



## Bushmaster Gas Piston Carbine

Our country's M16 and M4 service rifles have withstood trial by fire too many times to be considered obsolete, but in reality, there's not much in the design to improve upon anymore. Current iterations of AR-style rifles and carbines represent the pinnacle of the original design, and for this platform to be improved any further, a major portion of the blueprint must be scribbled out and redrawn. And that portion is the gas system.

The traditional gas-tube operating arrangement taps off combustion gasses at a barrel port in the front sight base. From there, the gasses travel through the gas tube, ultimately applying pressure to the bolt carrier and cycling the action. The system works great, but the place where the gasses finally apply themselves is the same place where precision-machined parts with tight working tolerances are doing their job. With all the carbon fouling and heat introduced through the gas tube, it must be a miserable work environment up there within the confines of the upper receiver.

For Eugene Stoner's famous black rifle—residing in the hands of our armed forces for nearly 50 years now—improvement comes via a higher level of personal hygiene . . . piston drive.

The piston-drive operating system is far from new technology. Its use is widespread—most notably in the M1 Garand, the M14, and the ubiquitous AK-47, whose famous reliability has become the world standard against which all other self-loaders are judged. With the piston-drive arrangement, gasses are trapped within a cylinder well forward from the action's internal components. On one end of the cylinder, gas pushes against a sealed piston, which in turn, drives an operating rod that cycles the bolt. The end result is zero gas entering the upper receiver, far less fouling and carbon build-up on moving action parts, and a cleaner- and more reliable-running machine. A simple concept, yes, but it takes some ingenuity to properly apply the theory to an AR-style weapon.

Bushmaster's new .223 Rem./5.56x45mm, 16-inch barreled Gas Piston Carbine, as the name indicates, operates on the above-mentioned principle, and—more importantly—is priced within

the reach of the average consumer. From its outward appearance, there's not much to indicate the drastic difference in its gas system, but separating the receiver halves after a few hundred rounds of sustained fire will tell the whole story. We did just that, and the only perceptible difference inside the upper-receiver bore was that the globs of lubricating oil we placed on friction points before firing had been massaged into the working parts. That's it—no carbon deposits or noticeable fouling . . . nothing! In our experience, a traditional-style AR's bolt would appear dirtier than that after only ten rounds or so. Be advised, however, this article isn't intended to send you rushing down to your local dealer to trade in your gas-tuber for a piston-drive, as

the standard operating system—if properly cleaned and maintained—will function every bit as reliably as a piston-drive. It just takes, well, more cleaning and maintenance.

Other notable features on the Gas Piston Carbine include a quick release retainer incorporated into the flip-up front sight base, allowing the operator to empty the components of the gas system—the piston and operating rod—for the occasional cleaning. It's M4-countoured barrel wears an A2 flash hider, and in back of the carbine resides a six-position collapsible buttstock. Three aluminum Picatinny rails—mounted at 10, 2 and 6 o'clock on the polymer M4 handguards—allow attachment

of accessories. Stay tuned, as you'll see an in-depth review on the Gas Piston Carbine in an upcoming issue.

Thanks to Bushmaster, we believe that black-rifle perfection is as close to being achieved as it will ever be. See the Gas Piston Carbine at your nearest dealer (\$1,795), or for more information contact **Bushmaster**, Dept. OT; E-mail: [customerservice@bushmaster.com](mailto:customerservice@bushmaster.com); Web: [www.bushmaster.com](http://www.bushmaster.com); Tel.: (800) 998-7928. —*Massad Ayoob*



*The Gas/Piston Carbine can be field stripped of its moving gas-system components (the piston and operating rod) in a matter of seconds.*

