

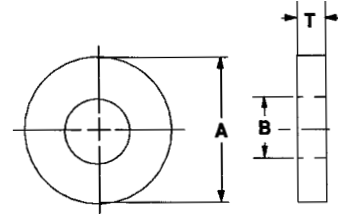
MOLDED WASHERS and SPACERS

MOLDED NYLON FLAT WASHERS

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED FLAT WASHERS starting on page 181-185.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-2	.090	.031	.031	-30	.312	.110	.125	-5900	.187	.130	.150	-8510	.312	.150	.040
-2020	.156	.031	.002	-31	.314	.110	.062	-61	.285	.130	.060	-86	.312	.150	.050
-2024	.085	.032	.062	-32	.206	.112	.053	-62	.312	.130	.062	-8600	.312	.150	.060
-2026	.125	.032	.060	-33	.240	.113	.040	-6300	.355	.130	.062	-87	.375	.150	.030
-3	.100	.035	.020	-3300	.199	.115	.050	-6302	.375	.130	.030	-8704	.750	.150	.055
-4	.153	.038	.060	-3305	.197	.115	.030	-6400	.375	.131	.093	-8708	.251	.151	.035
-5	.170	.038	.060	-34	.250	.115	.032	-65	.295	.135	.127	-90	.375	.153	.063
-6	.138	.040	.033	-35	.250	.115	.062	-650	.490	.136	.055	-9020	.251	.155	.077
-600	.120	.045	.130	-36	.250	.115	.093	-66	.310	.138	.030	-9030	.280	.155	.160
-8	.156	.050	.200	-37	.250	.115	.125	-660	.505	.138	.080	-9000	.250	.156	.100
-8000	.185	.051	.132	-39	.290	.115	.047	-67	.180	.139	.064	-9100	.312	.156	.125
-8002	.120	.055	.080	-3900	.312	.115	.140	-7000	.250	.140	.150	-9200	.320	.156	.031
-9	.312	.062	.125	-3902	.182	.120	.125	-7010	.260	.140	.080	-9210	.438	.156	.062
-10	.120	.063	.180	-3904	.187	.120	.032	-7020	.250	.140	.094	-93	.440	.156	.032
-1000	.312	.063	.090	-41	.187	.120	.060	-7022	.281	.140	.020	-94	.687	.156	.135
-12	.179	.065	.078	-4110	.187	.120	.062	-7024	.312	.140	.020	-95	1.000	.156	.062
-1200	.197	.067	.154	-4105	.190	.120	.100	-71	.312	.140	.032	-9500	.315	.157	.197
-13	.156	.076	.062	-42	.218	.120	.037	-72	.312	.140	.047	-96	.250	.160	.062
-14	.259	.081	.062	-4200	.250	.120	.140	-73	.312	.140	.062	-98	.285	.160	.032
-15	.695	.082	.184	-4300	.275	.120	.062	-74	.312	.140	.093	-9800	.310	.160	.060
-16	.196	.085	.031	-4302	.280	.120	.145	-75	.312	.140	.125	-99	.312	.162	.062
-17	.187	.086	.130	-4305	.281	.120	.020	-76	.375	.140	.080	-100	.500	.165	.075
-1700	1.000	.093	.125	-4400	.280	.120	.030	-760	.400	.140	.062	-101	.620	.165	.250
-18	.188	.094	.020	-4405	.281	.120	.060	-764	.500	.140	.062	-1010	.250	.166	.061
-19	.250	.090	.032	-4410	.281	.120	.040	-77	.187	.141	.125	-1015	.250	.166	.082
-20	.250	.090	.055	-45	.288	.120	.040	-7700	.234	.141	.090	-103	.354	.169	.031
-21	.250	.090	.062	-4600	.228	.122	.093	-78	.250	.141	.062	-1030	.375	.170	.040
-22	.250	.090	.093	-47	.199	.125	.045	-79	.375	.141	.031	-1035	.375	.170	.050
-23	.250	.090	.125	-50	.225	.125	.100	-80	.562	.141	.062	-104	.682	.170	.062
-2301	.187	.091	.080	-51	.235	.125	.040	-8110	.250	.142	.110	-105	.246	.171	.100
-2300	.219	.094	.100	-52	.250	.125	.062	-8115	.250	.143	.082	-107	.250	.171	.100
-24	.375	.094	.281	-53	.250	.125	.095	-8118	.307	.144	.059	-109	.375	.171	.032
-25	.312	.095	.062	-530	.250	.125	.150	-8220	.500	.144	.125	-110	.375	.171	.062
-2500	.178	.098	.045	-54	.312	.125	.032	-8224	.187	.145	.050	-111	.375	.171	.093
-26	.186	.098	.030	-55	.315	.125	.031	-8226	.250	.147	.125	-112	.375	.171	.125
-27	.197	.100	.156	-56	.375	.125	.040	-8228	.495	.147	.298	-114	.630	.171	.060
-2702	.316	.100	.033	-5600	.375	.125	.072	-8230	.225	.150	.045	-118	.375	.172	.060
-2700	1.250	.100	.060	-5602	.500	.125	.125	-8232	.225	.150	.090	-1180	.375	.173	.093
-2704	.502	.101	.040	-57	.625	.125	.062	-8238	.280	.150	.108	-1182	.500	.175	.062
-28	.220	.104	.031	-58	.250	.126	.025	-8700	.329	.150	.060	-119	.408	.177	.062
-2890	.281	.107	.020	-5800	.245	.128	.093	-8500	.312	.150	.020				
-29	.158	.110	.070	-59	.322	.128	.062	-8505	.312	.150	.030				

(continued next page)

Tolerances:
 O.D. +/- .015.
 Thickness & I.D. +/- .010

.031 I.D. to .177 I.D.

MOLDED WASHERS and SPACERS (continued)

Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-1190	.356	.179	.118	-1451	.460	.204	.031	-1740	.486	.252	.069	-2077	.731	.266	.118
-1192	.370	.184	.047	-1452	.500	.205	.125	-175	.622	.252	.060	-2078	.618	.270	.220
-1195	.310	.185	.032	-1454	.270	.207	.050	-176	.375	.253	.084	-2079	1.250	.270	.080
-1210	.250	.187	.130	-146	.435	.209	.039	-1760	.443	.253	.125	-2080	.416	.272	.120
-1215	.256	.187	.045	-1460	.492	.209	.020	-1764	.568	.253	.093	-2082	.538	.272	.047
-122	.312	.187	.050	-147	.620	.209	.187	-178	.565	.254	.094	-2084	.750	.274	.250
-1220	.380	.187	.155	-148	.280	.210	.125	-1780	1.000	.254	.325	-2086	.433	.275	.075
-1225	.440	.187	.093	-1480	.307	.210	.125	-1784	.375	.255	.093	-2088	2.150	.275	.125
-1228	.500	.187	.062	-1485	.375	.210	.152	-179	.382	.255	.195	-2090	.335	.280	.195
-123	.625	.187	.062	-149	.375	.210	.160	-180	.500	.255	.075	-2092	.453	.280	.030
-124	.750	.187	.156	-1490	.740	.215	.095	-181	.555	.255	.047	-209	.630	.280	.030
-125	.500	.188	.032	-1500	.313	.217	.125	-182	.900	.255	.125	-210	.687	.280	.031
-1250	.500	.188	.062	-1505	.345	.218	.032	-1820	.591	.256	.087	-2100	.490	.281	.030
-126	1.500	.188	.068	-151	.375	.218	.032	-183	.500	.257	.032	-212	.625	.281	.110
-1260	.330	.189	.080	-1510	.438	.218	.156	-184	.500	.257	.062	-2110	.625	.281	.210
-1265	.375	.189	.031	-152	.625	.218	.031	-186	.500	.257	.093	-214	.719	.281	.062
-1268	1.006	.189	.040	-153	.625	.218	.062	-187	.500	.257	.125	-2150	1.250	.281	.063
-127	1.006	.189	.064	-154	.625	.218	.125	-188	.625	.257	.020	-216	.753	.282	.123
-1270	.282	.190	.065	-155	.625	.218	.250	-1884	.750	.257	.030	-2162	.638	.283	.027
-128	.310	.190	.032	-156	.625	.218	.500	-1880	.750	.257	.062	-2167	.625	.284	.062
-1290	.335	.190	.032	-1570	.750	.218	.187	-1886	.750	.257	.109	-217	.445	.290	.033
-130	.375	.190	.065	-1575	.500	.219	.156	-189	.875	.257	.031	-2170	.560	.290	.062
-1300	.434	.190	.125	-158	.295	.220	.127	-190	.875	.257	.062	-2174	.625	.292	.040
-1310	.750	.191	.100	-159	.374	.220	.062	-1900	1.250	.257	.255	-218	.685	.295	.062
-1320	.312	.192	.110	-1580	.738	.220	.155	-1910	.312	.260	.070	-220	.750	.296	.032
-1322	.370	.192	.080	-1585	.740	.220	.120	-1912	.312	.260	.109	-2190	1.000	.297	.063
-1324	.370	.192	.125	-1590	.377	.221	.095	-193	.350	.260	.062	-2194	.750	.300	.125
-1326	.406	.192	.062	-1596	.348	.222	.081	-195	.437	.260	.047	-2196	.620	.301	.039
-1328	.510	.193	.050	-1598	.450	.222	.048	-204	.490	.260	.245	-2198	.578	.307	.125
-131	.750	.193	.040	-160	1.258	.226	.065	-196	.560	.260	.125	-221	.495	.310	.095
-132	.375	.194	.032	-1604	1.250	.226	.125	-197	.562	.260	.062	-2212	.750	.310	.170
-133	.375	.194	.062	-161	.312	.228	.250	-198	.615	.260	.100	-2214	.750	.310	.375
-134	.375	.194	.093	-1610	.415	.229	.102	-1984	.625	.260	.140	-222	1.175	.310	.125
-135	.375	.194	.125	-162	.970	.230	.125	-1986	.625	.260	.180	-2210	1.250	.310	.120
-1350	.525	.194	.032	-163	.406	.234	.062	-1988	1.225	.260	.060	-2220	.500	.312	.096
-136	.625	.194	.125	-164	.425	.235	.130	-199	.685	.260	.032	-223	.500	.312	.125
-1362	1.000	.194	.160	-1642	.350	.240	.040	-1990	.687	.260	.020	-224	.500	.312	.156
-1364	.245	.195	.125	-166	.375	.242	.062	-1995	.687	.260	.050	-2240	.625	.312	.250
-1360	.437	.195	.020	-1660	.433	.244	.054	-200	.687	.260	.040	-2245	.712	.312	.081
-137	.437	.195	.031	-1664	.689	.244	.2364	-201	.687	.260	.060	-225	.812	.312	.125
-1370	.437	.195	.040	-167	.375	.250	.093	-2010	.745	.260	.066	-226	.855	.312	.125
-1373	.437	.195	.050	-1670	.375	.250	.150	-2015	.745	.260	.125	-227	.875	.312	.125
-1376	.437	.195	.060	-168	.435	.250	.094	-202	.750	.261	.095	-228	.875	.312	.187
-1380	.245	.195	.125	-1680	.465	.250	.015	-192	.312	.262	.127	-2280	1.000	.312	.032
-139	.435	.196	.046	-169	.500	.250	.150	-1922	.433	.262	.126	-2284	1.000	.312	.187
-1390	.353	.197	.157	-170	.562	.250	.031	-1924	.500	.262	.150	-2286	1.500	.312	.062
-1395	.280	.200	.093	-171	.625	.250	.062	-1928	1.000	.264	.070	-229	.531	.313	.031
-140	.380	.200	.030	-1710	.625	.250	.190	-1934	.405	.265	.125	-2310	.560	.315	.062
-141	.390	.200	.031	-172	.719	.250	.062	-205	.560	.265	.030	-231	.625	.315	.031
-1410	.400	.200	.093	-173	1.250	.250	.255	-2052	.562	.265	.187	-233	.872	.315	.062
-142	.437	.200	.062	-1730	1.250	.250	.062	-206	.620	.265	.192	-2330	.890	.315	.215
-143	.437	.200	.090	-1731	1.375	.250	.064	-2060	.625	.265	.093	-234	1.121	.316	.034
-1430	.437	.200	.115	-1732	1.375	.250	.750	-2070	.875	.265	.093	-235	.500	.317	.032
-144	.450	.200	.048	-1733	1.395	.250	.118	-2072	1.000	.265	.262	-236	.500	.317	.062
-145	.435	.202	.187	-1734	.389	.251	.125	-2073	1.500	.265	.312				
-1450	.562	.203	.062	-174	.472	.252	.059	-2076	1.500	.265	.375				

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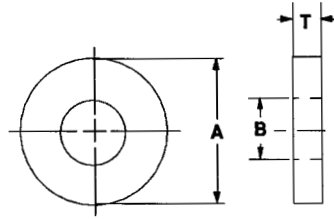
Tolerances:
O.D. +/- .015.
Thickness & I.D. +/- .010

.179 I.D. to .317 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-237	.500	.317	.093	-2555	.472	.350	.110	-2868	.542	.388	.220	-3138	.805	.418	.062
-238	.500	.317	.125	-257	.620	.350	.188	-2869	.695	.388	.059	-314	.687	.421	.031
-2380	.565	.317	.095	-258	.750	.352	.031	-2894	.754	.389	.075	-315	.687	.421	.062
-2384	.750	.317	.040	-259	.735	.360	.160	-289	.625	.390	.265	-316	.625	.422	.203
-239	.750	.317	.062	-2590	.983	.360	.120	-2892	.680	.390	.125	-320	.810	.435	.060
-2390	.890	.317	.245	-2595	.547	.363	.062	-2900	.688	.390	.031	-317	.625	.437	.093
-2392	.440	.318	.031	-261	1.235	.365	.110	-2905	.750	.390	.050	-318	.625	.437	.250
-2395	.680	.318	.187	-262	.560	.373	.031	-2910	.720	.390	.300	-3180	.629	.437	.125
-241	.688	.318	.190	-263	.505	.375	.050	-292	.750	.390	.062	-3182	.750	.437	.036
-2412	.755	.318	.100	-2630	.591	.374	.118	-293	.750	.390	.140	-3184	.876	.437	.502
-2414	.500	.320	.170	-2632	.453	.375	.062	-294	.875	.390	.093	-3186	1.250	.437	.125
-2415	.500	.320	.200	-2634	.490	.375	.087	-295	.880	.390	.062	-319	1.500	.437	.130
-2416	.500	.320	.250	-2636	.500	.375	.032	-2950	.885	.390	.094	-3190	.650	.440	.125
-2410	.500	.320	.281	-265	.500	.375	.087	-2952	1.000	.390	.175	-3192	.662	.440	.122
-2411	.560	.320	.187	-266	.530	.375	.093	-2954	1.000	.390	.250	-3194	.750	.440	.093
-2413	.562	.320	.020	-267	.625	.375	.032	-296	1.120	.390	.125	-3200	.745	.443	.095
-2417	.562	.320	.125	-269	.750	.375	.062	-2960	1.265	.390	.156	-321	.750	.443	.032
-2418	.750	.320	.250	-2690	.750	.375	.125	-298	1.267	.390	.045	-322	.750	.443	.062
-2420	1.000	.320	.375	-2694	3.750	.375	.062	-2970	2.000	.390	.062	-323	.750	.443	.093
-2424	1.125	.320	.062	-270	.825	.375	.100	-300	.757	.394	.125	-324	.750	.443	.125
-232	.625	.321	.125	-272	.900	.375	.055	-301	.785	.394	.080	-3240	.670	.448	.120
-243	.750	.323	.125	-2730	1.000	.375	.062	-3010	.748	.395	.093	-325	1.000	.450	.125
-2430	1.000	.326	.125	-2732	1.000	.375	.312	-303	.598	.396	.175	-3250	1.375	.450	.090
-2435	.630	.327	.071	-2735	1.500	.375	.375	-3030	.860	.397	.165	-326	.938	.453	.155
-245	.390	.328	.079	-274	.875	.377	.062	-3034	.748	.400	.089	-3260	.709	.461	.110
-2450	.562	.328	.095	-2740	1.170	.377	.062	-3036	1.270	.400	.062	-327	.523	.463	.060
-2455	.590	.328	.147	-2744	.551	.378	.063	-3038	.528	.402	.039	-328	.713	.463	.065
-246	.750	.328	.032	-2748	.615	.380	.122	-304	.807	.402	.065	-3282	.614	.464	.110
-2460	.465	.330	.031	-275	.625	.380	.062	-3040	.748	.403	.059	-3284	.575	.467	.090
-2465	.625	.330	.092	-276	.625	.380	.093	-3044	.542	.404	.097	-3286	.659	.468	.119
-2470	1.375	.330	.125	-277	.625	.380	.125	-3048	.542	.404	.110	-3288	.750	.470	.200
-2475	.944	.331	.098	-2770	.750	.380	.187	-305	.540	.405	.112	-3280	.929	.472	.126
-2478	1.000	.333	.385	-279	.875	.380	.093	-3052	.512	.406	.089	-3292	.685	.473	.190
-2480	1.500	.335	.125	-2790	.937	.380	.062	-3054	.615	.406	.042	-329	.525	.475	.070
-248	.709	.336	.079	-2800	1.250	.380	.125	-3056	.625	.406	.120	-3295	1.184	.477	.079
-249	.683	.337	.063	-2804	1.370	.380	.125	-3050	.750	.406	.032	-330	.825	.480	.100
-2490	.990	.337	.292	-281	.932	.381	.031	-3051	.750	.406	.060	-3302	.554	.481	.030
-2495	1.000	.339	.154	-2810	.540	.382	.096	-3055	.750	.406	.200	-331	.671	.481	.031
-250	.615	.340	.125	-2814	.738	.382	.160	-308	.984	.406	.125	-3310	.775	.485	.150
-251	.740	.340	.062	-282	.750	.382	.066	-309	1.000	.406	.062	-3312	1.006	.485	.040
-256	.865	.340	.187	-283	.750	.382	.160	-3094	1.005	.406	.080	-3314	.710	.490	.125
-2510	1.260	.340	.250	-284	.500	.385	.160	-3090	1.055	.406	.250	-333	.809	.495	.059
-2515	.437	.343	.062	-2840	.625	.385	.185	-310	.875	.408	.060	-3330	.742	.498	.119
-2518	.687	.343	.031	-2845	.750	.385	.020	-3100	.625	.410	.033	-3352	.600	.500	.120
-252	.500	.343	.109	-2848	.750	.385	.045	-312	1.010	.410	.100	-3354	.625	.500	.132
-2530	.885	.343	.062	-287	.750	.385	.200	-313	.866	.413	.098	-3305	.880	.500	.065
-2535	.980	.343	.065	-2860	.880	.385	.125	-3130	1.181	.413	.098	-336	.875	.500	.125
-255	.687	.344	.064	-2865	.885	.385	.062	-3134	.555	.415	.060				
-2550	.452	.349	.075	-2866	.812	.386	.187	-3136	.990	.416	.060				

(continued next page)

Tolerances:
O.D. +/- .015.

Thickness & I.D. +/- .010

.317 I.D. to .500 I.D.

MOLDED WASHERS and SPACERS (continued)

Part No. DN214 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-337	.900	.500	.075	-3650	.755	.558	.030	-3944	.871	.706	.111	-4196	1.500	1.015	.250
-3372	1.000	.500	.062	-3654	.825	.561	.145	-3946	1.102	.728	.039	-4198	1.135	1.022	.500
-3374	1.000	.500	.100	-3658	.700	.565	.062	-3970	.840	.730	.125	-4190	1.312	1.026	.191
-3376	1.125	.500	.062	-366	.705	.562	.093	-3973	1.000	.730	.062	-420	1.850	1.028	.120
-341	1.500	.500	.125	-368	1.000	.562	.125	-3975	1.060	.740	.100	-421	1.218	1.031	.040
-3410	1.220	.502	.150	-3680	1.255	.562	.031	-3978	1.062	.740	.225	-4210	2.500	1.075	.125
-342	1.120	.503	.033	-3684	1.024	.563	.220	-3982	.875	.750	.160	-4216	2.000	1.080	.160
-343	.625	.505	.092	-3688	.750	.565	.125	-3980	1.505	.750	.053	-422	1.312	1.088	.062
-344	.750	.505	.032	-371	.687	.568	.062	-3984	.875	.755	.125	-423	2.935	1.125	.093
-345	.750	.505	.062	-3710	.715	.570	.100	-3986	.962	.755	.101	-4234	1.540	1.164	.192
-346	.750	.505	.093	-3720	.937	.580	.082	-3988	1.000	.755	.175	-4230	1.468	1.180	.100
-347	.750	.505	.125	-3725	.937	.583	.062	-3992	1.500	.755	.125	-4238	1.500	1.250	.125
-3470	1.000	.505	.125	-3726	.882	.589	.085	-3996	1.000	.760	.062	-4240	1.695	1.255	.065
-3478	1.500	.505	.125	-3730	.778	.590	.032	-3990	1.420	.760	.100	-4243	3.000	1.270	.093
-3475	1.500	.505	.130	-3732	1.493	.604	.220	-3998	1.125	.763	.125	-4245	2.260	1.275	.120
-348	.940	.506	.064	-3734	.753	.605	.055	-400	1.250	.765	.080	-425	2.010	1.280	.135
-3480	.692	.507	.042	-3736	.753	.605	.067	-4000	1.490	.765	.100	-4260	2.280	1.325	.120
-3482	1.500	.507	.250	-3728	1.128	.605	.239	-402	.993	.771	.124	-427	1.625	1.375	.110
-3484	.745	.509	.150	-3737	.805	.621	.125	-4020	1.000	.781	.075	-4272	1.650	1.395	.140
-3486	.643	.510	.090	-3738	.805	.621	.101	-4030	1.575	.795	.039	-4270	1.635	1.405	.093
-3488	.805	.510	.125	-373	.750	.625	.170	-403	1.250	.805	.060	-4274	2.250	1.410	.130
-3489	.805	.510	.220	-374	.937	.625	.093	-404	2.000	.805	.062	-4275	2.180	1.420	.050
-3492	1.312	.510	.400	-3740	1.312	.625	.050	-4040	2.968	.805	.062	-4278	2.970	1.490	.125
-3490	1.375	.510	.062	-378	1.718	.625	.050	-405	1.490	.810	.062	-4290	1.619	1.495	.245
-3494	2.000	.510	.060	-379	.875	.627	.114	-406	1.057	.812	.125	-429	1.724	1.500	.032
-3496	1.570	.512	.118	-380	.812	.630	.100	-4060	1.250	.812	.080	-430	1.906	1.500	.093
-3498	.750	.515	.250	-3800	.812	.630	.220	-4062	1.750	.812	.125	-4306	1.985	1.525	.125
-350	.775	.515	.250	-3802	1.130	.630	.062	-4064	3.132	.812	.125	-431	2.000	1.525	.060
-3500	.900	.515	.060	-3804	1.562	.630	.062	-4066	1.250	.839	.040	-4310	2.995	1.625	.093
-3510	1.500	.515	.437	-3806	2.000	.630	.125	-4068	1.114	.840	.127	-4318	2.205	1.720	.050
-352	1.468	.515	.050	-381	1.000	.631	.128	-4070	1.000	.844	.125	-432	2.500	1.750	.125
-3520	.740	.516	.125	-3810	1.004	.631	.065	-407	1.031	.844	.040	-433	2.135	1.760	.130
-3495	.743	.516	.093	-382	1.000	.632	.185	-4074	1.117	.875	.195	-434	2.060	1.800	.055
-353	1.250	.516	.062	-383	2.930	.632	.150	-408	1.250	.875	.125	-4360	2.690	1.930	.125
-354	1.000	.518	.080	-384	.782	.633	.125	-4082	1.280	.880	.062	-438	3.260	2.620	.062
-3540	1.490	.521	.120	-3840	.995	.635	.250	-4080	1.125	.889	.060	-439	3.016	2.800	.072
-355	.712	.522	.062	-3845	1.120	.635	.140	-4086	1.125	.920	.126	-440	3.016	2.800	.122
-3550	.738	.522	.120	-386	.781	.640	.031	-409	1.750	.928	.275	-460	3.600	3.030	.075
-3554	1.363	.523	.051	-387	1.375	.640	.090	-4102	1.310	.938	.040				
-3556	.690	.525	.250	-388	1.225	.643	.100	-4104	1.625	.940	.060				
-3558	.636	.526	.098	-3880	1.122	.644	.217	-4106	1.132	.942	.130				
-357	1.375	.525	.125	-389	1.310	.645	.120	-4100	1.800	.948	.057				
-358	.718	.526	.219	-3892	1.119	.650	.090	-413	1.203	.984	.050				
-3580	.718	.526	.281	-3890	.844	.656	.060	-4130	1.450	.990	.120				
-359	.750	.530	.230	-390	1.375	.656	.125	-4134	1.625	1.000	.187				
-3593	1.375	.530	.173	-3910	1.575	.659	.118	-4138	2.250	1.000	.075				
-3596	.697	.531	.158	-3906	1.000	.655	.125	-414	1.312	1.000	.125				
-3598	.700	.531	.093	-392	1.500	.665	.094	-415	1.312	1.000	.191				
-3590	.740	.531	.187	-3920	.957	.666	.139	-416	1.437	1.000	.069				
-361	.865	.531	.200	-393	.865	.688	.155	-417	1.450	1.000	.063				
-3610	.870	.531	.187	-3930	.960	.692	.126	-4170	1.563	1.000	.062				
-364	1.625	.531	.312	-3934	1.500	.696	.120	-418	1.245	1.001	.031				
-3640	1.120	.540	.125	-394	.812	.695	.093	-4180	1.468	1.010	.112				
-3644	.817	.544	.140	-3940	1.425	.697	.100	-4184	1.375	1.015	.125				
-3646	1.030	.550	.062	-3942	.926	.705	.124	-419	1.500	1.015	.080				

Tolerances:
O.D. +/- .015.
Thickness & I.D. +/- .010

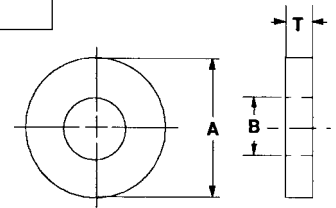
.500 I.D. to 3.030 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.



