

# FALCONSTRIKE

## A REVOLUTIONARY RECOIL REDUCING PAD BY PAUL COOK

### Smooth Landings

When Martin Gaudet set out to achieve his goal, it wasn't initially intended to be a recoil pad. But, like so many really good inventions, the solution to his original problem has applications to more circumstances than just the one that spurred the development of the solution. The FalconStrike® hydraulic recoil reduction system is exactly that kind of alternative application. This consumer-marketed product originates from Martin's company, Gaudet Compensating Dampers Inc. which he started in 1992.

The original problem arose out of the aerospace industry's need to dampen vibration and energy transfer in aircraft, especially upon landing. Martin developed a means of absorbing and converting this energy by fluid displacement and conversion to heat. Martin explained that the human knee utilizes similar mechanics to absorb and dampen energy transmitted up through the leg while running and walking.

### Adaptation Is Key

Martin's wide array of life, military, teaching and work experience led him to consider utilizing his patented design as a solution for

recoil. Aware personally and from others' experiences describing the effect recoil has on enjoyment of hunting and shooting, it was exactly the problem that his aerospace design was created to resolve. A self-proclaimed fisherman, Martin's view of the problems associated with recoil external to the sport is almost purely scientific. His approach is definitely along a different flight-path than usual. "We had a good look at recoil and thought, we can remove most of it."

The nature of the FalconStrike® pad is that it adapts to each shooter upon the introduction of the energy resulting from recoil. Martin pointed out that a "force coupling" occurs as the hydraulic fluid in the bladder molds itself to the contours of the shoulder as the energy absorbed increases. The energy causes the bladder to give increasing surface area and eliminates hard edges. The hydraulic fluid is designed to "mimic the density of human flesh making the transmission of the shockwave transparent at the interface (your shoulder)." Some of the recoil energy becomes heat and is dissipated through the pad

externally. No worries about long days on the range, Martin says "If you could shoot 400 rounds in five minutes you'll notice [heat buildup]" but otherwise it'll be imperceptible.

### Well Tested

Going out of their way to establish a real measure of change with and without the FalconStrike® pad affixed to a firearm, Martin built machines to measure the difference. Measuring two key variables, *peak force* and *energy reduction* they began testing. The results were 25% decrease in peak force and 80% energy reduction. When they sent the FalconStrike® pad to an independent testing facility Martin said they were told "You beat the best one by 25%". FalconStrike® also notes on their

website a 35% reduction in muzzle lift and 35% less rock-back with their pad. They also tested a single pad through 52,000 cycles for abrasion resistance and component failure and finding no detectable change, threw in the towel.

### Remarkably Reliable

In part, because the original design was for the aerospace industry where reliability is paramount, the construction of the FalconStrike® has proven "remarkably reliable" according to Martin with "count them on one hand" warranty claims for punctures leading to failure or leakage. We discussed the cam-



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lock base-plate mounting system used to attach the pad to the base-plate and I asked if it was designed for regular removal, say to fit a gun into a case, or rather for limited, intermittent removal. Martin said that the design would not be suitable if you needed to remove the pad daily as it wasn't designed for that kind of repetitious use but perfectly up to the task of intermittent removal for service or access to the stock's draw bolt.

## They Have You Covered

The flexible fitment capability afforded by the utilization of a baseplate on the FalconStrike® makes the 15 ready-made sizes that are available a likely fit for most stocks. These 15 options were based on the actual measurement of many different gunstocks. They found that even on high-production firearms with wood stocks, the stocks could vary to a degree that necessitated being able to span those variations. Use of a base-plate and a skirt material on the pad allows most stocks to be



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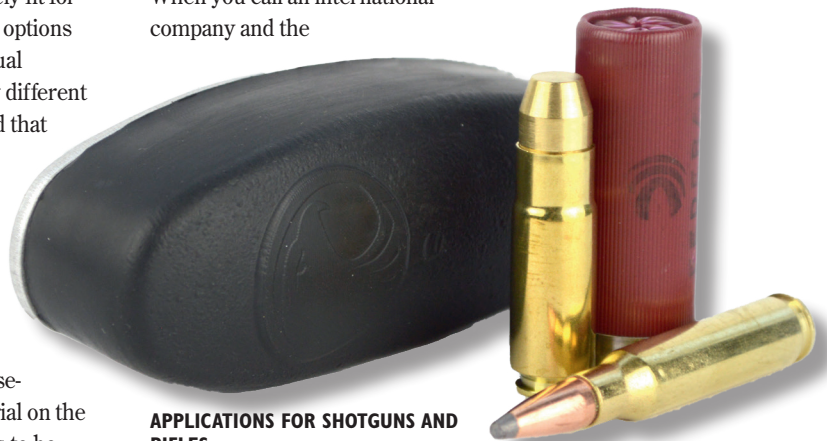
closely fit with the skirt protecting and smoothing the intersection of the base-plate and stock variations. Use on synthetic stocks requires a more deliberate oversizing to be sure that the base-plate fully covers the end of the stock and is in contact with the entire edge of the butt of the stock. Martin noted that guns made pre-1985-ish vary even more widely and taking the time to measure and input the measurements on the website will gain the most accurate fitment available no matter the manufacture date of your firearm.

## Something Different

When you call an international company and the

President of that company answers the phone as Martin did when I called, you know you're in for something different. The FalconStrike® is something different. Distributed through FalconStrike®USA in Alexandria Bay, New York, Martin assures that use of the FalconStrike® will increase endurance and reduce fatigue associated with target shooting. He said, "Don't believe a word I say, try one and prove it to yourself." ■

Look them over at [falconstrikeusa.com](http://falconstrikeusa.com)



APPLICATIONS FOR SHOTGUNS AND RIFLES