expertise

Industrial Demolition, Restoration & Asset Protection Solutions



www.expertindus.com

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ANTI-DRONE PROTECTION SOLUTIONS

Engineered physical protection systems for critical industrial assets.

WHAT EXPERTISE OFFERS

Expertise provides engineered anti-drone physical protection solutions for storage tanks, tank farms and critical operating areas. We support our clients from initial site survey and understanding of tank-farm conditions, through protection strategy and engineering design, to material supply, erection and project execution support. Our solutions focus on physical shielding and impact-resistance infrastructure designed to reduce the risk from drone intrusion and mitigate potential impacts to sensitive industrial assets.

TEMPORARY SOLUTION / ENGINEERED SCAFFOLDING SERVICE

Our temporary solution is an engineered scaffolding-based protection system for shutdowns, turnaround work, construction phases, emergency risk periods and other temporary high-exposure conditions. The system provides physical shielding and an added layer of impact resistance for storage tanks and critical assets.



Site survey and temporary deployment planning

Assessment of site conditions, layout and protection requirements.



Engineered scaffolding design based on required coverage and height

Tailored design to site conditions and protection objectives.



Supply, erection, modification and dismantling of scaffolding

Complete material supply and installation by experienced teams.



Access systems, working platforms, bracing and safe construction arrangement

Safe and efficient access for inspection, maintenance and ongoing operations.



Rapid mobilization for shutdowns, projects and vulnerable operating periods

Flexible and responsive deployment to meet accelerated timelines.



Coordinated execution with safety, housekeeping and phased work areas

Integration with site safety requirements and minimal disruption to operations.

Temporary anti-drone protection through engineered scaffolding systems tailored to site conditions and project duration.

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Engineered Anti-drone Protection Systems

Engineered passive protection for critical storage tank areas



Expertise offers engineered anti-drone fence solutions for storage tank areas, combining site survey, design, structural support systems, mesh installation, grounding and site execution to create a passive protection barrier around critical assets.

What Expertise Offers

Site survey & scope verification

Site assessment, measurements and scope finalisation.

Engineering design & calculations

Tailored design based on tank layout and project requirements.

Supply of scaffolding / support structure, mesh & accessories

Complete supply of structural system, anti-drone mesh and related accessories.

Installation, anchoring & grounding

Professional installation with proper anchoring and grounding.

Site coordination, safety and phased execution

Coordinated execution with a strong focus on site safety.

Key Benefits

Passive protection for critical tank farms

Creates a physical barrier to mitigate drone intrusion risks.

Design as per the required engineering standards

Engineered to meet applicable project requirements.

Configured for multiple tank sizes and layouts

Flexible design for different tank farm configurations.

Built for demanding industrial environments

Robust scaffolding system and mesh suitable for harsh conditions.