MOLDED NYLON METRIC FLAT WASHERS

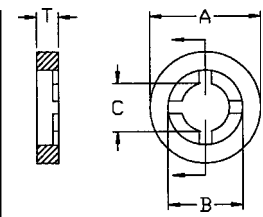
Part No. GM117 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	T	Size Code No.	Thread Size	A	B	T	Size Code No.	Thread Size	A	B	T
-1	M2	5,00	2,15	0,80	-6	M5	11,00	5,30	1,00	-11	M12	25,14	13,43	2,53
-2	M2,5	5,60	2,65	0,80	-7	M6	12,00	6,40	1,50	-12	M12	33,64	13,40	3,06
-3	M3	8,00	3,20	0,80	-8	M8	18,00	8,40	2,00	Tolerance on all dimensions +/- .25mm				
-4	M3,5	8,00	3,70	0,80	-9	M8,5	25,00	8,50	2,00					
-5	M4	9,00	4,30	0,80	-10	M10	22,00	10,50	2,50					

MOLDED NYLON RETAINING WASHERS

Part No. F127 - (Size Code No.) - (Material Code No.)

Size Code No.	A	B	C	T	Size Code No.	A	B	C	T	Size Code No.	A	B	C	T
-1	.203	.115	.078	.031	-9	.453	.277	.177	.031	-17	1.031	.570	.410	.031
-2	.203	.115	.078	.062	-10	.453	.277	.177	.062	-18	1.031	.570	.410	.062
-3	.265	.156	.102	.032	-100	.500	.277	.177	.062	-19	1.125	.690	.468	.031
-4	.265	.156	.102	.062	-11	.594	.375	.234	.031	-20	1.125	.690	.468	.062
-40	.265	.156	.102	.125	-12	.594	.375	.234	.062	-200	1.260	.563	.350	.062
-5	.328	.198	.128	.031	-13	.734	.470	.292	.031	-202	1.334	.940	.825	.062
-6	.328	.198	.128	.062	-14	.734	.470	.292	.062	-204	1.385	1.070	.970	.062
-7	.390	.235	.152	.031	-15	.890	.564	.350	.031					
-8	.390	.235	.152	.062	-16	.890	.564	.350	.062					

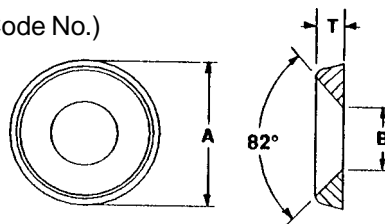


Tolerances:
O.D. +/- .015.
Thickness +/- .010
I.D. +/- .010

MOLDED NYLON FINISHING WASHERS

Part No. G1203 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thick T	Screw Size
-1	.437	.143	.100	#6
-2	.515	.171	.115	#8
-3	.580	.191	.152	#10
-4	.609	.225	.160	#12
-5	.683	.260	.183	1/4



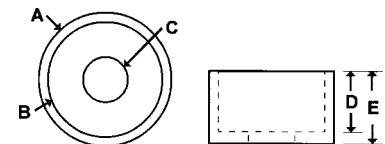
Tolerances:
O.D. +/- .015.
Thickness & I.D. +/- .010

For other materials see
MACHINED FINISHING WASHERS
on page 194.

MOLDED NYLON CUP WASHERS

Part No. DN400 - (Size Code No.) - (Material Code No.)

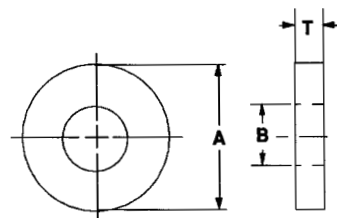
Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E	Size Code No.	A	B	C	D	E
-1	.305	.245	.115	.117	.157	-31	.497	.389	.187	.093	.139	-50	.895	.625	.344	.250	.375
-2	.360	.300	.140	.142	.182	-32	.568	.375	.201	.127	.157	-54	.895	.625	.344	.375	.500
-3	.414	.354	.171	.166	.206	-4	.470	.410	.194	.190	.230						
-30	.414	.354	.171	.130	.170	-5	.595	.535	.257	.247	.287						



MOLDED CUSHIONING WASHERS and SPACERS

Standard Material:

Material Code No. Material Name
 -67 Engage 8400, (clear)



Part No. FW110 - (Size Code No.) - (Material Code No.)

Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T	Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T
-1	6	.250	.141	.060	-11	1/2	2.250	.530	.125
-2	8	.312	.171	.060	-12	5/8	2.250	.680	.125
-3	10	.375	.190	.060	-120	3/4	1.375	.875	.187
-4	12	.437	.200	.093	-13	3/4	2.250	.780	.125
-5	1/4	.500	.257	.093	-14	7/8	2.250	.890	.125
-6	5/16	.562	.317	.093	-15	1	2.250	1.060	.125
-7	3/8	.625	.380	.093	-16	1	3.000	1.060	.125
-70	1/2	.750	.531	.235	-160	1 1/4	1.875	1.312	.125
-8	1/2	1.000	.530	.093	-17	1 1/4	3.000	1.280	.125
-9	3/8	2.250	.380	.125	-175	1 7/8	2.281	1.937	.125
-10	3/8	3.000	.380	.125					

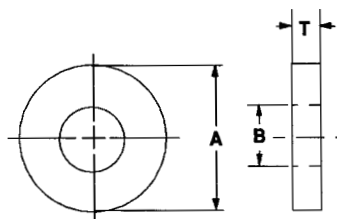
Tolerance: +/- .020

SPECIAL MOLDED WASHERS and SPACERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-6	Ultem® 2300, (black)	-520	PPS, 30%Carbon Fiber, (black)
-48	Ryton® (PPS), 40% Short Glass-filled	-820	Isoplast™, 30% Short Glass-fiber, (grey)
-77	Ultem® 2300, (natural)	-822	Isoplast™, 40% Short Glass-fiber, (natural)
-228	Radel® AG330, 30% Glass-filled	-824	Isoplast™, 30% Short Glass-fiber, (natural)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED FLAT WASHERS starting on page 181-185.



Part No. FW126 - (Size Code No.) - (Material Code No.)

Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T	Size Code No.	Screw Size	O.D. A	I.D. B	Nom. Thk. T
-1	6	.250	.141	.060	-10	3/8	3.000	.380	.125
-100	6	.312*	.141**	.060	-11	1/2	2.250	.530	.125
-2	8	.312	.171	.060	-12	5/8	2.250	.680	.125
-3	10	.375	.190	.060	-120	3/4	1.375	.875	.187
-4	12	.437	.200	.093	-13	3/4	2.250	.780	.125
-5	1/4	.500	.257	.093	-14	7/8	2.250	.890	.125
-6	5/16	.562	.317	.093	-15	1	2.250	1.060	.125
-7	3/8	.625	.380	.093	-16	1	3.000	1.060	.125
-70	1/2	.750	.531	.235	-160	1 1/4	1.875	1.312	.125
-8	1/2	1.000	.530	.093	-17	1 1/4	3.000	1.280	.125
-9	3/8	2.250	.380	.125	-175	1 7/8	2.281	1.937	.125

Tolerance: +/- .020 * Tolerance: +/- .010 ** Tolerance: +/- .003

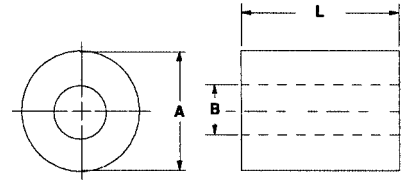
MOLDED WASHERS and SPACERS (continued)

MOLDED NYLON SPACERS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.
Also, see MACHINED SPACERS starting on page 196-202.



ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-5000	.138	.038	.065	-44	.250	.100	.127	-92	.312	.115	.437
-5005	.138	.038	.125	-4400	.250	.110	.530	-93	.312	.115	.500
-5010	.125	.047	.187	-4410	.157	.102	.217	-94	.312	.115	.562
-5015	.125	.047	.375	-4415	.198	.109	.345	-95	.312	.115	.625
-4	.125	.063	.187	-46	.187	.115	.125	-96	.312	.115	.687
-4010	.156	.063	.120	-47	.187	.115	.187	-97	.312	.115	.750
-4000	.187	.063	.250	-49	.187	.115	.250	-98	.312	.115	.812
-4005	.187	.063	.300	-4900	.187	.115	.281	-99	.312	.115	.875
-5	.187	.067	.140	-50	.187	.115	.312	-100	.312	.115	.937
-6	.150	.078	.312	-51	.187	.115	.375	-101	.312	.115	1.000
-6000	.148	.085	.280	-52	.187	.115	.437	-102	.312	.115	1.062
-6015	.188	.090	.520	-53	.187	.115	.500	-103	.312	.115	1.125
-8	.187	.091	.125	-54	.187	.115	.562	-104	.312	.115	1.187
-9	.187	.091	.187	-55	.187	.115	.625	-105	.312	.115	1.250
-9000	.187	.091	.203	-56	.187	.115	.687	-106	.312	.115	1.312
-10	.187	.091	.250	-57	.187	.115	.750	-107	.312	.115	1.375
-11	.187	.091	.312	-58	.187	.115	.812	-108	.312	.115	1.437
-12	.187	.091	.375	-59	.187	.115	.875	-109	.312	.115	1.500
-13	.187	.091	.437	-60	.187	.115	.937	-111	.375	.115	1.062
-14	.187	.091	.500	-61	.187	.115	1.000	-1120	.197	.118	.108
-15	.187	.091	.562	-62	.250	.115	.125	-1112	.187	.120	.312
-16	.187	.091	.625	-63	.250	.115	.187	-1114	.187	.120	.343
-17	.187	.091	.687	-630	.250	.115	.207	-1115	.187	.120	.430
-18	.187	.091	.750	-64	.250	.115	.218	-1116	.187	.120	.437
-19	.187	.091	.812	-65	.250	.115	.250	-1119	.250	.120	.200
-20	.187	.091	.844	-66	.250	.115	.312	-1130	.250	.120	.389
-21	.187	.091	.875	-67	.250	.115	.375	-112	.470	.120	.359
-22	.187	.091	.937	-68	.250	.115	.437	-113	.193	.125	.250
-23	.187	.091	1.000	-69	.250	.115	.500	-114	.216	.125	.135
-2310	.188	.091	.275	-70	.250	.115	.562	-1140	.218	.125	.385
-2300	.188	.091	.330	-71	.250	.115	.625	-1145	.250	.125	.375
-24	.250	.091	.125	-72	.250	.115	.687	-1150	.250	.125	.420
-25	.250	.091	.187	-73	.250	.115	.750	-1155	.250	.125	.823
-26	.250	.091	.250	-74	.250	.115	.812	-116	.280	.125	.296
-27	.250	.091	.312	-75	.250	.115	.875	-117	.296	.125	.094
-28	.250	.091	.375	-76	.250	.115	.937	-1172	.325	.125	.360
-29	.250	.091	.437	-77	.250	.115	1.000	-1175	.375	.125	.437
-30	.250	.091	.500	-78	.250	.115	1.062	-118	.250	.126	.797
-31	.250	.091	.562	-79	.250	.115	1.125	-119	.310	.126	.410
-32	.250	.091	.625	-80	.250	.115	1.187	-120	.203	.130	.281
-33	.250	.091	.687	-81	.250	.115	1.250	-1210	.187	.135	.250
-34	.250	.091	.750	-82	.250	.115	1.312	-122	.220	.138	.656
-35	.250	.091	.812	-83	.250	.115	1.375	-1220	.236	.138	.118
-36	.250	.091	.875	-84	.250	.115	1.437	-1225	.354	.138	.374
-37	.250	.091	.937	-85	.250	.115	1.500	-124	.218	.140	.156
-38	.250	.091	1.000	-86	.251	.115	.531	-1240	.250	.140	.150
-39	.192	.093	.203	-87	.312	.115	.125	-125	.250	.140	.125
-40	.375	.094	.281	-88	.312	.115	.187	-127	.250	.140	.187
-41	.312	.095	.250	-89	.312	.115	.250	-1270	.250	.140	.220
-4200	.187	.096	.156	-90	.312	.115	.312				
-43	.160	.100	.406	-91	.312	.115	.375				

(continued next page)

Tolerances: O.D. & Length +/- .015
I.D. +/- .010

.038 I.D. to .140 I.D.

MOLDED WASHERS and SPACERS (continued)

ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-129	.250	.140	.250	-184	.375	.140	.750	-234	.250	.171	.500
-130	.250	.140	.312	-185	.375	.140	.812	-235	.250	.171	.562
-131	.250	.140	.375	-186	.375	.140	.875	-2350	.250	.171	.575
-132	.250	.140	.437	-187	.375	.140	.937	-236	.250	.171	.625
-133	.250	.140	.500	-188	.375	.140	1.000	-237	.250	.171	.687
-1330	.250	.140	.531	-189	.375	.140	1.062	-238	.250	.171	.750
-134	.250	.140	.547	-190	.375	.140	1.125	-239	.250	.171	.812
-135	.250	.140	.562	-191	.375	.140	1.187	-240	.250	.171	.875
-136	.250	.140	.625	-192	.375	.140	1.250	-241	.250	.171	.937
-1360	.250	.140	.640	-193	.375	.140	1.312	-242	.250	.171	1.000
-137	.250	.140	.687	-194	.375	.140	1.375	-243	.312	.171	.125
-138	.250	.140	.750	-195	.375	.140	1.439	-244	.312	.171	.187
-139	.250	.140	.812	-196	.375	.140	1.500	-245	.312	.171	.250
-140	.250	.140	.875	-197	.400	.140	.718	-246	.312	.171	.312
-141	.250	.140	.937	-198	.400	.140	.781	-247	.312	.171	.375
-142	.250	.140	1.000	-199	.500	.140	.125	-248	.312	.171	.437
-143	.250	.140	1.062	-200	.500	.140	.187	-249	.312	.171	.500
-144	.250	.140	1.125	-201	.500	.140	.250	-250	.312	.171	.562
-145	.250	.140	1.187	-202	.500	.140	.312	-251	.312	.171	.625
-146	.250	.140	1.250	-203	.500	.140	.375	-2510	.312	.171	.625
-147	.250	.140	1.312	-204	.500	.140	.437	-252	.312	.171	.687
-148	.250	.140	1.375	-205	.500	.140	.500	-253	.312	.171	.750
-149	.250	.140	1.437	-206	.500	.140	.562	-254	.312	.171	.812
-150	.250	.140	1.500	-207	.500	.140	.625	-255	.312	.171	.875
-151	.312	.140	.125	-208	.500	.140	.687	-256	.312	.171	.937
-152	.312	.140	.187	-209	.500	.140	.750	-257	.312	.171	1.000
-1520	.312	.140	.200	-210	.500	.140	.812	-258	.312	.171	1.062
-153	.312	.140	.250	-211	.500	.140	.875	-259	.312	.171	1.125
-154	.312	.140	.281	-212	.500	.140	.937	-260	.312	.171	1.187
-155	.312	.140	.312	-213	.500	.140	1.000	-261	.312	.171	1.250
-156	.312	.140	.375	-2130	.625	.140	.375	-262	.312	.171	1.312
-157	.312	.140	.437	-214	.250	.141	.281	-263	.312	.171	1.375
-158	.312	.140	.500	-2155	.200	.145	.110	-264	.312	.171	1.437
-159	.312	.140	.562	-216	.200	.145	.171	-265	.312	.171	1.500
-160	.312	.140	.625	-217	.215	.145	.328	-2650	.312	.171	1.875
-161	.312	.140	.687	-2170	.500	.145	.669	-2655	.312	.171	2.437
-162	.312	.140	.750	-220	.250	.147	.297	-266	.375	.171	.125
-163	.312	.140	.812	-2205	.250	.150	.250	-267	.375	.171	.187
-164	.312	.140	.875	-2208	.254	.150	.166	-268	.375	.171	.203
-1640	.312	.140	.937	-221	.393	.151	.250	-269	.375	.171	.250
-165	.312	.140	1.000	-222	.251	.152	.156	-270	.375	.171	.312
-166	.312	.140	1.062	-2220	.250	.155	.160	-271	.375	.171	.375
-167	.312	.140	1.125	-2223	.210	.156	.250	-272	.375	.171	.437
-168	.312	.140	1.187	-2225	.312	.156	.256	-273	.375	.171	.500
-169	.312	.140	1.250	-223	.687	.156	.125	-274	.375	.171	.562
-170	.312	.140	1.312	-2240	.250	.160	.750	-275	.375	.171	.625
-171	.312	.140	1.375	-2245	.625	.160	.312	-276	.375	.171	.687
-172	.312	.140	1.437	-2250	.250	.166	.500	-277	.375	.171	.750
-173	.312	.140	1.500	-2255	.236	.169	.154	-278	.375	.171	.812
-174	.375	.140	.125	-226	.393	.169	.234	-279	.375	.171	.875
-175	.375	.140	.187	-2260	.280	.170	.300	-280	.375	.171	.937
-176	.375	.140	.250	-2263	.500	.170	.255	-281	.375	.171	1.000
-177	.375	.140	.312	-2265	.500	.170	.270	-282	.375	.171	1.062
-1770	.375	.140	.343	-228	.250	.171	.125	-283	.375	.171	1.125
-178	.375	.140	.375	-229	.250	.171	.187	-284	.375	.171	1.187
-179	.375	.140	.437	-231	.250	.171	.312	-285	.375	.171	1.250
-180	.375	.140	.500	-2310	.250	.171	.355	-286	.375	.171	1.312
-181	.375	.140	.562	-232	.250	.171	.375	-287	.375	.171	1.375
-182	.375	.140	.625	-2320	.250	.171	.413	-288	.375	.171	1.437
-183	.375	.140	.687	-230	.250	.171	.250	-289	.375	.171	1.500
-1830	.375	.140	.700	-233	.250	.171	.437				
-1835	.375	.140	.725	-2330	.250	.171	.475				

(continued next page)

Tolerances: O.D. & Length +/- .015
I.D. +/- .010

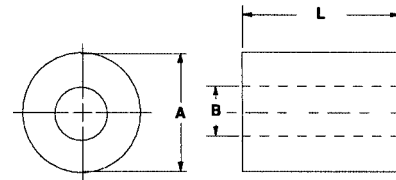
.140 I.D. to .171 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SPACERS starting on page 196-202.



ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-2890	.437	.171	.655	-3370	.312	.194	1.155	-3832	.343	.198	.281
-290	.500	.171	.125	-338	.312	.194	1.187	-383	.260	.200	.594
-291	.500	.171	.187	-339	.312	.194	1.250	-3830	.750	.200	1.000
-292	.500	.171	.250	-340	.312	.194	1.312	-385	.375	.203	.109
-293	.500	.171	.312	-341	.312	.194	1.375	-386	.375	.203	.265
-294	.500	.171	.375	-3410	.312	.194	1.405	-387	.606	.203	.625
-295	.500	.171	.437	-342	.312	.194	1.437	-389	.825	.203	.625
-296	.500	.171	.500	-343	.312	.194	1.500	-3892	.250	.205	.230
-297	.500	.171	.562	-343	.370	.194	.418	-3894	.312	.205	.160
-298	.500	.171	.625	-344	.375	.194	.125	-3890	.620	.209	.187
-299	.500	.171	.687	-345	.375	.194	.187	-3896	.500	.213	.250
-300	.500	.171	.750	-346	.375	.194	.250	-3898	.320	.215	.220
-301	.500	.171	.812	-347	.375	.194	.312	-3902	.312	.218	.812
-302	.500	.171	.875	-348	.375	.194	.375	-3900	.375	.218	.437
-303	.500	.171	.937	-349	.375	.194	.437	-3910	.375	.219	.156
-304	.500	.171	1.000	-350	.375	.194	.500	-3913	.375	.219	.171
-3040	.354	.172	.531	-351	.375	.194	.562	-3915	.375	.219	.203
-3042	.245	.175	.156	-352	.375	.194	.625	-392	.375	.219	.250
-3046	.245	.175	.166	-353	.375	.194	.687	-393	.500	.219	.125
-3047	.312	.175	.154	-354	.375	.194	.750	-394	.500	.219	.187
-3043	.376	.175	.150	-355	.375	.194	.812	-395	.500	.219	.250
-3046	.400	.180	.140	-356	.375	.194	.875	-396	.500	.219	.312
-3048	.427	.182	.734	-357	.375	.194	.937	-397	.500	.219	.375
-3049	.275	.185	.090	-358	.375	.194	1.000	-398	.500	.219	.437
-308	.312	.187	.215	-359	.375	.194	1.062	-399	.500	.219	.500
-3082	.313	.187	.171	-360	.375	.194	1.125	-400	.500	.219	.562
-3090	.990	.187	.250	-361	.375	.194	1.187	-401	.500	.219	.625
-3122	.250	.188	.188	-362	.375	.194	1.250	-4010	.500	.219	.649
-3124	.316	.188	.203	-363	.375	.194	1.312	-402	.500	.219	.687
-3126	.313	.189	.296	-364	.375	.194	1.375	-403	.500	.219	.750
-315	.463	.190	.312	-365	.375	.194	1.437	-404	.500	.219	.812
-316	.475	.191	.328	-366	.375	.194	1.500	-405	.500	.219	.875
-317	.625	.191	.250	-367	.500	.194	.125	-406	.500	.219	.937
-3185	.375	.192	.187	-368	.500	.194	.187	-407	.500	.219	1.000
-321	.312	.194	.125	-369	.500	.194	.250	-4070	.533	.219	.360
-322	.312	.194	.187	-370	.500	.194	.312	-408	.375	.220	.375
-323	.312	.194	.250	-371	.500	.194	.375	-4081	.500	.220	.135
-324	.312	.194	.312	-372	.500	.194	.406	-4080	.748	.220	.252
-325	.312	.194	.375	-373	.500	.194	.437	-4082	.313	.222	.238
-326	.312	.194	.437	-374	.500	.194	.500	-4086	.284	.224	.400
-327	.312	.194	.500	-375	.500	.194	.562	-391	.312	.225	.437
-3270	.312	.194	.530	-376	.500	.194	.625	-4087	.375	.225	.250
-328	.312	.194	.562	-377	.500	.194	.687	-4083	.312	.228	.260
-329	.312	.194	.625	-378	.500	.194	.750	-4085	.375	.230	.925
-330	.312	.194	.687	-379	.500	.194	.812	-4088	.354	.236	.224
-331	.312	.194	.750	-380	.500	.194	.875	-4089	.500	.244	.295
-332	.312	.194	.812	-381	.500	.194	.937	-4090	.555	.245	.562
-333	.312	.194	.875	-382	.500	.194	1.000	-4092	.750	.245	.361
-334	.312	.194	.937	-3824	.250	.195	.195	-4094	.312	.246	.250
-334	.312	.194	.937	-3827	.275	.195	.400	-4096	.312	.246	.495
-335	.312	.194	1.000	-3820	.312	.195	.214	-4098	.374	.248	.406
-336	.312	.194	1.062	-3828	.312	.195	.355	-4099	.946	.248	.500
-337	.312	.194	1.125	-3825	.313	.195	.385				
				-3822	.500	.195	.451				

(continued next page)

Tolerances: O.D. & Length +/- .015
 I.D. +/- .010

.171 I.D. to .248 I.D.

MOLDED WASHERS and SPACERS (continued)

ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-4095	.501	.249	.390	-424	.500	.260	.125	-4652	.406	.311	.591
-4100	.375	.250	.593	-425	.500	.260	.187	-465	.623	.311	.812
-4102	.380	.250	.440	-427	.500	.260	.250	-4656	.437	.312	.350
-4104	.437	.250	.591	-435	.500	.260	.750	-467	.500	.312	.156
-4106	.437	.250	3.940	-436	.500	.260	.812	-4670	.500	.312	1.312
-4108	.500	.250	2.125	-437	.500	.260	.875	-4672	.589	.312	.310
-4110	.535	.250	.610	-4430	.500	.260	1.375	-4674	.625	.312	.500
-4116	.602	.250	.622	-441	.500	.260	1.625	-4676	.750	.312	.250
-413	.610	.250	.375	-444	.625	.260	.250	-4678	.750	.312	.562
-4133	.625	.250	.650	-4423	.687	.260	.457	-4679	.750	.312	.938
-414	.740	.250	.250	-4420	.750	.260	.125	-470	.812	.312	.125
-4140	.745	.250	.375	-4425	.750	.260	.375	-4700	1.000	.312	.250
-4142	.750	.250	.500	-4429	.750	.260	.500	-4713	1.240	.312	.250
-4143	.750	.250	.500	-4432	.750	.260	.562	-4715	.612	.313	.687
-4144	.750	.250	.878	-4422	.750	.260	.750	-4724	.468	.314	.230
-4146	.866	.250	.394	-4434	.750	.260	1.000	-473	.590	.314	.359
-4160	1.000	.250	.125	-4436	1.000	.260	.375	-4730	.625	.315	.312
-4163	1.000	.250	.187	-445	.370	.265	.156	-4732	.750	.315	.187
-4162	1.000	.250	.225	-446	.375	.265	.250	-4733	.750	.315	.312
-4164	1.000	.250	.250	-447	.375	.265	.375	-474	.360	.316	.250
-4167	1.000	.250	.437	-448	.375	.265	.500	-4740	.500	.316	.234
-4166	1.180	.250	.217	-449	.375	.265	.750	-4743	.500	.316	.500
-4165	1.860	.250	1.000	-450	.375	.265	.875	-4655	.437	.318	.281
-417	.389	.251	.125	-451	.375	.265	1.000	-475	.567	.318	.547
-4170	.875	.251	.625	-4514	.406	.265	1.000	-4750	.437	.318	.150
-4172	.360	.252	.425	-4518	.406	.265	.562	-4752	.590	.319	.655
-4175	.375	.252	.187	-4510	.406	.265	.625	-4755	.380	.320	.382
-418	.375	.252	.375	-452	.406	.265	.750	-4753	.395	.320	.591
-4178	.375	.252	.820	-4522	.500	.265	.156	-4756	.415	.320	.640
-4180	.460	.252	.562	-4524	.500	.265	.200	-4758	.486	.320	.375
-4181	.375	.254	.453	-4520	.730	.265	.295	-4761	.500	.320	.270
-4182	.385	.254	.245	-4526	.875	.265	.156	-476	.510	.320	.875
-4183	.355	.255	.130	-4528	.875	.265	.250	-4764	.750	.320	.500
-4130	.621	.255	.652	-4532	.875	.265	.375	-4763	.750	.320	.750
-4184	.375	.255	.380	-4530	.875	.265	.750	-4766	.750	.320	1.000
-4185	.375	.255	.700	-4531	1.250	.265	.750	-477	.570	.320	.547
-4186	.750	.255	.290	-4534	.750	.266	.312	-4766	.437	.323	.156
-4187	1.250	.256	.220	-453	.406	.267	.500	-4760	.620	.323	.187
-4195	.433	.256	.531	-454	.406	.269	.250	-4783	.750	.323	.250
-4182	.355	.254	.553	-455	.625	.270	.218	-4782	.438	.325	.422
-420	.610	.256	1.500	-4552	.340	.280	.310	-480	.450	.325	.421
-4205	.375	.257	.250	-4554	.340	.280	.500	-4786	.480	.325	.250
-4210	.375	.257	1.250	-4555	.406	.280	.375	-4785	.480	.325	1.250
-4250	.480	.257	.177	-4557	.340	.280	.500	-4788	.615	.325	.813
-423	.490	.257	.375	-4570	.560	.280	.500	-4810	.875	.325	2.000
-426	.500	.257	.234	-457	.625	.280	.437	-4814	.640	.327	.560
-428	.500	.257	.312	-458	.648	.280	.359	-4815	.750	.327	.188
-4280	.500	.257	.359	-4580	.750	.280	.440	-481	.500	.328	1.000
-429	.500	.257	.375	-4582	.875	.280	.500	-4812	.615	.328	.438
-4290	.500	.257	.406	-4584	.500	.281	.375	-4816	.625	.328	.250
-430	.625	.257	.125	-459	.500	.281	.812	-4818	1.000	.328	1.000
-431	.500	.257	.500	-4592	.563	.281	.375	-4813	.565	.330	.560
-432	.500	.257	.562	-460	.613	.281	.500	-4820	.875	.330	.375
-4320	.500	.257	.437	-461	.615	.281	.812	-4822	.500	.335	.209
-433	.500	.257	.625	-463	1.120	.281	.437	-4828	.700	.335	.866
-434	.500	.257	.687	-4633	.500	.285	.630	-4823	.625	.342	.375
-438	.500	.257	.937	-4634	.430	.285	.400	-483	.484	.343	.187
-439	.500	.257	1.000	-4635	.500	.285	.930	-4833	1.000	.343	.125
-4415	.750	.257	1.000	-464	.985	.285	.250	-4835	.500	.344	.812
-4418	.825	.257	.370	-4642	.372	.288	.969	-4836	.750	.344	.250
-442	.750	.258	.437	-4643	1.240	.307	.500				
-4419	.305	.260	.179	-4645	.740	.310	.437				

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Tolerances: O.D. & Length +/- .015
I.D. +/- .010

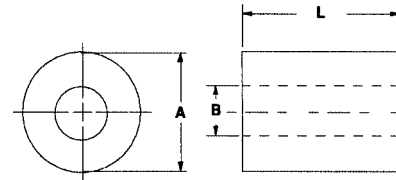
.249 I.D. to .344 I.D.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SPACERS starting on page 196-202.



ROUND SPACERS

Part No. DN205 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-4838	.750	.344	.520	-5022	.625	.386	.738	-5197	1.250	.510	.312
-4839	.990	.344	.312	-5026	.745	.387	.187	-5200	.720	.515	.490
-4837	1.000	.344	.187	-5028	.510	.390	.250	-5205	.750	.515	.340
-4840	1.000	.344	.435	-5033	.625	.390	.250	-520	.656	.516	.500
-484	.480	.345	.187	-4973	.680	.390	.625	-5200	1.000	.517	.312
-485	.620	.350	.187	-5034	.740	.390	1.000	-5205	1.000	.517	.375
-4850	.630	.350	.200	-5036	.975	.390	1.180	-5210	1.000	.517	.687
-4852	.670	.350	.200	-5038	.720	.392	.230	-5215	.635	.520	.500
-4853	.750	.350	.685	-5030	.472	.394	.787	-5220	.998	.523	.453
-4856	.980	.352	.500	-5032	.760	.394	.910	-521	.803	.520	.500
-4860	.375	.354	.473	-5034	.744	.397	.371	-52125	1.460	.521	.500
-486	.984	.366	.375	-5035	.460	.400	.440	-524	.718	.526	.218
-4865	.500	.368	.470	-5036	.755	.400	.290	-525	.718	.526	.281
-487	.750	.370	.343	-5037	1.250	.400	.625	-5250	.870	.527	.875
-4870	.500	.375	.225	-5038	.760	.401	.600	-5254	1.000	.530	.500
-4871	.500	.375	.380	-5043	.750	.403	.312	-5258	.754	.531	.451
-488	.500	.375	.437	-5040	.812	.403	.250	-528	.870	.531	.391
-489	.500	.375	.625	-5042	.812	.403	.710	-5280	.835	.540	.188
-4901	.500	.375	.635	-5044	.750	.406	.562	-5282	.680	.600	.560
-490	.500	.375	.687	-5045	1.000	.406	.437	-5283	.841	.605	.600
-491	.562	.375	.500	-5046	.625	.412	.155	-5284	.870	.610	.500
-4910	.625	.375	.082	-5047	.875	.421	.325	-5286	1.750	.625	.250
-4912	.625	.375	.375	-505	.635	.425	.875	-5288	.913	.635	.641
-4914	.625	.375	.462	-5050	.634	.434	.380	-5333	1.250	.642	.082
-4916	.750	.375	.375	-5051	.770	.434	.377	-5335	1.000	.643	.500
-4918	.875	.375	.312	-5053	.625	.435	.250	-5338	1.000	.650	.373
-4920	1.000	.375	.800	-5056	.567	.437	.406	-535	1.375	.656	.125
-492	.986	.375	.250	-5057	.885	.438	.370	-5353	1.457	.669	.315
-4923	1.000	.375	.625	-5059	.515	.445	.380	-5358	1.062	.680	.200
-4943	.630	.378	.500	-5063	.625	.450	.625	-538	1.055	.740	.187
-4945	.560	.379	.315	-507	.625	.450	.875	-540	1.000	.755	.203
-495	.560	.379	.375	-5070	1.000	.450	.219	-5400	1.239	.761	.562
-497	.500	.380	.421	-5076	1.000	.453	.219	-5403	1.000	.765	.562
-4970	.625	.380	.750	-508	.750	.460	.250	-5405	.907	.780	.315
-4972	.625	.380	1.250	-5082	.752	.480	.226	-5407	.917	.785	.750
-4975	.750	.380	.472	-5083	.627	.484	.467	-541	1.057	.812	.125
-4986	1.250	.380	.380	-509	.750	.490	.375	-5410	1.188	.813	.250
-4990	.465	.382	.282	-510	.618	.500	.484	-5415	1.250	.875	.562
-4992	.500	.382	.312	-5103	.625	.500	.312	-5423	1.000	.915	.250
-4994	.500	.382	.625	-5104	.625	.500	1.000	-543	1.750	.928	.281
-4996	.518	.382	.280	-5105	.630	.500	1.250	-5430	1.080	.950	.875
-4984	.500	.383	.500	-512	.987	.500	.375	-5433	1.500	1.000	.500
-4982	.750	.383	.437	-5120	.780	.501	.205	-5435	1.500	1.020	.500
-499	.505	.385	.156	-5143	.620	.504	.625	-5436	1.120	1.015	.375
-500	.500	.385	1.000	-514	.620	.504	.812	-5438	1.320	1.031	.562
-5003	.615	.385	.187	-5140	.620	.504	.812	-5453	1.262	1.043	.950
-5004	.625	.385	.187	-5144	1.240	.505	.500	-547	1.312	1.078	.750
-5005	.635	.385	.230	-516	.668	.506	.937	-549	1.500	1.187	.359
-5006	.745	.385	.312	-517	.620	.507	1.687	-5492	1.625	1.388	.093
-5007	.750	.385	.203	-518	.620	.507	.500	-5496	2.013	1.420	.350
-5008	1.000	.385	.340	-519	.775	.507	.250	-5498	2.130	1.630	.130
-5013	1.000	.385	.375	-5190	.984	.509	.984	-550	2.135	1.760	.125
-502	.625	.386	.609	-5193	.750	.510	.188				
-5020	.625	.386	.625	-5194	.750	.510	.375				

Tolerances: O.D. & Length +/- .015
 I.D. +/- .010

.344 I.D. to 1.760 I.D.

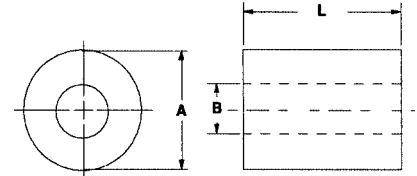
MOLDED WASHERS and SPACERS (continued)

MOLDED NYLON SPACERS

*Available in the following materials:

Material Code No. Material Name
 -78 Nylon 6/6, (black)

*Available in other materials. See materials list in index.
 Other sizes available on request.
 Also, see MACHINED SPACERS starting on page 196-202.



ROUND METRIC SPACERS

Part No. DN242 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-1	4 mm	2.6 mm	2 mm	-44	6 mm	3.6 mm	3 mm	-87	12 mm	8.3 mm	10 mm
-2	4 mm	2.6 mm	3 mm	-45	6 mm	3.6 mm	5 mm	-88	12 mm	8.3 mm	15 mm
-3	4 mm	2.6 mm	5 mm	-46	6 mm	3.6 mm	7.5 mm	-89	12 mm	8.3 mm	20 mm
-4	4 mm	2.6 mm	7.5 mm	-47	6 mm	3.6 mm	10 mm	-90	12 mm	8.3 mm	25 mm
-5	4 mm	2.6 mm	10 mm	-48	6 mm	3.6 mm	15 mm	-91	12 mm	8.3 mm	30 mm
-6	4 mm	2.6 mm	15 mm	-49	6 mm	3.6 mm	20 mm	-92	18 mm	8.3 mm	3 mm
-7	4 mm	2.6 mm	20 mm	-50	6 mm	3.6 mm	25 mm	-93	18 mm	8.3 mm	5 mm
-8	4 mm	2.6 mm	25 mm	-51	6 mm	3.6 mm	30 mm	-94	18 mm	8.3 mm	7.5 mm
-9	4 mm	2.6 mm	30 mm	-52	8 mm	4.3 mm	3 mm	-95	18 mm	8.3 mm	10 mm
-10	5 mm	2.6 mm	2 mm	-53	8 mm	4.3 mm	5 mm	-96	18 mm	8.3 mm	15 mm
-11	5 mm	2.6 mm	3 mm	-54	8 mm	4.3 mm	7.5 mm	-97	18 mm	8.3 mm	20 mm
-12	5 mm	2.6 mm	5 mm	-55	8 mm	4.3 mm	10 mm	-98	18 mm	8.3 mm	25 mm
-13	5 mm	2.6 mm	7.5 mm	-56	8 mm	4.3 mm	15 mm	-99	18 mm	8.3 mm	30 mm
-14	5 mm	2.6 mm	10 mm	-57	8 mm	4.3 mm	20 mm	-100	15 mm	10.4 mm	3 mm
-15	5 mm	2.6 mm	15 mm	-58	8 mm	4.3 mm	25 mm	-101	15 mm	10.4 mm	5 mm
-16	5 mm	2.6 mm	20 mm	-59	8 mm	4.3 mm	30 mm	-102	15 mm	10.4 mm	7.5 mm
-17	5 mm	2.6 mm	25 mm	-60	10 mm	5.3 mm	3 mm	-103	15 mm	10.4 mm	10 mm
-18	5 mm	2.6 mm	30 mm	-61	10 mm	5.3 mm	5 mm	-104	15 mm	10.4 mm	15 mm
-19	5 mm	3.2 mm	2 mm	-62	10 mm	5.3 mm	7.5 mm	-105	15 mm	10.4 mm	20 mm
-20	5 mm	3.2 mm	3 mm	-63	10 mm	5.3 mm	10 mm	-106	15 mm	10.4 mm	25 mm
-21	5 mm	3.2 mm	5 mm	-64	10 mm	5.3 mm	15 mm	-107	15 mm	10.4 mm	30 mm
-22	5 mm	3.2 mm	7.5 mm	-65	10 mm	5.3 mm	20 mm	-108	22 mm	10.4 mm	5 mm
-23	5 mm	3.2 mm	10 mm	-66	10 mm	5.3 mm	25 mm	-109	22 mm	10.4 mm	10 mm
-24	5 mm	3.2 mm	15 mm	-67	10 mm	5.3 mm	30 mm	-110	22 mm	10.4 mm	15 mm
-25	5 mm	3.2 mm	20 mm	-68	10 mm	6.3 mm	3 mm	-111	22 mm	10.4 mm	20 mm
-26	5 mm	3.2 mm	25 mm	-69	10 mm	6.3 mm	5 mm	-112	22 mm	10.4 mm	25 mm
-27	5 mm	3.2 mm	30 mm	-70	10 mm	6.3 mm	7.5 mm	-113	22 mm	10.4 mm	30 mm
-28	6 mm	3.2 mm	3 mm	-71	10 mm	6.3 mm	10 mm	-118	18 mm	13.3 mm	3 mm
-29	6 mm	3.2 mm	5 mm	-72	10 mm	6.3 mm	15 mm	-119	18 mm	13.3 mm	5 mm
-30	6 mm	3.2 mm	7.5 mm	-73	10 mm	6.3 mm	20 mm	-120	18 mm	13.3 mm	7.5 mm
-31	6 mm	3.2 mm	10 mm	-74	10 mm	6.3 mm	25 mm	-121	18 mm	13.3 mm	10 mm
-32	6 mm	3.2 mm	15 mm	-75	10 mm	6.3 mm	30 mm	-122	18 mm	13.3 mm	15 mm
-33	6 mm	3.2 mm	20 mm	-76	15 mm	6.5 mm	3 mm	-123	18 mm	13.3 mm	20 mm
-34	6 mm	3.2 mm	25 mm	-77	15 mm	6.5 mm	5 mm	-124	18 mm	13.3 mm	25 mm
-35	6 mm	3.2 mm	30 mm	-78	15 mm	6.5 mm	7.5 mm	-125	18 mm	13.3 mm	30 mm
-36	8 mm	3.2 mm	3 mm	-79	15 mm	6.5 mm	10 mm	-126	25 mm	13.3 mm	5 mm
-37	8 mm	3.2 mm	5 mm	-80	15 mm	6.5 mm	15 mm	-127	25 mm	13.3 mm	10 mm
-38	8 mm	3.2 mm	7.5 mm	-81	15 mm	6.5 mm	20 mm	-128	25 mm	13.3 mm	15 mm
-39	8 mm	3.2 mm	10 mm	-82	15 mm	6.5 mm	25 mm	-129	25 mm	13.3 mm	20 mm
-40	8 mm	3.2 mm	15 mm	-83	15 mm	6.5 mm	30 mm	-130	25 mm	13.3 mm	25 mm
-41	8 mm	3.2 mm	20 mm	-84	12 mm	8.3 mm	3 mm	-131	25 mm	13.3 mm	30 mm
-42	8 mm	3.2 mm	25 mm	-85	12 mm	8.3 mm	5 mm	-132	10 mm	6.3 mm	28 mm
-43	8 mm	3.2 mm	30 mm	-86	12 mm	8.3 mm	7.5 mm				

Tolerances: O.D. & Length +/- .38mm
 I.D. +/- .26mm

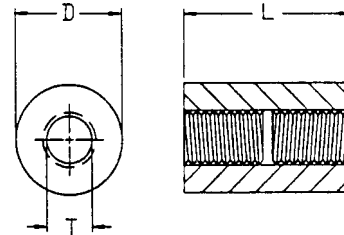
2.6 mm I.D. to 6.3 mm I.D.

MOLDED WASHERS and SPACERS (continued)

MOLDED NYLON SPACERS

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



TAPPED ROUND SPACERS

Part No. DN207 - (Size Code No.) - (Material Code No.)

Size Code No.	T Thread	L Lgth.	D Dia.	Size Code No.	T Thread	L Lgth.	D Dia.	Size Code No.	T Thread	L Lgth.	D Dia.
-102	2-56	1/4	1/4	-24	6-32**	1/2	1/4	-51	8-32***	1/2	5/16
-101	2-56	3/8	3/16	-25	6-32**	9/16	1/4	-52	8-32***	5/8	5/16
-1	2-56	7/16	3/16	-26	6-32**	5/8	1/4	-53	8-32***	3/4	5/16
-100	2-56	1/2	3/16	-27	6-32**	3/4	1/4	-54	8-32***	7/8	5/16
-105	4-40	5/32	3/16	-28	6-32**	15/16	1/4	-55	8-32***	1	5/16
-2	4-40*	1/4	1/4	-29	6-32**	7/8	1/4	-56	10-32****	1/4	3/8
-3	4-40*	5/16	1/4	-30	6-32**	1	1/4	-57	10-32****	3/8	3/8
-4	4-40*	3/8	1/4	-31	6-32**	1 1/2	1/4	-58	10-32****	1/2	3/8
-5	4-40*	1/2	1/4	-32	6-32	3/16	3/16	-59	10-32****	5/8	3/8
-6	4-40*	5/8	1/4	-33	6/32	1/4	3/16	-60	10-32****	3/4	3/8
-7	4-40*	3/4	1/4	-34	6-32	5/16	3/16	-61	10-32****	7/8	3/8
-8	4-40*	7/8	1/4	-35	6-32	3/8	3/16	-62	10-32****	1	3/8
-9	4-40*	1	1/4	-36	6-32	7/16	3/16	-63	10-32****	1/4	1/2
-11	4-40	3/16	3/16	-37	6-32	1/2	3/16	-64	10-32****	3/8	1/2
-12	4-40	1/4	3/16	-38	6-32	5/8	3/16	-65	10-32****	1/2	1/2
-120	4-40*	17/64	3/16	-39	6-32	3/4	3/16	-66	10-32****	5/8	1/2
-13	4-40	5/16	3/16	-40	6-32	7/8	3/16	-67	10-32****	3/4	1/2
-14	4-40	3/8	3/16	-41	6-32	1	3/16	-68	10-32****	7/8	1/2
-15	4-40	7/16	3/16	-42	8-32***	1/4	1/4	-69	10-32****	1	1/2
-16	4-40	1/2	3/16	-43	8-32***	3/8	1/4	-70	1/4-20	1/4	1/2
-17	4-40	5/8	3/16	-44	8-32***	1/2	1/4	-71	1/4-20	3/8	1/2
-18	4-40	3/4	3/16	-45	8-32***	5/8	1/4	-72	1/4-20	1/2	1/2
-19	4-40	7/8	3/16	-46	8-32***	3/4	1/4	-73	1/4-20	5/8	1/2
-20	4-40	1	3/16	-47	8-32***	7/8	1/4	-74	1/4-20	3/4	1/2
-21	6-32**	1/4	1/4	-48	8-32***	1	1/4	-75	1/4-20	7/8	1/2
-22	6-32**	5/16	1/4	-49	8-32***	1/4	5/16	-76	1/4-20	1	1/2
-23	6-32**	3/8	1/4	-50	8-32***	3/8	5/16				

Lengths over 3/4" are tapped 3/8" on either end.

