THUNDER LAUNCHER ADVANTAGES

Marking height and distance:

Thunder launchers are designed to shoot bumpers which closely imitate a hand thrown bumper for distance, height, hang time, and launch speed. Extensive evaluation was done with many professional trainers to determine these optimal characteristics. The goal is not the heaviest, fastest, longest shooting projectile possible; it is too closely imitate what a dog would see under normal situations. In addition, the optimal size and weight of the Thunder bumpers facilitates training from puppy through all-age or Master National status.

Whether you are training a hunting dog or the next national champion why not closely imitate what a human thrower would do in training or a mark would look like in competition? Unlike other systems that launch bumpers very fast, can be difficult to see under varying conditions, and fall quickly the Thunder systems provide for a more consistent imitation of actual hand thrown bumpers.

Throw Angle and Stability:

There are many instances where you don't want the exact same throw. Sometimes you want a higher throw and sometimes flatter. The legs on the Thunder fold out from their base locking position and provide launch angle variability.

If you have ever thrown a bumper into high winds you know that it can impact the throw. Under normal training conditions the impact of the wind on the bumpers is negligible. Under more extreme wind conditions Thunder has countered this effect by integrating a variable launch angle into the system. Simply by adjusting the leg angle you can account for wind. Once set the bumpers will continue to fall within the same fall pattern.

Level ground is something rarely found in training. Many times you want to set up on the side of a hill, next to water, etc. Why sacrifice the exact marks you want to throw because the machine may only fire on a stable, flat surface? The flexible leg design of the Thunders allows for the launcher to remain stable under various terrain variations.

Variable Distance Control:

Thunder products offer variable distance control at the push of a button. If you are training dogs of various levels sometimes you want the bumper in one spot for a young dog and another for a more advanced dog. Thunder systems allow the flexibility to do this from bumper to bumper without the need to change charges or adjust sequencing. If you want it to throw in the same fall area every time just operate normally. With a little practice you will quickly get a feel for how the system can provide infinite training possibilities directly from the running line.

During a single setup you may want your older dog to go into cover or right along a water bank. Your same younger dog requires a mark in open cover or open water. The Thunder can adjust for this scenario between shots with no adjustments, changes in sequencing, or moving the thrower.

Shotgun Sound:

Thunder launchers are significantly louder than primers. Dogs can tell the difference between primers and a shotgun sound. Louder sounds carry for longer distances making it easier for dogs to hear and locate the mark. Most professionals agree that using a shotgun type sound device is superior to primer loads. Basically, the louder the noise and more it imitates a shotgun the higher the probability for training advancement and success.

Operational Cost and Ignition Availability:

Thunder launcher ignition relies on a standard, off-the-shelf product called MAP gas which comes in a yellow can. This product can be purchased over the counter at most major retailers for around $10 USD and is also readily available in Canada. One tank of gas yields around 500 shots. That's 2 cents per shot! Other systems rely on primer mechanisms which cost on average around 10 – 12 cents each. Over 500 shots, or one tank of fuel, the savings on average is approximately $50 USD. You can see how over time the savings mount quickly. In addition the fuel source is not considered a firearm product so there are no additional restrictions on its use or availability.

Completely Self-Contained:

Thunder launchers are completely self-contained. There is no need for carry bags. The system is designed to load and go. If you need a carry bag to protect your machine during transport what protects it in the field when you are using it?

Multiple Electronics:

Thunder launchers rely on the standard Tri-Tronics (a Garmin company) or Dogtra remote systems widely used on the market today for various remote launching systems. These companies have proven to have high quality and good customer support. These systems are readily compatible with other remote systems. When training you want to have the least amount of electronics to worry about. Since Thunder systems use the same technology as almost every other outdoor product except primer systems they don't require additional electronics to run. Many people already have these electronics if they have been using winger type technologies. Why have one set of electronics for your multiple launching system and one for your single system? Less is always better and saves money in the long run as your training grows and equipment needs increase.

Reliability:

Fuel powered technology will shoot in any weather. Other technologies rely on primers which corrode and clog up during use. This requires extensive cleaning to maintain and misfires in inclement weather or damp conditions. Thunder launchers fire in rain, snow, and even frozen bumpers!

The Thunder bumpers don't need to be dry to fire. Marks are done on land and in water. It isn't necessary to make sure the Thunder bumpers are totally dry before reinsertion on the machine. Water will not impact the firing mechanism.

