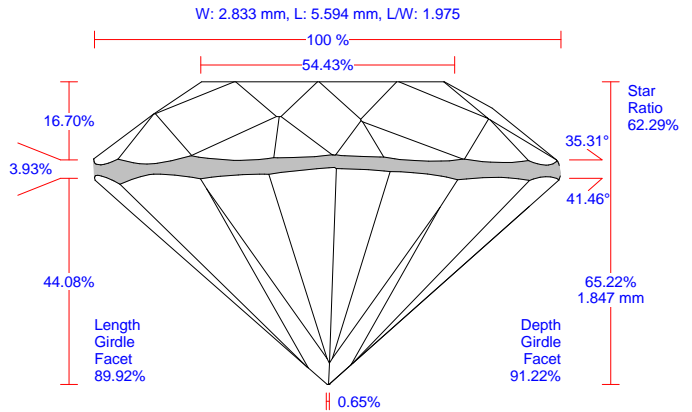


# Full report for rounded fancies

# Marquise

## General information

Model Simple  
 Expert name Makoed A.G.  
 Report date 10.09.2010  
 Real weight, ct  
 Calculated weight, ct 0.15, 0.1579  
 Spread 0.04 ct, 19.49%  
 Extra Facet Girdle / Nat No  
 Extra Facet Crown No  
 Extra Facet Pavilion No  
 Appraiser title GIA\_PCTG\_StarCul  
 Overall cut quality N/A  
 Symmetry appraiser title Internal  
 Overall symmetry quality PR



## Main parameters

Width	Length	Ratio (L/W)	Girdle Ratio	Diameter Minimum	Diameter Maximum	Total height	MIC
2.833 mm	5.594 mm	1.975	1.975	2.833 mm	5.594 mm	1.847 mm	2.827 mm

Parameter		Avg	Min	Max	Dev	Cut	Sym
Diameter	mm		2.833	5.594	2.761	N/A	
Radius	mm	1.804	1.415	2.821	1.406		
Radius	%	63.67	49.95	99.58	49.64		
Crown curve angle	°	35.31	34.98	35.65	0.67		
Crown head angle	°	N/A	N/A	N/A	N/A		
Crown point angle	°	21.17	20.77	21.57	0.80		
Crown wing angle	°	35.35	33.95	37.07	3.12		
Crown curve height	%	16.71	16.57	16.84	0.26		
Crown curve height	mm	0.473	0.470	0.477	0.007		
Crown head height	%	N/A	N/A	N/A	N/A		
Crown head height	mm	N/A	N/A	N/A	N/A		
Crown point height	%	16.70	15.79	17.61	1.82		
Crown point height	mm	0.473	0.447	0.499	0.052		
Crown wing height	%	16.61	15.88	16.99	1.12		
Crown wing height	mm	0.471	0.450	0.481	0.032		
Crown mains angle (obsolete)	°	35.31	34.98	35.65	0.67	N/A	VG
Crown nock angle (obsolete)	°	21.17	20.77	21.57	0.80		
Crown other angle (obsolete)	°	35.35	33.95	37.07	3.12		
Crown height	%	16.70	15.79	17.61	1.82		
Crown height	mm	0.473	0.447	0.499	0.052	N/A	GD
Crown height bone	%	16.81	15.83	18.16	2.32		
Crown height bone	mm	0.476	0.449	0.514	0.066		
Crown height at girdle minima	%	17.52	16.21	18.17	1.96		
Crown height at girdle minima	mm	0.496	0.459	0.515	0.055	N/A	
Pavilion curve angle	°	41.46	41.28	41.63	0.35		
Pavilion head angle	°	N/A	N/A	N/A	N/A		
Pavilion point angle	°	N/A	N/A	N/A	N/A		
Pavilion wing angle	°	36.43	35.58	37.11	1.53		
Pavilion curve height	%	37.71	37.05	38.38	1.33		
Pavilion curve height	mm	1.068	1.049	1.087	0.038		
Pavilion head height	%	N/A	N/A	N/A	N/A		
Pavilion head height	mm	N/A	N/A	N/A	N/A		
Pavilion point height	%	N/A	N/A	N/A	N/A		
Pavilion point height	mm	N/A	N/A	N/A	N/A		
Pavilion wing height	%	41.36	38.16	43.78	5.62		
Pavilion wing height	mm	1.172	1.081	1.240	0.159		
Pavilion mains angle (obsolete)	°	41.46	41.28	41.63	0.35	N/A	EX
Pavilion nock angle (obsolete)	°	N/A	N/A	N/A	N/A		
Pavilion other angle (obsolete)	°	36.43	35.58	37.11	1.53		
Pavilion depth	%	44.08	43.78	44.34	0.56		
Pavilion depth	mm	1.249	1.240	1.256	0.016	N/A	EX
Pavilion depth bone	%	44.45	43.20	46.01	2.81		
Pavilion depth bone	mm	1.259	1.224	1.303	0.080		
Pavilion depth at girdle minima	%	45.28	44.48	46.78	2.30		
Pavilion depth at girdle minima	mm	1.283	1.260	1.325	0.065	N/A	
Upper girdle facets angle	°	43.33	38.71	50.80	12.09		PR

Parameter		Avg	Min	Max	Dev	Cut	Sym
Upper girdle facets height	%	9.93	7.84	12.49	4.64		
Upper girdle facets height	mm	0.281	0.222	0.354	0.131		
Star facets angle	°	23.22	20.95	26.83	5.88		PR
Star : Upper ratio	%	62.29 : 37.71	54.18 : 45.82	71.83 : 28.17	17.65		PR
Lower girdle facets angle	°	37.01	30.61	42.32	11.70		PR
Lower girdle facets height	%	41.52	39.75	43.78	4.04		GD
Lower girdle facets height	mm	1.176	1.126	1.240	0.114		
Depth Girdle Facet	%	91.22	87.39	97.97	10.58	N/A	
Length Girdle Facet	%	89.92	84.77	97.42	12.66		
Total height	%	65.22				N/A	
Table	%	54.43	52.65	56.20	3.55	N/A	FR
Table	mm	2.318	1.491	3.144	1.653		
Culet	%	0.65	0.40	0.91	0.51	N/A	EX
Culet	mm	0.018	0.011	0.026	0.015		
Twist	°	2.84	0.12	8.62	8.50		PR
Girdle thickness: Bezel	%	3.93	2.88	4.60	1.72	N/A	GD
Girdle thickness: Bezel	mm	0.111	0.082	0.130	0.049		
Girdle thickness: Bone	%	3.95	2.63	5.39	2.76		FR
Girdle thickness: Bone	mm	0.112	0.075	0.153	0.078		
Girdle thickness: Valley	%	2.51	1.66	3.20	1.54	N/A	GD
Girdle thickness: Valley	mm	0.071	0.047	0.091	0.043		

