

# Der Falkenberg Schliff

Vierundzwanzig GemCad Diagramme für einen neuen Edelsteinschliff



# Der Falkenberg Schliff – wie er entstand

Die Begeisterung des Facettierens von Edelsteinen hat mein Bruder Hansruedi geweckt, anlässlich eines Besuches bei seiner Familie in Texas vor etlichen Jahren. Er zeigte mir einige selbst geschliffene Juwelen und lehrte mich darauf das Schleifen und Polieren mit allem Drum und Dran auf seiner Facetron.

Die sehr warmen texanischen Nächte erschwerten das Einschlafen, so dass umso mehr Zeit für das Facettieren übrigblieb. Es entstanden Steine vor allem in einfachen Cuts wie etwa Easy Eight und SRB.

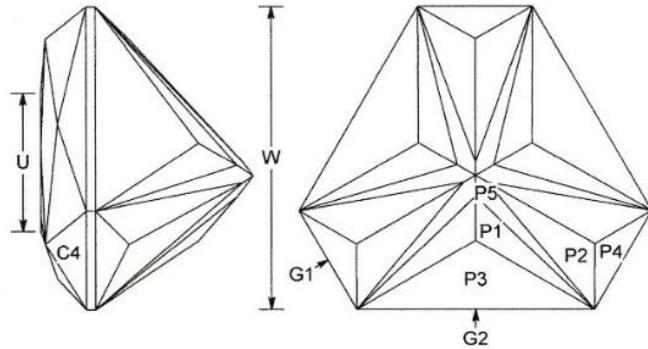
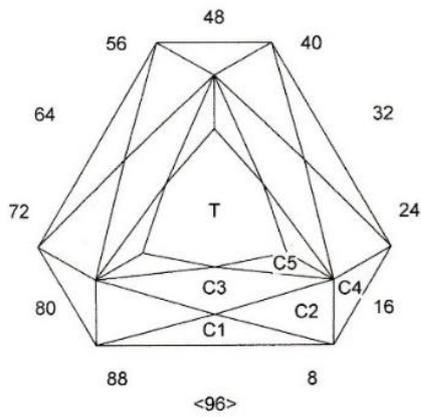
Zurück in der Schweiz habe ich mir bald darauf eine eigene Facetron mit Zubehör geordert. Die erste Schleifwerkstatt war somit im Keller unseres Neftenbacher Hauses. Vielerlei Schliffe wurden ausprobiert, darunter auch der Flanders Cut. Ich war davon fasziniert, weil er für mich wie die Quadratur des Kreises wirkt. Es gelang mir mit GemCad, ein Schliffdiagramm des Flanders nachzuzeichnen. Ich fing an das Design zu variieren, Facetten wegzulassen oder hinzuzufügen, den vierfachsymmetrischen Schliff mit dreifacher und fünffacher Symmetrie zu berechnen.

Der herkömmliche Flanders Cut hat für Unter- und Oberseite keine ebene Rondistenlinie. Indem ich in den 4 Ecken des Unterteiles noch je eine zusätzliche Facette einfügte, gelang mir aus meiner Sicht eine Verbesserung vor allem aus Sicht des Fassens.

Die Unterseite hat nun immer denselben Aufbau, ob mit 3- 4- 5- oder gar 6-facher Symmetrie. Mit der vorgegebenen Unterseite (auch Pavilion genannt) lassen sich nun z.B. ein Brillantschliff, ein Smaragdschliff oder auch ein Princess Cut ausführen.

Den Namen Falkenberg für das Design wählte ich wegen der relativen Nähe der sehr schönen schwedischen Küstenstadt zu meinem derzeitigen Atelier in Südschweden.

Martin Steiner, Dezember 2022



### Falkenberg 96-3 Princess

by Martin Steiner, 18.04.2021

Angles for R.I. = 1.540

46 + 6 girdles = 52 facets

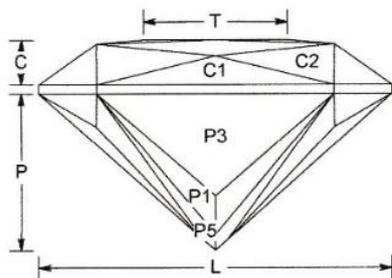
3-fold, mirror-image symmetry

96 index

$L/W = 1.155$   $T/W = 0.472$   $U/W = 0.456$

$P/W = 0.517$   $C/W = 0.149$

$Vol./W^3 = 0.263$



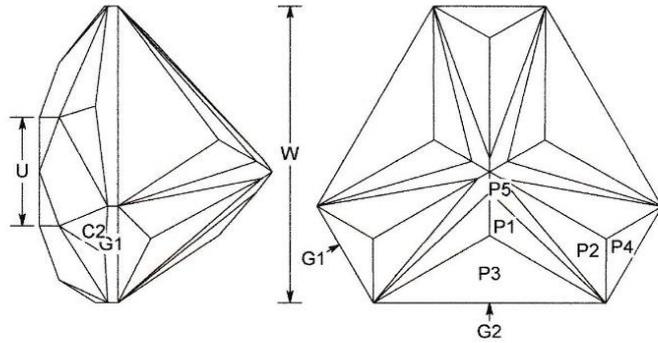
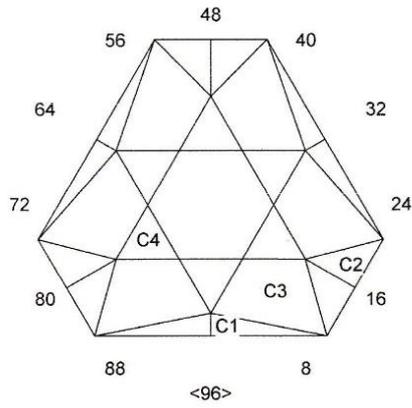
#### PAVILION

P1	43.20°	06-26-38-58-70-90	cut to centerpoint
P2	42.60°	15-17-47-49-79-81	cut to same centerpoint
G1	90.00°	16-48-80	establish size
G2	90.00°	96-32-64	establish size
P3	56.00°	96-32-64	level girdle
P4	45.66°	16-48-80	level girdle
P5	41.84°	08-24-40-56-72-88	meet girdle, cut new centerpoint

#### CROWN

C1	43.00°	96-32-64	cut to level girdle, determine girdle thickness
C2	32.00°	02-30-34-62-66-94	cut to meet girdle
C3	19.00°	96-32-64	cut to meet apex C1
C4	51.25°	16-48-80	cut to level girdle, meet C1, C2
C5	7.00°	03-29-35-61-67-93	cut to meet apex C4
T	0.00°	Table	cut to meet apex C3

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### Falkenberg 96-3 Trilliant

by Martin Steiner, 26.07.2013

Angles for R.I. = 1.540

49 + 6 girdles = 55 facets

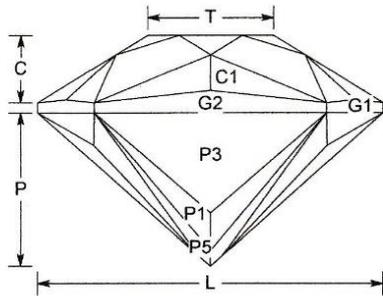
3-fold, mirror-image symmetry

96 index

$L/W = 1.155$   $T/W = 0.422$   $U/W = 0.366$

$P/W = 0.517$   $C/W = 0.228$

$Vol./W^3 = 0.301$



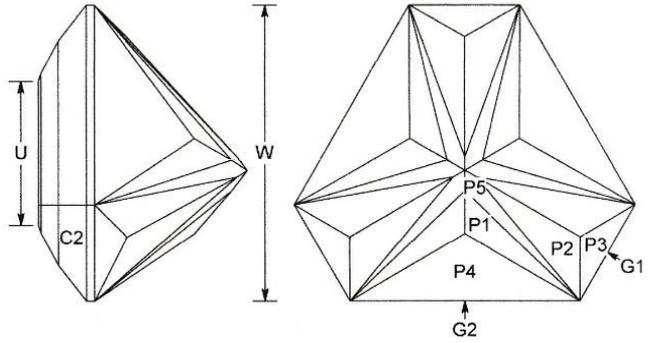
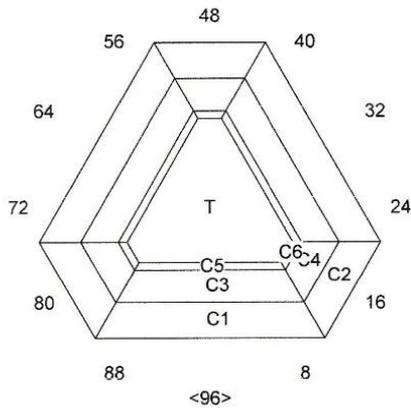
#### PAVILION

P1	43.20°	06-26-38-58-70-90	cut to centerpoint
P2	42.60°	15-17-47-49-79-81	cut to same centerpoint
G1	90.00°	16-48-80	establish size
G2	90.00°	96-32-64	establish size
P3	56.00°	96-32-64	level girdle
P4	45.66°	16-48-80	level girdle
P5	41.84°	08-24-40-56-72-88	meet girdle, cut new centerpoint

