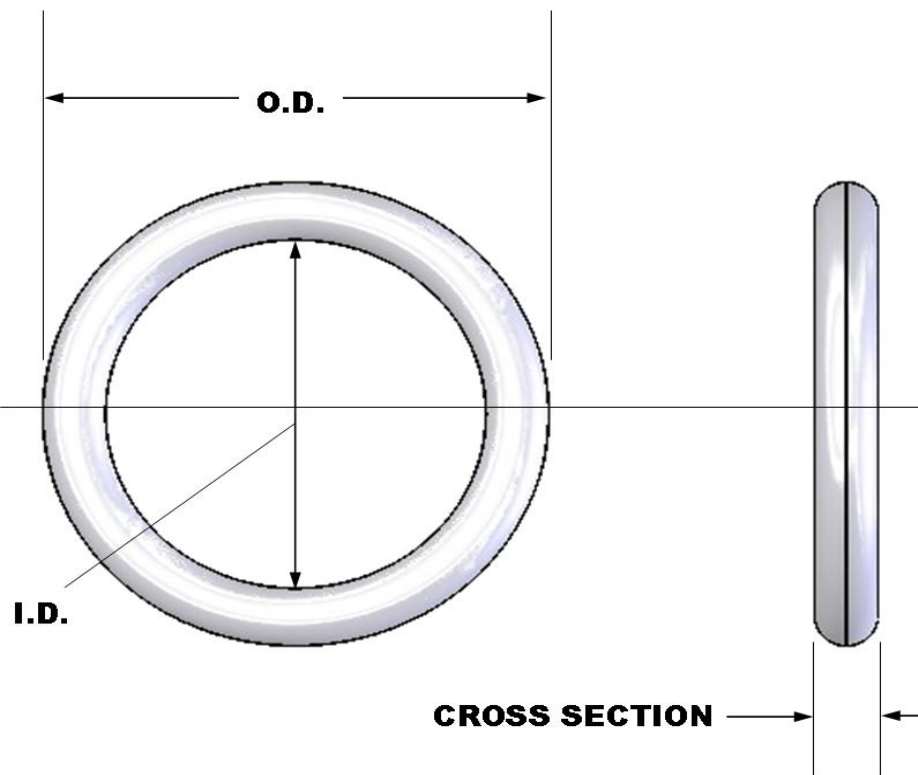




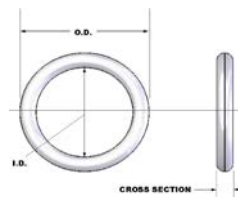
Engineers Guide

for O-Rings





Engineers Guide for O-Rings



O-Ring manufacturers, including Precision Associates, traditionally publish O-Ring tooling lists in order by Inside Diameter (ID). Also typical is the separation of standard O-Rings from special sizes.

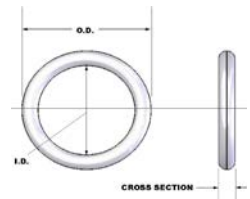
Here we list of *all* of PAI's O-Rings, presented in order by Outside Diameter (OD). ID, Cross Section (C/S) and seal tolerances are provided, as is volumetric information required for gland dimensioning. Metric dimensions are shown as well.

PAI adds a new size to our collection approximately each week. You may wish to check out our website at www.PrecisionAssoc.com to obtain the most up-to-date listing, or call our Customer Service department. If you still can't find the O-Ring to fit your special need, please call our Engineering department. Our In-House Tool Shop will produce a mold in short order at a very reasonable cost.

Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
4-4	.012	.004 ±.001	.004 ±.001	.00000	.30	.10	.10
6-8	.020	.006 ±.001	.008 ±.002	.00000	.50	.15	.20
10-10	.030	.010 ±.001	.010 ±.003	.00000	.75	.25	.25
14-12	.040	.014 ±.002	.012 ±.003	.00001	1.00	.35	.30
15-16	.046	.015 ±.002	.016 ±.003	.00002	1.15	.40	.40
13-25VS	.051	.013 ±.003	.025 ±.004	.00002	1.30	.35	.65
20-17	.057	.020 ±.003	.017 ±.004	.00004	1.45	.50	.45
16-28	.060	.016 ±.002	.028 ±.004	.00003	1.50	.40	.70
20-20	.060	.020 ±.002	.020 ±.004	.00004	1.50	.50	.50
25-10	.060	.025 ±.003	.010 ±.004	.00005	1.50	.65	.25
7-48VS	.062	.007 ±.003	.048 ±.005	.00001	1.55	.20	1.20
15-34	.064	.015 ±.002	.034 ±.004	.00003	1.65	.40	.85
17-30	.064	.017 ±.003	.030 ±.004	.00003	1.65	.45	.75
20-24	.064	.020 ±.003	.024 ±.004	.00004	1.65	.50	.60
20-30	.070	.020 ±.003	.030 ±.004	.00005	1.80	.50	.75
12-51VS	.075	.012 ±.001	.051 ±.003	.00002	1.90	.30	1.30
19-38	.076	.019 ±.003	.038 ±.004	.00005	1.95	.50	.95
17-44	.078	.017 ±.003	.044 ±.004	.00004	2.00	.45	1.10
16-47	.079	.016 ±.003	.047 ±.004	.00004	2.00	.40	1.20
29-22	.080	.029 ±.003	.022 ±.004	.00011	2.05	.75	.55
30-23	.083	.030 ±.003	.023 ±.004	.00012	2.10	.75	.60
20-45	.085	.020 ±.003	.045 ±.004	.00006	2.15	.50	1.15
27-32	.086	.027 ±.003	.032 ±.004	.00011	2.20	.70	.80
23-41	.087	.023 ±.003	.041 ±.004	.00008	2.20	.60	1.05
35-18	.088	.035 ±.003	.018 ±.004	.00016	2.25	.90	.45
38-14	.090	.038 ±.003	.014 ±.004	.00019	2.30	.95	.35
12-67VS	.092	.012 ±.002	.068 ±.004	.00003	2.35	.30	1.75
31-31ES	.093	.031 ±.003	.031 ±.004	.00015	2.35	.80	.80
40-17	.097	.040 ±.003	.017 ±.004	.00023	2.45	1.00	.45
17-65	.099	.017 ±.003	.065 ±.004	.00006	2.50	.45	1.65



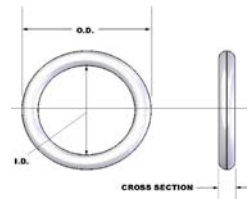
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
24-55SS	.103	.024 ±.003	.055 ±.005	.00011	2.60	.60	1.40
32-39	.103	.032 ±.003	.039 ±.004	.00018	2.60	.80	1.00
40-23	.103	.040 ±.003	.023 ±.004	.00025	2.60	1.00	.60
31-43	.105	.031 ±.003	.043 ±.004	.00018	2.65	.80	1.10
20-66	.106	.020 ±.002	.066 ±.005	.00008	2.70	.50	1.70
31-43SS	.106	.031 ±.003	.044 ±.004	.00018	2.70	.80	1.10
17-72VS	.107	.017 ±.003	.073 ±.005	.00006	2.70	.45	1.85
22-63	.107	.022 ±.003	.063 ±.004	.00010	2.70	.55	1.60
32-44VS	.108	.032 ±.003	.044 ±.005	.00019	2.75	.80	1.10
31-47	.109	.031 ±.003	.047 ±.004	.00018	2.75	.80	1.20
1-001	.109	.040 ±.003	.029 ±.004	.00027	2.75	1.00	.75
50-10	.110	.050 ±.003	.010 ±.003	.00037	2.80	1.25	.25
34-46	.114	.034 ±.003	.046 ±.004	.00023	2.90	.85	1.15
13-89SS	.116	.013 ±.002	.090 ±.005	.00004	2.95	.35	2.30
21-74	.116	.021 ±.003	.074 ±.005	.00010	2.95	.55	1.90
18-81ES	.118	.018 ±.003	.082 ±.005	.00008	3.00	.45	2.10
32-55	.119	.032 ±.003	.055 ±.004	.00022	3.00	.80	1.40
36-47	.119	.036 ±.003	.047 ±.004	.00027	3.00	.90	1.20
25-70	.120	.025 ±.003	.070 ±.005	.00015	3.05	.65	1.80
35-50	.120	.035 ±.003	.050 ±.004	.00026	3.05	.90	1.25
34-53	.121	.034 ±.003	.053 ±.004	.00025	3.05	.85	1.35
48-28	.124	.048 ±.003	.028 ±.004	.00043	3.15	1.20	.70
45-35	.125	.045 ±.003	.035 ±.004	.00040	3.20	1.15	.90
32-62	.126	.032 ±.003	.062 ±.004	.00024	3.20	.80	1.55
42-42	.126	.042 ±.003	.042 ±.004	.00037	3.20	1.05	1.05
10-107	.127	.010 ±.002	.107 ±.005	.00003	3.25	.25	2.70
20-87	.127	.020 ±.003	.087 ±.005	.00011	3.25	.50	2.20
24-78SS	.127	.024 ±.003	.079 ±.005	.00015	3.25	.60	2.00
20-90	.130	.020 ±.003	.090 ±.005	.00011	3.30	.50	2.30
23-84	.130	.023 ±.003	.084 ±.005	.00014	3.30	.60	2.15
30-70	.130	.030 ±.003	.070 ±.005	.00022	3.30	.75	1.80
31-67SS	.130	.031 ±.003	.068 ±.004	.00023	3.30	.80	1.75
43-45VS	.131	.043 ±.003	.045 ±.004	.00040	3.35	1.10	1.15
59-15	.133	.059 ±.003	.015 ±.003	.00064	3.40	1.50	.40
29-76	.134	.029 ±.003	.076 ±.005	.00022	3.40	.75	1.95
35-65	.135	.035 ±.003	.065 ±.004	.00030	3.45	.90	1.65
18-100	.136	.018 ±.002	.100 ±.005	.00009	3.45	.45	2.55
28-81	.137	.028 ±.003	.081 ±.004	.00021	3.50	.70	2.05
40-57	.137	.040 ±.003	.057 ±.004	.00038	3.50	1.00	1.45
30-78	.138	.030 ±.003	.078 ±.005	.00024	3.50	.75	2.00
34-70	.138	.034 ±.003	.070 ±.005	.00030	3.50	.85	1.80
42-55	.139	.042 ±.003	.055 ±.004	.00042	3.55	1.05	1.40
25-90	.140	.025 ±.003	.090 ±.005	.00018	3.55	.65	2.30
40-59SS	.140	.040 ±.003	.060 ±.004	.00039	3.55	1.00	1.50
1-002	.142	.050 ±.003	.042 ±.004	.00057	3.60	1.25	1.05



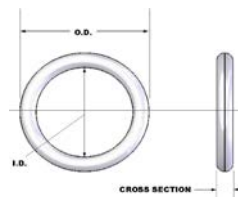
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
23-98	.144	.023 ±.003	.098 ±.005	.00016	3.65	.60	2.50
35-75	.145	.035 ±.003	.075 ±.005	.00033	3.70	.90	1.90
33-78SS	.148	.034 ±.003	.080 ±.005	.00033	3.75	.85	2.05
26-97	.149	.026 ±.003	.097 ±.005	.00021	3.80	.65	2.45
20-110	.150	.020 ±.003	.110 ±.005	.00013	3.80	.50	2.80
25-100	.150	.025 ±.003	.100 ±.005	.00019	3.80	.65	2.55
28-94	.150	.028 ±.003	.094 ±.005	.00024	3.80	.70	2.40
40-70	.150	.040 ±.003	.070 ±.005	.00043	3.80	1.00	1.80
44-65	.153	.044 ±.003	.065 ±.004	.00052	3.90	1.10	1.65
34-86	.154	.034 ±.003	.086 ±.005	.00034	3.90	.85	2.20
50-55NS	.155	.050 ±.003	.055 ±.004	.00065	3.95	1.25	1.40
47-62	.156	.047 ±.003	.062 ±.004	.00059	3.95	1.20	1.55
39-79	.157	.039 ±.003	.079 ±.005	.00044	4.00	1.00	2.00
30-98	.158	.030 ±.003	.098 ±.005	.00028	4.00	.75	2.50
36-89	.161	.036 ±.003	.089 ±.005	.00040	4.10	.90	2.25
30-103	.163	.030 ±.003	.103 ±.005	.00030	4.15	.75	2.60
20-125VS	.166	.020 ±.003	.126 ±.005	.00014	4.20	.50	3.20
28-110	.166	.028 ±.003	.110 ±.005	.00027	4.20	.70	2.80
42-82	.166	.042 ±.003	.082 ±.005	.00054	4.20	1.05	2.10
40-87	.167	.040 ±.003	.087 ±.005	.00050	4.25	1.00	2.20
25-117VS	.168	.025 ±.003	.118 ±.005	.00022	4.25	.65	3.00
12-145	.169	.012 ±.002	.145 ±.005	.00006	4.30	.30	3.70
47-71VS	.169	.047 ±.003	.075 ±.005	.00066	4.30	1.20	1.90
39-91ES	.170	.039 ±.003	.092 ±.005	.00049	4.30	1.00	2.35
59-49VS	.170	.060 ±.003	.050 ±.005	.00098	4.30	1.50	1.25
35-100SS	.171	.035 ±.003	.101 ±.005	.00041	4.35	.90	2.55
56-60	.172	.056 ±.003	.060 ±.004	.00090	4.35	1.40	1.50
34-106	.174	.034 ±.003	.106 ±.005	.00040	4.40	.85	2.70
56-61VS	.174	.056 ±.003	.062 ±.004	.00091	4.40	1.40	1.55
62-50	.174	.062 ±.003	.050 ±.004	.00106	4.40	1.55	1.25
32-110VS	.175	.032 ±.003	.111 ±.005	.00036	4.45	.80	2.80
38-100	.176	.038 ±.003	.100 ±.005	.00049	4.45	.95	2.55
49-78	.176	.049 ±.003	.078 ±.005	.00075	4.45	1.25	2.00
1-003	.176	.060 ±.003	.056 ±.004	.00103	4.45	1.50	1.40
25-130	.180	.025 ±.003	.130 ±.005	.00024	4.55	.65	3.30
30-118VS	.180	.030 ±.003	.120 ±.005	.00033	4.55	.75	3.05
48-84	.180	.048 ±.003	.084 ±.005	.00075	4.55	1.20	2.15
53-74	.180	.053 ±.003	.074 ±.005	.00088	4.55	1.35	1.90
47-87	.181	.047 ±.003	.087 ±.005	.00073	4.60	1.20	2.20
64-53	.181	.064 ±.003	.053 ±.004	.00118	4.60	1.65	1.35
12-158SS	.184	.012 ±.002	.160 ±.005	.00006	4.65	.30	4.05
44-97	.185	.044 ±.003	.097 ±.005	.00067	4.70	1.10	2.45
73-40	.186	.073 ±.003	.040 ±.004	.00149	4.70	1.85	1.00
31-125	.187	.031 ±.003	.125 ±.005	.00037	4.75	.80	3.20
25-137SS	.188	.025 ±.003	.138 ±.005	.00025	4.80	.65	3.50



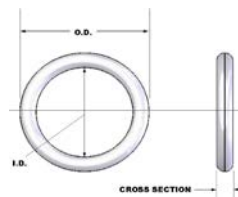
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
40-109	.189	.040 ±.003	.109 ±.005	.00059	4.80	1.00	2.75
63-63ES	.189	.063 ±.003	.063 ±.003	.00123	4.80	1.60	1.60
20-150	.190	.020 ±.003	.150 ±.005	.00017	4.85	.50	3.80
34-118SS	.190	.035 ±.003	.120 ±.005	.00047	4.85	.90	3.05
42-105ES	.190	.042 ±.003	.106 ±.005	.00064	4.85	1.05	2.70
56-78	.190	.056 ±.003	.078 ±.005	.00104	4.85	1.40	2.00
23-144	.191	.023 ±.003	.145 ±.005	.00022	4.85	.60	3.70
18-156	.192	.018 ±.003	.156 ±.005	.00014	4.90	.45	3.95
29-134	.192	.029 ±.003	.134 ±.005	.00034	4.90	.75	3.40
65-60SS	.193	.066 ±.003	.061 ±.004	.00136	4.90	1.70	1.55
25-144	.194	.025 ±.003	.144 ±.005	.00026	4.95	.65	3.65
50-94	.194	.050 ±.003	.094 ±.005	.00089	4.95	1.25	2.40
22-150ES	.195	.022 ±.003	.151 ±.005	.00021	4.95	.55	3.85
45-105	.195	.045 ±.003	.105 ±.005	.00075	4.95	1.15	2.65
55-85	.195	.055 ±.003	.085 ±.005	.00104	4.95	1.40	2.15
74-47NS	.195	.074 ±.003	.048 ±.005	.00163	4.95	1.90	1.20
66-61VS	.196	.067 ±.003	.062 ±.004	.00143	5.00	1.70	1.55
23-150ES	.197	.023 ±.003	.151 ±.005	.00023	5.00	.60	3.85
27-143	.197	.027 ±.003	.143 ±.005	.00031	5.00	.70	3.65
36-125	.197	.036 ±.003	.125 ±.005	.00051	5.00	.90	3.20
40-117	.197	.040 ±.003	.117 ±.005	.00062	5.00	1.00	2.95
32-133SS	.198	.032 ±.003	.134 ±.005	.00042	5.05	.80	3.40
50-94VS	.198	.051 ±.003	.096 ±.005	.00094	5.05	1.30	2.45
93-10ES	.198	.094 ±.003	.010 ±.003	.00227	5.05	2.40	.25
40-118VS	.199	.040 ±.003	.119 ±.005	.00063	5.05	1.00	3.00
35-130	.200	.035 ±.003	.130 ±.005	.00050	5.10	.90	3.30
30-140SS	.201	.030 ±.003	.141 ±.005	.00038	5.10	.75	3.60
59-79VS	.201	.060 ±.003	.081 ±.005	.00125	5.10	1.50	2.05
42-117	.202	.042 ±.003	.118 ±.005	.00070	5.15	1.05	3.00
16-171	.203	.016 ±.003	.171 ±.005	.00012	5.15	.40	4.35
51-102	.204	.051 ±.003	.102 ±.005	.00098	5.20	1.30	2.60
93-15ES	.205	.095 ±.003	.015 ±.005	.00245	5.20	2.40	.40
16-175	.207	.016 ±.003	.175 ±.005	.00012	5.25	.40	4.45
40-126SS	.207	.040 ±.003	.127 ±.005	.00066	5.25	1.00	3.25
21-165VS	.208	.021 ±.003	.166 ±.005	.00020	5.30	.55	4.20
31-146	.208	.031 ±.003	.146 ±.005	.00042	5.30	.80	3.70
47-114	.208	.047 ±.003	.114 ±.005	.00088	5.30	1.20	2.90
86-37	.209	.086 ±.003	.037 ±.005	.00224	5.30	2.20	.95
87-33VS	.209	.088 ±.003	.033 ±.005	.00231	5.30	2.25	.85
20-170	.210	.020 ±.003	.170 ±.005	.00019	5.35	.50	4.30
36-138	.210	.036 ±.003	.138 ±.005	.00056	5.35	.90	3.50
1-004	.210	.070 ±.003	.070 ±.005	.00169	5.35	1.80	1.80
20-170VS	.212	.020 ±.003	.172 ±.005	.00019	5.40	.50	4.35
51-110	.212	.051 ±.003	.110 ±.005	.00103	5.40	1.30	2.80
76-60	.212	.076 ±.003	.060 ±.005	.00194	5.40	1.95	1.50



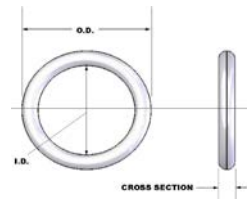
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Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
80-54	.214	.080 ±.003	.054 ±.005	.00212	5.45	2.05	1.35
40-136	.216	.040 ±.003	.136 ±.005	.00069	5.50	1.00	3.45
24-169	.217	.024 ±.003	.169 ±.005	.00027	5.50	.60	4.30
30-157VS	.218	.030 ±.003	.158 ±.005	.00042	5.55	.75	4.00
32-154	.218	.032 ±.003	.154 ±.005	.00047	5.55	.80	3.90
50-120	.220	.050 ±.003	.120 ±.005	.00105	5.60	1.25	3.05
60-100	.220	.060 ±.003	.100 ±.005	.00142	5.60	1.50	2.55
63-94	.220	.063 ±.003	.094 ±.005	.00154	5.60	1.60	2.40
36-152	.224	.036 ±.003	.152 ±.005	.00060	5.70	.90	3.85
32-160VS	.226	.032 ±.003	.162 ±.005	.00049	5.75	.80	4.10
40-147	.227	.040 ±.003	.147 ±.005	.00074	5.75	1.00	3.75
50-129	.229	.050 ±.003	.129 ±.005	.00110	5.80	1.25	3.30
39-150SS	.230	.039 ±.003	.152 ±.005	.00072	5.85	1.00	3.85
70-87	.230	.071 ±.003	.088 ±.005	.00198	5.85	1.80	2.25
60-111	.231	.060 ±.003	.111 ±.005	.00152	5.85	1.50	2.80
38-157	.233	.038 ±.003	.157 ±.005	.00069	5.90	.95	4.00
39-154SS	.234	.039 ±.003	.156 ±.005	.00073	5.95	1.00	3.95
75-85	.235	.075 ±.003	.085 ±.005	.00222	5.95	1.90	2.15
30-176	.236	.030 ±.003	.176 ±.005	.00046	6.00	.75	4.45
43-150	.236	.043 ±.003	.150 ±.005	.00088	6.00	1.10	3.80
48-140	.236	.048 ±.003	.140 ±.005	.00107	6.00	1.20	3.55
23-191	.237	.023 ±.003	.191 ±.005	.00028	6.00	.60	4.85
28-181VS	.239	.028 ±.003	.183 ±.005	.00041	6.05	.70	4.65
50-140	.240	.050 ±.003	.140 ±.005	.00117	6.10	1.25	3.55
56-125VS	.241	.057 ±.003	.127 ±.005	.00148	6.10	1.45	3.25
1-005	.241	.070 ±.003	.101 ±.005	.00207	6.10	1.80	2.55
70-98SS	.241	.071 ±.003	.099 ±.005	.00211	6.10	1.80	2.50
40-162	.242	.040 ±.003	.162 ±.005	.00080	6.15	1.00	4.10
72-97VS	.242	.072 ±.003	.098 ±.005	.00217	6.15	1.85	2.50
46-152	.244	.046 ±.003	.152 ±.005	.00103	6.20	1.15	3.85
94-57	.245	.094 ±.003	.057 ±.005	.00329	6.20	2.40	1.45
25-190SS	.246	.025 ±.003	.196 ±.005	.00034	6.25	.65	5.00
37-172	.246	.037 ±.003	.172 ±.005	.00071	6.25	.95	4.35
23-200	.248	.023 ±.003	.202 ±.005	.00029	6.30	.60	5.15
70-108	.248	.070 ±.003	.108 ±.005	.00215	6.30	1.80	2.75
31-187	.249	.031 ±.003	.187 ±.005	.00052	6.30	.80	4.75
62-125	.249	.062 ±.003	.125 ±.005	.00177	6.30	1.55	3.20
81-87	.249	.081 ±.003	.087 ±.005	.00272	6.30	2.05	2.20
68-113VS	.250	.068 ±.003	.114 ±.005	.00208	6.35	1.75	2.90
85-80	.250	.085 ±.003	.080 ±.005	.00294	6.35	2.15	2.05
18-214VS	.252	.018 ±.002	.216 ±.005	.00019	6.40	.45	5.50
63-122VS	.252	.064 ±.003	.124 ±.005	.00190	6.40	1.65	3.15
75-102	.252	.075 ±.003	.102 ±.005	.00246	6.40	1.90	2.60
12-227VS	.253	.012 ±.002	.229 ±.005	.00009	6.45	.30	5.80
24-205	.253	.024 ±.003	.205 ±.005	.00033	6.45	.60	5.20



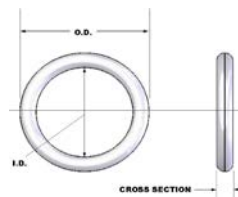
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
70-113ES	.253	.070 ±.003	.113 ±.005	.00221	6.45	1.80	2.85
35-182VS	.254	.035 ±.003	.184 ±.005	.00066	6.45	.90	4.65
50-154	.254	.050 ±.003	.154 ±.005	.00126	6.45	1.25	3.90
58-133SS	.254	.059 ±.003	.136 ±.005	.00167	6.45	1.50	3.45
60-134	.254	.060 ±.003	.134 ±.005	.00172	6.45	1.50	3.40
1-006	.254	.070 ±.003	.114 ±.005	.00222	6.45	1.80	2.90
40-176	.256	.040 ±.003	.176 ±.005	.00085	6.50	1.00	4.45
59-138	.256	.059 ±.003	.138 ±.005	.00169	6.50	1.50	3.50
1-102	.256	.103 ±.003	.049 ±.005	.00401	6.50	2.60	1.25
28-201	.257	.028 ±.003	.201 ±.005	.00044	6.55	.70	5.10
30-199ES	.259	.030 ±.003	.199 ±.005	.00051	6.60	.75	5.05
50-158VS	.259	.050 ±.003	.159 ±.005	.00129	6.60	1.25	4.05
35-188VS	.260	.035 ±.003	.190 ±.005	.00068	6.60	.90	4.85
35-190	.260	.035 ±.003	.190 ±.005	.00068	6.60	.90	4.85
40-180	.260	.040 ±.003	.180 ±.005	.00087	6.60	1.00	4.55
45-165SS	.262	.046 ±.003	.170 ±.005	.00113	6.65	1.15	4.30
70-125	.265	.070 ±.003	.125 ±.005	.00236	6.75	1.80	3.20
40-184SS	.266	.040 ±.003	.186 ±.005	.00089	6.75	1.00	4.70
48-170	.266	.048 ±.003	.170 ±.005	.00124	6.75	1.20	4.30
54-158	.266	.054 ±.003	.158 ±.005	.00153	6.75	1.35	4.00
25-218	.268	.025 ±.003	.218 ±.005	.00037	6.80	.65	5.55
30-208	.268	.030 ±.003	.208 ±.005	.00053	6.80	.75	5.30
28-210SS	.269	.028 ±.003	.213 ±.005	.00047	6.85	.70	5.40
39-189SS	.269	.039 ±.003	.191 ±.005	.00086	6.85	1.00	4.85
70-127SS	.271	.071 ±.003	.129 ±.005	.00249	6.90	1.80	3.30
93-085	.271	.093 ±.003	.085 ±.005	.00380	6.90	2.35	2.15
121-029	.271	.121 ±.004	.029 ±.005	.00542	6.90	3.05	.75
30-212SS	.274	.030 ±.003	.214 ±.005	.00054	6.95	.75	5.45
33-210	.276	.033 ±.003	.210 ±.005	.00065	7.00	.85	5.35
39-197ES	.276	.039 ±.003	.198 ±.005	.00089	7.00	1.00	5.05
50-176	.276	.050 ±.003	.176 ±.005	.00139	7.00	1.25	4.45
59-158	.276	.059 ±.003	.158 ±.005	.00186	7.00	1.50	4.00
40-200	.280	.040 ±.003	.200 ±.005	.00095	7.10	1.00	5.10
80-120	.280	.080 ±.003	.120 ±.005	.00316	7.10	2.05	3.05
48-185	.281	.048 ±.003	.185 ±.005	.00132	7.15	1.20	4.70
33-210SS	.282	.034 ±.003	.214 ±.005	.00071	7.15	.85	5.45
14-256	.284	.014 ±.002	.256 ±.005	.00013	7.20	.35	6.50
32-220	.284	.032 ±.003	.220 ±.005	.00064	7.20	.80	5.60
75-134	.284	.075 ±.003	.134 ±.005	.00290	7.20	1.90	3.40
5-275ES	.285	.005 ±.001	.275 ±.005	.00002	7.25	.15	7.00
1-007	.285	.070 ±.003	.145 ±.005	.00260	7.25	1.80	3.70
39-208	.286	.039 ±.003	.208 ±.005	.00093	7.25	1.00	5.30
60-166	.286	.060 ±.003	.166 ±.005	.00201	7.25	1.50	4.20
6-275ES	.287	.006 ±.001	.275 ±.005	.00002	7.30	.15	7.00
25-237	.287	.025 ±.003	.237 ±.005	.00040	7.30	.65	6.00



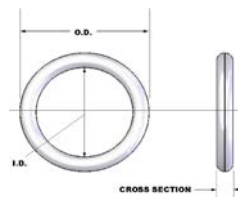
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
50-187	.287	.050 ±.003	.187 ±.005	.00146	7.30	1.25	4.75
1-103	.287	.103 ±.003	.081 ±.005	.00482	7.30	2.60	2.05
20-248	.288	.020 ±.003	.248 ±.005	.00026	7.30	.50	6.30
56-176	.288	.056 ±.003	.176 ±.005	.00180	7.30	1.40	4.45
109-70	.288	.109 ±.004	.070 ±.005	.00525	7.30	2.75	1.80
7-275ES	.289	.007 ±.001	.275 ±.005	.00003	7.35	.20	7.00
71-147	.289	.071 ±.003	.147 ±.005	.00271	7.35	1.80	3.75
40-210	.290	.040 ±.003	.210 ±.005	.00099	7.35	1.00	5.35
37-220	.294	.037 ±.003	.220 ±.005	.00087	7.45	.95	5.60
79-138	.296	.079 ±.003	.138 ±.004	.00334	7.50	2.00	3.50
1-901	.297	.056 ±.003	.185 ±.005	.00186	7.55	1.40	4.70
76-145	.297	.076 ±.003	.145 ±.005	.00315	7.55	1.95	3.70
41-216	.298	.041 ±.003	.216 ±.005	.00107	7.55	1.05	5.50
70-145SS	.298	.073 ±.003	.152 ±.005	.00296	7.55	1.85	3.85
31-238	.300	.031 ±.003	.238 ±.005	.00064	7.60	.80	6.05
45-209ES	.300	.045 ±.003	.210 ±.005	.00127	7.60	1.15	5.35
30-239VS	.301	.030 ±.003	.241 ±.005	.00060	7.65	.75	6.10
21-260	.302	.021 ±.003	.260 ±.005	.00031	7.65	.55	6.60
51-199ES	.302	.051 ±.003	.200 ±.005	.00161	7.65	1.30	5.10
70-161ES	.302	.070 ±.003	.162 ±.005	.00280	7.65	1.80	4.10
34-232SS	.303	.034 ±.003	.235 ±.005	.00077	7.70	.85	5.95
80-145NS	.304	.080 ±.003	.144 ±.005	.00354	7.70	2.05	3.65
55-195	.305	.055 ±.003	.195 ±.005	.00187	7.75	1.40	4.95
80-145	.305	.080 ±.003	.145 ±.005	.00355	7.75	2.05	3.70
40-228	.308	.040 ±.003	.228 ±.005	.00106	7.80	1.00	5.80
50-208	.308	.050 ±.003	.208 ±.005	.00159	7.80	1.25	5.30
70-170NS	.309	.070 ±.003	.169 ±.005	.00289	7.85	1.80	4.30
88-135	.311	.088 ±.003	.135 ±.005	.00426	7.90	2.25	3.45
62-188	.312	.062 ±.003	.188 ±.005	.00237	7.90	1.55	4.80
68-176	.312	.068 ±.003	.176 ±.005	.00278	7.90	1.75	4.45
47-217VS	.313	.047 ±.003	.219 ±.005	.00145	7.95	1.20	5.55
32-250	.314	.032 ±.003	.250 ±.005	.00071	8.00	.80	6.35
40-228SS	.314	.041 ±.003	.232 ±.005	.00113	8.00	1.05	5.90
54-210NS	.315	.053 ±.003	.209 ±.005	.00182	8.00	1.35	5.30
75-165	.315	.075 ±.003	.165 ±.005	.00333	8.00	1.90	4.20
46-224	.316	.046 ±.003	.224 ±.005	.00141	8.05	1.15	5.70
1-008	.316	.070 ±.003	.176 ±.005	.00297	8.05	1.80	4.45
78-157SS	.316	.079 ±.003	.158 ±.005	.00365	8.05	2.00	4.00
40-238	.318	.040 ±.003	.238 ±.005	.00110	8.10	1.00	6.05
1-104	.318	.103 ±.003	.112 ±.005	.00563	8.10	2.60	2.85
40-239	.319	.040 ±.003	.239 ±.005	.00110	8.10	1.00	6.05
35-250	.320	.035 ±.003	.250 ±.005	.00086	8.15	.90	6.35
71-178	.320	.071 ±.003	.178 ±.005	.00310	8.15	1.80	4.50
95-130	.320	.095 ±.003	.130 ±.005	.00501	8.15	2.40	3.30
53-216	.322	.053 ±.003	.216 ±.005	.00186	8.20	1.35	5.50



