



Gold Octagon

Design by Tom Ricks

Pre-Masters stone for 2007 USFG competition

I used a chrysoberyl spinal for the stone I cut. Right off you notice that P-1 and P-2 are your breaks but different angles. You have two approaches to this depending on how much material you have. If your rough is long enough just set P-1-52.07 and cut all eight to center point as I did. If your rough is not long enough set P-1 as 30.00 and cut all eight. What we are doing is setting our girdle and size of stone. Cut to center point the best you can, and then cut your girdle. Your stone size needs to be 11mm plus or minus .1 so at this stage and with a 360 leave size at least 12mm or better. Now put a 600 lap on and do the same thing, cut center point, follow the girdle line around on the 90. Stone size now should be 11.5. Now put your 1200 on. This is what I use for all my pre-polish. Now we get serious. Cut to center point using P-1-52.07. Spend some time getting all to center point perfectly or the best you can do. Now cut the girdle again following the line-96 through 84 all cardinal indexes.

Here is the supreme test: cut your breaks again using P-1-52.07 by following your girdle line around. When you are finished you should look up at the culet and all facets should meet perfectly. If not, you need to bring the ones up that don't and re-cut the girdle again. This time to size of 11.mm. Now polish your girdle.

You may proceed to cut the pavilion as you have sized the stone and set center point. You may use a 600, I just kept the 1200 on and started with 96 index P-2 45.99 cut down to a .1mm below the line-put 52.07 index 12 and follow the girdle line. Change angle every other one doing index 96-12-24-36-48-60-72-84-all the cardinal indexes until the line meets. Now cut P-3 and P-4 as per diagram. If your stone was set up with a perfect center point all facets will meet, if not you can still use cheater and elevation. Mine all made good meet points, even through polish.

If your rough is not long enough to cut your breaks in at 52.07 just cut them in at 30 degrees, using the same procedure as above. We are only trying to set our girdle facets. After you get the girdle facets set don't polish it yet. First measure down from the culet (the tip of the stone) to the girdle 5 mm and put a line with pencil. Now cut your first girdle facet down to this line and follow it around changing angles every other one. When finished polish the girdle and finish cutting in the pavilion. If the culet does not close just cut the girdle line down a little and recut till the culet does close.

Transfer the stone. I used 32.00 angles to cut all breaks on the crown and to set my cheater to proper setting so that when I followed all the cardinal indexes the line met. I used a 600 to do this. Put your 1200 on and now cut the first pass to make sure your line meets and also get close to girdle size. Now cut C-1 and C-2 as you did P-

1 and P-2 with different angles cut C-3, C-4 and C-5. Cut the table in by over cutting just a little on all four corners. Now polish the table. Go back to C-1 and C-2 and polish the girdle line. Polish C-3-when polishing C-4 make sure you meet at top and bottom exactly at the same time. C-5 is very touchy and you can over cut very easily so take your time and use a very light hand when you get close make all three points hit at the same time. I spent around eight hours on this stone, for competition I would spend at least four days.

One note of caution, after you put in all meets look your stone over from the top straight down on the table as it is very easy to distort the table. It is supposed to be square.

Good Luck!

Art Kavan