#### CROWN

C1	58.04°	01-31-33-63-65-95	uneven girdle line, cut simultaneously with C2
C2	38.50°	15-17-47-49-79-81	uneven girdle line, cut simultaneously with C1
C3	31.91°	08-24-40-56-72-88	meet girdle line
C4	19.80°	96-16-32-48-64-80	GemCad 6-fold symmetry
	0.00°	Table	

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### Falkenberg 96-3 Trimerald

by Martin Steiner, 26.07.2013

Angles for R.I. = 1.540

43 + 6 girdles = 49 facets

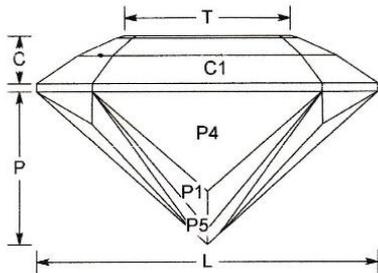
3-fold, mirror-image symmetry

96 index

$L/W = 1.155$   $T/W = 0.561$   $U/W = 0.486$

$P/W = 0.517$   $C/W = 0.162$

$Vol./W^3 = 0.262$



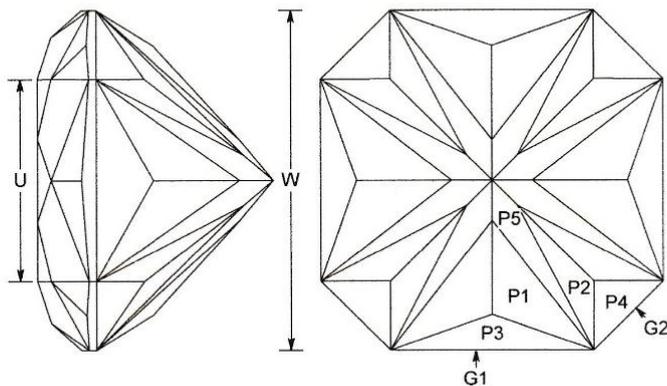
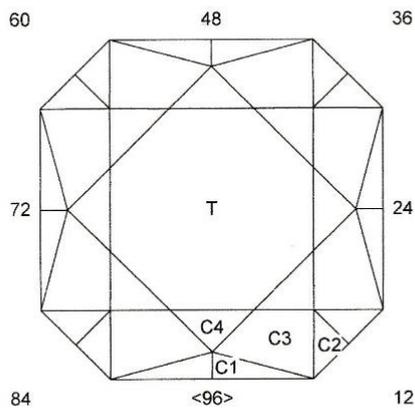
#### PAVILION

P1	43.20°	06-26-38-58-70-90	cut to centerpoint
P2	42.60°	15-17-47-49-79-81	cut to same centerpoint
G1	90.00°	16-48-80	establish size
G2	90.00°	96-32-64	establish size
P3	45.66°	16-48-80	level girdle
P4	56.00°	96-32-64	level girdle
P5	41.84°	08-24-40-56-72-88	meet girdle, cut new centerpoint

#### CROWN

C1	38.00°	96-32-64	determine girdle thickness
C2	38.00°	16-48-80	determine girdle thickness
C3	28.00°	96-32-64	
C4	28.00°	16-48-80	
C5	18.00°	96-32-64	
C6	18.00°	16-48-80	
T	0.00°	Table	

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### Falkenberg 96-4 cut corner Square Brilliant

by Martin Steiner, 05.07.2012

Angles for R.I. = 1.540

65 + 8 girdles = 73 facets

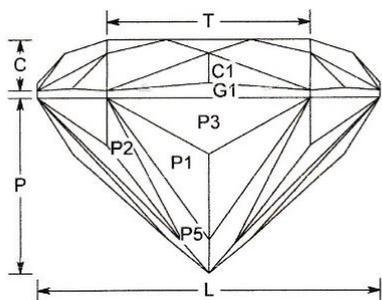
4-fold, mirror-image symmetry

96 index

$L/W = 1.000$   $T/W = 0.594$   $U/W = 0.594$

$P/W = 0.516$   $C/W = 0.150$

$Vol./W^3 = 0.288$



#### PAVILION

P1	43.20°	04-20-28-44- 52-68-76-92	cut to centerpoint
P2	42.60°	11-13-35-37- 59-61-83-85	cut to same centerpoint
G1	90.00°	96-24-48-72	establish size
G2	90.00°	12-36-60-84	establish size
P3	58.00°	96-24-48-72	level girdle
P4	44.36°	12-36-60-84	level girdle, these 4 facets are additional to the traditional flanders cut
P5	41.90°	06-18-30-42- 54-66-78-90	meet girdle, new centerpoint

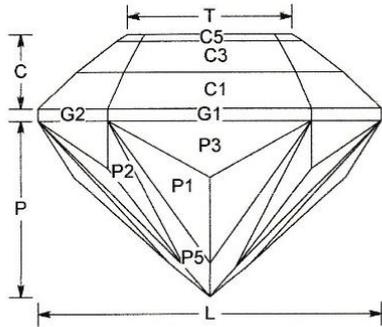
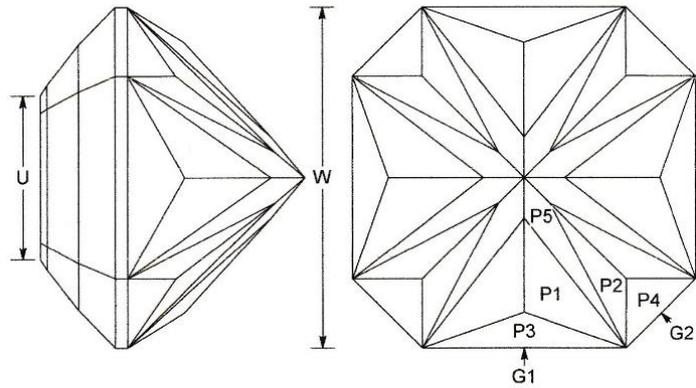
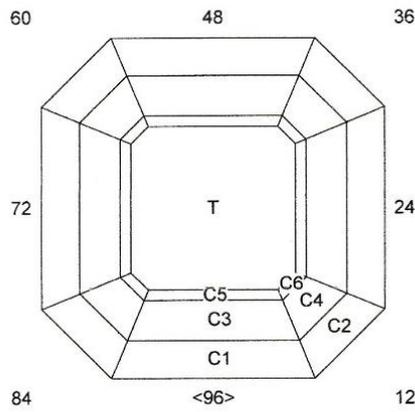
#### CROWN

C1	48.26°	01-23-25-47- 49-71-73-95	uneven girdle line, cut simultaneously with C2
C2	36.00°	11-13-35-37- 59-61-83-85	uneven girdle line, cut simultaneously with C1
C3	30.55°	06-18-30-42- 54-66-78-90	meet girdle line
C4	17.80°	96-12-24-36- 48-60-72-84	Gemcad 8-fold symmetry
T	0.00°	Table	

The design of this stone is based on the FLANDERS cut.

To achieve an even girdle line pavilionsides i have placed four more facets into the corners of the stone.

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### Falkenberg 96-4 Square Emerald

by Martin Steiner, 26.03.2013

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

4-fold, mirror-image symmetry

96 index

$L/W = 1.000$   $T/W = 0.481$   $U/W = 0.481$

$P/W = 0.516$   $C/W = 0.218$

$Vol./W^3 = 0.327$

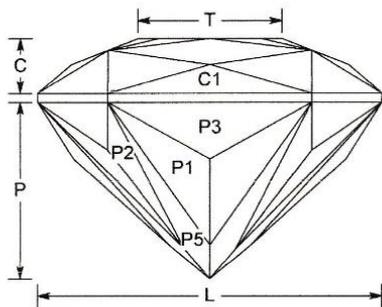
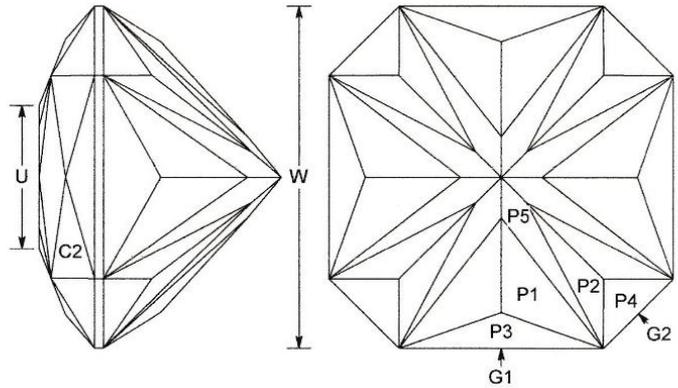
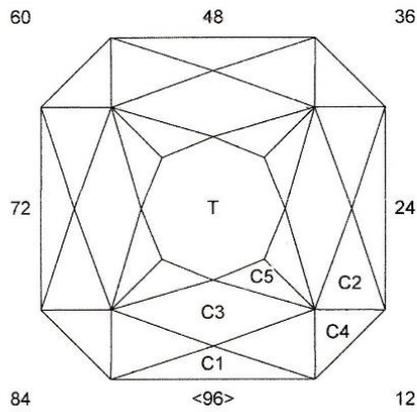
#### PAVILION

