



A-Z Dictionary of airgun terminology

Learn your airgun lingo! A handy go-to A-Z dictionary of airgun shooting jargon to keep you on top of your game!



Accuracy: The ability of an airgun to consistently group a series of shots within a diameter as small as possible, at a given distance under optimal conditions. Accuracy does not take into account human error or environment conditions such as wind and elevation.

Air gun: Is any kind of gun that pneumatically propels by compressing air or other gases that are pressurized mechanically without involving chemical reactions, in contrast to a firearm which uses combustible propellants that rely on an exothermic chemical reaction (deflagration) to generate energy. Both the long gun and handgun forms (**air rifle** and **air pistol**) typically propel metallic projectiles that are either non-spherical diabolo pellets, or spherical shots called BBs.

The first air guns were developed as early as the 1500s. They have been used in hunting, sporting and warfare. Modern air guns use one of three types of power source depending on the design: spring-piston, pneumatic, and bottled compressed gas (most commonly carbon dioxide).

Backstop: Anything that will safely stop a pellet and prevent it from hitting anything else after the target is struck.

Ballistic Coefficient: A measure of how a projectile decelerates during its flight through the air due to drag. It is an important and useful concept that is used for ballistics calculations. The higher the BC, the more aerodynamic the pellet will be, and the smaller the BC of a pellet, the greater its air resistance.

Barrel: The metal tube through which the pellet or BB travels. The barrel serves the purpose of providing direction and velocity to the pellet.

Benchrest: A specifically designed support, e.g. a table (rest).

Bipod: A two legged support attachment to the fore-end of the stock.

Bluing: A chemically applied finish to metalwork that offers protection against rust. It's a traditional finish that looks great when properly applied, but gives less protection than more modern finishes.

Breech: That portion of the gun that contains the rear chamber portion of the barrel. The rearmost end of a barrel, closest to the shooter.

Break barrel: Air rifles are rifles that use a spring powerplant to compress an air chamber. To cock the gun you simply break the barrel down (it swings on a hinge), load the pellet and break the barrel back up into position. Break barrel air rifles are one of the most common air rifles on the market.

Bullpup: A rifle configuration in which the action and magazine are located behind the trigger. This makes the overall length of the firearm shorter than it otherwise would be.

Butt: The base of the grip on a handgun and the rearmost portion of the stock on a long gun that braces against the shoulder.

Caliber: Most air guns are .177 (4.5 mm) or .22 (5.5 mm / 5.6 mm) caliber, and are designed for target practice, small game hunting and field target shooting. Though less common, .20 (5.0 mm) and .25 caliber (6.4 mm) the largest commonly available caliber, guns also exist. .177 (4.5 mm) mandated by the ISSF for use in international target shooting competition at 10m, up to Olympic level in both rifle and pistol events. It has also been adopted by most National Governing Bodies for domestic use in similar target shooting events. It has the flattest trajectory of all the calibers for a given energy level, making accuracy simpler. At suitable energy levels it can be used effectively for hunting. .22 (5.5 mm & 5.6 mm) for hunting and general use. In recent years air rifles and pistols in .22" (and some other calibers) have been allowed for use in both domestic and international target shooting events not controlled by the ISSF. Most notably in FT/HFT and Smallbore Benchrest competitions. Other less common traditional calibers include: .20 (5 mm) initially proprietary to the Sheridan multi-pump pneumatic air rifle, later more widely used. .25 (6.35 mm) the largest commonly available caliber.

Cant: To slope, tilt or angle the vertical crosshair from the vertical plane. A rifle held upright may still exhibit cant if the scope has not been mounted vertically. Similarly, the shooter can induce cant on a correctly mounted scope by angling the whole rifle away from the vertical.

Chronograph: An instrument to measure velocity by using two optical sensors that detect the passage of a pellet. The pellet is fired so it passes through or over both sensors, and the time it takes for the pellet to travel the distance between the screens is measured electronically.

