

## Winchester Ballistics Glossary

**Action:** The combined parts of a firearm that determine how a firearm is loaded, discharged and unloaded. Most handguns are referred to as “single-action” or “double-action.” A single-action firearm requires the user to manually pull back the hammer before the firearm allows the user to either manually cock the hammer or simply pull the trigger and allow the firearm to cock and release the hammer on its own.

**Action, Automatic:** A firearm that loads, fires, and ejects cartridges as long as the trigger is depressed and there are cartridges available in the feeding system (i.e. magazine or other such mechanism). Automatic action firearms are machine guns. *Note: Since 1934 it has been unlawful to sell or possess an automatic firearm without special permission and licensing from the U.S. Department of the Treasury, in addition to other measures.*

**Action, Bolt:** A firearm, typically a rifle, that is manually loaded, cocked, and unloaded by pulling a bolt mechanism up and back to eject a spent cartridge and load another. Bolt action firearms are popular for hunting, target shooting, and biathlon events. A bolt action rifle allows the shooter maximum accuracy, but may be too slow or cumbersome for some shooting sports.

**Action, Lever:** A firearm, typically a rifle, that is loaded, cocked, and unloaded by an external lever usually located below the receiver. *Note: The type of rifle used in most Western movies is a lever-action.*

**Action, Pump:** A firearm that features a movable forearm that is manually actuated to chamber a round, eject the casing, and put another round in position to fire.

**Action, Semi-Automatic:** A firearm in which each pull of the trigger results in a complete firing cycle, from discharge through reloading. It is necessary that the trigger be released and pulled for each cycle. These firearms are also called “autoloaders” or “self-loaders.” The discharge and chambering of a round is either blowback operated, recoil operated, or gas operated. *Note: An automatic action firearm loads, discharges, and reloads as long as ammunition is available and the trigger is depressed. A semi-automatic firearm only discharges one cartridge with each squeeze of the trigger.*

**Ammunition:** A loaded cartridge consisting of a primed case, propellant, and a projectile. Among the many types of ammunition are centerfire rifle and pistol, rimfire, shotshells, and reloads.

**Ammunition, Small Arms:** A military term used to describe ammunition for firearms with bores (the interior of the barrel) not larger than one inch in diameter.

**Arms, Small:** Any firearm capable of being carried by a person and fired without additional mechanical support.

**Armor Piercing:** See *BULLET, ARMOR PIERCING*

**Ballistics:** The science of studying projectiles. Ballistics can be “interior” (inside the gun), “exterior” (in the air), or “terminal” (at the point of impact). Ballistic comparison is the attempt to microscopically match a bullet or fired cartridge case to a particular firearm.

**Barrel:** That part of a firearm through which a projectile travels. The barrel may be rifled (i.e., with spiral grooves on the interior of the barrel) or smooth bore (i.e., a smooth interior barrel with no grooves).

**BB:** Spherical shot having a diameter of .180” used in shotshell loads. The term is also used to designate steel or lead air rifle shot of .175” diameter.

**Benchrest:** A table specifically designed to eliminate as much human error as possible by supporting a rifle for competitive shooting or sighting-in purposes.

**Big Bore:** In America, any firearm using a centerfire cartridge with a bullet .30” in diameter or larger.

**Birdshot:** Small lead or steel pellets used in shotshells ranging in size from #12 (less than the diameter of a pencil point) to #4 (about .10” in diameter) used for short-range bird and small game hunting.

**Bore:** The interior barrel forward of the chamber

**Bore Diameter:** On rifled barrels, the interior diameter of the barrel from the tops of the lands (the highest point of the grooves). On a smooth barrel, the interior dimension of the barrel forward of the chamber (not including the choke on the shotgun barrels).

**Buckshot:** Large lead pellets ranging in size from .20” to .36” diameter normally loaded in shotshells used for deer hunting.

