

456 Series Gear Tooth Vernier Calipers

20-2 Diametral Pitch

456M Series Gear Tooth Vernier Calipers

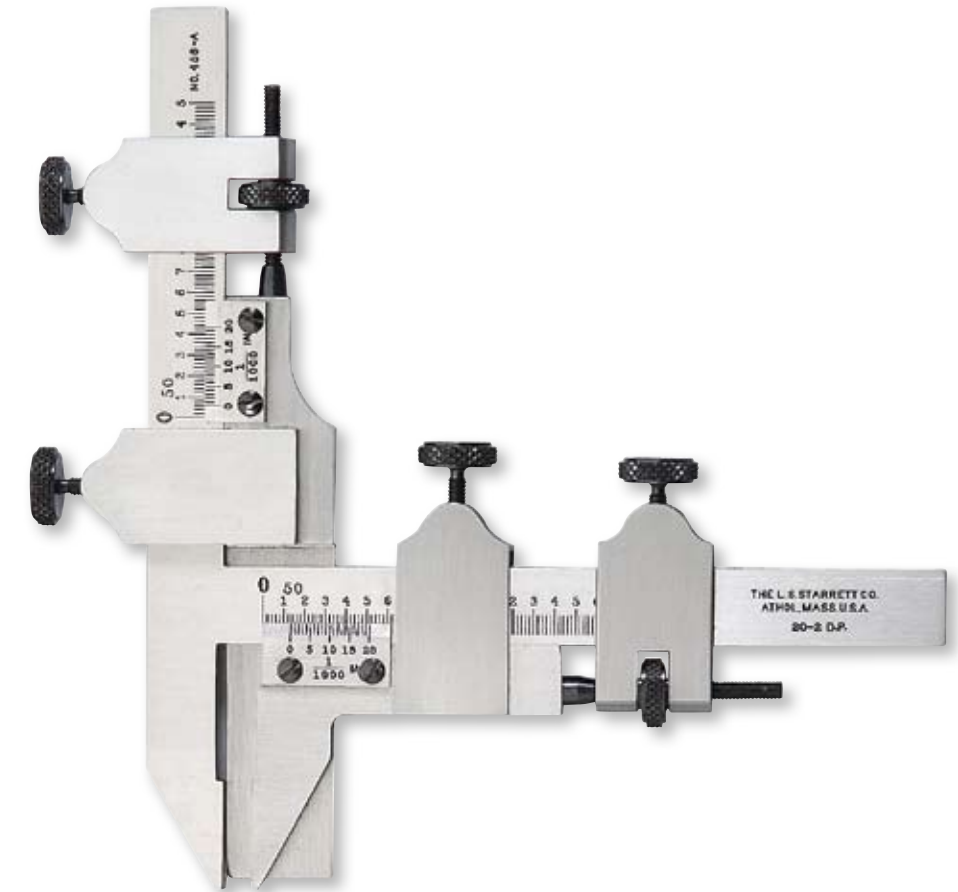
1 1/4-25mm Module

The Starrett 456 Gear Tooth Vernier Caliper is designed to measure in .001" or 0.02mm the thickness of gear teeth at the pitch line (the chordal thickness of the teeth) using the distance from the top of a tooth to the chord. For the same purpose, it can also be used for measuring hobs, form and thread tools, etc.

The thickness of a tooth at the pitch line is measured by an adjustable jaw after the addendum is set by the adjustable tongue. Each of these is adjusted independently by screws on the graduated bars.

For Tool Operation:

a. Find on the chart, furnished with the tool, the number of teeth of the gear in question, and find the corrected addendum (s"). This figure is for one diametral pitch for inch measure, so divide it by the diametral pitch number – this figure is also for a one millimeter module for metric measure, so multiply it by the required module number. This gives a corrected addendum for this particular number of teeth.

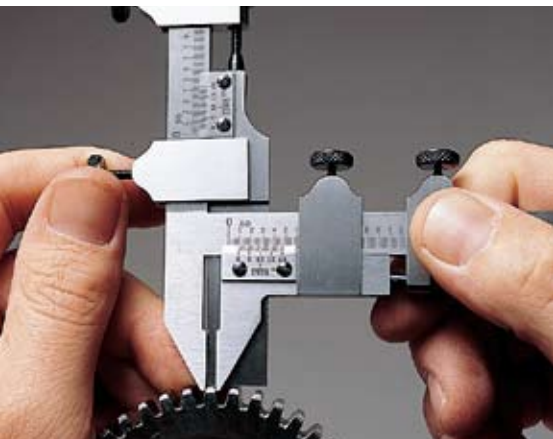


b. Next, measure the actual outside diameter of the gear and add or subtract one-half the difference between the theoretical gear diameter and actual measured gear diameter from the corrected addendum (s") found in the first step.

c. Set the new calculated addendum figure on the adjustable tongue of the tool.

d. Now, with the tongue on the top of the tooth, measure the chordal thickness with the horizontal vernier jaw and compare with the figure in the "t" column in the chart.

e. All inch graduations are read to .001". However the 456A is graduated by .020" increments and the 456B is graduated by .025" increments. 456MA and 456MB are read to 0.02mm and graduated by 0.5mm increments.



Graduation – .001"

Range	Description	Catalog No.	EDP
20-2 Diametral Pitch	Caliper in Case	456AZ	52420
	Caliper without Case	456A	52422
10-1 Diametral Pitch	Caliper in Case	456BZ	52424
	Caliper without Case	456B	52426

Graduation – 0.02mm

1-1/4-12mm Module	Caliper in Case	456MAZ	52421
	Caliper without Case	456MA	52423
2-1/2-25mm Module	Caliper in Case	456MBZ	52425
	Caliper without Case	456MB	52427

Available with carbide measuring surfaces on special order. Available with attractive, protective case – sent with case unless otherwise ordered. Packed one in a box.