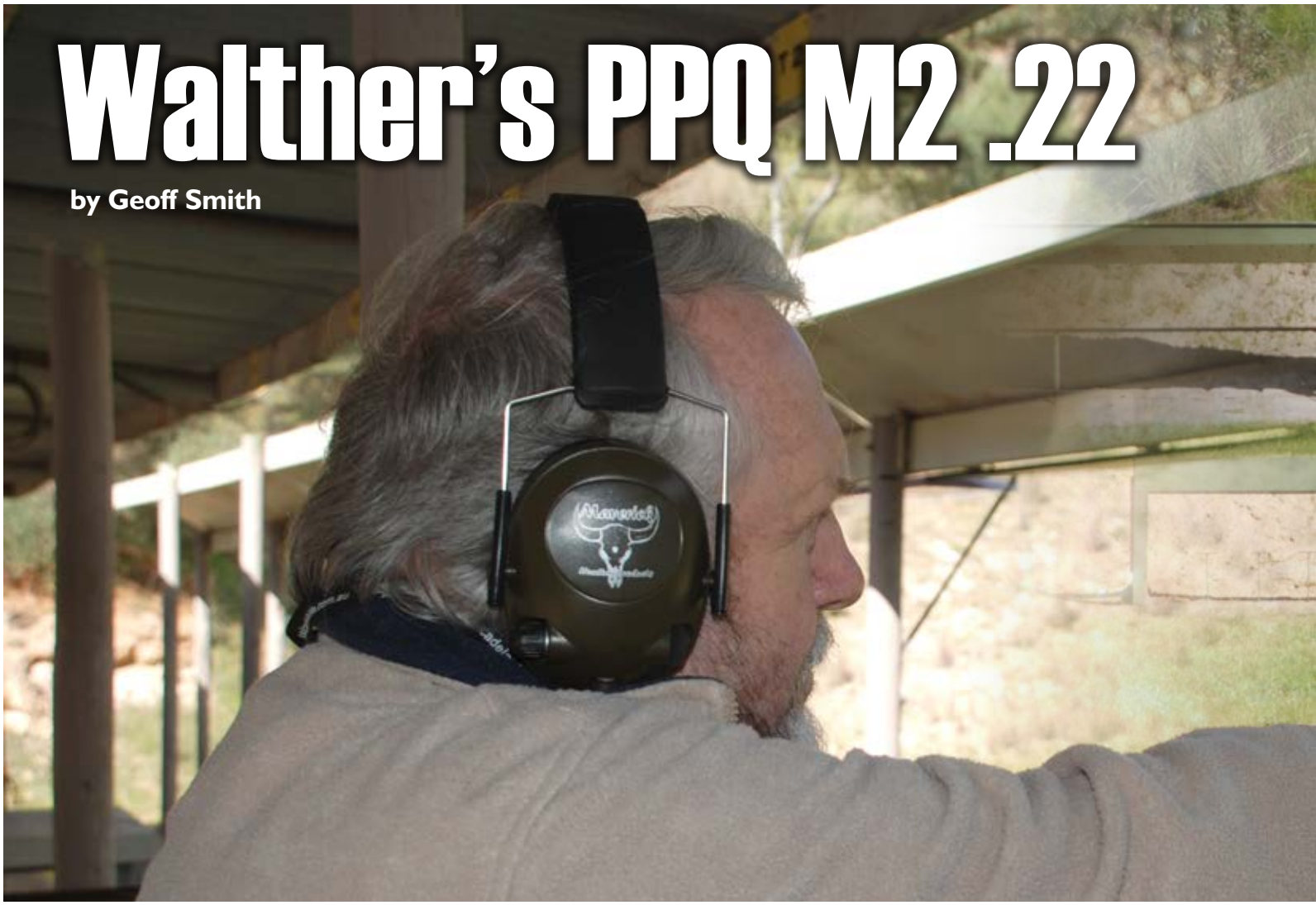
Walther's PPQ M2 .22

by Geoff Smith



When asked by the Australian Walther distributor Frontier Arms if I would review the new Walther PPQ M2 .22 rimfire handgun, I was surprised to realise that two years have elapsed since I reviewed Walther's PPQ Tactical 9mm handgun (see ***Australian and New Zealand Handgun 11***). The new PPQ M2 offering is a fixed-barrel, 10-shot, straight blowback self-loading pistol and comes in a moulded plastic case with a comprehensive manual and spare magazine. Although it looks almost identical from the outside to the earlier 9mm PPQ Tactical, it is actually very different internally, yet is equally remarkable in its design.