P1	43.20°	04-20-28-44- 52-68-76-92	cut to centerpoint
P2	42.60°	11-13-35-37- 59-61-83-85	cut to same centerpoint
G1	90.00°	96-24-48-72	establish size
G2	90.00°	12-36-60-84	establish size
P3	58.00°	96-24-48-72	level girdle
P4	44.36°	12-36-60-84	level girdle
P5	41.90°	06-18-30-42- 54-66-78-90	meet girdle, new centerpoint

#### CROWN

C1	44.00°	96-24-48-72	determine girdle thickness
C2	44.00°	12-36-60-84	determine girdle thickness
C3	38.00°	96-24-48-72	
C4	38.00°	12-36-60-84	
C5	32.00°	96-24-48-72	
C6	32.00°	12-36-60-84	
T	0.00°	Table	

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### Falkenberg 96-4h Princess

by Martin Steiner, 16.04.2021

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

4-fold, mirror-image symmetry

96 index

$L/W = 1.000$   $T/W = 0.419$   $U/W = 0.419$

$P/W = 0.516$   $C/W = 0.160$

$Vol./W^3 = 0.287$

#### PAVILION

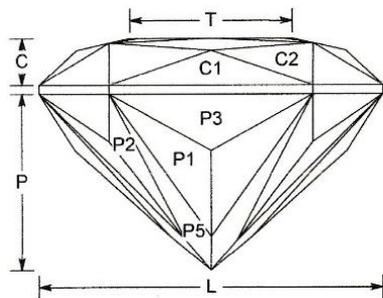
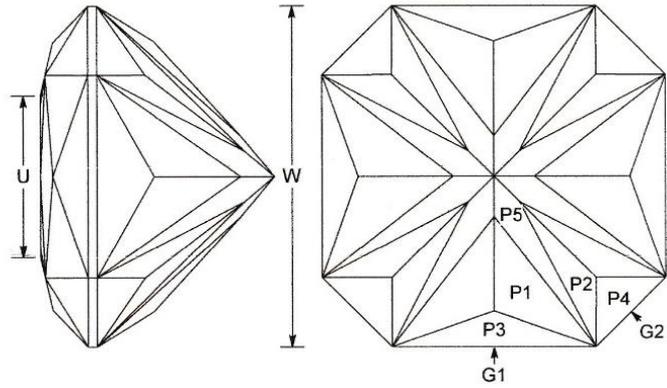
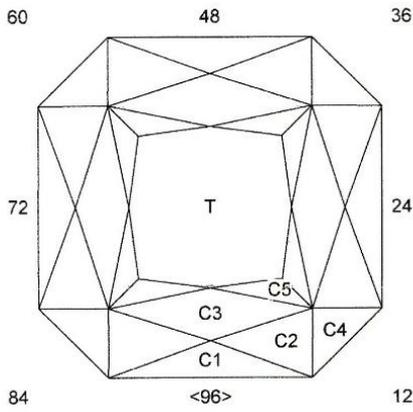
P1	43.20°	04-20-28-44- 52-68-76-92	cut to centerpoint
P2	42.60°	11-13-35-37- 59-61-83-85	cut to same centerpoint
G1	90.00°	96-24-48-72	establish size
G2	90.00°	12-36-60-84	establish size
P3	58.00°	96-24-48-72	level girdle
P4	44.36°	12-36-60-84	level girdle
P5	41.90°	06-18-30-42- 54-66-78-90	meet girdle, new centerpoint

#### CROWN

C1	41.00°	96-24-48-72	establish girdle thickness
C2	32.00°	02-22-26-46- 50-70-74-94	meet girdle line
C3	21.50°	96-24-48-72	meet apex C1
C4	41.11°	12-36-60-84	meet girdle, C2, C3
C5	10.00°	06-18-30-42- 54-66-78-90	meet apex C4
T	0.00°	Table	meet apex C3

high table

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### Falkenberg 96-4I Princess

by Martin Steiner, 16.04.2021

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

4-fold, mirror-image symmetry

96 index

$L/W = 1.000$   $T/W = 0.474$   $U/W = 0.474$

$P/W = 0.516$   $C/W = 0.138$

$Vol./W^3 = 0.283$

#### PAVILION

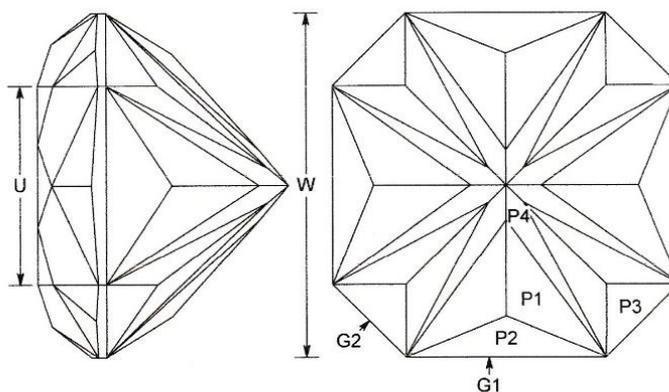
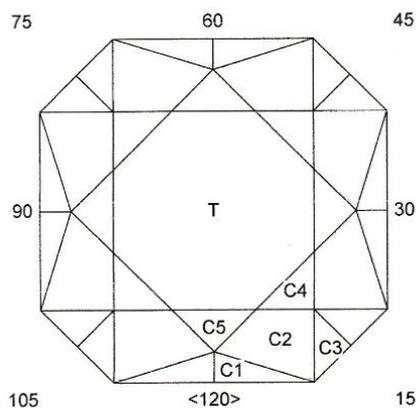
P1	43.20°	04-20-28-44- 52-68-76-92	cut to centerpoint
P2	42.60°	11-13-35-37- 59-61-83-85	cut to same centerpoint
G1	90.00°	96-24-48-72	establish size
G2	90.00°	12-36-60-84	establish size
P3	58.00°	96-24-48-72	level girdle
P4	44.36°	12-36-60-84	level girdle
P5	41.90°	06-18-30-42- 54-66-78-90	meet girdle, new centerpoint

#### CROWN

C1	43.50°	96-24-48-72	establish girdle thickness
C2	32.00°	03-21-27-45- 51-69-75-93	meet girdle line
C3	12.92°	96-24-48-72	meet apex C1
C4	41.00°	12-36-60-84	level girdle
C5	8.00°	02-22-26-46- 50-70-74-94	meet apex C4
T	0.00°	Table	meet apex C3

low table

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### Falkenberg 120-4 cut corner Square Brilliant

by Martin Steiner, 06.12.2015

Angles for R.I. = 1.540

65 + 8 girdles = 73 facets

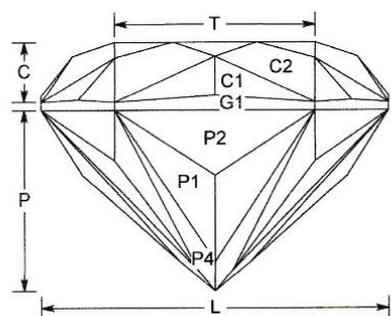
4-fold, mirror-image symmetry

120 index

$L/W = 1.000$   $T/W = 0.579$   $U/W = 0.579$

$P/W = 0.525$   $C/W = 0.175$

$Vol./W^3 = 0.305$



#### PAVILION

P1	43.26°	006-014-016- cut to centerpoint 024-036-044- 046-054-066- 074-076-084- 096-104-106- 114
G1	90.00°	120-030-060- establish size 090
G2	90.00°	015-045-075- establish size 105
P2	58.05°	120-030-060- level girdle 090
P3	44.69°	015-045-075- level girdle 105
P4	42.46°	008-022-038- meet girdle, new 052-068-082- centerpoint 098-112

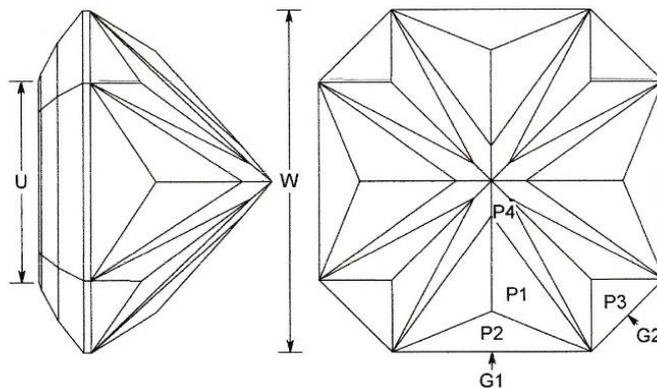
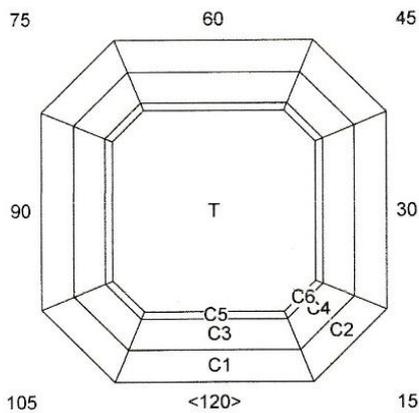
#### CROWN

C1	52.00°	001-029-031- uneven girdle line, cut 059-061-089- simultaneously with C2 091-119
C2	33.83°	008-022-038- uneven girdle line, cut 052-068-082- simultaneously with C1 098-112
C3	39.50°	014-016-044- meet girdle, C1 046-074-076- 104-106
C4	21.03°	015-045-075- meet apex C3 105
C5	18.89°	120-030-060- meet apex C1 090
T	0.00°	Table meet apex C2

The design of the stone is based on the FLANDERS cut.

