

# Developments in Rimfire Metallic Silhouette handguns



by Jack Crawford

For those unfamiliar with Rimfire Handgun Metallic Silhouette matches, the two courses of fire shot in Australia are at 50 and 100m. Of all the matches on the Handgun Metallic Silhouette program, the 100m Rimfire events are the most demanding on equipment. The chicken (25m), pig (50m), turkey (75m) and ram (100m) targets are scaled down from their Big Bore 200m counterparts and while a .22 rimfire bullet will comfortably knock the heaviest ram target over, accuracy demands on the pistol and ammunition are extreme.

Simply shooting a .22 rimfire handgun at 100m brings in factors such as wind drift and trajectory, which are not as critical as with centrefire cartridges. Also, the shooter has no real control over ammunition, other than purchasing a particular type or brand, whereas centrefire handguns can benefit from the use of tailored handloads.

As with all Handgun Metallic Silhouette competitions, there are four divisions: Production, Standing, Revolver and Unlimited. Standing must be shot with a Production class pistol or a revolver. There are length and weight limits

on the pistols, with a 10" barrel length limit on Production pistols and revolvers and an overall length limit on Unlimited pistols.

Given the variables of wind, the use of metallic sights and human error in sighting and trigger control, rimfire handguns need to be able to consistently group around 25 to 35mm at 50m to give the shooter a chance of a podium finish in a match. Considering that many scoped rimfire sporting rifles will not even do this highlights the challenges faced by the Rimfire Metallic Silhouette shooter. Add to this the vast range of .22 rimfire ammo that is available here from each of the



The 100m Rimfire matches are the most challenging of all the Handgun Metallic Silhouette events. The longer ranges really test rimfire gun and ammunition performance.

The best revolver value for Rimfire Metallic Silhouette shooters is Ruger's Single Six. The 9.5" barrel model will get a new shooter into the whole Rimfire program for less than \$1000.



Dan Wesson .22 rimfire revolvers are no longer manufactured, but are competitive Revolver class Metallic Silhouette handguns. Barrels can be readily changed and a 10" version is available. An 8" version is shown here.



The CBC 722, bottom, is a very economical and competitive pistol for Unlimited Rimfire class, but is too long to fit the Production class such as the BB40X.



manufacturers, some of which have a dozen different types within their target range alone, and the competitor has many permutations and combinations to work through.

In recent times, there have been some rule changes that have loosened up the regulations for Production Rimfire pistols and revolvers to give shooters access to adequate equipment. In the previous century, manufacturers such as Thompson Center, Smith & Wesson, Ruger and Dan Wesson made Production class pistols and revolvers with 8.375 or 10" barrels to cater for the precision pistol shooters. >



Ruger's new Charger .22 self-loading pistol fits the Unlimited Rimfire class, without the bipod and scope, if open sights are fitted.

Thompson Center now only makes its single-shot G2 pistols with 12" barrels and Smith & Wesson no longer manufactures its Model 617 .22 revolver with barrels longer than 6". Ruger lists a 9.5" barrel in its Single Six revolver range, but does not make any and Dan Wesson has gone out of the rimfire revolver business altogether. This leaves shooters with a limited number of options on the new handgun market and this has driven some rule changes that allow non-factory parts to be used, as long as they match the original components in materials of manufacture, form and function.

Some European options are available, from manufacturers such as Arminius and Picra, but supply is not always reliable. US makers of specialised single-shot handguns, such as the MOA, BF and Merrill, can cater to the keener shooters who can tolerate the supply delays.

It is now possible to modify 12" Thompson Center barrels by having them shortened to 10" without compromising their Production status. The previous Production class rules were very rigid and any sort of modification other than aftermarket grips and sights was prohibited.

There are many older-model pistols, such as the Hammerli 120, that are very competitive Production pistols. These have a habit of breaking the alloy cocking lever that operates the bolt and replacement parts are simply



**10m accuracy means getting the pistol/ammunition combination right and experimenting with different ammunition is essential. Expensive brands may not shoot as well as economy brands in many pistols.**

not available, so it is now possible to have a replacement manufactured from aluminium that will pass inspection.

Getting back to performance, the accuracy requirements of the 100m Rimfire match requires the right combination of pistol and ammunition. The single-shot pistols will usually shoot any good quality ammunition reasonably well, but like all firearms, they will show a preference for a particular brand and type of .22 ammunition.

