



***INTERNATIONAL INDIVIDUAL FACETING  
CHAMPIONSHIP***

*and*

***INTERNATIONAL FACETING TEAMS COMPETITION***

***2020***

***SCHEDULE and DESIGNS***

# 2020 INTERNATIONAL INDIVIDUAL FACETING CHAMPIONSHIP

AND

## 2020 INTERNATIONAL FACETING TEAMS CHALLENGE

### Introduction

The International Faceting Challenge, sponsored by the Australian Facetors' Guild Limited, is a two-part competition open to all experienced Facetors from around the world.

The primary competition is the Individual Faceting Championship where each entrant shall cut a minimum of 3 stones specified in this schedule with the 3 highest scores contributing to their final count.

The International Faceting Teams Challenge consists of entries from countries or regions that have sufficient entrants to make up a team from the Individual Faceting Championship.

### IFC 2020 AUSTRALIAN CO-ORDINATOR

The Australian contact for all matters pertaining to the Championship & Challenge is:

**Paul Sabolta**  
P.O. Box 462  
Wentworthville  
NSW 2145  
**AUSTRALIA**

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(from outside Australia) +61+415211478

E-mail address: [ifccomp@facetorsguild.com.au](mailto:ifccomp@facetorsguild.com.au)

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The USA contact for matters pertaining to the Championship & Challenge is:

Jeffery Theesfeld  
885 Camino Encantado  
Los Alamos  
New Mexico, 87544  
U.S.A

Telephone number: (from within the USA) (505) 412-8033

(from outside the USA) +0011+1+(505) 412-8033

E-mail address: [theesfish@msn.com](mailto:theesfish@msn.com)

## **A. BOTH COMPETITIONS: ORGANISATIONAL ASPECTS**

- A1. Every effort is made to ensure that this Competition Schedule is available to potential entrants at least 12 months prior to the competition and will only be available for viewing and download from the Australian Facetor's Guild Website:

**[www.facetorsguild.com.au](http://www.facetorsguild.com.au)**

### **A2. THERE ARE NO ENTRY FEES OR RETURN POSTAGE FEES**

- A3. Entrants shall mail their stones by airmail to the address given on the entry form. It is strongly suggested that overseas entrants label their packages "Lapidary Competition Entries to be returned", **with no reference to gemstones**. To minimise possible difficulties with Australian Customs, it is recommended that entrants include a copy of their entry form with their stones, and put a **nominal** value on the customs declaration forms which must be fixed to the package.
- A4. Insurance, packaging, full postage to Australia is the responsibility of each competitor. Each stone must be labelled with the Section Number, material name, size of stone, colour, cut and, if possible, accurate carat weight in individual screw lid containers within the whole package.

### **A5. The closing date for entries is:**

**31st January 2020**

- A6. Results of these competitions will be announced, and all entries will be displayed at the Australian National Gem and Mineral Show, **April 10th to April 13th, 2020 in Albury/Wodonga, VIC., during the 2020 GEMBOREE®.**
- A7. Entries together with judging sheets will be carefully repacked and returned as indicated on the entry form as soon as possible after the conclusion of the 2020 GEMBOREE®.
- A8. The Committee will exercise every possible care of the stone entries, but it cannot be held responsible for any loss or damage during transportation, judging, displaying or storage.

## **Schedule and Conditions**

### **B. 2020 INTERNATIONAL INDIVIDUAL FACETING CHAMPIONSHIP**

- B1. The Individual Faceting Championship shall be contested every two years.
- B2. All entrants are eligible for this competition, irrespective of whether or not they are members of a faceting guild or club. Membership of the Australian Facetors' Guild Limited is not a prerequisite for entry.
- B3. An entry will comprise and be scored from any three of the five available sections by an entrant.
- B4. The individual winner will be the entrant with the highest aggregate points for their three stones.

### **C. 2020 INTERNATIONAL FACETING CHALLENGE: TEAM COMPETITION**

- C1. All entrants in the Individual Faceting Championship are eligible for the Team Competition.
- C2. The five entrants from each country/region who obtain the highest points for their three highest scoring stones will constitute the team for their country/region and their points will be totalled. The highest total of these combined points will determine the winning country/region.
- C3. The Challenge Cup, which is a perpetual trophy, will remain the property of the Australian Facetors' Guild Limited. The cup will be contested simultaneously with the Individual Faceting Championship.
- C4. The Challenge Cup will remain with the Australian Facetors' Guild regardless of the winner of the cup. The responsibility for security of the Challenge Cup will therefore be the duty of the Australian Facetors' Guild Limited.
- C5. The Australian Facetors' Guild will make the Challenge Cup available bi-ennially, for display at the Australian Federation of Lapidary and Allied Crafts Associations' National Gem and Mineral Show held at Easter, for formal presentation to a representative of the winning country/region. (This Australian Gem and Mineral Show is held annually and is known as the GEMBOREE®).
- C6. The Challenge will be conducted by the Australian Facetors' Guild Limited. The IFC will be financed by the AFG, and by donations from interested overseas guilds, and from any interested individuals.
- C7. To enable entrants from countries without teams to be involved in the team competition the top five entrants from other countries will be called 'the rest of the world team'.

### **D. AWARDS**

- D1. Gold and Silver medallions shall be awarded for first and second place in the Individual competition as well as for members of the first and second place in the Teams competition. The winning team members will also be recognised by their names being added to the perpetual trophy for that year of the Challenge.

