.308 Semiauto Rifles Revisited: DSA's Shorty FAL Is a Winner

Lightweight and handy, we deem the FAL to be a top value. We also like ArmaLite's AR-10A4 for the same reason, but would pass on the expensive Knight's Armament Stoner SR-25.

get lots of questions and requests for information about .308 semiauto rifles, particularly about those we haven't tested. Back in April 1999 we tested the M1A and a similar custom M14S; a version of the FAL in the form of a British L1A1 built on an Entreprise receiver, and another from South America: and both Greek and German versions of the Heckler & Koch HK-91. The winners of that outcome were the two M14/M1A types and the two FAL types. We really liked the custom M14S with its Chinese-made forged receiver fitted with best-quality U.S. components by Fulton Armory, as well as the Entreprise-actioned L1A1/FAL.

But this category seems to be rich in products, so we gathered three more and took a hard look at them. This time the three .308-caliber semiauto rifles were a U.S-made FAL with 16-inch barrel built by DS Arms, Inc., on its own receiver; an ArmaLite AR-10A4, and a Stoner SR-25 by Knight's Armament.

The three rifles in this test all accepted scopes on their top rails. The FAL came to us with a Leupold 3-9X Tactical scope already mounted and sighted-in. The AR-10A4 and SR-25 came with flat-top actions with the scope-mount rail integral with the rifle, and both had accessory handles with iron sights included. We looked forward to testing these rifles with both scopes and iron sights if time permitted, but decided to begin with iron sights on the AR-10 and SR-25. Here's what we found:

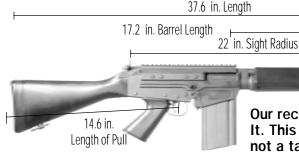


Left to right are the Knight's SR-25, DS Arms FAL, and ArmaLite AR-10A4. We'd pick the FAL over the other two for an all-round .308 where self-defense is more important than target shooting.

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DSA, INC. SA58 FAL

Price \$1,495



ı	Our recommendation: Buy It. This handy carbine was
	not a tack driver, but it can
	do anything you'd ever
	want to do with a .308
	semiautomatic rifle. It's
	relatively light, recoils very
	little, and is the best
	balanced and handiest of
	the three test guns. It's
	probably the best FAL being
	made anywhere in the
	world today.

SPECIFICATIONS WARRANTY Lifetime FINISH Parkerizing WEIGHT (W/O SCOPE) 8.9 lbs. MAGAZINE CAPACITY 20 rds. MAGAZINE TYPE Detachable FLOORPLATE Steel STOCK MATERIAL Black Polymer ACTION TYPE Semiautomatic TRIGGER PULL 5.5 lbs.



The aperture rear sight slides up a ramp for greater ranges. Windage adjustment is made by opposing screws in the sight's base. Elevation changes are made by moving the front sight in and out. Machining was impeccable. We'd have preferred a handle, which is optional.



We thought the scope was unnecessary, bulky, and inappropriate. This is our Artemis 7 x 50. We'd have liked the L2A2 scope better, and no scope best of all.



The large slotted head screw is a hinge pin. The lever at the rear of the action permits the rifle to pivot around that hinge for near-instant field stripping.



With its action broken open just like your shotgun, the DSA SA58 FAL lets the bolt carrier be withdrawn easily by its tail. This permits cleaning the barrel easily from the rear. The tail actually contacts the bolt spring, located in the buttstock.

DSA, Inc. SA58 FAL

Our recommendation: Buy It. FAL stands for Fusil Automatique Lèger, or Light Automatic Rifle. DS Arms' \$1,495 SA58 version of it is all this and more. It's a light, semiautomatic .308 rifle that is handy, has all the accuracy you could want, and is built correctly—from original blueprints—and will likely last several lifetimes. We'd leave off the scope for maximum handiness and replace the aluminum top mount with a simple steel slidein dust cover. DSA has numerous configurations of this rifle available, including a lighter one and one that is more of a target version. Ours, we felt, was not accurate enough for pure target use, and we could see no reason to scope it. This is a very welldone, highly personal rifle that we heartily endorse.

