

**Teamed with ArmaLite's AR-30—it's a sub-MOA sureshot that's as quiet as a .22LR!**

# SRT SHADOW

By Al Paulson

**T**he new .338 Lapua Magnum SHADOW sound suppressor from SRT Arms raises the bar on suppressors of large caliber. Remarkably small and light for a large-caliber can, both performance and workmanship are outstanding. Previously, I've reported that the SRT's AZTECH baffle is one of the most important designs in the 100+ year history of sound suppressors. While early variants of the baffle were impressive, I also reported that one of the beauties of the AZTECH baffle was that the design offered a number of promising ways to improve performance even more. The latest variant of the AZTECH baffle fulfills that promise. It's an impressive improvement upon the basic AZTECH architecture, delivering excellent sound suppression and groups as small as 0.19 MOA (center to center). I evaluated the Shadow's performance on an ArmaLite AR-30 .338 Lapua Magnum rifle.

### Suppressor Details

The first things about the .338 SHADOW to leap out at you are its small size and light weight. The .338 SHADOW is only 2 inches longer than its .30 caliber sibling, despite the fact that the .338 Lapua Magnum produces nearly twice as much combustion gas as the .308. Since the .338 SHADOW only has about 20 percent more volume than the .308 SHADOW, anyone who has not observed the .338 suppressor in use would have to wonder how such a small can could deliver acceptable, much less good, sound reduction or recoil mitigation.

Even if you factor in that the AZTECH baffle is a pressure-driven design, you wonder how such a small gun muffler could work the gases hard enough to significantly reduce gunshot noise without degrading accuracy.

To cope with the extra pressure generated by the .338 and yet keep the weight of the suppressor at a minimum, SRT fits a pressed stainless steel sleeve over the rear of the can for reinforcement. It is placed on the suppressor tube by heating the sleeve to



*The SHADOW .338 sound suppressor from SRT Arms is only 10% bigger than its .30 caliber sibling, yet it delivers extraordinary performance with Black Hills ammunition.*



*SRT's SHADOW sound suppressor improved the accuracy of ArmaLite's AR30-M rifle by 21%.*

# SUPPRESSOR .338



expand its diameter while cooling the tube to shrink its diameter. The sleeve is then quickly pressed onto the tube. Once the temperatures have equilibrated, the sleeve remains securely bound to the suppressor tube. After the whole unit is assembled, 12 plug welds secure the baffles and tubes together into one monolithic structure.

Fabricated from stainless steel alloys, the SHADOW .338 caliber suppressor is 10.25 inches long. The suppressor tube is 1.5 inches in diameter. The sleeve increases the can's rear diameter to 1.62 inches over the rear-most 5 inches of the suppressor. It weighs 41 ounces. The .338 SHADOW is lighter than expected because the entire tube is not the thickness needed to cope with the high pressure in the rear of the can, and because the can only contains four baffles. The suppressor is available in a non-reflective natural finish or in a flat black KG GunKote as standard. The SRT suppressor only adds 7 inches to the overall length of the AR-30 rifle and 26 ounces to system weight. Safe to say, that's impressive.

It is also worth noting that the SHADOW .338 suppressor heralds a new level of fit and finish for the company. I've owned and used SRT suppressors for more than a decade, and I've always been very pleased with their performance and durability, but their cosmetics tended to be a bit short of the very best players in the industry. No longer. The SHADOW's cosmetics are "world class," especially considering that the baffles are plug-welded to the tube in 12 places. The welds have been finished, so they are invisible.

For those who came in late, Doug Melton is the genius behind the SHADOW's design. Melton has earned his place in the history books as one of the most innovative thinkers in the industry ever. SRT Arms is a subsidiary of a larger corporation specializing in fluidics and material engineering. This is a small company, yet it has made significant contributions to the state of suppressor art.

SRT produces a full line of carbine, rifle, submachine, and .22 rimfire silencers, as well as integral and muzzle .22 rimfire suppressors. They even do custom work. SRT sound suppressors are quite unusual in this day and age



*SRT's SHADOW sound suppressor only adds 7" to the overall length and 26 oz. to the overall weight of the AR-30M rifle.*

## SRT SHADOW SUPPRESSOR .338

### Specifications: ARMALITE AR-30

**Caliber:** .308, .300Win Mag, .338 Lapua Magnum  
**Barrel:** 26 inches, 1:10-inch twist  
**OA Length:** 48 inches  
**Weight:** 12 pounds (empty)  
**Stock:** Extruded aluminum forend, detachable steel buttstock  
**Sights:** None, drilled and tapped  
**Action:** Bolt  
**Finish:** Manganese phosphate (steel), hard-coat anodizing (aluminum)  
**Capacity:** 5-shot mag

### Specifications: SRT SHADOW SUPPRESSOR

**Caliber:** .338 Lapua Magnum  
**OA Length:** 10.25 inches  
**Diameter:** 1.5 inches  
**Weight:** 41 ounces  
**Finish:** Non-reflective natural or flat black  
KG GunKote

in that some can be disassembled partially or completely (depending on the design) for cleaning and maintenance.

Suppressors based upon the AZTECH baffle, however, are sealed units so that key structures inside always remain properly aligned. They can be cleaned by simply immersing them in a suitable solvent overnight, draining, and blowing them dry. This is only worth doing every 3,000 rounds or so. That said, I will admit under cross-examination that I've used one SRT suppressor for 12 years and never cleaned it. Yet it still performs as well as it did on the first day.

