



Mil-dot Reticle

Technical Sheet

The **Mil-dot Reticle** is designed specifically to enhance a shooter's long range accuracy and ranging capabilities under a variety of field conditions.

A "Mil" is the abbreviation for Milliradian. A "Mil" is an angular measurement that is equal to $1/6400^{\text{th}}$ of a circle, which is equivalent to approx 1 Yard wide at 1,000 Yards distance. 1 MIL is equal to 3.6 inches at 100 Yards.

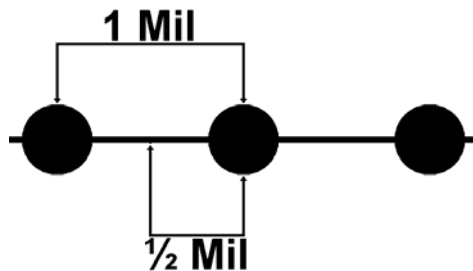
The Mil-dot reticle is divided into 5 Mil-dot increments (Picture: A).

Any known size target (height or width) can be ranged using a mathematical formula.

$$\frac{\text{TARGET size in Yards} \times 1,000}{\text{Size of the Object in Mil}} = \text{Target's Range in Yards}$$

1 Yard is 36 inches (3 feet). Divide your Target's Size in inches by 36 inches to get your Target size in Yards.

The distance from the Center of a Dot to the Center of the next Dot is 1 Mil. The distance from the Center of a Dot to the middle of the line between Dots is $\frac{1}{2}$ Mil.

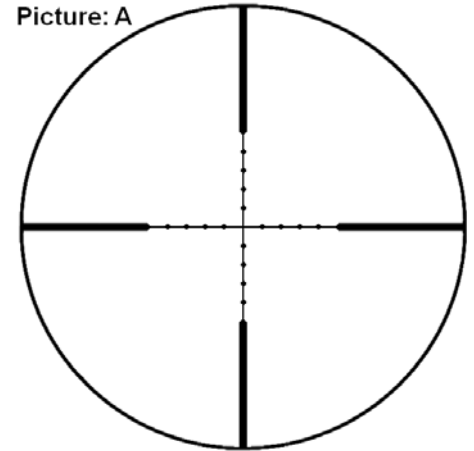


For Example: the silhouette target is 18 inches wide (Picture: B). The target's width is $1\frac{1}{2}$ Mil using the scope's Mil-dot reticle over the target. Using the ranging formula above, we get the follow results:

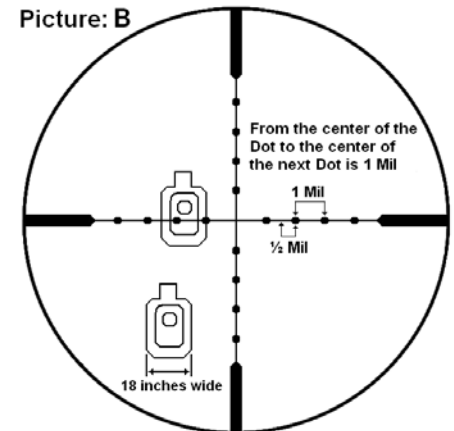
$$\text{TARGET'S width} = 18'' \text{ inches wide} = 0.500 \text{ Yard}$$

$$\frac{.500 \text{ Yard} \times 1,000}{1\frac{1}{2} \text{ Mil}} = \frac{500}{1.5} = 333 \text{ Yards}$$

Picture: A



Picture: B



This picture depicts a **close-up** of the center portion of the reticle for more detail.

MIL-DOT TABLE FOR TARGETS IN INCHES									
INCHES	8	10	12	14	16	18	20	22	24
YARDS	0.222	0.278	0.333	0.389	0.444	0.500	0.556	0.611	0.667
MIL 1	222	278	333	389	444	500	556	611	667
MIL 1.5	148	185	222	259	296	333	371	407	445
MIL 2	111	139	167	195	222	250	278	306	334
MIL 2.5	89	111	133	156	178	200	222	244	267
MIL 3	74	93	111	130	148	167	185	204	222
MIL 3.5	63	79	95	111	127	143	159	175	191
MIL 4	56	70	83	97	111	125	139	153	167
MIL 4.5	49	62	74	86	99	111	124	136	148
MIL 5	44	56	67	78	89	100	111	122	133

MIL-DOT TABLE FOR TARGETS IN FEET					
FEET	3	4	5	6	7
YARDS	1.000	1.333	1.667	2.000	2.333
MIL 1	1000	1333	1667	2000	2333
MIL 1.5	667	889	1111	1333	1555
MIL 2	500	667	834	1000	1167
MIL 2.5	400	533	667	800	933
MIL 3	333	444	556	667	778
MIL 3.5	286	381	476	571	667
MIL 4	250	333	417	500	583
MIL 4.5	222	296	370	444	518
MIL 5	200	267	333	400	467