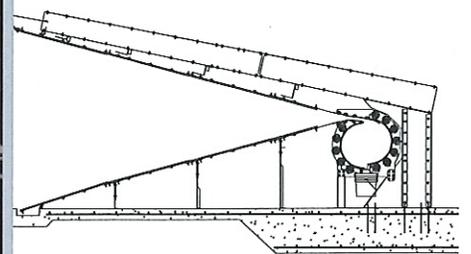
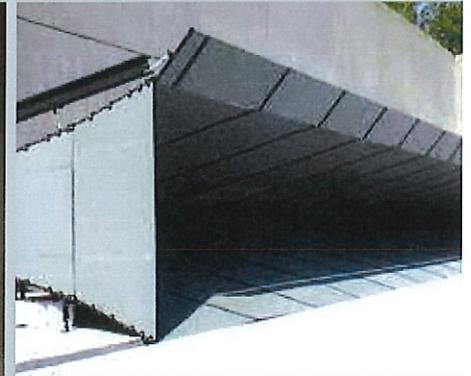


BULLET TRAPS

U.S. PATENTS 5070763, 5113700, 5121671, 5486008, 5400692, 5535662, 5811718, 7194944, 7234890, 7275748, 7306230, 7322771, 7503250, 7653979, 7775526 OTHERS PENDING

TOTAL CONTAINMENT TRAP™

Our Total Containment Trap (TCT) is the industry standard for modern, heavy-duty, steel bullet trap applications where safety, reliability, simple maintenance, and ease of use are top priorities.



The TCT can be used indoors or outdoors with the same excellent results and is ideal for all types of law enforcement, military, and commercial shooting ranges. It is the most advanced, most effective, and safest bullet collection and disposal system available.



Bullet fragments, jackets, wads, and other debris fall into a trough inside the deceleration chamber where they can be collected in convenient canisters mounted on the bottom of the trap or collected in a steel barrel through the use of Action Target's Air Conveyor System or Screw Conveyor System.



CONSTRUCTION

The TCT is an independent, free-standing trap that requires no additional support from your building or other structures so it can be installed on virtually any range. Every component exposed to potential impact is made of the finest through hardened AR500 or AR550 armor steel, and the entire trap is sandblasted and prepared to comply with strict SP-6 painting specifications for superior durability in harsh climates. The TCT can be fitted with a corrugated metal roof to keep leaves and other debris out of the trap area and to help control drainage from rain and melting snow.

AMMUNITION

The TCT can be used safely with handguns, shotguns (including slugs), rifles such as .223 and .308, and even .50 BMG caliber rounds. Tracers can be used regularly with no problem. All types of frangible and other lead-free rounds are also no problem. Because a shooting range is no place for lightweight equipment, the TCT is engineered to withstand the punishment of concentrated, high volume, everyday shooting.

COMPLETE PROTECTION

The TCT protects shooters by directing dangerous ricochets and lead dust build up. It protects the environment by collecting lead fragments into sealed containers, by containing and filtering lead dust, and by not using potentially hazardous materials like rubber, oil, or contaminated water. Finally, it protects your budget by eliminating high maintenance and cleaning costs so you can focus your efforts on training.

FUNNEL PLATES

Gently sloping funnel plates reduce bullet break up on initial impact. Bullets slide along the plates until they reach the deceleration chamber where they are safely contained. Splatter and ricochet are virtually eliminated, even when firing at very close distances. This safe capture is achieved without water, oil, rubber, or any foreign material whatsoever, which means significantly less mess and maintenance. The funnel plates can either be configured as modular ship-lapped panels or as long single sheets. Choose between traditional beveled joint strips or a special seamless assembly where the joint strips are invisible to the shooter. The mouth and throat can remain completely open and free from hazardous vertical supports, deflectors, or other leading edges. Safety is increased because there is nothing in the line of fire except your target.

DECELERATION CHAMBER

After bullets slide along the funnel plates and pass through the open throat, they enter the deceleration chamber where they safely spin along a round steel path until their energy is fully dissipated and they fall harmlessly to the bottom of the trap. Because you should not be limited to shooting just straight ahead, the Total Containment Trap has a patented open throat and internal chamber design with absolutely no deflectors, side walls, or other vertical edges found in other designs. You can stand in lane 1 and safely shoot into lane 10 with no vertical obstructions whatsoever. This revolutionary open throat and chamber design gives you tremendous flexibility when it comes to tactical training and other cross-lane shooting. The chambers are assembled to form a continuous sealed environment with no gaps and no need for disposable impact plates.

DUST COLLECTION UNIT (DCU)

The DCU is a negative pressure vacuum system that continuously removes lead dust and other fine airborne particles from inside the deceleration chambers of the TCT. This technology is unique to Action Target and is effective on both indoor and outdoor ranges. To comply with OSHA regulations and protect the surrounding environment, the DCU uses its own internal filters to clean the air from the trap before it is exhausted. Our negative pressure vacuum system is superior to positive pressure for two significant reasons. First, a curtain of air at the throat of the trap works both ways. High speed video footage shows that dust created by a bullet sliding along the funnel plates follows the rest of the bullet into the deceleration chamber. If a positive pressure air curtain is in the way, the dust can be blocked from passing through the throat and entering the chamber, and can be pushed back onto the range. Second, positive pressure can actually force dust created inside the chamber back out the throat of the trap. Try blowing a cotton ball into a glass or a bottle for a compelling example of this phenomenon.

