



# EVOLV<sup>R</sup>

COMBAT STOCK

**THE EVOLUTION OF THE TRADITIONAL RIFLE STOCK IS HERE**



## **White Paper**

June 18, 2022

Prepared for:

Warfighters & Law Enforcement Officers  
Tactical Firearms Instructors & Training Centers  
Firearms Manufacturers & Dealers/Distributors  
Tactical Equipment & Accessory Dealers/Distributors

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## 1.0 THE BOTTOM-LINE UP FRONT (BLUF) / EXECUTIVE SUMMARY

To successfully execute their mission, the Warfighter and Law Enforcement Officer must be an expert in handling and employing their rifle to engage all targets with well-placed shots. Whether the shooter is standing, kneeling, sitting or prone, a stable position with the rifle firmly in the pocket of the shoulder is a requirement before firing the weapon safely and responsibly; *it is the one thing that anyone watching can witness and verify the existence of immediately*. On traditional rifle platforms, buttstocks feature an elongated shape that conflicts and/or collides with tactical gear and body armor. This interference forces the shooter to abandon or modify the vital fundamentals of rifle marksmanship when fully equipped with gear. The EvolvR (Evolution Rotational Butt-Pad) Combat Stock is a direct replacement to the traditional buttstock that solves this problem by providing the following features:

- An ambidextrous 8-position rotating octagon shaped butt-pad with a patent pending Spur-Catch to grip the shoulder strap of the shooter's tactical gear or body armor vest – providing superior placement in the pocket of the shoulder.
- Low-profile design that allows for proper stock weld when fully equipped with gear allowing the shooter to aim without modifying or abandoning shooting principles, and effectively manage recoil for rapid return to target and follow up shots.
- MIL-SPEC and commercial compatible design enabling the EvolvR to be easily and quickly retrofitted to existing rifle platforms.
- Rugged construction stands up to extreme mission and training environments.
- Customizable design allows for the EvolvR to match department logos or unit insignias, and custom platform markings.

The EvolvR was developed by professionals and experts in the body armor industry in response to real world experience of this problem and user complaints at trade shows, expos, and industry days. ***Product testing has demonstrated that the EvolvR is a solution to this widespread problem, making it an ideal gear option for any user of a rifle platform.***

## 2.0 THE PROBLEM - Traditional Carbine Stocks and the Soldier's Gear

Traditional rifle stocks feature an elongated shaped buttstock that interferes with the shooter's tactical gear and body armor vests. This problem forces the shooter to abandon or modify important stability and aiming fundamentals of rifle marksmanship while wearing their tactical gear and body armor vests. Figure 1 shows how the shooter is unable to establish a stable position and proper sight alignment because of the gear worn. This also prevents the shooter from managing the weapon system's recoil for multi-shot engagements.

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Figure 1 – Engaged shooter unable to establish a stable position, aim with proper sight alignment, and manage recoil

Figure 2 shows how the traditional buttstock does not make full contact in the shoulder pocket. The shooter tries to modify their shooting position because the gear worn blocks access to a stable shooting position. When this happens, the weapon system may experience excessive recoil (A) from a lower pivot point (B) created from minimal contact. This prevents the sights from returning rapidly to the target and slows down follow up shots during multi-shot engagements – ultimately impacting precision, accuracy and speed.



Figure 2 – Excessive recoil caused by minimal contact and lack of stability

Figure 3 shows how the toe of the traditional buttstock can collide with the hard armor plate in the shooter’s body armor vest. This collision slows the shooter down and forces them to reposition the buttstock on an angle or relocate the buttstock outside the shoulder pocket as seen in Figure 2, thus abandoning important marksmanship fundamentals.



Figure 3 – Traditional stock collides with hard armor plate in the body armor vest

Whether the shooter is standing, kneeling, sitting or prone, a stable position with the rifle firmly in the pocket of the shoulder is a requirement before firing the weapon safely and responsibly – *it is the one thing that anyone watching can witness and verify the existence of immediately.*

### 3.0 THE SOLUTION - EVOLVR COMBAT STOCK

The EvolvR (Evolution Rotational Butt-Pad) Combat Stock fits both a commercial and MIL-SPEC buffer tube and replaces the traditional stock allowing the geared-up shooter to (1) place the rifle properly in the pocket of the shoulder and create a stable shooting position, (2) obtain proper stock weld for aiming and sight alignment, and (3) more effectively manage the rifle’s recoil for rapid return to target and faster follow up shots. The EvolvR Combat Stock was designed to work with and without gear by rotating the Patent Pending Spur-Catch.