The new pistol, like its bigger-bored older brother, features a similar ergonomically-designed moulded polymer frame and steel barrel and has a Picatinny rail under the muzzle to accept attachments such as laser sights, torches and so forth. Unlike the 9mm version, it does not have interchangeable grip backstraps to suit various hand sizes.

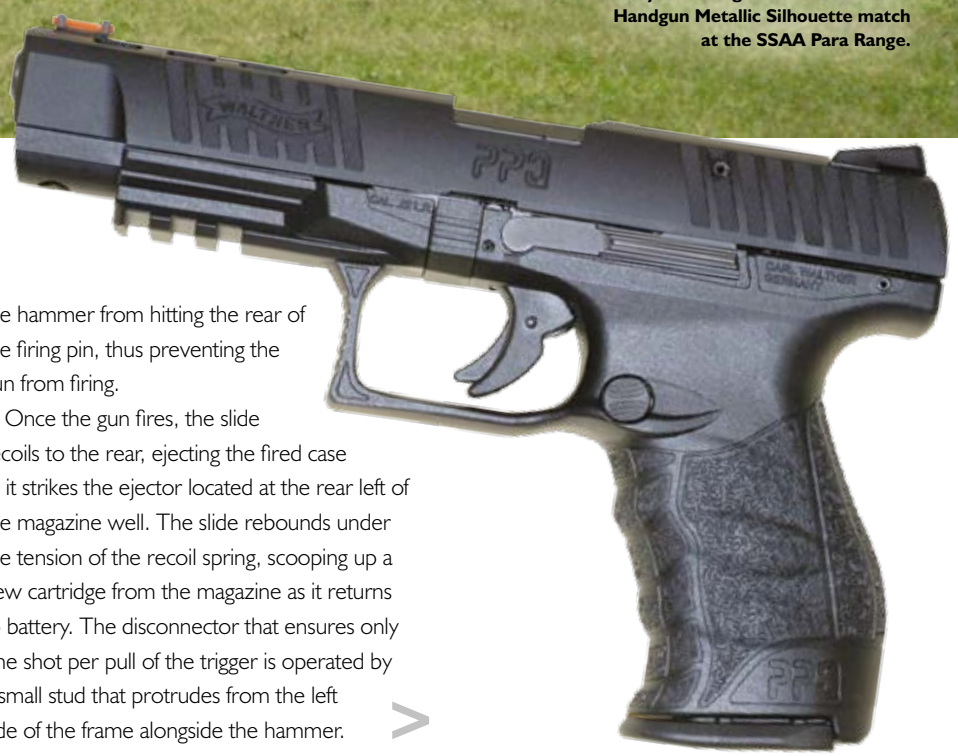
The slide in this new gun is a precision computer numerical controlled machined aluminium alloy body, housing a steel breechblock that is fitted snugly behind the ejection port. Like most of the fixed sub-assemblies making up this gun, the steel breechblock assembly appears to be held in place with a roll pin. As well as the breechblock itself, it contains the firing pin and its spring, the extractor claw and its spring, and a firing pin blocking lever. Although the slide is made from aluminium alloy, the notch that engages the slide release lever (located on the left-hand side) is subtly reinforced with a tiny steel pin to prevent wear that otherwise would result from repeated use.

Firing is achieved by an internal hammer, rather than the striker found in the bigger-calibre gun. The firing mechanism is tucked neatly into a rectangular steel chassis located within the top of the polymer frame. This also is fixed in place with a pair of transverse roll pins and contains the guide rails on which the slide slips backwards and forwards. The trigger pivots on the same solid pin as the ambidextrous slide release lever. The trigger bar runs back along the inside right-hand side of the frame to operate the sear, which releases the cocked hammer, unusually, from its upper leading edge.

Gerry Betteridge shoots the Rimfire Handgun Metallic Silhouette match at the SSAA Para Range.

