



Easy Octagon

Design by Quincy D. Howell

Novice stone for 2007 USFG competition

This stone is cutter's choice in material. I chose CZ, so I changed the culet to 41 with gem cad using the tangent ratio.

I cut P-1 45.57 to center point. Then cut my girdle facets 90 degrees to 11.mm with a 360 lap. Put a 600 lap on and do it again bringing the size down to 10.5. Now put a 1200 on. Cut the breaks to center point the best you can and go back to the girdle and follow the line around from start to finish. Go back to the breaks and follow the girdle line around, when the line meets, check your culet, they should all meet perfectly. If they don't, that means your girdle facets are not exactly the same size. Bring the break facets that don't go all the way to the top up to the top and now cut your girdle over again by following the line around. By this time your size should be right at 10mm. Now polish your girdle. Go back with the 1200 and cut P-2 in. Now polish P-1 and P-2 making sure all meets are in. You only have 9 meet points on the pavilion, don't give up on any of them.

Transfer the stone and cut the crown breaks (C-1) with a 360. If a lot of material is to be cut away or if a little material use the 600 to start, leaving about $\frac{1}{4}$ inch by following the girdle line around to see what kind of cheater correction you need to start with. Once you have an idea of the correction put a 1200 pre-polish on and leave about $\frac{1}{8}$ inch of girdle to check the girdle line. Make the small correction with the cheater and now cut your girdle to .3 or just a little larger. I use a blade from a jewelers saw, check with your caliper, most are .4 but you can find .3. Hold it up against the girdle with one hand and use the 10x loupe in the other and get an idea how it compares. Once you have the first facet sized, then just follow the girdle line around 96-12-24-36-48-60-72-84. They must meet. Now cut C-2 in 06-30-54-78. If you still have a lot of material on top use a 600 first to partially cut in the table and then finish with the 1200 pre-polish lap. Over cut the C-1 facets slightly and now polish the table the best you can. Go back now and polish C-1 by following the girdle line around-it must always meet. In other words, let's say you start with 96 index and end with 84 index, the last part of the girdle line must meet the starting line between 96 & 84 no step just a smooth line that meets. Now when you polish C-2 in you must hit the girdle line meet point and C-1 meet point on the top both left and right at the same time. There are no star facets on this stone so you have to use the main facets to put the table in. With a little practice this gets very easy to do.

Good Luck!

Art Kavan

