

# The end game

**Tony Bracci** gives the lowdown on chokes – when to use them, what to use and how they help with your shooting

**C**hokes, the tapered constriction at the muzzle end of a gun, are a much-discussed topic out in the field and on the shooting ground.

Who uses what choke, for which target and why? These questions are usually asked if someone is shooting well, the assumption being that if we use the same choke we will get the same results. But to reverse that, if someone is shooting poorly we don't think that it is because they have the wrong choke in. So we can deduce that the person shooting well may have the right chokes in but they also have good stance, good gun fit and good technique. Chokes can help but they are not the only factor to shooting well.

## Pattern

The most desirable pattern will be as big as possible but dense enough to have multiple hits on the target to get a good break or kill. Too tight a choke will produce a small pattern that increases the difficulty and consistency on a close-range target. Too open a choke at distance will produce a pattern that may not be dense enough to break targets or kill game reliably.

The choice of choke is not the only factor affecting your pattern; your choice



Good stance, gun fit and technique are as important as the right chokes

of cartridge can have a big influence, too. So, if you are getting serious about choke choice, pattern testing with different chokes and cartridges at a range of distances can produce some interesting results.

Gun and barrel makers have been looking at the effects of having a restriction at the end of the barrel ever since they began making

them. In 1827, Jeremiah Smith noted what we now know as choke and there were early patents from WR Pape and Sylvester Roper weeks apart in 1866. WW Greener is widely credited as the inventor of the first practical and reproducible fixed-choke system, as documented in *The Gun and its Development* in 1888. The first major brand with a multichoke system, much as we see today, was Winchester, which added the Whinchoke to its 1200 and 1400 models in 1969.

## Size

Choke is measured in thousandths of an inch from the nominal bore diameter. The nominal bore diameter is measured 9in from



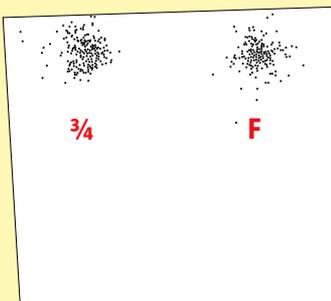
The pattern made by a Blaser F16 with Teague choke,  $\frac{3}{8}$  flush, using Eley cartridges

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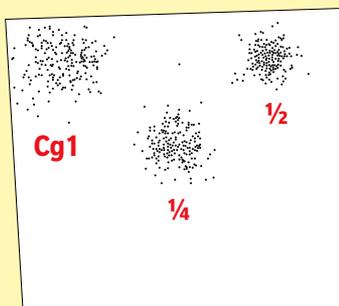


Internal chokes fit flush to the end of the barrel

## PATTERN PLATES



Long shots require tight chokes



Close targets require open chokes

the breech and the amount of restriction at the end gives the choke measurement. The bore diameter is obviously different in different calibres but also can differ slightly in the same calibre. This is not exclusive, we also see  $\frac{3}{8}$  (tight  $\frac{1}{4}$ ) and  $\frac{5}{8}$  (tight  $\frac{1}{2}$ ) are quite popular. Extra full is also available for the tightest restriction. Choke forces the pattern together, which is measured by the percentage of shot load within a 30in circle. At distance, the higher percentage of pellets you want in that circle, the tighter your choke needs to be. If you're shooting at closer targets it helps to have an open choke.

Barrels are made as fixed choke or multichoke. Fixed choke guns are fixed to suit the discipline or sport that you are doing. Multichoke gives you the option to change to suit the discipline or even the specific target you are shooting at. Fixed-choke barrels will be marked as to how they are choked but if you are unsure ask your local gunsmith to measure. With multichoke guns, manufacturers have designed different choke systems; some are short, some are long. There is a whole specialist industry

making aftermarket chokes for nearly all of the brands.

Internal chokes fit flush to the end of the barrel and external chokes extend in front. External could be slightly easier to take in and out and also provide a longer choke, which some believe produces a better pattern than a shorter choke. All types of multichoke need to be tight in the end of the gun for safety, as loose ones can damage the choke and barrel if gasses and shot get behind them.

If you're shooting at close targets, go with open chokes such as cylinder and skeet. For general clay shooting, go with  $\frac{1}{4}$  and  $\frac{1}{2}$ . If you're longer-range clay shooting or game shooting,  $\frac{1}{2}$  and  $\frac{3}{4}$ . Be wary of using full choke with heavy loads as this combination can distort your pattern.

Testing new cartridges or chokes will produce patterns that you can shoot with confidence. Once you have chosen you shouldn't need to keep changing them. ■

Thanks to Bisley Shooting Ground for its help with this article.  
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