

O-Ring Tolerances International General Purpose

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Dynamic O-Ring Gland Width and Depth and Diameter Default Recommendations

O-RING TOLERANCES CROSS-SECTION GENERAL PURPOSE INTERNATIONAL (Millimeters)

O-Ring Cross Section (mm)	Tolerance (mm)	O-Ring Cross Section (Inches)	Tolerance (Inches)
0.00 to 1.79	+/- 0.07	0.00 to 0.069	+/- 0.003
1.80 to 2.64	+/- 0.08	0.070 to 0.102	+/- 0.003
2.65 to 3.54	+/- 0.09	0.103 to 0.138	+/- 0.004
3.55 to 5.29	+/- 0.10	0.139 to 0.209	+/- 0.004
5.30 to 6.99	+/- 0.13	0.210 to 0.274	+/- 0.005
7.00 to 8.00	+/- 0.15	0.275 to 0.314	+/- 0.006
8.01 to 10.00	+/- 0.20	0.315 to 0.394	+/- 0.008
10.01 to 15.00	+/- 0.25	0.395 to 0.590	+/- 0.010
15.01 to 25.00	+/- 0.35	0.591 to 0.984	+/- 0.014
25.01 to 100.00	+/- 0.45	0.985 to 3.937	+/- 0.018

O-RING TOLERANCES INSIDE DIAMETER INTERNATIONAL GENERAL PURPOSE (Millimeters)

O-Ring Inside Diameter (mm)	Tolerance (mm)	O-Ring Inside Diameter (mm)	Tolerance (mm)	O-Ring Inside Diameter (mm)	Tolerance (mm)
0.00 to 1.79	+/- 0.12	100.01 to 103.00	+/- 0.85	307.01 to 311.00	+/- 2.21
1.80 to 2.80	+/- 0.13	103.01 to 106.00	+/- 0.87	311.01 to 315.00	+/- 2.24
2.81 to 4.00	+/- 0.14	106.01 to 109.00	+/- 0.89	315.01 to 320.00	+/- 2.27
4.01 to 5.30	+/- 0.15	109.01 to 112.00	+/- 0.91	320.01 to 325.00	+/- 2.30
5.31 to 7.10	+/- 0.16	112.01 to 115.00	+/- 0.93	325.01 to 330.00	+/- 2.33
7.11 to 8.50	+/- 0.17	115.01 to 118.00	+/- 0.95	330.01 to 335.00	+/- 2.36
8.51 to 9.75	+/- 0.18	118.01 to 122.00	+/- 0.97	335.01 to 340.00	+/- 2.40
9.76 to 11.80	+/- 0.19	122.01 to 125.00	+/- 0.99	340.01 to 345.00	+/- 2.43
11.81 to 13.20	+/- 0.21	125.01 to 128.00	+/- 1.01	345.01 to 350.00	+/- 2.46
13.21 to 15.00	+/- 0.22	128.01 to 132.00	+/- 1.04	350.01 to 355.00	+/- 2.49
15.01 to 16.00	+/- 0.23	132.01 to 136.00	+/- 1.07	355.01 to 360.00	+/- 2.52
16.01 to 17.00	+/- 0.24	136.01 to 140.00	+/- 1.09	360.01 to 365.00	+/- 2.56
17.01 to 19.00	+/- 0.25	140.01 to 142.50	+/- 1.11	365.01 to 370.00	+/- 2.59
19.01 to 20.60	+/- 0.26	142.51 to 145.00	+/- 1.13	370.01 to 375.00	+/- 2.62
20.61 to 21.20	+/- 0.27	145.01 to 147.50	+/- 1.14	375.01 to 379.00	+/- 2.64
21.21 to 22.40	+/- 0.28	147.51 to 150.00	+/- 1.16	379.01 to 383.00	+/- 2.67
22.41 to 23.60	+/- 0.29	150.01 to 152.50	+/- 1.18	383.01 to 387.00	+/- 2.70
23.61 to 25.00	+/- 0.30	152.51 to 155.00	+/- 1.19	387.01 to 391.00	+/- 2.72
25.01 to 26.50	+/- 0.31	155.01 to 157.50	+/- 1.21	391.01 to 395.00	+/- 2.75
26.51 to 28.00	+/- 0.32	157.51 to 160.00	+/- 1.23	395.01 to 400.00	+/- 2.78
28.01 to 29.00	+/- 0.33	160.01 to 162.50	+/- 1.24	400.01 to 406.00	+/- 2.82
29.01 to 30.00	+/- 0.34	162.51 to 165.00	+/- 1.25	406.01 to 412.00	+/- 2.85
30.01 to 31.50	+/- 0.35	165.01 to 167.50	+/- 1.28	412.01 to 418.00	+/- 2.89
31.51 to 33.50	+/- 0.36	167.51 to 170.00	+/- 1.29	418.01 to 425.00	+/- 2.93
33.51 to 34.50	+/- 0.37	170.01 to 172.50	+/- 1.31	425.01 to 429.00	+/- 2.96

