

INTEGRAL INNOVATION

THE MONOLITHIC INTEGRALLY SUPPRESSED BARREL FROM SWS RIFLES IS MORE THAN JUST A BARREL. IT'S ALSO THE BEST SUPPRESSOR ON THE MARKET.

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This ghosted image shows what's underneath the full-length titanium shroud of the integrally-suppressed SWS barrel.

"Every block of stone has a statue inside it, and it is the task of the sculptor to find it."

This quote is attributed to Michaelangelo, the legendary Italian sculptor, painter, and architect of the Renaissance. Is it true? I have no clue. But if you apply the Michaelangelo Method to building an integrally-suppressed barrel, what you'd end up with is the patented Monolithic Integrally Suppressed Barrel (MISB) by SWS Rifles of Needville, Texas.

SWS stands for "Suppressed Weapon Systems," and their entire business is making integral suppressors for rimfires, small- and large-frame ARs, and centerfire rifles. SWS doesn't make barrels or receivers. Instead, they transform

barrel blanks into the strongest, most impressive suppressors on the market.

SWS came to exist because owner Eric Tonkin was running a machine shop and had an interest in guns and suppressors. After buying an integral suppressor, he was disappointed to learn that it was junk. According to Tonkin, integral suppressors at the time were mainly gimmicks.

"For 40 years, the integral market has been filled with novelties instead of true hunting cans," said Tonkin. "They looked cool and cut sound, but they didn't produce ethical muzzle velocities and were horribly inaccurate. Companies were taking barrel blanks, machining them down, and

then adding up to 27 parts for the suppressor. The problem is aluminum and steel expand at different rates, causing the barrel to warp and accuracy to be erratic."

Tonkin had a better idea. More importantly, he had the machining background to execute said idea. Like Michaelangelo had done to stone, Tonkin removed all the material from the barrel that wasn't a suppressor. The resulting masterpiece is lightweight and extremely rigid, with the muzzle end carved into a mono-core suppressor. It's simple, effective, and unique.

"Our barrel technology is certainly unique," said Tonkin. "We begin with a full-profile, 1.25-inch diameter barrel

Lightweight parts like the titanium 700 action, AG Composites stock, and MISB from SWS result in a final weight of just 6.3 pounds without sling, scope, or mag.



blank made by any of the big-name barrel makers. We chamber these barrels one at a time on a CNC machine. Next, they go to a lathe to get turned down. Once this is done, we use a 4-axis CNC to cut the suppressor baffles and four flutes that run the length of the barrel. The final steps involve using a custom tool to relieve the rifling for the crown and installing a titanium tube over the barrel to capture expanding gases."

CUSTOM SPEED CREED

For testing, Tonkin built a MISB in 22 Creedmoor and installed it on a Remington Custom Shop 700 Ti receiver with Timney Trigger supplied by Dave

Kiff of Pacific Tool & Gauge. SWS installed the barreled action into an AG Composites Alpine Hunter stock in Kodiak Rogue camo and secured it with AG's M5/BDL bottom metal. The goal was a lightweight, compact, hearing-safe centerfire for use on predators up to deer-size game. When Tonkin asked about barrel length, I said to go as short as possible.

The finished barrel is 20 inches in overall length. Of that, 14 inches is rifled, and the final 6 inches are suppressor. Due to the short length, it's nimble and handy. Because of the massive reflex and internal volume, it's ultra quiet. You may think 14 inches of rifling for an overbore cartridge like the 22 Creed is laughable, but velocity didn't take the

hit you'd expect.

Using Hornady's factory 80-grain ELD-X and ELD-M loads, the short MISB gave up just 200 fps compared to a 20-inch PROOF barrel wearing a SilencerCo Sycthe-Ti. Amazingly, this equates to 93 percent of the velocity with just 70 percent of the barrel length. That surprised me. Its accuracy, however, didn't. SWS guarantees MISBs to be sub-MOA. According to Tonkin, this is unheard of in the integral world.

