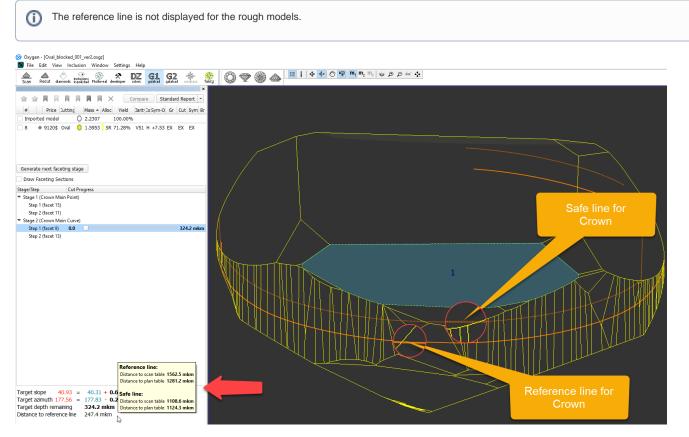
Reference Line and Safe Line

The reference line is calculated only once for the entire polishing process. Also, the *safe line* is calculated which is the limit of safe polishing, i.e. each big facet, with the correct facet angles, can be safely polished down to the safe line without risk of damaging the future brilliant. For the crown, the reference line is displayed by a bold orange line, safe line - by a thin dotted orange line. On the left panel, on mouse over the **Distance to reference line** parameter, the tooltip is displayed with the information about reference and safe lines.



For the pavilion, the reference line is displayed by a bold blue line, safe line - by a thin dotted blue line. The tooltip with the detailed information is also available.

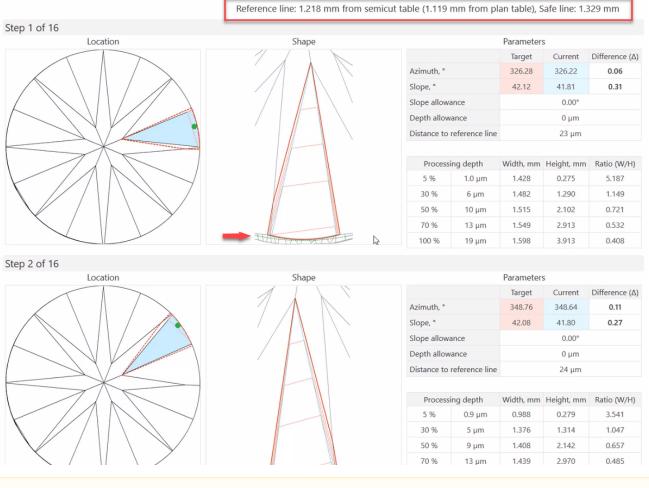
	🔅 🔘 🖤 🋞		🐙 <mark>m,</mark> m₂ m₄ ∞ ∅ ∅ ∞ ↔
Scan Recut diamonds inpolisies Photoreal developer colors galahad galahad compass f	ancy O The second secon	*	
		Pavilion Main 👻	
	Facet type:		
# Price Cutting Mass k Yield Jarit Jorm Gr Cut Sym Br	First facet azimuth:	45.0° *	
Imported model O 1.0192 100.00% UNK UNK UNK	Setting facets sequence:	Consecutive *	
1 • 5616\$ Brillant 🔘 0.9638 94.19% VS1 H EX EX EX	Processing direction		
	Azimuth increase: Pav	tion (CCM) Crown (CW)	
		vilion (CW), Crown (CCW)	
	O Azinuti getrease. Pa	with (CVV), Crown (CCVV)	
	Allowance		
Generate next faceting stage	Angle:	0.00°	
Draw Faceting Sections			
	Depth:	0µm 🗘	
Stage/Step Cut Progress		Generate Next Step Plans	
 Stage 2 (Pavilion Half) 	Faceting steps were succes	ssfully generated for Pavilion	
Step 1 (facet 100)	Main	areasy generation for reveloin	
Step 2 (facet 99)			
Step 3 (facet 98)			
Step 4 (facet 97)			
Step 5 (facet 112)			
Step 6 (facet 111) Step 7 (facet 110)			
Step 8 (facet 109)			
Step 9 (facet 108) 3.2 0.0 mkm			16
Step 10 (facet 107)			
Step 11 (facet 106)			3
Step 12 (facet 105)			Safe line 4
Step 13 (facet 104) Step 14 (facet 103)			
Step 15 (facet 102)			
Step 16 (facet 101)			
▼ Stage 3 (Pavilion Main)			
Step 1 (facet 114)			
Step 2 (facet 113)			
Step 3 (facet 120) Step 4 (facet 119)			
Step 5 (facet 118)			
Step 6 (facet 117)			
Step 7 (facet 116)			
Step 8 (facet 115)			Reference line
			for Pavilion
Target slope 41.63 = 41.60 + 0.03° Target simuth 146.23 = 146.42 = 0.110 Warning!			
Table of the target			
Target depth remaining 3.2 mkm is inclined at 0.06°! Distance to reference line 17.1 rykm			
Reference line:			
Distance to scan table 1217.9 mkm			
Distance to plan table 1119.1 mkm			
Safe line:			
Distance to scan table 1329.0 mkm			
Distance to plan table 1225.8 mkm			

Information about reference and safe lines is also presented in the Faceting Report.

octonus Faceting Report

Pavilion Half

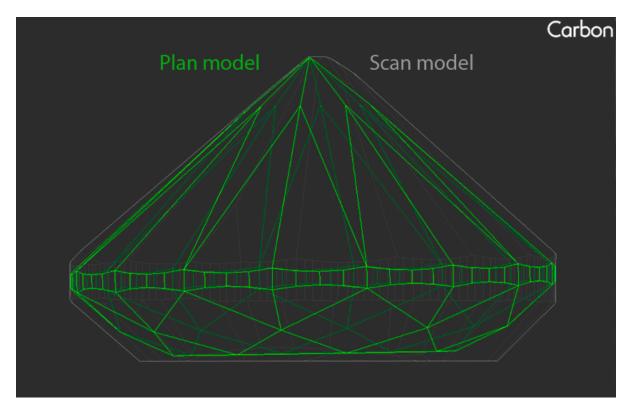
Demo1ct



A Note that if the "Girdle" or "Table" stages are included in the process, the distance to the reference line is recalculated for all other stages.