The trigger is made from polymer and features the same central safety blocking lever as the earlier model. This ensures that the trigger must be actually depressed with a finger across its face before it can travel back into the frame and fire the gun. The trigger has two stages, which I tested with a Lyman electronic gauge to give the initial pull of just less than 3N (300g or 10.6oz), which then leads to a trigger pull proper of 22.8N (2330g or a tad more than 5lb).

When the trigger is depressed, the trigger bar moves backwards and shifts the sear out of its engagement with the top edge of the hammer, which then swings upwards into the rear of the slide and strikes the firing pin to discharge the gun. Should the slide not be completely in battery, a small pivoting lever alongside the firing pin blocks the hammer from hitting the rear of the firing pin, thus preventing the gun from firing.



Once the gun fires, the slide recoils to the rear, ejecting the fired case as it strikes the ejector located at the rear left of the magazine well. The slide rebounds under the tension of the recoil spring, scooping up a new cartridge from the magazine as it returns to battery. The disconnector that ensures only one shot per pull of the trigger is operated by a small stud that protrudes from the left side of the frame alongside the hammer.

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When the slide shifts backwards out of battery, the little stud moves outwards and ensures the sear 'catches' the hammer despite the trigger still being operated. The trigger must then be released and re-pulled in order to free the sear for the next shot.

The barrel, like that on the Walther SP22 (reviewed in ***Handgun 7***) consists of an inner and outer tube locked together by a screw cap at the muzzle, fixing both back into the breechblock assembly. The tubes are relatively thin yet rigid, compared with most rimfire barrels, because the liner is stretched while the outer sleeve is simultaneously compressed. As noted in the Walther SP22 review, it is reminiscent, on a minuscule scale, of the system employed with the legendary 8.8cm Flak-Pak anti-tank gun, which has replaceable rifled barrel liners stretched against the outer barrel sleeves.

The two supplied magazines are made from stainless steel sheet with a polymer follower and base plate and a coil spring at the front. The follower has a steel stud projecting from the left side through a lengthways slot to assist with loading. The magazine release is in the traditional location, immediately behind the trigger on the grip frame, and although located on the left-hand side, it can be reversed to the right-hand side quite simply to enable easy operation by left-handed shooters, making the gun truly ambidextrous.

The sights are quite outstanding, in my opinion. The rear-sight is adjustable for elevation via a small screw, and for windage by loosening the socket-headed screw and shifting the sight manually in its dovetail. The front-sight contains a short section of translucent red-orange fibre-optic plastic, which

RSI SHOOTING LAB - TARGET ANALYSIS - 8/5/14

FIREARM: Walther PPQ M2 CALIBER: 22 RF
DATE: 8/5/14 TARGET NO.: 14
RANGE: 25 m SHOTS: 10
LOAD:
CONDITIONS: 16 degrees C clear winter morning

GROUP LOCATION	INCHES	M.O.A.
Ave. Elev. Error =	-5.90	+17.47
Ave. Wind. Error =	-0.92	-3.21
GROUP SIZE		
String Measurement =	51.84	181.05
Maximum Spread =	3.94	13.75
Vert. Spread =	2.58	9.01
Horiz. Spread =	3.69	12.90
Ave. Group Radius =	1.31	4.57
Ave. Vert. Error =	0.68	2.36
Ave. Horiz. Error =	1.07	3.73
Standard Deviation =	0.64	2.25
EXTREME SHOT DATA		
Max. Shot Radius =	2.74	9.58
Lowest Shot =	-1.33	-4.66
Highest Shot =	1.25	4.35
Far Right Shot =	2.49	8.70
Far Left Shot =	-1.20	-4.20

NOTES:
mean velocity 921.4 fps, sd 22.6 fps

The RSI Shooting Lab data allows an analysis of the targets shot at 25m.

The gun and some of the ammo used during the tests.

A close-up of the steel breechface set into the alloy slide.

The rear of the breechblock, showing the firing pin and the safety bar.

The internal hammer in the cocked position, neatly recessed into the rear of the frame.

gives a bright orange dot to place on the target. I liked it, as did a number of club-mates who had a shot with it, because it makes finding the target easy.

