



# ODIN TARGET

Target Technology since 1917

Product Catalog 2019



Odin Target specializes in cutting-edge indoor shooting ranges for law enforcement, military and private sector.

Odin Targets shooting range system is unique in design, function and adaptability. Together with our partners we deliver turnkey solutions all the way from design and construction to inspected facilities ready to use.

Odin Target has its origins in a high-tech mechanical workshop that was founded in 1917. Since 2005, Odin Target has operated independently, focusing solely on the design and construction of shooting ranges and target systems for special forces within police and military units.

Our patented technology makes the working environment and air quality at our shooting ranges is significantly higher than any other shooting range on the market. The lead dust residue from the bullets is cleared out and collected automatically, leading to improved working conditions and sustainable practices with the possibility to recycle the lead from the bullets. The automatic bullet trap clearing system also makes the shooting range virtually maintenance free.

Combined with a noise-cancelling room construction and adaptable sound and light distractions Odin Target offers a state-of-the-art experience.

We have designed and delivered full-scale shooting ranges to both the Swedish armed special forces and Swedish law enforcement agencies. We offer full-service contracts and deliver worldwide.

PARTNERS

**Laser Shot**  
lasershot.com

**Rhodin-Eklund**  
rhodin-eklund.se

**Microbit**  
microbit.se

**Relitor**  
relitor.se

**Revideco**  
revideco.se

**Diling Teknik**  
dilingteknik.se

**Watt & Volt**  
wattvolt.se

**Storfors plåt**  
storforsplat.se

# Complete shooting range



From design to inspected facility

Odin Target design and construct full range state-of-the-art indoor shooting ranges. We handle everything from on-site design to construction all the way to inspected facilities. We manufacture all the parts for the shooting range inhouse or in collaboration with our partners. We also hold several patents for the design of our unique bullet trap and target system.

The shooting range will be tailored to suit your needs. We design both conventional single direction shooting ranges and tactical shooting ranges with 360° shooting capabilities for live action training scenarios.

The patented design of Svalin Bullet Trap makes for shallow installation depth of only 500 mm, allowing maximum shooting distances in any facility.

As a complete contractor we guarantee that every single aspect of the shooting range holds up to the Odin Target standard for quality and user experience.

#### State-of-the-art working environment

For anyone working, or spending time at a shooting range, the working environment is a key factor for sustainable practices. A high-quality working environment ensures that the facilities can be used for longer periods of time and that the health-risks normally associated with shooting ranges can be reduced to zero. Odin Targets shooting ranges offer the following features to ensure a state-of-the-art working environment.

- High quality ventilation system – removes harmful particles from the air inside the shooting range. The air is then filtered before it is let out into the atmosphere so that no lead or gunpowder residue is released into nature.

- Automatic lead dust and bullet residue clearing system – with Odin Targets patented low pressure system inside the bullet trap, the lead dust from the impact is cleared out automatically. The bullet residue is also transported away and collected, making it possible to recycle the remaining lead from the bullets.
- Noise canceling facility design – one of the biggest work environment problems aside from air quality is the sound pollution from the firearms. Thanks to the design of Odin Targets shooting ranges the harmful noise from a fired gun or rifle is filtered away on the same manner as an echo is filtered from a sound studio. The noise canceling system also trains shooters to quickly identify threats.
- Tactical shooting range floor design – the floor in Odin Targets shooting ranges is specially designed to enable tactical maneuvering and training. The softened material is produced to both soften the impact and making it possible to perform repeated maneuvers with a significant decrease in risk for injury.
- The patented design of the Svalin bullet trap completely eliminates ricochets from the side. This allows for instructors and users to move around freely behind the line of fire without any risk of harm or injury.



### Low Maintenance

The automatic clearing system makes the bullet trap virtually maintenance free. The target surface is also covered with a self-healing ballistic screen that reseals once the projectile has passed through making it possible for the shooting range to withstand high frequency use.

This means that the shooting range can be used over long periods of time without shutting down for maintenance or cleaning of the bullet traps. The design is intended to withstand day-to-day tactical training by military and special forces.

We can also arrange a service agreement where we inspect the facilities two times annually to make sure that the security arrangements are up to date in all parts of the facilities including software updates and replacements of wear parts.

