Authority will impose the applicable penalties

ضريبة القيمة المضافة
VAT

zatca.gov.sa 19993 @zatca_sa

هذه الوثيقة مستخرجة من النظام الآلي ولا تحتاج إلى توقيع و لا يعتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة
www.zatca.gov.sa

A-04 · ZAKAT REGISTRATION CERTIFICATE (ZATCA)

100261181244472

TIN	3149858962	الرقم المميز
Certificate No.	100261181244472	رقم الشهادة
Certificate date	1448/03/12 هـ	تاريخ الشهادة

هيئة الزكاة والضريبة والجمارك
Zakat, Tax and Customs Authority

المملكة العربية السعودية
Kingdom of Saudi Arabia

شهادة تسجيل

Registration Certificate

The Zakat, Tax and Customs Authority certifies that the Taxpayer

تشهد هيئة الزكاة والضريبة والجمارك أن المكلف /

Vertex ELectroMechanical Company

Entity Unified No./ID No	7055066851	الرقم الموحد للمنشأة / رقم هوية

Is registered on 12/03/1448 AH corresponding to 25/08/2026 AD

مسجل لديها بتاريخ 1448/03/12 هـ الموافق 2026/08/25م

(The twelfth of Rabi' al-awwal one thousand four hundred forty-eight Hijri)

(الثاني عشر من ربيع الأول ألف و أربعمائة و ثمانية و أربعون هجري)

Was granted this certificate to complete all transactions.

وقد منح هذه الشهادة لإنهاء جميع معاملاته .

يمكن التحقق من صلاحية الشهادة عبر موقع الهيئة www.zatca.gov.sa

The validity of the certificate can be verified via the Authority's Website www.zatca.gov.sa

zatca.gov.sa 19993 @zatca_sa

هذه الوثيقة مستخرجة من النظام الآلي ولا تحتاج إلى توقيع
و لا يعتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة
www.zatca.gov.sa

A-05 · NATIONAL ADDRESS CERTIFICATE (SPL)

Proof Number	1092481292	رقم الإثبات
Original Date	25/8/2026	تاريخ الإصدار
Expiration Date	21/2/2027	تاريخ الانتهاء

العنوان الوطني
NATIONAL ADDRESS

إثبات عنوان
Address Proof

Address Holder Details — بيانات صاحب العنوان

Name	Vertex ELectroMechanical Company	شركة فيرتكس إليكترو ميكانيكال — الاسم
Customer Acc.	3 1 3 3 6 2 1 5 1 1 0	رقم الحساب
Reg. Date	25/8/2026	تاريخ التسجيل

Address Details — تفاصيل العنوان

Short Address	E M D A 6 7 4 2	العنوان المختصر
Building No. / Street	6 7 4 2 / 9	الشارع / رقم المبنى: 9 — 6 7 4 2
Secondary No. / District	2 2 2 9 / Al Jawharah Dist.	الحي: حي الجوهرة / الرقم الفرعي: 2 2 2 9
Postal Code	3 2 4 2 2	الرمزي البريدي: 3 2 4 2 2
City	DAMMAM	المدينة: الدمام
	Kingdom of Saudi Arabia	المملكة العربية السعودية

To Verify للتحقق
https://proof.address.gov.sa/VerifyProofNA.aspx

تم إصدار هذا الإثبات إلكترونيا ولا يتطلب التوقيع عليه

تم إصدار هذا الإثبات بناء على طلب الموضح أعلاه، ويحظر قطعيا تقليده أو إدخال أي تعديلات عليه سواء بالإضافة أو الحذف، ويعد الإثبات لاغيا إذا شابه شيء من ذلك، كما يعرض صاحبه للمساءلة القانونية.

This proof has been issued electronically and does not require a signature

This proof has been issued upon the request of the above-named, and it is absolutely prohibited to imitate it or make any modifications to it, whether by addition or deletion, and the proof is considered void if it is marred by something, and its owner is subject to legal accountability.

19992 https://splonline.com.sa/ar/national-address-1/

C

CVs of Key Personnel

Attachment C. Curricula vitae of the managers and partners named in Section 9.0.

REF.	DOCUMENT	PAGE
A-07	CV: Eng. Essam Mohamed Nagib	—
A-07	CV: Emad Fikry Ibrahim Khattab	—
A-07	CV: Hossam Hassan Yassin	—
A-07	CV: Mostafa Taha Mohammed	—



VERTEX
ELECTROMECHANICAL

HEAD OFFICE

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Eastern Province, Kingdom of Saudi Arabia

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Mostafa Taha Mohammed
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