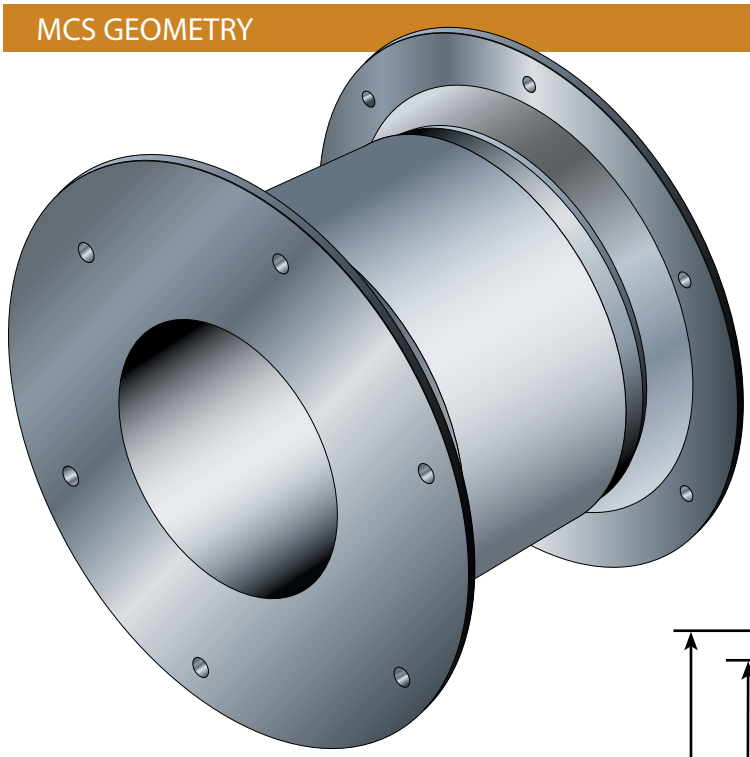
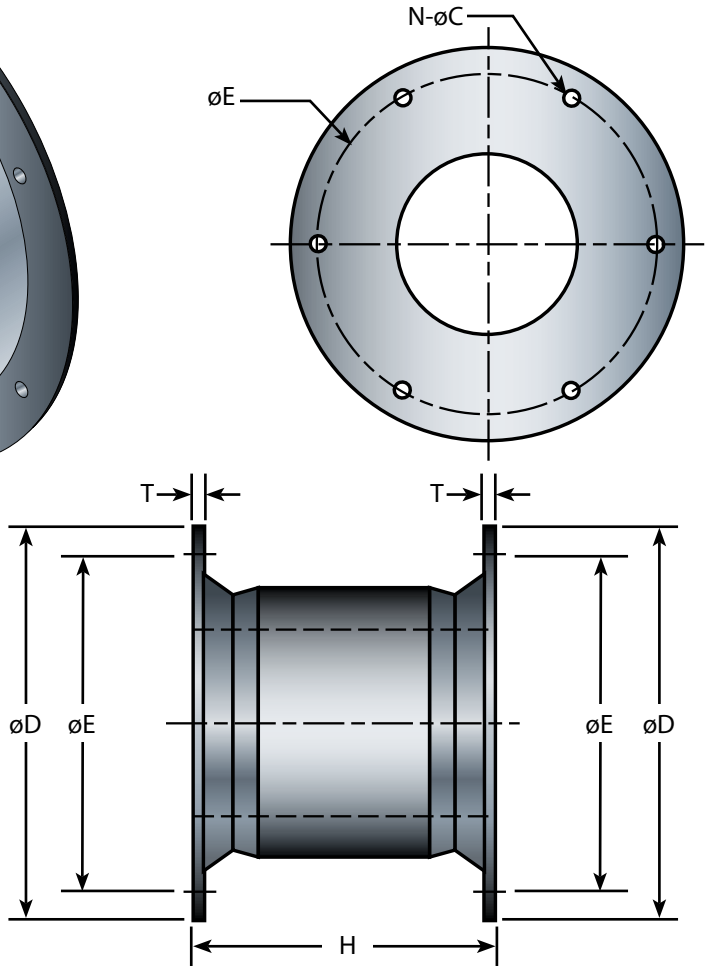
MCS Cell Fenders

