

WEIGHT CHART - STUBBOLTS WITHOUT NUTS METRIC RANGE (KG/Piece)

LENGTH	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39
50	0.015	0.024	0.035	0.049	0.066	0.082	0.103	0.128	0.149	0.193	0.233	0.287	0.353	0.419
55	0.017	0.027	0.039	0.054	0.072	0.090	0.113	0.141	0.164	0.212	0.256	0.315	0.388	0.460
60	0.019	0.029	0.042	0.059	0.079	0.098	0.124	0.154	0.179	0.231	0.280	0.344	0.424	0.502
65	0.020	0.032	0.046	0.064	0.085	0.106	0.134	0.166	0.194	0.250	0.303	0.373	0.459	0.544
70	0.022	0.034	0.049	0.068	0.092	0.115	0.144	0.179	0.209	0.270	0.326	0.401	0.494	0.586
75	0.023	0.037	0.053	0.073	0.099	0.123	0.155	0.192	0.224	0.289	0.350	0.430	0.530	0.628
80	0.025	0.039	0.056	0.078	0.105	0.131	0.165	0.205	0.238	0.308	0.373	0.459	0.565	0.670
85	0.026	0.042	0.060	0.083	0.112	0.139	0.175	0.218	0.253	0.327	0.396	0.487	0.600	0.711
90	0.028	0.044	0.063	0.088	0.118	0.147	0.185	0.230	0.268	0.347	0.420	0.516	0.635	0.753
95	0.029	0.046	0.067	0.093	0.125	0.156	0.196	0.243	0.283	0.366	0.443	0.545	0.671	0.795
100	0.031	0.049	0.071	0.098	0.131	0.164	0.206	0.256	0.298	0.385	0.466	0.573	0.706	0.837
105	0.032	0.051	0.074	0.103	0.138	0.172	0.216	0.269	0.313	0.404	0.490	0.602	0.741	0.879
110	0.034	0.054	0.078	0.108	0.145	0.180	0.227	0.282	0.328	0.424	0.513	0.631	0.777	0.921
115	0.035	0.056	0.081	0.112	0.151	0.188	0.237	0.294	0.343	0.443	0.536	0.659	0.812	0.963
120	0.037	0.059	0.085	0.117	0.158	0.196	0.247	0.307	0.358	0.462	0.559	0.688	0.847	1.004
125	0.039	0.061	0.088	0.122	0.164	0.205	0.258	0.320	0.373	0.481	0.583	0.717	0.883	1.046
130	0.040	0.064	0.092	0.127	0.171	0.213	0.268	0.333	0.387	0.501	0.606	0.745	0.918	1.088
135	0.042	0.066	0.095	0.132	0.177	0.221	0.278	0.346	0.402	0.520	0.629	0.774	0.953	1.130
140	0.043	0.068	0.099	0.137	0.184	0.229	0.288	0.358	0.417	0.539	0.653	0.803	0.988	1.172
145	0.045	0.071	0.102	0.142	0.191	0.237	0.299	0.371	0.432	0.558	0.676	0.831	1.024	1.214
150	0.046	0.073	0.106	0.147	0.197	0.246	0.309	0.384	0.447	0.578	0.699	0.860	1.059	1.256
155	0.048	0.076	0.109	0.152	0.204	0.254	0.319	0.397	0.462	0.597	0.723	0.889	1.094	1.297
160	0.049	0.078	0.113	0.156	0.210	0.262	0.330	0.410	0.477	0.616	0.746	0.917	1.130	1.339
165	0.051	0.081	0.116	0.161	0.217	0.270	0.340	0.422	0.492	0.635	0.769	0.946	1.165	1.381
170	0.052	0.083	0.120	0.166	0.223	0.278	0.350	0.435	0.507	0.655	0.793	0.975	1.200	1.423
175	0.054	0.086	0.123	0.171	0.230	0.286	0.361	0.448	0.522	0.674	0.816	1.003	1.236	1.465
