



# TOTAL CONTAINMENT TRAP™



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# GET THE MOST OUT OF YOUR INVESTMENT

The Total Containment Trap™ (TCT) is the safest, strongest, and most eco-friendly bullet trap in the world. It provides complete ballistic coverage making it ideal for fixed firing line and tactical training ranges. The TCT requires minimal maintenance and is equipped with the most efficient lead collection system available, keeping shooters, employees, and the environment safe.



## DURABLE

Patented ballistic design ensures that the trap is able to handle millions of handgun, shotgun, and rifle rounds.



## SAFE AND CLEAN

Collects lead fragments and dust for recycling, keeping them from impacting surrounding ground, waterways, and air.



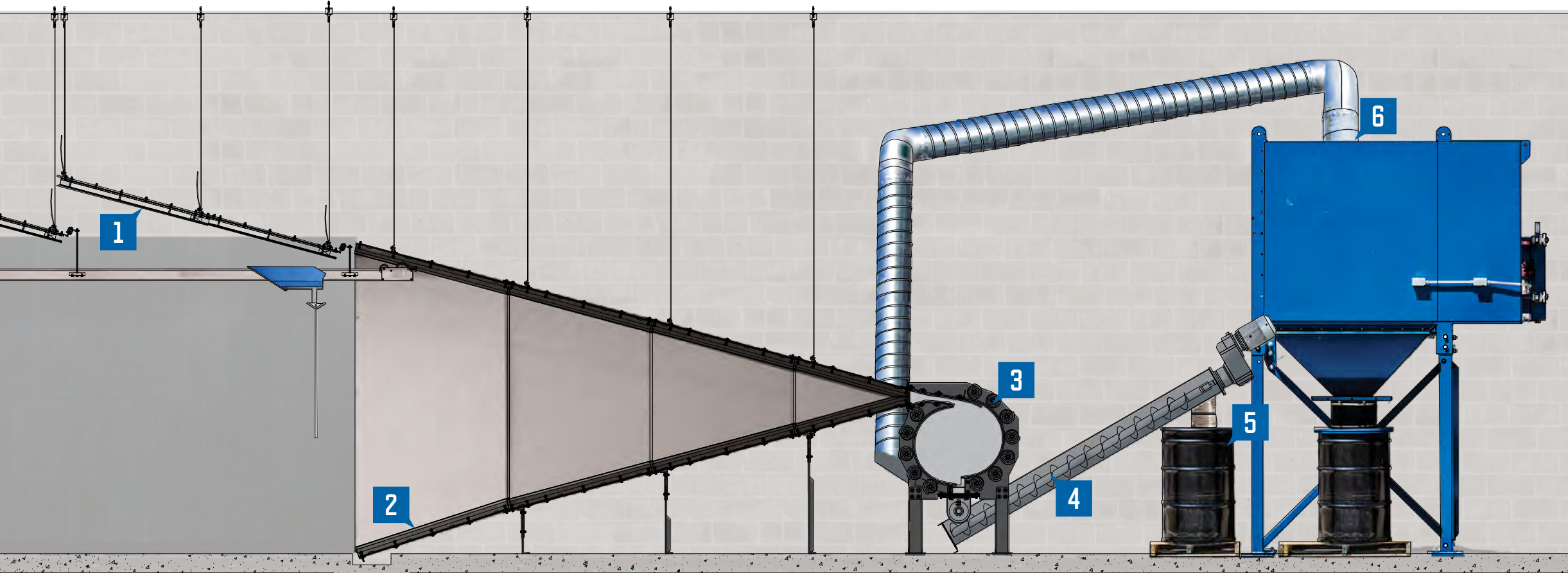
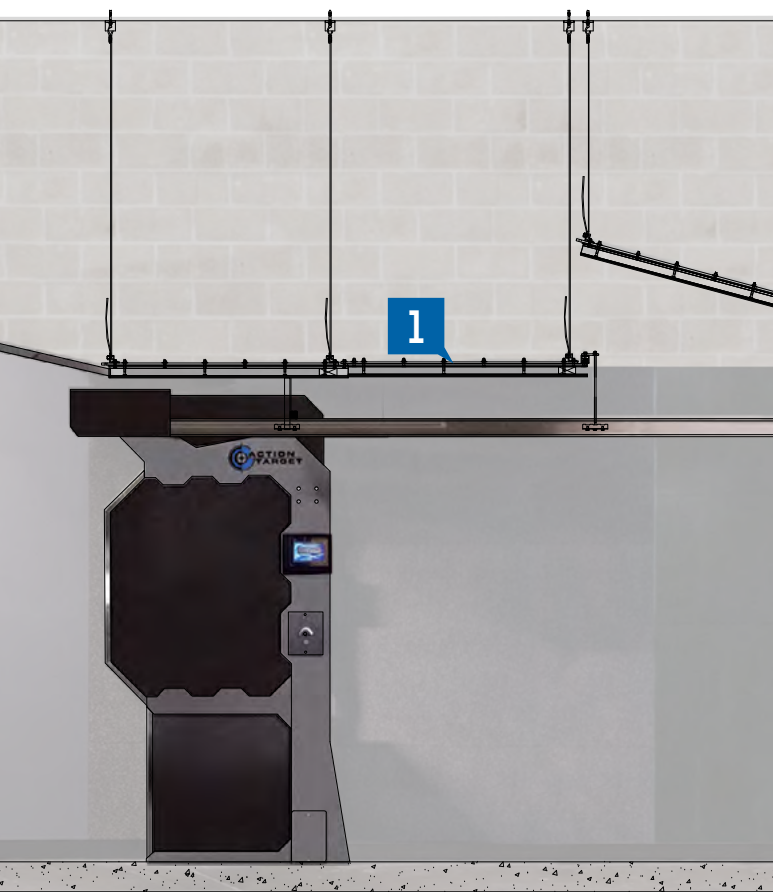
## LOW MAINTENANCE

