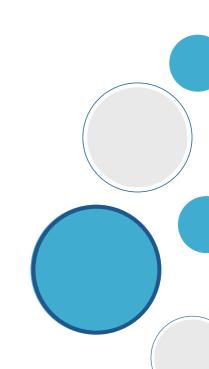




Testing, Commissioning,
Adjusting & Balancing
Department

2023

Welcome to Our Company





SANA Engineering was founded in 2011. In SANA we are committed to be a key enabler of Saudi Vision 2030.

We're leading the change towards a more sustainable future, partnering with those who want to make a positive difference in the world.

SANA MEP commissioning & TAB department carrying out Testing, Adjusting, and Balancing works for HVAC systems, MEP Commissioning services, and Duct Cleaning.

Efficient and innovative concepts for cost-effective planning, project execution and sustainable management are the backbone of our company – providing strength to your operations.



Table of

Contents

About Our Company	Page(1)
• ISO Certificate	Page(3)
• Our Certificates	Page(3)
• The Importance of TAB	Page(9)
• Our Professional Services	Page(10)
• Tools & Instruments	Page(16)
• List of Our Projects	Page(21)
• Our Key Clients	Page(24)
• Contact US	





About Our Company

SANA TAB department carrying out Testing, Adjusting, and Balancing works for HVAC systems, Commissioning services, and Duct Cleaning, started our activities since 2015.

Our rapidly advanced business is dependent on maintaining and achieving quality, Safety/Health, standards & procedures. The primary objective of our department is to achieve and support an effective, clean, and balanced environmental system in the long run with high reliability.

Our teams have specialist expertise in testing and commissioning services for all HVAC systems, which enables us to complete coordination of all aspects of commissioning services of building engineering. At SANA TAB, we have the flexibility of meeting the specific requirements of our clients for all types of projects.





About Our Company

At SANA MEP testing & commissioning department, we specialize in commissioning and testing services, which are a vital cog in bringing buildings to life and ensuring they perform at their absolute optimum. Incorporating a robust and thorough commissioning process such as ours in a development project is recognized as best practice.

SANA MEP testing & commissioning department supports our clients from the initial development stages through to the realization of sophisticated engineering, technical implementation, and commissioning management of large-scale, new, or existing projects. Efficient and innovative concepts for cost-effective planning, project execution, and

Efficient and innovative concepts for cost-effective planning, project execution, and sustainable management are the backbone of our company – providing strength to your operations.

We not only explain the risks during the project but also dedicate ourselves intensively to the opportunities for commercial success. We organize your projects so comprehensively that you can "sit back" with full confidence that our project team will turn your vision into reality.

SANA provides MEP testing & commissioning of the following systems:

- 1. Medium Voltage Systems
- 2. Low Voltage Systems
- 3. Low Current Systems
- 4. HVAC Systems
- 5. Plumping Systems
- 6. Hydronic Systems
- 7. Special Systems





ISO Certificate



ERTIFICATE

This is to Certify that the Quality Management System

of

SANA CREATIVE ENGINEERING SOLUTIONS AND SERVICES

Al-Falah District, Exit 07, Othman Bin Affan Road, Intersection with Northern ring Road, P.O. Box 12474, 8595 Riyadh, Kingdom of Saudi Arabia.

has been independently assessed and is compliant with the requirements of

ISO 9001:2015

This Certificate is applicable to the following product or service ranges:

MEP Systems, Control Systems, HAVC Testing and Balancing, Biomedical Engineering Systems and Trading of Rosenberg Fans - Air Curtains

Certificate No.: SA91017A

Date of initial registration 21 December 2020

Date of this Certificate 21 December 2020

Surveillance audit on or before 20 November 2021

Recertification Due/ Certificate expiry 20 November 2023

This Certificate remains valid subject to satisfactory surveillance audits.



