

Pull the trigger on any firearm and you will immediately understand Newton's law about equal and opposite reactions. Recoil is an *inseparable* part of shooting. It instantly affects how you engage the target. And the effects are amplified for machine guns. Each machine gun round changes the lay of fire. Recoil makes the barrel on a .50 caliber dance as the weapon fires. Add on the long effective range of the weapon and that barrel dance means rounds can fan wildly as they streak down range. Gunners must constantly adjust to the recoil and re-engage the target. Fact is, training with recoil is critical.

WHY IS REALISTIC RECOIL MISSING FROM SO MANY MACHINE GUN TRAINERS?

Most machine gun simulators don't even have recoil. It's simple: put sights on the target and shoot happily certain that you'll stay on target all the time. But, it's utterly unrealistic...just a simple video game.

Some machine gun simulators provide 'notional' recoil. These guns may buzz a bit or lightly pop-pop-pop using compressed gas. And gas systems just don't provide high rates of fire or realistic recoil.

The idea is that notional recoil reinforces the cue when the gunner fires. But, notional recoil doesn't really disrupt the weapon sight picture or drive the weapon off target when firing. Gunners might need to make only minimal adjustments for the recoil. These systems are also unrealistic, and worse, negative training for the gunners.

Full-force machine gun recoil training is rarer. Realistic recoil is usually accomplished with blank rounds fired through the real weapon. This does produce realistic recoil effects. It also produces a dirty gun and requires stocks of ammunition as well as actual weapons. Using real weapons levies range and weapon safety demands, plus secure storage issues. Real weapons and blanks are not suited for indoor training and are very loud.

But, what about a machine gun trainer that provides full force recoil at full rate of fire? One that can be used indoors and provides realistic recoil effects? A system that teaches gunners what to expect when the machine gun fires and the need to re-engage targets. A system that can be used for multiple weapons types and on aircraft, vehicle, or naval mounts?

## GUN ACTIVE RECOIL

ACME'S Gun Active Recoil Unit (GAR®) is a patented, electro-mechanical system that replicates the recoil intensity of the actual weapon when firing. It's full-force recoil at full rate of fire for machine guns.

The GAR® system does not require blanks or pneumatic charges – it simply plugs into an electrical outlet. GARs® don't cycle the bolt inside the weapon for each recoil. It's designed to work seamlessly with ACME's ultra-high fidelity replica non-guns.

ACME has recoil systems for M2, Mk19, M240, M60, GAU-18, XM218, GAU-21, and even the GAU-17 and M134 mini-guns.

ACME has COTS GAR® mounts – no design needed – for a wide range of helicopters (doors, windows, and ramps) as well as vehicles and boats. GARs® can be set to provide exact azimuth and elevation so the field of fire is asactual.

The powerful GAR® system enables machine gunners to finally train realistically. It's training with the right recoil and the right rate of fire using dependable electric power.

