

ASTRON



PARTNERING
FOR A **BETTER** FUTURE

About Astron

Astron provides Testing, Inspection and Certification (TIC) solutions to the Oil & Gas, Petrochemical, Power, Mining, Engineering, Construction and Infrastructure industry sectors, assisting Clients to meet the growing challenges of quality, health & safety, environmental and social responsibility by providing services to exacting standards.

Why Astron?

High Quality Services

Through a combination of selection and training, ASTRON ensures that their engineers are of the highest standard and their goal is always to provide customers with a service that exceeds expectations.

Swiftness of services

ASTRON inculcates this culture within the organization, understanding the customer's expectation of handling their enquiries effectively and efficiently.

Be a partner and offer innovative solutions to the customer

ASTRON encourages their engineers to raise the bar above the level of normal compliance to the level of offering innovative solutions to customers.

Automated processes

ASTRON implements innovative technical IT solutions for inspections, associated reports and certificates.

Cost management

ASTRON's strategic pricing optimizes the cost with no compromise on quality.

Corporate Social Responsibility

ASTRON considers community as the stake holder and give value to the community by giving back through effective CSR programs.

www.astrongroup.com



ACCREDITATION & CERTIFICATION

ASTRON is accredited as an Inspection Body, Type A by the Dubai Accreditation Centre (Member of IAF) for ISO 17020-2012

ASTRON is certified to ISO 9001-2015, ISO 14001-2004 OHSAS 18001:2007, and ISO 29001-2010

ASTRON is a member of Lifting Equipment Engineers Association (LEEA)

ASTRON is licensed by IQCS to conduct IRCA approved Training Courses



IB-067

Full Member

Member of the Institution of Mechanical Engineers (I.Mech.E.)



THIRD PARTY INSPECTION AND CERTIFICATION

ASTRON independently verifies compliance to the specified requirements during the design, construction, installation and commissioning phase of any project thus avoiding Quality issues during fabrication and site assembly that can hinder compliance with relevant standards and regulations.

This service enables the client to monitor processes at every stage and deal with concerns in a timely manner. It will also reduce the need for costly and unnecessary project rework and cost overruns.

ASTRON can provide Project Compliance Certification on verification of all stages, from design to commissioning.



ASME AUTHORIZED INSPECTION SERVICES

ASTRON offers a full range of ASME code inspection services, including boilers, pressure vessels and power piping and assistance for the development of Quality Control / Assurance Programs.

We assist you with

- Establishing a QC system in compliance with the Code
- Annual audit of your workshops
- Manufacturing inspections at your workshops

WORLDWIDE VENDOR INSPECTION AND CERTIFICATION

ASTRON offers Quality control, vendor inspection & expediting during the project purchasing activities. This service also includes, but not limited to engineering inspection, stage wise inspection as per Quality control plan at the vendors premises.

Our qualified local teams are familiar with inspecting all kinds of supplies: materials and components, pressure equipment, line pipes, mechanical equipment, machinery and electrical equipment.

Vendor Expediting

ASTRON offers professional expediting services which has become key to success for the project completion with the deadlines and schedules becoming more and more critical.

Our expeditors are experienced professionals who, by virtue of their technical backgrounds, are able to quickly verify progress against schedules, spot any potential bottlenecks and point out any quality issues that may lead to eventual delays.

Vendor Audits

ASTRON offers technical and resource assessment audits to aid clients in the selection of vendors, providing confidence that the vendors selected will be capable of delivering as promised and that order placed will arrive on time and as specified.

Mill Inspection & Surveillance

Astron provides Mill Inspection and Surveillance services by specialist inspectors who are technical experts, experienced in mill processes with in-depth knowledge of forming, welding, NDT, testing, threading, coatings, loading, etc.