180	0.056	0.088	0.127	0.176	0.237	0.295	0.371	0.461	0.536	0.693	0.839	1.032	1.271	1.507
185	0.057	0.090	0.130	0.181	0.243	0.303	0.381	0.474	0.551	0.712	0.862	1.061	1.306	1.548
190	0.059	0.093	0.134	0.186	0.250	0.311	0.391	0.486	0.566	0.732	0.886	1.089	1.341	1.590
195	0.060	0.095	0.137	0.191	0.256	0.319	0.402	0.499	0.581	0.751	0.909	1.118	1.377	1.632
200	0.062	0.098	0.141	0.196	0.263	0.327	0.412	0.512	0.596	0.770	0.932	1.147	1.412	1.674
205	0.063	0.100	0.145	0.200	0.269	0.336	0.422	0.525	0.611	0.789	0.956	1.175	1.447	1.716
210	0.065	0.103	0.148	0.205	0.276	0.344	0.433	0.538	0.626	0.809	0.979	1.204	1.483	1.758
215	0.066	0.105	0.152	0.210	0.283	0.352	0.443	0.550	0.641	0.828	1.002	1.233	1.518	1.800
220	0.068	0.108	0.155	0.215	0.289	0.360	0.453	0.563	0.656	0.847	1.026	1.261	1.553	1.841
225	0.069	0.110	0.159	0.220	0.296	0.368	0.464	0.576	0.671	0.866	1.049	1.290	1.589	1.883
230	0.071	0.112	0.162	0.225	0.302	0.377	0.474	0.589	0.685	0.886	1.072	1.319	1.624	1.925
235	0.073	0.115	0.166	0.230	0.309	0.385	0.484	0.602	0.700	0.905	1.096	1.347	1.659	1.967
240	0.074	0.117	0.169	0.235	0.315	0.393	0.494	0.614	0.715	0.924	1.119	1.376	1.694	2.009
245	0.076	0.120	0.173	0.240	0.322	0.401	0.505	0.627	0.730	0.943	1.142	1.405	1.730	2.051
250	0.077	0.122	0.176	0.245	0.329	0.409	0.515	0.640	0.745	0.963	1.166	1.434	1.765	2.093
255	0.079	0.125	0.180	0.249	0.335	0.417	0.525	0.653	0.760	0.982	1.189	1.462	1.800	2.134
260	0.080	0.127	0.183	0.254	0.342	0.426	0.536	0.666	0.775	1.001	1.212	1.491	1.836	2.176
265	0.082	0.130	0.187	0.259	0.348	0.434	0.546	0.678	0.790	1.020	1.235	1.520	1.871	2.218
270	0.083	0.132	0.190	0.264	0.355	0.442	0.556	0.691	0.805	1.040	1.259	1.548	1.906	2.260
275	0.085	0.134	0.194	0.269	0.361	0.450	0.567	0.704	0.820	1.059	1.282	1.577	1.942	2.302
280	0.086	0.137	0.197	0.274	0.368	0.458	0.577	0.717	0.834	1.078	1.305	1.606	1.977	2.344
285	0.088	0.139	0.201	0.279	0.374	0.467	0.587	0.730	0.849	1.097	1.329	1.634	2.012	2.385
290	0.089	0.142	0.204	0.284	0.381	0.475	0.597	0.742	0.864	1.117	1.352	1.663	2.047	2.427
295	0.091	0.144	0.208	0.289	0.388	0.483	0.608	0.755	0.879	1.136	1.375	1.692	2.083	2.469
300	0.093	0.147	0.212	0.293	0.394	0.491	0.618	0.768	0.894	1.155	1.399	1.720	2.118	2.511
305	0.094	0.149	0.215	0.298	0.401	0.499	0.628	0.781	0.909	1.174	1.422	1.749	2.153	2.553
310	0.096	0.152	0.219	0.303	0.407	0.507	0.639	0.794	0.924	1.194	1.445	1.778	2.189	2.595
