UK COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY — COLLEGE OF AGRICULTURE
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# STEPS FOR CREATING PROFILED STEEL KNIVES:

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1) Determine length of profile (LP).
    - ❖ Knives for the top and bottom spindles:
        - o LP = width of finished part/moulding
    - ❖ Knives for the right and left side spindles:
        - o LP = thickness of finished part/moulding

2) Determine the depth of profile (DP).
    - ❖ DP = The deepest point of the profile knife minus the shallowest point of the profile knife.

3) Use the formulas below to determine the size of knife steel needed for profile and cut the knife steel to the appropriate size.
    - ❖ Width/depth = DP + 1 3/8" (Knife steel can be slightly wider)
    - ❖ Length = LP + 3/4"

4) Balance all of the knives.

5) Insert knives into cutterhead and align the bottom ¼" of the knife to the edge of the reference side of the cutterhead. (The reference side of the cutterhead is determined by which spindle it goes on; top and right side spindle reference to the right of the cutterhead as it sets on the grinder, the bottom and left side spindle reference to the left side as it sets on the grinder.)

6) Load cutterhead onto the grinding arbor noting proper orientation. For the bottom and left side spindles the cutterhead should align to the left on the grinding arbor and for the top and right side spindles the cutterhead should align to the right.
    - ❖ Left side and bottom spindles everything goes to the left.
    - ❖ Right side and top spindles everything goes to the right.