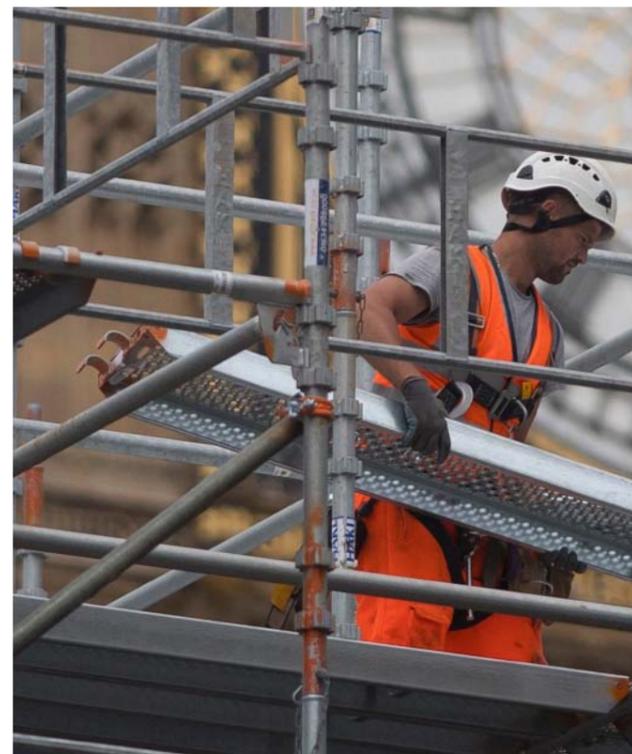


LIFTING EQUIPMENT INSPECTION & CERTIFICATION AND TRAINING

ASTRON offers inspection and certification services for all lifting equipment including lifting appliances and lifting tackles. Our independent inspection, carried out in accordance with all applicable standards, codes, regulation and best engineering practices ensures all statutory and regulatory requirements are met.

ASTRON provide training for the safe operation of lifting equipment for Operators and Riggers ensuring that they are capable of performing their operations safely and competently before deployment. Our comprehensive training programs includes both theoretical and practical training. The aim of these programs are to ensure that the operators possess high skill levels, allowing them to operate their equipment safely.

ASTRON also provides inspection and certification of Earthmoving equipment and competency assessment of its operators. Our services not only assures that the equipment is safe to use but also ensures that the equipment operators are well trained and highly skilled. Inspection and certification activities are available for both onshore and offshore applications.



SCAFFOLDING INSPECTION AND TRAINING

ASTRON provides inspection of scaffolds to assure compliance to specified requirements. Astron offers verification of design drawings and calculations of scaffolds, in addition to providing training & certification to all categories of scaffolding personnel. Astron also offers verification of the scaffolding material for conformation to relevant safety standards and Inspection services of erected structures.

MANAGEMENT SYSTEM CERTIFICATION AND TRAININGS

ASTRON offers certification to all management systems, not limited to ISO 9001:2015, ISO 14001:2004, ISO 45001:2018 and ISO 22000:2005 for a wide range of private and public sector organizations.

This service includes Gap analysis against standards, third party auditing including internal and pre-assessments audits, Risk Assessments and Legal Compliance Assessments.

Astron also provide awareness, internal auditor and IRCA certified lead auditor trainings against various management systems and conformity assessment standards.