Tolerance on all dimensions: +/- .015

Note:

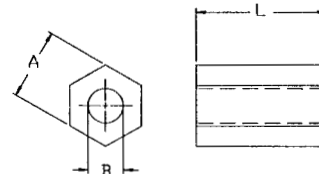
- 4-40* available in M3 thread.
- 6-32** available in M3.5 thread.
- 8-32*** available in M4 thread.
- 10-32**** available in M5 thread.

MOLDED WASHERS and SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)

*Available in other materials. See materials list in index.
Other sizes available on request.



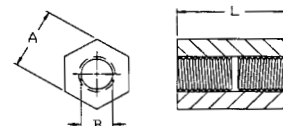
HEX SPACERS

Part No. EN195 - (Size Code No.) - (Material Code No.)

Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF
-100	.072	5/16	3/16	-14	.091	5/8	1/4	-28	.115	5/8	1/4
-101	.072	3/8	3/16	-15	.091	3/4	1/4	-29	.115	3/4	1/4
-1010	.072	7/16	3/16	-16	.091	7/8	1/4	-30	.115	7/8	1/4
-102	.075	9/16	3/16	-17	.091	1	1/4	-31	.115	1	1/4
-1	.091	1/4	3/16	-170	.091	1 1/2	1/4	-32	.115	1 1/4	1/4
-2	.091	3/8	3/16	-174	.094	.826	1/4	-33	.115	1/2	5/16
-3	.091	7/16	3/16	-176	.110	3/4	3/4	-330	.115	7/8	5/16
-4	.091	1/2	3/16	-178	.111	9/16	1/4	-34	.115	1 1/8	5/16
-5	.091	9/16	3/16	-18	.115	1/4	3/16	-340	.115	3/4	3/8
-6	.091	5/8	3/16	-19	.115	3/8	3/16	-35	.115	1/4	1/4
-7	.091	3/4	3/16	-20	.115	1/2	3/16	-36	.140	3/8	1/4
-8	.091	7/8	3/16	-21	.115	5/8	3/16	-360	.140	1/4	1/4
-9	.091	1	3/16	-22	.115	3/4	3/16	-37	.140	1/2	1/4
-10	.091	1/4	1/4	-23	.115	7/8	3/16	-38	.140	5/8	1/4
-11	.091	5/16	1/4	-24	.115	1	3/16	-39	.140	3/4	1/4
-12	.091	3/8	1/4	-240	.115	3/16	1/4	-40	.140	7/8	1/4
-120	.091	7/16	1/4	-25	.115	1/4	1/4	-43	.195	1/2	3/8
-13	.091	1/2	1/4	-26	.115	3/8	1/4	-48	.225	7/32	5/16
-130	.091	9/16	1/4	-27	.115	1/2	1/4				

Self-threading, use with tapping screws.

Tolerance on all dimensions: +/- .015



HEX TAPPED SPACERS

Part No. EN194 - (Size Code No.) - (Material Code No.)

Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF	Size Code No.	B I.D.	L Length	A AF
-100	2-56	5/16	3/16	-15	4-40*	5/8	1/4	-30	6-32**	3/4	1/4
-1010	2-56	7/16	3/16	-16	4-40*	3/4	1/4	-31	6-32**	7/8	1/4
-101	2-56	3/8	3/16	-17	4-40*	7/8	1/4	-32	6-32**	1	1/4
-102	2-56	9/16	3/16	-175	4-40*	.826	1/4	-33	6-32**	1 1/4	1/4
-1	4-40*	1/4	3/16	-18	4-40*	1	1/4	-330	6-32**	1 1/2	1/4
-2	4-40*	3/8	3/16	-180	4-40*	1 1/2	1/4	-34	6-32**	1/2	5/16
-3	4-40*	7/16	3/16	-19	6-32**	1/4	3/16	-340	6-32**	7/8	5/16
-4	4-40*	1/2	3/16	-20	6-32**	3/8	3/16	-35	6-32**	1 1/8	5/16
-5	4-40*	9/16	3/16	-21	6-32**	1/2	3/16	-350	6-32**	3/4	3/8
-6	4-40*	5/8	3/16	-22	6-32**	5/8	3/16	-351	6-32**	1 5/16	3/8
-7	4-40*	3/4	3/16	-23	6-32**	3/4	3/16	-36	8-32***	1/4	1/4
-8	4-40*	7/8	3/16	-24	6-32**	7/8	3/16	-37	8-32***	3/8	1/4
-9	4-40*	1	3/16	-25	6-32**	1	3/16	-38	8-32***	1/2	1/4
-10	4-40*	1/4	1/4	-250	6-32**	3/16	1/4	-39	8-32***	5/8	1/4
-11	4-40*	5/16	1/4	-26	6-32**	1/4	1/4	-40	8-32***	3/4	1/4
-12	4-40*	3/8	1/4	-27	6-32**	3/8	1/4	-41	8-32***	7/8	1/4
-120	4-40*	7/16	1/4	-28	6-32**	1/2	1/4	-42	8-32***	1	1/4
-13	4-40*	1/2	1/4	-280	6-32**	7/16	1/4	-420	1/4-20	7/32	5/16
-14	4-40*	9/16	1/4	-29	6-32**	5/8	1/4	-421	1/4-20	1/2	3/8

Lengths over 3/4" are tapped 3/8" on either end. -330 has no thru hole.

Tolerance on all dimensions: +/- .015

Note: 4-40* available in M3 thread, 6-32** available in M3.5 thread, 8-32*** available in M4 thread.

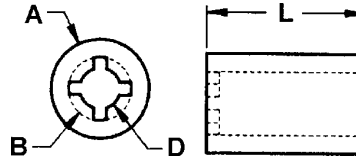
MOLDED WASHERS and SPACERS (continued)

Material Code No. Material Name

- 18 Nylon 6/6, (natural)
- 78 Nylon 6/6, (black)

RETAINING SPACERS

Part No. DN300 - (Size Code No.) - (Material Code No.)

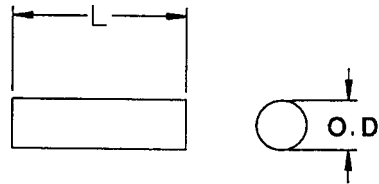


Size Code No.	A	B	D	L	Size Code No.	A	B	D	L	Size Code No.	A	B	D	L
-1	.250	.115	.078	.125	-31	.3125	.198	.128	.125	-61	.500	.277	.177	.187
-2	.250	.115	.078	.187	-32	.3125	.198	.128	.187	-62	.500	.277	.177	.250
-3	.250	.115	.078	.250	-33	.3125	.198	.128	.250	-63	.500	.277	.177	.312
-4	.250	.115	.078	.312	-34	.3125	.198	.128	.312	-64	.500	.277	.177	.375
-5	.250	.115	.078	.375	-35	.3125	.198	.128	.375	-65	.500	.277	.177	.437
-6	.250	.115	.078	.437	-36	.3125	.198	.128	.437	-66	.500	.277	.177	.500
-7	.250	.115	.078	.500	-37	.3125	.198	.128	.500	-67	.500	.277	.177	.562
-8	.250	.115	.078	.562	-38	.3125	.198	.128	.562	-68	.500	.277	.177	.625
-9	.250	.115	.078	.625	-39	.3125	.198	.128	.625	-69	.500	.277	.177	.687
-10	.250	.115	.078	.687	-40	.3125	.198	.128	.687	-70	.500	.277	.177	.750
-11	.250	.115	.078	.750	-41	.3125	.198	.128	.750	-71	.500	.277	.177	.812
-12	.250	.115	.078	.812	-42	.3125	.198	.128	.812	-72	.500	.277	.177	.875
-13	.250	.115	.078	.875	-43	.3125	.198	.128	.875	-73	.500	.277	.177	.937
-14	.250	.115	.078	.937	-44	.3125	.198	.128	.937	-74	.500	.277	.177	1.000
-15	.250	.115	.078	1.000	-45	.3125	.198	.128	1.000	-75	.500	.375	.234	.125
-16	.250	.156	.102	.125	-46	.375	.240	.152	.125	-76	.500	.375	.234	.187
-17	.250	.156	.102	.187	-47	.375	.240	.152	.250	-77	.500	.375	.234	.250
-18	.250	.156	.102	.250	-48	.375	.240	.152	.312	-78	.500	.375	.234	.312
-19	.250	.156	.102	.312	-49	.375	.240	.152	.375	-79	.500	.375	.234	.375
-20	.250	.156	.102	.375	-50	.375	.240	.152	.437	-80	.500	.375	.234	.437
-21	.250	.156	.102	.437	-51	.375	.240	.152	.500	-81	.500	.375	.234	.500
-22	.250	.156	.102	.500	-52	.375	.240	.152	.562	-82	.500	.375	.234	.562
-23	.250	.156	.102	.562	-53	.375	.240	.152	.625	-83	.500	.375	.234	.625
-24	.250	.156	.102	.625	-54	.375	.240	.152	.687	-84	.500	.375	.234	.687
-25	.250	.156	.102	.687	-55	.375	.240	.152	.750	-85	.500	.375	.234	.750
-26	.250	.156	.102	.750	-56	.375	.240	.152	.812	-86	.500	.375	.234	.812
-27	.250	.156	.102	.812	-57	.375	.240	.152	.875	-87	.500	.375	.234	.875
-28	.250	.156	.102	.875	-58	.375	.240	.152	.937	-88	.500	.375	.234	.937
-29	.250	.156	.102	.937	-59	.375	.240	.152	1.000	-89	.500	.375	.234	1.000
-30	.250	.156	.102	1.000	-60	.500	.277	.177	.125					

MOLDED DOWELS

STANDARD MATERIAL: -62 Acetal

Part No. PN105 - (Size Code No.) -62

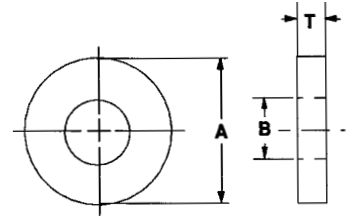


Size Code No.	O.D.	Length	Size Code No.	O.D.	Length	Size Code No.	O.D.	Length	Size Code No.	O.D.	Length
-1	.047	1/8	-10	.093	1/4	-19	.187	1/4	-27	.250	1/2
-2	.047	1/4	-11	.093	3/8	-20	.187	3/8	-28	.250	3/4
-3	.047	3/8	-12	.093	1/2	-21	.187	1/2	-29	.312	1/8
-4	.047	1/2	-13	.125	1/8	-22	.187	3/4	-30	.312	1/4
-5	.062	1/8	-14	.125	3/16	-23	.210	1/2	-31	.312	3/8
-6	.062	1/4	-15	.125	1/4	-230	.245	1 1/4	-32	.312	1/2
-7	.062	3/8	-16	.125	3/8	-24	.250	1/8	-33	.312	5/8
-8	.062	1/2	-17	.125	1/2	-25	.250	1/4	-34	.312	3/4
-9	.093	1/8	-18	.187	1/8	-26	.250	3/8	-35	.437	1/4

MACHINED FLAT WASHERS

Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-1	.187	.060	.010	-39	.187	.093	.020	-79	.250	.105	.045	-120	.281	.120	.010
-2	.187	.060	.015	-40	.187	.093	.025	-80	.250	.105	.050	-121	.281	.120	.015
-3	.187	.060	.020	-41	.187	.093	.030	-81	.250	.105	.060	-122	.281	.120	.020
-4	.187	.060	.025	-42	.187	.093	.040	-82	.540	.105	.060	-123	.281	.120	.025
-5	.187	.060	.030	-43	.187	.093	.050	-83	.220	.108	.040	-124	.281	.120	.030
-6	.187	.060	.040	-44	.196	.093	.040	-84	.220	.115	.010	-125	.281	.120	.040
-7	.897	.060	.040	-45	.250	.093	.010	-85	.220	.115	.015	-126	.281	.120	.045
-8	1.450	.060	.040	-46	.250	.093	.015	-86	.220	.115	.020	-127	.281	.120	.050
-9	.596	.062	.040	-47	.250	.093	.020	-87	.220	.115	.025	-128	.281	.120	.060
-10	.866	.062	.040	-48	.250	.093	.025	-88	.220	.115	.030	-129	.375	.120	.010
-11	.955	.062	.040	-49	.250	.093	.030	-89	.220	.115	.040	-130	.375	.120	.015
-12	.220	.063	.010	-50	.250	.093	.040	-90	.220	.115	.050	-131	.375	.120	.020
-13	.220	.063	.015	-51	.250	.093	.045	-91	.220	.115	.060	-132	.375	.120	.025
-14	.220	.063	.020	-52	.250	.093	.050	-92	.250	.115	.010	-133	.375	.120	.030
-15	.220	.063	.025	-53	.250	.093	.060	-93	.250	.115	.015	-134	.375	.120	.040
-16	.220	.063	.030	-54	.281	.093	.010	-94	.250	.115	.020	-135	.375	.120	.045
-17	.220	.063	.040	-55	.281	.093	.015	-95	.250	.115	.025	-136	.375	.120	.050
-18	.220	.063	.050	-56	.281	.093	.020	-96	.250	.115	.030	-137	.375	.120	.060
-19	.151	.065	.030	-57	.281	.093	.025	-97	.250	.115	.040	-138	.192	.125	.040
-20	.188	.065	.040	-58	.281	.093	.030	-98	.250	.115	.045	-139	.245	.125	.060
-21	.220	.070	.040	-59	.281	.093	.040	-99	.250	.115	.050	-140	.275	.125	.060
-22	.187	.080	.010	-60	.281	.093	.045	-100	.250	.115	.060	-141	.281	.125	.060
-23	.187	.080	.015	-61	.281	.093	.050	-101	.281	.115	.010	-142	.312	.125	.010
-24	.187	.080	.020	-62	.281	.093	.060	-102	.281	.115	.015	-143	.312	.125	.015
-25	.187	.080	.025	-63	.245	.095	.040	-103	.281	.115	.020	-144	.312	.125	.020
-26	.187	.080	.030	-64	.192	.098	.040	-104	.281	.115	.025	-145	.312	.125	.025
-27	.187	.080	.040	-65	.150	.100	.015	-105	.281	.115	.030	-146	.312	.125	.030
-28	.182	.085	.040	-66	.170	.105	.040	-106	.281	.115	.040	-147	.312	.125	.040
-29	.190	.085	.040	-67	.220	.105	.010	-107	.281	.115	.045	-148	.312	.125	.045
-30	.156	.090	.010	-68	.220	.105	.015	-108	.281	.115	.050	-149	.312	.125	.050
-31	.156	.090	.015	-69	.220	.105	.020	-109	.281	.115	.060	-150	.312	.125	.060
-32	.156	.090	.020	-70	.220	.105	.025	-110	.600	.115	.060	-151	.370	.125	.060
-33	.156	.090	.025	-71	.220	.105	.030	-111	.250	.120	.010	-152	.437	.125	.010
-34	.156	.090	.030	-72	.220	.105	.040	-112	.250	.120	.015	-153	.437	.125	.015
-35	.174	.092	.040	-73	.250	.105	.010	-113	.250	.120	.020	-154	.437	.125	.020
-36	.156	.093	.030	-74	.250	.105	.015	-114	.250	.120	.025	-155	.437	.125	.025
-37	.187	.093	.010	-75	.250	.105	.020	-115	.250	.120	.030	-156	.437	.125	.030
-38	.187	.093	.015	-76	.250	.105	.025	-116	.250	.120	.040	-157	.437	.125	.040
				-77	.250	.105	.030	-117	.250	.120	.045	-158	.437	.125	.045
				-78	.250	.105	.040	-118	.250	.120	.050				
								-119	.250	.120	.060				

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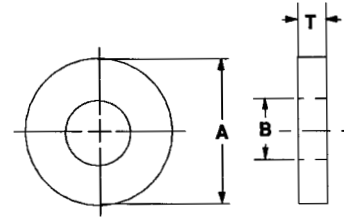
.060 I.D. to .125 I.D.

MACHINED FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN100 - (Size Code No.) - (Material Code No.)

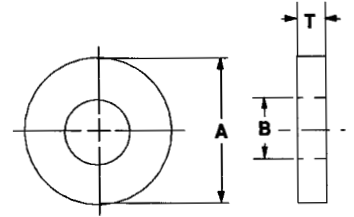
Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-159	.437	.125	.050	-200	.250	.141	.010	-243	.500	.141	.030	-287	.233	.146	.060
-160	.437	.125	.050	-201	.250	.141	.015	-244	.500	.141	.040	-288	.307	.146	.060
				-202	.250	.141	.020	-245	.500	.141	.045	-289	.370	.146	.060
-161	.500	.125	.010	-203	.250	.141	.025	-246	.500	.141	.050				
-162	.500	.125	.015	-204	.250	.141	.030	-247	.500	.141	.060	-290	.250	.150	.010
-163	.500	.125	.020	-205	.250	.141	.040					-291	.250	.150	.015
-164	.500	.125	.025	-206	.250	.141	.045	-248	.505	.142	.060	-292	.250	.150	.020
-165	.500	.125	.030	-207	.250	.141	.050	-249	.495	.143	.060	-293	.250	.150	.025
-166	.500	.125	.040	-208	.250	.141	.060	-250	.560	.143	.060	-294	.250	.150	.030
-167	.500	.125	.045									-295	.250	.150	.040
-168	.500	.125	.050	-209	.254	.141	.040	-251	.312	.145	.010	-296	.250	.150	.045
-169	.500	.125	.060					-252	.312	.145	.015	-297	.250	.150	.050
				-210	.312	.141	.010	-253	.312	.145	.020	-298	.250	.150	.060
-170	.932	.125	.060	-211	.312	.141	.015	-254	.312	.145	.025				
				-212	.312	.141	.020	-255	.312	.145	.030	-299	.312	.150	.010
-171	.245	.130	.060	-213	.312	.141	.025	-256	.312	.145	.040	-300	.312	.150	.015
				-214	.312	.141	.030	-257	.312	.145	.045	-301	.312	.150	.020
-172	.250	.130	.010	-215	.312	.141	.040	-258	.312	.145	.050	-302	.312	.150	.025
-173	.250	.130	.015	-216	.312	.141	.045	-259	.312	.145	.060	-303	.312	.150	.030
-174	.250	.130	.020	-217	.312	.141	.050					-304	.312	.150	.040
-175	.250	.130	.025	-218	.312	.141	.060	-260	.375	.145	.010	-305	.312	.150	.045
-176	.250	.130	.030					-261	.375	.145	.015	-306	.312	.150	.050
-177	.250	.130	.040	-219	.375	.141	.010	-262	.375	.145	.020	-307	.312	.150	.060
-178	.250	.130	.045	-220	.375	.141	.015	-263	.375	.145	.025				
-179	.250	.130	.050	-221	.375	.141	.020	-264	.375	.145	.030	-308	.375	.150	.010
-180	.250	.130	.060	-222	.375	.141	.025	-265	.375	.145	.040	-309	.375	.150	.015
				-223	.375	.141	.030	-266	.375	.145	.045	-310	.375	.150	.020
-181	.281	.130	.060	-224	.375	.141	.040	-267	.375	.145	.050	-311	.375	.150	.025
-182	.307	.130	.060	-225	.375	.141	.045	-268	.375	.145	.060	-312	.375	.150	.030
-183	.370	.130	.060	-226	.375	.141	.050					-313	.375	.150	.040
				-227	.375	.141	.060	-269	.437	.145	.010	-314	.375	.150	.045
-184	.375	.130	.010					-270	.437	.145	.015	-315	.375	.150	.050
-185	.375	.130	.015	-228	.400	.141	.060	-271	.437	.145	.020	-316	.375	.150	.060
-186	.375	.130	.020	-229	.432	.141	.060	-272	.437	.145	.025				
-187	.375	.130	.025					-273	.437	.145	.030	-317	.437	.150	.060
-188	.375	.130	.030	-230	.437	.141	.010	-274	.437	.145	.040	-318	.275	.155	.060
-189	.375	.130	.040	-231	.437	.141	.015	-275	.437	.145	.045	-319	.307	.155	.060
-190	.375	.130	.045	-232	.437	.141	.020	-276	.437	.145	.050	-320	.370	.155	.060
-191	.375	.130	.050	-233	.437	.141	.025	-277	.437	.145	.060	-321	.435	.155	.060
-192	.375	.130	.060	-234	.437	.141	.030					-322	.460	.155	.060
				-235	.437	.141	.040	-278	.500	.145	.010				
-193	.432	.130	.060	-236	.437	.141	.045	-279	.500	.145	.015	-323	.688	.155	.010
-194	.495	.130	.060	-237	.437	.141	.050	-280	.500	.145	.020	-324	.688	.155	.015
-195	.540	.130	.060	-238	.437	.141	.060	-281	.500	.145	.025	-325	.688	.155	.020
-196	.829	.130	.060					-282	.500	.145	.030	-326	.688	.155	.025
-197	.890	.130	.060	-239	.500	.141	.010	-283	.500	.145	.040	-327	.688	.155	.030
-198	.265	.135	.060	-240	.500	.141	.015	-284	.500	.145	.045	-328	.688	.155	.040
				-241	.500	.141	.020	-285	.500	.145	.050				
-199	.385	.140	.060	-242	.500	.141	.025	-286	.500	.145	.060				

(continued next page)

.125 I.D. to .155 I.D.

