WCAF Expo 2024

THREE INSIDE ONE
One opening surrounding multiple smaller openings

Corralling several pictures inside one opening is an old idea. It is a very orderly look, and quite appealing for many customers' projects.

When there are identical openings, as in this design, the openings can be sized and overlapped on the Array screen. Then they are grouped on the design screen to finish it.

Before We Begin - A Software Setting

The first step for these overlap projects is to make sure that the alignment tools will reference the bottom layer of multiple layer openings.

Go to the design screen.
On the right under **Tools**, there is a button with an arrow in it.
This is the **Positioning** button.

For this project, click it so that the arrow points down.

The alignment tools will now reference the bottom layer of the openings, making calculations for spacing in this project easier.
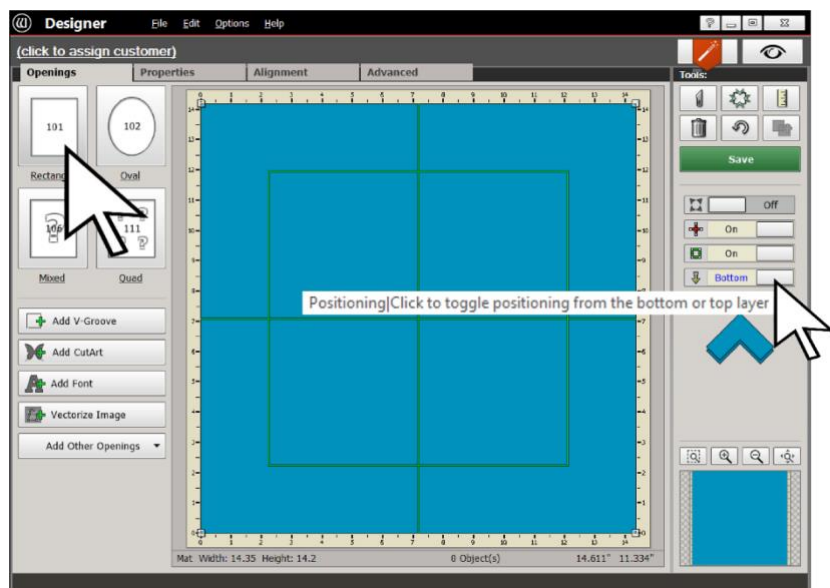
For most projects, the alignment functions operate more logically for multiple layer openings if the arrow on the Positioning button points up – so that the alignment tools reference the top layer. These projects are a special case, though.

Beginning the Design

Click the **Openings** tab at the upper left.

Right click on the **Template 101** icon. Note the large arrow in the illustration.

The **New Opening** screen will appear, and. the **Array** tab will be automatically activated.
You will see this in the following illustration.

On the Array Screen

Design 3 three-layer openings in a row.

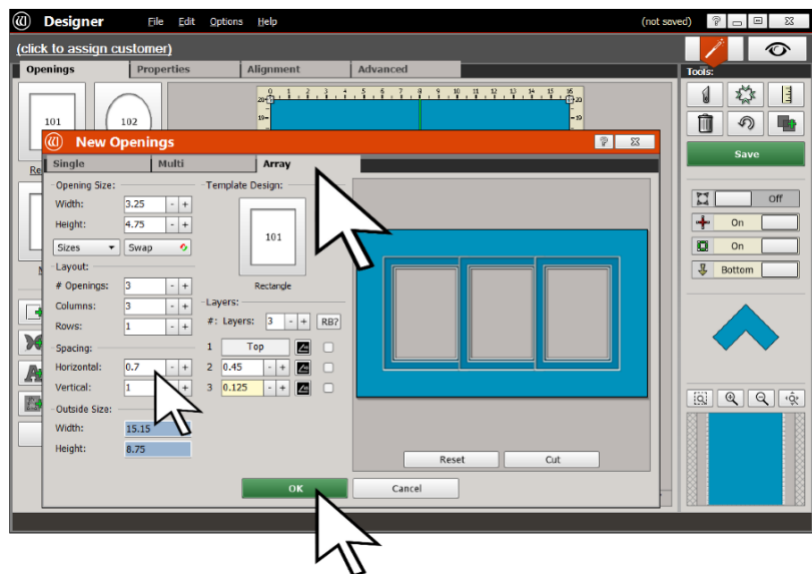The reveals in this example are 0.45 and 0.125 inch

Set the **Horizontal Spacing** so that the top and middle layers overlap leaving a 0.45 inch wide pillar of the middle layer between the openings.

