

Joyner Off-Set Jig Intro

By Dan Douthart



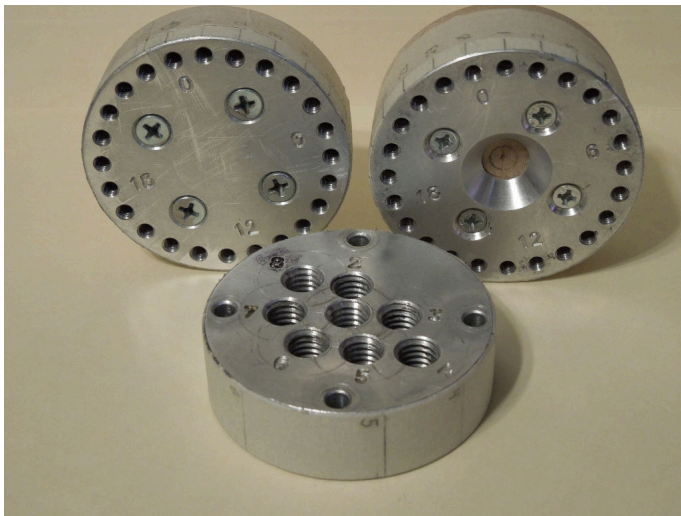
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Joyner Off-Set Jig Intro

The Joyner Off-Set Jig consists of an offset plate and an index plate. The original Joyner Off-Center Jig is silver in color. The offset plate has eight 3/8" x 16 tpi holes with different offsets for mounting on a mandrel and four holes around the perimeter for the index plate attachment. The index plate has 24 8-32 threaded holes around the perimeter for mounting to the offset plate. There are 4 small counter sunk holes for attaching a waste block. A later version of the silver index plate added a counter sunk central hole for a 3/8" x 16 tpi flat head bolt for attaching bottle stopper blanks. The new version of the Joyner Off-Center Jig is red in color. The red offset plate has ten 3/8" x 16 holes with different offsets and 12 holes around the perimeter for index plate attachment. The red index plate has same hole layout as the later version of the silver index plate.

Note: There is one major difference between the silver index plates and the red index plate. When viewing the plate from the perspective of the waste block or pendant material, the silver index plate has the index holes numbered counter clockwise. The red index plate has the index holes numbered clockwise. This difference can be a source of confusion if you have both versions of the jig or if you are using Bill Kloepping's spreadsheet design tool. Both of his spreadsheets have the index holes numbered counter clockwise.

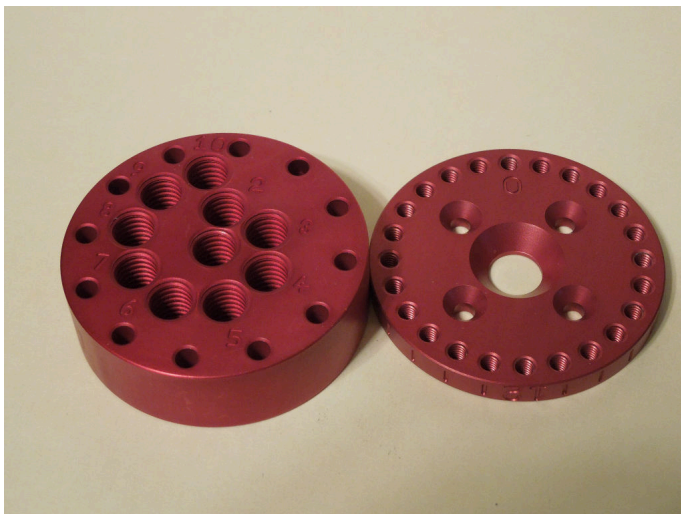


The original silver colored jig is referred to as the 8-Hole Jig.

The offset plate shown with the surface that is screwed onto the threaded mandrel.

The offset plate has four holes for attaching the index plate

Also shown are the two versions of the index plate.

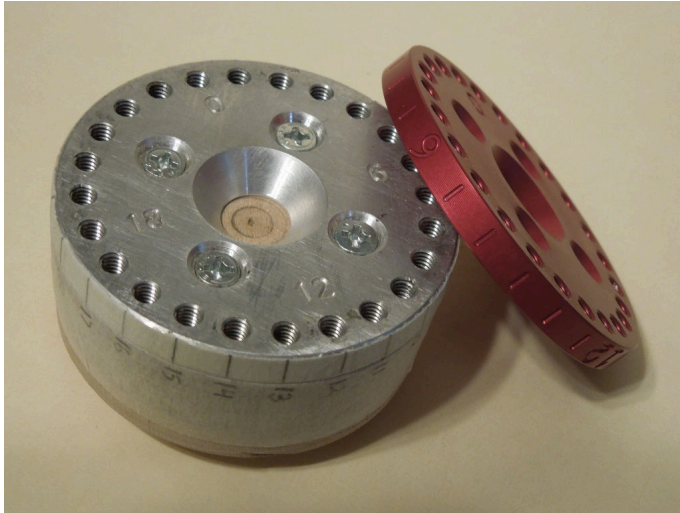


The new red colored jig is referred to as the 10-Hole Jig.

