



**TACTICAL AR500
TARGETS, INC.**



PHOENIX PLATE RACK

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“Associated with the sun, a Phoenix obtains new life by arising from the ashes of its predecessor.”

Enter: Phoenix Plate Rack

First off, we want to thank you for purchasing one of our innovative Phoenix Plate Rack targets. Plate Racks litter the landscape and often times it is hard to distinguish between a solid, well-built target and one that is full of shortcomings. We set out to create a radically different plate rack, one that is user serviceable and adaptable to shooters needs. From competition to law enforcement training to backyard shooting, our plate rack stands above the rest. Please read this entire document to ensure you get the most out of your target system.

*****Please take the time to fully read and understand ALL safety precautions found in the back of this manual as well as in the included separate “safe shooting” pamphlet. We send these info pages with EVERY target we ship out. You MUST read and fully understand the safety rules BEFORE you begin target shooting with our steel target systems*****

Rundown of the System

The Phoenix Plate rack is a unique plate rack in that it is fully user serviceable. We eliminated any welding to the target faces, which maintains a high level of strength. The paddles bolt to a cross bar which effectively locks the paddle between the gussets and allows the paddle to be rotated throughout its life span and replaced with only simple hand tools. The gusset assemblies bolt to the face of the shield. If a shooter somehow damages these units through improper uses they can easily be replaced in a matter of minutes.

If you ever feel the need to disassemble your plate rack, please be sure to photo document where each part went. If for some reason you lose parts or need photos of the assembly, we can provide both. We stock the hardware we use so we can sell hardware separately as it is needed.

The reset mechanism utilizes pulleys to reduce drag and felt pull weight. These pulleys also help us change directions of the reset arm, thus keeping the entire resetting mechanism as compact and rugged as possible. There is an old saying in the steel target world: "if it can be shot it will be shot". We understand this concept so we decided to keep the pulley reset mechanism low and protected. Not only does this reset mechanism function flawlessly, it looks amazing too.

Our system utilizes our large round bases. These bases provide a large 360 degree footprint and there are holes to stake them down if you feel the need.

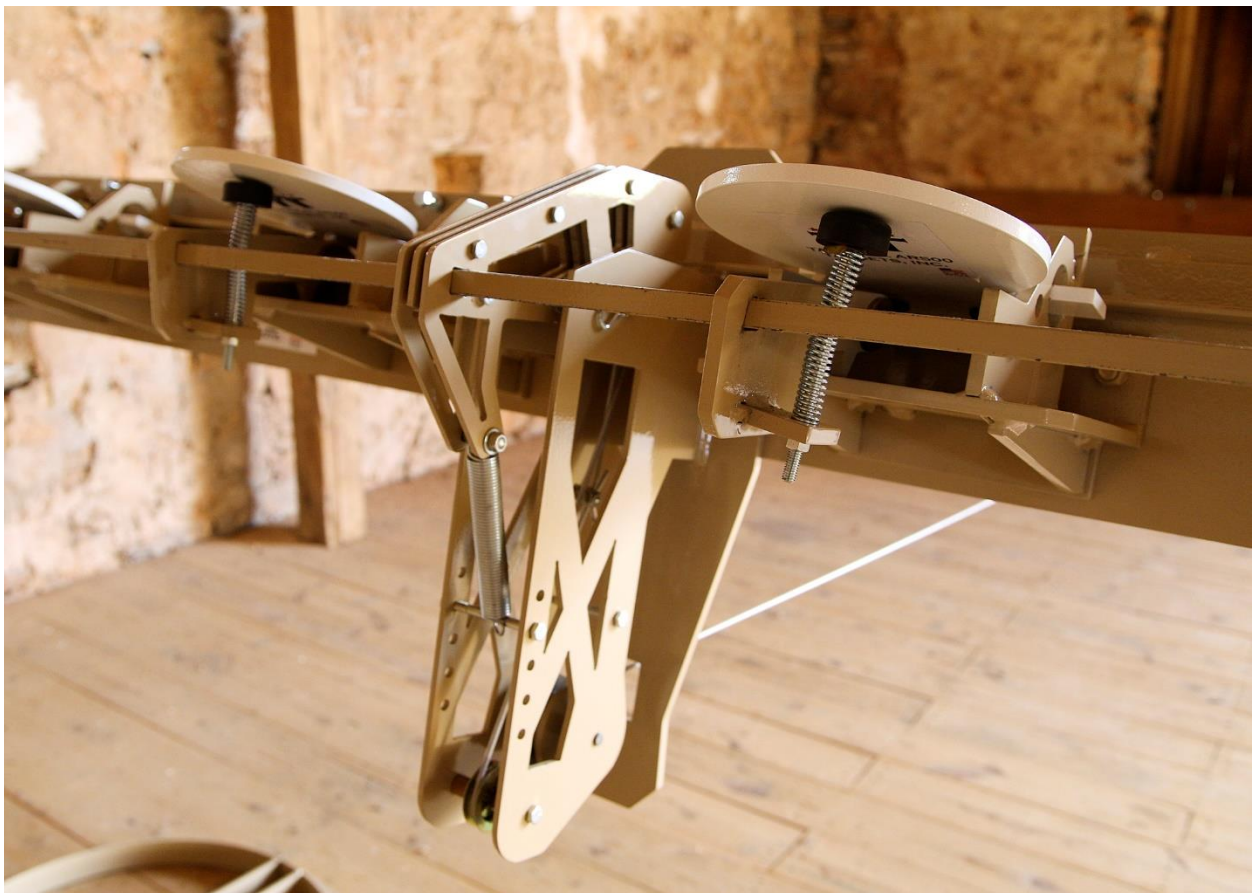
All carriage bolts that are exposed to the shooters are grade 8 hardened bolts. These may wear out over time but can be purchased through us or other distributors and they can be replaced with basic hand tools.

