

CHOKES, SPREADER LOADS and PATTERNS

Dear Technoid,

This is far and away my favorite page on the web. I was reading some back issues of Shotgun Sports last month and came across an article about reload recipes for tightening or opening patterns, the article claimed that anything from a tight 27 yard trap pattern to a wide open close in skeet pattern could be accomplished just by changing components and not chokes. If this is true, then what need is there for choke tubes?

I have had several guns with tubes and have patterned them with various factory target loads and found little or no difference between Winchoke IC and M, or Invector IC M S2, all these guns seemed to pattern the same with these chokes only the F tube showed any variation from the others.

I have found choke tubes to be a confusing and annoying subject as every shotgun "expert" has their own opinion. To tube or not to tube? That is the question.

Warm Regards,

C.W.

Dear C.W.,

Tube. That is the answer. There is so much baloney written about patterning because very few people actually take the time to do it and when they actually do, they almost never do it right. You can alter a pattern size a fair amount with a shell, but no where near what you can do with a choke.

In clay targets, when we talk about changing chokes, we are talking mostly about sporting clays. A solid skeet choke and a solid full choke will handle American style trap and skeet very nicely. The changeable choke is a real plus at sporting. That doesn't mean that good sporting scores cannot be shot with solid chokes and a multitude of special shells, but there will be situations when you are giving up a bit of an edge.

The Brits were great believers in solid chokes and the changing of shells because they did not go to screw choke guns as quickly as the Americans. I believe that America's Winchester was the first company to broadly market the screw-in choke as part of the barrel (as opposed to the Cutts Compensator tubes or Polychoke). It caught on here almost immediately, but not in Europe. Now it is hard to buy a gun without screw chokes.

One of the problems with screw chokes is that there are so many poorly made ones out there. It is relatively easy to cut a decent solid choke on a production line. It appears to be somewhat more difficult to crank out high quality screw chokes and proper barrel fitment in mass production. Ganging of tolerances often results in screw chokes whose performance with certain shells bears little resemblance to their marking.

If you read back through the SHOTGUN REPORT archives of the Technoid's articles and Q&A letters, you will note that pattern performance is a common topic. It is an absolute fact that pattern performance can vary quite a bit just by changing shells. However, there is a practical limit. The use of a spreader loading might open a legitimate Full choke to Skeet, but every spreader loading that I have tested has been more inconsistent than a standard skeet choke. Spreader loads work by upsetting the shot charge and they do not do it the same way each and every time.

Spreader loads have been around forever. I have tried fiber wads, cut down plastic wads, "X" section card board inserts, disc section cardboard inserts, post wads and little umbrella shaped plastic discs. I have also tried soft, flattened and cubed shot. I have even tried the old Life Saver and MacDonalds soda straw spreader. Nothing consistently produced good open patterns that could compare to a skeet choke. The key here is the word "consistent".

You say that you have found little difference between your Winchokes IC and Modified or your Invector IC, Skeet 2 and Modified. This is very possible. If (and it is a really big "if") the chokes patterned exactly as advertised, the ICs should throw 50%, the Skeet 2 55% and the Modified 60%. A maximum of 10% pattern difference really isn't very much at all. Now if you add in shell to shell variation, plus choke and barrel production variations, it is quite possible that all the 5 chokes you mention could be throwing the same pattern!

Shotgun chokes and pattern percentages really are not all that precise. I break chokes down into three distances: near, middling and far. The five chokes you tested would all be in my "middling" category and I would expect roughly similar performance from them- just what you got.

When I shoot sporting clays I personally use three chokes and three shells. As a general rule I use:

Cylinder Bore (.000") and 1 1/8 oz of #9s inside of 20 yards; Light Mod. (Sk 2 or .015") and 1 1/8 oz of #8 between 20 and 35 yards; Full choke (.035") and 1 1/8 oz of #7 1/2s over 35 yards.

There are special situations when I do not follow the above rules, but I generally do. On paper, you can most definitely see the difference between these three choke/shell combinations.

One of the big advantages of screw chokes is that you can always buy a couple more for just a few dollars if what you have does not suite you. You will have the best chance of obtaining the expected pattern percentages if you mike your bore and the screw choke, rather than just take the manufacturer's word for it.

Regards,
Bruce Buck
Shotgun Report's Technoid