## Detailed parameters

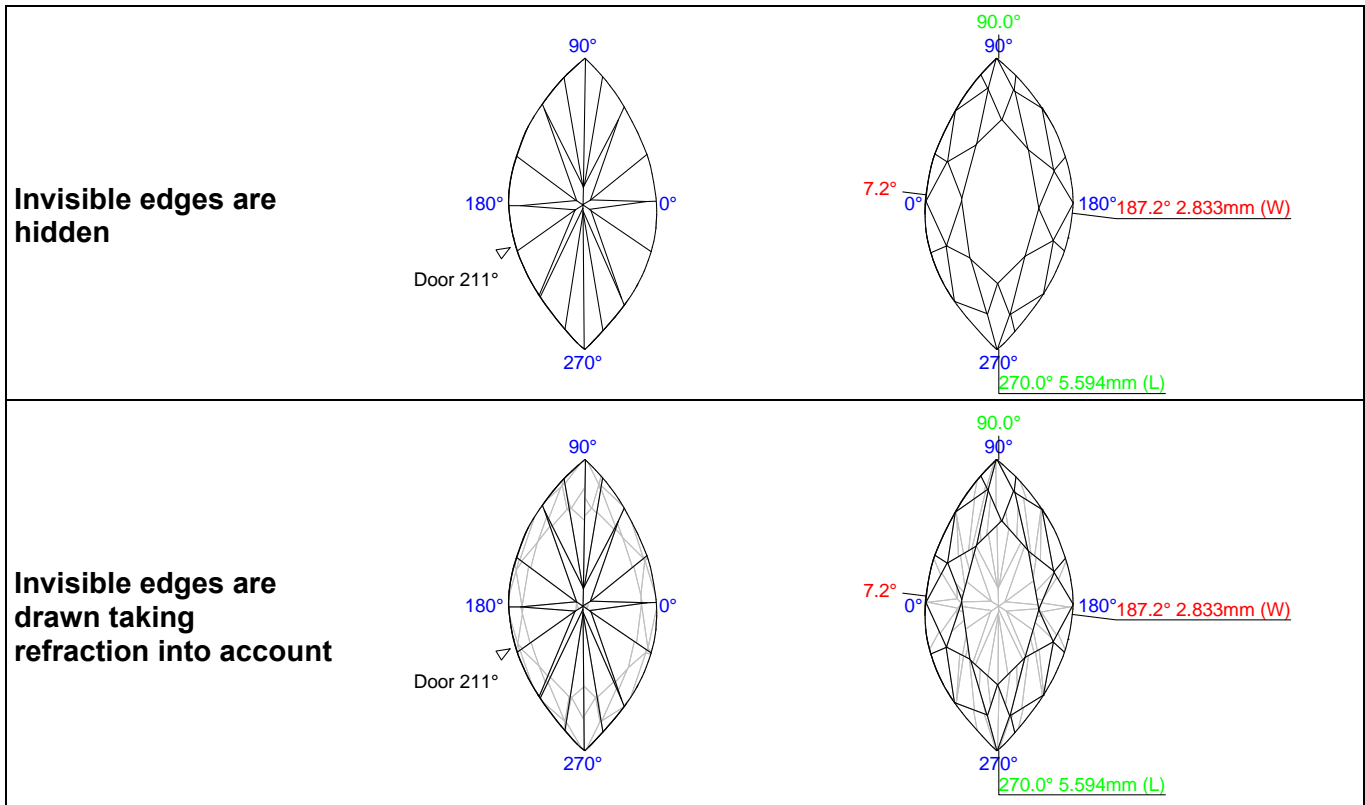
Parameter		1	2	3	4	5	6	7	8
Crown curve angle	°	34.98	35.65						
Crown head angle	°	N/A	N/A	N/A					
Crown point angle	°	20.77	21.57						
Crown wing angle	°	35.27	37.07	35.09	33.95				
Crown curve azimuth	°	4.09	181.56						
Crown head azimuth	°	N/A	N/A	N/A					
Crown point azimuth	°	85.64	265.89						
Crown wing azimuth	°	29.46	153.05	211.93	325.46				
Crown curve height	%	16.84	16.57						
Crown curve height	mm	0.477	0.470						
Crown head height	%	N/A	N/A	N/A					
Crown head height	mm	N/A	N/A	N/A					
Crown point height	%	15.79	17.61						
Crown point height	mm	0.447	0.499						
Crown wing height	%	16.64	15.88	16.93	16.99				
Crown wing height	mm	0.471	0.450	0.480	0.481				
Crown mains angle (obsolete)	°	34.98	35.65						
Crown nock angle (obsolete)	°	20.77	21.57						
Crown other angle (obsolete)	°	35.27	37.07	35.09	33.95	N/A	N/A	N/A	N/A
Crown mains azimuth (obsolete)	°	4.1	181.6						
Crown nock azimuth (obsolete)	°	85.6	265.9						
Crown other azimuth (obsolete)	°	29.5	153.0	211.9	325.5	N/A	N/A	N/A	N/A
Pavilion curve angle	°	41.63	41.28	N/A	N/A				
Pavilion head angle	°	N/A	N/A	N/A					
Pavilion point angle	°	N/A	N/A						
Pavilion wing angle	°	37.11	35.58	36.98	36.05				
Pavilion curve azimuth	°	0.16	181.44	N/A	N/A				
Pavilion head azimuth	°	N/A	N/A	N/A					
Pavilion point azimuth	°	N/A	N/A						
Pavilion wing azimuth	°	31.46	144.43	213.31	326.47				
Pavilion curve height	%	38.38	37.05	N/A	N/A				
Pavilion curve height	mm	1.087	1.049	N/A	N/A				
Pavilion head height	%	N/A	N/A	N/A					
Pavilion head height	mm	N/A	N/A	N/A					
Pavilion point height	%	N/A	N/A						
Pavilion point height	mm	N/A	N/A						
Pavilion wing height	%	38.16	42.16	43.78	41.32				
Pavilion wing height	mm	1.081	1.194	1.240	1.171				
Pavilion mains angle (obsolete)	°	41.63	41.28						
Pavilion nock angle (obsolete)	°	N/A	N/A						
Pavilion other angle (obsolete)	°	37.11	35.58	36.98	36.05	N/A	N/A	N/A	N/A
Pavilion mains azimuth (obsolete)	°	0.2	181.4						
Pavilion nock azimuth (obsolete)	°	N/A	N/A						
Pavilion other azimuth (obsolete)	°	31.5	144.4	213.3	326.5	N/A	N/A	N/A	N/A
Crown height	%	16.97	16.67	15.79	15.95	16.61	16.96	17.61	17.02
Crown height	mm	0.481	0.472	0.447	0.452	0.470	0.480	0.499	0.482
Crown height bone	%	16.95	16.23	16.41	16.69	16.60	17.64	18.16	15.83
Crown height bone	mm	0.480	0.460	0.465	0.473	0.470	0.500	0.514	0.449
Crown height at girdle minima	%	17.95	17.39	17.09	16.21	16.37	16.92	17.73	17.90
		17.65	17.62	17.80	18.01	18.17	17.86	18.17	N/A
Crown height at girdle minima	mm	0.509	0.493	0.484	0.459	0.464	0.479	0.502	0.507
		0.500	0.499	0.504	0.510	0.515	0.506	0.515	N/A
Pavilion depth	%	44.07	44.11	44.34	44.01	43.78	44.16	N/A	N/A
Pavilion depth	mm	1.248	1.250	1.256	1.247	1.240	1.251	N/A	N/A
Pavilion depth bone	%	43.98	46.01	45.37	43.20	44.11	44.49	44.42	43.99
Pavilion depth bone	mm	1.246	1.303	1.285	1.224	1.250	1.260	1.258	1.246
Pavilion depth at girdle minima	%	44.77	44.64	45.88	46.52	46.78	45.32	45.33	45.07
		44.99	44.86	44.53	45.04	45.16	44.48	45.56	45.48
Pavilion depth at girdle minima	mm	1.268	1.265	1.300	1.318	1.325	1.284	1.284	1.277
		1.275	1.271	1.261	1.276	1.279	1.260	1.291	1.288
Upper girdle facets angle	°	43.88	42.08	40.52	38.71	48.04	50.80	42.00	46.74
		46.20	42.51	42.75	40.73	40.32	41.53	43.17	N/A
Upper girdle facets height	%	9.77	9.41	8.48	7.84	8.90	9.45	10.88	10.92
		10.22	10.04	9.05	9.42	10.11	11.99	12.49	N/A
Upper girdle facets height	mm	0.277	0.266	0.240	0.222	0.252	0.268	0.308	0.309
		0.290	0.284	0.256	0.267	0.286	0.340	0.354	N/A
Upper girdle facets azimuth	°	10.9	24.8	34.1	41.7	134.0	140.5	155.7	170.4
		190.3	206.8	218.6	224.5	317.6	332.0	356.4	N/A

