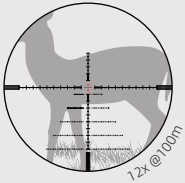
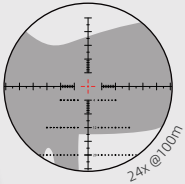
VSE-3 MOA FFP RETICLE

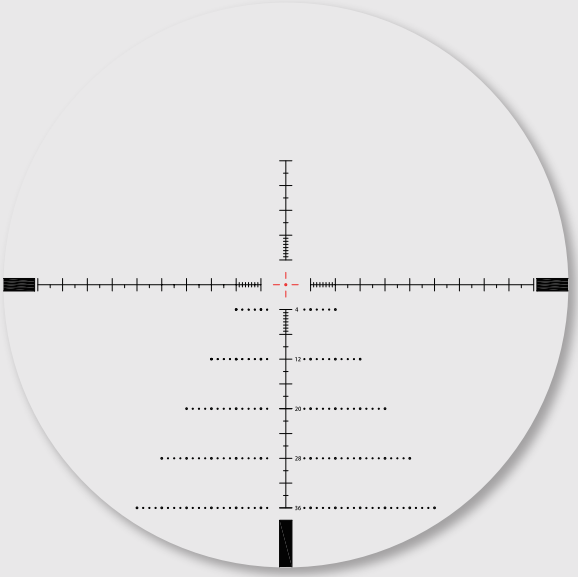
The VSE-3MOA reticle is designed for long range shooting, providing high accuracy and precision. The primary aiming pattern precision targeting is a 0.35 MOA center point with 2 MOA length crosshair line. The gap between two marks on the horizontal and vertical lines is 2 MOA. Each side of the horizontal lines is 40 MOA in total length, and from 4 MOA to 8 MOA each small gap represents 0.5 MOA. The vertical line extends 36 MOA below the center point and 20 MOA above it. From 4 MOA to 8 MOA both above and below the center, each small gap represents 0.5 MOA.

The large points below the horizontal line have a diameter of 0.3 MOA, while the smaller points measure 0.2 MOA. The gap between each point is 1 MOA. Shooters can utilize the horizontal and vertical lines for precise adjustments.







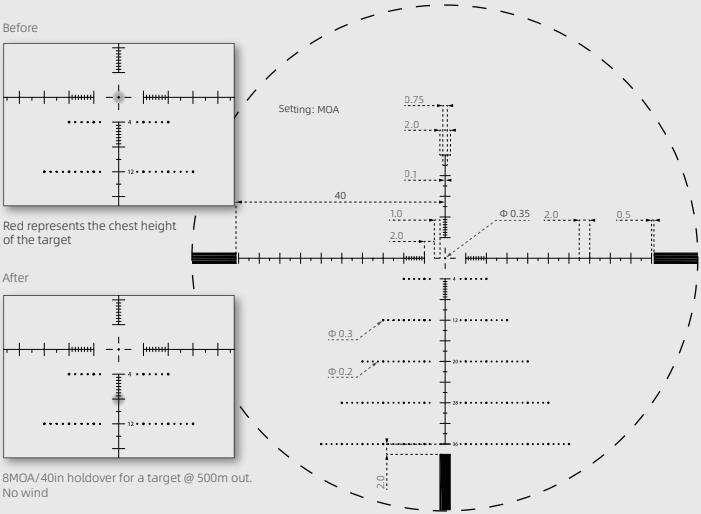


Red indicated illuminated portion of the reticle

COMPENSATION BULLET DROP

Holdover refers to the technique of adjusting the aim of a firearm to compensate for the effect of gravity on the bullet's trajectory. Bullet drop is the decrease in bullet height as it travels through the air. The shooter can use the MOA markings on the reticle to calculate the bullet drop. The MOA markings on the vertical axis represent the distance in MOA between each hash mark. The horizontal axis represents the windage adjustment.

For example, under no wind condition, after zeroing your scope at 100yards, if you know your target is at 500yards and your ammo has a 40 inch bullet drop at that distance, you will need to use 8MOA holdover point. Here is how you get the 8MOA: since 1MOA equals 1 inch at 100yards, 5 inch at 500 yards, and then 40 inch equals 8 x 5 inch at 500, you need to hold the 8 MOA drop point to compensate for the 40 inch bullet drop, thus bring the aim point to line up with the bullet's point of impact.