Modular system is designed to collect lead with no down time. Does not require the use of water or rubber.



# HOW TO CAPTURE A BULLET

The Total Containment Trap™ uses a patented system to ensure that every round fired in a range is captured safely and effectively while providing a tactical close-range and cross-lane shooting environment. Here's how it works.



## 1 BAFFLES

Not every shot will end up where it's supposed to go. Action Target provides ceiling and wall baffle options that stop errant rounds and contain splatter for fixed fire-line and tactical applications.

- **Safe:** Using a unique design, ceiling baffles safely direct errant rounds downrange, protecting shooters as well as ceiling structure, ventilation, lights, and electrical systems.
- **Ballistic:** ATI Class 1 (handgun) and ATI Class 2 (rifle) rated options are available.
- **Modular:** A patented system design for a solution that's easy to install in any range.

## 2 FUNNEL PLATES

Precisely engineered armor steel funnel plates direct fired rounds into the mouth of the trap.

- **Containment:** The height of the trap along with its complete wall to wall design ensures that every round fired downrange is contained.
- **Solid Construction:** From 1/4 to 1-inch thick AR500 or AR550, the right steel options are available to handle everything from small to large calibers.
- **Tactical:** The carefully calculated angles of the plates are ideal for tactical and cross-lane shooting.

## 3 DECELERATION CHAMBER

Rounds pass through the open mouth and into the sealed Vortex™ chamber where they spin along the wall of the chamber and decelerate. They are deposited into individual containers or a screw conveyor system.

- **Safe:** Patented open mouth chamber design allows for safe cross-lane and tactical shooting.
- **Sealed:** The chamber uses a patented design to ensure it remains sealed even when affected by the force of bullets.
- **Durable:** The shape and quality of ballistic steel are precisely engineered to capture millions of rounds without damage.

## 4 SCREW CONVEYOR SYSTEM

Once decelerated, rounds fall into the sealed Screw Conveyor System, located below the Vortex Chamber, they are automatically moved along the length of the trap and into an uptake auger for collection.

- **Rotational Sensor Technology:** Manages the performance of the Screw Conveyor System and constantly communicates the operating status to the range staff.
- **Clean and Safe:** The Screw Conveyor System is sealed and allows for simple collection of lead.
- **Service and Maintenance:** The Screw Conveyor System includes a 3-Stage fail-safe system with monitoring to ensure it stays up and running.