Parameter		1	2	3	4	5	6	7	8
Star facets angle	°	26.83	20.95	21.08	25.47	25.79	22.45	21.86	21.34
Star : Upper ratio	%	60.81 : 39.19	65.17 : 34.83	71.83 : 28.17	58.96 : 41.04	62.28 : 37.72	65.10 : 34.90	60.00 : 40.00	54.18 : 45.82
Star facets azimuth	°	15.0	45.8	138.4	169.9	196.1	225.2	312.1	351.9
Lower girdle facets angle	°	42.32	39.55	34.83	32.89	30.61	34.11	38.43	41.93
		42.15	39.89	35.48	33.04	31.86	34.13	38.70	42.17
Lower girdle facets height	%	40.26	40.45	40.28	41.92	42.26	39.75	41.81	41.29
		40.54	40.21	43.78	42.94	43.27	42.95	40.80	41.75
Lower girdle facets height	mm	1.140	1.146	1.141	1.188	1.197	1.126	1.184	1.170
		1.148	1.139	1.240	1.216	1.226	1.217	1.156	1.183
Lower girdle facets azimuth	°	11.1	25.9	41.2	46.9	124.9	137.5	151.8	172.5
		190.9	205.6	219.2	225.8	312.4	319.2	332.9	354.4
Depth Girdle Facet	%	89.41	90.14	87.50	89.68	89.72	87.39	91.50	90.91
		89.58	89.15	97.97	94.95	95.41	96.22	88.84	91.17
Length Girdle Facet	%	88.69	89.37	84.83	86.70	86.92	84.77	90.76	90.19
		88.72	88.25	97.42	93.85	94.43	95.36	87.93	90.46
Table	%	52.65		56.20					
Table	mm	1.491		3.144					
Twist	°	3.93	2.00	8.62	0.12	1.38	1.01	N/A	N/A
Girdle Bezel	%	4.17	4.33	2.88	4.60	4.43	4.38	2.93	3.71
Girdle Bezel	mm	0.118	0.123	0.082	0.130	0.126	0.124	0.083	0.105
Girdle Bone	%	4.28	2.97	3.43	5.33	4.51	3.08	2.63	5.39
Girdle Bone	mm	0.121	0.084	0.097	0.151	0.128	0.087	0.075	0.153
Girdle Valley	%	2.50	3.20	2.63	2.78	2.65	3.11	2.29	2.33
		2.60	2.77	2.88	2.18	2.10	2.61	1.81	1.66
Girdle Valley	mm	0.071	0.091	0.074	0.079	0.075	0.088	0.065	0.066
		0.074	0.079	0.082	0.062	0.059	0.074	0.051	0.047

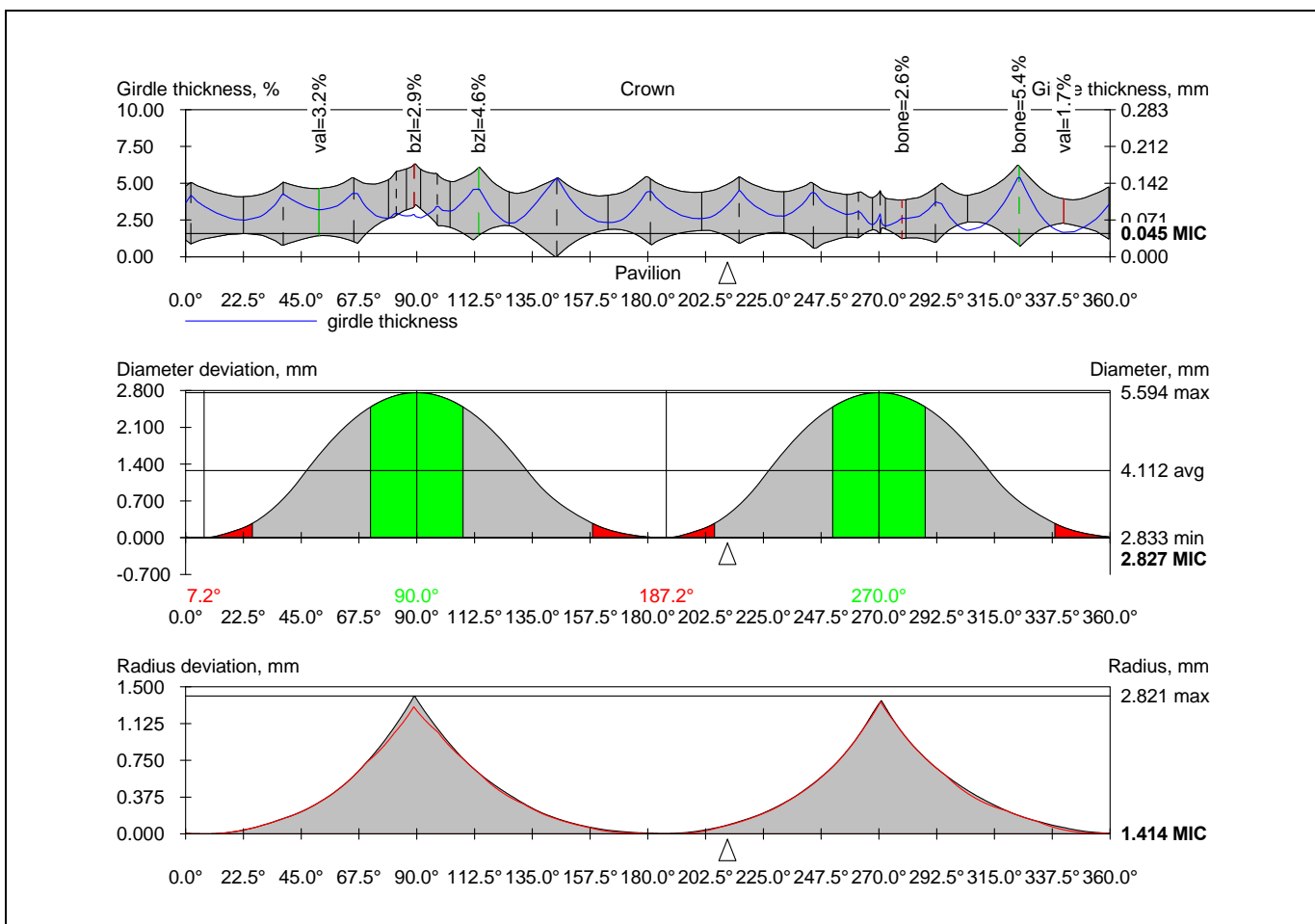
Offset		Distance	Width wise	Length wise
Culet-Table offset by table axis	%	1.73 ± 0.43	0.73	1.57
Culet-Table offset by table axis	mm	0.049 ± 0.012	0.021	0.044
Girdle-Culet offset by table axis	%	0.71 ± 0.41	0.25	0.67
Girdle-Culet offset by table axis	mm	0.020 ± 0.012	0.007	0.019
Girdle-Table offset by table axis	%	1.02 ± 0.39	0.48	0.90
Girdle-Table offset by table axis	mm	0.029 ± 0.011	0.014	0.026
Girdle to table-culet line offset	%	0.52		
Girdle to table-culet line offset	mm	0.015		

