



SUNFLEX
BALLISTIC RUBBER PRODUCTS

**Grupo
Cosmos**

*BUILDING THE
SAFEST ENVIRONMENT
FOR SHOOTING RANGE TACTICS*



*Industry leader in manufacturing
ballistic rubber products*

Available for Military, Special Forces and Law Enforcement Agencies
Total solution for 360 degree live firing range

About Us



- In India, Sun-Flex Recycling Private Limited was started in 1989 as a privately held enterprise. The business headquarters and various manufacturing facilities are dispersed across the country.
- Sun-Flex Ballistic Rubber has been the leading supplier of ballistic rubber panels, ballistic rubber blocks, portable bullet traps, and rubber rifle rest supports for more than a decade.
- Sun-Flex Ballistic Rubber Products is our registered trademark. Our brand is internationally recognised.
- Our mission is to lessen the environmental impact of shooting by preventing noise pollution, heavy metal pollution, soil pollution, and water pollution.
- As a privately held INDIAN Holding company, we have the capacity to manage any project, no matter how large or little, as well as the financial stability and investment capital required to keep on top of industry challenges.
- SUN-FLEX will offer you with the ballistic rubber goods, service, and value you require.
- On the outskirts of Ahmedabad, INDIA, our company owns and manages two manufacturing facilities.
- We work with architects, construction firms, shooting clubs, and range owners on projects ranging from customised residential ranges to big commercial and military facilities.
- We provide a comprehensive solution for live-fire shooting range tactics from every angle.
- This product is composed entirely of ballistic containment from recycled rubber. In terms of safety and effective collecting of ammunition lead, it is better for the land and the ecosystem.
- Due to its revolutionary polymer technology and polyurethane binding procedure, it possesses a high degree of elasticity and stability. Within the rubber blocks, tens of thousands of projectiles can be concealed.
- The era of ballistic rubber confinement products has begun. On request, customised container shooting ranges are available. Innovative ideas for military mobile guard posts and perimeter security. Numerous global projects for the supply of ballistic rubber tiles and blocks for live shooting ranges have been successfully completed.
- We are the world's leading maker of ballistic rubber goods. Our products have been field-tested by military special operations forces and have achieved global success. Our ballistic rubber products have achieved Level 3 NIJ 0108.01 certification.
- Our products are sold in more than fifteen countries globally. We make and distribute a big quantity of ballistic rubber tiles and blocks annually.
- We committed to delivering our most deserving customers with product solutions that consistently meet the highest efficacy and quality requirements recognised at the international level, while also offering them with an exceptional value.
- In addition, we may offer you with a sample to evaluate the suitability of our products for usage on live firing ranges. Please consider our company while evaluating future leaders.

- 1995 year of Inception
- 2 Manufacturing units located at Ahmedabad, Gujarat, India
- 15+ Product Basket
- 25+ Business Associates
- NIJ and ASTM approval for products

Country we exported our products over the years



15+ Country

- Design for military special forces.
- Customize ballistic solutions as per project.
- Building the right range as per your needs.
- Design our proprietary ballistic rubber products.
- Creating highest performance for ballistic rubber products.
- Customize container shooting range as per requirement.

**MILESTONE
PROJECT
COMPLETED
OVER THE
YEARS**

Ballistic Rubber Tiles



Ballistic Rubber Tiles are used to stop bullets which helps to prevent ricochets and lead splash-backs thereby reducing lead dust propagated from repeated range firing. The ballistic rubber tiles are high density, strength and elasticity to provide safe live fire environment.

Ballistic Rubber tiles are designed for use in shooting ranges and gun clubs. These extra thick and extremely durable rubber tiles assist in ricochet reduction and help to reduce noise levels at firing ranges.

Ballistic Rubber tiles can be loose laid in a wall to wall installation or adhered in place using a little double side carpet tape, polyurethane adhesive or screwing.

Sunflex Ballistic Rubber Tiles are generally used for shooting range areas and walls. Bullets are trapped inside the tiles.

Rubber ballistic tiles help to provide sound abatement and ricochet protection in commercial, military and law enforcement shooting ranges.

These are most commonly used in tactical shoot houses for military exercise.

Our products are manufactured with hot mold technology cured in hydraulic press.

The ballistic rubber tiles supplied by us will be long much durable and economically with price match guarantee.

