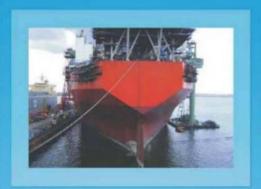


The Complete Solution Provider











- CATHODIC PROTECTION
- FABRICATION OF SKIDS & MODULES, ENGINEERED PRODUCTS
- ENGINEERINGCONSULTANCY SERVICES



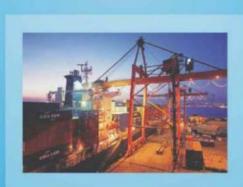








- CALIBRATION SERVICES
- TRADING OF MATERIAL AND COMMODITY
- GREEN ENERGY SOLAR PROJECTS & WATER TREATMENT





OUR PROFILE

Cunic Energy Services, a company headquartered in Port Harcourt Nigeria is expertise in providing Engineering, Fabrication, Inspection & Testing, NDT & Advance NDT and various services to Industrial, Commercial & Government Clients across Oil and Gas, Marine, Petrochemical, Power, and Process Industries. Since its inception, Cunic has successfully grown to become a multi-national company with direct associates worldwide. We believe that an innovative, experienced and competent workforce is the key to our success and all our partners often work together to combine skills and experience from around the world.

OUR CORE SERVICES

- Inspection Services
 - Asset Integrity Management Services
 - Inservice Inspection
 - ✓ Offshore Inspection
 - Storage Tank Survey
 - Risk Base Inspection
- NDT Services
 - Remote Visual Inspection
 - ✓ LRUT , TOFD, PAUT, MFL Services
 - Gamma Scan On Columns
 - Rope Access

- Engineering Procurement & Construction
 - Engineering Design & Analysis
 - Electrical & Instrumentation
 - ✓ Fabrication Services
- Calibration Services
- Green Energy
 - Solar Projects
 - ✓ Water Treatment Solutions
 - ✓ Solid Waste Management System

OUR CERTIFICATION & ACCREDITATIONS









ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) PROJECTS

Cunic has been actively involved in carrying out various projects related to Oil & Gas, Petrochemical, Process, Marine, cement and Power sector globally. A very competent project management team with motivated and technically superior workforce has helped Cunic to carry out many projects to the stringent quality requirement and within a narrow deadline set by the client.

Our Engineering Procurement and Construction Services range from the sourcing of the materials for the fabrication to systems engineering and integration of all packages within appropriate platforms. The experience and competitiveness of our projects team in handling the full package consisting of all the Mechanical, Electrical & Instrumentation works has always given us an edge over others.

Engineering Design

Cunic provides Engineering for both onshore and offshore industries including Basis of Engineering, Front End Engineering Design (FEED), Detail Engineering Design, Operating and maintenance manuals and as built documentation services on the following:

- **✓ Process Engineering:** Process calculations, PFDs, P&IDs and Process Data sheets.
- ✓ Piping Engineering: Plot plan, Conceptual layout, Equipment layout, Piping layout, Isometrics, Stress analysis, MTO
- ✓ Mechanical Engineering: Pressure vessels, Heat exchangers, Reactors, Skid assemblies
- ✓ Civil Engineering: Design calculations, Piling layouts, Structural layouts, Architectural
- **✓ Electrical Engineering:** Single line drawings, Cable tray routings, Specifications and data sheets.
- **✓ Instrumentation Engineering:** Hook up drawings, Cable tray routings, Specifications and data sheets

Our driving force is the challenge to bring in improvement and inculcate the habit of experimenting engineering designs.

ENGINEERED PRODUCTS & SERVICES

Cunic with its own large facilities in Port Harcourt equipped with modern equipment and well experienced work force can provide Engineering, Procurement, Manufacturing, Fabrication, Assembly, Installation and Testing of various kinds of Packages, Modules and Automation Systems used in Offshore and Onshore applications according to the client and project requirements.

Cunic is authorized for Design and Manufacturing ASME "U" and National Board "R" Stamp for repairs.

