

LONG-RANGE THERAPY

FALKOR DEFENSE'S PETRA CAN NAIL 1/4 MOA GROUPS AT 100 YARDS



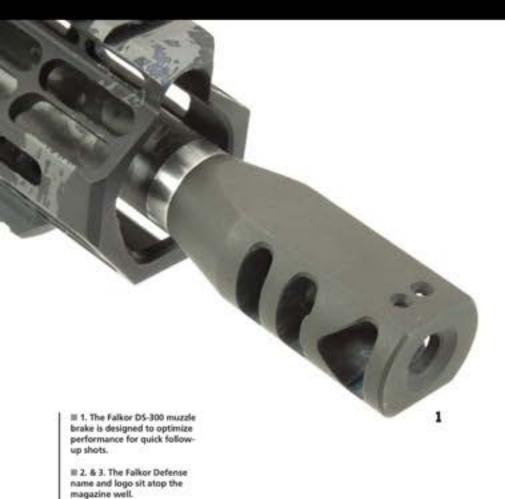
 III The 19-inch transition rail is MLOK compatible and features an incredibly robust neck that displaces the contact pressure surface area and has a barrel nut that doubles as a heat sink to mitigate increased ▶BY TYLER HUGHES / PHOTOS BY HENRY DE KUYPER

HE "BLACK RIFLE," OR "AR," MARKET IS A ROBUST ONE, WITH NEW MODELS RELEASED DAILY.

I use the term, "models," very loosely, because most of the ARs that are released are simply a different color or branding or feature some other small changes to allow a manufacturer to claim it.

But what has really been changed? Are you buying anything different? The answer is a murky one.

Unfortunately, some black rifles are no different than another. Merely a copy. No innovation. No improvements.







Then, there are a very few manufacturers that simply scrap everything and say, "Throw it all away; we are going to start over!"

That's American. That is bad-assery—to refuse to settle for "It works, so let's go with it," but instead decide, "It doesn't work well enough, so we will start over."

Thusly, I introduce the Falkor Defense "Petra."

FALKOR'S PHILOSOPHY

The Petra is an AR platform built to fire longaction cartridges, most notably, .300 Win. Mag. This is no ordinary rifle, and although other manufacturers have produced similar weapons, either before or after the release of the Petra, none has reached the standard of excellence the crew of Falkor Defense has achieved.

For most, building a precision black rifle is a thing of mystery. Sometimes, you get lucky; other times, not so much. It is not as simple as using quality parts and expecting quality results.

The Falkor Defense crew recognized this from the beginning.

It was obvious that to produce the most precise long-action AR rifle, the company would need quality parts, quality engineering, patience and a no-fear attitude of failing. Rather, it would just dust off and keep moving.

I was fortunate to be part of the Petra evaluation process. To test such a fine weapon, giving my feedback, as well as watching as Falkor continuously improved on an already-near perfect system have comprised an amazing experience.

UNDER THE PETRA'S 'HOOD'

The Petra rifle is, in simple terms, an aircooled, semi-automatic, magazine-fed, gas-operated, shoulder-fired precision rifle capable of printing ¼ minute of angle (MOA) groups. Yes! You read that right ... ¼ MOA. (Not to insult anyone's intelligence, but a ¼ MOA is approximately .25 inch at 100 yards or 1.25 inches at 500 yards.)

The firearms industry has been largely incapable of achieving these results with an AR system. Now that's not to say some manufacturers have not achieved this feat—some have, but not many, and certainly none that spit out 300 Win. Mag.

What absolutely sold me on the Petra was that it wasn't just one rifle that was tested or one source of ammunition. This rifle has proven its

ability to constantly reach the 1/4 MOA mark.

Before I keep you drooling over this rifle's precision, let's look at what parts, processes and other works of Falkor magic were used to achieve this high level of precision.

FALKOR MAGIC

To fully understand the Petra and what went into its manufacturing, I needed to first get to the source. I wanted to know how the company was able to achieve what others have not. So, I reached out to Clint Walker, executive vice president of Falkor Defense and coordinator of the small team of masterminds behind the Petra.

I have been friends with Clint for many years, and a keystone of our friendship was honesty and no bullshit. So, when I called him, I might initially have led him to believe that the Petra was not working, functioning poorly and not shooting worth a damn.