Maritime International's MCS Cell fender is the most commonly used fender in the industry. It is unmatched in durability and reliability and has proven itself over decades of service. MCS fenders are available in the widest range of sizes of any fender type. The large mounting flanges serve to distribute the fender load over the back of the fender panel frame and allows easy installation of the mounting bolts.

MCS CELL FENDERS

MCS GEOMETRY



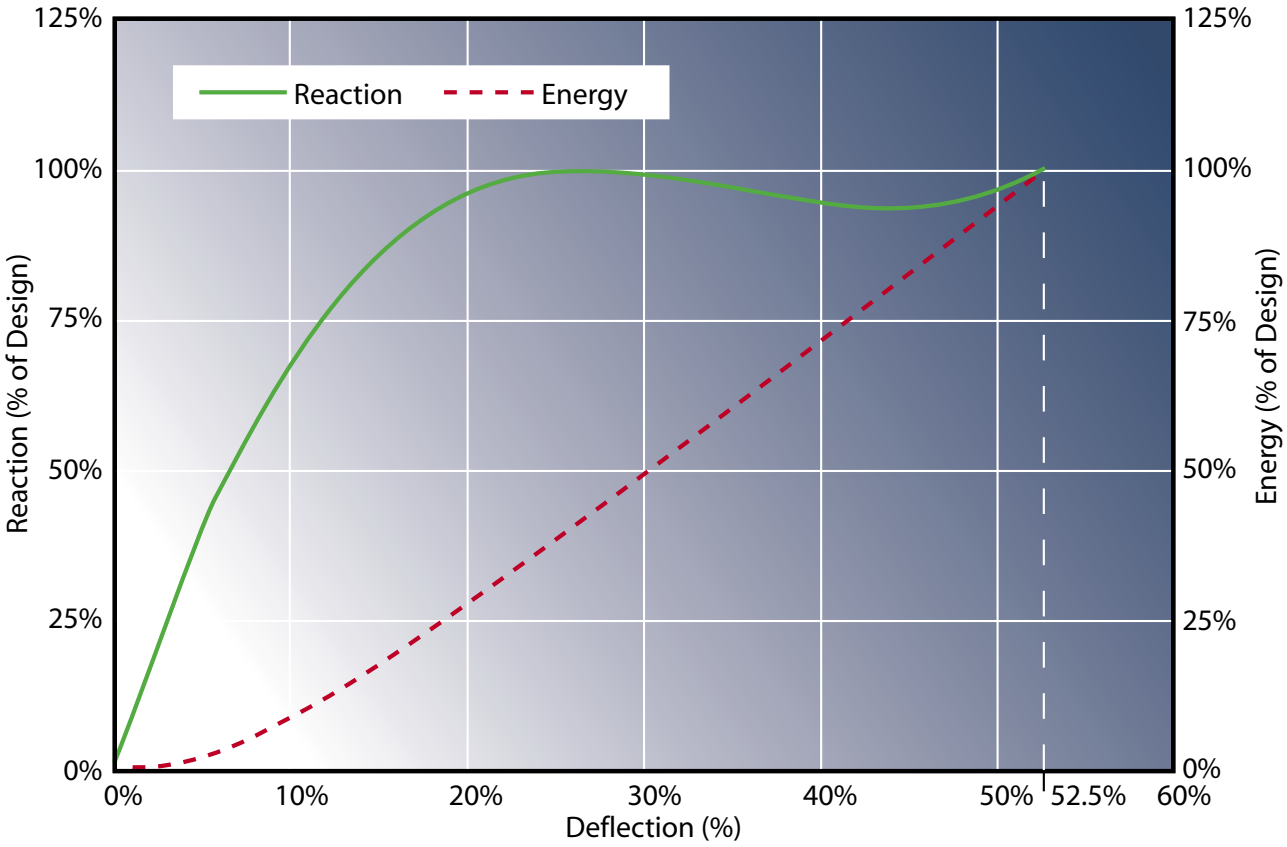


MCS DIMENSIONS

Model	H mm	H in	øD mm	øD in	øE PCD mm	øE PCD in	T mm	T in	N-øC mm	N-øC in	Bolt Size mm	Bolt Size in
MCS500	500	19.7	650	25.6	550	21.7	25	0.98	4-32	4-1.26	M24	7/8
MCS630	630	24.8	840	33.1	700	27.6	30	1.18	4-39	4-1.54	M30	1-1/8
MCS800	800	31.5	1050	41.3	900	35.4	30	1.18	6-40	6-1.57	M30	1-1/8
MCS1000	1000	39.4	1300	51.2	1100	43.3	35	1.38	6-47	6-1.85	M36	1-3/8
MCS1150	1150	45.3	1500	59.1	1300	51.2	40	1.57	6-50	6-1.97	M42	1-3/4
MCS1250	1250	49.2	1650	65.0	1450	57.1	45	1.77	6-53	6-2.09	M42	1-3/4
MCS1450	1450	57.1	1850	72.8	1650	65.0	47	1.85	6-61	6-2.40	M52	2
MCS1600	1600	63.0	2000	78.7	1800	70.9	52	2.05	8-61	8-2.40	M48	2
MCS1700	1700	66.9	2100	82.7	1900	74.8	55	2.17	8-66	8-2.60	M56	2-1/4
MCS2000	2000	78.7	2200	86.6	2000	78.7	55	2.17	8-74	8-2.91	M64	2-1/2
MCS2250	2250	88.6	2550	100.0	2300	90.6	60	2.36	10-74	10-2.91	M64	2-1/2
MCS2500	2500	98.4	2950	116.0	2700	106.0	70	2.76	10-74	10-2.91	M64	2-1/2

Other sizes available. Dimensions are subject to change. Verify current dimensions with Maritime when ordering any fender.

MCS GENERALIZED PERFORMANCE CURVE