Our Products Include

- ✓ Pressure vessels
- Storage tanks
- ✓ Heat Exchangers
- ✓ Pump Packages
- Compressor Package
- Metering Skids
- ✓ Manifolds
- ✓ Agitators
- ✓ Jacketed Vessels

- ✓ FRP Lined Storage Tanks
- Control Panels
- ✓ Air Pollution Control Equipments
- ✓ Material Handling Systems
- ✓ Any Custom Engineered products
- ✓ Subsea Components



FABRICATION

Proficient to deliver initial design through Factory Acceptance Testing (FAT), we have internal capabilities to provide a turnkey package complete with 3D modeling, fabrication, controls and instrumentation, electrical wiring, pressure testing, performance testing and installation.

Piping Systems like Carbon Steel, Stainless Steel, Duplex Stainless Steel, Titanium, CPVC, PTFE, FRP, GRE etc.

Factory Facilities like

- Covered Work Shop
- Covered & Open Materials Storage Area
- Lifting's Equipments
- ✓ In house NDT











INSPECTION SERVICES

Cunic is an accredited Inspection Body Complying to ISO/IEC 17020 requirements and provides independent Inspection & Expediting Services globally. The company is accredited to AWS, DNV, ABS and LR which demonstrates the competitiveness and adherence to internationally recognized standards of excellence.

Cunic offers a wide range of Inspection Services to Onshore & Offshore industries to ensure Equipment Facilities, products and Systems comply with all the applicable requirements. The inspection is carried out with the highest levels of quality and safety standards delivered by qualified and trained engineers on call out, short term and long term basis.



Inspection & Expediting Services

- ✓ Third Party Inspection
- Second Party Inspection
- ✓ Pressure Vessel & Lifting Equipment
- Engineering Design Review
- Electrical Instrumentation & Control Inspection
- ✓ Oil Country Tubular Goods (OCTG) Inspection & Services

Quality Control and Management

- ✓ Total Document Control
- ✓ Technical Procedure Preparation
- ✓ Project Quality Control & Assurance Management
- Vendor & Source Inspection
- Vendor Qualification Audit/ Supplier Technical Assessment

Welding Consultancy and Welding Testing

- ✓ Welding Engineering Consultancy
- ✓ Welding Failure Analysis
- ✓ Welder Training & Testing

ASSET INTEGRITY MANAGEMENT

Managing the integrity of the physical assets including periodic maintenance, Turnaround inspection, renewal and maintaining records needs utmost importance as it affects the safety and profitability of an industry.

The plants are normally designed to runs day and night, 24/7 a year and to last 25 to 30 years, which demands constant maintenance and upkeep. As part of the routine maintenance, these facilities are periodically shut down for major planned overhaul and development work, commonly known as turnaround and maintenance. The primary objective of plant turnaround maintenance is to revitalize, maintain, and improve the plants to ensure optimal and efficient performance.

Cunic has exposure and experience in handling Turnaround shutdown projects with its experienced and qualified personnel. We follows international industrial standards for the implementation of Asset Integrity Management with the following approach.

- Listing of Assets
- Assessment of Risk
- Prioritisation and planning of Inspection Activities
- Inspection Activities carried out by experts
- ✓ Analysis of the Results and Recommendation
- Repair, Alteration & Rework
- Reporting and follow-up including Recertification.





Cunic is able to offer the following services individually or as a complete Integrity Management Solutions

- ✓ Periodic Shutdown/Turnaround Inspections (API 570/510/653)
- Risk Based Inspection (RBI)
- Fitness For Services (FFS) Assessment
- Remaining Life Calculation
- ✓ Boilers And Pressure Vessels Inspections & Audits
- Rotating Equipment Diagnostics & Troubleshooting
- Vibration Measurement/Analysis
- Pipeline Integrity Management
- → Piping Vibration Assessment & Management

- → Above Ground Storage Tank Evaluation
- ✓ Fire Safety Equipment Inspection
- On Stream Inspection
- Rig inspection, Drill Pipe and Tubular Inspection
- Ship and Sea Going Vessel Inspection
- Monitoring Of CP System
- Corrosion Management
- Hazardous Area Inspection (Ex)

CATHODIC PROTECTION

Cathodic Protection, whether by sacrificial or impressed current system, is an extremely efficient and cost effective method of corrosion prevention, tested and proven worldwide. It is a viable and economic means of providing protection to assets which are costly to repair or replace and should always be considered when long term corrosion protection in hostile environments is a prime requirement.