Rimfire match ammunition ranges in cost from around \$4 a box at the bottom end of the scale to more than \$20 a box at the top end. All previous records have been broken by Lapua's new top-of-the-line target ammo, leaving little change from \$50 a box or \$1 per projectile. The single-shot and Unlimited pistols (usually bolt-actions) can usually group into much less 25mm at 50ms with selected ammo and if you are lucky, they may do it with cheaper ammunition.

Revolvers, however, are another matter and getting a revolver to shoot well is a challenge. After doing lots of experimental shooting with four different Rimfire Metallic Silhouette revolvers, I have found that there are no rules as to what works and what does not. As a general rule, many revolvers prefer high-velocity ammunition, with Winchester Power Point being among the most popular. I have two Dan Wesson .22 revolvers (8 and 10" barrels). The 8" shoots well with SK Pistol Match ammo (\$6 a box), while the 10" shoots best with Federal Classic 510 High Velocity Solids (\$2.50 a box). They both shoot badly with ammunition from other brands.

Getting a revolver/ammunition combination to shoot 25mm groups at 50m is a real challenge. Freedom Arms .22 single-action revolvers will do



**The Picra, made in the Czech Republic, has a very strong bolt action and a versatile interchangeable barrel system. It also has its own aperture sights and is appearing in Australia in increasing numbers with the top shooters.**

it, but at a very high price (more than \$3000 at current exchange rates). It is possible to get the other brands to produce similar results, but it is usually with individual pistols rather than across the model range. It is even a bigger challenge to get any rimfire pistol to group tightly at 100m.

An unusual revolver phenomenon experienced by Rimfire Metallic Silhouette shooters is a fall-off in accuracy past 50m. While I have not personally experienced this, fellow shooters who test their handguns from a machine rest have found that some pistol/ammunition combinations (and Ruger's Single Six has been mentioned in this respect) fall off in grouping ability at 100m while still shooting very well at 50m. Revolvers lose quite a bit of velocity compared to single-shot pistols thanks to the revolver's cylinder gap effects and a six-gun will typically produce a velocity 100fps less than a fixed-chamber barrel of the same length.

For a pistol to qualify in Production class, there must be at least 30 pistols manufactured and be available to the shooting public. This has alleviated the problem of supply to some extent, in that, Bruce Dunbar, who has long been a supplier of Unlimited Rimfire pistols based on Brno Model 2 rifle actions, has been able to produce a cleverly designed variant called the BB40X. This is also based on the Brno Model 2, but fits the Production class with respect to barrel length, overall length and weight. The prerequisite number of BB40X pistols has been made and has proved very popular with local Rimfire Metallic Silhouette shooters as the one Production class pistol also performs very well in the Unlimited class, as well as the Standing division.

I acquired a BB40X late in 2008 based on a used Brno Model 2 that was purchased locally. Bruce will build these pistols from scratch or build



**The Freedom Arms rimfire revolvers are recognised as the best and most accurate Silhouette handguns for the match, but at around \$3000 and more, they are expensive.**



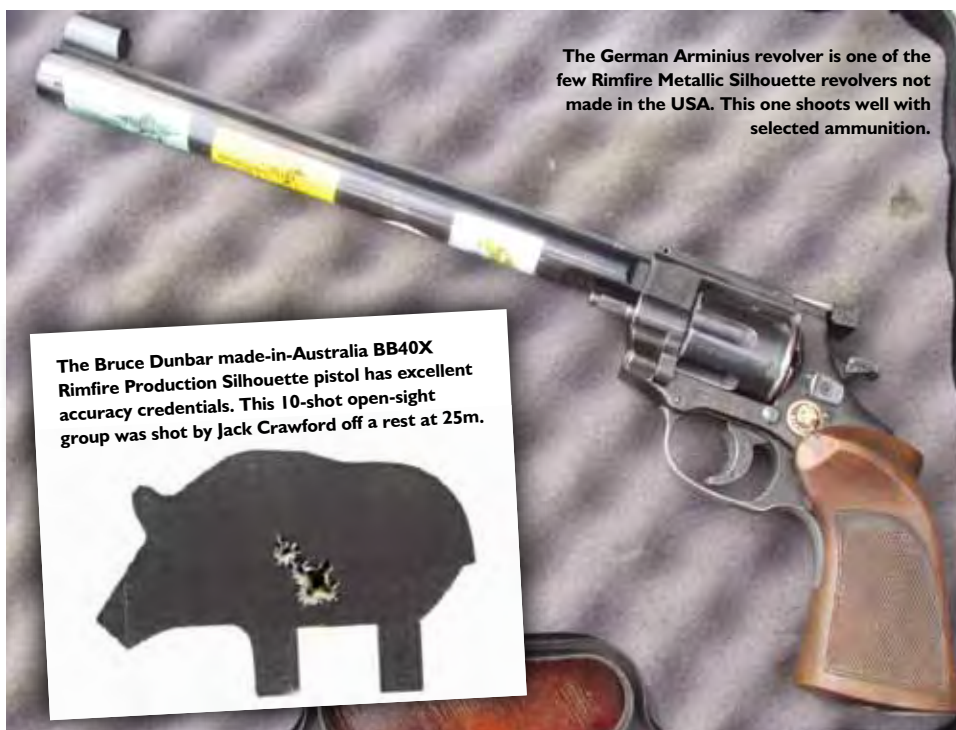
**The MOA is made in the USA and is available in centrefire and rimfire chambering. It's not a pretty pistol, but is very competitive.**