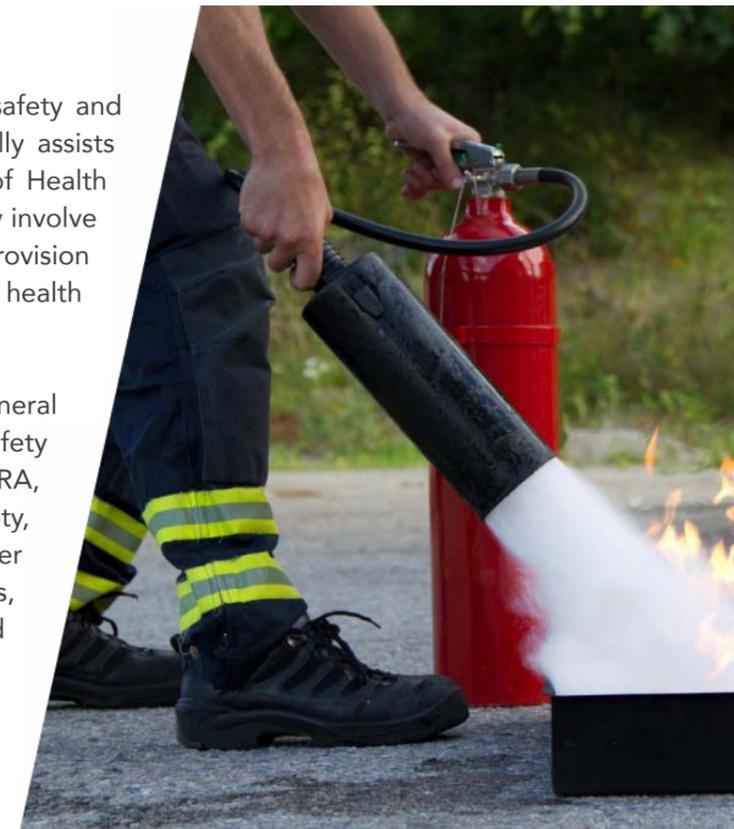


HSE TRAINING AND CONSULTANCY

ASTRON provides the full spectrum of health, safety and environmental consulting services. Astron typically assists clients with the introduction and maintenance of Health and Safety procedures and programmes. This may involve the carrying out of health and safety audits, the provision of a bespoke consulting service or the drafting of health & safety documentation.

The services offered by ASTRON include General workplace Risk Assessment, Engineering Safety Studies and Assessments such as HAZOP, QRA, SIL, PHSER, HSE Plan, Fire Safety, Electrical Safety, Construction Safety, Logistics Safety, HSE Manpower secondment, Environmental Consultancy Services, Loss prevention Consultancy, Health, Safety and Environmental Training Services and Amusement and Theme park ride inspections

Astron also specialises in the formulation and delivery of bespoke packages including training.





ASSET INTEGRITY MANAGEMENT SERVICES

ASTRON ensures your assets will perform it's required functions in a safe, reliable and fit-for-service condition with our asset integrity management services. Asset integrity management (AIM) is a reliable, safe and cost-effective solution to maintain assets in fit-for-service condition while extending remaining lifetime. AIMS should define and monitor integrity requirements through every stages of Asset life cycles from design, through construction and commissioning, to operations, maintenance and modifications, and decommissioning. It integrates all aspects and disciplines that directly and indirectly impact on integrity or performance.

ASTRON provides specialist support in all areas of AIM, including process safety, risk analysis, mechanical integrity, and inspection and maintenance optimization to ensure the reliability, safety and productivity of your company assets. ASTRON's AIM services enable your organization to confidently evaluate the condition of your assets based on documented evidence.

ASTRON AIM Services includes:

- Risk-Based Inspection (RBI)
- Reliability-Centered Maintenance (RCM)
- Plant Maintenance and Optimization
- Failure mode effect and criticality analysis (FMECA)
- Risk Assessment (Qualitative & Quantitative)
- HAZOP & HAZID
- Safety studies
- Root Cause Analysis (RCA)
- Corrosion Analysis
- Corrosion Management Planning
- Fitness for Service (FFS) Assessment
- Remaining Life and Life Extension Assessments
- Integrity Operating window study
- Pipe line Integrity Management
- Structural Integrity Management
- In service and Shutdown Inspections
- In-situ metallography study
- Safety Integrity level Analysis(SIL)

ASTRON's new generation software through our partner Ankaa consulting will help you to carry out the AIM in an efficient seamless manner.

Q-Phe Platform

A modern and comprehensive cloud based database application platform. Prototype Build, Test and Deploy your application in lightning speed.

Accessible thru Mobile

Access your application from anywhere using your mobile devices, get notification of work anywhere.

Easy to use

Simple design, very intuitive for navigating through the application screens and modules

Workflow

Manage and configure your workflow, with emails and screen notification services. End user can manage their operational changes easily following the workflow system

Cloud

Build your fully cloud ready applications, you can easily deploy into any cloud platform

No Code

Anyone can build online database applications ultra fast without coding. All-in-one cloud platform makes it easy to build custom database applications in a fraction of the time and cost versus traditional software development

Easy to Configure

Configure your requirements in minutes prototype it, and build, test and deploy into production easily without much of efforts



NON-DESTRUCTIVE TESTING SERVICES (NDT)

ASTRON has a large range of Nondestructive testing capabilities to ensure the safe operation of your assets by identifying the flaws in advance and assure the integrity of the equipment. Our qualified NDT specialist and latest equipment with proven NDT technique can provide accurate and valuable data for integrity management decisions.