Intermediate grades can be interpolated from standard grades

MCS PERFORMANCE

Model	Standard Rubber Grades														Weight	
	G4				G3				G2				G1				G0					
	R		E		R		E		R		E		R		E		R		E			
	kN	kips	kN-m	ft-kips	kN	kips	kN-m	ft-kips	kN	kips	kN-m	ft-kips	kN	kips	kN-m	ft-kips	kN	kips	kN-m	ft-kips	(kg)	(lbs)
MCS 500	182	40.9	40.2	29.6	162	36.4	35.6	26.2	140	31.5	30.1	22.2	108	24.3	23.4	17.2	86.3	19.4	17.8	13.1	110	243
MCS 630	290	65.2	80.4	59.3	258	58.0	71.6	52.8	224	50.4	61.7	45.5	172	38.7	47	34.7	138	31.0	38.2	28.2	235	518
MCS 800	464	104	163	120	412	92.6	145	107	355	79.8	125	92.1	275	61.8	96	70.8	211	47.4	74.5	54.9	410	904
MCS 1000	737	166	324	239	655	147	287	212	567	127	249	184	436	98.0	191	141	349	78.5	153	113	805	1775
MCS 1150	975	219	492	363	865	194	437	322	750	169	379	279	578	130	291	214	462	104	233	172	1223	2697
MCS 1250	1153	259	632	466	1022	230	561	413	886	199	486	358	682	153	374	276	546	123	299	220	1490	3285
MCS 1450	1551	349	987	727	1376	309	876	646	1193	268	760	560	918	206	585	431	735	165	468	345	2330	5138
MCS 1600	1888	424	1326	977	1676	377	1177	867	1453	327	1020	752	1117	251	786	579	894	201	628	463	3020	6659
MCS 1700	2131	479	1591	1173	1892	425	1413	1041	1640	369	1224	902	1262	284	941	694	1009	227	753	555	3730	8225
MCS 2000	2941	661	2591	1910	2619	589	2300	1695	2270	510	1994	1470	1746	393	1534	1131	1398	314	1227	904	5023	11076
MCS 2250	4145	932	4095	3018	3679	827	3628	2674	3188	717	3150	2322	2454	552	2424	1786	2085	469	2060	1518	7410	16339
MCS 2500	5118	1151	5618	4140	4543	1021	4987	3675	3937	885	4322	3185	3028	681	3325	2451	2574	579	2826	2083	10750	23704

