

ppearing on the scene like one of the fantastical UFO's from the X-Files comes KWA's Lithgow Arms F90. Perhaps in a bit of derring-do, KWA has elected to replicate a somewhat unusual choice for their latest airsoft release... and in gas blowback format, no less!

For the unfamiliar, the F90 is essentially a significantly improved version of the Australian Defense Forces (ADF) F88 rifle, which is domestically produced by Thales Australia under license with Steyr Mannlicher, whom are better known for their famous retro-futuristic Steyr AUG platform. Thales Australia is a part of the Thales Group, a large French multinational company that develops and manufactures equipment for defense, transportation, aerospace and security. So you might say this particular breed of rifle has a rather interesting mix of flags flying beside it, now to include Taiwan's as this is where KWA replicas are manufactured.

As used by the ADF, this goes by the EF88 designation, with the "E" representing "Enhanced." The F90 is the designation given to the export version for sale to markets outside of Australia, and are essentially modernized versions of the AUG, chambered in standard NATO 5.56x45mm ammunition. The EF88/F90 brought many notable improvements over the older F88 rifle, which had been in service with the ADF since 1985. Among these improvements were a reduction in weight and design alterations to the body of the weapon to improve balance and comfort. A full-length picatinny rail adorns the top of the aluminium receiver, along with some ambidextrous controls and enhancements made to increase reliability. The trigger guard was also updated to allow for fitting of a Steyr SL40 grenade launcher, which is a side-loading launcher expressly designed to fit this platform.

Much like the Steyr AUG, there are several variants of the EF88 / F90 rifle manufactured, including CQB and marksman versions. The version replicated by KWA is the standard length model, which has the 407mm (16") length barrel. Presently there are two models offered from KWA: the full power field version rated at 1.84J+

(380+ FPS) and a low-velocity model, which utilizes a low-power bolt to reduce velocity to around 1 - 1.14J (330-350 FPS). Of interesting note, the development of the KWA F90 arose because they were contracted by Thales / Lithgow to produce the F90 specifically to supply an inexpensive training analogue to the ADF's EF88 rifles.

NAILING "THE LOOK"

As appearances go, I would say KWA have expertly replicated the look and feel of the F90. The receiver is full metal, with a one-piece outer barrel that is securely affixed inside the receiver in a manner that makes it very rigid. The body is made from a polymer material and is by far the best feeling 'AUG' body I have handled to date. There is absolutely zero creak or wobble and the F90 simply feels exquisite when compared to any of the AEG replicas we have available. With magazine, the rifle is clocking in at 3.24kg / 7lbs 15oz. with a point of balance situated where the web of your firing hand would sit. Despite the presence of a long barrel, the overall package is only a mere 114mm / 4.5" longer than a $\stackrel{\cdot}{\text{MK18}}$ with the stock fully collapsed. Yet with most of the weight concentrated towards the rear, the F90 maintains the intrinsic ability of all bullpups to be held aloft with one hand with little fatique.

As mentioned, the main body of this gun is superbly crafted. Even with trying to flex and twist things with my hand, I can't even so much as produce a single creak of exasperated plastic. The buttplate is made from grippy rubber with raised edges, and it secures against the shoulder better than the smooth buttplate on the classic AUG. Much like the real version, the ejection port cover can be switched from the right to the left side of the gun. KWA has also replicated the removable trigger guard insert for allowing the trigger mechanism of a grenade launcher to pass through. Unfortunately at this time, we do not have any replicas of the SL40 launcher available, but one can hope the aftermarket steps in to provide us one.

While the magazine release is ambidextrous and accessible from either side, the bolt release lever is not. That being said, I did not find it problematic

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to operate off my weak side; it's only slightly slower to hit the release if operating the rifle off your left shoulder; you can just reach behind the magazine and toggle the bolt release fairly easily, and users of the Real Sword Type 95 series will understand this concept implicitly. The charging handle cannot be switched to the right side of rifle, so for you lefties out there, I've found the easiest way of manipulating it is to rotate the rifle horizontally the right, then racking the handle straight back. This also positions the rifle so the handle is within your immediate visual area, which makes it less likely to be missed or fumbled. You could also do it in the inverse, with the base of the grip rotated horizontally to the right, but you do have to feel around for the charging handle's location in this position.

Speaking of the charging handle, prospective owners will be pleased to note it has full length of travel and folds upwards when it is allowed to 'run home' after drawing it back. True to form, it is also non-reciprocating and can also be locked to the rear too.

Off the right side, there is a picatinny accessory rail, which would be a good space to mount a laser or flashlight. We of course have the full-length picatinny rail on top of the platform here too, which has more than enough space to accommodate any manner of optical arrangement one would desire to use. There's even space enough to run a PEQ style laser off the 12 o'clock too. Just fore of the trigger guard is a shorter section of picatinny, which takes the place of the folding foregrip one would have on the classic AUG. This is just large enough to accept a vertical foregrip, and as such, one of those feels like a natural addition to this rifle. The old school Knights Armament "broom handle" felt right at home in this space.

The grip itself retains the usual AUG styling and feel, albeit the trigger (grip) guard has some distinctive differences. In lieu of the folding vertical foregrip, the front of the guard will also work as a place to rest your support hand. The safety switch is a simple pushbutton, which is very positive and tactile. As for the trigger, it feels very much how I remember an AUG trigger feeling on the real steel version I've fired. It's a true dual-stage trigger, where a short press will fire the gun in semi-auto, with a longer press switching

it to full auto. There is also a small semi-auto lockout switch in the base of the trigger that can be pulled out to make the gun capable of only firing in semiauto

Moving a bit further forward, we have a beautiful fluted barrel, which comes with a bayonet lug and standard 14mm CCW threads. The flash hider is actually a two-piece affair, with the base section working like a jam nut in similar fashion to what you find on the CZ 805 Bren. I was curious if KWA opted to design a two-piece barrel that would allow for converting the rifle to the shorter variant, but I cannot find any physical evidence of this or any evidence of it in the parts diagram. As a future accessory, this would be among one of those I'd like to see offered. Owing to how it's designed, it would be a simple matter to have a machine shop chop and thread it, however.

