



Depth of Field Tables in Meter for ZEISS Aatma Lenses

Lenses	ANSI Super 35, Normal 35, APS-H and APS-C Format	Full Format
Aatma 18 mm/T1.5	■	■
Aatma 25 mm/T1.5	■	■
Aatma 35 mm/T1.5	■	■
Aatma 40 mm/T1.5	■	■
Aatma 50 mm/T1.5	■	■
Aatma 65 mm/T1.5	■	■
Aatma 85 mm/T1.5	■	■
Aatma 100 mm/T1.5	■	■
Aatma 135 mm/T1.5	■	■



AATMA 18mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	8.519	INF	6.476	INF	4.577	INF
10	4.607	INF	3.936	INF	3.145	INF
5	3.156	12.028	2.827	21.629	2.395	INF
3	2.223	4.614	2.055	5.557	1.817	8.6
2.5	1.936	3.527	1.808	4.052	1.621	5.458
2	1.623	2.606	1.532	2.881	1.396	3.526
1.7	1.42	2.118	1.35	2.296	1.243	2.687
1.5	1.278	1.816	1.221	1.945	1.133	2.218
1.3	1.13	1.53	1.085	1.621	1.016	1.805
1.2	1.054	1.393	1.015	1.468	0.954	1.617
1.1	0.976	1.26	0.943	1.32	0.89	1.44
1	0.897	1.13	0.868	1.179	0.823	1.273
0.95	0.856	1.067	0.831	1.11	0.789	1.193
0.9	0.816	1.004	0.792	1.042	0.755	1.115
0.85	0.774	0.942	0.753	0.975	0.719	1.039
0.8	0.733	0.881	0.714	0.91	0.683	0.965
0.75	0.691	0.82	0.674	0.846	0.647	0.893
0.7	0.648	0.761	0.633	0.782	0.609	0.822
0.68	0.631	0.737	0.617	0.757	0.594	0.795
0.66	0.614	0.714	0.601	0.733	0.579	0.768
0.64	0.596	0.69	0.584	0.708	0.563	0.741
0.62	0.579	0.667	0.567	0.683	0.548	0.714
0.6	0.562	0.644	0.551	0.659	0.532	0.687
0.58	0.544	0.621	0.534	0.635	0.517	0.661
0.56	0.527	0.598	0.517	0.611	0.501	0.635
0.54	0.509	0.575	0.5	0.587	0.485	0.609
0.52	0.491	0.553	0.483	0.564	0.469	0.584
0.5	0.473	0.53	0.465	0.54	0.452	0.559
0.49	0.464	0.519	0.457	0.528	0.444	0.546
0.48	0.455	0.507	0.448	0.517	0.436	0.534
0.47	0.446	0.496	0.439	0.505	0.428	0.521
0.46	0.437	0.485	0.431	0.494	0.42	0.509
0.45	0.428	0.474	0.422	0.482	0.411	0.497
0.44	0.419	0.463	0.413	0.471	0.403	0.485
0.43	0.41	0.452	0.404	0.459	0.395	0.473
0.42	0.401	0.441	0.395	0.448	0.386	0.46
0.41	0.392	0.43	0.387	0.436	0.378	0.448
0.4	0.383	0.419	0.378	0.425	0.369	0.436
0.39	0.374	0.408	0.369	0.414	0.361	0.424
0.38	0.365	0.397	0.36	0.402	0.352	0.413
0.37	0.355	0.386	0.351	0.391	0.344	0.401
0.36	0.346	0.375	0.342	0.38	0.335	0.389
0.35	0.337	0.364	0.333	0.369	0.326	0.377



AATMA 18mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	3.239	INF	2.289	INF	1.62	INF
10	2.45	INF	1.866	INF	1.396	INF
5	1.97	INF	1.574	INF	1.227	INF
3	1.562	37.674	1.303	INF	1.056	INF
2.5	1.416	10.686	1.2	INF	0.987	INF
2	1.241	5.151	1.072	14.88	0.9	INF
1.7	1.119	3.535	0.98	6.405	0.834	INF
1.5	1.029	2.765	0.911	4.252	0.783	17.609
1.3	0.931	2.151	0.833	2.954	0.726	6.231
1.2	0.879	1.889	0.791	2.48	0.694	4.438
1.1	0.825	1.652	0.747	2.085	0.66	3.312
1	0.767	1.435	0.7	1.751	0.623	2.539
0.95	0.738	1.334	0.675	1.602	0.603	2.237
0.9	0.707	1.237	0.65	1.464	0.583	1.976
0.85	0.676	1.144	0.623	1.335	0.562	1.747
0.8	0.644	1.055	0.596	1.215	0.54	1.547
0.75	0.612	0.969	0.568	1.102	0.517	1.368
0.7	0.578	0.887	0.539	0.997	0.493	1.209
0.68	0.565	0.855	0.527	0.957	0.483	1.15
0.66	0.551	0.823	0.515	0.917	0.473	1.093
0.64	0.537	0.792	0.503	0.879	0.462	1.039
0.62	0.523	0.761	0.491	0.841	0.452	0.987
0.6	0.509	0.731	0.478	0.804	0.441	0.936
0.58	0.494	0.702	0.466	0.769	0.431	0.888
0.56	0.48	0.672	0.453	0.734	0.42	0.842
0.54	0.465	0.644	0.44	0.699	0.408	0.797
0.52	0.45	0.615	0.426	0.666	0.397	0.753
0.5	0.435	0.587	0.413	0.633	0.385	0.712
0.49	0.428	0.574	0.406	0.617	0.379	0.691
0.48	0.42	0.56	0.399	0.601	0.373	0.672
0.47	0.412	0.546	0.393	0.586	0.367	0.652
0.46	0.405	0.533	0.386	0.57	0.361	0.633
0.45	0.397	0.519	0.379	0.555	0.355	0.614
0.44	0.389	0.506	0.372	0.539	0.349	0.595
0.43	0.381	0.493	0.364	0.524	0.343	0.577
0.42	0.374	0.479	0.357	0.509	0.336	0.559
0.41	0.366	0.466	0.35	0.495	0.33	0.541
0.4	0.358	0.453	0.343	0.48	0.324	0.523
0.39	0.35	0.441	0.335	0.466	0.317	0.506
0.38	0.342	0.428	0.328	0.451	0.311	0.489
0.37	0.334	0.415	0.321	0.437	0.304	0.473
0.36	0.326	0.402	0.313	0.423	0.297	0.456
0.35	0.317	0.39	0.306	0.409	0.29	0.44



AATMA 18mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	1.146	INF	0.81	INF	0.573	INF
10	1.03	INF	0.751	INF	0.543	INF
5	0.935	INF	0.699	INF	0.516	INF
3	0.833	INF	0.641	INF	0.483	INF
2.5	0.79	INF	0.615	INF	0.469	INF
2	0.733	INF	0.58	INF	0.448	INF
1.7	0.689	INF	0.553	INF	0.432	INF
1.5	0.654	INF	0.53	INF	0.418	INF
1.3	0.614	INF	0.503	INF	0.401	INF
1.2	0.591	INF	0.488	INF	0.392	INF
1.1	0.566	19.729	0.471	INF	0.381	INF
1	0.539	6.992	0.452	INF	0.368	INF
0.95	0.524	5.09	0.442	INF	0.362	INF
0.9	0.509	3.908	0.431	INF	0.354	INF
0.85	0.492	3.103	0.419	INF	0.347	INF
0.8	0.475	2.519	0.407	23.143	0.338	INF
0.75	0.458	2.076	0.394	7.788	0.329	INF
0.7	0.439	1.729	0.38	4.43	0.32	INF
0.68	0.431	1.61	0.374	3.722	0.315	INF
0.66	0.423	1.501	0.368	3.182	0.311	INF
0.64	0.415	1.4	0.362	2.757	0.307	INF
0.62	0.406	1.306	0.356	2.414	0.302	INF
0.6	0.398	1.219	0.349	2.132	0.298	INF
0.58	0.389	1.138	0.342	1.894	0.293	31.069
0.56	0.38	1.063	0.336	1.693	0.288	10.45
0.54	0.371	0.992	0.328	1.519	0.283	6.101
0.52	0.362	0.925	0.321	1.368	0.277	4.213
0.5	0.352	0.863	0.313	1.235	0.271	3.157
0.49	0.347	0.833	0.31	1.174	0.269	2.787
0.48	0.342	0.804	0.306	1.117	0.266	2.483
0.47	0.337	0.776	0.302	1.063	0.263	2.23
0.46	0.332	0.749	0.298	1.013	0.26	2.016
0.45	0.327	0.722	0.293	0.964	0.257	1.832
0.44	0.322	0.697	0.289	0.919	0.253	1.672
0.43	0.316	0.671	0.285	0.875	0.25	1.532
0.42	0.311	0.647	0.281	0.834	0.247	1.409
0.41	0.305	0.623	0.276	0.794	0.243	1.299
0.4	0.3	0.6	0.272	0.757	0.24	1.201
0.39	0.294	0.577	0.267	0.721	0.236	1.113
0.38	0.289	0.555	0.263	0.687	0.233	1.033
0.37	0.283	0.534	0.258	0.654	0.229	0.96
0.36	0.277	0.513	0.253	0.623	0.225	0.894
0.35	0.271	0.493	0.248	0.593	0.222	0.833



AATMA 25mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	16.420	INF	12.484	INF	8.826	INF
6	4.401	9.423	4.060	11.494	3.579	18.540
3	2.540	3.662	2.423	3.937	2.244	4.523
2	1.786	2.273	1.727	2.375	1.635	2.576
1.5	1.377	1.648	1.342	1.701	1.285	1.801
1.2	1.120	1.292	1.097	1.325	1.059	1.384
1	0.944	1.063	0.928	1.085	0.901	1.124
0.9	0.855	0.951	0.841	0.968	0.819	0.999
0.8	0.764	0.840	0.753	0.853	0.735	0.877
0.7	0.672	0.730	0.664	0.740	0.650	0.758
0.65	0.626	0.676	0.619	0.684	0.607	0.699
0.6	0.580	0.622	0.574	0.629	0.563	0.642
0.55	0.533	0.568	0.528	0.574	0.519	0.585
0.5	0.486	0.515	0.482	0.520	0.474	0.528
0.48	0.467	0.494	0.463	0.498	0.456	0.506
0.46	0.448	0.472	0.445	0.477	0.438	0.484
0.44	0.429	0.451	0.426	0.455	0.420	0.462
0.42	0.410	0.430	0.407	0.434	0.402	0.440
0.4	0.391	0.409	0.388	0.412	0.384	0.418
0.38	0.372	0.388	0.370	0.391	0.365	0.396
0.36	0.353	0.367	0.351	0.370	0.347	0.374
0.35	0.343	0.357	0.341	0.359	0.338	0.363
0.34	0.334	0.347	0.332	0.349	0.328	0.353
0.33	0.324	0.336	0.322	0.338	0.319	0.342
0.32	0.314	0.326	0.313	0.328	0.310	0.331
0.31	0.305	0.315	0.303	0.317	0.300	0.320
0.3	0.295	0.305	0.294	0.307	0.291	0.310
0.29	0.285	0.295	0.284	0.296	0.282	0.299
0.28	0.276	0.284	0.274	0.286	0.272	0.288
0.27	0.266	0.274	0.265	0.275	0.263	0.278
0.26	0.256	0.264	0.255	0.265	0.253	0.267



AATMA 25mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	6.246	INF	4.415	INF	3.124	INF
6	3.067	136.364	2.55	INF	2.06	INF
3	2.033	5.725	1.793	9.189	1.537	62.5
2	1.52	2.924	1.382	3.618	1.225	5.435
1.5	1.214	1.963	1.124	2.252	1.019	2.841
1.2	1.01	1.478	0.948	1.635	0.872	1.923
1	0.865	1.185	0.819	1.283	0.762	1.453
0.9	0.789	1.047	0.751	1.122	0.703	1.25
0.8	0.712	0.913	0.681	0.97	0.641	1.064
0.7	0.632	0.785	0.607	0.826	0.576	0.893
0.65	0.591	0.722	0.569	0.757	0.542	0.813
0.6	0.549	0.661	0.531	0.69	0.507	0.735
0.55	0.507	0.6	0.492	0.624	0.471	0.661
0.5	0.465	0.541	0.451	0.56	0.434	0.59
0.48	0.447	0.518	0.435	0.535	0.419	0.562
0.46	0.43	0.494	0.419	0.51	0.404	0.534
0.44	0.413	0.471	0.402	0.486	0.388	0.507
0.42	0.395	0.448	0.386	0.461	0.373	0.481
0.4	0.377	0.426	0.369	0.437	0.357	0.455
0.38	0.36	0.403	0.352	0.413	0.341	0.429
0.36	0.342	0.38	0.335	0.39	0.325	0.403
0.35	0.333	0.369	0.326	0.378	0.317	0.391
0.34	0.324	0.358	0.317	0.366	0.309	0.378
0.33	0.315	0.347	0.309	0.354	0.301	0.366
0.32	0.306	0.336	0.3	0.343	0.292	0.353
0.31	0.296	0.325	0.291	0.331	0.284	0.341
0.3	0.287	0.314	0.282	0.32	0.276	0.329
0.29	0.278	0.303	0.274	0.309	0.267	0.317
0.28	0.269	0.292	0.265	0.297	0.259	0.305
0.27	0.26	0.281	0.256	0.286	0.25	0.293
0.26	0.251	0.27	0.247	0.275	0.242	0.281



AATMA 25mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	2.21	INF	1.562	INF	1.105	INF
6	1.62	INF	1.244	INF	0.936	INF
3	1.279	INF	1.033	INF	0.812	INF
2	1.056	18.778	0.883	INF	0.717	INF
1.5	0.9	4.508	0.772	26.786	0.642	INF
1.2	0.784	2.562	0.685	4.839	0.582	INF
1	0.694	1.789	0.616	2.66	0.531	8.516
0.9	0.645	1.49	0.577	2.045	0.502	4.328
0.8	0.592	1.232	0.535	1.587	0.47	2.68
0.7	0.536	1.008	0.489	1.232	0.435	1.8
0.65	0.507	0.906	0.464	1.083	0.415	1.497
0.6	0.476	0.811	0.439	0.949	0.395	1.251
0.55	0.444	0.721	0.412	0.828	0.373	1.048
0.5	0.412	0.637	0.383	0.718	0.35	0.877
0.48	0.398	0.604	0.372	0.677	0.34	0.816
0.46	0.384	0.573	0.36	0.637	0.33	0.759
0.44	0.37	0.542	0.348	0.599	0.32	0.705
0.42	0.356	0.511	0.335	0.562	0.309	0.654
0.4	0.342	0.482	0.323	0.526	0.299	0.606
0.38	0.327	0.453	0.31	0.492	0.288	0.56
0.36	0.313	0.424	0.296	0.458	0.276	0.517
0.35	0.305	0.41	0.29	0.442	0.27	0.496
0.34	0.298	0.397	0.283	0.426	0.265	0.476
0.33	0.29	0.383	0.276	0.41	0.259	0.456
0.32	0.282	0.369	0.269	0.394	0.253	0.437
0.31	0.275	0.356	0.262	0.379	0.246	0.418
0.3	0.267	0.343	0.255	0.364	0.24	0.399
0.29	0.259	0.33	0.248	0.349	0.234	0.382
0.28	0.251	0.317	0.241	0.335	0.227	0.364
0.27	0.243	0.304	0.233	0.32	0.221	0.347
0.26	0.235	0.291	0.226	0.306	0.214	0.33



AATMA 35mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	32.133	INF	24.44	INF	17.285	INF
10	7.639	14.474	7.109	14.474	6.347	16.856
6	5.063	7.362	4.825	7.362	4.463	7.931
4	3.562	4.561	3.443	4.561	3.255	4.772
3	2.747	3.304	2.676	3.304	2.561	3.413
2.5	2.322	2.707	2.271	2.707	2.188	2.78
2	1.885	2.13	1.852	2.13	1.796	2.174
1.8	1.707	1.904	1.679	1.904	1.633	1.94
1.6	1.526	1.682	1.504	1.682	1.467	1.709
1.4	1.343	1.462	1.326	1.462	1.298	1.483
1.2	1.158	1.245	1.146	1.245	1.124	1.26
1.1	1.065	1.138	1.054	1.138	1.036	1.15
1	0.971	1.031	0.962	1.031	0.947	1.041
0.95	0.924	0.978	0.916	0.978	0.902	0.987
0.9	0.876	0.925	0.869	0.925	0.857	0.933
0.85	0.829	0.872	0.823	0.872	0.812	0.879
0.8	0.781	0.819	0.776	0.819	0.766	0.826
0.75	0.734	0.767	0.729	0.767	0.72	0.773
0.7	0.686	0.715	0.682	0.715	0.674	0.72
0.65	0.638	0.663	0.634	0.663	0.628	0.667
0.6	0.59	0.611	0.586	0.611	0.581	0.614
0.58	0.57	0.59	0.567	0.59	0.562	0.593
0.56	0.551	0.569	0.548	0.569	0.544	0.572
0.54	0.532	0.549	0.529	0.549	0.525	0.551
0.52	0.512	0.528	0.51	0.528	0.506	0.531
0.5	0.493	0.507	0.491	0.507	0.487	0.51
0.48	0.473	0.487	0.471	0.487	0.468	0.489
0.46	0.454	0.466	0.452	0.466	0.449	0.468
0.44	0.435	0.446	0.433	0.446	0.43	0.447
0.42	0.415	0.425	0.414	0.425	0.411	0.427
0.4	0.396	0.405	0.394	0.405	0.392	0.406
0.39	0.386	0.394	0.384	0.394	0.382	0.396
0.38	0.376	0.384	0.375	0.384	0.373	0.385
0.37	0.366	0.374	0.365	0.374	0.363	0.375
0.36	0.356	0.364	0.355	0.364	0.353	0.365
0.35	0.347	0.353	0.346	0.353	0.344	0.355
0.34	0.337	0.343	0.336	0.343	0.334	0.344
0.33	0.327	0.333	0.326	0.333	0.324	0.334
0.32	0.317	0.323	0.316	0.323	0.315	0.324



