RETICLE MANUAL

VECTOR OPTICS®

VTC-CMIL

READ IT BEFORE USE!!!

READ AND UNDERSTAND THE CONTENTS OF YOUR RETICLE MANUAL.

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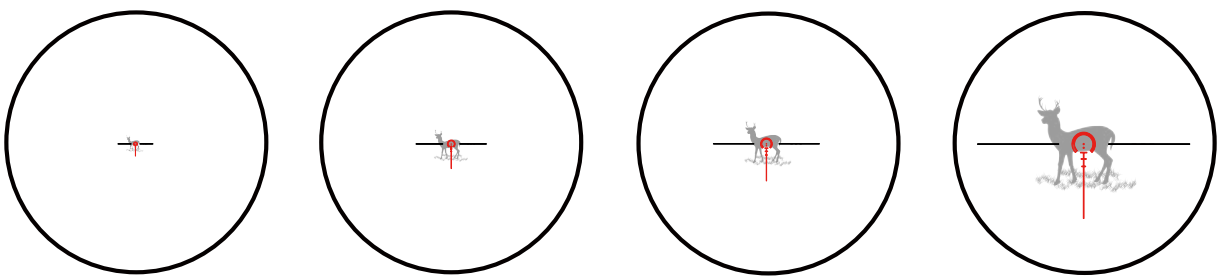
FIRST FOCAL PLANE RETICLES

A first focal plane (FFP) reticle is a type of reticle that is commonly used in long-range shooting.

These reticles are designed to change their size proportionally to the magnification of the scope. This means that the reticle remains accurate at any magnification, making it ideal for long-range shooting. In an FFP reticle, the reticle markings appear to grow and shrink as the magnification is adjusted, which allows for accurate holdovers and range estimations at any power setting.

Compared to the second focal plane (SFP) reticle, the FFP reticle offers greater versatility and accuracy. FFP reticles are particularly useful in tactical shooting scenarios where quick and precise adjustments need to be made.



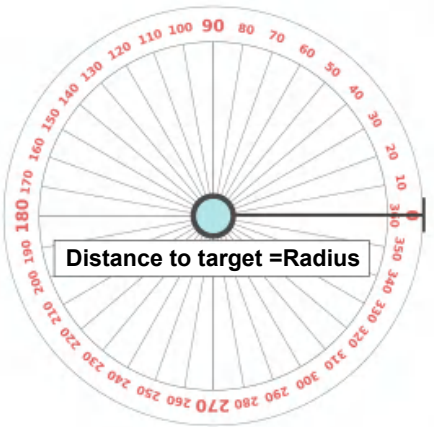
1x 2x 3x 6x

MILS / MRAD EXPLAINED

MILs, or milliradians, are a unit of measurement dividing radians in a circle. A radian is equal to 57.3 degrees, with 6.2832 (π x 2) radians in a circle. There are 1000 milliradians in 1 radian, and therefore 6.283 milliradians (or mils) in a circle.

1 MIL equals 1/1000 of any shooting distance. So 1 MIL is 1 meter at 1000 meters, and 1 yard(36″) at 1000 yards. Then **1 MIL is approximately 10cm at 100m**, 20cm at 200m and so on. Likewise, **1MIL is approximately 3.6 inches at 100 yards**, 7.2 inches at 200 yards and so on.

A mil is so large that it's usually broken into tenths in order to make precise adjustments on your scope turret.