Culet shift ratio by width & length	
Width	2.833 mm, 100%
Width-wise culet shift ratio	1.431 mm, 50.51 %
Length-wise culet shift ratio	2.778 mm, 98.08 %
Length	5.594 mm, 100%
Length-wise culet shift ratio	2.778 mm, 49.66 %
	2.816 mm, 50.34 %

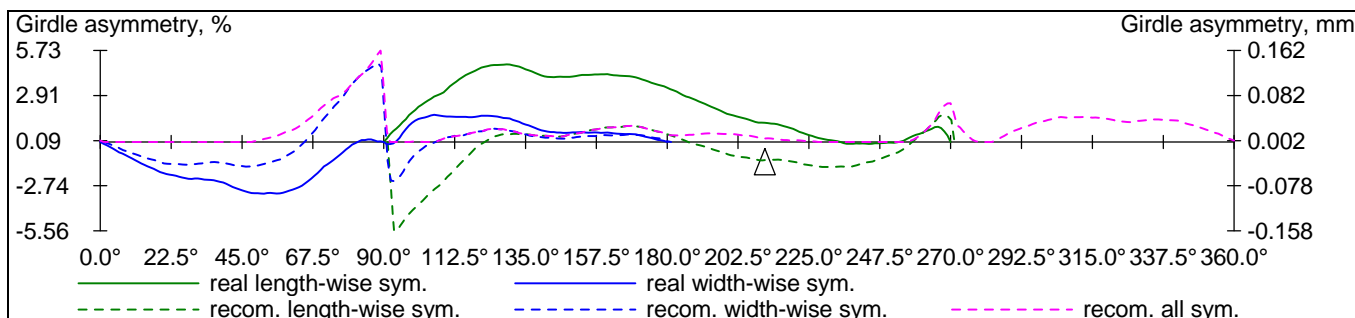
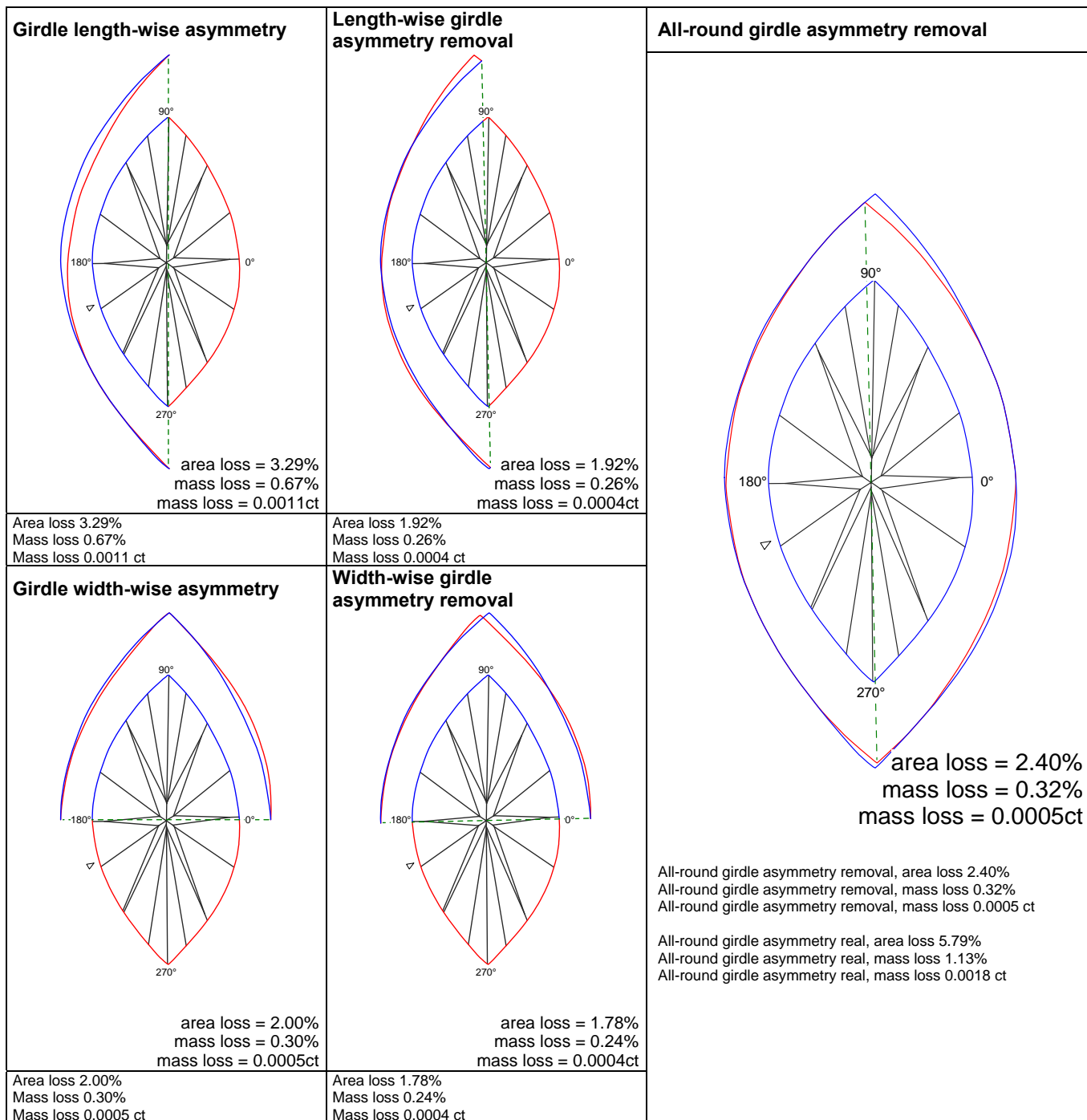
# Crown and pavilion views of the diamond with indication of Width & Length