CONCLUSION

Action Target's TCT is the complete answer to your bullet collection and storage needs. It protects shooters by eliminating dangerous splatter, ricochet, and lead dust build up. It protects the environment by collecting lead fragments into sealable containers, by vacuuming and filtering lead dust, and by not incorporating potentially hazardous materials like rubber, oil, or contaminated water. Finally, it protects your budget by eliminating high maintenance and cleaning costs.

BULLET TRAPS

U.S. PATENT #'S 5400692, 5535662, & 5811718 WITH OTHER PATENTS PENDING

DUST COLLECTION UNIT - DCU™ (EXTERNAL)

The Dust Collection Unit (DCU) is an air filtration system used in conjunction with Action Target's Total Containment Trap (TCT). The DCU creates a negative pressure in the chamber to reduce airborne lead dust in the chamber and around the chamber opening.



The DCU system uses a 55-gallon drum where bullet debris and lead dust are directed and contained. The collected debris can then be removed for disposal or recycling. The drum comes with a locking lid and is connected to the DCU with an air-tight seal. The drum can be emptied (following EPA regulations) and reused, or it can be used to contain the airborne lead particles permanently.



The DCU unit mounts outside the range and connects to the Total Containment Trap (TCT). It creates a negative pressure environment at the opening of the bullet trap to keep lead dust and bullet debris out of the shooting range. The DCU pulls air into the TCT opening at 360 FPM acting like a vacuum to keep toxic dust and fragments away from shooters. The DCU employs an airtight, sealed containment drum that collects and stores debris for easy disposal or recycling. The DCU filters also have a capture rate of 99.99% on particles measuring one micron and 99.90% on 0.12 microns. With the optional HEPA grade 2nd stage filter, the capture rate exceeds 99.99% on 0.12 micron particles. The DCU filters have an average life expectancy of 5000 operating hours and utilize a self cleaning system that automatically engages when pressure exceeds the standard operating level.



Standard Accessories	<ul style="list-style-type: none"> Reverse incline fan system Duct manifold system Local or remote start/stop 55 gallon drum or multiple canisters (for collection) Motor starter Air compressor system for cleaning 			
Optional Accessories	<ul style="list-style-type: none"> Redundant HEPA filtration system Bucket pack system 			
Filters	4	8	12	16
CFM Rating	1,600	3,100	4,600	6,100
Trap Length	44'	84'	124'	164'
Seismic Rating	Zone 4	Zone 4	Zone 4	Zone 4
Wind Load	130 mph	130 mph	130 mph	130 mph
Power	240 V single phase 208/240/480 V 3 phase	240 V single phase 208/240/480 V 3 phase	208/240/480 V 3 phase	208/240/480 V 3 phase
Height	118.72"	124.88"	124.88"	124.88"
Depth	61"	76"	76"	76"
Width	40.00"	40.25"	58.25"	80.25"
Weight	1,050 lbs.	1,792 lbs.	2,300 lbs.	3,000 lbs.



PO Box 636, Provo, UT 84603, 801-377-8033

Installation Instructions

DCU Range System

The data contained herein is the exclusive property of Action Target Inc. All information is considered to be confidential and is disclosed solely for the purpose of allowing the installation of the products and/or assemblies described herein. If you are in possession of this document for any other reason, return it at once to Action Target Inc.

Assembly: @:B_dcu_r
 Version: 1.00
 Printed: 2015-Jan-06

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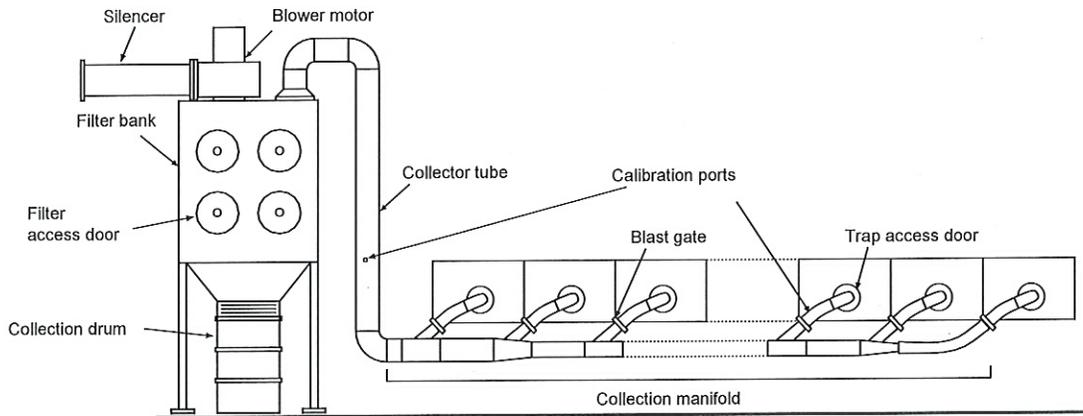