315	0.097	0.154	0.222	0.308	0.414	0.516	0.649	0.806	0.939	1.213	1.469	1.806	2.224	2.637
320	0.099	0.156	0.226	0.313	0.420	0.524	0.659	0.819	0.954	1.232	1.492	1.835	2.259	2.678
325	0.100	0.159	0.229	0.318	0.427	0.532	0.670	0.832	0.969	1.251	1.515	1.864	2.295	2.720
330	0.102	0.161	0.233	0.323	0.434	0.540	0.680	0.845	0.983	1.271	1.538	1.892	2.330	2.762
335	0.103	0.164	0.236	0.328	0.440	0.548	0.690	0.858	0.998	1.290	1.562	1.921	2.365	2.804
340	0.105	0.166	0.240	0.333	0.447	0.557	0.700	0.870	1.013	1.309	1.585	1.950	2.400	2.846
345	0.106	0.169	0.243	0.337	0.453	0.565	0.711	0.883	1.028	1.328	1.608	1.978	2.436	2.888
350	0.108	0.171	0.247	0.342	0.460	0.573	0.721	0.896	1.043	1.348	1.632	2.007	2.471	2.930
355	0.110	0.174	0.250	0.347	0.466	0.581	0.731	0.909	1.058	1.367	1.655	2.036	2.506	2.971
360	0.111	0.176	0.254	0.352	0.473	0.589	0.742	0.922	1.073	1.386	1.678	2.064	2.542	3.013
365	0.113	0.178	0.257	0.357	0.480	0.598	0.752	0.934	1.088	1.405	1.702	2.093	2.577	3.055
370	0.114	0.181	0.261	0.362	0.486	0.606	0.762	0.947	1.103	1.425	1.725	2.122	2.612	3.097
375	0.116	0.183	0.264	0.367	0.493	0.614	0.773	0.960	1.118	1.444	1.748	2.150	2.648	3.139
380	0.117	0.186	0.268	0.372	0.499	0.622	0.783	0.973	1.132	1.463	1.772	2.179	2.683	3.181
385	0.119	0.188	0.271	0.377	0.506	0.630	0.793	0.986	1.147	1.482	1.795	2.208	2.718	3.222
390	0.120	0.191	0.275	0.381	0.512	0.638	0.803	0.998	1.162	1.502	1.818	2.236	2.753	3.264
395	0.122	0.193	0.278	0.386	0.519	0.647	0.814	1.011	1.177	1.521	1.841	2.265	2.789	3.306
400	0.123	0.196	0.282	0.391	0.526	0.655	0.824	1.024	1.192	1.540	1.865	2.294	2.824	3.348
405	0.125	0.198	0.286	0.396	0.532	0.663	0.834	1.037	1.207	1.559	1.888	2.322	2.859	3.390
410	0.127	0.200	0.289	0.401	0.539	0.671	0.845	1.050	1.222	1.579	1.911	2.351	2.895	3.432
415	0.128	0.203	0.293	0.406	0.545	0.679	0.855	1.062	1.237	1.598	1.935	2.380	2.930	3.474
420	0.130	0.205	0.296	0.411	0.552	0.688	0.865	1.075	1.252	1.617	1.958	2.408	2.965	3.515
425	0.131	0.208	0.300	0.416	0.558	0.696	0.876	1.088	1.267	1.636	1.981	2.437	3.001	3.557
430	0.133	0.210	0.303	0.421	0.565	0.704	0.886	1.101	1.281	1.656	2.005	2.466	3.036	3.599
435	0.134	0.213	0.307	0.425	0.572	0.712	0.896	1.114	1.296	1.675	2.028	2.494	3.071	3.641
440	0.136	0.215	0.310	0.430	0.578	0.720	0.906	1.126	1.311	1.694	2.051	2.523	3.106	3.683
445	0.137	0.21												

WEIGHT CHART - STUBBOLTS WITHOUT NUTS METRIC RANGE (KG/Piece)