The PPQ M2 operates on the straight blowback principle, as do most .22 rimfire self-loaders, and is quite unlike its 9mm sibling, which borrows from the Browning locked breech system. Like its bigger brother though, it feels and points beautifully with a similarly ergonomic grip design. Despite the lack of alternative backstraps as found with the older version, I was able to obtain opinions from several shooting mates who had various sized hands and all said the pistol fitted well and felt good. It is unusually light compared with steel-framed guns of course, but this doesn't seem to matter much and perhaps as a consequence, it feels pleasantly lively to shoot. It's not so much a precision target job as it is a good all-round workhorse for shooting the various matches, yet it delivers good accuracy and is nicely designed and simple to use.

In order to gauge the gun's performance, I took nine different types of .22 rimfire ammunition ranging from budget to higher quality, with various velocities, and fired a series of 10-shot groups over the chronograph, which were then analysed using RSI Shooting Lab software. The results of the tests are listed in the accompanying table. The Shooting Lab target analyses give a better idea of the gun's performance through the notion of an average group radius because it uses some tricky statistical maths to eliminate the effects of poor shooting. The table gives actual group sizes at 25m as well, and the interesting thing is the variations between the two, which occasionally reflect a shot >

The gun dismantled into its component parts.

The front-sight includes a piece of high-visibility fibre-optic red plastic.

10-shot groups at 25m

Ammo	Average Velocity (fps)	Standard Deviation (fps)	Group Radius (MOA)	Comment	Average Group (mm)	Measured Group (mm)
Remington Standard V	859.4	85.8	6.51	old ammo	94.4	126
Lapua Super Club	785.4	25.4	5.81		84.2	141
Winchester T22	884.6	13.5	5.61	old ammo	81.3	161
Winchester Supreme P	884.6	12	5.44		78.9	137
Geco .22 LR Pistol	830.6	19.8	5.33		77.3	130
SK Pistol Match	934.3	10.4	5.10		74.0	118
CCI Standard Velocity	851.1	15.8	4.72		68.4	90[a]
SK Standard Plus	915.7	10.4	4.63		67.1	115
Geco Semi-Auto	921.4	22.6	4.57		66.3[b]	102

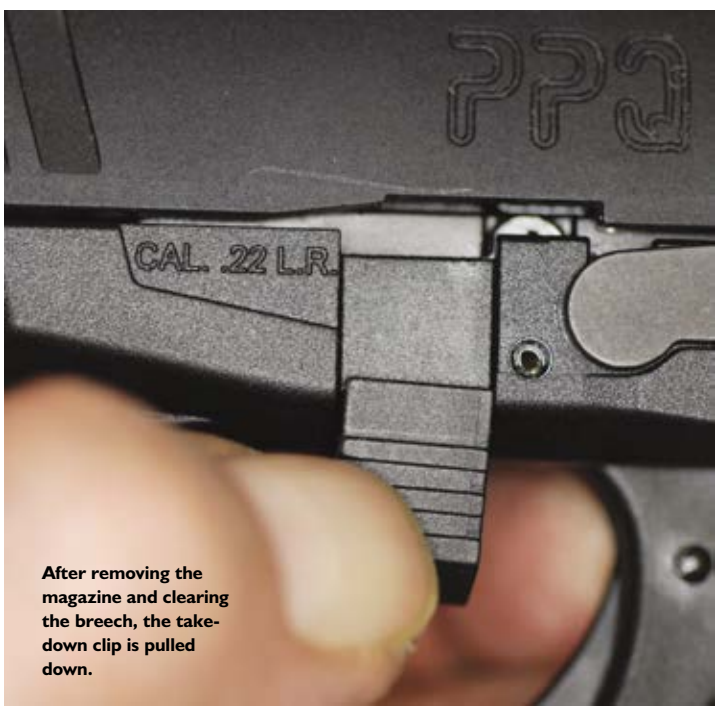
The tightest actual 10-shot group at 25m was CCI Standard Velocity. The tightest average group was achieved with Geco Semi-Auto.

or two that were off target for some reason.

The bottom line is that the PPQ M2 performed remarkably well in terms of reliability, as there were no misfeeds or misfires, and there was only an occasional failure to stay open on the last shot from the SK Pistol Match ammo for some reason. Curiously, there was little difference in the actual performance between the budget CCI ammo and the dearer target-grade stuff, and what the table suggests is that with careful selection of ammo that the gun 'likes', it should consistently place shots into the 9-ring or better at 25m.