## 5 COLLECTION BARREL

Rounds and lead fragments are automatically moved from the Screw Conveyor System into a large collection barrel that is easily recycled.

- **Barrel Fill Sensor Technology:** Monitors the amount of lead in the barrel and notifies the range staff when it's full and requires maintenance.
- **Clean and Safe:** Sealed container provides an easy way to transport hazardous materials for recycling.

## 6 DUST COLLECTION UNIT

Using negative pressure, the dust collection system draws lead dust from the trap and deposits it into a containment system.

- **Clean:** Hazardous lead dust is drawn into sealed and easy to transport containers.
- **Superior Filtration:** Advanced technology achieves higher efficiency, cleaner air, lower pressure drop, and longer filter life than any other standard cartridge filter.
- **Patented Uptake Manifold:** A newly designed manifold prevents large materials from clogging the system.



# FULL BALLISTIC COVERAGE

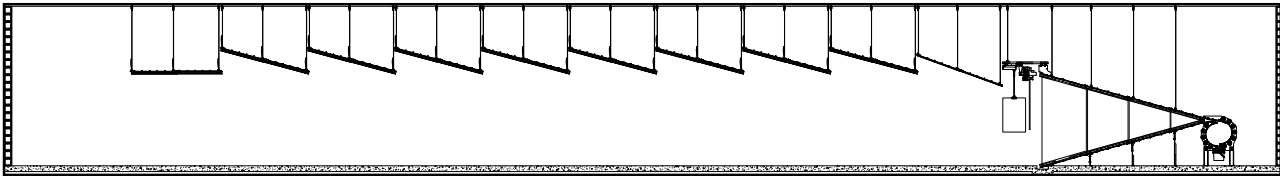
It is important that every round fired within a range is safely contained to protect shooters, bystanders, and trainers from injury. The carefully engineered deflection plates of the Total Containment Trap™ will capture every round fired from every angle. This allows ranges to provide tactical and cross-lane training as well as fixed line firing.



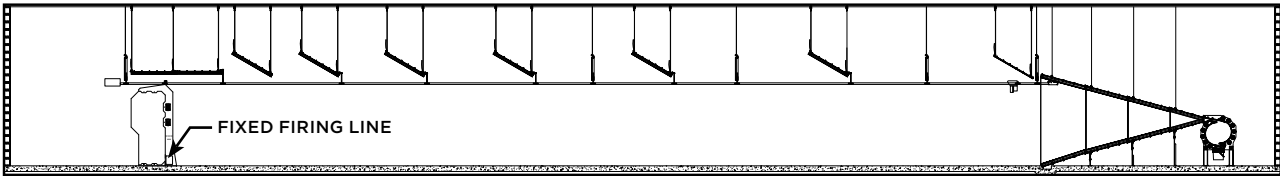
## CEILING BAFFLE SYSTEMS

Using a patented design, Action Target ceiling baffles provide ballistic protection for ceiling structures, lights, electrical, and ventilation systems.

- **Splatter Containment:** Unique design captures bullet splatter protecting range users from injury.
  - 1 **Sound Reducing Fascia** to improve comfort for range users.
  - 2 **Wood Panel** traps bullet splatter.
  - 3 **Z-Furring** creates necessary space for the bullet to splatter.
  - 4 **Ballistic Steel Panels** prevent bullets from escaping the range.
- **Tactical Configuration:** Provides coverage from any firing position, allowing shooters to move up and down range safely.

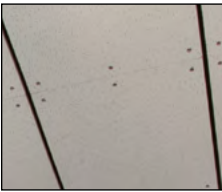


- **Fixed Firing Line Configuration:** More economical layout that provides coverage from one firing line position.



## BAFFLE FASCIA OPTIONS

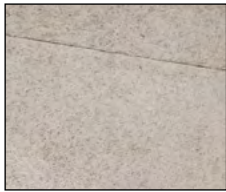
Both ceiling and wall baffle systems can be customized with a variety of fascia that provide sound abatement, make the range more comfortable for users, and give it a clean, finished look. These materials are available in a number of thicknesses and colors. Custom options are available upon request.