AATMA 35mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	12.235	INF	8.65	INF	6.121	INF
10	5.514	23.559	4.649	53.611	3.807	INF
6	4.035	9.153	3.552	11.695	3.04	19.294
4	3.022	5.188	2.743	5.914	2.428	7.38
3	2.415	3.62	2.235	3.958	2.021	4.563
2.5	2.081	2.915	1.946	3.13	1.783	3.495
2	1.724	2.256	1.63	2.382	1.514	2.587
1.8	1.573	2.004	1.495	2.103	1.397	2.261
1.6	1.419	1.759	1.355	1.834	1.274	1.953
1.4	1.26	1.52	1.209	1.576	1.145	1.662
1.2	1.096	1.287	1.058	1.326	1.008	1.387
1.1	1.012	1.172	0.98	1.205	0.937	1.254
1	0.927	1.059	0.9	1.086	0.864	1.125
0.95	0.884	1.003	0.859	1.027	0.827	1.062
0.9	0.841	0.947	0.818	0.968	0.789	1
0.85	0.797	0.892	0.777	0.911	0.75	0.938
0.8	0.753	0.837	0.735	0.853	0.711	0.878
0.75	0.709	0.782	0.693	0.796	0.672	0.818
0.7	0.664	0.728	0.65	0.74	0.631	0.758
0.65	0.619	0.674	0.607	0.684	0.591	0.7
0.6	0.574	0.62	0.563	0.629	0.549	0.642
0.58	0.555	0.599	0.546	0.607	0.533	0.619
0.56	0.537	0.578	0.528	0.585	0.516	0.596
0.54	0.519	0.556	0.51	0.563	0.499	0.573
0.52	0.5	0.535	0.492	0.541	0.482	0.551
0.5	0.482	0.514	0.475	0.52	0.465	0.528
0.48	0.463	0.493	0.457	0.498	0.447	0.506
0.46	0.445	0.472	0.438	0.477	0.43	0.484
0.44	0.426	0.451	0.42	0.455	0.413	0.462
0.42	0.407	0.43	0.402	0.434	0.395	0.44
0.4	0.388	0.409	0.384	0.412	0.378	0.418
0.39	0.379	0.398	0.375	0.402	0.369	0.407
0.38	0.37	0.388	0.365	0.391	0.36	0.396
0.37	0.36	0.377	0.356	0.38	0.351	0.385
0.36	0.351	0.367	0.347	0.37	0.342	0.374
0.35	0.341	0.356	0.338	0.359	0.333	0.363
0.34	0.332	0.346	0.328	0.349	0.324	0.352
0.33	0.322	0.336	0.319	0.338	0.315	0.342
0.32	0.313	0.325	0.31	0.328	0.306	0.331



AATMA 35mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	4.331	INF	3.062	INF	2.165	INF
10	3.03	INF	2.351	INF	1.785	INF
6	2.524	229.688	2.035	INF	1.598	INF
4	2.089	11.343	1.743	47.162	1.413	INF
3	1.781	5.815	1.524	9.505	1.266	94.231
2.5	1.593	4.184	1.385	5.8	1.169	12.814
2	1.376	2.945	1.218	3.66	1.048	5.581
1.8	1.279	2.529	1.142	3.037	0.992	4.249
1.6	1.175	2.149	1.059	2.505	0.929	3.272
1.4	1.065	1.801	0.968	2.044	0.859	2.526
1.2	0.946	1.482	0.869	1.641	0.78	1.937
1.1	0.883	1.332	0.816	1.459	0.737	1.686
1	0.818	1.187	0.76	1.287	0.692	1.46
0.95	0.784	1.117	0.731	1.204	0.668	1.355
0.9	0.75	1.048	0.702	1.125	0.643	1.254
0.85	0.715	0.98	0.671	1.047	0.618	1.158
0.8	0.68	0.914	0.64	0.972	0.591	1.066
0.75	0.644	0.849	0.608	0.898	0.564	0.978
0.7	0.607	0.785	0.575	0.827	0.536	0.894
0.65	0.569	0.723	0.541	0.758	0.506	0.813
0.6	0.531	0.661	0.507	0.69	0.476	0.736
0.58	0.515	0.637	0.492	0.663	0.463	0.706
0.56	0.499	0.613	0.478	0.637	0.451	0.676
0.54	0.484	0.589	0.464	0.611	0.438	0.647
0.52	0.468	0.565	0.449	0.586	0.425	0.618
0.5	0.452	0.541	0.434	0.56	0.412	0.59
0.48	0.435	0.518	0.419	0.535	0.398	0.562
0.46	0.419	0.494	0.404	0.51	0.385	0.534
0.44	0.402	0.471	0.389	0.485	0.371	0.507
0.42	0.386	0.448	0.373	0.461	0.357	0.48
0.4	0.369	0.425	0.357	0.437	0.342	0.454
0.39	0.36	0.414	0.349	0.425	0.335	0.441
0.38	0.352	0.403	0.342	0.413	0.328	0.428
0.37	0.343	0.391	0.334	0.401	0.32	0.415
0.36	0.335	0.38	0.325	0.389	0.313	0.403
0.35	0.326	0.369	0.317	0.377	0.306	0.39
0.34	0.318	0.358	0.309	0.366	0.298	0.378
0.33	0.309	0.347	0.301	0.354	0.29	0.365
0.32	0.3	0.336	0.293	0.343	0.283	0.353



AATMA 40mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	41.929	INF	31.898	INF	22.564	INF
15	11.068	23.267	10.221	28.169	9.028	44.315
8	6.728	9.865	6.406	10.649	5.917	12.345
5	4.473	5.668	4.329	5.917	4.101	6.405
4	3.656	4.415	3.56	4.565	3.404	4.849
3	2.803	3.227	2.746	3.306	2.653	3.452
2.5	2.362	2.655	2.322	2.708	2.255	2.805
2	1.911	2.098	1.885	2.13	1.84	2.19
1.8	1.728	1.879	1.706	1.905	1.67	1.952
1.6	1.543	1.662	1.526	1.682	1.497	1.719
1.5	1.45	1.554	1.435	1.572	1.409	1.604
1.4	1.356	1.447	1.343	1.462	1.321	1.49
1.3	1.262	1.34	1.251	1.353	1.231	1.377
1.2	1.168	1.234	1.158	1.245	1.141	1.265
1.1	1.073	1.128	1.065	1.138	1.051	1.154
1	0.978	1.023	0.971	1.031	0.959	1.044
0.95	0.93	0.971	0.924	0.978	0.913	0.99
0.9	0.882	0.919	0.876	0.925	0.867	0.936
0.85	0.834	0.867	0.829	0.872	0.821	0.882
0.8	0.786	0.815	0.781	0.819	0.774	0.828
0.75	0.738	0.763	0.734	0.767	0.727	0.774
0.72	0.709	0.732	0.705	0.736	0.699	0.742
0.7	0.689	0.711	0.686	0.715	0.68	0.721
0.68	0.67	0.69	0.667	0.694	0.661	0.7
0.66	0.65	0.67	0.647	0.673	0.642	0.679
0.64	0.631	0.649	0.628	0.652	0.623	0.657
0.62	0.612	0.629	0.609	0.631	0.604	0.636
0.6	0.592	0.608	0.59	0.611	0.586	0.615
0.58	0.573	0.588	0.57	0.59	0.566	0.594
0.56	0.553	0.567	0.551	0.569	0.547	0.573
0.55	0.543	0.557	0.541	0.559	0.538	0.563
0.54	0.534	0.546	0.532	0.549	0.528	0.552
0.53	0.524	0.536	0.522	0.538	0.519	0.542
0.52	0.514	0.526	0.512	0.528	0.509	0.531
0.51	0.504	0.516	0.503	0.518	0.5	0.521
0.5	0.495	0.506	0.493	0.507	0.49	0.51
0.49	0.485	0.495	0.483	0.497	0.48	0.5
0.48	0.475	0.485	0.473	0.487	0.471	0.49
0.47	0.465	0.475	0.464	0.476	0.461	0.479
0.46	0.455	0.465	0.454	0.466	0.452	0.469
0.45	0.446	0.454	0.444	0.456	0.442	0.458
0.44	0.436	0.444	0.435	0.446	0.432	0.448
0.43	0.426	0.434	0.425	0.435	0.423	0.438
0.42	0.416	0.424	0.415	0.425	0.413	0.427



AATMA 40mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	15.975	INF	11.295	INF	7.994	INF
15	7.752	230.769	6.457	INF	5.226	INF
8	5.342	15.92	4.695	27.024	4.01	1600
5	3.817	7.246	3.475	8.907	3.086	13.158
4	3.206	5.316	2.962	6.156	2.676	7.921
3	2.532	3.681	2.378	4.064	2.19	4.762
2.5	2.167	2.954	2.053	3.195	1.912	3.61
2	1.782	2.279	1.705	2.419	1.606	2.649
1.8	1.622	2.022	1.558	2.132	1.475	2.308
1.6	1.458	1.773	1.406	1.856	1.339	1.988
1.5	1.375	1.651	1.328	1.722	1.268	1.835
1.4	1.29	1.53	1.25	1.591	1.197	1.687
1.3	1.205	1.411	1.17	1.463	1.123	1.543
1.2	1.119	1.294	1.088	1.337	1.048	1.404
1.1	1.032	1.178	1.006	1.214	0.971	1.268
1	0.943	1.064	0.922	1.093	0.893	1.136
0.95	0.899	1.007	0.879	1.033	0.853	1.072
0.9	0.854	0.951	0.836	0.974	0.813	1.008
0.85	0.809	0.895	0.793	0.916	0.772	0.946
0.8	0.764	0.84	0.75	0.858	0.731	0.884
0.75	0.718	0.785	0.706	0.8	0.689	0.823
0.72	0.691	0.752	0.679	0.766	0.664	0.787
0.7	0.672	0.73	0.661	0.743	0.647	0.763
0.68	0.654	0.708	0.644	0.721	0.63	0.739
0.66	0.635	0.687	0.626	0.698	0.613	0.715
0.64	0.617	0.665	0.608	0.676	0.595	0.692
0.62	0.598	0.643	0.59	0.654	0.578	0.668
0.6	0.58	0.622	0.572	0.631	0.561	0.645
0.58	0.561	0.6	0.554	0.609	0.543	0.622
0.56	0.542	0.579	0.535	0.587	0.526	0.599
0.55	0.533	0.568	0.526	0.576	0.517	0.587
0.54	0.524	0.557	0.517	0.565	0.508	0.576
0.53	0.514	0.547	0.508	0.554	0.499	0.565
0.52	0.505	0.536	0.499	0.543	0.491	0.553
0.51	0.495	0.525	0.49	0.532	0.482	0.542
0.5	0.486	0.515	0.48	0.521	0.473	0.531
0.49	0.477	0.504	0.471	0.51	0.464	0.519
0.48	0.467	0.494	0.462	0.499	0.455	0.508
0.47	0.458	0.483	0.453	0.489	0.446	0.497
0.46	0.448	0.472	0.444	0.478	0.437	0.485
0.45	0.439	0.462	0.434	0.467	0.428	0.474
0.44	0.429	0.451	0.425	0.456	0.419	0.463
0.43	0.42	0.441	0.416	0.445	0.41	0.452
0.42	0.41	0.43	0.406	0.435	0.401	0.441



AATMA 40mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	5.656	INF	3.998	INF	2.827	INF
15	4.117	INF	3.165	INF	2.385	INF
8	3.324	INF	2.676	INF	2.097	INF
5	2.664	40.494	2.232	INF	1.816	INF
4	2.353	13.325	2.01	400	1.667	INF
3	1.97	6.29	1.724	11.538	1.466	INF
2.5	1.742	4.423	1.548	6.494	1.337	19.207
2	1.485	3.06	1.342	3.922	1.181	6.516
1.8	1.373	2.613	1.25	3.214	1.11	4.766
1.6	1.254	2.209	1.151	2.623	1.031	3.568
1.5	1.192	2.022	1.099	2.362	0.989	3.101
1.4	1.129	1.843	1.045	2.121	0.945	2.697
1.3	1.063	1.672	0.989	1.898	0.899	2.345
1.2	0.996	1.509	0.93	1.69	0.851	2.034
1.1	0.926	1.354	0.87	1.497	0.8	1.759
1	0.855	1.204	0.806	1.316	0.747	1.514
0.95	0.818	1.132	0.774	1.23	0.719	1.401
0.9	0.781	1.061	0.741	1.146	0.69	1.293
0.85	0.744	0.992	0.707	1.066	0.661	1.191
0.8	0.705	0.924	0.672	0.988	0.631	1.094
0.75	0.666	0.858	0.637	0.912	0.599	1.001
0.72	0.643	0.818	0.615	0.867	0.58	0.948
0.7	0.627	0.792	0.601	0.838	0.568	0.913
0.68	0.611	0.767	0.586	0.81	0.555	0.879
0.66	0.595	0.741	0.571	0.781	0.541	0.845
0.64	0.579	0.716	0.557	0.753	0.528	0.812
0.62	0.562	0.691	0.541	0.725	0.514	0.78
0.6	0.546	0.666	0.526	0.698	0.501	0.748
0.58	0.529	0.641	0.511	0.671	0.487	0.717
0.56	0.513	0.617	0.496	0.644	0.473	0.686
0.55	0.505	0.604	0.488	0.63	0.466	0.671
0.54	0.496	0.592	0.48	0.617	0.459	0.656
0.53	0.488	0.58	0.472	0.604	0.452	0.641
0.52	0.479	0.568	0.464	0.591	0.445	0.626
0.51	0.471	0.556	0.456	0.578	0.437	0.612
0.5	0.462	0.544	0.448	0.565	0.43	0.597
0.49	0.454	0.532	0.44	0.552	0.423	0.583
0.48	0.445	0.52	0.432	0.539	0.415	0.568
0.47	0.437	0.509	0.424	0.527	0.408	0.554
0.46	0.428	0.497	0.416	0.514	0.401	0.54
0.45	0.42	0.485	0.408	0.501	0.393	0.526
0.44	0.411	0.473	0.4	0.489	0.385	0.512
0.43	0.402	0.462	0.392	0.476	0.378	0.499
0.42	0.394	0.45	0.384	0.464	0.37	0.485



AATMA 50mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	65.36	INF	49.751	INF	35.211	INF
20	15.346	28.704	14.296	33.278	12.783	45.933
10	8.686	11.782	8.34	12.484	7.803	13.92
7	6.331	7.827	6.146	8.13	5.849	8.714
5	4.65	5.407	4.55	5.549	4.386	5.815
4	3.773	4.256	3.707	4.343	3.598	4.503
3.5	3.326	3.694	3.274	3.759	3.189	3.879
3	2.871	3.141	2.833	3.188	2.769	3.273
2.5	2.41	2.597	2.383	2.629	2.338	2.686
2	1.942	2.061	1.925	2.081	1.895	2.117
1.8	1.753	1.849	1.739	1.865	1.715	1.894
1.6	1.563	1.639	1.552	1.651	1.533	1.673
1.5	1.468	1.534	1.458	1.545	1.441	1.564
1.4	1.372	1.429	1.363	1.439	1.348	1.456
1.3	1.276	1.325	1.268	1.333	1.256	1.348
1.2	1.179	1.221	1.173	1.228	1.162	1.24
1.1	1.083	1.118	1.077	1.124	1.068	1.134
1	0.986	1.015	0.981	1.019	0.974	1.028
0.95	0.937	0.963	0.933	0.967	0.926	0.975
0.9	0.889	0.912	0.885	0.916	0.879	0.922
0.85	0.84	0.86	0.837	0.864	0.831	0.87
0.8	0.791	0.809	0.788	0.812	0.783	0.817
0.78	0.771	0.789	0.769	0.792	0.764	0.796
0.76	0.752	0.768	0.749	0.771	0.745	0.776
0.74	0.732	0.748	0.73	0.75	0.726	0.755
0.72	0.713	0.727	0.71	0.73	0.707	0.734
0.7	0.693	0.707	0.691	0.709	0.687	0.713
0.68	0.674	0.687	0.672	0.689	0.668	0.692
0.66	0.654	0.666	0.652	0.668	0.649	0.672
0.64	0.634	0.646	0.633	0.648	0.629	0.651
0.62	0.615	0.625	0.613	0.627	0.61	0.63
0.6	0.595	0.605	0.593	0.607	0.591	0.609
0.58	0.575	0.585	0.574	0.586	0.571	0.589
0.56	0.556	0.564	0.554	0.566	0.552	0.568
0.55	0.546	0.554	0.545	0.556	0.542	0.558
0.54	0.536	0.544	0.535	0.545	0.533	0.548
0.53	0.526	0.534	0.525	0.535	0.523	0.537
0.52	0.516	0.524	0.515	0.525	0.513	0.527
0.51	0.506	0.514	0.505	0.515	0.503	0.517
0.5	0.497	0.503	0.496	0.505	0.494	0.506
0.49	0.487	0.493	0.486	0.494	0.484	0.496
0.48	0.477	0.483	0.476	0.484	0.474	0.486
0.47	0.467	0.473	0.466	0.474	0.464	0.476
0.46	0.457	0.463	0.456	0.464	0.455	0.465
0.45	0.447	0.453	0.446	0.454	0.445	0.455