## E. BOTH COMPETITIONS. TECHNICAL ASPECTS

- E1. The cuts chosen for this Competition are considered to be of a technical nature to test the abilities of entrants. Facetors around the world are invited to nominate designs for future selection, provided those designs include a computer-generated diagram, instructions and photographic evidence to verify the design. The Challenge committee cannot assume responsibility for the stones submitted with the designs, but every possible care will be taken of them while they are in the Committee's possession. After selections have been made, stones will be returned at the nominator's expense.
- E2. The angles provided with the designs in this schedule are for guidance only. Entrants may vary the angles only slightly to achieve meet points if necessary, provided the original **plan view** of the shapes and arrangements of facets, meet points, and the table area of the design **is not changed** in any detectable manner. If the shape or arrangements of facets has in any way been noticeably altered, the entry will be disqualified, resulting in disqualification of the entrant; i.e. **the stone must be identical to the design in the schedule**. As can be seen from the Points Allocation, angles are not measured during judging.
- E3. **Section C** must have a fully rendered GemCad diagram supplied with the entry. Angles, Indices, Cutting Instructions, Facet Numbering, Header and ALL the Normal Faceting Data such as L/W, C/W, P/W, Number of Facets, R.I. etc. must appear on the diagram. This will account for 10% of the points for this Section. A Judging Sheet shown on Page 11 will be utilized for this purpose. Failure to supply the required diagram will render the entry ineligible. Points will be allotted from the average of the Judges score & Committee score.
- E4. Magnification for judging will be with a 10X Triplet Aplanatic Loupe.
- E5. Girdle Thickness will be calculated as a comparison of the Calculated Girdle Thickness against Actual Girdle Thickness of 5% as measured by the Judge using a Graticule Loupe. There will be an allowed tolerance of  $\pm 0.01$ mm above or below the calculated thickness.
- E6. All stones will be judged under lighting having a maximum equivalent to a single 25 – 40W Clear Incandescent Lamp or 28W Energy Saving Halogen Globe.
- E7. An Entry is **COMPULSORY** for a **MINIMUM** of any 3 of the 5 sections.
- E8. A completed entry form constitutes acceptance of this Schedule and Conditions, and is an agreement to comply with them.
- E9. No person is permitted to act as Judge, Judge's Assistant, Steward, Observer, or in any way to assist with the judging of any Section of which he/she or members of his/her immediate family are entrants. Members of the organising committee may compete in the competition but are subject to the restrictions stated in this clause.
- E10. (Protests). If an entrant believes that one or more of their stones has not been scored correctly, they may lodge an appeal to the IFC Committee setting out the precise details of their complaint. The appeal, which must be in writing, should be lodged as soon as possible but **must be submitted by 30/6/2020**.
- E11. (Protests). The stone/stones in question along with a copy of the original judging sheet must be returned to the IFC Committee in Australia and must be accompanied by the written appeal to the IFC Committee. The entrant must pay any freight and insurance.

- E12. (Protests). The IFC Committee will refer the appeal (and hand over the stone/stones) to the Judging and Rules (J&R) Committee of the Australian Facetors' Guild Limited for adjudication. The adjudication will be made as near as possible under the same conditions that applied in the original judging. (e.g. magnification, lighting).
- E13. (Protests). The J&R Committee shall adjudicate on the appeal as soon as possible. None of the J&R Committee members shall be members of the IFC Committee. They shall not have been involved in the original judging and shall not be related to the appellant.
- E14. (Protests). The decision of the Judging and Rules (J&R) Committee shall be **FINAL** and no further correspondence shall be entered into.

## **CONDITIONS FOR COMPETITION**

### **METHOD OF JUDGING**

- F1. This Competition is held in accordance with this schedule and conditions within..
- F2. Each entry is not judged against its competitors, but is assessed against an established standard and the Judging Sheet Features. The resulting score is the measurement of excellence achieved, or how nearly it reaches the standard.
- F3. The conditions and definitions of this Schedule should be interpreted sensibly and in all cases where there is doubt, the Competitor shall be given the benefit.
- F4. All entries in an individual Section will be judged by the one Judge.( except Section C where Diagram is also Judged by the Organising Committee)
- F5. No person is permitted to act as Judge, Judge's Assistant, Steward, or in any way assist with the judging of any Section of which he/she or members of his/her immediate family are entrants.
- F6. No person, other than Judges, Assistants or Stewards, is permitted in the vicinity of exhibits whilst judging is in progress.
- F7. No one, including Assistants and Stewards, is permitted to influence Judges in the execution of their duty.
- F8. Only the Competition Committee can rule ineligible an entry or an item which is part of an entry. The reason for ruling an item ineligible must be written on the judging sheet and signed by the Competition Committee.
- However, JUDGES MUST CONSULT WITH COMPETITION COMMITTEE if they consider an entry or part of an entry is ineligible.
- F9. Entries will be judged by eye or at the specified magnification as given for each Competition Section.(item E4 & E5)
- F10. Entries will be judged under the lighting conditions specified within this schedule. (item E6)
- F11. Entries will be judged on the judging features set out on the sample Points Allocation Sheets given for each Section in this Schedule.

## **JUDGE RESPONSIBILITIES**

- F12. Judges shall assess each judging feature applicable to the Section being judged and award points according to how near to the standard it reaches.
- F13. Judges shall assess all entries in a Section at the magnification specified in this Schedule.
- F14. Judges are not required to total up points on judging sheets. This is the responsibility of the Competition Committee.
- F15. Judges do not rule on eligibility - this is the Competition Committee's responsibility. However, should a Judge suspect an entry is not eligible, or they are uncertain on any interpretation of the rules and conditions, they MUST refer the matter to the Competition Committee for a ruling.
- F16. Judges should, whenever possible, give constructive comments on the work judged and be prepared to discuss rulings and interpretations with Competitors.
- F17. When an entry has been ruled ineligible, the Judge shall judge the entry if so requested by the Competition Committee, in the interests of helping the competitor. However, the points will not be displayed or recorded and the entry will not be eligible for any awards. The Competition Committee MUST write on the judging sheet INELIGIBLE and give reasons for the ruling.

## **COMMENTS FROM THE COMPETITION COMMITTEE**

### **Angles.**

The designs included in this Schedule are the latest computer - generated diagrams. The angles given are for materials selected by the designer. Competitors are expected, where necessary, to convert the design angles given to angles suitable for the nominated material. The Committee does not guarantee either the precision of the angles given or the listed sequences for cutting.