The principal behind the machine is to keep it as simple as possible while functioning flawlessly and filling in every role from competition use, to back yard shooters, law enforcement training and more.

We are extremely pleased to offer a next generation target system: The Phoenix.

What is Included with The Phoenix Target System:

- Phoenix Top assembly (quantity based on order)
- (2) Round Bases for each Plate Rack
- (6) Paddles Per Plate Rack
- (2) Steel posts for vertical support per Plate Rack
- (One) Cable approximately 30 yards long per Plate Rack
- Reset mechanism (lifters, pulleys, hardware)
- All necessary hardware (already installed)



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Packaging for shipment

We fully assemble the top shield/target components before packaging on a skid. This ensures that your system is completely assembled and it simplifies the installation process for our customers. You will notice that the paddle assemblies are bolted into place, the paddles are installed, reset arms, pulleys and hardware will also be already installed.

Please take a moment while unpacking the skid and ensure that nothing appears to be missing. If for some reason you believe that there are parts missing, please send pictures and a description of the problem to our email which is located on the cover of this document.

Maintenance

The Phoenix Plate Rack is designed to require minimal maintenance. You should note, however that careful attention to the target system should be maintained. Always ensure all bolts are tightened properly. If there are missing nuts, bolts or other components please stop using the target and contact us for replacements. The paddle assemblies are bolted onto the shield instead of being welded. This offers our customers a unique advantage over an industry standard plate rack as the plate rack can have parts replaced or repaired without having to cut, grind, or weld new pieces. In the event that a user of this system abuses the target in ways it was not designed for and breaks components, they can be purchased and shipped. This offers a lower cost of maintenance versus standard plate racks.



System Function

Our Phoenix Plate Rack is designed to meet both USPSA and Bianchi cup specifications. You will notice that our standard spacing is 20" center to center of paddles. From the bases to the bottom of the target plates will measure 4 feet. We can offer other height options if necessary for your range. The plates will fall over when struck by bullets. There are 6 paddles total. After a shooter knocks all the plates down, they can simply pull the provided cable and the pulley mechanism will reset all 6 plates. Please keep in mind that the reset arm is under spring tension. Pay careful attention as you let the cable down after resetting the targets. If you allow the arm to spring back too fast, it may knock down paddles. **Guide the cable back slowly as you are letting go after resetting the paddles.** Also note that over time you may wear out your cable. Please contact us if replacement cables are needed.

