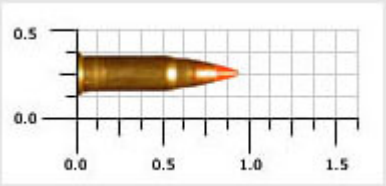
Common Handgun Ammunition



.17 Mach 2

Introduced in 2004, this new cartridge is based on a .22 caliber LR rimfire case that is necked down to seat a 17 grain, .17 caliber Hornady V-Max bullet. Although the overall length of the .17 Mach 2 is the same as the .22 LR, the necked portion of the casing is extended to support the smaller projectile. Keeping the overall size the same as the .22 LR made it easier for manufacturers to re-tool .22 caliber rimfire guns to the new .17 Mach 2 cartridge. This is a lightweight supersonic varmint round that, as its name indicates, travels almost twice the speed of sound. Its speed and weight provide a near-flat trajectory to 100 yards, but past that distance it looses effective energy.

.17 Hornady Magnum Rimfire (HMR)

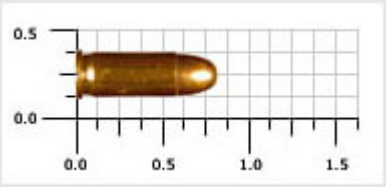
Introduced in 2002, this new cartridge is based on a .22 Magnum (WMR) rimfire case that is necked down to seat a 17 grain, .17 caliber Hornady V-Max bullet. As done with the .17 Mach 2, the .17 HMR is sized such that manufacturers can easily re-tool .22 WMR gun designs to the new .17 HMR cartridge. This is a supersonic varmint round that travels over twice the speed of sound with near flat trajectory to 100 yards. The larger cartridge and load gives the .17 HMR more than 1-1/2 times the energy at 100 yards then the smaller .17 Mach 2.

.22 Long Rifle (LR)

In 1887 the Stevens Arms Co. developed the .22 Long Rifle rimfire cartridge, which used the .22 Long cartridge case developed 16 years earlier, with a 40 grain round nose bullet loaded to a higher velocity than the older 29 grain .22 Long bullet. Modern .22 Long Rifle High Velocity cartridges drive a 40 grain copper-plated bullet at a muzzle velocity of 1255 fps and muzzle energy of 140 ft-lbs from a rifle barrel. This rimfire cartridge has become the most popular sporting and target shooting cartridge in the world. In 1977 CCI introduced a hyper-velocity version of the .22 LR with a lighter bullet and slower burning powder. The result was a 30% increase in muzzle velocity and a 25% increase in muzzle energy over the High Velocity version.

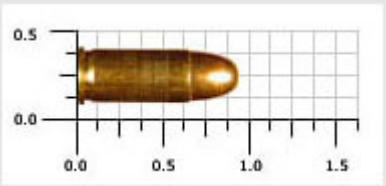
.22 Winchester Magnum Rimfire (WMR)

Introduced in 1959, this cartridge pushes the limits of pressure possible with a rimfire case. Also referred to as the .22 Magnum, the .22 WMR was initially offered with 40 grain FMJ and JHP bullets at an advertised muzzle velocity of 2000 fps from a rifle barrel and 1550 fps from a pistol barrel. Due to the high supersonic velocity, .22 WMR cartridges are loaded with jacketed bullets. Today the .22 WMR is available with bullet weights ranging from about 30 to 50 grains. The standard Winchester 40 grain JHP bullet is now loaded to a rifle muzzle velocity of 1910 fps with a muzzle energy of 324 ft-lbs The various 30-40 grain JHP bullets are best for varmint hunting, but are overly destructive on small game.



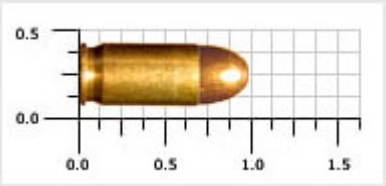
.25 Automatic Colt Pistol (ACP) - AKA 6.35mm Browning

This cartridge was introduced in the United States in 1908 with the Browning-designed, Colt manufactured "Vest Pocket" pistol. Also referred to as the .25 Auto, this semi-rimmed centerfire cartridge has fairly high velocity for such a small size. However, the energy it delivers at any range is quite low. This, combined with the full metal jacketed bullet, adds up to a very poor stopping or killing power on anything. The .25 ACP is not powerful enough for hunting anything but pests, nor is it adequate for serious self defense. However, the .25 auto caliber pistols are popular because of their small size and low cost. Recently Winchester introduced a hollow point load in an effort to improve terminal ballistics.