This is where you learn the Falkor motto. Clint calmly said to me, "Tyler, I'll overnight you a second rifle. Please send that one back when you can so we can tear it down, diagnose it and ensure we have no more issues."



I couldn't contain myself. I had to tell him the truth, because at that point, I felt bad about that white lie and that I couldn't get a rise out of him. When I confessed, he nicely called me the equivalent of a male sex organ before asking how the testing was really going.

This is where my secret squirrel mentality turned on. I was seeking answers and wasn't going to let Clint get any rest until I was satisfied. So, my first question was simple; yet, it was the most obvious question: "How did you do it?"

This was a wide-open question, but Clint had a direct and simple answer: "We listened."

OK, Clint, but how? And so began the details I'd been waiting for, it started with the machining process and what Falkor was doing differently inside the Petra. Screw the cosmetics—if the rifle does not function correctly, it's merely a paperweight for an oversized desk.

Although I cannot reveal all the details, I can tell you this: The Falkor team spent hours upon hours upon several months in R&D, resulting in nine patents pending. That being said, the Petra has eliminated a few issues that are often overlooked, such as receiver wiggle and bolt carrier group tilt and rotation. For some, this is negligible, but when you are playing in the game of precision rifles, consistency equals accuracy, and customers are quick to pick out flaws. To understand Falkor's way of thinking, you must understand its team. Simply put, without getting off topic about the Petra, the Falkor team comprises individuals who have a passion for precision engineering and who not only play in the firearms world, but also dip their spoons in the aeronautical world.

THE BARREL

The next part to receive attention was the barrel. When I was first told about it, I was skeptical. I had heard both sides of the story and was curious. The carbon-fiber PROOF Research barrel was the barrel-of-choice. It ultimately made me a huge fan and believer.

Now, of course, I asked the obvious questions: What twist rate are you going with? What specifications are you going with for chambering? What length gas system will you use? Is every bolt trued to the barrel, headspace, timing, etc.? Clint laughed a bit before answering my questions, because he realized that not only was I curious about how the Petra is made, I was also searching for answers regarding how Falkor achieved such consistent precision.

Clint began giving me specs about the barrel: 1/10 right-hand twist, SAAMI spec chamber. The barrel, in fact, is the only carbon-fiber barrel approved by the U.S. military. That being said, it was all interesting and exactly what I wanted to hear, but I was still not hearing the solution to the accuracy problem.

So, I asked the hard question. "Clint, give me a straight answer about why you are different. What did you do?"

He then discussed details that started getting my brain wheels spinning. First, he talked about the gas system. The Falkor team knew that Winchester Mag ammunition comes in a wide variety of offerings—from 150-grain hunting ammunition to 240-grain Long Range Match ammunition—so the priority was ensuring that the Petra could handle such a wide selection.

For this area, gas tube length, gas hole size and even the gas key on the bolt carrier group would need attention. Specifically, the gas tube

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"... TO PRODUCE THE MOST PRECISE LONG-ACTION AR RIFLE, THE COMPANY WOULD NEED QUALITY PARTS, QUALITY ENGINEERING, PATIENCE AND A NO-FEAR ATTITUDE OF FAILING." can be thought of as rifle length plus 2. As for the gas hole diameter, it is a Falkor secret, but I can assure you it is not the standard size. Nevertheless, it works. And, I can say that with the utmost confidence, having fed this beast of a rifle whatever I could buy or reload.

To say that I achieved ¼ MOA results at 100 yards with 190-grain Federal Match ammo is great. Now add that I also shot ¼ MOA with 230-grain Berger Hybrid Reloads at 500 yards—unreal. Ask any precision rifle shooter. They will tell you that not many rifles have the ability to function at both ends of the projectile weight spectrum.

Aside from the accuracy Falkor has achieved, the gas sys-

tem also plays a huge part in pressure. Most factory ammunition was never designed for semi-auto applications or the over-pressure that comes with the platform. Stuck cases, blown primers and receiver damage are just a few issues I have seen when dealing with AR-precision platforms. Not here. Due to Falkor's innovation and extensive R&D, those issues have been addressed. And, to be clear, when I say, "addressed," I don't mean adding adjustable gas blocks to mitigate the issue. Falkor chose to hit the problems head on and would not settle for using an adjustable gas block or quick-fix add-ons.