The offset plate has twelve holes for attaching the index plate.

These index plates can be used with either offset plate.

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As noted earlier, the index holes are not number the same on both index plates. The surfaces shown are attached to the offset plate.

Both index plates are shown with index 0 at the top.

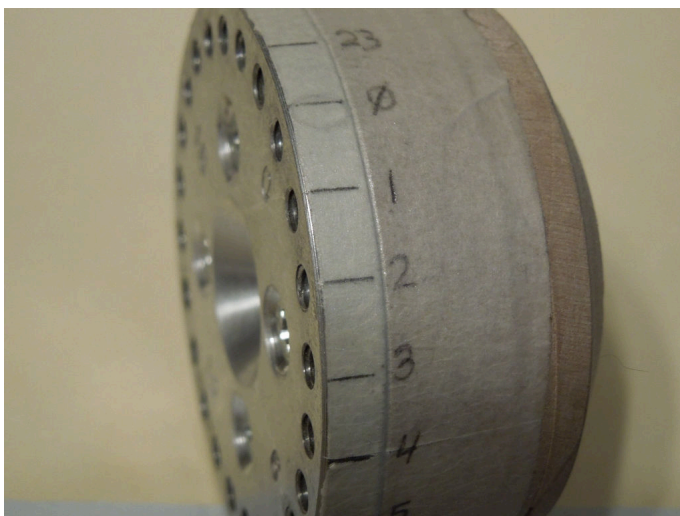
The silver plate has index holes 0-6 in the upper right quadrant.

The red index plate has index holes 0-6 in the upper left quadrant.



The red index plate has indentations around the rim with index holes 0, 6, 12 & 18 labeled.

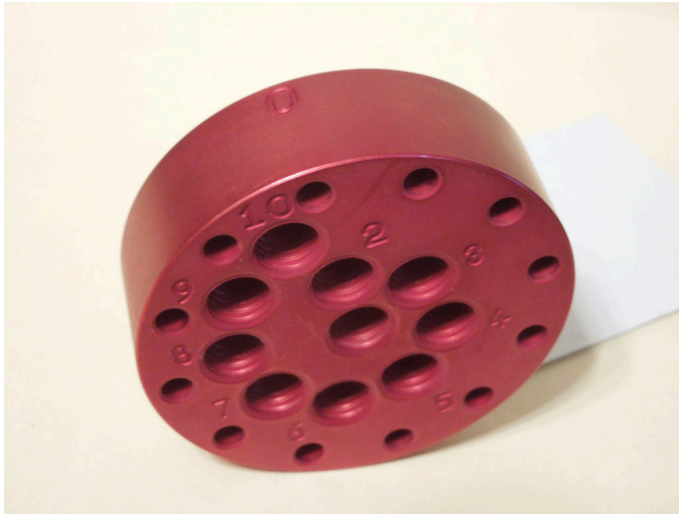
The only marking on rim of the silver index plate is a "0" at that index hole.



In order to make it easier to identify the desired index setting, I applied masking tape to the rim of the index plate and the waste block. I marked each index hole on the plate and labeled each mark on the waste block.

I will also label the red index plate to make it consistent with the silver index plates. This will also make it conform to Bill Kloepping's spreadsheet design tool.

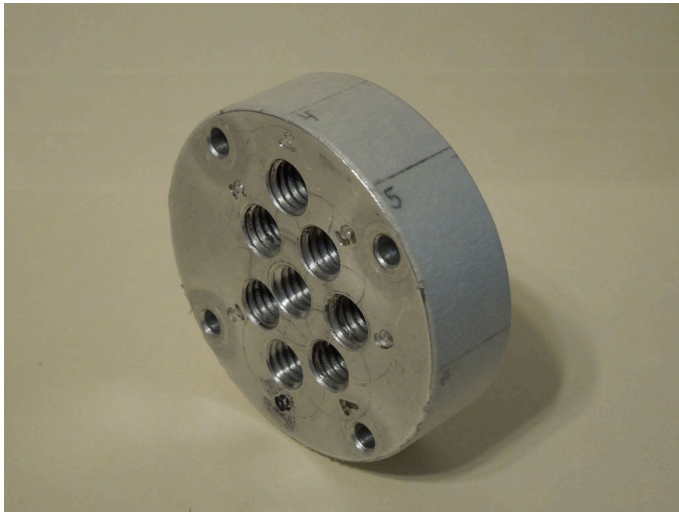
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The offset plate on both jigs have a “0” label corresponding to offset hole 2.

This point can be used as a reference point for the index plate positioning.

This reference point should be used for patterns that were created with Bill Kloepping’s spreadsheet design tool.



I prefer to use the active offset hole as the reference point for the index plate positioning.

I find this much easier to visualize the what index plate position is needed to produce the desired arc.

I have used masking tape and labeled each offset hole around the rim of the offset plate. These labels are then used as the index plate reference point for the corresponding active offset hole.



These are mandrels with a 3/8” x 16 tpi threaded fixture.

The mandrel on the left has a notch that was intended for cutting threads in a bottle stopper blank.

The left mandrel is not recommended with the Off-Set jig as the notch can easily damage the threads in the aluminum offset plate.