R = reaction E = energy Values shown are for standard 52.5% deflection Maximum deflection = 55% R = 106% E = 106% Tolerance = +/- 10%

MCS INTERMEDIATE RUBBER GRADES

Grade	Unit	MCS 500		MCS 630		MCS 800		MCS 1000		MCS 1150		MCS 1250		MCS 1450		MCS 1600		MCS 1700		MCS 2000		MCS 2250		MCS 2500	
		kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips	kN	kips
		kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips	kN-m	ft-kips
G0	R	86.3	19.4	138	31.0	211	47.4	349	78.5	462	104	546	123	735	165	894	201	1009	227	1398	314	2085	469	2574	579
	E	17.8	13.1	38.2	28.2	74.5	54.9	153	113	233	172	299	220	468	345	628	463	753	555	1227	904	2060	1518	2826	2083
G0.1	R	88.5	19.9	141	31.8	217	48.9	358	80.4	474	106	560	126	753	169	916	206	1034	233	1433	322	2122	477	2619	589
	E	18.4	13.5	39.1	28.8	76.7	56.5	157	116	239	176	307	226	480	354	644	474	772	569	1258	927	2096	1545	2876	2120
G0.2	R	90.6	20.4	145	32.6	224	50.3	366	82.4	485	109	573	129	772	173	939	211	1060	238	1468	330	2159	485	2665	599
	E	18.9	13.9	40.0	29.5	78.8	58.1	161	118	245	180	314	231	491	362	660	486	791	583	1288	950	2133	1572	2926	2156
G0.3	R	92.8	20.9	148	33.3	230	51.8	375	84.3	497	112	587	132	790	178	961	216	1085	244	1502	338	2196	494	2710	609
	E	19.5	14.4	40.8	30.1	81.0	59.7	164	121	250	185	322	237	503	371	675	498	809	597	1319	972	2169	1599	2976	2193
G0.4	R	95.0	21.4	152	34.1	237	53.2	384	86.3	508	114	600	135	808	182	983	221	1110	250	1537	346	2233	502	2756	620
	E	20.0	14.8	41.7	30.7	83.1	61.2	168	124	256	189	329	242	515	379	691	509	828	610	1350	995	2206	1626	3026	2230
G0.5	R	97.2	21.8	155	34.8	243	54.6	393	88.2	520	117	614	138	827	186	1006	226	1136	255	1572	353	2270	510	2801	630
	E	20.6	15.2	42.6	31.4	85.3	62.8	172	127	262	193	337	248	527	388	707	521	847	624	1381	1017	2242	1652	3076	2267
G0.6	R	99.3	22.3	158	35.6	249	56.1	401	90.2	532	120	628	141	845	190	1028	231	1161	261	1607	361	2306	519	2846	640
	E	21.2	15.6	43.5	32.0	87.4	64.4	176	130	268	197	344	254	538	397	723	533	866	638	1411	1040	2278	1679	3125	2303
G0.7	R	101	22.8	162	36.4	256	57.5	410	92.2	543	122	641	144	863	194	1050	236	1186	267	1642	369	2343	527	2892	650
	E	21.7	16.0	44.4	32.7	89.6	66.0	180	132	274	202	352	259	550	405	739	544	885	652	1442	1063	2315	1706	3175	2340
G0.8	R	104	23.3	165	37.1	262	58.9	419	94.1	555	125	655	147	881	198	1072	241	1211	272	1676	377	2380	535	2937	660
	E	22.3	16.4	45.2	33.3	91.7	67.6	183	135	279	206	359	265	562	414	754	556	903	666	1473	1085	2351	1733	3225	2377