Typical Protected Assets



Storage Tanks



Product Shift Tanks



Crude Tank



DMA Tanks



Ammonia Tanks

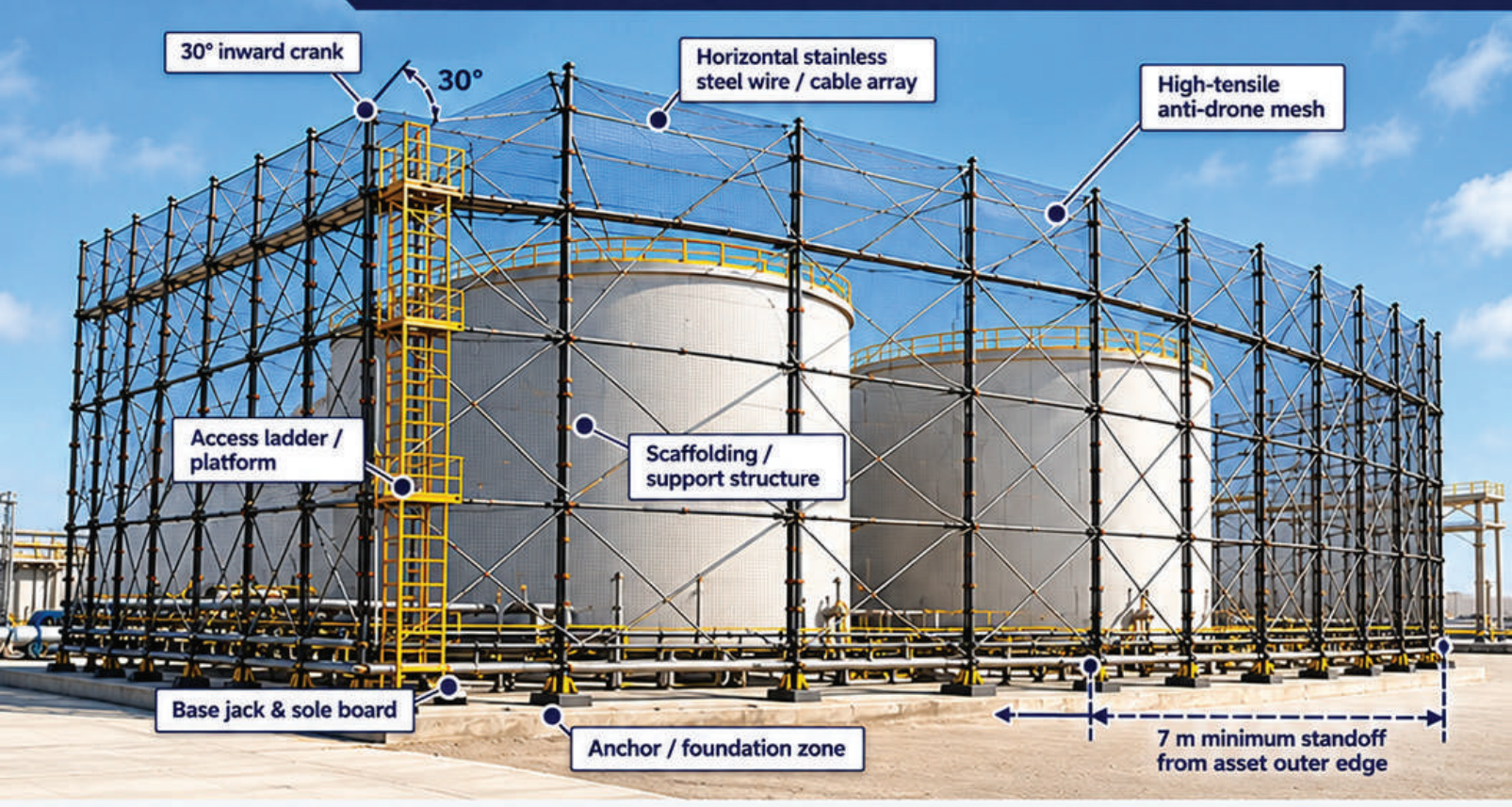


MMA/TMA Tanks

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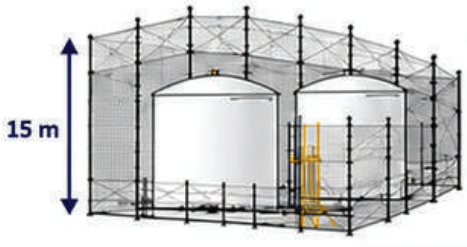
System Architecture & Execution

How the anti-drone protection solution is engineered, configured and delivered

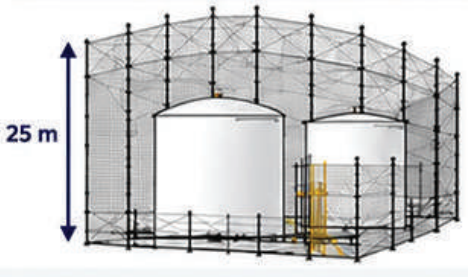


Typical Configurations

15 m FENCE HEIGHT

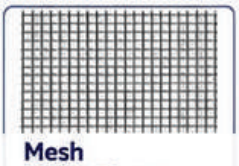


25 m FENCE HEIGHT



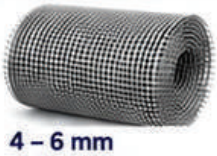
Layout and coverage are adapted to site conditions and tank arrangement.

Core System Components



Mesh 100 × 70 mm opening

Anti-drone mesh with 100 × 70 mm opening.



4 – 6 mm high-tensile wire mesh

High-tensile galvanized wire mesh for perimeter protection.



Structural support / scaffold system

Scaffolding system with posts, ledgers, bracings and platforms.



Stainless steel horizontal wires

Horizontal stainless steel wire / cable array at top section with inward crank.



Connection hardware & anchor bolts

Base jacks, sole boards, anchor bolts and connection accessories as per typical details.



Grounding arrangement

Earthing and grounding as per project requirements.