AATMA 50mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	24.938	INF	17.637	INF	12.484	INF
20	11.123	99.01	9.393	INF	7.704	INF
10	7.153	16.611	6.397	22.892	5.568	49.02
7	5.477	9.695	5.024	11.539	4.499	15.766
5	4.174	6.234	3.906	6.946	3.582	8.278
4	3.454	4.751	3.269	5.152	3.04	5.848
3.5	3.076	4.06	2.928	4.349	2.743	4.834
3	2.683	3.401	2.571	3.601	2.427	3.927
2.5	2.277	2.772	2.196	2.902	2.09	3.109
2	1.855	2.169	1.801	2.248	1.73	2.37
1.8	1.682	1.935	1.638	1.998	1.579	2.093
1.6	1.507	1.706	1.471	1.754	1.423	1.826
1.5	1.418	1.592	1.386	1.634	1.344	1.697
1.4	1.328	1.48	1.301	1.516	1.264	1.57
1.3	1.238	1.368	1.214	1.399	1.182	1.444
1.2	1.147	1.258	1.127	1.284	1.099	1.322
1.1	1.056	1.148	1.038	1.17	1.015	1.201
1	0.963	1.04	0.949	1.057	0.929	1.082
0.95	0.917	0.985	0.904	1.001	0.886	1.024
0.9	0.87	0.932	0.859	0.945	0.843	0.966
0.85	0.824	0.878	0.813	0.89	0.799	0.908
0.8	0.777	0.825	0.767	0.835	0.755	0.851
0.78	0.758	0.803	0.749	0.814	0.737	0.828
0.76	0.739	0.782	0.731	0.792	0.719	0.806
0.74	0.72	0.761	0.712	0.77	0.701	0.783
0.72	0.701	0.74	0.694	0.748	0.683	0.761
0.7	0.682	0.719	0.675	0.727	0.665	0.738
0.68	0.663	0.698	0.657	0.705	0.647	0.716
0.66	0.644	0.677	0.638	0.684	0.629	0.694
0.64	0.625	0.655	0.619	0.662	0.611	0.672
0.62	0.606	0.634	0.601	0.641	0.593	0.65
0.6	0.587	0.613	0.582	0.619	0.575	0.628
0.58	0.568	0.593	0.563	0.598	0.556	0.606
0.56	0.549	0.572	0.544	0.577	0.538	0.584
0.55	0.539	0.561	0.535	0.566	0.529	0.573
0.54	0.53	0.551	0.525	0.555	0.52	0.562
0.53	0.52	0.54	0.516	0.545	0.51	0.551
0.52	0.51	0.53	0.507	0.534	0.501	0.54
0.51	0.501	0.52	0.497	0.524	0.492	0.529
0.5	0.491	0.509	0.488	0.513	0.483	0.519
0.49	0.482	0.499	0.478	0.503	0.473	0.508
0.48	0.472	0.488	0.469	0.492	0.464	0.497
0.47	0.462	0.478	0.459	0.481	0.455	0.486
0.46	0.453	0.468	0.45	0.471	0.445	0.476
0.45	0.443	0.457	0.44	0.46	0.436	0.465



AATMA 50mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	8.834	INF	6.246	INF	4.417	INF
20	6.142	INF	4.771	INF	3.627	INF
10	4.705	INF	3.858	INF	3.075	INF
7	3.919	32.717	3.314	INF	2.721	INF
5	3.205	11.36	2.79	24.038	2.358	INF
4	2.765	7.23	2.451	10.87	2.112	37.695
3.5	2.518	5.74	2.255	7.813	1.965	15.962
3	2.249	4.502	2.038	5.682	1.799	9.025
2.5	1.958	3.458	1.796	4.112	1.608	5.611
2	1.639	2.566	1.524	2.907	1.388	3.58
1.8	1.503	2.244	1.406	2.5	1.289	2.98
1.6	1.361	1.94	1.282	2.128	1.185	2.464
1.5	1.289	1.794	1.218	1.953	1.129	2.233
1.4	1.215	1.652	1.151	1.786	1.072	2.016
1.3	1.139	1.514	1.083	1.625	1.013	1.813
1.2	1.062	1.379	1.014	1.471	0.952	1.622
1.1	0.983	1.248	0.942	1.322	0.889	1.443
1	0.903	1.12	0.868	1.179	0.823	1.274
0.95	0.862	1.058	0.83	1.11	0.789	1.193
0.9	0.821	0.996	0.792	1.042	0.755	1.114
0.85	0.779	0.935	0.754	0.975	0.72	1.038
0.8	0.737	0.874	0.714	0.909	0.684	0.964
0.78	0.721	0.85	0.698	0.883	0.669	0.934
0.76	0.704	0.826	0.682	0.857	0.655	0.905
0.74	0.686	0.803	0.666	0.832	0.64	0.877
0.72	0.669	0.779	0.65	0.806	0.625	0.849
0.7	0.652	0.756	0.634	0.781	0.61	0.821
0.68	0.635	0.732	0.618	0.756	0.595	0.793
0.66	0.617	0.709	0.601	0.731	0.58	0.766
0.64	0.6	0.686	0.585	0.707	0.565	0.739
0.62	0.582	0.663	0.568	0.682	0.549	0.712
0.6	0.565	0.64	0.551	0.658	0.534	0.685
0.58	0.547	0.617	0.535	0.634	0.518	0.659
0.56	0.529	0.594	0.518	0.61	0.502	0.633
0.55	0.521	0.583	0.509	0.598	0.494	0.62
0.54	0.512	0.572	0.501	0.586	0.486	0.607
0.53	0.503	0.56	0.492	0.574	0.478	0.595
0.52	0.494	0.549	0.484	0.562	0.47	0.582
0.51	0.485	0.538	0.475	0.551	0.462	0.569
0.5	0.476	0.527	0.466	0.539	0.454	0.557
0.49	0.467	0.516	0.458	0.527	0.446	0.544
0.48	0.458	0.505	0.449	0.515	0.437	0.532
0.47	0.449	0.493	0.44	0.504	0.429	0.519
0.46	0.44	0.482	0.432	0.492	0.421	0.507
0.45	0.431	0.471	0.423	0.481	0.413	0.495



AATMA 65mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	109.962	INF	83.792	INF	59.363	INF
30	23.636	41.053	22.152	46.458	19.983	60.154
15	13.224	17.328	12.747	18.22	11.999	20.003
10	9.18	10.981	8.948	11.332	8.574	11.996
8	7.467	8.615	7.313	8.829	7.062	9.226
6	5.696	6.338	5.606	6.453	5.458	6.662
5	4.788	5.232	4.724	5.31	4.618	5.45
4	3.863	4.147	3.822	4.195	3.753	4.282
3.5	3.395	3.612	3.363	3.648	3.31	3.714
3	2.923	3.081	2.899	3.108	2.859	3.155
2.8	2.733	2.871	2.712	2.894	2.677	2.934
2.6	2.542	2.661	2.524	2.68	2.494	2.715
2.4	2.351	2.451	2.335	2.468	2.31	2.498
2.2	2.159	2.243	2.146	2.257	2.124	2.282
2	1.966	2.035	1.955	2.047	1.937	2.067
1.8	1.772	1.829	1.764	1.838	1.749	1.854
1.6	1.578	1.622	1.571	1.63	1.56	1.642
1.5	1.481	1.52	1.475	1.526	1.465	1.537
1.4	1.383	1.417	1.378	1.422	1.369	1.432
1.3	1.286	1.315	1.281	1.319	1.274	1.327
1.2	1.188	1.212	1.184	1.216	1.178	1.223
1.1	1.09	1.11	1.087	1.114	1.081	1.119
1	0.992	1.008	0.989	1.011	0.985	1.016
0.95	0.942	0.958	0.94	0.96	0.936	0.964
0.9	0.893	0.907	0.891	0.909	0.888	0.913
0.85	0.844	0.856	0.842	0.858	0.839	0.861
0.8	0.795	0.805	0.793	0.807	0.79	0.81
0.78	0.775	0.785	0.773	0.787	0.771	0.789
0.76	0.755	0.765	0.754	0.766	0.751	0.769
0.74	0.736	0.745	0.734	0.746	0.732	0.748
0.72	0.716	0.724	0.714	0.726	0.712	0.728
0.7	0.696	0.704	0.695	0.705	0.693	0.708
0.68	0.676	0.684	0.675	0.685	0.673	0.687
0.66	0.656	0.664	0.655	0.665	0.653	0.667
0.64	0.637	0.643	0.636	0.644	0.634	0.646
0.62	0.617	0.623	0.616	0.624	0.614	0.626
0.6	0.597	0.603	0.596	0.604	0.595	0.605



AATMA 65mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	42.073	INF	29.77	INF	21.081	INF
30	17.559	102.923	14.981	INF	12.412	INF
15	11.082	23.202	9.999	30.011	8.787	51.191
10	8.096	13.074	7.503	14.987	6.801	18.878
8	6.735	9.85	6.32	10.896	5.816	12.813
6	5.261	6.981	5.005	7.488	4.684	8.344
5	4.477	5.661	4.291	5.99	4.053	6.524
4	3.659	4.411	3.534	4.607	3.372	4.916
3.5	3.237	3.81	3.139	3.955	3.01	4.18
3	2.805	3.224	2.732	3.327	2.634	3.484
2.8	2.63	2.994	2.565	3.082	2.479	3.216
2.6	2.453	2.766	2.397	2.841	2.321	2.955
2.4	2.274	2.54	2.226	2.604	2.161	2.698
2.2	2.094	2.317	2.053	2.369	1.998	2.447
2	1.912	2.096	1.878	2.139	1.832	2.202
1.8	1.729	1.877	1.701	1.911	1.663	1.961
1.6	1.544	1.66	1.522	1.687	1.492	1.725
1.5	1.451	1.553	1.431	1.576	1.405	1.609
1.4	1.357	1.446	1.34	1.466	1.317	1.494
1.3	1.263	1.339	1.248	1.356	1.228	1.381
1.2	1.169	1.233	1.156	1.247	1.139	1.268
1.1	1.074	1.128	1.063	1.139	1.049	1.157
1	0.978	1.023	0.97	1.032	0.958	1.046
0.95	0.931	0.97	0.923	0.979	0.912	0.992
0.9	0.883	0.918	0.876	0.926	0.866	0.937
0.85	0.834	0.866	0.828	0.873	0.82	0.883
0.8	0.786	0.814	0.781	0.82	0.773	0.829
0.78	0.767	0.793	0.762	0.799	0.754	0.807
0.76	0.748	0.773	0.743	0.778	0.736	0.786
0.74	0.728	0.752	0.724	0.757	0.717	0.764
0.72	0.709	0.731	0.705	0.736	0.698	0.743
0.7	0.69	0.711	0.685	0.715	0.68	0.722
0.68	0.67	0.69	0.666	0.694	0.661	0.7
0.66	0.651	0.669	0.647	0.673	0.642	0.679
0.64	0.631	0.649	0.628	0.653	0.623	0.658
0.62	0.612	0.628	0.609	0.632	0.604	0.637
0.6	0.592	0.608	0.589	0.611	0.585	0.616



AATMA 65mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	14.92	INF	10.551	INF	7.462	INF
30	9.989	INF	7.825	INF	5.99	INF
15	7.502	INF	6.214	INF	5	INF
10	6.006	29.84	5.153	168.327	4.291	INF
8	5.225	17.059	4.568	32.16	3.879	INF
6	4.294	9.953	3.841	13.695	3.343	29.23
5	3.759	7.466	3.408	9.385	3.011	14.742
4	3.166	5.43	2.914	6.375	2.62	8.455
3.5	2.846	4.545	2.641	5.187	2.397	6.481
3	2.507	3.733	2.348	4.154	2.154	4.942
2.8	2.367	3.427	2.224	3.778	2.049	4.418
2.6	2.223	3.131	2.097	3.421	1.941	3.936
2.4	2.076	2.844	1.965	3.081	1.828	3.492
2.2	1.925	2.567	1.83	2.757	1.711	3.081
2	1.771	2.298	1.69	2.449	1.588	2.699
1.8	1.613	2.036	1.546	2.154	1.461	2.345
1.6	1.451	1.783	1.397	1.872	1.327	2.014
1.5	1.369	1.659	1.321	1.736	1.258	1.857
1.4	1.285	1.537	1.243	1.603	1.188	1.705
1.3	1.201	1.417	1.164	1.472	1.116	1.558
1.2	1.115	1.299	1.084	1.344	1.042	1.415
1.1	1.029	1.182	1.002	1.219	0.966	1.277
1	0.941	1.067	0.919	1.097	0.889	1.143
0.95	0.897	1.01	0.877	1.037	0.849	1.078
0.9	0.852	0.953	0.834	0.977	0.809	1.013
0.85	0.808	0.897	0.791	0.918	0.769	0.95
0.8	0.762	0.841	0.748	0.86	0.728	0.887
0.78	0.744	0.819	0.731	0.837	0.712	0.863
0.76	0.726	0.797	0.713	0.814	0.695	0.838
0.74	0.708	0.775	0.696	0.791	0.679	0.814
0.72	0.69	0.753	0.678	0.768	0.662	0.789
0.7	0.671	0.731	0.66	0.745	0.645	0.765
0.68	0.653	0.709	0.643	0.722	0.628	0.741
0.66	0.635	0.687	0.625	0.699	0.611	0.717
0.64	0.616	0.666	0.607	0.677	0.594	0.693
0.62	0.598	0.644	0.589	0.654	0.577	0.67
0.6	0.579	0.622	0.571	0.632	0.56	0.646



AATMA 85mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	186586	INF	142443	INF	101089	INF
50	39.603	67.799	37.163	76.386	33.584	97.807
20	18.104	22.34	17.577	23.197	16.736	24.845
15	13.909	16.277	13.597	16.726	13.088	17.566
10	9.504	10.55	9.358	10.737	9.115	11.075
8	7.68	8.347	7.585	8.464	7.425	8.672
7	6.754	7.264	6.68	7.352	6.556	7.508
6	5.819	6.193	5.764	6.256	5.671	6.369
5	4.874	5.133	4.836	5.176	4.77	5.253
4.5	4.398	4.607	4.367	4.642	4.314	4.703
4	3.919	4.084	3.894	4.111	3.852	4.159
3.5	3.438	3.564	3.419	3.585	3.387	3.621
3	2.955	3.047	2.941	3.062	2.917	3.088
2.8	2.761	2.841	2.748	2.854	2.727	2.876
2.6	2.566	2.635	2.556	2.646	2.538	2.666
2.4	2.371	2.43	2.362	2.439	2.347	2.456
2.2	2.176	2.225	2.168	2.233	2.155	2.247
2	1.98	2.02	1.974	2.027	1.963	2.038
1.9	1.882	1.918	1.876	1.924	1.867	1.934
1.8	1.6285	2.012	1.779	1.822	1.77	1.831
1.7	1.686	1.715	1.681	1.719	1.674	1.727
1.6	1.587	1.613	1.583	1.617	1.577	1.624
1.5	1.489	1.511	1.485	1.515	1.479	1.521
1.4	1.39	1.41	1.387	1.413	1.382	1.418
1.3	1.292	1.308	1.289	1.311	1.285	1.316
1.2	1.193	1.207	1.191	1.209	1.187	1.213
1.1	1.094	1.106	1.092	1.108	1.089	1.111
1	0.995	1.005	0.994	1.006	0.991	1.009
0.98	0.975	0.985	0.974	0.986	0.971	0.989
0.96	0.956	0.964	0.954	0.966	0.952	0.968
0.94	0.936	0.944	0.934	0.946	0.932	0.948
0.92	0.916	0.924	0.915	0.925	0.913	0.928
0.9	0.896	0.904	0.895	0.905	0.893	0.907
0.88	0.876	0.884	0.875	0.885	0.873	0.887
0.86	0.857	0.864	0.855	0.865	0.854	0.867
0.84	0.837	0.843	0.836	0.844	0.834	0.846