This Certificate is the property of LMS Certification Limited and shall be returned immediately when de



MSCB132



LMS Certification Limited

Labrynth Business Centre, 43 Middle Hill Gate, Stockport, Great Manchester, England-SK1 3DG Phone :+44 208 935 5094

Company No.: 11029176

LMS/FM/001/Q/REV06



Our Certificates (NEEB Certification)









Certification

RAMI ABED AL-QADER AHMAD

HAS MET ALL REQUIREMENTS FOR NEBB CERTIFIED PROFESSIONAL STATUS IN THE FOLLOWING DISCIPLINE

Testing, Adjusting and Balancing of Environmental Systems

This Certificate, as well as individual affiliation with a NEBB Certified Firm and associated NEBB Certification Stamp are REQUIRED to provide a NEBB Certified Report. Participation in the NEBB Quality Assurance Program requires the Certificant be affiliated with a NEBB Certified Firm

CP-24463

NEBB Certification Number

December 31, 2023

Expiration Date

NEBB President

NERR President-Elect





Certification

THAER MAHER SUNOQROT

HAS MET ALL REQUIREMENTS FOR NEBB CERTIFIED PROFESSIONAL STATUS IN THE FOLLOWING DISCIPLINE

Testing, Adjusting and Balancing of Environmental Systems

This Certificate, as well as individual affiliation with a NEBB Certified Firm and associated NEBB Certification Stamp are REQUIRED to provide a NEBB Certified Report. Participation in the NEBB Quality Assurance Program requires the Certificant be affiliated with a NEBB Certified Firm

