



European Mixed Cut

Design by Glenn & Martha Vargas, 1969

Master stone for 2005 USFG competition

This cut requires patients and accuracy especially at the beginning. The pavilion is fairly straightforward on sizing it as the corners are the same as the ends 15mm.

I sized the 96-48 and the 24-72 first and then the corners. You could do the corners the same time as the 24-72 as it is the same mast height. I roughed the stone in with a 360, dropped down to a 600 and this time I started working out a way to cut & polish to a competition style. I ended up cutting it three different ways. After pre-polish with a 1200 I polished the girdle first, polished all the breaks. I polished P-8-One P-7 then P-6 and followed the line around, then I cut P-10 following a line around with P-9 and then brought the other P-7's in. As I said, there are many ways to cut this stone so you will have to work out a way that best suits you. If you did an excellent job on squaring the stone up in the start it is not a difficult stone to cut.

After transfer I roughed it down with a 360 leaving about a quarter of an inch girdle and stepped down to a 600. Now I cut the breaks following a line around to see how the transfer worked out. I used the highest number, in this case 46.01 and cut all breaks at this number only changing mast height. You use this method to check out your

transfer and adjust your cheater. If you have to move your cheater more than $\frac{1}{4}$ degree, (on a Facetron one whole number is a fourth of a degree) you will have an uneven girdle or after you make the girdle even with your cheater & eye, you will fight the rest of the stone. Mine was off by $\frac{1}{8}$ of a degree. Now after the slight correction on my cheater, I cut a little closer to around .5 plus girdle thickness with the 600 and finished the crown even cutting in the table to get a look at how the stone will balance out. Also, I start a sequence that I think will give me the most advantage in making meets.

Here is how I pre-polished and polished the stone. I first cut the girdle to just under .4 using a 1200 for pre-polish. I cut the breaks A-E-B only going opposite direction, following the line all the way around and changing angle and mast height for each facet. I was very close when I got back to the starting and can work it in with polish. I then cut in both C's on 24 & 72 and then both D's on 96 & 48. I then cut both A's on 72 & 24 to just touch meet point at B. Then I cut all four G's to line H. I then cut in F to meet the line of G and meet point A. I started at L and basically did the same thing with K and I. When you cut the first L you must cut to one mm and follow around. I then went to polish and repeated the above. Now I put my 1200 back on and cut the table leaving 1mm to balance the stone out. I measured my table and it was right on 4.4mm x 9.3.

The one thing that is very sensitive on cutting this stone is getting uneven facets at H & L on the 72 & 24 sides. C is the controlling factor. It is a beautiful stone.

Important Note: The cutting diagram I used was numbered a little different but is still correct, on my diagram K is where J is and L is where K is, there was no J on my diagram. If this causes some confusion, contact me.

Art Kavan