DSA, also known as DS Arms, is run by Dave Selvaggio, hence the DS in the name. Since shortly after he set up business around 1987, Selvaggio has been the prime source in the U.S., and perhaps now in the world, for FAL rifle parts, rifles, accessories, books, you-name-it. He traveled all over the world buying up arsenals full of FAL things, brought them to his Illinois-based outlet, and sold them. He has lots of experience with numerous other high-end semiautomatic and fully automatic rifles, but came to prefer the "free world's right arm," the FAL in its many guises.

It became clear to Selvaggio several years ago that the supply of good existing FAL receivers was quickly disappearing. He didn't like any of the numerous new receivers, because his experience told him they weren't being made correctly. Some of the receivers were soft, some brittle. Most if not all of the new FAL receivers had major problems in one or another area, and Selvaggio knew this because he knew FALs like very few other living men. He decided to do the FAL right.

After major delays and not inconsiderable problems, DS Arms obtained a manufacturer's license, and began production of an all-U.S. FAL rifle. However, before he made any parts he obtained the original Steyr tooling and a full set of prints for every component of the Austrian STG-58 rifle, a FAL variant. Along with the tooling, DS Arms also got some 40 tons of spare parts and accessories, which helped launch the new rifle on these shores.

All the other action-makers, according to DSA, reverse-engineered existing actions rather than make them exactly as they were designed. Many of them are out of specification, according to DSA. Some are improperly heat treated. Most are investment castings to begin with, which doesn't give the correct look or feel of the original design.

In contrast, DS Arms machines its FAL actions out of a 19-pound billet of 4140 steel, a better material but harder to machine than the 1060 steel used in the only other "good" FAL action out there, the Imbel from Brazil. DSA heat-treats its finished receiver to an overall hardness of Rockwell C 30-40. With some experience under its belt, DSA saw fit to modify the manufacturing processes of a few parts from the way they were originally made in Austria. Also, the company has new tooling for some of the components, like the handguard and grip. DSA will soon make its own buttstocks, and later this year will offer the rifle with green furniture instead of black.

The barrels are broach-cut, handlapped, 1:11-inch twist, made of "4140 chrome-moly improved" steel, and have four grooves. If you get one with a bull barrel it will have 1:10 twist, the better to handle heavier bullets commonly used in matches. The barrels are double stress relieved and cryogenically treated. Current barrels have an integral brake, and the chambers are cut to SAAMI specifications for the .308 Winchester.

Our inspection of this handy little

rifle showed us that every detail of the DSA FAL has great thought behind it. Excellent workmanship predominated. The trigger, hammer, and sear, for instance, were investment castings of 8620 steel that were then heat-treated, phosphate finished, and finally ground on the sear surfaces to give a good trigger pull. This rifle had a very good trigger, one the better pulls we've seen on a FAL rifle. It broke at 5.5 pounds, with just a bit of creep before that.

Later this year DS Arms staffers will begin producing the few remaining parts of this machining-intensive design themselves (as on-hand Austrian parts are used up), and that might drive the price of the rifle up. However, the fact that this company provides a lifetime warranty tells us that DSA believes in its product, and the company plans to do every step of the job exactly right.

Our test rifle came out of its case with a Leupold Tactical scope mounted, and everyone who saw and handled it liked the FAL very much. It had a nominal 16-inch barrel, and with brake, the barrel measured just over 17 inches from the bolt front. This made the rifle very short, well balanced and lively. When we ultimately removed the scope, everyone who saw and handled this little .308 fell in love with it.

The action machining was outstanding throughout. The action is a complex piece that takes significant understanding of machining methods, and we could not fault the workmanship on any count.

The magazines provided were 20-round metric FAL units, still commonly available. They went into the rifle positively, worked correctly, and came out easily when handled in a natural manner. We gave our test rifle a thorough overall examination, wiped the bore and repaired to the range with three types of match ammunition, by Black Hills, Winchester, and Federal.