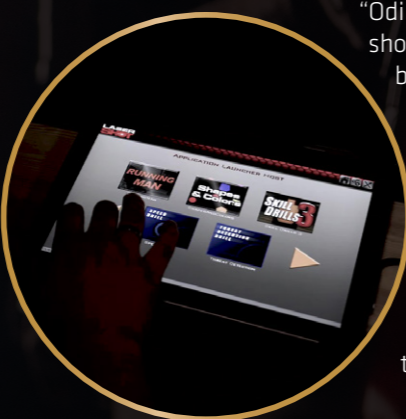
### High Tech Distraction System

Odin Targets shooting range comes with the possibility to install a fully integrated state of the art light and sound distraction system, including smoke machines to create visual effects or to impair the line of sight. The built-in light panels can recreate the conditions of any time of day from bright sun- light to dusk or pitch black with strobing blue lights recreating the environment of an emergency situation at night.

Combined with a powerful sound system the shooting range is equipped to create a wide number of scenarios for training and tactical operations.

All distractions can be managed from any iPad or tablet with an easy to use software.

The distraction systems can also be tailored to meet any demand, so please feel free to state your needs at the consultation.



### Fully Integrated Laser Shot System

Together with our partner Laser Shot we offer a fully integrated scenario-based simulation system. Laser Shot has developed cutting-edge firearm training and simulations since 1999.

The technology is based on a vivid HD projection system with live action feel and function, combined with bullet tracking sensors making every scenario a true-to-life training experience.

Laser Shot offers progressive training solutions that are applicable to all skill levels and adaptable for individual customer needs—all while focusing on the “train- as-you-fight” core principles. Laser shots training solutions augment existing programs with safe alternatives by using technologically advanced simulations for immersive training.

In Odin Targets live-fire facilities, they turn the shooting range in to exceptional, cutting-edge training facility suitable for every need and adaptable to almost any scenario.

“Odin Targets shooting range can be delivered with a fully integrated Laser Shot System. An easy-to-use interface turns the shooting rang into a state-of-the-art training facility.”





# SVALIN

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## ENVIRONMENTALLY FRIENDLY BULLET TRAP

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The patented design of Svalin bullet trap is unique and insures a shallow installation depth of only 500 mm.

The bullet trap construction is based on the reduction of the kinetic energy of the bullets by multiple changes of the direction of the bullet within the system of steel slats/panels inside the bullet trap. The patented design of Svalin bullet trap makes for a shallow installation depth of only 500 mm, allowing maximum shooting distances in any facility.

### Unique clearing system

The bullet trap has ventilation that prevents splinters and dust from the projectiles to enter the room where the shooters are staying. The ventilation has a system of filters in three stages that enabling the outgoing air to be recycled in the main buildings existing ventilation.

The scrap conveyer and the ventilation are activated by an acoustic sensor which reacts when the shooting begins. They then deactivate 10-20 minutes after the last shot, this is controlled by a timer. The surfaces in the bullet trap not in danger of being hit by a projectile, will be painted.



"The patented design of Svalin bullet trap makes for a shallow installation depth of only 500 mm, allowing maximum shooting distances in any facility."



The lead residue from the bullets is cleared away collected automatically.

The bullet trap is placed on cushions made of polymeric material that prevents all vibrations and sounds from the bullet trap to be led into the body of the building, making the bullet trap completely separated from the body of the building in which it is placed.

The only thing to consider is the sound of the weapon when it is relieved, the rest will be taken care of by the bullet trap.

#### Low Maintenance

The steel components of the bullet trap are designed to withstand more than 1 000 000 projectiles per m<sup>2</sup> without maintenance which means that the bullet trap under normal operation should be free of maintenance for more than 20 years when the steel parts are concerned.

The rubber shields that protects from splints, are easy to replace with new ones when necessary. This can be done by regular staff at the shooting range.

The bullet trap will withstand all types of ammunition up to caliber 3.38, except projectiles with armor piercing shells (AP).

Floors made of shock absorbing material that also protects from slipping are delivered to the room where the bullet trap is mounted. The floor mat and material underneath the floor can withstand stray bullets and in that case the hole in the floor mat "heals" itself. The floor mat consists of a top layer made of natural nonslip rubber (SBR). Underneath there is a layer of EPDM rubber which is shock absorbing. The EPDM

layer may have a thickness of 7,12 or 15 mm.

"The steel components of the bullet trap are designed to withstand at least 1 000 000 projectiles per m<sup>2</sup>."

#### Adaptability

The bullet trap can be designed to cover all walls in the room. The protection shields made of steel in front of the target system and the lower part of the bullet trap are protected by a plastic shield which is our own development.