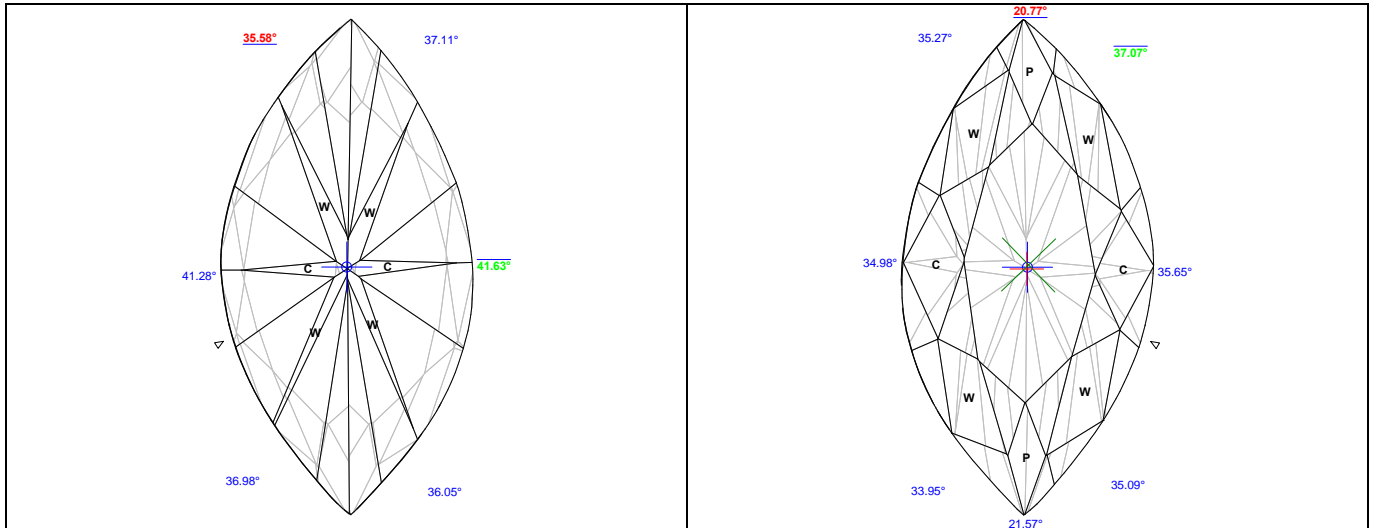
## Plots



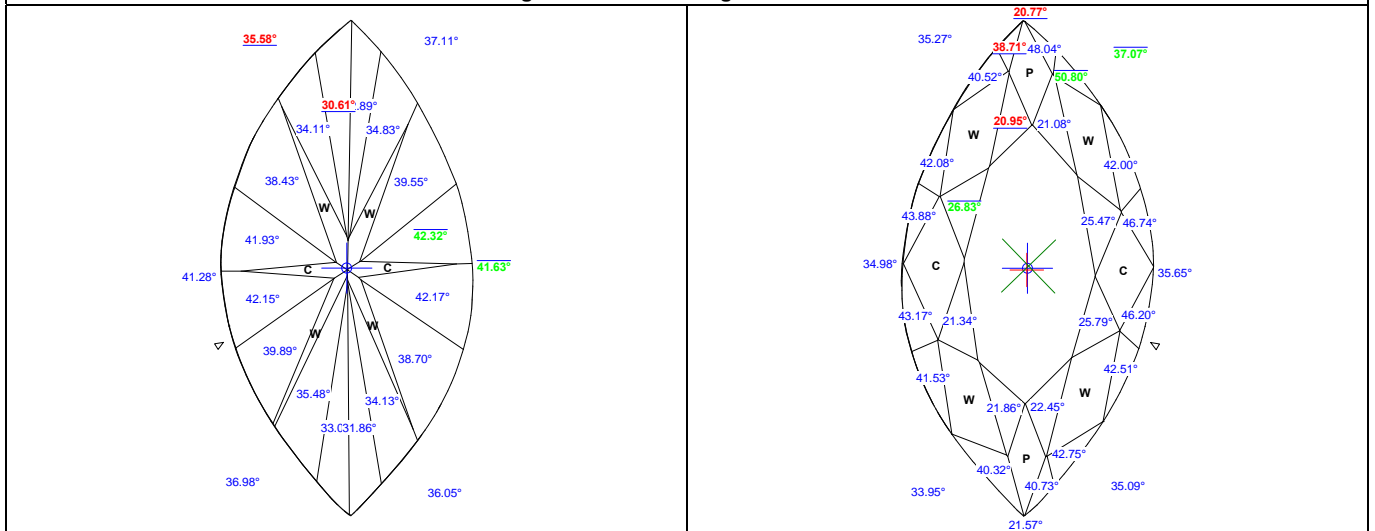
# Girdle asymmetry



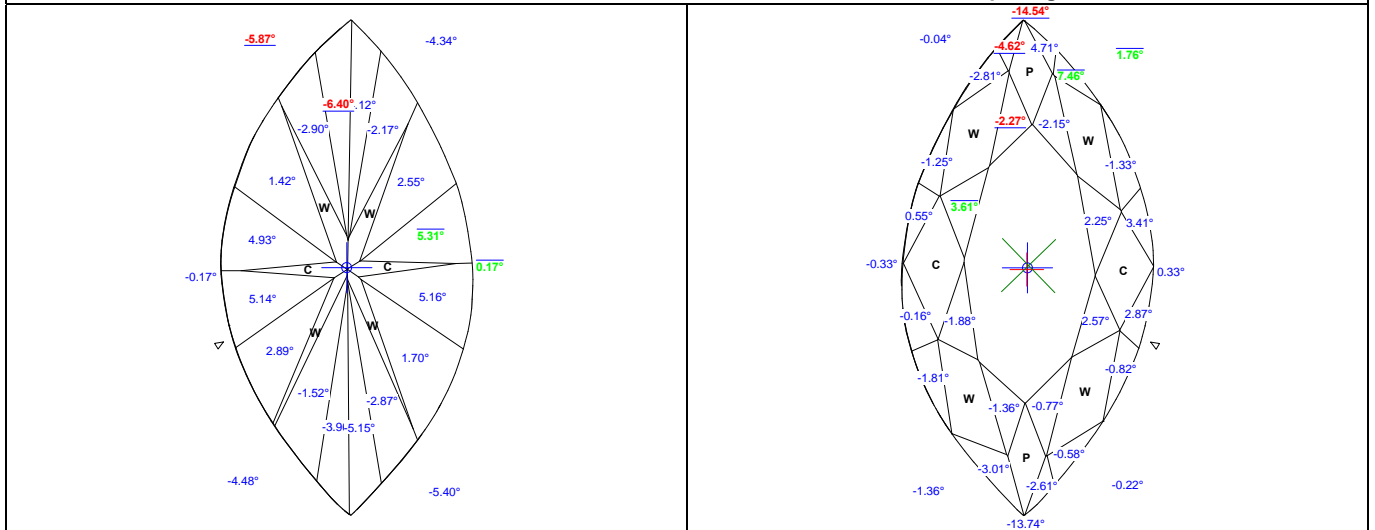
# Facets slope and azimuth angles



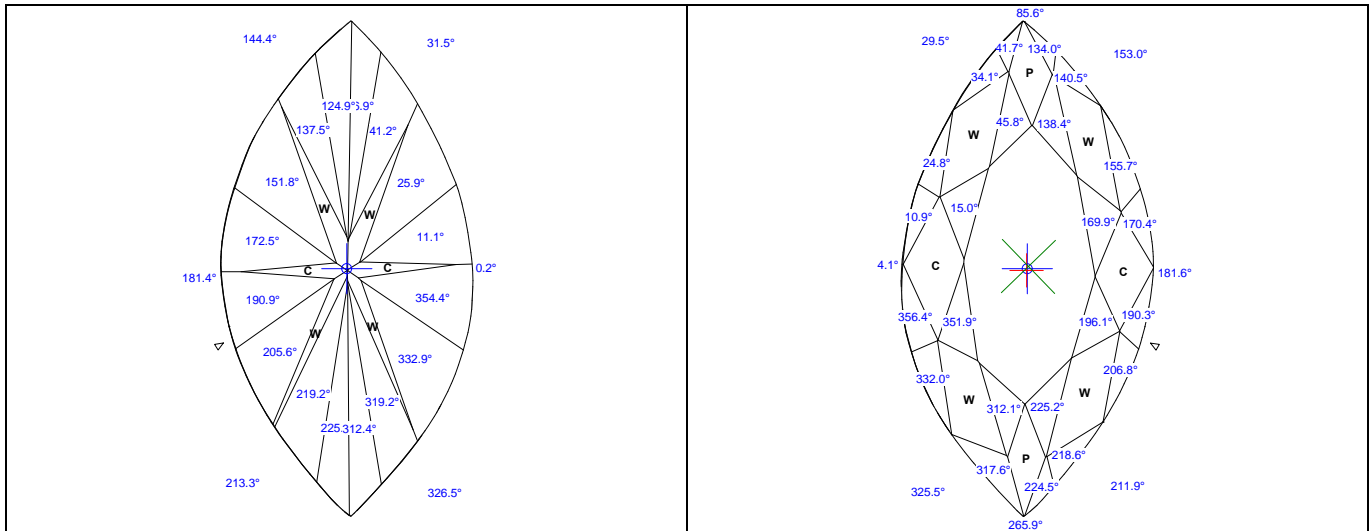
**Pavilion and crown views of the diamond with indication of main facets slope angles  
Invisible edges are drawn taking refraction into account**