We hold the highest capacity to manufacture ballistic rubber tiles in the world.

Application



Creates a safe environment for shooting ranges



Stop ricochet behind the panel

Application Benefits

Safe Environment Range, Modular tactics, splatter free, anti-ricochet panel and Security

Ballistic Rubber Tiles Durability



We are leading Industrial leaders for manufacturing polymerically bonded recycled rubber products.

We gain rich experience from past decades to produce ballistic rubber products.

Our ballistic rubber panels are manufactured with high density, strength, elongation and elasticity.

We use specialized material to produce ballistic rubber tiles with fire retardant with UV protected. This helps in better durability inside any shooting ranges.

Performance & Trust

The ballistic Rubber Tiles are designed to minimize the danger of ricochet and splatter of standard pistol and rifles.

The rifle rounds up-to .308/7.62mm can be used.

Each tile can take approximately 2000 rounds of firing before getting panel replaced.

It also depends upon the bullet type, shots concentration, wear distribution and substrate used for backing.

Ballistic Rubber Tile alone cannot stop the rounds, It must be used with Ar500 steel plate backing.

We are industry leader in manufacturing ballistic rubber tiles.

Our ballistic rubber panel can with stand in extreme conditions without degrading rubber material.



Technical Specifications and Quality Certificate



Available Thickness and Size

Thickness	Size	Weight of one panel	Colours Available
42 mm	500 mm x 500 mm	11 kg	Basic Black
50 mm	500 mm x 500 mm	12 kg	Basic Black
100 mm	500 mm x 500 mm	24 kg	Basic Black

Technical Specifications

Product Name	Ballistic Rubber Tiles	Quality and Certificate
Material	Sbr Rubber Tiles made from crumb rubber granules with polyurethane polymerically bonded	N/A
Hot Mold Cure Technology	Yes	N/A
Hardness	A 60 (ASTM D2240)	TUV RHEILAND
Tensile Strength (Mpa)	1.29 (Force 55.4 N)	TUV RHEILAND
Elongation at break (%)	47% (ASTM D573)	TUV RHEILAND
Tear Strength (N/mm)	40.1% strain@Break(%)	TUV RHEILAND
Specific Gravity (g/cm3)	0.88	TUV RHEILAND
Compression set (%)	7.23 Mpa at 25% Deflection, test speed-5mm/min. pre-load2n (DIN 53577)	TUV RHEILAND
Operating Temperatures (continuous use) (*c)	140-150	N/A

Test reports requested by special forces

Test Name	Method	Result Observed
Antimicrobial Test ASTM G21:2015	Aspergillus niger ATCC16404 Penicillium pinophilum Hedgcock ATCC 9644 Chaetomium glososum ATCC 6205 Trichoderma virens ATCC 9645 Aureobasidium pullulans ATCC 15233	Growth = None Result = Pass
ASTM C 423 Sound Absorption Coefficients	0.45 Noise Reduction Coefficient (NRC)	TUV Rheinland
FMVSS 302 Burning Behaviour Test	6.8 mm/min	TUV Rheinland
AS/ISO 9239.1-2003 Reaction to Fire Tests for Floorings. Determination of the Burning Behaviour using a Radiant Heat Source	CHF Value 1 Non Directional ≤ 1.1 kW/m ² Smoke Value 1 Non Directional 1869 %.min	Australian Wool Testing Authority Ltd - trading as AWTA Product Testing

Ballistic Rubber Blocks



Ballistic Rubber Blocks are high density specially produced for heavy firing ranges.

Our ballistic rubber blocks are made from hot molded technology. There are only a few companies in the world which provide hot mold process and supply.

Our ballistic rubber blocks are made with interlock patterns designed by our own.

Sunflex produces the finest quality of ballistic interlocking rubber blocks with the highest quality of standards globally.

Rubber blocks are second alternatives to stick in shooting ranges, tactical shoot houses, flood reservoirs, security blocking systems, small vehicle barriers and other defensive applications.

Ballistic Rubber blocks are designed specially to encapsulate ammunition up-to 7.62caliber.

Rubber blocks are manufactured with innovative polymer technology. They have better durability than ballistic rubber tiles.

Rubber blocks have larger surface area which helps in closed firing bullet encapsulation with a safe environment.

Due to its larger surface area it has a tendency to encapsulate a maximum number of rounds trapped inside blocks from every direction while shooting.