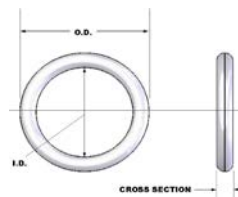
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
42-239	.323	.042 ±.003	.239 ±.005	.00122	8.20	1.05	6.05
59-200VS	.323	.060 ±.003	.203 ±.005	.00234	8.20	1.50	5.15
63-193VS	.323	.064 ±.003	.195 ±.005	.00262	8.20	1.65	4.95
34-256	.324	.034 ±.003	.256 ±.005	.00083	8.25	.85	6.50
70-187	.327	.070 ±.003	.187 ±.005	.00311	8.30	1.80	4.75
73-182	.328	.073 ±.003	.182 ±.005	.00335	8.35	1.85	4.60
94-142	.330	.094 ±.003	.142 ±.005	.00515	8.40	2.40	3.60
32-264VS	.331	.032 ±.003	.267 ±.005	.00076	8.40	.80	6.80
52-229	.333	.052 ±.003	.229 ±.005	.00187	8.45	1.30	5.80
24-285VS	.335	.024 ±.003	.287 ±.005	.00044	8.50	.60	7.30
25-285	.335	.025 ±.003	.285 ±.005	.00048	8.50	.65	7.25
30-272SS	.335	.030 ±.003	.275 ±.005	.00068	8.50	.75	7.00
40-248SS	.335	.041 ±.003	.253 ±.005	.00122	8.50	1.05	6.45
45-245	.335	.045 ±.003	.245 ±.005	.00145	8.50	1.15	6.20
48-239	.335	.048 ±.003	.239 ±.005	.00163	8.50	1.20	6.05
60-215	.335	.060 ±.003	.215 ±.005	.00244	8.50	1.50	5.45
70-195	.335	.070 ±.003	.195 ±.005	.00320	8.50	1.80	4.95
133-70	.336	.133 ±.004	.070 ±.005	.00886	8.55	3.40	1.80
40-258	.338	.040 ±.003	.258 ±.005	.00118	8.60	1.00	6.55
51-232SS	.338	.052 ±.003	.234 ±.005	.00191	8.60	1.30	5.95
87-158SS	.339	.089 ±.003	.161 ±.005	.00489	8.60	2.25	4.10
51-239	.341	.051 ±.003	.239 ±.005	.00186	8.65	1.30	6.05
60-217ES	.341	.061 ±.003	.219 ±.005	.00257	8.65	1.55	5.55
70-202	.342	.070 ±.003	.202 ±.005	.00329	8.70	1.80	5.15
48-248	.344	.048 ±.003	.248 ±.005	.00168	8.75	1.20	6.30
20-305	.345	.020 ±.003	.305 ±.005	.00032	8.75	.50	7.75
69-208	.346	.069 ±.003	.208 ±.005	.00325	8.80	1.75	5.30
1-009	.348	.070 ±.003	.208 ±.005	.00336	8.85	1.80	5.30
46-257	.349	.046 ±.003	.257 ±.005	.00158	8.85	1.15	6.55
1-105	.349	.103 ±.003	.143 ±.005	.00644	8.85	2.60	3.65
25-301	.351	.025 ±.003	.301 ±.005	.00050	8.90	.65	7.65
36-272SS	.351	.037 ±.003	.277 ±.005	.00106	8.90	.95	7.05
51-249	.351	.051 ±.003	.249 ±.005	.00193	8.90	1.30	6.30
71-210	.352	.071 ±.003	.210 ±.005	.00350	8.95	1.80	5.35
93-166	.352	.093 ±.003	.166 ±.005	.00553	8.95	2.35	4.20
71-211ES	.354	.071 ±.003	.212 ±.005	.00352	9.00	1.80	5.40
35-283SS	.356	.035 ±.003	.286 ±.005	.00097	9.05	.90	7.25
59-236VS	.356	.059 ±.003	.238 ±.005	.00259	9.05	1.50	6.05
56-239VS	.357	.057 ±.003	.243 ±.005	.00240	9.05	1.45	6.15
62-230SS	.358	.063 ±.003	.232 ±.005	.00289	9.10	1.60	5.90
70-219	.359	.070 ±.003	.219 ±.005	.00349	9.10	1.80	5.55
40-275SS	.361	.041 ±.003	.279 ±.005	.00133	9.15	1.05	7.10
32-295VS	.362	.032 ±.003	.297 ±.005	.00083	9.20	.80	7.55
44-277	.365	.044 ±.003	.277 ±.005	.00153	9.25	1.10	7.05
44-278	.365	.044 ±.003	.277 ±.005	.00153	9.25	1.10	7.05



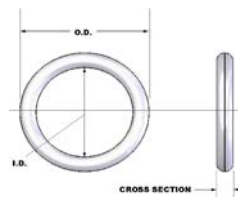
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
60-246	.366	.060 ±.003	.246 ±.005	.00272	9.30	1.50	6.25
63-240	.366	.063 ±.003	.240 ±.005	.00297	9.30	1.60	6.10
1-902	.367	.064 ±.003	.239 ±.005	.00306	9.30	1.65	6.05
74-224	.372	.074 ±.003	.224 ±.005	.00403	9.45	1.90	5.70
80-208VS	.372	.081 ±.003	.210 ±.005	.00471	9.45	2.05	5.35
39-295	.373	.039 ±.003	.295 ±.005	.00125	9.45	1.00	7.50
31-312	.374	.031 ±.003	.312 ±.005	.00081	9.50	.80	7.90
34-306	.374	.034 ±.003	.306 ±.005	.00097	9.50	.85	7.75
35-301VS	.374	.035 ±.003	.304 ±.005	.00102	9.50	.90	7.70
133-109	.375	.133 ±.004	.109 ±.005	.01056	9.55	3.40	2.75
53-270	.376	.053 ±.003	.270 ±.005	.00224	9.55	1.35	6.85
38-301	.377	.038 ±.003	.301 ±.005	.00121	9.60	.95	7.65
46-278VS	.377	.047 ±.003	.283 ±.005	.00180	9.60	1.20	7.20
35-307ES	.378	.035 ±.003	.308 ±.005	.00104	9.60	.90	7.80
62-250VS	.378	.063 ±.003	.252 ±.005	.00308	9.60	1.60	6.40
28-320VS	.379	.028 ±.003	.323 ±.005	.00068	9.65	.70	8.20
59-256VS	.379	.060 ±.003	.259 ±.005	.00283	9.65	1.50	6.60
1-010	.379	.070 ±.003	.239 ±.005	.00374	9.65	1.80	6.05
45-290	.380	.045 ±.003	.290 ±.005	.00167	9.65	1.15	7.35
70-240	.380	.070 ±.003	.240 ±.005	.00375	9.65	1.80	6.10
1-106	.381	.103 ±.003	.175 ±.005	.00728	9.70	2.60	4.45
68-246	.382	.068 ±.003	.246 ±.005	.00358	9.70	1.75	6.25
79-224	.382	.079 ±.003	.224 ±.005	.00467	9.70	2.00	5.70
53-276ES	.384	.053 ±.003	.278 ±.005	.00229	9.75	1.35	7.05
104-176	.384	.104 ±.003	.176 ±.005	.00747	9.75	2.65	4.45
42-301	.385	.042 ±.003	.301 ±.005	.00149	9.80	1.05	7.65
60-265	.385	.060 ±.003	.265 ±.005	.00289	9.80	1.50	6.75
71-243	.385	.071 ±.003	.243 ±.005	.00391	9.80	1.80	6.15
36-312SS	.387	.036 ±.003	.315 ±.005	.00112	9.85	.90	8.00
50-287	.387	.050 ±.003	.287 ±.005	.00208	9.85	1.25	7.30
139-109	.387	.139 ±.004	.109 ±.005	.01182	9.85	3.55	2.75
8-372	.388	.008 ±.002	.372 ±.005	.00006	9.85	.20	9.45
73-239SS	.389	.074 ±.003	.241 ±.005	.00426	9.90	1.90	6.10
71-248	.390	.071 ±.003	.248 ±.005	.00397	9.90	1.80	6.30
35-322	.392	.035 ±.003	.322 ±.005	.00108	9.95	.90	8.20
40-310VS	.392	.040 ±.003	.312 ±.005	.00139	9.95	1.00	7.90
74-244	.392	.074 ±.003	.244 ±.005	.00430	9.95	1.90	6.20
78-236	.392	.078 ±.003	.236 ±.005	.00471	9.95	2.00	6.00
90-208VS	.392	.091 ±.003	.210 ±.005	.00615	9.95	2.30	5.35
35-318VS	.393	.035 ±.003	.323 ±.005	.00108	10.00	.90	8.20
98-197	.393	.098 ±.003	.197 ±.005	.00699	10.00	2.50	5.00
31-332	.394	.031 ±.003	.332 ±.005	.00086	10.00	.80	8.45
77-240	.394	.077 ±.003	.240 ±.005	.00464	10.00	1.95	6.10
35-318VS	.395	.036 ±.003	.323 ±.005	.00115	10.05	.90	8.20
49-295ES	.395	.049 ±.003	.297 ±.005	.00205	10.05	1.25	7.55



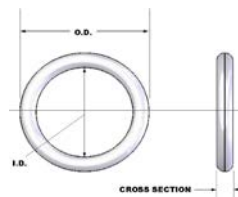
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Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
20-354VS	.397	.020 ±.003	.357 ±.005	.00037	10.10	.50	9.05
59-279	.397	.059 ±.003	.279 ±.005	.00290	10.10	1.50	7.10
39-317VS	.398	.039 ±.003	.320 ±.005	.00135	10.10	1.00	8.15
46-307	.399	.046 ±.003	.307 ±.005	.00184	10.15	1.15	7.80
50-300	.400	.050 ±.003	.300 ±.005	.00216	10.15	1.25	7.60
43-315	.401	.043 ±.003	.315 ±.005	.00163	10.20	1.10	8.00
55-287VS	.402	.056 ±.003	.290 ±.005	.00268	10.20	1.40	7.35
71-256VS	.403	.072 ±.003	.259 ±.005	.00423	10.25	1.85	6.60
70-258SS	.404	.071 ±.003	.262 ±.005	.00414	10.25	1.80	6.65
39-327	.405	.039 ±.003	.327 ±.005	.00137	10.30	1.00	8.30
28-347VS	.406	.028 ±.003	.350 ±.005	.00073	10.30	.70	8.90
94-218NS	.406	.094 ±.003	.218 ±.005	.00680	10.30	2.40	5.55
28-346VS	.407	.028 ±.003	.351 ±.005	.00073	10.35	.70	8.90
45-315ES	.407	.045 ±.003	.317 ±.005	.00181	10.35	1.15	8.05
52-306	.410	.052 ±.003	.306 ±.005	.00239	10.40	1.30	7.75
70-270	.410	.070 ±.003	.270 ±.005	.00411	10.40	1.80	6.85
80-250	.410	.080 ±.003	.250 ±.005	.00521	10.40	2.05	6.35
63-281SS	.411	.063 ±.003	.285 ±.005	.00341	10.45	1.60	7.25
77-250SS	.411	.078 ±.003	.255 ±.005	.00500	10.45	2.00	6.50
1-107	.412	.103 ±.003	.206 ±.005	.00809	10.45	2.60	5.25
59-295	.413	.059 ±.003	.295 ±.005	.00304	10.50	1.50	7.50
24-362VS	.414	.024 ±.003	.366 ±.005	.00055	10.50	.60	9.30
54-301VS	.414	.055 ±.003	.304 ±.005	.00268	10.50	1.40	7.70
51-313	.415	.051 ±.003	.313 ±.005	.00234	10.55	1.30	7.95
70-275	.415	.070 ±.003	.275 ±.005	.00417	10.55	1.80	7.00
70-270SS	.417	.071 ±.003	.275 ±.005	.00430	10.60	1.80	7.00
25-356SS	.418	.026 ±.003	.366 ±.005	.00065	10.60	.65	9.30
75-262SS	.418	.076 ±.003	.266 ±.005	.00487	10.60	1.95	6.75
42-335	.419	.042 ±.003	.335 ±.005	.00164	10.65	1.05	8.50
51-313VS	.420	.052 ±.003	.316 ±.005	.00246	10.65	1.30	8.05
60-301	.421	.060 ±.003	.301 ±.005	.00321	10.70	1.50	7.65
75-268SS	.423	.076 ±.003	.271 ±.005	.00495	10.75	1.95	6.90
1-903	.429	.064 ±.003	.301 ±.005	.00369	10.90	1.65	7.65
76-277	.429	.076 ±.003	.277 ±.005	.00503	10.90	1.95	7.05
50-330	.430	.050 ±.003	.330 ±.005	.00234	10.90	1.25	8.40
139-152	.430	.139 ±.004	.152 ±.005	.01387	10.90	3.55	3.85
35-361	.431	.035 ±.003	.361 ±.005	.00120	10.95	.90	9.15
70-291	.431	.070 ±.003	.291 ±.005	.00436	10.95	1.80	7.40
35-362	.432	.035 ±.003	.362 ±.005	.00120	10.95	.90	9.20
39-354	.432	.039 ±.003	.354 ±.005	.00147	10.95	1.00	9.00
70-285SS	.432	.071 ±.003	.290 ±.005	.00449	10.95	1.80	7.35
30-368VS	.433	.030 ±.003	.373 ±.005	.00089	11.00	.75	9.45
118-197	.433	.118 ±.004	.197 ±.005	.01082	11.00	3.00	5.00
59-311SS	.434	.060 ±.003	.314 ±.005	.00332	11.00	1.50	8.00
45-346	.436	.045 ±.003	.346 ±.005	.00195	11.05	1.15	8.80



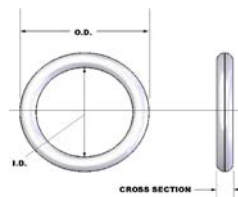
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
93-250	.436	.093 ±.003	.250 ±.005	.00732	11.05	2.35	6.35
89-255SS	.439	.090 ±.003	.259 ±.005	.00698	11.15	2.30	6.60
30-380	.440	.030 ±.003	.380 ±.005	.00091	11.20	.75	9.65
1-011	.441	.070 ±.003	.301 ±.005	.00449	11.20	1.80	7.65
94-248VS	.441	.095 ±.003	.251 ±.005	.00770	11.20	2.40	6.40
1-108	.443	.103 ±.003	.237 ±.005	.00890	11.25	2.60	6.00
31-378VS	.444	.031 ±.003	.382 ±.005	.00098	11.30	.80	9.70
122-200	.444	.122 ±.004	.200 ±.005	.01183	11.30	3.10	5.10
63-319	.445	.063 ±.003	.319 ±.005	.00374	11.30	1.60	8.10
47-350VS	.446	.047 ±.003	.352 ±.005	.00217	11.35	1.20	8.95
71-304	.446	.071 ±.003	.304 ±.005	.00466	11.35	1.80	7.70
150-145SVS	.448	.151 ±.005	.146 ±.005	.01671	11.40	3.85	3.70
1-201	.449	.139 ±.004	.171 ±.005	.01478	11.40	3.55	4.35
40-370	.450	.040 ±.003	.370 ±.005	.00162	11.45	1.00	9.40
63-319VS	.450	.064 ±.003	.322 ±.005	.00390	11.45	1.65	8.20
38-377	.453	.038 ±.003	.377 ±.005	.00148	11.50	.95	9.60
72-309	.453	.072 ±.003	.309 ±.005	.00487	11.50	1.85	7.85
45-364	.454	.045 ±.003	.364 ±.005	.00204	11.55	1.15	9.25
78-298	.454	.078 ±.003	.298 ±.005	.00564	11.55	2.00	7.55
70-313ES	.455	.070 ±.003	.315 ±.005	.00465	11.55	1.80	8.00
70-313VS	.459	.071 ±.003	.317 ±.005	.00483	11.65	1.80	8.05
60-340	.460	.060 ±.003	.340 ±.005	.00355	11.70	1.50	8.65
70-320	.460	.070 ±.003	.320 ±.005	.00472	11.70	1.80	8.15
37-384VS	.461	.037 ±.003	.387 ±.005	.00143	11.70	.95	9.85
54-344SS	.461	.055 ±.003	.351 ±.005	.00303	11.70	1.40	8.90
86-290	.462	.086 ±.003	.290 ±.005	.00686	11.75	2.20	7.35
39-386	.464	.039 ±.003	.386 ±.005	.00159	11.80	1.00	9.80
74-317	.465	.074 ±.003	.317 ±.005	.00528	11.80	1.90	8.05
139-187	.465	.139 ±.004	.187 ±.005	.01554	11.80	3.55	4.75
46-375	.467	.046 ±.003	.375 ±.005	.00220	11.85	1.15	9.55
78-312	.468	.078 ±.003	.312 ±.005	.00585	11.90	2.00	7.90
50-366SS	.469	.050 ±.003	.369 ±.005	.00258	11.90	1.25	9.35
125-219	.469	.125 ±.004	.219 ±.005	.01326	11.90	3.20	5.55
16-438	.470	.016 ±.003	.438 ±.005	.00029	11.95	.40	11.15
52-364SS	.471	.052 ±.003	.367 ±.005	.00280	11.95	1.30	9.30
31-410	.472	.031 ±.003	.410 ±.005	.00105	12.00	.80	10.40
56-355VS	.472	.057 ±.003	.358 ±.005	.00333	12.00	1.45	9.10
70-334	.474	.070 ±.003	.334 ±.005	.00488	12.05	1.80	8.50
31-409SS	.475	.031 ±.003	.413 ±.005	.00105	12.05	.80	10.50
40-395	.475	.040 ±.003	.395 ±.005	.00172	12.05	1.00	10.05
160-155	.475	.160 ±.005	.155 ±.005	.01990	12.05	4.05	3.95
20-433VS	.477	.020 ±.002	.437 ±.005	.00045	12.10	.50	11.10
32-409SS	.477	.032 ±.003	.413 ±.005	.00112	12.10	.80	10.50
59-354SS	.480	.060 ±.003	.360 ±.005	.00373	12.20	1.50	9.15
43-393ES	.481	.043 ±.003	.395 ±.005	.00200	12.20	1.10	10.05



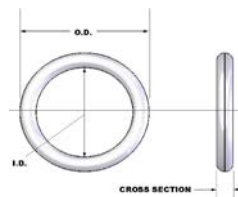
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
94-287VS	.481	.095 ±.003	.291 ±.005	.00860	12.20	2.40	7.40
43-395ES	.483	.043 ±.003	.397 ±.005	.00201	12.25	1.10	10.10
110-265NS	.484	.110 ±.004	.264 ±.005	.01117	12.30	2.80	6.70
104-272VS	.485	.105 ±.003	.275 ±.005	.01034	12.30	2.65	7.00
39-408	.486	.039 ±.003	.408 ±.005	.00168	12.35	1.00	10.35
62-358SS	.491	.063 ±.003	.365 ±.005	.00419	12.45	1.60	9.25
70-344SS	.491	.071 ±.003	.349 ±.005	.00522	12.45	1.80	8.85
50-386SS	.492	.051 ±.003	.390 ±.005	.00283	12.50	1.30	9.90
60-364SS	.492	.061 ±.003	.370 ±.005	.00396	12.50	1.55	9.40
45-405	.495	.045 ±.003	.405 ±.005	.00225	12.55	1.15	10.30
1-904	.495	.072 ±.003	.351 ±.005	.00541	12.55	1.85	8.90
35-426	.496	.035 ±.003	.426 ±.005	.00139	12.60	.90	10.80
26-445	.497	.026 ±.002	.445 ±.005	.00079	12.60	.65	11.30
31-435	.497	.031 ±.003	.435 ±.005	.00110	12.60	.80	11.05
125-247	.497	.125 ±.004	.247 ±.005	.01434	12.60	3.20	6.25
74-350	.498	.074 ±.003	.350 ±.005	.00573	12.65	1.90	8.90
62-375	.499	.062 ±.003	.375 ±.005	.00414	12.65	1.55	9.55
34-432	.500	.034 ±.003	.432 ±.005	.00133	12.70	.85	10.95
50-397SS	.501	.050 ±.003	.401 ±.005	.00278	12.75	1.25	10.20
54-394	.502	.054 ±.003	.394 ±.005	.00322	12.75	1.35	10.00
73-357	.503	.073 ±.003	.357 ±.005	.00565	12.80	1.85	9.05
79-335SS	.503	.081 ±.003	.341 ±.005	.00683	12.80	2.05	8.65
1-012	.504	.070 ±.003	.364 ±.005	.00525	12.80	1.80	9.25
68-364SS	.505	.069 ±.003	.367 ±.005	.00512	12.85	1.75	9.30
1-109	.505	.103 ±.003	.299 ±.005	.01052	12.85	2.60	7.60
40-426	.506	.040 ±.003	.426 ±.005	.00184	12.85	1.00	10.80
97-312	.506	.097 ±.003	.312 ±.005	.00950	12.85	2.45	7.90
187-130ES	.506	.188 ±.005	.130 ±.005	.02773	12.85	4.80	3.30
86-336	.508	.086 ±.003	.336 ±.005	.00770	12.90	2.20	8.55
71-367	.509	.071 ±.003	.367 ±.005	.00545	12.95	1.80	9.30
72-364VS	.509	.072 ±.003	.365 ±.005	.00559	12.95	1.85	9.25
90-324VS	.510	.091 ±.003	.328 ±.005	.00856	12.95	2.30	8.35
39-433	.511	.039 ±.003	.433 ±.005	.00177	13.00	1.00	11.00
1-202	.512	.139 ±.004	.234 ±.005	.01778	13.00	3.55	5.95
28-457	.513	.028 ±.003	.457 ±.005	.00094	13.05	.70	11.60
140-230ES	.513	.141 ±.004	.231 ±.005	.01825	13.05	3.60	5.85
70-373ES	.514	.070 ±.003	.374 ±.005	.00537	13.05	1.80	9.50
45-426	.516	.045 ±.003	.426 ±.005	.00235	13.10	1.15	10.80
74-362VS	.517	.075 ±.003	.367 ±.005	.00613	13.15	1.90	9.30
45-425ES	.518	.045 ±.003	.428 ±.005	.00236	13.15	1.15	10.85
103-312	.518	.103 ±.003	.312 ±.005	.01086	13.15	2.60	7.90
28-457VS	.519	.028 ±.003	.463 ±.005	.00095	13.20	.70	11.75
110-299	.519	.110 ±.004	.299 ±.005	.01221	13.20	2.80	7.60
24-472	.520	.024 ±.003	.472 ±.005	.00070	13.20	.60	12.00
40-440	.520	.040 ±.003	.440 ±.005	.00189	13.20	1.00	11.20



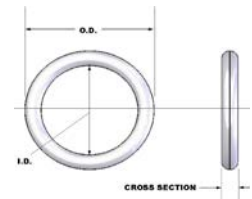
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
95-320SS	.520	.097 ±.003	.326 ±.005	.00982	13.20	2.45	8.30
108-305	.521	.108 ±.004	.305 ±.005	.01189	13.25	2.75	7.75
178-165	.521	.178 ±.005	.165 ±.005	.02681	13.25	4.50	4.20
79-354SS	.523	.081 ±.003	.361 ±.005	.00716	13.30	2.05	9.15
62-400	.524	.062 ±.003	.400 ±.005	.00438	13.30	1.55	10.15
80-364	.524	.080 ±.003	.364 ±.005	.00701	13.30	2.05	9.25
50-426	.526	.050 ±.003	.426 ±.005	.00294	13.35	1.25	10.80
30-468	.528	.030 ±.003	.468 ±.005	.00111	13.40	.75	11.90
40-445SS	.529	.040 ±.003	.449 ±.005	.00193	13.45	1.00	11.40
74-375VS	.529	.075 ±.003	.379 ±.005	.00630	13.45	1.90	9.65
156-218	.530	.156 ±.005	.218 ±.005	.02246	13.45	3.95	5.55
80-364VS	.531	.081 ±.003	.369 ±.005	.00728	13.50	2.05	9.35
56-414SS	.532	.057 ±.003	.418 ±.005	.00381	13.50	1.45	10.60
103-326	.532	.103 ±.003	.326 ±.005	.01123	13.50	2.60	8.30
76-382	.534	.076 ±.003	.382 ±.005	.00653	13.55	1.95	9.70
40-445RS	.535	.041 ±.003	.453 ±.005	.00205	13.60	1.05	11.50
59-416ES	.535	.059 ±.003	.417 ±.005	.00409	13.60	1.50	10.60
70-395	.535	.070 ±.003	.395 ±.005	.00562	13.60	1.80	10.05
69-392VS	.535	.070 ±.003	.395 ±.005	.00562	13.60	1.80	10.05
79-370SS	.535	.080 ±.003	.375 ±.005	.00719	13.60	2.05	9.55
36-465	.537	.036 ±.003	.465 ±.005	.00160	13.65	.90	11.80
42-451ES	.538	.042 ±.003	.454 ±.005	.00216	13.65	1.05	11.55
74-382SS	.538	.075 ±.003	.388 ±.005	.00643	13.65	1.90	9.85
40-459	.539	.040 ±.003	.459 ±.005	.00197	13.70	1.00	11.65
53-429SS	.539	.053 ±.003	.433 ±.005	.00337	13.70	1.35	11.00
87-366	.540	.087 ±.003	.366 ±.005	.00846	13.70	2.20	9.30
46-450	.542	.046 ±.003	.450 ±.005	.00259	13.75	1.15	11.45
75-386VS	.542	.076 ±.003	.390 ±.005	.00664	13.75	1.95	9.90
46-453	.545	.046 ±.003	.453 ±.005	.00261	13.85	1.15	11.50
26-492VS	.549	.026 ±.003	.497 ±.004	.00087	13.95	.65	12.60
39-472	.550	.039 ±.003	.472 ±.005	.00192	13.95	1.00	12.00
52-447	.551	.052 ±.003	.447 ±.005	.00333	14.00	1.30	11.35
59-433	.551	.059 ±.033	.433 ±.005	.00423	14.00	1.50	11.00
20-515	.555	.020 ±.003	.515 ±.005	.00053	14.10	.50	13.10
74-401VS	.555	.075 ±.003	.405 ±.005	.00666	14.10	1.90	10.30
30-496	.556	.030 ±.003	.496 ±.005	.00117	14.10	.75	12.60
25-507	.557	.025 ±.003	.507 ±.005	.00082	14.15	.65	12.90
1-905	.558	.072 ±.003	.414 ±.005	.00622	14.15	1.85	10.50
94-366SS	.559	.095 ±.003	.369 ±.005	.01033	14.20	2.40	9.35
80-400	.560	.080 ±.003	.400 ±.005	.00758	14.20	2.05	10.15
93-375	.561	.093 ±.003	.375 ±.005	.00999	14.25	2.35	9.55
140-281	.561	.140 ±.004	.281 ±.005	.02036	14.25	3.55	7.15
91-380	.562	.091 ±.003	.380 ±.005	.00962	14.25	2.30	9.65
40-484	.564	.040 ±.003	.484 ±.005	.00207	14.35	1.00	12.30
53-458	.564	.053 ±.003	.458 ±.005	.00354	14.35	1.35	11.65



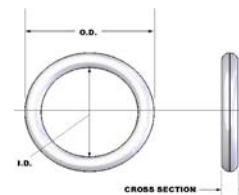
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Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
1-013	.566	.070 ±.003	.426 ±.005	.00600	14.40	1.80	10.80
80-406	.566	.080 ±.003	.406 ±.005	.00767	14.40	2.05	10.30
70-418SS	.567	.071 ±.003	.425 ±.005	.00617	14.40	1.80	10.80
50-468	.568	.050 ±.003	.468 ±.005	.00320	14.45	1.25	11.90
1-110	.568	.103 ±.003	.362 ±.005	.01217	14.45	2.60	9.20
21-524VS	.570	.021 ±.003	.528 ±.005	.00060	14.50	.55	13.40
39-492	.570	.039 ±.003	.492 ±.005	.00199	14.50	1.00	12.50
164-242	.570	.164 ±.005	.242 ±.005	.02694	14.50	4.15	6.15
41-490	.572	.041 ±.003	.490 ±.005	.00220	14.55	1.05	12.45
71-430	.572	.071 ±.003	.430 ±.005	.00623	14.55	1.80	10.90
108-352VS	.573	.109 ±.004	.355 ±.005	.01360	14.55	2.75	9.00
104-366	.574	.104 ±.003	.366 ±.005	.01254	14.60	2.65	9.30
125-327	.576	.125 ±.004	.326 ±.005	.01739	14.65	3.20	8.30
59-453VS	.577	.060 ±.003	.457 ±.005	.00459	14.65	1.50	11.60
70-437	.577	.070 ±.003	.437 ±.005	.00613	14.65	1.80	11.10
1-203	.579	.139 ±.004	.296 ±.005	.02098	14.70	3.55	7.50
50-475SS	.580	.050 ±.003	.480 ±.005	.00327	14.70	1.25	12.20
60-460	.580	.060 ±.003	.460 ±.005	.00462	14.75	1.50	11.70
68-438SS	.582	.069 ±.003	.444 ±.005	.00603	14.80	1.75	11.30
135-312	.582	.135 ±.004	.312 ±.005	.02010	14.80	3.45	7.90
43-495TS	.583	.043 ±.003	.497 ±.005	.00246	14.80	1.10	12.60
76-432	.584	.076 ±.003	.432 ±.005	.00724	14.85	1.95	10.95
92-400	.584	.092 ±.003	.400 ±.005	.01027	14.85	2.35	10.15
40-504ES	.586	.040 ±.003	.506 ±.005	.00216	14.90	1.00	12.85
40-508NS	.586	.040 ±.003	.506 ±.005	.00216	14.90	1.00	12.85
103-374VS	.586	.104 ±.003	.378 ±.005	.01286	14.90	2.65	9.60
35-512SS	.587	.035 ±.003	.517 ±.005	.00167	14.90	.90	13.15
106-375	.587	.106 ±.003	.375 ±.005	.01334	14.90	2.70	9.55
174-239	.587	.174 ±.005	.239 ±.005	.03085	14.90	4.40	6.05
31-526	.588	.031 ±.003	.526 ±.005	.00132	14.95	.80	13.35
118-352	.588	.118 ±.004	.352 ±.005	.01615	14.95	3.00	8.95
59-472	.590	.059 ±.003	.472 ±.005	.00456	15.00	1.50	12.00
47-490SS	.592	.048 ±.003	.496 ±.005	.00309	15.05	1.20	12.60
90-401SS	.593	.092 ±.003	.409 ±.005	.01046	15.05	2.35	10.40
188-218	.594	.188 ±.005	.218 ±.005	.03541	15.10	4.80	5.55
70-455	.595	.070 ±.003	.455 ±.005	.00635	15.10	1.80	11.55
103-391	.597	.103 ±.003	.391 ±.005	.01293	15.15	2.60	9.95
125-348	.598	.125 ±.004	.348 ±.005	.01824	15.20	3.20	8.85
55-489	.599	.055 ±.003	.489 ±.005	.00406	15.20	1.40	12.40
70-460	.600	.070 ±.003	.460 ±.005	.00641	15.25	1.80	11.70
125-343SS	.604	.126 ±.004	.352 ±.005	.01872	15.35	3.20	8.95
31-539SS	.606	.031 ±.003	.544 ±.005	.00136	15.40	.80	13.80
49-508	.606	.049 ±.003	.508 ±.005	.00330	15.40	1.25	12.90
70-466	.606	.070 ±.003	.466 ±.005	.00648	15.40	1.80	11.85
95-418	.608	.095 ±.003	.418 ±.005	.01142	15.45	2.40	10.60



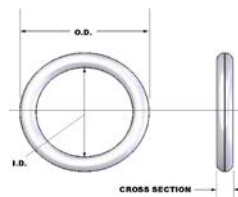
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
150-310	.610	.150 ±.005	.310 ±.005	.02554	15.50	3.80	7.85
119-374	.612	.119 ±.004	.374 ±.005	.01723	15.55	3.00	9.50
39-535	.613	.039 ±.003	.535 ±.005	.00215	15.55	1.00	13.60
70-468SS	.614	.071 ±.003	.472 ±.005	.00675	15.60	1.80	12.00
84-446	.614	.084 ±.003	.446 ±.005	.00923	15.60	2.15	11.35
80-443SS	.616	.082 ±.003	.452 ±.005	.00886	15.65	2.10	11.50
87-445	.619	.087 ±.003	.445 ±.005	.00994	15.70	2.20	11.30
32-551SS	.620	.032 ±.003	.556 ±.007	.00149	15.75	.80	14.10
32-551VS	.621	.032 ±.003	.557 ±.007	.00149	15.75	.80	14.15
79-450SS	.621	.081 ±.003	.459 ±.005	.00874	15.75	2.05	11.65
70-478VS	.624	.071 ±.003	.482 ±.005	.00688	15.85	1.80	12.25
1-906	.624	.078 ±.003	.468 ±.005	.00820	15.85	2.00	11.90
84-456	.624	.084 ±.003	.456 ±.005	.00940	15.85	2.15	11.60
93-437ES	.624	.093 ±.003	.438 ±.005	.01133	15.85	2.35	11.15
125-375	.625	.125 ±.004	.375 ±.005	.01928	15.90	3.20	9.55
195-235	.625	.195 ±.005	.235 ±.005	.04034	15.90	4.95	5.95
20-583ES	.627	.020 ±.003	.587 ±.007	.00060	15.95	.50	14.90
60-507	.627	.060 ±.003	.507 ±.005	.00504	15.95	1.50	12.90
1-014	.629	.070 ±.003	.489 ±.005	.00676	16.00	1.80	12.40
40-550	.630	.040 ±.003	.550 ±.005	.00233	16.00	1.00	13.95
70-487VS	.630	.070 ±.003	.490 ±.005	.00677	16.00	1.80	12.45
1-111	.630	.103 ±.003	.424 ±.005	.01380	16.00	2.60	10.75
60-507ES	.631	.060 ±.003	.511 ±.005	.00507	16.05	1.50	13.00
103-425	.631	.103 ±.003	.425 ±.005	.01382	16.05	2.60	10.80
104-417VS	.631	.105 ±.003	.421 ±.005	.01431	16.05	2.65	10.70
62-501SS	.634	.063 ±.003	.508 ±.005	.00559	16.10	1.60	12.90
79-472VS	.634	.079 ±.003	.476 ±.005	.00855	16.10	2.00	12.10
20-595	.635	.020 ±.003	.595 ±.007	.00061	16.15	.50	15.10
32-566VS	.635	.032 ±.003	.571 ±.007	.00152	16.15	.80	14.50
77-468SS	.636	.079 ±.003	.478 ±.005	.00858	16.15	2.00	12.15
30-577	.637	.030 ±.003	.577 ±.007	.00135	16.20	.75	14.65
39-550VS	.637	.040 ±.003	.557 ±.007	.00236	16.20	1.00	14.15
71-495	.637	.071 ±.003	.495 ±.005	.00704	16.20	1.80	12.55
1-204	.637	.139 ±.004	.359 ±.005	.02374	16.20	3.55	9.10
55-530	.640	.055 ±.003	.530 ±.005	.00437	16.25	1.40	13.45
51-531ES	.641	.052 ±.003	.537 ±.005	.00393	16.30	1.30	13.65
94-445VS	.641	.095 ±.003	.451 ±.005	.01216	16.30	2.40	11.45
70-505	.645	.070 ±.003	.505 ±.005	.00695	16.40	1.80	12.85
70-495SS	.645	.071 ±.003	.503 ±.005	.00714	16.40	1.80	12.80
39-570	.648	.039 ±.003	.570 ±.007	.00229	16.45	1.00	14.50
51-547	.649	.051 ±.003	.547 ±.005	.00384	16.50	1.30	13.90
59-531	.649	.059 ±.003	.531 ±.008	.00507	16.50	1.50	13.50
75-489SS	.650	.076 ±.003	.498 ±.005	.00818	16.50	1.95	12.65
70-489SS	.654	.073 ±.003	.508 ±.005	.00764	16.60	1.85	12.90
51-551VS	.657	.051 ±.003	.555 ±.007	.00389	16.70	1.30	14.10