"THIS RIFLE HAS PROVEN ITS ABILITY TO REACH THE 1/4 MOA MARK."

THE FORE RAIL

Clint next briefed me on the fore rail, which the Falkor team calls the "tranny" rail. I will let your brain ponder why the company chose this name.

On previous rifles I have had the pleasure of testing and beating into the dirt, I have noticed one problem with a handful of them: the rail system. By that, I mean attaching my sling to the rail and using it to engage off of barricades or tripods or simply loading into the bipods attached to the rail that, in the prone position, would cause the rail to flex. This, in turn, would also move the barrel, creating all types of "WTF" moments.

Ultimately, the Falkor team recognized this problem early on, so it designed a rail/barrel nut system that increases the surface area of contact between the handguard and the upper receiver, thereby eliminating the issue of flex and impact shift.

But, why stop there? What other issues does any rifle have? How about chamber temperature heating up cartridges, causing higher chamber pressures that lead to high impacts or "flyers"? Yup, the team addressed that issue, as well: The barrel nut was designed to act as a heat sink that draws heat from the chamber, allowing it to dissipate. To reiterate, Falkor was not going to settle for "good enough."

OTHER FEATURES

You might be wondering what else is so amazing about this rifle—besides the advanced engineering of the upper receiver and bolt carrier group, the PROOF Research barrel, the completely redesigned gas system and the "tranny" rail and its advanced barrel nut system. This rifle has all the qualities a precision shooter looks for in a rifle and more.

More? Is this a typo? No, it's not. By more, I mean it has features outside the normal adjustable length-of-pull and adjustable cheek piece on the buttstock.







Let's look at the trigger, for instance. The Falkor team went with a tried-and-true Geissle SSAE 2 stage trigger, which is a total weight of 3.2 pounds—2.0 pounds, first stage; 1.2 pounds second stage.

We cannot forget about recoil. Wait; what recoil? The .300 Win. Mag. has long been known for recoil, but this system, with its custom-designed muzzle brake and gas system, nearly eliminates felt recoil, allowing the shooter to remain on target and prepare for follow-on shots.

Ok, those are features you expect when spending your hard-earned money on a precision magnum rifle. How about true mirrored ambidextrous controls? And I do mean mirrored. It doesn't matter if you are right-handed, left-handed or right-handed shooting left-handed, the controls for the safety, bolt catch and magazine release are identical on both the left and right side of the lower receiver.

Even the receiver pins got an ambidextrous upgrade! You, the shooter, can decide whether to flip the receiver pins around. And, if that's not enough, it comes with a patented, two-tone shadow works anodizing that will have everyone at the range wondering what bad-ass weapon system you brought to the range to outshoot them.

THE OPTION

A long-range rifle is pretty much crippled without glass you trust and can depend on. Welcome to U.S. Optics.

I spoke with U.S. Optics' Jason and told him my needs, which led us to selecting the ER-25 5-25x variable power riflescope. I use U.S. Optics on a regular basis and believe in its products, their quality and the people behind the scope. So, for me, this was a no-brainer.

If you don't already know it, you can get a U.S. Optic in almost any configuration you choose. For the Petra, I wanted something with a magnification range that would limit my ability to see targets out to a mile and would also allow me to use the optic as a tool as designed to its greatest potential. As a result, I selected the Horus H37 Reticle.

You might wonder why I didn't jump on the Horus popularity wagon by selecting a reticle such as the H-59 or maybe the H102. The answer is simple: I wanted a reticle that would allow me to hold over for target engagement on maximum power out to extreme distances of 1,400 to 1,500 yards. The H-37 allows you to do that. When the optic is zeroed at the crosshairs, you get a total of 14 mils of elevation holdover. It can achieve this because the crosshairs are actually 4 mils above center. Crazy, right?

I opened up the capability of the scope and rifle combination, and it's just one more tool in the toolbox. It's important as a precision longrange shooter to take care of your equipment. Also remember this: Buy once, cry once.

You will appreciate the quality, clarity, durability and performance of a U.S. Optic long after you've forgotten how much it cost.

THERAPY TIME

Now, I think some range time is in order. All this writing about the Petra and U.S. Optics has me itching for some long-range therapy. Lucky for me, I still have not returned the rifle to Falkor, Sorry Clint ... just a few more days.

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