Most of the portable bullet encapsulates are made from ballistic rubber blocks in front and steel backing at the back side.

Sunflex ballistic rubber blocks are designed by intellectual property. Easy to install our ballistic rubber blocks with proprietary design.



Rubber Blocks Durability Performance & Trust



We are world's largest manufacturer of ballistic rubber blocks

Sunflex ballistic rubber blocks are hot molded and super compressed

We honor our commitments

The ballistic Rubber blocks are highly durable for live firing shooting ranges, tactical shoot house and portable bullet traps.

Due to its binding process it has good elasticity and stability.

Interlocking pattern helps to deploy blocks faster and quicker.

The locking system can turn into an impermeable solid defense wall.

The ballistic defense block when interlocks provides protective wall and potential shelter during harsh military conditions.

Thousands of firing rounds can be trapped inside the rubber blocks.

Engineered design with best ballistic impact reduction

Available Thickness and Size

Size	Weight of each block	Colours Available
Length 500mm x Width 300mm x Height 300mm	37kg	Basic Black

Note – Customize size and colours also available upon request.

We have tested our ballistic rubber blocks for both penetration and anti-ricochet ballistic testing. We have fire with all multiple angles of attack with MSC, HSC and SLR. NIJ 0108.01 level 3 has been passed successfully.

Testing was done in government approved laboratories. The result was satisfied for the products

Number of Test Done	Ammunition Tested	Number of Shots Fired	Number of Blocks Stack	Result
Test 1	.22 LR HV 40 gr Lead	5	2	No Penetration
Test 2	.38 Special 158 gr RNL	5	2	No Penetration
Test 3	9mm Parabellum 124 gr FMJ	5	2	No Penetration
Test 4	.357 Magum 158 gr JSP	5	2	No Penetration
Test 5	.44 Magnum 240 gr SWC	5	2	No Penetration
Test 6	.30 cal 7.62 NATO 147 gr M80	5	2	No Penetration
Test 7	.30 cal 30-06 166 gr M2 AP	5	2	No Penetration
Test 8	5.56 x 45 NATO 62 gr M855	5	2	No Penetration
Test 9	.50 cal 709.5 gr FMJ	5	2	No Penetration
Test 10	7.62 NATO M80	5	2	No Penetration

Ballistic Rubber Blocks





Strategic Military Bunkers

We are doing research & development for strategic Military Deployment where line of fire is critical.

We are manufacturing mega ballistic rubber blocks to stop critical heavy firing near the line of control in front of the sanitary post and military bunkers.

Our Mission is to Improve environmental impact of shooting which stops noise pollution, heavy metals lead, safety, pollutes the soil and water.

Sunflex Ballistic Rubber Products are delivered environmental pollution by Innovative Polymer Technology.



Rubber Blocks for Encapsulator Shooting Range Wall

Ballistic Rubber Blocks can also be deployed as bullet Encapsulator for ready range in few minutes.

We recommend AR500 steel backing before deploying blocks.

This are great options to construct small ranges for mobile container, commercial or residential.

Anyone can construct small range by using this rubber blocks.

Rubber Blocks can also be used as security barriers, security check point, military guard points.



Ballistic rubber blocks can also be used to deploy quick military bunkers during field level.



Interlocking block pattern helps to secure sight view from all four sides of angles.



Multiple numbers of quick bunkers can be deployed using these ballistic rubber blocks.



This bunker will be more durable in all weather harsh conditions compared to sand bags.



Military Guard Post



Portable Bullet Trap Encapsulator



Bullet trap is used to stop and encapsulate the bullet. There are many different kinds of bullet traps that can be used for safe environment shooting range activities.

We are engaged in designing and engineering the finest quality of portable bullet traps.

We produce portable bullet traps with AR500 steel with our proprietary ballistic rubber products.

Together both steel and rubber can defeat round, contain all lead dust, eliminate ricochet and back splatter.

Portable bullet traps are one of the primary Important devices which is used for military, law enforcement and commercial training.

Ballistic rubber products cannot defeat the rounds alone; they need steel backing.

The foremost advantage for portable bullet traps helps in close firing tactics at various angle shooting ranges.

Assault rifles have higher velocity bullet range which can be fired in a safe environment shooting range. Due to the help of portable bullet traps you can shoot with rifles with close tactics.

The bullet traps are flexible which can be movable from one place to another inside a tactical shoot house.