**Acoustic Ceiling Tile:**  
Low cost with high sound reduction.



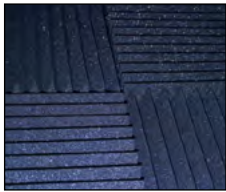
**PEPP:** Attractive finish, medium to high sound reduction.



**Concrete Filler Board:** Medium to high sound reduction.



**Crumb Rubber:** High splatter absorption, low sound reduction.

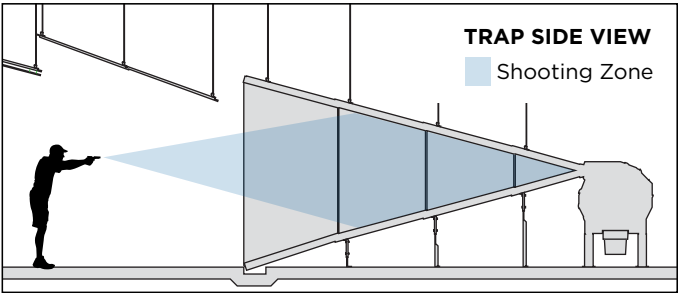
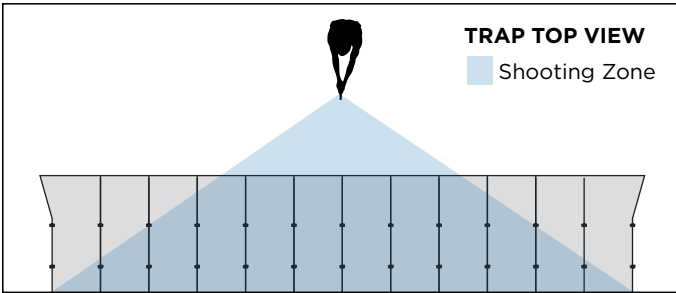


**Acoustic Rubber:** High splatter absorption, low sound reduction.

## FUNNEL PLATES

Precisely engineered ballistic steel deflects bullets into the Vortex™ without dangerous splatter. These plates provide ballistic protection to the building. ATI Class 1 (handgun) and ATI Class 2 (rifle) rated options are available.

- **Revolutionary Open Mouth Design:** A newly designed system keeps the mouth of the trap open without the use of internal vertical supports. This design allows for safer and cross-lane shooting.



- **Outdoor Use:** Protects environment from lead contamination and avoids expensive clean ups.
- **Boom System:** An outdoor boom system allows the trap to be installed outdoors without a building structure. Action Target's team of engineers ensure that the boom complies with local snow, wind, and seismic load conditions.



- **Indoor Use:** Built to fit within an indoor range and ensure that every round is contained within the range walls.





# SUPERIOR BULLET COLLECTION

The Total Containment Trap™ offers unparalleled efficiency and reliability for collecting lead. Other bullet traps do not have the ability to trap lead fragments and dust as effectively as the TCT. The patented design utilizes a number of features that not only capture lead fragments and dust, but also make the process of recycling lead easier.



# UNPARALLELED DUST COLLECTION

Action Target is the leader in maintaining a clean shooting environment both inside and outside of a range. The patented Air Uptake Manifold combined with the Dust Collection Unit generates a negative pressure system that causes lead dust to be drawn inside the deceleration chamber where it is collected for safe recycling.

## THE VORTEX™ NEW

The Vortex is the latest design in deceleration chambers that separates the Total Containment Trap from the competition. This chamber catches rounds, slows them down, and deposits them in a container for recycling.

- **Safe:** The Vortex uses a patented design and proprietary materials to ensure it remains sealed even when affected by the forces of the bullets.
- **Ballistic:** The Vortex is rated for ATI Class 1 (handgun) and ATI Class 2 (rifle) ballistics. Rounds up to .50 BMG\* (refer to notes on page 11) and all types of frangible and other lead free rounds are acceptable.
- **Durable:** The shape and ballistic steel of the chamber are precisely engineered to capture millions of rounds without damage.
- **Serviceable:** The unique design of the Vortex allows individual components of the chamber to be serviced or replaced without having to replace the full chamber.

