

How to Calculate your Axial Form Factor

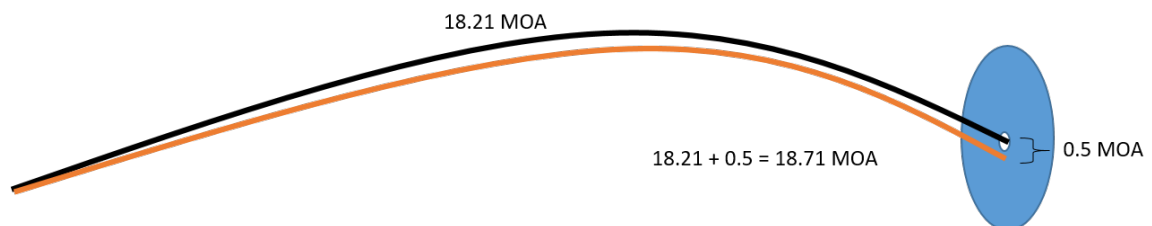
Due to differences in barrel machining, muzzle breaks, propellants and other factors, when the same bullet is fired from different rifles there will be a slight difference in the drag the bullet will experience. The Hornady 4DOF solver assumes the bullet will be fired from an "average" barrel but in reality your rifle may impact the bullet slightly differently. To account for any differences the Axial Form Factor value can be modified to align the output from the solver to what your bullet is experiencing.

From the main Ballistics screen, scroll down to Gun and press the center button. Scroll to the bottom of the Gun submenu and select Cal Axial FF... and press the center button. A step-by-step guide will assist you in figuring out your gun's Axial Form Factor. After confirming your Latitude and Environment, you will want to find a target between 300 and 800 yards. Enter the range of your target by highlighting the Range... menu item and use the right and left arrows. Select Continue and next point the back of the Kestrel towards the target to capture DOF. After that, point the Kestrel into the prevailing wind and capture the wind for several seconds.

You will notice an Elevation number at the top of the screen. Take a group of shots using this Elevation hold at the range that was specified. Measure the distance (up and down) between center of the target and your group of shots. Adjust the Elevation to match the actual elevation drop.



For example, the above shows an Elevation hold of 18.21 MOA. After shooting, you notice that the elevation drop was 0.5 MOA below center of the target. Therefore the total elevation drop you witnessed was $18.21 + 0.5 = 18.71$ MOA.



Adjust the Elevation to the drop you actually saw, in this case 18.71 MOA. The Axial FF will change, select Continue to accept this adjustment and your gun profile will be calibrated through the supersonic, transonic and subsonic regions.