AATMA 85mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	71732	INF	50801	INF	35995	INF
50	29.571	161.742	25.284	2229.555	20.993	INF
20	15.678	27.611	14.388	32.789	12.893	44.571
15	12.433	18.902	11.609	21.19	10.617	25.548
10	8.793	11.591	8.374	12.41	7.846	13.783
8	7.21	8.984	6.926	9.468	6.562	10.245
7	6.389	7.741	6.165	8.096	5.875	8.657
6	5.546	6.535	5.377	6.786	5.156	7.175
5	4.682	5.365	4.561	5.533	4.401	5.787
4.5	4.241	4.793	4.142	4.926	4.01	5.127
4	3.794	4.229	3.715	4.332	3.609	4.486
3.5	3.342	3.674	3.281	3.751	3.198	3.865
3	2.884	3.126	2.838	3.182	2.776	3.263
2.8	2.699	2.909	2.659	2.957	2.604	3.028
2.6	2.513	2.694	2.478	2.735	2.431	2.795
2.4	2.325	2.479	2.296	2.514	2.255	2.564
2.2	2.137	2.266	2.112	2.295	2.078	2.337
2	1.948	2.054	1.928	2.078	1.899	2.112
1.9	1.853	1.949	1.835	1.97	1.809	2.001
1.8	1.758	1.844	1.742	1.863	1.718	1.89
1.7	1.663	1.739	1.648	1.756	1.627	1.78
1.6	1.567	1.634	1.554	1.649	1.536	1.67
1.5	1.471	1.53	1.46	1.543	1.443	1.561
1.4	1.375	1.426	1.365	1.437	1.351	1.453
1.3	1.279	1.322	1.27	1.332	1.258	1.345
1.2	1.182	1.219	1.174	1.227	1.164	1.238
1.1	1.085	1.116	1.079	1.122	1.07	1.132
1	0.987	1.013	0.982	1.018	0.975	1.026
0.98	0.968	0.992	0.963	0.997	0.956	1.005
0.96	0.949	0.972	0.944	0.977	0.937	0.984
0.94	0.929	0.951	0.925	0.956	0.918	0.963
0.92	0.909	0.931	0.905	0.935	0.899	0.942
0.9	0.89	0.91	0.886	0.915	0.88	0.921
0.88	0.87	0.89	0.867	0.894	0.861	0.9
0.86	0.851	0.869	0.847	0.873	0.842	0.879
0.84	0.831	0.849	0.828	0.853	0.823	0.858



AATMA 85mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	25488	INF	18030	INF	12754	INF
50	16.93	INF	13.286	INF	10.186	INF
20	11.24	90.651	9.512	INF	7.814	INF
15	9.472	36.032	8.216	86.08	6.919	INF
10	7.204	16.34	6.456	22.169	5.629	44.721
8	6.108	11.59	5.563	14.24	4.939	21.04
7	5.509	9.597	5.062	11.342	4.541	15.266
6	4.872	7.807	4.52	8.922	4.101	11.177
5	4.193	6.191	3.93	6.869	3.61	8.128
4.5	3.837	5.44	3.616	5.956	3.344	6.878
4	3.469	4.724	3.287	5.107	3.061	5.768
3.5	3.087	4.04	2.943	4.316	2.762	4.778
3	2.693	3.386	2.583	3.577	2.442	3.887
2.8	2.531	3.133	2.434	3.295	2.309	3.556
2.6	2.367	2.884	2.282	3.021	2.172	3.238
2.4	2.201	2.639	2.127	2.753	2.032	2.931
2.2	2.032	2.399	1.969	2.492	1.887	2.637
2	1.861	2.162	1.808	2.237	1.739	2.353
1.9	1.774	2.045	1.727	2.112	1.664	2.215
1.8	1.687	1.93	1.644	1.989	1.587	2.079
1.7	1.599	1.815	1.56	1.867	1.509	1.946
1.6	1.51	1.701	1.476	1.746	1.43	1.815
1.5	1.421	1.588	1.391	1.627	1.35	1.687
1.4	1.331	1.476	1.305	1.51	1.269	1.561
1.3	1.241	1.365	1.218	1.394	1.187	1.437
1.2	1.15	1.255	1.13	1.279	1.104	1.315
1.1	1.058	1.146	1.041	1.165	1.019	1.195
1	0.965	1.037	0.952	1.053	0.933	1.077
0.98	0.947	1.016	0.934	1.031	0.916	1.054
0.96	0.928	0.994	0.916	1.009	0.898	1.031
0.94	0.91	0.973	0.898	0.987	0.881	1.007
0.92	0.891	0.951	0.879	0.965	0.864	0.984
0.9	0.872	0.93	0.861	0.943	0.846	0.961
0.88	0.853	0.908	0.843	0.921	0.828	0.938
0.86	0.835	0.887	0.825	0.899	0.811	0.916
0.84	0.816	0.866	0.806	0.877	0.793	0.893



AATMA 100mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	256.413	INF	196.08	INF	139.374	INF
60	48.875	77.682	46.172	85.653	42.141	104.129
30	26.939	33.846	26.098	35.273	24.762	38.049
20	18.594	21.636	18.19	22.21	17.532	23.277
15	14.196	15.9	13.96	16.207	13.57	16.768
12	11.481	12.568	11.326	12.759	11.068	13.103
10	9.637	10.391	9.528	10.521	9.345	10.753
8	7.767	8.248	7.696	8.329	7.577	8.474
7	6.821	7.188	6.767	7.25	6.674	7.359
6	5.868	6.138	5.828	6.182	5.76	6.261
5.5	5.389	5.615	5.355	5.653	5.298	5.718
5	4.909	5.095	4.88	5.126	4.832	5.18
4.5	4.426	4.577	4.403	4.601	4.364	4.645
4	3.942	4.06	3.923	4.08	3.893	4.114
3.8	3.747	3.854	3.731	3.872	3.703	3.902
3.6	3.553	3.649	3.538	3.664	3.513	3.691
3.4	3.358	3.443	3.345	3.457	3.322	3.481
3.2	3.163	3.238	3.151	3.25	3.131	3.272
3	2.967	3.033	2.957	3.044	2.94	3.063
2.8	2.772	2.829	2.763	2.838	2.748	2.855
2.6	2.576	2.625	2.568	2.633	2.555	2.647
2.4	2.379	2.421	2.373	2.428	2.362	2.44
2.2	2.183	2.218	2.177	2.223	2.168	2.233
2	1.986	2.015	1.981	2.019	1.973	2.027
1.9	1.887	1.913	1.883	1.917	1.876	1.925
1.8	1.788	1.812	1.785	1.815	1.779	1.822
1.7	1.69	1.71	1.687	1.714	1.681	1.719
1.6	1.591	1.609	1.588	1.612	1.583	1.617
1.5	1.492	1.508	1.49	1.511	1.485	1.515
1.4	1.393	1.407	1.391	1.409	1.387	1.413
1.3	1.294	1.306	1.292	1.308	1.289	1.311
1.2	1.195	1.205	1.193	1.207	1.191	1.209
1.1	1.096	1.104	1.095	1.106	1.092	1.108



AATMA 100mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	99.011	INF	70.176	INF	49.752	INF
60	37.523	149.626	32.475	393.662	27.298	INF
30	23.095	42.796	21.081	52.001	18.773	74.627
20	16.681	24.969	15.606	27.839	14.306	33.223
15	13.055	17.626	12.388	19.007	11.556	21.368
12	10.724	13.621	10.271	14.43	9.693	15.748
10	9.099	11.099	8.771	11.629	8.347	12.469
8	7.414	8.686	7.196	9.007	6.908	9.501
7	6.548	7.519	6.377	7.757	6.151	8.121
6	5.666	6.376	5.538	6.547	5.367	6.803
5.5	5.218	5.814	5.11	5.955	4.964	6.166
5	4.766	5.258	4.676	5.373	4.554	5.543
4.5	4.31	4.707	4.236	4.799	4.136	4.934
4	3.85	4.162	3.791	4.234	3.711	4.338
3.8	3.664	3.946	3.611	4.01	3.538	4.104
3.6	3.478	3.731	3.43	3.788	3.364	3.871
3.4	3.291	3.516	3.248	3.567	3.189	3.64
3.2	3.104	3.302	3.066	3.347	3.013	3.412
3	2.915	3.09	2.882	3.128	2.836	3.185
2.8	2.726	2.878	2.697	2.911	2.657	2.96
2.6	2.537	2.667	2.511	2.695	2.476	2.737
2.4	2.346	2.456	2.324	2.481	2.294	2.516
2.2	2.155	2.247	2.137	2.267	2.111	2.296
2	1.963	2.039	1.948	2.055	1.927	2.079
1.9	1.866	1.935	1.853	1.95	1.834	1.971
1.8	1.77	1.831	1.758	1.844	1.741	1.863
1.7	1.673	1.728	1.662	1.739	1.647	1.756
1.6	1.576	1.624	1.567	1.635	1.553	1.649
1.5	1.479	1.521	1.471	1.53	1.459	1.543
1.4	1.382	1.418	1.375	1.426	1.365	1.437
1.3	1.285	1.316	1.278	1.322	1.27	1.332
1.2	1.187	1.213	1.182	1.219	1.174	1.227
1.1	1.089	1.111	1.085	1.116	1.078	1.122



AATMA 100mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	35.243	INF	24.938	INF	17.645	INF
60	22.274	INF	17.668	INF	13.671	INF
30	16.256	194.077	13.661	INF	11.146	INF
20	12.799	45.732	11.136	98.039	9.408	INF
15	10.554	25.92	9.398	37.129	8.139	95.522
12	8.979	18.085	8.13	22.901	7.172	36.724
10	7.813	13.887	7.163	16.556	6.41	22.732
8	6.539	10.301	6.079	11.696	5.529	14.465
7	5.857	8.697	5.486	9.669	5.035	11.482
6	5.142	7.201	4.854	7.853	4.498	9.006
5.5	4.771	6.491	4.523	7.015	4.213	7.919
5	4.392	5.804	4.181	6.219	3.915	6.918
4.5	4.002	5.139	3.827	5.461	3.603	5.991
4	3.603	4.496	3.46	4.739	3.277	5.132
3.8	3.44	4.244	3.31	4.46	3.142	4.806
3.6	3.276	3.995	3.158	4.186	3.005	4.489
3.4	3.11	3.75	3.004	3.917	2.865	4.18
3.2	2.942	3.507	2.847	3.653	2.723	3.881
3	2.773	3.268	2.688	3.394	2.577	3.589
2.8	2.601	3.031	2.527	3.139	2.429	3.305
2.6	2.428	2.798	2.364	2.889	2.278	3.028
2.4	2.253	2.567	2.198	2.643	2.124	2.759
2.2	2.077	2.339	2.03	2.402	1.966	2.497
2	1.898	2.114	1.859	2.165	1.806	2.241
1.9	1.808	2.002	1.772	2.047	1.724	2.115
1.8	1.717	1.891	1.685	1.931	1.642	1.992
1.7	1.626	1.781	1.598	1.816	1.559	1.869
1.6	1.535	1.671	1.509	1.702	1.475	1.748
1.5	1.443	1.562	1.42	1.589	1.39	1.629
1.4	1.35	1.453	1.331	1.477	1.304	1.511
1.3	1.257	1.346	1.24	1.366	1.217	1.395
1.2	1.164	1.239	1.149	1.255	1.13	1.28
1.1	1.07	1.132	1.058	1.146	1.041	1.166



AATMA 135mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	457.662	INF	351.686	INF	251.131	INF
70	61.1	81.936	58.741	86.599	55.065	96.051
30	28.241	31.992	27.728	32.677	26.883	33.934
20	19.205	20.864	18.966	21.153	18.568	21.671
15	14.549	15.48	14.412	15.638	14.182	15.919
12	11.71	12.304	11.622	12.404	11.472	12.579
10	9.798	10.21	9.736	10.278	9.631	10.398
9	8.837	9.169	8.786	9.224	8.701	9.321
8	7.871	8.133	7.831	8.176	7.763	8.252
7	6.901	7.102	6.871	7.134	6.818	7.192
6	5.928	6.074	5.905	6.098	5.866	6.14
5.5	5.439	5.562	5.42	5.582	5.388	5.617
5	4.95	5.051	4.934	5.068	4.907	5.096
4.5	4.459	4.541	4.447	4.555	4.425	4.578
4	3.968	4.032	3.958	4.043	3.941	4.061
3.8	3.771	3.829	3.762	3.839	3.747	3.855
3.6	3.574	3.626	3.566	3.635	3.552	3.649
3.4	3.377	3.423	3.37	3.431	3.357	3.444
3.2	3.18	3.221	3.173	3.227	3.162	3.239
3	2.982	3.018	2.977	3.024	2.967	3.034
2.8	2.785	2.816	2.78	2.821	2.771	2.829
2.6	2.587	2.613	2.583	2.618	2.575	2.625
2.4	2.389	2.411	2.385	2.415	2.379	2.421
2.2	2.191	2.21	2.188	2.213	2.183	2.218
2	1.992	2.008	1.99	2.01	1.986	2.015
1.9	1.893	1.907	1.891	1.909	1.887	1.913
1.8	1.794	1.806	1.792	1.808	1.788	1.812
1.7	1.694	1.706	1.693	1.707	1.69	1.71
1.6	1.595	1.605	1.594	1.606	1.591	1.609
1.5	1.496	1.504	1.494	1.506	1.492	1.508
1.4	1.396	1.404	1.395	1.405	1.393	1.407



AATMA 135mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	178.99	INF	127.162	INF	90.303	INF
70	50.602	113.516	45.383	152.984	39.622	300.035
30	25.776	35.88	24.353	39.056	22.595	44.625
20	18.034	22.447	17.328	23.647	16.42	25.575
15	13.869	16.332	13.448	16.957	12.896	17.924
12	11.267	12.836	10.988	13.218	10.618	13.796
10	9.487	10.572	9.289	10.829	9.023	11.214
9	8.583	9.46	8.42	9.665	8.202	9.97
8	7.669	8.361	7.54	8.52	7.364	8.756
7	6.746	7.274	6.646	7.394	6.51	7.57
6	5.813	6.2	5.739	6.286	5.637	6.413
5.5	5.343	5.667	5.28	5.739	5.194	5.844
5	4.87	5.137	4.818	5.196	4.747	5.282
4.5	4.395	4.61	4.352	4.658	4.294	4.726
4	3.917	4.087	3.883	4.124	3.837	4.177
3.8	3.725	3.878	3.695	3.911	3.653	3.959
3.6	3.533	3.67	3.506	3.7	3.468	3.742
3.4	3.34	3.462	3.316	3.488	3.282	3.526
3.2	3.147	3.255	3.126	3.278	3.096	3.311
3	2.954	3.048	2.935	3.068	2.909	3.097
2.8	2.76	2.842	2.743	2.859	2.72	2.884
2.6	2.565	2.636	2.551	2.651	2.532	2.672
2.4	2.371	2.43	2.359	2.443	2.342	2.461
2.2	2.175	2.225	2.165	2.236	2.151	2.251
2	1.98	2.021	1.971	2.029	1.96	2.042
1.9	1.882	1.919	1.874	1.926	1.864	1.938
1.8	1.784	1.817	1.777	1.824	1.768	1.834
1.7	1.686	1.715	1.68	1.721	1.671	1.73
1.6	1.587	1.613	1.582	1.618	1.575	1.626
1.5	1.489	1.511	1.484	1.516	1.478	1.523
1.4	1.39	1.41	1.386	1.414	1.381	1.42



AATMA 135mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,025 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	64.044	INF	45.356	INF	32.111	INF
70	33.591	INF	27.631	INF	22.09	INF
30	20.501	55.901	18.122	87.076	15.568	411.438
20	15.288	28.91	13.928	35.461	12.371	52.173
15	12.189	19.496	11.31	22.264	10.264	27.852
12	10.134	14.707	9.521	16.225	8.77	18.997
10	8.673	11.807	8.22	12.763	7.656	14.414
9	7.912	10.435	7.534	11.174	7.058	12.417
8	7.13	9.112	6.822	9.669	6.43	10.584
7	6.326	7.834	6.083	8.242	5.77	8.896
6	5.5	6.601	5.316	6.886	5.076	7.336
5.5	5.077	5.999	4.921	6.234	4.715	6.599
5	4.649	5.408	4.518	5.598	4.344	5.889
4.5	4.215	4.827	4.107	4.977	3.963	5.205
4	3.774	4.255	3.687	4.371	3.571	4.545
3.8	3.596	4.029	3.517	4.132	3.412	4.288
3.6	3.416	3.805	3.346	3.896	3.25	4.034
3.4	3.236	3.581	3.173	3.662	3.087	3.783
3.2	3.055	3.36	2.998	3.431	2.922	3.536
3	2.872	3.14	2.823	3.201	2.755	3.293
2.8	2.689	2.921	2.645	2.974	2.586	3.053
2.6	2.504	2.703	2.467	2.749	2.415	2.815
2.4	2.319	2.487	2.286	2.526	2.242	2.582
2.2	2.132	2.273	2.105	2.304	2.067	2.351
2	1.944	2.06	1.921	2.085	1.891	2.123
1.9	1.849	1.953	1.829	1.977	1.801	2.01
1.8	1.755	1.848	1.737	1.868	1.712	1.898
1.7	1.66	1.742	1.644	1.76	1.621	1.787
1.6	1.564	1.637	1.55	1.653	1.53	1.676
1.5	1.469	1.532	1.456	1.546	1.439	1.566
1.4	1.373	1.428	1.362	1.44	1.347	1.457