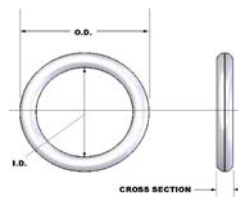
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
110-438	.658	.110 ±.004	.438 ±.005	.01636	16.70	2.80	11.15
190-280	.660	.190 ±.005	.280 ±.005	.04186	16.75	4.85	7.10
51-547VS	.661	.052 ±.003	.557 ±.007	.00406	16.80	1.30	14.15
103-456	.662	.103 ±.003	.456 ±.005	.01463	16.80	2.60	11.60
40-583VS	.667	.040 ±.003	.587 ±.005	.00248	16.95	1.00	14.90
197-276	.670	.197 ±.005	.276 ±.005	.04529	17.00	5.00	7.00
156-359	.671	.156 ±.005	.359 ±.005	.03092	17.05	3.95	9.10
70-518SS	.673	.072 ±.003	.529 ±.005	.00769	17.10	1.85	13.45
142-390NS	.673	.142 ±.004	.389 ±.005	.02642	17.10	3.60	9.90
71-525SS	.677	.072 ±.003	.533 ±.005	.00774	17.20	1.85	13.55
30-622	.682	.030 ±.003	.622 ±.009	.00145	17.30	.75	15.80
103-469VS	.682	.104 ±.003	.474 ±.005	.01543	17.30	2.65	12.05
34-611ES	.685	.034 ±.003	.617 ±.009	.00186	17.40	.85	15.65
120-445	.685	.120 ±.004	.445 ±.005	.02007	17.40	3.05	11.30
130-425	.685	.130 ±.004	.425 ±.005	.02314	17.40	3.30	10.80
93-500	.686	.093 ±.003	.500 ±.005	.01265	17.40	2.35	12.70
118-453	.689	.118 ±.004	.453 ±.005	.01962	17.50	3.00	11.50
50-590	.690	.050 ±.003	.590 ±.007	.00395	17.55	1.25	15.00
30-622SS	.691	.030 ±.003	.631 ±.009	.00147	17.55	.75	16.05
1-015	.691	.070 ±.003	.551 ±.007	.00751	17.55	1.80	14.00
40-612	.692	.040 ±.003	.612 ±.007	.00257	17.60	1.00	15.55
106-480	.692	.106 ±.003	.480 ±.005	.01625	17.60	2.70	12.20
1-112	.693	.103 ±.003	.487 ±.005	.01544	17.60	2.60	12.35
1-907	.694	.082 ±.003	.530 ±.005	.01015	17.65	2.10	13.45
60-575	.695	.060 ±.003	.575 ±.007	.00564	17.65	1.50	14.60
139-417	.695	.139 ±.004	.417 ±.005	.02651	17.65	3.55	10.60
104-482VS	.696	.105 ±.003	.486 ±.005	.01608	17.70	2.65	12.35
87-524	.698	.087 ±.003	.524 ±.005	.01141	17.75	2.20	13.30
32-630SS	.699	.032 ±.003	.635 ±.009	.00169	17.75	.80	16.15
71-557	.699	.071 ±.003	.557 ±.007	.00781	17.75	1.80	14.15
105-485PL	.699	.106 ±.003	.487 ±.005	.01644	17.75	2.70	12.35
1-205	.699	.139 ±.004	.421 ±.005	.02670	17.75	3.55	10.70
104-492	.700	.104 ±.003	.492 ±.005	.01591	17.80	2.65	12.50
113-477	.703	.113 ±.004	.477 ±.005	.01859	17.85	2.85	12.10
31-643	.705	.031 ±.003	.643 ±.009	.00160	17.90	.80	16.35
110-487	.707	.110 ±.004	.487 ±.005	.01782	17.95	2.80	12.35
39-630	.708	.039 ±.003	.630 ±.009	.00251	18.00	1.00	16.00
98-512	.708	.098 ±.003	.512 ±.005	.01446	18.00	2.50	13.00
79-551	.709	.079 ±.003	.551 ±.007	.00970	18.00	2.00	14.00
132-445	.709	.132 ±.004	.445 ±.005	.02481	18.00	3.35	11.30
39-636NS	.711	.039 ±.003	.633 ±.009	.00252	18.05	1.00	16.10
94-523	.711	.094 ±.003	.523 ±.005	.01345	18.05	2.40	13.30
47-618	.712	.047 ±.003	.618 ±.009	.00362	18.10	1.20	15.70
100-514	.715	.100 ±.003	.515 ±.006	.01517	18.15	2.55	13.10
59-602	.720	.059 ±.003	.602 ±.007	.00568	18.30	1.50	15.30



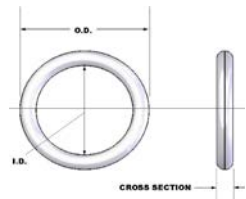
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
100-520	.720	.100 ±.003	.520 ±.005	.01530	18.30	2.55	13.20
45-632	.722	.045 ±.003	.632 ±.009	.00338	18.35	1.15	16.05
70-583	.723	.070 ±.003	.583 ±.007	.00789	18.35	1.80	14.80
50-625	.725	.050 ±.003	.625 ±.009	.00416	18.40	1.25	15.90
47-632	.726	.047 ±.003	.632 ±.009	.00370	18.45	1.20	16.05
58-610	.726	.058 ±.003	.610 ±.007	.00554	18.45	1.45	15.50
80-551SS	.726	.082 ±.003	.562 ±.007	.01068	18.45	2.10	14.25
70-575SS	.727	.071 ±.003	.585 ±.007	.00816	18.45	1.80	14.85
121-485	.727	.121 ±.004	.485 ±.005	.02189	18.45	3.05	12.30
20-685VS	.729	.020 ±.003	.689 ±.009	.00070	18.50	.50	17.50
98-520SS	.730	.100 ±.003	.530 ±.005	.01554	18.55	2.55	13.45
43-642SS	.732	.043 ±.003	.646 ±.009	.00314	18.60	1.10	16.40
139-452	.732	.140 ±.004	.452 ±.005	.02863	18.60	3.55	11.50
63-594SS	.733	.064 ±.003	.605 ±.007	.00676	18.60	1.65	15.35
68-598	.734	.068 ±.003	.598 ±.007	.00760	18.65	1.75	15.20
180-375	.735	.180 ±.005	.375 ±.005	.04437	18.65	4.55	9.55
52-632	.736	.052 ±.003	.632 ±.009	.00456	18.70	1.30	16.05
70-590VS	.738	.071 ±.003	.596 ±.007	.00830	18.75	1.80	15.15
40-660	.740	.040 ±.003	.660 ±.009	.00276	18.80	1.00	16.75
50-640ES	.744	.050 ±.003	.644 ±.009	.00428	18.90	1.25	16.35
56-632	.744	.056 ±.003	.632 ±.009	.00532	18.90	1.40	16.05
79-591NS	.747	.079 ±.003	.589 ±.007	.01029	18.95	2.00	14.95
46-656	.748	.046 ±.003	.656 ±.009	.00367	19.00	1.15	16.65
34-669SS	.749	.035 ±.003	.679 ±.009	.00216	19.00	.90	17.25
148-453	.749	.148 ±.005	.453 ±.005	.03248	19.00	3.75	11.50
30-690	.750	.030 ±.003	.690 ±.009	.00160	19.05	.75	17.55
125-500	.750	.125 ±.004	.500 ±.005	.02410	19.05	3.20	12.70
1-016	.754	.070 ±.003	.614 ±.009	.00827	19.15	1.80	15.60
174-406	.754	.174 ±.005	.406 ±.005	.04333	19.15	4.40	10.30
1-113	.755	.103 ±.003	.549 ±.007	.01707	19.20	2.60	13.95
62-638	.762	.062 ±.003	.638 ±.009	.00664	19.35	1.55	16.20
71-620	.762	.071 ±.003	.620 ±.009	.00859	19.35	1.80	15.75
74-614	.762	.074 ±.003	.614 ±.009	.00930	19.35	1.90	15.60
1-206	.762	.139 ±.004	.484 ±.005	.02970	19.35	3.55	12.30
104-557	.765	.104 ±.003	.557 ±.007	.01764	19.45	2.65	14.15
104-557	.765	.104 ±.003	.557 ±.007	.01764	19.45	2.65	14.15
113-539	.765	.113 ±.004	.539 ±.005	.02054	19.45	2.85	13.70
77-614	.768	.077 ±.003	.614 ±.009	.01011	19.50	1.95	15.60
1-308	.770	.210 ±.005	.350 ±.005	.06093	19.55	5.35	8.90
57-658	.772	.057 ±.003	.658 ±.009	.00573	19.60	1.45	16.70
83-606	.772	.083 ±.003	.606 ±.007	.01171	19.60	2.10	15.40
92-590	.774	.092 ±.003	.590 ±.007	.01424	19.65	2.35	15.00
112-549ES	.774	.112 ±.004	.550 ±.007	.02049	19.65	2.85	13.95
87-602	.776	.087 ±.003	.602 ±.007	.01287	19.70	2.20	15.30
139-496VS	.778	.140 ±.004	.498 ±.005	.03085	19.75	3.55	12.65



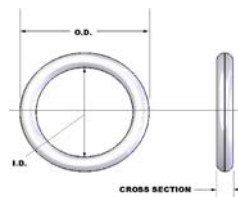
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
151-477	.779	.151 ±.005	.477 ±.005	.03533	19.80	3.85	12.10
109-562	.780	.109 ±.004	.562 ±.007	.01967	19.80	2.75	14.25
40-701	.781	.040 ±.003	.701 ±.009	.00293	19.85	1.00	17.80
106-570	.782	.106 ±.003	.570 ±.007	.01874	19.85	2.70	14.50
210-362	.782	.210 ±.005	.362 ±.005	.06224	19.85	5.35	9.20
46-691	.783	.046 ±.003	.691 ±.009	.00385	19.90	1.15	17.55
184-417	.785	.184 ±.005	.417 ±.005	.05021	19.95	4.65	10.60
70-646	.786	.070 ±.003	.646 ±.009	.00866	19.95	1.80	16.40
165-456	.786	.165 ±.005	.456 ±.005	.04172	19.95	4.20	11.60
59-669	.787	.059 ±.003	.669 ±.009	.00625	20.00	1.50	17.00
98-591	.787	.098 ±.003	.591 ±.007	.01633	20.00	2.50	15.00
64-660	.788	.064 ±.003	.660 ±.009	.00732	20.00	1.65	16.75
92-590SS	.789	.094 ±.003	.601 ±.007	.01515	20.05	2.40	15.25
180-429	.789	.180 ±.005	.429 ±.005	.04869	20.05	4.55	10.90
56-670SS	.790	.057 ±.003	.676 ±.009	.00588	20.05	1.45	17.15
70-652	.792	.070 ±.003	.652 ±.009	.00873	20.10	1.80	16.55
160-472	.792	.160 ±.005	.472 ±.005	.03992	20.10	4.05	12.00
79-623SS	.794	.080 ±.003	.634 ±.009	.01128	20.15	2.05	16.10
95-590SS	.795	.097 ±.003	.601 ±.007	.01620	20.20	2.45	15.25
139-515	.795	.140 ±.004	.515 ±.005	.03168	20.20	3.55	13.10
103-590	.796	.103 ±.003	.590 ±.007	.01814	20.20	2.60	15.00
46-705	.797	.046 ±.003	.705 ±.009	.00392	20.25	1.15	17.90
79-630SS	.797	.080 ±.003	.637 ±.009	.01132	20.25	2.05	16.20
138-523	.799	.138 ±.004	.523 ±.005	.03106	20.30	3.50	13.30
70-646SS	.800	.071 ±.003	.658 ±.009	.00907	20.30	1.80	16.70
36-732	.802	.036 ±.003	.730 ±.009	.00245	20.35	.90	18.55
169-465	.803	.169 ±.005	.465 ±.005	.04468	20.40	4.30	11.80
63-670SS	.804	.064 ±.003	.676 ±.009	.00748	20.40	1.65	17.15
40-725	.805	.040 ±.003	.725 ±.009	.00302	20.45	1.00	18.40
95-618	.808	.095 ±.003	.618 ±.009	.01588	20.50	2.40	15.70
105-605	.815	.105 ±.003	.605 ±.007	.01931	20.70	2.65	15.35
57-690VS	.816	.058 ±.003	.700 ±.009	.00629	20.75	1.45	17.80
1-017	.816	.070 ±.003	.676 ±.009	.00902	20.75	1.80	17.15
70-675ES	.816	.070 ±.003	.676 ±.009	.00902	20.75	1.80	17.15
94-614SS	.816	.096 ±.003	.624 ±.009	.01637	20.75	2.45	15.85
1-908	.818	.087 ±.003	.644 ±.009	.01365	20.80	2.20	16.35
87-644	.818	.087 ±.003	.644 ±.009	.01365	20.80	2.20	16.35
1-114	.818	.103 ±.003	.612 ±.009	.01872	20.80	2.60	15.55
50-720	.820	.050 ±.003	.720 ±.009	.00475	20.85	1.25	18.30
172-480	.824	.172 ±.005	.480 ±.005	.04759	20.95	4.35	12.20
71-683	.825	.071 ±.003	.683 ±.009	.00938	20.95	1.80	17.35
104-618	.826	.104 ±.003	.618 ±.009	.01927	21.00	2.65	15.70
59-709	.827	.059 ±.003	.709 ±.009	.00660	21.00	1.50	18.00
1-207	.827	.139 ±.004	.549 ±.007	.03280	21.00	3.55	13.95
40-750	.830	.040 ±.003	.750 ±.009	.00312	21.10	1.00	19.05



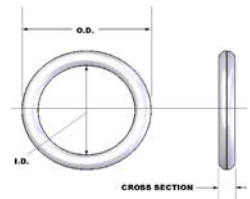
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
92-635SS	.830	.093 ±.003	.644 ±.009	.01573	21.10	2.35	16.35
50-720SS	.832	.051 ±.003	.730 ±.009	.00501	21.15	1.30	18.55
103-612SS	.832	.105 ±.003	.622 ±.009	.01978	21.15	2.65	15.80
1-309	.832	.210 ±.005	.412 ±.005	.06768	21.15	5.35	10.45
79-669VS	.833	.080 ±.003	.673 ±.009	.01189	21.15	2.05	17.10
140-555	.835	.140 ±.004	.555 ±.007	.03361	21.20	3.55	14.10
93-634SS	.838	.095 ±.003	.648 ±.009	.01655	21.30	2.40	16.45
31-779	.841	.031 ±.003	.779 ±.009	.00192	21.35	.80	19.80
94-656	.844	.094 ±.003	.656 ±.007	.01635	21.45	2.40	16.65
70-706	.846	.070 ±.003	.706 ±.009	.00938	21.50	1.80	17.95
70-688SS	.847	.072 ±.003	.703 ±.009	.00991	21.50	1.85	17.85
86-675	.847	.086 ±.003	.675 ±.009	.01389	21.50	2.20	17.15
103-643	.849	.103 ±.003	.643 ±.009	.01953	21.55	2.60	16.35
139-576	.854	.139 ±.004	.576 ±.007	.03409	21.70	3.55	14.65
87-681	.855	.087 ±.003	.681 ±.009	.01434	21.70	2.20	17.30
70-720	.860	.070 ±.003	.720 ±.009	.00955	21.85	1.80	18.30
75-710	.860	.075 ±.003	.710 ±.009	.01090	21.85	1.90	18.05
83-676SS	.860	.085 ±.003	.690 ±.009	.01382	21.85	2.15	17.55
168-524	.860	.168 ±.005	.524 ±.005	.04819	21.85	4.25	13.30
70-724	.864	.070 ±.003	.724 ±.009	.00960	21.95	1.80	18.40
40-785	.865	.040 ±.003	.785 ±.009	.00326	21.95	1.00	19.95
30-810ES	.872	.030 ±.003	.812 ±.009	.00187	22.15	.75	20.60
62-750	.874	.062 ±.003	.750 ±.009	.00770	22.20	1.55	19.05
125-625	.875	.125 ±.004	.625 ±.009	.02891	22.25	3.20	15.90
1-018	.879	.070 ±.003	.739 ±.009	.00978	22.35	1.80	18.75
87-705	.879	.087 ±.003	.705 ±.009	.01479	22.35	2.20	17.90
1-115	.880	.103 ±.003	.674 ±.009	.02034	22.35	2.60	17.10
73-735	.881	.073 ±.003	.735 ±.009	.01062	22.40	1.85	18.65
47-780SS	.882	.047 ±.003	.788 ±.009	.00455	22.40	1.20	20.00
70-742	.882	.070 ±.003	.742 ±.009	.00982	22.40	1.80	18.85
45-787VS	.884	.045 ±.003	.794 ±.009	.00419	22.45	1.15	20.15
47-780SS	.884	.048 ±.003	.788 ±.009	.00475	22.45	1.20	20.00
91-702	.884	.091 ±.003	.702 ±.009	.01620	22.45	2.30	17.85
1-208	.887	.139 ±.004	.609 ±.009	.03566	22.55	3.55	15.45
71-746	.888	.071 ±.003	.746 ±.009	.01016	22.55	1.80	18.95
106-665VS	.888	.107 ±.004	.674 ±.009	.02206	22.55	2.70	17.10
104-681	.889	.104 ±.003	.681 ±.009	.02095	22.60	2.65	17.30
120-636SS	.889	.122 ±.004	.645 ±.009	.02817	22.60	3.10	16.40
70-739VS	.890	.071 ±.003	.748 ±.009	.01019	22.60	1.80	19.00
1-310	.895	.210 ±.005	.475 ±.005	.07454	22.75	5.35	12.05
49-782SS	.897	.050 ±.003	.797 ±.009	.00522	22.80	1.25	20.25
30-840	.900	.030 ±.003	.840 ±.009	.00193	22.85	.75	21.35
40-820	.900	.040 ±.003	.820 ±.009	.00340	22.85	1.00	20.85
1-909	.900	.097 ±.003	.706 ±.009	.01864	22.85	2.45	17.95
113-674	.900	.113 ±.004	.674 ±.009	.02480	22.85	2.85	17.10



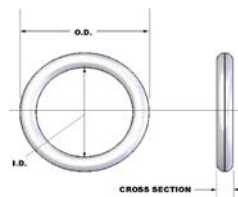
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
70-739SS	.904	.072 ±.003	.760 ±.009	.01064	22.95	1.85	19.30
40-825	.905	.040 ±.003	.825 ±.009	.00341	23.00	1.00	20.95
103-700	.906	.103 ±.003	.700 ±.009	.02102	23.00	2.60	17.80
70-769	.909	.070 ±.003	.769 ±.009	.01014	23.10	1.80	19.55
285-340	.910	.285 ±.006	.340 ±.005	.12526	23.10	7.25	8.65
82-750	.914	.082 ±.003	.750 ±.009	.01380	23.20	2.10	19.05
158-605	.921	.158 ±.005	.605 ±.009	.04700	23.40	4.00	15.35
63-787VS	.922	.064 ±.003	.794 ±.009	.00867	23.40	1.65	20.15
32-860	.924	.032 ±.003	.860 ±.009	.00225	23.45	.80	21.85
139-640	.926	.140 ±.004	.646 ±.009	.03801	23.50	3.55	16.40
80-758SS	.931	.081 ±.003	.769 ±.009	.01376	23.65	2.05	19.55
87-760	.934	.087 ±.003	.760 ±.009	.01582	23.70	2.20	19.30
63-799VS	.935	.064 ±.003	.807 ±.009	.00880	23.75	1.65	20.50
171-595	.937	.171 ±.005	.595 ±.007	.05527	23.80	4.35	15.10
63-813	.939	.063 ±.003	.813 ±.009	.00858	23.85	1.60	20.65
45-850	.940	.045 ±.003	.850 ±.009	.00447	23.90	1.15	21.60
103-734PL	.940	.103 ±.003	.734 ±.009	.02191	23.90	2.60	18.65
1-019	.941	.070 ±.003	.801 ±.009	.01053	23.90	1.80	20.35
140-741	.942	.104 ±.004	.734 ±.010	.02236	23.95	2.65	18.65
1-116	.943	.103 ±.003	.737 ±.009	.02199	23.95	2.60	18.70
166-612	.944	.166 ±.005	.612 ±.009	.05290	24.00	4.20	15.55
118-709	.945	.118 ±.004	.709 ±.009	.02841	24.00	3.00	18.00
45-850VS	.947	.045 ±.003	.857 ±.009	.00451	24.05	1.15	21.75
1-910	.949	.097 ±.003	.755 ±.009	.01978	24.10	2.45	19.20
1-209	.950	.139 ±.004	.672 ±.009	.03866	24.15	3.55	17.05
71-810	.952	.071 ±.003	.810 ±.009	.01096	24.20	1.80	20.55
170-612	.952	.170 ±.005	.612 ±.009	.05576	24.20	4.30	15.55
104-745	.953	.104 ±.003	.745 ±.009	.02266	24.20	2.65	18.90
140-675	.955	.140 ±.004	.675 ±.009	.03941	24.25	3.55	17.15
80-796	.956	.080 ±.003	.796 ±.009	.01383	24.30	2.05	20.20
40-879	.959	.040 ±.003	.879 ±.009	.00363	24.35	1.00	22.35
59-836SS	.959	.059 ±.003	.841 ±.009	.00773	24.35	1.50	21.35
91-760SS	.959	.093 ±.003	.773 ±.009	.01848	24.35	2.35	19.65
1-311	.959	.210 ±.005	.537 ±.007	.08150	24.35	5.35	13.65
31-898	.960	.031 ±.003	.898 ±.009	.00220	24.40	.80	22.80
100-760	.960	.100 ±.003	.760 ±.009	.02122	24.40	2.55	19.30
98-765	.961	.098 ±.003	.765 ±.009	.02045	24.40	2.50	19.45
52-864	.968	.052 ±.003	.864 ±.009	.00611	24.60	1.30	21.95
59-850	.968	.059 ±.003	.850 ±.009	.00781	24.60	1.50	21.60
234-500	.968	.234 ±.006	.500 ±.010	.09917	24.60	5.95	12.70
250-469	.969	.250 ±.006	.469 ±.010	.11088	24.60	6.35	11.90
118-728SS	.973	.119 ±.004	.735 ±.010	.02984	24.70	3.00	18.65
103-768	.974	.103 ±.003	.768 ±.009	.02280	24.75	2.60	19.50
50-875	.975	.050 ±.003	.875 ±.009	.00571	24.75	1.25	22.25
31-915	.977	.031 ±.003	.915 ±.009	.00224	24.80	.80	23.25



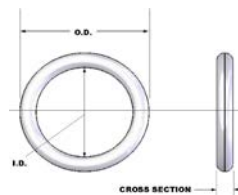
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
187-609	.983	.187 ±.005	.609 ±.009	.06868	24.95	4.75	15.45
59-866	.984	.059 ±.003	.866 ±.009	.00794	25.00	1.50	22.00
138-708	.984	.138 ±.004	.708 ±.009	.03975	25.00	3.50	18.00
98-787ES	.985	.098 ±.003	.789 ±.009	.02102	25.00	2.50	20.05
140-692SS	.985	.142 ±.004	.701 ±.009	.04194	25.00	3.60	17.80
243-500	.986	.243 ±.006	.500 ±.010	.10825	25.05	6.15	12.70
87-817	.991	.087 ±.003	.817 ±.010	.01688	25.15	2.20	20.75
24-945	.993	.024 ±.003	.945 ±.009	.00138	25.20	.60	24.00
118-748VS	.993	.119 ±.004	.755 ±.010	.03054	25.20	3.00	19.20
68-843SS	.994	.069 ±.003	.856 ±.009	.01087	25.25	1.75	21.75
70-831SS	.994	.072 ±.003	.850 ±.009	.01179	25.25	1.85	21.60
47-894SS	.999	.048 ±.003	.903 ±.009	.00541	25.35	1.20	22.95
70-850VS	1.000	.071 ±.003	.858 ±.009	.01156	25.40	1.80	21.80
1-020	1.004	.070 ±.003	.864 ±.009	.01129	25.50	1.80	21.95
104-787VS	1.004	.105 ±.003	.794 ±.009	.02446	25.50	2.65	20.15
1-117	1.005	.103 ±.003	.799 ±.010	.02361	25.55	2.60	20.30
159-688	1.006	.159 ±.005	.688 ±.009	.05283	25.55	4.05	17.50
185-625SS	1.006	.187 ±.005	.632 ±.009	.07067	25.55	4.75	16.05
70-868	1.008	.070 ±.003	.868 ±.009	.01134	25.60	1.80	22.05
40-929	1.009	.040 ±.003	.929 ±.009	.00383	25.65	1.00	23.60
40-930	1.010	.040 ±.003	.930 ±.009	.00383	25.65	1.00	23.60
70-843SSS	1.010	.072 ±.003	.866 ±.009	.01200	25.65	1.85	22.00
270-470	1.010	.270 ±.006	.470 ±.010	.13311	25.65	6.85	11.95
1-210	1.012	.139 ±.004	.734 ±.010	.04162	25.70	3.55	18.65
52-910	1.014	.052 ±.003	.910 ±.009	.00642	25.75	1.30	23.10
218-578	1.014	.218 ±.006	.578 ±.010	.09334	25.75	5.55	14.70
104-809	1.017	.104 ±.003	.809 ±.010	.02437	25.85	2.65	20.55
71-876	1.018	.071 ±.003	.876 ±.009	.01178	25.85	1.80	22.25
190-638	1.018	.190 ±.005	.638 ±.009	.07375	25.85	4.85	16.20
39-945NS	1.020	.039 ±.003	.942 ±.009	.00368	25.90	1.00	23.95
103-814	1.020	.103 ±.003	.814 ±.010	.02400	25.90	2.60	20.70
70-879ES	1.022	.070 ±.003	.882 ±.009	.01151	25.95	1.80	22.40
80-850SS	1.022	.081 ±.003	.860 ±.010	.01523	25.95	2.05	21.85
1-312	1.022	.210 ±.005	.600 ±.009	.08836	25.95	5.35	15.25
59-905	1.023	.059 ±.003	.905 ±.009	.00828	26.00	1.50	23.00
54-908SS	1.027	.055 ±.003	.917 ±.009	.00725	26.10	1.40	23.30
79-866ES	1.028	.079 ±.003	.870 ±.010	.01461	26.10	2.00	22.10
35-950SS	1.029	.035 ±.003	.959 ±.009	.00300	26.15	.90	24.35
40-950	1.030	.040 ±.003	.950 ±.009	.00391	26.15	1.00	24.15
118-787VS	1.032	.119 ±.004	.794 ±.010	.03190	26.20	3.00	20.15
70-879SS	1.038	.071 ±.003	.896 ±.009	.01203	26.35	1.80	22.75
45-945ES	1.040	.045 ±.003	.950 ±.009	.00497	26.40	1.15	24.15
157-715VS	1.040	.159 ±.005	.722 ±.009	.05496	26.40	4.05	18.35
139-765	1.043	.139 ±.004	.765 ±.010	.04310	26.50	3.55	19.45
158-730	1.046	.158 ±.005	.730 ±.009	.05470	26.55	4.00	18.55



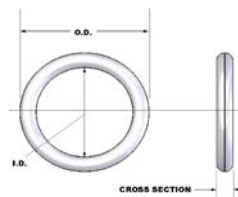
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
118-795SS	1.050	.120 ±.004	.810 ±.010	.03304	26.65	3.05	20.55
104-835VS	1.053	.105 ±.003	.843 ±.010	.02579	26.75	2.65	21.40
30-980SS	1.054	.030 ±.003	.994 ±.010	.00227	26.75	.75	25.25
103-850	1.054	.103 ±.003	.848 ±.010	.02489	26.75	2.60	21.55
80-880SS	1.055	.081 ±.003	.893 ±.010	.01577	26.80	2.05	22.70
90-854SS	1.056	.092 ±.003	.872 ±.010	.02013	26.80	2.35	22.15
32-995	1.059	.032 ±.003	.995 ±.010	.00259	26.90	.80	25.25
39-984NS	1.059	.039 ±.003	.981 ±.009	.00383	26.90	1.00	24.90
1-021	1.066	.070 ±.003	.926 ±.009	.01204	27.10	1.80	23.50
46-967VS	1.068	.046 ±.003	.976 ±.009	.00534	27.15	1.15	24.80
1-118	1.068	.103 ±.003	.862 ±.010	.02526	27.15	2.60	21.90
72-926	1.070	.072 ±.003	.926 ±.009	.01277	27.20	1.85	23.50
83-906	1.072	.083 ±.003	.906 ±.010	.01681	27.25	2.10	23.00
59-945SS	1.074	.060 ±.003	.954 ±.009	.00901	27.30	1.50	24.25
1-211	1.074	.139 ±.004	.796 ±.010	.04457	27.30	3.55	20.20
55-690VS	1.075	.055 ±.003	.965 ±.009	.00761	27.30	1.40	24.50
71-935	1.077	.071 ±.003	.935 ±.009	.01251	27.35	1.80	23.75
125-827	1.077	.125 ±.004	.827 ±.010	.03670	27.35	3.20	21.00
104-870	1.078	.104 ±.003	.870 ±.010	.02599	27.40	2.65	22.10
30-1.010VS	1.079	.030 ±.003	1.019 ±.010	.00233	27.40	.75	25.90
45-990	1.080	.045 ±.003	.990 ±.010	.00517	27.45	1.15	25.15
140-800	1.080	.140 ±.004	.800 ±.010	.04546	27.45	3.55	20.30
50-970SS	1.082	.051 ±.003	.980 ±.009	.00662	27.50	1.30	24.90
70-943	1.083	.070 ±.003	.943 ±.009	.01225	27.50	1.80	23.95
50-984	1.084	.050 ±.003	.984 ±.009	.00638	27.55	1.25	25.00
1-313	1.084	.210 ±.005	.662 ±.009	.09510	27.55	5.35	16.80
81-925	1.087	.081 ±.003	.925 ±.010	.01629	27.60	2.05	23.50
63-962	1.088	.063 ±.003	.962 ±.009	.01004	27.65	1.60	24.45
39-1.010ES	1.093	.039 ±.003	1.015 ±.010	.00396	27.75	1.00	25.80
1-911	1.095	.116 ±.004	.863 ±.010	.03250	27.80	2.95	21.90
155-790	1.100	.155 ±.005	.790 ±.010	.05602	27.95	3.95	20.05
32-1.039	1.103	.032 ±.003	1.039 ±.010	.00271	28.00	.80	26.40
79-945	1.103	.079 ±.003	.945 ±.010	.01577	28.00	2.00	24.00
58-989	1.105	.058 ±.003	.989 ±.010	.00869	28.05	1.45	25.10
63-970ES	1.107	.064 ±.003	.979 ±.009	.01054	28.10	1.65	24.85
55-1.000	1.110	.055 ±.003	1.000 ±.010	.00787	28.20	1.40	25.40
88-910SS	1.111	.090 ±.003	.931 ±.010	.02041	28.20	2.30	23.65
118-866SS	1.111	.119 ±.004	.873 ±.010	.03466	28.20	3.00	22.15
32-1.050	1.114	.032 ±.003	1.050 ±.010	.00273	28.30	.80	26.65
40-1.040	1.120	.040 ±.003	1.040 ±.010	.00426	28.45	1.00	26.40
178-767	1.123	.178 ±.005	.767 ±.010	.07388	28.50	4.50	19.50
150-825	1.125	.150 ±.005	.825 ±.010	.05413	28.60	3.80	20.95
1-022	1.129	.070 ±.003	.989 ±.010	.01280	28.70	1.80	25.10
135-859	1.129	.135 ±.004	.859 ±.010	.04470	28.70	3.45	21.80
47-1.024SS	1.130	.048 ±.003	1.034 ±.010	.00615	28.70	1.20	26.25