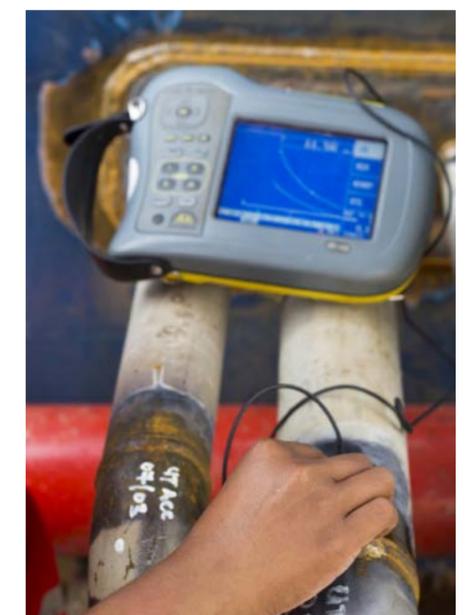
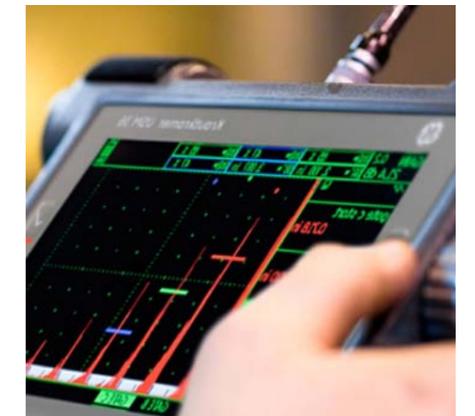
Our Services includes:

Specialized NDT Techniques:

- Phased Array Ultrasonic Testing (PAUT)
- Time of Flight Diffraction (TOFD)
- Remote Field Electromagnetic Testing (RFET)
- Internal Rotary Inspection System (IRIS)
- Eddy Current Testing (ECT)
- Magnetic Flux Leakage Testing (MFL)
- Long Range Ultrasonic Testing (LRUT)
- High Temperature Hydrogen Attack (HTHA) detection.
- Magnetic Flux Leakage Testing for Tank floor
- Corrosion under Insulation inspection (CUI)

Conventional NDT Techniques:

- Ultrasonic Testing (UT)
- Magnetic Particle Testing (MT)
- Dye Penetrant Testing (PT)
- Radiographic Testing (RT)
- Positive Material Identification (PMI)
- Remote Visual inspection with Videoscope / Boroscope



SECONDMENT OF SPECIALIZED PERSONNEL

ASTRON offers a broad range of recruitment and work force management solution for the oil, gas, power generation and petrochemical industries. Astron's experienced human resource team manages the interface between the client, project team and the secondees thereby relieving you to concentrate on other more critical areas of the project.

Astron's global search capabilities and constantly updated database provide optimized candidate profiling and screening ensuring the best qualified candidates are put forward to the client for consideration. Astron specializes in the following Engineering discipline: Construction, Mechanical, Electrical, instrumentation & controls, Civil, Hook up & commissioning, Piping, Structural, Installation, HSE, Project engineering and Project management.



UNMANNED AERIAL SYSTEMS

ASTRON provides Unmanned Aerial system (Drones) based inspections, specializing in two areas – Flare stack inspection services making use of ROAVs (Remotely operated aerial vehicles) and Remote Aerial Surveys, data acquisition and accurate photogrammetry mapping information services from unmanned aircraft.

ROAVs have been recognized as a significant tool for remote inspection of open areas and industrial facilities. This solution represents the best cost benefit for in-service inspection of flares. The inspection consists of visual (Optical – 36 MP) and Thermographic (Flir T440) flare analysis.

