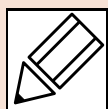
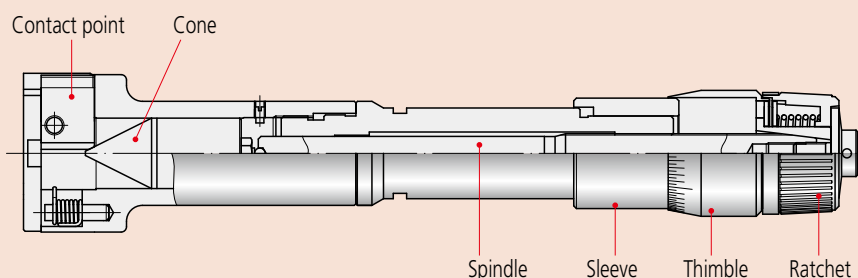


Quick Guide to Precision Measuring Instruments



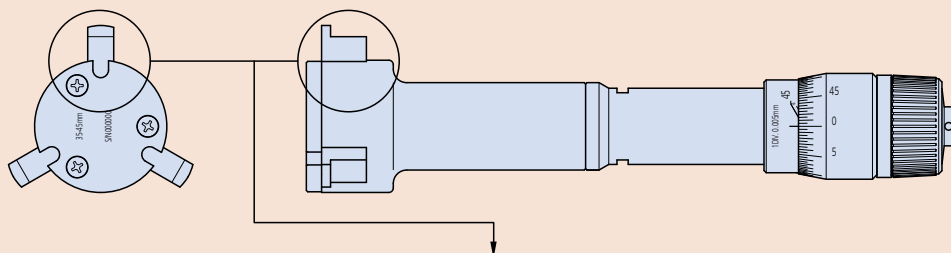
Inside Micrometers

Nomenclature (Holtest)



Custom-ordered Products (Holtest / Borematic)

Mitutoyo can custom-build an inside micrometer best suited to your special application. Please feel free to contact Mitutoyo about the possibilities - even if only one custom-manufactured piece is required. Please note that, depending on circumstances, such a micrometer will usually need to be used with a master setting ring for accuracy assurance. (A custom-ordered micrometer can be made compatible with a master ring supplied by the customer. Please consult Mitutoyo.)



Type of feature	Workpiece profile (example)	Contact point tip profile (example)	Remarks
Square groove		<p>Tip radius R that can measure the minimum diameter (different for each size)</p> <p>W=1 or more</p>	<ul style="list-style-type: none"> Allows measurement of the diameter of variously shaped inside grooves and splines. Minimum measurable groove diameter is approximately 16 mm (differs depending on the workpiece profile.) Dimension l should be as follows: For W=less than 2 mm: l=less than 2 mm For W=2 mm or more: l=2 mm as the standard value which can be modified according to circumstances. The number of splines or serrations is limited to a multiple of 3. Details of the workpiece profile should be provided at the time of placing a custom-order. If your application needs a measuring range different from that of the standard inside micrometer an additional initial cost for the master ring gauge will be required.
Round groove		<p>Tip radius R that can measure the minimum diameter (different for each size)</p> <p>W=1 or more R=0.5 or more</p>	
Spline		<p>W=0.5 or more</p> <p>Tip radius R that can measure the minimum diameter (different for each size)</p>	
Serration		<p>45° or more</p> <p>R=0.3 or more</p>	
Threaded hole			