A considerable portion of the work is involved in the design and installation of Cathodic Protection systems for Onshore Pipelines, Tanks, Mounted Bullets and Plant Piping and Offshore Pipelines and for Sea going Vessels

With a well-equipped setup for design/engineering and with experienced engineers and technicians to implement projects with competence and efficiency, Cunic undertakes a variety of CP related jobs such as

- ✓ Design & Detailed Engineering for TCP & PCP Systems
- ✓ Soil resistivity Survey & Soil Sample Analysis
- Installation of TCP & ICCP Systems
- Testing & Commissioning of CP Systems

WELDING CONSULTANCY, TRAINING & TESTING

CUNIC is one of the ASME & DPR Approved Qualification Test Centres which meets the demands of Process & Chemical Industries in Nigeria for Welder Qualification & Testing and Certification and Recertification.

PRIMOS

The quality of welders is ensured through the PRiMOS adopting the SWS-CWQS scheme, a recognised certification by MOM for low-levy application. This certification enables a worker to be attested as skilled worker.

Our Training Institute is equipped with versatile welding equipment with reference to the applicable codes and requirements. The witnessing of the tests by Accreditation Bodies or by in-house Welding inspectors can be arranged according to the client and project requirement.

The Welding Engineering & Consultancy Services Range From

- Selection of materials & welding consumables.
- Selection of the welding process.
- Welded joint design.
- Distortion control.
- Preparation & approval of WPS & PQR, Welder Qualification.
- Welding Procedure Witnessing.
- Welder Training, Testing & Certification for Process,
- Construction & Marine Industries









NDT & Advanced NDT

Cunic and her partners is one of the world's leading providers of Non-Destructive Testing, Inspection and Advisory services to the Oil & Gas, Petrochemical, Defense and General Engineering Industries. It provides Non-Destructive Testing, Auditing, and Inspection related services in Nigeria and worldwide. Cunic offers a combination of basic and innovative inspection service, distinguishing itself as an advanced NDT provider.

Our highly skilled team of specialist technicians are based at various locations across the globe and offer on-site inspection. We have extensive experience supplying personnel and consultancy services for global assignments and international projects.

Our Inspection & NDT bodies are accredited by ISO 9001:2000, DNV, ABS proving our competitiveness and adherence to internationally recognized standards of excellence.

Conventional NDT Services

- Ultrasonic Testing
- Magnetic Particle Testing
- Radiography Testing
- Dye Penetrant Testing
- Eddy Current Testing
- Heat Treatment Services
- Hardness Testing
- PMI Testing
- Ferrite Measurement
- Surface Roughness Test
- Dimension Inspection
- Rope Access Services
- ✓ NDT Consultancy & Level III Services

Advanced NDT Services

Phased Array Ultrasonic Testing (PAUT) –
 Weld Inspection, Corrosion Mapping,
 Flange Face Corrosion Detection &
 other customized applications

- ✓ Time of Flight Diffraction Testing (ToFD)
- Scorpion Ultrasonic Thickness Gauging
- High Temperature Ultrasonic Testing
- ✓ ECT, RFT, MFL, NFT & IRIS Tube Testing
- Underwater Eddy Current Testing
- ✓ Magnetic Flux Leakage Testing (MFL)
- → Tank Bottom Survey & Pipe Inspection
- Infrared Thermography
- ✓ Holiday Testing
- Remote Control Visual / Video Camera Inspection
- ✓ Drill String Inspection
- Diagnostic Engineering Solutions, Vibration
 Diagnosis, Condition Monitoring, Failure
 Avoidance / Analysis & Simulation / Prediction Studies
- Rope Access Services
- NDT Consultancy & Level III Services
- Custom Specialized NDT Solution

SCORPION CRAWLER

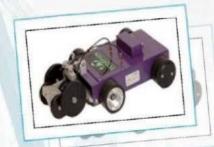
REMOTE ACCESS DRY-COUPLED CRAWLER SYSTEM

The Scorpion DCP is a rugged remote access ultrasonic crawler designed to allow cost effective ultrasound thickness measurements on above ground Ferro-magnetic structures without the need for costly scaffolding or rope access for tank height up to 30 m.