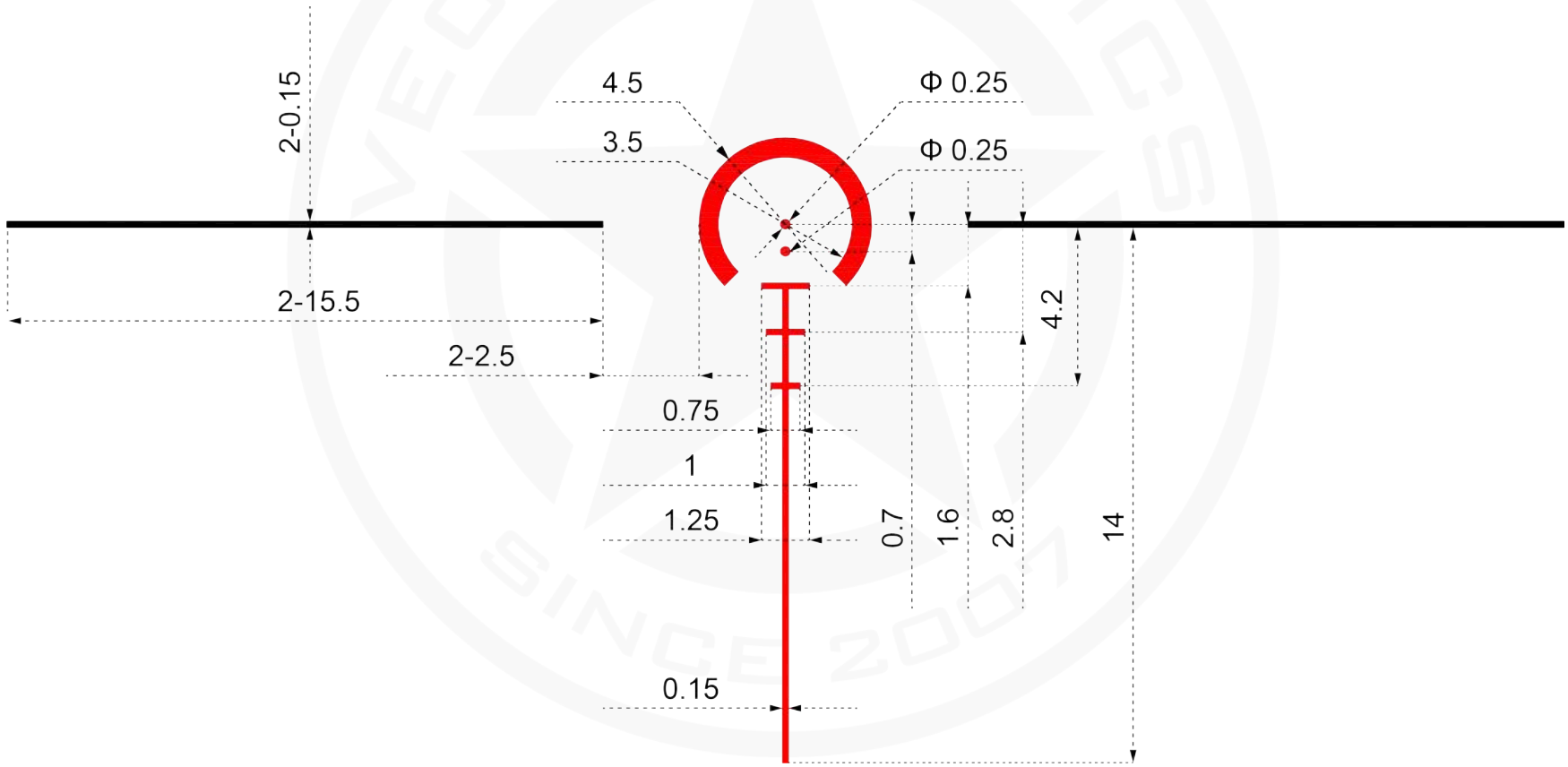


THE Vector Optics® VTC-CMIL MIL RETICLE

The **VCT-CMIL** reticle features a circle dot design for quick target acquisition in close range engagements, two dots in the circle, and BDC hash marks. It is a FFP MIL reticle designed for shooting close to medium range targets.

The VCT-CMIL reticle is calibrated for 5.56x45 / .223 Rem. 55gr FMJ ammo. The reticle was designed for a 200 yards zero. The 5.56/.223 55gr. round shoots relatively flat, so the central aiming point of the reticle is used to shoot targets from 20 to 200 yards. At 1x magnification, the outer circle will cover approximately 15 inches of a target at 25 yards. This is nearly equivalent to the shoulder width of IPSC targets. Below the aiming dot, holdovers can be used to determine the range of IPSC targets and perform ballistic holdovers out to 600 yards.