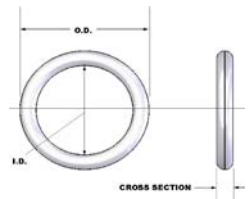
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Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
59-1.012	1.130	.059 ±.003	1.012 ±.010	.00920	28.70	1.50	25.70
1-119	1.130	.103 ±.003	.924 ±.010	.02688	28.70	2.60	23.45
156-800SS	1.131	.159 ±.005	.813 ±.010	.06063	28.75	4.05	20.65
26-1.080	1.132	.026 ±.003	1.080 ±.010	.00184	28.75	.65	27.45
31-1.071	1.133	.031 ±.003	1.071 ±.010	.00261	28.80	.80	27.20
70-985SS	1.134	.071 ±.003	.992 ±.010	.01322	28.80	1.80	25.20
1-212	1.137	.139 ±.004	.859 ±.010	.04758	28.90	3.55	21.80
71-998	1.140	.071 ±.003	.998 ±.010	.01330	28.95	1.80	25.35
104-933	1.141	.104 ±.003	.933 ±.010	.02767	29.00	2.65	23.70
40-1.062	1.142	.040 ±.003	1.062 ±.010	.00435	29.00	1.00	26.95
79-984	1.142	.079 ±.003	.984 ±.010	.01637	29.00	2.00	25.00
249-635SS	1.142	.251 ±.005	.640 ±.008	.13850	29.00	6.40	16.25
103-940	1.146	.103 ±.003	.940 ±.010	.02730	29.10	2.60	23.90
39-1.063VS	1.147	.039 ±.003	1.069 ±.010	.00416	29.15	1.00	27.15
1-314	1.147	.210 ±.005	.725 ±.010	.10196	29.15	5.35	18.40
53-1.037ES	1.148	.053 ±.003	1.042 ±.010	.00759	29.15	1.35	26.45
53-1.037ES	1.148	.053 ±.003	1.042 ±.010	.00759	29.15	1.35	26.45
130-888	1.148	.130 ±.004	.888 ±.010	.04245	29.15	3.30	22.55
125-900	1.150	.125 ±.004	.900 ±.010	.03952	29.20	3.20	22.85
37-1.080	1.156	.037 ±.003	1.082 ±.010	.00378	29.35	.95	27.50
1-912	1.156	.116 ±.004	.924 ±.010	.03453	29.35	2.95	23.45
156-844	1.156	.156 ±.005	.844 ±.010	.06005	29.35	3.95	21.45
156-837ES	1.156	.157 ±.003	.842 ±.010	.06076	29.35	4.00	21.40
70-1.015ES	1.157	.070 ±.003	1.017 ±.010	.01314	29.40	1.80	25.85
114-929	1.157	.114 ±.004	.929 ±.010	.03345	29.40	2.90	23.60
176-787SS	1.157	.179 ±.005	.799 ±.010	.07732	29.40	4.55	20.30
150-850VS	1.158	.151 ±.005	.856 ±.010	.05665	29.40	3.85	21.75
25-1.110	1.160	.025 ±.003	1.110 ±.010	.00175	29.45	.65	28.20
65-1.030	1.160	.065 ±.003	1.030 ±.010	.01142	29.45	1.65	26.15
360-440	1.160	.360 ±.007	.440 ±.005	.25582	29.45	9.15	11.20
32-1.100	1.164	.032 ±.003	1.100 ±.010	.00286	29.55	.80	27.95
25-1.115	1.165	.025 ±.003	1.115 ±.010	.00176	29.60	.65	28.30
65-1.030ES	1.165	.065 ±.003	1.035 ±.010	.01147	29.60	1.65	26.30
40-1.086	1.166	.040 ±.003	1.086 ±.010	.00445	29.60	1.00	27.60
80-1.000SS	1.170	.080 ±.003	1.010 ±.010	.01721	29.70	2.05	25.65
123-924	1.170	.123 ±.004	.924 ±.010	.03908	29.70	3.10	23.45
31-1.109	1.171	.031 ±.003	1.109 ±.010	.00270	29.75	.80	28.15
60-1.051	1.171	.060 ±.003	1.051 ±.010	.00987	29.75	1.50	26.70
158-855SS	1.176	.159 ±.005	.858 ±.010	.06344	29.85	4.05	21.80
59-1.063	1.181	.059 ±.003	1.063 ±.010	.00964	30.00	1.50	27.00
100-984	1.184	.100 ±.003	.984 ±.010	.02675	30.05	2.55	25.00
40-1.105	1.185	.040 ±.003	1.105 ±.010	.00452	30.10	1.00	28.05
150-886	1.186	.150 ±.005	.886 ±.010	.05752	30.10	3.80	22.50
43-1.101	1.187	.043 ±.003	1.101 ±.010	.00522	30.15	1.10	27.95
141-905	1.187	.141 ±.004	.905 ±.010	.05131	30.15	3.60	23.00



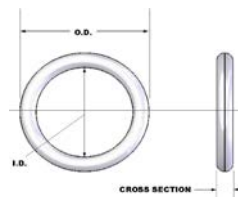
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
63-1.063	1.189	.063 ±.003	1.063 ±.010	.01103	30.20	1.60	27.00
118-953	1.189	.118 ±.004	.953 ±.010	.03680	30.20	3.00	24.20
1-023	1.191	.070 ±.003	1.051 ±.010	.01355	30.25	1.80	26.70
36-1.118	1.192	.036 ±.003	1.120 ±.010	.00370	30.30	.90	28.45
62-1.069	1.193	.062 ±.003	1.069 ±.010	.01073	30.30	1.55	27.15
1-120	1.193	.103 ±.003	.987 ±.010	.02853	30.30	2.60	25.05
43-1.101SS	1.196	.043 ±.003	1.110 ±.010	.00526	30.40	1.10	28.20
1-213	1.199	.139 ±.004	.921 ±.010	.05053	30.45	3.55	23.40
71-1.061	1.203	.071 ±.003	1.061 ±.010	.01408	30.55	1.80	26.95
47-1.106ES	1.205	.047 ±.003	1.111 ±.010	.00631	30.60	1.20	28.20
40-1.116VS	1.206	.040 ±.003	1.126 ±.010	.00460	30.65	1.00	28.60
156-875SS	1.207	.159 ±.005	.889 ±.010	.06537	30.65	4.05	22.60
71-1.046SS	1.209	.072 ±.003	1.065 ±.010	.01454	30.70	1.85	27.05
1-315	1.209	.210 ±.005	.787 ±.010	.10870	30.70	5.35	20.00
185-840	1.210	.185 ±.005	.840 ±.010	.08656	30.75	4.70	21.35
125-950SS	1.212	.126 ±.004	.960 ±.010	.04254	30.80	3.20	24.40
1-913	1.218	.116 ±.004	.986 ±.010	.03659	30.95	2.95	25.05
50-1.106SS	1.219	.051 ±.003	1.117 ±.010	.00750	30.95	1.30	28.35
210-799	1.219	.210 ±.005	.799 ±.010	.10979	30.95	5.35	20.30
65-1.090	1.220	.065 ±.003	1.090 ±.015	.01204	31.00	1.65	27.70
141-938	1.220	.141 ±.004	.938 ±.010	.05293	31.00	3.60	23.85
79-1.063	1.221	.079 ±.003	1.063 ±.010	.01759	31.00	2.00	27.00
103-1.008ES	1.222	.104 ±.003	1.014 ±.010	.02984	31.05	2.65	25.75
72-1.081	1.225	.072 ±.003	1.081 ±.010	.01475	31.10	1.85	27.45
93-1.040	1.226	.093 ±.003	1.040 ±.010	.02418	31.15	2.35	26.40
49-1.130	1.228	.049 ±.003	1.130 ±.010	.00698	31.20	1.25	28.70
139-953	1.231	.139 ±.004	.953 ±.010	.05206	31.25	3.55	24.20
28-1.181	1.237	.028 ±.003	1.181 ±.011	.00234	31.40	.70	30.00
275-687	1.237	.275 ±.006	.687 ±.010	.17951	31.40	7.00	17.45
70-1.082SS	1.242	.071 ±.003	1.100 ±.010	.01457	31.55	1.80	27.95
45-1.153	1.243	.045 ±.003	1.153 ±.010	.00599	31.55	1.15	29.30
46-1.130SS	1.243	.047 ±.003	1.149 ±.010	.00652	31.55	1.20	29.20
30-1.190	1.250	.030 ±.003	1.190 ±.011	.00271	31.75	.75	30.25
250-750	1.250	.250 ±.006	.750 ±.010	.15421	31.75	6.35	19.05
93-1.065	1.251	.093 ±.003	1.065 ±.010	.02471	31.80	2.35	27.05
1-024	1.254	.070 ±.003	1.114 ±.010	.01431	31.85	1.80	28.30
1-121	1.255	.103 ±.003	1.049 ±.010	.03016	31.90	2.60	26.65
78-1.102	1.258	.078 ±.003	1.102 ±.010	.01771	31.95	2.00	28.00
98-1.063	1.259	.098 ±.003	1.063 ±.010	.02751	32.00	2.50	27.00
56-1.148	1.260	.056 ±.003	1.148 ±.010	.00932	32.00	1.40	29.15
47-1.161ES	1.261	.047 ±.003	1.167 ±.010	.00662	32.05	1.20	29.65
54-1.153	1.261	.054 ±.003	1.153 ±.010	.00868	32.05	1.35	29.30
1-214	1.262	.139 ±.004	.984 ±.010	.05354	32.05	3.55	25.00
223-813SS	1.263	.224 ±.006	.815 ±.010	.12863	32.10	5.70	20.70
197-866	1.265	.198 ±.005	.869 ±.010	.10321	32.15	5.05	22.05



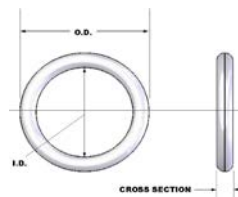
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
39-1.189	1.267	.039 ±.003	1.189 ±.011	.00461	32.20	1.00	30.20
90-1.091SS	1.267	.090 ±.003	1.087 ±.010	.02352	32.20	2.30	27.60
104-1.059	1.267	.104 ±.003	1.059 ±.010	.03104	32.20	2.65	26.90
140-988	1.268	.140 ±.004	.988 ±.010	.05455	32.20	3.55	25.10
156-938SS	1.269	.158 ±.005	.953 ±.010	.06843	32.25	4.00	24.20
1-316	1.270	.210 ±.005	.850 ±.010	.11534	32.25	5.35	21.60
345-580	1.270	.345 ±.007	.580 ±.007	.27166	32.25	8.75	14.75
70-1.114SS	1.272	.071 ±.003	1.130 ±.010	.01494	32.30	1.80	28.70
190-870SS	1.275	.194 ±.005	.887 ±.010	.10039	32.40	4.95	22.55
81-1.114	1.276	.081 ±.003	1.114 ±.010	.01935	32.40	2.05	28.30
1-914	1.279	.116 ±.004	1.047 ±.010	.03861	32.50	2.95	26.60
70-1.135ES	1.281	.070 ±.003	1.141 ±.010	.01464	32.55	1.80	29.00
203-875	1.281	.203 ±.005	.875 ±.010	.10961	32.55	5.15	22.25
141-1.005	1.287	.141 ±.004	1.005 ±.010	.05622	32.70	3.60	25.55
31-1.226	1.288	.031 ±.003	1.226 ±.011	.00298	32.70	.80	31.15
65-1.140SS	1.291	.066 ±.003	1.159 ±.010	.01317	32.80	1.70	29.45
60-1.173	1.293	.060 ±.003	1.173 ±.010	.01095	32.85	1.50	29.80
31-1.226ES	1.294	.031 ±.003	1.232 ±.010	.00299	32.85	.80	31.30
40-1.220	1.300	.040 ±.003	1.220 ±.011	.00497	33.00	1.00	31.00
52-1.176SS	1.300	.053 ±.003	1.194 ±.011	.00864	33.00	1.35	30.35
62-1.176	1.300	.062 ±.003	1.176 ±.011	.01174	33.00	1.55	29.85
69-1.157VS	1.308	.070 ±.003	1.168 ±.010	.01497	33.20	1.80	29.65
47-1.201SS	1.309	.048 ±.003	1.213 ±.011	.00717	33.25	1.20	30.80
281-750	1.312	.281 ±.006	.750 ±.010	.20087	33.30	7.15	19.05
1-025	1.316	.070 ±.003	1.176 ±.011	.01506	33.45	1.80	29.85
50-1.204SS	1.318	.051 ±.003	1.216 ±.011	.00813	33.50	1.30	30.90
1-122	1.318	.103 ±.003	1.112 ±.010	.03180	33.50	2.60	28.25
1-215	1.324	.139 ±.004	1.046 ±.010	.05649	33.65	3.55	26.55
60-1.214NS	1.325	.060 ±.003	1.205 ±.011	.01124	33.65	1.50	30.60
176-975	1.327	.176 ±.005	.975 ±.010	.08797	33.70	4.45	24.75
195-938	1.328	.195 ±.005	.938 ±.010	.10630	33.75	4.95	23.85
71-1.188	1.330	.071 ±.003	1.188 ±.011	.01566	33.80	1.80	30.20
30-1.272	1.332	.030 ±.003	1.272 ±.011	.00289	33.85	.75	32.30
60-1.203ES	1.332	.060 ±.003	1.212 ±.011	.01130	33.85	1.50	30.80
104-1.125	1.333	.104 ±.003	1.125 ±.010	.03280	33.85	2.65	28.60
60-1.190SS	1.334	.060 ±.003	1.214 ±.011	.01132	33.90	1.50	30.85
156-1.000SS	1.334	.159 ±.005	1.016 ±.010	.07329	33.90	4.05	25.80
1-317	1.334	.210 ±.005	.912 ±.010	.12231	33.90	5.35	23.15
140-1.056	1.336	.140 ±.004	1.056 ±.010	.05784	33.95	3.55	26.80
76-1.188	1.340	.076 ±.003	1.188 ±.012	.01801	34.05	1.95	30.20
40-1.249VS	1.341	.040 ±.003	1.261 ±.011	.00514	34.05	1.00	32.05
1-915	1.341	.116 ±.004	1.109 ±.012	.04067	34.05	2.95	28.15
52-1.245	1.349	.052 ±.003	1.245 ±.011	.00865	34.25	1.30	31.60
50-1.250	1.350	.050 ±.003	1.250 ±.011	.00802	34.30	1.25	31.75
54-1.228SS	1.350	.055 ±.003	1.240 ±.011	.00967	34.30	1.40	31.50



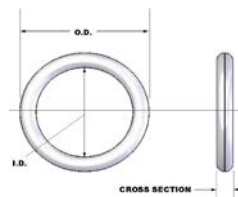
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
47-1.245SS	1.351	.047 ±.003	1.257 ±.011	.00711	34.30	1.20	31.95
47-1.257VS	1.360	.047 ±.003	1.266 ±.011	.00716	34.55	1.20	32.15
70-1.220ES	1.362	.070 ±.003	1.222 ±.011	.01562	34.60	1.80	31.05
53-1.257	1.363	.053 ±.003	1.257 ±.011	.00908	34.60	1.35	31.95
50-1.257SS	1.364	.050 ±.003	1.264 ±.011	.00811	34.65	1.25	32.10
118-1.121ES	1.367	.119 ±.004	1.129 ±.012	.04361	34.70	3.00	28.70
39-1.290	1.368	.039 ±.003	1.290 ±.011	.00499	34.75	1.00	32.75
174-1.020	1.368	.174 ±.005	1.020 ±.010	.08920	34.75	4.40	25.90
94-1.188	1.376	.094 ±.003	1.188 ±.012	.02795	34.95	2.40	30.20
1-026	1.379	.070 ±.003	1.239 ±.011	.01583	35.05	1.80	31.45
1-123	1.380	.103 ±.003	1.174 ±.012	.03343	35.05	2.60	29.80
215-950	1.380	.215 ±.005	.950 ±.010	.13287	35.05	5.45	24.15
197-984VS	1.384	.198 ±.005	.988 ±.010	.11472	35.15	5.05	25.10
1-216	1.387	.139 ±.004	1.109 ±.012	.05950	35.25	3.55	28.15
40-1.310	1.390	.040 ±.003	1.310 ±.011	.00533	35.30	1.00	33.25
78-1.234	1.390	.078 ±.003	1.234 ±.012	.01970	35.30	2.00	31.35
31-1.331	1.393	.031 ±.003	1.331 ±.011	.00323	35.40	.80	33.80
71-1.251	1.393	.071 ±.003	1.251 ±.011	.01644	35.40	1.80	31.80
114-1.165	1.393	.114 ±.004	1.165 ±.012	.04101	35.40	2.90	29.60
60-1.274	1.394	.060 ±.003	1.274 ±.011	.01185	35.40	1.50	32.35
104-1.186	1.394	.104 ±.003	1.186 ±.012	.03443	35.40	2.65	30.10
1-318	1.395	.210 ±.005	.975 ±.010	.12894	35.45	5.35	24.75
70-1.240VS	1.397	.071 ±.003	1.255 ±.011	.01649	35.50	1.80	31.90
65-1.262ES	1.398	.065 ±.003	1.268 ±.011	.01390	35.50	1.65	32.20
140-1.119	1.399	.140 ±.004	1.119 ±.012	.06089	35.55	3.55	28.40
55-1.290	1.400	.055 ±.003	1.290 ±.011	.01004	35.55	1.40	32.75
1-916	1.403	.116 ±.004	1.171 ±.012	.04273	35.65	2.95	29.75
275-859	1.409	.275 ±.006	.859 ±.010	.21160	35.80	7.00	21.80
415-580	1.410	.415 ±.009	.580 ±.007	.42282	35.80	10.55	14.75
70-1.240SS	1.411	.072 ±.003	1.267 ±.011	.01713	35.85	1.85	32.20
157-1.102	1.416	.157 ±.005	1.102 ±.012	.07657	35.95	4.00	28.00
40-1.310SS	1.417	.041 ±.003	1.335 ±.011	.00571	36.00	1.05	33.90
39-1.340	1.418	.039 ±.003	1.340 ±.011	.00518	36.00	1.00	34.05
125-1.160ES	1.420	.126 ±.004	1.168 ±.012	.05069	36.05	3.20	29.65
55-1.307ES	1.423	.055 ±.003	1.313 ±.011	.01021	36.15	1.40	33.35
60-1.304	1.424	.060 ±.003	1.304 ±.011	.01212	36.15	1.50	33.10
50-1.325	1.425	.050 ±.003	1.325 ±.011	.00848	36.20	1.25	33.65
158-1.105SS	1.427	.159 ±.005	1.109 ±.012	.07910	36.25	4.05	28.15
176-1.077	1.429	.176 ±.005	1.077 ±.010	.09577	36.30	4.45	27.35
45-1.340	1.430	.045 ±.003	1.340 ±.011	.00692	36.30	1.15	34.05
104-1.222	1.430	.104 ±.003	1.222 ±.012	.03539	36.30	2.65	31.05
71-1.280VS	1.437	.072 ±.003	1.293 ±.011	.01746	36.50	1.85	32.85
30-1.377ES	1.439	.030 ±.003	1.379 ±.013	.00313	36.55	.75	35.05
167-1.105	1.439	.167 ±.005	1.105 ±.012	.08753	36.55	4.25	28.05
151-1.138	1.440	.151 ±.005	1.138 ±.012	.07252	36.60	3.85	28.90



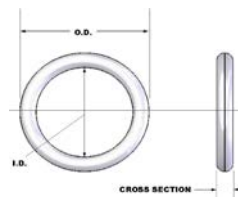
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
1-027	1.441	.070 ±.003	1.301 ±.011	.01658	36.60	1.80	33.05
70-1.281SS	1.443	.071 ±.003	1.301 ±.011	.01707	36.65	1.80	33.05
92-1.259	1.443	.092 ±.003	1.259 ±.012	.02821	36.65	2.35	32.00
1-124	1.443	.103 ±.003	1.237 ±.012	.03508	36.65	2.60	31.40
149-1.136SS	1.445	.149 ±.005	1.147 ±.012	.07099	36.70	3.80	29.15
235-975	1.445	.235 ±.006	.975 ±.010	.16488	36.70	5.95	24.75
1-217	1.449	.139 ±.004	1.171 ±.012	.06245	36.80	3.55	29.75
176-1.100	1.452	.176 ±.005	1.100 ±.012	.09752	36.90	4.45	27.95
40-1.350SS	1.453	.041 ±.003	1.371 ±.013	.00586	36.90	1.05	34.80
71-1.314	1.456	.071 ±.003	1.314 ±.011	.01723	37.00	1.80	33.40
140-1.176	1.456	.140 ±.004	1.176 ±.012	.06364	37.00	3.55	29.85
104-1.249	1.457	.104 ±.003	1.249 ±.012	.03611	37.00	2.65	31.70
1-319	1.457	.210 ±.005	1.037 ±.010	.13569	37.00	5.35	26.35
187-1.088	1.462	.187 ±.005	1.088 ±.010	.11001	37.15	4.75	27.65
48-1.375	1.471	.048 ±.003	1.375 ±.013	.00809	37.35	1.20	34.95
149-1.180	1.478	.149 ±.005	1.180 ±.012	.07280	37.55	3.80	29.95
250-980	1.480	.250 ±.006	.980 ±.010	.18968	37.60	6.35	24.90
213-1.057	1.483	.213 ±.005	1.057 ±.010	.14217	37.65	5.40	26.85
45-1.395	1.485	.045 ±.003	1.395 ±.013	.00719	37.70	1.15	35.45
395-677SS	1.485	.400 ±.009	.685 ±.010	.42834	37.70	10.15	17.40
212-1.060VS	1.491	.213 ±.005	1.065 ±.010	.14306	37.85	5.40	27.05
275-945	1.495	.275 ±.006	.945 ±.010	.22765	37.95	7.00	24.00
312-875	1.499	.312 ±.006	.875 ±.010	.28510	38.05	7.90	22.25
1-028	1.504	.070 ±.003	1.364 ±.013	.01734	38.20	1.80	34.65
1-125	1.505	.103 ±.003	1.299 ±.012	.03670	38.25	2.60	33.00
157-1.181	1.507	.158 ±.005	1.191 ±.012	.08309	38.30	4.00	30.25
141-1.226	1.508	.141 ±.004	1.226 ±.012	.06706	38.30	3.60	31.15
176-1.156	1.508	.176 ±.005	1.156 ±.012	.10181	38.30	4.45	29.35
50-1.406	1.511	.050 ±.003	1.411 ±.013	.00901	38.40	1.25	35.85
149-1.213	1.511	.149 ±.005	1.213 ±.012	.07461	38.40	3.80	30.80
1-218	1.512	.139 ±.004	1.234 ±.012	.06545	38.40	3.55	31.35
39-1.437	1.515	.039 ±.003	1.437 ±.013	.00554	38.50	1.00	36.50
70-1.370ES	1.516	.070 ±.003	1.376 ±.013	.01748	38.50	1.80	34.95
93-1.320SS	1.518	.094 ±.003	1.330 ±.012	.03105	38.55	2.40	33.80
104-1.311	1.519	.104 ±.003	1.311 ±.012	.03776	38.60	2.65	33.30
50-1.420	1.520	.050 ±.003	1.420 ±.013	.00907	38.60	1.25	36.05
120-1.280	1.520	.120 ±.004	1.280 ±.012	.04974	38.60	3.05	32.50
1-320	1.520	.210 ±.005	1.100 ±.012	.14254	38.60	5.35	27.95
92-1.338	1.522	.092 ±.003	1.338 ±.012	.02986	38.65	2.35	34.00
50-1.419ES	1.526	.050 ±.003	1.426 ±.013	.00910	38.75	1.25	36.20
140-1.246	1.526	.140 ±.004	1.246 ±.012	.06703	38.75	3.55	31.65
71-1.387	1.529	.071 ±.003	1.387 ±.013	.01813	38.85	1.80	35.25
60-1.403ES	1.530	.060 ±.003	1.410 ±.013	.01306	38.85	1.50	35.80
80-1.370	1.530	.080 ±.003	1.370 ±.012	.02290	38.85	2.05	34.80
157-1.220	1.534	.157 ±.005	1.220 ±.012	.08375	38.95	4.00	31.00



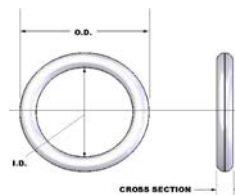
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
60-1.415	1.535	.060 ±.003	1.415 ±.013	.01310	39.00	1.50	35.95
212-1.111	1.535	.212 ±.005	1.111 ±.012	.14671	39.00	5.40	28.20
63-1.394SS	1.536	.064 ±.003	1.408 ±.013	.01488	39.00	1.65	35.75
70-1.378VS	1.539	.071 ±.003	1.397 ±.013	.01826	39.10	1.80	35.50
77-1.362VS	1.543	.078 ±.003	1.387 ±.012	.02199	39.20	2.00	35.25
193-1.158	1.544	.193 ±.005	1.158 ±.012	.12417	39.20	4.90	29.40
47-1.453	1.547	.047 ±.003	1.453 ±.013	.00818	39.30	1.20	36.90
31-1.491	1.553	.031 ±.003	1.491 ±.013	.00361	39.45	.80	37.85
39-1.476	1.554	.039 ±.003	1.476 ±.013	.00569	39.45	1.00	37.50
250-1.062NS	1.554	.249 ±.006	1.056 ±.010	.19964	39.45	6.30	26.80
300-957	1.557	.300 ±.006	.957 ±.010	.27914	39.55	7.60	24.30
38-1.463SS	1.563	.039 ±.003	1.485 ±.013	.00572	39.70	1.00	37.70
229-1.099SS	1.563	.230 ±.006	1.103 ±.012	.17399	39.70	5.85	28.00
70-1.424	1.564	.070 ±.003	1.424 ±.013	.01806	39.75	1.80	36.15
75-1.414	1.564	.075 ±.003	1.414 ±.012	.02067	39.75	1.90	35.90
139-1.265SS	1.565	.141 ±.004	1.283 ±.012	.06985	39.75	3.60	32.60
70-1.427	1.567	.070 ±.003	1.427 ±.013	.01810	39.80	1.80	36.25
1-126	1.568	.103 ±.003	1.362 ±.012	.03835	39.85	2.60	34.60
173-1.225	1.571	.173 ±.005	1.225 ±.012	.10324	39.90	4.40	31.10
70-1.424SS	1.572	.070 ±.003	1.432 ±.013	.01816	39.95	1.80	36.35
78-1.417	1.573	.078 ±.003	1.417 ±.012	.02244	39.95	2.00	36.00
1-219	1.574	.139 ±.004	1.296 ±.012	.06841	40.00	3.55	32.90
176-1.225	1.577	.176 ±.005	1.225 ±.012	.10708	40.05	4.45	31.10
215-1.147	1.577	.215 ±.005	1.147 ±.012	.15534	40.05	5.45	29.15
321-937	1.579	.321 ±.007	.937 ±.010	.31984	40.10	8.15	23.80
1-321	1.582	.210 ±.005	1.162 ±.012	.14929	40.20	5.35	29.50
1-918	1.587	.116 ±.004	1.355 ±.012	.04884	40.30	2.95	34.40
176-1.236	1.588	.176 ±.005	1.236 ±.012	.10792	40.35	4.45	31.40
140-1.309	1.589	.140 ±.004	1.309 ±.012	.07008	40.35	3.55	33.25
90-1.387SS	1.595	.092 ±.003	1.411 ±.012	.03139	40.50	2.35	35.85
70-1.437SS	1.596	.071 ±.003	1.454 ±.013	.01897	40.55	1.80	36.95
47-1.484SS	1.597	.048 ±.003	1.501 ±.013	.00881	40.55	1.20	38.15
45-1.510	1.600	.045 ±.003	1.510 ±.013	.00777	40.65	1.15	38.35
50-1.500	1.600	.050 ±.003	1.500 ±.013	.00956	40.65	1.25	38.10
275-1.050	1.600	.275 ±.006	1.050 ±.010	.24724	40.65	7.00	26.65
93-1.415	1.601	.093 ±.003	1.415 ±.012	.03218	40.65	2.35	35.95
65-1.465ES	1.602	.065 ±.003	1.472 ±.013	.01602	40.70	1.65	37.40
70-1.465	1.605	.070 ±.003	1.465 ±.013	.01856	40.75	1.80	37.20
210-1.187	1.607	.210 ±.005	1.187 ±.012	.15201	40.80	5.35	30.15
62-1.485	1.609	.062 ±.003	1.485 ±.013	.01467	40.85	1.55	37.70
55-1.500	1.610	.055 ±.003	1.500 ±.013	.01161	40.90	1.40	38.10
63-1.472ES	1.614	.064 ±.003	1.486 ±.013	.01567	41.00	1.65	37.75
40-1.520VS	1.616	.040 ±.003	1.536 ±.013	.00622	41.05	1.00	39.00
210-1.200	1.620	.210 ±.005	1.200 ±.012	.15343	41.15	5.35	30.50
98-1.417VS	1.624	.099 ±.003	1.426 ±.012	.03688	41.25	2.50	36.20



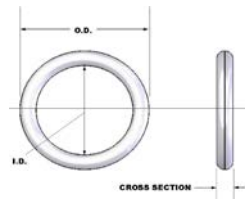
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
197-1.230	1.624	.197 ±.005	1.230 ±.012	.13665	41.25	5.00	31.25
94-1.437	1.625	.094 ±.003	1.437 ±.012	.03338	41.30	2.40	36.50
79-1.457ES	1.626	.080 ±.003	1.466 ±.012	.02441	41.30	2.05	37.25
1-029	1.629	.070 ±.003	1.489 ±.013	.01885	41.40	1.80	37.80
45-1.540	1.630	.045 ±.003	1.540 ±.013	.00792	41.40	1.15	39.10
1-127	1.630	.103 ±.003	1.424 ±.012	.03997	41.40	2.60	36.15
56-1.506SS	1.634	.057 ±.003	1.520 ±.013	.01264	41.50	1.45	38.60
50-1.527ES	1.636	.050 ±.003	1.536 ±.013	.00978	41.55	1.25	39.00
1-220	1.637	.139 ±.004	1.359 ±.012	.07141	41.60	3.55	34.50
32-1.559SS	1.638	.032 ±.003	1.574 ±.013	.00406	41.60	.80	40.00
74-1.489ES	1.641	.074 ±.003	1.493 ±.012	.02117	41.70	1.90	37.90
140-1.365	1.645	.140 ±.004	1.365 ±.012	.07278	41.80	3.55	34.65
1-322	1.645	.210 ±.005	1.225 ±.012	.15615	41.80	5.35	31.10
111-1.424	1.646	.111 ±.004	1.424 ±.012	.04667	41.80	2.80	36.15
39-1.574NS	1.647	.039 ±.003	1.569 ±.013	.00603	41.85	1.00	39.85
275-1.100	1.650	.275 ±.006	1.100 ±.012	.25657	41.90	7.00	27.95
81-1.489	1.651	.081 ±.003	1.489 ±.012	.02542	41.95	2.05	37.80
71-1.510	1.652	.071 ±.003	1.510 ±.013	.01966	41.95	1.80	38.35
59-1.535	1.653	.059 ±.003	1.535 ±.013	.01369	42.00	1.50	39.00
406-844	1.656	.406 ±.009	.844 ±.010	.50840	42.05	10.30	21.45
212-1.237	1.661	.212 ±.005	1.237 ±.012	.16069	42.20	5.40	31.40
105-1.452	1.662	.105 ±.003	1.452 ±.012	.04236	42.20	2.65	36.90
275-1.100VS	1.664	.275 ±.006	1.114 ±.012	.25918	42.25	7.00	28.30
47-1.575	1.669	.047 ±.003	1.575 ±.013	.00884	42.40	1.20	40.00
55-1.560	1.670	.055 ±.003	1.560 ±.013	.01205	42.40	1.40	39.60
210-1.260	1.680	.210 ±.005	1.260 ±.012	.15995	42.65	5.35	32.00
148-1.385	1.681	.148 ±.005	1.385 ±.012	.08285	42.70	3.75	35.20
70-1.545	1.685	.070 ±.003	1.545 ±.013	.01953	42.80	1.80	39.25
45-1.600	1.690	.045 ±.003	1.600 ±.013	.00822	42.95	1.15	40.65
157-1.388SS	1.692	.156 ±.005	1.380 ±.012	.09223	43.00	3.95	35.05
29-1.620SS	1.693	.029 ±.003	1.635 ±.013	.00345	43.00	.75	41.55
1-128	1.693	.103 ±.003	1.487 ±.012	.04162	43.00	2.60	37.75
30-1.635	1.695	.030 ±.003	1.635 ±.013	.00370	43.05	.75	41.55
1-221	1.699	.139 ±.004	1.421 ±.012	.07437	43.15	3.55	36.10
176-1.350	1.702	.176 ±.005	1.350 ±.012	.11663	43.25	4.45	34.30
1-323	1.707	.210 ±.005	1.287 ±.012	.16289	43.35	5.35	32.70
104-1.501	1.709	.104 ±.003	1.501 ±.012	.04283	43.40	2.65	38.15
67-1.541SS	1.710	.068 ±.003	1.574 ±.013	.01873	43.45	1.75	40.00
1-920	1.711	.118 ±.004	1.475 ±.012	.05473	43.45	3.00	37.45
140-1.434	1.714	.140 ±.004	1.434 ±.012	.07612	43.55	3.55	36.40
76-1.580	1.732	.076 ±.003	1.580 ±.015	.02360	44.00	1.95	40.15
92-1.550	1.734	.092 ±.003	1.550 ±.015	.03429	44.05	2.35	39.35
45-1.650	1.740	.045 ±.003	1.650 ±.013	.00847	44.20	1.15	41.90
250-1.240	1.740	.250 ±.006	1.240 ±.012	.22978	44.20	6.35	31.50
59-1.623	1.741	.059 ±.003	1.623 ±.013	.01445	44.20	1.50	41.20



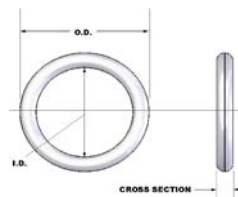
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
114-1.520	1.748	.114 ±.004	1.520 ±.015	.05240	44.40	2.90	38.60
50-1.640VS	1.751	.050 ±.003	1.651 ±.013	.01049	44.50	1.25	41.95
1-030	1.754	.070 ±.003	1.614 ±.013	.02036	44.55	1.80	41.00
210-1.335	1.754	.210 ±.005	1.334 ±.012	.16801	44.55	5.35	33.90
1-129	1.755	.103 ±.003	1.549 ±.015	.04324	44.60	2.60	39.35
1-222	1.762	.139 ±.004	1.484 ±.015	.07737	44.75	3.55	37.70
180-1.402	1.762	.180 ±.005	1.402 ±.012	.12647	44.75	4.55	35.60
78-1.609	1.765	.078 ±.003	1.609 ±.015	.02532	44.85	2.00	40.85
125-1.515	1.765	.125 ±.004	1.515 ±.015	.06323	44.85	3.20	38.50
47-1.672	1.766	.047 ±.003	1.672 ±.013	.00937	44.85	1.20	42.45
29-1.692SS	1.767	.029 ±.003	1.709 ±.013	.00361	44.90	.75	43.40
138-1.491ES	1.769	.138 ±.004	1.493 ±.015	.07664	44.95	3.50	37.90
1-324	1.770	.210 ±.005	1.350 ±.012	.16975	44.95	5.35	34.30
71-1.629	1.771	.071 ±.003	1.629 ±.013	.02114	45.00	1.80	41.40
140-1.491	1.771	.140 ±.004	1.491 ±.015	.07888	45.00	3.55	37.85
144-1.484	1.772	.144 ±.005	1.484 ±.015	.08330	45.00	3.65	37.70
50-1.675	1.775	.050 ±.003	1.675 ±.013	.01064	45.10	1.25	42.55
275-1.225	1.775	.275 ±.006	1.225 ±.012	.27990	45.10	7.00	31.10
70-1.614SS	1.776	.071 ±.003	1.634 ±.013	.02121	45.10	1.80	41.50
73-1.639	1.785	.073 ±.003	1.639 ±.013	.02251	45.35	1.85	41.65
31-1.718	1.786	.031 ±.003	1.724 ±.013	.00416	45.35	.80	43.80
50-1.690	1.790	.050 ±.003	1.690 ±.013	.01073	45.45	1.25	42.95
215-1.364	1.794	.215 ±.005	1.364 ±.012	.18009	45.55	5.45	34.65
168-1.460	1.796	.168 ±.005	1.460 ±.012	.11337	45.60	4.25	37.10
213-1.372	1.798	.213 ±.005	1.372 ±.012	.17743	45.65	5.40	34.85
118-1.543VS	1.801	.119 ±.004	1.563 ±.015	.05877	45.75	3.00	39.70
210-1.373VS	1.801	.211 ±.005	1.379 ±.012	.17466	45.75	5.35	35.05
70-1.662	1.802	.070 ±.003	1.662 ±.013	.02094	45.75	1.80	42.20
39-1.732	1.810	.039 ±.003	1.732 ±.013	.00665	45.95	1.00	44.00
62-1.686	1.810	.062 ±.003	1.686 ±.013	.01658	45.95	1.55	42.80
70-1.670	1.810	.070 ±.003	1.670 ±.013	.02104	45.95	1.80	42.40
1-130	1.818	.103 ±.003	1.612 ±.015	.04489	46.20	2.60	40.95
281-1.250NS	1.820	.282 ±.006	1.256 ±.012	.30178	46.25	7.15	31.90
300-1.220	1.820	.300 ±.006	1.220 ±.012	.33754	46.25	7.60	31.00
139-1.546	1.824	.139 ±.004	1.546 ±.015	.08033	46.35	3.55	39.25
125-1.575	1.825	.125 ±.004	1.575 ±.015	.06554	46.35	3.20	40.00
70-1.687	1.827	.070 ±.003	1.687 ±.013	.02124	46.40	1.80	42.85
70-1.690NS	1.827	.070 ±.003	1.687 ±.013	.02124	46.40	1.80	42.85
176-1.475	1.827	.176 ±.005	1.475 ±.015	.12619	46.40	4.45	37.45
237-1.347SS	1.828	.238 ±.006	1.352 ±.012	.22222	46.45	6.05	34.35
118-1.583SS	1.831	.119 ±.004	1.593 ±.015	.05982	46.50	3.00	40.45
104-1.628	1.836	.104 ±.003	1.628 ±.015	.04622	46.65	2.65	41.35
118-1.595VS	1.840	.119 ±.004	1.602 ±.015	.06013	46.75	3.00	40.70
103-1.612SS	1.847	.105 ±.003	1.637 ±.015	.04739	46.90	2.65	41.60
59-1.732	1.850	.059 ±.003	1.732 ±.013	.01538	47.00	1.50	44.00