### **Size.**

Entrants should be careful to ensure that the size of their stones conforms to the Schedule. Please read the Schedule carefully.

It is strongly recommended that the material chosen be of a light colour. See next note.

### **Visual Effect**

The following feature now applies:-

As of 2014 the Optical Penalty has been removed from the points allocation and Visual Effect included to take its place. This is to allow our judges to use the judging criteria that they use in all Australian competitions so as not to cause confusion.

The cutting of a stone with inferior optical properties - "windows", "fish eyes", or overall dullness cannot be ignored, and such cutting will be penalised.

This will be done by subtracting points from the Visual effect allocation depending on the degree of effect on the stone as observed by the Judge.

Dull stones, resulting from incorrect angles or poor selection of dark rough material, will be similarly treated.

Ray trace patterns are not used in the judging process, but may be used to assist the Committee in selecting designs which, if cut correctly, will produce bright, attractive stones.

## **2020 INTERNATIONAL FACETING CHALLENGE SECTIONS**

**Entry is COMPULSORY in a MINIMUM of any 3 of the 5 sections detailed below.**

### **SECTION A THE QUEENS FANCY**

Material - to be cut in Any Colour Natural Zircon

Minimum Size 8 mm +/- 0.1 mm (measured across longest axis of plan view).

### **SECTION B "T SQUARE"**

Material - to be cut in Light Blue MM Spinel

Minimum Size 10.00 mm +/- 0.1 mm (measured across longest axis of plan view).

### **SECTION C OPEN CHALLENGE**

GemCad diagram to be supplied with entry.

See Conditions, and diagram on page 18 and Judging Sheets on page 11 & 12.

Material - to be cut in Yellow Cubic Zirconia

Minimum Size 10.00 mm +/- 0.1 mm (measured across longest axis of plan view).

### **SECTION D MONTEZUMA CONCAVIA**

Material - to be cut in Any Coloured Cubic Zirconia

Minimum Size 10mm +/- 0.1 mm (measured across the Length/Width of the stone).

### **SECTION E DEFIANT FREEFORM**

Material – to be cut in Colourless Cubic Zirconia

Minimum Size 10mm +/- 0.1 mm (measured across longest axis of plan view).



# JUDGING POINTS ALLOCATION

**SECTION A** This is a Modified Cut and will be judged under the following set of points using the Judging Sheet shown below.

## SECTION A - MODIFIED CUT

JUDGE \_\_\_\_\_ SECTION No \_\_\_\_\_

DESCRIPTION \_\_\_\_\_ ENTRY No \_\_\_\_\_

HEIGHT \_\_\_\_\_ Max GIRDLE WIDTH \_\_\_\_\_ Calculated \_\_\_\_\_ Graticule \_\_\_\_\_ SIZE \_\_\_\_\_  
(5% of Height, ±0.01mm)

No. of Facets \_\_\_\_\_ No. of Meets \_\_\_\_\_ L/W \_\_\_\_\_ DIAGONAL \_\_\_\_\_

Visual Effect	6		
Outline of Girdle	5		
Table Parallel to Girdle Plane	3		
Meets Pointing Up	20		
Facets Uniform	15		
Facet Edges Sharp	6		
Facet Surfaces True	6		
Scratches	10		
Polish	10		
Chips	7		
Flaws	2		
Girdle Uniform	3		
Girdle Too Wide	3		
Girdle Too Narrow	3		
Foreign Surface Material	1		
Total Possible	100		

JUDGE COMMENTS \_\_\_\_\_

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JUDGE SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

Australian Facetors' Guild Judging Sheet 2020 IFC, Not to be used for any other Section or Competition outside of the AFG

**SECTION B**

This is a Modified Cut and will be judged under the following set of points using the Judging Sheet shown below.

**SECTION B - MODIFIED CUT**

JUDGE ..... SECTION No .....

DESCRIPTION ..... ENTRY No .....

HEIGHT ..... Max GIRDLE WIDTH ..... Calculated ..... Graticule .....  
 (5% of Height, ±0.01mm) SIZE .....

No. of Facets ..... No. of Meets ..... L/W ..... DIAGONAL .....

Visual Effect .....	6		
Outline of Girdle .....	5		
Table Parallel to Girdle Plane .....	3		
Meets Pointing Up .....	20		
Facets Uniform .....	15		
Facet Edges Sharp .....	6		
Facet Surfaces True .....	6		
Scratches .....	10		
Polish .....	10		
Chips .....	7		
Flaws .....	2		
Girdle Uniform .....	3		
Girdle Too Wide .....	3		
Girdle Too Narrow .....	3		
Foreign Surface Material .....	1		
<b>Total Possible</b> .....	<b>100</b>		

JUDGE COMMENTS .....

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JUDGE SIGNATURE ..... DATE .....

**SECTION C (a)** This is a Modified Cut and will be judged under the following set of points using the Judging Sheet as shown below.  
**(Name of Cut is "Open Challenge")**

## SECTION C (a) - OPEN CHALLENGE

JUDGE \_\_\_\_\_ SECTION No \_\_\_\_\_

DESCRIPTION \_\_\_\_\_ ENTRY No \_\_\_\_\_

HEIGHT \_\_\_\_\_ Max GIRDLE WIDTH \_\_\_\_\_ Calculated \_\_\_\_\_ Graticule \_\_\_\_\_  
 (5% of Height,  $\pm 0.01\text{mm}$ ) SIZE \_\_\_\_\_

No. of Facets \_\_\_\_\_ No. of Meets \_\_\_\_\_ L/W \_\_\_\_\_ DIAGONAL \_\_\_\_\_

	Judge		Avg.	Committee
GemCad Diagram _____	( )	10		( )
Visual Effect _____		5		
Outline of Girdle _____		5		
Table Parallel to Girdle Plane _____		3		
Meets Pointing Up _____		16		
Facets Uniform _____		13		
Facet Edges Sharp _____		3		
Facet Surfaces True _____		6		
Scratches _____		10		
Polish _____		10		
Chips _____		5		
Flaws _____		3		
Girdle Uniform _____		4		
Girdle Too Wide _____		4		
Girdle Too Narrow _____		2		
Foreign Surface Material _____		1		
<b>Total Possible _____</b>		<b>100</b>		

GemCad Diagram Scoring: Compared to Original from Committee.  
 Committee to appraise GemCad Diagram after Judge appraisal.  
 Committee to calculate average score from Committee Points and  
 Judges points

JUDGE COMMENTS \_\_\_\_\_

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JUDGE SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**SECTION C (b) Diagram Judging Sheet.** This is a Modified Cut and will be judged under the following set of points using the Judging Sheet shown below.  
**(Name of Cut is “Open Challenge”)**

**SECTION C (b) - CUTTING DIAGRAM JUDGING SHEET**

Committee/ Stone Judge .....