Chronoscope: A device that measures the velocity of a shot, which will change depending on how far the chronoscope is placed from the muzzle. While it's most often used to measure muzzle velocity, a chrono can be placed downrange to measure the drop in pellet speed and, if the pellet weight is known, retained energy.

CO2: Air guns utilizing prefilled removable gas cylinders as power source have now become known as *CO2 guns* due to the ubiquitous commercial use of bottled carbon dioxide gas. Most CO2 guns use a disposable cylinder called a "Powerlet", that is often purchased with 12 grams of pressurized CO2 gas, although some, usually more expensive models, use larger refillable CO2 reservoirs like those typically used with paintball markers.

Cocked: A state of readiness of a firearm. The hammer (or similar mechanism if there is no hammer) only needs to be released by the trigger to cause the gun to fire.

Crosshairs: The cross-shaped object seen in the center of a firearm scope. Its more-proper name is reticle

Crown: The area of the muzzle where the end of the bore intersects with the face of the end of the barrel – this is the last place the pellet is in contact with the bore.

Dry Firing: The operation of a firearm without the use of ammunition, as a means of gaining familiarity and technique. Dry firing must never be done with a spring air gun, but can be done very carefully with a verified unloaded pcp gun.

Elevation: The setting on the sights of a firearm that controls the vertical placement and the altitude above mean sea level. This is important for long range precision shooting because the air density changes with elevation and affects the path of the projectile.

Eye Relief: The distance a scope can be held away from the eye and still present the full field of view.

Field Of View (F.O.V.): The side-to-side measurement of the circular viewing field or subject area. It is defined by the width in feet or meters of the area visible at 100 yards or meters. A wide field of view makes it easier to spot game and track moving targets. Generally, the higher the magnification is, the narrower the field of view will be.

First Focal Plane: With this type of scope, the reticle will grow and shrink along with the image of the target, meaning the relationship between the target and the secondary points of aim is consistent, whatever the magnification.

Flyer: A shot that goes wild, but that doesn't mean the reason for it can't be pinned down. Flyers are usually blamed on a rogue pellet or shooter error. Our mission is to eliminate them.

Follow Through: Holding the trigger to the rear after the shot has fired, until the sights are back on target, at which time the trigger is released.

Forend: That part of the stock forward of the action and located below the barrel or air cylinder. It is designed to give the shooter a place to hold the front end of the gun.

Grains: A unit of weight measurement used for pellets. The more grains, the heavier the pellet.

Group: A cluster of pellet holes made by the same airgun/pellet combination, formed from numerous shots fired at a target using the same point of aim, for checking accuracy. A 10-12 shot group provides useable statistics.

Group Size: Commonly measured center-to-center, the maximum distance between the centers of the two farthest shots in a group.

Hair Trigger: A trigger that breaks from an extremely light touch.

Hold Over: Normally refers to aiming above your target because the bullet is falling as it travels. The simple way to think is the farther the bullet goes the lower it will hit on the target. Saying there is no holdover at 300 means that the weapon is zeroed at 300 yards or shoots "flat" enough that it doesn't matter. Hold over/under is the amount of point of aim change either above or below your target, without adjusting your scope, to adjust for the trajectory of your projectile.

Iron Sights: The mechanical sighting system which usually comes with the air gun that has no optics.

Lands: The part of the bore that remains following the rifling process. Because the grooves are cut into the metal of the bore, the resulting lands appear to be raised.

Leading a barrel: When a pellet is fired, it will deposit some lead in the fissures in the lands and grooves, offering a smooth, even surface for subsequent shots.

Length Of Pull: The distance from the vertical center of the trigger to the vertical center of the butt plate.

Loaded: An air gun is loaded when a pellet is in its firing chamber or breach. However, for safety reasons all air guns are always treated as loaded at all times

Muzzle: The muzzle is the front end of the barrel from which the projectile exits.

