

# Blastgun Technology

Developed by an independent tinkerer in [YE 42](#), Blastgun Technology is a novel form of plasma weaponry produced by [Origin](#) as a cheap and effective way of matching the performance of antimatter and aetheric weaponry. Combining elements of traditional ammunition based weaponry with high energy physics, Blastguns, also sometimes referred to as Blasters, are highly effective weapons with their own unique properties.

## History

Blastgun Technology, or at least the basis of it, was developed in [YE 41](#) by [Menelik Berhane](#), who then handed the basics and principles of the technology over to [Origin Industries](#). Berhane initially wanted to improve the performance and capabilities of Nepeleslia's [Moneyshot Rifle](#), and stumbled upon the effect in his family's villa while on leave. Without the resources on his own to develop the technology into a fully functional weapons system, he instead handed all his research data and documentation over to Origin Industries before reporting to his new duty station.

Origin Industries' [Origin Defense Manufacturing](#) took over the development of Blastguns, quickly bringing the technology to maturity and readying it for use on personal, armor, vehicular, and starship grade uses.

## Details

A Blastgun is a surprisingly simple weapon in operation, relying on only a few moving parts, discounting the feed mechanism. The barrel of a Blastgun resembles a standard firearm's barrel, sans rifling or acceleration rails. Instead the inside of the barrel is as smooth as physically possible and lined with highly reflective chrome, while a shaped magnetic field directs takes up the firing chamber, which is also lined with chrome. The core of Blastgun Ammunition comes in thin, round plastic wafers shaped almost like coins. These wafers serve as a stabilizing matrix, holding precisely arranged atoms of Copper, Uranium, or Thorium.

Once the ammo wafer is centered in the firing chamber, a high power electrical charge excites the atoms, and the magnetic field sends them down the chrome lined barrel. The smooth, chrome barrel and the magnetic field focus and shape the high energy plasma into a single bolt visible to the naked eye, coherent and stable enough to maintain itself but just unstable enough that the bolt itself releases all of its energy on impact with an object. The method of firing causes no recoil, and the bolt goes where it is pointed.

Blastguns tend to come in sizes from 1 centimeter and upwards- any smaller than 1 centimeter and the bolt is too unstable and small to be of any use.

The process of firing a Blastgun generates massive amounts of waste heat, enough that continuous fire from a single barrel is enough to melt through even a [Nerimium](#) barrel with more than 30 seconds of continuous fire; smaller Blastguns, such as 1cm pistols, have an extremely hard time shedding heat.

To deal with this heat, Blastguns have two main mechanisms: the first is to blast super-cooled nitrogen gas through the barrel between shots, which has the added bonus of pushing out a spent ammo wafer. The second is to make Blastgun barrels, aside from the inner chrome lining, out of a suitably ablative material such as iridium or [Boreanium](#), with Boreanium being preferred for its unique properties.

This does give the barrels a limited lifetime use, as the ablation of being used will eventually wear down the barrel to only its chrome lining. Roughly, the barrel of a Blastgun weapon will give out, for infantry weapons, after around 300 shots; vehicular and starship weapons have much heavier barrels with superior cooling, and can last for a substantially longer time, around 1000 shots.

At its core, a Blastgun bolt is an [Atom Laser](#), a coherent beam of atoms that behaves like a wave. While slower than any energy weapon that moves at light speed, such a bolt still travels at just below the speed of light. The bolt generally loses energy at such a rate that it becomes harmless after five seconds, but the velocity of the bolt itself means that five seconds away is 922,095 kilometers.

A Blastgun bolt releases all of its stored energy upon the first solid mass that it encounters, expending all such energy effectively instantly without penetrating through the object. The bolt also behaves strangely when it encounters refractory surfaces such as mirrors: instead of releasing the entirety of its energy on the refractory surface, only a portion of the bolt's energy<sup>1)</sup> is released onto the mirror while the remainder is reflected away in a cone. The direction of this cone and its width depends on the angle of the bolt's impact, but the center of the cone and the majority<sup>2)</sup> of the reflected energy will be directed directly back at the source, albeit diffusely.

Blastgun Bolts are generally a uniform color, depending on the metal used in its ammo. Copper atoms create a bright cyan bolt; Uranium a vivid blue; and Thorium a brilliant purple.

## Benefits of Blastguns

The unique properties of Blastguns give a number of unique benefits.

- **Damage Potential:** Blastguns bolts contain a massive amount of stored energy within them. This makes them competitive with more advanced weapons, such as high-velocity kinetics, aether, antimatter, and particle beams.
- **Accuracy:** Blastguns are highly accurate, being near lightspeed atom lasers. The bolt will fly true, unless it jams or is intercepted by some solid object.
- **Range:** Blastguns fire bolts that last for roughly five seconds at a velocity of 0.99c. This essentially means that a Blastgun has a range of 922,095 kilometers in space, and is limited only by the horizon and line of sight in atmosphere. This is naturally limited more by limitations of eyesight, human aiming, and the resolution of computers.
- **No Recoil:** Blastguns simply do not generate recoil when fired.

## Downsides of Blastguns

Likewise, the properties of Blastguns give them a number of unique downsides.

- **Poor Armor Penetration:** Despite the power of the a Blastgun Bolt, the armor penetrative

capabilities of Blastguns are poor due to how the bolt will simply vaporize the armor rather than punching through to whatever it is protecting.

- Poor Anything Penetration: Blastguns are simply bad at dealing with situations like rain (where the bolt will release its energy on the first drop of water it intersects), foliage (where the bolt will release its energy on the first piece of plant it intersects) or other similar environs.
- Abysmal Heat Tolerance: The main downside of the Blastgun is their heat buildup and how this affects everything else about the weapon. Ablated Iridium or Boreanium settles onto everything around the fired weapon and gets into everything, burning throats or ruining food and water. The red hot glowing barrel remains hot enough after firing has stopped to burn and melt flesh and plastic and wood if handled improperly. Even the heat of the weapon while firing has a chance of prematurely melting the plastic wafer that Blastguns use as ammo and jamming up the weapon.
- Cook off: While the ammo wafers used by Blastguns are incapable of being prematurely fired by heat like conventional ammunition, electrical fields can cause the wafers to prematurely release their energy in actinic bursts. The damage and effects of these bursts increases the more wafers there are in proximity to one another.

## OOO Notes

[Firebrand](#) created this article on 2020/01/01 13:27.

This Article was approved by [Andrew](#) on 01/17/2020. See the [Forum Thread](#).

Products & Items Database	
Product Categories	weapons
Manufacturer	<a href="#">Origin Industries</a>

<sup>1)</sup>

up to 25%

<sup>2)</sup>

50%

From:

<https://wiki.stararmy.com/> - **STAR ARMY**

Permanent link:

[https://wiki.stararmy.com/doku.php?id=corp:origin:blastgun\\_technology](https://wiki.stararmy.com/doku.php?id=corp:origin:blastgun_technology)

Last update: **2023/12/21 00:58**