I used the gun to shoot a 40-shot 25m Precision match with budget ammunition (20 rounds of CCI standard velocity and 20 rounds of Winchester T22) and achieved a score of 303/400, which is okay for me. I then took it along to a Rimfire Handgun Metallic Silhouette shoot with the intention of giving any interested club members a shot at the 'swinger' target. What actually happened though, was that my shooting mate Gerry misread his program and brought a centrefire gun along. I offered him the PPQ M2 as an alternative and he shot the match with once again, a bunch of budget-priced ammo. His score was pretty good, all things considered, and by the time he got to the ram-shaped targets at 100m, to everybody's amazement, he managed to knock down two in the first group of five. This was a good effort, considering the average rested group size at this extreme range would be close to 400mm. He said he really liked the feel of the gun and the trigger was more than acceptable.

Taking the gun down into its component parts for cleaning is simple. After removing the magazine, the slide is racked to ensure the action is cocked and there is nothing in the chamber. The take-down clip is then pulled downwards. The slide is drawn back fully and lifted at the rear. It is allowed



After removing the magazine and clearing the breech, the take-down clip is pulled down.

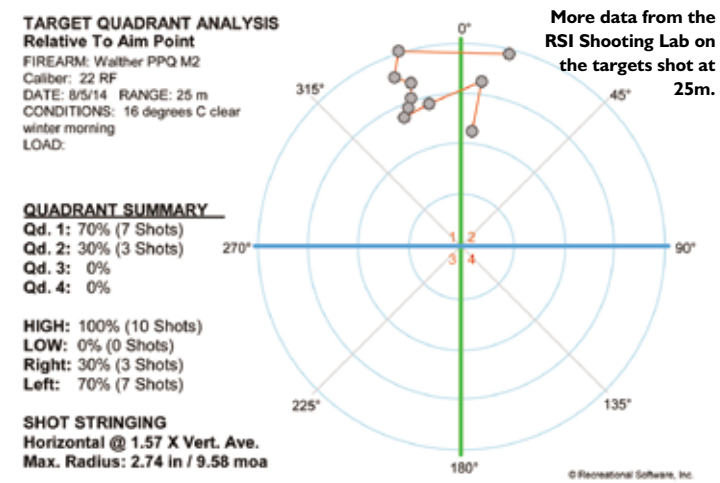
The slide is drawn fully back and lifted slightly.

forwards carefully (as the recoil spring is under tension) and it simply comes off the frame, exposing the fixed barrel, locked onto the frame. The recoil spring and its guide can be removed also, leaving the gun in its five main groups (slide, frame and barrel, magazine, recoil spring and recoil spring guide).

The barrel can be dismantled by unscrewing the front cap and pulling the outer liner off, then drawing the inner liner back through the breech support block, but this isn't really necessary. Reassembly is done in reverse order. There is a plastic recoil spring guiding tool supplied to assist reassembly, but I found it unnecessary, as the gun simply slipped back together without any problems.

To summarise, the Walther PPQ M2 is a nice piece of equipment for the general handgun shooter looking for a reasonably priced and effective lightweight gun. It shoots reliably with acceptable accuracy. It would possibly be an ideal companion for shooters already owning the 9mm version, as it feels almost identical and would offer practice with less expensive ammunition. In short, I'm impressed.

The Walther PPQ M2 .22 rimfire is distributed in Australia by Frontier Arms and retails for around $895. Also available is an optical bridge mount accessory. For more information, ask your local gunshop or visit www.frontierarms.com.au ∎



More data from the RSI Shooting Lab on the targets shot at 25m.

The slide is lifted up and pushed forwards off the frame to take the gun down.

Specifications

Manufacturer: Walther, Germany
Model: PPQ M2
Calibre: .22LR (tested), 9mm
Capacity: 10
Barrel Length: 127mm
Overall Length: 206mm
Weight: 640g
Height: 135mm
Width: 34mm
Trigger Pull: 2330g
Material: High-strength polymer frame
Sights: Red fibre-optic front-sight, adjustable rear-sight
Distributor: Frontier Arms
RRP: $895 cased with two 10-shot magazines