

## 3rd Law Breaching Tools

A 100% Veteran owned small business

Use proper kit, use proper technique, create a positive breach



Neil Held

$$F=m \cdot a$$

“The force of an object is equal to its mass multiplied by acceleration.”

-Some guy much smarter than I am.

Manual Breaching methods: Human-powered push, pull, cut or break. Manual methods aren't as sexy as other techniques, but manual is what 90% of Law Enforcement uses 90% of the time. As the saying goes, 90% of the time it works 100% of the time, sort of.

Breaching, whether on SWAT or patrol, is one of the most under-trained and underperformed events in police work. Most departments don't have the budget for a fancy hydraulic tool or a torch. Police administrators often cringe at the mere mention of ballistic breaching - too much liability and too expensive to maintain the training.

Explosives? Have you lost your mind? The truth is, manual entry methods work. While manual methods aren't appropriate for every situation, with proper kit and proper technique, it can work very, very well.

Whether it's a dynamic or medical situation, the most likely method used by patrol would probably be manual.

Having been a breacher for over 15 years, I've had my fair share of experiences with the current rams on the market. Can they get the job done? Sure. But, let's be honest. They are too big and too heavy - like a piece of outdated technology.

It was time for an upgrade. I knew that I could create something better. I had used some old and heavy bullshit for the last time. Busted fingers, jammed wrists, smashed shins from something hard, heavy and pointy... no more.

### Size & Weight

I started with the size and weight. Bigger and heavier is not better. If I can't accelerate the mass, how can I create any force with it to create the breach?

How can I accurately apply the force where I want it? What if it's too big to even swing on a small hallway or a porch? How can I swing it over my head?

Weight (mass) is important though. It's part of the force equation,  $F=m \cdot a$ . I decided to make my tool smaller by using materials that were denser.

I used materials that have 40% greater density than steel which allowed me to make a tool of the same weight, only it



would be 40% smaller. Further research at the local university revealed that I could also reduce the overall weight of the tool in an effort to maximize efficiency. 18 lbs is right where returns start to diminish. You can also create the

desired acceleration easier with an 18lb ram as opposed to a 40lb or a 50lb one. So we created an 18lb ram as well as 25lb and 32lb versions.

### Strike Face

Next was the strike face. During testing, I discovered that even mild steel dents and deforms easily. Some manufacturers place a bead of weld material along the edge of the strike face as it's harder than mild steel, it's also a cost saving measure so that cheaper materials can be used. I went in a different direction. I chose a steel that was chemically different and over 4 times harder than mild steel.

I also decided to make the strike face rounded. No hard 90° corners to smash into your hip or shin. The result is a circular strike face that maintains its crisp perpendicular edges avoiding rounding or mushrooming of the strike face.

This is one of the key factors in preventing glancing blows. Some of my fed friends requested a non-sparking strike face, so I drilled and tapped the hard steel to mount an HDPE plastic strike face. These are very useful in training venues as hammering steel-on-steel training doors isn't the best therapy for hands and wrists.

### Bounce & Momentum

I reduced the size of the tool and employed materials that were harder and denser. I thought the function of a dead blow mallet. When the dead blow strikes, the counterweight located inside the head strikes a fraction of a

second later, essentially cancelling out any bounce. I discovered that if I could cancel the "bounce" it would save time and energy so the breacher could concentrate on subsequent ram strikes on the intended target. There is also a nice little side benefit to this - the dynamic movement of the counterweight actually assists in generating more force.

