Origami Bar Envelope Customization, Single Page Summary

Determining the Envelope Size

Envelope Width = page width - (page length x 0.25)
Envelope Height = page length x 0.3125

Determining the Page Size

Page Length = desired height of envelope / 0.3125
Page Width = width of envelope + (page length x 0.25)

Effect of Changing the Page Size

Increasing / decreasing the page width increases / decreases the width of the envelope by the same amount.

INCREASING the length of the page **REDUCES** the width of the envelope by (amount of the page length increase x 0.25) and increases the height by (amount of page length increase x 0.3125).

DECREASING the length of the page **INCREASES** the width of the envelope by (amount of page length increase x 0.25) and reduces the height by (amount of page length decrease x 0.3125).

How to Change Envelope Size by a Specific Amount

If you want to increase or decrease the envelope width: Increase or decrease the page width by the same amount.

If you want to increase or decrease the envelope height do both of these:

1) Increase / decrease the page length by 3.2 times the desired envelope height increase / decrease.
2) Increase / decrease the page width by 0.8 times the desired envelope height increase / decrease.

Width to Height Ratio Requirements and Relationship

Soft Limit: You only need to check one of the below. If any one is true, then the others are also be true. Also, if the condition is true (meaning that the limit has not been exceeded), then there is no need to check if the hard limit has been exceeded. If conditions are not met, the left and right sides of the flap will overlap and the bar will become very narrow. You should then also check the hard limit to make sure it has not been exceeded.

The page width must be greater than or equal to (page length x 0.625).
The page length must be less than or equal to (page width x 1.6).
The minimum width of the envelope should be (1.2 x the envelope height).
The envelope height must be less than or equal to (width of envelope / 1.2).

Hard Limit: This is an absolute max that cannot be exceeded.

The page length must be less than or equal to (2 x page width) or the envelope height must be less than or equal to (1.25 x envelope width). The closer you get to this limit, the narrower the bar on back becomes. At a page length of 2 x page width, there will be no bar. At that limit, there will be no bar into which the flap can be tucked so flap will need to go behind this area.

How to Determine the Envelope Printable Areas

Front Face	**Bar**
Top: (page length x 0.1875) from page top	(page length x 0.875) from page top
Bottom: (page length x 0.5) from page top	(page length x 0.9375) from page top
Left: (page length x 0.125) from page left	(page length x 0.25) from page left
Right: page width - (page length x 0.125) from page left	Same as Envelope Width from page left

Decimal to Fraction Conversion

If you are working with metric units (cm and mm), you have no need for this information since your units of measurement are already in decimal format. For those working with imperial measurements (inches), suppose the following:

You make a calculation and come up with a result of 5.6 inches. In a program such as Microsoft Publisher, that is just fine. It will accept decimal values. But if you are laying out a page manually with a ruler, the ruler doesn't show tenths of an inch. It shows 1/2, 1/4, 1/8, 1/16, etc. increments. Here is a simple way to convert to the nearest 64th of an inch. Note that this also works for 32nds, 16ths, etc.

Take the 0.6 and multiply it by 64 to get the nearest 64th of an inch. The result is 38.4. Round the number up or down. In this case, rounded down this would be 38. This means that 0.6 to the nearest 64th of an inch is 38/64ths of an inch which can be reduced down to 19/32nds of an inch.