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Design Basis, Scope & Delivery

Project requirements, technical parameters and execution scope

Specification Highlights

Mesh	High-tensile galvanized steel wire mesh, 100 × 70 mm opening, 4–6 mm dia, tensile strength 1350 MPa
Fence geometry	30° inward crank, as per IFC drawing requirements
Height options	15 m and 25 m, depending on tank area
Horizontal array	4 mm dia cable @ 300 mm c/c
Materials summary	A572 Gradle 50 shaft / plates, A316 stainless steel wire, HDG clips and turnbuckles, anchor bolts
Grounding	1 × 35 sq.mm PVC insulated green grounding cable looped from post to post, with earth pit / grounding grid

Execution Scope Includes

- Site survey and scope confirmation
- Structural design and calculation submission
- Supply of scaffolding, mesh and accessories
- Fixed anchor / foundation requirements
- Mesh erection and connection design
- Lifting, material handling and barricading
- Grounding works
- Housekeeping, waste disposal and phased coordination

Optionla Works

- Civil & structural works
- Excavation, backfilling and reinstatement
- Paving / HDPE liner reinstatement
- Dewatering and underground utility protection
- Concrete and structural steel works
- Electrical grounding provisions

Safety & Site Readines

- Certified and qualified personnel
- Safety orientation and gate pass process
- JSA and EHSS compliance
- Battery-operated equipment in explosive areas
- Grounding for generators, welding machines and equipment

Expertise delivers project-specific anti-drone fence solutions for critical storage tank areas through engineering, supply, installation and safe site execution.



Engineered by expertise

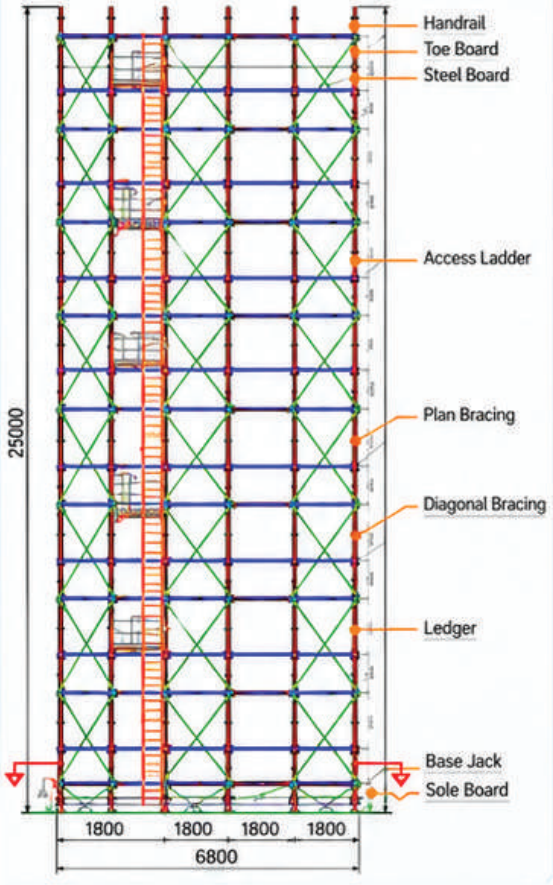
Anti-Drone Physical Protection Solutions for Storage Tanks

Expertise delivers engineered anti-drone fence systems designed to protect critical storage tanks through site survey, detailed engineering, material planning, precise erection and complete project execution support.

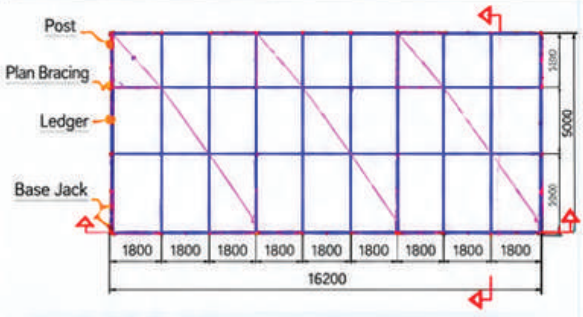


TYPICAL SECTION A-A

Scaffolding elevation showing bracing, access ladders and major components.

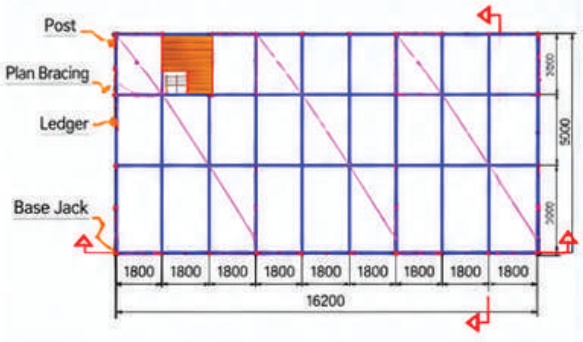


TYPICAL PLAN VIEWS



PLAN VIEW (1-1)

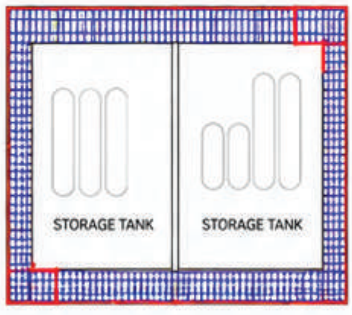
Plan layout showing post, ledger, plan bracing and bay configuration.