MACHINED FLAT WASHERS (continued)

SEE PAGE 182 FOR AVAILABLE MATERIALS



Part No. FN100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-329	.688	.155	.045	-374	.317	.173	.060	-419	.750	.195	.015	-463	.437	.205	.020
-330	.688	.155	.050	-375	.312	.175	.060	-420	.750	.195	.020	-464	.437	.205	.025
-331	.688	.155	.060	-376	.370	.175	.060	-421	.750	.195	.025	-465	.437	.205	.030
-332	.688	.159	.060	-377	.375	.175	.060	-422	.750	.195	.030	-466	.437	.205	.040
-333	.250	.160	.060	-378	.345	.180	.070	-423	.750	.195	.040	-467	.437	.205	.045
-334	.375	.160	.010	-379	.254	.183	.040	-424	.750	.195	.045	-468	.437	.205	.050
-335	.375	.160	.015	-380	.281	.186	.060	-425	.750	.195	.050	-469	.437	.205	.060
-336	.375	.160	.020	-381	.252	.187	.040	-426	.750	.195	.060	-470	.340	.206	.060
-337	.375	.160	.025	-382	.375	.187	.060	-427	.750	.196	.060	-471	.500	.208	.060
-338	.375	.160	.030	-383	.312	.190	.010	-428	.370	.199	.060	-472	.275	.215	.020
-339	.375	.160	.040	-384	.312	.190	.015	-429	.280	.200	.040	-473	.500	.215	.010
-340	.375	.160	.045	-385	.312	.190	.020	-430	.360	.200	.060	-474	.500	.215	.015
-341	.375	.160	.050	-386	.312	.190	.025	-431	.432	.200	.060	-475	.500	.215	.020
-342	.375	.160	.060	-387	.312	.190	.030	-432	.437	.200	.010	-476	.500	.215	.025
-343	.312	.162	.060	-388	.312	.190	.040	-433	.437	.200	.015	-477	.500	.215	.030
-344	.205	.165	.020	-389	.312	.190	.045	-434	.437	.200	.020	-478	.500	.215	.040
-345	.245	.165	.050	-390	.312	.190	.050	-435	.437	.200	.025	-479	.500	.215	.045
-346	.312	.170	.010	-391	.312	.190	.060	-436	.437	.200	.030	-480	.500	.215	.050
-347	.312	.170	.015	-392	.437	.190	.010	-437	.437	.200	.040	-481	.500	.215	.060
-348	.312	.170	.020	-393	.437	.190	.015	-438	.437	.200	.045	-482	.500	.223	.060
-349	.312	.170	.025	-394	.437	.190	.020	-439	.437	.200	.050	-483	.660	.223	.060
-350	.312	.170	.030	-395	.437	.190	.025	-440	.437	.200	.060	-484	.315	.225	.040
-351	.312	.170	.040	-396	.437	.190	.030	-441	.500	.200	.010	-485	.375	.225	.060
-352	.312	.170	.045	-397	.437	.190	.040	-442	.500	.200	.015	-486	.400	.225	.060
-353	.312	.170	.050	-398	.437	.190	.045	-443	.500	.200	.020	-487	.370	.255	.060
-354	.312	.170	.060	-399	.437	.190	.050	-444	.500	.200	.025	-488	.432	.255	.060
-355	.370	.170	.060	-400	.437	.190	.060	-445	.500	.200	.030	-489	.495	.255	.060
-356	.375	.170	.010	-401	.500	.192	.060	-446	.500	.200	.040	-490	.620	.255	.060
-357	.375	.170	.015	-402	.307	.193	.060	-447	.500	.200	.045	-491	.745	.255	.060
-358	.375	.170	.020	-403	.460	.193	.060	-448	.500	.200	.050	-492	1.448	.255	.060
-359	.375	.170	.025	-404	.660	.193	.060	-449	.500	.200	.060	-493	.375	.257	.010
-360	.375	.170	.030	-405	.745	.193	.060	-450	.750	.200	.010	-494	.375	.257	.015
-361	.375	.170	.040	-406	.324	.195	.060	-451	.750	.200	.015	-495	.375	.257	.020
-362	.375	.170	.045	-407	.370	.195	.060	-452	.750	.200	.020	-496	.375	.257	.025
-363	.375	.170	.050	-408	.375	.195	.010	-453	.750	.200	.025	-497	.375	.257	.030
-364	.375	.170	.060	-409	.375	.195	.015	-454	.750	.200	.030	-498	.375	.257	.040
-365	.437	.170	.010	-410	.375	.195	.020	-455	.750	.200	.040	-499	.375	.257	.045
-366	.437	.170	.015	-411	.375	.195	.025	-456	.750	.200	.045	-500	.375	.257	.050
-367	.437	.170	.020	-412	.375	.195	.030	-457	.750	.200	.050	-501	.375	.257	.060
-368	.437	.170	.025	-413	.375	.195	.040	-458	.750	.200	.060	-502	.437	.257	.010
-369	.437	.170	.030	-414	.375	.195	.045	-459	.870	.200	.060	-503	.437	.257	.015
-370	.437	.170	.040	-415	.375	.195	.050	-4590	.562	.203	.040	-504	.437	.257	.020
-371	.437	.170	.045	-416	.375	.195	.060	-460	.432	.205	.060	-505	.437	.257	.025
-372	.437	.170	.050	-417	.437	.195	.060	-461	.437	.205	.010				
-373	.437	.170	.060	-418	.750	.195	.010	-462	.437	.205	.015				

(continued next page)

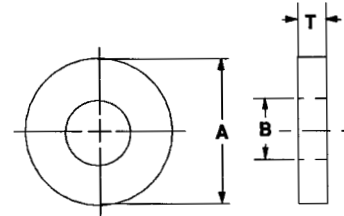
.155 I.D. to .257 I.D.

MACHINED FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN100 - (Size Code No.) - (Material Code No.)

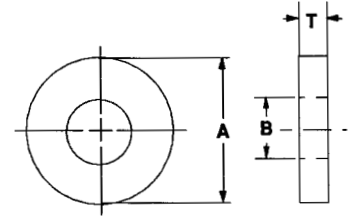
Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-506	.437	.257	.030	-550	.750	.257	.025	-590	.625	.290	.010	-632	.531	.317	.060
-507	.437	.257	.040	-551	.750	.257	.030	-591	.625	.290	.015	-633	.557	.317	.060
-508	.437	.257	.045	-552	.750	.257	.040	-592	.625	.290	.020	-634	.562	.317	.010
-509	.437	.257	.050	-553	.750	.257	.045	-593	.625	.290	.025	-635	.562	.317	.015
-510	.437	.257	.060	-554	.750	.257	.050	-594	.625	.290	.030	-636	.562	.317	.020
-511	.500	.257	.010	-555	.750	.257	.060	-595	.625	.290	.040	-637	.562	.317	.025
-512	.500	.257	.015	-556	.432	.258	.060	-596	.625	.290	.045	-638	.562	.317	.030
-513	.500	.257	.020	-557	.793	.258	.060	-597	.625	.290	.050	-639	.562	.317	.040
-514	.500	.257	.025	-558	.688	.259	.060	-598	.625	.290	.060	-640	.562	.317	.045
-515	.500	.257	.030	-559	.385	.260	.060	-599	.785	.290	.060	-641	.562	.317	.050
-516	.500	.257	.040	-560	.495	.263	.060	-600	1.110	.290	.060	-642	.562	.317	.060
-517	.500	.257	.045	-561	.557	.263	.060	-601	1.190	.290	.060	-643	.625	.317	.010
-518	.500	.257	.050	-562	.658	.263	.060	-602	.961	.300	.060	-644	.625	.317	.015
-519	.500	.257	.060	-563	.682	.263	.060	-603	.500	.305	.010	-645	.625	.317	.020
-520	.560	.257	.010	-564	.870	.263	.060	-604	.500	.305	.015	-646	.625	.317	.025
-521	.560	.257	.015	-565	.745	.265	.060	-605	.500	.305	.020	-647	.625	.317	.030
-522	.560	.257	.020	-566	1.260	.265	.060	-606	.500	.305	.025	-648	.625	.317	.040
-523	.560	.257	.025	-567	.437	.270	.060	-607	.500	.305	.030	-649	.625	.317	.045
-524	.560	.257	.030	-568	.620	.270	.060	-608	.500	.305	.040	-650	.625	.317	.050
-525	.560	.257	.040	-569	.625	.270	.010	-609	.500	.305	.045	-651	.625	.317	.060
-526	.560	.257	.045	-570	.625	.270	.015	-610	.500	.305	.050	-652	.750	.317	.010
-527	.560	.257	.050	-571	.625	.270	.020	-611	.500	.305	.060	-653	.750	.317	.015
-528	.560	.257	.060	-572	.625	.270	.025	-612	.500	.309	.060	-654	.750	.317	.020
-529	.625	.257	.010	-573	.625	.270	.030	-613	.437	.315	.010	-655	.750	.317	.025
-530	.625	.257	.015	-574	.625	.270	.040	-614	.437	.315	.015	-656	.750	.317	.030
-531	.625	.257	.020	-575	.625	.270	.045	-615	.437	.315	.020	-657	.750	.317	.040
-532	.625	.257	.025	-576	.625	.270	.050	-616	.437	.315	.025	-658	.750	.317	.045
-533	.625	.257	.030	-577	.625	.270	.060	-617	.437	.315	.030	-659	.750	.317	.050
-534	.625	.257	.040	-578	.812	.275	.060	-618	.437	.315	.040	-660	.750	.317	.060
-535	.625	.257	.045	-579	.385	.281	.060	-619	.437	.315	.045	-661	.437	.318	.060
-536	.625	.257	.050	-580	.500	.290	.010	-620	.437	.315	.050	-662	.750	.318	.060
-537	.625	.257	.060	-581	.500	.290	.015	-621	.437	.315	.060	-663	.480	.319	.060
-538	.688	.257	.010	-582	.500	.290	.020	-622	.495	.317	.060	-664	.620	.320	.060
-539	.688	.257	.015	-583	.500	.290	.025	-623	.500	.317	.010	-665	.745	.327	.060
-540	.688	.257	.020	-584	.500	.290	.030	-624	.500	.317	.015	-666	.625	.330	.010
-541	.688	.257	.025	-585	.500	.290	.040	-625	.500	.317	.020	-667	.625	.330	.015
-542	.688	.257	.030	-586	.500	.290	.045	-626	.500	.317	.025	-668	.625	.330	.020
-543	.688	.257	.040	-587	.500	.290	.050	-627	.500	.317	.030	-669	.625	.330	.025
-544	.688	.257	.045	-588	.500	.290	.060	-628	.500	.317	.040	-670	.625	.330	.030
-545	.688	.257	.050	-589	.620	.290	.060	-629	.500	.317	.045	-671	.625	.330	.040
-546	.688	.257	.060					-630	.500	.317	.050	-672	.625	.330	.045
-547	.750	.257	.010					-631	.500	.317	.060				
-548	.750	.257	.015												
-549	.750	.257	.020												

(continued next page)

257 I.D. to .330 I.D.

MACHINED FLAT WASHERS (continued)

SEE PAGE 184 FOR AVAILABLE MATERIALS



Part No. FN100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-673	.625	.330	.050	-716	.750	.380	.050	-757	.750	.445	.045	-798	.750	.570	.010
-674	.625	.330	.060	-717	.750	.380	.060	-758	.750	.445	.050	-799	.750	.570	.015
-675	.620	.335	.060	-718	.557	.385	.060	-759	.750	.445	.060	-800	.750	.570	.020
-676	.658	.348	.060	-719	.625	.390	.010	-760	1.000	.445	.060	-801	.750	.570	.025
-677	.540	.378	.060	-720	.625	.390	.015	-761	.575	.447	.060	-802	.750	.570	.030
-678	.495	.380	.060	-721	.625	.390	.020	-762	.620	.447	.060	-803	.750	.570	.040
-679	.500	.380	.010	-722	.625	.390	.025	-763	.866	.504	.060	-804	.750	.570	.045
-680	.500	.380	.015	-723	.625	.390	.030	-764	.688	.505	.010	-805	.750	.570	.050
-681	.500	.380	.020	-724	.625	.390	.040	-765	.688	.505	.015	-806	.750	.570	.060
-682	.500	.380	.025	-725	.625	.390	.045	-766	.688	.505	.020	-807	.995	.570	.060
-683	.500	.380	.030	-726	.625	.390	.050	-767	.688	.505	.025	-808	.869	.626	.060
-684	.500	.380	.040	-727	.625	.390	.060	-768	.688	.505	.030	-809	.840	.630	.060
-685	.500	.380	.045	-728	.625	.400	.010	-769	.688	.505	.040	-810	1.117	.630	.060
-686	.500	.380	.050	-729	.625	.400	.015	-770	.688	.505	.045	-811	.807	.632	.060
-687	.500	.380	.060	-730	.625	.400	.020	-771	.688	.505	.050	-812	.870	.632	.060
-688	.562	.380	.010	-731	.625	.400	.025	-772	.688	.505	.060	-813	.995	.635	.060
-689	.562	.380	.015	-732	.625	.400	.030	-773	.750	.505	.010	-814	.995	.695	.060
-690	.562	.380	.020	-733	.625	.400	.040	-774	.750	.505	.015	-815	.812	.700	.060
-691	.562	.380	.025	-734	.625	.400	.045	-775	.750	.505	.020	-816	1.500	.758	.060
-692	.562	.380	.030	-735	.625	.400	.050	-776	.750	.505	.025	-817	.995	.820	.060
-693	.562	.380	.040	-736	.625	.400	.060	-777	.750	.505	.030	-818	1.088	.850	.060
-694	.562	.380	.045	-737	.620	.400	.060	-778	.750	.505	.040	-819	1.125	.890	.060
-695	.562	.380	.050	-738	.745	.400	.060	-779	.750	.505	.045	-820	1.372	.930	.060
-696	.562	.380	.060	-739	.490	.410	.040	-780	.750	.505	.050	-821	1.372	1.020	.060
-697	.620	.380	.060	-740	.656	.443	.060	-781	.750	.505	.060	-822	1.350	1.300	.060
-698	.625	.380	.010	-741	.625	.445	.010	-782	.682	.508	.060				
-699	.625	.380	.015	-742	.625	.445	.015	-783	.745	.508	.060				
-700	.625	.380	.020	-743	.625	.445	.020	-784	1.000	.509	.060				
-701	.625	.380	.025	-744	.625	.445	.025	-785	.750	.515	.010				
-702	.625	.380	.030	-745	.625	.445	.030	-786	.750	.515	.015				
-703	.625	.380	.040	-746	.625	.445	.040	-787	.750	.515	.020				
-704	.625	.380	.045	-747	.625	.445	.045	-788	.750	.515	.025				
-705	.625	.380	.050	-748	.625	.445	.050	-789	.750	.515	.030				
-706	.625	.380	.060	-749	.625	.445	.060	-790	.750	.515	.040				
-707	.656	.380	.060	-750	.745	.445	.060	-791	.750	.515	.045				
-708	.745	.380	.060					-792	.750	.515	.050				
-709	.750	.380	.010					-793	.750	.515	.060				
-710	.750	.380	.015	-751	.750	.445	.010	-794	.745	.520	.060				
-711	.750	.380	.020	-752	.750	.445	.015	-795	.875	.520	.060				
-712	.750	.380	.025	-753	.750	.445	.020	-796	.803	.533	.060				
-713	.750	.380	.030	-754	.750	.445	.025	-797	.745	.570	.060				
-714	.750	.380	.040	-755	.750	.445	.030								
-715	.750	.380	.045	-756	.750	.445	.040								

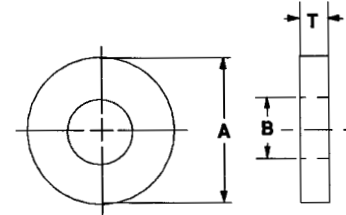
.330 I.D. to 1.300 I.D.

MACHINED LARGE FLAT WASHERS

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-27	PVC	-53	Phenolic Paper
-13	Polyethylene	-28	CPVC	-55	Phenolic Linen
-18	Nylon 6/6, (natural)	-29	Teflon®	-62	Acetal
-20	Nylon MDS	-37	PVDF	-70	Heat Stabilized Nylon
-24	Delrin®	-42	Nylatron GS	-78	Nylon 6/6, (black)



Part No. FN126 - (Size Code No.) - (Thickness Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Size Code No.	O.D. A	I.D. B	Size Code No.	O.D. A	I.D. B
-1	1	.093	-36	1 3/4	.250	-66	2 3/4	.250
-2	1	.125	-37	1 3/4	.375	-67	2 3/4	.312
-3	1	.187	-38	1 3/4	.437	-68	2 3/4	.375
-4	1	.250	-39	1 3/4	.500	-69	2 3/4	.437
-5	1	.375	-40	1 3/4	.625	-70	2 3/4	.500
-6	1	.500	-41	1 3/4	.750	-71	2 3/4	.650
-7	1	.625	-42	2	.250	-72	2 3/4	.750
-8	1 1/8	.093	-43	2	.315	-73	2 3/4	1.000
-9	1 1/8	.125	-44	2	.375	-74	3	.250
-10	1 1/8	.187	-45	2	.437	-75	3	.312
-11	1 1/8	.250	-46	2	.500	-76	3	.375
-12	1 1/8	.375	-47	2	.625	-77	3	.437
-13	1 1/8	.500	-48	2	.750	-78	3	.500
-14	1 1/8	.625	-49	2	1.000	-79	3	.650
-15	1 1/4	.093	-50	2 1/4	.250	-80	3	.750
-16	1 1/4	.125	-51	2 1/4	.312	-81	3	1.000
-17	1 1/4	.250	-52	2 1/4	.375	-82	3 1/2	.250
-18	1 1/4	.375	-53	2 1/4	.437	-83	3 1/2	.312
-19	1 1/4	.437	-54	2 1/4	.500	-84	3 1/2	.375
-20	1 1/4	.500	-55	2 1/4	.625	-85	3 1/2	.437
-21	1 1/4	.625	-56	2 1/4	.750	-86	3 1/2	.500
-22	1 3/8	.187	-57	2 1/4	1.000	-87	3 1/2	.625
-23	1 3/8	.250	-58	2 1/2	.250	-88	3 1/2	.750
-24	1 3/8	.375	-59	2 1/2	.312	-89	3 1/2	1.000
-25	1 3/8	.437	-60	2 1/2	.375	-90	4	.375
-26	1 3/8	.500	-61	2 1/2	.437	-91	4	.437
-27	1 3/8	.625	-62	2 1/2	.500	-92	4	.500
-28	1 3/8	.750	-63	2 1/2	.625	-93	4	.625
-29	1 1/2	.187	-64	2 1/2	.750	-94	4	.750
-30	1 1/2	.250	-65	2 1/2	1.000	-95	4	1.000
-31	1 1/2	.375				-96	4	1.250
-32	1 1/2	.437				-97	4	1.500
-33	1 1/2	.500						
-34	1 1/2	.625						
-35	1 1/2	.750						

Thickness Code No.	Thk.
-1	.010
-2	.020
-3	.032
-4	.040
-5	.050
-6	.060
-7	.070
-8	.080
-9	.093

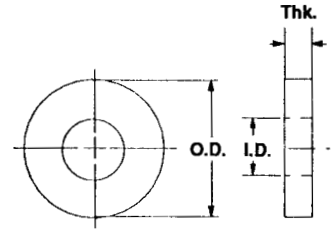
Tolerances:
O.D. +.020 -.000
I.D. +.010 -.000
Thickness +/- .005

Note:
Some of these products may be molded/stamped and tolerances will vary from tolerances listed above. Please call for quote..

MACHINED FLUOROPLASTIC FLAT WASHERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-32	PCTFE	-40	PFA (Teflon®)
-30	Tefzel®	-37	PVDF	-41	Halar®
-31	FEP®				



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-1	.156	.090	.010	-51	.250	.093	.045	-102	.250	.150	.025	-153	.312	.145	.010
-2	.156	.090	.015	-52	.250	.093	.050	-103	.250	.150	.030	-154	.312	.145	.015
-3	.156	.090	.020	-53	.250	.093	.060	-104	.250	.150	.040	-155	.312	.145	.020
-4	.156	.090	.025	-54	.250	.105	.010	-105	.250	.150	.045	-156	.312	.145	.025
-5	.156	.090	.030	-55	.250	.105	.015	-106	.250	.150	.050	-157	.312	.145	.030
-6	.187	.060	.010	-56	.250	.105	.020	-107	.250	.150	.060	-158	.312	.145	.040
-7	.187	.060	.015	-57	.250	.105	.025	-108	.281	.093	.010	-159	.312	.145	.045
-8	.187	.060	.020	-58	.250	.105	.030	-109	.281	.093	.015	-160	.312	.145	.050
-9	.187	.060	.025	-59	.250	.105	.040	-110	.281	.093	.020	-161	.312	.145	.060
-10	.187	.060	.030	-60	.250	.105	.045	-111	.281	.093	.025	-162	.312	.150	.010
-11	.187	.060	.040	-61	.250	.105	.050	-112	.281	.093	.030	-163	.312	.150	.015
-12	.187	.080	.010	-62	.250	.105	.060	-113	.281	.093	.040	-164	.312	.150	.020
-13	.187	.080	.015	-63	.250	.115	.010	-114	.281	.093	.045	-165	.312	.150	.025
-14	.187	.080	.020	-64	.250	.115	.015	-115	.281	.093	.050	-166	.312	.150	.030
-15	.187	.080	.025	-65	.250	.115	.020	-116	.281	.093	.060	-167	.312	.105	.040
-16	.187	.080	.030	-66	.250	.115	.025	-117	.281	.115	.010	-168	.312	.105	.045
-17	.187	.080	.040	-67	.250	.115	.030	-118	.281	.115	.015	-169	.312	.105	.050
-18	.187	.093	.010	-68	.250	.115	.040	-119	.281	.115	.020	-170	.312	.150	.060
-19	.187	.093	.015	-69	.250	.115	.045	-120	.281	.115	.025	-171	.312	.170	.010
-20	.187	.093	.020	-70	.250	.115	.050	-121	.281	.115	.030	-172	.312	.170	.015
-21	.187	.093	.025	-71	.250	.115	.060	-122	.281	.115	.040	-173	.312	.170	.020
-22	.187	.093	.030	-72	.250	.120	.010	-123	.281	.115	.045	-174	.312	.170	.025
-23	.187	.093	.040	-73	.250	.120	.015	-124	.281	.115	.050	-175	.312	.170	.030
-24	.187	.093	.045	-74	.250	.120	.020	-125	.281	.115	.060	-176	.312	.170	.040
-25	.220	.063	.010	-75	.250	.120	.025	-126	.281	.120	.010	-177	.312	.170	.045
-26	.220	.063	.015	-76	.250	.120	.030	-127	.281	.120	.015	-178	.312	.170	.050
-27	.220	.063	.020	-77	.250	.120	.040	-128	.281	.120	.020	-179	.312	.170	.060
-28	.220	.063	.025	-78	.250	.120	.045	-129	.281	.120	.025	-180	.312	.190	.010
-29	.220	.063	.030	-79	.250	.120	.050	-130	.281	.120	.030	-181	.312	.190	.015
-30	.220	.063	.040	-80	.250	.120	.060	-131	.281	.120	.040	-182	.312	.190	.020
-31	.220	.063	.050	-81	.250	.130	.010	-132	.281	.120	.045	-183	.312	.190	.025
-32	.220	.105	.010	-82	.250	.130	.015	-133	.281	.120	.050	-184	.312	.190	.030
-33	.220	.105	.015	-83	.250	.130	.020	-134	.281	.120	.060	-185	.312	.190	.040
-34	.220	.105	.020	-84	.250	.130	.025	-135	.312	.125	.010	-186	.312	.190	.045
-35	.220	.105	.025	-85	.250	.130	.030	-136	.312	.125	.015	-187	.312	.190	.050
-36	.220	.105	.030	-86	.250	.130	.040	-137	.312	.125	.020	-188	.312	.190	.060
-37	.220	.105	.040	-87	.250	.130	.045	-138	.312	.125	.025	-189	.375	.120	.010
-38	.220	.115	.010	-88	.250	.130	.050	-139	.312	.125	.030	-190	.375	.120	.015
-39	.220	.115	.015	-89	.250	.130	.060	-140	.312	.125	.040	-191	.375	.120	.020
-40	.220	.115	.020	-90	.250	.141	.010	-141	.312	.125	.045	-192	.375	.120	.025
-41	.220	.115	.025	-91	.250	.141	.015	-142	.312	.125	.050	-193	.375	.120	.030
-42	.220	.115	.030	-92	.250	.141	.020	-143	.312	.125	.060	-194	.375	.120	.040
-43	.220	.115	.040	-93	.250	.141	.025	-144	.312	.141	.010	-195	.375	.120	.045
-44	.220	.115	.050	-94	.250	.141	.030	-145	.312	.141	.015	-196	.375	.120	.050
-45	.250	.093	.010	-95	.250	.141	.040	-146	.312	.141	.020	-197	.375	.120	.060
-46	.250	.093	.015	-96	.250	.141	.045	-147	.312	.141	.025	-198	.375	.130	.010
-47	.250	.093	.020	-97	.250	.141	.050	-148	.312	.141	.030	-199	.375	.130	.015
-48	.250	.093	.025	-98	.250	.141	.060	-149	.312	.141	.040	-200	.375	.130	.020
-49	.250	.093	.030	-99	.250	.150	.010	-150	.312	.141	.045	-201	.375	.130	.025
-50	.250	.093	.040	-100	.250	.150	.015	-151	.312	.141	.050	-202	.375	.130	.030
				-101	.250	.150	.020	-152	.312	.141	.060				

(continued next page)

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000, Thickness +/- .005

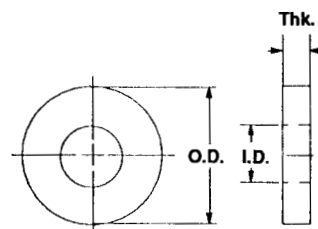
.156 O.D. to .375 O.D.