Astron's ROAVs are uninhabited, motorized aerial vehicles, which are remotely controlled, semiautonomous, autonomous, or combination of these capabilities with a loitering capability that can carry various types of payloads up to 10kgs. These ROAVs are equipped with high definition video, optical (36MP) and Thermal-(Flir T440) imaging cameras, all of which are capable of taking incredibly detailed photos from virtually any angle and reaching areas of the structure that personnel simply cannot get to. The images can then be analyzed in real time or off-line to determine what repairs or proactive maintenance needs to be carried out.

The advantage of this technology is the possibility of obtaining information about the flare without interrupting operation thereby saving substantial costs of shutdowns. This technology also provides real time downstream of Video and Data (Thermal and Optical) immediately to inspection and plant operators for immediate analysis.

Astron's Unmanned System based Inspection are applied in:

- In-Service Flare inspections – Optical HD photography, Thermal Inspections, Heat Radiation mapping and survey of Hot Spots
- Transmission Lines – Corona Discharge inspections, Combined UV/VIS/IR for high voltage equipment inspection, Capture the UV from electrical discharges and Thermal Image detection of hotspots on high voltage equipment.
- Emissions Monitoring (Black Carbon)
- Transportation Design & Construction
- Detailed Engineering Evaluations and structural Assessments
- Guy wire inspections
- Building & Construction Progress monitoring
- Corridor Survey – Topographical surveys (As Builds / New Developments), Transmission Lines, Roads, Metro Rail and Pipe Lines
- Mining Volumetric Surveys, Mining Rehabilitation – Tailings/Stock Piles
- Disaster management
- Nature & Conservation
- Transportation Design & Construction
- Unmanned Laser Scanning (LIDAR)

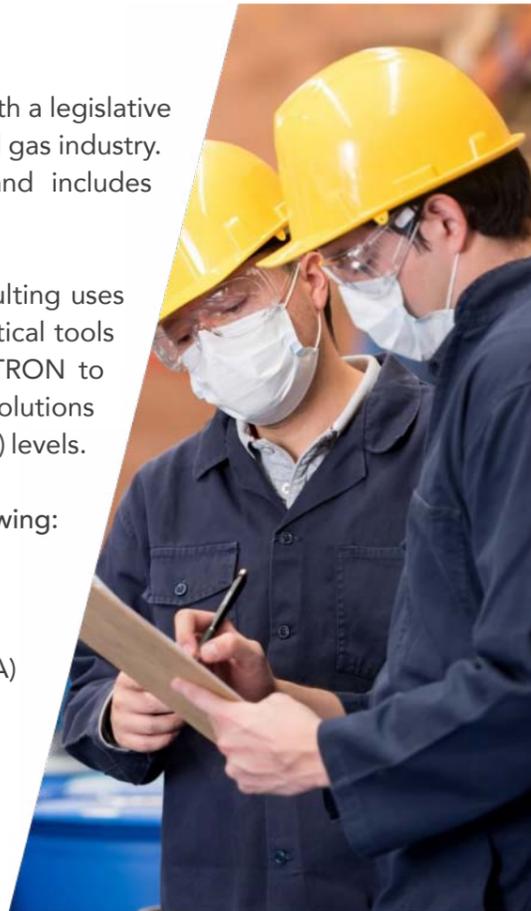
SPECIALIST TECHNICAL SAFETY STUDIES

Quantification and management of risk has become both a legislative requirement and an integral part of safety in the oil and gas industry. The risk management framework is well defined and includes analysis and assessment of potential major accidents.

ASTRON with the support of our partner Ankaa consulting uses experienced consultants supported by the latest analytical tools and techniques to assess the risks. This enables ASTRON to provide their clients with the most practical and effective solutions reduce risks to As low as Reasonably Practicable (ALARP) levels.

