



**SAFELANE**  
SOLUTIONS

Quality Assurance  
Advanced Technology  
Compliance Technical  
Global Operational Reach  
End-to-End Solutions  
Reliability and Capability  
Certification





## COMPANY OVERVIEW

We are a specialized Explosive Ordnance Disposal Firm (EOD) providing a full spectrum of **Ammunition Stockpile Management and EOD Support, Services, solutions, Training and selective EOD Equipment** to our clients from military or civil sector. Our services include disposal of surplus ammunition, land mine mapping, UXOs, AXOs and ERW detection, removal / clearance, range clearance and general area decontamination. The company is capable of operating globally, serving government, military, humanitarian, public and private sector clients in peacetime, complex and high-risk environments. Our highly trained teams deliver tailored EOD solutions, ensuring compliance with international safety standards. Through our expertise, professionalism and dedication, the company plays a critical role in mitigating explosive risks and creating a safer environment. We also deal in provision of **Combat Equipment, Personal Protection Equipment, Uniforms & Accessories and a variety of Field/Adventure stores and Equipment** to our worthy Clients from military, Law Enforcing Agencies and Para-military Forces inland and across the globe. We also deal in **security and surveillance equipment, including UAVs and Anti-Drone measures** and gadgetry. We also provide an efficient and responsive **“One Window Solution”** for our clients to procure / import defence stores from the Pakistani manufacturers and Industry.

## VALUE PROPOSITION

Advance Technical Capabilities

End-to-End Solutions

Global Operational Reach

Compliance and Certification

Quality Assurance and Reliability



# KEY ACTIVITIES

## SPECIALIZED EOD OPERATIONS

Detection, Identification, Disarming / Rendering Safe and Disposal of Landmines, **Unexploded Ordnance (UXO)**, **Abandoned Explosive Ordnance (AXO)**, **Explosive Remanent of War (ERW)** and **Surplus / life Expired Conventional Munitions and Energetic Materials** found in war / conflict zones, Military Training Areas / Ranges and residential areas. Humanitarian Demining involving Systematic Survey, Threat Assessment, Operational Planning, Marking and Mapping, removal and in situation destruction and transportation of landmines and UXOs from contaminated areas, ensuring the safety of civilians, enabling the return of displaced people, and facilitating economic recovery in post-conflict regions.

We have **experienced and technically sound EOD operators** who have served in United Nations, Law Enforcement Agencies and have performed numerous successful EOD operations, both inland and abroad. We can formulate and deploy customized EOD Teams in any part of the world, depending upon the type of EOD Operations and client demands. We assure **high standards of safety and reliability** in our undertakings and striving to make the world safer and happier.





# KEY ACTIVITIES

## AMMUNITION AND ENERGETIC MATERIALS DISPOSAL & DEMILITARIZATION

We have advance level expertise and offer our services for safely managing the ammunition and explosive stockpiles, and disposing the surplus, obsolete, damaged, or unstable ammunition to prevent accidental detonations, environmental contamination, proliferation or misuse. These operations involve specialized techniques, customized equipment and varying methodologies to ensure safety, efficiency, and compliance with environmental regulations and Quality Assurance Standards. We have requisite expertise to undertake following methods of disposal:-

- Open Detonation (OD)
- Open Burning (OB)
- Demilitarization (Demil)
- Incineration
- Hydro-abrasive Cutting
- Chemical Neutralization
- Recycling of Materials





# PROVISION OF AMMUNITION RENOVATION, DEMILITARIZATION AND DISPOSAL EQUIPMENT

We offer a variety of Equipment for ammunition renovation, repair, demilitarization and disposal operations including demolition and UXO clearance. We have to offer following equipment to our clients besides our post-sales support and services.

## EXPLOSIVE INITIATION SYSTEMS

We offer an advance and robust Multi Channel (VHF based) Expl Initiation Sys for large scale demolitions and UXO Clearance operations. Apart from this we also manufacture and supply Mini Exploders for hasty demolitions and Explosive Charge Firing, Circuit Testers and miscellaneous demolition accessories for facilitation and ensuring safety and reliability in the EOD operations.

### • Description

Multi-channel Remote Firing Device is the major equipment used to have optimum safety distance for multi-initiation of charges when the explosive/demolition charges are required to be initiated by remote initiation method. The initiating system consist of a **master control unit and multiple slave units**. An electric detonator is att with the slave unit which is placed near to the pt of initiation. It is located approximately 40 to 60 meters away under cover to protect it from the shockwave and shrapnel effects.