ACCURACY GUARANTEED

"It's easy to guarantee a rifle will shoot well, but nobody else guarantees accuracy on an integrally-suppressed barrel," said Tonkin. "One thing that helps us is

Rather than thread the barrel and add a suppressor, SWS machines a suppressor into the final six inches of the barrel. It's a brilliant approach.



the barrel free-floats under the titanium tube. If there's lube on the O-rings, you can spin the tube even when the cap is tight. That said, our guarantee has cost us a few times, because certain rounds like the .35 Whelen just aren't super accurate. Now, we're more careful about what we build or limit expectations on certain cartridges. Modern cartridges with optimized chambers shoot great. Today, I was testing a .300 PRC that was shooting half-minute groups. That's not uncommon for our barrels."

Another advantage of an integral suppressor is the large amount of volume—or space—inside the can. According to Tonkin, the MISB has more internal volume than is needed for suppression, but it cuts recoils and results in a lighter barrel.

"Volume is the name of the game when cutting recoil and sound," said Tonkin. "With our long reflex design, SWS is the king of volume. Our barrels recoil 30- to 50-percent less than thread-on cans due to the giant reflex section behind the brake. We not only have 10 to 15 times the volume of thread-on cans, but the gas is traveling a longer distance. As for sound levels, we're way beyond the point of

diminishing returns. Sound quality doesn't change with a shorter reflex. As you can see with the four large flutes in the barrel, the reason our suppressors are full length is to keep barrel weight low."

O-rings at front and rear seal the gases inside the suppressed barrel.



During the planning phase, Tonkin explained that this 22 Creed would be extremely quiet due to bullet diameter. According to him, the downrange crack of a supersonic bullet is dependent on the diameter of the bullet.

"With a suppressor this size, we get rid of all the concussion," said Tonkin. "The supersonic crack, however, is determined by the diameter of the projectile. The larger the bullet, the louder the crack will be. This explains why the quietest rifles we make are chambered for .17s or the .204 Ruger."

Who's buying integral suppressors from SWS? According to Tonkin, they have a diverse customer base ranging from law enforcement to ranchers to international hunters.

"I want these guns to be usable hunting implements that are accurate, quiet, lightweight, and high quality," said Tonkin. "One customer has a \$1,000,000 gun collection, but he told me he only shoots 12

of those firearms, and 10 of them are ours. Another example is a police officer who discharged his rifle inside a house on a call. They had no ear protection, and he and two officers were blown away that they could have a conversation afterwards. I hear from ranchers in Texas as well as people who travel all over the world with our rifles. These people are hunting Africa, Europe, Alaska, and Asia, spending maybe \$50,000 on trips, and they're not going to take a rifle they don't trust."



ENTRY FEE

Speaking of the almighty dollar, Tonkin concedes his prices aren't for everyone. The gateway SWS offering is a Savage Mark II .22LR conversion for \$700. Next up is the AR platform, where complete uppers start at \$1,600. Custom bolt-guns begin around \$4,000. However, for as little as \$2,250, SWS will install a barrel on your action. If you go this route, Tonkin says to pay attention to stock/chassis selection.

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"Chassis are easy," said Tonkin. "Nearly all will work. Traditional stocks are a little trickier. AG Composites has a stock with our barrel inlet. Stocky's is another option. Manners will do our inlet on 90 percent of their stocks. The MISB is the same diameter as a full-bull profile, so that makes it easy to identify what will work."

Is the MISB from SWS for you? If you desire a compact, lightweight, hearing safe, accurate, and soft-recoiling rifle, the answer is yes, assuming you can afford it. If not, save up until you can, because this is more than just a barrel and suppressor. When you buy a Monolithic Integrally Suppressed Barrel from SWS, you're investing in a work of art that's functional, of impeccable quality, and superior to anything on the market. **PRS**