To achieve an even girdle line pavilionsides i have placed four more facets into the corners of the stone.

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### Falkenberg 120-4 Square Emerald

by Martin Steiner, 06.12.2015

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

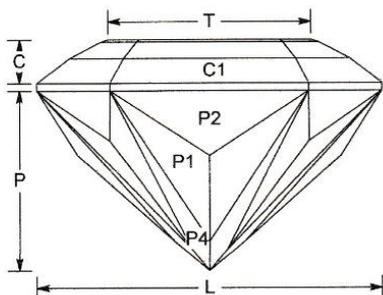
4-fold, mirror-image symmetry

120 index

$L/W = 1.000$   $T/W = 0.589$   $U/W = 0.589$

$P/W = 0.525$   $C/W = 0.128$

$Vol./W^3 = 0.275$



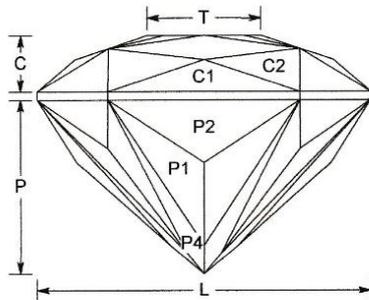
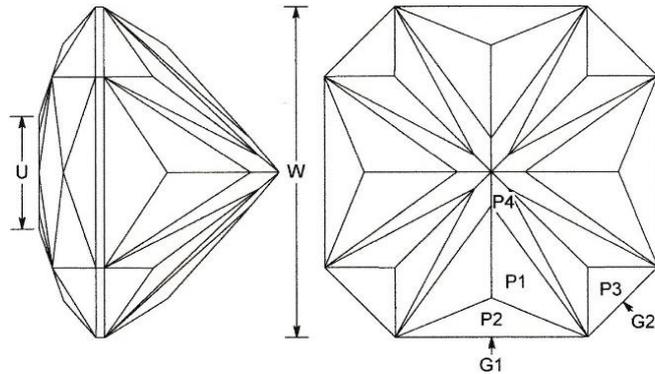
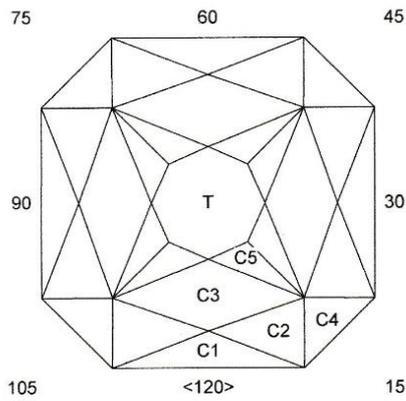
#### PAVILION

P1	43.26°	006-014-016- cut to centerpoint 024-036-044- 046-054-066- 074-076-084- 096-104-106- 114
G1	90.00°	120-030-060- establish size 090
G2	90.00°	015-045-075- establish size 105
P2	58.05°	120-030-060- level girdle 090
P3	44.69°	015-045-075- level girdle 105
P4	42.46°	008-022-038- meet girdle, new 052-068-082- centerpoint 098-112

#### CROWN

C1	38.00°	120-030-060- set girdle thickness 090
C2	38.00°	015-045-075- set girdle thickness 105
C3	28.00°	120-030-060- 090
C4	28.00°	015-045-075- 105
C5	18.00°	120-030-060- 090
C6	18.00°	015-045-075- 105
T	0.00°	Table

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### Falkenberg 120-4h Princess

by Martin Steiner, 25.10.2020

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

4-fold, mirror-image symmetry

120 index

$L/W = 1.000$   $T/W = 0.340$   $U/W = 0.340$

$P/W = 0.525$   $C/W = 0.171$

$Vol./W^3 = 0.289$

#### PAVILION

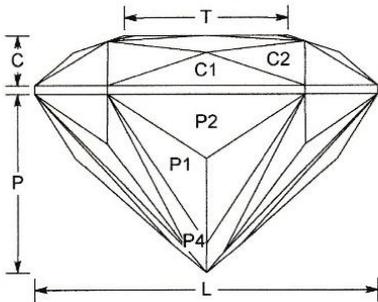
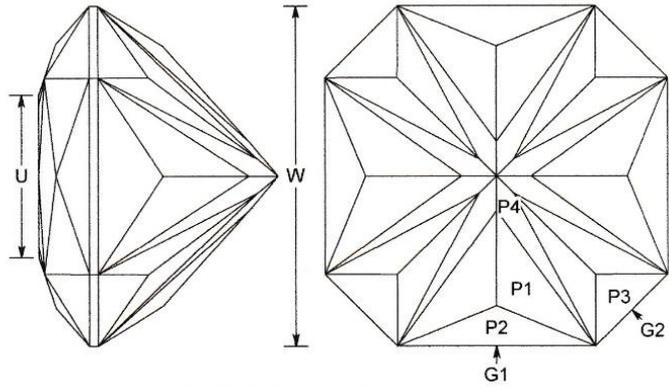
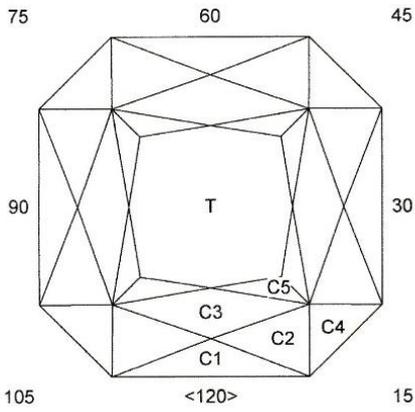
P1	43.26°	006-014-016- cut to centerpoint 024-036-044- 046-054-066- 074-076-084- 096-104-106- 114
G1	90.00°	120-030-060- establish size 090
G2	90.00°	015-045-075- establish size 105
P2	58.05°	120-030-060- level girdle 090
P3	44.69°	015-045-075- level girdle 105
P4	42.46°	008-022-038- meet girdle, new 052-068-082- centerpoint 098-112

#### CROWN

C1	41.00°	120-030-060- set girdle thickness 090
C2	32.00°	003-027-033- meet girdle line 057-063-087- 093-117
C3	18.60°	120-030-060- meet apex C1 090
C4	41.02°	015-045-075- level girdle 105
C5	10.00°	008-022-038- meet apex C4 052-068-082- 098-112
T	0.00°	Table meet apex C3

high table

K:\Gemcad Dateien\Designs\Steiner\Falkenberg 120-4h Princess.gem



### Falkenberg 120-4I Princess

by Martin Steiner, 25.10.2020

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

4-fold, mirror-image symmetry

120 index

$L/W = 1.000$   $T/W = 0.478$   $U/W = 0.478$

$P/W = 0.525$   $C/W = 0.147$

$Vol./W^3 = 0.285$

#### PAVILION

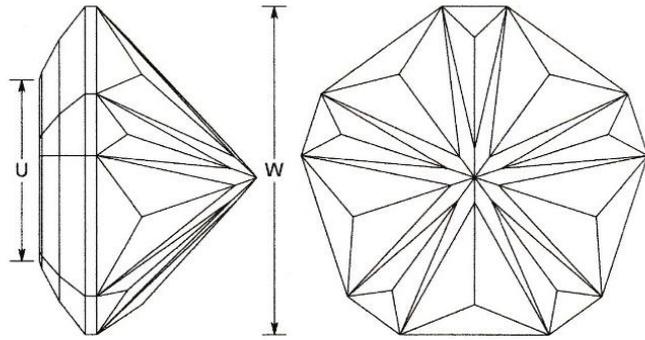
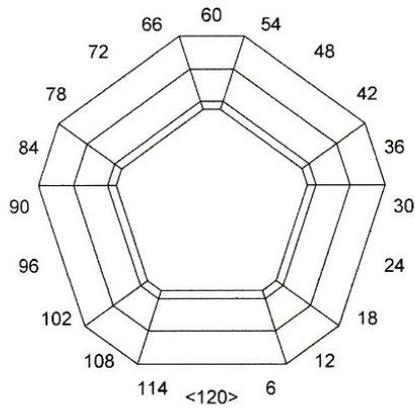
P1	43.26°	006-014-016-	cut to centerpoint
		024-036-044-	
		046-054-066-	
		074-076-084-	
		096-104-106-	
		114	
G1	90.00°	120-030-060-	establish size
		090	
G2	90.00°	015-045-075-	establish size
		105	
P2	58.05°	120-030-060-	level girdle
		090	
P3	44.69°	015-045-075-	level girdle
		105	
P4	42.46°	008-022-038-	meet girdle, new
		052-068-082-	centerpoint
		098-112	