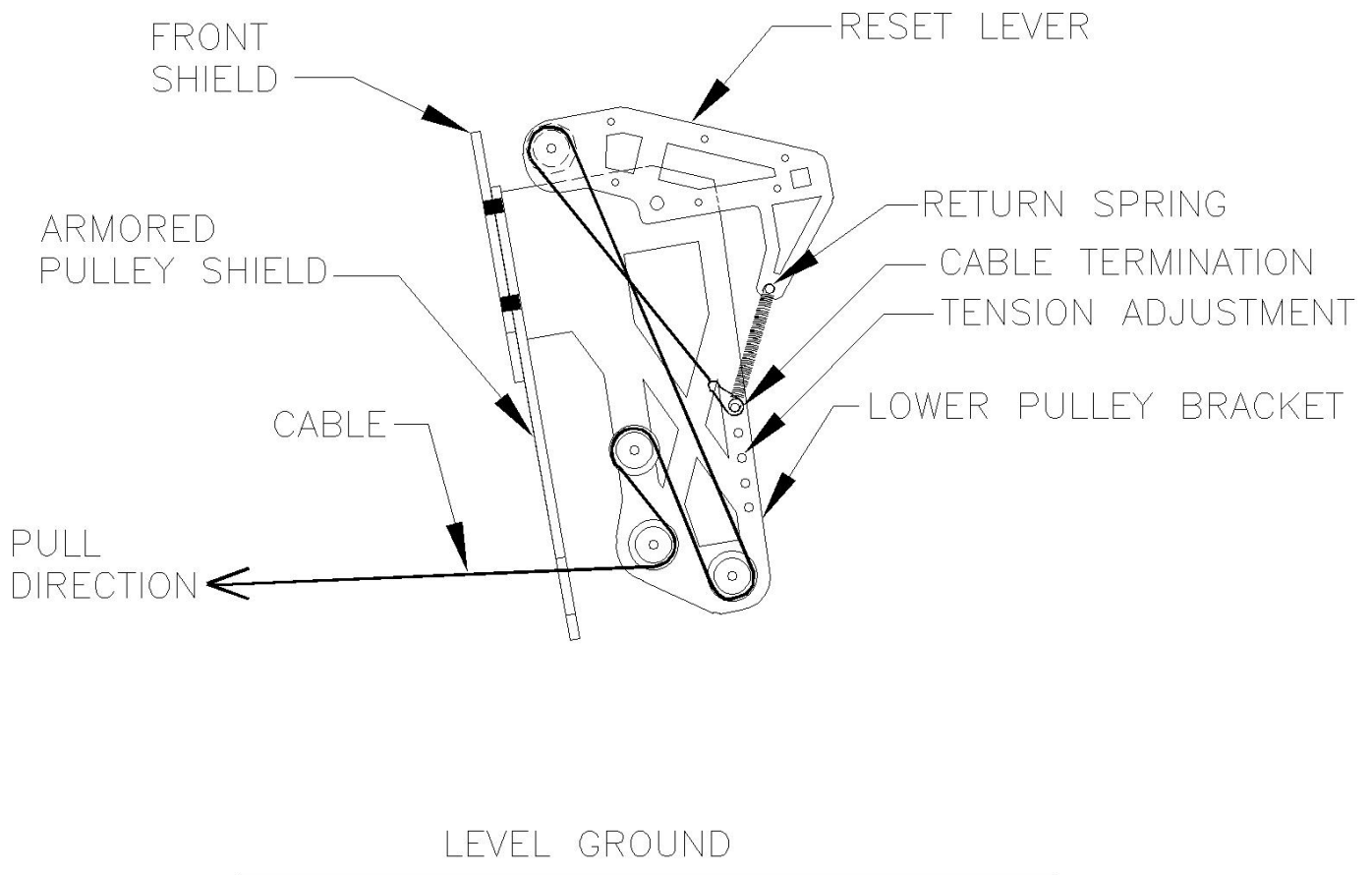
The cable and pulley mechanism are fully protected behind an AR500 (or AR550 depending on order) shield. This will protect the pulley and reset mechanism from most stray impacts. That being said, it is still important to make sure that the pulleys and reset mechanism are never struck by bullets. Bullet impacts of these parts will cause damage. We have spent hours designing guards to protect these items, however shots from extreme angles may still impact these items if the target is missed. Simply using caution and ensuring that you are directly in front of the plate rack will minimize these risks and ensure a long life of your target system.