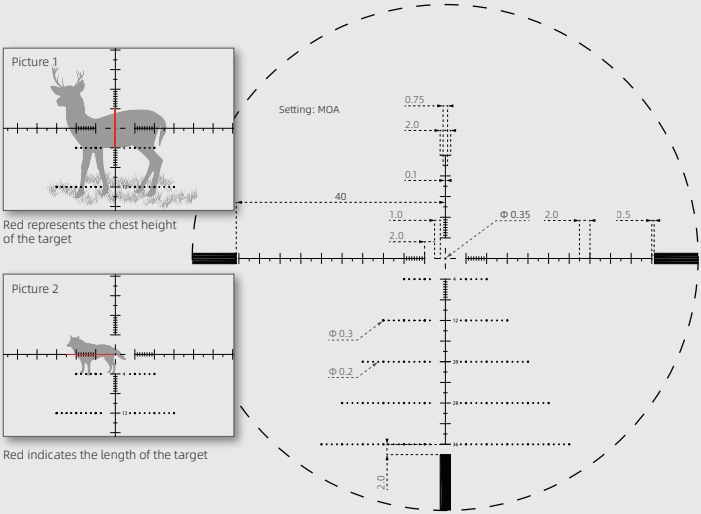


When it comes to wind correction in shooting, there are three key factors to keep in mind: the flying time of the bullet, the velocity and direction of the wind, and the ballistics coefficient (BC) of the bullet. By taking into account these three factors, a shooter can make the necessary adjustments to account for wind drift and achieve accurate shots even in challenging conditions.

HOW TO MEASURE TARGET HEIGHT & LENGTH

The VSE-3 MOA reticle can also help the shooter estimate the range to a target. If the shooter knows the target object's size at shooting distance, then he can compare it to either the vertical or horizontal hash mark spacing and roughly estimate the range.
The formula for range calculation is as follows:

Range (yards) = Target Height or Width (inches) * 100 / Target Height or Width measured on reticle (MOA)



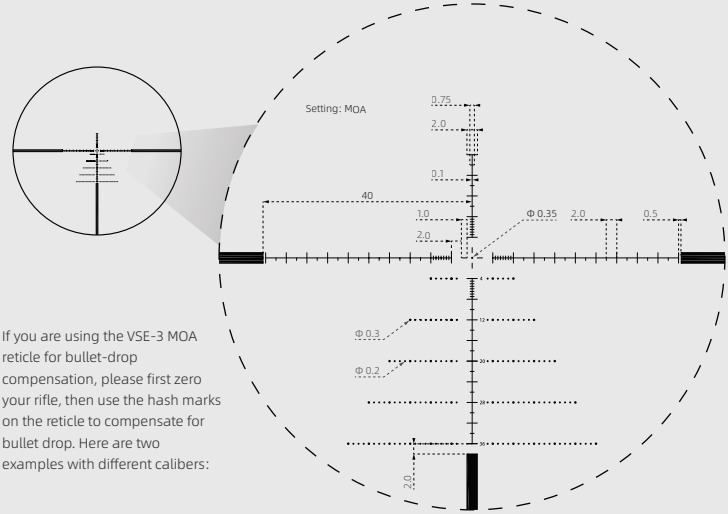
if a shooter is aiming at an elk, its back to bottom height is 24 inches, and it spans about 8 MOAs on the vertical line. Using the formula above, the range to the elk is calculated as follows:

Range = 24 (inches) * 100 / 8 MOA = 200 (yards)

If a shooter is aiming at a 35 inches long coyote, and it spans about 10MOAs on the horizontal line. Using the formula above, the range to the coyote is calculated as follows:

Range = 60 (inches) * 100 / 10 MOA = 600 (yards)

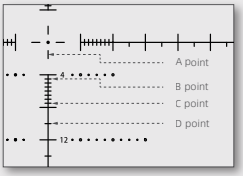
USING FOR BULLET DROP COMPENSATION



If you are using the VSE-3 MOA reticle for bullet-drop compensation, please first zero your rifle, then use the hash marks on the reticle to compensate for bullet drop. Here are two examples with different calibers:

.223, 5.56 **ZERO @200yds**

A point: 300yds | 4.5" drop
B point: 400yds | 18" drop
C point: 500yds | 37.5" drop
D point: 600yds | 66" drop



.308, 7.62 **ZERO @100yds**

A point: 200yds | 1.5 MOA
B point: 300yds | 4.5 MOA
C point: 400yds | 7.5 MOA
D point: 500yds | 11 MOA

