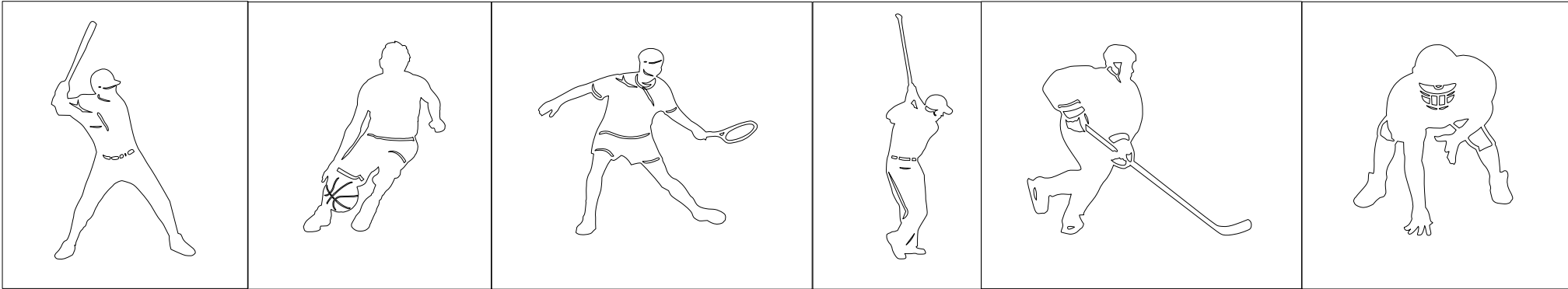


Steps To Planning a Sports Etched Bowl Using KNK Software



1. This red-lined box represents the side of the chip bowl (28.5" circumference; 5" deep) Drawing this box was the first step in determining placement of the designs.
2. Designs to be etched were chosen and sequential placement determined. Because of their individual actions and the space around each one, placement sequence of the players is important to the completed visual effect of the etched design.
3. With sequence determined, next calculate the amount of space between the designs. (Design widths were $2.64 + 2.60 + 4.01 + 1.22 + 4.11 + 2.92$ for a total of 17.5"; Bowl circumference was 28.5"; Leaving 11" to be distributed between 6 players = 1.875" between each player (or 1" to be added to the right and left side of each player.)
4. Next I drew individual boxes that were the widths of the players + 1.875" and centered the players horizontally in each box. The exception was the golfer, which I moved slightly to the right of his box center, balancing out the space between the tennis player and the hockey player. The combined widths of the boxes totaled 28.5". If the total is more, then just adjust one or two boxes, so that the total is the same as the bowl circumference, which in this case is 28.5".
5. Next determine vertical placement of each player within its box. If the bowl has a thick bottom, you will get the most pleasing visual result if you disregard the thick bottom in the vertical placement measurement. In this case it was .5" thick so the players were centered vertically in the 4.5" space between the top edge and the thick base. In vertical spacing it is also important to consider how each player relates to the other in size. With horizontal and vertical placement complete for each player, each rectangle can easily be aligned with the cut edge of the bowl, assuring that the player is on the side of the bowl exactly as seen on the computer screen when etching is completed.
6. Individually, etch your designs on the bowl, being careful to place them in the exact same sequence that your design was in the KNK software.