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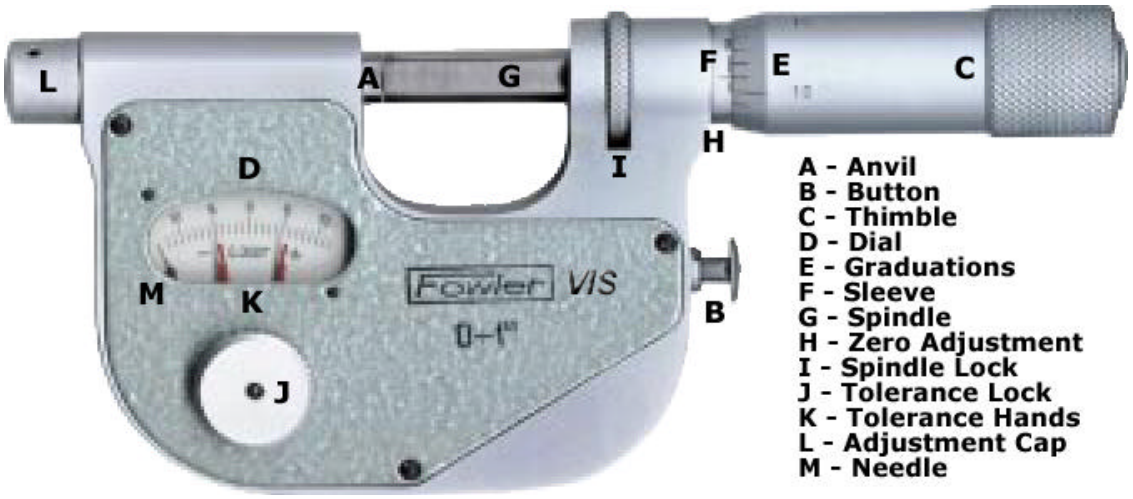
Instructions for using VIS & Fowler Dial Snap Indicating (Dice) Micrometers



Indicating Micrometers are versatile measuring tools; they can measure the actual size of components or quickly determine slight differences between features such as the three linear dimensions on dice.

Check and adjust micrometer:
1) Clean Anvil "**A"** & Spindle "**G"** faces; a piece of white paper slid between the faces while under slight measuring force works very well. Remove the paper before proceeding.
2) Turn Thimble "**C"** until Needle "**M"** is at Zero position of Dial "**D"**.
3) Press & release Button "**B"** and verify that the Needle repeats to Zero position.
4) The Zero position of Graduations "**E"** must align with the horizontal Zero line of Sleeve "**F"**; use the supplied spanner wrench at position "**H"** if necessary to nudge the sleeve. Also verify that the left edge of the Thimble is in alignment with the vertical Zero line of the Sleeve.

To measure the actual size of a component (a dice is used as an example):
1) Rotate the Thimble, opening the faces and insert the component. Rotate the Thimble to close the faces gently onto the component, until the Needle is at the Zero position of the Dial.
2) If the horizontal graduations of the Thimble and Sleeve are aligned, the measurement is complete; otherwise align the two graduations by moving the Thimble slightly to the nearest graduation.
3) The actual size of the component is the combination of the reading on the Thimble & Sleeve and the reading of the Dial. The Sleeve has a 1" vernier, which is divided, into 40 sections. The vernier is graduated into 10 large sections (.1000") which are in turn each divided into four small sections (.0250"). Each rotation of the Thimble (which is graduated 0 to 25) is equal to one small section (.0250") of the Sleeve's vernier.
4) Depending on the position of the Needle (+ or -), add or subtract the reading of the Dial from the reading of the Thimble & Sleeve. For example, measure a dice. We'll assume the left edge of the Thimble falls between the .7500" and .7750" graduations of the vernier on the Sleeve**.** And we'll assume the "10" graduation on the Thimble is aligned with the horizontal Zero line of the Sleeve. That gives us a reading of .7600" (.7500" plus .0100"), and if the Dial (which is graduated in .0001" increments) displays "+2", the actual measured size of the dice would be .7602" (.7500" plus .0100" plus .0002").

To show deviation of .001" maximum between features (the sides of a dice are used as an example):
1) Follow step #1 above.
2) Press Button **"B"** , remove the dice, rotate to a different pair of sides and release the Button.
3) Any deviation (maximum .001") will be shown on the Dial **"D".**

Other features:
The Spindle can be locked using Lock "**I"**. The two Tolerance Hands "**K"** can be adjusted by removing the Tolerance Lock **"J"**. The measuring force can be adjusted (not recommended) by removing Adjustment Cap **"L".**

Version 1.0 by Monty Abrams on June 5, 2004

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