CP-24416

NEBB Certification Number

March 31, 2024

Expiration Date

for Prepard

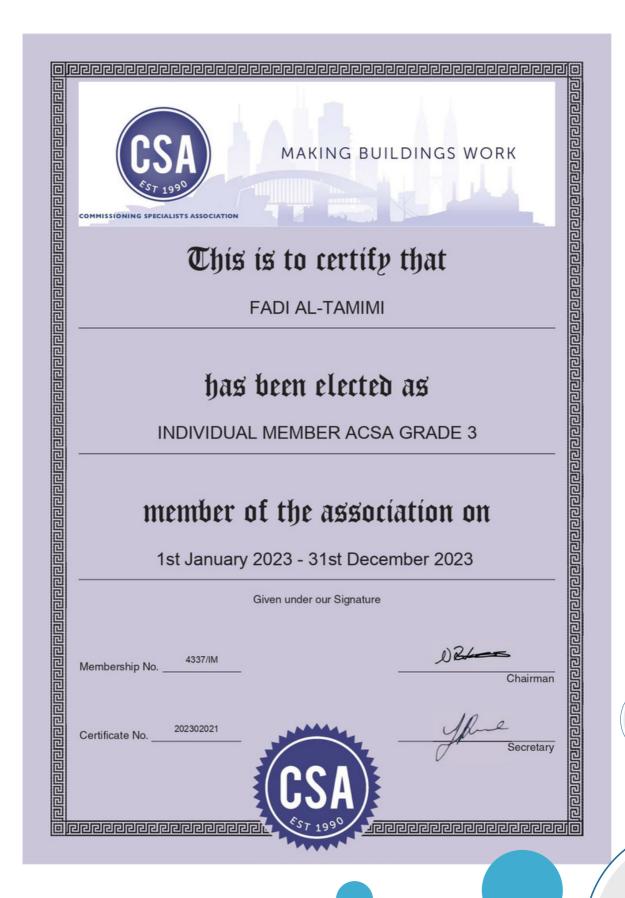




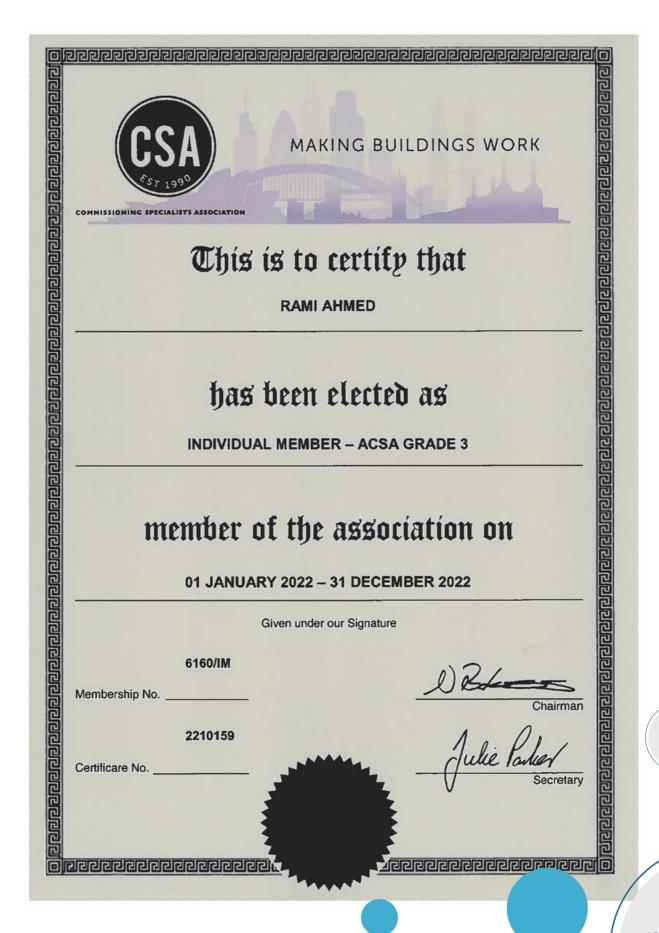














The Importance of TAB

Our Reputation Goes With It



Improve Indoor Air quality



Ensures energy efficiency



Keeps employees and customers comfortable



Reduces Maintenance Costs



Prevents "sick" buildings



Our Reputation Goes With It

Our main concern is always to deliver projects which meet the goals of our clients as well as the owners and the commissioning in the heart of our operations. We apply our services of commissioning until your project is successfully and safely operational and occupied. Some of the services that we offer at SANA include

1- Testing, Adjusting & Balancing (TAB) for HVAC Systems

Testing, Adjusting and Balancing is a process of three steps to validate the system is in compliance with the design conditions.

- Testing: is the set of activities performed with calibrated testing instruments, to measure the pressure, fluid (air or water) flow, or temperature to validate the equipment or system performance is in compliance with the required system performance.
- Adjusting: is the final setting of the system such as setting the valves and volume dampers and marking them with permanent markers, adjusting the fan speeds, adjusting the pump impeller sizes, etc.
- Balancing is the methodological process fine tuning of system fluid (air or water) flow to achieve the desired system performance by standard procedures.





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2-Air Duct Cleaning

We provides Air Duct Cleaning services by following the National Air Duct Cleaners Association (NADCA) standard, due to our concern to improve air quality with high standard robotic duct cleaning process wherein dust, fungus, and all other harmful particles are completely removed from indoor air to achieveA the required effectiveness of the system.

Services provided include cleaning of:

- Exhaust system and exhaust hood
- Fan housing and air handling unit housing.
- Heating and cooling system components of forced air systems
- Supply and return air ducts and registers, grilles and diffusers, heat exchangers





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3-Commissioning Management

SANA provides Commissioning Management expertise to Owners, Developers, Project Managers, Consultants, Contractors, and Building End Users.

Our highly experienced Commissioning Management Staff have completed numerous high-profile projects, ensuring that buildings are strategically planned, commissioned, and witnessed, to guarantee stringent compliance from design, and installation to handover. The initiation and implementation of a formal commissioning management system is vital to the success of any project and is also a requirement for many international and regional Building certifications.

4-Commissioning Verification of MEP systems

Commissioning Verification is a 3rd party assurance that Clients receive a fully commissioned and efficient building. The ongoing monitoring and verification of actual commissioning progress allows the Client complete understanding throughout the project.

Independent Verification / Validation is typically a Client appointed service. SANA provides Clients with professional representation ensuring all building services commissioning is conducted in line with current regulations, design, and specifications, confirming all points and interfaces are in place for buildings to operate efficiently and correctly after handover.

5-Electrical Testing & Commissioning

SANA offers a unique Hands on , Witnessing , Supervision ,Verification and Commissioning Management for Electrical Systems including, but not limited to , Continuity Test , Polarity Test ,Insulation Test , Live and Dead Test (Hot and Cold Test) , Dielectric Test , Earth leakage test , Earth fault loop impedance test, RCD test ,Primary & Secondary Injection test , Voltage, phasing , Power Quality , load measurements and Thermal Infra-Red Test.