AATMA 18mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	7.1	INF	5.397	INF	3.815	INF
10	4.158	INF	3.511	INF	2.766	INF
5	2.939	16.732	2.601	64.593	2.169	INF
3	2.113	5.17	1.933	6.7	1.684	13.723
2.5	1.853	3.842	1.713	4.626	1.515	7.151
2	1.564	2.774	1.463	3.16	1.316	4.161
1.7	1.375	2.227	1.296	2.469	1.18	3.04
1.5	1.241	1.895	1.177	2.067	1.08	2.452
1.3	1.101	1.586	1.051	1.705	0.973	1.958
1.2	1.029	1.439	0.985	1.536	0.916	1.738
1.1	0.955	1.298	0.916	1.376	0.857	1.535
1	0.879	1.16	0.846	1.222	0.795	1.346
0.95	0.84	1.093	0.81	1.148	0.764	1.257
0.9	0.801	1.028	0.774	1.076	0.731	1.171
0.85	0.761	0.963	0.737	1.005	0.698	1.087
0.8	0.721	0.899	0.699	0.935	0.664	1.006
0.75	0.68	0.836	0.66	0.868	0.629	0.928
0.7	0.639	0.774	0.622	0.801	0.594	0.852
0.68	0.622	0.75	0.606	0.775	0.579	0.823
0.66	0.605	0.726	0.59	0.749	0.565	0.793
0.64	0.588	0.701	0.574	0.723	0.55	0.765
0.62	0.572	0.677	0.558	0.698	0.536	0.736
0.6	0.555	0.654	0.542	0.672	0.521	0.708
0.58	0.537	0.63	0.525	0.647	0.506	0.68
0.56	0.52	0.606	0.509	0.622	0.49	0.653
0.54	0.503	0.583	0.492	0.598	0.475	0.626
0.52	0.486	0.56	0.476	0.573	0.46	0.599
0.5	0.468	0.536	0.459	0.549	0.444	0.572
0.49	0.459	0.525	0.451	0.537	0.436	0.559
0.48	0.451	0.513	0.442	0.525	0.428	0.546
0.47	0.442	0.502	0.434	0.513	0.42	0.533
0.46	0.433	0.491	0.425	0.501	0.412	0.52
0.45	0.424	0.479	0.417	0.489	0.404	0.507
0.44	0.415	0.468	0.408	0.477	0.396	0.495
0.43	0.406	0.456	0.4	0.466	0.388	0.482
0.42	0.398	0.445	0.391	0.454	0.38	0.469
0.41	0.389	0.434	0.382	0.442	0.372	0.457
0.4	0.38	0.423	0.374	0.43	0.364	0.444
0.39	0.371	0.412	0.365	0.419	0.355	0.432
0.38	0.362	0.4	0.356	0.407	0.347	0.42
0.37	0.353	0.389	0.347	0.396	0.339	0.408
0.36	0.343	0.378	0.339	0.384	0.33	0.395
0.35	0.334	0.367	0.33	0.373	0.322	0.383



AATMA 18mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	2.699	INF	1.908	INF	1.35	INF
10	2.129	INF	1.605	INF	1.191	INF
5	1.757	INF	1.385	INF	1.066	INF
3	1.426	INF	1.171	INF	0.935	INF
2.5	1.303	30.963	1.087	INF	0.881	INF
2	1.153	7.521	0.981	INF	0.81	INF
1.7	1.047	4.509	0.904	14.345	0.757	INF
1.5	0.968	3.325	0.844	6.717	0.715	INF
1.3	0.881	2.475	0.778	3.962	0.667	25.809
1.2	0.835	2.134	0.741	3.153	0.64	9.643
1.1	0.785	1.836	0.702	2.541	0.611	5.541
1	0.733	1.572	0.66	2.06	0.579	3.668
0.95	0.706	1.451	0.638	1.857	0.562	3.068
0.9	0.678	1.337	0.615	1.674	0.544	2.596
0.85	0.65	1.229	0.592	1.507	0.526	2.215
0.8	0.62	1.126	0.567	1.356	0.507	1.901
0.75	0.59	1.029	0.542	1.217	0.486	1.638
0.7	0.559	0.937	0.516	1.089	0.465	1.415
0.68	0.546	0.901	0.505	1.041	0.456	1.334
0.66	0.533	0.866	0.494	0.995	0.447	1.258
0.64	0.52	0.832	0.483	0.95	0.438	1.187
0.62	0.507	0.798	0.471	0.906	0.429	1.119
0.6	0.494	0.765	0.46	0.863	0.419	1.055
0.58	0.48	0.732	0.448	0.822	0.41	0.994
0.56	0.466	0.701	0.436	0.782	0.4	0.936
0.54	0.453	0.669	0.424	0.743	0.389	0.88
0.52	0.438	0.639	0.412	0.706	0.379	0.828
0.5	0.424	0.609	0.399	0.669	0.368	0.778
0.49	0.417	0.594	0.393	0.651	0.363	0.753
0.48	0.41	0.579	0.386	0.633	0.358	0.73
0.47	0.403	0.565	0.38	0.616	0.352	0.707
0.46	0.395	0.55	0.373	0.599	0.347	0.684
0.45	0.388	0.536	0.367	0.582	0.341	0.662
0.44	0.381	0.522	0.36	0.565	0.335	0.64
0.43	0.373	0.507	0.354	0.548	0.329	0.619
0.42	0.366	0.493	0.347	0.532	0.324	0.598
0.41	0.358	0.48	0.34	0.516	0.318	0.578
0.4	0.35	0.466	0.333	0.5	0.312	0.558
0.39	0.343	0.452	0.326	0.484	0.306	0.538
0.38	0.335	0.439	0.319	0.469	0.3	0.519
0.37	0.327	0.425	0.312	0.454	0.293	0.501
0.36	0.32	0.412	0.305	0.439	0.287	0.482
0.35	0.312	0.399	0.298	0.424	0.281	0.464



AATMA 18mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	0.955	INF	0.675	INF	0.477	INF
10	0.873	INF	0.633	INF	0.456	INF
5	0.804	INF	0.597	INF	0.437	INF
3	0.728	INF	0.554	INF	0.414	INF
2.5	0.695	INF	0.535	INF	0.403	INF
2	0.65	INF	0.508	INF	0.388	INF
1.7	0.616	INF	0.487	INF	0.376	INF
1.5	0.588	INF	0.469	INF	0.365	INF
1.3	0.555	INF	0.448	INF	0.353	INF
1.2	0.536	INF	0.436	INF	0.345	INF
1.1	0.516	INF	0.423	INF	0.337	INF
1	0.493	INF	0.407	INF	0.327	INF
0.95	0.481	39.602	0.399	INF	0.322	INF
0.9	0.468	11.788	0.39	INF	0.316	INF
0.85	0.454	6.604	0.381	INF	0.31	INF
0.8	0.44	4.418	0.371	INF	0.303	INF
0.75	0.425	3.213	0.36	INF	0.296	INF
0.7	0.408	2.449	0.348	INF	0.288	INF
0.68	0.402	2.217	0.343	35.308	0.285	INF
0.66	0.395	2.014	0.338	13.5	0.281	INF
0.64	0.388	1.836	0.333	8.151	0.278	INF
0.62	0.38	1.678	0.328	5.733	0.274	INF
0.6	0.373	1.536	0.322	4.355	0.27	INF
0.58	0.365	1.41	0.316	3.465	0.266	INF
0.56	0.357	1.295	0.311	2.842	0.262	INF
0.54	0.349	1.191	0.305	2.382	0.258	INF
0.52	0.341	1.096	0.298	2.029	0.253	INF
0.5	0.332	1.01	0.292	1.749	0.249	INF
0.49	0.328	0.969	0.288	1.629	0.246	44.605
0.48	0.323	0.93	0.285	1.521	0.244	15.029
0.47	0.319	0.892	0.281	1.423	0.241	8.886
0.46	0.314	0.856	0.278	1.333	0.239	6.229
0.45	0.31	0.822	0.274	1.25	0.236	4.747
0.44	0.305	0.788	0.271	1.174	0.234	3.801
0.43	0.3	0.756	0.267	1.104	0.231	3.145
0.42	0.296	0.725	0.263	1.038	0.228	2.664
0.41	0.291	0.696	0.259	0.978	0.225	2.295
0.4	0.286	0.667	0.255	0.922	0.222	2.004
0.39	0.281	0.639	0.251	0.869	0.219	1.769
0.38	0.276	0.612	0.247	0.819	0.216	1.574
0.37	0.27	0.586	0.243	0.773	0.215	1.41
0.36	0.265	0.561	0.239	0.73	0.215	1.27
0.35	0.26	0.537	0.235	0.689	0.215	1.15



AATMA 25mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	13.687	INF	10.406	INF	7.356	INF
6	4.178	10.637	3.813	14.071	3.312	31.855
3	2.465	3.832	2.334	4.199	2.137	5.035
2	1.748	2.337	1.681	2.468	1.577	2.733
1.5	1.354	1.681	1.314	1.747	1.25	1.876
1.2	1.105	1.313	1.078	1.353	1.035	1.428
1	0.934	1.077	0.914	1.103	0.883	1.153
0.9	0.846	0.961	0.83	0.983	0.804	1.021
0.8	0.757	0.848	0.745	0.864	0.724	0.894
0.7	0.667	0.736	0.657	0.749	0.641	0.771
0.65	0.622	0.681	0.613	0.691	0.599	0.71
0.6	0.576	0.626	0.569	0.635	0.557	0.651
0.55	0.53	0.572	0.524	0.579	0.513	0.592
0.5	0.483	0.518	0.478	0.524	0.47	0.534
0.48	0.465	0.496	0.46	0.502	0.452	0.512
0.46	0.446	0.475	0.442	0.48	0.434	0.489
0.44	0.427	0.454	0.423	0.458	0.417	0.466
0.42	0.408	0.432	0.405	0.437	0.399	0.444
0.4	0.389	0.411	0.386	0.415	0.381	0.421
0.38	0.37	0.39	0.367	0.393	0.363	0.399
0.36	0.351	0.369	0.349	0.372	0.344	0.377
0.35	0.342	0.359	0.339	0.361	0.335	0.366
0.34	0.332	0.348	0.33	0.351	0.326	0.355
0.33	0.323	0.338	0.321	0.34	0.317	0.344
0.32	0.313	0.327	0.311	0.329	0.308	0.333
0.31	0.304	0.317	0.302	0.319	0.298	0.322
0.3	0.294	0.306	0.292	0.308	0.289	0.312
0.29	0.284	0.296	0.283	0.298	0.28	0.301
0.28	0.275	0.285	0.273	0.287	0.271	0.29
0.27	0.265	0.275	0.264	0.277	0.261	0.279
0.26	0.256	0.265	0.254	0.266	0.252	0.269



AATMA 25mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	5.206	INF	3.679	INF	2.603	INF
6	2.794	INF	2.287	INF	1.821	INF
3	1.909	6.996	1.659	15.645	1.4	INF
2	1.45	3.222	1.302	4.316	1.137	8.278
1.5	1.169	2.093	1.071	2.503	0.958	3.459
1.2	0.979	1.55	0.91	1.763	0.827	2.187
1	0.842	1.23	0.791	1.36	0.728	1.598
0.9	0.771	1.082	0.727	1.181	0.674	1.355
0.8	0.696	0.94	0.661	1.013	0.617	1.139
0.7	0.62	0.804	0.592	0.857	0.556	0.945
0.65	0.58	0.739	0.556	0.783	0.524	0.855
0.6	0.54	0.674	0.519	0.711	0.491	0.77
0.55	0.5	0.612	0.481	0.641	0.458	0.689
0.5	0.458	0.55	0.443	0.574	0.423	0.612
0.48	0.441	0.526	0.427	0.548	0.409	0.582
0.46	0.425	0.502	0.411	0.522	0.394	0.552
0.44	0.408	0.478	0.395	0.496	0.38	0.523
0.42	0.39	0.454	0.379	0.47	0.365	0.495
0.4	0.373	0.431	0.363	0.445	0.35	0.467
0.38	0.356	0.408	0.347	0.421	0.334	0.44
0.36	0.338	0.385	0.33	0.396	0.319	0.413
0.35	0.329	0.373	0.322	0.384	0.311	0.4
0.34	0.321	0.362	0.313	0.372	0.303	0.387
0.33	0.312	0.351	0.305	0.36	0.295	0.374
0.32	0.303	0.339	0.296	0.348	0.287	0.361
0.31	0.294	0.328	0.288	0.336	0.279	0.348
0.3	0.285	0.317	0.279	0.324	0.271	0.335
0.29	0.276	0.306	0.271	0.312	0.263	0.323
0.28	0.267	0.294	0.262	0.301	0.255	0.31
0.27	0.258	0.283	0.253	0.289	0.247	0.298
0.26	0.249	0.272	0.244	0.278	0.238	0.286



AATMA 25mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	1.842	INF	1.302	INF	0.921	INF
6	1.414	INF	1.074	INF	0.801	INF
3	1.147	INF	0.913	INF	0.709	INF
2	0.965	INF	0.795	INF	0.636	INF
1.5	0.833	7.528	0.703	INF	0.576	INF
1.2	0.733	3.314	0.631	12.295	0.527	INF
1	0.654	2.125	0.572	3.981	0.486	INF
0.9	0.61	1.714	0.538	2.744	0.461	18.167
0.8	0.563	1.381	0.502	1.976	0.434	5.058
0.7	0.512	1.105	0.461	1.453	0.404	2.624
0.65	0.485	0.984	0.439	1.25	0.387	2.024
0.6	0.457	0.872	0.416	1.074	0.369	1.598
0.55	0.428	0.769	0.392	0.922	0.35	1.28
0.5	0.397	0.674	0.366	0.787	0.33	1.033
0.48	0.385	0.637	0.356	0.738	0.321	0.949
0.46	0.372	0.602	0.345	0.691	0.312	0.872
0.44	0.359	0.568	0.334	0.646	0.303	0.801
0.42	0.346	0.535	0.322	0.603	0.294	0.736
0.4	0.332	0.502	0.311	0.562	0.284	0.675
0.38	0.319	0.471	0.299	0.522	0.274	0.619
0.36	0.305	0.44	0.286	0.485	0.264	0.566
0.35	0.298	0.425	0.28	0.466	0.259	0.541
0.34	0.29	0.41	0.274	0.449	0.253	0.517
0.33	0.283	0.395	0.267	0.431	0.248	0.493
0.32	0.276	0.381	0.261	0.414	0.242	0.471
0.31	0.268	0.367	0.254	0.397	0.237	0.449
0.3	0.261	0.353	0.248	0.38	0.231	0.428
0.29	0.254	0.339	0.241	0.364	0.225	0.407
0.28	0.246	0.325	0.234	0.348	0.219	0.387
0.27	0.238	0.311	0.227	0.333	0.213	0.368
0.26	0.231	0.298	0.22	0.317	0.207	0.349



AATMA 35mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	26.792	INF	20.375	INF	14.408	INF
10	7.294	15.897	6.72	19.534	5.915	32.324
6	4.91	7.713	4.643	8.477	4.245	10.229
4	3.486	4.693	3.35	4.964	3.138	5.516
3	2.702	3.372	2.62	3.51	2.489	3.776
2.5	2.29	2.753	2.231	2.843	2.135	3.015
2	1.864	2.158	1.824	2.213	1.76	2.315
1.8	1.689	1.927	1.657	1.97	1.604	2.051
1.6	1.512	1.699	1.486	1.733	1.443	1.795
1.4	1.332	1.475	1.312	1.5	1.279	1.546
1.2	1.15	1.254	1.135	1.273	1.11	1.305
1.1	1.058	1.145	1.045	1.161	1.024	1.188
1	0.965	1.037	0.955	1.05	0.937	1.072
0.95	0.919	0.983	0.909	0.995	0.893	1.014
0.9	0.872	0.93	0.863	0.94	0.849	0.957
0.85	0.825	0.877	0.817	0.885	0.805	0.901
0.8	0.778	0.823	0.771	0.831	0.76	0.845
0.75	0.731	0.771	0.725	0.777	0.715	0.789
0.7	0.683	0.718	0.678	0.724	0.669	0.734
0.65	0.635	0.665	0.631	0.67	0.623	0.679
0.6	0.588	0.613	0.584	0.617	0.577	0.624
0.58	0.568	0.592	0.565	0.596	0.559	0.603
0.56	0.549	0.571	0.546	0.575	0.54	0.581
0.54	0.53	0.55	0.527	0.554	0.522	0.56
0.52	0.511	0.53	0.508	0.533	0.503	0.538
0.5	0.491	0.509	0.489	0.512	0.484	0.517
0.48	0.472	0.488	0.47	0.491	0.466	0.495
0.46	0.453	0.467	0.451	0.47	0.447	0.474
0.44	0.433	0.447	0.431	0.449	0.428	0.453
0.42	0.414	0.426	0.412	0.428	0.409	0.432
0.4	0.395	0.406	0.393	0.407	0.39	0.41
0.39	0.385	0.395	0.383	0.397	0.381	0.4
0.38	0.375	0.385	0.374	0.387	0.371	0.389
0.37	0.365	0.375	0.364	0.376	0.362	0.379
0.36	0.356	0.364	0.354	0.366	0.352	0.368
0.35	0.346	0.354	0.345	0.355	0.343	0.358
0.34	0.336	0.344	0.335	0.345	0.333	0.347
0.33	0.326	0.334	0.325	0.335	0.323	0.337
0.32	0.317	0.323	0.316	0.325	0.314	0.326



