



TEST INDICATORS AND HOLDERS

Starrett®

Test Indicators and Holders

Test indicators are primarily used for the testing or checking of parts and for machine setups, but they are also frequently used for general production purposes, either singly or "ganged" in multiples. They are an indispensable part of a toolmaker's kit of tools.

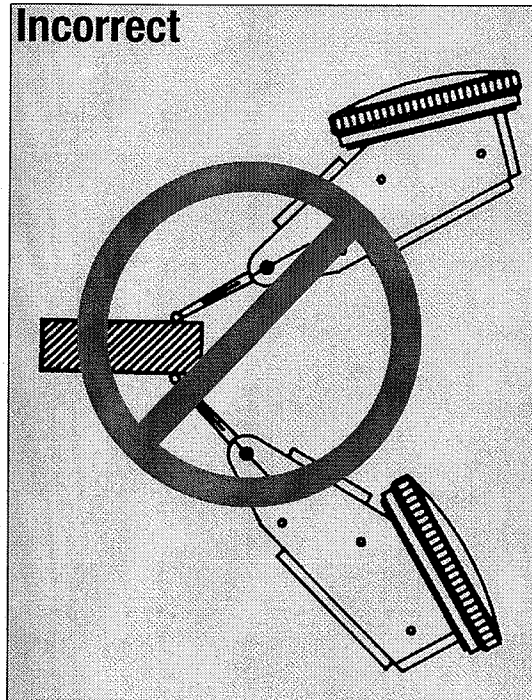
Test indicators come in two types – the plunger style and the lever style. The lever style is more adaptable to smaller, confined working areas, but both types are amazingly versatile.

The lever style differs in measuring because the lever contact moves in an arc rather than in a straight line, as in the plunger style. This can cause a slight inaccuracy called a "cosine error" if reasonable care is not used in setting the angle of the lever to the workpiece. If, for example, a lever was set off 20° more at the start of a reading than it should have been, there could be an error of .0006" in a .010" range (0.012 mm in a 0.2mm range). This is not important when zeroing-out, but only when looking for a measurement.

There are other test indicators on the market that have pear-shaped contacts to try to compensate for this error. We do not think this is effective. We think it is best to keep your contact at or near 90° to the direction of movement unless the manufacturer specifies another angle. (See illustration.) Test indicators should always be "loaded" 1/10 to 1/4 of a turn before measuring.

Test indicators are not hand-held absolute measuring tools. They are comparative instruments that check and compare to known standards or that are used to zero-out setups. We have a broad selection of holders shown in this section that allows you to use these indicators to the fullest. We've never seen a job that one of these holders combined with one of our test indicators could not handle.

Incorrect



Correct