To calculate the value for the horizontal spacing, add the middle layer pillar width plus twice the innermost layer reveal width:
0.45 + 0.125 + 0.125 = 0.7 inch

Enter 0.7 in the **Horizontal Spacing** field.

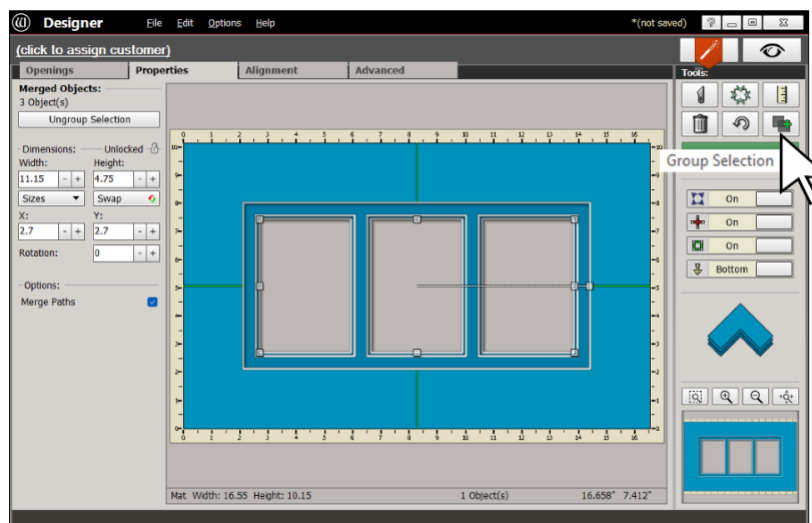Click **OK** at the bottom to send the array to the design screen.

Grouping the Openings

On the design screen, click **Group Selection** under **Tools** at the upper right.

The top layers of the openings will merge into one surrounding rectangle.

The bottom two layers will remain separate.

Set the outside size, and the project is ready to cut.

TWO ROWS AND THREE COLUMNS INSIDE ONE OPENING

Array can generate arrangements with dozens of identical openings, so why not try this with more openings?
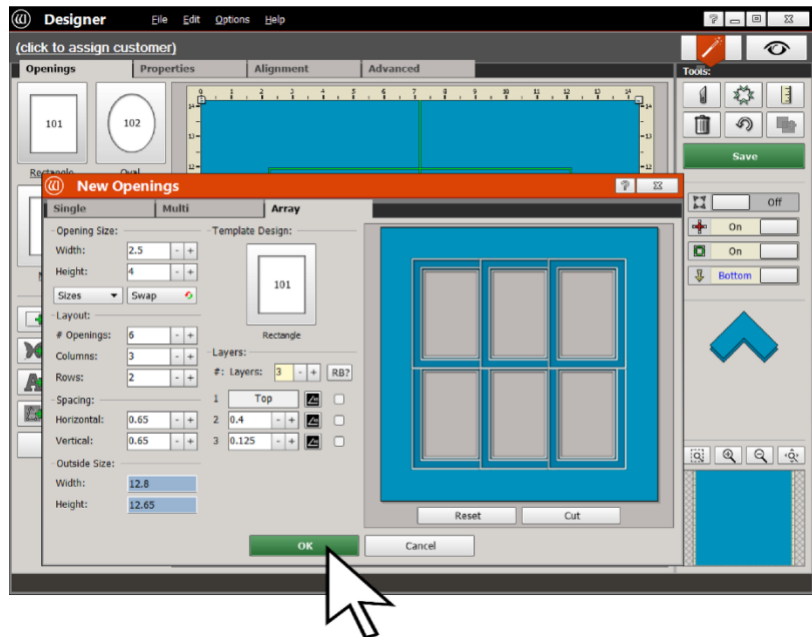
Design 6 three-layer openings in 3 **Columns** and 2 **Rows**.

The reveals in this example are 0.4 and 0.125 inch

Set the **Horizontal Spacing** and the **Vertical Spacing** so that the top and middle layers overlap leaving a 0.4 inch wide pillar of the middle layer between the openings.

