



Oil Seal Standard Tolerances - Inches Single and Dual Lip Spring Loaded Bonded Seals							
Bore Diameter	Bore Tolerance	Nominal Press Fit Metal O.D.	Metal O.D. Tolerance (1)	Metal O.D. OOR (2)	Nominal Press Fit Rubber O.D.	Rubber O.D. Tolerance (3)	Rubber O.D. OOR
Up to 2.000	±.001	.005	±.002	.007	.008	±.003	.010
2.001 to 3.000	±.001	.0055	±.0025	.010	.010	±.003	.014
3.001 to 5.000	±.0015	.0065	±.003	.012	.0105	±.003	.020
5.001 to 7.000	±.0015	.007	±.003	.016	.012	±.004	.026
7.001 to 12.000	±.002	.0085	±.0035	.0025	.0125	±.004	.031
12.001 to 20.000	±.003	.012	±.005	in/in	.015	±.005	.039
20.001 to 40.000	±.004	.013	±.005	of seal	.018	±.006	.045
40.001 to 60.000	±.006	.016	±.006	O.D.	.020	±.007	.050

Oil Seal Standard Tolerances - mm Single and Dual Lip Spring Loaded Bonded Seals					
Nominal Bore Diameter	Bore Tolerance	Metal Cased	Tolerance		Tolerance
			Rubber Covered	Metal Cased	
Up to 50	+0.039 -0.0	+0.20 +0.08	+0.30 +0.15	0.18	0.25
51 to 80	+0.046 -0.0	+0.23 +0.09	+0.35 +0.20	0.25	0.35
81 to 120	+0.054 -0.0	+0.25 +0.10	+0.35 +0.20	0.30	0.50
121 to 180	+0.063 -0.0	+0.28 +0.15	+0.45 +0.25	0.40	0.65
181 to 300	+0.075 -0.0	+0.35 +0.15	+0.45 +0.25	0.25% of outside diameter	0.80
301 to 440	+0.089 _0.0	+0.45 +0.20	+0.55 +0.30	0.25% of outside diameter	1.00

- (1) Seal O.D.: The average of a minimum of three measurements to be taken at equally spaced positions.
- (2) Out of Round (OOR): The maximum variance between any of the readings used in determining seal O. D.
- (3) Rubber covered seals employing certain materials other than nitrile may require different tolerances.

Note: To guarantee positive installation of the seal in the bore, the axial length of the bore should always be equal to, or greater than the maximum seal width.