We were initially very disappointed with the accuracy, until we contacted DSA. They told us that

the FAL doesn't like being supported on a machine rest. We subsequently held the forend in our hand and rested the supporting hand on our rest, and accuracy picked up considerably. We found the FAL had a distinct taste for Federal's Gold Medal Match ammunition, and generally hated Black Hills Match.

Opening the FAL for cleaning is like breaking open a double shotgun. A lever located at the left rear of the receiver is pressed rearward, and that permits the barrel to drop far enough so the "rat-tail" extension from the bolt carrier can be grasped and withdrawn. This operation is much easier than getting the bolt out of the AR-10 or SR-25, as easy as those are. Removing the bolt carrier with the bolt permits the rifle to be cleaned from the breech. Removing the scope-mount rail/dust cover is not necessary. If need be, it was removable by loosening eight slot-headed screws. We would have preferred the slide-on cover, which can be removed in a trice without tools.

We had exactly no problems whatsoever with the SA58. We removed the scope for some of our testing, and with it off, fired our best group. We put three inside 1.25 inches with Federal Gold Medal match ammunition. Another group with Federal was right at 1.5 inches. By contrast, the best group fired with Black Hills measured nearly 3 inches. In extended firing sessions, when the barrel got quite hot, there was no change of impact or accuracy, a problem we've encountered with other FALs. We guess this problem, when it occurs, is from barrel stress, which the DSA FAL doesn't have, thanks to its cryogenic treatment.

Although we loved this rifle, we had a couple of complaints. The top rail, which also forms the dust cover for the action, was made of aluminum. Its scope-mount cuts were slightly deformed by the cross bolt of the scope mount bases. It looked like the rail was getting battered, as the

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mount areas were deformed. Second, the empty brass left its mark on both the ejection port and the receiver below it, which made the rifle look unsightly. If we owned this rifle, we would not spend the extra money on the optional sight-mount rail, but would just use the normal dust cover. We'd also look for another L2A2 scope for it, but if one must scope it, the DSA aluminum top rail is easy, and offers the greatest variety of scope choices.

The DSA FAL SA58 can be ordered with or without a carry handle. DSA believes the gun gets better accuracy without it, and that is how ours was set up. We prefer the handle nonetheless.

The FAL design incorporates an adjustable gas bleed, which varies the force with which the bolt is driven open. We played with it on the SA58, but there was too much variance in ejection velocity on this new rifle, and we had to leave it "hotter" than we wanted, to make sure the empties would all eject. This would probably change as the rifle wears in, and ejection became more predictable. The previously tested L1A1, which had seen many rounds, dumped its empties reliably onto the ground at the shooter's feet.

ArmaLite AR-10A4

Our recommendation: On balance, we liked the AR-10 a lot. One has to have a good idea what to expect from a rifle like any of these three before buying, however. If match use is your intent, plan on giving this gun a trigger job. The heavy barrel showed great promise of matchwinning performance. If selfdefense is in order, you don't need a heavy-barrel anything. The (extra-cost) removable handle is up to you. If you want to scope your rifle, we feel the flat-top rail is the way to go, but if you contemplate keeping the same rifle ready to go for emergency use, by all means get the carry handle, keep it on the rifle (assuming you can use iron

improve much on the results

delivered by our aperture sights.

ArmaLite puts a huge brake onto its AR-10 (left), but the DS FAL, (right), does just as good a job

of keeping the kick down. The Knight (center) kicked the most.

sights well) for serious purposes, and use the scope for fun, which the AR-10A4 provides in big, hearty doses.

Add a few pounds to your AR15, open up the bore to handle .308 ammo, and you've got the AR-10. The look and function are the same, but the feel is quite different. Our ArmaLite came with a heavy barrel and removable carry handle containing a fully adjustable rear aperture sight. Under the handle the receiver top was made in the form of a scope-mount rail. After our delightful experience with the shorty FAL without scope, we thought it would be good to try the ArmaLite with iron sights first.