To calculate the value for the spacing fields, add the middle layer pillar width plus twice the innermost layer reveal width: 0.4 + 0.125 + 0.125 = 0.65 inch

Click **OK** at the bottom to send the array to the design screen.
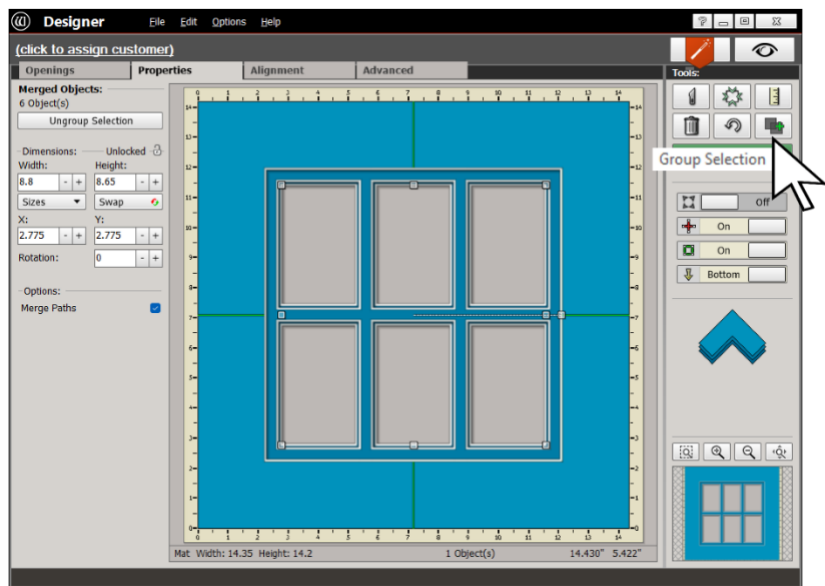

Grouping the Openings

On the design screen, click **Group Selection** under **Tools** at the upper right.

The top layers of the openings will merge into one surrounding rectangle.

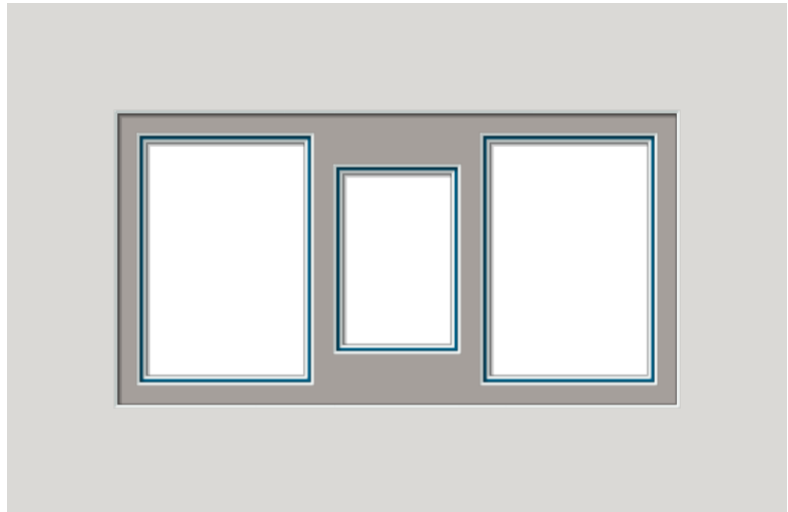Set the outside size, and the project is ready to cut.

WHAT IF THE OPENINGS ARE DIFFERENT SIZES?

One top layer surrounding an arrangement of openings is an attractive idea. It should not be limited to arrangements of identical openings, though.

The idea for this construction will work best if the two outside openings are the same height. The third opening should be shorter.