#### CROWN

C1	41.00°	120-030-060-	set girdle thickness
		090	
C2	32.00°	003-027-033-	meet girdle line
		057-063-087-	
		093-117	
C3	18.60°	120-030-060-	meet apex C1
		090	
C4	41.02°	015-045-075-	level girdle
		105	
C5	10.00°	003-027-033-	meet apex C4
		057-063-087-	
		093-117	
T	0.00°	Table	meet apex C3

low table

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### Falkenberg 120-5 Pentemerald

by Martin Steiner, 18.04.2021

Angles for R.I. = 1.540

71 + 10 girdles = 81 facets

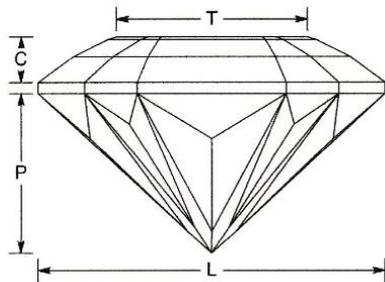
5-fold, mirror-image symmetry

120 index

$L/W = 1.051$   $T/W = 0.580$   $U/W = 0.552$

$P/W = 0.486$   $C/W = 0.139$

$Vol./W^3 = 0.239$



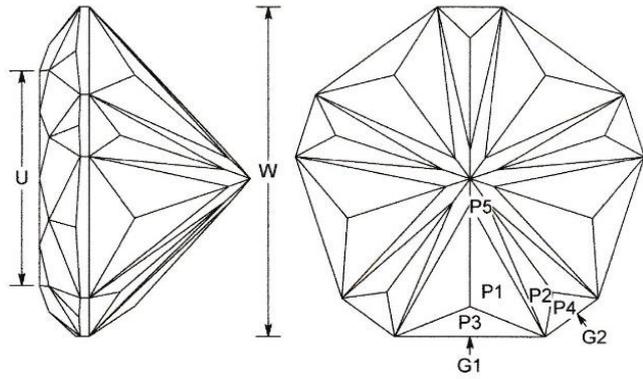
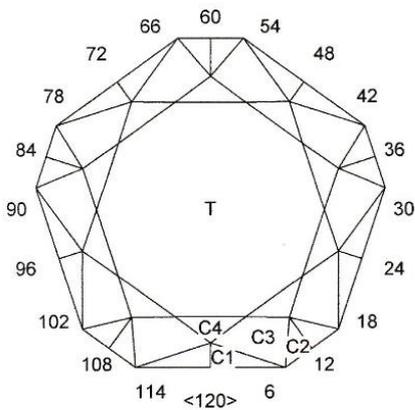
#### PAVILION

43.20°	005-019-029- 043-053-067- 077-091-101-115
43.00°	011-013-035- 037-059-061- 083-085-107-109
90.00°	012-036-060- 084-108
90.00°	120-024-048- 072-096
44.48°	012-036-060- 084-108
56.46°	120-024-048- 072-096
42.60°	007-017-031- 041-055-065- 079-089-103-113

#### CROWN

38.00°	120-024-048- 072-096
38.00°	012-036-060- 084-108
28.00°	120-024-048- 072-096
28.00°	012-036-060- 084-108
18.00°	120-024-048- 072-096
18.00°	012-036-060- 084-108
0.00°	Table

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### Falkenberg 120-5 Pentilliant

by Martin Steiner. 20.04.2021

Angles for R.I. = 1.540

81 + 10 girdles = 91 facets

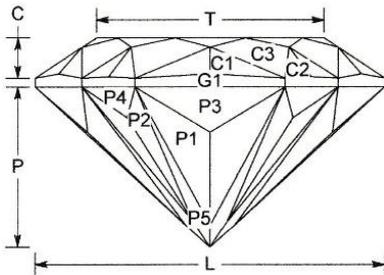
5-fold, mirror-image symmetry

120 index

L/W = 1.051 T/W = 0.686 U/W = 0.652

P/W = 0.486 C/W = 0.123

Vol./W<sup>3</sup> = 0.233



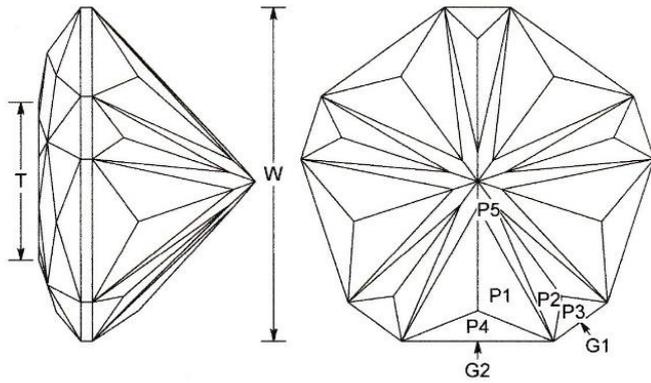
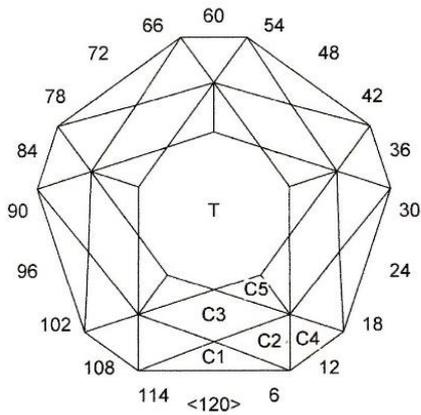
#### PAVILION

P1	43.20°	005-019-029-043-053-067-077-091-101-115	cut to centerpoint
P2	43.00°	011-013-035-037-059-061-083-085-107-109	cut to same centerpoint
G1	90.00°	120-024-048-072-096	set size
G2	90.00°	012-036-060-084-108	set size
P3	56.46°	120-024-048-072-096	level girdle
P4	44.48°	012-036-060-084-108	level girdle
P5	42.60°	007-017-031-041-055-065-079-089-103-113	meet girdle, new centerpoint

#### CROWN

C1	47.66°	001-023-025-047-049-071-073-095-097-119	uneven girdle line, cut simultaneously with C2
C2	38.00°	011-013-035-037-059-061-083-085-107-109	uneven girdle line, cut simultaneously with C1
C3	33.85°	006-018-030-042-054-066-078-090-102-114	meet girdle
C4	19.80°	120-012-024-036-048-060-072-084-096-108	meet apex C1, apex C2 GemCad 10-fold symmetry
T	0.00°		Table

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### Falkenberg 120-5 Princess

by Martin Steiner. 20.04.2021

Angles for R.I. = 1.540

76 + 10 girdles = 86 facets

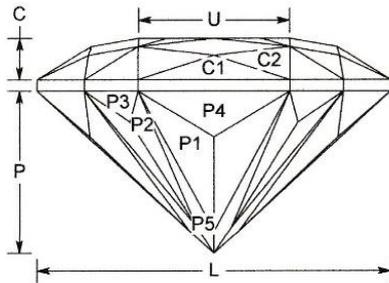
5-fold, mirror-image symmetry

120 index

$L/W = 1.051$   $T/W = 0.473$   $U/W = 0.450$

$P/W = 0.486$   $C/W = 0.125$

$Vol./W^3 = 0.232$



#### PAVILION

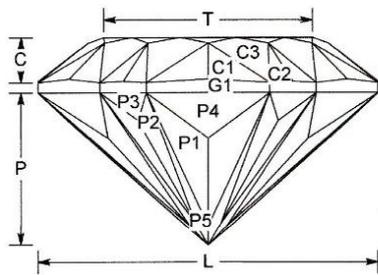
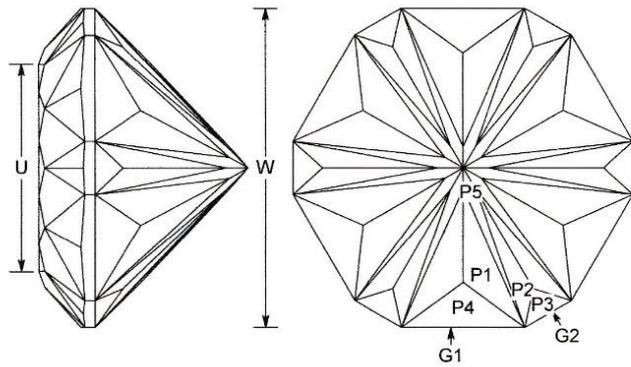
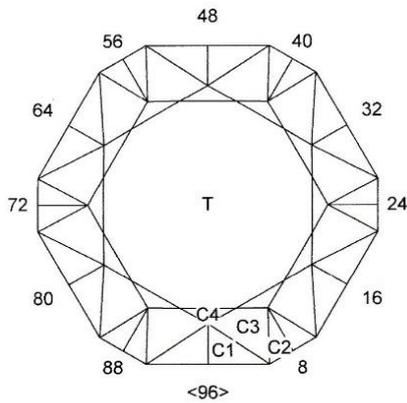
P1	43.20°	005-019-029-043-053-067-077-091-101-115	cut to centerpoint
P2	43.00°	011-013-035-037-059-061-083-085-107-109	cut to same centerpoint
G1	90.00°	012-036-060-084-108	establish size
G2	90.00°	120-024-048-072-096	establish size
P3	44.48°	012-036-060-084-108	level girdle
P4	56.46°	120-024-048-072-096	level girdle, cut to meet P2, P3
P5	42.60°	007-017-031-041-055-065-079-089-103-113	meet girdle, new centerpoint