The rifle looked great with its green furniture and flat-black metalwork, and all the workmanship we could see was done very well. Both the rear and front sights were attachable/detachable by means of knurled thumb wheels. The two magazines that came with it were well made, and went into, and came out of, the rifle well enough. They held 10 rounds each. The follower of each magazine had a springloaded plunger at its rear end that pressed against the back of the magazine when more than three rounds were loaded. The plunger activated the bolt hold-open device when the magazine was empty.

The barrel was 20 inches long and chrome lined, with a 1:12 twist. There was a muzzle brake, which they call a "recoil check." The AR-10 was loud, but the shorty FAL was louder, in our estimation.

At the range we had to put the rear sight nearly all the way left in its adjustment. We ran out of room on elevation, the rear sight bottoming out in its adjustment. A simple four clicks upward on the front sight, with the aid of a bullet nose, got the shots onto the paper. More on the front sight later.

We fired several groups under 2 inches with all three types of match ammunition, and looked forward to installing a scope to find out how much better the rifle would shoot.

Accuracy	and	Chronograph	Data

Winchester Supreme Competition	DSA	ArmaLite	19 fps .
168-grain Nosler HPBT Match	SA58 FAL	AR-10A4	
Average Velocity (10 ft.)	2,450 fps	2,559 fps	
Standard Deviation	9 fps	11 fps	
Muzzle Energy	2,237 ftlbs.	2,440 ftlbs.	
Smallest Group, 100 yds.	2.0 in.	1.8 in.	
Largest Group	3.4 in.	3.9 in.	
Average Group	2.7 in.	2.8 in.	
Black Hills Match,	DSA	ArmaLite	Stoner
168-gr. HPBT (Non-Molycoated)	SA58 FAL	AR-10A4	SR-25
Average Velocity (10 ft.)	2,499 fps	2,615 fps	2,637 fps
Standard Deviation	43 fps	18 fps	18 fps
Muzzle Energy	2,327 ftlbs.	2,548 ftlbs.	2,591 ftlbs.
Smallest Group, 100 yds.	2.1 in.	1.3 in.	0.5 in.
Largest Group	3.2 in.	3.3 in.	1.1 in.
Average Group	2.6 in.	2.3 in.	0.9 in.
Federal Gold Medal Match	DSA	ArmaLite	15 fps
168-gr. HPBT (Sierra Matchking)	SA58 FAL	AR-10A4	
Average Velocity (10 ft.)	2,543 fps	2,668 fps	
Standard Deviation	8 fps	18 fps	
Muzzle Energy	2,410 ftlbs.	2,653 ftlbs.	
Smallest Group, 100 yds.	1.3 in.	1.2 in.	
Largest Group	6.3 in.	2.4 in.	
Average Group	3.3 in.	1.4 in.	

However, we had a slight problem. We had fired about a dozen shots and then had a jam. An empty case remained in the chamber and a new one was pressed against it by the bolt. We cleared it and tried again, only to encounter the same problem.

We pulled the bolt and discovered the extractor was (suddenly) refusing to snap over the case rim. This was at least partly our fault. We had neglected to clean out all the grease at the rear of the barrel, though the bore, chamber, and bolt were entirely clean. The small amount of grease we had left in place had caught some carbon and made a waxy substance on the rear face of the barrel, just enough to prevent the bolt from traveling fully forward as a round was chambered, but not enough to prevent the bolt from locking fully.

Next, we measured the extractor and it proved to be 0.007 inch tighter than that of the Knight SR-25. We spoke with ArmaLite, and they informed us every rifle is fired approximately 20 rounds before it leaves the factory. They also said their current batch of test ammunition is from a source that has been known to have rims slightly thinner than our match ammunition. The combination of crud buildup (our fault) and a tight extractor (their fault) was enough to make the rifle malfunction with our match ammunition.

And so we got another strong lesson to test everything about your personal firearm before you even think of trusting your life to it. Then, fire it as much as you can to build confidence, at least 500 rounds with zero failures. Then, test it some more.