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Figure 4 – EvolvR Combat Stock

### **3.1 Ambidextrous 8-Position Rotating & Locking Butt-Pad with Patent Pending Spur-Catch:**

The shooter can rotate the EvolvR's butt-pad to 1 of 8 positions to adjust the Spur-Catch feature based on their personal comfort and shooting orientation. Simply pull then twist the butt-pad in either direction. The hidden locking tabs will secure the butt-pad into position. For example, in the 9:00 position for a righthanded shooter or the 3:00 position for a lefthanded shooter, the Patent Pending Spur-Catch can be placed on the inside of the shoulder strap to create a stable shooting position. The EvolvR can be used in the 12:00 position when shooting without body armor. Figure 5 shows a right-handed shooter and the EvolvR in the 9:00 position with the Spur-Catch inside the shoulder strap of the body armor vest.

**3.2 Slim Profile:** The slim profile of the EvolvR Combat Stock prevents it from colliding with the hard armor plate and gear as the shooter reacts to threats, immediately allowing the shooter to quickly and easily place the butt-pad into the shoulder pocket for faster target acquisition. The shooter is now able to create a stable position and is not forced to abandon important marksmanship fundamentals. Figure 6 shows how the slim profile of the EvolvR avoids colliding with the hard armor plate of the shooter's body armor vest.

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Figures 5 - EvolvR in the 9:00 position with the Spur-Catch inside the shoulder strap

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Figures 6 - The slim profile of the EvolvR does not collide with the hard armor plate

**3.3 PROBLEM SOLVED** - The interference between the traditional buttstock and the Warfighter’s gear directly hinders the techniques outlined in the US Army Training Circular (TC) 3-22.9 and Marine Corps Reference Publication (MCRP) 3-01A Rifle Marksmanship.

The US Army TC 3-22.9 outlines that stability is of utmost importance in expertly handling and employing a rifle when engaging a target with well-aimed shots. Stability is provided through four functions: support, muscle relaxation, natural point of aim, and recoil management. The problems arising from the traditional buttstock and a soldier’s gear, and the solutions provided by the EvolvR Combat Stock are outlined below.

Point of Stability	Description of Point of Stability	Problem Faced by Rifleman	Solution Provided by EvolvR
Support	Support can be provided by natural or artificial means.* Support allows the soldier to place the buttstock in the socket of the shoulder achieving side-to-side alignment of the	Interference between traditional rifle stocks and the Rifleman’s gear and body armor does not allow for the butt stock to seat into the socket of the shoulder or a stock weld. This hinders the Rifleman’s ability to	The EvolvR is designed with a patent pending Spur Catch to engage the Rifleman’s socket of the shoulder with or without gear. This allows the Rifleman to achieve side-to-side alignment of the firearm and proper sight