#### CROWN

C1	40.00°	120-024-048-072-096	cut to level girdle, determine girdle thickness
C2	31.00°	003-021-027-045-051-069-075-093-099-117	cut to meet girdle
C3	18.40°	120-024-048-072-096	cut to meet apex C1
C4	36.25°	012-036-060-084-108	cut girdle, meet C1, C2, C3
C5	10.00°	006-018-030-042-054-066-078-090-102-114	cut to meet apex C4
T	0.00°	Table	cut to meet apex C3

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### Falkenberg 96-6 Sixtilliant

by Martin Steiner, 10.11.2015

Angles for R.I. = 1.540

97 + 12 girdles = 109 facets

6-fold, mirror-image symmetry

96 index

$L/W = 1.058$   $T/W = 0.651$   $U/W = 0.651$

$P/W = 0.477$   $C/W = 0.142$

$Vol./W^3 = 0.249$

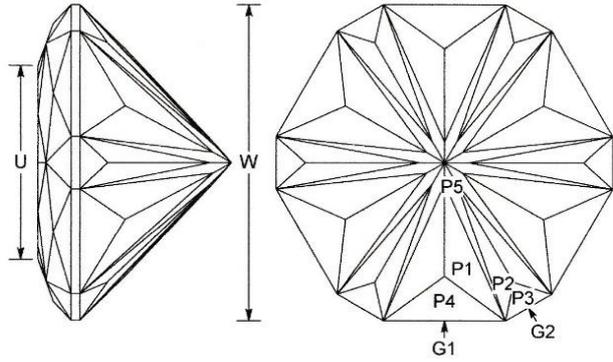
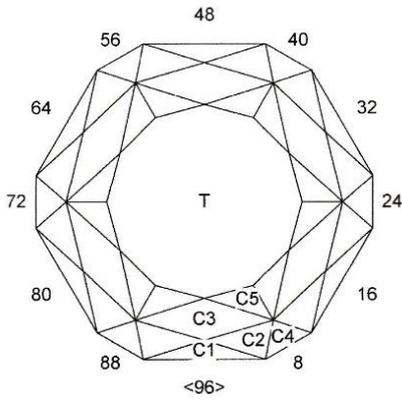
#### PAVILION

P1	43.20°	01-15-17-31-33-47-49-63-65-79-81-95	cut to centerpoint
P2	42.00°	07-09-23-25-39-41-55-57-71-73-87-89	cut to same centerpoint
G1	90.00°	96-16-32-48-64-80	establish size
G2	90.00°	08-24-40-56-72-88	establish size
P3	43.59°	08-24-40-56-72-88	level girdle
P4	45.60°	96-16-32-48-64-80	level girdle
P5	42.10°	03-13-19-29-35-45-51-61-67-77-83-93	meet girdle, new centerpoint

#### CROWN

C1	42.00°	01-15-17-31-33-47-49-63-65-79-81-95	uneven girdle line, cut together with C2
C2	37.85°	07-09-23-25-39-41-55-57-71-73-87-89	uneven girdle line, cut together with C1
C3	36.00°	04-12-20-28-36-44-52-60-68-76-84-92	meet girdle line
C4	20.00°	96-08-16-24-32-40-48-56-64-72-80-88	meet apex C1, C2, GemCad 12-fold symmetry
T	0.00°	Table	

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### Falkenberg 96-6 Sixt Princess

by Martin Steiner, 06.12.2022

Angles for R.I. = 1.540

91 + 12 girdles = 103 facets

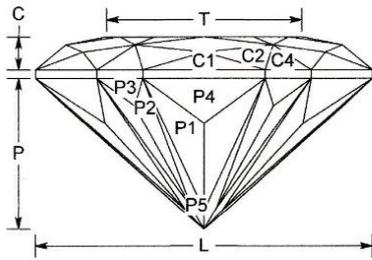
6-fold, mirror-image symmetry

96 index

$L/W = 1.058$   $T/W = 0.614$   $U/W = 0.614$

$P/W = 0.477$   $C/W = 0.104$

$Vol./W^3 = 0.223$



#### PAVILION

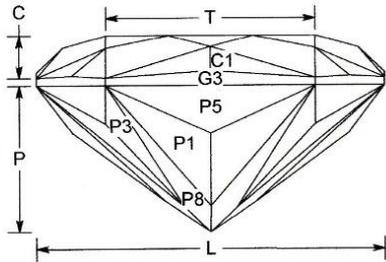
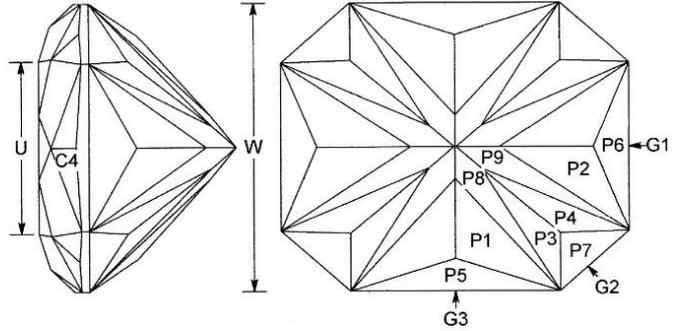
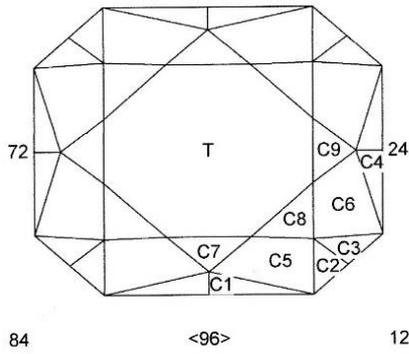
P1	43.20°	01-15-17-31-33-47-49-63-65-79-81-95	cut to centerpoint
P2	42.00°	07-09-23-25-39-41-55-57-71-73-87-89	cut to same centerpoint
G1	90.00°	96-16-32-48-64-80	establish size
G2	90.00°	08-24-40-56-72-88	establish size
P3	43.59°	08-24-40-56-72-88	level girdle
P4	45.60°	96-16-32-48-64-80	level girdle
P5	42.10°	03-13-19-29-35-45-51-61-67-77-83-93	meet girdle, new centerpoint

#### CROWN

C1	43.00°	96-16-32-48-64-80	set girdle thickness
C2	33.50°	02-14-18-30-34-46-50-62-66-78-82-94	meet girdle
C3	19.89°	96-16-32-48-64-80	apex C1
C4	39.85°	08-24-40-56-72-88	level girdle
C5	11.50°	04-12-20-28-36-44-52-60-68-76-84-92	apex C4
T	0.00°	Table	meet apex C3

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60 48 36



### Falkenberg 96-2 Rectangular Brilliant

by Martin Steiner, 11.09.2022

Angles for R.I. = 1.540

65 + 8 girdles = 73 facets

2-fold, mirror-image symmetry

96 index

L/W = 1.199 T/W = 0.721 U/W = 0.599

P/W = 0.506 C/W = 0.147

Vol./W<sup>3</sup> = 0.345

#### PAVILION

P1	42.62°	03-45-51-93	cut to temp. centerpoint
P2	37.97°	19-29-67-77	cut to tcp
P3	39.93°	10-38-58-86	cut to tcp
P4	39.34°	12-36-60-84	cut to tcp
G1	90.00°	24-72	establish length
G2	90.00°	11-37-59-85	
G3	90.00°	96-48	establish width
P5	56.00°	96-48	level girdle
P6	53.00°	24-72	level girdle
P7	41.45°	11-37-59-85	level girdle
P8	40.65°	05-43-53-91	meet girdle, new centerpoint
P9	37.29°	17-31-65-79	meet girdle, new centerpoint

#### CROWN

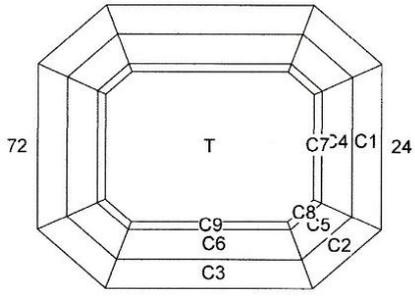
C1	46.50°	01-47-49-95	uneven girdle line
C2	34.03°	10-38-58-86	uneven girdle line
C3	33.32°	12-36-60-84	uneven girdle line
C4	43.73°	23-25-71-73	uneven girdle line
C5	29.55°	05-43-53-91	meet girdle line
C6	26.57°	17-31-65-79	meet girdle line
C7	17.63°	96-48	meet apex C1
C8	16.36°	11-37-59-85	meet apex C2, C3
C9	15.80°	24-72	meet apex C4
T	0.00°	Table	