The ventilation in the bullet trap is based on a constant vacuum in the bullet trap compared to the room outside the bullet trap, controlled by a sensor. This results in an air flow through the bullet trap. Inlet valves are placed in the lower part of the bullet trap cabins that makes the air pass through the bullet trap, transporting led dust from bullet splints through an adjustable valve in the roof of the bullet trap cabins. The led dust is then trapped in the three-stage filter system placed before the fan. No part of the bullet trap will recycle dust to the room where the shooters are staying. That is true even if the ballistic rubber shield is torn with visible holes. The inlet valves mentioned above also takes care of the heavy gunpowder gases from the range.

The noise from the bullet trap cabin is negligible. When measuring noise in existing shooting ranges the main part of the noise origins from the general ventilation of the room.



### Technical Design

The projectiles fired at the bullet trap will slow down and/or shatter inside the bullet trap and thereafter fall down to a collecting point, passing through a maze that absorbs more of the kinetic energy.

The collecting point is easily accessible from the front of the bullet trap and can be provided with a scrap conveyer for transportation of the scrap to a recycle bin. It is also possible to clean the bullet trap by hand or with a vacuum cleaner for industrial use. It is important that the scrap is collected and sent for recycling.

The bullet trap material is traceable. Each batch of steel is provided with a certificate by the steel manufacturer. The certificate guarantees the characteristics and the quality of the steel. Each batch shall be tested by the manufacturer.

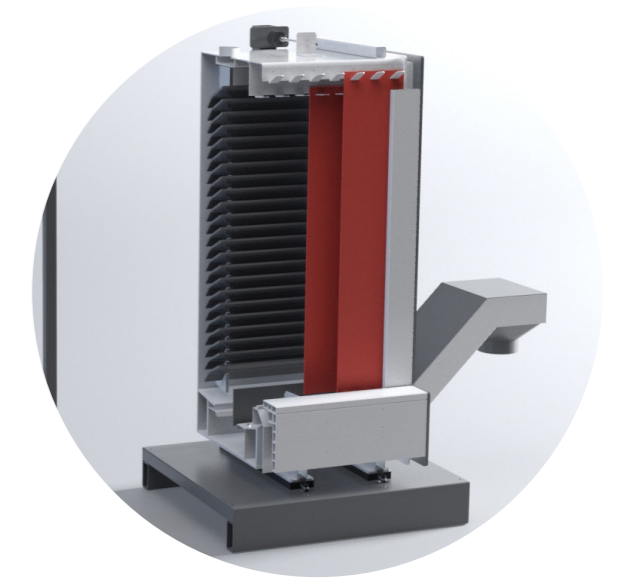
The target surface of the bullet trap must be covered with a rubber shield. The rubber is predominantly made of natural rubber that is recyclable. The rubber shield has a tensile elongation of at least 700%, allowing the rubber to reseal the hole caused by the projectile passing through the shield. This means that no splinter or dust can be dispatched out of the bullet trap.

The bullet trap is made for shooting angles between 15 and 160 degrees and any shooting distance up to point-blank range. The bullet trap has protection shields in the front made of hardened steel covered by a plastic material (possible to recycle). No sections where the steel is visible are allowed. The shield in the upper part of the bullet trap protects the Turning targets from projectiles and the shield in the lower part of the bullet trap protects the scrap conveyer.

The steel slats are attached to mounting poles in the rear wall of the bullet trap. The steel slat is only pressed into the pole, no welding is used. In this way the steel slat may be moved and adjusted to ensure evenly distributed wear over time. This only has to be done if the shooting range sees frequent use of caliber 5.56 and 7.62. Shots from pistols causes minimal wear.

The mounting pole is protected from any direct hit at angles as low as 15 degrees from the side as most of the surface is covered by the steel slats. The steel slats have no joints in between so the whole window of shooting is intact.

The steel components of the Bullet trap is designed to withstand at least 950 000 projectiles per m<sup>2</sup>.





# MOVING TARGETS

This is our standard selection of targets that we always have in stock and can deliver worldwide with short notice. We also take custom orders and can produce and style or form that suits your needs.



# LOKE 180

## TURNING TARGET SYSTEM

Loke 180 is a target system capable of displaying targets that have a sliding side and a non-sliding side. The targets are able to rotate 180 degrees.

The target systems are powered by electricity, no compressed air may occur. The programming unit is wireless, and a wireless remote control is included.



The turning rotation takes less than 0.2 seconds and each target can be controlled in groups or individually.



Loke 180 is controlled from a wireless station with easy-to-use software. The targets can be turned in groups or individually.