AATMA 35mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	10.198	INF	7.209	INF	5.102	INF
10	5.06	419.52	4.199	INF	3.387	INF
6	3.787	14.434	3.284	34.646	2.767	INF
4	2.881	6.54	2.581	8.881	2.251	17.922
3	2.325	4.228	2.126	5.093	1.898	7.158
2.5	2.014	3.296	1.863	3.798	1.686	4.835
2	1.677	2.477	1.572	2.749	1.444	3.252
1.8	1.535	2.176	1.446	2.383	1.337	2.751
1.6	1.387	1.89	1.315	2.043	1.225	2.308
1.4	1.235	1.616	1.177	1.727	1.105	1.911
1.2	1.077	1.355	1.033	1.431	0.977	1.555
1.1	0.996	1.228	0.959	1.291	0.91	1.39
1	0.914	1.104	0.882	1.154	0.841	1.233
0.95	0.872	1.044	0.843	1.088	0.806	1.157
0.9	0.83	0.983	0.804	1.023	0.77	1.084
0.85	0.787	0.924	0.764	0.958	0.733	1.012
0.8	0.744	0.865	0.723	0.895	0.696	0.941
0.75	0.701	0.806	0.682	0.833	0.658	0.872
0.7	0.657	0.749	0.641	0.771	0.619	0.805
0.65	0.613	0.692	0.599	0.711	0.58	0.739
0.6	0.569	0.635	0.556	0.651	0.54	0.675
0.58	0.551	0.613	0.539	0.627	0.524	0.649
0.56	0.533	0.59	0.522	0.604	0.508	0.624
0.54	0.515	0.568	0.505	0.581	0.491	0.599
0.52	0.496	0.546	0.487	0.557	0.475	0.575
0.5	0.478	0.524	0.47	0.534	0.458	0.55
0.48	0.46	0.502	0.452	0.512	0.442	0.526
0.46	0.442	0.48	0.434	0.489	0.425	0.502
0.44	0.423	0.458	0.417	0.466	0.408	0.478
0.42	0.405	0.436	0.399	0.444	0.391	0.454
0.4	0.386	0.415	0.381	0.421	0.373	0.431
0.39	0.377	0.404	0.372	0.41	0.365	0.419
0.38	0.368	0.393	0.363	0.399	0.356	0.408
0.37	0.358	0.383	0.354	0.388	0.347	0.396
0.36	0.349	0.372	0.344	0.377	0.338	0.384
0.35	0.34	0.361	0.335	0.366	0.33	0.373
0.34	0.33	0.35	0.326	0.355	0.321	0.362
0.33	0.321	0.34	0.317	0.344	0.312	0.35
0.32	0.311	0.329	0.308	0.333	0.303	0.339



AATMA 35mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	3.609	INF	2.551	INF	1.804	INF
10	2.66	INF	2.039	INF	1.533	INF
6	2.262	INF	1.798	INF	1.393	INF
4	1.906	INF	1.566	INF	1.251	INF
3	1.647	16.783	1.388	INF	1.135	INF
2.5	1.486	7.88	1.272	73.265	1.057	INF
2	1.295	4.389	1.13	8.694	0.957	21.624
1.8	1.209	3.522	1.064	5.836	0.91	9.737
1.6	1.116	2.824	0.992	4.137	0.857	5.771
1.4	1.016	2.251	0.912	3.01	0.797	3.788
1.2	0.907	1.772	0.824	2.208	0.729	2.598
1.1	0.849	1.56	0.776	1.888	0.692	2.165
1	0.789	1.365	0.726	1.608	0.652	1.804
0.95	0.758	1.272	0.699	1.481	0.63	1.645
0.9	0.726	1.184	0.672	1.361	0.608	1.499
0.85	0.693	1.098	0.644	1.249	0.586	1.363
0.8	0.66	1.015	0.616	1.142	0.562	1.237
0.75	0.626	0.935	0.586	1.042	0.537	1.12
0.7	0.591	0.858	0.555	0.947	0.511	1.01
0.65	0.555	0.783	0.524	0.856	0.485	0.908
0.6	0.519	0.711	0.491	0.771	0.457	0.812
0.58	0.504	0.683	0.478	0.737	0.445	0.775
0.56	0.489	0.655	0.464	0.705	0.434	0.739
0.54	0.474	0.628	0.451	0.673	0.422	0.704
0.52	0.458	0.601	0.437	0.642	0.41	0.67
0.5	0.443	0.574	0.423	0.611	0.398	0.637
0.48	0.427	0.547	0.409	0.581	0.385	0.604
0.46	0.412	0.521	0.394	0.552	0.372	0.572
0.44	0.396	0.496	0.38	0.523	0.359	0.541
0.42	0.38	0.47	0.365	0.495	0.346	0.511
0.4	0.363	0.445	0.35	0.467	0.333	0.481
0.39	0.355	0.433	0.342	0.453	0.326	0.466
0.38	0.347	0.42	0.335	0.439	0.319	0.452
0.37	0.339	0.408	0.327	0.426	0.312	0.438
0.36	0.33	0.396	0.319	0.413	0.305	0.424
0.35	0.322	0.383	0.312	0.399	0.298	0.41
0.34	0.314	0.371	0.304	0.386	0.291	0.396
0.33	0.305	0.359	0.296	0.373	0.284	0.382
0.32	0.297	0.347	0.288	0.36	0.276	0.369



AATMA 40mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	34.965	INF	26.596	INF	18.81	INF
15	10.516	26.149	9.609	34.169	8.362	72.75
8	6.521	10.347	6.161	11.404	5.624	13.85
5	4.381	5.823	4.216	6.143	3.958	6.786
4	3.594	4.509	3.483	4.698	3.305	5.064
3	2.767	3.276	2.7	3.375	2.593	3.559
2.5	2.336	2.688	2.289	2.754	2.211	2.875
2	1.894	2.118	1.863	2.159	1.812	2.232
1.8	1.714	1.895	1.689	1.927	1.646	1.985
1.6	1.532	1.674	1.512	1.699	1.478	1.744
1.5	1.44	1.565	1.422	1.587	1.392	1.626
1.4	1.348	1.456	1.332	1.475	1.306	1.509
1.3	1.255	1.348	1.241	1.364	1.219	1.393
1.2	1.162	1.241	1.15	1.255	1.13	1.279
1.1	1.068	1.134	1.058	1.146	1.041	1.166
1	0.973	1.028	0.965	1.037	0.952	1.054
0.95	0.926	0.975	0.919	0.984	0.906	0.998
0.9	0.878	0.923	0.872	0.93	0.861	0.943
0.85	0.831	0.87	0.825	0.877	0.815	0.888
0.8	0.783	0.818	0.778	0.823	0.769	0.834
0.75	0.735	0.765	0.731	0.771	0.723	0.779
0.72	0.706	0.734	0.702	0.739	0.695	0.747
0.7	0.687	0.713	0.683	0.718	0.676	0.725
0.68	0.668	0.693	0.664	0.697	0.658	0.704
0.66	0.649	0.672	0.645	0.676	0.639	0.682
0.64	0.629	0.651	0.626	0.655	0.62	0.661
0.62	0.61	0.63	0.607	0.634	0.601	0.64
0.6	0.591	0.61	0.588	0.613	0.583	0.618
0.58	0.571	0.589	0.568	0.592	0.564	0.597
0.56	0.552	0.568	0.549	0.571	0.545	0.576
0.55	0.542	0.558	0.54	0.561	0.536	0.565
0.54	0.532	0.548	0.53	0.55	0.526	0.555
0.53	0.523	0.538	0.52	0.54	0.517	0.544
0.52	0.513	0.527	0.511	0.53	0.507	0.534
0.51	0.503	0.517	0.501	0.519	0.498	0.523
0.5	0.494	0.507	0.492	0.509	0.488	0.513
0.49	0.484	0.496	0.482	0.498	0.479	0.502
0.48	0.474	0.486	0.472	0.488	0.469	0.491
0.47	0.464	0.476	0.463	0.478	0.46	0.481
0.46	0.455	0.466	0.453	0.467	0.45	0.47
0.45	0.445	0.455	0.443	0.457	0.44	0.46
0.44	0.435	0.445	0.433	0.447	0.431	0.45
0.43	0.425	0.435	0.424	0.436	0.421	0.439
0.42	0.416	0.425	0.414	0.426	0.412	0.429



AATMA 40mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	13.316	INF	9.414	INF	6.662	INF
15	7.069	INF	5.797	INF	4.624	INF
8	5.009	19.851	4.337	51.531	3.646	INF
5	3.644	7.962	3.276	10.557	2.867	19.531
4	3.084	5.69	2.816	6.9	2.509	9.852
3	2.455	3.856	2.283	4.374	2.078	5.396
2.5	2.111	3.066	1.982	3.383	1.826	3.962
2	1.744	2.345	1.656	2.525	1.546	2.833
1.8	1.59	2.074	1.517	2.213	1.424	2.446
1.6	1.432	1.812	1.373	1.917	1.297	2.089
1.5	1.352	1.684	1.299	1.775	1.231	1.921
1.4	1.27	1.559	1.223	1.636	1.163	1.759
1.3	1.188	1.436	1.147	1.501	1.093	1.603
1.2	1.104	1.314	1.068	1.368	1.022	1.453
1.1	1.019	1.195	0.989	1.239	0.949	1.308
1	0.933	1.078	0.908	1.113	0.874	1.168
0.95	0.889	1.02	0.866	1.052	0.836	1.1
0.9	0.845	0.962	0.825	0.99	0.797	1.033
0.85	0.801	0.905	0.783	0.93	0.758	0.968
0.8	0.757	0.848	0.74	0.87	0.718	0.903
0.75	0.712	0.792	0.697	0.811	0.678	0.839
0.72	0.685	0.759	0.672	0.776	0.653	0.802
0.7	0.667	0.736	0.654	0.753	0.637	0.777
0.68	0.649	0.714	0.637	0.73	0.62	0.752
0.66	0.631	0.692	0.619	0.706	0.604	0.728
0.64	0.612	0.67	0.602	0.684	0.587	0.703
0.62	0.594	0.648	0.584	0.661	0.57	0.679
0.6	0.576	0.626	0.566	0.638	0.554	0.655
0.58	0.557	0.604	0.549	0.615	0.537	0.631
0.56	0.539	0.583	0.531	0.593	0.519	0.607
0.55	0.53	0.572	0.522	0.581	0.511	0.596
0.54	0.52	0.561	0.513	0.57	0.502	0.584
0.53	0.511	0.55	0.504	0.559	0.494	0.572
0.52	0.502	0.539	0.495	0.548	0.485	0.56
0.51	0.493	0.529	0.486	0.537	0.476	0.549
0.5	0.483	0.518	0.477	0.526	0.468	0.537
0.49	0.474	0.507	0.468	0.515	0.459	0.525
0.48	0.465	0.496	0.459	0.504	0.45	0.514
0.47	0.455	0.486	0.449	0.492	0.442	0.502
0.46	0.446	0.475	0.44	0.481	0.433	0.491
0.45	0.437	0.464	0.431	0.47	0.424	0.479
0.44	0.427	0.454	0.422	0.46	0.415	0.468
0.43	0.418	0.443	0.413	0.449	0.406	0.457
0.42	0.408	0.432	0.404	0.438	0.397	0.445



AATMA 40mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	4.713	INF	3.332	INF	2.356	INF
15	3.595	INF	2.733	INF	2.041	INF
8	2.976	INF	2.361	INF	1.828	INF
5	2.437	INF	2.01	INF	1.611	INF
4	2.174	24.964	1.828	INF	1.492	INF
3	1.843	8.058	1.589	26.786	1.33	INF
2.5	1.643	5.227	1.438	9.542	1.223	INF
2	1.413	3.423	1.259	4.854	1.092	11.88
1.8	1.311	2.872	1.178	3.814	1.03	7.109
1.6	1.202	2.391	1.09	3.008	0.963	4.733
1.5	1.145	2.173	1.043	2.669	0.926	3.942
1.4	1.087	1.967	0.994	2.365	0.888	3.31
1.3	1.026	1.774	0.943	2.09	0.847	2.793
1.2	0.963	1.591	0.89	1.84	0.804	2.363
1.1	0.898	1.419	0.835	1.613	0.759	1.999
1	0.831	1.256	0.776	1.404	0.711	1.687
0.95	0.796	1.177	0.746	1.307	0.685	1.548
0.9	0.761	1.101	0.715	1.213	0.659	1.417
0.85	0.725	1.026	0.684	1.123	0.633	1.295
0.8	0.689	0.954	0.651	1.036	0.605	1.181
0.75	0.652	0.883	0.618	0.953	0.576	1.073
0.72	0.629	0.841	0.598	0.905	0.559	1.012
0.7	0.614	0.814	0.584	0.873	0.547	0.972
0.68	0.599	0.787	0.57	0.842	0.535	0.934
0.66	0.583	0.76	0.556	0.811	0.523	0.896
0.64	0.568	0.733	0.542	0.78	0.51	0.859
0.62	0.552	0.707	0.528	0.751	0.498	0.822
0.6	0.536	0.681	0.514	0.721	0.485	0.787
0.58	0.52	0.655	0.499	0.692	0.472	0.752
0.56	0.504	0.629	0.484	0.664	0.459	0.719
0.55	0.496	0.617	0.477	0.649	0.452	0.702
0.54	0.488	0.604	0.47	0.635	0.445	0.685
0.53	0.48	0.591	0.462	0.621	0.439	0.669
0.52	0.472	0.579	0.455	0.607	0.432	0.653
0.51	0.464	0.566	0.447	0.594	0.425	0.637
0.5	0.456	0.554	0.439	0.58	0.418	0.621
0.49	0.447	0.542	0.432	0.566	0.411	0.606
0.48	0.439	0.529	0.424	0.553	0.404	0.59
0.47	0.431	0.517	0.416	0.54	0.397	0.575
0.46	0.422	0.505	0.409	0.526	0.39	0.56
0.45	0.414	0.493	0.401	0.513	0.383	0.545
0.44	0.406	0.481	0.393	0.5	0.376	0.53
0.43	0.397	0.469	0.385	0.487	0.369	0.515
0.42	0.389	0.457	0.377	0.474	0.362	0.501



AATMA 50mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	54.526	INF	41.494	INF	29.36	INF
20	14.664	31.441	13.524	38.373	11.922	62.016
10	8.464	12.217	8.072	13.137	7.474	15.104
7	6.212	8.016	5.999	8.401	5.663	9.163
5	4.586	5.496	4.469	5.674	4.28	6.01
4	3.731	4.311	3.654	4.419	3.527	4.62
3.5	3.293	3.735	3.232	3.816	3.133	3.964
3	2.847	3.171	2.802	3.229	2.727	3.334
2.5	2.393	2.617	2.361	2.656	2.308	2.727
2	1.931	2.074	1.911	2.098	1.876	2.142
1.8	1.744	1.859	1.727	1.879	1.699	1.914
1.6	1.556	1.647	1.543	1.662	1.52	1.689
1.5	1.461	1.541	1.45	1.554	1.43	1.578
1.4	1.366	1.435	1.356	1.447	1.339	1.467
1.3	1.271	1.33	1.262	1.34	1.247	1.358
1.2	1.175	1.226	1.168	1.234	1.155	1.249
1.1	1.079	1.121	1.073	1.128	1.062	1.141
1	0.983	1.018	0.978	1.023	0.969	1.033
0.95	0.935	0.966	0.93	0.971	0.922	0.98
0.9	0.886	0.914	0.882	0.919	0.875	0.927
0.85	0.838	0.863	0.834	0.867	0.828	0.874
0.8	0.789	0.811	0.786	0.815	0.78	0.821
0.78	0.77	0.791	0.767	0.794	0.761	0.8
0.76	0.75	0.77	0.747	0.773	0.742	0.779
0.74	0.731	0.749	0.728	0.752	0.723	0.758
0.72	0.711	0.729	0.709	0.732	0.704	0.737
0.7	0.692	0.708	0.689	0.711	0.685	0.716
0.68	0.672	0.688	0.67	0.69	0.666	0.695
0.66	0.653	0.667	0.65	0.67	0.647	0.674
0.64	0.633	0.647	0.631	0.649	0.627	0.653
0.62	0.614	0.627	0.612	0.629	0.608	0.632
0.6	0.594	0.606	0.592	0.608	0.589	0.611
0.58	0.574	0.586	0.573	0.587	0.57	0.591
0.56	0.555	0.565	0.553	0.567	0.55	0.57
0.55	0.545	0.555	0.543	0.557	0.541	0.56
0.54	0.535	0.545	0.534	0.546	0.531	0.549
0.53	0.525	0.535	0.524	0.536	0.521	0.539
0.52	0.516	0.524	0.514	0.526	0.512	0.528
0.51	0.506	0.514	0.504	0.516	0.502	0.518
0.5	0.496	0.504	0.495	0.505	0.492	0.508
0.49	0.486	0.494	0.485	0.495	0.483	0.497
0.48	0.476	0.484	0.475	0.485	0.473	0.487
0.47	0.466	0.474	0.465	0.475	0.463	0.477
0.46	0.457	0.463	0.456	0.465	0.454	0.466
0.45	0.447	0.453	0.446	0.454	0.444	0.456