Muzzle Velocity: The speed of the pellet, measured in feet per second or meters per second, as it leaves the barrel.

Parallax: Where the images of the target and reticle appear on the same plane inside a telescopic sight. poor head and eye position can be offset by ensuring you have correct parallax.

Pellet: The most popular ammunition used in rifled air guns is the lead diabolo pellet. This waisted projectile is hollowed at the base and available in a variety of head styles. The diabolo pellet is designed to be drag stabilized, though is not as stable as some other shapes in the transonic region (272–408 m/s ~ 893–1340 ft/s). Pellets are also manufactured from tin, or a combination of materials such as steel-tipped plastic. Wadcutter pellets are designed with a full diameter flat point. It is primarily used in target competition because it cuts a clean round hole in paper targets that aids in scoring the target.

Pellet Jam: A malfunction which locks up the gun so badly that tools are required in order to fix it.

PCP: Or pneumatic air guns use internally stored compressed air as the source of energy to propel the projectile. Single-stroke and multi-stroke guns utilize an on-board pump to pressurize air in an internal reservoir, while pre-charged pneumatic guns' reservoirs are filled using either a high-pressure hand pump or by decanting air from a diving cylinder. Because of the need for cylinders or charging systems, PCP guns have higher initial costs but much lower operating costs when compared to CO2 or ordinary pump guns. Having no significant movement of heavy mechanical parts during the firing cycle, produces lower recoil, and can fire as many as 200 shots per charge.

Plinking: Informal shooting at any of a variety of inanimate targets. The most often practiced shooting sport in this country.

Point of aim: The precise area on a target, whether paper, metal or living quarry, at which a rifle is pointed using either a telescopic or open sight.

Point of impact: The place where the pellet hits. Point of aim and point of impact should coincide at the chosen distance at which the rifle has been zeroed.

Power curve: A number of shots taken from a PCP and plotted against their velocity. A flatter curve is desirable as it means there is little variation from one shot to another.

Underlever: The barrel is fixed to the stock, with the cocking lever located parallel underneath it and is flexed downwards during cocking.

Range Finder: A device used to determine the range to a target. Many range finders work by bouncing a laser beam off the target or nearby object and measuring the time for the reflection to arrive back at the instrument. It is also possible to use various passive optical devices such as a mil-dot telescopic sight.

Reactive Targets: Targets that do something when you hit them, such as fall over, burst, send up smoke, or make a noise or move.

Recoil: The rearward thrust caused by the propulsion of the piston or the pellet. Spring piston airguns have a very aggressive and powerful kick, caused by the piston hitting the front end of the pressure chamber. It is this second forward snapping that can cause damage to high-quality riflescopes. The lack of recoil in Pre-charged airguns means riflescopes can be used without fear or damage often caused by the recoil of spring-pistol airguns.

Red Dot Sight: An optical sight that uses an internal illuminated dot (normally red in color) as an aiming point. They provide for fast target acquisition. They may or may not offer magnification.

Regulator: A mechanical device that controls the air pressure and volume of air that is made available to the firing valve of a precharged pneumatic airgun. The regulator maintains the pressure within this secondary chamber at a set pressure (lower than the main reservoir's) until the main reservoir's pressure drops to the point where it can no longer do so. As a result, shot to shot consistency is maintained for longer than in an unregulated rifle.

Reticle: Scope reticle, as you look in the eyepiece and down the inner tube you'll find the "reticle" of the scope. The term "reticle" refers to the crosshairs of the scope. There's quite the variety of reticles on the market today. The first thing to note is if the reticle is a "wire" reticle or an "etched glass" reticle. A mil-dot reticle, the most accurate means of range-estimation using a manual optical device has a cross hair with dots added at a precise distance between each dot. A "duplex" reticle, which has thinner lines in the center, changing to thicker lines further towards the outside of the field of view.