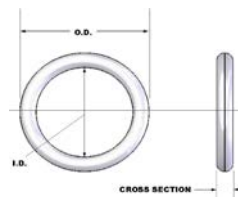
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
32-1.790	1.854	.032 ±.003	1.790 ±.015	.00460	47.10	.80	45.45
62-1.740	1.864	.062 ±.003	1.740 ±.015	.01709	47.35	1.55	44.20
39-1.772SS	1.865	.039 ±.003	1.787 ±.015	.00685	47.35	1.00	45.40
93-1.689NS	1.871	.093 ±.003	1.685 ±.015	.03794	47.50	2.35	42.80
50-1.764ES	1.874	.050 ±.003	1.774 ±.015	.01125	47.60	1.25	45.05
50-1.750SS	1.877	.051 ±.003	1.775 ±.015	.01172	47.70	1.30	45.10
1-031	1.879	.070 ±.003	1.739 ±.015	.02187	47.75	1.80	44.15
1-131	1.880	.103 ±.003	1.674 ±.015	.04652	47.75	2.60	42.50
374-1.102VS	1.881	.380 ±.007	1.121 ±.012	.53480	47.80	9.65	28.45
55-1.775	1.885	.055 ±.003	1.775 ±.015	.01366	47.90	1.40	45.10
1-223	1.887	.139 ±.004	1.609 ±.015	.08333	47.95	3.55	40.85
107-1.675	1.889	.107 ±.004	1.675 ±.015	.05034	48.00	2.70	42.55
157-1.575	1.889	.157 ±.005	1.575 ±.015	.10534	48.00	4.00	40.00
108-1.674	1.890	.108 ±.004	1.674 ±.015	.05129	48.00	2.75	42.50
259-1.375	1.893	.259 ±.006	1.375 ±.012	.27045	48.10	6.60	34.95
1-325	1.895	.210 ±.005	1.475 ±.015	.18335	48.15	5.35	37.45
50-1.796	1.896	.050 ±.003	1.796 ±.015	.01139	48.15	1.25	45.60
62-1.772	1.896	.062 ±.003	1.772 ±.015	.01739	48.15	1.55	45.00
140-1.616	1.896	.140 ±.004	1.616 ±.015	.08492	48.15	3.55	41.05
71-1.756	1.898	.071 ±.003	1.756 ±.015	.02272	48.20	1.80	44.60
46-1.800	1.899	.046 ±.003	1.807 ±.015	.00967	48.25	1.15	45.90
1-400	1.900	.275 ±.006	1.350 ±.012	.30322	48.25	7.00	34.30
176-1.550	1.902	.176 ±.005	1.550 ±.015	.13192	48.30	4.45	39.35
70-1.738VS	1.903	.071 ±.003	1.761 ±.015	.02279	48.35	1.80	44.75
40-1.828	1.908	.040 ±.003	1.828 ±.015	.00737	48.45	1.00	46.45
141-1.629	1.911	.141 ±.004	1.629 ±.015	.08683	48.55	3.60	41.40
70-1.775	1.915	.070 ±.003	1.775 ±.015	.02231	48.65	1.80	45.10
28-1.844SS	1.920	.028 ±.003	1.864 ±.015	.00366	48.75	.70	47.35
103-1.718	1.924	.103 ±.003	1.718 ±.015	.04767	48.85	2.60	43.65
118-1.673VS	1.927	.119 ±.004	1.689 ±.015	.06317	48.95	3.00	42.90
79-1.772	1.930	.079 ±.003	1.772 ±.015	.02850	49.00	2.00	45.00
93-1.750	1.930	.093 ±.003	1.744 ±.015	.03920	49.00	2.35	44.30
264-1.406	1.934	.264 ±.006	1.406 ±.012	.28719	49.10	6.70	35.70
40-1.856	1.936	.040 ±.003	1.856 ±.015	.00749	49.15	1.00	47.15
125-1.688	1.938	.125 ±.004	1.688 ±.015	.06990	49.25	3.20	42.90
250-1.438	1.938	.250 ±.006	1.438 ±.012	.26031	49.25	6.35	36.55
70-1.799	1.939	.070 ±.003	1.799 ±.015	.02260	49.25	1.80	45.70
40-1.860	1.940	.040 ±.003	1.860 ±.015	.00750	49.30	1.00	47.25
1-132	1.943	.103 ±.003	1.737 ±.015	.04817	49.35	2.60	44.10
176-1.600	1.952	.176 ±.005	1.600 ±.015	.13574	49.60	4.45	40.65
1-924	1.956	.118 ±.004	1.720 ±.015	.06315	49.70	3.00	43.70
210-1.537	1.957	.210 ±.005	1.537 ±.015	.19010	49.70	5.35	39.05
180-1.600	1.960	.180 ±.005	1.600 ±.015	.14230	49.80	4.55	40.65
39-1.889NS	1.961	.039 ±.003	1.883 ±.015	.00721	49.80	1.00	47.85
234-1.493	1.961	.234 ±.006	1.493 ±.015	.23333	49.80	5.95	37.90



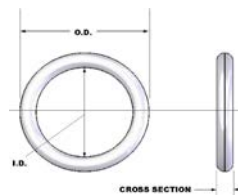
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
104-1.754	1.962	.104 ±.003	1.754 ±.015	.04959	49.85	2.65	44.55
50-1.864	1.964	.050 ±.003	1.864 ±.015	.01181	49.90	1.25	47.35
98-1.772	1.968	.098 ±.003	1.772 ±.015	.04431	50.00	2.50	45.00
70-1.830	1.970	.070 ±.003	1.830 ±.015	.02297	50.05	1.80	46.50
286-1.407	1.979	.286 ±.006	1.407 ±.012	.34169	50.25	7.25	35.75
114-1.756	1.984	.114 ±.004	1.756 ±.015	.05996	50.40	2.90	44.60
47-1.891	1.985	.047 ±.003	1.891 ±.015	.01056	50.40	1.20	48.05
31-1.895SS	1.987	.031 ±.003	1.925 ±.015	.00464	50.45	.80	48.90
231-1.500VS	1.987	.234 ±.006	1.519 ±.015	.23684	50.45	5.95	38.60
75-1.840	1.990	.075 ±.003	1.840 ±.015	.02658	50.55	1.90	46.75
1-032	2.004	.070 ±.003	1.864 ±.015	.02338	50.90	1.80	47.35
1-133	2.005	.103 ±.003	1.799 ±.015	.04979	50.95	2.60	45.70
79-1.850	2.008	.079 ±.003	1.850 ±.015	.02970	51.00	2.00	47.00
299-1.410	2.008	.299 ±.006	1.410 ±.012	.37699	51.00	7.60	35.80
1-224	2.012	.139 ±.004	1.734 ±.015	.08929	51.10	3.55	44.05
104-1.808	2.016	.104 ±.003	1.808 ±.015	.05103	51.20	2.65	45.90
103-1.812	2.018	.103 ±.003	1.812 ±.015	.05013	51.25	2.60	46.00
43-1.934	2.020	.043 ±.003	1.934 ±.015	.00902	51.30	1.10	49.10
1-326	2.020	.210 ±.005	1.600 ±.015	.19695	51.30	5.35	40.65
1-401	2.025	.275 ±.006	1.475 ±.015	.32655	51.45	7.00	37.45
167-1.693	2.027	.167 ±.005	1.693 ±.015	.12799	51.50	4.25	43.00
47-1.934	2.028	.047 ±.003	1.934 ±.015	.01080	51.50	1.20	49.10
140-1.750	2.030	.140 ±.004	1.750 ±.015	.09140	51.55	3.55	44.45
40-1.958	2.038	.040 ±.003	1.958 ±.015	.00789	51.75	1.00	49.75
212-1.616	2.040	.212 ±.005	1.616 ±.015	.20272	51.80	5.40	41.05
70-1.864SS	2.042	.071 ±.003	1.900 ±.015	.02452	51.85	1.80	48.25
225-1.595PL	2.045	.225 ±.006	1.595 ±.015	.22734	51.95	5.70	40.50
39-1.969	2.047	.039 ±.003	1.969 ±.015	.00754	52.00	1.00	50.00
25-2.000	2.050	.025 ±.003	2.000 ±.018	.00312	52.05	.65	50.80
39-1.969SS	2.055	.039 ±.003	1.977 ±.015	.00757	52.20	1.00	50.20
47-1.954	2.055	.047 ±.003	1.961 ±.015	.01094	52.20	1.20	49.80
47-1.954SS	2.055	.047 ±.003	1.961 ±.015	.01094	52.20	1.20	49.80
38-1.984	2.060	.038 ±.003	1.984 ±.015	.00720	52.30	.95	50.40
38-1.980ES	2.061	.038 ±.003	1.985 ±.015	.00725	52.35	.95	50.40
125-1.812	2.062	.125 ±.004	1.812 ±.015	.07468	52.35	3.20	46.00
250-1.562	2.062	.250 ±.006	1.562 ±.015	.27943	52.35	6.35	39.65
70-1.927	2.067	.070 ±.003	1.927 ±.015	.02414	52.50	1.80	48.95
1-134	2.068	.103 ±.003	1.862 ±.015	.05144	52.55	2.60	47.30
139-1.790	2.068	.139 ±.004	1.790 ±.015	.09196	52.55	3.55	45.45
93-1.888	2.074	.093 ±.003	1.888 ±.015	.04228	52.70	2.35	47.95
176-1.725	2.077	.176 ±.005	1.725 ±.015	.14529	52.75	4.45	43.80
237-1.597SS	2.079	.238 ±.006	1.603 ±.015	.25730	52.80	6.05	40.70
80-1.921	2.081	.080 ±.003	1.921 ±.015	.03160	52.85	2.05	48.80
70-1.927VS	2.088	.071 ±.003	1.946 ±.015	.02509	53.05	1.80	49.45
63-1.969	2.095	.063 ±.003	1.969 ±.015	.01990	53.20	1.60	50.00



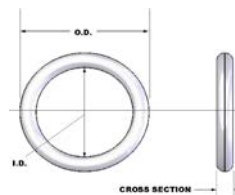
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
93-1.888ES	2.098	.094 ±.003	1.910 ±.015	.04369	53.30	2.40	48.50
176-1.747	2.099	.176 ±.005	1.747 ±.015	.14698	53.30	4.45	44.35
103-1.889SS	2.117	.104 ±.003	1.909 ±.015	.05372	53.75	2.65	48.50
60-1.993ES	2.118	.060 ±.003	1.998 ±.018	.01828	53.80	1.50	50.75
119-1.888	2.126	.119 ±.004	1.888 ±.018	.07013	54.00	3.00	47.95
1-033	2.129	.070 ±.003	1.989 ±.018	.02489	54.10	1.80	50.50
1-135	2.131	.103 ±.003	1.925 ±.017	.05309	54.15	2.60	48.90
1-225	2.137	.139 ±.004	1.859 ±.018	.09525	54.30	3.55	47.20
60-1.993SS	2.143	.061 ±.003	2.021 ±.018	.01912	54.45	1.55	51.35
1-327	2.145	.210 ±.005	1.725 ±.015	.21055	54.50	5.35	43.80
1-402	2.150	.275 ±.006	1.600 ±.015	.34987	54.60	7.00	40.65
104-1.943	2.151	.104 ±.003	1.943 ±.017	.05463	54.65	2.65	49.35
104-1.943	2.151	.104 ±.003	1.943 ±.017	.05463	54.65	2.65	49.35
71-2.014	2.156	.071 ±.003	2.014 ±.018	.02593	54.75	1.80	51.15
140-1.878	2.158	.140 ±.004	1.878 ±.018	.09759	54.80	3.55	47.70
80-2.000	2.160	.080 ±.003	2.000 ±.017	.03285	54.85	2.05	50.80
250-1.660	2.160	.250 ±.006	1.660 ±.015	.29455	54.85	6.35	42.15
36-2.050SS	2.163	.037 ±.003	2.089 ±.018	.00718	54.95	.95	53.05
40-2.044SS	2.169	.041 ±.003	2.087 ±.018	.00883	55.10	1.05	53.00
50-2.070	2.170	.050 ±.003	2.070 ±.018	.01308	55.10	1.25	52.60
70-2.030	2.170	.070 ±.003	2.030 ±.018	.02539	55.10	1.80	51.55
103-1.968	2.174	.103 ±.003	1.968 ±.017	.05421	55.20	2.60	50.00
63-2.050	2.176	.063 ±.003	2.050 ±.018	.02069	55.25	1.60	52.05
70-2.050	2.190	.070 ±.003	2.050 ±.018	.02563	55.65	1.80	52.05
210-1.772	2.192	.210 ±.005	1.772 ±.015	.21567	55.70	5.35	45.00
1-136	2.193	.103 ±.003	1.987 ±.017	.05471	55.70	2.60	50.45
225-1.745	2.195	.225 ±.006	1.745 ±.015	.24608	55.75	5.70	44.30
70-2.057ES	2.200	.070 ±.003	2.060 ±.018	.02575	55.90	1.80	52.30
125-1.950	2.200	.125 ±.004	1.950 ±.018	.08000	55.90	3.20	49.55
176-1.850	2.202	.176 ±.005	1.850 ±.015	.15485	55.95	4.45	47.00
104-1.997	2.205	.104 ±.003	1.997 ±.017	.05607	56.00	2.65	50.70
275-1.655	2.205	.275 ±.006	1.655 ±.015	.36013	56.00	7.00	42.05
210-1.787	2.207	.210 ±.005	1.787 ±.015	.21730	56.05	5.35	45.40
75-2.066	2.216	.075 ±.003	2.066 ±.017	.02972	56.30	1.90	52.50
125-1.968	2.217	.125 ±.004	1.967 ±.018	.08065	56.30	3.20	49.95
47-2.115SS	2.218	.047 ±.003	2.124 ±.018	.01183	56.35	1.20	53.95
312-1.594	2.218	.312 ±.006	1.594 ±.015	.45780	56.35	7.90	40.50
118-1.969SS	2.224	.119 ±.004	1.986 ±.018	.07355	56.50	3.00	50.45
40-2.152	2.232	.040 ±.003	2.152 ±.018	.00865	56.70	1.00	54.65
101-2.015SS	2.234	.102 ±.003	2.030 ±.017	.05473	56.75	2.60	51.55
47-2.141	2.235	.047 ±.003	2.141 ±.018	.01193	56.75	1.20	54.40
118-2.008NS	2.236	.118 ±.004	2.000 ±.018	.07277	56.80	3.00	50.80
105-2.028	2.238	.105 ±.003	2.028 ±.017	.05802	56.85	2.65	51.50
47-2.141ES	2.240	.047 ±.003	2.146 ±.008	.01195	56.90	1.20	54.50
70-2.093SS	2.242	.070 ±.003	2.102 ±.018	.02626	56.95	1.80	53.40



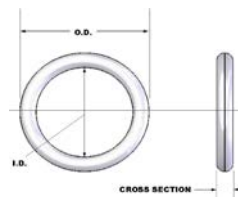
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
59-2.126	2.244	.059 ±.003	2.126 ±.018	.01877	57.00	1.50	54.00
250-1.750	2.250	.250 ±.006	1.750 ±.015	.30843	57.15	6.35	44.45
1-034	2.254	.070 ±.003	2.114 ±.018	.02641	57.25	1.80	53.70
93-2.065VS	2.256	.093 ±.003	2.070 ±.017	.04616	57.30	2.35	52.60
1-137	2.256	.103 ±.003	2.050 ±.017	.05636	57.30	2.60	52.05
40-2.177	2.257	.040 ±.003	2.177 ±.018	.00875	57.35	1.00	55.30
1-226	2.262	.139 ±.004	1.984 ±.018	.10121	57.45	3.55	50.40
70-2.124	2.264	.070 ±.003	2.124 ±.018	.02653	57.50	1.80	53.95
147-1.976	2.270	.147 ±.005	1.976 ±.018	.11319	57.65	3.75	50.20
1-328	2.270	.210 ±.005	1.850 ±.015	.22415	57.65	5.35	47.00
1-403	2.275	.275 ±.006	1.725 ±.015	.37319	57.80	7.00	43.80
139-1.954SS	2.280	.142 ±.004	1.996 ±.018	.10637	57.90	3.60	50.70
78-2.125	2.281	.078 ±.003	2.125 ±.017	.03307	57.95	2.00	54.00
157-1.968	2.282	.157 ±.005	1.968 ±.015	.12924	57.95	4.00	50.00
42-2.199	2.283	.042 ±.003	2.199 ±.018	.00975	58.00	1.05	55.85
140-2.003	2.283	.140 ±.004	2.003 ±.018	.10364	58.00	3.55	50.90
70-2.156	2.296	.070 ±.003	2.156 ±.018	.02691	58.30	1.80	54.75
79-2.135ES	2.298	.079 ±.003	2.140 ±.017	.03417	58.35	2.00	54.35
430-1.438	2.298	.430 ±.009	1.438 ±.012	.85222	58.35	10.90	36.55
275-1.745VS	2.303	.276 ±.006	1.751 ±.015	.38099	58.50	7.00	44.50
70-2.146VS	2.309	.071 ±.003	2.167 ±.018	.02784	58.65	1.80	55.05
62-2.187	2.311	.062 ±.003	2.187 ±.018	.02133	58.70	1.55	55.55
156-2.000	2.312	.156 ±.005	2.000 ±.018	.12946	58.70	3.95	50.80
285-1.735VS	2.313	.286 ±.006	1.741 ±.015	.40910	58.75	7.25	44.20
70-2.175	2.315	.070 ±.003	2.175 ±.018	.02714	58.80	1.80	55.25
1-138	2.318	.103 ±.003	2.112 ±.017	.05798	58.90	2.60	53.65
237-1.848	2.322	.237 ±.006	1.848 ±.015	.28896	59.00	6.00	46.95
139-2.046	2.324	.139 ±.004	2.046 ±.018	.10416	59.05	3.55	51.95
176-1.944SS	2.324	.178 ±.005	1.968 ±.015	.16777	59.05	4.50	50.00
1-928	2.326	.118 ±.004	2.090 ±.018	.07586	59.10	3.00	53.10
176-1.975	2.327	.176 ±.005	1.975 ±.018	.16440	59.10	4.45	50.15
40-2.249	2.329	.040 ±.003	2.249 ±.018	.00904	59.15	1.00	57.10
104-2.122	2.330	.104 ±.003	2.122 ±.017	.05941	59.20	2.65	53.90
210-1.912	2.332	.210 ±.005	1.912 ±.015	.23090	59.25	5.35	48.55
50-2.220VS	2.335	.050 ±.003	2.235 ±.015	.01410	59.30	1.25	56.75
108-2.100VS	2.335	.109 ±.004	2.117 ±.020	.06526	59.30	2.75	53.75
70-2.175VS	2.337	.071 ±.003	2.195 ±.018	.02818	59.35	1.80	55.75
215-1.890VS	2.339	.217 ±.006	1.905 ±.015	.24655	59.40	5.50	48.40
70-2.180VS	2.343	.071 ±.003	2.201 ±.018	.02826	59.50	1.80	55.90
235-1.845SS	2.345	.238 ±.006	1.869 ±.015	.29448	59.55	6.05	47.45
80-2.200NS	2.350	.079 ±.003	2.192 ±.017	.03497	59.70	2.00	55.70
48-2.236SS	2.356	.048 ±.003	2.260 ±.018	.01312	59.85	1.20	57.40
250-1.860	2.360	.250 ±.006	1.860 ±.015	.32539	59.95	6.35	47.25
32-2.284SS	2.370	.032 ±.003	2.306 ±.018	.00591	60.20	.80	58.55
32-2.248SS	2.370	.032 ±.003	2.306 ±.018	.00591	60.20	.80	58.55



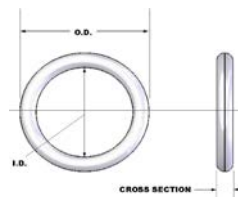
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
210-1.950	2.370	.210 ±.005	1.950 ±.015	.23503	60.20	5.35	49.55
437-1.500	2.374	.437 ±.009	1.500 ±.015	.91271	60.30	11.10	38.10
375-1.625	2.375	.375 ±.007	1.625 ±.015	.69396	60.35	9.55	41.30
1-035	2.379	.070 ±.003	2.239 ±.018	.02792	60.45	1.80	56.85
1-139	2.381	.103 ±.003	2.175 ±.017	.05963	60.50	2.60	55.25
1-227	2.387	.139 ±.004	2.109 ±.018	.10717	60.65	3.55	53.55
70-2.249	2.389	.070 ±.003	2.249 ±.018	.02804	60.70	1.80	57.10
70-2.250	2.390	.070 ±.003	2.250 ±.018	.02805	60.70	1.80	57.15
125-2.140	2.390	.125 ±.004	2.140 ±.018	.08732	60.70	3.20	54.35
83-2.226	2.392	.083 ±.003	2.226 ±.017	.03925	60.75	2.10	56.55
1-329	2.395	.210 ±.005	1.975 ±.018	.23776	60.85	5.35	50.15
210-1.975PL	2.395	.210 ±.005	1.975 ±.018	.23776	60.85	5.35	50.15
1-404	2.400	.275 ±.006	1.850 ±.015	.39652	60.95	7.00	47.00
104-2.196	2.404	.104 ±.003	2.196 ±.017	.06138	61.05	2.65	55.80
60-2.287	2.407	.060 ±.003	2.287 ±.018	.02085	61.15	1.50	58.10
140-2.131	2.411	.140 ±.004	2.131 ±.018	.10983	61.25	3.55	54.15
211-1.989	2.411	.211 ±.005	1.989 ±.018	.24167	61.25	5.35	50.50
224-1.941VS	2.411	.226 ±.006	1.959 ±.015	.27536	61.25	5.75	49.75
40-2.342	2.422	.040 ±.003	2.342 ±.018	.00940	61.50	1.00	59.50
357-1.719	2.433	.357 ±.007	1.719 ±.015	.65284	61.80	9.05	43.65
17-2.400	2.434	.017 ±.003	2.400 ±.018	.00172	61.80	.45	60.95
176-2.085	2.437	.176 ±.005	2.085 ±.018	.17281	61.90	4.45	52.95
118-2.175VS	2.439	.119 ±.004	2.201 ±.018	.08106	61.95	3.00	55.90
1-140	2.443	.103 ±.003	2.237 ±.017	.06125	62.05	2.60	56.80
47-2.350	2.444	.047 ±.003	2.350 ±.018	.01306	62.10	1.20	59.70
70-2.307	2.447	.070 ±.003	2.307 ±.018	.02874	62.15	1.80	58.60
176-2.100	2.452	.176 ±.005	2.100 ±.018	.17396	62.30	4.45	53.35
158-2.126ES	2.455	.159 ±.005	2.137 ±.018	.14322	62.35	4.05	54.30
104-2.248	2.456	.104 ±.003	2.248 ±.017	.06277	62.40	2.65	57.10
114-2.228	2.456	.114 ±.004	2.228 ±.020	.07510	62.40	2.90	56.60
93-2.277	2.463	.093 ±.003	2.277 ±.017	.05058	62.55	2.35	57.85
79-2.283ES	2.464	.080 ±.003	2.304 ±.020	.03765	62.60	2.05	58.50
98-2.283	2.479	.098 ±.003	2.283 ±.017	.05642	62.95	2.50	58.00
40-2.400	2.480	.040 ±.003	2.400 ±.018	.00963	63.00	1.00	60.95
187-2.125	2.499	.187 ±.005	2.125 ±.018	.19949	63.45	4.75	54.00
53-2.394	2.500	.053 ±.003	2.394 ±.018	.01696	63.50	1.35	60.80
125-2.250	2.500	.125 ±.004	2.250 ±.020	.09156	63.50	3.20	57.15
224-2.052	2.500	.224 ±.006	2.052 ±.018	.28178	63.50	5.70	52.10
500-1.500	2.500	.500 ±.010	1.500 ±.015	1.23370	63.50	12.70	38.10
1-036	2.504	.070 ±.003	2.364 ±.018	.02943	63.60	1.80	60.05
1-141	2.506	.103 ±.003	2.300 ±.020	.06290	63.65	2.60	58.40
1-228	2.512	.139 ±.004	2.234 ±.020	.11313	63.80	3.55	56.75
104-2.311	2.519	.104 ±.003	2.311 ±.020	.06445	64.00	2.65	58.70
79-2.362	2.520	.079 ±.003	2.362 ±.020	.03759	64.00	2.00	60.00
1-330	2.520	.210 ±.005	2.100 ±.018	.25136	64.00	5.35	53.35



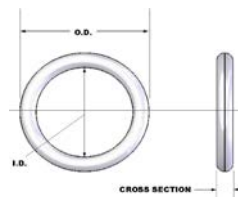
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
176-2.145VS	2.525	.178 ±.005	2.169 ±.018	.18348	64.15	4.50	55.10
1-405	2.525	.275 ±.006	1.975 ±.018	.41984	64.15	7.00	50.15
140-2.256	2.536	.140 ±.004	2.256 ±.020	.11587	64.40	3.55	57.30
30-2.472SS	2.542	.030 ±.003	2.482 ±.018	.00558	64.55	.75	63.05
103-2.340	2.546	.103 ±.003	2.340 ±.020	.06395	64.65	2.60	59.45
185-2.187	2.557	.185 ±.005	2.187 ±.018	.20031	64.95	4.70	55.55
282-1.986VS	2.561	.283 ±.006	1.995 ±.018	.45016	65.05	7.20	50.65
70-2.425	2.565	.070 ±.003	2.425 ±.018	.03017	65.15	1.80	61.60
243-2.060VS	2.567	.245 ±.006	2.077 ±.018	.34390	65.20	6.20	52.75
1-142	2.568	.103 ±.003	2.362 ±.020	.06453	65.25	2.60	60.00
1-932	2.573	.118 ±.004	2.337 ±.020	.08434	65.35	3.00	59.35
176-2.225	2.577	.176 ±.005	2.225 ±.018	.18351	65.45	4.45	56.50
118-2.342	2.578	.118 ±.004	2.342 ±.020	.08452	65.50	3.00	59.50
70-2.440	2.580	.070 ±.003	2.440 ±.018	.03035	65.55	1.80	62.00
104-2.374	2.582	.104 ±.003	2.374 ±.020	.06613	65.60	2.65	60.30
210-2.162	2.582	.210 ±.005	2.162 ±.018	.25810	65.60	5.35	54.90
32-2.500SS	2.588	.032 ±.003	2.524 ±.018	.00646	65.75	.80	64.10
70-2.410SS	2.589	.071 ±.003	2.447 ±.018	.03132	65.75	1.80	62.15
285-2.027	2.597	.285 ±.006	2.027 ±.018	.46336	65.95	7.25	51.50
103-2.394	2.600	.103 ±.003	2.394 ±.020	.06536	66.05	2.60	60.80
105-2.396	2.606	.105 ±.003	2.396 ±.020	.06803	66.20	2.65	60.85
47-2.495SS	2.620	.048 ±.003	2.524 ±.018	.01462	66.55	1.20	64.10
1-037	2.629	.070 ±.003	2.489 ±.018	.03094	66.80	1.80	63.20
40-2.550	2.630	.040 ±.003	2.550 ±.018	.01022	66.80	1.00	64.75
1-143	2.631	.103 ±.003	2.425 ±.020	.06617	66.85	2.60	61.60
50-2.520VS	2.634	.050 ±.003	2.534 ±.018	.01594	66.90	1.25	64.35
1-229	2.637	.139 ±.004	2.359 ±.020	.11909	67.00	3.55	59.90
1-331	2.645	.210 ±.005	2.225 ±.018	.26496	67.20	5.35	56.50
187-2.272	2.646	.187 ±.005	2.272 ±.018	.21217	67.20	4.75	57.70
1-406	2.650	.275 ±.006	2.100 ±.018	.44317	67.30	7.00	53.35
103-2.450	2.656	.103 ±.003	2.450 ±.020	.06683	67.45	2.60	62.25
375-1.906	2.656	.375 ±.007	1.906 ±.018	.79146	67.45	9.55	48.40
104-2.449	2.657	.104 ±.003	2.449 ±.020	.06813	67.50	2.65	62.20
140-2.381	2.661	.140 ±.004	2.381 ±.020	.12192	67.60	3.55	60.50
168-2.328	2.664	.168 ±.005	2.328 ±.018	.17382	67.65	4.25	59.15
79-2.480SS	2.668	.080 ±.003	2.508 ±.020	.04087	67.75	2.05	63.70
215-2.231ES	2.673	.216 ±.006	2.241 ±.018	.28285	67.90	5.50	56.90
1-144	2.693	.103 ±.003	2.487 ±.020	.06780	68.40	2.60	63.15
118-2.441VS	2.693	.119 ±.004	2.455 ±.020	.08994	68.40	3.00	62.35
335-2.027	2.697	.335 ±.007	2.027 ±.018	.65405	68.50	8.50	51.50
70-2.560	2.700	.070 ±.003	2.560 ±.018	.03180	68.60	1.80	65.00
150-2.400	2.700	.150 ±.005	2.400 ±.018	.14157	68.60	3.80	60.95
250-2.200	2.700	.250 ±.006	2.200 ±.018	.37782	68.60	6.35	55.90
176-2.350	2.702	.176 ±.005	2.350 ±.018	.19306	68.65	4.45	59.70
108-2.487	2.703	.108 ±.004	2.487 ±.020	.07468	68.65	2.75	63.15



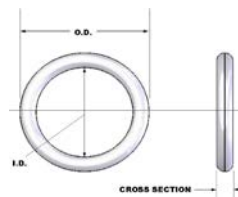
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
139-2.425	2.703	.139 ±.004	2.425 ±.020	.12223	68.65	3.55	61.60
105-2.500	2.710	.105 ±.003	2.500 ±.020	.07086	68.85	2.65	63.50
104-2.511	2.719	.104 ±.003	2.511 ±.020	.06979	69.05	2.65	63.80
245-2.235	2.725	.245 ±.006	2.235 ±.018	.36730	69.20	6.20	56.75
47-2.641	2.735	.047 ±.003	2.641 ±.020	.01465	69.45	1.20	67.10
80-2.585	2.745	.080 ±.003	2.585 ±.020	.04208	69.70	2.05	65.65
187-2.375	2.749	.187 ±.005	2.375 ±.018	.22106	69.80	4.75	60.35
1-038	2.754	.070 ±.003	2.614 ±.020	.03245	69.95	1.80	66.40
1-145	2.756	.103 ±.003	2.550 ±.020	.06945	70.00	2.60	64.75
48-2.666	2.762	.048 ±.003	2.666 ±.020	.01543	70.15	1.20	67.70
1-230	2.762	.139 ±.004	2.484 ±.020	.12505	70.15	3.55	63.10
70-2.627	2.767	.070 ±.003	2.627 ±.020	.03261	70.30	1.80	66.75
1-332	2.770	.210 ±.005	2.350 ±.018	.27856	70.35	5.35	59.70
104-2.563	2.771	.104 ±.003	2.563 ±.020	.07118	70.40	2.65	65.10
1-407	2.775	.275 ±.006	2.225 ±.018	.46649	70.50	7.00	56.50
104-2.575	2.783	.104 ±.003	2.575 ±.020	.07150	70.70	2.65	65.40
118-2.520VS	2.791	.120 ±.004	2.551 ±.020	.09490	70.90	3.05	64.80
217-2.362	2.796	.217 ±.006	2.362 ±.018	.29965	71.00	5.50	60.00
275-2.250	2.800	.275 ±.006	2.250 ±.018	.47116	71.10	7.00	57.15
215-2.373	2.803	.215 ±.005	2.373 ±.018	.29518	71.20	5.45	60.25
71-2.638VS	2.810	.072 ±.003	2.666 ±.020	.03502	71.35	1.85	67.70
224-2.362	2.810	.224 ±.006	2.362 ±.018	.32016	71.35	5.70	60.00
70-2.677	2.817	.070 ±.003	2.677 ±.020	.03321	71.55	1.80	68.00
179-2.459	2.817	.179 ±.005	2.459 ±.018	.20856	71.55	4.55	62.45
1-146	2.818	.103 ±.003	2.612 ±.020	.07107	71.60	2.60	66.35
50-2.719	2.819	.050 ±.003	2.719 ±.020	.01708	71.60	1.25	69.05
176-2.475	2.827	.176 ±.005	2.475 ±.020	.20262	71.80	4.45	62.85
118-2.584ES	2.834	.119 ±.004	2.596 ±.020	.09486	72.00	3.00	65.95
450-1.937	2.837	.450 ±.010	1.937 ±.018	1.19266	72.05	11.45	49.20
104-2.637	2.845	.104 ±.003	2.637 ±.020	.07315	72.25	2.65	67.00
70-2.690VS	2.857	.071 ±.003	2.715 ±.020	.03465	72.55	1.80	68.95
84-2.661SS	2.872	.085 ±.003	2.702 ±.022	.04968	72.95	2.15	68.65
500-1.875	2.875	.500 ±.010	1.875 ±.015	1.46502	73.05	12.70	47.65
1-039	2.879	.070 ±.003	2.739 ±.020	.03396	73.15	1.80	69.55
139-2.601	2.879	.139 ±.004	2.601 ±.020	.13062	73.15	3.55	66.05
1-147	2.881	.103 ±.003	2.675 ±.022	.07272	73.20	2.60	67.95
1-231	2.887	.139 ±.004	2.609 ±.020	.13100	73.35	3.55	66.25
63-2.766	2.892	.063 ±.003	2.766 ±.020	.02770	73.45	1.60	70.25
70-2.753	2.893	.070 ±.003	2.753 ±.020	.03413	73.50	1.80	69.95
70-2.750ES	2.894	.070 ±.003	2.754 ±.020	.03414	73.50	1.80	69.95
1-333	2.895	.210 ±.005	2.475 ±.020	.29216	73.55	5.35	62.85
104-2.688	2.896	.104 ±.003	2.688 ±.022	.07451	73.55	2.65	68.30
1-408	2.900	.275 ±.006	2.350 ±.018	.48982	73.65	7.00	59.70
115-2.683	2.913	.115 ±.004	2.683 ±.020	.09130	74.00	2.90	68.15
144-2.629	2.917	.144 ±.005	2.629 ±.020	.14188	74.10	3.65	66.80