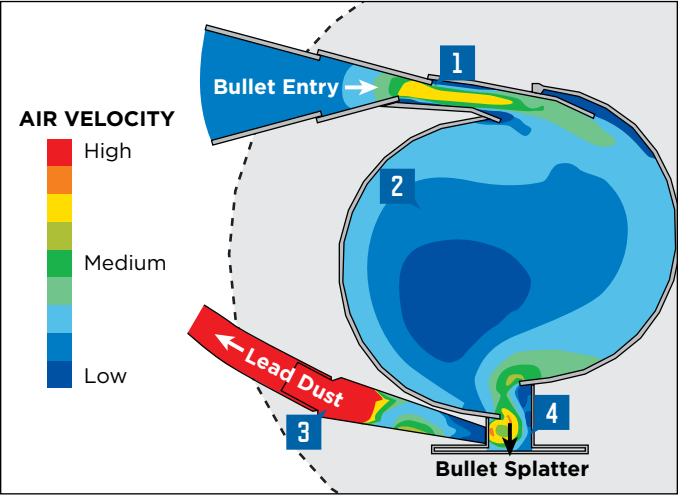


9mm bullet decelerating inside Vortex test chamber (white path).

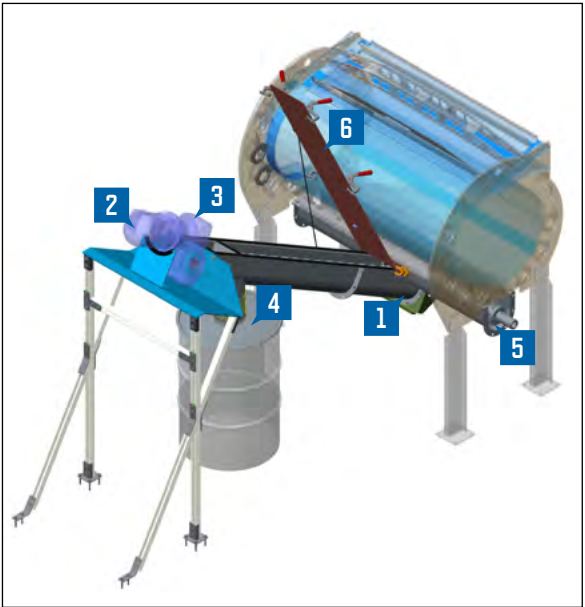
## AIR UPTAKE MANIFOLD NEW

The patent pending manifold works in combination with the Dust Collection Unit to draw dust efficiently from the Vortex chamber.

- **Efficient:** Negative air pressure is perfectly distributed to remove and collect lead dust from the trap.
  - 1 Increased Velocity** removes dust from the trap mouth.
  - 2 Low Velocity** forms a negative pressure system that allows the dust to be drawn into the Air Uptake Manifold.
  - 3 Air Uptake Manifold** pulls with high velocity to ensure lead dust is efficiently drawn into the Dust Collection Unit.
  - 4 Bullet Fragments** drops into the Screw Conveyor System or canister system for collection.



Side view of Vortex air flow analysis.



Included service and maintenance monitors.

## SCREW CONVEYOR SYSTEM NEW

The redesigned Screw Conveyor System is an auger that moves lead from the Vortex into a large drum for easy collection.

- **Safe and Clean:** Patented system provides sealed containment of rounds and allows ranges to safely collect lead for recycling.
- **Best Return on Investment:** The TCT System provides an additional income stream for shooting ranges by automatically collecting lead fragments while eliminating range downtime.
- **Service and Maintenance:** Smart engineering, easy access to key components and the addition of fail-safe monitoring ensures the system operates with minimum downtime and alerts the staff when attention is required.
  - 1 Auger Rotation Sensor** monitors system and alerts staff when the system requires service or maintenance.
  - 2 Motor Load Sensor** ensures that system runs smoothly.
  - 3 Shear Coupling** protects auger from damage.
  - 4 Barrel Fill Sensor** monitors barrel and alerts staff when the barrel is full and needs replacing.
  - 5 Self-Lubricating Bearing** new design provides longer life and a smooth, quiet operation.
  - 6 Access Lid** provides easy access for basic service and maintenance.