MACHINED FLUOROPLASTIC FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-32	PCTFE	-40	PFA (Teflon®)
-30	Tefzel®	-37	PVDF	-41	Halar®
-31	FEP®				



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-203	.375	.130	.040	-252	.375	.195	.010	-303	.437	.170	.045	-351	.500	.215	.010
-204	.375	.130	.045	-253	.375	.195	.015	-304	.437	.170	.050	-352	.500	.215	.015
-205	.375	.130	.050	-254	.375	.195	.020	-305	.437	.170	.060	-353	.500	.215	.020
-206	.375	.130	.060	-255	.375	.195	.025	-306	.437	.190	.010	-354	.500	.215	.025
-207	.375	.141	.010	-256	.375	.195	.030	-307	.437	.190	.015	-355	.500	.215	.030
-208	.375	.141	.015	-257	.375	.195	.040	-308	.437	.190	.020	-356	.500	.215	.040
-209	.375	.141	.020	-258	.375	.195	.045	-309	.437	.190	.025	-357	.500	.215	.045
-210	.375	.141	.025	-259	.375	.195	.050	-310	.437	.190	.030	-358	.500	.215	.050
-211	.375	.141	.030	-260	.375	.195	.060	-311	.437	.190	.040	-359	.500	.215	.060
-212	.375	.141	.040	-261	.375	.257	.010	-312	.437	.190	.045	-360	.500	.257	.010
-213	.375	.141	.045	-262	.375	.257	.015	-313	.437	.190	.050	-361	.500	.257	.015
-214	.375	.141	.050	-263	.375	.257	.020	-314	.437	.190	.060	-362	.500	.257	.020
-215	.375	.141	.060	-264	.375	.257	.025	-315	.500	.125	.010	-363	.500	.257	.025
-216	.375	.145	.010	-265	.375	.257	.030	-316	.500	.125	.015	-364	.500	.257	.030
-217	.375	.145	.015	-266	.375	.257	.040	-317	.500	.125	.020	-365	.500	.257	.040
-218	.375	.145	.020	-267	.375	.257	.045	-318	.500	.125	.025	-366	.500	.257	.045
-219	.375	.145	.025	-268	.375	.257	.050	-319	.500	.125	.030	-367	.500	.257	.050
-220	.375	.145	.030	-269	.375	.257	.060	-320	.500	.125	.040	-368	.500	.257	.060
-221	.375	.145	.040	-270	.437	.125	.010	-321	.500	.125	.045	-369	.500	.290	.010
-222	.375	.145	.045	-271	.437	.125	.015	-322	.500	.125	.050	-370	.500	.290	.015
-223	.375	.145	.050	-272	.437	.125	.020	-323	.500	.125	.060	-371	.500	.290	.020
-224	.375	.145	.060	-273	.437	.125	.025	-324	.500	.141	.010	-372	.500	.290	.025
-225	.375	.150	.010	-274	.437	.125	.030	-325	.500	.141	.015	-373	.500	.290	.030
-226	.375	.150	.015	-275	.437	.125	.040	-326	.500	.141	.020	-374	.500	.290	.040
-227	.375	.150	.020	-276	.437	.125	.045	-327	.500	.141	.025	-375	.500	.290	.045
-228	.375	.150	.025	-277	.437	.125	.050	-328	.500	.141	.030	-376	.500	.290	.050
-229	.375	.150	.030	-278	.437	.125	.060	-329	.500	.141	.040	-377	.500	.290	.060
-230	.375	.150	.040	-279	.437	.141	.010	-330	.500	.141	.045	-378	.500	.305	.010
-231	.375	.150	.045	-280	.437	.141	.015	-331	.500	.141	.050	-379	.500	.305	.015
-232	.375	.150	.050	-281	.437	.141	.020	-332	.500	.141	.060	-380	.500	.305	.020
-233	.375	.150	.060	-282	.437	.141	.025	-333	.500	.145	.010	-381	.500	.305	.025
-234	.375	.160	.010	-283	.437	.141	.030	-334	.500	.145	.015	-382	.500	.305	.030
-235	.375	.160	.015	-284	.437	.141	.040	-335	.500	.145	.020	-383	.500	.305	.040
-236	.375	.160	.020	-285	.437	.141	.045	-336	.500	.145	.025	-384	.500	.305	.045
-237	.375	.160	.025	-286	.437	.141	.050	-337	.500	.145	.030	-385	.500	.305	.050
-238	.375	.160	.030	-287	.437	.141	.060	-338	.500	.145	.040	-386	.500	.305	.060
-239	.375	.160	.040	-288	.437	.145	.010	-339	.500	.145	.045	-387	.500	.317	.010
-240	.375	.160	.045	-289	.437	.145	.015	-340	.500	.145	.050	-388	.500	.317	.015
-241	.375	.160	.050	-290	.437	.145	.020	-341	.500	.145	.060	-389	.500	.317	.020
-242	.375	.160	.060	-291	.437	.145	.025	-342	.500	.200	.010	-390	.500	.317	.025
-243	.375	.170	.010	-292	.437	.145	.030	-343	.500	.200	.015	-391	.500	.317	.030
-244	.375	.170	.015	-293	.437	.145	.040	-344	.500	.200	.020	-392	.500	.317	.040
-245	.375	.170	.020	-294	.437	.145	.045	-345	.500	.200	.025	-393	.500	.317	.045
-246	.375	.170	.025	-295	.437	.145	.050	-346	.500	.200	.030	-394	.500	.317	.050
-247	.375	.170	.030	-296	.437	.145	.060	-347	.500	.200	.040	-395	.500	.317	.060
-248	.375	.170	.040	-297	.437	.170	.010	-348	.500	.200	.045	-396	.500	.380	.010
-249	.375	.170	.045	-298	.437	.170	.015	-349	.500	.200	.050	-397	.500	.380	.015
-250	.375	.170	.050	-299	.437	.170	.020	-350	.500	.200	.060	-398	.500	.380	.020
-251	.375	.170	.060	-300	.437	.170	.025					-399	.500	.380	.025
				-301	.437	.170	.030					-400	.500	.380	.030
				-302	.437	.170	.040								

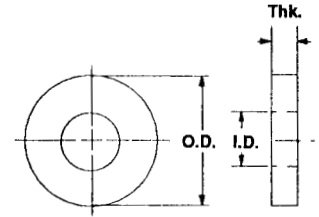
(continued next page)

Tolerances: O.D. +.020 - .000, I.D. +.010 - .000,
Thickness +/- .005

.375 O.D. to .500 O.D.

MACHINED FLUOROPLASTIC FLAT WASHERS (continued)

SEE PAGE 188 FOR AVAILABLE MATERIALS



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-401	.500	.380	.040	-450	.560	.257	.010	-500	.625	.290	.040	-549	.625	.445	.010
-402	.500	.380	.045	-451	.560	.257	.015	-501	.625	.290	.045	-550	.625	.445	.015
-403	.500	.380	.050	-452	.560	.257	.020	-502	.625	.290	.050	-551	.625	.445	.020
-404	.500	.380	.060	-453	.560	.257	.025	-503	.625	.290	.060	-552	.625	.445	.025
-405	.437	.195	.010	-454	.560	.257	.030	-504	.625	.317	.010	-553	.625	.445	.030
-406	.437	.195	.015	-455	.560	.257	.040	-505	.625	.317	.015	-554	.625	.445	.040
-407	.437	.195	.020	-456	.560	.257	.045	-506	.625	.317	.020	-555	.625	.445	.045
-408	.437	.195	.025	-457	.560	.257	.050	-507	.625	.317	.025	-556	.625	.445	.050
-409	.437	.195	.030	-458	.560	.257	.060	-508	.625	.317	.030	-557	.625	.445	.060
-410	.437	.195	.040	-459	.562	.317	.010	-509	.625	.317	.040	-558	.688	.155	.010
-411	.437	.195	.045	-460	.562	.317	.015	-510	.625	.317	.045	-559	.688	.155	.015
-412	.437	.195	.050	-461	.562	.317	.020	-511	.625	.317	.050	-560	.688	.155	.020
-413	.437	.195	.060	-462	.562	.317	.025	-512	.625	.317	.060	-561	.688	.155	.025
-414	.437	.200	.010	-463	.562	.317	.030	-513	.625	.330	.010	-562	.688	.155	.030
-415	.437	.200	.015	-464	.562	.317	.040	-514	.625	.330	.015	-563	.688	.155	.040
-416	.437	.200	.020	-465	.562	.317	.045	-515	.625	.330	.020	-564	.688	.155	.045
-417	.437	.200	.025	-466	.562	.317	.050	-516	.625	.330	.025	-565	.688	.155	.050
-418	.437	.200	.030	-467	.562	.317	.060	-517	.625	.330	.030	-566	.688	.155	.060
-419	.437	.200	.040	-468	.562	.380	.010	-518	.625	.330	.040	-567	.688	.257	.010
-420	.437	.200	.045	-469	.562	.380	.015	-519	.625	.330	.045	-568	.688	.257	.015
-421	.437	.200	.050	-470	.562	.380	.020	-520	.625	.330	.050	-569	.688	.257	.020
-422	.437	.200	.060	-471	.562	.380	.025	-521	.625	.330	.060	-570	.688	.257	.025
-423	.437	.205	.010	-472	.562	.380	.030	-522	.625	.380	.010	-571	.688	.257	.030
-424	.437	.205	.015	-473	.562	.380	.040	-523	.625	.380	.015	-572	.688	.257	.040
-425	.437	.205	.020	-474	.562	.380	.045	-524	.625	.380	.020	-573	.688	.257	.045
-426	.437	.205	.025	-475	.562	.380	.050	-525	.625	.380	.025	-574	.688	.257	.050
-427	.437	.205	.030	-476	.562	.380	.060	-526	.625	.380	.030	-575	.688	.257	.060
-428	.437	.205	.040	-477	.625	.257	.010	-527	.625	.380	.040	-576	.688	.505	.010
-429	.437	.205	.045	-478	.625	.257	.015	-528	.625	.380	.045	-577	.688	.505	.015
-430	.437	.205	.050	-479	.625	.257	.020	-529	.625	.380	.050	-578	.688	.505	.020
-431	.437	.205	.060	-480	.625	.257	.025	-530	.625	.380	.060	-579	.688	.505	.025
-432	.437	.257	.010	-481	.625	.257	.030	-531	.625	.390	.010	-580	.688	.505	.030
-433	.437	.257	.015	-482	.625	.257	.040	-532	.625	.390	.015	-581	.688	.505	.040
-434	.437	.257	.020	-483	.625	.257	.045	-533	.625	.390	.020	-582	.688	.505	.045
-435	.437	.257	.025	-484	.625	.257	.050	-534	.625	.390	.025	-583	.688	.505	.050
-436	.437	.257	.030	-485	.625	.257	.060	-535	.625	.390	.030	-584	.688	.505	.060
-437	.437	.257	.040	-486	.625	.270	.010	-536	.625	.390	.040	-585	.750	.195	.010
-438	.437	.257	.045	-487	.625	.270	.015	-537	.625	.390	.045	-586	.750	.195	.015
-439	.437	.257	.050	-488	.625	.270	.020	-538	.625	.390	.050	-587	.750	.195	.020
-440	.437	.257	.060	-489	.625	.270	.025	-539	.625	.390	.060	-588	.750	.195	.025
-441	.437	.315	.010	-490	.625	.270	.030	-540	.625	.400	.010	-589	.750	.195	.030
-442	.437	.315	.015	-491	.625	.270	.040	-541	.625	.400	.015	-590	.750	.195	.040
-443	.437	.315	.020	-492	.625	.270	.045	-542	.625	.400	.020	-591	.750	.195	.045
-444	.437	.315	.025	-493	.625	.270	.050	-543	.625	.400	.025	-592	.750	.195	.050
-445	.437	.315	.030	-494	.625	.270	.060	-544	.625	.400	.030	-593	.750	.195	.060
-446	.437	.315	.040	-495	.625	.290	.010	-545	.625	.400	.040	-594	.750	.200	.010
-447	.437	.315	.045	-496	.625	.290	.015	-546	.625	.400	.045	-595	.750	.200	.015
-448	.437	.315	.050	-497	.625	.290	.020	-547	.625	.400	.050	-596	.750	.200	.020
-449	.437	.315	.060	-498	.625	.290	.025	-548	.625	.400	.060	-597	.750	.200	.025
-499				-499	.625	.290	.030								

(continued next page)

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000, Thickness +/- .005

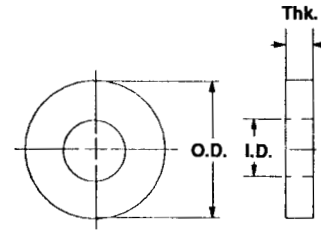
.500 O.D. to .750 O.D.

MACHINED FLUOROPLASTIC FLAT WASHERS (continued)

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-32	PCTFE	-40	PFA (Teflon®)
-30	Tefzel®	-37	PVDF	-41	Halar®
-31	FEP®				



Part No. F100 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.	Size Code No.	O.D.	I.D.	Thk.
-598	.750	.200	.030	-617	.750	.317	.040	-635	.750	.445	.040	-653	.750	.515	.040
-599	.750	.200	.040	-618	.750	.317	.045	-636	.750	.445	.045	-654	.750	.515	.045
-600	.750	.200	.045	-619	.750	.317	.050	-637	.750	.445	.050	-655	.750	.515	.050
-601	.750	.200	.050	-620	.750	.317	.060	-638	.750	.445	.060	-656	.750	.515	.060
-602	.750	.200	.060												
				-621	.750	.380	.010	-639	.750	.505	.010	-657	.750	.570	.010
-603	.750	.257	.010	-622	.750	.380	.015	-640	.750	.505	.015	-658	.750	.570	.015
-604	.750	.257	.015	-623	.750	.380	.020	-641	.750	.505	.020	-659	.750	.570	.020
-605	.750	.257	.020	-624	.750	.380	.025	-642	.750	.505	.025	-660	.750	.570	.025
-606	.750	.257	.025	-625	.750	.380	.030	-643	.750	.505	.030	-661	.750	.570	.030
-607	.750	.257	.030	-626	.750	.380	.040	-644	.750	.505	.040	-662	.750	.570	.040
-608	.750	.257	.040	-627	.750	.380	.045	-645	.750	.505	.045	-663	.750	.570	.045
-609	.750	.257	.045	-628	.750	.380	.050	-646	.750	.505	.050	-664	.750	.570	.050
-610	.750	.257	.050	-629	.750	.380	.060	-647	.750	.505	.060	-665	.750	.570	.060
-611	.750	.257	.060												
-612	.750	.317	.010	-630	.750	.445	.010	-648	.750	.515	.010				
-613	.750	.317	.015	-631	.750	.445	.015	-649	.750	.515	.015				
-614	.750	.317	.020	-632	.750	.445	.020	-650	.750	.515	.020				
-615	.750	.317	.025	-633	.750	.445	.025	-651	.750	.515	.025				
-616	.750	.317	.030	-634	.750	.445	.030	-652	.750	.515	.030				

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000,
Thickness +/- .005

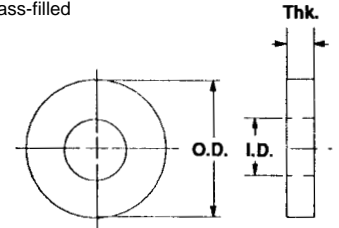
.750 O.D. to .750 O.D.

MACHINED SPECIAL FLAT WASHERS

*Available in other materials. See material list in index.
Other sizes available on request.

*Available in the following materials:

Material Code	Material Name	Material Code	Material Name	Material Code	Material Name
-3	Lexan®, (clear)	-27	PVC	-41	Halar®
-4	Lexan®, (black)	-28	CPVC	-60	Nylon 6/6, 30% Short Glass-filled
-5	Ultem® 1000	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled
-11	Polypropylene	-32	PCTFE	-77	Ultem® 2300, (natural)
-13	Polyethylene	-33	Polysulfone	-78	Nylon 6/6, (black)
-14	ABS	-35	Noryl®	-213	Vespele®
-15	PEEK™	-37	PVDF	-272	PVC, (white)
-18	Nylon 6/6, (natural)	-38	Fiber Glass G10	-273	PVC, (black)
-23	Nylon Super Tough	-39	UHMW®	-229	Radel® R5000, Polyphenylsulfone
-24	Delrin®, (white)	-40	PFA, (Teflon®)		



Part No. FN110 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-1	.125	.055	.016	-46	.281	.104	.016	-91	.625	.116	.062	-136	.437	.141	.031
-2	.187	.063	.016	-47	.312	.104	.016	-92	.250	.120	.016	-137	.500	.141	.031
-3	.218	.063	.016	-48	.180	.104	.025	-93	.281	.120	.020	-138	.562	.141	.031
-4	.250	.063	.016	-49	.180	.104	.031	-94	.281	.120	.031	-139	.625	.141	.031
-5	.281	.063	.016	-50	.187	.104	.031	-95	.281	.120	.040	-140	.218	.141	.040
-6	.187	.063	.031	-51	.218	.104	.031	-96	.281	.120	.062	-141	.312	.141	.047
-7	.218	.063	.031	-52	.281	.104	.031	-97	.375	.125	.062	-142	.250	.141	.062
-8	.250	.063	.031	-53	.312	.103	.031	-98	.187	.129	.016	-143	.281	.141	.062
-9	.281	.063	.031	-54	.343	.104	.031	-99	.218	.129	.016	-144	.312	.141	.062
-10	.187	.063	.062	-55	.375	.104	.031	-100	.250	.129	.016	-145	.343	.141	.062
-11	.218	.063	.062	-56	.437	.104	.031	-101	.281	.129	.016	-146	.375	.141	.062
-12	.250	.063	.062	-57	.500	.104	.031	-102	.312	.129	.016	-147	.437	.141	.062
-13	.281	.063	.062	-58	.562	.104	.031	-103	.187	.129	.031	-148	.500	.141	.062
-14	.250	.063	.093	-59	.625	.104	.031	-104	.218	.129	.031	-149	.562	.141	.062
-15	.281	.063	.093	-60	.250	.104	.062	-105	.250	.129	.031	-150	.625	.141	.062
-16	.125	.067	.016	-61	.281	.104	.062	-106	.281	.129	.031	-151	.187	.141	.016
-17	.187	.078	.031	-62	.312	.104	.062	-107	.312	.129	.031	-152	.218	.141	.016
-18	.187	.089	.016	-63	.343	.104	.062	-108	.343	.129	.031	-153	.250	.141	.016
-19	.218	.089	.016	-64	.375	.104	.062	-109	.375	.129	.031	-154	.281	.141	.016
-20	.250	.089	.016	-65	.437	.104	.062	-110	.437	.129	.031	-155	.312	.141	.016
-21	.281	.089	.016	-66	.500	.104	.062	-111	.500	.129	.031	-156	.343	.141	.016
-22	.312	.089	.016	-67	.562	.104	.062	-112	.562	.129	.031	-158	.375	.141	.016
-23	.187	.089	.031	-68	.625	.104	.062	-113	.625	.129	.031	-157	.437	.141	.016
-24	.250	.089	.031	-69	.250	.109	.031	-114	.218	.129	.040	-159	.500	.141	.016
-25	.281	.089	.031	-70	.187	.116	.016	-115	.312	.129	.047	-160	.562	.141	.016
-26	.312	.089	.031	-71	.218	.116	.016	-116	.250	.129	.062	-161	.625	.141	.016
-27	.343	.089	.031	-72	.281	.116	.016	-117	.281	.129	.062	-162	.312	.141	.047
-28	.375	.089	.031	-73	.312	.116	.016	-118	.312	.129	.062	-163	.250	.141	.062
-29	.437	.089	.031	-74	.187	.116	.031	-119	.343	.129	.062	-164	.281	.141	.062
-30	.500	.089	.031	-75	.218	.116	.031	-120	.375	.129	.062	-165	.312	.141	.062
-31	.562	.089	.031	-76	.250	.116	.031	-121	.437	.129	.062	-166	.343	.141	.062
-32	.625	.089	.031	-77	.312	.116	.031	-122	.500	.129	.062	-167	.375	.141	.062
-33	.218	.089	.062	-78	.343	.116	.031	-123	.562	.129	.062	-168	.437	.141	.062
-34	.250	.089	.062	-79	.375	.116	.031	-124	.625	.129	.062	-169	.500	.141	.062
-35	.281	.089	.062	-80	.437	.116	.031	-125	.187	.141	.016	-170	.562	.141	.062
-36	.343	.089	.062	-81	.500	.116	.031	-126	.218	.141	.016	-171	.625	.141	.062
-37	.375	.089	.062	-82	.562	.116	.031	-127	.250	.141	.016	-172	.312	.141	.093
-38	.218	.093	.031	-83	.625	.116	.031	-128	.281	.141	.016	-173	.343	.141	.093
-39	.250	.093	.016	-84	.281	.116	.047	-129	.312	.141	.016	-174	.375	.141	.093
-40	.312	.093	.062	-85	.250	.116	.062	-130	.218	.141	.031	-175	.437	.141	.093
-41	.500	.098	.124	-86	.312	.116	.062	-131	.250	.141	.031	-176	.500	.141	.093
-42	.180	.104	.016	-87	.343	.116	.062	-132	.281	.141	.031	-177	.562	.141	.093
-43	.187	.104	.016	-88	.437	.116	.062	-133	.312	.141	.031	-178	.625	.141	.093
-44	.218	.104	.016	-89	.500	.116	.062	-134	.343	.141	.031				
-45	.250	.104	.016	-90	.562	.116	.062	-135	.375	.141	.031				

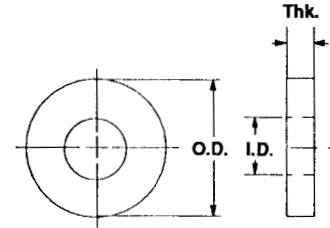
(continued next page)

Tolerances: O.D. +.020 - .000, I.D. +.010 - .000, Thickness +/- .005

.055 I.D. to .141 I.D.