LENGTH	M42	M45	M48	M52	M56	M60	M64	M68	M72	M76	M80	M85	M90	M95
50	0.493	0.570	0.647	0.770	0.874	1.001	1.156	1.318	1.475	1.674	1.804	2.044	2.300	2.571
55	0.542	0.626	0.711	0.847	0.961	1.101	1.272	1.449	1.623	1.841	1.984	2.249	2.530	2.829
60	0.592	0.683	0.776	0.924	1.049	1.201	1.387	1.581	1.770	2.008	2.164	2.453	2.760	3.086
65	0.641	0.740	0.840	1.001	1.136	1.301	1.503	1.713	1.918	2.176	2.345	2.658	2.990	3.343
70	0.690	0.797	0.905	1.078	1.224	1.401	1.618	1.845	2.065	2.343	2.525	2.862	3.220	3.600
75	0.740	0.854	0.970	1.155	1.311	1.502	1.734	1.976	2.213	2.510	2.705	3.067	3.451	3.857
80	0.789	0.911	1.034	1.232	1.398	1.602	1.850	2.108	2.360	2.678	2.886	3.271	3.681	4.114
85	0.838	0.968	1.099	1.309	1.486	1.702	1.965	2.240	2.508	2.845	3.066	3.475	3.911	4.371
90	0.887	1.025	1.164	1.386	1.573	1.802	2.081	2.372	2.655	3.012	3.246	3.680	4.141	4.629
95	0.937	1.082	1.228	1.463	1.661	1.902	2.196	2.503	2.803	3.180	3.427	3.884	4.371	4.886
100	0.986	1.139	1.293	1.540	1.748	2.002	2.312	2.635	2.950	3.347	3.607	4.089	4.601	5.143
105	1.035	1.196	1.358	1.617	1.835	2.102	2.428	2.767	3.098	3.514	3.787	4.293	4.831	5.400
110	1.085	1.253	1.422	1.694	1.923	2.202	2.543	2.899	3.245	3.682	3.968	4.498	5.061	5.657
115	1.134	1.310	1.487	1.771	2.010	2.302	2.659	3.030	3.393	3.849	4.148	4.702	5.291	5.914
120	1.183	1.367	1.552	1.848	2.098	2.402	2.774	3.162	3.540	4.016	4.328	4.907	5.521	6.171
125	1.233	1.424	1.616	1.925	2.185	2.503	2.890	3.294	3.688	4.184	4.509	5.111	5.751	6.428
130	1.282	1.481	1.681	2.002	2.272	2.603	3.006	3.426	3.835	4.351	4.689	5.315	5.981	6.686
135	1.331	1.538	1.746	2.079	2.360	2.703	3.121	3.557	3.983	4.518	4.870	5.520	6.211	6.943
140	1.380	1.595	1.810	2.156	2.447	2.803	3.237	3.689	4.130	4.686	5.050	5.724	6.441	7.200
145	1.430	1.652	1.875	2.233	2.535	2.903	3.352	3.821	4.278	4.853	5.230	5.929	6.671	7.457
150	1.479	1.709	1.940	2.310	2.622	3.003	3.468	3.953	4.425	5.021	5.411	6.133	6.901	7.714
155	1.528	1.765	2.004	2.387	2.709	3.103	3.584	4.084	4.573	5.188	5.591	6.338	7.131	7.971
160	1.578	1.822	2.069	2.464	2.797	3.203	3.699	4.216	4.720	5.355	5.771	6.542	7.361	8.228
165	1.627	1.879	2.133	2.541	2.884	3.303	3.815	4.348	4.868	5.523	5.952	6.747	7.591	8.486
170	1.676	1.936	2.198	2.618	2.972	3.403	3.930	4.480	5.015	5.690	6.132	6.951	7.821	8.743
175	1.726	1.993	2.263	2.695	3.059	3.504	4.046	4.611	5.163	5.857	6.312	7.155	8.051	9.000