ASTRON can assist their clients by executing the following:

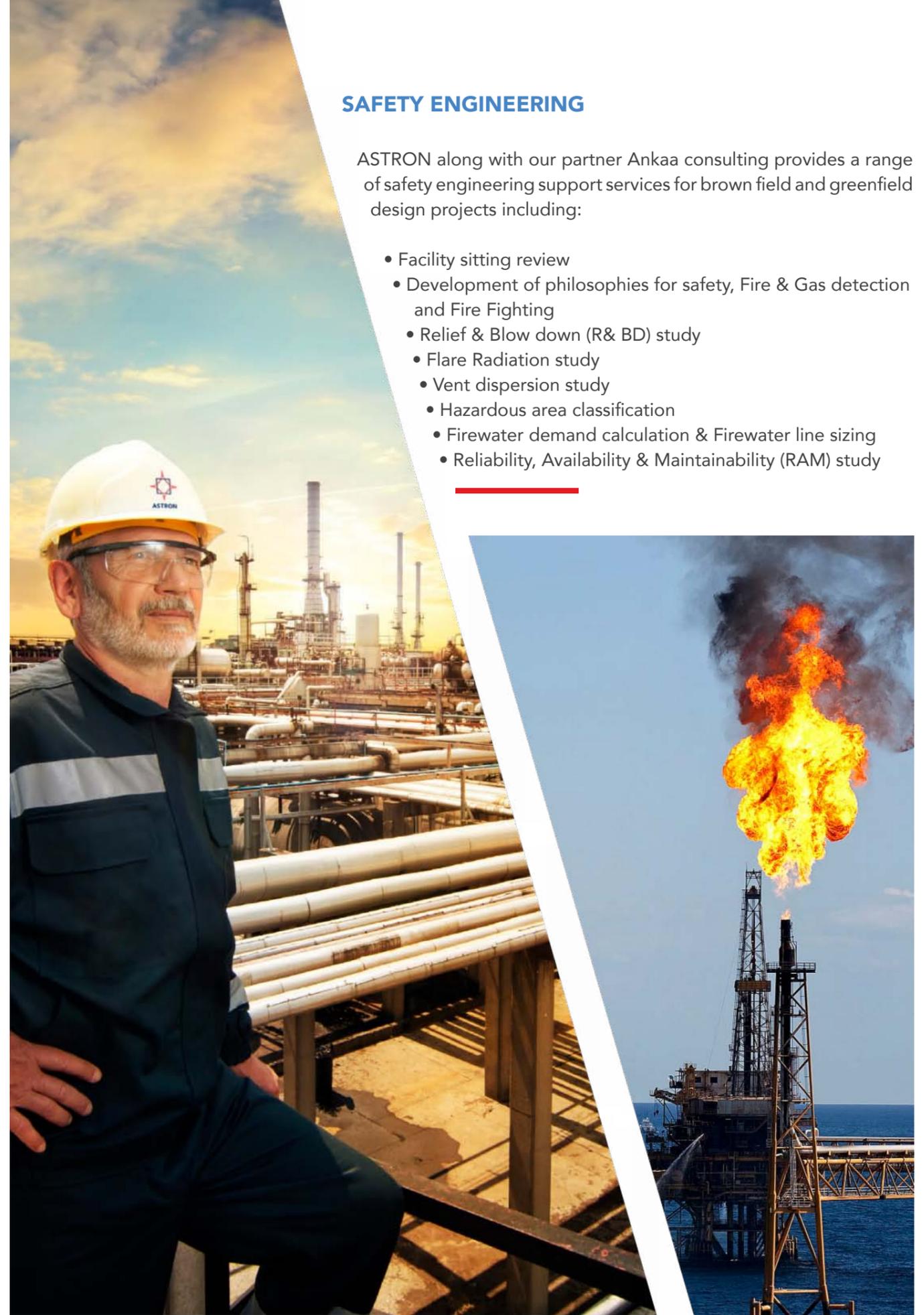
- 1) Hazard Identification and Risk Assessment (HAZID)
- 2) Process hazard analysis (PHA)
- 3) Hazard & Operability study (HAZOP)
- 4) Failure Mode, Effects and Criticality Analysis (FMECA)
- 5) Fire Risk Analysis (FRA)
- 6) Blast overpressure Assessment
- 7) Fire & Explosion Risk Analysis (FERA)
- 8) Cryogenic dispersion Analysis (2D Approach)
- 9) Quantitative Risk Assessment (QRA)
- 10) Simultaneous Operation (SIMOPs) Reviews