Figure 1. Cover

Rev.	Date	By	Explanation
A	8/18/2014	JP Durborow	Updated Notes to new version

Table 1. Revision Block

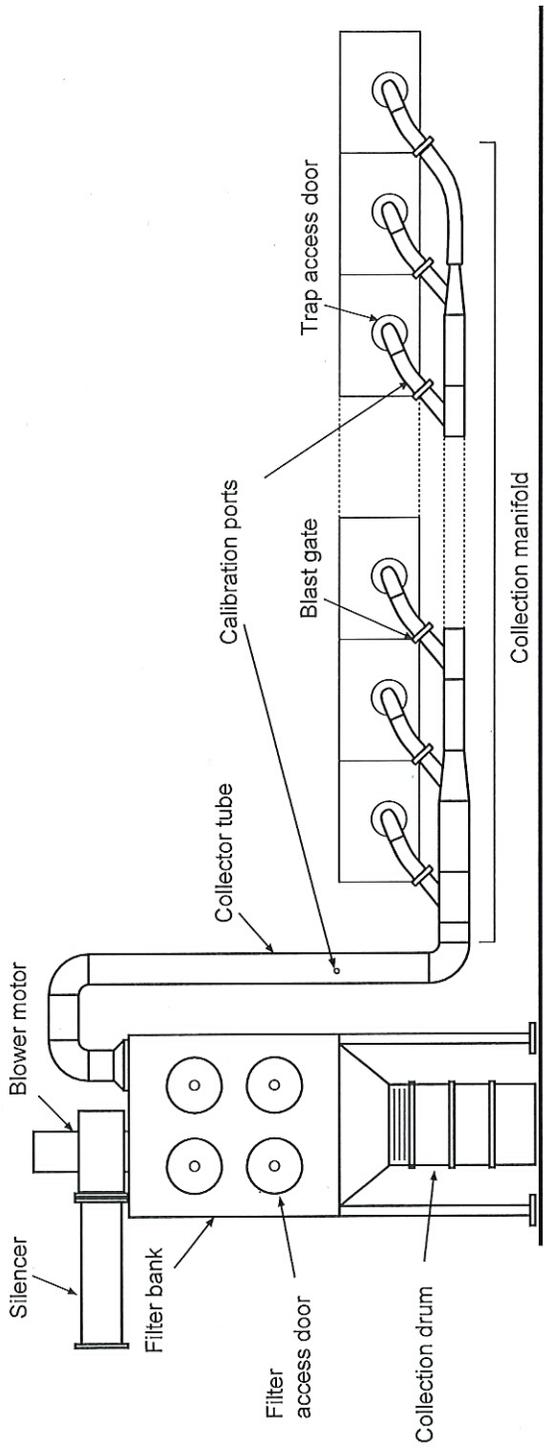


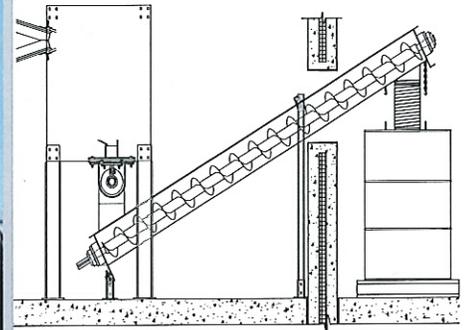
Figure 2. Exploded View- Place Holder

BULLET TRAPS

U.S. PATENT PENDING

SCREW CONVEYOR SYSTEM™

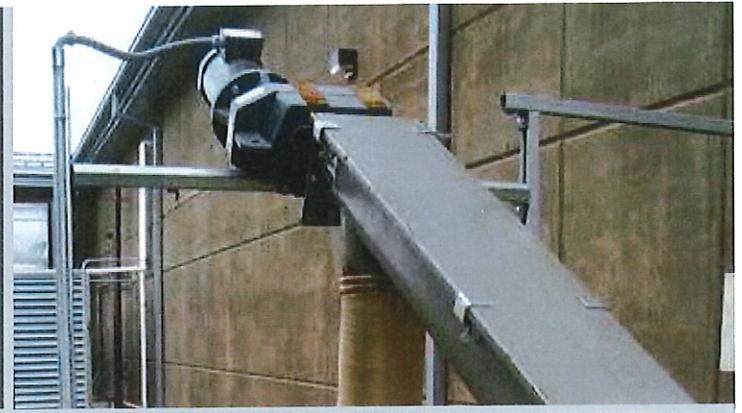
The Action Target Screw Conveyor System (SCS) combines with the Total Containment Trap as the best choice for high-volume shooting.



As pieces of lead, jackets, and other debris fall from the deceleration chamber, they all land in a semi-circular trough mounted along the bottom of the entire trap. Everything is then pulled through by a powerful rotating auger until it is safely deposited in a large storage barrel for truly hands-free operation.



The Screw Conveyor System is one of the most complete lead collection and storage systems on the market, and saves range owners from costly down time associated with lead removal. With all lead and debris safely contained in a 55-gallon drum, this system also prevents lead exposure to employees and makes recycling easy.



