#### Introduction:

Members may used personally owned steel targets at the Oregon Trail Shooting Range, but are responsible for making sure they are used in a safe manner. The following guidelines should be followed at all times when steel targets are used.

### **Steel Hardness:**

Steel targets used by members should be made of a steel that is hard enough to resist damage from the calibers/projectiles being fired at them. The steel should not pock, crater, or deform when impacted. An uneven surface will make bullet fragments travel in unpredictable paths, whereas a flat surface will create consistent and predictable bullet fragment paths. Members should be aware that any other metal objects (such as bolt heads, supports, or other target structures) in the path of the bullet fragments can create a secondary deflection along unexpected paths (Action Target, 2016).

# "Splash Zone" of Steel Targets:

Projectiles hitting targets of proper hardness with smooth surfaces squarely will cause bullet fragments to deflect into a "splash zone" that projects approximately 20 degrees outward from the plane of the target face in all directions (Action Target, 2016). It is preferred that targets angle slightly toward the ground for maximum safety, since this minimizes or eliminates fragments that travel upwards. Targets should be placed so that the shooters and bystanders are well clear of the splash zone. Members should also ensure that other hard objects that could cause secondary deflections are not located within the splash zone.

# **Recommended Distances and Steel Types:**

The following table should only be used if the manufacturer of your steel targets has not provided guidelines for minimum distances. If the manufacturer has not provided minimum distance recommendations, use the following guidelines for recommended minimum target distance and target steel type (Action Target, 2016).

Firearm Type:	Recommended	Recommended
	Minimum Distance	Steel Type
Rimfire Pistol/Rifle	10 yards	1/4" AR500
Centerfire Handgun	10 yards	3/8" AR500
Shotgun (Shot)	10 yards	3/8" AR500
Centerfire Rifle	100 yards	3/8" AR550
Shotgun (Slug)	100 yards	3/8" AR550
Magnum Centerfire Rifle	100 yards	1/2" AR550

# **GCSSA Guidelines For Member Owned Steel Target Use**

If you are shooting a centerfire rifle with bullet speeds above 2,850 FPS at AR500 targets, the target distance should be increased until the bullet speed has dropped below 2,850 FPS at the target (100 yard minimum). Bullet speeds above 2,850 FPS at the target will damage AR500 targets (Shooting Targets 7, n.d.). You can determine the distance where a rifle bullet drops below 2,850 FPS by reviewing ballistic charts for the ammunition you are using. These are commonly available on ammunition manufacturer's websites. If you notice pitting on the target face, increase the distance.

Please note that GCSSA recognized shooting disciplines may set up targets at distances that are closer than the distances indicated in the table above when a certified Range Safety Officer has inspected the course of fire and addressed any safety concerns.

# **Additional Safety Considerations:**

In addition to the normal range rules, there are additional safety considerations that should be observed by shooters and bystanders when steel targets are in use. These include, but are not limited to:

- Both shooters and bystanders should wear wraparound style, impact rated eye protection when steel targets are in use.
- Steel targets must be made of steel that is of an appropriate hardness and thickness for the caliber/projectiles being used
- Place steel targets at a safe distance as determined by the target manufacturer. If the manufacturer has not recommended safe distances, use the guidelines provided in this document.
- Never shoot steel with surface damage at close distances
- Always be aware of the "splash zone" for each steel target. Ensure that steel targets are placed in safe locations and positioned at safe angles.
- Never shoot at steel targets with projectiles made of steel or containing steel components. This means no armor piercing, steel jackets, steel penetrators (such as M855 "Green Tip"), steel cores, steel shot, or BBs. This can be easily checked by placing a magnet on the projectile. It should not stick.
- Always wear gloves when handling steel targets to avoid injuries caused by sharp edges

# **GCSSA Guidelines For Member Owned Steel Target Use**

#### References

Action Target. (2016). Steel Target Safety Guide. Retrieved from

https://shop.actiontarget.com/content/steel-target-safety-rules.asp

Shooting Targets 7. (n.d.). Target Selection Guidelines. Retrieved from

https://shootingtargets7.com/selection

### **Other Relevant Information**

Major Pandemic. (2014). Understanding the Safety of Steel Targets. Retrieved from

https://www.alloutdoor.com/2014/03/29/understanding-safety-steel-targets/

McHale, T. (2017). Steel Yourself: Everything You Need To Know About Shooting Steel Targets. Retrieved

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MGM Targets. (n.d.). Frequently Asked Questions. Retrieved from https://mgmtargets.com/faqs/