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6-Operating & Maintenance Manuals (O&M)

SANA provides a comprehensive record of progress and system/plant test data, commissioning documentation forms are very important for contract completion documentation and also provide useful information for future building owners.

produces operating and maintenance, safety, and training manuals covering all aspects of building services to a high standard. Draft and final manual issues can be produced in a bound hard copy or a digitally produced CD Rom.

7-Re-Commissioning

Re-commissioning is a systematic process to improve an existing building's performance. Using a whole-building systems approach, recommissioning seeks to identify operational improvements that will increase occupant comfort and save energy.

We are approached on a near weekly basis from clients, tenants and operators of buildings where they are suffering from poor environmental conditions. Following on from this initial enquiry we are being appointed to recommission numerous buildings throughout the GCC that were either never properly commissioned or have suffered from inadequate maintenance.





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8-MEP Surveys, Troubleshooting & Thermographic Surveys

SANA Engineering through our experience in Commissioning Management and Hands-on Testing are perfect candidates to conduct complete surveys of operational buildings and systems.

Building services systems invariably lose peak efficiency or become difficult to control due to inefficient maintenance or modifications to systems, fabric or occupancy post installation. SANA conduct unintrusive surveys of existing installations, i.e. actually testing systems, then from findings recommending remedial actions required to bring systems and buildings back to efficient operation.

9-Facility Maintenance

From top to bottom and general to complex, we coordinate complete building maintenance and repair. At SANA Maintenance, our professional team is available to assist you with an array of facility maintenance services and repairs, including 24 emergency service for valued customers. Our mission is to surpass the competition by providing superior service. No job is complete until the customer is completely satisfied.





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10-Energy Management Services

Managing and reducing energy consumption not only saves money but also helps in mitigating climate change and enhancing corporate reputation. The primary objective of energy management is to achieve and maintain optimum energy procurement and utilization, throughout the organization which may help in minimizing energy costs and mitigating environmental effects. In fact, Energy Management is widely acknowledged as the best solution for direct and immediate reduction of energy consumption and also is a series of policies, processes, and procedures to manage operational energy use.

11-Energy Audits & Consultancy

energy audit is a systematic analysis of energy use and energy consumption within a defined energy audit scope, in order to identify, quantify and report on the opportunities for improved energy performance. Therefore, An Energy Audit is an energy assessment that analyses energy flows in a building, process, or system to reduce the amount of energy input into the system whilst maintaining or improving human comfort, health, and safety.





Our equipment's used in TAB works:

1- Capture Hood

The Alnor® Balometer® Capture Hood EBT721 is the industry standard for measuring air volume in order to balance buildings and verify air flow distribution. provides quick and accurate direct air volume readings at diffusers and grilles, enables easy one-person operation and offers various innovative accessories to increase your efficiency on the job, which can affect air quality, and reducing operating costs.





2- Rotating Vane Thermo-Anemometer

The EXTECH® AN300 is a Large Vane Thermo-Anemometer. This meter measures Air Velocity, Air Flow, and Temperature. Extech's Large Vane Thermo-Anemometer series allows for more precise readings on larger-size openings. Each meter simultaneously displays Airflow or Air Velocity and Temperature. Complete with 4 AAA batteries and hard carrying case

3- Velocity Anemometer

The Airflow® Thermal Anemometer probe version, used for applications include HVAC system performance, commissioning and duct traverses.





Our equipment's used in TAB works:

4- Mechanical Tachometer

The AMPROBE® TACH-20, Combination contact and non-contact measurements for measuring rotational speed of motors, conveyor belts, and other moving and rotational systems. Contact measurements in RPM, m/min, m/ sec, ft./min, ft./sec, in./min, m, ft., or in. and non-contact measurement in RPM for flexibility of use. Non-contact measurements using infrared beam function at a distance of 5 to 600mm (2 to 24 inches).





5-Rotating Vane Anemometer

The TSI Airflow® LCA301 Rotating Vane Anemometer is a user-friendly instrument that measures air velocity between 0.25m/s to 30m/s as well as temperature (5°C to 45°C). Readings are taken by a 100mm reversible vane - thus allowing assessment of extract and supply grilles - and an integrated air temperature probe.

This makes it ideal to for use on HVAC commissioning on grilles, filters and kitchen exhaust pipes.