G0.9	R	106	23.8	169	37.9	269	60.4	427	96.1	566	127	668	150	900	202	1095	246	1237	278	1711	385	2417	543	2983	671
	E	22.8	16.8	46.1	34.0	93.9	69.2	187	138	285	210	367	270	573	423	770	568	922	680	1503	1108	2388	1760	3275	2414
G1	R	108	24.3	172	38.7	275	61.8	436	98.0	578	130	682	153	918	206	1117	251	1262	284	1746	393	2454	552	3028	681
	E	23.4	17.2	47.0	34.6	96.0	70.8	191	141	291	214	374	276	585	431	786	579	941	694	1534	1131	2424	1786	3325	2451
G1.1	R	111	25.0	177	39.8	283	63.6	449	101	595	134	702	158	946	213	1151	259	1300	292	1798	404	2527	568	3119	701
	E	24.1	17.7	48.5	35.7	98.9	72.9	197	145	300	221	385	284	603	444	809	597	969	714	1580	1164	2497	1840	3425	2524
G1.2	R	114	25.7	182	41.0	291	65.4	462	104	612	138	723	163	973	219	1184	266	1338	301	1851	416	2601	585	3210	722
	E	24.7	18.2	49.9	36.8	102	75.0	203	149	309	227	396	292	620	457	833	614	998	735	1626	1198	2569	1894	3524	2597
G1.3	R	118	26.4	188	42.2	299	67.2	475	107	630	142	743	167	1001	225	1218	274	1375	309	1903	428	2674	601	3301	742
	E	25.4	18.7	51.4	37.9	105	77.2	208	154	317	234	408	300	638	470	856	631	1026	756	1672	1232	2642	1947	3624	2671
G1.4	R	121	27.2	193	43.3	307	69.0	488	110	647	145	764	172	1028	231	1251	281	1413	318	1956	440	2748	618	3392	763
	E	26.1	19.2	52.9	39.0	108	79.3	214	158	326	240	419	309	655	483	880	648	1054	777	1718	1266	2714	2001	3724	2744
G1.5	R	124	27.9	198	44.5	315	70.8	502	113	664	149	784	176	1056	237	1285	289	1451	326	2008	451	2821	634	3483	783
	E	26.8	19.7	54.4	40.1	111	81.4	220	162	335	247	430	317	673	496	903	666	1083	798	1764	1300	2787	2054	3824	2818
G1.6	R	127	28.6	203	45.7	323	72.6	515	116	681	153	804	181	1083	243	1319	296	1489	335	2060	463	2894	651	3573	803
	E	27.4	20.2	55.8	41.1	113	83.6	226	166	344	253	441	325	690	509	926	683	1111	819	1810	1334	2860	2108	3923	2891
G1.7	R	130	29.3	208	46.9	331	74.4	528	119	698	157	825	185	1111	250	1352	304	1527	343	2113	475	2968	667	3664	824
	E	28.1	20.7	57.3	42.2	116	85.7	232	171	353	260	452	333	708	521	950	700	1139	840	1856	1368	2932	2161	4023	2965
G1.8	R	134	30.0	214	48.0	339	76.2	541	122	716	161	845	190	1138	256	1386	312	1564	352	2165	487	3041	684	3755	844
	E	28.8	21.2	58.8	43.3	119	87.9	237	175	361	266	464	342	725	534	973	717	1167	860	1902	1402	3005	2215	4123	3038
G1.9	R	137	30.8	219	49.2	347	78.0	554	125	733	165	866	195	1166	262	1419	319	1602	360	2218	499	3115	700	3846	865
	E	29.4	21.7	60.2	44.4	122	90.0	243	179	370	273	475	350	743	547	997	734	1196	881	1948	1436	3077	2268	4222	3112