Performance Characteristics	<ul style="list-style-type: none"> • Hands-free collection and storage • Sealed system from trap to storage drum • Works with any ammunition • All debris removed and stored in one place • Appropriate for low and high volume shooting
General Data	<ul style="list-style-type: none"> • Horizontal screw conveyor and storage system • 300 foot maximum length with one motor for each 150 feet • All components meet CEMA standards
Motor	<ul style="list-style-type: none"> • 208 volt / 240 volt / 480 volt / 3 HP / 3-phase • Interlock motor control system • C-faced motor to drive mounting
Drive Shaft	<ul style="list-style-type: none"> • 2" schedule 40 steel • 6" diameter helicoil • 6" pitch • 3/16" flighting • 45 rpm shaft mounted parallel drive reducer • Composite GATKE bearings
Trough	<ul style="list-style-type: none"> • 3/16" thick / u-flanged • Rated for 1/3 total filled volume measured to the top of the screw flighting • Independent from drive shaft so trough can be removed by itself
Inclined Discharge	<ul style="list-style-type: none"> • 10' section at 30 degree incline • 2/3 (4") flighting on discharge screw • 7" round outlet into 55 gallon storage drum



PO Box 636, Provo, UT 84603, 801-377-8033

Installation Instructions

Screw Conveyor System

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Assembly: @:B_sc
 Version: 1.00
 Printed: 2015-Jan-06

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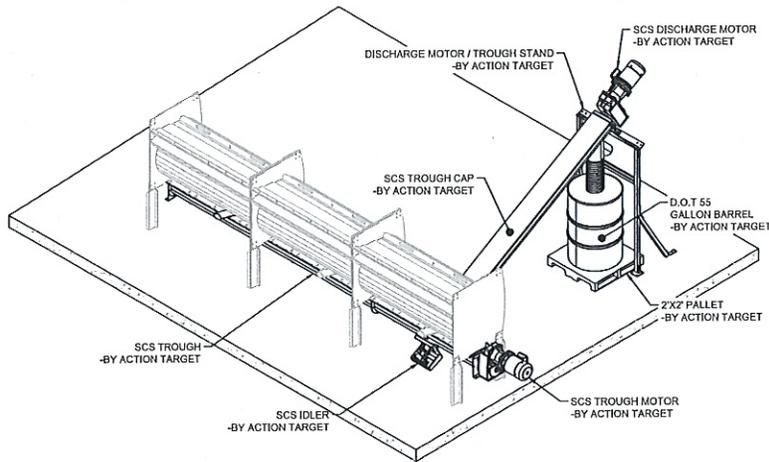