Traps are also designed as large sizes for mobile walls.

Bullet Traps are modular and any component can be replaced for longevity and cost Savings.

Models

SF- 100
Shooting Area Surface
20" x 36"

SF- 1000
Shooting Area Surface
40" x 36"

SF- 2436
Shooting Area Surface
24" x 36"

Customization

Portable Bullet Trap Encapsulator Description



Portable Bullet Encapsulator helps you to train safely in close encounters.

Portable bullet trap is a live-fire target system used to prevent ammunition escapement while training at engaging targets in urban environments

The bullet trap system is excellent for Live Fire Shoot Houses. This heavy-duty and rugged trap incorporates an internal self-adjusting energy dissipation ballistic strike plate.

This allows for more realistic training including weapons strike and use of secondary tools like knives.

It is a perfect tool for close retention training. Bullet Traps are modular and any component can be replaced for longevity and cost savings.

Mounts to optional wheeled base with no tools required.

Simple and easy relocation inside the shoot-house by one person allowing quick setup of various training scenarios.

Extended Shoot House Wall Durability

Strategic Placement of portable bullet traps inside shoot house, range, mobile range will increase life spend for all ranges.

No Splatter

There will be no Injury from bullet splatter and ricochet. Rounds fired will be encapsulate inside rubber blocks

Rubber Blocks Can Be Easily Replaceable

Over the time after thousands of rounds fired, you can easily replace ballistic rubber blocks with new ones. This will be very less maintenance compared to replace constructed wall inside shoot house

Flexible and Mobile

Portable bullet traps can be movable from one location to another inside any tactical shoot house to change target position in different practice scenarios. Due to the castor solid rubber tyre wheel it also provides good stability for standing and locking wheels.

Can be movable with forklifts. It can be moved from one military location to another military location.

Key Points

Military and special forces are choosing rifles for defensive engagement.

Rifles are fast, accurate, reliable and have high velocity.

Most of the special forces are trained with rifles but how they can train for close contact engagement.

Traditionally rifles operated with distance between 25 and several hundred yards in real scenarios.

But when the threat is a few feet away not yards specially the situation inside the tactical shoot house, hostage situation and many other threats.

We have designed this trap which can help to engage close firing tactics.

Technical specifications and drawing are available upon email request.

Portable Bullet Trap Encapsulator Design



Removable nuts for Blocks

Sunflex Ballistic Rubber Blocks

Made with AR 500 Steel

Solid tyre wheels for easy moving



Portable Bullet Trap Encapsulator Design



Sun-Flex portable bullet traps are capable of defeating up to 308/7.62 calibers.

Total Weight - 180 kg / 400 lbs.

Proprietary design of Sun-Flex ballistic rubber products.

Shooting area surface - 4.84 ft²

Customization of shooting area surface can be made upon order request

It can take 25000 rounds before replacement of ballistic rubber blocks

Rifle Bench Stand made from Recycle Rubber



The rubber rifle rest stand is manufactured from recycled rubber material.

Rubber rest stands for rifles are superior to sandbags and metal rests for sighting in a rifle.

The molded rubber construction provides a stable rifle rest that can be easily repositioned to provide three different heights.

The design has engineered with a unique pattern to ensure all possibility for adjustment of heights and replace sand bags.

This can be used in extreme weather conditions. The sandbags don't absorb water or leak its content and can be rusty like metal.

The composite rubber material will not scratch the finish on your rifle.

The stacking is not necessary to accommodate larger capacity magazines.

Rifle rest bench stand made from rubber has three different heights that can be changed by rotating it.

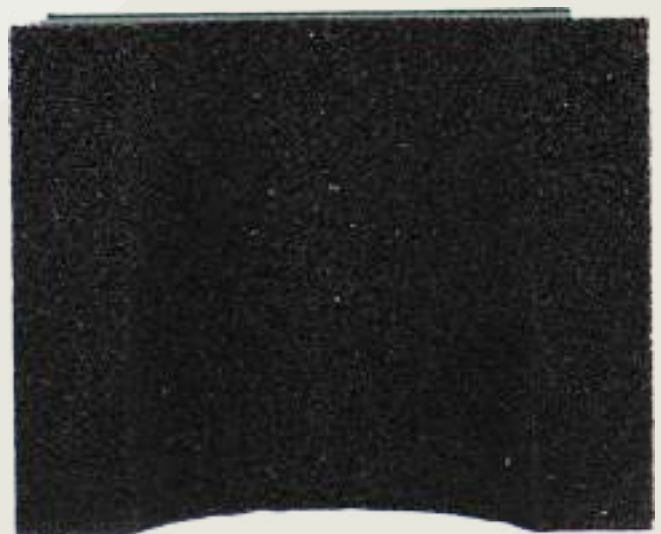
Sizes are 4 Inch, 7 Inches or 9 Inches.