## DUST COLLECTION UNIT

Bullets emit a significant amount of lead dust. Adding the Dust Collection Unit to the Total Containment Trap removes this dust from the trap and collects it for easy recycling.

- **Safe:** Hazardous lead dust is drawn into the unit where it is collected into easy to transport containers, maintaining clean air around the trap.
- **Superior Filtration:** Provides advanced filtration technology to achieve higher efficiency, cleaner air, and longer filter life than standard cartridge filters.
- **Clean:** Compliant with OSHA regulations to ensure that areas surrounding the range are protected.





## BUILT TO FIT ANY RANGE

Every part of the Total Containment Trap is modular, allowing for seamless integration in new or existing ranges. In addition to being highly customizable, the system's flexible design is conducive to easy maintenance and servicing of individual parts.



**Vortex:** Available in 3, 4, and 5-foot widths. Each section can be removed and reinstalled individually.



**Trap Legs:** Flat floors are often uneven. Adjustable height legs ensure that the trap stays level on any floor.



**Screw Conveyor System:** Assembled in sections for various trap widths and easy maintenance access.



**Canister System:** Available for all 3, 4, 5 foot chambers, this system collects lead in 3.5 gallon containers.



**Baffle Fascia:** When the ceiling baffles are shot repeatedly, the fascia can easily be replaced with the existing screws.



**Baffle Section:** Each baffle is hung individually making installation possible in small or large ranges. Single baffles can be replaced.

## TOTAL CONTAINMENT TRAP AVAILABLE CONFIGURATIONS

| BALLISTIC RATING | Caliber Rating | Maximum Velocity | Maximum Energy | Compliance                   |
|------------------|----------------|------------------|----------------|------------------------------|
| ATI Class 1      | Pistol         | 1,485 fps        | 1,175 ft/lbs   | UL752 Level 3; EN1063 BR4(S) |
| ATI Class 2      | Rifle*         | 3,388 fps        | 3,600 ft/lbs   | UL752 Level 5,7,8,9,10       |

| LEAD COLLECTION       | Power Requirement | Emptying Process | Container Requirement | Approximate Container Weight |
|-----------------------|-------------------|------------------|-----------------------|------------------------------|
| Canister System       | None              | Manual           | Two 3.5-gallons/lane  | 64 lbs (50% Full)            |
| Screw Conveyor System | 208 V/3-Phase     | Powered          | One 55-gallon/trap    | 1,208 lbs (80% Full)         |

| OUTDOOR BOOM | Trap | Application    | Seismic Zone     | Wind Load Rating               | Snow Load Rating       | Pad Thickness |
|--------------|------|----------------|------------------|--------------------------------|------------------------|---------------|
| Small Size   | 3x5  | Outdoor/Indoor | Lowest Hazard**  | ≤ 140 mph (no special regions) | ≤ 20 psf @ given elev. | ≈ 18 inches   |
| Medium Size  | 4x4  | Outdoor/Indoor | Lowest Hazard**  | ≤ 140 mph (no special regions) | ≤ 20 psf @ given elev. | ≈ 20 inches   |
| Medium Size  | 3x5  | Outdoor/Indoor | Medium Hazard**  | ≤ 160 mph (no special regions) | ≤ 50 psf @ given elev. | ≈ 20 inches   |
| Large Size   | 4x4  | Outdoor/Indoor | Highest Hazard** | > 140 mph                      | > 20 psf @ given elev. | ≈ 24 inches   |
| Large Size   | 3x5  | Outdoor/Indoor | Highest Hazard** | > 160 mph                      | > 50 psf @ given elev. | ≈ 24 inches   |

| DUST COLLECTION | Supported Trap Width | CFN  | Filters | Container Size | Power Requirement                      |
|-----------------|----------------------|------|---------|----------------|--|
| Small Version   | 16'                  | 960  | 4       | 5 Gallon       | 240V single phase 208/240/480V 3 phase |
|                 | 24'                  | 1440 | 4       | 5 Gallon       | 240V single phase 208/240/480V 3 phase |
|                 | 27'                  | 1620 | 4       | 5 Gallon       | 240V single phase 208/240/480V 3 phase |
| Large Version   | 44'                  | 2640 | 4       | 20 Gallon      | 240V single phase 208/240/480V 3 phase |
|                 | 84'                  | 5040 | 8       | 20/55 Gallon   | 208/240/480V 3 phase                   |
|                 | 124'                 | 7440 | 12      | 55 Gallon      | 208/240/480V 3 phase                   |
|                 | 164'                 | 9840 | 16      | 55 Gallon      | 208/240/480V 3 phase                   |

