

CUSTOM WHEELGUN EXCELLENCE

BY KEITH WOOD

NOW BFR FANS CAN CUSTOM-ORDER THEIR REVOLVERS FROM MAGNUM RESEARCH.



Magnum Research is best known for the massive Desert Eagle, its over-size semiautomatic that has captivated handgun enthusiasts for decades. The company produces other models beside the iconic Desert Eagle, and among them is the BFR, which stands for Biggest Finest Revolver. In the April/May issue, Scott Rupp

told you about a program that allows buyers to custom-build their own Desert Eagle handguns. The same service is now available for the company's BFR revolvers, and I received an assignment to build one to my specs.

The BFR revolver is a beast of a single-action handgun, one that comes in two major configurations: a long-cylinder model and a short-cylinder model. The long-cylinder guns can be chambered in powerful rifle cartridges, including the .30-30 Winchester, .450 Marlin and

.45-70 Government. The short-cylinder guns are smaller and lighter but are still chambered in some extremely powerful handgun rounds, such as the .44 Magnum, .454 Casull, .50 Action Express and the .475 and .500 Linebaugh cartridges.

A great number of my handguns, particularly my single-action revolvers, have been customized in one way or another. I often acquire a handgun, only to wish the barrel was a different length or the cylinder was unfluted. So an assignment

to pick and choose each aspect of a revolver was very much up my alley.

I logged onto Magnum Research's special website (CUSTOMBFRREVOLVER.COM) and began the process of virtually building my own BFR. Dozens of options are open to the consumer—via a user-friendly system of drop-down menus—and you can select everything from barrel length to metal finishes and, of course, chamberings. As you build your dream gun, the image on the screen reflects

all your choices, so you will know exactly what the finished product will look like.

I'm a fan of big-bore handguns, but I have little use for anything that exceeds the .454 Casull's power level. For this reason, I chose a short-cylinder model chambered in .454. In terms of metal finishes, I left the bulk of the gun in brushed stainless while I selected a case-hardened finish for the frame, grip frame, hammer and trigger.

I chose a Bisley-style grip frame to help control the gun's ample

recoil, along with a set of black micarta grips. To maximize ballistics and to minimize recoil, I opted for a 7.5-inch octagon barrel.

The option to include an auxiliary cylinder was available, and I added one chambered in .45 ACP, which would allow for some light practice loads. Sure, I could simply load .45 Colt rounds in the .454 cylinder, but at least one manufacturer recommends against it since fouling can build up at front end of the chamber. Also, I've been shooting and reloading for the ACP →

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← for almost 30 years and have a pile of ammunition and components on hand.

I submitted the online form to Magnum Research, and several weeks later the completed revolver arrived at my FFL. Everything was just as I'd ordered it, down to the smallest detail.

A lot of guns come across my desk, but the fit and finish on this revolver was among the best I've seen out of a production facility, with the possible exception of Freedom Arms' revolvers. The brushed stainless was consistently flawless, and the case-hardening, while not as attractive as Turnbull's to my eye, was well executed. The two-

tone mix of raw stainless steel and the swirling hues of blue, purple and straw made for an attractive overall look.

The .454 Casull cartridge was developed by Dick Casull and Jack Fulmer and has been around since the late 1950s. It is effectively a slightly elongated .45 Colt that uses a Small Rifle primer and is loaded to far higher pressures. Beyond adding a fractional amount of additional powder capacity, the longer cartridge length ensures .454 Casull ammunition is not inadvertently used in a .45 Colt.

The .454 has been used to dispatch the heaviest game on the planet, pushing 250-grain bullets at

around 1,900 fps and 300-grainers at 1,700 fps or more. That's about 2,000 ft.-lbs. of muzzle energy, nearly twice that of the mighty .44 Magnum.

To handle the 60,000 psi generated by the .454, Magnum Research took several important steps in building the BFR. For starters, the gun uses a five-shot 17-4 stainless steel cylinder to maximize the thickness of the chamber walls since fewer holes means more steel.

Second, the cocking notches on the cylinder are spaced in such a way that they fall between the chambers—again, to add more steel around the cartridge. I chose an unfluted cylinder on this example, which may add strength (theoretically) and, if nothing else, adds mass for reducing felt recoil.

The BFR is a flattop single-action revolver that shares many design characteristics with the Ruger Super Blackhawk. The long Bisley-style grip frame allows for a full grip on the revolver, an important factor for a gun in such a heavy chambering.

The modern interpretation of the Bisley grip is really a blend of both the original Colt Bisley and Elmer Keith's Harold Croft-built No. 5. In the opinion of many, myself included, it is the best available option for heavy-caliber single actions.

The 7.5-inch barrel was machined to part-octagon profile with a rounded top rib and a transition to full-round one inch forward of the frame. To prevent the cylinder base pin from riding forward under recoil, a setscrew is used to secure the pin into a threaded recess on the barrel.