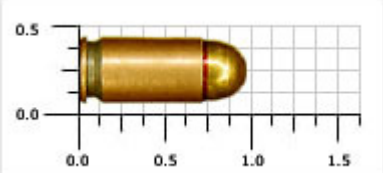
.32 Automatic Colt Pistol (ACP) - AKA 7.65mm Browning

Initially introduced in europe in 1899, this semi-rimmed centerfire cartridge came to the United States in 1903 when Colt introduced its "Pocket Model" semiautomatic pistol. Also referred to as the .32 Auto, the .32 ACP was introduced with a 71 grain full metal jacket bullet at a muzzle velocity of slightly over 900 fps with around 130 foot pounds of muzzle energy. Like the .25 ACP, the .32 ACP is considered by many as too weak to be an effective self-defense round. But it has been an extremely popular caliber, notably by the fact that practically all minor and major manufacturers of autoloading handguns in the world have built millions of small pocket autoloaders in .32 ACP.



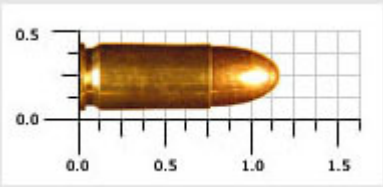
.380 Automatic - AKA 9mm Kurz

The .380 Automatic was introduced by FN of Belgium about 1912 and was designed by John Browning. The cartridge has achieved world-wide acceptance and has even been adopted as the standard pistol cartridge by several governments. One reason for the rounds success is that it is the largest practical cartridge that can be easily adapted to small automatic pocket pistols. Ballistics fall far short of even the 9mm Parabellum, but still prove adequate for most self-defense situations. The round has established quite a niche position in this role, often being chosen over more traditional small calibers such as the .25 and .32 ACPs. Current factory loadings feature a 95-grain bullet exiting a 4 inch barrel at 905 fps with 192 ft-lbs of energy.



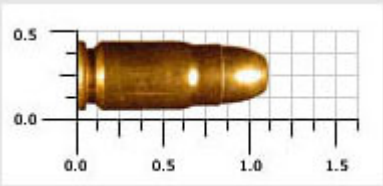
9x18mm - AKA 9mm Makarov

This is the current Russian military cartridge used in the Makarov and Stechkin auto pistols. It was adopted shortly after the end of World War II, and its design was probably inspired by an experimental German cartridge called the 9mm Ultra. This cartridge is intermediate in size and power, between the .380 Automatic and the 9mm Parabellum. It is a well-designed cartridge for its purpose, although a little underpowered by Western standards. This is a sub-sonic round with a bullet weight typically between 90 and 100 grains and a muzzle energy between 185 and 215 ft-lbs.



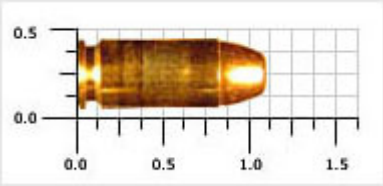
9mm Parabellum - AKA 9mm Luger, 9mm NATO

This cartridge was introduced in 1902 along with the Luger semi-automatic pistol. The pistol and cartridge was first adopted by the German Navy in 1904 and then by the German Army in 1908. This cartridge has since been adopted by the military of practically every non-Communist power. It has become the most popular and widely-used handgun cartridge in the world. Performance wise, the 9mm cartridge has somewhat more power than the .38 Special but falls well short of the .357 Magnum. A typical 115 grain bullet will have an average muzzle velocity of 1200 fps and a muzzle energy around 350 ft-lbs.



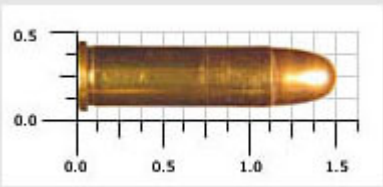
357 SIG

SIGARMS, in partnership with Federal Cartridge, developed the 357 SIG cartridge in 1994. The 357 SIG cartridge uses a bottlenecked .40 S&W casing crimped to a 9mm bullet; this is why the 357 SIG is not written as ".357", as it is not truly a .357 caliber bullet, but is instead a standard 9 mm parabellum (.3550 in). The 357 SIG design is an attempt to create a cartridge with stopping power that would approach the larger .357 Magnum revolver round, but in a smaller package that can fit comfortably in the grip of a semi-automatic weapon. Despite the manufacturer's claims, it is not quite as powerful as an actual .357 Magnum, but it exceeds the power of a .40 S&W cartridge.



