

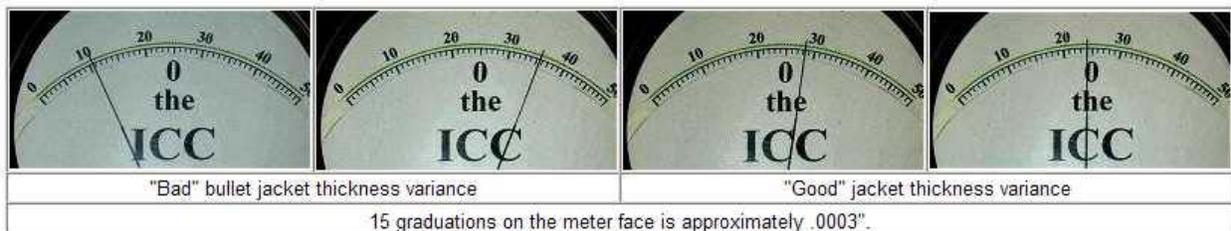
What affects the accuracy of ammunition?

Answer. There are numerous factors that can influence the accuracy of ammunition, but uniformity is the key word. (We are talking about the ammunition itself and not any influences of the firearm.) Listed below in descending order of importance are the items that the bench rest shooters (the "all into one hole folks") have identified as having an effect on accuracy. Note that while all of these things have an effect on accuracy there is a point of diminishing returns as 80 percent of the effort is needed to get the last 20 percent improvement. Simply paying attention to the basics will go a long way to improving your ammunition.

Bullet Quality - You can't get good results with junk. While some folks weigh their bullets of far more concern and influence is jacket thickness uniformity which affects bullet stability. Differences in jacket hardness and core hardness between bullet lots can effect velocity and subsequently accuracy.

However, jacket uniformity is the major difference between "hunting" bullets and "match" bullets. Weighing bullets cannot tell you if an entire box was made from jackets with walls that are thin on one side. But, if the lead core is not perfectly centered "...arf of your bullets can fly wide in the ditch..." (with apologies to Rudyard Kipling). Modern commercial bullets are generally very uniformly made and will perform well in real world applications, and even "hunting" bullets can occasionally equal the performance of "match" type bullets. However, there is a lot of room for improvement when you are seeking that last tiny increment. The reason that bench rest shooters who are looking for the ultimate in accuracy buy bullets from specialty bullet makers who use highly uniform jacket material. The resulting consistency which exceeds that of commercially made "match" bullets provide that accuracy edge.

If you need the very highest accuracy possible the Juenke Internal Concentricity Comparator is what you need. While it doesn't actually x-ray your bullets, Vern Juenke's Internal Concentricity Comparator (I.C.C.) seems to. This device uses sonic pulses to look "inside" bullets for concentricity problems caused by voids and jacket irregularities. Consistent, uniform bullets are the secret to shooting those sub-moa groups at 1000 yards. If you do everything else correctly, and still get an occasional flyer, it may be your bullets. Top competitors with one of Vern's machine often use only 40% of the best hand swaged bullets for serious work. You may find only 10% of the less expensive or production bullets you have been using measure to "Golden BB" standards, with as many as 25% or more actually measuring as "junk". With run of the mill bullets is is possible, based on testing, to drop group size 1 moa or more. With high quality match bullets you can shrink group size up to an additional .2 and .75 moa depending on the bullet.



As an aside, even junk bullets may hold surprises. Last year while verifying a zero I fired a 1" 5 shot group from a Steyr Scout using my GI equivalent blasting load of surplus M80 Ball FMJ bullets and 42 gr of 4895 in LC cases, when normally this is a 2 to 3 MOA load. Wow! Out of curiosity I spun a bunch of those bullets on the ICC. While most swung the needle all over the place, out of 50 or so bullets a couple were really good. I can only surmise that the accuracy gods smiled on me that day and I picked 5 good bullets. Your mileage may vary but I was impressed with the possibilities.

This unit will also measure case wall uniformity. Tests have shown noticeable accuracy improvements if the cases are chambered with the thick or thin sides always in the same position.

Found this article on www.FrFrogspad.com.

Hope this helps.