Our fix was simple, once we had isolated the cause. We temporarily stole the extractor from the SR-25 while we waited for the replacement that ArmaLite overnighted to us at no charge. This didn't surprise us because ArmaLite is a very shooter-friendly company, easy to deal with, and makes a product

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KNIGHT ARMAMENT STONER SR-25 Price \$2,995

Length of Pull

SPECIFICATIONS

WARRANTY None written
FINISH Parkerizing
WEIGHT (W/O SCOPE) 8.9 lbs.
MAGAZINE CAPACITY 20 rds.
MAGAZINE TYPE Detachable
FLOORPLATE Steel
STOCK MATERIAL Black Polymer

ACTION TYPE Semiautomatic

14.5 in.



The serrated ring in front of the action indicates this is a free-floated barrel. The magazines of the AR10 and this SR-25 did not interchange. We liked the detachable handle, and greatly liked the feel of the rifle without scope, but a scope let us verify the Stoner's outstanding accuracy.



A bit more angular than the AR10, the Knight/Stoner was very well made and functioned perfectly.

Our recommendation: Don't Buy It. No question the new-condition Stoner we had on loan (not from the manufacturer) was a tack driver, putting all three brands of ammo into 1-inch groups. That's nice, but we believe the price difference between it and the Arma-Lite would buy lots of barrels and trigger jobs, lots of ammunition, food for the kids, vacations to Spain, and you'd still have money left over. Yes, the SR-25 was more nicely made than the AR10, but it had a match barrel, not a chrome-lined one like the AR10. Both ArmaLite and DS Arms will provide you with free-floated barrels for nominal charges. Finally, we had less than good results in our contacts with Knight Armament, with numerous promises made and none kept. By stunning contrast, both ArmaLite and DS Arms went out of their way to provide us with any and all information we requested, returned our phone calls, left messages if we weren't available, and gave every indication they stand behind their products. We like that. We'd pick the FAL first, the AR10 second, and would not buy the Knight because of cost and our negative experience with the company's poor customer service.

they stand completely behind. By the way, ArmaLite told us the extractor spring is the most commonly broken item on this rifle. They have a mil-spec plastic buffer inside the extractor spring and have just initiated a further protection in the form of an O-ring that fits over it to further stave off breakage.

Once the rifle worked properly (even in rapid-fire sessions), we stuck on the scope and tried some of the Federal Match ammo. Although we were hampered by a creepy, heavy trigger pull of 8 pounds, we got an average of 1.4 inches for our three-shot groups with ease. That heavy barrel was made to shoot. The AR-10 averaged 2.3 inches with Black Hills' match ammunition, but only 2.8 inches with Winchester Supreme, in spite of our earlier good results with aperture sights.

About the only thing we didn't like about the AR-10 besides its heavy trigger (trigger jobs on this design are simple and inexpensive) was its balance in comparison to the FAL and SR-25. The ArmaLite was noticeably muzzle-heavy. However, if match use is in your plans, or lots of serious shooting, a heavy barrel is probably the way to go. We felt the buttstock design of the FAL was more comfortable than either the AR-10 or SR-25. It had a bit more drop, which we preferred.

We told you earlier that we had to run the rear sight all the way to the left to sight-in this rifle with iron sights. We found out the design of this rifle is such that it is possible, even recommended, to first center the rear sight, then loosen the two clamp screws under the front sight base (which is also the gas-port block) and tip the front sight right or left as needed. This gives maximum adjustment to the rear aperture in either direction.

The possibility of rotating the front sight is admirable for civilian personnel who use this rifle for casual use, matches, and the like. However, we'd like to see ArmaLite put a cross pin into the gas collar to prevent it from accidentally mov-

ing under severe use. As it is, the lock screws could vibrate loose, the collar turn, and the rifle become non-functional. With a simple roll pin catching the barrel, this would be absolutely prevented. This pin would be mandatory, we feel, if the rifle were used by military personnel.