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34.51 to 36.50	+/- 0.38	172.51 to 175.00	+/- 1.33	429.01 to 433.00	+/- 2.99
36.51 to 37.50	+/- 0.39	175.01 to 177.50	+/- 1.34	433.01 to 437.00	+/- 3.01
37.51 to 38.70	+/- 0.40	177.51 to 180.00	+/- 1.36	437.01 to 443.00	+/- 3.05
40.01 to 41.20	+/- 0.42	182.51 to 185.00	+/- 1.39	450.01 to 456.00	+/- 3.13
41.21 to 42.50	+/- 0.43	185.01 to 187.50	+/- 1.41	456.01 to 462.00	+/- 3.17
42.51 to 45.00	+/- 0.44	187.51 to 190.00	+/- 1.43	462.01 to 466.00	+/- 3.19
45.01 to 46.20	+/- 0.45	190.01 to 195.00	+/- 1.45	466.01 to 470.00	+/- 3.22
46.21 to 47.50	+/- 0.46	195.01 to 200.00	+/- 1.49	470.01 to 475.00	+/- 3.25
47.51 to 48.70	+/- 0.47	200.01 to 203.00	+/- 1.51	475.01 to 479.00	+/- 3.28
48.71 to 50.00	+/- 0.48	203.01 to 206.00	+/- 1.53	479.01 to 483.00	+/- 3.30
50.01 to 51.50	+/- 0.49	206.01 to 212.00	+/- 1.57	483.01 to 487.00	+/- 3.33
51.51 to 53.00	+/- 0.50	212.01 to 218.00	+/- 1.61	487.01 to 493.00	+/- 3.36
53.01 to 54.50	+/- 0.51	218.01 to 224.00	+/- 1.65	493.01 to 500.00	+/- 3.41
54.51 to 56.00	+/- 0.52	224.01 to 227.00	+/- 1.67	500.01 to 508.00	+/- 3.46
56.01 to 58.00	+/- 0.54	227.01 to 230.00	+/- 1.69	508.01 to 515.00	+/- 3.50
58.01 to 60.00	+/- 0.55	230.01 to 236.00	+/- 1.73	515.01 to 523.00	+/- 3.55
60.01 to 61.50	+/- 0.56	236.01 to 239.00	+/- 1.75	523.01 to 530.00	+/- 3.60
61.51 to 63.00	+/- 0.57	239.01 to 243.00	+/- 1.77	530.01 to 538.00	+/- 3.65
63.01 to 65.00	+/- 0.58	243.01 to 250.00	+/- 1.82	538.01 to 545.00	+/- 3.69
65.01 to 67.00	+/- 0.60	250.01 to 254.00	+/- 1.84	545.01 to 553.00	+/- 3.74
67.01 to 69.00	+/- 0.61	254.01 to 258.00	+/- 1.87	553.01 to 560.00	+/- 3.78
69.01 to 71.00	+/- 0.63	258.01 to 261.00	+/- 1.89	560.01 to 570.00	+/- 3.85
71.01 to 73.00	+/- 0.64	261.01 to 265.00	+/- 1.91	570.01 to 580.00	+/- 3.91
73.01 to 75.00	+/- 0.65	265.01 to 268.00	+/- 1.92	580.01 to 590.00	+/- 3.97
