

Conventional product geometric tolerance standard, as shown below.

Types	Equipment	Testing Site & Requirements	Machining Capability
//	CMM	Between the two processing surfaces, at least 4 dots should be made at different positions on each surface, if one length of the square is $\geq 40\text{mm}$ , and the cylinder $\geq \Phi 40\text{mm}$ the dot should be increased by 2 to 4.	Square $\geq 15 \times 15\text{mm}$ , $\Phi \geq 15\text{mm}$ , // $\leq 0.1$
	Imaging Instrument	The distance between the different positions of the two straight line ends between the two processing surfaces, the absolute value of distance 1 to distance 2.	Square $< 15 \times 15\text{mm}$ , $\Phi < 15\text{mm}$ , // $\leq 0.05$
$\perp$	CMM	When testing between two surfaces, pay attention to input the testing height and testing datum, and the testing result is the dimension value in mm.	$90^\circ \pm 0.5^\circ$ , to measure the verticality, need to convert it according to the height
	Imaging Instrument	The right angle is measured by two adjacent straight lines, and the detection result will be an angle value, such as $60^\circ$ .	
$\odot$	CMM	Measure the inner and outer surfaces of the ring, each surface is divided into three sections with different heights, and at least 3 points are marked on each section.	0.1mm (Not suitable for segment)
	Imaging Instrument / Dial Indicator	The imager detects the two circle centers first, and obtains the coaxiality through the distance between the two circle centers. The dial indicator is used to fix the mandrel with a bracket, and the dial indicator rotates the entire cylinder for measurement.	
$\equiv$	CMM	It basically measures the irregular shape. When measuring the entire surface, the coordinates are established in the middle position. The difference between the two areas.	$\leq 0.15\text{mm}$
	Imaging Instrument	When measuring the entire surface, the coordinates are established in the middle position, and the line segment distance difference between the two sides is measured by the middle line.	$\leq 0.10\text{mm}$
$\square$	CMM	There should be at least 4 dots at different positions on a surface, 2 to 4 dots should be added for the single side of the square $\geq 40\text{mm}$ , and the column $\geq \Phi 40\text{mm}$ .	0.05mm
$\nabla$	CMM	A cylinder is divided into three sections with different heights, and each section has at least 3 points.	$\leq 0.05\text{mm}$
	V-shape Groove & Dial Indicator	The pointer of the dial indicator is placed at the starting point of the cylinder, and the product passing through the V groove rotates to the end point to measure the fluctuation value.	
$\bigcap$	Imaging Instrument	Measuring the R arc surface to get the true roundness.	0.1mm, Wire cutting 0.15mm