Entry No. ....

ITEM	MAXIMUM POINTS	SCORE	FEATURE
Headers	1.0		Headers must name the cut and specify the R.I., No. of Facets, No of Meetpoints, Fold, Symmetry, Index Gear used L/W, T/W, U/W,P/W, C/W, Vol./W <sup>3</sup>
Pavilion	1.0		Cutting Sequence No.
	1.0		Angles
	1.0		Indices
	1.0		Cutting Instructions
Crown	1.0		Cutting Sequence No.
	1.0		Angles
	1.0		Indices
	1.0		Cutting Instructions
Facet Shape	1.0		The facet shapes must be consistant with the 4 views supplied
	10.0		

Judge Comments .....

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JUDGE SIGNATURE ..... DATE .....

**SECTION D**

This is a Modified Concave Cut and will be judged under the following set of points using the Judging Sheet shown below.

**SECTION D - MODIFIED CUT**

JUDGE \_\_\_\_\_ SECTION No \_\_\_\_\_

DESCRIPTION \_\_\_\_\_ ENTRY No \_\_\_\_\_

HEIGHT \_\_\_\_\_ Max GIRDLE WIDTH \_\_\_\_\_ Calculated \_\_\_\_\_ Graticule \_\_\_\_\_ SIZE \_\_\_\_\_  
 (5% of Height, ±0.01mm)

No. of Facets \_\_\_\_\_ No. of Meets \_\_\_\_\_ L/W \_\_\_\_\_ DIAGONAL \_\_\_\_\_

Visual Effect	6		
Outline of Girdle	5		
Table Parallel to Girdle Plane	3		
Meets Pointing Up	20		
Facets Uniform	15		
Facet Edges Sharp	6		
Facet Surfaces True	6		
Scratches	10		
Polish	10		
Chips	7		
Flaws	2		
Girdle Uniform	3		
Girdle Too Wide	3		
Girdle Too Narrow	3		
Foreign Surface Material	1		
<b>Total Possible</b>	<b>100</b>		

JUDGE COMMENTS \_\_\_\_\_

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JUDGE SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

**SECTION E**

This is a Freeform Cut and will be judged under the following set of points using the Judging Sheet shown below.

**SECTION E - FREEFORM CUT**

JUDGE \_\_\_\_\_ SECTION No \_\_\_\_\_

DESCRIPTION \_\_\_\_\_ ENTRY No \_\_\_\_\_

HEIGHT \_\_\_\_\_ Max GIRDLE WIDTH \_\_\_\_\_ Calculated \_\_\_\_\_ Graticule \_\_\_\_\_ SIZE \_\_\_\_\_  
 (5% of Height, ±0.01mm)

No. of Facets \_\_\_\_\_ No. of Meets \_\_\_\_\_ L/W \_\_\_\_\_ DIAGONAL \_\_\_\_\_

Visual Effect	6		
Outline of Girdle	5		
Table Parallel to Girdle Plane	3		
Meets Pointing Up	20		
Facets Uniform	15		
Facet Edges Sharp	6		
Facet Surfaces True	6		
Scratches	10		
Polish	10		
Chips	7		
Flaws	2		
Girdle Uniform	3		
Girdle Too Wide	3		
Girdle Too Narrow	3		
Foreign Surface Material	1		
<b>Total Possible</b>	<b>100</b>		

JUDGE COMMENTS \_\_\_\_\_

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 \_\_\_\_\_

JUDGE SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

# INTERNATIONAL FACETING CHALLENGE 2020

## OFFICIAL ENTRY FORM

This Form **AND** Entries must reach the Competition Committee by the **31st January, 2020** at the following address:

**International Faceting Challenge 2020  
P.O. Box 462  
Wentworthville, NSW 2145  
AUSTRALIA**

**(Please Print)  
(Clearly)**

Name .....

Address .....

City .....STATE.....

COUNTRY .....Post (Zip) Code .....

Telephone Number .....

E-mail Address (important) .....

**MINIMUM OF ANY 3 SECTIONS ARE COMPULSORY:**

A

B

C

D

E

My entries will be collected at the GEMBOREE® :

**OR**

Return postage by REGISTERED POST :

I have read and agree to follow and abide by the rules of this competition and hereby state that the stones entered by me are my own work.

**I understand that failure to abide by these rules may lead to disqualification of my entries.**

Signed: ..... Date: ...../...../.....

