

Test
by Matteo Cagossi - 18 November 2020

ARMI E TIRO

Totally pure

The new monolithic bullets' range of Mrr Bullets is made of pure copper with innovative technical solutions and highest precision. We tested Green Hunting bullet and the shot groups are amazing.



After inventing barrels with Mrr multiradial rifling, now particularly appreciated both in the sporting and hunting field, Sabatti began to develop with Mrr Bullets srl, a new company founded for this purpose, a monolithic bullets' line intended for shooting and hunting.

The company name, however, reveals the manufacturer's original will, namely offering monolithic bullets specially developed for specific Sabatti's barrels.

It is nonetheless true that, from the results of the ballistic tests, these bullets have proved to be extremely efficient also with traditional barrels, making Mrr bullets a good made in Italy alternative for those who want or need lead-free bullets.

The Mrr bullets' line for rifles, known as Green, develops on three different products: Green Long Range for long distance shooting, Green Sport for medium distance competitions, the subject of this test, and Green Hunting bullets for selective hunting.



The Hunting one

Ahead of the start of the new hunting time, we tested Hunting bullet in .30 calibre, with a weight equal to 152 grs. Apart from the production downtime caused by the lockdown for the Covid-19 pandemic, Mrr is developing other bullet's weights and calibers but, in regard to the huntable species in our country, we thought that the 152 grs bullet could perfectly adapt to almost all local demands.

Mrr bullets are made with turning selected pure copper rods and they integrate different patented solutions, aimed at improving ballistic performances in terms of precision, connection consistency at different impact speeds and sliding in the barrel. This last aspect, important for reaching the highest precision, has led to great planning efforts, which have given rise to the characteristic bullet area's outline in contact with the rifling.

In this context, the chosen technical solution is to provide the bullet with four driving bands with a reduced thickness.

The rings, or driving bands, allow the optimal rifling engagement, a perfect sealing force and exploitation of the firing gases, the drastic reduction of friction in the barrel with a reduction of copper deposits too.

In addition, the driving bands tend to "straighten" the bullet axis in relation to the barrel axis, keeping it perfectly concentric, even when cartridges are not perfectly assembled, and they improve the bullet's aerodynamics since the limited carved area of the rifling reduces the surface roughness of the bullet.

Between the driving bands there are also under-calibrated conical sections, not a cylindrical section, which allow the material carved by the rifling to "move" into these sections, without "scattering" on the rifling.

This accurate design arises from the need to combine the very high speed already reached by the Mrr bullets, when they are loaded with exaggerated hunting calibers, with the noble material used to manufacture the bullet. Pure copper, in fact, is rather ductile and it is extremely important to ensure a valid bullet's connection, regardless of the impact speed (or the distance).

With these features, Green Hunting bullet ensures extraordinary final results even at distances far beyond normal hunting needs, thanks to the 4 fracture points of the hollow-point bullets, which lead to the creation of 4 "petals" in the expansion phase.

The hole, however, is covered by the polymeric tip, which is necessary for a better effectiveness of the bullet in flight.

The complete test on the October 2020 issue of Armi e Tiro



Our test

The ballistic coefficient of the .30 "caliber Mrr Green Hunting bullet of 152 grs, equal to .425, is similar to that of classic shooting bullets of 167 or 168 grs. This helps to reduce speed loss further from 200-300 m, in this way there is sufficient kinetic energy's conservation for clean shots at a distance of even more than 300 m.

In this case, the bullet's low weight, that allows to reach high speeds, the relatively high ballistic coefficient caused by the bullet's shape and the pure copper's ductility, which facilitates a fast connection, prove that Mrr bullets are always extraordinary and determined.

In this context, I set up a .308 Winchester caliber loading by using Fiocchi cases, Cci Br2 primer, 42,5 grs of Vihtavuori N135 gunpowder, I made cartridges with the height equal to 71 mm to which correspond 852m/sec and 364 kgm, in order to test the bullet with an hunting rifle.

Despite having a multiradial barrel on the Sabatti Tactical Evo rifle, I preferred to test the new Italian bullet with my old Tikka M595 prepared by the Valtellina expert Ermes Besseghini in order to verify its performace with a traditional rifling.

After resetting the optical sight, I hit the target located 100 metres away with five cartridges in rapid succession.

The result

An amazing 16 mm diameter pattern in a unique hole. After reloading the rifle with five other cartridges, the result is the same, allowing me to duplicate the result and, above all, I didn't regret the shooting bullets at all.

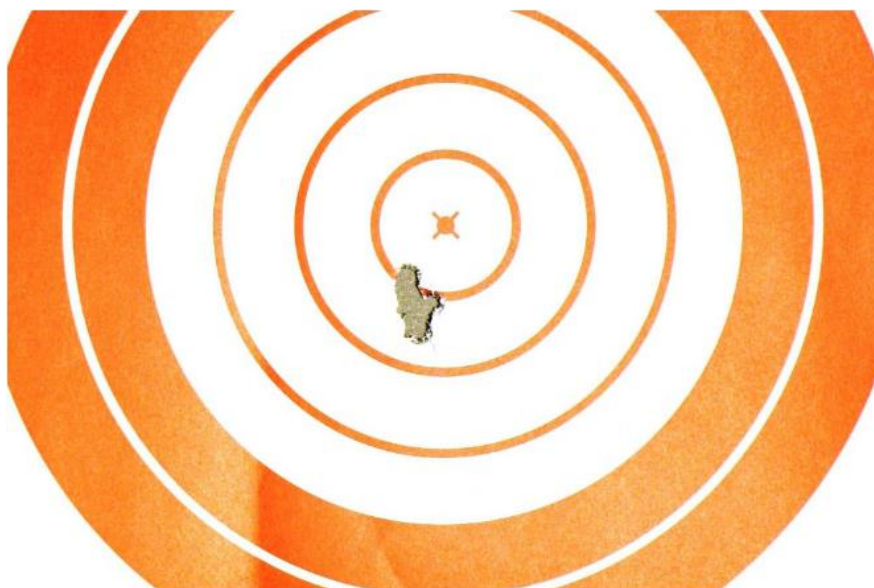
Thanks to the excellent ballistic performances, I was not afraid to hit the target located 300 metres away. At this range I had two other patterns with 5 cartridges, with 50 mm and 48 mm diameter respectively.

Thanks to the good ballistic coefficient, you still have a speed of 645 m/sec, at a distance of 300 m, with 209 kgm available kinetic energy, entirely sufficient to hunt cleanly roe deers, fallow deers and wild boars.

The careful bullet's design, the even greater field tests during the pre-Covid period and the meticulous quality control, allow Mrr Bullets to get into the combative monolithic bullets business with a product that is up to the challenge and, above all, it is able to worthily satisfy the hunter.

In this context, Mrr Bullets gave out free samples with 15 bullets to 500 hunters at the Hit 2019 firearms fair, in order to give to the hunters the opportunity to test the high quality of Green Hunting bullets, with a smart and innovative promotional campaign intended to give maximum visibility to its products for the Italian market.

The initial company feedback left no doubt, the later received proofs agreed on effectiveness of the Italian product.



Rosata di 5 colpi a 100 m con 42,5 grs di Vihtavuori N135, diametro rosata 16 mm.

5 shots pattern at a distance of 100 m with 42,5 grs of Vihtavuori N135, 16 mm pattern's diameter.