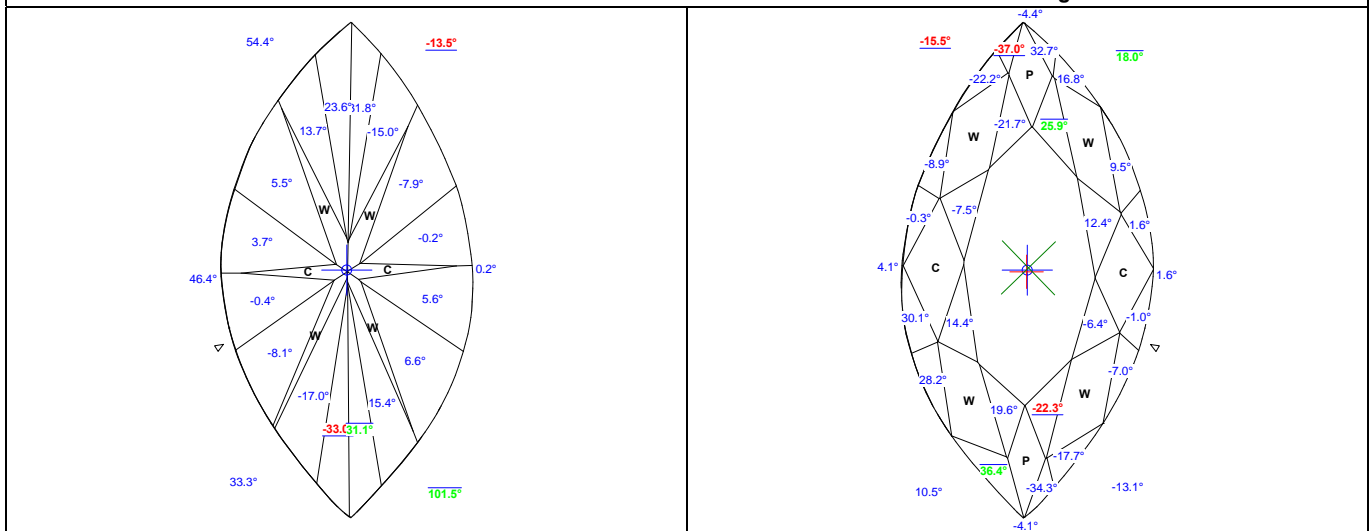
**Pavilion and crown views of the diamond with indication of facets slope angles**



**Pavilion and crown views of the diamond with indication of deviation of facets slope angles from the average values**



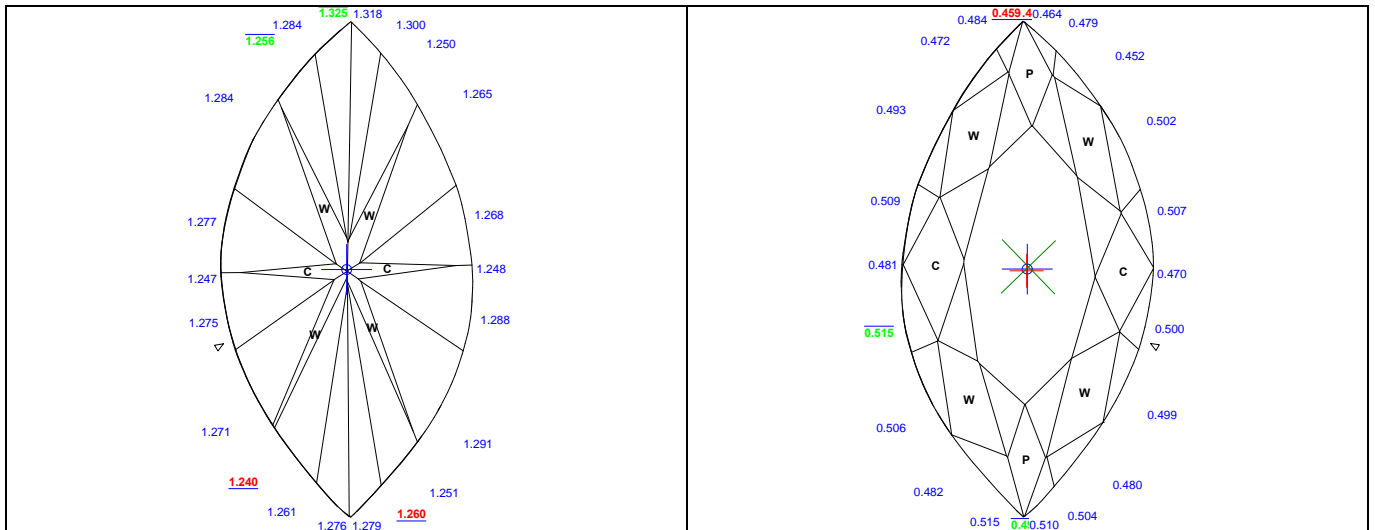
**Pavilion and crown views of the diamond with indication of facets azimuth angles**