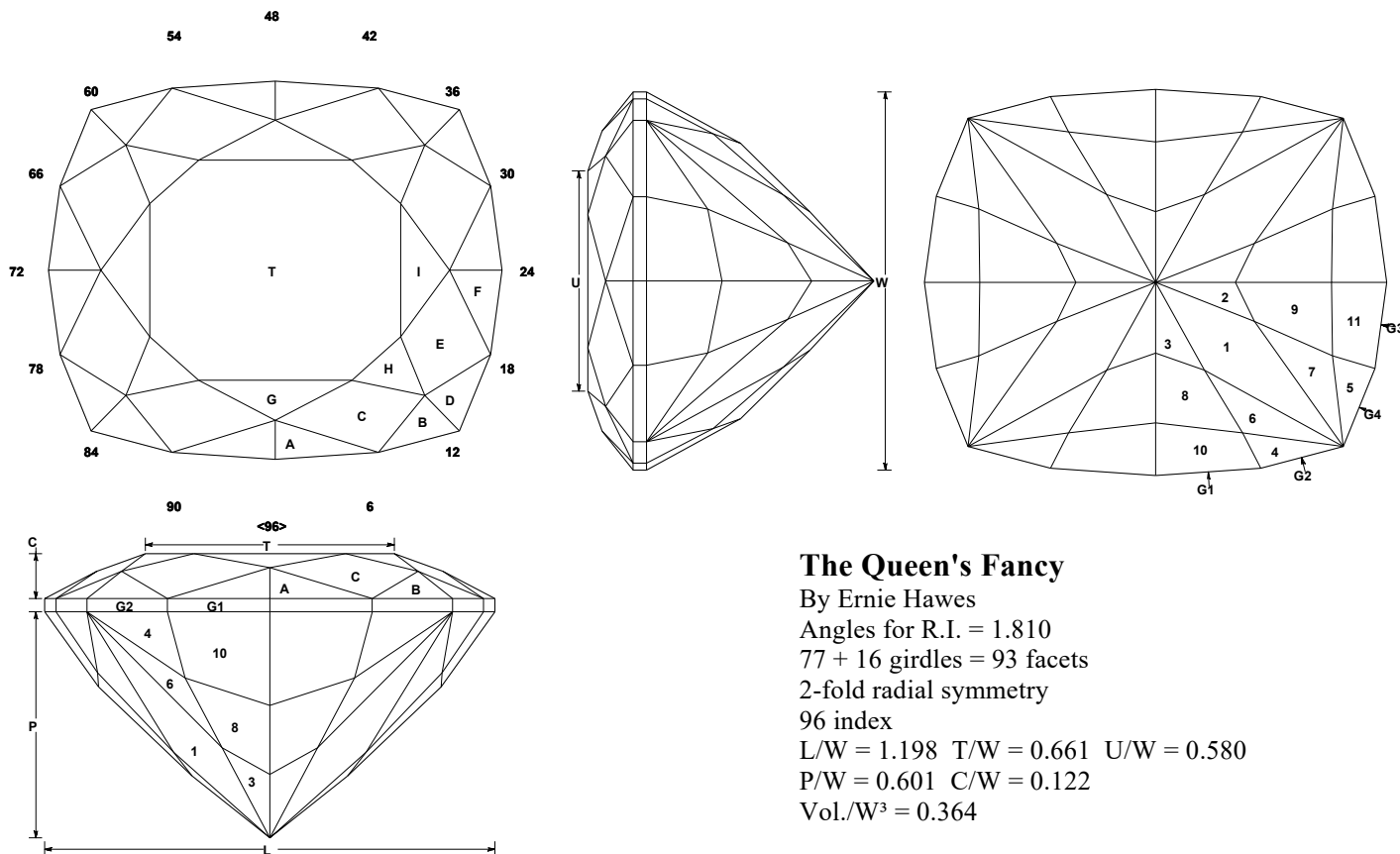
# INTERNATIONAL FACETING CHALLENGE 2020

## Section A

To be cut in Any Coloured Natural Zircon:

Minimum Size 8mm (across longest axis of plan view)

Facets: 77 + 16 Girdles; Meets: 73 (Crown – 32, Pavilion – 41)



### The Queen's Fancy

By Ernie Hawes

Angles for R.I. = 1.810

77 + 16 girdles = 93 facets

2-fold radial symmetry

96 index

L/W = 1.198 T/W = 0.661 U/W = 0.580

P/W = 0.601 C/W = 0.122

Vol./W<sup>3</sup> = 0.364

#### CAM PREFORM

PF1	40.64°	01-47-49-95	Cut to TCP
PF2	38.63°	04-44-52-92	Cut to TCP
PF4	35.80°	22-26-70-74	Cut to TCP
PF3	35.00°	18-30-66-78	Cut to TCP
PG1	90.00°	01-47-49-95	Set gem W, between 8 and 12 mm
PG2	90.00°	04-44-52-92	Meet G1 at line dividing C1 and C2
PG3	90.00°	18-30-66-78	Meet G2 at line dividing C2 and C3
PG4	90.00°	22-26-70-74	Meet G3 at line dividing C3 and C4

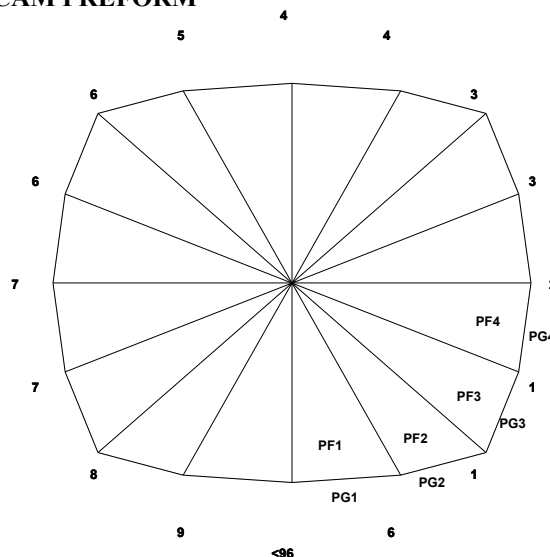
#### PAVILION

1	43.21°	11-37-59-85	Cut to PCP
2	39.87°	19-29-67-77	Cut to PCP
3	43.50°	04-44-52-92	Cut to PCP
G1	90.00°	01-47-49-95	Set gem W to allow 1.198 ratio
G2	90.00°	04-44-52-92	Meet G1 at line dividing 1 and 3
G3	90.00°	22-26-70-74	Cut length to 1.198 ratio with width
G4	90.00°	18-30-66-78	Meet G3 at line dividing 1 and 2
4	59.57°	04-44-52-92	Cut to juncture of G2, G4 and 1
5	54.44°	18-30-66-78	MP 1 and 4 @ juncture G2/G4
6	44.85°	09-39-57-87	MP 4/5 and G2/G4
7	44.36°	14-34-62-82	MP 4/5 and G2/G4
8	46.55°	03-45-51-93	MP 1/3/6
9	44.21°	21-27-69-75	MP 1/2/7
10	61.06°	01-47-49-95	Cut to level girdle line
11	54.68°	22-26-70-74	Cut to level girdle line