Stoner SR-25

Our recommendation: Although we couldn't fault the Stoner SR-25 for its performance, we were appalled to learn it cost more than twice as much as the AR-10A4, \$2,995 versus \$1,465 for the AR-10A4. The Knight/Stoner was slightly better finished in a few areas than the ArmaLite, but overall perhaps only 10 percent better. The Arma-Lite is itself better in some areas, and you can buy one fantastic trigger job for the price difference. We don't see how to justify the high price on the Stoner, and recommend you buy the ArmaLite instead. If you want a .308 semiauto on this design, the ArmaLite

This rifle looked superficially like the AR-10, which is to say that at a distance it could be mistaken for an AR-15. On close examination it is, like the AR-10, slightly larger than an AR-15 in all significant areas. The bolt was coated with a white finish resembling hard chrome, and was notably slicker than the AR-10 bolt. This rifle also had a detachable handle that held the rear aperture sight. This sight was adjustable for windage but not elevation. That was taken care of by screwing the front sight into or out of its base. This front base was pinned to the rifle rigidly.

The furniture was black, but otherwise nearly identical to the green stuff on the ArmaLite. All machining and fitting were very well done. The maker's name, address, logo and designation were on both sides of the receiver in white-filled letters. The safety designations were white for Safe and red for Fire, and this gave good and fast indication of the safety's position when viewed from any angle. In all, the

Stoner SR-25 was an attractive package.

The SR-25 was significantly lighter than the AR-10A4. The non-braked 20-inch barrel was much slimmer, and the overall balance was centered around the magazine, very much between the hands. Like the ArmaLite, the rear aperture had two holes, one smaller than the other. This rifle was much handier than the heavy-barrel ArmaLite. It was about as lively as the shorty FAL, but had a totally different feel. When we mounted each rifle quickly, we had a harder time lining up the Stoner's sights than those of the FAL.

The trigger pull was excellent. It broke at 5.5 pounds with zero creep and very minimal overtravel. We benched the rifle, supporting the forend at the very front, and put uniform pressure onto it from shot to shot (learning from our experience with the slim-barreled FAL). The Stoner responded well, giving excellent iron-sight accuracy with all three brands of ammunition. The smallest group was three of the Federal Gold Medal Match bullets flying into 1.25 inches, essentially the same as the best we got with the aperture-sighted FAL (1.3 inches). We liked the feel of the Stoner without scope so much we couldn't see installing one unless the owner simply couldn't see well enough to use the aperture sights, or he wanted a scope for either hunting (certainly viable with any of these three rifles) or for any serious dim-light use. However, a scope gave us incredible accuracy.

Our Stoner loaner (not provided by the company) had the screw-forward keeper for the front hand guards instead of the ArmaLite's spring-loaded ring. This screw system had the advantage of getting the guards totally tight, yet permitted their easy removal. Knight's says this free-floats the barrel. One other slightly different item caught our eye, and that was an add-on brass deflector. This attached to the top rail just behind the ejection port. The handle containing the rear aperture sight was slotted to fit around it. It did a good job keeping brass off the lefties who tried the rifle.

There was no muzzle brake or other protrusion on the front of the 20-inch barrel. Like the AR-10, the Stoner had a well in the buttstock covered by a trap in the buttplate. Both rifles had sling swivels at butt and under the gas port.

Gun Tests Recommends

X Stoner SR-25, \$2,995. Don't **Buy It.** Shot great, ran well, but costs way too much, in our view.

✓ ArmaLite AR-10A4, \$1,465. Buy It. A much better value than the Stoner, in our opinion. It shot well, and though we had a couple of initial function problems, we were able to solve them quickly and easily through the company's customer service arm. We were very happy with the personal aspect of ArmaLite's support of its product.

✓ DS Arms' SA58 FAL, \$1,495. Buy It. This light, semiautomatic .308 rifle has all the accuracy you could want, and it has a strong manufacturing backbone which we appreciate. This is a very well-done rifle, and we'd pick it first over the other two very high-quality products. GT

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