### Built in lighting

Loke180 has built-in LED light options that can light up targets individually or in groups. The lights can be changed into four different colors to, for example, indicate friend of foe as the target is presented. This gives the ability to practice live-action decision making and more realistic train-as-you-fight scenarios.

### Hit sensors

LOKE 180 can be equipped with hit sensors which can record up to 9 hits with the function of turning away the board when the preset number of hits is reached.

# RUNNING MAN

Running man is based on the same electronic system as Loke 180. Running man is designed to be mounted on a rail that runs thru the shooting range. The rail can be designed according to any need or training scenario, including adding curves to the rail.



### Hit sensors

Running Man can be equipped with hit sensors which can record up to 9 hits with the function of turning away the board when the preset number of hits is reached.

“The moving target systems is controlled from a wireless unit and can be programmed for a wide number of training scenarios with an easy to use software.

LOKE 180 and Running Man can be combined in the same system.



EXAMPLE OF AN EQUIVALENT FACILITY IN SWEDEN WHERE ALSO LOKE 180 AND RUNNING MAN AND FRAGMENT CONVEYOR ARE INCLUDED.

# OUTDOOR TARGETS

The outdoor targets are modular, durable, and recyclable.

## Auto-Popper, Ø200

Pistol  
Art nr 104232



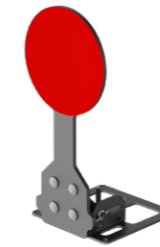
## Autoplate, Ø200

Pistol  
Art nr 500051



## Auto-Popper, Ø200

Carbine Rifle  
Art nr 500985



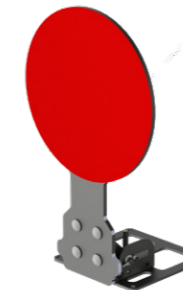
## Autoplate, 150x150

Pistol  
Art nr 500052



## Auto-Popper, Ø300

Pistol  
Art nr 103320



## Gong, Ø200,

Carbine Rifle  
Art nr 500123



## Auto-Popper Hund, Ø250

Art nr 106193



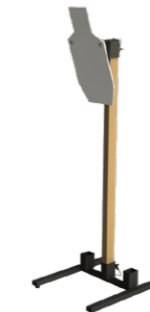
## Steel Target, IPSC Full torso

Art nr 500975



## Steel Target, IPSC B-BC zon

Art nr 500976



## Steel Target, IPSC Classic

Art nr 501050

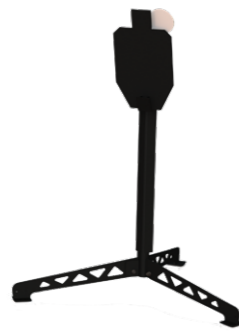


# Modular Target System

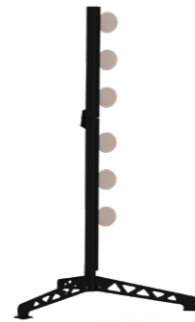
The Modular Target System is based on three segments - foot, pole and target mechanism. The parts can be combined in a wide number of ways, creating many different possibilities for training. No tools are needed for assembly.

The Modular Target System is available for both pistol and carbine rifle.

**Steel Target with hostage at shoulder**  
Art nr 501000



**Duell Tree**  
Art nr 501001



**Steel Target with hostage, Middle**  
Art nr 501040



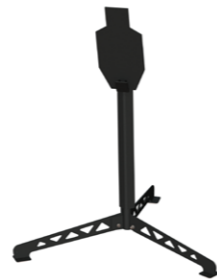
**Steel Target, IPSC Full torso**  
Art nr 501042



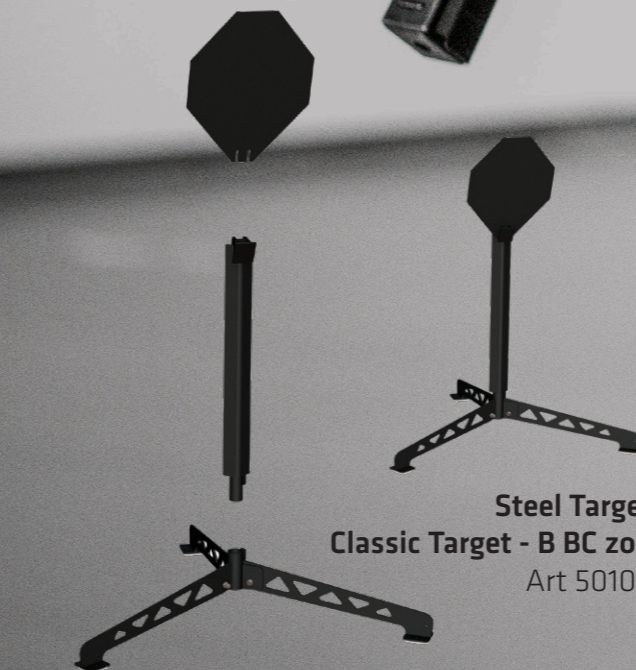
**Steel Target, Ø200**  
Art nr 501043



**Steel Target B BC zon**  
Art 501041



**Steel Target Classic Target - B BC zon**  
Art 50106



# REACTIVE INDOOR TARGETS

The indoor targets are durable, splinter-free and recyclable.