The 9-inch high rest position is ideal for benching ARs and AKs fitted with 30-round magazines.

These are the best alternatives to sandbags for support while shooting.



Rubber Rifle Bench Stand



Container Shooting Range



Features

Container Shooting Range is defined as ready range for live firing training.

This is engineered as 100% ballistic enclosed live firing ranges.

They are generally modified 40ft high cube containers with ISO shipping maintains affordability.

The mobile ranges are portable to shift from one place to another.

It allows the end-user to relocate anytime in future.

It has 360-degree positive ballistic containment so it can be placed anywhere.

The ready range has all kinds of Integrated safety systems like bullet traps, lightning, hvac system, target retrieval, shooting stalls, security access system, ventilations, anti-ricochet and acoustic treatment.

Container shooting range is the best choice for fire training with small space.

Modular shooting range has to be constructed with a large number of funds.

The mobile range can be used for law enforcement, military, police, commercial, testing laboratory for ammunition, weapons testing.

This can be fully customizable as per your needs and budget. Investment will never be lost especially when you choose mobile ranges.

It needs low electrical power requirements. Maintenance is low compared to modular shooting ranges.

This can also be Expandable as per future needs to increase shooting stalls.

Rubber Block Encapsulator

HVAC System

Target Retrieval System

Shooting Booth Stalls

Ballistic Rubber Panels

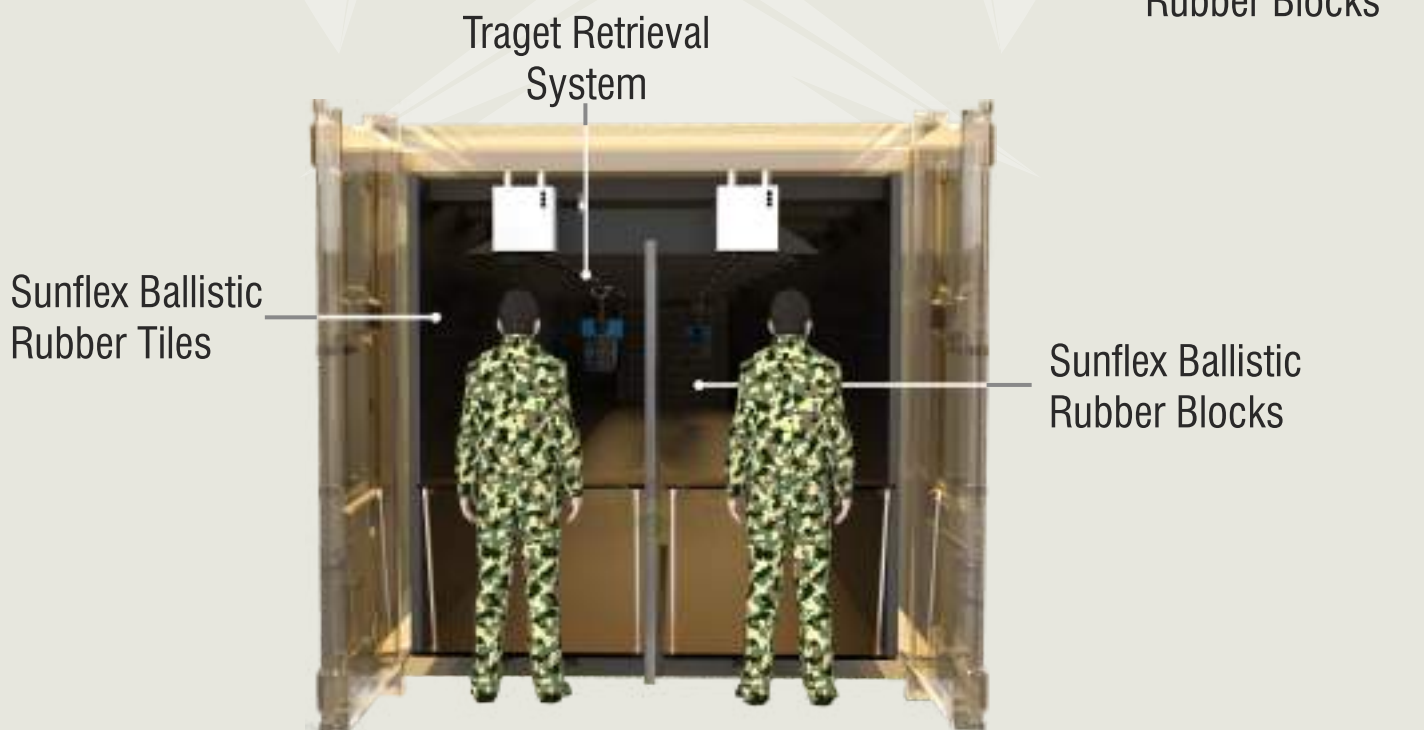
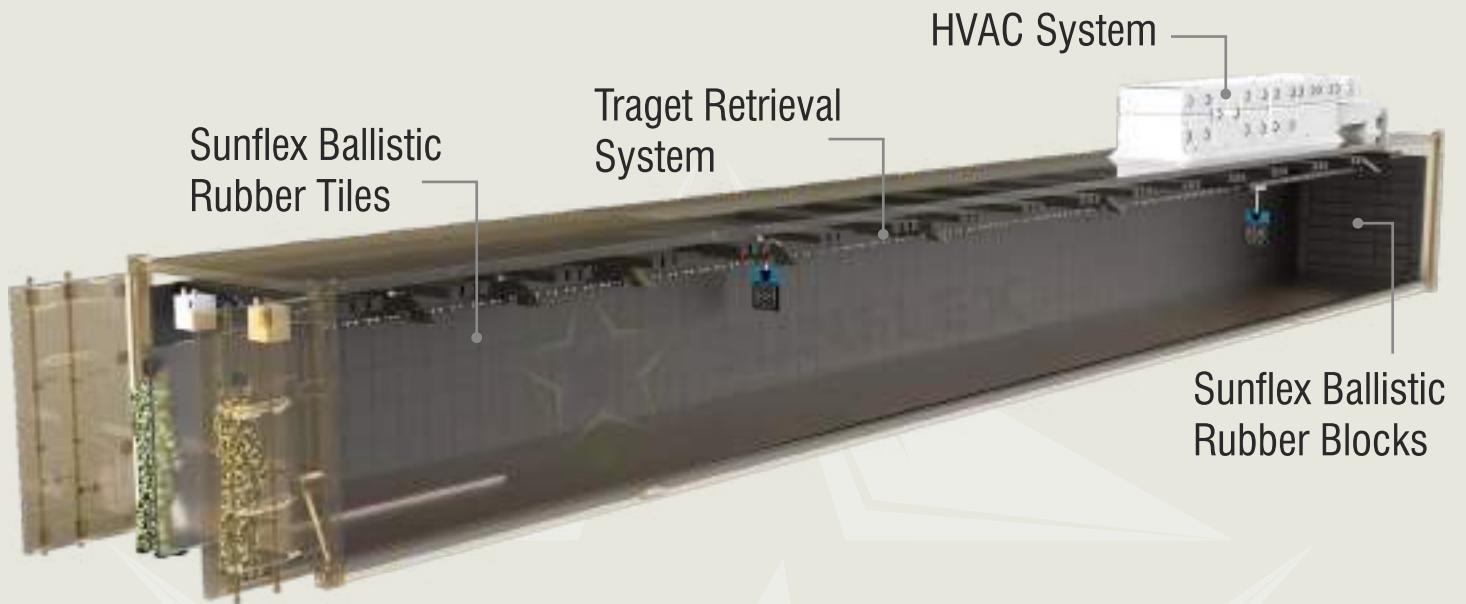
Weapons Locker System

