

Shot Shell Selection

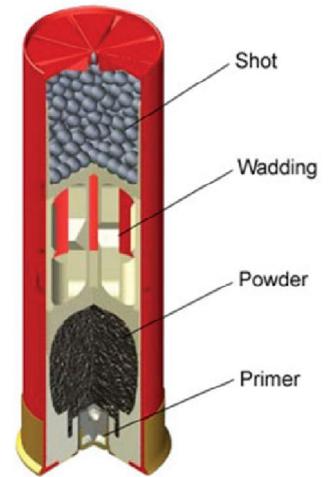
There are hundreds of shot shell brands and types sold throughout the world. Enthusiasts can spend many hours studying the finer differences between one shell and another.

In almost every decision you will need to make there are just three basic factors to consider.

Which shot shell?

What size and type of shot?

How fast do you want it to travel?



Shot Shell Choices:

Gauge	10 to 28 gauge (plus .410 Calibre)
Shell Length	2½", 2¾", -, 3" or 3½"
Hull Type	Reifenhauser or HS (high-strength)
Brass	Brass Plated, Zinc Plated Steel base cups also available in High Brass and Standard

Shot Choices:

Shot Size	Lead: 000Buck to 12
	Steel: BB to 7
Shot Material	Lead, Copper Plated Lead, Bismuth, Steel, Tungsten-Iron, Tungsten-Nickel-Iron, Tungsten Polymer or Paint Ball

Velocity Choices: 980 FPS to 1350 + FPS

Packaging: And Finally... Shotgun Shells are normally sold in packs of:

- 25 A Packet
- 250 A Half Case or "Slab" – 10 Packets
- 500 A Case – Often delivered as 2 slabs.

Danger Stay Alert	Only Carry Legal Ammo	Shoot Well Hunt Effectively	Check : Rarely Important
Gauge and Shell Length	Shot Material Lead or Steel	Shot Size and Velocity	Hull Type and Brass

Gauge for Shotguns and Shot Shells

Almost all shotguns are referred to by their “gauge”. By far the most common shotguns are 12 gauge and 20 gauge. Having said that though, there are plenty of places in the world where 10 gauge, 16 gauge, 26 gauge and 28 gauge shotguns are very popular.

Gauge is determined by a very old fashioned method that is more important to understand as a matter of interest than anything else.

While it’s VERY important to know the gauge of your shotgun and a number of other things when buying ammunition, knowing how gauge is arrived at is not so important.

In Short, gauge equals...

The number of lead balls it takes to make a pound of lead
when the balls are the same diameter as the barrel of the shotgun.



One Pound of Lead 1 lb = 0.453 kilogram	Gauge	Diameter of Barrel	
		Inches	Millimetres
	10	.775	19.69
	12	.729	18.53
	16	.663	16.83
	20	.615	15.63
	28	.550	13.97

There are always exceptions to any rule. The .410 Shotgun is a measurement of “Calibre” rather than gauge. This subject can keep you interested for many, many hours with exotic barrel sizes and shell configurations.

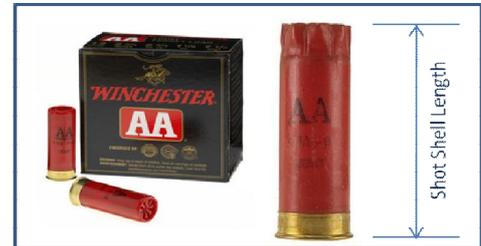
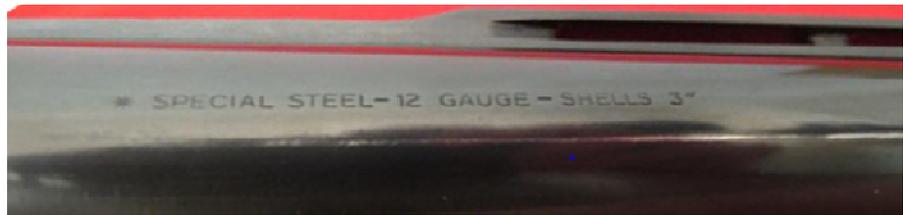
For the moment however, it must be stressed you should **NEVER** place the wrong gauge ammunition in any shotgun. And experience has shown it’s easier to do than you might think. ...!

Shell Length

It's very important that you take **NOTHING** for granted when selecting ammunition.

Generally the information you need will be engraved on the side of your shotgun barrel. If you are in any doubt ask a reputable gun dealer for assistance.

The first thing to note is that shot shell sizes relate to the length of the case **AFTER** it has been fired. Loaded shells are crimped at the top and the physical length of an unused shell is a poor indication of its true size.



The second thing to note is that quite often longer shells will fit into the chamber of your shotgun. Your barrel may indicate the chamber size is $2\frac{3}{4}$ " but a 3" shell will fit quite neatly. The 3" shell case in this chamber could open into the forcing cone of the barrel creating dangerously high pressures.

Re-Check Gauge and Length

The most popular 12 gauge chamber size sold now is $2\frac{3}{4}$ ". If you are sure you have the correct gauge shells you can use $2\frac{3}{4}$ " or shorter shells in this chamber.