#### CROWN

A	38.60°	01-47-49-95	Set girdle thickness
B	33.24°	04-44-52-92	Cut to girdle line
C	31.05°	03-45-51-93	Meet A/B at girdle
D	31.98°	18-30-66-78	Cut to girdle line
E	26.54°	21-27-69-75	Meet D at girdle juncture G3/G4
F	28.71°	22-26-70-74	Cut to girdle line
G	20.18°	96-48	Meet at A/C
H	16.42°	11-37-59-85	Meet at B/C/D/E
I	19.67°	24-72	Meet at E/H and F
T	0.00°	Table	Cut to C/G/H and E/H/I

#### CAM PREFORM



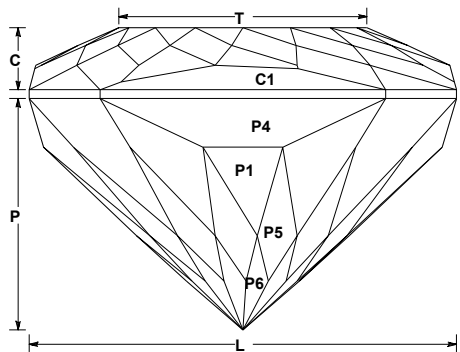
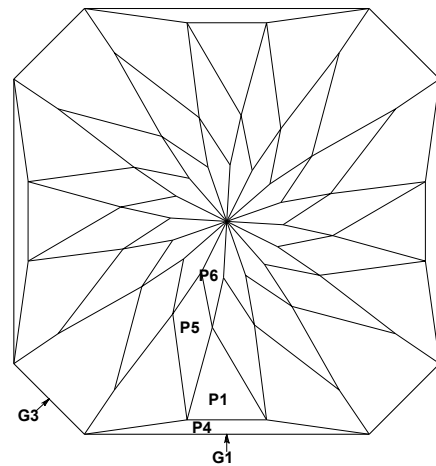
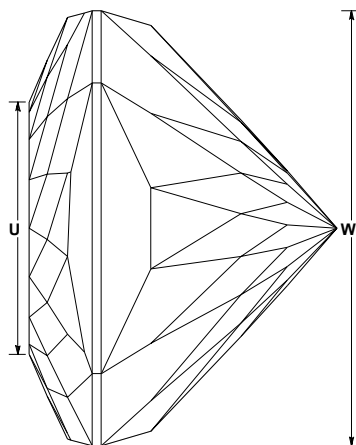
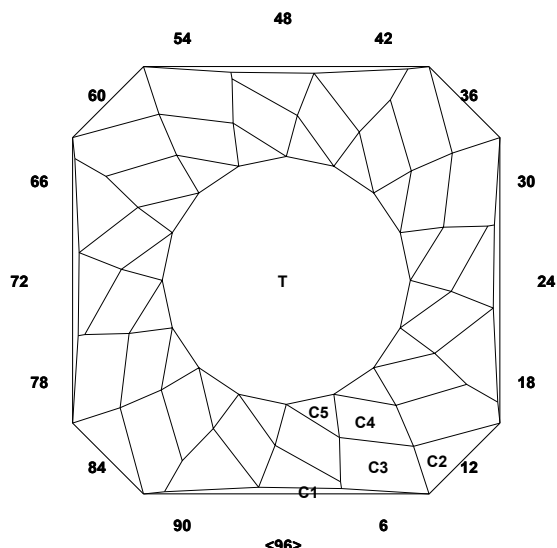


# INTERNATIONAL FACETING CHALLENGE 2020

## Section B

To be cut in Light Blue MM Spinel: Minimum Size 10mm ± 0.01mm.

Facets: 109 + 8 Girdles; Meets: 81 (Crown – 48, Pavilion – 33)