180	1.775	2.050	2.327	2.772	3.146	3.604	4.162	4.743	5.310	6.025	6.493	7.360	8.281	9.257
185	1.824	2.107	2.392	2.849	3.234	3.704	4.277	4.875	5.458	6.192	6.673	7.564	8.511	9.514
190	1.873	2.164	2.457	2.926	3.321	3.804	4.393	5.007	5.605	6.359	6.853	7.769	8.741	9.771
195	1.923	2.221	2.521	3.003	3.409	3.904	4.508	5.138	5.753	6.527	7.034	7.973	8.971	10.028
200	1.972	2.278	2.586	3.080	3.496	4.004	4.624	5.270	5.900	6.694	7.214	8.178	9.201	10.286
205	2.021	2.335	2.651	3.157	3.583	4.104	4.740	5.402	6.048	6.861	7.395	8.382	9.431	10.543
210	2.071	2.392	2.715	3.234	3.671	4.204	4.855	5.534	6.195	7.029	7.575	8.586	9.661	10.800
215	2.120	2.449	2.780	3.311	3.758	4.304	4.971	5.665	6.343	7.196	7.755	8.791	9.892	11.057
220	2.169	2.506	2.845	3.388	3.846	4.404	5.086	5.797	6.490	7.363	7.936	8.995	10.122	11.314
225	2.219	2.563	2.909	3.465	3.933	4.505	5.202	5.929	6.638	7.531	8.116	9.200	10.352	11.571
230	2.268	2.620	2.974	3.542	4.020	4.605	5.318	6.061	6.785	7.698	8.296	9.404	10.582	11.828
235	2.317	2.677	3.039	3.619	4.108	4.705	5.433	6.192	6.933	7.865	8.477	9.609	10.812	12.086
240	2.366	2.734	3.103	3.696	4.195	4.805	5.549	6.324	7.080	8.033	8.657	9.813	11.042	12.343
245	2.416	2.791	3.168	3.773	4.283	4.905	5.664	6.456	7.228	8.200	8.837	10.018	11.272	12.600
250	2.465	2.848	3.233	3.850	4.370	5.005	5.780	6.588	7.375	8.368	9.018	10.222	11.502	12.857
255	2.514	2.904	3.297	3.927	4.457	5.105	5.896	6.719	7.523	8.535	9.198	10.426	11.732	13.114
260	2.564	2.961	3.362	4.004	4.545	5.205	6.011	6.851	7.670	8.702	9.378	10.631	11.962	13.371
265	2.613	3.018	3.426	4.081	4.632	5.305	6.127	6.983	7.818	8.870	9.559	10.835	12.192	13.628
270	2.662	3.075	3.491	4.158	4.720	5.405	6.242	7.115	7.965	9.037	9.739	11.040	12.422	13.886
275	2.712	3.132	3.556	4.235	4.807	5.506	6.358	7.246	8.113	9.204	9.919	11.244	12.652	14.143
280	2.761	3.189	3.620	4.312	4.894	5.606	6.474	7.378	8.260	9.372	10.100	11.449	12.882	14.400
285	2.810	3.246	3.685	4.389	4.982	5.706	6.589	7.510	8.408	9.539	10.280	11.653	13.112	14.657
290	2.859	3.303	3.750	4.466	5.069	5.806	6.705	7.642	8.555	9.706	10.461	11.858	13.342	14.914
295	2.909	3.360	3.814	4.543	5.157	5.906	6.820	7.773	8.703	9.874	10.641	12.062	13.572	15.171
300	2.958	3.417	3.879	4.620	5.244	6.006	6.936	7.905	8.850	10.041	10.821	12.266	13.802	15.428
305	3.007	3.474	3.944	4.697	5.331	6.106	7.052	8.037	8.998	10.208	11.002	12.471	14.032	15.686