75.01 to 77.50	+/- 0.67	268.01 to 272.00	+/- 1.96	590.01 to 600.00	+/- 4.03
77.51 to 80.00	+/- 0.69	272.01 to 276.00	+/- 1.98	600.01 to 608.00	+/- 4.08
80.01 to 82.50	+/- 0.71	276.01 to 280.00	+/- 2.01	608.01 to 615.00	+/- 4.12
82.51 to 85.00	+/- 0.72	280.01 to 283.00	+/- 2.03	615.01 to 623.00	+/- 4.17
85.01 to 87.50	+/- 0.74	283.01 to 286.00	+/- 2.05	623.01 to 630.00	+/- 4.22
87.51 to 90.00	+/- 0.76	286.01 to 290.00	+/- 2.08	630.01 to 640.00	+/- 4.28
90.01 to 92.50	+/- 0.77	290.01 to 295.00	+/- 2.11	640.01 to 650.00	+/- 4.34
92.51 to 95.00	+/- 0.79	295.01 to 300.00	+/- 2.14	650.01 to 660.00	+/- 4.40
95.01 to 100.00	+/- 0.81	300.01 to 307.00	+/- 2.16	660.01 to 670.00	+/- 4.47
0.000 to 0.070	+/- 0.005	3.938 to 4.055	+/- 0.033	12.087 to 12.243	+/- 0.087
0.071 to 0.110	+/- 0.005	4.056 to 4.173	+/- 0.034	12.244 to 12.401	+/- 0.088
0.111 to 0.157	+/- 0.006	4.174 to 4.291	+/- 0.035	12.402 to 12.598	+/- 0.089
0.158 to 0.208	+/- 0.006	4.292 to 4.409	+/- 0.036	12.599 to 12.795	+/- 0.091
0.209 to 0.279	+/- 0.006	4.410 to 4.527	+/- 0.037	12.796 to 12.991	+/- 0.092
0.280 to 0.334	+/- 0.007	4.528 to 4.645	+/- 0.037	12.992 to 13.188	+/- 0.093
0.335 to 0.383	+/- 0.007	4.646 to 4.803	+/- 0.038	13.189 to 13.385	+/- 0.094
0.384 to 0.464	+/- 0.007	4.804 to 4.921	+/- 0.039	13.386 to 13.582	+/- 0.096
0.465 to 0.519	+/- 0.008	4.922 to 5.039	+/- 0.040	13.583 to 13.779	+/- 0.097
0.520 to 0.590	+/- 0.009	5.040 to 5.196	+/- 0.041	13.780 to 13.976	+/- 0.098
0.591 to 0.629	+/- 0.009	5.197 to 5.354	+/- 0.042	13.977 to 14.173	+/- 0.099
0.630 to 0.669	+/- 0.009	5.355 to 5.511	+/- 0.043	14.174 to 14.369	+/- 0.101
0.670 to 0.747	+/- 0.010	5.512 to 5.610	+/- 0.044	14.370 to 14.566	+/- 0.102
0.748 to 0.810	+/- 0.010	5.611 to 5.708	+/- 0.044	14.567 to 14.763	+/- 0.103
0.811 to 0.834	+/- 0.011	5.709 to 5.806	+/- 0.045	14.764 to 14.921	+/- 0.104
0.835 to 0.881	+/- 0.011	5.807 to 5.905	+/- 0.046	14.922 to 15.078	+/- 0.105