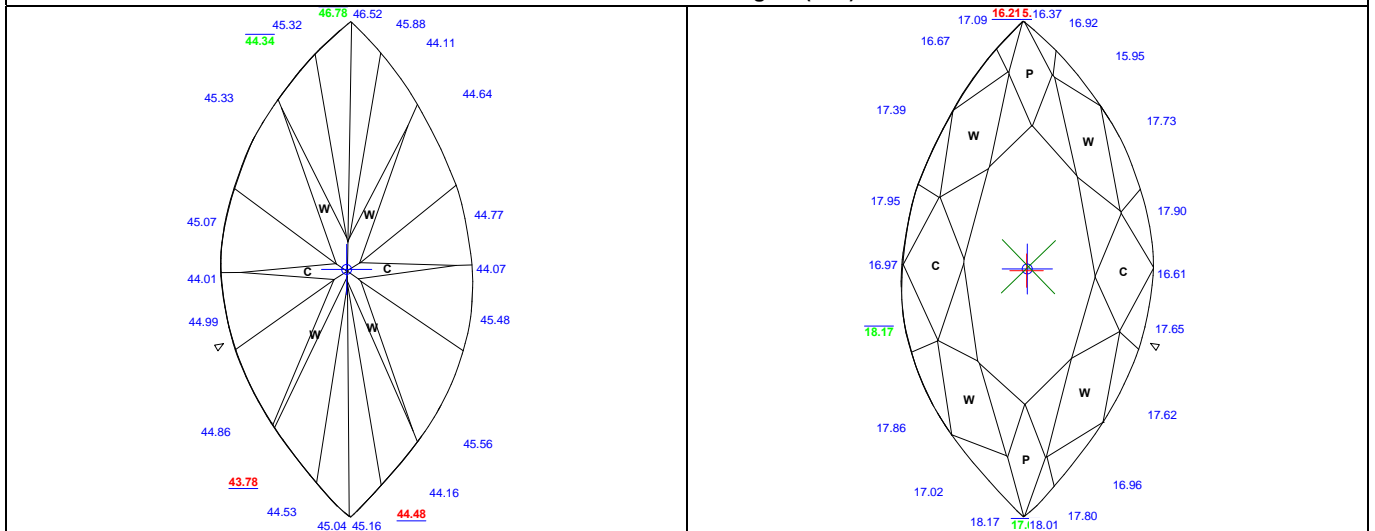
**Pavilion and crown views of the diamond with indication of deviation of facets azimuth angles from their ideal positions for the round brilliant**