Thunder ignition systems are designed by a very reputable US company. Millions of dollars and extensive US patents went into their design and functionality. They are absolutely state of the art in that technology arena. Unlike other systems that rely on an inexpensive servo units not made for outdoor use, Thunder fuel ignition systems are designed to function under any circumstances and have proven extremely reliable.

Although it is designed for tens of thousands of shots it is a mechanical system and at some point in the future it may need to be replaced. For a do it yourselfer the cost is around $40 USD.

Maintenance:

Thunder launchers require NO cleaning. They won't corrode or clog up. Their durability and functionality rely on ultra high precision machining which when assembled maintain their tolerances and provide years of reliable use. There propulsion is clean with no residue or corrosive materials.

Bumper Design:

Thunder bumpers are within 1/2 ounce of a standard 2"x11" hand thrown bumper sold by many companies on the market, closely resemble their diameter, and are 2"longer. The bumper design is a scientifically thought out process for many reasons. Obviously heavier objects fall faster. The goal of teaching marking is not to find the heaviest item that will fall the fastest. The object is to balance weight with performance in order to provide the optimum speed and hang time necessary for your dog to properly see the mark.

Younger dogs are much more affected by weight than older dogs. When you are teaching your puppy to retrieve you don't go and find the biggest bumper possible because physically they would not be successful. As dogs age they are less impacted by size and weight and just want to retrieve any object thrown. Thunder bumpers are designed for all ages. The size facilitates young dog success through all age without having to change.

Thunder bumpers include a foam core allowing for your favorite scent to be added which aids in teaching your dog to use their nose effectively. The location of the foam is placed specifically so that the dog will learn to pick up the bumper in the proper position and not by either end. This is a benefit over all other standard bumper designs.

Thunder bumpers can be launched with or without flags depending on marking conditions and come in an array of varying colors to ensure under any situations proper marking can be obtained.

Minimal Components:

Current fuel powered technologies use minimal components in their design and 99% are readily available over the counter. As with any piece of equipment at some point components may need to be repaired. Most can be purchased same day at local locations in your area which aids in training up time. All machines require some amount of basic maintenance. Reliability comes from simplicity and minimal components. The more parts you have the more chance something will break.

There are only two electronic components inside the machine. Unlike other systems with various electronics exposed to the weather all Thunder electronics are totally contained inside the sealed machine. This prevents

accidental breakage and protects against the elements. Although it is highly unlikely these components will ever need to be replaced they can be readily obtained and are designed to be changed by the user if desired.

Batteries:

Unlike other methods, Thunder machines rely on AA batteries. One set of AA batteries will last the average trainer one or more years. In addition there is no need to worry about forgetting your charger. Most people have AA batteries readily available. If you are out training and have forgotten to change your batteries in a long time AA batteries are easy to find. Rechargeable batteries are actually not recommended for the machine. Standard shelf batteries perform much better.

Reload Timing and Auto Sequencing:

It takes only seconds to reload Thunder machines. In addition they are completely auto- sequencing. No need to reset anything or remember which cylinder was previously discharged. Just reinsert the bumpers and fire.

Fuel powered machines do have a dual stage system. This is done for both safety and training timing. Guns have safeties so why not launching systems? The machines are cocked first, then fire and return to neutral. This allows the trainer to ensure their dog is properly positioned looking at the station and provides an extra level of safety against inadvertent firing. If the trainer accidently depresses their remote the system will not rotate from neutral to fire. When the machine is in neutral it will not fire, period. Why have additional bumpers charged and ready which could go off when they are not needed or during reload?

The only adjustment inside a fuel powered machine is timing. This is done to facilitate long term use and reliable functionality with various electronics available on the market. Over time even remote electronic systems change and the variability in the gas powered system allows them to retain reliability with any remote electronic systems.

System timing is set at the factory and normally this is sufficient. However, the system is designed to be adjusted by the user if necessary. Once the timing is set the machine will automatically remain in its proper sequencing and will even adjust its sequencing automatically if anything ever changes.

Dry Firing:

Since Thunder machines are much louder than poppers, imitate a shotgun sound, and don't rely on back pressure for ignition, they are an effective tool for dry pops and will fire reliably without bumpers. No need to put someone out in the field just to shoot so you can run blinds. Just place one in the field and with its loud report it can very closely imitate what a dog would hear before its blind.

Internal combustion:

The combustion system of the Thunder systems is totally contained within the unit. During ignition nothing is exposed to the outside elements except for the expulsion of the dummy which is 10"-12" above ground level. Why would you want external ignition near ground level and exposed to the elements?