**Plate Rack**  
Pistol, art nr 111208

**Hanging Target Ø50**  
Pistol (Yellow)  
Art nr 109733



**Hanging Target Ø50**  
Carbine Rifle (Black)  
Art nr 501051



**Hanging Target Ø80**  
Pistol (Yellow)  
art nr 109735



**Hanging Target Ø80**  
Carbine Rifle (Black)  
Art nr 501052



**Hanging Target Ø100**  
Pistol (Yellow)  
Art nr 109732



**Hanging Target Ø100**  
Carbine Rifle (Black)  
Art nr 501053



**Hanging Target Ø150**  
Pistol (Yellow)  
Art nr 109728

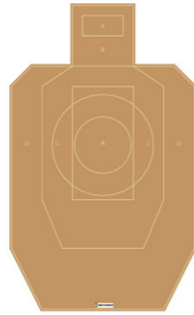


**Hanging Target Ø150**  
Carbine Rifle (Black)  
Art nr 501054

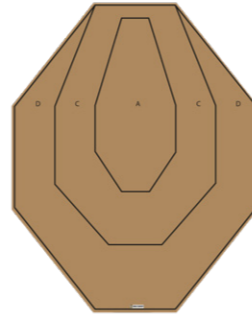


# PAPER TARGETS

**IPSC-tavla,  
Full torso,  
Short neck**  
Yellow print  
Art nr 500973



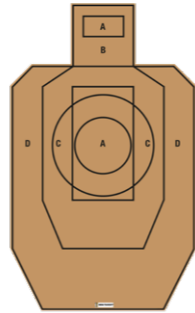
**IPSC-tavla,  
Classic**  
Black print  
Art nr 501045



**IPSC-tavla,  
Full torso,  
Long neck**  
Yellow print  
Art nr 500974



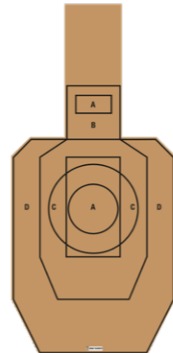
**IPSC-tavla,  
Full torso, Short neck**  
Black print  
Art nr 500992



**IPSC-tavla  
Full torso,  
Short neck**  
Yellow print  
Water resistant  
Art nr 501024



**IPSC-tavla,  
Full torso, Long neck**  
Black print  
Art nr 500993



# CLEARING TRAP

**Clearing Trap**  
Art nr 110958



# WARRANTY AND SERVICE AGREEMENTS

## Warranty

All Odin Target product includes a limited 5-year warranty as standard. Terms and conditions are agreed upon between Odin Target and the client. The response time for warranty repairs and downtime is maximum 48 hours from that we receive a written report.

A consignment stock of strategic components for carbon capture and target systems is stored in your facility during the warranty period. Consumables can also be included.

## Training

Training of instructors in handling the target system and Bullet trap is performed in consultation with the customer and is performed when the systems have been fully controlled and tested. Briefing and training of the regular staff at the shooting range is done when the final documentation for the facility is delivered. The training concerns target system, bullet trap functions and maintenance issues.

## Documentation, consumables and spare parts

A complete and updated documentation will be provided after the plant is installed and approved. A list of article numbers and names of suitable spare parts and consumables will be also be provided.

## CE approval

All parts that are affected by the Machinery Directive will be CE marked, the parts that are relevant are Loke 180 turning target, Running Man running target and fragment conveyor if the option is purchased.

## ISO certified

Odin Target is certified in accordance with The International Organization for Standardization. We are certified for both Quality management systems (ISO 9001) and Environmental management system (ISO 14001).





**CMJ**

 **ODIN TARGET**

**C&M JELER**  
[www.lasershot.ro](http://www.lasershot.ro)  
+40 264 232 930  
+40 729 128 982  
[vanzari@lasershot.ro](mailto:vanzari@lasershot.ro)