6- Sound Level Tester

The BESANTEK® BST-SL2 Sound Level Meters is designed to cover a wide range of applications and performance criteria including noise pollution studies for the quantification of almost any noise, especially for industrial, environmental and aircraft noise. Meets IEC 651 Type 2 & ANIS S1.4





Our equipment's used in Testing & Commissioning works:

1- Insulation resistance testers (Megger)

The megger tester designed based on Megger's extensive knowledge of insulation testing (100+ years of experience) and significant feedback from actual end users. Megger has taken the best insulation testers in the world and improved them to add functionality, make them easier to use and easier to transport. They include Megger's patented digital/analog display (real-time pointer movement), a CATIV safety rating at all terminals and a unique dual case design.





2-Megger Freja 300 Relay Testers

The FREJA 300 relay testing system is a computer-aided relay testing and simulation system. The weight of FREJA 300 is only 15 kg. The rugged hardware design is built for field use over a wide temperature range, with the possibilities of intelligent software to perform rapid testing

3- Omicron- CPC 100

The patented CPC 100 primary injection test system replaces several individual testing devices. This reduces the costs for training and transport, and cuts down testing time. Therefore, the CPC 100 is the ideal test set for substation asset commissioning and maintenance. You can operate the CPC 100 via the integrated front panel, or by using the Primary Test Manager TM (PTM) software on your laptop.





Our equipment's used in Testing & Commissioning works:

4- Omicron-CT Analyzer

The CT Analyzer automatically determines all relevant current transformer values and compares the results with the selected standard.

It facilitates fast and economical on-site testing and calibration of metering and protection current transformers. Manufacturers of current transformers, high voltage transformers and switchgear also use the CT Analyzer for tests during development and production.





5-Fluke Multifunction Testers

The Fluke 1662 installation tester gives you Fluke reliability and all the basic testing power you need for dayin, day-out installation testing. It tests to all local regulations and is easy and intuitive to use. Additional helpful features like the On/Off switchable auto-start for RCD and loop test, and self-test save time and give you more confidence in your results.

6- LIGHT / LUX METER s

LUX meter or light meter, Measure illumination in terms of luxes (lx) or foot candles (fc). A lux is equal to the total intensity of light that falls on a one square meter surface that is one foot away from the point source of light. A footcandle is equal to the total intensity of light that falls on a one square foot surface that is one foot away from the point source of light.





Our equipment's used in Testing & Commissioning works:

7- Fluke Networks Tester

Fluke Networks, the worldwide leader in certification, troubleshooting and installation tools for professionals who install and maintain critical network cabling infrastructure, has introduced the DSX-8000 Cable AnalyzerTM. The DSX-8000 is the world's first independently verified category 8 field tester and the latest addition to the VersivTM Cable Certification Family, a line of products designed to help data communication installers quickly and accurately achieve system acceptance for copper and fiber media.





8-Security IP Camera Tester

THE IP Camera Teste, Network camera tester support max 12MP 4K H.265/H.264 IP Camera test. Powerful network tools to help you detect and set various network parameters. Support PoE IEEE802.3af/at 48V, maximum power 25.5W, UTP cable test, POE/PSE test RJ45 TDR cable test.

9-Level Laser Shaft Alignment System

SKF has introduced the TKSA 31 shaft alignment tool for easy laser alignment at an entry-level price. Developed for rotating machines in industrial applications, the instrument helps customers identify and correct shaft misalignments to improve equipment uptime, reliability and lower maintenance costs.





List of Our Projects

CLIENT	PROJECT	WORK DESCIPTION
Minisrty Of Energy	Ministry Of Energy Offices/Digital City	Testing, Commissioning, Adjusting & Balancing
SFDA	SFDA LAB/DAMMAM	Testing, Commissioning, Adjusting & Balancing
KAFD	KAFD /PARCELL 3.04,1.10,1.19,2.14,213	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Maternity and children Hospital /Al-Hassa	Testing, Commissioning, Adjusting & Balancing
King Fahed Medical City (KFMC)	Riyadh MRI Dep.	Testing, Commissioning, Adjusting & Balancing
Private Hospital	AMC Hospital/ Riyadh	Testing, Commissioning, Adjusting & Balancing
Neom	Neom (Al-Shalawi Co. WO#8)	Testing, Commissioning, Adjusting & Balancing
SFDA	SFDA LAB/ Riyadh	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Al-Yamama Hospital- Phase 1 / Riyadh	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Al-Yamama Hospital- Phase 2 / Riyadh	Testing, Commissioning, Adjusting & Balancing
Private Hotel	Park in Radisson Hotel / Riyadh	Testing, Commissioning, Adjusting & Balancing
Armed Forces	King Fahed Armed Forces Hospital / Jeddah	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Corona Lab. / Arar	Testing, Commissioning, Adjusting & Balancing