Figure 1. Cover

Rev.	Date	By	Explanation
A	08/06/2014	JPD	Updated Notes to new version

Table 1. Revision Block

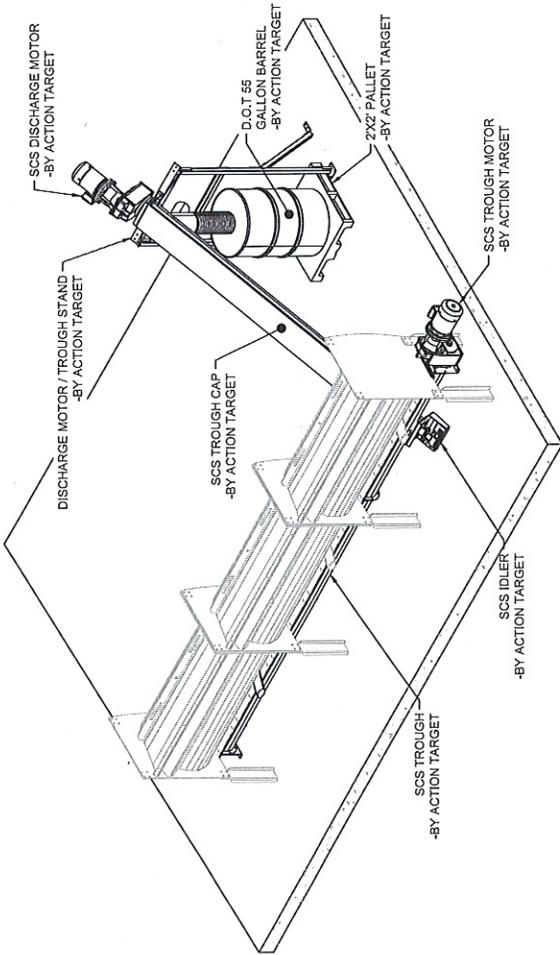


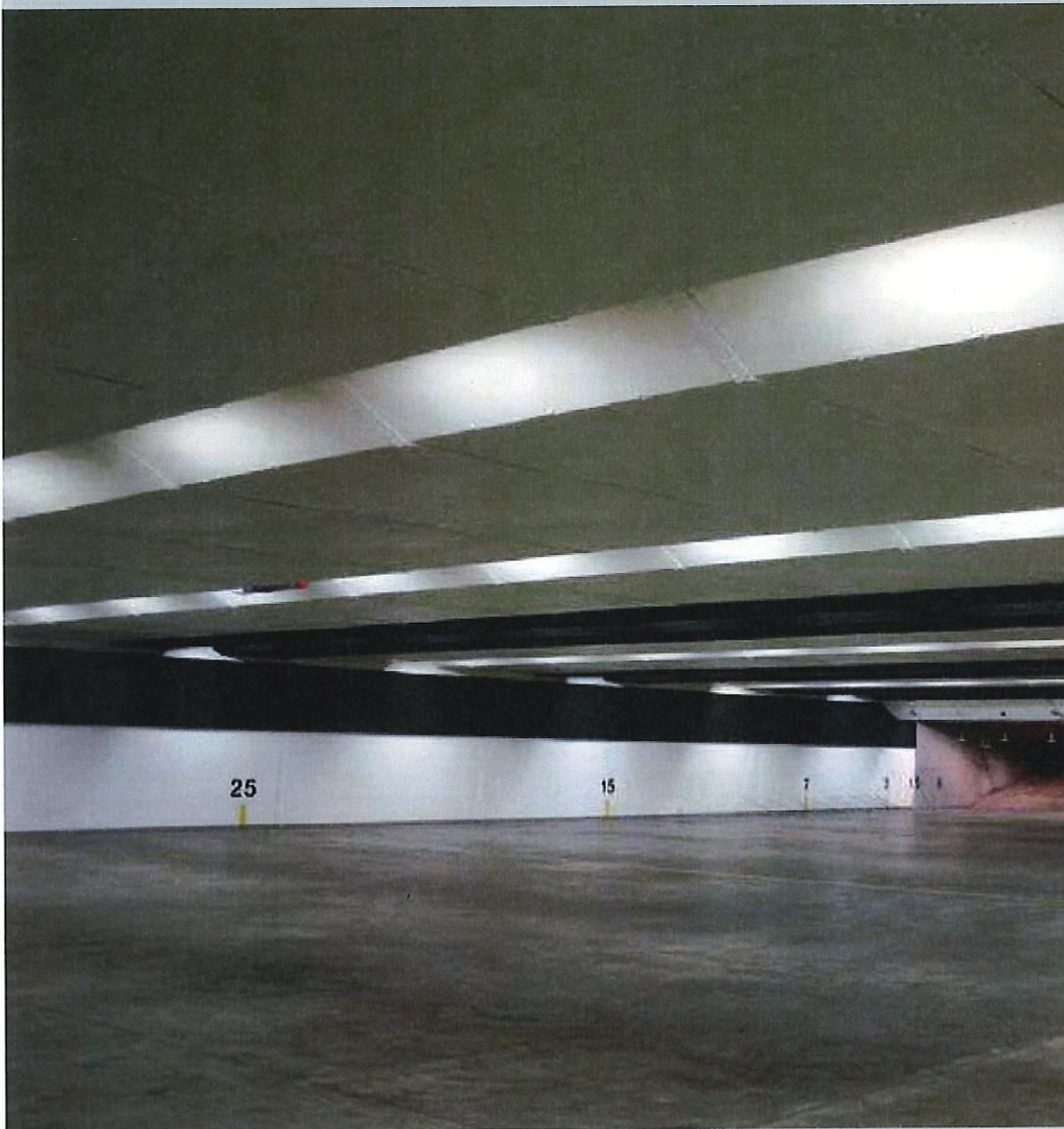
Figure 2. Exploded View- Place Holder

INDOOR RANGES

U.S. PATENT # 5822936

SAFETY BAFFLES™

In addition to keeping fired bullets from exiting the range, baffles offer protection for overhead lights, pipes, ventilation ducts, and other structures.



A critical safety concern on any indoor range is making sure bullets cannot escape to the outside. Using an innovative combination of steel, wood, and acoustical tile, Action Target Safety Baffles provide ballistic protection, sound abatement, and a polished, professional appearance.



MOVING TARGETS

U.S. PATENT #5242172

TRACK RUNNER™

For more permanent range installations, our innovative Track Runner is the best way to implement a moving target system.



Unlike our portable moving target systems where the target is suspended from a steel cable, targets used with the Track Runner are mounted to a trolley that runs on a special track that runs on the ground or inverted from an overhead structure. This approach is ideal for tactical applications because the target can move to different locations, change speed and direction and dart in and out of cover.



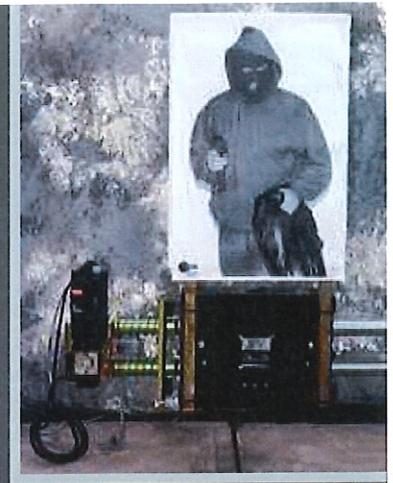
THE TRACK: We developed a round rail track system made of tubular steel that eliminates binding issues found in I-beam and steel strip tracks so you can continue training no matter how windy it gets.

The new Track Runner™ can be mounted in several configurations depending on your needs. For systems used on the ground, the track simply rests on a series of sturdy feet attached at each track connection point. Because no anchors or permanent mounting is required, the system can easily be moved as necessary.