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48

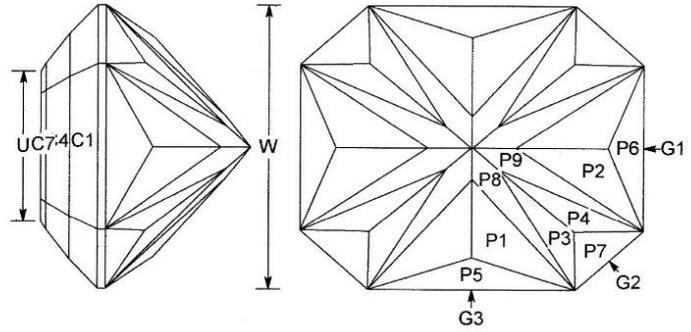
36



84

&lt;96&gt;

12



## Falkenberg 96-2 Rectangular Emerald

by Martin Steiner, 11.09.2022

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

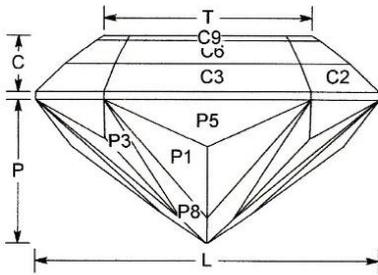
2-fold, mirror-image symmetry

96 index

$L/W = 1.200$   $T/W = 0.729$   $U/W = 0.529$

$P/W = 0.507$   $C/W = 0.199$

$Vol./W^3 = 0.379$



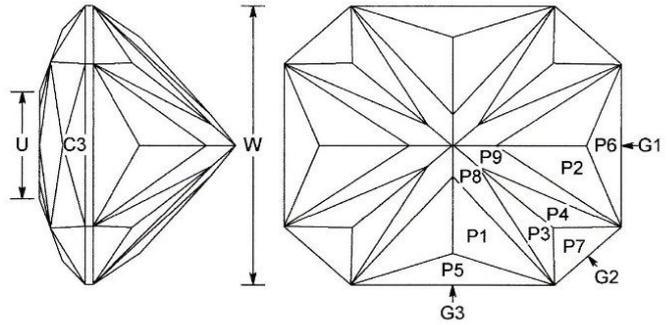
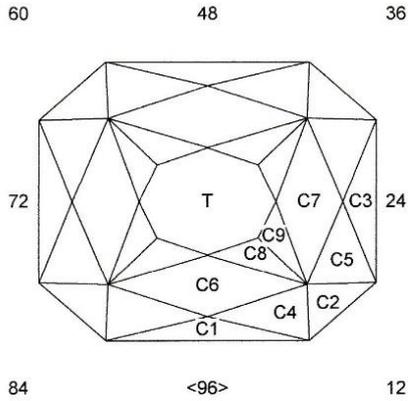
### PAVILION

P1	42.65°	03-45-51-93	cut to temp. centerpoint
P2	37.98°	19-29-67-77	cut to tcp
P3	39.94°	10-38-58-86	cut to tcp
P4	39.34°	12-36-60-84	cut to tcp
G1	90.00°	24-72	establish length
G2	90.00°	11-37-59-85	
G3	90.00°	96-48	establish width
P5	56.00°	96-48	level girdle
P6	53.00°	24-72	level girdle
P7	41.39°	11-37-59-85	level girdle
P8	40.67°	05-43-53-91	meet girdle, new centerpoint
P9	37.30°	17-31-65-79	meet girdle, new centerpoint

### CROWN

C1	44.00°	24-72	establish girdle thickness
C2	44.00°	11-37-59-85	
C3	44.00°	96-48	
C4	38.00°	24-72	cut step
C5	38.00°	11-37-59-85	
C6	38.00°	96-48	
C7	32.00°	24-72	cut step
C8	32.00°	11-37-59-85	
C9	32.00°	96-48	
T	0.00°	Table	

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### Falkenberg 96-2h Rectangular Princess

by Martin Steiner, 11.09.2022

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

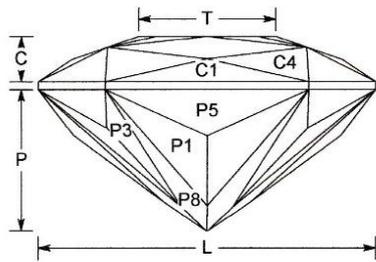
2-fold, mirror-image symmetry

96 index

$L/W = 1.200$   $T/W = 0.487$   $U/W = 0.383$

$P/W = 0.507$   $C/W = 0.162$

$Vol./W^3 = 0.342$



#### PAVILION

P1	42.65°	03-45-51-93	cut to temp. centerpoint
P2	37.98°	19-29-67-77	cut to tcp
P3	39.94°	10-38-58-86	cut to tcp
P4	39.34°	12-36-60-84	cut to tcp
G1	90.00°	24-72	establish length
G2	90.00°	11-37-59-85	
G3	90.00°	96-48	establish width
P5	56.00°	96-48	level girdle
P6	53.00°	24-72	level girdle
P7	41.39°	11-37-59-85	level girdle
P8	40.67°	05-43-53-91	meet girdle, new centerpoint
P9	37.30°	17-31-65-79	meet girdle, new centerpoint

#### CROWN

C1	43.57°	96-48	establish girdle thickness
C2	38.28°	11-37-59-85	
C3	33.80°	24-72	
C4	31.61°	02-46-50-94	
C5	27.02°	22-26-70-74	
C6	20.05°	96-48	meet apex C1, C2
C7	19.24°	24-72	meet apex C3, C2
C8	10.20°	05-43-53-91	meet apex C2
C9	9.50°	17-31-65-79	meet apex C2
T	0.00°	Table	meet apex C6, C7

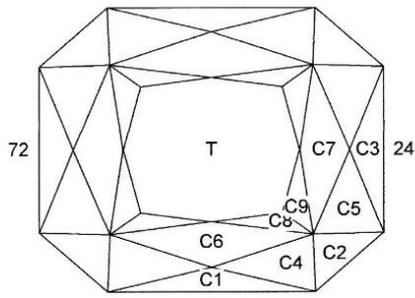
high table

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48

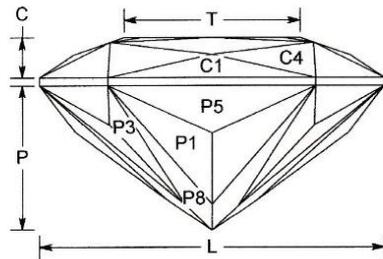
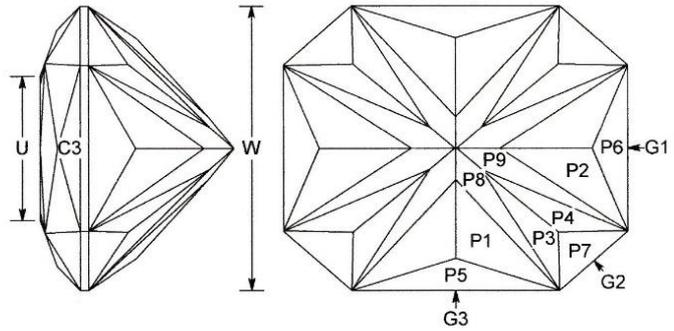
36



84

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12



## Falkenberg 96-2I Rectangular Princess

by Martin Steiner, 11.09.2022

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

2-fold, mirror-image symmetry

96 index

$L/W = 1.200$   $T/W = 0.614$   $U/W = 0.508$

$P/W = 0.507$   $C/W = 0.140$

$Vol./W^3 = 0.337$

### PAVILION

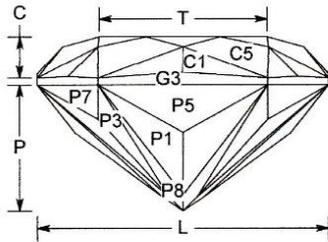
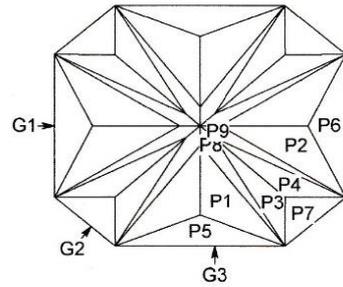
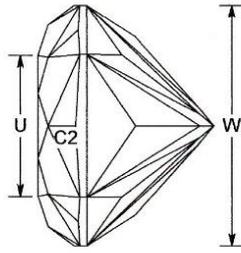
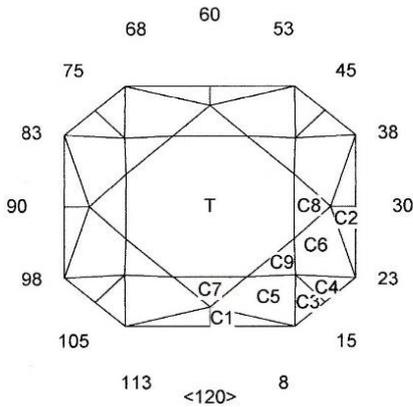
P1	42.65°	03-45-51-93	cut to temp. centerpoint
P2	37.98°	19-29-67-77	cut to tcp
P3	39.94°	10-38-58-86	cut to tcp
P4	39.34°	12-36-60-84	cut to tcp
G1	90.00°	24-72	establish length
G2	90.00°	11-37-59-85	
G3	90.00°	96-48	establish width
P5	56.00°	96-48	level girdle
P6	53.00°	24-72	level girdle
P7	41.39°	11-37-59-85	level girdle
P8	40.67°	05-43-53-91	meet girdle, new centerpoint
P9	37.30°	17-31-65-79	meet girdle, new centerpoint