### • Specifications

- **Range:** 5 Km
- **No of slave units:** 5 x slave units (can be increased to 10)
- **Battery time:** Operational Time 8 hours & Standby Mode 2 x Weeks
- **Firing Circuit:** Capacitive Discharge
- **Available Energy:** 0.5 Joules per output port
- **Antenna Impedance:** 50 Ohms
- **Antenna Type:** High Gain Small Sucker Antenna (External)
- **Casing Type:** Rugged box (Dust proof)
- **Size of packing and color:** 410x32178 (mm) (L x W x H)/Black
- **Weight:** Each unit weighs 6 Kgs



## MASS EXPLOSION SITE CLEARANCE EQUIPMENT

Based on our past experience we have developed our own Water Disruptor Sets, Hook & Line Kits, Ready Made Explosive Charges, Detonator Carrier, Rocket Wrench, UXO collecting ploughs and variety of different equipment for management of large explosive incident scenes

## MOBILE AMMUNITION SURVEILLANCE FACILITY (MASF) VEHICLE

A customized vehicle designed for the repair, renovation and disposal of ammunition anywhere in the field. The facility has been designed in 20 ft container which opens up on all sides for deploying the work benches as dictated by the situation. The vehicle can approach the ammunition dumps and remote storage facilities and perform a variety of ammunition repair and renovation operations.

### • Specifications

- **Vehicle:** 5 Ton Military Truck 4 x 4 with Cabin
- **Crew:** 4 x technical Staff with Driver
- **Battery time:** Operational Time 8 hours & Standby Mode 2 x Weeks
- **Cabin type:** modular with expanding platforms on both sides
- **Power source:** Regular Power Supply and Generator supply in the field

### Functions

- Basic Ammunition repairs
- Change of primer and fuze
- Change of propellant Charge and Cart Case
- Ammunition Package Marking and Stencilling
- Artillery Shell repair
- EOD Operations Support





## PRIMER FIRING MACHINE

Ammunition breakdown or disassembly is the basic step in ammunition demilitarization and disposal process. Cartridge cases of all types of ammunition need to be made Explosive Free before final disposal. Primer firing machine can safely fire the primers and make the cartridge cases safe for handling and melt casting including re-processing for manufacture of new ammunition

## SMALL ARMS AMMUNITION DEMILITARIZATION MACHINE

Safe, economic and speedy disposal of Small Arms ammunition is a challenge faced by almost all ammunition stockists and storage facilities. Incineration is the method adopted world wide by the Armies which makes the material extraction process more complex. We offer an automatic disassembly solution for Small Arms and Ammunition, energetic material extraction, primer firing and separation of all components for a better, safer, economic and safe solution.

## EXPLOSIVE DECANTING PLANT

Disposal of unserviceable, surplus and obsolete artillery projectiles is traditionally done through open detonation which results into loss of material and causes environmental pollution. Our Explosive Decanting Plant brings the best solution where the shells are decanted of explosive fillers and empty shells are demilitarized and disposed of. The decanted explosives are recycled for re-use or green disposal.

## ARTILLERY SHELL REPAIR AND REPAINTING MACHINE

Due to prolonged storage the artillery shells gets rusty and paint is chipped off which accelerates the deterioration and corrosion catches up early. We have a solution for such shells where they are inspected for deterioration and faults, are sand blasted, spray painted and dried under control environments and are marked, stencilled and preserved for long storage. This Machine is a must for all artillery ammunition storage facilities.



## AMMUNITION BREAK DOWN MACHINE

Ammunition disassembly and breakdown into components is the very first step of the demilitarization process. We have devised semi-automatic hydraulic dis-assembly machines for various calibres and all in one solutions too for ammunition repair and disposal workshops and laboratories.



## PROPELLANT DISPOSAL TRAY

Accumulation of unserviceable and deteriorated propellants recovered from the demilitarization process cannot be stored for a long duration and must be disposed as soon as feasible. We have designed propellant burning trays for speedy disposal of propellants with safety and speed. These trays are best for piecemeal disposal of Propellants.



## EOD IDENTIFICATION SOFTWARE (UXO IDENTIFICATION AND NEUTRALIZATION)

AEODPS (Automated Explosive Ordnance Disposal Publication System) published by Safe lane Solutions Pvt Ltd Company. UXO (Unexploded Ordnance) identification software is used to detect, classify, and identify unexploded ordnance in both military and civilian environments. Our software often integrates with various detection devices and sensors, such as ground-penetrating radar (GPR), magnetometers, and metal detectors, to provide accurate identification and characterization of potential UXO threats. If this integration is not available the physical characteristics can be fed in the software to get the result based on the databases or libraries of known UXO signatures. These databases include the shape, size, and material composition of different ordnance types. When an object is detected, the software compares its characteristics to the known database to identify the UXO. The software furnishes crucial information for safe excavation and disposal.