## BAFFLE SYSTEMS FEATURES

| BALLISTIC RATING | Caliber Rating | Maximum Velocity | Maximum Energy | Compliance                   |
|------------------|----------------|------------------|----------------|------------------------------|
| ATI Class 1      | Pistol         | 1,485 fps        | 1,175 ft/lbs   | UL752 Level 3; EN1063 BR4(S) |
| ATI Class 2      | Rifle*         | 3,388 fps        | 3,600 ft/lbs   | UL752 Level 5,7,8,9,10       |

| FASCIA                | Thickness                        | Noise Reduction Coefficient | Available Colors |
|-----------------------|----------------------------------|-----------------------------|------------------|
| Acoustic Ceiling Tile | 1/2 inch                         | 0.55                        | White            |
| PEPP                  | 1 inch / 2 inch                  | 0.45 / 0.70                 | White / Black    |
| Concrete Filler Board | 2 inch / 2 inch with foam backer | 0.45 / 1.0                  | White            |
| Crumb Rubber          | 2 inch                           | 0.05                        | Black            |
| Acoustic Rubber       | 2 inch                           | ≈ 0.05                      | Black            |

## TYPICAL AMMUNITION SPECIFICATIONS

| Typical Pistol Ammunition |           |           |              | Typical Rifle Ammunition |            |           |              |
|---------------------------|-----------|-----------|--------------|--------------------------|------------|-----------|--------------|
| .22LR                     | 40gr HP   | 1,060 fps | 100 ft/lbs   | .22LR                    | 40gr HP    | 1,260 fps | 141 ft/lbs   |
| 9mm Luger                 | 124gr FMJ | 1,293 fps | 460 ft/lbs   | 5.56x45mm NATO           | 55gr FMJ   | 3,388 fps | 1,402 ft/lbs |
| .357 Mag                  | 158gr JSP | 1,375 fps | 663 ft/lbs   | 7.62x51mm NATO           | 150gr FMJ  | 3,025 fps | 3,048 ft/lbs |
| .40 S&W                   | 180gr TMJ | 1,000 fps | 400 ft/lbs   | 308 Win                  | 150gr SPTZ | 2,900 fps | 2,800 ft/lbs |
| .45 ACP                   | 230gr TMJ | 845 fps   | 365 ft/lbs   | 30-06                    | 180gr SPTZ | 2,900 fps | 3,360 ft/lbs |
| .44 Mag                   | 240gr SWC | 1,485 fps | 1,175 ft/lbs | 300 Win Mag              | 190gr BTHP | 2,900 fps | 3,548 ft/lbs |

The maximum velocity and maximum energy for the pistol or rifle ammunition identified above, are being provided for example purposes only and are not all inclusive.

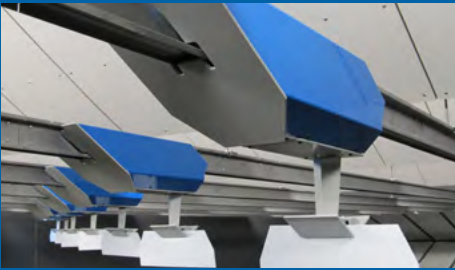
\*Not rated for armor piercing or atypical ammunition. Approved for use with .50 BMG rounds, however they shorten the life expectancy of the trap components. Do not shoot .50 BMG from a fixed position or in automatic or short burst rounds.

\*\*Source: USGS Seismic Map

Learn more about the Total Containment Trap  
[ActionTarget.com/TCT](https://ActionTarget.com/TCT)



# SHOOTING RANGE PRODUCTS



TARGET RETRIEVERS



VENTILATION



SHOOTING STALLS



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