### Gun Details

I evaluated the performance of SRT's .338 suppressor on an ArmaLite's AR-30M rifle. In my experience, the AR-30M is the best value among .338 rifles today. Better factory and custom rifles are available, but they cost more. Several cost ten times more.

It is noteworthy for its accuracy, superb muzzle brake, detachable box magazine, and bang for the buck.

The rifle consists of two sub-systems: the barreled action and stock assembly. The two sub-assemblies are mated via a robust V-block channel in the aluminum forestock that provides an accurate, repeatable, and robust interface with the rifle's rather unusual octagonal action. The detachable box

*The aluminum forestock features a large channel for the free-floating barrel and a small channel underneath to accommodate a bipod.*



*The radial holes in the SHADOW's front end cap are used by SRT for the assembly process.*

magazine is a single-stack design that minimizes the size of the opening in the receiver, which maximizes the rigidity of the action and thereby the accuracy potential of the rifle. The butt stock assembly can be removed for transport or storage.

The AR-30M's stock is superb in terms of engineering and cost-effectiveness. It provides a much more comfortable and natural shooter interface compared to the most widely used milspec .338 stock.

SRT's SHADOW suppressor drops the .338's blast overpressure to that of a .22LR rifle with standard velocity ammo. Environmental disturbance becomes a matter of inches rather than half the length of a football field. Blast overpressure becomes a non-issue for shooting enthusiasts. One can even shoot this big boomer comfortably without hearing protection.

These qualities are also invaluable to the armed professional. A sniper's



*The ArmaLite's bolt features dual front locking lugs and a massive extractor.*

spotter can tuck in tight behind the shooter near the bore axis to maximize his value. The sniper can see his hit and place his next shot more quickly. And the astonishing reduction of sonic and visual signatures makes the sniper and spotter invisible, assuming proper fieldcraft.

What about accuracy? Most folks I know who own ArmaLite's .338 rifles generally achieve 1/3 to 1/2-MOA groups. That is extraordinary performance in a rifle with an entry-level price tag. A few shooters achieve even better accuracy using handloads tailored to their specific rifle. The bottom line is that everyone I know gets better than 1-MOA, so every ArmaLite .338 rifle that I know about delivers sniper-grade accuracy.

Sound suppressors generally improve rifle accuracy, but maintaining accuracy, much less improving it, becomes very difficult when suppressing cartridges of large caliber such as the .338 Lapua Magnum and above.

## Performance: ARMALITE AR-30 .338 LAPUA MAGNUM

Parameters	wo/SRT Shadow	w/SRT SHADOW
Sound Signature (1m left of muzzle)	173	138
Sound Signature (15cm from shooter's ear*)	170	135
Net Sound Reduction	n/a	35
Accuracy (100 yards)**	.29	.23
Accuracy (500 yards)***	n/a	.37

Sound measured in decibels (dB), accuracy measured in minute of angle (MOA), \*on muzzle side of ear, (\*\*\*) average of ten 3-round groups, (\*\*\*) average of five 3-round groups.



**The AR-30M features a detachable buttstock assembly that does not tie to the M16-type synthetic pistol grip.**

Moreover, usually, small suppressors for a given caliber are more likely to have accuracy issues than large suppressors of the same caliber.

While the AZTECH baffle moves gases at a time and a place where cross jets and turbulence are not likely to destabilize the bullet, the .338 SHADOW must manage nearly twice the gas volume of the .308 SHADOW, using the same number of baffles and only 20% more volume. I was mindful of this challenge every time I headed to the range to put the SRT Arms .338 SHADOW through its paces.

### Shooting Impressions

I evaluated SRT's .338 SHADOW sound suppressor and ArmaLite's AR-30 rifle using Black Hills .338 Lapua Magnum ammunition. If a barrel's twist rate is suitable, I prefer the .338 variant that features a 300-grain Sierra MatchKing HPBT bullet. Since the hollowpoint is an artifact of the manufacturing process, rather than a design element intended to expand upon impact, this round can be used for military operations under the Hague Accords. I selected Black Hills ammunition for its quality as well as because individuals and departments can purchase this ammunition factory direct if it's not available locally. Not many shops stock this caliber.

Without the sound suppressor,

groups generally ran a bit less than 1/3-MOA at 100 yards, while groups with the suppressor commonly ran less than 1/4-MOA at the same distance. Specifically, suppressed groups averaged 21% smaller than unsuppressed groups. That's two to four times more accuracy improvement than one expects with a good .30 caliber can. That's noteworthy performance with a can of large caliber. It has extraordinary performance for such a small can relative to the gas volume it must handle.

What does this mean in the "Real World?" The suppressed ArmaLite delivered between-the-eyes accuracy at 500 yards.

In terms of sound reduction, the SHADOW dropped the ArmaLite's considerable muzzle blast by 35 decibels. That would be impressive for a suppressor twice the size and weight.

### Final Notes

I do not have a word in my lexicon to adequately express how impressed I am by a large caliber can of such small size that delivers so much sound reduction. Add the SHADOW's ability to improve accuracy, and you have a sound suppressor worthy of the most demanding armed professional or individual shooting enthusiast.

The bottom line is that I cannot overstate how much I like the .338 caliber SHADOW sound suppressor from SRT Arms.

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