### ● Key Features

- Vast Inventory of all Categories of Ammunition
- Global Inventory Database
- Helps in identifying different kinds of UXOs
- Skilful guidelines leading to Render Safe Procedures and disposal of UXO
- Leads to the minutest and precise detail of UXOs
- An Ideal Platform of knowledge and Information for Ammunition Handlers and EOD Operators



## INTEGRATED AMMUNITION SERVICES AND SUPPORT.

Provision of Integrated Ammunition and Energetic Materials related Technical Services and Support in UN Peacekeeping Mission Areas across the Globe and friendly countries through One Window Operation. We are capable to deploy an integrated technical outfit, especially designed to provide following technical services pertaining to ammunition Stockpile Management and EOD to our worthy clients with relative ease and economy. This concept of provision of integrated services to clients is our own conception and is expected to innovate this regime.

- Storage & Maintenance, Safety & Security.
- Periodic Surveillance & Proof Testing of Ammunition.
- Technical Inspection and Conditioning of Ammunition.
- Renovation and Repair of Faulty and Deteriorated Ammunition.
- Green and Environmentally Friendly Disposal of Ammunition and Energetic Materials.
- UXO, AXO, ERW Clearance in Mission Areas/War Zones.
- Humanitarian Landmine Clearance Projects.
- Public Awareness Campaigns for UXO and IED Threats.
- Host Country Human Resource Training.
- Technical Advice/Assistance and review of Regulatory Frameworks.
- Ammunition Defect and Accident Investigation.



## EXPLOSIVES AND MUNITIONS THREAT ASSESSMENTS

This process is a critical step in identifying, analyzing, and mitigating the risks posed by Improvised explosive devices, AXOs, ERW and UXO in a specific area. This process is essential in both military and humanitarian operations to ensure the safety of personnel, civilians, and infrastructure. The assessment guides decision-making and prioritizes clearance or neutralization activities based on the severity and immediacy of threats. We have an expertise to undertake such tasks for our clients and furnishing detail reports as per international formats along with prioritization of tasks and hazard mitigation. We resort to reviewing records of past conflicts, military activity, or industrial use to understand what types of explosives or ordnance may be present. We gather data from local authorities, military records, or humanitarian agencies about previous encounters with UXO or explosives in the area and engage with local populations to gain firsthand information on known hazardous locations, past incidents, or suspicious objects. We use aerial imagery or satellite data to identify potential impact zones, craters, and disturbed areas, especially in regions where land use or vegetation may have obscured UXO.

## INCIDENT RESPONSE AND EMERGENCY SUPPORT

EOD (Explosive Ordnance Disposal) incident response and emergency support are critical services that involve the safe detection, identification, evaluation, rendering safe, and disposal of explosive threats, such as unexploded ordnance (UXO), improvised explosive devices (IEDs), and hazardous munitions. These operations require highly trained personnel and specialized equipment to ensure public safety and mitigate risks. We have the capability to deploy Quick response EOD Teams to cover EOD incidents and provide immediate response.





## TECHNICAL TRAINING AND CONSULTANCY

We offer technical training courses and consultancy services for military personnel, Law Enforcing Agencies and other security organizations in a variety of EOD facets and disciplines including site safety protocols and threat mitigation strategies. We follow international best practices and latest training methodologies to make our endeavours meaningful and highly objective. Our Faculty members are highly trained and experienced Ammunition Technical Officers and EDO Operators who have been trained from the leading international institutes and have a rich reservoir of experience, both inland and out of the country. We assure the highest degree of practicality and technical understanding in our all trining processes, We can offer trainings and short courses on following aspects and EOD disciplines:-

- Basic Explosive Ordnance Disposal Course. **4 x Months**
- Forensics Analysis & Exploitation of UXOs and Improvised Explosive Devices. **2 x Months**
- Mass Explosion Site Clearance Operations. **2 x Months**
- Demilitarization / Green Disposal of Explosives and Ammunition. **1 x Month**
- Stockpile Management of Ammunition and Explosives. **2 x Months**
- Safety and Security of Ammunition Installations. **1 x Month**
- Counter Improvised Explosive Devices Operations. **3 x months**
- Blast Scene Management and Post Blast Investigation. **2 x Months**
- Identification of UXOs, ERWs and AXOs. **2 x weeks**
- Ammunition Life Cycle Management. **3 x Months**
- Ammunition and Explosive Surveillance. **2 x Months**