310	3.057	3.531	4.008	4.774	5.419	6.206	7.167	8.169	9.145	10.376	11.182	12.675	14.262	15.943
315	3.106	3.588	4.073	4.851	5.506	6.306	7.283	8.300	9.293	10.543	11.362	12.880	14.492	16.200
320	3.155	3.645	4.138	4.928	5.594	6.406	7.398	8.432	9.440	10.710	11.543	13.084	14.722	16.457
325	3.205	3.702	4.202	5.005	5.681	6.507	7.514	8.564	9.588	10.878	11.723	13.289	14.952	16.714
330	3.254	3.759	4.267	5.082	5.768	6.607	7.630	8.696	9.735	11.045	11.903	13.493	15.182	16.971
335	3.303	3.816	4.332	5.159	5.856	6.707	7.745	8.827	9.883	11.212	12.084	13.697	15.412	17.228
340	3.352	3.873	4.396	5.236	5.943	6.807	7.861	8.959	10.030	11.380	12.264	13.902	15.642	17.486
345	3.402	3.930	4.461	5.313	6.031	6.907	7.976	9.091	10.178	11.547	12.444	14.106	15.872	17.743
350	3.451	3.987	4.526	5.390	6.118	7.007	8.092	9.223	10.325	11.715	12.625	14.311	16.102	18.000
355	3.500	4.043	4.590	5.467	6.205	7.107	8.208	9.354	10.473	11.882	12.805	14.515	16.333	18.257
360	3.550	4.100	4.655	5.544	6.293	7.207	8.323	9.486	10.620	12.049	12.985	14.720	16.563	18.514
365	3.599	4.157	4.719	5.621	6.380	7.307	8.439	9.618	10.768	12.217	13.166	14.924	16.793	18.771
370	3.648	4.214	4.784	5.698	6.468	7.407	8.554	9.750	10.915	12.384	13.346	15.129	17.023	19.028
375	3.698	4.271	4.849	5.775	6.555	7.508	8.670	9.881	11.063	12.551	13.527	15.333	17.253	19.285
380	3.747	4.328	4.913	5.852	6.642	7.608	8.786	10.013	11.210	12.719	13.707	15.537	17.483	19.543
385	3.796	4.385	4.978	5.929	6.730	7.708	8.901	10.145	11.358	12.886	13.887	15.742	17.713	19.800
390	3.845	4.442	5.043	6.006	6.817	7.808	9.017	10.277	11.505	13.053	14.068	15.946	17.943	20.057
395	3.895	4.499	5.107	6.083	6.905	7.908	9.132	10.408	11.653	13.221	14.248	16.151	18.173	20.314
400	3.944	4.556	5.172	6.160	6.992	8.008	9.248	10.540	11.800	13.388	14.428	16.355	18.403	20.571
405	3.993	4.613	5.237	6.237	7.079	8.108	9.364	10.672	11.948	13.555	14.609	16.560	18.633	20.828
410	4.043	4.670	5.301	6.314	7.167	8.208	9.479	10.804	12.095	13.723	14.789	16.764	18.863	21.085
415	4.092	4.727	5.366	6.391	7.254	8.308	9.595	10.935	12.243	13.890	14.969	16.969	19.093	21.343
420	4.141	4.784	5.431	6.468	7.342	8.408	9.710	11.067	12.390	14.057	15.150	17.173	19.323	21.600
425	4.191	4.841	5.495	6.545	7.429	8.509	9.826	11.199	12.538	14.225	15.330	17.377	19.553	21.857
430	4.240	4.898	5.560	6.622	7.516	8.609	9.942	11.331	12.685	14.392	15.510	17.582	19.783	22.114
435	4.289	4.955	5.625	6.699	7.604	8.709	10.057	11.462	12.833	14.559				