If your needs are different, the new Track Runner™ can also be mounted to the side of a wall. This option is often required on indoor ranges or other ranges where space at the target line is very limited. You can even mount the new Track Runner™ above the target line and hang the targets from above.

THE TROLLEY: The new trolley uses a wrap-around design and multiple urethane wheels to provide extremely smooth and quiet motion. Because these ball-bearing wheels evenly distribute pressure and reduce friction, wind has no effect on the system's performance.

Perhaps the greatest benefit of the new Track Runner™ trolley design is the ability to incorporate different types of targets. In addition to shooting at traditional cardboard targets, a single multi-purpose bracket provides a uniform interface with Action Target's full line of portable steel targets for instant audible feedback every time the moving target "clangs" from an accurate shot. The law enforcement firearms training community has long recognized the benefits of this instant feedback provided by shooting on steel targets. The power of the new Track Runner™ takes firearms training to a new level by providing a means to use this same instant feedback in your moving



INSTALLATION: Because the drive components (track, motor & trolley) are not ballistically protected, the entire system is usually installed behind a knee wall. All of the drive components simply clamp on to the track, so the system can be taken down quickly and put away to prevent vandalism or theft on unsecured ranges. Even so, all drive components are protected from the weather so they can be left out in harsh conditions with no problem.

Performance Characteristics	The Track Runner is a track-mounted moving target system. It uses a 120 volt motor, a pulley system, and heavy duty rope to pull a trolley from side to side along a tubular steel track. There are five basic components of the Track Runner: trolley, track, motor drive unit, idler pulley unit, and the controller. The Track Runner can be enhanced with additional options including a steel target, a limit switch controller, and an automated computer control system. The track is ordered in lengths of 10'. It is recommended that the track not be greater than 200' due to rope tension limitations. The drive and idler units require 20" additional length each. Add 1/4" for another track joint for the end. A sixty foot track with drive and idler units included would be 62' 11.75" in length ((119 1/4" X 6) + (20" X 2) + 1/4"). Other dimensional requirements for the vertical track runner are found in figure to aid in the design of a knee wall or barrier. Each 10' length of track requires two mounting legs. The steel trolley is of wrap-around construction, and uses nine urethane ball-bearing wheels to ride along the tubular steel track. The trolley accepts 1x2 vertical wooden inserts that cardboard targets are attached to. An optional adaptor is available to allow mounting of a steel target to the trolley instead. The handheld controller features a toggle directional switch, variable speed adjustment dial, and built-in surge protection. If the dual runner option is used, each mover must have its own 15 amp (min.) 110v circuit.
Optional Accessories	• Steel target attachment • Automated computer control
Compressed Air Req.	n/a
Electrical Req.	110 volt, 15 amp circuit for each motor
Mounting Req.	• Permanent (ground): Concrete pad • Permanent (overhead): Overhead structure • Portable: Flat surface
Motion	Lateral side to side
Control Options	• Handheld controller • Computer automation
Height	26"
Depth	20"
Length	Up to 150' or 120' if computer controlled (distance will vary if power source is other than 110 volt)

TURNING TARGETS

U.S. PATENT # 7497441 PLUS OTHERS PENDING

D-TAPS™

The Decision Based Target Presentation System (D-TaPS) is a high speed, 180°, pneumatic turning target actuator that adds a powerful new dimension of decision making to your firearms training program.



Exposing both sides of the target lets you train for shoot / no shoot threat identification. Putting trainees in a position where they have to quickly and accurately identify simulated threats before taking action increases reaction time and decreases accidents in the real world.



The target turns in less than two-tenths of a second which is faster than the human brain can react. This means trainees cannot anticipate which side is being presented.

Each D-TaPS actuator comes with a built-in electric interface that allows you to control each target independently for tactical multiple-threat scenarios.

In conjunction with the SmartRange computer control software, you can program individual target exposure and delay times with split-second accuracy.

The D-TaPS works with all standard target sizes, and no wood is required. A simple and reliable steel clamp holds everything in place.



The D-TaPS is a turning target actuator capable of presenting either side of a two-sided cardboard, paper, or plastic target in less than two-tenths of a second. The turning time is easily adjusted with a screwdriver. The actuator presents a target in three positions: front face, edge, and back face. The D-TaPS actuator interfaces with range control software for pre-programmed activation across several units.

The actuator is electric low-voltage over air pneumatic operation. Field repair clamp changes to the actuator may be performed by range personal using standard tools. The actuator is designed to withstand harsh weather conditions and will still operate after having been submerged in water. All inner components are covered by a powder coated housing for protection. All potential impact surfaces are separate from the actuator to allow for easy replacement.

A C-rod made of 5/8" hot-rolled steel holds the target backing and is adjustable to accommodate different target heights. Only the target and its backing turn while the base and C-rod remain stationary. The target clamps are armored for projectile and splatter protection and allow the targets to be changed single-handedly. Different levels of armor protection are available to suit the needs of the range.

A D-TaPS actuator may be mounted to a standard concrete slab or may be used in a self standing configuration. It may also be used in an inverted-mounted position without the C-rod.