Cable Reset

The cable reset system does a few things that are unique. For one, it keeps the reset mechanism low and out of the direct line of fire. (4) Pulleys in total are used to reduce the felt weight of the reset mechanism and also to aid in changing directions of the reset arm. One of our biggest problems with many plate racks on the market is the reset arms. Some people have figured out levers, many people simply have an arm sticking up into the air for resetting, which puts the reset lever and the cable directly in the line of fire. Our pulley's are completely enclosed and captured which ensures the cable stays where it should and is

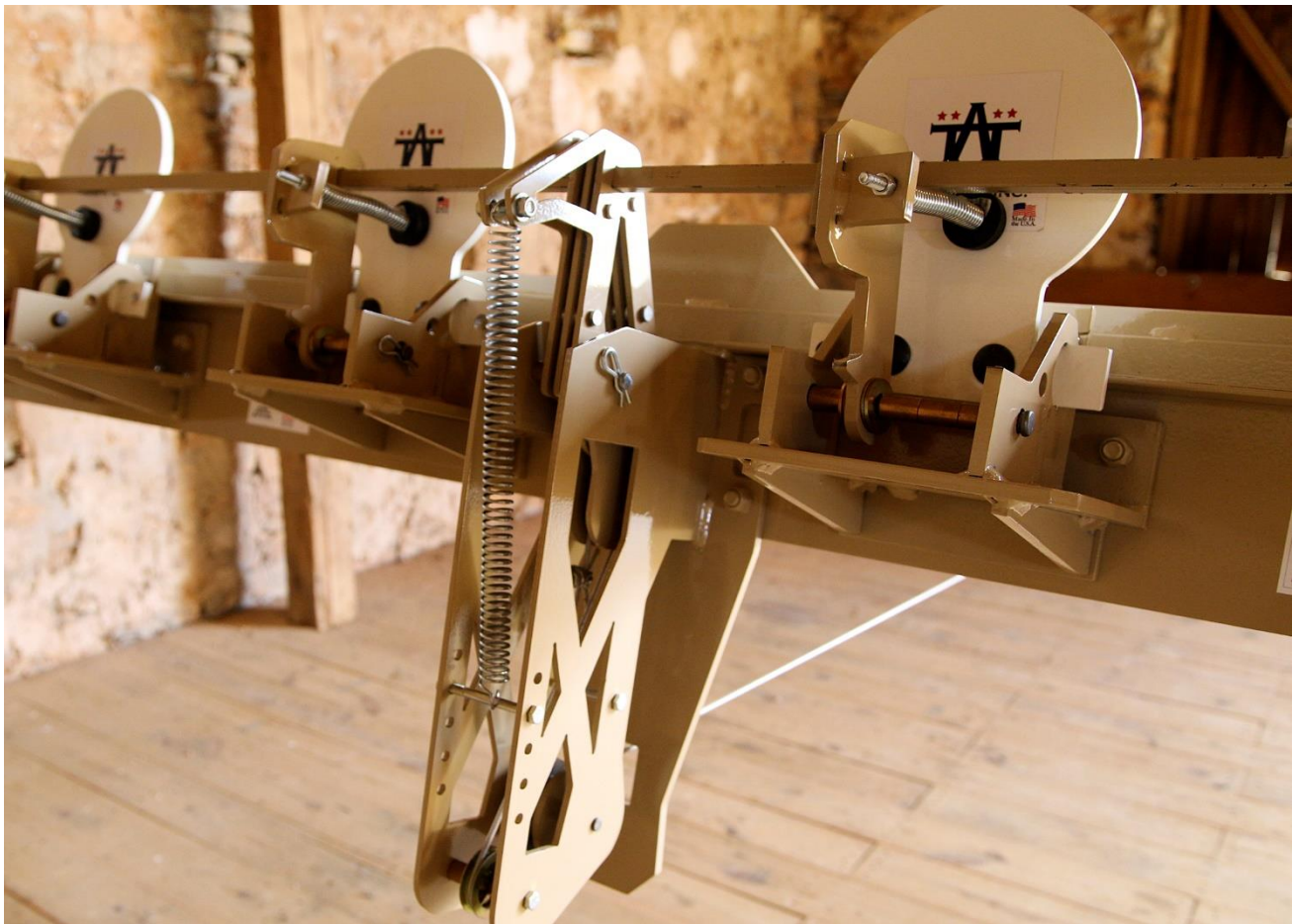
protected from stray splatter. In the event that your cable becomes un-routed refer to this diagram for re-routing the cable:



It is important to note that although the pulley's will reduce the weight and drag of the reset system, it will still have significant weight and will require adequate strength to reset. Smaller people and children may have trouble resetting this target system with the cable. In this event, the shooter can simply walk to the target and manually reset the paddles.

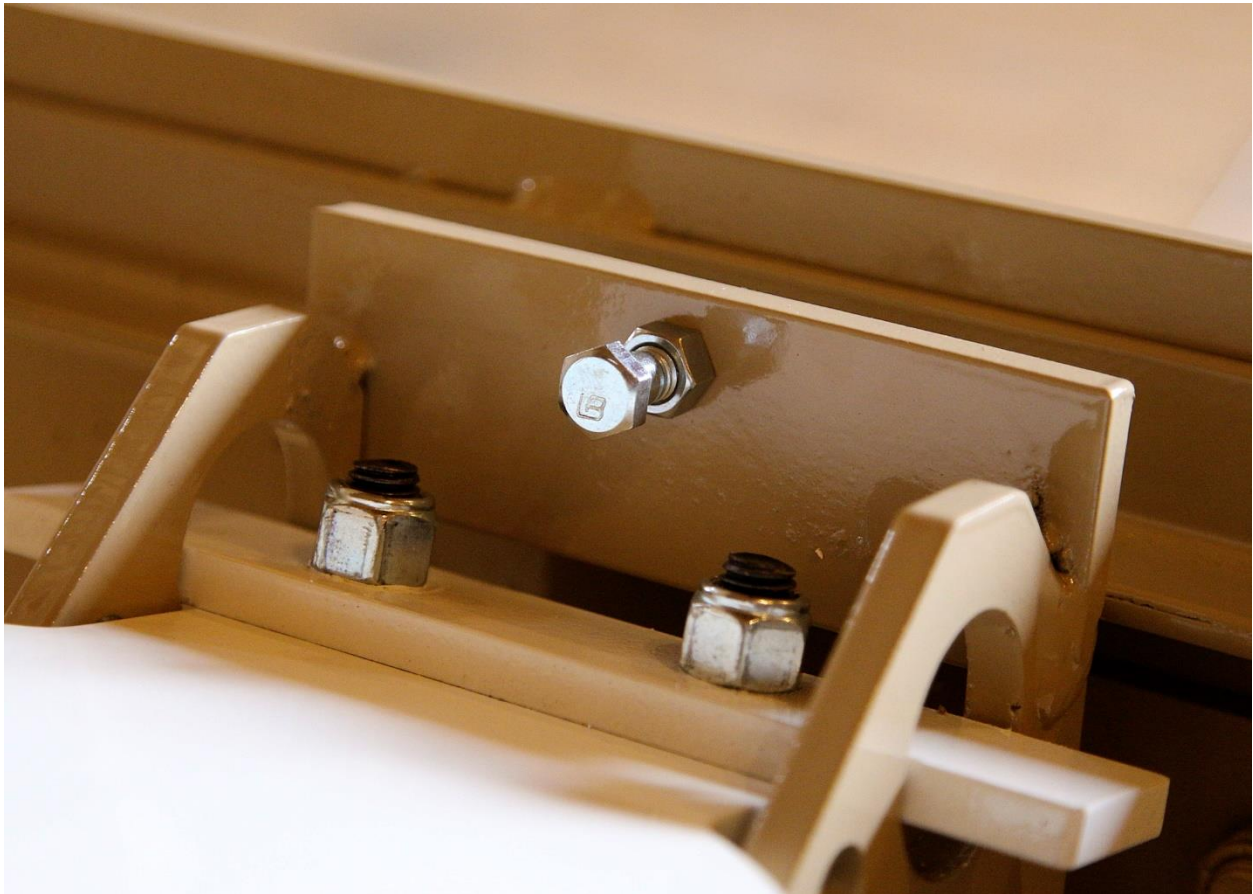
Paddle Bumpers/Isolators

One of the first things people see on our reset mechanism are the paddle bumpers/isolators. These isolators are meant to dampen the vibration that comes from paddles being impacted and dropping and they also serve as the arm that resets each paddle. This vibration, if not controlled, could potentially cause multiple paddles to be knocked over from a single shot. It is important to make sure these isolators are tightened down. If you find that the paddles are bouncing more than you would like, simply tighten the nut on the stud to compress the spring slightly harder. Using the plate rack without these isolators is not a safety problem, but you may notice multiple paddles falling from a single shot if you were to remove them, and the reset arm relies on these isolators to reset the paddles.