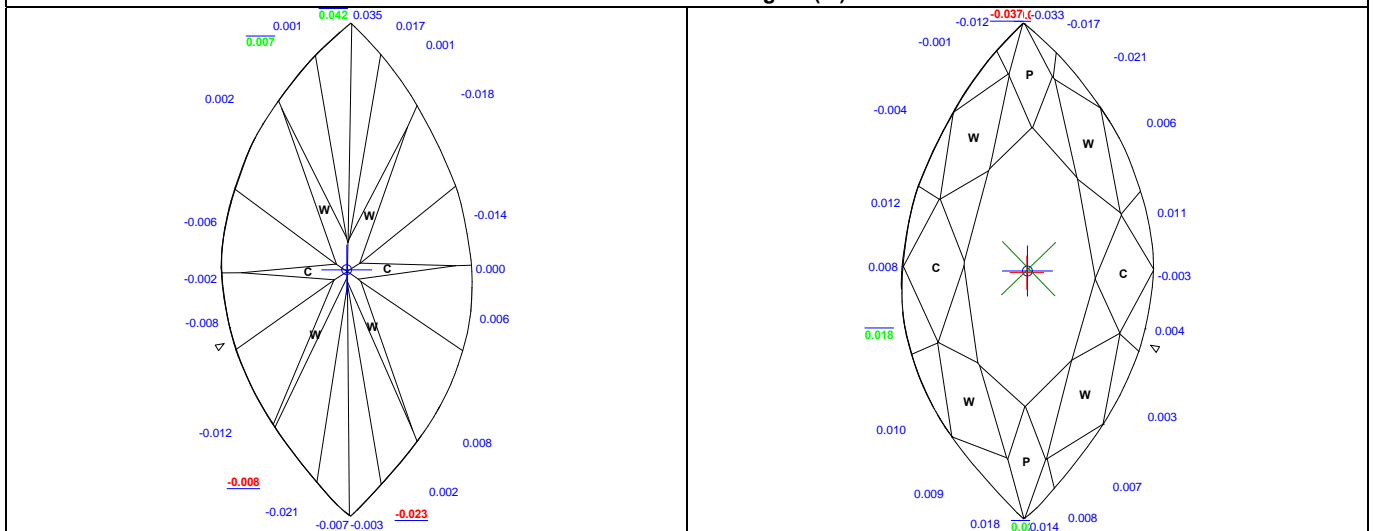
# Crown and Pavilion heights



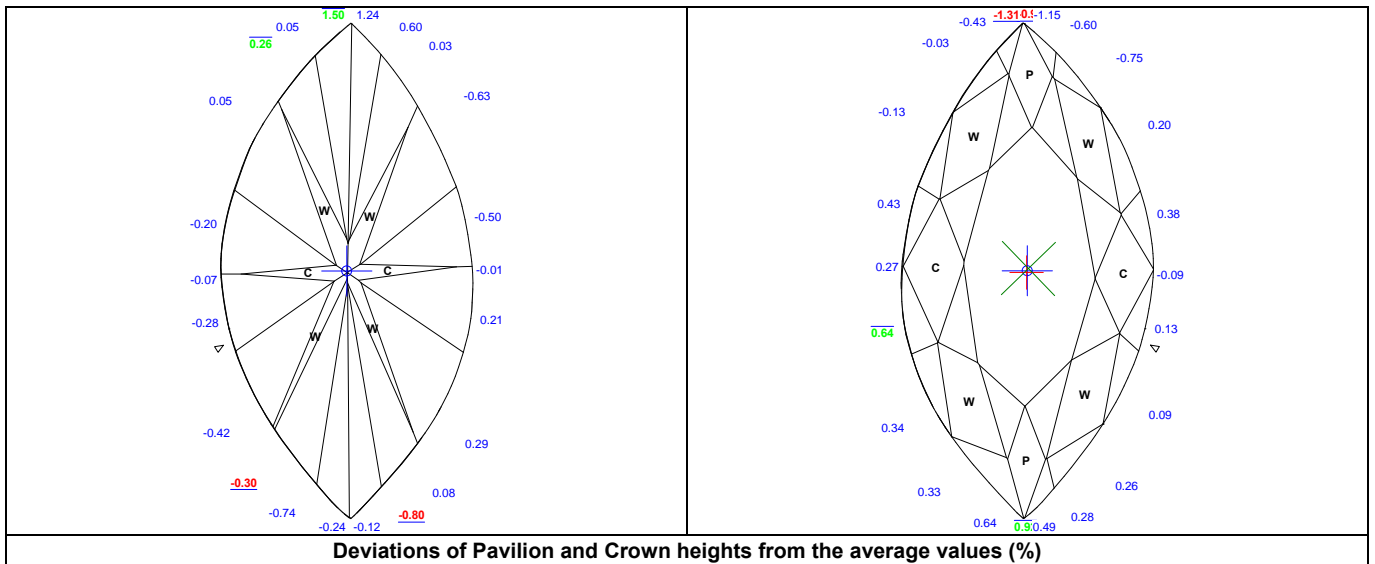
Pavilion and Crown heights (mm)



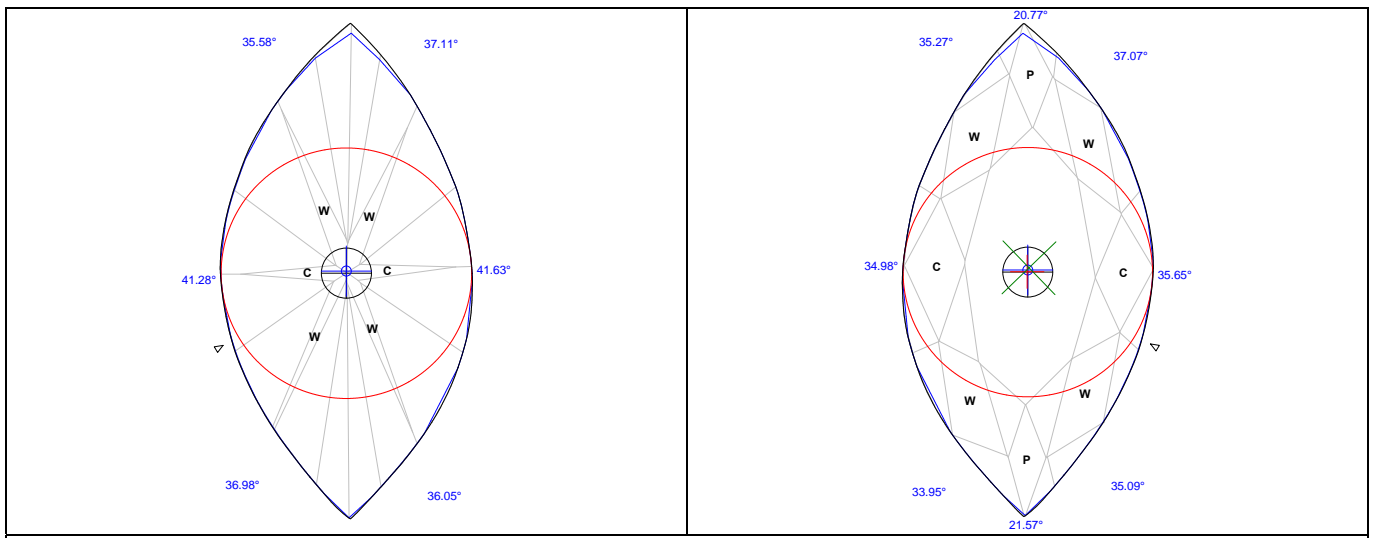
Pavilion and Crown heights (%)



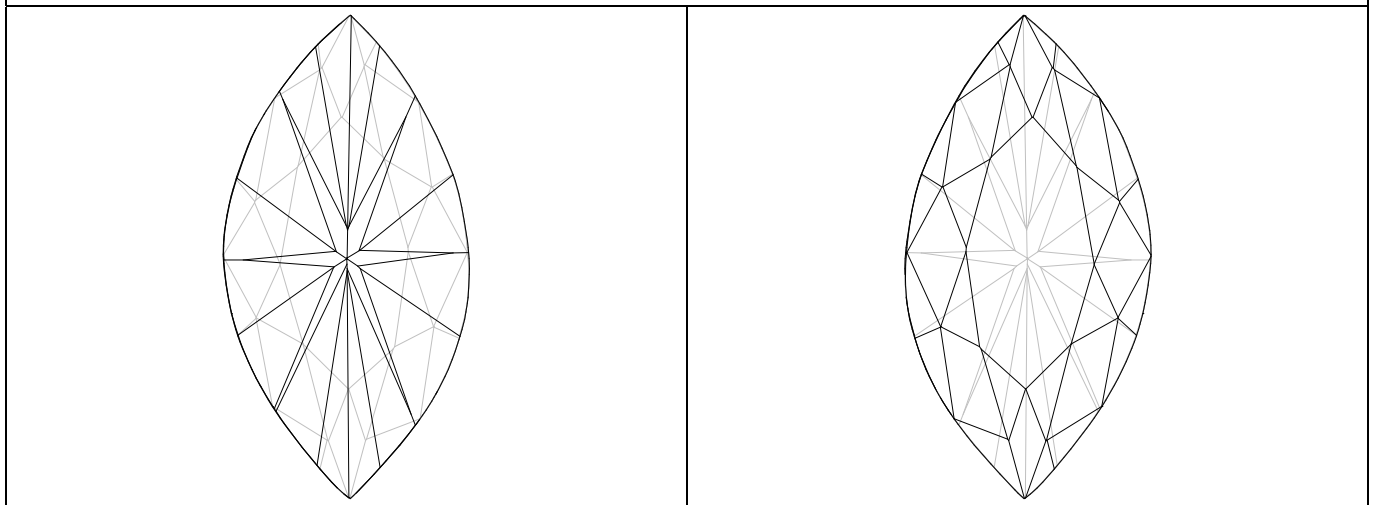
Deviations of Pavilion and Crown heights from the average values (mm)



### Additional Illustrations



**Pavilion and crown views of the diamond with indication of the maximum circle that may be inscribed (MIC) in the girdle outline along with the section of the model in the circle's plane**



**Pavilion and crown views of the diamond with indication of invisible edges without refraction**

-  **Girdle center**
-  **Culet center**
-  **Table center**
-  **MIC center**