Standard Accessories	<ul style="list-style-type: none"> • Target support C-rod • Integrated pneumatic control valve 	<ul style="list-style-type: none"> • Dual ball bearing pivot for long life • SmartRange range control software
Optional Accessories	<ul style="list-style-type: none"> • Rifle grade ballistic shield - portable foot • 3 clamp options 	<ul style="list-style-type: none"> • Ballistic raceway
Compressed Air Requirements	45 to 80 psi	
Electrical Requirements	<ul style="list-style-type: none"> • None • 12V / <300mA 	<ul style="list-style-type: none"> • 120V/240V (computer)
Mounting Requirements	<ul style="list-style-type: none"> • Permanent: concrete pad / inverted 	<ul style="list-style-type: none"> • Portable: flat surface
Motion	180° degree turn on vertical center	
Control Options	<ul style="list-style-type: none"> • Computer 	
Height	32"	
Depth	13"	
Width	4 5/8"	
Weight	32 lbs	



AIR COMPRESSOR

RANGE ACCESSORIES

TECHNICAL DATA

5.0 HP Air Compressor



The two-stage electric air compressor is designed for heavy shop or industrial use to provide the quality and performance that are ideal for most applications and users, including: automotive service and body shops; fleet maintenance; machine shops; production and manufacturing lines; construction; wood working shops; dry cleaners; car washes; maintenance/repair shops and farms.

FEATURES:

- Durable cast-iron pump
- Oil sight glass
- 100% continuous duty for tough applications



TECHNICAL SPECIFICATIONS:

Running Motor HP	5
Tank (Gal.)	60
Volts 60 Hz	230
Amp Draw	17.3
Free Air CFM @ 175 PSI	15
Max. Pressure (PSI)	175
Tank Type	Vertical
(F) NPT Outlet (In.)	1/2
Length (In.)	32
Height (In.)	69
Width (In.)	30
Oil Capacity	32 oz.

INDOOR RANGES

U.S. PATENT # 5951016 WITH OTHER PATENTS PENDING

TARGET RETRIEVERS

With our retriever systems, targets that sag and sway with every movement are a thing of the past. Instead of a flimsy hanging cable, our systems utilize a rigid steel track to support the target trolley.



The steel track provides stable operation, quick target response, and more precise control. Although the Standard Retriever does not use steel cable to support the target trolley, it does use it instead of nylon cord to pull the trolley back and forth along the track at almost six feet per second. This more effective use of steel cable makes our retrievers even stronger and more durable.



The Deluxe Retriever uses this same advanced design plus an additional modular unit that easily attaches to the bottom of the trolley. This extra unit gives the Deluxe Retriever 360° turning capabilities with the speed to make a 90° turn in .5 seconds, which makes your range more valuable for training and more entertaining for the public.

As the trolley moves back and forth at nearly six feet per second, your paper or cardboard target can turn from edge to face to the opposite face or any combination of the three positions. This dynamic turning technology can dramatically improve your indoor range experience.



Performance Characteristics

STANDARD RETRIEVER

- Track mounted system
- Smooth motion
- Multiple control options
 - Toggle switch (non turning)
 - Keypad master control (non turning)
- Simple target attachment
- Armored target trolley
- 25 meter standard with a 50 meter option

DELUXE RETRIEVER

- Track mounted system
- Smooth motion
- 360 degree turning action
- Simple target attachment
- Armored target trolley
- Multiple control options
 - Key pad and master control (turning)
- 25 meter standard with a 50 meter option