Point of Stability	Description of Point of Stability	Problem Faced by Rifleman	Solution Provided by EvolvR
	firearm, and a stock weld achieving proper cheek to stock placement for sight alignment.	obtain side-to-side alignment of the firearm and proper sight alignment.	alignment in all scenarios geared and ungeared.
Muscle Relaxation	Muscle relaxation is the ability of the Rifleman to relax major muscle groups thereby reducing strain and allowing orientation to be maintained for consistent shot placement.	The interference of a Rifleman's gear with the buttstock of a rifle hinder solid engagement with the socket of the shoulder. This requires the rifleman to engage major muscle groups to obtain this stability conflicting with muscle relaxation principles and leading to strain and fatigue that impacts accurate and precise shot placement.	The stability provided by the EvolvR through its superior engagement with the socket of the shoulder enables the Rifleman to relax major muscle groups. This reduces strain and fatigue allowing the Rifleman to stay on target to retain accurate and precise shot placement.
Natural Point of Aim	A natural point of aim occurs when the barrel of the rifle points down-field after stability and muscle relaxation are achieved. This natural point of aim allows the rifle to become an extension of the Rifleman's body and eliminates the need for major muscle engagement to aim the rifle at a target.	Reduced stability and tense major muscle groups from the lack of support provided by the buttstock interfering with a Rifleman's gear hinders that ability to establish a natural point of aim. This results in overcompensation and continuous adjustments that result in a wobbling that hinders accurate shot placement.	The proper engagement of the EvolvR with a fully-equipped Rifleman's socket of the shoulder, enables a natural point of aim to be established resulting in a smaller wobble area and increased shot placement accuracy.
Recoil Management	Managing recoil allows a Rifleman to maintain a sight picture on down-field targets after each shot fired. This is derived from having control when the firearm is properly stabilized and acts as an extension of the Rifleman's body.	A lack of stability, overly-engaged major muscle groups, and overcompensation during aiming from body armor interfering with the buttstock of the rifle results in mismanaged recoil. This disrupts the sight picture and requires the Rifleman to adjust in order to acquire the target follow-up shots. Ultimately, this reduces the precision of the Rifleman and the speed of re-engagements with targets.	The design of the EvolvR to work with a Rifleman's gear allows superior control over the rifle. This control allows for the stability and positioning that is needed to absorb recoil without disturbing the sight picture resulting in higher precision follow-up shots and faster re-engagement with the target. Overall, this results in more rounds on target in a shorter period of time increasing the effectiveness and lethality of the Rifleman.

\*Natural means of support are those deriving from the Rifleman's bones and muscles. Artificial means of support are those deriving from objects outside of the Rifleman's body.



## 4.0 EVOLVR DEVELOPMENT, MANUFACTURING, PRICING, AND AVAILABILITY

**4.1 EvolvR Development:** The Valiant Dynamics’ team includes military and body armor industry experience. The common problem of gear in the shoulder, preventing access to the shoulder pocket, is always discussed at trade shows, expos, and industry days by warfighters, law enforcement professionals, and special operators. The EvolvR (Evolution Rotating Butt-Pad) concept was sketched, the patent process was started, and 3D printed prototypes were brought to life. The prototypes were tested, evaluated, and continuously improved over a 16-month period. Feedback was received from SWAT trainers, federal law enforcement trainers, police officers and military veterans, and the EvolvR’s design was finalized. On product launch, T&E was opened to the public and over 130 T&E Samples were sent across the United States, see Appendix A for a data highlight and read user testimonials at [www.valiant-dynamics.com/testimonials](http://www.valiant-dynamics.com/testimonials).

**4.2 EvolvR Manufacturing:** A professional technical data package was created and a robust competition of ten injection molders across the United States was completed in September 2021. A production award was made to a veteran owned small business injection molder who presented the best value in capability, price and delivery. Additional capacity is available to scale production.

**4.3 Commercial Price:** The commercial price for the EvolvR is set at \$89.99. Military, LEO and veteran discounts are available by emailing [sales@valiant-dynamics.com](mailto:sales@valiant-dynamics.com)

**4.4 Dealer/Distributor Pricing:** The dealer/distributor price list is available by emailing [sales@valiant-dynamics.com](mailto:sales@valiant-dynamics.com)

**4.5 EvolvR Availability:** By leaning forward on full-rate-production, Valiant Dynamics has absorbed lead-time associated risks by creating inventory that is available immediately. The EvolvR is being sold direct through online sales at [www.valiant-dynamics.com](http://www.valiant-dynamics.com).

**4.5.1 Business Development:** Valiant Dynamics is actively seeking dealers/distributors and trainers to retail and or include the EvolvR Combat Stock as part of a training package.