SAFETY ENGINEERING

ASTRON along with our partner Ankaa consulting provides a range of safety engineering support services for brown field and greenfield design projects including:

- Facility sitting review
- Development of philosophies for safety, Fire & Gas detection and Fire Fighting
- Relief & Blow down (R& BD) study
- Flare Radiation study
- Vent dispersion study
- Hazardous area classification
- Firewater demand calculation & Firewater line sizing
- Reliability, Availability & Maintainability (RAM) study



OUR MISSION

The large purpose of our business is to protect life, ensuring operational safety to the equipment and the operators to the exacting standards and offering our endeavors to make this planet a better living space through our services.

OUR VISION

To be the premiere Inspection and Certification agency globally being the first choice of the customers and employees alike.

OUR VALUES

Values are paramount importance to us and we wish to inculcate the following core values amongst our employees to reflect internally and externally.

Trust
Respect
Integrity
Commitment
Empathy
Passion
Service Excellence

The meaning of ASTRON is North Star in Greek, and ASTRON wishes to be the guiding star for all its customers in terms of technical guidance in maintaining their plants. It also wishes to be the brightest star among its competitors in the market by virtue of its exemplary high quality of services and customer focus, ASTRON will offer high family values to its employees and will stand by its core values of mutual respect, fairness, transparency, honesty, integrity and humility. ASTRON seeks to be the first choice of both customers and employees.

Worldwide locations

United Arab Emirates

Tel: +971 2 575 9221
Fax: +971 2 575 9211
Email: astron-uae@astrongroup.com

Saudi Arabia & Bahrain

Tel: +966 13 8944826
Email: astron-saudi@astrongroup.com

Qatar

Tel: +974 44 885 217
Fax: +974 44 885 217
Email: astron-qatar@astrongroup.com

Oman

Tel: +968 22 008 888
Fax: +968 22 006 666
astron-oman@astrongroup.com

Kuwait

Tel: +965 23 927 012
Fax: +965 23 927 012
Email: astron-kwt@astrongroup.com

India

Tel: +91 22 49 748 540
Email: astron-india@astrongroup.com

United States of America

Tel: +1 715 247 2053
Mob: +1 651 226 4652
Fax: +1 715 247 2055
Email: astron-usa@astrongroup.com

Canada

Tel: +1 905 460 1007
Fax: +1 905 460 1007
Email: info@astrongroup.com

United Kingdom

Tel: +968 22 008 888
Fax: +968 22 006 666
astron-oman@astrongroup.com

Malaysia

Tel: +60 321 641 589
Fax: +60 321 640 589
Email: astron-my@astrongroup.com

South Africa

Tel: +27 793 883 851
Fax: +27 793 883 851
Fax: +86 21 3472 0995
Email: info@astrongroup.com

China

Tel: +86 21 3472 0991, 3472 0989
Mob: +86 370 1696590
Fax: +86 21 3472 0995
Email: info@astrongroup.com

Japan

Tel: +81 3 3537 3667
Fax: +81 3 3537 3679
Email: info@astrongroup.com

France

Tel: +33 (0) 328 289 297
Fax: +33 (0) 328 279 562
Mob: +33 (0) 676 176 338
Email: info@astrongroup.com

Czech Republic

Tel: +42 027 401 3228
Mob: +42 026 731 1756
Fax: +42 077 478 4770
Email: isi@astrongroup.com

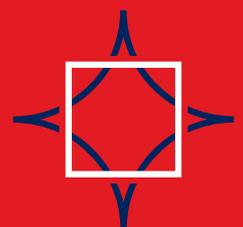
Korea

Tel: +82 2 336 2383/2384
Fax: +82 2 336 2383
Email: info@astrongroup.com

Italy

Tel: +390331629662
Mob: +393400018502
Email: astron-it@astrongroup.com

info@astrongroup.com
www.astrongroup.com



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