Despite the Bisley grip frame, Magnum Research does not offer a Bisley-style hammer. The hammer roughly approximates the hammer found on the Colt Single Action Army. The hammer spur is serrated to provide a good purchase for the cocking thumb.

The hammer engages a cap- →



▲ The combination of the black Micarta grips, case-hardened frame and brushed stainless barrel and cylinder make for one great-looking revolver.



▲ To keep the cylinder base pin from backing out under recoil, a setscrew that goes into the barrel keeps things secure.

ACCURACY RESULTS | MAGNUM RESEARCH CUSTOM BFR

Cartridge, Load	Bullet Weight (gr.)	Muzzle Velocity (fps)	Std. Dev. (fps)	Avg. Group (in.)
.454 Casull				
Federal Fusion JSP	260	1,528	21	0.8
Federal/Swift A-Frame JHP	300	1,726	22	1.1
Hornady Custom XTP	300	1,661	15	1.3
.45 ACP				
Hornady American Gunner XTP	185	1,050	8.5	1.2

Notes: Accuracy results are averages of four five-shot groups fired at 25 yards from a sandbag rest. Velocities are averages of 10 shots using a LabRadar Doppler chronograph placed adjacent to the muzzle. Abbreviations: JHP, jacketed hollowpoint; JSP, jacketed softpoint

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← tive firing pin that is bushed at the front end. A transfer-bar safety prevents the revolver from firing unless the trigger has been pulled, which means the BFR is safe to carry with a full cylinder.

Both unfluted cylinders that were included with the BFR were things of beauty. The .454 Casull headspaces on the rim, and the charge holes were recessed so the cartridges sit flush with the rear of the cylinder. The .45 ACP headspaces off of its the taper crimp, so the auxiliary cylinder was reamed to accommodate the shorter round.

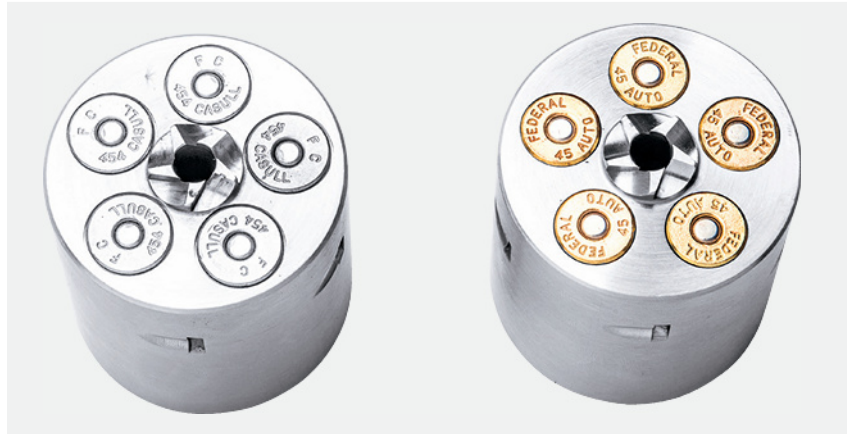
As with the .454, the .45 cases fit flush, and no moon clips or other special accessories are necessary to load and unload the revolver. The BFR is loaded and unloaded via a hinged loading gate. Opening the gate allows the cylinder to spin freely in either direction, which means the shooter doesn't have to make a full revolution if the cylinder is spun too far during the loading or unloading process.

A spring-loaded stainless steel ejector rod rides underneath the barrel and is enclosed in a steel housing. Pressing the crescent-shaped top on the rod to the rear ejects spent cases easily, and loaded rounds slide out with gravity alone.

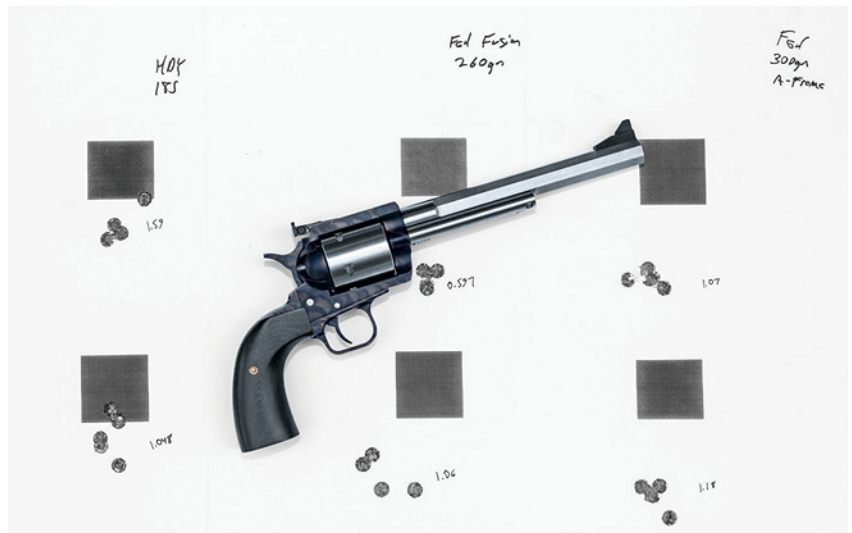
I chose standard rather than high-visibility sights, and these consist of a plain front blade drilled and tapped into the barrel along with an adjustable rear sight. The rear is click-adjustable for elevation and windage, and it worked extremely well. The rear blade is serrated lightly to cut glare, and the combination of front and rear provided an excellent sight picture.