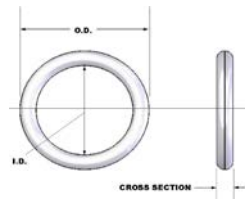
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
312-2.312	2.926	.311 ±.006	2.304 ±.020	.62407	74.30	7.90	58.50
176-2.534SS	2.931	.179 ±.005	2.573 ±.020	.21757	74.45	4.55	65.35
70-2.739SS	2.934	.071 ±.003	2.792 ±.020	.03561	74.50	1.80	70.90
238-2.458	2.934	.238 ±.006	2.458 ±.018	.37680	74.50	6.05	62.45
275-2.385	2.935	.275 ±.006	2.385 ±.018	.49635	74.55	7.00	60.60
103-2.675SS	2.936	.105 ±.003	2.726 ±.022	.07701	74.55	2.65	69.25
187-2.562	2.936	.187 ±.005	2.562 ±.020	.23719	74.55	4.75	65.05
70-2.800	2.940	.070 ±.003	2.800 ±.020	.03470	74.70	1.80	71.10
1-148	2.943	.103 ±.003	2.737 ±.022	.07434	74.75	2.60	69.50
176-2.596	2.948	.176 ±.005	2.596 ±.020	.21186	74.90	4.45	65.95
139-2.671	2.949	.139 ±.004	2.671 ±.020	.13396	74.90	3.55	67.85
281-2.391	2.953	.281 ±.006	2.391 ±.018	.52058	75.00	7.15	60.75
40-2.875	2.955	.040 ±.003	2.875 ±.020	.01151	75.05	1.00	73.05
59-2.835ES	2.957	.059 ±.003	2.839 ±.020	.02489	75.10	1.50	72.10
313-2.350	2.976	.313 ±.006	2.350 ±.020	.64372	75.60	7.95	59.70
176-2.600SS	2.978	.178 ±.005	2.622 ±.020	.21890	75.65	4.50	66.60
260-2.476	2.993	.260 ±.006	2.473 ±.020	.45585	76.00	6.60	62.80
1-040	3.004	.070 ±.003	2.864 ±.020	.03547	76.30	1.80	72.75
209-2.587	3.005	.209 ±.005	2.587 ±.020	.30135	76.35	5.30	65.70
1-149	3.006	.103 ±.003	2.800 ±.022	.07599	76.35	2.60	71.10
209-2.592	3.010	.209 ±.005	2.592 ±.020	.30189	76.45	5.30	65.85
90-2.832	3.012	.090 ±.003	2.832 ±.022	.05840	76.50	2.30	71.95
1-232	3.012	.139 ±.004	2.734 ±.024	.13696	76.50	3.55	69.45
70-2.878	3.018	.070 ±.003	2.878 ±.020	.03564	76.65	1.80	73.10
1-334	3.020	.210 ±.005	2.600 ±.020	.30576	76.70	5.35	66.05
104-2.814	3.022	.104 ±.003	2.814 ±.022	.07787	76.75	2.65	71.50
1-409	3.025	.275 ±.006	2.475 ±.020	.51314	76.85	7.00	62.85
125-2.750SS	3.028	.126 ±.004	2.776 ±.024	.11368	76.90	3.20	70.50
125-2.756SS	3.034	.126 ±.004	2.782 ±.024	.11391	77.05	3.20	70.65
103-2.830	3.036	.103 ±.003	2.830 ±.022	.07678	77.10	2.60	71.90
140-2.761	3.041	.140 ±.004	2.761 ±.024	.14030	77.25	3.55	70.15
85-2.875	3.045	.085 ±.003	2.875 ±.022	.05277	77.35	2.15	73.05
319-2.411	3.049	.319 ±.007	2.411 ±.020	.68546	77.45	8.10	61.25
70-2.921	3.061	.070 ±.003	2.921 ±.020	.03616	77.75	1.80	74.20
375-2.335NS	3.063	.372 ±.007	2.319 ±.020	.91884	77.80	9.45	58.90
282-2.490VS	3.065	.283 ±.006	2.499 ±.020	.54976	77.85	7.20	63.45
1-150	3.068	.103 ±.003	2.862 ±.022	.07761	77.95	2.60	72.70
78-2.919	3.075	.078 ±.003	2.919 ±.022	.04499	78.10	2.00	74.15
176-2.725	3.077	.176 ±.005	2.725 ±.020	.22172	78.15	4.45	69.20
40-3.000	3.080	.040 ±.003	3.000 ±.024	.01200	78.25	1.00	76.20
104-2.874	3.084	.104 ±.003	2.876 ±.022	.07953	78.35	2.65	73.05
70-2.950ES	3.094	.070 ±.003	2.954 ±.020	.03656	78.60	1.80	75.05
79-2.943ES	3.108	.079 ±.003	2.950 ±.022	.04664	78.95	2.00	74.95
375-2.375	3.125	.375 ±.007	2.375 ±.020	.95419	79.40	9.55	60.35
176-2.725VS	3.127	.179 ±.005	2.769 ±.020	.23306	79.45	4.55	70.35



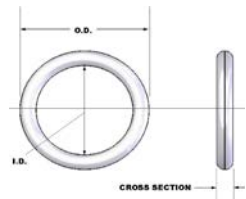
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Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
1-041	3.129	.070 ±.003	2.989 ±.024	.03698	79.50	1.80	75.90
105-2.921	3.131	.105 ±.003	2.921 ±.022	.08232	79.55	2.65	74.20
1-233	3.137	.139 ±.004	2.859 ±.024	.14292	79.70	3.55	72.60
103-2.935ES	3.138	.103 ±.003	2.932 ±.022	.07945	79.70	2.60	74.45
1-335	3.145	.210 ±.005	2.725 ±.020	.31936	79.90	5.35	69.20
118-2.913	3.149	.118 ±.004	2.913 ±.024	.10413	80.00	3.00	74.00
1-410	3.150	.275 ±.006	2.600 ±.020	.53647	80.00	7.00	66.05
148-2.859	3.155	.148 ±.005	2.859 ±.020	.16252	80.15	3.75	72.60
141-2.874	3.156	.141 ±.004	2.874 ±.024	.14790	80.15	3.60	73.00
140-2.887	3.167	.140 ±.004	2.887 ±.024	.14639	80.45	3.55	73.35
157-2.835VS	3.175	.158 ±.005	2.859 ±.020	.18584	80.65	4.00	72.60
394-2.362SS	3.179	.397 ±.009	2.385 ±.020	1.08188	80.75	10.10	60.60
312-2.564	3.188	.312 ±.008	2.564 ±.020	.69078	81.00	7.90	65.15
750-1.690	3.190	.750 ±.013	1.690 ±.015	3.38651	81.05	19.05	42.95
1-151	3.193	.103 ±.003	2.987 ±.024	.08089	81.10	2.60	75.85
176-2.850	3.202	.176 ±.005	2.850 ±.020	.23128	81.35	4.45	72.40
30-3.145	3.205	.030 ±.003	3.145 ±.024	.00705	81.40	.75	79.90
103-3.000	3.206	.103 ±.003	3.000 ±.024	.08123	81.45	2.60	76.20
47-3.053SS	3.208	.048 ±.003	3.112 ±.024	.01796	81.50	1.20	79.05
44-3.038SS	3.212	.045 ±.003	3.122 ±.024	.01582	81.60	1.15	79.30
104-3.016	3.224	.104 ±.003	3.016 ±.024	.08326	81.90	2.65	76.60
70-3.085	3.225	.070 ±.003	3.085 ±.024	.03814	81.90	1.80	78.35
250-2.725	3.225	.250 ±.006	2.725 ±.020	.45878	81.90	6.35	69.20
147-2.935	3.229	.147 ±.005	2.935 ±.020	.16433	82.00	3.75	74.55
250-2.750	3.250	.250 ±.006	2.750 ±.020	.46264	82.55	6.35	69.85
375-2.500	3.250	.375 ±.007	2.500 ±.020	.99756	82.55	9.55	63.50
83-3.083	3.253	.083 ±.003	3.087 ±.024	.05388	82.65	2.10	78.40
1-234	3.262	.139 ±.004	2.984 ±.024	.14888	82.85	3.55	75.80
152-2.965	3.269	.152 ±.005	2.965 ±.020	.17769	83.05	3.85	75.30
1-336	3.270	.210 ±.005	2.850 ±.020	.33297	83.05	5.35	72.40
1-411	3.275	.275 ±.006	2.725 ±.020	.55979	83.20	7.00	69.20
60-3.156	3.276	.060 ±.003	3.156 ±.024	.02857	83.20	1.50	80.15
140-2.997	3.277	.140 ±.004	2.997 ±.024	.15171	83.25	3.55	76.10
177-2.925	3.279	.177 ±.005	2.925 ±.020	.23979	83.30	4.50	74.30
70-3.114VS	3.288	.071 ±.003	3.146 ±.024	.04001	83.50	1.80	79.90
60-3.115SS	3.297	.061 ±.003	3.175 ±.024	.02971	83.75	1.55	80.65
140-3.018	3.298	.140 ±.004	3.018 ±.024	.15272	83.75	3.55	76.65
268-2.763	3.303	.268 ±.006	2.767 ±.020	.53786	83.90	6.80	70.30
40-3.200SS	3.310	.040 ±.003	3.230 ±.024	.01291	84.05	1.00	82.05
103-3.109	3.315	.103 ±.003	3.109 ±.024	.08408	84.20	2.60	78.95
197-2.921	3.315	.197 ±.005	2.921 ±.020	.29857	84.20	5.00	74.20
130-3.062	3.322	.130 ±.004	3.062 ±.024	.13310	84.40	3.30	77.75
60-3.167SS	3.324	.061 ±.003	3.202 ±.015	.02996	84.45	1.55	81.35
176-2.975	3.327	.176 ±.005	2.975 ±.024	.24083	84.50	4.45	75.55
63-3.125VS	3.335	.066 ±.003	3.203 ±.024	.03514	84.70	1.70	81.35



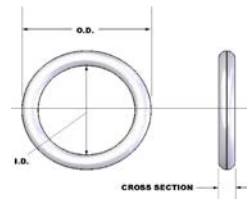
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
103-3.147	3.353	.103 ±.003	3.147 ±.024	.08507	85.15	2.60	79.95
375-2.608	3.358	.375 ±.007	2.608 ±.020	1.03504	85.30	9.55	66.25
118-3.130	3.366	.118 ±.004	3.130 ±.024	.11159	85.50	3.00	79.50
65-3.239	3.369	.065 ±.003	3.239 ±.024	.03444	85.55	1.65	82.25
375-2.625	3.375	.375 ±.007	2.625 ±.020	1.04093	85.75	9.55	66.70
1-042	3.379	.070 ±.003	3.239 ±.024	.04001	85.85	1.80	82.25
1-235	3.387	.139 ±.004	3.109 ±.024	.15484	86.05	3.55	78.95
1-337	3.395	.210 ±.005	2.975 ±.024	.34657	86.25	5.35	75.55
224-2.925	3.397	.226 ±.006	2.945 ±.020	.39963	86.30	5.75	74.80
1-412	3.400	.275 ±.006	2.850 ±.020	.58312	86.35	7.00	72.40
140-3.123	3.403	.140 ±.004	3.123 ±.024	.15780	86.45	3.55	79.30
158-3.071ES	3.404	.159 ±.005	3.086 ±.024	.20242	86.45	4.05	78.40
500-2.375SS	3.407	.505 ±.010	2.397 ±.020	1.82608	86.55	12.85	60.90
98-3.189VS	3.409	.099 ±.003	3.211 ±.024	.08005	86.60	2.50	81.55
71-3.269	3.411	.071 ±.003	3.269 ±.024	.04154	86.65	1.80	83.05
330-2.755	3.415	.330 ±.007	2.755 ±.024	.82894	86.75	8.40	70.00
79-3.218VS	3.417	.080 ±.003	3.257 ±.024	.05270	86.80	2.05	82.75
312-2.812	3.425	.311 ±.006	2.803 ±.024	.74315	87.00	7.90	71.20
103-3.185SS	3.430	.104 ±.003	3.222 ±.024	.08876	87.10	2.65	81.85
141-3.150	3.432	.141 ±.004	3.150 ±.024	.16144	87.15	3.60	80.00
1-152	3.443	.103 ±.003	3.237 ±.024	.08743	87.45	2.60	82.20
220-2.975VS	3.447	.222 ±.006	3.003 ±.024	.39217	87.55	5.65	76.30
176-3.100	3.452	.176 ±.005	3.100 ±.024	.25039	87.70	4.45	78.75
93-3.237ES	3.454	.094 ±.003	3.266 ±.024	.07325	87.75	2.40	82.95
104-3.253	3.461	.104 ±.003	3.253 ±.024	.08959	87.90	2.65	82.65
176-3.115	3.467	.176 ±.005	3.115 ±.024	.25153	88.05	4.45	79.10
87-3.307	3.481	.087 ±.003	3.307 ±.024	.06339	88.40	2.20	84.00
40-3.370VS	3.482	.040 ±.003	3.402 ±.024	.01359	88.45	1.00	86.40
103-3.290	3.496	.103 ±.003	3.290 ±.024	.08882	88.80	2.60	83.55
625-2.250	3.500	.625 ±.012	2.250 ±.020	2.77101	88.90	15.90	57.15
70-3.376NS	3.509	.070 ±.003	3.369 ±.024	.04158	89.15	1.80	85.55
1-236	3.512	.139 ±.004	3.234 ±.024	.16080	89.20	3.55	82.15
1-338	3.520	.210 ±.005	3.100 ±.024	.36017	89.40	5.35	78.75
1-413	3.525	.275 ±.006	2.975 ±.024	.60644	89.55	7.00	75.55
140-3.248	3.528	.140 ±.004	3.248 ±.024	.16385	89.60	3.55	82.50
80-3.375	3.535	.080 ±.003	3.375 ±.024	.05456	89.80	2.05	85.75
312-2.875SS	3.535	.315 ±.007	2.905 ±.024	.78835	89.80	8.00	73.80
46-3.455	3.547	.046 ±.003	3.455 ±.024	.01828	90.10	1.15	87.75
141-3.282	3.564	.141 ±.004	3.282 ±.024	.16791	90.55	3.60	83.35
103-3.359	3.565	.103 ±.003	3.359 ±.024	.09062	90.55	2.60	85.30
103-3.362	3.568	.103 ±.003	3.362 ±.024	.09070	90.65	2.60	85.40
176-3.225	3.577	.176 ±.005	3.225 ±.024	.25994	90.85	4.45	81.90
70-3.440	3.580	.070 ±.003	3.440 ±.024	.04244	90.95	1.80	87.40
170-3.253	3.593	.170 ±.005	3.253 ±.024	.24409	91.25	4.30	82.65
214-3.166	3.594	.214 ±.005	3.166 ±.024	.38193	91.30	5.45	80.40



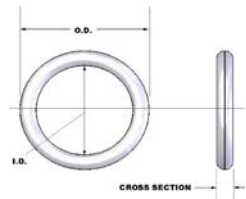
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
103-3.400	3.606	.103 ±.003	3.400 ±.024	.09170	91.60	2.60	86.35
70-3.474	3.614	.070 ±.003	3.474 ±.024	.04285	91.80	1.80	88.25
103-3.410ES	3.621	.103 ±.003	3.415 ±.024	.09209	91.95	2.60	86.75
375-2.875	3.625	.375 ±.007	2.875 ±.024	1.12768	92.10	9.55	73.05
1-043	3.629	.070 ±.003	3.489 ±.024	.04303	92.20	1.80	88.60
185-3.260	3.630	.185 ±.005	3.260 ±.024	.29092	92.20	4.70	82.80
1-237	3.637	.139 ±.004	3.359 ±.024	.16676	92.40	3.55	85.30
111-3.422	3.644	.111 ±.004	3.422 ±.024	.10741	92.55	2.80	86.90
1-339	3.645	.210 ±.005	3.225 ±.024	.37377	92.60	5.35	81.90
1-414	3.650	.275 ±.006	3.100 ±.024	.62977	92.70	7.00	78.75
140-3.374	3.654	.140 ±.004	3.374 ±.024	.16994	92.80	3.55	85.70
80-3.500	3.660	.080 ±.003	3.500 ±.024	.05653	92.95	2.05	88.90
71-3.523	3.665	.071 ±.003	3.523 ±.024	.04470	93.10	1.80	89.50
80-3.483VS	3.671	.081 ±.003	3.509 ±.009	.05812	93.25	2.05	89.15
84-3.506	3.674	.084 ±.003	3.506 ±.024	.06250	93.30	2.15	89.05
103-3.460ES	3.675	.103 ±.003	3.469 ±.024	.09350	93.35	2.60	88.10
212-3.255	3.679	.212 ±.005	3.255 ±.024	.38447	93.45	5.40	82.70
375-2.930	3.680	.375 ±.007	2.930 ±.024	1.14676	93.45	9.55	74.40
187-3.312	3.686	.187 ±.005	3.312 ±.024	.30190	93.60	4.75	84.10
1-153	3.693	.103 ±.003	3.487 ±.024	.09397	93.80	2.60	88.55
70-3.562	3.702	.070 ±.003	3.562 ±.024	.04391	94.05	1.80	90.45
176-3.350	3.702	.176 ±.005	3.350 ±.024	.26949	94.05	4.45	85.10
370-2.982	3.722	.370 ±.007	2.982 ±.024	1.13226	94.55	9.40	75.75
104-3.520	3.728	.104 ±.003	3.520 ±.024	.09672	94.70	2.65	89.40
32-3.638SS	3.738	.032 ±.003	3.674 ±.024	.00936	94.95	.80	93.30
437-2.875	3.749	.437 ±.009	2.875 ±.024	1.56060	95.20	11.10	73.05
75-3.600	3.750	.075 ±.003	3.600 ±.024	.05101	95.25	1.90	91.45
250-3.250	3.750	.250 ±.006	3.250 ±.024	.53974	95.25	6.35	82.55
152-3.420VS	3.755	.153 ±.005	3.449 ±.024	.20805	95.40	3.90	87.60
50-3.670	3.761	.050 ±.003	3.661 ±.024	.02289	95.55	1.25	93.00
58-3.645	3.761	.058 ±.003	3.645 ±.024	.03074	95.55	1.45	92.60
1-238	3.762	.139 ±.004	3.484 ±.024	.17272	95.55	3.55	88.50
122-3.520	3.764	.122 ±.004	3.520 ±.024	.13375	95.60	3.10	89.40
1-340	3.770	.210 ±.005	3.350 ±.024	.38737	95.75	5.35	85.10
1-415	3.775	.275 ±.006	3.225 ±.024	.65309	95.90	7.00	81.90
140-3.500	3.780	.140 ±.004	3.500 ±.024	.17603	96.00	3.55	88.90
211-3.366	3.788	.211 ±.005	3.366 ±.024	.39294	96.20	5.35	85.50
310-3.136SS	3.791	.313 ±.006	3.165 ±.024	.84073	96.30	7.95	80.40
203-3.375	3.792	.204 ±.005	3.384 ±.024	.36843	96.30	5.20	85.95
330-3.137	3.797	.330 ±.007	3.137 ±.024	.93158	96.45	8.40	79.70
50-3.670SS	3.804	.050 ±.003	3.704 ±.024	.02316	96.60	1.25	94.10
125-3.562	3.812	.125 ±.004	3.562 ±.024	.14215	96.80	3.20	90.45
156-3.500	3.812	.156 ±.005	3.500 ±.024	.21953	96.80	3.95	88.90
103-3.612	3.818	.103 ±.003	3.612 ±.024	.09725	97.00	2.60	91.75
176-3.475	3.827	.176 ±.005	3.475 ±.024	.27905	97.20	4.45	88.25



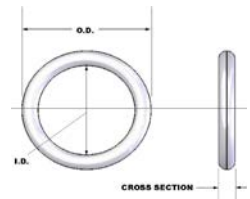
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
90-3.661	3.841	.090 ±.003	3.661 ±.024	.07497	97.55	2.30	93.00
125-3.543SS	3.851	.127 ±.004	3.597 ±.024	.14820	97.80	3.25	91.35
275-3.252SS	3.857	.279 ±.006	3.299 ±.024	.68721	97.95	7.10	83.80
179-3.522	3.866	.178 ±.005	3.510 ±.024	.28832	98.20	4.50	89.15
1-044	3.879	.070 ±.003	3.739 ±.027	.04605	98.55	1.80	94.95
1-239	3.887	.139 ±.004	3.609 ±.028	.17868	98.75	3.55	91.65
125-3.640	3.890	.125 ±.004	3.640 ±.028	.14515	98.80	3.20	92.45
1-341	3.895	.210 ±.005	3.475 ±.024	.40097	98.95	5.35	88.25
1-416	3.900	.275 ±.006	3.350 ±.024	.67641	99.05	7.00	85.10
140-3.625	3.905	.140 ±.004	3.625 ±.028	.18208	99.20	3.55	92.10
71-3.776	3.918	.071 ±.003	3.776 ±.027	.04785	99.50	1.80	95.90
95-3.744	3.934	.095 ±.003	3.744 ±.028	.08549	99.90	2.40	95.10
1-154	3.943	.103 ±.003	3.737 ±.028	.10052	100.15	2.60	94.90
147-3.656	3.950	.147 ±.005	3.656 ±.028	.20277	100.35	3.75	92.85
176-3.600	3.952	.176 ±.005	3.600 ±.028	.28860	100.40	4.45	91.45
312-3.300SS	3.961	.315 ±.006	3.331 ±.024	.89264	100.60	8.00	84.60
104-3.755	3.963	.104 ±.003	3.755 ±.028	.10299	100.65	2.65	95.40
70-3.833ES	3.985	.070 ±.003	3.845 ±.028	.04733	101.20	1.80	97.65
230-3.475VS	3.987	.233 ±.006	3.521 ±.024	.50286	101.25	5.90	89.45
70-3.840ES	3.991	.070 ±.003	3.851 ±.027	.04741	101.35	1.80	97.80
70-3.860	4.000	.070 ±.003	3.860 ±.027	.04751	101.60	1.80	98.05
1-240	4.012	.139 ±.004	3.734 ±.028	.18464	101.90	3.55	94.85
70-3.840VS	4.020	.071 ±.003	3.878 ±.027	.04912	102.10	1.80	98.50
1-342	4.020	.210 ±.005	3.600 ±.028	.41458	102.10	5.35	91.45
1-417	4.025	.275 ±.006	3.475 ±.024	.69974	102.25	7.00	88.25
150-3.734	4.034	.150 ±.005	3.734 ±.028	.21563	102.45	3.80	94.85
140-3.757	4.037	.140 ±.004	3.757 ±.028	.18846	102.55	3.55	95.45
103-3.837	4.043	.103 ±.003	3.837 ±.028	.10314	102.70	2.60	97.45
118-3.819	4.055	.118 ±.004	3.819 ±.028	.13526	103.00	3.00	97.00
212-3.635	4.059	.212 ±.005	3.635 ±.028	.42661	103.10	5.40	92.35
210-3.640	4.060	.210 ±.005	3.640 ±.028	.41893	103.10	5.35	92.45
212-3.641	4.065	.212 ±.005	3.641 ±.028	.42728	103.25	5.40	92.50
248-3.575	4.071	.248 ±.006	3.575 ±.024	.58016	103.40	6.30	90.80
300-3.475	4.075	.300 ±.006	3.475 ±.024	.83830	103.50	7.60	88.25
70-3.937	4.077	.070 ±.003	3.937 ±.027	.04845	103.55	1.80	100.00
176-3.725	4.077	.176 ±.005	3.725 ±.028	.29815	103.55	4.45	94.60
125-3.750SS	4.078	.127 ±.004	3.824 ±.028	.15724	103.60	3.25	97.15
103-3.875	4.097	.103 ±.003	3.891 ±.028	.10455	104.05	2.60	98.85
375-3.325SS	4.100	.377 ±.007	3.346 ±.024	1.30562	104.15	9.60	85.00
210-3.640SS	4.102	.212 ±.005	3.678 ±.028	.43138	104.20	5.40	93.40
158-3.780ES	4.117	.159 ±.005	3.799 ±.028	.24689	104.55	4.05	96.50
1-045	4.129	.070 ±.003	3.989 ±.027	.04907	104.90	1.80	101.30
256-3.563SS	4.134	.260 ±.006	3.614 ±.028	.64617	105.00	6.60	91.80
1-241	4.137	.139 ±.004	3.859 ±.028	.19060	105.10	3.55	98.00
1-343	4.145	.210 ±.005	3.725 ±.028	.42818	105.30	5.35	94.60



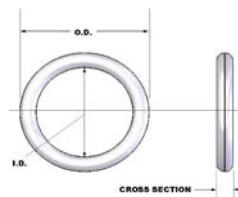
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
103-3.862	4.148	.105 ±.003	3.938 ±.028	.10998	105.35	2.65	100.05
1-418	4.150	.275 ±.006	3.600 ±.028	.72306	105.40	7.00	91.45
140-3.876	4.156	.140 ±.004	3.876 ±.028	.19422	105.55	3.55	98.45
150-3.859	4.159	.150 ±.005	3.859 ±.028	.22257	105.65	3.80	98.00
71-4.028	4.170	.071 ±.003	4.028 ±.027	.05098	105.90	1.80	102.30
224-3.724	4.172	.224 ±.006	3.724 ±.028	.48878	105.95	5.70	94.60
139-3.910	4.188	.139 ±.004	3.910 ±.028	.19303	106.40	3.55	99.30
1-155	4.193	.103 ±.003	3.987 ±.028	.10706	106.50	2.60	101.25
176-3.850	4.202	.176 ±.005	3.850 ±.028	.30771	106.75	4.45	97.80
104-4.028	4.236	.104 ±.003	4.028 ±.028	.11027	107.60	2.65	102.30
40-4.140VS	4.259	.040 ±.003	4.179 ±.027	.01666	108.20	1.00	106.15
1-242	4.262	.139 ±.004	3.984 ±.028	.19655	108.25	3.55	101.20
1-344	4.270	.210 ±.005	3.850 ±.028	.44178	108.45	5.35	97.80
1-419	4.275	.275 ±.006	3.725 ±.028	.74639	108.60	7.00	94.60
140-4.008	4.288	.140 ±.004	4.008 ±.028	.20060	108.90	3.55	101.80
70-4.107SS	4.289	.071 ±.003	4.147 ±.027	.05246	108.95	1.80	105.35
156-3.984	4.296	.156 ±.005	3.984 ±.028	.24859	109.10	3.95	101.20
103-4.093	4.299	.103 ±.003	4.093 ±.028	.10984	109.20	2.60	103.95
70-4.180NS	4.312	.070 ±.003	4.172 ±.027	.05129	109.55	1.80	105.95
139-4.046	4.314	.139 ±.004	4.036 ±.028	.19903	109.60	3.55	102.50
103-4.109	4.315	.103 ±.003	4.109 ±.028	.11026	109.60	2.60	104.35
139-4.020SS	4.317	.140 ±.004	4.037 ±.028	.20200	109.65	3.55	102.55
176-3.975	4.327	.176 ±.005	3.975 ±.028	.31726	109.90	4.45	100.95
103-4.150	4.356	.103 ±.003	4.150 ±.028	.11133	110.65	2.60	105.40
125-4.109	4.359	.125 ±.004	4.109 ±.028	.16323	110.70	3.20	104.35
118-4.134	4.370	.118 ±.004	4.134 ±.028	.14608	111.00	3.00	105.00
375-3.622	4.372	.375 ±.007	3.622 ±.024	1.38687	111.05	9.55	92.00
103-4.169	4.375	.103 ±.003	4.169 ±.028	.11183	111.15	2.60	105.90
1-046	4.379	.070 ±.003	4.239 ±.030	.05210	111.25	1.80	107.65
103-4.175	4.381	.103 ±.003	4.175 ±.028	.11198	111.30	2.60	106.05
1-243	4.387	.139 ±.004	4.109 ±.028	.20251	111.45	3.55	104.35
83-4.226	4.392	.083 ±.003	4.226 ±.028	.07324	111.55	2.10	107.35
1-345	4.395	.210 ±.005	3.975 ±.028	.45538	111.65	5.35	100.95
1-420	4.400	.275 ±.006	3.850 ±.028	.76971	111.75	7.00	97.80
281-3.844	4.406	.281 ±.006	3.844 ±.028	.80367	111.90	7.15	97.65
140-4.127	4.407	.140 ±.004	4.127 ±.028	.20636	111.95	3.55	104.85
103-4.204ES	4.421	.103 ±.003	4.215 ±.028	.11303	112.30	2.60	107.05
71-4.281	4.423	.071 ±.003	4.281 ±.030	.05413	112.35	1.80	108.75
47-4.343	4.437	.047 ±.003	4.343 ±.030	.02393	112.70	1.20	110.30
70-4.300	4.440	.070 ±.003	4.300 ±.030	.05283	112.80	1.80	109.20
1-156	4.443	.103 ±.003	4.237 ±.030	.11361	112.85	2.60	107.60
155-4.139	4.449	.155 ±.005	4.139 ±.028	.25455	113.00	3.95	105.15
176-4.100	4.452	.176 ±.005	4.100 ±.028	.32682	113.10	4.45	104.15
103-4.256	4.462	.103 ±.003	4.256 ±.030	.11410	113.35	2.60	108.10
104-4.258	4.466	.104 ±.003	4.258 ±.030	.11641	113.45	2.65	108.15



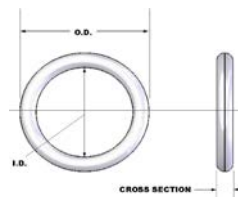
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
44-4.390	4.478	.044 ±.003	4.390 ±.030	.02118	113.75	1.10	111.50
186-4.095SS	4.479	.186 ±.005	4.107 ±.028	.36646	113.75	4.70	104.30
104-4.279	4.487	.104 ±.003	4.279 ±.030	.11697	113.95	2.65	108.70
500-3.500	4.500	.500 ±.010	3.500 ±.024	2.46740	114.30	12.70	88.90
140-4.125SS	4.502	.143 ±.004	4.216 ±.028	.21994	114.35	3.65	107.10
78-4.266SS	4.506	.079 ±.003	4.348 ±.030	.06817	114.45	2.00	110.45
1-244	4.512	.139 ±.004	4.234 ±.030	.20847	114.60	3.55	107.55
103-4.300ES	4.517	.103 ±.003	4.311 ±.030	.11554	114.75	2.60	109.50
1-346	4.520	.210 ±.005	4.100 ±.028	.46898	114.80	5.35	104.15
1-421	4.525	.275 ±.006	3.975 ±.028	.79304	114.95	7.00	100.95
211-4.120	4.542	.211 ±.005	4.120 ±.028	.47577	115.35	5.35	104.65
111-4.322	4.544	.111 ±.004	4.322 ±.030	.13477	115.40	2.80	109.80
224-4.098	4.546	.224 ±.006	4.098 ±.028	.53508	115.45	5.70	104.10
140-4.274	4.554	.140 ±.004	4.274 ±.030	.21347	115.65	3.55	108.55
103-4.350	4.556	.103 ±.003	4.350 ±.030	.11656	115.70	2.60	110.50
312-3.938	4.562	.312 ±.006	3.938 ±.027	1.02079	115.90	7.90	100.05
103-4.359	4.565	.103 ±.003	4.359 ±.030	.11680	115.95	2.60	110.70
30-4.523	4.567	.030 ±.003	4.507 ±.030	.01008	116.00	.75	114.50
176-4.225	4.577	.176 ±.005	4.225 ±.030	.33637	116.25	4.45	107.30
60-4.500SS	4.587	.060 ±.003	4.467 ±.030	.04021	116.50	1.50	113.45
139-4.300ES	4.589	.139 ±.004	4.311 ±.030	.21214	116.55	3.55	109.50
150-4.295	4.595	.150 ±.005	4.295 ±.030	.24677	116.70	3.80	109.10
71-4.409VS	4.599	.072 ±.003	4.455 ±.030	.05790	116.80	1.85	113.15
103-4.397	4.603	.103 ±.003	4.397 ±.030	.11779	116.90	2.60	111.70
1-047	4.629	.070 ±.003	4.489 ±.030	.05512	117.60	1.80	114.00
1-245	4.637	.139 ±.004	4.359 ±.030	.21443	117.80	3.55	110.70
1-347	4.645	.210 ±.005	4.225 ±.030	.48258	118.00	5.35	107.30
1-422	4.650	.275 ±.006	4.100 ±.028	.81636	118.10	7.00	104.15
400-3.850	4.650	.400 ±.009	3.850 ±.028	1.67783	118.10	10.15	97.80
140-4.379	4.659	.140 ±.004	4.379 ±.030	.21854	118.35	3.55	111.25
500-3.675	4.675	.500 ±.010	3.675 ±.024	2.57535	118.75	12.70	93.35
1-157	4.693	.103 ±.003	4.487 ±.030	.12015	119.20	2.60	113.95
70-4.562	4.702	.070 ±.003	4.562 ±.030	.05600	119.45	1.80	115.90
176-4.350	4.702	.176 ±.005	4.350 ±.030	.34592	119.45	4.45	110.50
103-4.487ES	4.704	.103 ±.003	4.498 ±.030	.12044	119.50	2.60	114.25
103-4.507	4.713	.103 ±.003	4.507 ±.030	.12067	119.70	2.60	114.50
210-4.304	4.724	.210 ±.005	4.304 ±.030	.49118	120.00	5.35	109.30
375-4.006	4.756	.375 ±.007	4.006 ±.028	1.52011	120.80	9.55	101.75
215-4.331	4.761	.215 ±.005	4.331 ±.030	.51850	120.95	5.45	110.00
1-246	4.762	.139 ±.004	4.484 ±.030	.22039	120.95	3.55	113.90
1-348	4.770	.210 ±.005	4.350 ±.030	.49618	121.15	5.35	110.50
1-423	4.775	.275 ±.006	4.225 ±.030	.83969	121.30	7.00	107.30
140-4.508	4.788	.140 ±.004	4.508 ±.030	.22478	121.60	3.55	114.50
70-4.672	4.812	.070 ±.003	4.672 ±.030	.05733	122.25	1.80	118.65
103-4.612	4.818	.103 ±.003	4.612 ±.030	.12342	122.40	2.60	117.15