### Proper Techniques

When I went through SWAT school in the mid 2000's, it was customary to take the biggest and strongest lummox on the team and make him the breacher. Yea, that's definitely one way to do it. You could also chop down a tree with a sledgehammer, but why would you when you have a sharp axe available? Smart efficiency is key. And with it, comes proper technique. When ramming a door, the breacher plants their strong foot behind them. This is where the kinetic energy originates. Leverage and rotational forces generated from the hips




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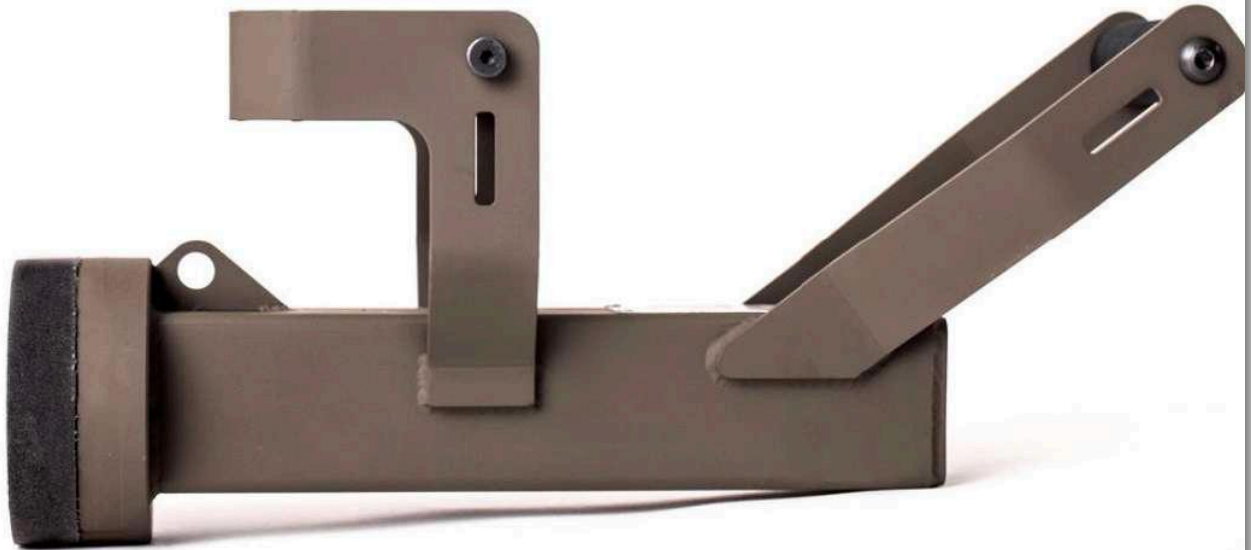
*I discovered that if I could cancel the "bounce" it would save time and energy*

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and torso are transferred down the arms multiplying the energy, like the coiling and cracking of a whip. But this is only part of the technique. Placement on the door is also crucial. If you are attempting to breach the locking side of the door, then your target is the



crescent shaped area around the door handle and locking mechanism. With the hinges acting as the fulcrum, the further you are away from



the fulcrum, the stronger you are. The final and magical part (JFM) of the technique is “taking the slack out of the door”.

This is done by the breacher or the A-breacher using their foot to put tension on the bottom corner of the door, pushing it tight into the frame.

Kinetic energy flows in a very similar fashion to electricity.

The components of the door must be in tight contact so the energy can be transmitted into the locking mechanism or the door frame in an effort to break the weakest component.

There is typically some sort of gap or slack in any door. If not mitigated, the slack will absolutely prolong your breach, or it may prevent it all together.

At the end of the day, use proper kit, use proper technique, create a positive breach.

I would like to take this opportunity to thank some world class warriors that I have had the pleasure of learning from: Chaz, Rob, Ivan, Kenny, Jose and Joe – this kit is what it is because of your added expertise.

-Stay tuned for my next article on the MASTUS PRY!

-Stay Dangerous!



## 3rd Law Breaching

Our Breachers are manufactured in New York State! The owner and operator of 3rd Law is a Police Officer, a Breacher on a Fema Type 1 team in New York, and a Combat Veteran. 3rd Law Breaching Tools LLC is a 100% Veteran owned small business, and is a certified Service Connected Disabled Veteran owned Small Business in NY.

