

Saturn's Star Offset Crown

Loren Brown, RSA Gems, 2019

Angles for Tourmaline

Angles for R.I. = 1.620

133 + 24 girdles = 157 facets

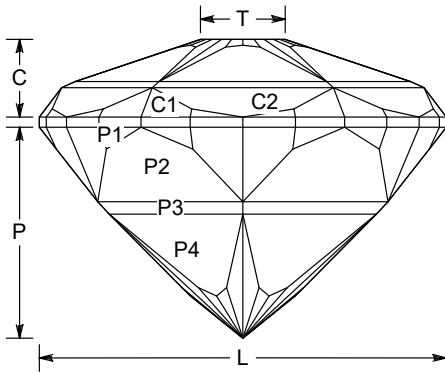
12-fold, mirror-image symmetry

96 index

L/W = 1.000 T/W = 0.208 U/W = 0.208

P/W = 0.517 C/W = 0.191

Vol./W³ = 0.259



PAVILION

P1	64.32°	02-06-10-14-18-22-26-30-34-38-42-46-50-54-58-62-66-70-74-78-82-86-90-94	establish girdle position and stone size, 24-fold symmetry
G	90.00°	02-06-10-14-18-22-26-30-34-38-42-46-50-54-58-62-66-70-74-78-82-86-90-94	level girdle
P2	51.79°	08-24-40-56-72-88	meet P1 at girdle, 6-fold symmetry
P3	47.23°	08-24-40-56-72-88	meet P1, P2
P4	45.21°	08-24-40-56-72-88	cut to desired thickness of P3
P5	39.00°	02-06-10-14-18-22-26-30-34-38-42-46-50-54-58-62-66-70-74-78-82-86-90-94	cut to center point, 24-fold symmetry, meet P3, P4 at hexagon vertices

CROWN

C1	53.00°	02-06-10-14-18-22-26-30-34-38-42-46-50-54-58-62-66-70-74-78-82-86-90-94	set girdle width, 24 fold symmetry
C2	32.20°	96-16-32-48-64-80	meet P1 at girdle, 6-fold symmetry
C3	27.72°	96-16-32-48-64-80	meet C1, C2
C4	23.00°	96-16-32-48-64-80	cut to desired hexagon thickness
C5	18.60°	01-07-09-15-17-23-25-31-33-39-41-47-49-55-57-63-65-71-73-79-81-87-89-95	meet C3, C4 every other pair of facets. Cut all to same depth
T	0.00°	Table	float table to desired diameter

Cassini's photo of Saturn's North Pole was the inspiration for this hexagon in a round diagram. Six-sided split facet stars on both crown and pavilion round out the design. The crown is a mirror of the pavilion, but rotated by 30 degrees so the patterns bisect one another.

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