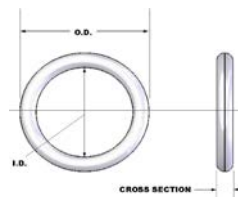
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
176-4.475	4.827	.176 ±.005	4.475 ±.030	.35548	122.60	4.45	113.65
125-4.600	4.850	.125 ±.004	4.600 ±.030	.18216	123.20	3.20	116.85
181-4.488	4.850	.181 ±.005	4.488 ±.030	.37742	123.20	4.60	114.00
103-4.609SS	4.862	.104 ±.003	4.654 ±.030	.12698	123.50	2.65	118.20
250-4.375	4.875	.250 ±.006	4.375 ±.030	.71323	123.85	6.35	111.15
1-048	4.879	.070 ±.003	4.739 ±.030	.05814	123.95	1.80	120.35
1-247	4.887	.139 ±.004	4.609 ±.030	.22635	124.15	3.55	117.05
1-349	4.895	.210 ±.005	4.475 ±.030	.50979	124.35	5.35	113.65
1-424	4.900	.275 ±.006	4.350 ±.030	.86301	124.45	7.00	110.50
140-4.630	4.910	.140 ±.004	4.630 ±.030	.23068	124.70	3.55	117.60
220-4.475	4.915	.220 ±.006	4.475 ±.033	.56069	124.85	5.60	113.65
71-4.784	4.926	.071 ±.003	4.784 ±.030	.06039	125.10	1.80	121.50
141-4.654	4.936	.141 ±.004	4.654 ±.030	.23522	125.35	3.60	118.20
157-4.606ES	4.936	.158 ±.005	4.620 ±.030	.29431	125.35	4.00	117.35
500-3.937	4.937	.500 ±.010	3.937 ±.028	2.73696	125.40	12.70	100.00
313-4.300ES	4.942	.315 ±.006	4.312 ±.030	1.13282	125.55	8.00	109.55
1-158	4.943	.103 ±.003	4.737 ±.030	.12670	125.55	2.60	120.30
241-4.475	4.957	.241 ±.006	4.475 ±.033	.67585	125.90	6.10	113.65
117-4.750	4.968	.117 ±.004	4.734 ±.030	.16385	126.20	2.95	120.25
188-4.600	4.976	.188 ±.005	4.600 ±.030	.41755	126.40	4.80	116.85
104-4.783	4.991	.104 ±.003	4.783 ±.030	.13042	126.75	2.65	121.50
375-4.250	4.992	.374 ±.007	4.244 ±.030	1.59381	126.80	9.50	107.80
70-4.864	5.004	.070 ±.003	4.864 ±.030	.05965	127.10	1.80	123.55
1-248	5.012	.139 ±.004	4.734 ±.030	.23231	127.30	3.55	120.25
1-350	5.020	.210 ±.005	4.600 ±.030	.52339	127.50	5.35	116.85
1-425	5.025	.275 ±.006	4.475 ±.033	.88634	127.65	7.00	113.65
70-4.890	5.030	.070 ±.003	4.890 ±.030	.05997	127.75	1.80	124.20
140-4.755	5.035	.140 ±.004	4.755 ±.030	.23673	127.90	3.55	120.80
375-4.250VS	5.052	.379 ±.007	4.294 ±.030	1.65620	128.30	9.65	109.05
103-4.859	5.065	.103 ±.003	4.859 ±.030	.12989	128.65	2.60	123.40
212-4.645	5.069	.212 ±.005	4.645 ±.030	.53862	128.75	5.40	118.00
176-4.725	5.077	.176 ±.005	4.725 ±.030	.37458	128.95	4.45	120.00
103-4.886ES	5.104	.103 ±.003	4.898 ±.030	.13091	129.65	2.60	124.40
1-049	5.129	.070 ±.003	4.989 ±.037	.06116	130.30	1.80	126.70
103-4.930	5.136	.103 ±.003	4.930 ±.030	.13175	130.45	2.60	125.20
1-249	5.137	.139 ±.004	4.859 ±.035	.23827	130.50	3.55	123.40
1-351	5.145	.210 ±.005	4.725 ±.030	.53699	130.70	5.35	120.00
1-426	5.150	.275 ±.006	4.600 ±.033	.90966	130.80	7.00	116.85
140-4.881	5.161	.140 ±.004	4.881 ±.035	.24282	131.10	3.55	124.00
159-4.850	5.168	.159 ±.005	4.850 ±.030	.31245	131.25	4.05	123.20
71-5.038	5.180	.071 ±.003	5.038 ±.037	.06355	131.55	1.80	127.95
219-4.750	5.188	.219 ±.006	4.750 ±.033	.58803	131.80	5.55	120.65
1-159	5.193	.103 ±.003	4.987 ±.035	.13324	131.90	2.60	126.65
212-4.774	5.198	.212 ±.005	4.774 ±.030	.55292	132.05	5.40	121.25
375-4.438ES	5.201	.376 ±.007	4.449 ±.030	1.68311	132.10	9.55	113.00



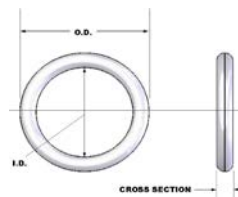
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
176-4.850	5.202	.176 ±.005	4.850 ±.030	.38414	132.15	4.45	123.20
141-4.928	5.210	.141 ±.004	4.928 ±.035	.24866	132.35	3.60	125.15
139-4.910ES	5.217	.140 ±.004	4.937 ±.035	.24553	132.50	3.55	125.40
70-5.114	5.254	.070 ±.003	5.114 ±.037	.06268	133.45	1.80	129.90
1-250	5.262	.139 ±.004	4.984 ±.035	.24423	133.65	3.55	126.60
1-352	5.270	.210 ±.005	4.850 ±.030	.55059	133.85	5.35	123.20
1-427	5.275	.275 ±.006	4.725 ±.033	.93299	134.00	7.00	120.00
147-4.984	5.278	.147 ±.005	4.984 ±.037	.27358	134.05	3.75	126.60
140-5.006	5.286	.140 ±.004	5.006 ±.035	.24887	134.25	3.55	127.15
50-5.163VS	5.312	.050 ±.003	5.212 ±.037	.03246	134.95	1.25	132.40
103-5.106	5.312	.103 ±.003	5.106 ±.035	.13635	134.95	2.60	129.70
197-4.921	5.315	.197 ±.005	4.921 ±.030	.49009	135.00	5.00	125.00
103-5.117	5.323	.103 ±.003	5.117 ±.035	.13664	135.20	2.60	129.95
278-4.769	5.325	.278 ±.006	4.769 ±.033	.96242	135.25	7.05	121.15
147-4.984SS	5.327	.148 ±.005	5.031 ±.037	.27990	135.30	3.75	127.80
241-4.850	5.332	.241 ±.006	4.850 ±.033	.72959	135.45	6.10	123.20
103-5.140ES	5.359	.103 ±.003	5.153 ±.035	.13758	136.10	2.60	130.90
62-5.250	5.374	.062 ±.003	5.250 ±.037	.05038	136.50	1.55	133.35
1-050	5.379	.070 ±.003	5.239 ±.037	.06419	136.65	1.80	133.05
312-4.700ES	5.386	.316 ±.007	4.754 ±.030	1.24917	136.80	8.05	120.75
1-251	5.387	.139 ±.004	5.109 ±.035	.25019	136.85	3.55	129.75
1-353	5.395	.210 ±.005	4.975 ±.037	.56419	137.05	5.35	126.35
168-5.005VS	5.397	.170 ±.005	5.057 ±.037	.37273	137.10	4.30	128.45
1-428	5.400	.275 ±.006	4.850 ±.033	.95631	137.15	7.00	123.20
315-4.776	5.406	.315 ±.007	4.776 ±.030	1.24642	137.30	8.00	121.30
71-5.288	5.430	.071 ±.003	5.288 ±.030	.06666	137.90	1.80	134.30
140-5.159	5.439	.140 ±.004	5.159 ±.035	.25627	138.15	3.55	131.05
1-160	5.443	.103 ±.003	5.237 ±.035	.13978	138.25	2.60	133.00
50-5.302VS	5.467	.051 ±.003	5.365 ±.037	.03476	138.85	1.30	136.25
252-4.905VS	5.478	.255 ±.006	4.968 ±.033	.83799	139.15	6.50	126.20
103-5.272ES	5.491	.103 ±.003	5.285 ±.035	.14104	139.45	2.60	134.25
70-5.360	5.500	.070 ±.003	5.360 ±.037	.06565	139.70	1.80	136.15
500-4.500	5.500	.500 ±.010	4.500 ±.030	3.08425	139.70	12.70	114.30
103-5.290ES	5.509	.103 ±.003	5.303 ±.035	.14151	139.95	2.60	134.70
1-252	5.512	.139 ±.004	5.234 ±.035	.25615	140.00	3.55	132.95
104-5.305	5.513	.104 ±.003	5.305 ±.035	.14435	140.05	2.65	134.75
70-5.379	5.519	.070 ±.003	5.379 ±.037	.06588	140.20	1.80	136.65
103-5.300ES	5.519	.103 ±.003	5.313 ±.035	.14177	140.20	2.60	134.95
125-5.270	5.520	.125 ±.004	5.270 ±.035	.20799	140.20	3.20	133.85
1-354	5.520	.210 ±.005	5.100 ±.037	.57779	140.20	5.35	129.55
1-429	5.525	.275 ±.006	4.975 ±.037	.97964	140.35	7.00	126.35
140-5.253	5.533	.140 ±.004	5.253 ±.030	.26081	140.55	3.55	133.45
170-5.118SS	5.535	.172 ±.005	5.191 ±.037	.39148	140.60	4.35	131.85
140-5.260	5.540	.140 ±.004	5.260 ±.035	.26115	140.70	3.55	133.60
103-5.322ES	5.542	.103 ±.003	5.336 ±.035	.14237	140.75	2.60	135.55



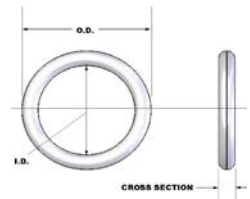
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
118-5.315	5.551	.118 ±.004	5.315 ±.035	.18666	141.00	3.00	135.00
79-5.315VS	5.556	.080 ±.003	5.396 ±.035	.08647	141.10	2.05	137.05
197-5.197	5.591	.197 ±.005	5.197 ±.037	.51652	142.00	5.00	132.00
103-5.380ES	5.600	.103 ±.003	5.394 ±.035	.14389	142.25	2.60	137.00
1-051	5.629	.070 ±.003	5.489 ±.037	.06721	143.00	1.80	139.40
1-253	5.637	.139 ±.004	5.359 ±.035	.26210	143.20	3.55	136.10
1-355	5.645	.210 ±.005	5.225 ±.037	.59140	143.40	5.35	132.70
1-430	5.650	.275 ±.006	5.100 ±.037	1.00296	143.50	7.00	129.55
211-5.251	5.673	.211 ±.005	5.251 ±.037	.60001	144.10	5.35	133.40
71-5.543	5.685	.071 ±.003	5.543 ±.037	.06983	144.40	1.80	140.80
1-161	5.693	.103 ±.003	5.487 ±.035	.14633	144.60	2.60	139.35
103-5.483ES	5.703	.103 ±.003	5.497 ±.035	.14659	144.85	2.60	139.60
103-5.496ES	5.716	.103 ±.003	5.510 ±.035	.14693	145.20	2.60	139.95
104-5.512	5.722	.104 ±.003	5.514 ±.035	.14993	145.35	2.65	140.05
118-5.492	5.728	.118 ±.004	5.492 ±.035	.19274	145.50	3.00	139.50
142-5.466	5.750	.142 ±.004	5.466 ±.035	.27901	146.05	3.60	138.85
1-254	5.762	.139 ±.004	5.484 ±.035	.26806	146.35	3.55	139.30
1-356	5.770	.210 ±.005	5.350 ±.037	.60500	146.55	5.35	135.90
104-5.565	5.773	.104 ±.003	5.565 ±.035	.15129	146.65	2.65	141.35
1-431	5.775	.275 ±.006	5.225 ±.037	1.02628	146.70	7.00	132.70
455-4.866	5.776	.455 ±.010	4.866 ±.030	2.71804	146.70	11.55	123.60
375-5.000SS	5.777	.377 ±.007	5.023 ±.037	1.89372	146.75	9.60	127.60
125-5.531	5.781	.125 ±.004	5.531 ±.035	.21806	146.85	3.20	140.50
139-5.503	5.781	.139 ±.004	5.503 ±.035	.26897	146.85	3.55	139.80
139-5.503	5.781	.139 ±.004	5.503 ±.035	.26897	146.85	3.55	139.80
140-5.512	5.791	.140 ±.004	5.511 ±.035	.27329	147.10	3.55	140.00
121-5.562	5.804	.121 ±.004	5.562 ±.035	.20530	147.40	3.05	141.30
103-5.602	5.808	.103 ±.003	5.602 ±.035	.14934	147.50	2.60	142.30
210-5.450	5.810	.208 ±.005	5.394 ±.037	.59801	147.55	5.30	137.00
438-4.938	5.814	.438 ±.009	4.938 ±.030	2.54476	147.70	11.15	125.45
162-5.500	5.824	.162 ±.005	5.500 ±.037	.36664	147.95	4.10	139.70
70-5.700	5.843	.070 ±.003	5.703 ±.037	.06980	148.40	1.80	144.85
1-052	5.879	.070 ±.003	5.739 ±.037	.07023	149.35	1.80	145.75
1-255	5.887	.139 ±.004	5.609 ±.035	.27402	149.55	3.55	142.45
1-357	5.895	.210 ±.005	5.475 ±.037	.61860	149.75	5.35	139.05
1-432	5.900	.275 ±.006	5.350 ±.037	1.04961	149.85	7.00	135.90
97-5.723	5.917	.097 ±.003	5.723 ±.035	.13512	150.30	2.45	145.35
118-5.689	5.925	.118 ±.004	5.689 ±.035	.19951	150.50	3.00	144.50
157-5.512VS	5.927	.160 ±.005	5.607 ±.037	.36428	150.55	4.05	142.40
71-5.795	5.937	.071 ±.003	5.795 ±.037	.07296	150.80	1.80	147.20
70-5.740SS	5.938	.071 ±.003	5.796 ±.037	.07297	150.85	1.80	147.20
140-5.661	5.941	.140 ±.004	5.661 ±.035	.28054	150.90	3.55	143.80
1-162	5.943	.103 ±.003	5.737 ±.035	.15287	150.95	2.60	145.70
103-5.750ES	5.971	.103 ±.003	5.765 ±.035	.15360	151.65	2.60	146.45
500-5.000	6.000	.500 ±.010	5.000 ±.037	3.39268	152.40	12.70	127.00



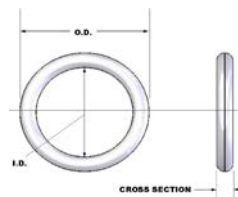
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
70-5.810SS	6.007	.071 ±.003	5.865 ±.037	.07383	152.60	1.80	148.95
189-5.650	6.007	.188 ±.005	5.631 ±.037	.50746	152.60	4.80	143.05
1-256	6.012	.139 ±.004	5.734 ±.035	.27998	152.70	3.55	145.65
1-358	6.020	.210 ±.005	5.600 ±.037	.63220	152.90	5.35	142.25
1-433	6.025	.275 ±.006	5.475 ±.037	1.07293	153.05	7.00	139.05
625-4.812	6.062	.625 ±.012	4.812 ±.033	5.24034	154.00	15.90	122.25
330-5.319SS	6.065	.335 ±.007	5.395 ±.037	1.58666	154.05	8.50	137.05
330-5.354SS	6.101	.335 ±.007	5.431 ±.037	1.59663	154.95	8.50	137.95
70-5.968	6.108	.070 ±.003	5.968 ±.037	.07300	155.15	1.80	151.60
70-5.910SS	6.108	.071 ±.003	5.966 ±.037	.07509	155.15	1.80	151.55
1-053	6.129	.070 ±.003	5.989 ±.037	.07325	155.70	1.80	152.10
1-257	6.137	.139 ±.004	5.859 ±.035	.28594	155.90	3.55	148.80
118-5.905	6.141	.118 ±.004	5.905 ±.035	.20693	156.00	3.00	150.00
1-359	6.145	.210 ±.005	5.725 ±.037	.64580	156.10	5.35	145.40
1-434	6.150	.275 ±.006	5.600 ±.037	1.09626	156.20	7.00	142.25
197-5.708VS	6.181	.200 ±.005	5.781 ±.037	.59030	157.00	5.10	146.85
71-6.048	6.190	.071 ±.003	6.048 ±.037	.07611	157.25	1.80	153.60
1-163	6.193	.103 ±.003	5.987 ±.035	.15942	157.30	2.60	152.05
241-5.725	6.207	.241 ±.006	5.725 ±.037	.85498	157.65	6.10	145.40
74-6.100	6.228	.074 ±.003	6.080 ±.035	.08315	158.20	1.90	154.45
1-258	6.262	.139 ±.004	5.984 ±.035	.29190	159.05	3.55	152.00
1-360	6.270	.210 ±.005	5.850 ±.037	.65940	159.25	5.35	148.60
1-435	6.275	.275 ±.006	5.725 ±.037	1.11958	159.40	7.00	145.40
60-6.187	6.307	.060 ±.003	6.187 ±.037	.05549	160.20	1.50	157.15
70-6.180	6.320	.070 ±.003	6.180 ±.037	.07556	160.55	1.80	156.95
140-6.043	6.323	.140 ±.004	6.043 ±.035	.29902	160.60	3.55	153.50
103-6.125	6.331	.103 ±.003	6.125 ±.035	.16303	160.80	2.60	155.60
141-6.064	6.346	.141 ±.004	6.064 ±.035	.30438	161.20	3.60	154.05
278-5.796	6.352	.278 ±.006	5.796 ±.037	1.15825	161.35	7.05	147.20
176-5.906SS	6.354	.179 ±.005	5.996 ±.037	.48818	161.40	4.55	152.30
1-054	6.379	.070 ±.003	6.239 ±.040	.07628	162.05	1.80	158.45
103.6-167ES	6.389	.103 ±.003	6.183 ±.035	.16455	162.30	2.60	157.05
1-361	6.395	.210 ±.005	5.975 ±.037	.67300	162.45	5.35	151.75
1-436	6.400	.275 ±.006	5.850 ±.037	1.14291	162.55	7.00	148.60
80-6.250	6.410	.080 ±.003	6.250 ±.040	.09996	162.80	2.05	158.75
71-6.300	6.442	.071 ±.003	6.300 ±.040	.07924	163.65	1.80	160.00
1-164	6.443	.103 ±.003	6.237 ±.040	.16596	163.65	2.60	158.40
70-6.284ES	6.446	.070 ±.003	6.306 ±.040	.07709	163.75	1.80	160.15
70-6.309	6.449	.070 ±.003	6.309 ±.040	.07712	163.80	1.80	160.25
70-6.310VS	6.489	.070 ±.003	6.349 ±.040	.07761	164.80	1.80	161.25
375-5.750	6.500	.375 ±.007	5.750 ±.037	2.12524	165.10	9.55	146.05
245-6.015	6.505	.245 ±.006	6.015 ±.037	.92714	165.25	6.20	152.80
104-6.299	6.506	.104 ±.003	6.298 ±.040	.17085	165.25	2.65	159.95
1-259	6.512	.139 ±.004	6.234 ±.040	.30382	165.40	3.55	158.35
224-6.075	6.523	.224 ±.006	6.075 ±.037	.77984	165.70	5.70	154.30



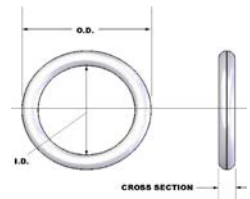
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
1-437	6.525	.275 ±.006	5.975 ±.037	1.16623	165.75	7.00	151.75
112-6.378SS	6.549	.112 ±.004	6.325 ±.040	.19923	166.35	2.85	160.65
500-5.562	6.562	.500 ±.010	5.562 ±.037	3.73935	166.70	12.70	141.30
103-6.380	6.586	.103 ±.003	6.380 ±.040	.16970	167.30	2.60	162.05
63-6.400VS	6.588	.064 ±.003	6.460 ±.040	.06593	167.35	1.65	164.10
157-6.299	6.613	.157 ±.005	6.299 ±.040	.39265	167.95	4.00	160.00
103-6.400ES	6.622	.103 ±.003	6.416 ±.040	.17065	168.20	2.60	162.95
139-6.350	6.628	.139 ±.003	6.350 ±.040	.30935	168.35	3.55	161.30
1-055	6.629	.070 ±.003	6.489 ±.040	.07930	168.40	1.80	164.80
103-6.424	6.630	.103 ±.003	6.424 ±.040	.17086	168.40	2.60	163.15
1-362	6.645	.210 ±.005	6.225 ±.040	.70021	168.80	5.35	158.10
70-6.520	6.660	.070 ±.003	6.520 ±.040	.07967	169.15	1.80	165.60
80-6.500	6.660	.080 ±.003	6.500 ±.040	.10391	169.15	2.05	165.10
211-6.256	6.678	.211 ±.005	6.256 ±.040	.71041	169.60	5.35	158.90
256-6.181	6.684	.256 ±.006	6.172 ±.037	1.03943	169.75	6.50	156.75
94-6.500	6.688	.094 ±.003	6.500 ±.040	.14376	169.90	2.40	165.10
1-165	6.693	.103 ±.003	6.487 ±.040	.17250	170.00	2.60	164.75
71-6.553	6.695	.071 ±.003	6.553 ±.040	.08239	170.05	1.80	166.45
91-6.394SS	6.696	.093 ±.003	6.510 ±.040	.14091	170.10	2.35	165.35
118-6.378VS	6.700	.120 ±.004	6.460 ±.040	.23379	170.20	3.05	164.10
241-6.225	6.707	.241 ±.006	6.225 ±.040	.92664	170.35	6.10	158.10
125-6.460	6.710	.125 ±.004	6.460 ±.040	.25387	170.45	3.20	164.10
375-5.850VS	6.712	.381 ±.007	5.950 ±.037	2.26758	170.50	9.70	151.15
103-6.501ES	6.724	.103 ±.003	6.518 ±.040	.17332	170.80	2.60	165.55
50-6.567VS	6.729	.050 ±.003	6.629 ±.040	.04120	170.90	1.25	168.40
164-6.299SS	6.729	.167 ±.005	6.395 ±.040	.45155	170.90	4.25	162.45
45-6.690	6.757	.045 ±.003	6.667 ±.040	.03354	171.65	1.15	169.35
104-6.551	6.759	.104 ±.003	6.551 ±.040	.17760	171.70	2.65	166.40
1-260	6.762	.139 ±.004	6.484 ±.040	.31574	171.75	3.55	164.70
210-6.350	6.770	.210 ±.005	6.350 ±.040	.71381	171.95	5.35	161.30
1-438	6.775	.275 ±.006	6.225 ±.040	1.21288	172.10	7.00	158.10
258-6.179VS	6.780	.261 ±.006	6.258 ±.040	1.09573	172.20	6.65	158.95
140-6.516	6.796	.140 ±.004	6.516 ±.040	.32189	172.60	3.55	165.50
70-6.687	6.827	.070 ±.003	6.687 ±.040	.08169	173.40	1.80	169.85
260-6.325	6.845	.260 ±.006	6.325 ±.040	1.09835	173.85	6.60	160.65
500-5.750VS	6.867	.509 ±.010	5.849 ±.037	4.06439	174.40	12.95	148.55
70-6.734	6.874	.070 ±.003	6.734 ±.040	.08226	174.60	1.80	171.05
1-056	6.879	.070 ±.003	6.739 ±.040	.08232	174.75	1.80	171.15
139-6.609	6.887	.139 ±.004	6.609 ±.040	.32170	174.95	3.55	167.85
1-363	6.895	.210 ±.005	6.475 ±.040	.72741	175.15	5.35	164.45
103-6.674ES	6.897	.103 ±.003	6.691 ±.040	.17784	175.20	2.60	169.95
47-6.812	6.906	.047 ±.003	6.812 ±.040	.03738	175.40	1.20	173.05
139-6.630ES	6.924	.139 ±.004	6.646 ±.040	.32346	175.85	3.55	168.80
70-6.722SS	6.927	.071 ±.003	6.785 ±.040	.08528	175.95	1.80	172.35
1-166	6.943	.103 ±.003	6.737 ±.040	.17905	176.35	2.60	171.10



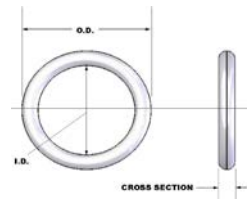
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
71-6.805	6.947	.071 ±.003	6.805 ±.040	.08552	176.45	1.80	172.85
500-6.000	7.000	.500 ±.010	6.000 ±.037	4.00953	177.80	12.70	152.40
104-6.803	7.011	.104 ±.003	6.803 ±.040	.18433	178.10	2.65	172.80
1-261	7.012	.139 ±.004	6.734 ±.040	.32765	178.10	3.55	171.05
1-439	7.025	.275 ±.006	6.475 ±.040	1.25953	178.45	7.00	164.45
258-6.437VS	7.042	.261 ±.006	6.520 ±.040	1.13976	178.85	6.65	165.60
103-6.850ES	7.073	.103 ±.003	6.867 ±.040	.18245	179.65	2.60	174.40
140-6.797	7.077	.140 ±.004	6.797 ±.040	.33548	179.75	3.55	172.65
150-6.650SS	7.084	.153 ±.005	6.778 ±.040	.40033	179.95	3.90	172.15
210-6.666	7.086	.210 ±.005	6.666 ±.040	.74819	180.00	5.35	169.30
70-6.950	7.090	.070 ±.003	6.950 ±.040	.08487	180.10	1.80	176.55
60-7.000	7.120	.060 ±.003	7.000 ±.040	.06271	180.85	1.50	177.80
1-057	7.129	.070 ±.003	6.989 ±.040	.08535	181.10	1.80	177.50
157-6.830	7.144	.157 ±.005	6.830 ±.040	.42494	181.45	4.00	173.50
139-6.850ES	7.145	.139 ±.004	6.867 ±.040	.33399	181.50	3.55	174.40
1-364	7.145	.210 ±.005	6.725 ±.040	.75461	181.50	5.35	170.80
275-6.600	7.150	.275 ±.006	6.600 ±.040	1.28286	181.60	7.00	167.65
1-167	7.193	.103 ±.003	6.987 ±.040	.18559	182.70	2.60	177.45
71-7.058	7.200	.071 ±.003	7.058 ±.040	.08867	182.90	1.80	179.25
455-6.308	7.218	.455 ±.010	6.308 ±.040	3.45463	183.35	11.55	160.20
500-6.264	7.219	.497 ±.010	6.225 ±.040	4.09686	183.35	12.60	158.10
224-6.783	7.231	.224 ±.006	6.783 ±.040	.86750	183.65	5.70	172.30
1.062-5.125	7.249	1.062 ±.015	5.125 ±.037	17.21745	184.10	26.95	130.20
104-7.053	7.261	.104 ±.003	7.053 ±.040	.19100	184.45	2.65	179.15
1-262	7.262	.139 ±.004	6.984 ±.040	.33957	184.45	3.55	177.40
1-440	7.275	.275 ±.006	6.725 ±.040	1.30618	184.80	7.00	170.80
160-7.006	7.326	.160 ±.005	7.006 ±.040	.45264	186.10	4.05	177.95
140-7.053	7.333	.140 ±.004	7.053 ±.040	.34786	186.25	3.55	179.15
1-058	7.379	.070 ±.003	7.239 ±.045	.08837	187.45	1.80	183.85
1-365	7.395	.210 ±.005	6.975 ±.040	.78182	187.85	5.35	177.15
312-6.700VS	7.400	.315 ±.007	6.770 ±.040	1.73461	187.95	8.00	171.95
380-6.640	7.400	.380 ±.007	6.640 ±.040	2.50117	187.95	9.65	168.65
295-6.835NS	7.410	.294 ±.006	6.822 ±.040	1.51765	188.20	7.45	173.30
1-168	7.443	.103 ±.003	7.237 ±.045	.19214	189.05	2.60	183.80
380-6.688	7.448	.380 ±.007	6.688 ±.040	2.51828	189.20	9.65	169.90
71-7.310	7.452	.071 ±.003	7.310 ±.045	.09181	189.30	1.80	185.65
241-6.975	7.457	.241 ±.006	6.975 ±.040	1.03412	189.40	6.10	177.15
70-7.360ES	7.511	.070 ±.003	7.371 ±.045	.08996	190.80	1.80	187.20
1-263	7.512	.139 ±.004	7.234 ±.045	.35149	190.80	3.55	183.75
104-7.308	7.516	.104 ±.003	7.308 ±.045	.19781	190.90	2.65	185.60
103-7.300ES	7.525	.103 ±.003	7.319 ±.045	.19428	191.15	2.60	185.90
1-441	7.525	.275 ±.006	6.975 ±.040	1.35283	191.15	7.00	177.15
375-6.650VS	7.525	.381 ±.007	6.763 ±.040	2.55877	191.15	9.70	171.80
295-6.910SS	7.558	.297 ±.006	6.964 ±.040	1.58033	191.95	7.55	176.90
520-6.519	7.559	.520 ±.011	6.519 ±.040	4.69632	192.00	13.20	165.60



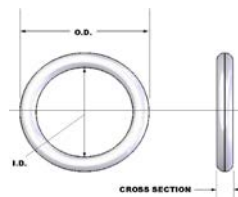
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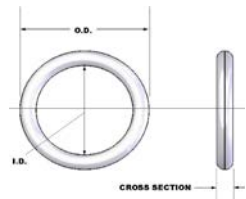
Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
272-7.051	7.595	.272 ±.006	7.051 ±.045	1.33680	192.90	6.90	179.10
437-6.750	7.624	.437 ±.009	6.750 ±.040	3.38649	193.65	11.10	171.45
500-6.625	7.625	.500 ±.010	6.625 ±.040	4.39506	193.70	12.70	168.30
1-059	7.629	.070 ±.003	7.489 ±.045	.09139	193.80	1.80	190.20
70-7.500	7.640	.070 ±.003	7.500 ±.045	.09152	194.05	1.80	190.50
103-7.416	7.641	.103 ±.003	7.435 ±.045	.19732	194.10	2.60	188.85
1-366	7.645	.210 ±.005	7.225 ±.045	.80902	194.20	5.35	183.50
1-169	7.693	.103 ±.003	7.487 ±.045	.19868	195.40	2.60	190.15
71-7.562	7.704	.071 ±.003	7.562 ±.045	.09494	195.70	1.80	192.10
241-7.225	7.707	.241 ±.006	7.225 ±.045	1.06995	195.75	6.10	183.50
28-7.717NS	7.750	.028 ±.003	7.694 ±.045	.01494	196.85	.70	195.45
70-7.613	7.753	.070 ±.003	7.613 ±.045	.09289	196.95	1.80	193.35
1-264	7.762	.139 ±.004	7.484 ±.045	.36341	197.15	3.55	190.10
104-7.560	7.768	.104 ±.003	7.560 ±.045	.20453	197.30	2.65	192.00
1-442	7.775	.275 ±.006	7.225 ±.045	1.39948	197.50	7.00	183.50
103-7.583ES	7.808	.103 ±.003	7.602 ±.045	.20169	198.30	2.60	193.10
103-7.609	7.815	.103 ±.004	7.609 ±.045	.20187	198.50	2.60	193.25
140-7.562	7.842	.140 ±.004	7.562 ±.045	.37248	199.20	3.55	192.10
1-060	7.879	.070 ±.003	7.739 ±.045	.09441	200.15	1.80	196.55
1-367	7.895	.210 ±.005	7.475 ±.045	.83622	200.55	5.35	189.85
103-7.673ES	7.898	.103 ±.003	7.692 ±.045	.20405	200.60	2.60	195.40
139-7.609ES	7.906	.139 ±.004	7.628 ±.045	.37027	200.80	3.55	193.75
375-7.125SS	7.911	.377 ±.007	7.157 ±.040	2.64209	200.95	9.60	181.80
281-7.378	7.940	.281 ±.006	7.378 ±.045	1.49219	201.70	7.15	187.40
1-170	7.943	.103 ±.003	7.737 ±.045	.20523	201.75	2.60	196.50
241-7.475	7.957	.241 ±.006	7.475 ±.045	1.10577	202.10	6.10	189.85
236-7.441	7.985	.238 ±.006	7.509 ±.045	1.08275	202.80	6.05	190.75
215-7.581	8.001	.215 ±.005	7.571 ±.045	.88804	203.25	5.45	192.30
70-7.870	8.010	.070 ±.003	7.870 ±.045	.09600	203.45	1.80	199.90
1-265	8.012	.139 ±.004	7.734 ±.045	.37533	203.50	3.55	196.45
104-7.813	8.021	.104 ±.003	7.813 ±.045	.21128	203.75	2.65	198.45
1-443	8.025	.275 ±.006	7.475 ±.045	1.44613	203.85	7.00	189.85
103-7.862	8.068	.103 ±.003	7.862 ±.045	.20850	204.95	2.60	199.70
103-7.848ES	8.074	.103 ±.003	7.868 ±.045	.20865	205.10	2.60	199.85
118-7.784NS	8.079	.118 ±.004	7.843 ±.045	.27351	205.20	3.00	199.20
210-7.600VS	8.099	.212 ±.005	7.675 ±.045	.87463	205.70	5.40	194.95
146-7.700SS	8.113	.148 ±.005	7.817 ±.040	.43048	206.05	3.75	198.55
278-7.567	8.123	.278 ±.006	7.567 ±.045	1.49597	206.30	7.05	192.20
1-061	8.129	.070 ±.003	7.989 ±.045	.09744	206.50	1.80	202.90
103-7.950NS	8.145	.103 ±.003	7.939 ±.045	.21051	206.90	2.60	201.65
1-368	8.145	.210 ±.005	7.725 ±.045	.86343	206.90	5.35	196.20
139-7.850ES	8.148	.139 ±.004	7.870 ±.045	.38181	206.95	3.55	199.90
375-7.324SS	8.167	.379 ±.007	7.409 ±.045	2.76022	207.45	9.65	188.20
103-7.950ES	8.176	.103 ±.003	7.970 ±.045	.21132	207.65	2.60	202.45
1-171	8.193	.103 ±.003	7.987 ±.045	.21177	208.10	2.60	202.85