MACHINED SPECIAL FLAT WASHERS (continued)

SEE PAGE 191 FOR AVAILABLE MATERIALS.



Part No. FN110 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T	Size Code No.	O.D. A	I.D. B	Thk. T
-179	.312	.148	.205	-237	.375	.194	.062	-295	.625	.281	.062	-353	1.000	.515	.031
-180	.312	.150	.020	-238	.437	.194	.062	-296	.583	.307	.125	-354	.750	.515	.062
-181	.312	.150	.031	-239	.500	.194	.062	-297	.438	.312	.032	-355	.875	.515	.062
-182	.312	.150	.040	-240	.562	.194	.062	-298	.555	.315	.046	-356	1.000	.515	.062
-183	.312	.150	.050	-241	.625	.194	.062	-299	.500	.317	.020	-357	.750	.515	.093
-184	.312	.150	.062	-242	.687	.194	.062	-300	.500	.317	.031	-358	.875	.515	.093
-185	.312	.156	.031	-243	.750	.194	.062	-301	.562	.317	.031	-359	1.000	.515	.093
-186	.500	.156	.031	-244	.375	.194	.093	-302	.625	.317	.031	-360	.730	.525	.125
-187	.375	.156	.063	-245	.437	.194	.093	-303	.687	.317	.031	-361	.750	.569	.031
-188	.375	.158	.135	-246	.500	.194	.093	-304	.750	.317	.031	-362	.875	.569	.031
-189	.377	.163	.125	-247	.562	.194	.093	-305	.500	.317	.062	-363	1.000	.569	.031
-190	.500	.163	.125	-248	.625	.194	.093	-306	.562	.317	.062	-364	1.125	.569	.031
-191	.625	.165	.125	-249	.687	.194	.093	-307	.625	.317	.062	-365	1.250	.569	.031
-192	.375	.171	.020	-250	.750	.194	.093	-308	.687	.317	.062	-366	.750	.569	.062
-193	.250	.171	.031	-251	.437	.200	.062	-309	.750	.317	.062	-367	.875	.569	.062
-194	.281	.171	.031	-252	.312	.219	.031	-310	.500	.317	.093	-368	1.000	.569	.062
-195	.312	.171	.031	-253	.375	.219	.031	-311	.562	.317	.093	-369	1.125	.569	.062
-196	.343	.171	.031	-254	.437	.219	.031	-312	.625	.317	.093	-370	1.250	.569	.062
-197	.375	.171	.031	-255	.500	.219	.031	-313	.687	.317	.093	-371	.750	.569	.093
-198	.437	.171	.031	-256	.375	.219	.062	-314	.750	.317	.093	-372	.875	.569	.093
-199	.500	.171	.031	-257	.437	.219	.062	-315	.875	.328	.032	-373	1.000	.569	.093
-200	.625	.171	.031	-258	.500	.219	.062	-316	.502	.372	.080	-374	1.125	.569	.093
-201	.375	.171	.040	-259	.437	.219	.093	-317	.562	.377	.056	-375	1.250	.569	.093
-202	.375	.171	.050	-260	.500	.219	.093	-318	.750	.380	.094	-376	.730	.569	.125
-203	.312	.171	.062	-261	.278	.219	.125	-319	.625	.385	.031	-377	.875	.569	.125
-204	.343	.171	.062	-262	.437	.253	.031	-320	.687	.385	.031	-378	1.000	.569	.125
-205	.375	.171	.062	-263	.500	.253	.031	-321	.750	.385	.031	-379	1.125	.569	.125
-206	.437	.171	.062	-264	.562	.253	.031	-322	1.000	.385	.031	-380	1.250	.569	.125
-207	.500	.171	.062	-265	.625	.253	.031	-323	.625	.385	.047	-381	.828	.628	.025
-208	.562	.171	.062	-266	.687	.253	.031	-324	.625	.385	.062	-382	1.015	.640	.075
-209	.625	.171	.062	-267	.750	.253	.031	-325	.687	.385	.062	-383	1.125	.640	.031
-210	.625	.187	.016	-268	.812	.253	.031	-326	.750	.385	.062	-384	1.125	.758	.031
-211	.375	.187	.031	-269	.875	.253	.031	-327	1.000	.385	.062	-385	1.250	.758	.031
-212	.312	.187	.062	-270	.500	.253	.047	-328	.625	.385	.093	-386	1.500	.758	.031
-213	.437	.187	.062	-271	.437	.253	.062	-329	.687	.385	.093	-387	1.125	.758	.062
-214	.375	.187	.093	-272	.500	.253	.062	-330	.750	.385	.093	-388	1.250	.758	.062
-215	.437	.187	.093	-273	.562	.253	.062	-331	1.000	.385	.093	-389	1.500	.758	.062
-216	.500	.187	.093	-274	.625	.253	.062	-332	.609	.391	.047	-390	1.125	.758	.093
-217	.562	.187	.093	-275	.687	.253	.062	-333	.437	.395	.025	-391	1.250	.758	.093
-218	.625	.187	.093	-276	.750	.253	.062	-334	.812	.406	.062	-392	1.500	.758	.093
-219	.318	.190	.124	-277	.812	.253	.062	-335	.687	.443	.031	-393	1.125	.758	.125
-220	.500	.191	.062	-278	.875	.253	.062	-336	.750	.443	.031	-394	1.250	.758	.125
-221	.500	.191	.125	-279	.437	.253	.093	-337	.812	.443	.031	-395	1.500	.758	.125
-222	.625	.191	.062	-280	.500	.253	.093	-338	.875	.443	.031	-396	1.125	.765	.062
-223	.437	.194	.020	-281	.562	.253	.093	-339	.687	.443	.093	-397	1.250	.765	.062
-224	.312	.194	.031	-282	.625	.253	.092	-340	.750	.443	.062	-398	1.250	.765	.093
-225	.343	.194	.031	-283	.687	.253	.093	-341	.812	.443	.062	-399	1.500	.765	.125
-226	.375	.194	.031	-294	.312	.253	.125	-342	.875	.443	.062	-400	1.125	.875	.093
-227	.437	.194	.031	-285	.447	.254	.033	-343	.687	.443	.093				
-228	.500	.194	.031	-286	.625	.255	.187	-344	.750	.443	.093				
-229	.562	.194	.031	-287	.687	.260	.020	-345	.812	.443	.093				
-230	.625	.194	.031	-288	.687	.260	.031	-346	.875	.443	.093				
-231	.687	.194	.031	-289	.875	.260	.031	-347	.521	.450	.148				
-232	.750	.194	.031	-290	.680	.260	.040	-348	.750	.473	.031				
-233	.437	.194	.040	-291	.687	.260	.050	-349	.820	.500	.093				
-234	.437	.194	.050	-292	.562	.260	.062	-350	.750	.515	.031				
-235	.312	.194	.062	-293	.687	.260	.062	-351	.828	.515	.025				
-236	.343	.194	.062	-294	.437	.265	.062	-352	.875	.515	.031				

Tolerances: O.D. +.020 -.000, I.D. +.010 -.000, Thickness +/- .005

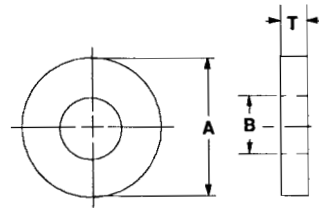
.148 I.D. to .875 I.D.

*Available in other materials. See material list in index.
Other sizes available on request.

MACHINED SPECIAL FLAT WASHERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-24	Delrin®	-60	Nylon 6/6, 30% Short Glass-filled
-11	Polypropylene	-27	PVC	-77	Ultem® 2300, (natural)
-13	Polyethylene	-28	CPVC	-78	Nylon 6/6, (black)
-14	ABS	-32	PCTFE	-229	Radel® R5000, Polyphenylsulfone
-15	PEEK™	-37	PVDF		
-18	Nylon 6/6, (natural)	-40	PFA, (Teflon®)		



Part No. G1200 - (Size Code No.) - (Material Code No.)

Size Code No.	I.D. B	O.D. A	Thick T	Screw Size	Size Code No.	I.D. B	O.D. A	Thick T	Screw Size
-1	.031	.125	.020	-	-11	.189	.318	.125	#10
-2	.062	.250	.093	#0	-12	.200	.437	.062	#10
-3	.115	.281	.047	#4	-13	.218	.273	.125	-
-4	.140	.312	.047	#6	-14	.253	.312	.125	1/4
-5	.140	.500	.032	#6	-15	.255	.437	.062	1/4
-6	.158	3/8	.135	-	-16	.260	.562	.062	1/4
-7	.163	.377	.125	-	-17	.307	.583	1/8	-
-8	.163	.500	.125	-	-18	.406	.812	.062	-
-9	.165	.625	.125	#8	-19	.525	.730	.125	1/2
-10	.170	.375	.062	#8	-20	.562	.750	.125	9/16

MACHINED FINISHING WASHERS

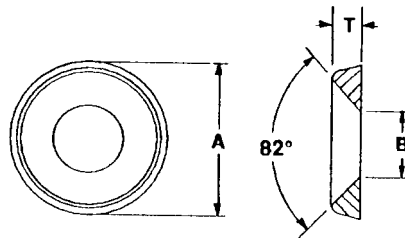
*Available in other materials. See materials list in index.
 Other sizes available on request.
 See MOLDED FINISHING WASHERS for additional sizes starting on page 122.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-5	Ultem® 1000	-18	Nylon 6/6, (natural)	-40	PFA, (Teflon®)
-11	Polypropylene	-24	Delrin®	-60	Nylon 6/6, 30% Short Glass-filled
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)
-14	ABS	-37	PVDF	-78	Nylon 6/6, (black)

Part No. F130 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Thick T	Screw Size
-1	.437	.143	.100	#6
-2	.515	.171	.115	#8
-3	.580	.191	.152	#10
-4	.683	.260	.183	1/4



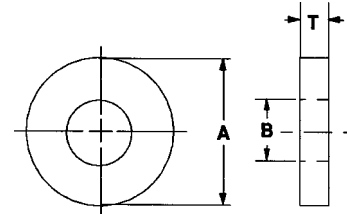
MACHINED HIGH TECHNOLOGY PLASTIC METRIC FLAT WASHERS

*Available in other materials. See material list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-3	Lexan®, (clear)	-27	PVC	-40	PFA, (Teflon®)	-195	Nylon 46, 30% Glass-filled, Flame Retardant, Heat Stabilized
-4	Lexan®, (black)	-28	CPVC	-41	Halar®	-213	Vespel®
-5	Ultem® 1000	-29	Teflon®	-60	Nylon 6/6, 30% Short Glass-filled	-272	PVC, (white)
-11	Polypropylene	-30	Tefzel®	-64	Delrin®, 25% Short Glass-filled	-273	PVC, (black)
-13	Polyethylene	-32	PCTFE	-77	Ultem® 2300, (natural)	-226	Radel® A200, Polyethersulfone
-14	ABS	-33	Polysulfone	-78	Nylon 6/6, (black)	-228	Radel® AG330, 30% Glass-filled
-15	PEEK™	-35	Noryl®	-194	Nylon 46, 30% Glass-filled, Heat Stabilized	-229	Radel® R5000, Polyphenylsulfone
-18	Nylon 6/6, (natural)	-37	PVDF				
-23	Nylon Super Tough	-38	Fiber Glass G10				
-24	Delrin®, (white)	-39	UHMW®				

ALL DIMENSIONS GIVEN IN MILLIMETERS



Part No. GA117 - (Size Code No.) - (Material Code No.)

Size Code No.	Thread Size	A	B	T	Size Code No.	Thread Size	A	B	T
-1*	M1,6	4,00	1,70	0,30	-19	M6	12,00	6,40	1,50
-2*	M1,7	4,50	1,80	0,30	-20*	M6	12,00	6,40	1,60
-3	M2	5,00	2,15	0,80	-21*	M7	14,00	7,40	1,60
-4*	M2	5,00	2,20	0,30	-22*	M8	16,00	8,40	1,60
-5*	M2,3	6,00	2,50	0,50	-23	M8	18,00	8,40	2,00
-6	M2,5	5,60	2,65	0,80	-24	M8,5	25,00	8,50	2,00
-7*	M2,5	6,00	2,70	0,50	-25*	M10	20,00	10,50	2,00
-8*	M2,6	7,00	2,80	0,50	-26	M10	22,00	10,50	2,50
-9*	M3	7,00	3,20	0,50	-27*	M12	24,00	13,00	2,50
-10	M3	8,00	3,20	0,80	-28	M12	25,00	12,00	3,00
-11*	M3,5	8,00	3,70	0,50	-29	M12	25,00	12,50	0,65
-12	M3,5	8,00	3,70	0,80	-30	M14	28,00	14,00	3,00
-13	M4	8,00	4,30	0,80	-31*	M14	28,00	15,00	2,50
-14*	M4	9,00	4,30	0,80	-32*	M16	30,00	17,00	3,00
-15	M5	8,50	5,50	2,00	-33	M16	28,00	16,00	3,00
-16*	M5	10,00	5,30	1,00	-34	M18	30,00	18,00	4,00
-17	M5	11,00	5,30	1,00	-35*	M18	34,00	19,00	3,00
-18	M6	10,00	6,00	6,00	-36*	M20	37,00	21,00	3,00

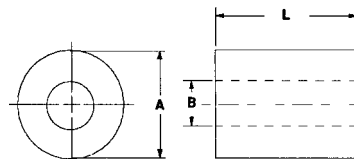
* Denotes manufactured to DIN 125, Part 1, March 1990.

Parts are made to DIN dimensions. Materials are selected by customer.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-31	FEP	-46	Polycarbonate	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Flame Retardant
-15	PEEK™	-32	PCTFE	-62	Acetal		
-27	PVC	-37	PVDF	-60	Nylon 6/6, 30% Short Glass-filled		
-28	CPVC	-38	G-10 Fiber Glass	-194	Nylon 46, 30% Glass-filled, Heat Stabilized		
-29	Teflon®	-40	Teflon®, (PFA)				



ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-1	.125	.030	.250	-47	.250	.100	.127	-94	.312	.115	.187
-2	.187	.042	.135	-48	.375	.105	.110	-95	.312	.115	.250
-3	.187	.042	.320	-49	.187	.115	.125	-96	.312	.115	.312
-4	.612	.060	.235	-50	.187	.115	.156	-97	.312	.115	.375
-5	.125	.063	.187	-51	.187	.115	.187	-98	.312	.115	.437
-6	.187	.067	.140	-52	.187	.115	.225	-99	.312	.115	.500
-7	.250	.075	.185	-53	.187	.115	.250	-100	.312	.115	.562
-8	.145	.078	.312	-54	.187	.115	.312	-101	.312	.115	.625
-9	.125	.090	.437	-56	.187	.115	.375	-102	.312	.115	.687
-10	.187	.091	.125	-57	.187	.115	.437	-103	.312	.115	.750
-11	.187	.091	.187	-58	.187	.115	.500	-104	.312	.115	.812
-12	.187	.091	.250	-59	.187	.115	.562	-105	.312	.115	.875
-13	.187	.091	.312	-60	.187	.115	.625	-106	.312	.115	.937
-14	.187	.091	.375	-61	.187	.115	.687	-107	.312	.115	1.000
-15	.187	.091	.437	-62	.187	.115	.750	-108	.312	.115	1.062
-16	.187	.091	.500	-63	.187	.115	.812	-109	.312	.115	1.125
-17	.187	.091	.562	-64	.187	.115	.875	-110	.312	.115	1.187
-18	.187	.091	.625	-65	.187	.115	.937	-111	.312	.115	1.250
-19	.187	.091	.687	-66	.187	.115	1.000	-112	.312	.115	1.312
-20	.187	.091	.750	-67	.225	.115	.145	-113	.312	.115	1.375
-21	.187	.091	.812	-68	.250	.115	.125	-114	.312	.115	1.437
-22	.187	.091	.844	-69	.250	.115	.187	-115	.312	.115	1.500
-23	.187	.091	.875	-70	.250	.115	.218	-116	.375	.115	.812
-24	.187	.091	.937	-71	.250	.115	.250	-117	.375	.115	1.062
-25	.187	.091	1.000	-72	.250	.115	.312	-118	.365	.120	.120
-26	.250	.091	.125	-73	.250	.115	.375	-119	.470	.120	.359
-27	.250	.091	.187	-74	.250	.115	.437	-120	.490	.120	.110
-28	.250	.091	.250	-75	.250	.115	.500	-121	.193	.125	.250
-29	.250	.091	.312	-76	.250	.115	.562	-122	.216	.125	.135
-30	.250	.091	.375	-77	.250	.115	.625	-123	.250	.125	.125
-31	.250	.091	.437	-78	.250	.115	.687	-124	.250	.125	.187
-32	.250	.091	.500	-79	.250	.115	.750	-125	.250	.125	.250
-33	.250	.091	.562	-80	.250	.115	.812	-126	.250	.125	.312
-34	.250	.091	.625	-81	.250	.115	.875	-127	.250	.125	.375
-35	.250	.091	.687	-82	.250	.115	.937	-128	.250	.125	.415
-36	.250	.091	.750	-83	.250	.115	1.000	-129	.250	.125	.437
-37	.250	.091	.812	-84	.250	.115	1.062	-130	.250	.125	.500
-38	.250	.091	.875	-85	.250	.115	1.125	-131	.250	.125	.625
-39	.250	.091	.937	-86	.250	.115	1.187	-132	.250	.125	.715
-40	.250	.091	1.000	-87	.250	.115	1.250	-133	.250	.125	.750
-41	.192	.093	.203	-88	.250	.115	1.312	-134	.250	.125	1.000
-42	.375	.094	.281	-89	.250	.115	1.375	-135	.280	.125	.297
-43	.145	.095	.390	-90	.250	.115	1.437	-136	.305	.125	.155
-44	.312	.095	.250	-91	.250	.115	1.500	-137	.312	.125	.125
-45	.160	.100	.406	-92	.251	.115	.531				
-46	.200	.100	.125	-93	.312	.115	.125				

(continued next page)

Tolerances on all dimensions +/- .010

.030 I.D. to .125 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

*Available in other materials.
See materials list in index.
Other sizes available on request.

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-138	.312	.125	.187	-196	.312	.140	.312	-253	.500	.140	.937
-139	.312	.125	.250	-197	.312	.140	.375	-254	.500	.140	1.000
-140	.312	.125	.312	-198	.312	.140	.437	-255	.250	.141	.281
-141	.312	.125	.375	-199	.312	.140	.500	-256	.375	.141	.156
-142	.312	.125	.437	-200	.312	.140	.562	-257	.200	.145	.171
-143	.312	.125	.500	-201	.312	.140	.625	-258	.215	.145	.328
-144	.375	.125	.125	-202	.312	.140	.687	-259	.230	.147	.475
-145	.375	.125	.187	-203	.312	.140	.750	-260	.250	.147	.062
-146	.375	.125	.250	-204	.312	.140	.812	-261	.250	.147	.125
-147	.375	.125	.312	-205	.312	.140	.875	-262	.250	.147	.187
-148	.375	.125	.375	-206	.312	.140	1.000	-263	.250	.147	.215
-149	.375	.125	.437	-207	.312	.140	1.062	-264	.250	.147	.250
-150	.375	.125	.500	-208	.312	.140	1.125	-265	.250	.147	.297
-151	.437	.125	.125	-209	.312	.140	1.187	-266	.250	.147	.312
-152	.437	.125	.250	-210	.312	.140	1.250	-267	.250	.147	.375
-153	.437	.125	.312	-211	.312	.140	1.312	-268	.250	.147	.437
-154	.437	.125	.375	-212	.312	.140	1.375	-269	.250	.147	.500
-155	.437	.125	.437	-213	.312	.140	1.437	-270	.250	.147	.625
-156	.437	.125	.599	-214	.312	.140	1.500	-271	.250	.147	.750
-157	.250	.126	.797	-215	.375	.140	.125	-272	.250	.147	.875
-158	.310	.126	.410	-216	.375	.140	.187	-273	.250	.147	1.000
-159	.203	.130	.281	-217	.375	.140	.250	-274	.312	.147	.125
-160	.255	.130	.190	-218	.375	.140	.312	-275	.312	.147	.187
-161	.375	.131	.220	-219	.375	.140	.375	-276	.312	.147	.250
-162	.220	.138	.656	-220	.375	.140	.437	-277	.312	.147	.312
-163	.187	.140	.125	-221	.375	.140	.500	-278	.312	.147	.375
-165	.218	.140	.156	-222	.375	.140	.562	-279	.312	.147	.437
-166	.250	.140	.125	-223	.375	.140	.625	-280	.312	.147	.500
-167	.250	.140	.160	-224	.375	.140	.687	-281	.312	.147	.625
-168	.250	.140	.187	-225	.375	.140	.750	-282	.312	.147	.750
-169	.250	.140	.210	-226	.375	.140	.812	-283	.312	.147	.875
-170	.250	.140	.250	-227	.375	.140	.875	-284	.312	.147	1.000
-171	.250	.140	.312	-228	.375	.140	.937	-285	.375	.147	.125
-172	.250	.140	.375	-229	.375	.140	1.000	-286	.375	.147	.187
-173	.250	.140	.437	-230	.375	.140	1.062	-287	.375	.147	.250
-174	.250	.140	.500	-231	.375	.140	1.125	-288	.375	.147	.312
-175	.250	.140	.547	-232	.375	.140	1.187	-289	.375	.147	.375
-176	.250	.140	.562	-233	.375	.140	1.250	-290	.375	.147	.437
-177	.250	.140	.625	-234	.375	.140	1.312	-291	.375	.147	.500
-178	.250	.140	.687	-235	.375	.140	1.375	-292	.375	.147	.625
-179	.250	.140	.750	-236	.375	.140	1.437	-293	.375	.147	.750
-180	.250	.140	.812	-237	.375	.140	1.500	-294	.375	.147	.875
-181	.250	.140	.875	-238	.400	.140	.718	-295	.375	.147	1.000
-182	.250	.140	.937	-239	.400	.140	.781	-296	.437	.147	.125
-183	.250	.140	1.000	-240	.500	.140	.125	-297	.437	.147	.187
-184	.250	.140	1.062	-241	.500	.140	.187	-298	.437	.147	.250
-185	.250	.140	1.125	-242	.500	.140	.250	-299	.437	.147	.312
-186	.250	.140	1.187	-243	.500	.140	.312	-300	.437	.147	.375
-187	.250	.140	1.250	-244	.500	.140	.375	-301	.437	.147	.437
-188	.250	.140	1.312	-245	.500	.140	.437	-302	.437	.147	.500
-189	.250	.140	1.375	-246	.500	.140	.500	-303	.437	.147	.625
-190	.250	.140	1.437	-247	.500	.140	.562	-304	.437	.147	.750
-191	.250	.140	1.500	-248	.500	.140	.625	-305	.437	.147	.875
-192	.312	.140	.125	-249	.500	.140	.687	-306	.437	.147	1.000
-193	.312	.140	.187	-250	.500	.140	.750	-307	.490	.150	.425
-194	.312	.140	.250	-251	.500	.140	.812				
-195	.312	.140	.281	-252	.500	.140	.875				