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0.882 to 0.929	+/- 0.011	5.906 to 6.003	+/- 0.046	15.079 to 15.236	+/- 0.106
0.930 to 0.984	+/- 0.012	6.004 to 6.102	+/- 0.047	15.237 to 15.393	+/- 0.107
0.985 to 1.043	+/- 0.012	6.103 to 6.200	+/- 0.048	15.394 to 15.551	+/- 0.108
1.044 to 1.102	+/- 0.013	6.201 to 6.299	+/- 0.048	15.552 to 15.747	+/- 0.109
1.103 to 1.141	+/- 0.013	6.300 to 6.397	+/- 0.049	15.748 to 15.984	+/- 0.111
1.142 to 1.180	+/- 0.013	6.398 to 6.495	+/- 0.049	15.985 to 16.220	+/- 0.112
1.181 to 1.240	+/- 0.014	6.496 to 6.594	+/- 0.050	16.221 to 16.456	+/- 0.114
1.241 to 1.318	+/- 0.014	6.595 to 6.692	+/- 0.051	16.457 to 16.732	+/- 0.115
1.319 to 1.358	+/- 0.015	6.693 to 6.791	+/- 0.052	16.733 to 16.889	+/- 0.117
1.359 to 1.436	+/- 0.015	6.792 to 6.889	+/- 0.052	16.890 to 17.047	+/- 0.118
1.437 to 1.476	+/- 0.015	6.890 to 6.988	+/- 0.053	17.048 to 17.204	+/- 0.119
1.477 to 1.574	+/- 0.016	6.989 to 7.184	+/- 0.054	17.205 to 17.716	+/- 0.120
1.575 to 1.621	+/- 0.017	7.185 to 7.283	+/- 0.055	17.717 to 17.952	+/- 0.123
1.622 to 1.673	+/- 0.017	7.284 to 7.381	+/- 0.056	17.953 to 18.188	+/- 0.125
1.674 to 1.771	+/- 0.017	7.382 to 7.480	+/- 0.056	18.189 to 18.346	+/- 0.126
1.772 to 1.818	+/- 0.018	7.481 to 7.677	+/- 0.057	18.347 to 18.503	+/- 0.127
1.819 to 1.869	+/- 0.018	7.678 to 7.873	+/- 0.059	18.504 to 18.700	+/- 0.128
1.870 to 1.917	+/- 0.019	7.874 to 7.992	+/- 0.059	18.701 to 18.858	+/- 0.129
1.918 to 1.968	+/- 0.019	7.993 to 8.110	+/- 0.060	18.859 to 19.015	+/- 0.130
1.969 to 2.027	+/- 0.019	8.111 to 8.346	+/- 0.062	19.016 to 19.173	+/- 0.131
2.028 to 2.086	+/- 0.020	8.347 to 8.582	+/- 0.063	19.174 to 19.409	+/- 0.132
2.087 to 2.145	+/- 0.020	8.583 to 8.818	+/- 0.065	19.410 to 19.684	+/- 0.134
2.146 to 2.204	+/- 0.020	8.819 to 8.936	+/- 0.066	19.685 to 19.999	+/- 0.136
2.205 to 2.283	+/- 0.021	8.937 to 9.054	+/- 0.067	20.000 to 20.275	+/- 0.138
2.284 to 2.362	+/- 0.022	9.055 to 9.291	+/- 0.068	20.276 to 20.590	+/- 0.140
2.363 to 2.421	+/- 0.022	9.292 to 9.409	+/- 0.069	20.591 to 20.865	+/- 0.142
2.422 to 2.480	+/- 0.022	9.410 to 9.566	+/- 0.070	20.866 to 21.180	+/- 0.144
2.481 to 2.558	+/- 0.023	9.567 to 9.842	+/- 0.072	21.181 to 21.456	+/- 0.145
2.559 to 2.637	+/- 0.024	9.843 to 9.999	+/- 0.072	21.457 to 21.771	+/- 0.147
2.638 to 2.716	+/- 0.024	10.000 to 10.157	+/- 0.074	21.772 to 22.047	+/- 0.149
2.717 to 2.795	+/- 0.025	10.158 to 10.275	+/- 0.074	22.048 to 22.440	+/- 0.152
2.796 to 2.873	+/- 0.021	10.276 to 10.432	+/- 0.075	22.441 to 22.834	+/- 0.154
2.874 to 2.952	+/- 0.026	10.433 to 10.551	+/- 0.076	22.835 to 23.228	+/- 0.156
2.953 to 3.051	+/- 0.026	10.552 to 10.708	+/- 0.077	23.229 to 23.621	+/- 0.159
3.052 to 3.149	+/- 0.027	10.709 to 10.866	+/- 0.078	23.622 to 23.936	+/- 0.161
3.150 to 3.247	+/- 0.028	10.867 to 11.023	+/- 0.079	23.937 to 24.212	+/- 0.162
3.248 to 3.346	+/- 0.028	11.024 to 11.141	+/- 0.080	24.213 to 24.527	+/- 0.164
3.347 to 3.444	+/- 0.029	11.142 to 11.259	+/- 0.081	24.528 to 24.802	+/- 0.166
3.445 to 3.543	+/- 0.030	11.260 to 11.417	+/- 0.082	24.803 to 25.196	+/- 0.169
3.544 to 3.641	+/- 0.030	11.418 to 11.614	+/- 0.083	25.197 to 25.590	+/- 0.171
3.642 to 3.740	+/- 0.031	11.615 to 11.810	+/- 0.084	25.591 to 25.984	+/- 0.173
3.741 to 3.937	+/- 0.032	11.811 to 12.086	+/- 0.085	25.985 to 26.378	+/- 0.176