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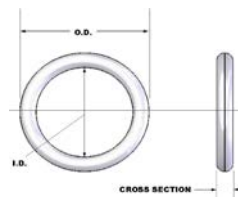
Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
241-7.725	8.207	.241 ±.006	7.725 ±.045	1.14160	208.45	6.10	196.20
139-7.950ES	8.248	.139 ±.004	7.970 ±.045	.38658	209.50	3.55	202.45
375-7.500	8.250	.375 ±.007	7.500 ±.045	2.73245	209.55	9.55	190.50
1-266	8.262	.139 ±.004	7.984 ±.045	.38724	209.85	3.55	202.80
104-8.065	8.273	.104 ±.003	8.065 ±.045	.21801	210.15	2.65	204.85
1-444	8.275	.275 ±.006	7.725 ±.045	1.49278	210.20	7.00	196.20
70-8.135ES	8.288	.070 ±.003	8.148 ±.045	.09936	210.50	1.80	206.95
103-8.039ES	8.291	.104 ±.003	8.083 ±.045	.21849	210.60	2.65	205.30
140-8.023	8.303	.140 ±.004	8.023 ±.045	.39477	210.90	3.55	203.80
230-7.829VS	8.337	.231 ±.006	7.875 ±.045	1.06726	211.75	5.85	200.05
500-7.250ES	8.351	.506 ±.010	7.339 ±.045	4.95603	212.10	12.85	186.40
1-369	8.395	.210 ±.005	7.975 ±.045	.89063	213.25	5.35	202.55
1-172	8.443	.103 ±.003	8.237 ±.050	.21831	214.45	2.60	209.20
241-7.975	8.457	.241 ±.006	7.975 ±.045	1.17743	214.80	6.10	202.55
199-8.029ES	8.483	.200 ±.005	8.083 ±.045	.81750	215.45	5.10	205.30
375-7.733	8.483	.375 ±.007	7.733 ±.045	2.81330	215.45	9.55	196.40
104-8.277	8.485	.104 ±.003	8.277 ±.050	.22367	215.50	2.65	210.25
103-8.282ES	8.509	.103 ±.003	8.303 ±.050	.22004	216.15	2.60	210.90
1-267	8.512	.139 ±.004	8.234 ±.050	.39916	216.20	3.55	209.15
187-8.115ES	8.523	.188 ±.005	8.147 ±.045	.72688	216.50	4.80	206.95
1-445	8.525	.275 ±.006	7.975 ±.045	1.53943	216.55	7.00	202.55
500-7.250VS	8.541	.518 ±.010	7.505 ±.045	5.31173	216.95	13.15	190.65
70-8.400ES	8.553	.070 ±.003	8.413 ±.050	.10256	217.25	1.80	213.70
140-8.295	8.575	.140 ±.004	8.295 ±.050	.40793	217.80	3.55	210.70
1-370	8.645	.210 ±.005	8.225 ±.050	.91783	219.60	5.35	208.90
279-8.105	8.663	.279 ±.006	8.105 ±.045	1.61027	220.05	7.10	205.85
224-8.240	8.688	.224 ±.006	8.240 ±.045	1.04788	220.70	5.70	209.30
1-173	8.693	.103 ±.003	8.487 ±.050	.22486	220.80	2.60	215.55
1-268	8.762	.139 ±.004	8.484 ±.050	.41108	222.55	3.55	215.50
275-8.225	8.775	.275 ±.006	8.225 ±.045	1.58608	222.90	7.00	208.90
104-8.570	8.778	.104 ±.003	8.570 ±.050	.23149	222.95	2.65	217.70
236-8.225VS	8.782	.238 ±.006	8.306 ±.050	1.19414	223.05	6.05	210.95
118-8.504VS	8.822	.119 ±.004	8.584 ±.050	.30409	224.10	3.00	218.05
331-8.197	8.859	.331 ±.007	8.197 ±.045	2.30538	225.00	8.40	208.20
270-8.240SS	8.882	.273 ±.006	8.336 ±.045	1.58313	225.60	6.95	211.75
1-371	8.895	.210 ±.005	8.475 ±.050	.94504	225.95	5.35	215.25
187-8.553	8.896	.186 ±.005	8.524 ±.050	.74350	225.95	4.70	216.50
375-8.159	8.909	.375 ±.007	8.159 ±.045	2.96111	226.30	9.55	207.25
142-8.634	8.918	.142 ±.004	8.634 ±.050	.43663	226.50	3.60	219.30
1-174	8.943	.103 ±.003	8.737 ±.050	.23140	227.15	2.60	221.90
275-8.350ES	8.958	.277 ±.006	8.404 ±.045	1.64350	227.55	7.05	213.45
375-8.130SS	8.983	.379 ±.007	8.225 ±.050	3.04943	228.15	9.65	208.90
104-8.780	8.988	.104 ±.003	8.780 ±.050	.23709	228.30	2.65	223.00
375-8.250	9.000	.375 ±.007	8.250 ±.050	2.99269	228.60	9.55	209.55
1-269	9.012	.139 ±.004	8.734 ±.050	.42300	228.90	3.55	221.85



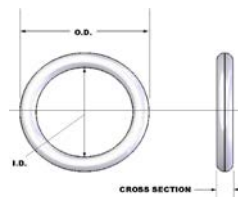
Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
1-446	9.025	.275 ±.006	8.475 ±.055	1.63273	229.25	7.00	215.25
241-8.475SS	9.032	.243 ±.006	8.546 ±.055	1.28054	229.40	6.15	217.05
103-8.825ES	9.053	.103 ±.003	8.847 ±.050	.23428	229.95	2.60	224.70
210-8.641	9.061	.210 ±.005	8.641 ±.050	.96310	230.15	5.35	219.50
103-8.840ES	9.068	.103 ±.003	8.862 ±.050	.23467	230.35	2.60	225.10
1-372	9.145	.210 ±.005	8.725 ±.050	.97224	232.30	5.35	221.60
388-8.380	9.156	.388 ±.007	8.380 ±.050	3.25689	232.55	9.85	212.85
1-175	9.193	.103 ±.003	8.987 ±.050	.23795	233.50	2.60	228.25
103-8.998ES	9.227	.103 ±.003	9.021 ±.050	.23884	234.35	2.60	229.15
328-8.500VS	9.231	.331 ±.007	8.569 ±.050	2.40595	234.45	8.40	217.65
625-8.000	9.250	.625 ±.012	8.000 ±.045	8.31302	234.95	15.90	203.20
103-9.050	9.256	.103 ±.003	9.050 ±.050	.23959	235.10	2.60	229.85
1-270	9.262	.139 ±.004	8.984 ±.050	.43492	235.25	3.55	228.20
275-8.725	9.275	.275 ±.006	8.725 ±.055	1.67937	235.60	7.00	221.60
104-9.075	9.283	.104 ±.003	9.075 ±.050	.24496	235.80	2.65	230.50
140-9.072	9.352	.140 ±.004	9.072 ±.050	.44550	237.55	3.55	230.45
375-8.505SS	9.362	.379 ±.007	8.604 ±.050	3.18375	237.80	9.65	218.55
312-8.750	9.374	.312 ±.006	8.750 ±.050	2.17657	238.10	7.90	222.25
1-373	9.395	.210 ±.005	8.975 ±.050	.99944	238.65	5.35	227.95
1-176	9.443	.103 ±.003	9.237 ±.055	.24449	239.85	2.60	234.60
103-9.250	9.456	.103 ±.003	9.250 ±.055	.24483	240.20	2.60	234.95
1-271	9.512	.139 ±.004	9.234 ±.055	.44684	241.60	3.55	234.55
1-447	9.525	.275 ±.006	8.975 ±.055	1.72602	241.95	7.00	227.95
104-9.328	9.536	.104 ±.003	9.328 ±.055	.25172	242.20	2.65	236.95
323-8.898	9.544	.323 ±.007	8.898 ±.050	2.37368	242.40	8.20	226.00
70-9.435ES	9.590	.070 ±.003	9.450 ±.055	.11510	243.60	1.80	240.05
380-8.812ES	9.596	.381 ±.007	8.834 ±.050	3.30054	243.75	9.70	224.40
1-374	9.645	.210 ±.005	9.225 ±.055	1.02664	245.00	5.35	234.30
1-177	9.693	.103 ±.003	9.487 ±.055	.25103	246.20	2.60	240.95
103-9.500ES	9.730	.103 ±.003	9.524 ±.055	.25200	247.15	2.60	241.90
1-272	9.762	.139 ±.004	9.484 ±.055	.45875	247.95	3.55	240.90
70-9.621ES	9.799	.070 ±.003	9.659 ±.055	.11763	248.90	1.80	245.35
70-9.650ES	9.805	.070 ±.003	9.665 ±.055	.11770	249.05	1.80	245.50
140-9.531	9.811	.140 ±.004	9.531 ±.055	.46770	249.20	3.55	242.10
70-9.675ES	9.830	.070 ±.003	9.690 ±.055	.11800	249.70	1.80	246.15
625-8.625	9.875	.625 ±.012	8.625 ±.055	8.91541	250.85	15.90	219.10
1-375	9.895	.210 ±.005	9.475 ±.055	1.05385	251.35	5.35	240.65
1-178	9.943	.103 ±.003	9.737 ±.055	.25758	252.55	2.60	247.30
272-9.413	9.957	.272 ±.006	9.413 ±.055	1.76798	252.90	6.90	239.10
139-9.700	9.978	.139 ±.004	9.700 ±.055	.46905	253.45	3.55	246.40
1-273	10.012	.139 ±.004	9.734 ±.055	.47067	254.30	3.55	247.25
1-448	10.025	.275 ±.006	9.475 ±.055	1.81932	254.65	7.00	240.65
202-9.598VS	10.047	.203 ±.005	9.641 ±.055	1.00093	255.20	5.15	244.90
140-9.782	10.062	.140 ±.004	9.782 ±.055	.47984	255.60	3.55	248.45
270-9.421SS	10.077	.273 ±.006	9.531 ±.055	1.80289	255.95	6.95	242.10



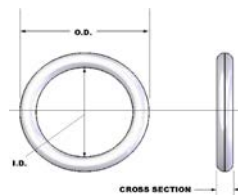
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
70-9.970	10.110	.070 ±.003	9.970 ±.055	.12139	256.80	1.80	253.25
103-9.892ES	10.123	.103 ±.003	9.917 ±.055	.26229	257.10	2.60	251.90
1-376	10.145	.210 ±.005	9.725 ±.055	1.08105	257.70	5.35	247.00
103-9.940ES	10.171	.103 ±.003	9.965 ±.055	.26355	258.35	2.60	253.10
375-9.312SS	10.179	.379 ±.007	9.421 ±.055	3.47332	258.55	9.65	239.30
1-179	10.193	.103 ±.003	9.987 ±.055	.26412	258.90	2.60	253.65
241-9.475SS	10.207	.247 ±.006	9.713 ±.055	1.49932	259.25	6.25	246.70
103-9.982ES	10.213	.103 ±.003	10.007 ±.055	.26465	259.40	2.60	254.20
375-9.250SS	10.232	.384 ±.007	9.464 ±.055	3.58303	259.90	9.75	240.40
70-9.989VS	10.254	.071 ±.003	10.112 ±.055	.12666	260.45	1.80	256.85
1-274	10.262	.139 ±.004	9.984 ±.055	.48259	260.65	3.55	253.60
215-9.837	10.267	.215 ±.005	9.837 ±.055	1.14649	260.80	5.45	249.85
159-9.950	10.268	.159 ±.005	9.950 ±.055	.63058	260.80	4.05	252.75
103-10.095ES	10.327	.103 ±.003	10.121 ±.055	.26763	262.30	2.60	257.05
139-10.048ES	10.351	.139 ±.004	10.073 ±.060	.48683	262.90	3.55	255.85
70-10.207ES	10.363	.070 ±.003	10.223 ±.055	.12445	263.20	1.80	259.65
1-377	10.395	.210 ±.005	9.975 ±.055	1.10825	264.05	5.35	253.35
374-9.646ES	10.413	.375 ±.007	9.664 ±.055	3.47810	264.50	9.50	245.45
375-9.600	10.450	.380 ±.007	9.690 ±.055	3.58402	265.40	9.65	246.15
139-10.178	10.456	.139 ±.004	10.178 ±.055	.49184	265.60	3.55	258.50
70-10.232SS	10.470	.071 ±.003	10.328 ±.055	.12934	265.95	1.80	262.35
215-10.060	10.490	.215 ±.005	10.060 ±.055	1.17192	266.45	5.45	255.50
1-449	10.525	.275 ±.006	9.975 ±.055	1.91262	267.35	7.00	253.35
210-10.115ES	10.563	.211 ±.005	10.141 ±.055	1.13718	268.30	5.35	257.60
104-10.372	10.580	.104 ±.003	10.372 ±.055	.27958	268.75	2.65	263.45
70-10.433ES	10.599	.070 ±.003	10.459 ±.055	.12730	269.20	1.80	265.65
241-9.975VS	10.606	.244 ±.006	10.118 ±.055	1.52217	269.40	6.20	257.00
167-10.186SS	10.620	.169 ±.005	10.282 ±.055	.73650	269.75	4.30	261.15
70-10.485	10.625	.070 ±.003	10.485 ±.055	.12761	269.90	1.80	266.30
210-10.250	10.670	.210 ±.005	10.250 ±.055	1.13818	271.00	5.35	260.35
103-10.450ES	10.693	.103 ±.003	10.487 ±.055	.27721	271.60	2.60	266.35
210-10.300	10.720	.210 ±.005	10.300 ±.055	1.14362	272.30	5.35	261.60
210-10.190SS	10.720	.212 ±.006	10.296 ±.055	1.16528	272.30	5.40	261.50
103-10.449	10.725	.104 ±.003	10.517 ±.060	.28345	272.40	2.65	267.15
375-9.881SS	10.754	.379 ±.007	9.996 ±.055	3.67711	273.15	9.65	253.90
1-275	10.762	.139 ±.004	10.484 ±.055	.50643	273.35	3.55	266.30
70-10.530SS	10.771	.071 ±.003	10.629 ±.060	.13309	273.60	1.80	270.00
71-10.635	10.777	.071 ±.003	10.635 ±.060	.13316	273.75	1.80	270.15
140-10.535	10.815	.140 ±.004	10.535 ±.055	.51625	274.70	3.55	267.60
103-10.500SS	10.870	.105 ±.003	10.660 ±.060	.29284	276.10	2.65	270.75
1-378	10.895	.210 ±.005	10.475 ±.060	1.16266	276.75	5.35	266.05
139-10.610	10.915	.139 ±.003	10.637 ±.060	.51372	277.25	3.55	270.20
159-10.600	10.918	.159 ±.005	10.600 ±.060	.67113	277.30	4.05	269.25
70-10.800ES	10.957	.070 ±.003	10.817 ±.060	.13163	278.30	1.80	274.75
351-10.270	10.972	.351 ±.007	10.270 ±.055	3.22864	278.70	8.90	260.85



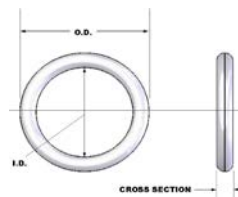
Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
103-10.781ES	11.014	.103 ±.003	10.808 ±.060	.28561	279.75	2.60	274.50
1-450	11.025	.275 ±.006	10.475 ±.060	2.00592	280.05	7.00	266.05
139-10.734	11.038	.139 ±.004	10.760 ±.055	.51958	280.35	3.55	273.30
349-10.199VS	11.043	.354 ±.007	10.335 ±.055	3.30509	280.50	9.00	262.50
260-10.425SS	11.047	.262 ±.006	10.523 ±.060	1.82668	280.60	6.65	267.30
157-10.827	11.141	.157 ±.005	10.827 ±.060	.66804	283.00	4.00	275.00
103-10.710SS	11.168	.105 ±.003	10.958 ±.060	.30095	283.65	2.65	278.35
103-10.984	11.190	.103 ±.003	10.984 ±.060	.29022	284.25	2.60	279.00
103-10.964ES	11.198	.103 ±.003	10.992 ±.060	.29043	284.45	2.60	279.20
70-11.085ES	11.242	.070 ±.003	11.102 ±.065	.13507	285.55	1.80	282.00
1-276	11.262	.139 ±.004	10.984 ±.065	.53026	286.05	3.55	279.00
275-10.725	11.275	.275 ±.006	10.725 ±.060	2.05257	286.40	7.00	272.40
256-10.846SS	11.311	.255 ±.006	10.801 ±.060	1.77386	287.30	6.50	274.35
103-11.120	11.326	.103 ±.003	11.120 ±.065	.29378	287.70	2.60	282.45
139-11.034ES	11.340	.139 ±.004	11.062 ±.065	.53398	288.05	3.55	281.00
103-11.150ES	11.384	.103 ±.003	11.178 ±.065	.29530	289.15	2.60	283.90
1-379	11.395	.210 ±.005	10.975 ±.060	1.21707	289.45	5.35	278.75
103-11.239NS	11.396	.103 ±.003	11.190 ±.065	.29562	289.45	2.60	284.25
141-11.120	11.402	.141 ±.004	11.120 ±.065	.55240	289.60	3.60	282.45
103-11.096SS	11.408	.104 ±.003	11.200 ±.065	.30167	289.75	2.65	284.50
103-11.275ES	11.481	.103 ±.003	11.275 ±.065	.29784	291.60	2.60	286.40
375-10.690SS	11.486	.379 ±.007	10.728 ±.060	3.93640	291.75	9.65	272.50
70-11.339ES	11.508	.070 ±.003	11.368 ±.065	.13829	292.30	1.80	288.75
1-451	11.525	.275 ±.006	10.975 ±.060	2.09922	292.75	7.00	278.75
272-10.988	11.532	.272 ±.006	10.988 ±.060	2.05549	292.90	6.90	279.10
70-11.240SS	11.565	.071 ±.003	11.423 ±.065	.14296	293.75	1.80	290.15
380-10.875	11.635	.380 ±.007	10.875 ±.060	4.01007	295.55	9.65	276.25
103-11.480ES	11.715	.103 ±.003	11.509 ±.065	.30396	297.55	2.60	292.35
93-11.500	11.727	.093 ±.003	11.541 ±.065	.24828	297.85	2.35	293.15
1-277	11.762	.139 ±.004	11.484 ±.065	.55410	298.75	3.55	291.70
1-380	11.895	.210 ±.005	11.475 ±.065	1.27147	302.15	5.35	291.45
1-452	12.025	.275 ±.006	11.475 ±.060	2.19252	305.45	7.00	291.45
103-11.897NS	12.052	.103 ±.003	11.846 ±.065	.31277	306.10	2.60	300.90
290-11.475ES	12.114	.291 ±.006	11.532 ±.065	2.47032	307.70	7.40	292.90
70-11.989	12.129	.070 ±.003	11.989 ±.065	.14580	308.10	1.80	304.50
1-278	12.262	.139 ±.004	11.984 ±.065	.57794	311.45	3.55	304.40
339-11.654	12.316	.339 ±.007	11.638 ±.065	3.39615	312.85	8.60	295.60
140-12.073	12.353	.140 ±.004	12.073 ±.065	.59063	313.75	3.55	306.65
103-12.155ES	12.392	.103 ±.003	12.186 ±.065	.32168	314.75	2.60	309.55
1-381	12.395	.210 ±.005	11.975 ±.065	1.32588	314.85	5.35	304.15
142-12.214	12.498	.142 ±.004	12.214 ±.065	.61474	317.45	3.60	310.25
142-12.224	12.508	.142 ±.004	12.224 ±.065	.61524	317.70	3.60	310.50
1-453	12.525	.275 ±.006	11.975 ±.060	2.28582	318.15	7.00	304.15
275-12.000	12.550	.275 ±.006	12.000 ±.060	2.29048	318.75	7.00	304.80
139-12.278	12.556	.139 ±.004	12.278 ±.065	.59195	318.90	3.55	311.85



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
277-12.064	12.618	.277 ±.006	12.064 ±.060	2.33641	320.50	7.05	306.45
256-12.205	12.674	.255 ±.006	12.164 ±.060	1.99254	321.90	6.50	308.95
139-12.484	12.794	.139 ±.004	12.516 ±.065	.60328	324.95	3.55	317.90
370-12.157	12.817	.368 ±.007	12.081 ±.065	4.15978	325.55	9.35	306.85
209-12.413	12.831	.209 ±.005	12.413 ±.065	1.36038	325.90	5.30	315.30
370-12.106	12.846	.370 ±.007	12.106 ±.065	4.21423	326.30	9.40	307.50
70-12.720	12.860	.070 ±.003	12.720 ±.065	.15463	326.65	1.80	323.10
210-12.475	12.895	.210 ±.005	12.475 ±.065	1.38029	327.55	5.35	316.85
139-12.475VS	12.935	.141 ±.004	12.653 ±.065	.62760	328.55	3.60	321.40
103-12.718ES	12.996	.104 ±.003	12.788 ±.065	.34405	330.10	2.65	324.80
375-12.250VS	13.021	.376 ±.007	12.269 ±.065	4.41097	330.75	9.55	311.65
1-454	13.025	.275 ±.006	12.475 ±.060	2.37911	330.85	7.00	316.85
1-279	13.262	.139 ±.004	12.984 ±.065	.62561	336.85	3.55	329.80
70-13.114ES	13.274	.070 ±.003	13.134 ±.065	.15964	337.15	1.80	333.60
139-13.062	13.340	.139 ±.004	13.062 ±.065	.62933	338.85	3.55	331.80
139-13.114	13.394	.140 ±.004	13.114 ±.065	.64098	340.20	3.55	333.10
1-382	13.395	.210 ±.005	12.975 ±.065	1.43469	340.25	5.35	329.55
139-13.234	13.512	.139 ±.003	13.234 ±.070	.63753	343.20	3.55	336.15
1-455	13.525	.275 ±.006	12.975 ±.060	2.47241	343.55	7.00	329.55
139-13.248	13.526	.139 ±.004	13.248 ±.065	.63819	343.55	3.55	336.50
312-12.750SS	13.531	.316 ±.007	12.899 ±.065	3.25598	343.70	8.05	327.65
375-12.750SS	13.657	.379 ±.007	12.899 ±.065	4.70599	346.90	9.65	327.65
103-13.425ES	13.665	.103 ±.003	13.459 ±.065	.35501	347.10	2.60	341.85
224-13.252	13.700	.224 ±.006	13.252 ±.060	1.66839	348.00	5.70	336.60
139-13.484	13.762	.139 ±.004	13.484 ±.065	.64944	349.55	3.55	342.50
210-13.475	13.895	.210 ±.005	13.475 ±.065	1.48910	352.95	5.35	342.25
210-13.375SS	13.938	.212 ±.006	13.514 ±.070	1.52214	354.05	5.40	343.25
1-456	14.025	.275 ±.006	13.475 ±.070	2.56571	356.25	7.00	342.25
1-280	14.262	.139 ±.004	13.984 ±.065	.67328	362.25	3.55	355.20
1-383	14.395	.210 ±.005	13.975 ±.070	1.54350	365.65	5.35	354.95
1-457	14.525	.275 ±.006	13.975 ±.070	2.65901	368.95	7.00	354.95
224-14.146	14.594	.224 ±.006	14.146 ±.070	1.77907	370.70	5.70	359.30
139-14.484	14.762	.139 ±.004	14.484 ±.065	.69712	374.95	3.55	367.90
339-14.189	14.804	.338 ±.007	14.128 ±.070	4.07776	376.00	8.60	358.85
87-14.470SS	14.825	.088 ±.003	14.649 ±.070	.28159	376.55	2.25	372.10
1-458	15.025	.275 ±.006	14.475 ±.070	2.75231	381.65	7.00	367.65
288-14.250SS	15.101	.293 ±.006	14.515 ±.070	3.13669	383.55	7.45	368.70
500-14.156	15.156	.500 ±.010	14.156 ±.070	9.04056	384.95	12.70	359.55
197-14.764	15.158	.197 ±.005	14.764 ±.070	1.43263	385.00	5.00	375.00
104-14.990	15.198	.104 ±.003	14.990 ±.070	.40282	386.05	2.65	380.75
1-281	15.262	.139 ±.004	14.984 ±.065	.72095	387.65	3.55	380.60
225-14.900NS	15.284	.224 ±.006	14.836 ±.070	1.86449	388.20	5.70	376.85
625-13.875SS	15.361	.630 ±.012	14.101 ±.070	14.42624	390.15	16.00	358.15
631-14.101	15.363	.631 ±.012	14.101 ±.070	14.47305	390.20	16.05	358.15
1-384	15.395	.210 ±.005	14.975 ±.070	1.65232	391.05	5.35	380.35



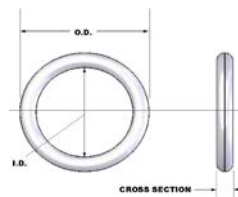
Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
248-15.000	15.444	.247 ±.006	14.950 ±.070	2.28766	392.30	6.25	379.75
103-15.170VS	15.467	.104 ±.003	15.259 ±.076	.41000	392.85	2.65	387.60
1-459	15.525	.275 ±.006	14.975 ±.070	2.84561	394.35	7.00	380.35
139-15.484	15.762	.139 ±.004	15.484 ±.065	.74479	400.35	3.55	393.30
103-15.500VS	15.799	.104 ±.003	15.591 ±.078	.41886	401.30	2.65	396.00
210-15.475	15.895	.210 ±.005	15.475 ±.070	1.70672	403.75	5.35	393.05
1-460	16.025	.275 ±.006	15.475 ±.070	2.93891	407.05	7.00	393.05
338-15.410	16.086	.338 ±.007	15.410 ±.070	4.43914	408.60	8.60	391.40
225-15.500SS	16.100	.227 ±.006	15.646 ±.070	2.01814	408.95	5.75	397.40
1-282	16.233	.139 ±.004	15.955 ±.075	.76724	412.30	3.55	405.25
1.000-14.430	16.311	.993 ±.015	14.325 ±.070	37.26836	414.30	25.20	363.85
1-385	16.375	.210 ±.005	15.955 ±.070	1.75895	415.95	5.35	405.25
110-16.186	16.406	.110 ±.004	16.186 ±.075	.48653	416.70	2.80	411.15
70-16.268SS	16.497	.070 ±.003	16.357 ±.075	.19861	419.00	1.80	415.45
1-461	16.505	.275 ±.006	15.955 ±.075	3.02847	419.25	7.00	405.25
70-16.535	16.717	.070 ±.003	16.577 ±.075	.20127	424.60	1.80	421.05
139-16.455	16.733	.139 ±.004	16.455 ±.075	.79108	425.00	3.55	417.95
1-462	17.005	.275 ±.006	16.455 ±.075	3.12177	431.95	7.00	417.95
1-283	17.233	.139 ±.004	16.955 ±.080	.81492	437.70	3.55	430.65
275-16.750	17.242	.274 ±.006	16.694 ±.075	3.14320	437.95	6.95	424.05
210-16.830	17.250	.210 ±.005	16.830 ±.075	1.85416	438.15	5.35	427.50
312-16.690	17.312	.311 ±.006	16.690 ±.075	4.05728	439.75	7.90	423.95
1-386	17.375	.210 ±.005	16.955 ±.080	1.86776	441.35	5.35	430.65
375-16.625	17.375	.375 ±.007	16.625 ±.075	5.89863	441.35	9.55	422.30
290-16.625SS	17.418	.294 ±.006	16.830 ±.075	3.65207	442.40	7.45	427.50
1-463	17.505	.275 ±.006	16.955 ±.080	3.21507	444.65	7.00	430.65
139-17.455	17.733	.139 ±.004	17.455 ±.080	.83875	450.40	3.55	443.35
1.000-15.735	17.735	1.000 ±.015	15.735 ±.075	41.29196	450.45	25.40	399.65
139-17.480	17.758	.139 ±.004	17.480 ±.080	.83994	451.05	3.55	444.00
1-464	18.005	.275 ±.006	17.455 ±.085	3.30837	457.35	7.00	443.35
240-17.250SS	18.071	.245 ±.006	17.581 ±.080	2.64013	459.00	6.20	446.55
1-284	18.233	.139 ±.004	17.955 ±.085	.86259	463.10	3.55	456.05
1-387	18.375	.210 ±.005	17.955 ±.085	1.97658	466.75	5.35	456.05
1-465	18.505	.275 ±.006	17.955 ±.085	3.40167	470.05	7.00	456.05
313-18.000	18.626	.313 ±.006	18.000 ±.085	4.42678	473.10	7.95	457.20
139-18.455	18.733	.139 ±.004	18.455 ±.085	.88643	475.80	3.55	468.75
125-18.600	18.850	.125 ±.004	18.600 ±.085	.72191	478.80	3.20	472.45
1-466	19.005	.275 ±.006	18.455 ±.085	3.49497	482.75	7.00	468.75
139-18.875	19.153	.139 ±.004	18.875 ±.085	.90645	486.50	3.55	479.45
1-388	19.375	.210 ±.005	18.955 ±.090	2.08539	492.15	5.35	481.45
1-467	19.505	.275 ±.006	18.955 ±.090	3.58826	495.45	7.00	481.45
210-19.200	19.620	.210 ±.005	19.200 ±.090	2.11205	498.35	5.35	487.70
139-19.455	19.733	.139 ±.004	19.455 ±.090	.93410	501.20	3.55	494.15
1-468	20.005	.275 ±.006	19.455 ±.090	3.68156	508.15	7.00	494.15
1-286	20.238	.139 ±.004	19.960 ±.090	.95817	514.05	3.55	507.00



Engineers Guide for O-Rings



Mold IDen	Inch Dimensions				Metric Dimensions (mm)		
	OD	C/S	ID	Volume	OD	C/S	ID
1-389	20.375	.210 ±.005	19.955 ±.095	2.19420	517.55	5.35	506.85
1-473	24.490	.275 ±.006	23.940 ±.110	4.51845	622.05	7.00	608.10
212-24.104	24.528	.212 ±.006	24.104 ±.110	2.69652	623.00	5.40	612.25
212-24.188	24.612	.212 ±.005	24.188 ±.110	2.70583	625.15	5.40	614.40
210-24.625	25.045	.210 ±.005	24.625 ±.110	2.70236	636.15	5.35	625.50
1-394	25.360	.210 ±.005	24.940 ±.115	2.73663	644.15	5.35	633.50
1-474	25.490	.275 ±.006	24.940 ±.115	4.70505	647.45	7.00	633.50
70-25.570SS	25.952	.071 ±.003	25.810 ±.110	.32191	659.20	1.80	655.60
250-25.375VS	26.118	.252 ±.006	25.614 ±.115	4.05294	663.40	6.40	650.60
210-25.580VS	26.270	.212 ±.005	25.846 ±.115	2.88970	667.25	5.40	656.50
340-25.275VS	26.287	.344 ±.007	25.599 ±.110	7.57490	667.70	8.75	650.20
1-395	26.360	.210 ±.005	25.940 ±.120	2.84544	669.55	5.35	658.90
1-475	26.490	.275 ±.006	25.940 ±.120	4.89165	672.85	7.00	658.90
341-25.984	26.524	.339 ±.007	25.846 ±.110	7.42492	673.70	8.60	656.50
212-26.209	26.633	.212 ±.005	26.209 ±.120	2.92995	676.50	5.40	665.70
210-26.940	27.360	.210 ±.005	26.940 ±.120	2.95426	694.95	5.35	684.30
1-396	27.360	.210 ±.005	26.940 ±.120	2.95426	694.95	5.35	684.30
1-476	27.505	.275 ±.006	26.955 ±.120	5.08104	698.65	7.00	684.65
275-27.485	28.035	.275 ±.006	27.485 ±.120	5.17994	712.10	7.00	698.10
375-27.250VS	28.153	.377 ±.007	27.399 ±.120	9.74074	715.10	9.60	695.95
139-27.750SS	28.571	.140 ±.004	28.291 ±.120	1.37495	725.70	3.55	718.60
275-28.801	29.351	.275 ±.006	28.801 ±.130	5.42550	745.50	7.00	731.55
275-29.331ES	30.072	.276 ±.006	29.520 ±.130	5.60036	763.85	7.00	749.80
210-29.880VS	30.614	.212 ±.005	30.190 ±.140	3.37143	777.60	5.40	766.85
210-33.750VS	34.371	.211 ±.005	33.949 ±.115	3.75252	873.05	5.35	862.30
275-33.750VS	34.503	.277 ±.006	33.949 ±.115	6.47971	876.40	7.05	862.30



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