Setting : MIL

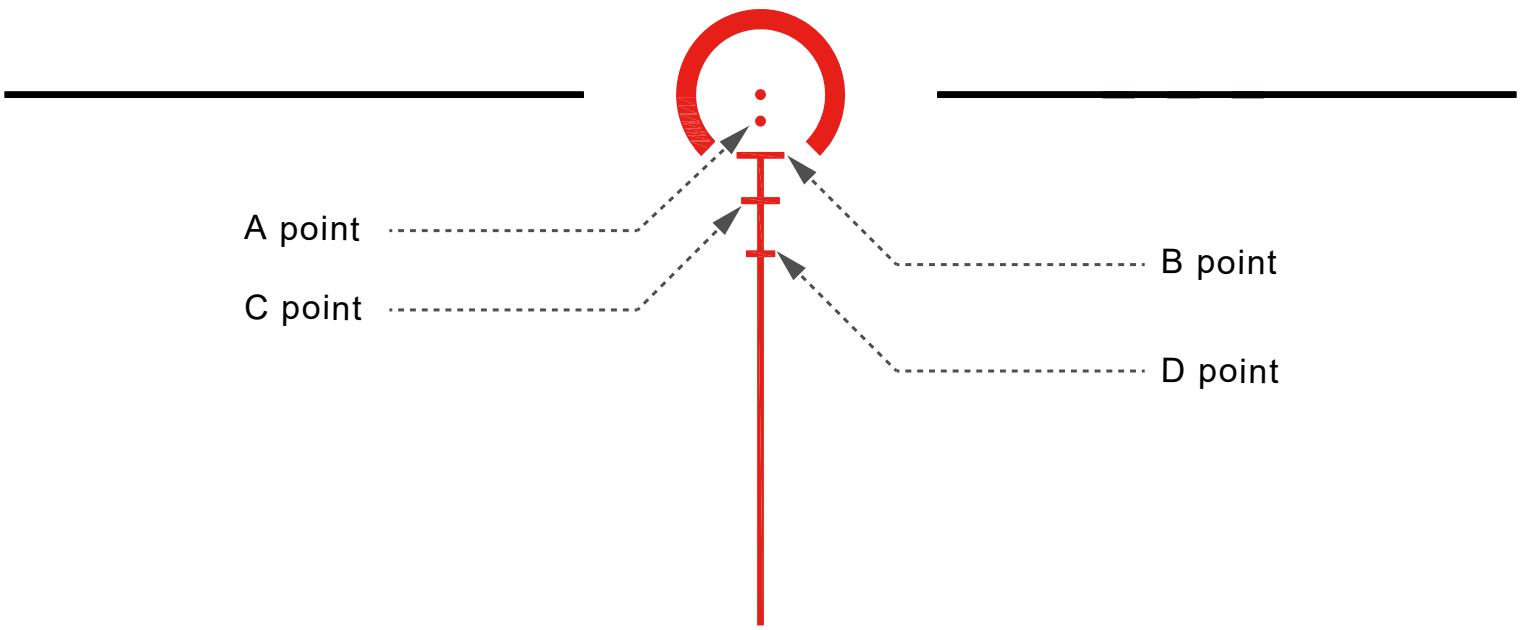


BULLET DROP COMPENSATION

The VTC-CMIL reticle is designed for bullet drop compensation, shooters can estimate bullet holdover at long distances. The dots and hash marks below the reticle center can offer bullet-drop reference for all distances. **The VTC-CMIL reticle is designed to follow the trajectory of a .223 rifle bullet, with the gap increasing each time to better match fixed distances.**

There are various firearms that the VTC-CMIL reticle can be used with, like high powered rifles, rimfire rifles, black powder rifles, slug shotguns and so on. The hash marks of this reticle can also be used as reference for bullet drift compensation in windy days or to estimate range.

USING THE RETICLE FOR BULLET DROP COMPENSATION



200y zero

If you are using the VTC-CMIL reticle for bullet-drop compensation, please first zero your rifle at 200 yards or other distances, then use the dots and the hash marks on the reticle to compensate for bullet drop. Here are two examples with different calibers:

Caliber: .223, 5.56

High Velocity, Small Caliber Varmint Rifle Extended Ranges (200–600 yds.) Use 200 yd. zero on center dot.