Scorpion DCP remote access crawler uses a unique "Dry Coupled" wheel probe eliminating the need for traditional couplant. This allows the crawler to travel vertically, horizontally or even inverted whilst still fully functional.

Supplied with a lightweight, flexible 50 meter umbilical cable the Scorpion DCP is capable of accessing the furthermost point of most structures without the need for scaffolding.







TANK INSPECTION

Cunic has trained, qualified and internationally certified API 653 personnel for Tank Inspection, Repair, Alteration and Reconstruction work. With experience of inspection in Fixed Roof Tanks, External Floating Roof Tanks and Internal Floating Roof Tanks. We shall;

- Evaluate the condition of your asset, and ensure fitness for service, safety and reliability
- ✓ Improve the technical integrity of your assets, identify and eliminate risks
- Extend the remaining life of your asset in the most reliable, safe, and cost-effective way possible

MAGNETIC FLUX LEAKAGE

The Floormap3D is the latest generation Magnetic Flux Leakage system for the inspection of Bulk Liquid Storage Tank bottoms .The Floormap3D has been designed to detect tank floor conical pit or lake type corrosion. Under ideal conditions pitting of approximately 20% loss in a 6.0 mm plate can be detected and sized. The top and bottom defect discrimination using latest Surface Topology Air-gap Reluctance Sensors (STARS), enabling tank engineers to determine the optimum repair strategy and improve risk life assessment (RLA) & risk based inspection (RBI) maintenance programs.

Advantages

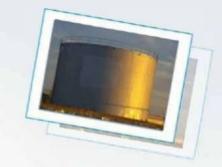
- → High Speed, Cost Effective Inspection
- Full tank floor data recording
- Automatic defect detection system
- ✓ Field proven durability & reliability



Tank calibration survey

Calibration is the process of accurately determining the capacity or partial capacities of a tank and expressing this capacity as a volume for a given linear increment or height of liquid.

- Tank Survey can be carried out before any remedial work on the tank and / or after the work is complete and hydro tested.
- To achieve an accurate calibration of the tanks, it is necessary to establish the profile of both the tank floor and the tank walls.
- The procedure sets out the methods used to survey the Tank Walls (Verticality and Out of roundness) and Tank Bottom which is required to assess tank settlement.



LONG RANGE UITRASONIC GUIDED WAVE TESTING

LRUT- Teletest Focus+

The Guided Wave long range ultrasonic testing is an advanced technology for detection and analyzing corrosion where access is difficult



GREEN ENERGY

Solar Energy

Solar PV systems are considered one of the most "democratic" renewable technologies, in that their modular size means that they are within the reach of individuals, co-operatives and small businesses that have the leverage to own their power generation

SOLAR PV SYSTEM Photovoltaic (PV in short) is a form of clean renewable energy. Most PV modules use crystalline silicon solar cells, made of semiconductor materials similar to those used in computer chips. When sunlight is absorbed by these materials, the semi-conductor material in the PV cells is stimulated by the photons of the sunlight to generate direct electrical current (DC). They will work as long as they are exposed today light. The electricity generated is either used immediately or is stored (eg. in batteries) for future use. Solar modules themselves do not store electricity.

Solar Packages

- Roof Mounted PV System
- Stand Alone PV Systems
- Solar lighting Solutions
- Signs and Signals
- Water Pumping Solutions
- Remote Monitoring System



- Chemical Injection Skids
- Cathodic Protection System
- ✓ Solar Leasing
- ✓ Solar Farm
- ✓ Solar Energy Monitoring System

Solid Waste Management

Cunic contributes in generating energy from municipal solid waste (MSW) through four technologies Incineration, Gasification, Generation of Biogas and utilization in a Combined Heat and Power plant (CHP), Generation of Biogas and conversion to transport fuel.

Solid waste management is a complex process as it involves many technologies and disciplines. These include technologies associated with the generation (including source reduction), on-site handling and storage, collection transfer and transportation, processing and disposal of solid wastes.