AATMA 50mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	20.79	INF	14.702	INF	10.406	INF
20	10.217	471.698	8.493	INF	6.861	INF
10	6.768	19.142	5.967	30.846	5.115	223.214
7	5.249	10.504	4.755	13.259	4.199	21.034
5	4.04	6.558	3.742	7.532	3.389	9.527
4	3.362	4.936	3.154	5.467	2.9	6.443
3.5	3.003	4.195	2.836	4.571	2.629	5.233
3	2.628	3.495	2.499	3.752	2.338	4.185
2.5	2.237	2.833	2.143	2.999	2.024	3.269
2	1.829	2.207	1.766	2.305	1.685	2.461
1.8	1.661	1.965	1.609	2.043	1.541	2.163
1.6	1.489	1.729	1.448	1.788	1.393	1.88
1.5	1.402	1.612	1.366	1.664	1.317	1.743
1.4	1.315	1.497	1.282	1.541	1.239	1.608
1.3	1.226	1.383	1.198	1.421	1.161	1.477
1.2	1.137	1.27	1.113	1.302	1.081	1.349
1.1	1.047	1.158	1.027	1.184	0.999	1.223
1	0.956	1.048	0.939	1.069	0.916	1.1
0.95	0.911	0.993	0.895	1.012	0.874	1.04
0.9	0.865	0.938	0.851	0.955	0.832	0.98
0.85	0.819	0.884	0.806	0.899	0.789	0.921
0.8	0.772	0.83	0.761	0.843	0.746	0.862
0.78	0.754	0.808	0.743	0.821	0.729	0.839
0.76	0.735	0.787	0.725	0.799	0.712	0.816
0.74	0.716	0.765	0.707	0.776	0.694	0.792
0.72	0.698	0.744	0.689	0.754	0.676	0.769
0.7	0.679	0.723	0.67	0.732	0.659	0.747
0.68	0.66	0.701	0.652	0.71	0.641	0.724
0.66	0.641	0.68	0.634	0.689	0.623	0.701
0.64	0.622	0.659	0.615	0.667	0.606	0.678
0.62	0.603	0.637	0.597	0.645	0.588	0.656
0.6	0.585	0.616	0.578	0.623	0.57	0.633
0.58	0.566	0.595	0.56	0.602	0.552	0.611
0.56	0.547	0.574	0.541	0.58	0.534	0.589
0.55	0.537	0.564	0.532	0.569	0.525	0.578
0.54	0.528	0.553	0.523	0.559	0.516	0.567
0.53	0.518	0.542	0.513	0.548	0.507	0.556
0.52	0.509	0.532	0.504	0.537	0.498	0.545
0.51	0.499	0.522	0.495	0.526	0.488	0.534
0.5	0.489	0.511	0.485	0.516	0.479	0.523
0.49	0.48	0.501	0.476	0.505	0.47	0.512
0.48	0.47	0.49	0.466	0.494	0.461	0.501
0.47	0.461	0.48	0.457	0.484	0.452	0.49
0.46	0.451	0.469	0.448	0.473	0.443	0.479
0.45	0.442	0.459	0.438	0.463	0.433	0.468



AATMA 50mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	7.363	INF	5.206	INF	3.681	INF
20	5.394	INF	4.14	INF	3.116	INF
10	4.255	INF	3.436	INF	2.701	INF
7	3.602	123.357	2.999	INF	2.424	INF
5	2.991	15.235	2.564	100.806	2.133	INF
4	2.604	8.622	2.275	16.556	1.93	INF
3.5	2.384	6.582	2.105	10.367	1.807	55.452
3	2.142	5.003	1.915	6.919	1.666	15.083
2.5	1.876	3.745	1.7	4.721	1.501	7.47
2	1.581	2.72	1.455	3.197	1.308	4.251
1.8	1.455	2.361	1.347	2.711	1.22	3.43
1.6	1.322	2.026	1.233	2.278	1.126	2.763
1.5	1.253	1.868	1.173	2.079	1.076	2.474
1.4	1.183	1.714	1.112	1.89	1.024	2.21
1.3	1.111	1.566	1.048	1.711	0.971	1.968
1.2	1.038	1.422	0.983	1.54	0.914	1.745
1.1	0.963	1.283	0.915	1.378	0.856	1.539
1	0.886	1.148	0.846	1.223	0.795	1.348
0.95	0.847	1.082	0.81	1.148	0.763	1.257
0.9	0.807	1.017	0.774	1.076	0.731	1.17
0.85	0.767	0.954	0.737	1.004	0.698	1.086
0.8	0.726	0.891	0.699	0.935	0.665	1.005
0.78	0.71	0.866	0.684	0.907	0.651	0.973
0.76	0.693	0.841	0.669	0.88	0.637	0.942
0.74	0.677	0.816	0.653	0.853	0.623	0.911
0.72	0.66	0.792	0.638	0.826	0.609	0.88
0.7	0.643	0.768	0.622	0.8	0.595	0.85
0.68	0.626	0.744	0.607	0.774	0.581	0.82
0.66	0.61	0.72	0.591	0.748	0.566	0.791
0.64	0.593	0.696	0.575	0.722	0.552	0.762
0.62	0.575	0.672	0.559	0.696	0.537	0.734
0.6	0.558	0.648	0.543	0.671	0.522	0.705
0.58	0.541	0.625	0.526	0.646	0.507	0.678
0.56	0.524	0.602	0.51	0.621	0.492	0.65
0.55	0.515	0.59	0.502	0.608	0.484	0.636
0.54	0.506	0.578	0.494	0.596	0.477	0.623
0.53	0.498	0.567	0.485	0.584	0.469	0.609
0.52	0.489	0.555	0.477	0.572	0.461	0.596
0.51	0.48	0.544	0.469	0.559	0.453	0.583
0.5	0.471	0.533	0.46	0.547	0.446	0.57
0.49	0.462	0.521	0.452	0.535	0.438	0.556
0.48	0.454	0.51	0.443	0.523	0.43	0.543
0.47	0.445	0.498	0.435	0.511	0.422	0.531
0.46	0.436	0.487	0.426	0.499	0.414	0.518
0.45	0.427	0.476	0.418	0.487	0.406	0.505



AATMA 65mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	91.804	INF	69.925	INF	49.518	INF
30	22.674	44.319	21.051	52.184	18.732	75.289
15	12.918	17.883	12.375	19.038	11.537	21.432
10	9.032	11.201	8.764	11.643	8.336	12.494
8	7.369	8.749	7.190	9.016	6.900	9.518
6	5.639	6.411	5.534	6.552	5.361	6.812
5	4.747	5.281	4.673	5.377	4.549	5.550
4	3.837	4.177	3.788	4.237	3.707	4.343
3.5	3.375	3.635	3.337	3.679	3.274	3.760
3	2.908	3.098	2.880	3.130	2.833	3.188
2.8	2.720	2.885	2.695	2.913	2.654	2.963
2.6	2.531	2.673	2.510	2.697	2.474	2.740
2.4	2.341	2.462	2.323	2.482	2.292	2.518
2.2	2.150	2.252	2.135	2.269	2.109	2.299
2	1.959	2.043	1.947	2.057	1.925	2.081
1.8	1.767	1.834	1.757	1.845	1.739	1.865
1.6	1.574	1.627	1.566	1.636	1.552	1.651
1.5	1.477	1.524	1.470	1.531	1.458	1.545
1.4	1.380	1.420	1.374	1.427	1.363	1.439
1.3	1.283	1.318	1.278	1.323	1.269	1.333
1.2	1.185	1.215	1.181	1.220	1.173	1.228
1.1	1.088	1.112	1.084	1.116	1.078	1.123
1	0.990	1.010	0.987	1.013	0.982	1.019
0.95	0.941	0.959	0.938	0.962	0.933	0.967
0.9	0.892	0.908	0.889	0.911	0.885	0.915
0.85	0.843	0.857	0.841	0.860	0.837	0.864
0.8	0.794	0.806	0.792	0.808	0.788	0.812
0.78	0.774	0.786	0.772	0.788	0.769	0.791
0.76	0.754	0.766	0.753	0.768	0.750	0.771
0.74	0.735	0.745	0.733	0.747	0.730	0.750
0.72	0.715	0.725	0.713	0.727	0.711	0.730
0.7	0.695	0.705	0.694	0.706	0.691	0.709
0.68	0.676	0.685	0.674	0.686	0.672	0.689
0.66	0.656	0.664	0.654	0.666	0.652	0.668
0.64	0.636	0.644	0.635	0.645	0.633	0.647
0.62	0.616	0.624	0.615	0.625	0.613	0.627
0.6	0.597	0.603	0.595	0.605	0.594	0.607



AATMA 65mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	35.085	INF	24.821	INF	17.573	INF
30	16.214	200.300	13.617	INF	11.109	INF
15	10.532	26.050	9.374	37.521	8.115	98.931
10	7.799	13.931	7.147	16.647	6.392	22.954
8	6.529	10.328	6.066	11.746	5.514	14.565
6	5.134	7.216	4.844	7.879	4.487	9.052
5	4.385	5.815	4.172	6.237	3.905	6.948
4	3.598	4.503	3.454	4.751	3.269	5.151
3.5	3.189	3.878	3.075	4.061	2.929	4.348
3	2.769	3.273	2.683	3.401	2.571	3.600
2.8	2.598	3.036	2.523	3.146	2.423	3.315
2.6	2.425	2.802	2.360	2.895	2.273	3.037
2.4	2.251	2.570	2.194	2.649	2.119	2.767
2.2	2.074	2.342	2.026	2.406	1.962	2.504
2	1.896	2.116	1.856	2.169	1.802	2.247
1.8	1.715	1.893	1.683	1.935	1.639	1.997
1.6	1.533	1.673	1.507	1.705	1.472	1.753
1.5	1.441	1.564	1.418	1.592	1.387	1.633
1.4	1.349	1.455	1.329	1.479	1.301	1.515
1.3	1.256	1.347	1.239	1.368	1.215	1.398
1.2	1.163	1.240	1.148	1.257	1.127	1.283
1.1	1.069	1.133	1.056	1.148	1.039	1.169
1	0.974	1.027	0.964	1.039	0.950	1.056
0.95	0.927	0.974	0.917	0.985	0.905	1.000
0.9	0.879	0.922	0.871	0.931	0.859	0.945
0.85	0.831	0.869	0.824	0.878	0.814	0.890
0.8	0.784	0.817	0.777	0.824	0.768	0.835
0.78	0.764	0.796	0.758	0.803	0.750	0.813
0.76	0.745	0.775	0.739	0.782	0.731	0.791
0.74	0.726	0.754	0.720	0.761	0.713	0.770
0.72	0.707	0.734	0.702	0.739	0.694	0.748
0.7	0.688	0.713	0.683	0.718	0.676	0.726
0.68	0.668	0.692	0.664	0.697	0.657	0.705
0.66	0.649	0.671	0.645	0.676	0.638	0.683
0.64	0.630	0.651	0.626	0.655	0.620	0.662
0.62	0.610	0.630	0.606	0.634	0.601	0.640
0.6	0.591	0.609	0.587	0.613	0.582	0.619



AATMA 65mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	12.437	INF	8.794	INF	6.219	INF
30	8.813	INF	6.817	INF	5.163	INF
15	6.820	INF	5.562	INF	4.412	INF
10	5.562	49.470	4.698	INF	3.851	INF
8	4.886	22.053	4.207	81.211	3.516	INF
6	4.063	11.464	3.584	18.420	3.071	129.516
5	3.581	8.283	3.204	11.381	2.789	24.153
4	3.039	5.848	2.764	7.234	2.451	10.878
3.5	2.743	4.833	2.518	5.740	2.255	7.812
3	2.428	3.925	2.250	4.501	2.039	5.678
2.8	2.296	3.588	2.136	4.062	1.945	4.995
2.6	2.160	3.265	2.019	3.652	1.847	4.387
2.4	2.021	2.954	1.897	3.267	1.745	3.841
2.2	1.878	2.655	1.771	2.905	1.638	3.349
2	1.731	2.368	1.640	2.564	1.526	2.902
1.8	1.580	2.091	1.504	2.242	1.408	2.496
1.6	1.424	1.825	1.362	1.938	1.283	2.124
1.5	1.345	1.695	1.290	1.792	1.219	1.950
1.4	1.264	1.568	1.216	1.650	1.153	1.782
1.3	1.183	1.443	1.140	1.512	1.085	1.622
1.2	1.100	1.320	1.063	1.378	1.015	1.468
1.1	1.016	1.200	0.984	1.247	0.943	1.319
1	0.930	1.081	0.904	1.119	0.869	1.177
0.95	0.887	1.023	0.863	1.056	0.832	1.107
0.9	0.843	0.965	0.822	0.994	0.794	1.039
0.85	0.800	0.907	0.780	0.933	0.755	0.973
0.8	0.755	0.850	0.738	0.873	0.715	0.907
0.78	0.738	0.828	0.721	0.849	0.700	0.881
0.76	0.720	0.805	0.704	0.825	0.684	0.856
0.74	0.702	0.782	0.687	0.801	0.668	0.830
0.72	0.684	0.760	0.670	0.778	0.651	0.805
0.7	0.666	0.738	0.653	0.754	0.635	0.780
0.68	0.648	0.715	0.636	0.731	0.619	0.755
0.66	0.630	0.693	0.618	0.708	0.602	0.730
0.64	0.612	0.671	0.601	0.685	0.586	0.705
0.62	0.594	0.649	0.583	0.662	0.569	0.681
0.6	0.575	0.627	0.566	0.639	0.553	0.656



AATMA 85mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	155.973	INF	118.985	INF	84.383	INF
50	38.022	72.996	35.348	85.4	31.515	120.932
20	17.767	22.875	17.162	23.963	16.207	26.11
15	13.709	16.559	13.347	17.121	12.763	18.188
10	9.411	10.668	9.239	10.897	8.956	11.319
8	7.619	8.421	7.507	8.563	7.319	8.82
7	6.707	7.319	6.62	7.426	6.474	7.619
6	5.784	6.233	5.719	6.31	5.61	6.448
5	4.85	5.16	4.804	5.213	4.727	5.306
4.5	4.378	4.629	4.341	4.671	4.278	4.746
4	3.904	4.101	3.874	4.134	3.824	4.193
3.5	3.426	3.577	3.403	3.602	3.365	3.646
3	2.946	3.056	2.929	3.074	2.901	3.106
2.8	2.753	2.849	2.738	2.865	2.713	2.892
2.6	2.559	2.642	2.547	2.655	2.525	2.679
2.4	2.365	2.436	2.355	2.447	2.336	2.467
2.2	2.171	2.23	2.162	2.239	2.147	2.256
2	1.976	2.024	1.969	2.032	1.956	2.046
1.9	1.878	1.922	1.872	1.929	1.86	1.941
1.8	1.781	1.82	1.775	1.826	1.764	1.837
1.7	1.683	1.718	1.678	1.723	1.668	1.733
1.6	1.585	1.615	1.58	1.62	1.572	1.629
1.5	1.487	1.514	1.483	1.518	1.475	1.525
1.4	1.388	1.412	1.385	1.415	1.379	1.422
1.3	1.29	1.31	1.287	1.313	1.282	1.319
1.2	1.192	1.209	1.189	1.211	1.184	1.216
1.1	1.093	1.107	1.091	1.109	1.087	1.113
1	0.994	1.006	0.992	1.008	0.989	1.011
0.98	0.974	0.986	0.973	0.987	0.97	0.99
0.96	0.955	0.965	0.953	0.967	0.95	0.97
0.94	0.935	0.945	0.933	0.947	0.931	0.95
0.92	0.915	0.925	0.914	0.926	0.911	0.929
0.9	0.895	0.905	0.894	0.906	0.891	0.909
0.88	0.876	0.884	0.874	0.886	0.872	0.888
0.86	0.856	0.864	0.855	0.866	0.852	0.868
0.84	0.836	0.844	0.835	0.845	0.833	0.848