Reference line calculation

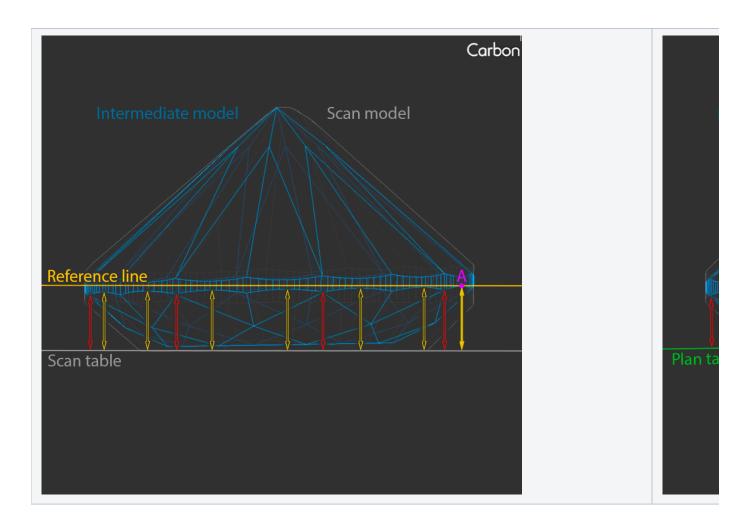
For the calculation of reference line an intermediate model (the blue one) is generated by polishing all facets of pavilion, crown and table of the scan (grey) down to facets of plan (green):



Reference line on Crown is the line of section of the scan's model by the plane passing through point A and parallel to the scan's table. Point A is the point on the crown's mains and halves of the intermediate model, which is most distant from the scan's table plane.

The B point is the point on the crown's mains and halves of the intermediate model, which is most distant from the plane of plan's table.

For the calculation of Reference line on Pavilion points A and B are the points closest to planes of scan and plan, amongst main and halves pavilion facets respectively.

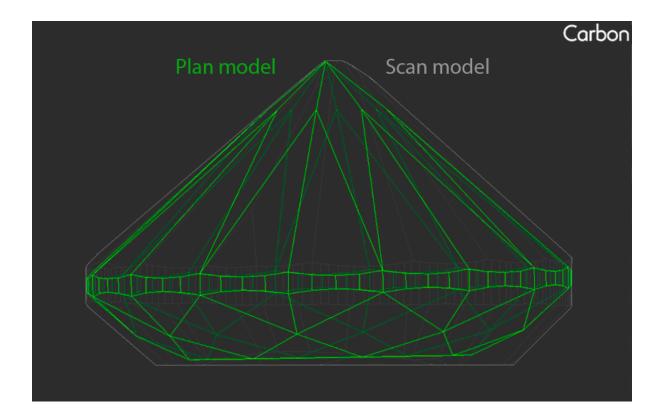


Reference line: Distance to scan table is distance between point A and scan's table plane.

Reference line: Distance to plan table is distance between point B and plan's table plane.

Safe line calculation

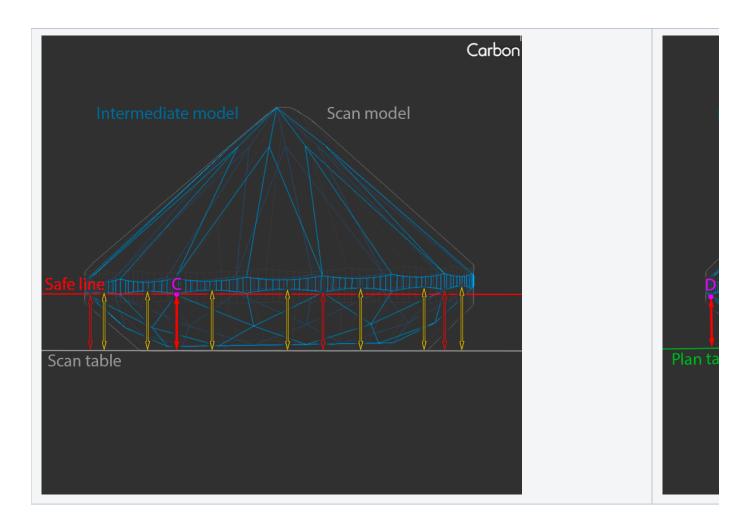
For the calculation of Safe line an intermediate model (the blue one) is generated by polishing all facets of pavilion, crown and table of the scan (grey) down to facets of plan (green):



Safe line on Crown is the line of section of the scan's model by the plane passing through point C and parallel to the scan's plane. For each facet on the crown's mains and halves of the intermediate model a point on the facet is determined which is most distant from the scan's plane. From these points the closest to the scan's plane is point C.

For each facet on the crown's mains and halves of the intermediate model a point on the facet is determined which is most distant from the plan's plane. From these points the closest to the plan's plane is point D.

For the calculation of Safe line on Pavilion the points are found in the same manner except inversion: most distant point is selected amongst points closest to planes for each facet on the pavilion's mains and halves



Safe line: Distance to scan table is distance between point C and scan's table plane.

Safe line: Distance to plan table is distance between point D and plan's table plane.