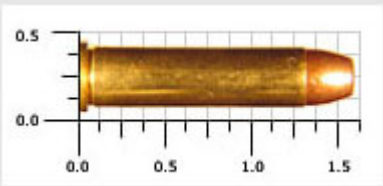
.40 Smith & Wesson (S&W)

This cartridge was developed as a joint venture between Winchester and Smith & Wesson in 1989. It was an effort to to create a cartridge with the same power as the 10mm Norma round that the FBI had just started using, but in a shorter case. The shorter cartridge would facilitate accuracy and allow use of a smaller, more comfortable grip frame. The .40 S&W has become the cartridge of choice for many law enforcement agencies in the United States. Typical bullet weight for this cartridge ranges from 135 to 180 grains with an average muzzle energy that approaches 500 ft-lbs.



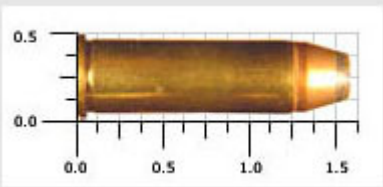
.38 Special

Also known as the .38 Colt Special, this cartridge was developed by Smith & Wesson and was introduced with its Military & Police Model revolver in 1902. This was originally a military cartridge to replace the unsatisfactory 38 Long Colt then in use by the Army. Colt brought out its own version of the .38 Special in 1909, which differs from the original only in bullet shape, being a flat-point style. The .38 Special is considered one of the best-balanced, all-round handgun cartridges ever designed. It is also one of the most accurate and very widely used for match shooting. This subsonic round is available with bullet weights ranging from 95 to 200 grains.



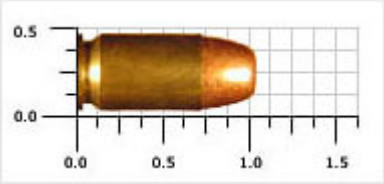
.357 Magnum

This cartridge was introduced in 1935 by Smith & Wesson for its heavy-frame revolver. Ammunition was developed by Winchester in cooperation with Smith & Wesson. Using a lengthened and strengthened version of the .38 Special case, the .357 Magnum was rapidly accepted by hunters and law enforcement. At the time of its introduction, it was claimed to easily pierce the body panels of automobiles and crack engine blocks. While it has less power than .44 Magnum, it compares favorably to the 10mm Norma and .45 ACP, but with better armor penetration. Today factories offer over fifty different loadings in this caliber. Bullet weights range from 110 to 200 grains with an average muzzle energy exceeding 500 ft-lbs.



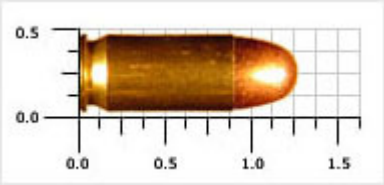
.44 Remington Magnum

This cartridge was developed by Smith & Wesson and Remington, and was introduced in 1955 for a new heavy-frame 44 Magnum revolver. Today Ruger, Colt, Smith & Wesson and others make revolvers for this cartridge. This is a high powered pistol cartridge designed primarily for hunting. The .44 Magnum offers less power than .50 AE and .454 Casull, but much more than .357 Magnum. The average bullet weight of this cartridge exceeds 200 grains, and the average muzzle energy easily approaches 1000 ft-lbs.



.45 Glock Automatic Pistol (GAP)

In 2003 a joint development program by Glock and Speer resulted in a new cartridge - the 45 Glock Automatic Pistol (GAP). The cartridge was designed by GLOCK to be used in the medium frame sized GLOCK 37 semi-automatic pistol. It is based on the .45 ACP pistol cartridge, but is shorter; the same overall length as a 9 mm Luger or .40 S&W. The .45 GAP operates at a higher pressure than the .45 ACP to make up for the smaller chamber volume. It was first believed that the traditional .45 ACP loading of a 230-grain bullet at 830 ft/s would not be possible in the .45 GAP, but careful gunpowder selection on the part of ammunition manufacturers has realized that standard. Typical bullet weights now range from 185 to 230 grains.



.45 Automatic Colt Pistol (ACP)

This cartridge was developed by John Browning in 1905 and adopted by the United States Ordnance Department, along with the Colt-Browning automatic pistol, in 1911. It has also been made the official military handgun chambering by several other governments, notably Argentina, Mexico and Norway. The 45 Automatic is the most powerful military handgun cartridge in use today. This is a heavy and powerful sub-sonic round with bullet weights from 185 to 260 grains. Although its muzzle energy can exceed 400 ft-lbs, its velocity and bullet weight creates a steep trajectory curve that limits its effective range to self-defense distances.