**Bullet:** A non spherical projectile for use in a rifled barrel.

**Bullet, Armor Piercing:** A projectile or projectile core that may be used in a handgun intended to pierce steel armor that is constructed entirely, or has a core constructed, from one or a combination of tungsten alloys, steel, iron, brass,

bronze, beryllium copper, depleted uranium, or a fully jacketed projectile larger than 22 caliber intended for use in a handgun whose jacket has a weight of more than 25 percent of the total weight of the projectile. The term does not include shotgun shot or projectiles intended for sporting purposes. *Note: The Gun Control Act of 1968 (18 U.S.C. Sec. 922 (a) (7)) prohibits the manufacture or sale of armor piercing ammunition, except for use by law enforcement and the military.*

**Bullet, DumDum:** A British military bullet developed in India's Dum-Dum Arsenal in 1897-98. It was a jacketed .303 caliber rifle bullet with the jacket most left open to expose the lead core in hopes of greater effectiveness. Further development of the bullet was not pursued because the Hague Convention of 1899 outlawed and such bullets for warfare.

**Bullet Engraving:** The grooves cut into a bullet by barrel rifling. *Note: When a bullet travels down the barrel, the grooves (or rifling) leave an imprint on the bullet. The matching of the marks on a bullet to the rifling of a particular firearm is an important tool for law enforcement in determining whether a bullet was fired from a particular firearm.*

**Bullet, Full Metal Jacket:** A projectile in which the bullet jacket (a metallic cover over the core of a bullet) encloses most of the core with the exception of the base. They are used mostly for target shooting and military use.

**Bullet, Hollow Point:** A bullet with a cavity in the nose, exposing the lead core, to facilitate expansion upon impact. Hollow point cartridges are used for hunting, self-defense, police use, and other situations to avoid over penetration.

**Bullet, Wadcutter:** A generally cylindrical bullet design having a sharp shouldered nose intended to cut paper targets cleanly to facilitate easy and accurate shooting.

**Butt:** On handguns, it is the bottom part of the grip. On long guns, it is the rear or shoulder end of the stock.

**Caliber:** A term used to designate the specific cartridges for which a firearm is chambered. It is the approximate diameter of the circle formed by the tops of the lands of a rifled barrel. It is the numerical term included in the cartridge name to indicate a rough approximation of the bullet diameter (i.e. .30 caliber- .308" diameter bullet).

**Carbine:** A rifle of short length and light weight originally designed for horse-mounted troops.

**Cartridge:** A single round of ammunition consisting of the case, primer, propellant, powder, and one or more projectiles.

**Cartridge, Centerfire:** Any cartridge intended for use in rifle, pistols, and revolvers that it has its primer central to the axis at the head of the case. *Note: Most cartridges, including shotshells, are centerfire with the exception of 22 caliber rimfire ammunition. If you were to look at the bottom of a centerfire cartridge, you would see a small circle in the middle of the base, hence, "centerfire." There are a few rimfire ammunition calibers besides the 22, but they are rare and not widely available.*

**Cartridge, Magnum:** Any cartridge or shotshell that is larger, contains more shot, or produces a high 46 velocity than standard cartridges or shotshells of a given caliber or gauge.

**Cartridge, Rimfire:** A cartridge containing the priming mixture in the rim of the base, usually a 22.

**Cartridge, Small Bore:** A general term that refers to rimfire cartridges. Normally 22 caliber ammunition used for target shooting, plinking, and small game hunting.

**Chamber:** In a rifle, pistol, or shotgun, it is the part of a barrel that accepts the ammunition. In a revolver, it refers to the holes in the cylinder where the cartridges are loaded.

**Choke:** An interior tube at the end of a shotgun barrel that controls shot dispersion. Chokes typically come in cylinder, improved cylinder, modified, improve modified, and full. *Note: A cylinder choke produces a very wide shot dispersion, whereas a full chose will provide a much tighter shot pattern. Different chokes are used for skeet, trap, and sporting clays. In hunting, the type of game and conditions will determine choke type.*

**Clip:** See *MAGAZINE*.

**Cock:** To place the hammer, or striker, in position for firing by pulling it back fully.

**Cylinder:** The round, rotatable part of a revolver that contains the cartridge chambers.

**Derringer:** A generic term referring to many variations of pocket-sized pistols. The name comes from the pistol's original designer, Henry Derringer. *Note: According to the American Derringer Company, Henry Deringer's name is spelled with one 'R.' The proper spelling of Derringer firearms is with two 'R's.*

**Discharge:** To cause a firearm to fire.

**Double Barrel:** Two barrels on a firearm mounted to one frame. The barrels can be vertically (over-under) or horizontally (side-by-side) aligned.

