

The background features a dark blue grid with a large, semi-circular reticle scale. The scale has numerical markings from 0 to 180 in increments of 10, with finer tick marks between them. The scale is positioned such that it appears to be part of a larger circular instrument.

# RETICLE MANUAL

# READ IT BEFORE USE!!!

READ AND UNDERSTAND THE CONTENTS OF YOUR RETICLE MANUAL.

▼ Scan the QR code to learn more about VectorOptics.



VECTOROPTICS



USER MANUAL



FACEBOOK



INSTAGRAM

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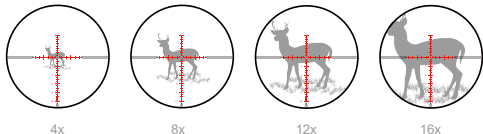
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## SECOND FOCAL PLANE RETICLES

The second focal plane (SFP) reticles are located near the scope's eyepiece behind the image erecting and magnifying lenses.

This style of reticle does not visually change in size when you change the magnification. The advantage of an SFP reticle is that it always maintains the same ideally-sized appearance.

When shooting with this SFP scope, be aware that the listed reticle subtensions used for estimating range, holdover, and wind drift correction are only accurate at the specified magnification.

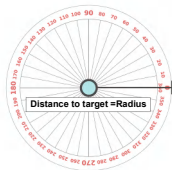


## MILS / MRAD EXPLAINED

MILs, or milliradians, are a unit of measurement dividing radians in a circle. A radian is equal to 57.3 degrees, with  $6.2832 (\pi \times 2)$  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.



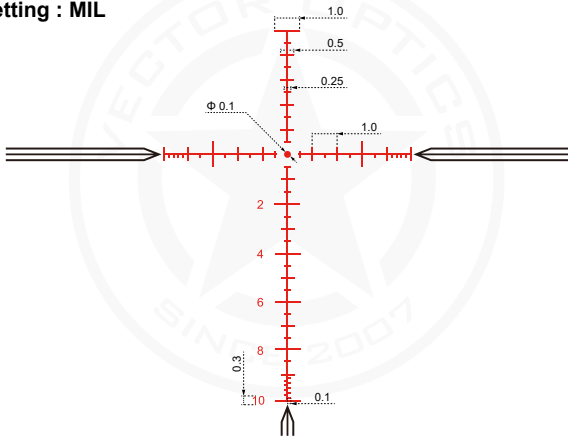
## THE Vector Optics® MPX1 SFP MIL RETICLE

The **MPX1 SFP** reticle is an excellent option for hunters and shooters who want to enhance their accuracy and precision during low-light conditions. The Christmas-tree pattern reticle is ideal for hunting, target shooting and tactical applications.

The MPX1 SFP reticle can be used to effectively determine ranges, holdovers, windage corrections and moving target leads. The inverted "T" Mil-radian ranging scale allows for precise measurements and calculations, while the center dot and circle space provide a clear and unobstructed view of the target. The 0.1 MIL dot in the center allows for accurate aim at long distances, and the 1 Mil diameter circle provides a quick reference for holdovers and windage adjustments. This reticle is ideal for field tactical, long-range hunting and varmint shooting.

**For MPX1 SFP reticle, the suspension is valid at 10x.**

Setting : MIL



## WIND DRIFT COMPENSATION

The MPX1 SFP reticle can help the shooter compensate for wind drift. You can use the horizontal line width changes as reference points to complete wind drift compensation. To compensate for wind drift, first, estimate the wind's speed and direction. Then, using the line width changes, estimate the amount of holdover required to counteract the wind drift.

## RANGING WITH THE MPX1 SFP RETICLE

The MIL is an angular measurement -- 1/6400th of a circle -- which equals almost precisely one yard at 1000 yards or one meter at 1000 meters. To use the Mil Dot Reticle for ranging, the shooter first needs to know the height of the target in question. Once the height of the target is determined, the shooter can use the Mil Dot Reticle to measure the target in mils. This proportional relationship makes possible a simple formula to compute distances:

**(valid at 10x magnification)**



**Height of Target (yards) / mils \* 1000 = Distance to Target (yards)**

If the height of target is in Inches, then the formula should be:

**Height of Target (inches) / mils \* 27.78 = Distance to Target (yards)**

(1 inch ≈ 0.0277778 yards)

This formula works equally well with meters, but don't mix meters and yards:

**Height of Target (meters) / mils \* 1000 = Distance to Target (meters)**

★ Measure the object in yards to find the distance in yards, and use meters to yield distances in meters.

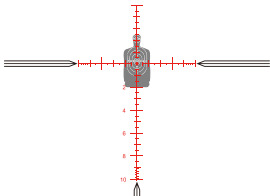
## EXAMPLE

Reticle at 10x magnification, if the height of an adult male is 5.91ft, and measures 4.5Mils across the reticle, that is:

**Distance to Target (yards) / 27.78 \* Mils =  
Height of Target (inches)**

"5.91ft = 70.9 inches

**70.9 (inches) / 4.5 mil x 27.78 = 438 (yards)**



## HOW TO MEASURE TARGET HEIGHT

If the distance of the target is determined, then the shooter can use the Mil Dot Reticle to measure the target height. You can use the following formula:

**Distance to Target (yards) / 1000 \* Mils = Height of Target (yards)**

**Distance to Target (yards) / 27.78 \* Mils = Height of Target (inches)**

(1 inch ≈ 0.0277778 yards)

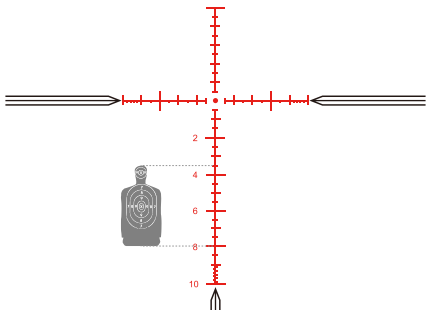
This formula works equally well with meters, but don't mix meters and yards:

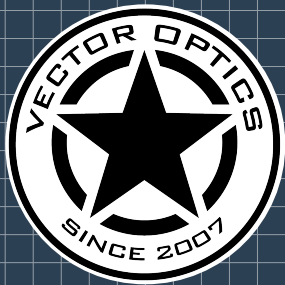
**Height of Target (meters) / mils \* 1000 = Distance to Target (meters)**

## EXAMPLE

Reticle at 10x magnification, if the Distance to Target is 400m, and the target measures 4.5Mils across the reticle, then the target height is:

$$400 \text{ (meters)} / 1000 * 4.5 = 1.8 \text{ (meters)}$$





# MPX1 SFP

## USER MANUAL

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