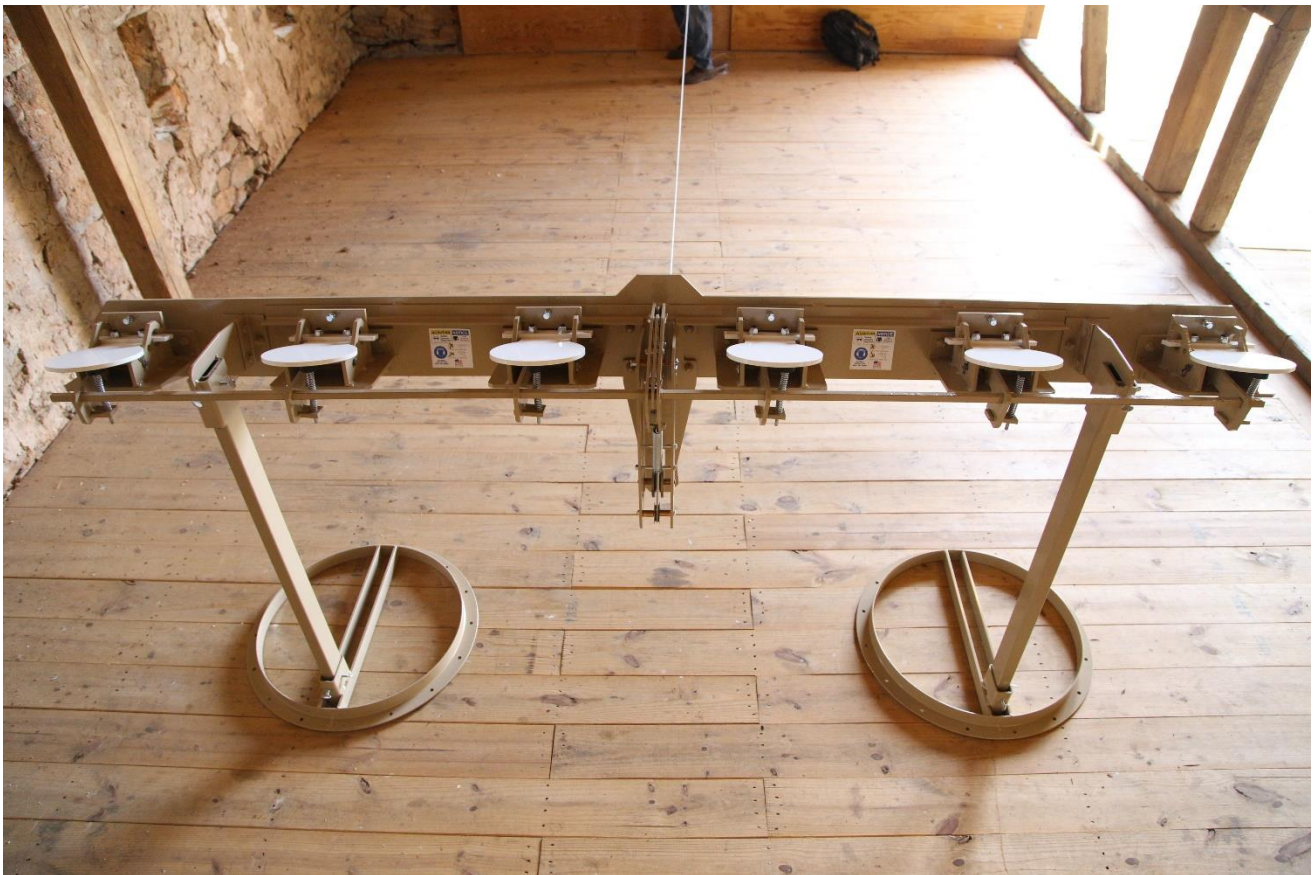
Paddle Calibration

There may be times when adjusting the paddles forward lean may be advantageous. This is especially true when shooting very light competition loads. In front of each paddle is a hex bolt that is meant for adjusting the forward lean. Test fire your caliber on the target and if less forward lean is desired, simply adjust the screw out until you achieve your desired performance. For most uses this will not be needed. The bolt can be screwed all the way in and the target will function properly. There are very specific instances where a user may find benefits of calibrating.



Set up and Assembly

It almost goes without saying, but this Plate Rack is very heavy. When compared to other plate racks on the market, it is indeed more easily handled, but please do not discount how heavy these systems are. The Phoenix plate Rack weighs approximately 450 pounds per unit fully assembled. We **HIGHLY** recommend using equipment to unload and set up the Phoenix Plate Rack. A forklift makes short work of setting up this system. If equipment is not available we highly recommend using at least 4 people to maneuver the racks. **Please use proper lifting techniques and exercise extreme caution.** Be sure that you always have an escape path and plan in the event that somebody drops their end of the plate rack. Set the bases on the ground and install the posts first. Ensure the thumb screws are secured. Then lift the upper portion of the plate rack and slide it over the posts. Ensure that the thumb screws are tightened fully. You may have to wiggle the shield assembly back and forth while tightening the screws to ensure the system is adequately tightened. It is very important to always ensure that all hardware is tightened and that there are no loose connections or missing hardware.



Caliber Ratings

The Phoenix Plate Rack was initially designed to service the needs of competitive pistol shooters worldwide. During the design phase we decided it was vital for this system to be able to stand up to the rigors of carbine use. The type of steel used is going to determine the distances that carbines can be used. Please note that primarily this plate rack was designed for calibers like 223 and 300 blackout. That being said, if you purchase our optional auto reset spring and pin kit you open the world up to larger calibers up to 308 Winchester.