Three holes—two visible and one placed under the rear sight base—are drilled and tapped on the flat of the receiver to accommodate an optional factory scope mount (\$27).

To complement the fine sights in terms of shootability, the single-action trigger broke consistently at 2.5 pounds with only the slightest



▲ Both the .454 Casull (l.) and .45 ACP cylinders are machined out of 17-4 stainless steel, and the chambers are line-indexed to the barrel.



▲ The mark of a well-built revolver is accuracy, and the BFR delivered in spades with both Casull and ACP ammo.

hint of creep. Upon inspection, all signs pointed toward the BFR being a great shooter, but one never knows for sure until it's range time.

The revolver did not disappoint. In fact, this BFR is one of the most accurate revolvers I have ever fired. Even with full-power ammo, one-hole groups at 25 yards were common.

When talking about guns with cylinders, accuracy is all about dimensions and alignment. For starters, the cylinder on the BFR locks up tightly with no discernible end shake. The barrel-to-cylinder gap, a good barometer of construction quality, was a mere .0015 inch. Chamber throats measured a consistent .453 inch, the same as the SAAMI-spec bore diameter for

MAGNUM RESEARCH CUSTOM BFR

TYPE: single-action revolver
CALIBER: .454 Casull, .45 ACP cylinders
CAPACITY: 5
BARREL: 7.5 in. stainless octagon
OAL/HEIGHT/WIDTH: 13.75/6.0/1.75 in.
WEIGHT: 4.86 lb.
CONSTRUCTION: case-hardened frame, stainless cylinder
GRIPS: black micarta
SIGHTS: adjustable rear, fixed front
TRIGGER: 2.5 lb. pull (measured)
SAFETY: transfer bar
PRICE: \$2,850 (as tested)
MANUFACTURER: Magnum Research, MAGNUMRESEARCH.COM

this cartridge, which is a good thing since undersize throats can ruin accuracy. →

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← Finally, and perhaps most importantly, Magnum Research line-indexes its revolvers' chambers to precisely align them with the barrel, and employees individually confirm the alignment before a revolver is shipped.

Let's talk a bit about recoil. The .454 Casull generates slightly more than double the recoil energy of a .44 Magnum of the same weight. Any .454 Casull handgun is going to work the shooter a bit, particularly when the rubber grips that come standard are replaced with something as stiff as the micarta I chose.

This BFR was not punishing to shoot by any means, but it took a firm grip to keep things under control. With the 260-grain Fusion load, recoil was heavy but manageable. Federal's 300-grain Swift A-Frame load was pretty stout and took real concentration to shoot with accuracy. In an adrenaline-fueled hunting scenario, where a single shot would

likely be taken from a sitting or off-hand position, the recoil would be a non-factor.

After shooting a few dozen rounds of full-power .454 ammunition, firing the BFR with the .45 ACP cylinder installed felt like a .22 rimfire. With this cylinder in place, the BFR becomes a relatively low-cost practice revolver with minimal recoil or blast—the perfect cure for a .454-induced flinch.

A base model BFR in .454 Casull retails for \$1,219, a price point that puts it comfortably between the Ruger and Freedom Arms single actions. The custom guns start at \$1,400 and go up from there depending on the options chosen.

I chose several features during the custom build process that added significantly to the cost. The case color upgrades alone ran up the tab by \$500. The extra cylinder was \$350, but well worth it in my opinion since, for that price, you essentially

have two guns. The octagon barrel added an additional \$350 to the overall price, and the micarta grips were \$250.

When all was said and done, the tab for the custom wheelgun was \$2,850. Pricey, yes, but hundreds of dollars less than a revolver built by one of the preeminent custom single-action makers.

In a handgun market that is increasingly relying on cost-saving materials such as MIM and polymer, it is always a breath of fresh air when I get to review a firearm made with the highest-quality materials and excellent workmanship.

Magnum Research's BFR certainly isn't for everyone, but for those seeking a powerful and accurate revolver for hunting or just plain fun at the range, it is an excellent choice. The ability to customize the revolver to suit one's individual needs and desires is icing on the cake for the handgun buyer. 