**DumDum:** See BULLET; DUMDUM

**Firearm:** An assembly of a barrel and action from which a projectile is propelled as a result of combustion.

**Firing Pin:** The part of a firearm that strikes the primer cartridge to start the ignition of the primer.

**Flash Suppressor:** An attachment to the muzzle designed to reduce muzzle flash. *Note: A flash suppressor is not a silencer.*

**Full Cock:** The position of the hammer when the firearm is ready to fire.

**Gauge:** A term used to identify most shotgun bores, with the exception of the .410 shotgun. It relates to the number of bore diameter lead balls weighing one pound. *Note: the .410 shotgun is a caliber. The .410 refers to the diameter of the barrel.*

- 10 gauge - .775 inch
- 12 gauge - .730 inch
- 16 gauge - .670 inch
- 20 gauge - .615 inch
- 28 gauge - .550 inch
- 67 gauge - .410 inch

**Group:** A series of shots fired at the target used to adjust the sights or determine the accuracy of a firearm.

**Half Cock:** The position of the hammer about half retracted and intended to prevent release of the hammer by a normal pull of the trigger.

**Hammer:** The part of the firing mechanism that strikes the firing pin, which, in turn, strikes the primer.

**Hammerless:** A firearm having an internal hammer or striker.

**Jacket:** The envelope enclosing the lead core of a bullet.

**Jam:** A malfunction that prevents the action from operating. Jams may be caused by faulty or altered parts, ammunition, poor maintenance of the firearm, or improper use of the firearm.

**Jump:** The upward and rearward recoil of a firearm when it is fired. It is commonly called recoil or "kick."

**Lands:** The uncut surface of the bore of a rifled barrel.

**Load:** The combination of components used to assemble a cartridge or shotshell. The term also refers to the act of putting ammunition into a firearm.

**Machine Gun:** See ACTION, AUTOMATIC.

**Magazine:** A receptacle on a firearm that holds several cartridges or shells for feeding into the chamber. Magazines take many forms, such as box, drum, rotary, or tubular and may be fixed or removable. *Note: The 1994 crime bill banned the manufacture and importation of magazines with a capacity greater than 10 rounds.*

**Magnum:** See CARTRIDGE, MAGNUM

**Misfire:** A failure of the cartridge to fire after the primer has been struck by the firing pin.

**Muzzle:** The front end of a firearm barrel from which the bullet or shot emerges.

**Muzzle Flash:** The illumination (flash) resulting from the expanding gases from the burning propellant particles emerging from the barrel behind the projectile and uniting with oxygen in the air.

**Muzzle Loader:** Any firearm loaded through the muzzle. Also called “black powder” firearms. They may be antique, replica, or of modern design.

**Nose:** The point or tip of a bullet.

**Over and Under:** A firearm with two barrels, one above the other.

**Pattern:** The distribution of shot fired from a shotgun. Generally measured as a percentage of pellets striking in a 30 inch circle at 40 yards.

**Pistol:** A term for a one-hand held firearm with a single chamber. ( A revolver has at least five chambers.)

**Pistol, Automatic:** The common but improperly used term to describe semi-automatic pistols. See ACTION, SEMI-AUTOMATIC for a description of how these pistols operate.

**Pistol, Double Action:** A pistol mechanism in which a single pull of the trigger cocks and releases the hammer.

**Pistol, Single Action:** A pistol mechanism that requires the manual cocking of the hammer before the trigger releases the firing mechanism.

**Plinking:** The informal shooting at inanimate objects at indefinite points. *Note: Plinking typically refers to casual shooting at pine cones, tin cans, or other such objects for fun and practice.*

**Powder:** Commonly used term for the propellant in a cartridge or shotshell. See also PROPELLANT.

**Powder, Black:** The earliest type of propellant, allegedly made by the Chinese or Hindus. First used for firearms in the 13<sup>th</sup> century, it is a mechanical mixture of potassium or sodium nitrate, charcoal, and sulfur. It makes a large cloud of smoke when fired.

**Powder, Smokeless:** A modern propellant containing mainly nitrocellulose or both nitrocellulose and nitroglycerin. Relatively little smoke is created when fired.