Beginning on the Design Screen
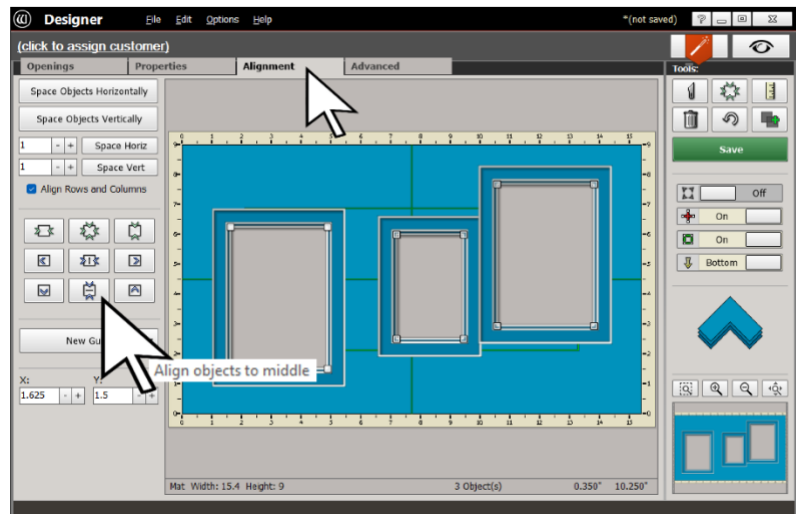
Add 3 three-layer openings.

The reveals in this example are 0.45 inch for the middle layer and 0.125 inch for the innermost layer.

Click the **Alignment** tab at the top.

Select all 3 openings.
Click **Align Objects to Middle** to set the openings' middles in a line.

The next illustration shows the three openings' middles lined up.
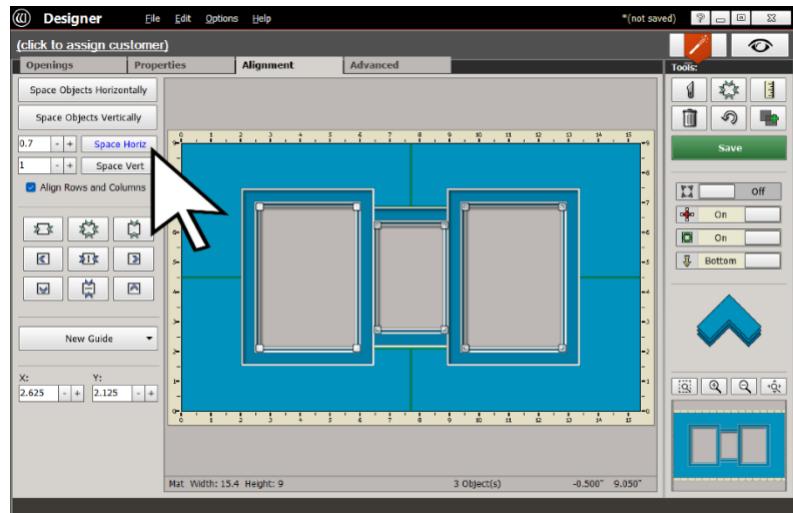
Horizontal Spacing

Recall that the reveals in this example are 0.45 and 0.125 inch wide.
The openings need to be spaced so that the top and middle layers overlap leaving a 0.45 inch wide pillar of the middle layer between the openings.

To calculate the value for the horizontal spacing, add the middle layer pillar width plus twice the innermost layer reveal width:
0.45 + 0.125 + 0.125 = 0.7 inch

Enter 0.7 in the **Space Horizontally** field at the upper left.

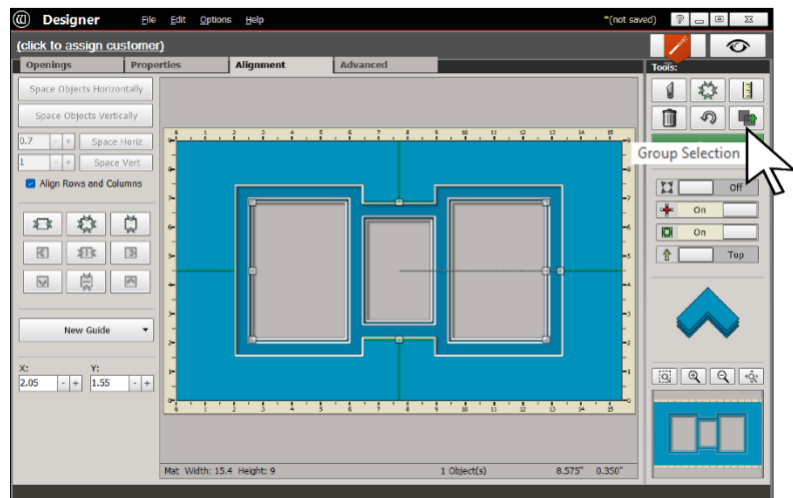Click the **Space Horizontally** button.