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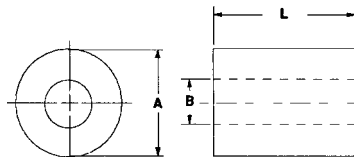
Tolerances on all dimensions +/- .010

.125 I.D. to .150 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-60	Nylon 6/6, 30% Short Glass -filled	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Flame Retardant
-15	PEEK™	-37	PVDF				
-27	PVC	-38	G-10 Fiber Glass	-194	Nylon 46, 30% Glass-filled, Heat Stabilized		
-28	CPVC	-40	Teflon®, (PFA)				
-29	Teflon®	-46	Polycarbonate				
-31	FEP	-62	Acetal				



ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-308	.510	.150	.310	-354	.312	.171	1.062	-400	.500	.171	.312
-309	.393	.151	.250	-355	.312	.171	1.125	-401	.500	.171	.375
-310	.251	.152	.156	-356	.312	.171	1.187	-402	.500	.171	.437
-311	.230	.155	.125	-357	.312	.171	1.250	-403	.500	.171	.500
-312	.687	.156	.125	-358	.312	.171	1.312	-404	.500	.171	.562
-313	.500	.158	.187	-359	.312	.171	1.375	-405	.500	.171	.625
-314	.377	.163	.125	-360	.312	.171	1.437	-406	.500	.171	.687
-315	.250	.165	.155	-361	.312	.171	1.500	-407	.500	.171	.750
-316	.375	.165	.100	-362	.375	.171	.125	-408	.500	.171	.812
-317	.500	.165	.165	-363	.375	.171	.187	-409	.500	.171	.875
-318	.570	.165	.250	-364	.375	.171	.203	-410	.500	.171	.937
-319	.605	.165	.370	-365	.375	.171	.250	-411	.500	.171	1.000
-320	.393	.169	.234	-366	.375	.171	.312	-412	.375	.174	.812
-321	.270	.170	.135	-367	.375	.171	.375	-413	.270	.175	.130
-322	.350	.170	.250	-368	.375	.171	.437	-414	.330	.183	.410
-323	.221	.171	.562	-369	.375	.171	.500	-415	.750	.185	.125
-324	.250	.171	.125	-370	.375	.171	.562	-416	.235	.187	.200
-325	.250	.171	.187	-371	.375	.171	.625	-417	.312	.187	.215
-326	.250	.171	.250	-372	.375	.171	.687	-418	.625	.187	.125
-327	.250	.171	.312	-373	.375	.171	.750	-419	1.312	.187	.562
-328	.250	.171	.375	-374	.375	.171	.812	-420	.312	.188	.312
-329	.250	.171	.437	-375	.375	.171	.875	-421	.316	.188	.203
-330	.250	.171	.500	-376	.375	.171	.937	-422	.250	.190	.280
-331	.250	.171	.562	-377	.375	.171	1.000	-423	.310	.190	.410
-332	.250	.171	.625	-378	.375	.171	1.062	-424	.330	.190	.410
-333	.250	.171	.687	-379	.375	.171	1.125	-425	.463	.190	.312
-334	.250	.171	.750	-380	.375	.171	1.187	-426	.495	.190	.415
-335	.250	.171	.812	-381	.375	.171	1.250	-427	.495	.190	.500
-336	.250	.171	.875	-382	.375	.171	1.312	-428	.495	.190	.620
-337	.250	.171	.937	-383	.375	.171	1.375	-429	.500	.190	.250
-338	.250	.171	1.000	-384	.375	.171	1.437	-430	.500	.190	1.740
-339	.312	.171	.125	-385	.375	.171	1.500	-431	.570	.190	.275
-340	.312	.171	.187	-386	.437	.171	.125	-432	.475	.191	.328
-341	.312	.171	.250	-387	.437	.171	.187	-433	.625	.191	.250
-342	.312	.171	.312	-388	.437	.171	.250	-434	.250	.192	.145
-343	.312	.171	.375	-389	.437	.171	.312	-435	.380	.192	.940
-344	.312	.171	.437	-390	.437	.171	.375	-436	.725	.192	.125
-345	.312	.171	.500	-391	.437	.171	.437	-437	.312	.194	.125
-346	.312	.171	.562	-392	.437	.171	.500	-438	.312	.194	.187
-347	.312	.171	.625	-393	.437	.171	.625	-439	.312	.194	.250
-348	.312	.171	.687	-394	.437	.171	.750	-440	.312	.194	.312
-349	.312	.171	.750	-395	.437	.171	.875	-441	.312	.194	.375
-350	.312	.171	.812	-396	.437	.171	1.000	-442	.312	.194	.437
-351	.312	.171	.875	-397	.500	.171	.125	-443	.312	.194	.500
-352	.312	.171	.937	-398	.500	.171	.187				
-353	.312	.171	1.000	-399	.500	.171	.250				

(continued next page)

Tolerances on all dimensions +/- .010

.150 I.D. to .194 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

*Available in other materials.
See materials list in index.
Other sizes available on request.

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-444	.312	.194	.562	-501	.260	.200	.594	-558	.750	.200	.125
-445	.312	.194	.625	-502	.312	.200	.125	-559	.609	.202	.250
-446	.312	.194	.687	-503	.312	.200	.187	-560	.375	.203	.109
-447	.312	.194	.750	-504	.312	.200	.250	-561	.375	.203	.266
-448	.312	.194	.812	-505	.312	.200	.312	-562	.606	.203	.625
-449	.312	.194	.875	-506	.312	.200	.375	-563	.750	.203	.340
-450	.312	.194	.937	-507	.312	.200	.437	-564	.825	.203	.625
-451	.312	.194	1.000	-508	.312	.200	.500	-565	.430	.205	.250
-452	.312	.194	1.062	-509	.312	.200	.625	-566	.300	.210	.135
-453	.312	.194	1.125	-510	.312	.200	.750	-567	.375	.218	.125
-454	.312	.194	1.187	-511	.312	.200	.875	-568	.312	.219	.437
-455	.312	.194	1.250	-512	.312	.200	1.000	-569	.375	.219	.250
-456	.312	.194	1.312	-513	.375	.200	.125	-570	.500	.219	.125
-457	.312	.194	1.375	-514	.375	.200	.187	-571	.500	.219	.187
-458	.312	.194	1.437	-515	.375	.200	.250	-572	.500	.219	.250
-459	.312	.194	1.500	-516	.375	.200	.312	-573	.500	.219	.312
-460	.375	.194	.125	-517	.375	.200	.375	-574	.500	.219	.375
-461	.375	.194	.187	-518	.375	.200	.437	-575	.500	.219	.437
-462	.375	.194	.250	-519	.375	.200	.500	-576	.500	.219	.500
-463	.375	.194	.312	-520	.375	.200	.625	-577	.500	.219	.562
-464	.375	.194	.375	-521	.375	.200	.750	-578	.500	.219	.625
-465	.375	.194	.437	-522	.375	.200	.875	-577	.500	.219	.562
-466	.375	.194	.500	-523	.375	.200	1.000	-578	.500	.219	.625
-467	.375	.194	.562	-524	.437	.200	.125	-579	.500	.219	.687
-468	.375	.194	.625	-525	.437	.200	.187	-580	.500	.219	.750
-469	.375	.194	.687	-526	.437	.200	.250	-581	.500	.219	.812
-470	.375	.194	.750	-527	.437	.200	.312	-582	.500	.219	.875
-471	.375	.194	.812	-528	.437	.200	.375	-583	.500	.219	.937
-472	.375	.194	.875	-529	.437	.200	.437	-584	.500	.219	1.000
-473	.375	.194	.938	-530	.437	.200	.500	-585	.375	.220	.375
-474	.375	.194	1.000	-531	.437	.200	.625	-586	.945	.240	.062
-475	.375	.194	1.062	-532	.437	.200	.750	-587	.750	.245	.260
-476	.375	.194	1.125	-533	.437	.200	1.000	-588	.370	.250	.595
-477	.375	.194	1.187	-534	.495	.200	.180	-589	.375	.250	.220
-478	.375	.194	1.250	-535	.500	.200	.125	-590	.375	.250	.340
-479	.375	.194	1.312	-536	.500	.200	.187	-591	.375	.250	.500
-480	.375	.194	1.375	-537	.500	.200	.250	-592	.460	.250	.562
-481	.375	.194	1.437	-538	.500	.200	.312	-593	.490	.250	.220
-482	.375	.194	1.500	-539	.500	.200	.375	-594	.495	.250	.925
-483	.500	.194	.125	-540	.500	.200	.437	-595	.500	.250	.390
-484	.500	.194	.187	-541	.500	.200	.500	-596	.610	.250	.375
-485	.500	.194	.250	-542	.500	.200	.625	-597	.615	.250	.090
-486	.500	.194	.312	-543	.500	.200	.750	-598	.740	.250	.250
-487	.500	.194	.375	-544	.500	.200	.875	-599	.750	.250	.375
-488	.500	.194	.406	-545	.500	.200	1.000	-600	.750	.250	.500
-489	.500	.194	.437	-546	.562	.200	.125	-601	.870	.250	.255
-490	.500	.194	.500	-547	.562	.200	.187	-602	.389	.251	.125
-491	.500	.194	.562	-548	.562	.200	.250	-603	.375	.252	.375
-492	.500	.194	.625	-549	.562	.200	.312	-604	.385	.254	.240
-493	.500	.194	.687	-550	.562	.200	.375	-605	.375	.255	.250
-494	.500	.194	.750	-551	.562	.200	.437	-606	.750	.255	1.500
-495	.500	.194	.812	-552	.562	.200	.500	-607	.610	.256	1.500
-496	.500	.194	.875	-553	.625	.200	.125	-608	.375	.257	1.000
-497	.500	.194	.937	-554	.625	.200	.187	-609	.406	.257	1.000
-498	.500	.194	1.000	-555	.625	.200	.250	-610	.490	.257	.375
-499	.245	.195	.390	-556	.625	.200	.312				
-500	.500	.195	.187	-557	.735	.200	.250				

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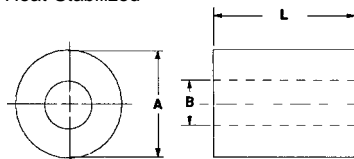
Tolerances on all dimensions +/- .010

.194 I.D. to .257 I.D.

MACHINED HIGH PERFORMANCE PLASTIC SPACERS (continued)

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name	Material Code No.	Material Name
-11	Polypropylene	-32	PCTFE	-60	Nylon 6/6, 30% Short Glass -filled	-195	Nylon 46, 30% Glass-filled, Heat Stabilized, Flame Retardent
-15	PEEK™	-37	PVDF	-194	Nylon 46, 30% Glass-filled, Heat Stabilized		
-27	PVC	-38	G-10 Fiber Glass				
-28	CPVC	-40	Teflon®, (PFA)				
-29	Teflon®	-46	Polycarbonate				
-31	FEP	-62	Acetal				



ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-611	.500	.257	.125	-657	.750	.260	.125	-703	.570	.320	.547
-612	.500	.257	.187	-658	.370	.265	.156	-704	.975	.320	.420
-613	.500	.257	.234	-659	.375	.265	.250	-705	.625	.323	.187
-614	.500	.257	.250	-660	.375	.265	.375	-706	.390	.325	.240
-615	.500	.257	.312	-661	.375	.265	.500	-707	.450	.325	.422
-616	.500	.257	.375	-662	.375	.265	.750	-708	.500	.328	1.000
-617	.500	.257	.437	-663	.375	.265	.875	-709	.405	.330	.375
-618	.500	.257	.500	-664	.375	.265	1.000	-710	.448	.330	.422
-619	.500	.257	.562	-665	.406	.265	.750	-711	.484	.343	.187
-620	.500	.257	.625	-666	.635	.265	.875	-712	.480	.345	.187
-621	.500	.257	.687	-667	.406	.267	.500	-713	.620	.350	.187
-622	.500	.257	.750	-668	.406	.269	.250	-714	.984	.366	.375
-623	.500	.257	.812	-669	.625	.270	.218	-715	.750	.370	.343
-624	.500	.257	.875	-670	.940	.275	.062	-716	.500	.375	.030
-625	.500	.257	.937	-671	.380	.280	.255	-717	.500	.375	.437
-626	.500	.257	1.000	-672	.500	.280	.250	-718	.500	.375	.625
-627	.500	.257	1.375	-673	.500	.280	.255	-719	.500	.375	.687
-628	.500	.257	1.625	-674	.625	.280	.437	-720	.562	.375	.500
-629	.750	.258	.437	-675	.648	.280	.359	-721	.580	.375	.250
-630	.495	.260	.435	-676	.500	.281	.812	-722	.986	.375	.250
-631	.562	.260	.125	-677	.613	.281	.500	-723	2.000	.375	.500
-632	.562	.260	.187	-678	.615	.281	.812	-724	.500	.378	.750
-633	.562	.260	.250	-679	.625	.281	.750	-725	.560	.379	.375
-634	.562	.260	.312	-680	1.120	.281	.437	-726	.500	.380	.250
-635	.562	.260	.375	-681	.985	.285	.250	-727	.500	.380	.422
-636	.562	.260	.437	-682	.945	.290	.065	-728	.938	.380	.250
-637	.562	.260	.500	-683	.500	.310	.750	-729	.500	.385	.156
-638	.562	.260	.625	-684	.745	.310	.062	-730	.500	.385	1.000
-639	.562	.260	.750	-685	1.000	.310	.125	-731	.740	.385	.203
-640	.562	.260	.875	-686	.623	.311	.812	-732	.625	.386	.609
-641	.562	.260	1.000	-687	.425	.312	1.000	-733	.562	.388	.700
-642	.625	.260	.125	-688	.500	.312	.156	-734	.500	.390	.125
-643	.625	.260	.187	-689	.500	.312	.250	-735	.500	.390	.187
-644	.625	.260	.250	-690	.750	.312	.390	-736	.500	.390	.250
-645	.625	.260	.312	-691	.750	.312	.765	-737	.500	.390	.312
-646	.625	.260	.375	-692	.812	.312	.125	-738	.500	.390	.375
-647	.625	.260	.437	-693	.875	.312	.125	-739	.500	.390	.437
-648	.625	.260	.500	-694	.617	.313	.266	-740	.500	.390	.500
-649	.625	.260	.625	-695	.590	.314	.359	-741	.500	.390	.625
-650	.625	.260	.750	-696	.405	.315	.250	-742	.500	.390	.750
-651	.625	.260	.875	-697	.460	.315	.140	-743	.500	.390	.875
-652	.625	.260	1.000	-698	.750	.315	.100	-744	.500	.390	1.000
-653	.687	.260	.125	-699	.360	.316	.250	-745	.562	.390	.125
-654	.687	.260	.187	-700	.567	.318	.547	-746	.562	.390	.187
-655	.687	.260	.250	-701	.510	.320	.875				
-656	.687	.260	.312	-702	.550	.320	.435				

(continued next page)

Tolerances on all dimensions +/- .010

.2570 I.D. to .390 I.D.

ROUND SPACERS

Part No. DN208 - (Size Code No.) - (Material Code No.)

*Available in other materials.
See materials list in index.
Other sizes available on request.

Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L	Size Code No.	O.D. A	I.D. B	Lgth. L
-747	.562	.390	.250	-804	.750	.460	.250	-862	1.035	.900	.205
-748	.562	.390	.312	-805	.750	.460	.312	-863	1.750	.928	.281
-749	.562	.390	.375	-806	.750	.460	.375	-864	1.250	1.000	.250
-750	.562	.390	.437	-807	.750	.460	.437	-865	1.562	1.031	.187
-751	.562	.390	.500	-808	.750	.460	.500	-866	1.750	1.031	.150
-752	.562	.390	.625	-809	.750	.460	.625	-867	1.750	1.062	.150
-753	.562	.390	.750	-810	.750	.460	.750	-868	1.312	1.078	.750
-754	.562	.390	.875	-811	.750	.460	.875	-869	2.045	1.170	.450
-755	.562	.390	1.000	-812	.750	.460	1.000	-870	1.500	1.187	.359
-756	.625	.390	.125	-813	.750	.485	.310	-871	2.135	1.760	.125
-757	.625	.390	.187	-814	.750	.490	.343				
-758	.625	.390	.250	-815	.618	.500	.484				
-759	.625	.390	.312	-816	.625	.500	.511				
-760	.625	.390	.375	-817	.735	.500	.375				
-761	.625	.390	.437	-818	.987	.500	.375				
-762	.625	.390	.500	-819	1.250	.500	.250				
-763	.625	.390	.625	-820	1.375	.500	.125				
-764	.625	.390	.750	-821	.620	.504	.812				
-765	.625	.390	.875	-822	.718	.504	.385				
-766	.625	.390	1.000	-823	.668	.506	.937				
-767	.687	.390	.125	-824	.620	.507	1.687				
-768	.687	.390	.187	-825	.626	.507	.500				
-769	.687	.390	.250	-826	.775	.507	.250				
-770	.687	.390	.312	-827	.750	.515	.155				
-771	.687	.390	.375	-828	.656	.516	.500				
-772	.687	.390	.437	-829	.803	.520	.500				
-773	.687	.390	.500	-830	.875	.520	.200				
-774	.687	.390	.625	-831	1.000	.525	.500				
-775	.687	.390	.750	-832	.718	.526	.218				
-776	.687	.390	.875	-833	.718	.526	.281				
-777	.687	.390	1.000	-834	.750	.530	.230				
-778	.750	.390	.125	-835	1.000	.530	.125				
-779	.750	.390	.187	-836	.870	.531	.391				
-780	.750	.390	.250	-837	.840	.546	.215				
-781	.750	.390	.312	-838	2.000	.562	.125				
-782	.750	.390	.375	-839	.890	.575	.140				
-783	.870	.395	.130	-840	.750	.580	.820				
-784	1.000	.405	.100	-841	.900	.580	.150				
-785	.625	.425	.875	-842	.700	.600	.140				
-786	.625	.437	.250	-843	1.250	.625	.250				
-787	.625	.440	.125	-844	1.380	.625	.505				
-788	.870	.440	.130	-845	.800	.640	.125				
-789	.570	.450	.030	-846	1.320	.640	.250				
-790	.625	.450	.875	-847	1.040	.650	.170				
-791	.687	.460	.125	-849	1.375	.656	.125				
-792	.687	.460	.187	-850	1.750	.687	.250				
-793	.687	.460	.250	-851	.875	.690	.156				
-794	.687	.460	.312	-852	1.062	.740	.187				
-795	.687	.460	.375	-853	1.250	.750	.250				
-796	.687	.460	.437	-854	1.620	.750	.125				
-797	.687	.460	.500	-855	1.000	.755	.203				
-799	.687	.460	.625	-856	1.000	.760	.165				
-799	.687	.460	.750	-857	1.515	.765	.250				
-800	.687	.460	.875	-858	1.000	.800	.195				
-801	.687	.460	1.000	-859	1.057	.812	.125				
-802	.750	.460	.125	-860	1.312	.812	.562				
-803	.750	.460	.187	-861	1.250	.875	.250				

Tolerances on all dimensions +/- .010

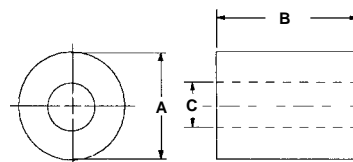
.390 I.D. to 1.760 I.D.

MACHINED FLUOROPLASTIC SPACERS

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name	Material Code No.	Material Name
-29	Teflon®	-37	PVDF
-30	Tefzel®	-40	PFA, (Teflon®)
-31	FEP®	-41	Halar®
-32	PCTFE		



ROUND SPACERS

Part No. D208 - (Size Code No.) - (Material Code No.)

Size Code No.	A	B	C	Screw Size	Size Code No.	A	B	C	Screw Size
-1	.145	.390	.095	#2	-45	.500	.250	.190	#10
-2	.200	.125	.100	#4	-46	.500	.375	.190	#10
-3	.225	.145	.115	#4	-47	.500	.255	.260	#1/4
-4	.230	.125	.155	#6	-48	.500	1.740	.190	#10
-5	.245	.390	.195	#10	-49	.510	.310	.150	#6
-6	.250	.280	.190	#10	-50	.550	.435	.320	#5/16
-7	.250	.185	.075	#2	-51	.570	.250	.165	#8
-8	.250	.155	.165	#8	-52	.570	.275	.190	#10
-9	.250	.715	.125	#4	-53	.570	.030	.450	#7/16
-10	.255	.190	.130	#4	-54	.580	.250	.375	#3/8
-11	.270	.135	.170	#8	-55	.612	.235	.060	—
-12	.270	.130	.175	#8	-56	.605	.370	.165	#8
-13	.300	.135	.210	#10	-57	.615	.090	.250	#1/4
-14	.305	.155	.125	#4	-58	.625	.125	.440	#7/16
-15	.350	.250	.170	#8	-59	.635	.875	.265	#1/4
-16	.350	.062	.180	#8	-60	.700	.140	.600	#9/16
-17	.365	.062	.125	#4	-61	.735	.250	.200	#10
-18	.365	.120	.120	#4	-62	.735	.375	.500	#7/16
-19	.370	.595	.250	#1/4	-63	.745	.062	.310	#5/16
-20	.375	.250	.255	#1/4	-64	.750	.310	.485	#7/16
-21	.375	.100	.165	#8	-65	.750	.820	.580	#9/16
-22	.375	.500	.250	#1/4	-66	.750	1.500	.255	#1/4
-23	.375	.110	.105	#4	-67	.750	.100	.315	#5/16
-24	.375	.340	.250	#1/4	-68	.750	.155	.515	#1/2
-25	.375	.812	.174	#8	-69	.870	.255	.250	#1/4
-26	.380	.255	.280	#1/4	-70	.870	.130	.395	#3/8
-27	.405	.250	.315	#5/16	-71	.870	.130	.440	#7/16
-28	.405	.375	.330	#5/16	-72	.940	.062	.275	#1/4
-29	.425	1.000	.312	#5/16	-73	.945	.062	.240	#12
-30	.430	.250	.205	#10	-74	.945	.065	.290	#1/4
-31	.460	.140	.315	#5/16	-75	.975	.420	.320	#5/16
-32	.490	.220	.250	#1/4	-76	1.000	.195	.800	#3/4
-33	.490	.425	.150	#6	-77	1.000	.165	.760	#3/4
-34	.495	.180	.200	#10	-78	1.000	.100	.405	#3/8
-35	.495	.435	.260	#1/4	-79	1.000	.125	.310	#5/16
-36	.490	.110	.120	#4	-80	1.035	.205	.900	#7/8
-37	.495	.415	.190	#10	-81	1.250	.250	.500	#7/16
-38	.495	.500	.190	#10	-82	1.250	.250	1.000	#1
-39	.495	.620	.190	#10	-83	1.250	.250	.875	#7/8
-40	.495	.925	.250	#1/4	-84	1.250	.250	.625	#5/8
-41	.500	.165	.165	#8	-85	1.250	.250	.750	#3/4
-42	.500	.030	.375	#3/8	-86	1.320	.250	.640	#5/8
-43	.500	.750	.310	#5/16	-87	1.380	.505	.625	#5/8
-44	.500	.187	.195	#10	-88	1.510	.250	.765	#3/4