

MAKING ROSES WITH OFFSET TURNING

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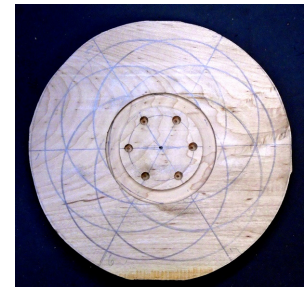


Begin with an ~8" disk. Using multiple offsets, intersecting cuts create a 'rose' with three to six sets of petals; embellish with beading if desired. The outer edge may either be left rounded or scalloped following the outer cuts of the petals. Removing the center portion provides further options. All cutting and shaping is done on the lathe. Scorching with a torch highlights the patterns.

There are two zones: (1) the *outer* where offset intercut V-rings create the rose 'petals' and (2) the *central medallion* defined by petal cuts. The ~8" diameter disk should be close-grained 4/4 hardwood. Fewer petal sets [3-4 offsets] are simpler since cuts intersect at greater angles. More offsets [5-6] intersect at more acute angles and repeatedly, producing greater vibration. More cuts [>6] remove too much surface.

Cut a shallow [$\sim 1/8$ "] recessed tenon ($\sim 2\frac{1}{2}$ " diam) into the back. Mark the diameter on the bottom, then lay out radii using a protractor (or index on the lathe) to help set centers for offsets: 60° intervals for 6 sets of petals, 72° for 5, 90° for 4, 120° for 3.

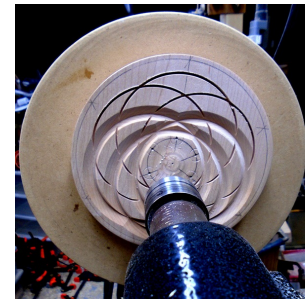
Offsets for the petal cuts should be $\sim 1/4$ of the radius of the disk from the center [e.g., 1" for 4"]. Draw a 1" radius circle across the offset radii, using the center marked by the live center point. Test



this layout by drawing circles using each offset center. Remember that these circles represent the **center** of the petal V cuts, so allow space for the **width**. When satisfied, drill 1/4" holes ~1/4" deep at each offset center using a brad point bit.

An MDF faceplate with a 1/4" diameter metal pin at its center accepts the offset holes in the disk. The live center with its cup *and* central point *together with* the 1/4" pin on the backing plate anchor the offset disk. A conical live center will NOT provide a secure mounting, and will penetrate too deeply. The MDF surface cannot have padding or other friction enhancement. Allowing slippage mitigates possible catches and is crucial for safety. A squeal is better than a rogue disk.

Mount the MDF backing plate in a chuck and position the disk on the center pin using one of the offset holes. Engage the live center to mark the location of **every** offset center on the front face in turn. Remove from the lathe. Using the mark at the true center of the disk, draw a circle 1/4" outside the offset points just imprinted. With a compass at each offset point, lay out each V cut which will define the petals. Make sure that the final width of the cuts will not impinge too closely on either the mounting points or disk edge. The circular imprints from the live center around the offsets should remain essentially untouched by the full width of the intended cuts.



When satisfied, mount the disk on an offset hole, using the live center to pin it *firmly* in place. Make a narrow cut with a thin parting tool to define the location of bottom of the V. Then use a detail gouge (3/8") to gradually cut a V groove 1/4"-5/16" deep and somewhat wider. The bottom of the V should be sharp and clean. ***This cut defines the depth and width of all further such cuts.*** Remove the disk, remount it using the next offset hole, and repeat the cutting process until all offsets are done. Measurement is unnecessary – simply match the depth to the prior cut(s). Check the depths frequently! The pin-and-hole mount allows accurate remounting if recutting is necessary later.

Once all petal cuts are complete, remove the disk from the backing plate. The offset cutting process will have left scars in the central medallion area. Mount the disk on the chuck using the bottom tenon. Carefully cut away the scars, creating a flat, concave, or convex surface in the medallion. For visual impact, the cut defining the medallion perimeter should remain as deep as possible. Leave the medallion surface plain, or add beads, grooves, or other embellishments.

After finishing the medallion, round over the edge of the disk and begin the bottom profile. Then remove the disk from the chuck, reverse, and jam mount it against the PADDED backing plate (central pin *removed*). Finish cutting the base profile. Remove from the chuck and cut the nub from the center of the base.

Use a gas torch to create scorch highlights. Direct the flame consistently at a shallow angle to the surface, either toward or away from the center.

FURTHER OPTIONS:

- >> Instead of a flat face, cut the *initial* front surface somewhat concave or convex between the medallion and outer edge; the V grooves will have graduated depths.
- >> Bead the surface around either the true or one (or more) offset centers *before* cutting the V grooves. This will, however, make the petal V-cuts a bit more difficult.
- >> Rather than simply rounding over the edge of the disk, remove the perimeter by following the bottom of outermost portions of the V cuts to create a scalloped petal edge, cutting either on the lathe or with a saw.
- >> Remove the medallion area entirely, yielding a ring ('wreath').