them with a significant cost adjustment if the Brno Model 2 is supplied. In most cases, the original Brno barrel is used. Well-known barrel maker and gunsmith Robert Tobler does the metalwork, which involves removing and rechambering the barrel to tight match specifications; blueprinting the action to Bruce Dunbar's head-space, bolt configuration and lock-up specifications; fluting the barrel to reduce the weight; and rebluing the finished metalwork.

The walnut stocks are supplied by Geoff Slee and finished by Bruce, who also makes the trigger modifications so the BB40X can retain the five-shot magazine. The retention of the magazine is

a significant benefit in competition. There are two minutes allowed to shoot a five-shot series at one bank of targets. The magazine allows reloading to be done quickly without altering the shooting position (compared to a single-shot pistol) and gains some critical aiming and shooting time within the two-minute time limit.

The BB40X pistols are test fired prior to sale and must meet stringent accuracy standards. Mine is no exception and is easily capable of sub-12mm groups at 50m with match-grade ammunition. It is easy to fit a riflescope on the Brno action to do ammunition testing and verify the preferences of the outfit.



**The German Arminius revolver is one of the few Rimfire Metallic Silhouette revolvers not made in the USA. This one shoots well with selected ammunition.**

**The Bruce Dunbar made-in-Australia BB40X Rimfire Production Silhouette pistol has excellent accuracy credentials. This 10-shot open-sight group was shot by Jack Crawford off a rest at 25m.**



An unusual Rimfire Metallic Silhouette pistol that has recently appeared on the firing line is the Picra. Made in the Czech Republic, it is not the prettiest of pistols, but this versatile, if not expensive, outfit uses an unusual three-lug rear-locking very short bolt action and has an interchangeable barrel system. It can also be supplied with its own proprietary aperture sights. The strength of the action allows it to be chambered for just about anything and like the Thompson Center, its interchangeable barrels make it a versatile outfit for all branches of Handgun Metallic Silhouette competition.

Another development in Rimfire Metallic Silhouette competition is the introduction of the use of aperture sights on Production class pistols. Anschutz match aperture sights are the most popular option, with specially made small ring inserts for the front-sight. The low recoil of .22 rimfire ammunition allows this type of sight to be used without the shooter getting a black eye, as the rear-sight has to be held less than 100mm from the eye to get these sights to work with the small apertures involved.



The use of aperture sights is usually confined to the Standing match, as they are not practical for shooting in the Creedmoor position. Although, there is nothing stopping a shooter using them from any freestyle (prone, sitting, etc) position, which is the shooter's choice in the Production, Revolver and Unlimited divisions of the match.

For a change, there are some inexpensive Unlimited class options for Rimfire Metallic Silhouette shooters. Old Free Pistols (such as Hammerli TOZ35s and Drulovs) have been brought out of retirement and apart from having to remove the adjustable palm shelf, you can get

them right on the job in most cases and they do a very good job, as they are basically very accurate pistols. The CBC 722 Unlimited bolt-action is another remarkable inexpensive option, which can be found for a couple of hundred dollars and are purpose-designed as an Unlimited Rimfire Silhouette pistol and with a five-shot magazine at that.

The opportunity to shoot at 40 metallic targets that fall over when you hit them is a great way to hone your shooting skills and doing it on the 100m rams with a .22 rimfire pistol on a windy day is as tough of a test of your equipment and ability as you are likely to get. ■

# SSAA

The Sporting Shooters' Association of Australia Inc.

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