## MASS EXPLOSION SITE CLEARANCE (MESOC) OPERATIONS

It is an unfortunate fact that ammunition and explosive storage can never be 100% safe in terms of the 'absence of risk', and the best that can be achieved is 'tolerable risk' levels. Unplanned/Accidental explosions at munition sites are also a significant safety concern for the militaries/governments and a major security challenge for the international community, today. Such events have resulted in thousands of deaths, injuries, massive population displacements, colossal clean-up costs, and huge replacement of ammunition stocks along with massive re-construction activities. There are many possible causes of undesirable explosions in Ammunition Storage Areas, but these can usually be attributed to deterioration of the physical or chemical condition of the ammunition and explosives, Unsafe storage practices and infrastructure. Unsafe handling and transport practices, Enemy Strike and Terrorist Activities and acts of deliberate sabotage. Whatever the cause may be, the catastrophic effects of the incident create serious challenges on multiple fronts, logistics as well as security and public safety domains. Nature of the incident demands a very responsive action to mitigate the post - explosion hazards and undertake deliberate Explosive Ordnance Disposal activities to survive and revive. **We have an expertise dealing with such situations and can offer our services on emergent grounds to our clients in such catastrophic incidents starting from Incident Control to safety of the complete area.**

We have devised several practical solutions to deal with this emergency and **have the experience of successfully dealing with more than five massive incidents.** Our EOD Operators are trained in real time scenario to deal with such situations with highest standards of safety, reliability and security.





# TESTING OF MATERIALS AND PRODUCTS

Testing of Materials and finished products for quality, constituents and technical specifications is the basic requirement of industry and consumer market. We provide a wide range of material and stores testing facilities at Karachi, Lahore and Rawalpindi for our clients maintaining highest standards of proficiency and economy. Our Laboratories are ISO Certified (ISO17025) and accredited by Pakistan national Accreditation Council. We have state of the Art Laboratories, highly trained staff and best of the Testing Equipment. We provide testing services for a large variety of materials and stores which include-

- **Material Testing Labs**

- **Capabilities**

- Leather, Rubber, Aluminum, Steel and Brass, Paper, Plastic

- **Standards**

- ASTM International, British Standards (BS), International Organization for Standardization (ISO), Pakistan Standards

- **Chemical Testing Labs**

- **Capabilities**

- Soaps, Pesticides, Insecticides, Detergents, General Chemical

- **Standards**

- WHO Specification, British Standards, Pakistan Standards

- **Bio Timer Labs**

- **Capabilities**

- Case Wood Packing, Bamboos, Heel Core of Boots, Tents Pin, Tent Mallets, Snow Shoes, Pole Ski

- **Standards**

- WHO Specification, British Standards, Pakistan Standards



- **Plastic Labs**

Plastic pallets of Military and Commercial Grade are Tested for:

- Deck Strength of a Pallet under load.
- Effect load during fork lifting of a loaded pallet.
- Seck Strength of Pallet.
- Strength of blocks (foot) of pallet under load.

- **Thermal Maniking Lab**

- State of the art 35-zone ANDI Thermal Manikin
- Advanced thermal comfort (up to -50 C)
- System for testing of higher altitude clothing stores for

- **Bio Timber Labs**

- **Capabilities**

Gasoline (Ground and Aviation), Jet Fuels (Jet A-1, ATF/JP-8), Lubes (ground and aviation), Greases (Various Types), Additives (Various Types)

- **Standards**

Our POL labs follow industry accepted Standards, ASTM (USA), IP (UK)

- **Textile Labs**

- **Capabilities**

Woven Fabric Knitted Fabrics, Cordage Line Thread, Personal Wear, High Altitude Dressing Tentage Miscellaneous Textile Products, Personal Load Carrying Equipment

- **Standards**

ASTM International, British Standards (BS), International Organization for Standardization (ISO), Pakistan Standards Military Specifications

- **Paint Labs**

- **Capabilities**

Paints, Varnish, Thinner

- **Standards**

ASTM, BS, DEF-STAN





# UNIFORMS, PERSONAL /SECURITY EQUIPMENT AND MILITARY STORES

We deal in variety of security, surveillance and personal equipment including modern monitoring systems, anti drone systems and a variety of UAVs for surveillance, strikes and security purposes. We also provide variety of uniforms and accessories like belts, boots and caps to Law Enforcing Agencies, Paramilitary troops, Security Agencies and other outfits. We also deal in provision of different categories of military stores for our clients including Camp Equipment, Adventure equipment, Tentage, Paints, Chemicals and communication equipment. We have expertise to deal in following stocks/stores:-

- Uniform Items and Accessories
- Combat Eqpt and Adventure Gear
- Drones, UAVs and Anti Drone Measures and Equipment
- Telemetric monitoring System for Ammunition Storage
- Paints and Chemicals
- Communication Equipment
- Tents, bivouac and Field Shelters
- Mobilization and field Combat Stores
- Personal Protective Equipment
- Security, Search and Surveillance Equipment





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