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Miniature Bearings Australia

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Bearing Tolerances (316 & Plastic)

Bearings made from 316 stainless steel or plastic compounds do not have the same precision tolerances as do 440C Stainless Steel and SAE52100 chrome steel bearings.



Note! 316 Stainless Steel is not a standard bearing steel and is less precise and softer than standard bearing stainless steel.

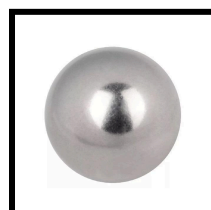
This table covers tolerances for bearings made from 316 stainless steel or plastic.

Bearing Size	Tolerance in μm
Bore \leq 19.050 mm	0.000 / +76.200
Bore $>$ 19.050 mm	0.000 / +101.600
OD \leq 25.400 mm	-76.200 / 0.000
OD $>$ 25.400 and \leq 41.275	-101.600 / 0.000
OD $>$ 41.275 and \leq 50.800	-127.000 / 0.000
OD $>$ 50.800	-152.400 / 0.000
Width	0.000 / +127.000

1 mm = 0.03937 of an inch. 1 micron (μm) = 0.00003937 of an inch. To obtain the tolerance in inches multiply the figure shown by 0.00003937, eg. 76.2 μm x 0.0000397 = 0.002999994 inches (about 3 thou.)

Dimensions are in 0.001 mm (thousandths of a mm)

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Tolerances in Simple Terms:

A tolerance is the amount of variation allowed. If I require a box of 1000 screws +/- 5, this means I can accept a box containing anything from 995 to 1005 screws. If a supplier states they can supply a box of 1000 +/- 2, this means their box contains anything from 998 to 1002 screws. The higher accuracy still meets my requirement of +/- 5. The same principle applies for tolerances of size, clearance, hardness or anything else.

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Tables and information on this web site should be read as a general guide only.

All relevant standards should be consulted to ensure the accuracy of information presented.



See also

[Ball Grades](#) information sheet

[Abec](#) information sheet

[Bearing Precision](#) general notes

[Measuring Small Parts](#)

[Bearing Tolerances \(440C & Chrome Steel\)](#)

Dimensions are in 0.001 mm (thousandths of a mm)

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