Technical specification for container shooting range



Parameters	Technical Specifications
Length of container Shooting Line	80-82 feet (25 M) from Muzzle of the weapon
Width of container Shooting Line	8 feet (2000 – 2050 MM), Min
Height of container Shooting Line	9 Feet (2300 MM), Min
No of Lanes	2 Lanes
Target System	Provision for Smart Target System & Provision for Physical Target (Stationary)
Weapon for firing in the Range	SLR 7.62 X 51 NATO Ball AK 47 7.62 X 39 (HSC & MSC) INSAS / CQB carbine 5.56 X 45 MM 9 MM Pistol / Revolver 0.380 Pistol / Revolver, 0.32 Pistol and Revolver
Bullet Trap to be used	Customize solution as per project.
Bullet Trap Armour Steel Plate	Indigenous Material we used. Ballistic AR500 Steel – 500 BHN min Thickness: 12/20 MM min Protection : 7.62 X 54 R API Dimension : 10 X 1500/1600 X 6000 - 8000 MM
Weapons locker system	Yes
Shooting Booth Stalls	Yes
Control Room	We have control unit (sealed with BP Glass with 7.62 X 51 NATO Ball Protection) well connected with computers and record vital information like muzzle velocity,
Testing	There is provision to carry out following test i. Reliability Test of weapons ii. Hit Probability Test for fired ammunition iii. Accuracy test for the fired ammunition
Ventilation System	Yes
Warning/Safety Systems	Yes, there should be a Provision to ensure safety during the testing and trial is going on.
Ballistic Rubber Block / Anti Ricochet Tiles for wall and roof of container	Sunflex Ballistic Rubber Blocks and Tiles. Material Polymerically bonded SBR Hot molded cured technology Size – 500mmx300mm – 300mm(thickness) NIJ 0108.01 approved Capable of defeating more than 2000 rounds.
Acoustic insulated system	Yes, for clean and safe environment; Have Acoustic panel on side wall and have air defender.
Operation Temperature	-50C to +500C
Air conditioner and air circulation	Yes, Provision for the air conditioning and air circulation.
Installation and commissioning	Extra as per actual location
Transportation	Extra as per actual location
Extra Deliverables	A tool kit for routine maintenance and servicing of the system; Two User handbook that explains operational part of the system; On-site training for seven days on system use and maintenance.

Container shooting range visualization



Tactical Shoot House



Military and law enforcement agency need combat training according to latest realistic situation which is growing necessary.

This help in realistic training tools for close quarter battle operations.

Contain better dynamic and smart training for special forces.

Tactical shoot house is 360* degree live firing ballistically safe shoot house.

It helps soldiers to learn better close shooting skills, navigations and clearing the breach room.

Tactical shoot house is constructed with realistic walls, doors, rooms, hallways, tunnels and custom configuration as per commander need.

It has multiple options for entry and exit level. Consist commander room to watch live operation performed by special forces.




It also has observation catwalks with monitoring facilities.

The most advantage for special forces is judgement to learn whether to shoot/don't shoot as per realistic situations.

The shoot house has an Ar500 steel wall with ballistic rubber tiles for a safe shooting environment.

Each round fired 360* degree is being contained and safe.

It can be equipped with below criteria

-  360* Live Firing
-  Tactical Movement
-  Breaching
-  Target Engagement
-  Target Discrimination
-  Real Time Replication
-  Customization Layout and design



Ballistic

Live-fire shoot house with handgun, shotgun and rifle rated options.



Modular

Utilizes interchangeable parts a training accessories.



Connected







Integrates with central range control software for advanced features and functionality.



Clean and Safe

Spilatter containing walls, Zero SDZ design, and ventiation provide a safe traning environment.

Key Points for Investing tactical shoot house

-  Close combat training
-  Ballistically rubber containment safe range
-  Custom design and configuration
-  Better judgements for special forces
-  Range live monitoring facility
-  Improves close shooting tactics

We are Industry Leader in producing the finest Quality of ballistic rubber products. Products under development for anti-tress pass mats, security barriers, military guard post, portable bunkers for military.

Applications for Ballistic Rubber Products

Live Shooting Ranges	Security Barriers
Private Ranges	Modular Tactics
Tactical Shoot House	Portable Bullet Traps Encapsulator
Range Ceiling Baffles	Container Shooting Ranges
Military Guard Post	Training purposes
Portable Military Bunkers	Firearms ammunition testing
Flood Reservoir	Forensic Laboratory Testing

Key Products

Ballistic Rubber Tiles

Rubber Bullet Trap Encapsulator

Ballistic Rubber Blocks

Rubber Rifle Bench Stand

For more information, Please Visit our website www.ballisticrubberrange.com



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