Cunic's extensive engineering team has capability to provide waste treatment solutions to Governmental clients. We provide packaged solutions and equipment for technologies such as:

- ✓ Gasification
- ✓ Mechanical heat treatment
- ✓ Mechanical biological treatment
- ✓ Solid waste incinerator

Bio gas plant

Water Treatment Solution

We deliver comprehensive technological solutions and on-site turnkey services to promote safe and clean environments, optimize water and energy use and improve operational efficiencies for customers in Energy, Food & Beverage, and Healthcare and Industrial markets around the world. Our specialized team of engineers and technicians are capable of handling operations, maintenance, trouble- shooting of various water and waste water problems and provide technical expertise for our customers.

Water Treatment Processes

- ✓ Process Design, Treatment Options and engineering
- Procurement Supply
- Installation Test, Commissioning & Operator Training
- Operation and Maintenance
- Sludge treatment
- Warranty Inspections
- Breakdown maintenance
- Zero discharge plant
- ✓ MBBR system
- Industrial Waste water / Effluent Treatment Plan
- Automization & Data logging

Water Solutions Packages

- Chemical Injection Skid
- Hypochlorite Generators
- Disinfection Skids
- Ultra-filtration System
- Reverse Osmosis System
- Potable Water Treatment Skid
- ✓ Package Sewage Treatment System
- Recycle/ Reuse Treatment System
- Sludge Dewatering System
- Raw Water Treatment Plant
- Condensate Polishing Plant

OFFSHORE & MARINE SERVICES

Cunic, as a Service provider to Ship Owners and Oil & Gas sectors, provides one stop project management in handling Anchorage & Voyage Repairs, installations and maintenance work, and can do all kind of repairs including specialized services.

ANCHORAGE & OFFSHORE SERVICES

- Surveys & Repair of Voyage, Afloat, Anchorage
- ✓ Electrical & Instrumentation Engineering Works
- NDT Services (RT, UT, MT, PT & Thickness gauging Services)
- Marine Machinery and piping repairs
- ▼ Technicians to support installation, testing & commissioning activities
- HT Termination
- Fibre Optic Termination



UNDERWATER & DIVING SERVICES

Blue Boat Subsea, a US Marine & Offshore Vessel Support company, part of Cunic, Specialized, competent and well equipped with underwater equipment's to undertake various activities in Marine & Offshore Environment.

Our Team of Marine, Construction, Service and Inspection Professionals anticipates and comprehends the complex issues associated with any Marine & Offshore Project with an unique approach with International QHSE Standards

We are a recognized Diving Contractor by Australia Quarantine & Inspection Service Standard.

Ship Maintenance

- CCTV Inspection
- Thruster Inspection
- ✓ Foul Cleaning Inspection
- Propeller Super Polishing
- Main Hull Cleaning
- Hole Patching & Fixing
- AQIS Inspections & Cleaning
- Underwater Inspection in Lieu of Dry Docking (UWILD)



Offshore / Subsea Services

- ✓ Anode Installations & Inspections
- Underwater Projects
- ✓ Underwater Cutting, Welding & Installations
- → Welding & Project Consultancy
- Seabed Survey
- ✓ Protection for Berths, Jetties & Wharves
- ✓ Underwater Demolition
- Boat Charter Service
- Training
- ✓ Rescue & Salvage

TECHNICAL MANPOWER OUTSOURCING & PLACEMENT SERVICES

Cunic has been a major provider of Technical Manpower for Marine, Oil & Gas, Construction and Petrochemical Industries in and around Sub-Saharan Africa for over a decade. We have Technical experts in all fields whom can be outsourced to work for both short and long term basis. Cunic brings forth this type of service helping you find the right person fit for your job requirement.

We have well experienced and Certified Professionals for the following disciplines

Inspectors: QA/QC, Welding, Piping, Structural, Painting, NDT, Reliability Engineering, Fabrication, E&I Inspectors etc.

Engineers & Professional: Electrical Engineers, Instrumentation Engineers, Mechanical Engineers, Fabrication Engineers, Design Engineers, Commissioning Engineer, Civil Engineer, Structural Engineer, Quantity Surveyors, Project Management Team etc.

Technicians: Electrical Technicians, Instrumentation Technicians, Mechanics, Welders, Fitters, HT Cable Terminators, Commissioning Technicians etc.