### "T" Square"

by Bob Johnson - Steve Pontious 1998

Angles for R.I. = 1.720

109 + 8 girdles = 117 facets

16-fold radial symmetry

96 index

L/W = 1.000 T/W = 0.581 U/W = 0.581

P/W = 0.544 C/W = 0.144

Vol./W<sup>3</sup> = 0.307

#### PAVILION

P1 43.50° 96-06-12-18-24-30-36-42-48-54-60-66-72-78-84-90

G1 90.00° 96-24-48-72

G3 90.00° 12-36-60-84

P4 74.49° 96-24-48-72

P5 42.50° 01-07-13-19-25-31-37-43-49-55-61-67-73-79-85-91

P6 41.50° 02-08-14-20-26-32-38-44-50-56-62-68-74-80-86-92

#### CROWN

C1 75.63° 96-24-48-72

C2 28.46° 12-36-60-84

C3 26.00° 01-07-13-19-25-31-37-43-49-55-61-67-73-79-85-91

C4 23.94° 02-08-14-20-26-32-38-44-50-56-62-68-74-80-86-92

C5 22.39° 03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93

T 0.00° Table

Cut to TCP

Set size

Cut corners

Level girdle

Meet P1, P4

Meet P1, P5 form PCP

Set girdle thickness

Level girdle

Meet C1, C2, G1, G2 See note 1

Meet C2, C3 See note 2

Meet C3, C4

Meet C4, C5

Note 1. Set mast height using index # 7

Note 2. Set mast height using index # 8

**INTERNATIONAL FACETING CHALLENGE 2020**

**Section C “Open Challenge”**

**To be cut in Yellow Cubic Zirconia**

**Minimum Size 10mm ± 0.01mm. (across longest axis of plan view)**

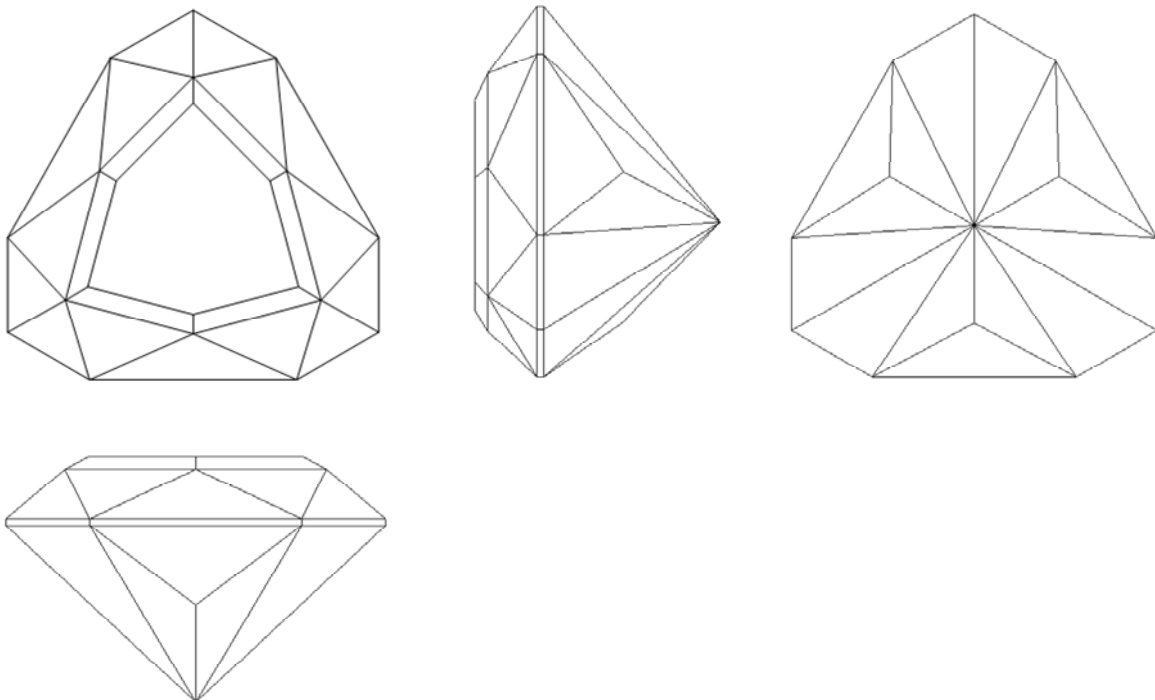
**A fully rendered GemCad diagram must be supplied using the 4 views below as a base to work from. Your diagram views must be consistent with the 4 views.**

**The diagram must also illustrate all the normal data, Name (“Open Challenge”), R.I., Number of Facets, Fold/Symmetry, Index Gear, L/W, T/W, U/W, P/W, C/W, Vol., Cutting Sequence No., Angles, Index Numbers, & Instructions.**

**You have the freedom to choose cutting sequence, angles, index numbers and instructions as long as the diagram views are consistent with the views shown below.**

**This will account for 10% of the possible points for the Section. Scoring will be an average of the two scores judged by the Committee and Stone Judge. See judging Sheet (a) & (b) pages 10 & 11.**

**Failure to supply the required diagram will render your entry ineligible.**



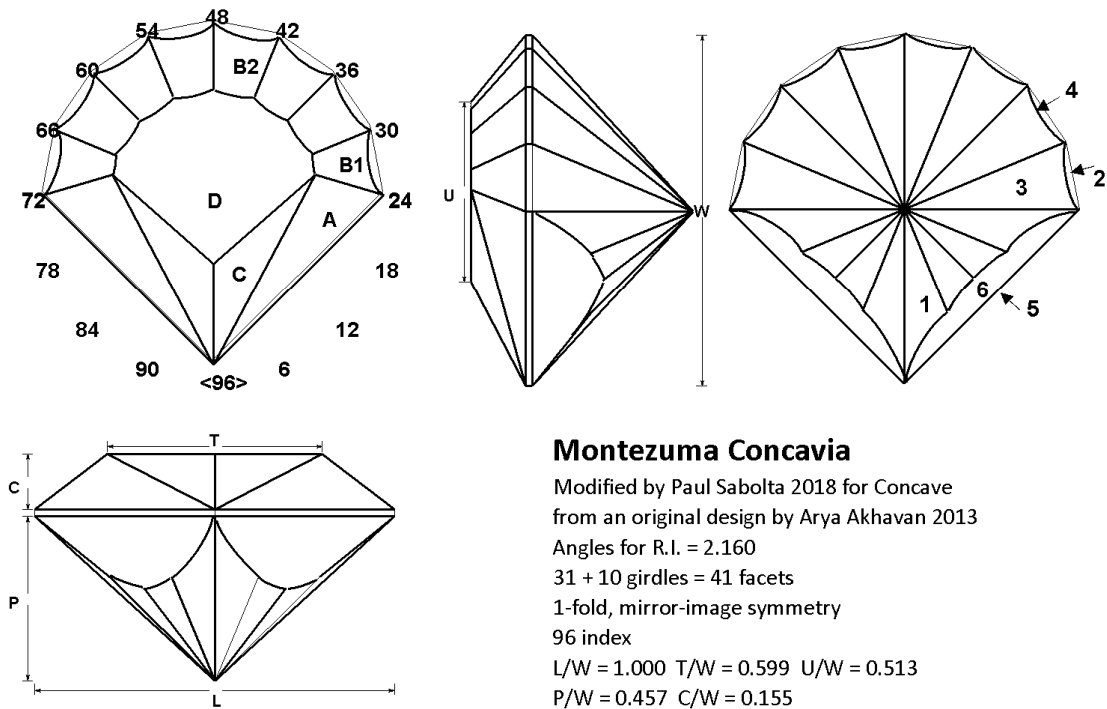
# INTERNATIONAL FACETING CHALLENGE 2020

## Section D

To be cut in Any Coloured Cubic Zirconia

Minimum Size 10mm +/- 0.1 mm (measured across the Length / Width of the stone)