AATMA 85mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	59.849	INF	42.37	INF	30.014	INF
50	27.337	292.463	23.009	INF	18.811	INF
20	15.029	29.885	13.624	37.597	12.037	59.091
15	12.022	19.939	11.107	23.096	10.03	29.729
10	8.586	11.971	8.11	13.038	7.522	14.911
8	7.071	9.211	6.745	9.828	6.335	10.854
7	6.279	7.908	6.021	8.358	5.692	9.087
6	5.463	6.654	5.268	6.969	5.015	7.467
5	4.623	5.444	4.482	5.653	4.298	5.976
4.5	4.193	4.856	4.077	5.021	3.924	5.273
4	3.756	4.278	3.663	4.405	3.54	4.598
3.5	3.312	3.71	3.24	3.805	3.143	3.948
3	2.861	3.153	2.808	3.221	2.735	3.322
2.8	2.679	2.932	2.632	2.991	2.568	3.078
2.6	2.496	2.713	2.455	2.763	2.4	2.837
2.4	2.311	2.496	2.276	2.538	2.229	2.6
2.2	2.125	2.28	2.096	2.315	2.056	2.366
2	1.938	2.066	1.914	2.094	1.88	2.136
1.9	1.844	1.959	1.822	1.985	1.792	2.022
1.8	1.75	1.853	1.73	1.876	1.703	1.909
1.7	1.656	1.747	1.638	1.767	1.613	1.796
1.6	1.561	1.641	1.545	1.659	1.523	1.685
1.5	1.466	1.536	1.452	1.552	1.433	1.574
1.4	1.37	1.431	1.358	1.445	1.341	1.464
1.3	1.274	1.327	1.264	1.338	1.25	1.355
1.2	1.178	1.223	1.169	1.232	1.157	1.246
1.1	1.082	1.119	1.074	1.127	1.064	1.138
1	0.985	1.015	0.979	1.022	0.971	1.031
0.98	0.966	0.995	0.96	1.001	0.952	1.01
0.96	0.946	0.974	0.941	0.98	0.933	0.989
0.94	0.927	0.954	0.921	0.959	0.914	0.967
0.92	0.907	0.933	0.902	0.938	0.895	0.946
0.9	0.888	0.912	0.883	0.918	0.876	0.925
0.88	0.869	0.892	0.864	0.897	0.857	0.904
0.86	0.849	0.871	0.845	0.876	0.838	0.883
0.84	0.83	0.851	0.825	0.855	0.819	0.862



AATMA 85mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	21.249	INF	15.03	INF	10.631	INF
50	14.952	INF	11.584	INF	8.787	INF
20	10.335	308.866	8.609	INF	6.965	INF
15	8.821	50.073	7.534	1647.029	6.246	INF
10	6.823	18.714	6.029	29.301	5.177	146.342
8	5.832	12.733	5.243	16.872	4.588	31.218
7	5.284	10.366	4.796	12.949	4.243	19.987
6	4.696	8.308	4.307	9.884	3.857	13.508
5	4.062	6.5	3.769	7.424	3.42	9.291
4.5	3.727	5.677	3.479	6.368	3.181	7.69
4	3.379	4.901	3.174	5.406	2.924	6.328
3.5	3.016	4.169	2.853	4.527	2.65	5.154
3	2.639	3.476	2.513	3.721	2.355	4.132
2.8	2.483	3.209	2.372	3.416	2.231	3.759
2.6	2.325	2.948	2.228	3.122	2.103	3.405
2.4	2.165	2.693	2.08	2.836	1.971	3.067
2.2	2.001	2.443	1.929	2.56	1.835	2.746
2	1.835	2.198	1.774	2.292	1.695	2.439
1.9	1.751	2.077	1.696	2.161	1.623	2.291
1.8	1.666	1.958	1.616	2.031	1.55	2.146
1.7	1.58	1.84	1.535	1.904	1.476	2.004
1.6	1.494	1.723	1.454	1.779	1.401	1.866
1.5	1.407	1.607	1.371	1.656	1.324	1.73
1.4	1.319	1.492	1.288	1.534	1.246	1.597
1.3	1.23	1.379	1.203	1.414	1.167	1.468
1.2	1.14	1.266	1.117	1.296	1.086	1.34
1.1	1.05	1.155	1.031	1.18	1.004	1.216
1	0.959	1.045	0.943	1.065	0.921	1.094
0.98	0.94	1.023	0.925	1.042	0.904	1.07
0.96	0.922	1.001	0.907	1.019	0.887	1.046
0.94	0.904	0.979	0.889	0.997	0.87	1.022
0.92	0.885	0.958	0.872	0.974	0.853	0.998
0.9	0.867	0.936	0.854	0.952	0.836	0.975
0.88	0.848	0.914	0.836	0.929	0.819	0.951
0.86	0.83	0.892	0.818	0.907	0.802	0.928
0.84	0.811	0.871	0.8	0.884	0.784	0.904



AATMA 100mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	214.594	INF	163.936	INF	116.416	INF
60	47.127	82.547	44.137	93.662	39.773	122.088
30	26.4	34.736	25.437	36.559	23.926	40.206
20	18.336	21.996	17.867	22.712	17.109	24.066
15	14.046	16.093	13.769	16.473	13.316	17.172
12	11.382	12.689	11.2	12.923	10.899	13.349
10	9.568	10.473	9.439	10.632	9.225	10.918
8	7.722	8.299	7.638	8.398	7.497	8.575
7	6.786	7.227	6.722	7.302	6.613	7.436
6	5.843	6.166	5.795	6.22	5.714	6.316
5.5	5.368	5.639	5.327	5.684	5.259	5.764
5	4.891	5.114	4.857	5.151	4.8	5.217
4.5	4.411	4.592	4.384	4.622	4.338	4.675
4	3.93	4.072	3.909	4.096	3.872	4.137
3.8	3.737	3.865	3.717	3.886	3.684	3.923
3.6	3.543	3.658	3.526	3.677	3.496	3.71
3.4	3.35	3.452	3.334	3.469	3.307	3.498
3.2	3.155	3.246	3.142	3.261	3.118	3.286
3	2.961	3.04	2.949	3.053	2.928	3.076
2.8	2.766	2.835	2.755	2.846	2.737	2.866
2.6	2.571	2.63	2.562	2.64	2.546	2.656
2.4	2.375	2.425	2.367	2.434	2.354	2.448
2.2	2.179	2.221	2.173	2.228	2.161	2.24
2	1.983	2.017	1.977	2.023	1.968	2.033
1.9	1.885	1.916	1.88	1.921	1.871	1.929
1.8	1.786	1.814	1.782	1.819	1.774	1.826
1.7	1.688	1.712	1.684	1.716	1.677	1.723
1.6	1.589	1.611	1.586	1.615	1.58	1.621
1.5	1.49	1.51	1.488	1.513	1.482	1.518
1.4	1.392	1.408	1.389	1.411	1.385	1.416
1.3	1.293	1.307	1.291	1.309	1.287	1.313
1.2	1.194	1.206	1.192	1.208	1.189	1.211
1.1	1.095	1.105	1.093	1.107	1.091	1.109



AATMA 100mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	82.645	INF	58.549	INF	41.494	INF
60	34.908	213.371	29.746	INF	24.614	INF
30	22.078	46.787	19.898	60.939	17.466	106.232
20	16.145	26.274	14.949	30.207	13.535	38.285
15	12.725	18.266	11.971	20.08	11.049	23.35
12	10.501	13.999	9.983	15.039	9.334	16.797
10	8.938	11.348	8.561	12.021	8.08	13.116
8	7.307	8.838	7.054	9.239	6.725	9.872
7	6.465	7.632	6.266	7.929	6.005	8.389
6	5.603	6.457	5.454	6.668	5.256	6.99
5.5	5.165	5.881	5.038	6.055	4.869	6.319
5	4.722	5.312	4.616	5.454	4.474	5.666
4.5	4.274	4.751	4.187	4.863	4.07	5.031
4	3.821	4.196	3.752	4.284	3.658	4.413
3.8	3.638	3.977	3.575	4.055	3.49	4.17
3.6	3.455	3.758	3.398	3.827	3.321	3.93
3.4	3.27	3.54	3.22	3.602	3.15	3.692
3.2	3.085	3.324	3.04	3.378	2.978	3.457
3	2.899	3.108	2.859	3.155	2.805	3.224
2.8	2.712	2.894	2.677	2.935	2.63	2.994
2.6	2.524	2.68	2.494	2.715	2.453	2.766
2.4	2.336	2.468	2.31	2.498	2.274	2.54
2.2	2.146	2.257	2.124	2.281	2.094	2.317
2	1.955	2.047	1.937	2.067	1.913	2.096
1.9	1.86	1.942	1.844	1.96	1.821	1.986
1.8	1.764	1.837	1.749	1.854	1.729	1.877
1.7	1.668	1.733	1.655	1.747	1.637	1.768
1.6	1.572	1.629	1.56	1.642	1.544	1.66
1.5	1.475	1.526	1.465	1.537	1.451	1.552
1.4	1.378	1.422	1.37	1.432	1.358	1.445
1.3	1.282	1.319	1.274	1.327	1.264	1.339
1.2	1.184	1.216	1.178	1.223	1.169	1.233
1.1	1.087	1.113	1.082	1.119	1.074	1.127



AATMA 100mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	29.386	INF	20.79	INF	14.708	INF
60	19.786	INF	15.483	INF	11.842	INF
30	14.892	INF	12.319	INF	9.901	INF
20	11.939	61.578	10.229	446.429	8.507	INF
15	9.963	30.337	8.745	52.669	7.457	INF
12	8.548	20.126	7.637	27.985	6.638	62.465
10	7.486	15.058	6.779	19.055	5.98	30.498
8	6.309	10.93	5.8	12.887	5.207	17.254
7	5.672	9.14	5.258	10.467	4.767	13.169
6	4.999	7.502	4.676	8.371	4.284	10.009
5.5	4.648	6.734	4.368	7.424	4.025	8.683
5	4.287	5.997	4.048	6.538	3.752	7.492
4.5	3.915	5.29	3.715	5.705	3.465	6.417
4	3.533	4.61	3.369	4.921	3.163	5.44
3.8	3.376	4.346	3.227	4.621	3.037	5.075
3.6	3.218	4.085	3.082	4.327	2.909	4.722
3.4	3.058	3.829	2.935	4.04	2.778	4.382
3.2	2.895	3.576	2.786	3.759	2.644	4.053
3	2.731	3.327	2.633	3.485	2.507	3.735
2.8	2.565	3.082	2.479	3.217	2.366	3.428
2.6	2.397	2.841	2.321	2.955	2.223	3.131
2.4	2.226	2.603	2.161	2.698	2.076	2.844
2.2	2.054	2.369	1.999	2.447	1.925	2.566
2	1.879	2.138	1.833	2.201	1.771	2.296
1.9	1.791	2.024	1.749	2.08	1.693	2.165
1.8	1.702	1.91	1.664	1.96	1.614	2.035
1.7	1.612	1.798	1.579	1.841	1.533	1.907
1.6	1.523	1.686	1.493	1.724	1.452	1.781
1.5	1.432	1.575	1.406	1.608	1.37	1.658
1.4	1.341	1.465	1.318	1.493	1.286	1.536
1.3	1.249	1.355	1.229	1.379	1.202	1.415
1.2	1.157	1.247	1.14	1.267	1.117	1.297
1.1	1.064	1.139	1.05	1.155	1.03	1.18



AATMA 135mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	1.52		2		2.83	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	384.316	INF	294.799	INF	210.156	INF
70	59.584	84.829	56.91	90.91	52.812	103.775
30	27.914	32.423	27.314	33.271	26.336	34.848
20	19.053	21.046	18.772	21.4	18.306	22.04
15	14.462	15.579	14.3	15.772	14.029	16.116
12	11.654	12.367	11.549	12.488	11.371	12.702
10	9.759	10.253	9.685	10.336	9.561	10.482
9	8.805	9.204	8.745	9.271	8.643	9.388
8	7.846	8.161	7.798	8.213	7.717	8.304
7	6.882	7.122	6.845	7.162	6.783	7.231
6	5.913	6.089	5.886	6.118	5.84	6.169
5.5	5.427	5.575	5.405	5.599	5.366	5.641
5	4.94	5.062	4.921	5.081	4.889	5.116
4.5	4.451	4.55	4.436	4.566	4.41	4.593
4	3.962	4.039	3.95	4.052	3.929	4.073
3.8	3.765	3.835	3.755	3.846	3.736	3.866
3.6	3.569	3.631	3.559	3.642	3.543	3.659
3.4	3.372	3.428	3.364	3.437	3.349	3.453
3.2	3.176	3.225	3.168	3.233	3.155	3.246
3	2.979	3.022	2.972	3.029	2.96	3.041
2.8	2.781	2.819	2.776	2.825	2.766	2.835
2.6	2.584	2.616	2.579	2.621	2.57	2.63
2.4	2.386	2.414	2.382	2.418	2.375	2.426
2.2	2.189	2.211	2.185	2.215	2.179	2.221
2	1.991	2.009	1.988	2.012	1.983	2.018
1.9	1.892	1.908	1.889	1.911	1.885	1.916
1.8	1.793	1.808	1.79	1.81	1.786	1.814
1.7	1.693	1.707	1.691	1.709	1.688	1.712
1.6	1.594	1.606	1.592	1.608	1.589	1.611
1.5	1.495	1.505	1.493	1.507	1.491	1.51
1.4	1.396	1.404	1.394	1.406	1.392	1.408



AATMA 135mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	4		5.66		8	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	149.605	INF	106.194	INF	75.366	INF
70	47.945	129.634	42.401	200.529	36.458	875.36
30	25.07	37.343	23.47	41.566	21.532	49.447
20	17.687	23.01	16.877	24.542	15.853	27.085
15	13.663	16.627	13.175	17.411	12.544	18.651
12	11.13	13.017	10.806	13.491	10.378	14.222
10	9.39	10.695	9.158	11.012	8.85	11.493
9	8.504	9.558	8.313	9.81	8.059	10.19
8	7.606	8.437	7.454	8.633	7.249	8.924
7	6.697	7.331	6.579	7.478	6.42	7.696
6	5.777	6.241	5.689	6.347	5.57	6.502
5.5	5.312	5.701	5.238	5.789	5.137	5.918
5	4.845	5.165	4.783	5.237	4.699	5.342
4.5	4.374	4.633	4.324	4.691	4.255	4.774
4	3.901	4.104	3.861	4.149	3.806	4.215
3.8	3.71	3.894	3.675	3.934	3.625	3.993
3.6	3.52	3.684	3.487	3.72	3.443	3.772
3.4	3.328	3.475	3.3	3.507	3.26	3.553
3.2	3.137	3.266	3.111	3.294	3.076	3.335
3	2.944	3.058	2.922	3.082	2.891	3.118
2.8	2.752	2.85	2.732	2.871	2.705	2.902
2.6	2.558	2.643	2.542	2.661	2.518	2.687
2.4	2.365	2.436	2.35	2.452	2.33	2.474
2.2	2.17	2.23	2.158	2.243	2.142	2.261
2	1.976	2.025	1.966	2.035	1.952	2.05
1.9	1.878	1.922	1.869	1.932	1.857	1.945
1.8	1.78	1.82	1.773	1.828	1.761	1.84
1.7	1.683	1.718	1.676	1.725	1.666	1.736
1.6	1.585	1.616	1.578	1.622	1.57	1.631
1.5	1.487	1.514	1.481	1.519	1.474	1.527
1.4	1.388	1.412	1.384	1.417	1.377	1.424



AATMA 135mm/T1.5

Zerstreuungskreisdurchmesser / circle of confusion: 0,030 mm

Gravur Engraving	T-Blende / T-Stop					
	11.31		16		22.63	
m	von / from	bis / to	von / from	bis / to	von / from	bis / to
INF	53.427	INF	37.826	INF	26.773	INF
70	30.426	INF	24.647	INF	19.431	INF
30	19.28	67.568	16.792	140.56	14.201	INF
20	14.6	31.738	13.13	41.946	11.494	76.921
15	11.749	20.74	10.78	24.651	9.654	33.612
12	9.829	15.402	9.143	17.454	8.322	21.505
10	8.448	12.25	7.938	13.51	7.313	15.81
9	7.725	10.779	7.296	11.741	6.766	13.437
8	6.978	9.372	6.627	10.09	6.187	11.315
7	6.207	8.026	5.928	8.545	5.574	9.405
6	5.409	6.735	5.197	7.096	4.924	7.677
5.5	5.001	6.11	4.819	6.405	4.584	6.874
5	4.585	5.498	4.432	5.735	4.233	6.107
4.5	4.162	4.898	4.036	5.085	3.871	5.374
4	3.731	4.31	3.63	4.453	3.497	4.673
3.8	3.557	4.078	3.465	4.206	3.344	4.401
3.6	3.382	3.848	3.299	3.962	3.188	4.134
3.4	3.205	3.62	3.131	3.72	3.031	3.871
3.2	3.027	3.394	2.961	3.481	2.872	3.612
3	2.848	3.169	2.79	3.245	2.711	3.358
2.8	2.668	2.946	2.616	3.011	2.547	3.109
2.6	2.486	2.725	2.441	2.781	2.381	2.863
2.4	2.303	2.506	2.265	2.552	2.213	2.621
2.2	2.119	2.288	2.087	2.327	2.043	2.383
2	1.933	2.072	1.906	2.103	1.87	2.149
1.9	1.84	1.965	1.816	1.993	1.783	2.034
1.8	1.746	1.858	1.724	1.883	1.695	1.919
1.7	1.652	1.751	1.633	1.773	1.606	1.805
1.6	1.558	1.645	1.541	1.664	1.517	1.692
1.5	1.463	1.539	1.448	1.556	1.427	1.58
1.4	1.368	1.434	1.355	1.448	1.337	1.469