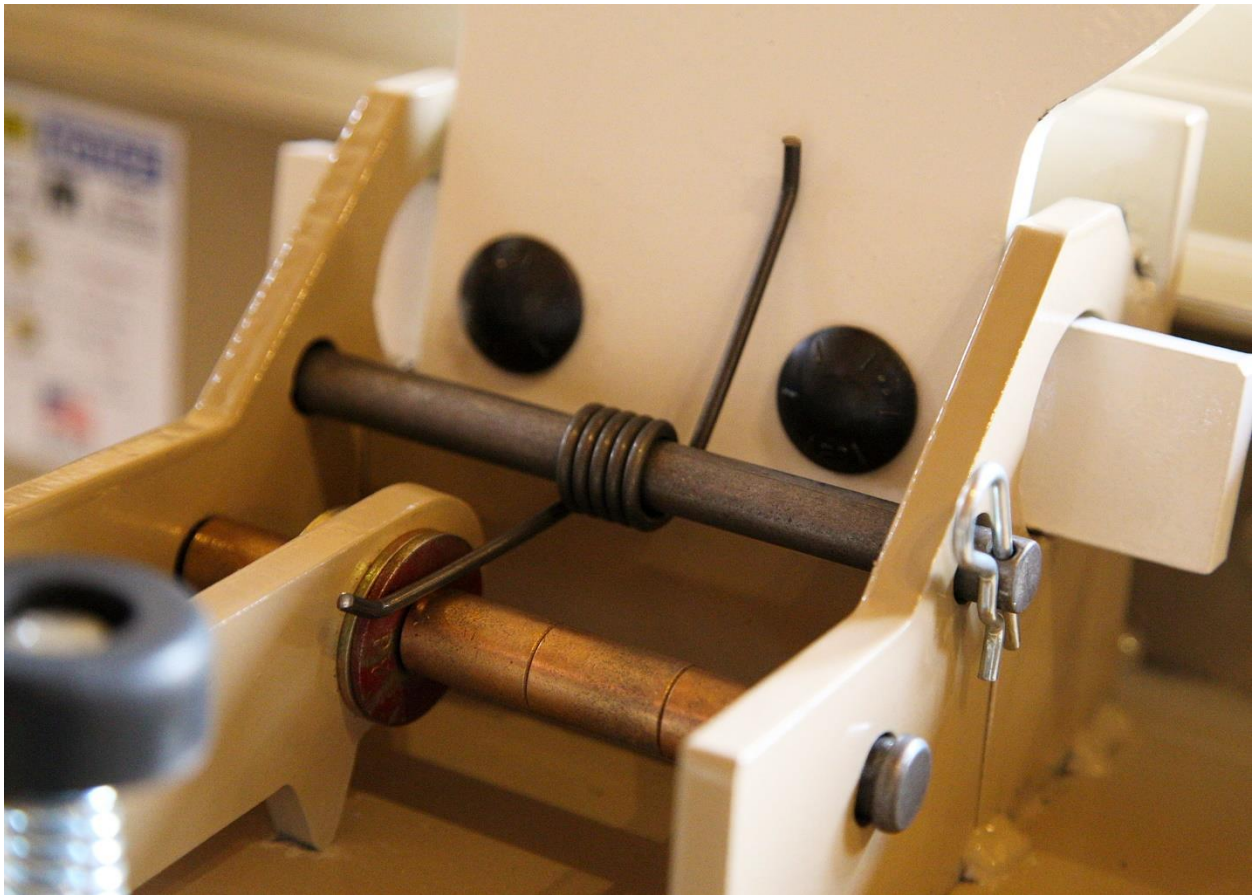
CALIBER	3/8" AR500 Steel	3/8" AR550 Steel	½" AR550 Steel
9mm, .40S&W, .45ACP, 10mm Auto	10 Yards Minimum	10 Yards Minimum	10 Yards Minimum
.223-.300 Blackout	100 Yards Minimum	50 Yards Minimum	30 Yards Minimum
.300 Blackout (Subsonic)	25 yards	25 Yards	25 Yards
308 Winchester (W/Auto spring)	100 Yards	100 Yards	100 Yards
.300 winmag-7mm Mag	#2 Hole	#5 Slot	100-150 Yards+

**Please note that the recommended distances for rifles are determined for 3000 fps muzzle velocities. Using velocities that are faster can result in damage to the plates when used at close ranges. If you notice this on your targets you must either switch ammunition or increase distance.

** Please refer to our included safe shooting manual for other range safety requirements. Safe shooting is up to you as a shooter, and it is your responsibility to always put safety first and follow safe shooting practices.

***Always be sure that you have adequate backstops for this target system. Your berm should be designed in a way that it catches any/ALL missed shots.

Auto Return Spring Setup



Shown above is our optional return springs. If you wish to shoot with large rifle calibers at longer distances, we highly recommend upgrading your target system to include this option. Large rifle calibers have the potential to knock over multiple paddles from one impact and this spring kit isolates each paddle and allows them to return. To install you simply need to slide the 1/2" Pin through the hole in the side gusset, through the spring, and through the opposing side gusset. Install the retaining clip as shown and allow the spring to rest on the target plate as well as the pin. Please note that springs will eventually wear out from heavy use, however we can offer replacements at a low cost.

THANK YOU for supporting us and our company by your purchase of one of our target systems! Please take some time to check out our full website and also check us out on Facebook, Instagram, YouTube, and Twitter to keep up to date on our newest products and releases!