Facets: 31 + 10 Girdles; Meets: 23 (Crown – 12, Pavilion – 11)



### Montezuma Concavia

Modified by Paul Sabolta 2018 for Concave from an original design by Arya Akhavan 2013

Angles for R.I. = 2.160

31 + 10 girdles = 41 facets

1-fold, mirror-image symmetry

96 index

L/W = 1.000 T/W = 0.599 U/W = 0.513

P/W = 0.457 C/W = 0.155

Vol./W<sup>3</sup> = 0.180

#### PAVILION

1	43.00°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	Preform, Cut to TCP (Flat Facets)
2	90.00°	27-33-39-45-51-57-63-69	Preform, Set stone size (8 Flat Facets) Minimum 10mm
3	43.00°	03-09-15-21-27-33-39-45-51-57-63-69-75-81-87-93	Concave (16 Concave Facets) Form PCP (Mandrel size cutters choice to achieve meetpoints)
4	90.00°	27-33-39-45-51-57-63-69	Concave (8 Concave Facets) (Mandrel size cutters choice to achieve meetpoints)
5	90.00°	12-84	Meet 3, 4
6	70.00°	12-84	Level girdle

#### CROWN

A	40.00°	12-84	Set girdle thickness to suit
B1	40.00°	27-33-39-45-51-57-63-69	Level girdle (8 Flat Facets)
B2	40.00°	27-33-39-45-51-57-63-69	Concave (8 Concave Facets) (Mandrel size cutters choice to achieve meetpoints)
C	34.67°	11-85	Meet A, 3
D	0.00°	Table	Meet A, C, B2

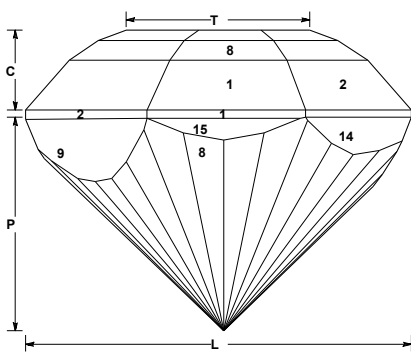
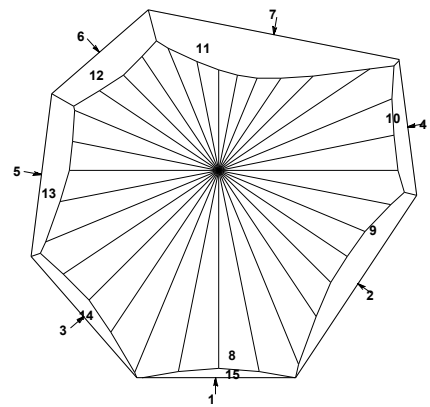
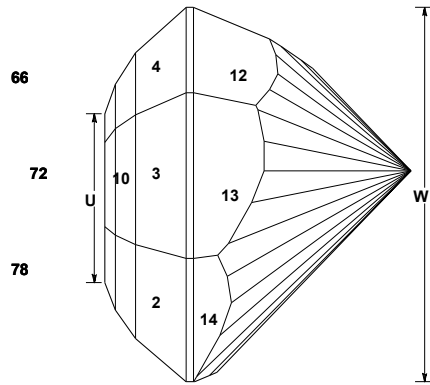
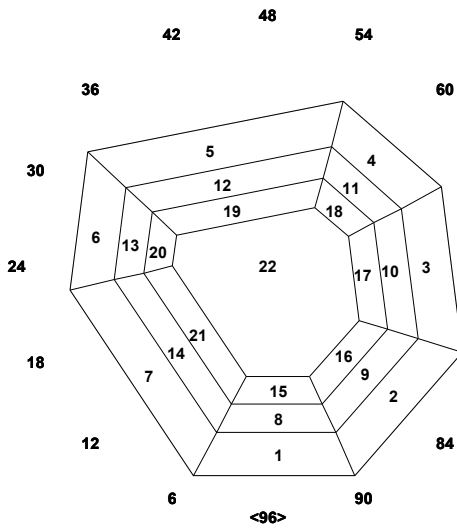
# INTERNATIONAL FACETING CHALLENGE 2020

## Section E

To be cut in Colourless Cubic Zirconia

Minimum Size 10mm (across longest axis of plan view)

Facets: 61 + 7 Girdles; Meets: 24 (Crown – 21, Pavilion – 3)



### Defiant Freeform

by Dave Radke QLD 2018

Angles for R.I. = 2.160

61 + 7 girdles = 68 facets

1-fold radial symmetry

96 index

$L/W = 1.051$   $T/W = 0.619$   $U/W = 0.570$

$P/W = 0.581$   $C/W = 0.162$

$Vol. /W^3 = 0.331$

#### PAVILION

1	90.00°	96
2	90.00°	81
3	90.00°	13
4	90.00°	70
5	90.00°	26
6	90.00°	37
7	90.00°	51
8	44.00°	02-04-08-10-14-16-20-22- 26-28-32-34-38-40-44-46- 50-52-56-58-62-64-68-70- 74-76-80-82-86-88-92-94
9	69.00°	81
10	69.00°	70
11	69.00°	51
12	69.00°	37
13	69.00°	26
14	69.00°	13
15	69.00°	96

#### CROWN

1	50.00°	96
2	50.00°	83
3	50.00°	70
4	50.00°	39
5	50.00°	45
6	50.00°	26
7	50.00°	15
8	35.00°	96
9	35.00°	83
10	35.00°	70
11	35.00°	59
12	35.00°	45
13	35.00°	26
14	35.00°	15
15	20.00°	96
16	20.00°	83
17	20.00°	70
18	20.00°	59
19	20.00°	45

#### CROWN CONTD.

20	20.00°	26
21	20.00°	15
22	0.00°	Table