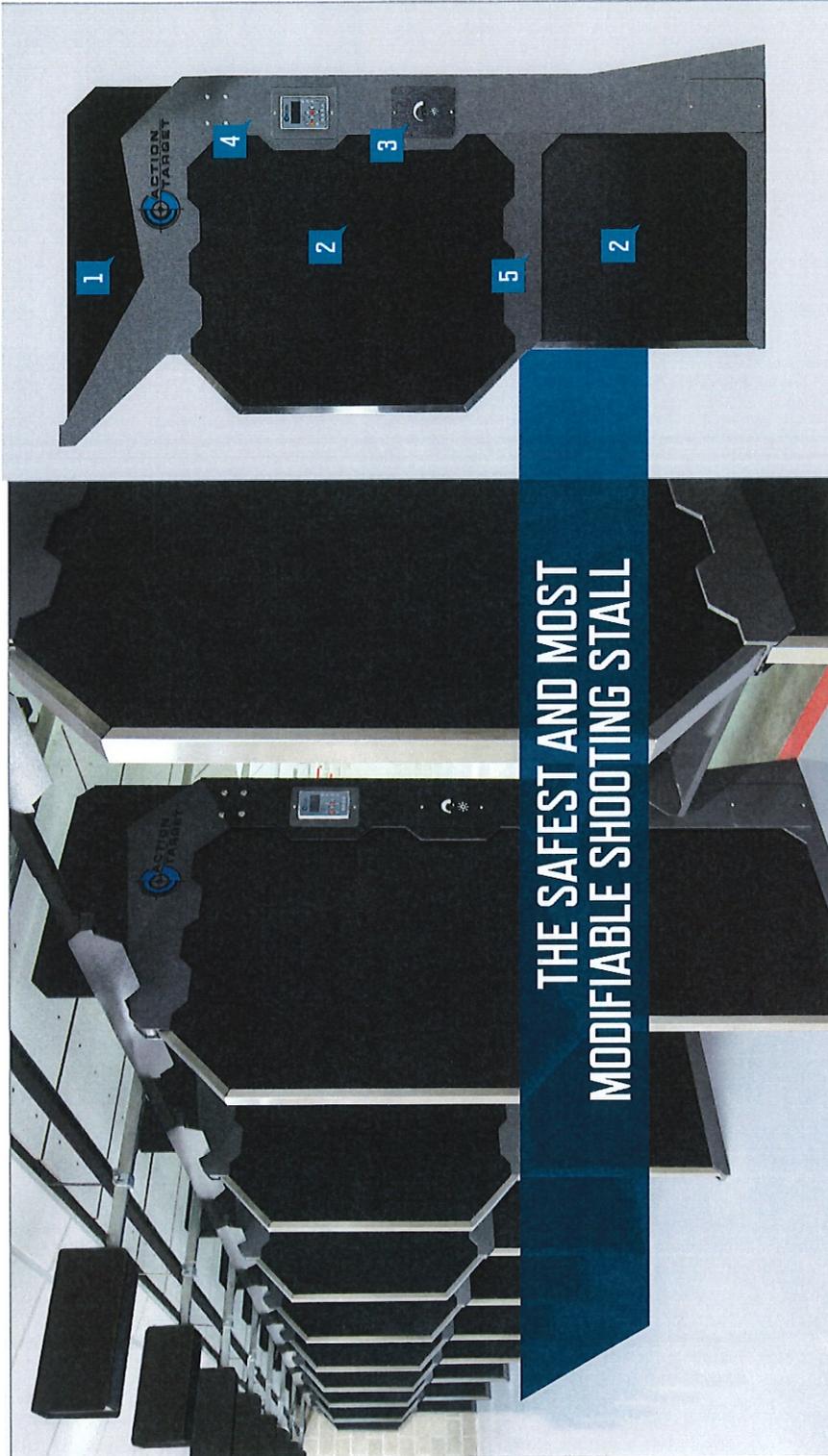


DEFENDER™ SHOOTING STALL

SAFE / MODULAR / TACTICAL



ACTIONTARGET.COM



THE SAFEST AND MOST MODIFIABLE SHOOTING STALL

Action Target's Defender™ Shooting Stalls are the safest and most modifiable shooting stalls available. Independent ballistic testing and advanced designs ensure the shooter stays safe and comfortable in

your range. Attachable accessories, interchangeable ballistic panels, and multiple table configurations work together to create the ideal shooting experience for your customers.



Modular: Interchangeable components allow for future upgrades and replacements as wear occurs.



Customizable: Multiple accessories, ballistic panels, and table configurations are available.



Ballistic Rated: Independent UL 752 tests validate ballistic integrity.



Modern Design: Unique design elevates the look of the shooting range.



The Defender™ Shooting Stall is part of Action Target's complete range solution. Learn more at ActionTarget.com/Indoor-Shooting-Products

1 BRASS DEFLECTOR

A standard brass deflector blocks brass from traveling into adjacent lanes, creating a clean and safe environment for customers.

2 PANEL INSERTS

The panel inserts allow for complete customization of the stall walls, enabling you to create a look that fits your shooting range. Each panel insert has been independently tested for ballistic integrity. Options include ballistic steel with ABS coating or ballistic glass.



Full Solid: Optimal Privacy

Split Glass: Improved Visibility

Full Glass: Optimal Visibility

PANEL INSERTS UL 752 RATING		UL Ballistic Rating Level*			
Material	UL 752 Rating	3	5	8	10
Clear Ballistic Glass	UL 752 Class II	■	■	■	■
Ballistic Steel	UL 752 Class I	■	■	■	■

*Independent UL 752 Ballistic Ratings:
 Level 3: .175mm Rifle Lead Core Full Metal Copper Jacket (3 Shot)
 Level 5: .262mm Rifle Lead Core Full Metal Copper Jacket (3 Shot)
 Level 8: .40mm Rifle Lead Core Full Metal Copper Jacket (3 Shot)
 Level 10: .50 Caliber Rifle Lead Core Full Metal Copper Jacket (3 Shot)

3 LED LIGHTING

Adding a fully dimmable light allows users to customize their shooting experience.



4 ABS SKIN

A textured layer of ABS plastic can be added for extended protection.



5 STALL TABLES

The stall table is no exception when it comes to modularity and customization. Three different table configurations improve functionality and ease of down range access.



Fixed Table: The Fixed Table has an optional lower shelf customers can use to store gear.



Pivot Table: The Pivot Table rotates out of the way for easy range maintenance and tactical training.



Tactical Cart: The Tactical Cart detaches from the stall and rolls down range for tactical training. A storage shelf is included.

INDOOR SHOOTING RANGE PRODUCTS



TARGET RETRIEVERS



BULLET TRAPS AND BAFFLES



TARGETS & ACCESSORIES



BETTER EQUIPPED. BETTER PREPARED.

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