G2	R	140	31.5	224	50.4	355	79.8	567	127	750	169	886	199	1193	268	1453	327	1640	369	2270	510	3188	717	3937	885
	E	30.1	22.2	61.7	45.5	125	92.1	249	184	379	279	486	358	760	560	1020	752	1224	902	1994	1470	3150	2322	4322	3185
G2.1	R	142	32.0	227	51.1	361	81.1	576	129	762	171	900	202	1211	272	1475	332	1665	374	2305	518	3237	728	3998	899
	E	30.7	22.6	62.7	46.2	127	93.6	253	186	385	284	494	364	772	569	1036	763	1243	916	2025	1492	3198	2357	4389	3234
G2.2	R	144	32.5	231	51.9	366	82.4	585	131	773	174	913	205	1230	276	1498	337	1690	380	2340	526	3286	739	4058	912
	E	31.2	23.0	63.7	46.9	129	95.1	257	189	391	288	501	369	783	577	1051	775	1262	930	2055	1515	3246	2392	4455	3283
G2.3	R	147	33.0	234	52.7	372	83.7	593	133	785	176	927	208	1248	281	1520	342	1716	386	2375	534	3335	750	4119	926
	E	31.8	23.4	64.7	47.7	131	96.5	260	192	396	292	509	375	795	586	1067	786	1281	944	2086	1537	3293	2427	4522	3332
G2.4	R	149	33.5	238	53.4	378	84.9	602	135	796	179	940	211	1266	285	1542	347	1741	391	2410	542	3384	761	4179	940
	E	32.3	23.8	65.7	48.4	133	98.0	264	195	402	296	516	380	806	594	1083	798	1300	958	2116	1560	3341	2462	4588	3381
G2.5	R	151	33.9	241	54.2	384	86.2	611	137	808	182	954	214	1285	289	1565	352	1766	397	2445	550	3434	772	4240	953
	E	32.9	24.2	66.7	49.1	135	99.5	268	198	408	301	524	386	818	603	1099	810	1319	972	2147	1582	3389	2498	4655	3430
G2.6	R	153	34.4	244	54.9	389	87.5	620	139	819	184	968	218	1303	293	1587	357	1791	403	2479	557	3483	783	4301	967
	E	33.4	24.6	67.6	49.9	137	101	272	200	414	305	531	391	830	611	1114	821	1337	986	2178	1605	3437	2533	4721	3479
G2.7	R	155	34.9	248	55.7	395	88.8	629	141	831	187	981	221	1321	297	1609	362	1816	408	2514	565	3532	794	4361	980
	E	34.0	25.0	68.6	50.6	139	102	276	203	420	309	539	397	841	620	1130	833	1356	1000	2208	1627	3485	2568	4788	3528
G2.8	R	158	35.4	251	56.5	401	90.1	637	143	842	189	995	224	1339	301	1631	367	1842	414	2549	573	3581	805	4422	994
	E	34.5	25.4	69.6	51.3	141	104	279	206	425	314	546	402	853	629	1146	844	1375	1014	2239	1650	3532	2603	4854	3577
G2.9	R	160	35.9	255	57.2	406	91.3	646	145	854	192	1008	227	1358	305	1654	372	1867	420	2584	581	3630	816	4482	1008
	E	35.1	25.8	70.6	52.0	143	105	283	209	431	318	554	408	864	637	1161	856	1394	1027	2269	1673	3580	2639	4921	3626
G3	R	162	36.4	258	58.0	412	92.6	655	147	865	194	1022	230	1376	309	1676	377	1892	425	2619	589	3679	827	4543	1021
	E	35.6	26.2	71.6	52.8	145	107	287	212	437	322	561	413	876	646	1177	867	1413	1041	2300	1695	3628	2674	4987	3675