### 4.5.1.1 Reasons why the EvolvR should be part of your product offering:

1. The EvolvR was designed to specifically address an existing problem identified through published and targeted market research.
2. Both the company and the product branding are solid.
3. The EvolvR Combat Stock is new and extremely innovative.
4. The EvolvR Combat Stock is sturdy and functional.
5. The EvolvR Combat Stock has a rugged futuristic look – it can also be hydro dipped.
6. The Valiant Dynamics team comes from the body armor industry with backgrounds in product design, business development, and program management, and we are here to assist you in any way we can to help you grow your brand, create awareness, and get people out to train and keep their skills and knowledge sharp.
7. Both the commercial and wholesale price points are aggressive and make the EvolvR a low cost and a best-value option for any user to afford.
8. We always see people shooting rifles and training in t-shirts, but who wears a t-shirt into a dangerous situation?
9. There are over 15 million assault rifle platforms in the United States alone.
10. We want you to succeed in introducing, teaching and selling the EvolvR Combat Stock!

APPENDIX A

# EVOLVR

COMBAT STOCK

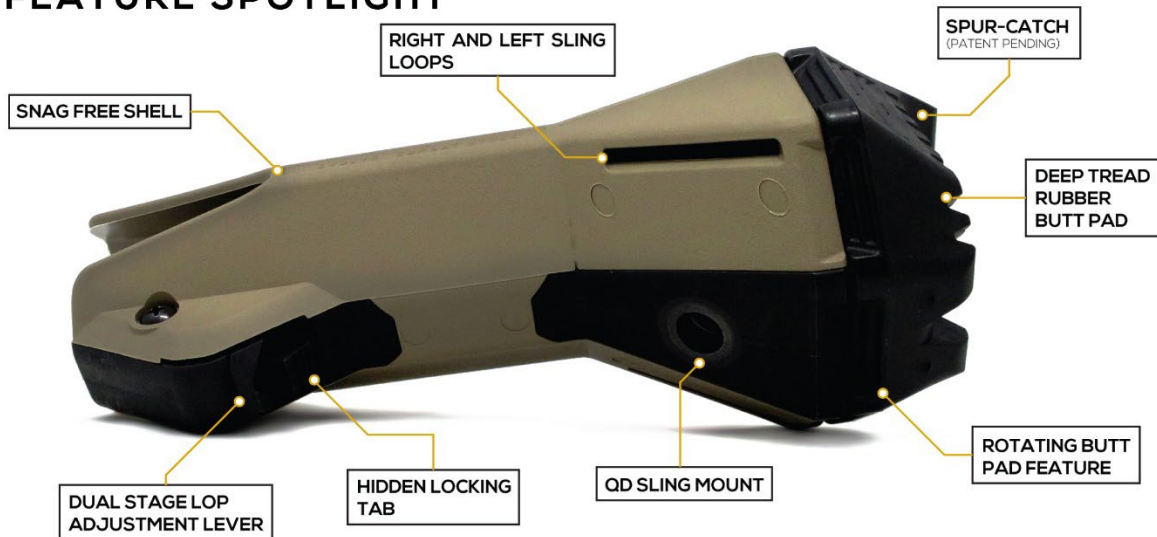
## THE DATA

- OVER 130 EVOLVR T&E EVALUATORS
- 70% HAD IMPROVED TECHNICAL CAPABILITY
- 74% HAD FASTER TARGET ACQUISITION
- 85% FOUND IT EASIER TO SHOULDER THEIR FIREARM
- 89% RECOMMEND THE EVOLVR COMBAT STOCK

*"WITH A VARIETY OF PLATE CARRIERS, THIS STOCK CLEARLY OUT-PERFORMED IN ITS ABILITY TO STICK INTO THE VEST OR SHOULDER POCKET OF THE OPERATOR. THE ADAPTABILITY WAS ABOVE THAT OF THE STANDARD STOCK WITH THE OPTION TO ROTATE THE SPUR TO DIFFERENT POSITIONS. WHEN COMPARED TO A STANDARD STOCK, THE EVOLVR CREATED A LARGER CONTACT SURFACE AND THE DEEP TREAD BUTTPAD SECURELY HELD ON MULTIPLE VESTS, STRAPS, AND SHIRTS."*

— A.H., ASSISTANT SRT TEAM LEADER, FIREARMS INSTRUCTOR, MO

**FEATURE SPOTLIGHT**



AVAILABLE COLORS



**WHOLESALE PRICING AVAILABLE**



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**ADDITIONAL PHOTOS**