While all three openings are still selected, click **Group Selection** under **Tools** at the upper right.

You will see that there are spots above and below the small opening.

These will be filled in with small rectangular openings in the next steps to make a tidy rectangle around the group of openings.

Though there is still another round of grouping, this interim grouping step seems to be necessary – plus grouping ensures that these three openings for the images remain properly aligned throughout the next steps.

Forming the Outer Rectangular Shape

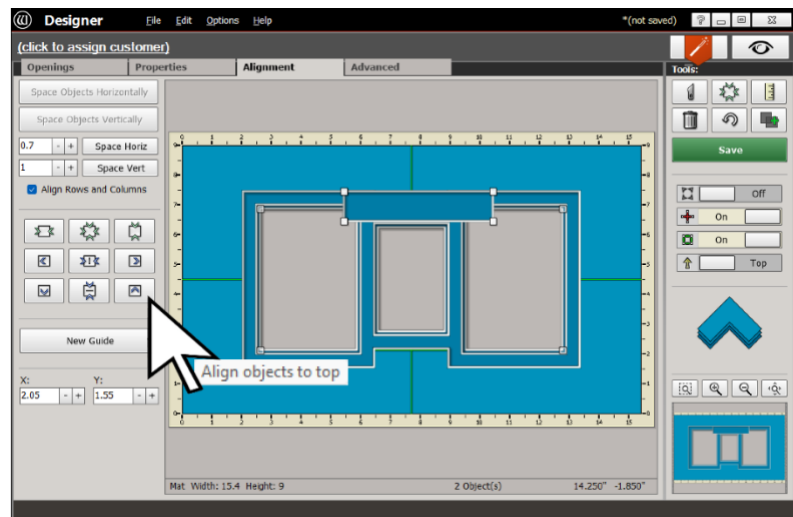Add a rectangular opening.
Make it 1 layer.

It can be any size that fits inside the grouped opening. Just make sure that it is wide enough that its sides extend beyond the inner sides of the larger openings.

Here, it is 1 x 5 inches.

Click the **Alignment** tab at the top.

Select the grouped openings and the small rectangular opening.

Click the **Align Objects to Top** button at the left.
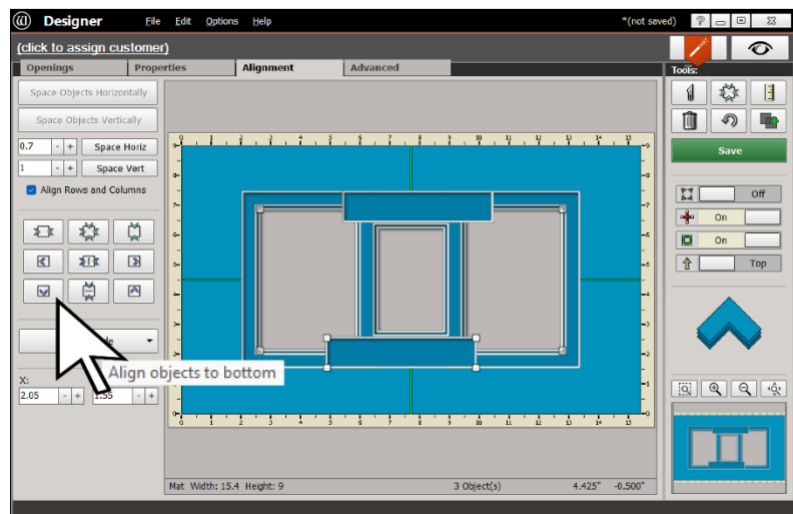

Copy and paste to duplicate the small rectangular opening.

Position it somewhere in the middle of the design near the bottom.

Select the grouped openings and the small rectangular opening near the bottom.

Click the **Align Objects to Bottom** button at the left.

Grouping the Openings

Select all the items in the design and click **Group Selection** under **Tools** at the upper right.

The small openings will be merged into the top layer, forming one surrounding rectangle.

Set the outside size, and the project is ready to cut.