G3.1	R	164	36.9	261	58.7	417	93.8	663	149	876	197	1035	233	1394	313	1697	382	1916	431	2651	596	3726	838	4601	1034
	E	36.1	26.6	72.5	53.4	147	108	291	214	443	326	568	419	887	654	1192	878	1431	1054	2329	1717	3675	2708	5050	3722
G3.2	R	166	37.3	264	59.4	422	95.0	671	151	887	199	1048	236	1411	317	1718	386	1940	436	2683	603	3772	848	4658	1047
	E	36.5	26.9	73.4	54.1	149	110	294	217	448	330	575	424	898	662	1207	889	1449	1068	2358	1738	3721	2743	5113	3768
G3.3	R	168	37.8	268	60.2	428	96.1	680	153	898	202	1061	239	1429	321	1740	391	1964	441	2716	611	3819	859	4716	1060
	E	37.0	27.3	74.2	54.7	150	111	298	220	454	334	582	429	909	670	1222	900	1466	1081	2387	1759	3768	2777	5176	3815
G3.4	R	170	38.2	271	60.9	433	97.3	688	155	909	204	1074	242	1446	325	1761	396	1988	447	2748	618	3865	869	4773	1073
	E	37.4	27.6	75.1	55.4	152	112	302	222	459	338	589	434	920	678	1237	911	1484	1094	2416	1781	3815	2812	5239	3861
G3.5	R	172	38.7	274	61.6	438	98.5	696	156	920	207	1088	244	1464	329	1782	401	2012	452	2780	625	3912	879	4831	1086
	E	37.9	27.9	76.0	56.0	154	113	306	225	465	342	597	440	932	687	1252	922	1502	1107	2446	1802	3862	2846	5303	3908
G3.6	R	174	39.1	277	62.3	443	99.6	704	158	931	209	1101	247	1481	333	1803	405	2035	458	2812	632	3959	890	4888	1099
	E	38.4	28.3	76.9	56.7	156	115	309	228	470	346	604	445	943	695	1266	933	1520	1120	2475	1824	3908	2880	5366	3954
G3.7	R	176	39.6	280	63.0	448	101	712	160	942	212	1114	250	1499	337	1824	410	2059	463	2844	639	4005	900	4946	1112
	E	38.8	28.6	77.8	57.3	158	116	313	231	476	350	611	450	954	703	1281	944	1538	1133	2504	1845	3955	2915	5429	4001
G3.8	R	178	40.0	284	63.8	454	102	721	162	953	214	1127	253	1516	341	1846	415	2083	468	2877	647	4052	911	5003	1125
	E	39.3	28.9	78.6	58.0	159	117	317	233	481	354	618	455	965	711	1296	955	1555	1146	2533	1867	4002	2949	5492	4047
G3.9	R	180	40.5	287	64.5	459	103	729	164	964	217	1140	256	1534	345	1867	420	2107	474	2909	654	4098	921	5061	1138
	E	39.7	29.3	79.5	58.6	161	119	320	236	487	359	625	461	976	719	1311	966	1573	1159	2562	1888	4048	2984	5555	4094
G4	R	182	40.9	290	65.2	464	104	737	166	975	219	1153	259	1551	349	1888	424	2131	479	2941	661	4145	932	5118	1151
	E	40.2	29.6	80.4	59.3	163	120	324	239	492	363	632	466	987	727	1326	977	1591	1173	2591	1910	4095	3018	5618	4140

R = reaction E = energy Values shown are for standard 52.5% deflection Maximum deflection = 55% R = 106% E = 106% Tolerance = +/- 10%