MEASURING WALL THICKNESS (Vernier Ball Micrometer only)
The round anvil on the Vernier Ball Micrometer allows precise measurements of the case neck thickness. The tapered spindle allows measurements right up to the shoulder.

NOTE: Reading a measurement on the Vernier Ball Micrometer is the same as the Standard Micrometer.

The Vernier Ball Micrometer also works great for measuring flat objects, but should not be used to measure the outside diameter of round objects.

ZERO ADJUST
The micrometer ships from the factory with the Sleeve positioned to 0.0000. It seldom needs adjusted, but the zero can be moved slightly with the included spanner wrench. To adjust the zero, make sure the face of the spindle and anvil are both clean. Using the ratchet stop, move the spindle until it is touching the anvil. The micrometer should read 0.0000. If it does not, use the spanner wrench and the hole in the sleeve to slightly move the sleeve until it reads 0.0000.

WARRANTY
Hornady Manufacturing warrants to you that for one year from the date of purchase, your micrometer will be free from defects in material and workmanship. This warranty does not cover damage caused by normal wear, accidents, abuse, or failure to provide proper care and maintenance. Contact Hornady Manufacturing at 1-800-338-3220 for service or warranty information.

The Standard Micrometer is designed to precisely measure diameters and lengths up to 1-inch. The Vernier Ball Micrometer includes a round anvil and tapered spindle to precisely measure wall thickness right up to the case shoulder.
Spanner Wrench

.0001" Precision Markings

.001" Thimble Markings

.001" Baseline Markings

NOTE: The threads on the spindle are cut at 40 threads per inch so one revolution of the thimble equals 0.025.

PARTS OF A MICROMETER

Anvil  Spindle  Sleeve  Thimble  Ratchet Stop

MARKINGS ON A MICROMETER

There are three sets of markings on a micrometer that when combined give a 0.001" and 0.0001" accuracy.

BASELINE MARKINGS

The Baseline Markings on the micrometer are directly related to the length or diameter of the object being measured. The baseline markings are spaced every 0.025. 

THIMBLE MARKINGS

The markings on the Thimble represent 0.001" from 0.000" to 0.025". When combined with the Baseline Markings, this provides accurate readings to 0.001. 

PRECISION MARKINGS

The Precision Markings represent 0.0001" to 0.0010" when combined with the other markings, this provides accurate readings to 0.001. 

HOW TO READ A MICROMETER

To measure an object, place the object in the micrometer and turn the Ratchet Stop until the spindle contacts the object. The measurement of the object is the sum of the three markings.

To explain this further, we will use an object with a diameter of 0.2431" as we walk through the steps below.

STEP 1

Read the baseline marking first. This is the number in front of the edge of the Thimble.

For this example, the 0.225 marking is in front of the edge of the Thimble.

Baseline Measurement  0.225

STEP 2

Read the marking on the Thimble nearest to, but not over the Zero Line. Add this measurement to the Sleeve Measurement to get the object measurement to the thousandth decimal place.

For this example, the "18" mark on the Thimble is just shy of the Zero Line, therefore the 0.018 is added to the Baseline measurements.

Baseline Measurement  0.225
Thimble Measurement + 0.018
Total Measurement  0.243

STEP 3

For precision measurements, reference the numbers along the top of the Sleeve to indicate the ten-thousandths decimal place. This number correlates with the line that best aligns with a marking on the Thimble.

For this example, the "1" best aligns with a marking on the thimble, therefore the final decimal place is 0.0001" and is added to the previous measurements.

Baseline Measurement  0.225
Thimble Measurement + 0.018
Precision Measurement + 0.0001
Total Measurement  0.2431

For this example, the 0.2431" object measurement is obtained.