TECHNICAL TRAINING & CERTIFICATION

- ✓ AWS Approved International Agency
- ✓ ATF (Accredited Test Facility) under AWS for international welder Qualification

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Cunic's passion to serve the industry and the quest to develop highly skilled personnel in the field of Quality Engineering and NDT has led us to impart exclusive training courses and certification in this field and to provide continuing education through knowledge updating, skills upgrading, certification and career development to remain right and suitable in the fast changing economy. These programmers are structured to meet the quality system and stringent criteria of the Singapore Workforce Development Agency (WDA) and other International Accreditation Agencies.

All our training courses are conducted by qualified and highly-experienced trainers with up-to-date instructional materials, both locally and overseas. We are conducting day & evening classes at your convenience and time availability.

Cunic has a global network of Training Centers providing training and certification under the applicable standards and requirements

Cunic Partners offers courses mainly in the following disciplines

- AWS CWI (American welding Society- Certified Welding Inspector (CWI)
- → AWS-SCWI (Senior Certified Welding Inspector)
- AWS-CWEngg (Certified Welding Engineer)
- AWS-CWE Certified Welding Educator)
- Welding Inspection (Online Course-cuteLearn)
- ✓ API 510, 570, 579, 580 & 653
- Non Destructive Testing Level I, II & III (SNT-TC-1A / PCN)

- Cathodic Protection Awareness Testing
- ✓ Advanced NDT (PAUT & TOFD), NDT & Corrosion
- Welder Training & Testing (AWS Approved Test Facility -ATF)
- Custom Courses related to Welding, NDT & Electrical Installations
- ✓ ISO Certification & Consultancy
- PCN NDT Courses are organized by Cutech and conducted by BINDT AQB agency.



Welder Training & Testing

Industrial Welding Training helps welders develop a working knowledge of and learn the theory behind gas and arc welding techniques and equipment. The witnessing of the tests by Accreditation Bodies or by in-house Welding inspectors can be arranged according to the client and project requirement.

Cunic partner, Premier Worldwide is approved as a Common Welder Qualification Scheme (CWQS)

Test Centre under Nigerian Institute of Welding. This is in compliance with the demands of Process & Chemical Industries in Nigeria.

Cutech is the first and only AWS Accredited Test Facility (ATF) in Singapore.



SOFTWARE/APPLICATION DEVELOPMENT AND CONSULTING

Cunic provides flexible software solutions and delivers quality IT Services to business. Our primary focus is on overcoming the challenges faced by engineering based companies in the oil and gas industry.

As new technologies shape the online space, we ensure that our software solutions become a competitive advantage for your organization. We use modern technologies with years of experience in the field to help you align your business needs so you can sustain high levels of success and concentrate on your core business.

Key Services

- ✓ Asset Integrity Management, QA/QC, Material Control software products
- GIS and Data Management services
- ✓ Mobile development for iOS & Android
- Online shipping portal

Software Products

Cunic provides both off-the-shelf software products, and also highly customized solutions that help to manage your organization's assets in an integrated environment.

- cuteQM Quality Management Solution (Piping, Electrical, Mechanical, Structural, Pressure Vessel, Heat Exchanger & Tanks) & Material management
- cutePMS Project Monitoring Solution
- cuteTrac Vessel/Vehicle/Motorcycle/Asset/Personal GPS Tracking Solution
- cuteOffice HR, Time Attendance, E-Leave, Purchase, Stores, Material Accounting & enquiry management

Cunic also specializes in high quality custom application development for your specific requirements within the specific project time frame. Our highly experienced consultants can help you architect the solutions to best fit your technological requirements.

GIS And Data Management

We are well positioned to assist with various data integration projects, having unrivalled experience in all aspects of digital petroleum data preparation, data integration, GIS and web-based services.

Other Product Lines

- Assets / Calibration Management
- Online Test Services
- Personnel Qualification Validity and Renewal
- ✓ Vendor / Supplier Evaluation Station
- ✓ Welder Qualification and Performance Analysis
- ✓ NDT Records
- ✓ Document Management System
- Transport Management
- Visitor Management
- Patrol Management

OUR KEY CLIENTS

The extensive and exclusive services offered by Cunic with an excellent track record of customer satisfaction have made us a one stop service provider for reputable companies around the globe. The following organizations have experienced the world class services we offer.









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