Revolver: A gun, usually a handgun, with a multi-chambered cylinder that rotates to successively align each chamber with a single barrel and firing pin.

Rifle: A firearm designed to be fired from the shoulder and fire only a single projectile at a time.

Rifle Cant: Any leaning or the rifle to one side from a vertical position during firing, increasing the potential for misses, and especially at longer ranges.

Rifling: The spiral lands and grooves in the bore that stabilise the pellet by spinning it either clockwise or anti-clockwise as it travels down the barrel.

Safety Catch: A built in lock that may prevent the air gun from being fired, Some are manually set others will automatically be set when the air gun is cocked.

Scope: A magnifying tube through which the shooter may see the target and aim the firearm. Scopes contain a reticle, commonly in the shape of a cross, which must be properly centered upon the target for accurate aim.

Sear: The part of the trigger mechanism which holds the hammer or striker back. Pressure on the trigger causes the sear to release the hammer or striker, allowing it to discharge the weapon.

Second Focal Plane: This type of scope makes the image of the target grow and shrink with changes in magnification. The reticle stays the same size, meaning the relationship between the target and the secondary points of aim will alter with changes in magnification.

Shoulder: To bring the butt of a rifle stock to the shooter's shoulder, preparatory to firing the gun.

Silencer/Sound Moderator: A device designed to muffle the sound of the discharging of pressurized gases exiting the muzzle.

Single-shot tray: A device to effectively convert a multi-shot rifle into a single-shot rifle. This can be useful for training and competition purposes, but can also be useful to ensure pellets are properly presented to the breech by the pellet probe.

Sling: A long strip of leather, plastic, or nylon which is fastened at the fore and rear of the gun for the easy carry of rifles.

Smooth Bore: A barrel without rifling. Smooth bore barrels are commonly used in BB firing pistols.

Springer: A type of airgun using a coiled spring and piston to create the compressed air that drives the pellet. Springers are generally harder to shoot due to hold sensitivity and recoil.

Surge: The forward movement often felt when a spring rifle is fired.

Stance: How the shooter positions their body while shooting. The four most widely used are prone, seated, kneeling and standing.

Stock: The back part of a rifle that holds the action. It is commonly made of wood, wood laminate, metal, or plastics.

Sweet spot: The portion of a power curve displaying the minimum variation in velocity between shots. For an unregulated PCP, this will usually be somewhere in the middle of the power curve.

Threadlock: A compound applied to the threads of a screw to prevent loosening and corrosion. Use the semi-permanent blue type, not the permanent type.

Torque: The rotational force needed to tighten or loosen screws. Too little torque means the components being tightened may come loose, while too much can cause damage, particularly to scope bodies and their sensitive internal parts.

Trajectory: The path of a projectile in flight. As gravity causes the pellet to drop from the moment it exits the muzzle, its trajectory is always curved in the shape of a parabola.

Trigger: The release device that initiates the gun to discharge. Usually a curved, grooved or serrated piece that is pulled rearward by the shooter's finger, which then activates the hammer or striker and the gun fires.

Trigger Guard: Usually a circular or oval band of metal or plastic that goes around the trigger to provide both protection and safety in shooting circumstances. The shooter's finger should never be within the trigger guard unless the sights are on target and the shooter has made the decision to fire.

Trigger pull: The force that must be applied to the trigger for it to release the sear. A good trigger pull must be appropriately light, and the release must be a clean, sharp snap.

Windage: The adjustment on the scope or open sights to compensate for horizontal deflection of the barrel.

Zero: An air gun is said to be "zeroed in" when its sights have been adjusted so that the pellet will hit the center of the target when the sights are properly aligned upon the center of the target. The farthest distance from a air gun at which the pellet's path and the point of aim coincide. This term is also used to mean the process of insuring that the sights of an air gun are properly aligned so that where they indicate the bullet will strike is in fact where it strikes.



Don't look like a fool - know your jargon like this chap!