List of Our Projects

CLIENT	PROJECT	WORK DESCIPTION
Saudi Electricity Company	AlNada 132/13.8KV Substation #8220- Riyadh	Testing, Commissioning, Adjusting & Balancing
Saudi Electricity Company	Madinah Extension Substation Project	Testing, Commissioning, Adjusting & Balancing
Saudi Electricity Company	Makkah North 380 SS	Testing, Commissioning, Adjusting & Balancing
Ministry of Interior	KAP-01 SITE 187 / Abha	Testing, Commissioning, Adjusting & Balancing
Ministry of Interior	MOI-Phase 2 / Riyadh	Testing, Commissioning, Adjusting & Balancing
King Fahed Medical City (KFMC)	Riyadh PET CT	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Maternity & Children Hospital / Ahsa-Madinah	Testing, Commissioning, Adjusting & Balancing
Nora University	King Abdullah University Hospital-OPD / Riyadh	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Bisha Hospital	Testing, Commissioning, Adjusting & Balancing
Panorama Mall- Hamat	Panoramam Mall/Food Court Area	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Ahd Al-Masarhah Hospital / Jizan	Testing, Commissioning, Adjusting & Balancing
Civil Defense Building	MOI Projects Prototype 2070 (Site 270)	Testing, Commissioning, Adjusting & Balancing
German Embassy	Construction of New Visa Section / Riyadh	Testing, Commissioning, Adjusting & Balancing





List of Our Projects

CLIENT	PROJECT	WORK DESCIPTION
Ministry of Interior	Internal Police Department (Site No.004) / Jizan	Testing, Commissioning, Adjusting & Balancing
Ministry of Interior	Administrative Building Category B (Site No.147) / Jizan	Testing, Commissioning, Adjusting & Balancing
Ministry of Interior	Civil Defence Section (Site No.270) / Jizan	Testing, Commissioning, Adjusting & Balancing
Bank Al-Bilad	Al Naseem Branch	Testing, Commissioning, Adjusting & Balancing
Bank Al-Rajhi	Al Naseem Branch	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Development of PICU Department - Abha/ AlRass /Tabuk/Madinah	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	King Fahed Hospital - AlHafouf/Madinah	Testing, Commissioning, Adjusting & Balancing
Sultan Medical Center	Proposed Psychiatry Building / Riyadh	Testing, Commissioning, Adjusting & Balancing
Technical & Vocational Training Corporation	Female Technical Collage / Belgarn	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Al-Qurayyat General Hospital	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Maternity & Children Hospital / Khamis Mushayat	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Medical Tower/Isolation Rooms-2nd Floor/ Arar	Testing, Commissioning, Adjusting & Balancing
Ministry of Health	Medical Tower/Operation Rooms-1st Floor/ Arar	Testing, Commissioning, Adjusting & Balancing





From Our Projects



Jeddah Cables Company



Saudi Lexus Company



Maternity and Children's hospital al ahsa



North Medical Tower Hospital



King Abdullah University Hospital



Tala Mall

Our Key Clients





























Get In Touch

Let an Engineer Help you Save Energy, Save Money and Make Your Project a Success.



Phone Number

For TAB work:

Eng.Rami:+966 54 167 4847

For MEP Commissioning:

Eng. Fadi :+966544619525



Our Location

Riyadh-Saudi Arabia Jeddah-Saudi Arabia Abha-Saudi Arabia



E-mail Address

For TAB work:

rami@saudisana.com

For MEP Commissioning:

fadi.altamimi@saudisana.com



Website

www.saudisana.com



linkedin

SANA Engineering Company