PLAN VIEW (2-2)

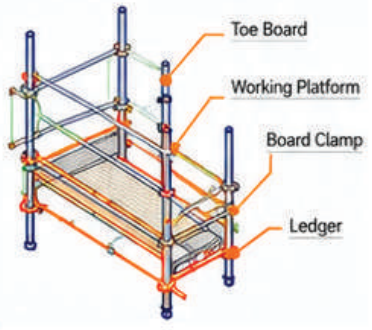
Plan layout with access platform arrangement.

KEY PLAN LAYOUT



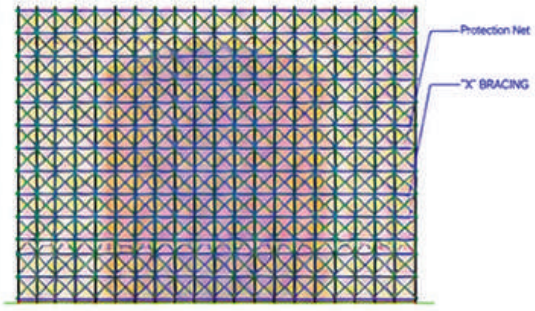
Overall arrangement for storage tanks.

PLATFORM DETAIL

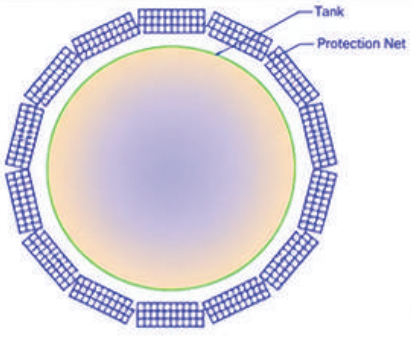


Working platform and toe board connection detail.

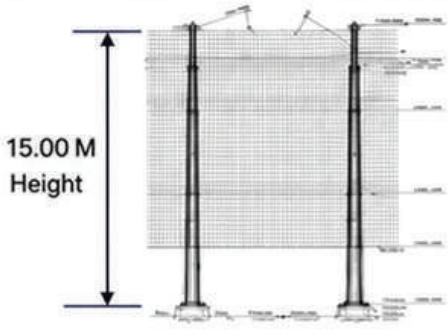
ELEVATION



SAMPLE PLAN



ELEVATION REFERENCE



Expertise offers a comprehensive range of business-focused services designed to meet the needs of industries, manufacturers, and communities. We specialize in industrial dismantling, demolition, and metal scrap management, delivering tailored solutions that optimize resources, reduce costs, and ensure efficiency.



Plant Dismantling & Demolition

In the realm of dismantling and demolishing factories, oil refineries, chemical facilities, and manufacturing plants, we possess a thorough understanding of the precise approach needed to safely dismantle these industrial structures. Our experience also includes the processing and removal of high-voltage electrical towers.

Irrespective of the complexity of the industrial project at hand, rest assured that our methodologies are systematic, detailed, and meticulously controlled. Upon project completion, we ensure the site is clean and devoid of hazardous materials. Additionally, we take proactive steps to preserve the integrity of surrounding areas and habitats.

- Complete industrial plant dismantling with safety-first protocols
- Expert demolition services with proper waste handling
- End-to-end project management minimizing downtime
- Maximum material recovery and responsible disposal
- Tailored solutions for complex industrial environments

RESTORATION SERVICES

Restoring Industrial Sites.
Enabling New Opportunities.



COMPREHENSIVE RESTORATION SOLUTIONS

Expertise provides integrated restoration and reinstatement services for industrial facilities, petrochemical complexes, refineries, manufacturing plants and infrastructure projects across Saudi Arabia.

Our services cover the complete restoration process following demolition, dismantling, decommissioning and asset removal activities. From structural rectification and foundation rehabilitation to ground stabilization, infrastructure reinstatement and final site clearance, we deliver systematic solutions tailored to project specifications and operational requirements.

