

Fit for purpose

Tony Bracci takes a look at the different factors that come into play when fitting a gun

Gun fit is a fundamental aspect of shooting. It is hard to shoot instinctively and consistently without it. You will find yourself having to check your gun position and adapt your body and head position to accommodate a poorly fitted gun.

Stance

A gun fit for a trap shooter is very different to a gun fit for a game shooter. Also, left- or right-handed shooters and over-and-under or side-by-side shotguns all require a different fit. After the 'get to know you stage' we introduce the gun to the client with some practice mounts. We then look at length of pull, which can vary greatly due to stance. If you stand facing your target square on then you will require a shorter stock than someone who stands side on to the target like a rifle shooter. It is at this stage we ask the client how set in their ways they are and highlight the pitfalls of fitting a gun to a poor stance.

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The position of your feet is important

Pull, angle, mount

If the stance is good, we will be looking at three factors to get the length right, as the length of pull can have a big influence on the other measurements. The gap in between the nose and the back of the thumb on the hand with the finger on the trigger, should be about two or three fingers' width. The

other is the angle of the elbow joint on the back arm, which should be at about 90 degrees. The third factor is the ease of the gun mount. This should be an easy movement, not an elongated out and in movement. While looking at the length of pull I would also be looking at the pitch angle, making sure the entire butt is located in the shoulder. If the bump or the toe is not located fully in the shoulder, then the pitch angle can be adjusted to suit. The normal pitch angle is 86 degrees.

Drop

The drop measurement is next. Having your pupil looking just above the rib would give you a flat shooting gun 50:50 pattern. For sporting purposes, the shot pattern should be 60:40, 70:30 above the point of aim. This means being able to see the iris and possibly

Length of pull can vary greatly due to stance



The fit on a side-by-side will be different from an over-and-under

the white of your eye above the rib from the front of the gun. A lot of people think it feels high until they see the results on the pattern plates. The drop is measured from an imaginary line extending back from the rib measuring down to the stock. Making the drop measurement less lifts the eye in relation to the rib. The drop measurement is taken at the heel at the back of the gun and an inch in from the front of the comb. The difference between the two is important as if the stock angle is too steep it can cause recoil issues, though some sporting and skeet shooters like a parallel comb. Approximately 16-22mm difference between them is normal.



Cast

The last measurement to look at is the cast. A gun with no cast has the stock in line with the barrels. For a right-handed shooter, cast off, and for a left-handed shooter, cast on. The amount of cast is down to a number of factors – how broad the client's shoulders are, how round or slim face they have and, how they stand. The cast is adjusted so the eye sits in a central position in line with the barrel.

We ask the client to mount the gun with their eyes closed and then move around the front and ask them to open their eyes when it feels right. I hope to see their eyes open dead in line above the barrel.



Tony Bracci seen here with his custom Perazzi

Pattern plates

We then move on to the pattern plates. First, we shoot from a pre-mounted position at the mark. After a couple of shots, we check for consistency. We can adjust with cast if the pattern is consistently left or right and adjust height issues by adjusting the drop measurement. It is amazing how what you thought was a perfect fitting gun in the clubhouse isn't so when you get to the pattern plates. Shooting the pattern plate from a gun down position will show up any inconsistencies with the mount. In theory we should get similar patterns as when we shoot gun up. The mount shouldn't be fast and pokey but a smooth precise positive >>

A pattern plate will show up any inconsistency



mount and shoot. Once we are happy with the patterns, we can progress to moving targets. I don't like to dwell on the pattern plates too long; after all we are not zeroing a rifle.

Targets

I need to see the client shooting targets on a horizontal and vertical axis. If the client is a game shooter then a driven target is also used. Once the horizontal and vertical axis have been checked, any sort of target to give the client the confidence that the gun fit is right.

Checking the vertical axis, I like to use

“Shooting a pattern plate from a gun down position will show up inconsistencies with the mount”

a going away target. Watching where the shot is going in relation to the target, hopefully straight to the centre of the pattern. Anything that goes wrong here is usually down to technique of mount. Target on a horizontal axis is the client's choice as to whether it is left to right or right to left; we look at the line the gun is moving on

and if we are getting good breaks. Misses behind and in front due to misinterpreting the speed or distance of the targets is of no consequence. A suitable crossing target should be found for the client. For game shooters, a driven target can be shot and gives confidence that the fit is good. Clay shooters are usually convinced by the going away and the crosser but any suitable target can be provided to reassure fit is good.

Measure up

Finally, we go back to the clubhouse to measure and fill out the gun-fitting sheet. We fit the gun to a client's needs, as long as it is not fitted to compensate for bad stance, poor mount or bad technique. It is at this time we can also measure a client's existing gun and see what differences there are and how that would affect their shooting. Is it vital to have a gun fit? It is down to how well you want to shoot. ■

Thanks to Bisley Shooting Ground for its help with this article.
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The gun is fitted to a client's needs with the aid of a try-gun