**Pressure:** The force developed by the expanding gases generated by the combustion of the propellant.

**Primer:** The ignition component consisting of brass or gilding metal cup, priming mixture, anvil, and foiling disc. It creates a spark when hit by a firing pin, igniting the propellant powder.

**Propellant:** The chemical composition which, when ignited by a primer, generate gas. The gas propels the projectile. See also POWDER

**Receiver:** The basic unit of a firearm which houses the firing mechanism and to which the barrel and stock are assembled. In revolvers, pistols and break-open firearms, it is called the frame.

**Recoil:** The rearward movement of a firearm resulting from firing a cartridge or shell.

**Recoil Pad:** A butt plate, usually made of rubber, to reduce the recoil or “kick” of shoulder firearms.

**Reload:** A round of ammunition that has been assembled using fired cases. *Note: Reloading is very popular among recreational target shooters, competitive shooters, and hunters. In addition to being cost-effective, reloading enables shooters to develop ammunition specifically designed for particular shooting disciplines or games.*

**Revolver:** A firearm with a cylinder having several chambers so arranged as to rotate around an axis and be discharged successively by the same firing mechanism. A semi-automatic pistol is not a revolver because it does not have a revolving cylinder.

**Rifle:** A firearm having spiral grooves in the bore and designed to be fired from the shoulder. By law, rifle barrels must be at least 16" long. Handguns usually have rifled barrels as well.

**Rifling:** Grooves formed in the bore of a firearm barrel to impart rotary motion to a projectile.

**Round:** One complete small arms cartridge. *(See diagram below)*

**Safety:** A device on a firearm designed to provide protection against accidental or unintentional discharge under normal usage when properly engaged.

**Semi-Automatic:** Firearm which fires, extracts, ejects, and reloads only once for each pull and release of the trigger.

**Shotgun:** A smooth bore shoulder firearm designed to fire shells containing numerous pellets or a single slug.

**Shotshell:** A round of ammunition containing multiple pellets for use in a shotgun. The multiple pellets in a shotshell are called SHOT.

**Silencer:** A device attached to the muzzle of a firearm to reduce the noise of discharge. Silencers are virtually prohibited for civilian ownership and use.

**Skeet:** A clay target shooting sport with a shotgun. Shooters fire at clay targets crossing in front of them.

**Skeet Gun:** A shotgun with an open choke specifically designed for clay target skeet shooting or close range hunting.

**Sporting Clays:** Often called "golf with a shotgun," it is a sport in which shooters, using shotguns, fire at clay targets from different stations on a course laid out over varying terrain.

**Stock:** The wood, fiberglass, wood laminate or plastic component to which the barrel and receiver are attached.

**Target, Clay:** A circular, domed frangible disc used as an aerial target for shotgun shooting games. Originally formed out of clay, modern targets are combination of pitch and limestone. Dimensions and weights are regulated by trap and skeet shooting associations. They are often called "clay pigeons."

**Trajectory:** The path of a bullet through the air.

**Trap:** A clay target throwing device, either power or hand-operated.

**Trap Shooting:** A clay target shooting sport with a shotgun. Shooters fire at clay targets flying away from them. Shooters stand behind the trap at a distance from 16 to 27 yards.

**Trigger, Hair:** A slang term for a trigger requiring very low force to actuate. *Note: Hair triggers are frequently used on a competitive target rifles and pistols for increased accuracy. The reduced force needed to pull the trigger allows the shooter's firearm to remain steady.*

**Trigger Lock:** An accessory for blocking a firearm from unauthorized use. Most trigger lock manufacturers advise against the use of a trigger lock on a loaded firearm, as shifting the lock against the trigger could fire the gun.

**Trigger Pull:** The average force which must be applied to the trigger to cause the firearm to fire. *Note: Typically, non-target mode-firearms have a minimum trigger pull of 3 pounds. Double action revolvers often have a long, heavy trigger pull of around 10 pounds.*

**Unload:** The complete removal of all unfired ammunition from a firearm.

**Velocity:** The speed of a projectile at any point along its trajectory, usually listed in "feet per second."

**Wad:** A space device in a shotshell, usually a cup-formed plastic or paper discs, that separates the propellant powder from the shot.

**Weapon:** An instrument used in combat. The term is never used in referring to sporting firearms.