The magazine that is furnished with the rifle is the "waffle" type unique to the AUG platform. KWA's version has an interesting design, with the lower portion being encased in metal, whereas the topmost section that inserts into the rifle is made from a polymer. I suspect this was done for strength reasons and to ensure the magazine doesn't split apart if dropped. These are also "real cap" magazines, in that they hold 30 "rounds", just like the real thing. There have been some reports of the feed lips cracking with use, but so far my test example has held up fine.

BUSINESSLIKE INSIDE

Disassembly or field stripping of the rifle follows in the same vein as the real version, which means it is sublimely simple. Just fore of the magazine well is a captured cross-block that can be partially pressed out. Once that is shifted to the right, you can slide the entire barrel assembly off the body of the gun in one single unit. This section will contain the hop up chamber and the bolt carrier assembly, which leaves just the trigger mechanism contained within the receiver. The bolt carrier appears to be a fairly robust assembly that rides on a pair of long aluminium tubes, with the tube on the right technically being our faux gas piston, while the left is what the charging handle engages when it is cocked back.

The ease of disassembly continues, as our hop up chamber and inner barrel can be removed from the

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receiver via a single screw, which allows it to be slid out. The hop up chamber is a rotary-style design with a top-down-centre (TDC) nub holder. By now, the merits of both features are without question, and this makes for a superior chamber design from the days of old. KWA has said the bucking is based off the preexisting LM4 design, but I have not had opportunity to try any aftermarket LM4 buckings for fit. It has a split style nub design, similar to KWA's AEG buckings.

All that being said, my one and only issue I encountered with this gun were actually with the hop up bucking itself. Upon first testing the rifle, I was registering a rather low 0.84J/282 fps with a .20g on the chronograph. It's not uncommon to need to "reset" a bucking sometimes on a new gun, so I disassembled the chamber and redid the bucking installation. Checking against the chronograph again, I was still getting a low reading and the occasional double feeds. After some closer inspection I determined the bucking lips were too loose and simply weren't gripping the BB adequately. The fix was fortunately easy; a single wrap of Teflon tape around the bucking gave it just enough lip tension to eliminate the double feeds and also bumped the FPS up to 1.64J /420 fps with .20g's! This was more of what I was expecting as this was the full power version of the rifle, but it may be a little spicy for some countries so make sure you get the right version for local legal compliance.

After this little fix, I set about to giving it some proper range testing. Accuracy was good and I was able to lift .28g and .32g BBs with ease, still with room to go on the adjustment wheel. My testing range is a full 82 yards deep, and I had no issues getting the gun to reach out to the maximum distance available. I owe this largely to the excellent TDC design applying consistent top-down pressure against the bucking.

One thing to note when needing to adjust the hop up is that you have to partially separate the upper to access the adjustment wheel. You just need to slide it forward just enough so you can rotate the wheel through one of the large ports on the side of the receiver. This is quick to accomplish given the ease of removing the upper from the body of the gun. Once the chamber is properly set to the desired trajectory

for your given BB weight, I found I didn't have to touch it again. I don't think it would have been possible to allow for adjusting it through the ejection port area without significant redesign of the internal workings. So while some may consider the manner of adjustment a mild inconvenience, on the plus side I can remark that it doesn't require any tools at least.

BELIEVE IT!

Throughout my testing, the KWA functioned absolutely flawlessly, locking back on empty every time and with zero malfunctions. The dual-stage trigger takes a bit of getting used to for someone coming from traditional platforms, but locating the 'break' or border between the two firing modes is distinctive and easy. I was also pleasantly surprised at how well the gun was functioning despite the cold. As it is the dead of winter here, temperature at time of testing was a brisk 1.1C / 34F. Obviously in warmer temperatures, gas efficiency and performance will enjoy much more favourable conditions, but the F90 certainly proved itself up to the task of some wintertime fun!

I am admittedly not a big GBB guy; I don't even possess a single GBB rifle in my collection, though I do prefer GBB sidearms to AEP's because of the added realism. The KWA F90 could just about make me a convert, though. It was a lot of fun to use and I couldn't help but crack a smile every time I took it out. I appreciate the functional realism it brings to the table and the satisfying clack of the bolt as it runs home. In some ways, it takes me back to my "paint" days when I forced myself to use 30 or 50 round Tac Caps. The limitations (artificial as they were) in capacity forced you to become a better player and evolve your skills and tactics to handle situations where you find yourself up against players with high capacity magazines at their disposal. Sometimes it's good to give yourself new challenges – reinvent the game, if you will.

As bullpup platforms go, I have always been a fan of the AUG for it's svelte form factor, handling and history. Amongst its contemporaries that I have used, both real steel and airsoft (the P90, FN2000, Tavor, Type 95, etc) the AUG still takes top billet in my book.

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But relatively few airsoft releases have really scratched the itch for high build quality, and the KWA F90 certainly has this in spades; however, and I must say I am pleased that KWA elected to bring something so unique to close out 2023 with. Personally, I would love to see the F90 followed up with an AEG version incorporating KWA's VPS system. Which of course

begs the question... will we see an AEG version coming down the pipe? When I asked KWA's sales director Tony Lin at SHOT 23 this very same question, he remarked... "If the GBB version does well!"

Which means to you fellow players... I want to BELIEVE! ##



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