### CROWN

C1	43.57°	96-48	establish girdle thickness
C2	38.28°	11-37-59-85	
C3	33.80°	24-72	
C4	31.61°	02-46-50-94	
C5	27.02°	22-26-70-74	
C6	20.05°	96-48	meet apex C1, C2
C7	19.24°	24-72	meet apex C3, C2
C8	10.20°	02-46-50-94	meet apex C2
C9	7.52°	20-28-68-76	meet apex C2
T	0.00°	Table	

low table

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### Falkenberg 120-2 Rectangular Brilliant

by Martin Steiner, 04.11.2022

Angles for R.I. = 1.540

65 + 8 girdles = 73 facets

2-fold, mirror-image symmetry

120 index

$L/W = 1.201$   $T/W = 0.694$   $U/W = 0.585$

$P/W = 0.524$   $C/W = 0.172$

$Vol./W^3 = 0.373$

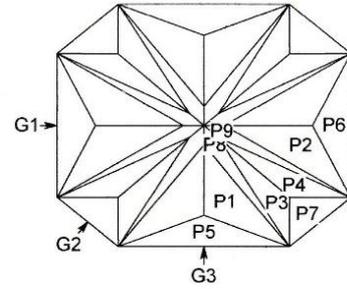
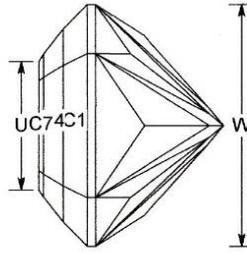
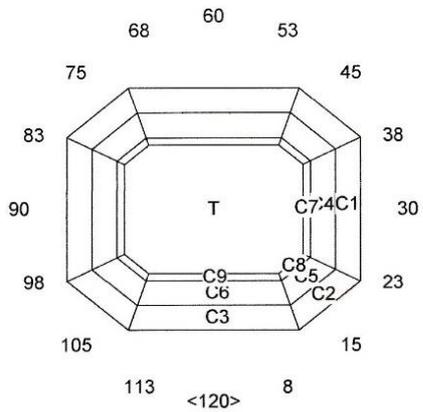
#### PAVILION

P1	42.70°	005-055-065-	cut to temp. centerpoint
		115	
P2	38.42°	023-037-083-	cut to tcp
		097	
P3	40.93°	012-048-072-	cut to tcp
		108	
P4	40.36°	014-046-074-	cut to tcp
		106	
G1	90.00°	030-090	establish length
G2	90.00°	013-047-073-	
		107	
G3	90.00°	120-060	establish width
P5	57.00°	120-060	level girdle
P6	52.00°	030-090	level girdle
P7	42.08°	013-047-073-	level girdle
		107	
P8	41.50°	007-053-067-	cut to permanent
		113	centerpoint
P9	38.08°	020-040-080-	cut to pcp
		100	

#### CROWN

C1	52.94°	001-059-061-	establish girdle
		119	thickness, uneven girdle
			line
C2	47.69°	029-031-089-	uneven girdle line
		091	
C3	37.00°	012-048-072-	uneven girdle line
		108	
C4	36.61°	014-046-074-	uneven girdle line
		106	
C5	33.05°	007-053-067-	meet girdle
		113	
C6	29.88°	021-039-081-	meet girdle
		099	
C7	18.18°	120-060	meet apex C1
C8	15.53°	030-090	meet apex C2
C9	19.25°	013-047-073-	meet apex C3, C4
		107	
T	0.00°	Table	

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### Falkenberg 120-2 Rectangular Emerald

by Martin Steiner, 04.11.2022

Angles for R.I. = 1.540

57 + 8 girdles = 65 facets

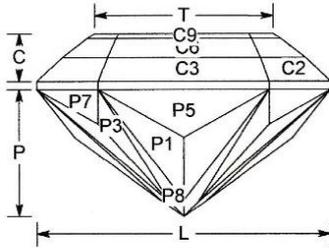
2-fold, mirror-image symmetry

120 index

L/W = 1.201 T/W = 0.731 U/W = 0.530

P/W = 0.524 C/W = 0.198

Vol./W<sup>3</sup> = 0.391



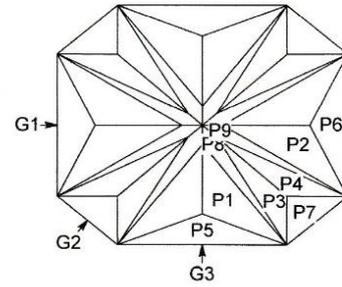
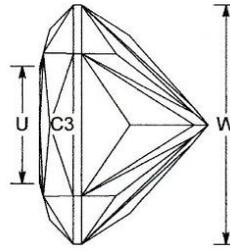
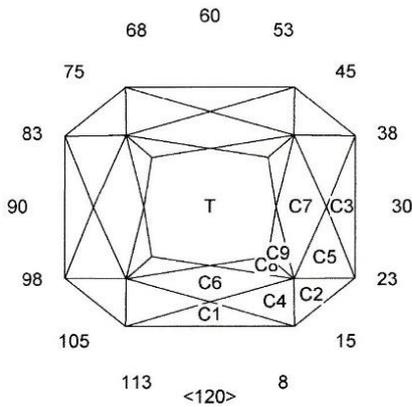
#### PAVILION

P1	42.70°	005-055-065-	cut to temp. centerpoint
		115	
P2	38.42°	023-037-083-	cut to tcp
		097	
P3	40.93°	012-048-072-	cut to tcp
		108	
P4	40.36°	014-046-074-	cut to tcp
		106	
G1	90.00°	030-090	establish length
G2	90.00°	013-047-073-	
		107	
G3	90.00°	120-060	establish width
P5	57.00°	120-060	level girdle
P6	52.00°	030-090	level girdle
P7	42.08°	013-047-073-	level girdle
		107	
P8	41.50°	007-053-067-	meet girdle, cut to
		113	permanent centerpoint
P9	38.08°	020-040-080-	meet girdle, cut to pcp
		100	

#### CROWN

C1	44.00°	030-090	establish girdle thickness
C2	44.00°	013-047-073-	
		107	
C3	44.00°	120-060	
C4	38.00°	030-090	cut step
C5	38.00°	013-047-073-	
		107	
C6	38.00°	120-060	
C7	32.00°	030-090	cut step
C8	32.00°	013-047-073-	
		107	
C9	32.00°	120-060	
T	0.00°	Table	

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### Falkenberg 120-2 Rectangular Princess

by Martin Steiner, 04.11.2022

Angles for R.I. = 1.540

61 + 8 girdles = 69 facets

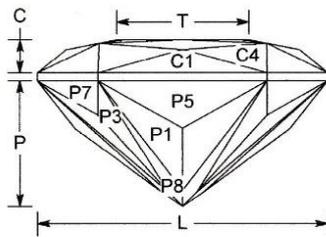
2-fold, mirror-image symmetry

120 index

$L/W = 1.201$   $T/W = 0.547$   $U/W = 0.489$

$P/W = 0.524$   $C/W = 0.139$

$Vol./W^3 = 0.350$



#### PAVILION

P1	42.70°	005-055-065-115	cut to temp. centerpoint
P2	38.42°	023-037-083-097	cut to tcp
P3	40.93°	012-048-072-108	cut to tcp
P4	40.36°	014-046-074-106	cut to tcp
P5	57.00°	120-060	level girdle
P6	52.00°	030-090	level girdle
P7	42.08°	013-047-073-107	level girdle
P8	41.50°	007-053-067-113	cut to permanent centerpoint
P9	38.08°	020-040-080-100	cut to pcp

#### CROWN

C1	43.57°	120-060	establish girdle thickness
C2	38.28°	013-047-073-107	
C3	39.51°	030-090	
C4	32.00°	003-057-063-117	
C5	27.02°	025-035-085-095	
C6	15.16°	120-060	meet apex C1, C2
C7	11.22°	030-090	meet apex C2, C3
C8	7.80°	003-057-063-117	meet apex C2
C9	7.00°	027-033-087-093	meet apex C2
T	0.00°	Table	meet apex C6, C7

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