



Fixed Limit Gages

A “Fixed Limit Gage” is a gage that has fixed or defined dimensions, held with in a given tolerance range.



Purpose:

To Pass or Fail Product!

*They are not intend to give an
“Actual Size”.*



USE:

“Fixed Limit Gages” provide a accurate, quick & economical inspection of product specifications.



Calculating Go & No-Go gage Tolerances, The 10% Rule

- *Hole Size: .250 +.004*
- *Product Tolerance: .004*
- *.004 x 10% = .0004*
- *.0004 x 1/2 = .0002*
- *.0002" = Class "ZZ" (See Tolerance Chart)*
- *GO = .250 +.0002*
- *NO-GO = .254 -.0002*



Remember:

• *Product Tolerance Dictates the Gage Tolerance!!*

• *Gages or Cutting Tools Do Not Dictate the Product Tolerance!!!*



**Vermont
Gage**



Diameter Tolerance Chart (ANSI/ASME B89.1.5)

Diameter Range	"XXX"	"XX"	"X"	"Y"	"Z"	"ZZ"
<i>Above - Including</i>			<i>Inch</i>			
.010" - .825"	.000010"	.000020"	.000040"	.000070"	.0001"	.0002"
.825" - 1.510"	.000015"	.000030"	.000060"	.000090"	.00012"	.00024"
1.510" - 2.510"	.000020"	.000040"	.000080"	.00012"	.00016"	.00032"
2.510" - 4.510"	.000025"	.000050"	.0001"	.00015"	.0002"	.0004"
4.510" - 6.510"	.000033"	.000065"	.00013"	.00019"	.00025"	.0005"
6.510" - 9.010"	.000040"	.000080"	.00016"	.00024"	.00032"	.00064"
9.010" - 12.010"	.000050"	.0001"	.0002"	.0003"	.0004"	.0008"
<i>Above - Including</i>			<i>Metric</i>			
.254mm - 20.96mm	.00025mm	.00051mm	.00102mm	.00178mm	.00254mm	.00508mm
20.96mm - 38.35mm	.00038mm	.00076mm	.00152mm	.00229mm	.00305mm	.00610mm
38.35mm - 63.75mm	.00051mm	.00102mm	.00203mm	.00305mm	.00406mm	.00813mm
63.75mm - 114.55mm	.00064mm	.00127mm	.00254mm	.00381mm	.00508mm	.01016mm
114.55mm - 165.35mm	.00084mm	.00165mm	.00330mm	.00483mm	.00635mm	.01270mm
165.35mm - 228.85mm	.00102mm	.00203mm	.00406mm	.00610mm	.00813mm	.01626mm
228.85mm - 305.05mm	.00127mm	.00254mm	.00508mm	.00762mm	.01016mm	.02032mm



Custom Gages

- *Built to Your Specifications*
- *Developed from Your Part Drawings*
- *Designed to Meet Your Specific Needs*
- *Drawings May Be Supplied, if Required. (All Created Drawings Require Your Approval!)*



Product Thread Inspection

Attributes Gaging (Fixed Limit)

Attributes Inspection is a non-quantitative type of inspection whose only possible outcome is either accept or reject. Attributes Inspection is gaging at the limits of tolerance. In the world of Screw Threads, Go and No Go Ring and Plug Gages are the most common type of Attributes Inspection. Attributes Inspection is non generally recommended for SPC. , it cannot measure actual Pitch Diameter.



Any Questions, Contact Us

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