Bullet Drop:

A point: 0.7 MIL | 300 yds | 7.5" drop

B point: 1.6MIL | 400 yds | 23.5" drop

C point: 2.8MIL | 500 yds | 49.7" drop

D point: 4.2MIL | 600 yds | 92.7" drop

Caliber: .308, 7.62mm

High Power Big Game Rifle | Moderate Ranges (200–600 yds.) Use 200 yd. zero on center dot.

Bullet Drop:

A point: 0.7MIL | 285 yds. | 7.2" drop

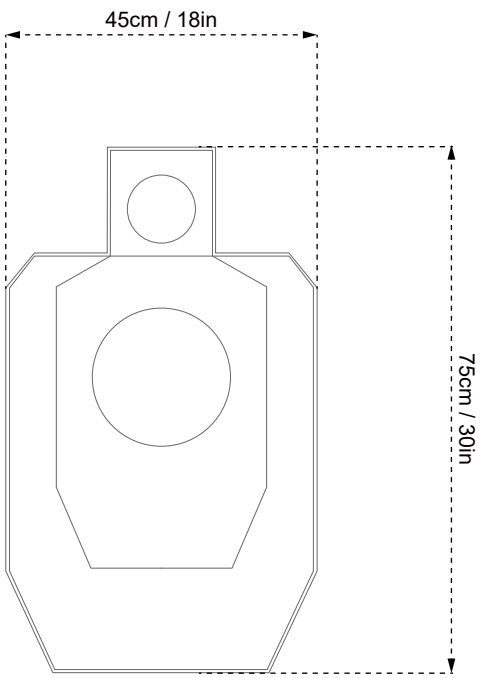
B point: 1.6MIL | 385 yds. | 22" drop

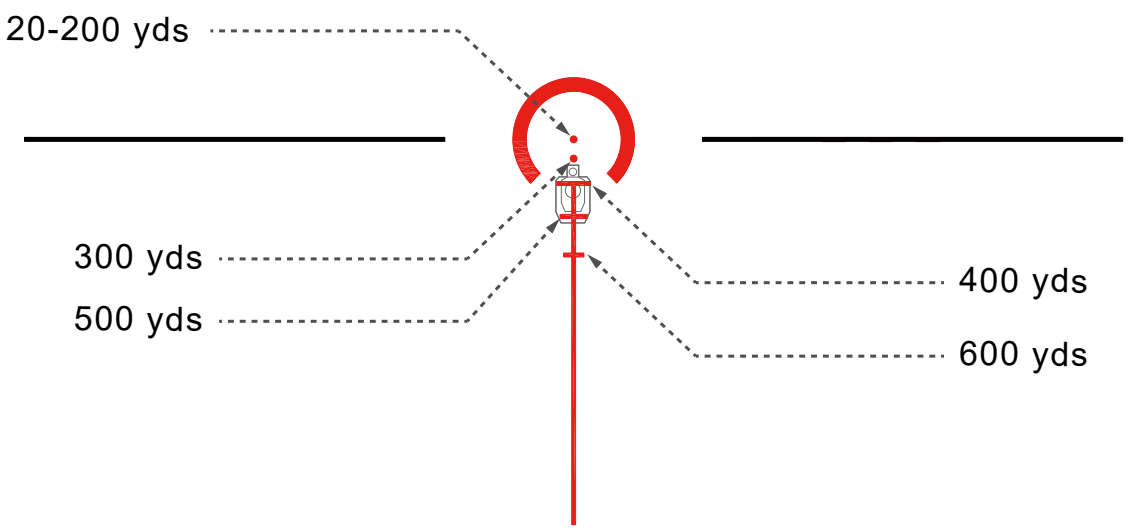
C point: 2.8 MIL | 485 yds. | 47.4" drop

D point: 4.2 MIL | 600 yds. | 92" drop

RANGING WITH THE VTC-CMIL RETICLE

The VTC-CMIL reticle can be used to estimate the range of IPSC targets based on the shoulder width of the target. Ranging is simple by matching the width of the IPSC target to length of the horizontal holdover points of the reticle. The following images shows approximately the size ratio for the distance of 400 yards.





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