ALWAYS check the gauge first, then the length. Serious dangers also await anyone who puts too small a shell in their shotgun.

A 20 gauge shell will slip into a 12 gauge chamber. Firing that shell may do serious damage to the barrel and cause injury to you and anyone standing nearby.

In some cases it is possible to put a 12 gauge shell in on top of a 20 or 28 gauge shell. The results of that are best left to your imagination.

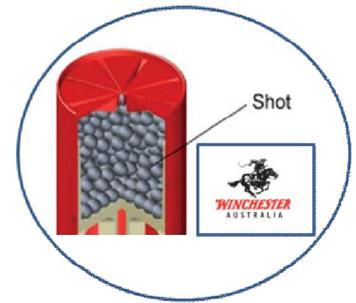


NEVER mix your ammunition. If you are using a 12 gauge shotgun **NEVER** carry any other ammunition in your pockets or your gun case. Do not even store packets of differing sized shells together in the same case.

Danger Stay Alert	Only Carry Legal Ammo	Shoot Well Hunt Effectively	Check : Rarely Important
Gauge and Shell Length	Shot Material Lead or Steel	Shot Size and Velocity	Hull Type and Brass

Shot Choices

Shotgunning enthusiasts will talk for hours about the shot size and grams of shot in the shells they are using.



For targets some will like the 7½ - 28 Gram *blah-de-blahs* while the next person won't shoot anything less than 36 grams because it kicks like a mule and travels further! And that's before we get on to hunting loads for ducks vs. foxes!

The first point to remember is that shot size has nothing to do with gauge. AFTER you are sure about the gauge and length of shell you need, then the shot size choices become

important. In general the choice of shot shell relates directly to what you wish to hit and how good you are at hitting it.

A shot shell contains multiple pellets. The shot size number indicates the size of each pellet and that determines the number of pellets that will fit in a standard cartridge.

Shot sizes are usually portrayed in three groupings – Lead Shot, Buckshot (also lead) and Steel Shot.

Lead shot sizes:	12	9	8½	8	7½	6	5	4	2	BB
Pellet diameter (inches)	.05	.080	.085	.090	.095	.110	.120	.130	.150	.180
(mm)	1.27	2.30	2.16	2.29	2.41	2.79	3.05	3.30	3.81	4.57

Buckshot sizes:	No. 4	No. 3	No. 2	No. 1	No. 0	No. 00	No. 000
Pellet diameter (inches)	.24	.25	.27	.30	.32	.33	.36
(mm)	6.10	6.35	6.86	7.62	8.13	8.38	9.14

Steel shot sizes:	6	5	4	3	2	1	Alr Rifle	BB	BBB	T	F
Pellet diameter (in.)	.11	.12	.13	.14	.15	.16	.177	.18	.19	.20	.22
(mm)	2.79	3.05	3.30	3.56	3.81	4.06	4.49	4.57	4.83	5.08	5.59

Note: the size of shot, wether lead or steel, is based on American Standard shot sizes. Thus: a steel No. 4 pellet and a lead No. 4 pellet are both .13 inches (3.3mm) in diameter.

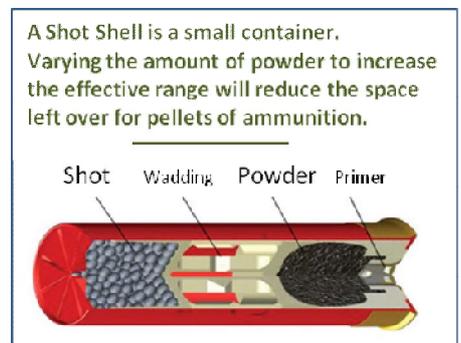
Steel shot shells pellets are usually a little larger than lead. The steel is less dense and each pellet is slightly larger to achieve the range needed.

The number of pellets that fit into a shot shell depends on the size of the pellets used and the volume of everything else that goes into the shell.

So the question is "how many pellets, of what size do you want to deliver over what distance?"

Let's look at one popular combination.

Clay targets travel at around 60-80 kph. Arguably the most popular target load is a 12 gauge, 7½ - 28 Gram shell. This will produce a good PATTERN at distances that relate well to a variety of clay target flight paths.



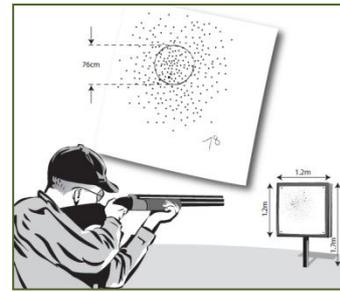
Pattern – It's all about shot meeting target.

Shotguns and shot shell combinations are tested over a number of different distances measuring the number of pellets that strike within a 30" circle.

Ideally you would like your target to collide with enough pellets of the right size to stop it dead in its tracks.

For a clay target shot sizes 7½, 8 or 9 are what break a flying target best while providing for sufficient velocity to be created. The velocity will determine how far in front of the target you need to shoot in order that the two meet in mid air. This is called leading the target and is something you can rapidly get good at with practice.

When hunting much depends on the shot requirements needed to stop a particular prey. Shot sizes suitable for waterfowl will not effectively dispatch an adult fox that is 60 metres away.



Read On...