OUR RESTORATION CAPABILITIES



01 SITE REHABILITATION

- Removal of residual structures
- Restoration of affected operational areas
- Surface preparation and reinstatement
- Safe and controlled execution



02 CIVIL & STRUCTURAL RESTORATION

- Foundation repair and reinstatement
- Concrete rectification and surface treatment
- Structural patching and finishing
- Reinstatement of equipment bases and flooring



03 EARTHWORKS & GROUND REINSTATEMENT

- Excavation and engineered backfilling
- Soil compaction and stabilization
- Grading and leveling to required levels
- Restoration to specified contours



04 ROADS, PAVEMENTS & INFRASTRUCTURE REINSTATEMENT

- Restoration of access roads and paved areas
- Reinstatement of hardstanding and drainage
- Repair of utility corridors and trenches
- Reconstruction of civil infrastructure



05 DEBRIS MANAGEMENT & ENVIRONMENTAL RESTORATION

- Segregation and transportation of residual waste
- Responsible disposal or material recovery
- Removal of contaminated materials (as required)
- Site cleaning and environmental rehabilitation



06 FINAL SITE RESTORATION & HANDOVER

- Final grading and site finishing
- Removal of temporary facilities
- Inspection and documentation support
- Client handover readiness

FROM DECOMMISSIONING TO REINSTATEMENT.

Expertise delivers restoration solutions that transform affected industrial areas into safe, stable and functional sites ready for their next phase of operation or development.

SCRAP METAL TRADING

A leading provider of metal scrap trade and management services, offering a comprehensive range of solutions to meet the diverse needs of our clients. With a strong network and expertise in the metal industry, we facilitate efficient trade transactions and sustainable scrap management practices.

Sourcing and processing premium scrap materials:

Ferrous Metals:

- Iron
- CS (HMS)
- Steel

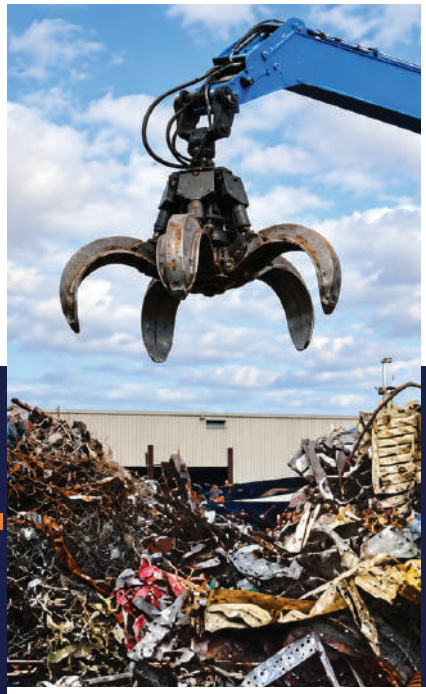
Non-Ferrous Metals:

- Copper
- Bronze
- Brass
- Stainless Steel
- Aluminum
- Titanium
- Nickel etc.

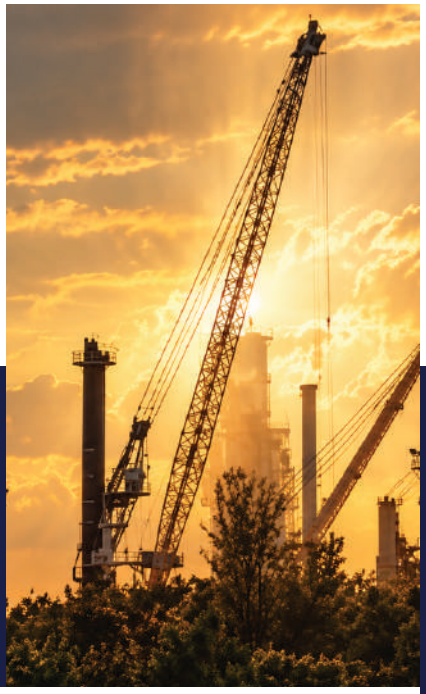
Supply of ready-to-use processed materials for manufacturing

Competitive pricing

Quality assurance through rigorous testing protocols







COMMUNITY SCRAP MANAGEMENT

- Convenient access points for individuals and businesses
- Fair market value for recyclable metals
- Professional processing and segregation
- Connecting community materials with industrial demands
- Supporting local sustainability initiatives

Marine Services

- Salvage operations
- Wrack removal



WHY CHOOSE EXPERTISE?

- **Industry Experience:**
  Decades of expertise in metals recovery and management
- **Comprehensive Solutions:**
  End-to-end services from dismantling to material repurposing
- **Environmental Responsibility:**
  Minimizing waste and maximizing resource efficiency
- **Business-Focused Approach:**
  Solutions that add value to your bottom line
- **Community Engagement:**
  Creating circular economy opportunities at every level



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Contact us to discuss your project requirements and experience the difference of working with the industry leader.

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