

How to Measure a Folding Carton



The Construction Of A Folding Carton

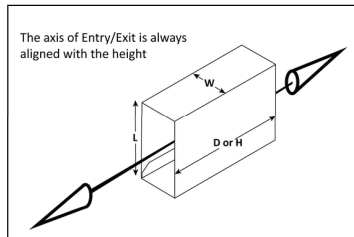
First, how do I determine what is the Length, Width and Height?

This is one of those questions that may be confusing depending on the very different shapes and sizes of cartons out in the world. The answer to this is further complicated by which panel you would call the "top" since some cartons don't open from above. You don't see toothpaste boxes sitting upright on the shelf, do you?

Here are some basic rules of thumb:

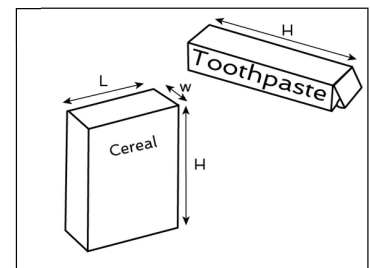
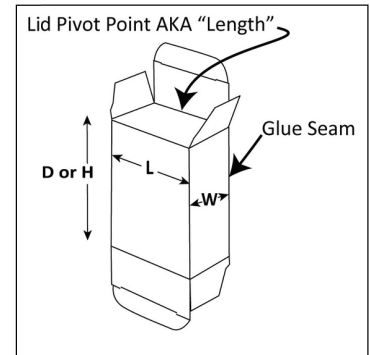
- ▶ The hinged point where the top or bottom closure panel pivots is the **length**
- ▶ Dust flaps are always on the **width** panels
- ▶ The distance between openings is the **height**

All folding cartons and sleeves have a glue seam and the length and width dimensions are always perpendicular to that seam. Therefore, the height dimension is always parallel to the seam.

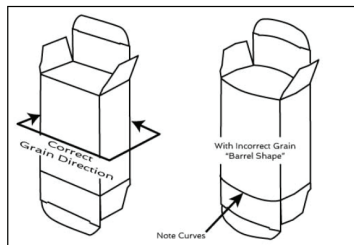


All folding cartons have at least one panel covering the end or ends, usually with a flap that tucks into the piece to keep the lid closed. The point where this top panel pivots is always the length dimension. In the case of a sleeve, the height is always aligned with the axis of the open end or ends. This also applies to cartons and other packaging like trays too.

The length of a sleeve is generally the wider of the two panels.



Grain Alignment



Most often the grain direction of a folding carton is aligned perpendicular to the glue seam. If grain alignment is incorrect, the carton can get "barrel shaped".

A simple rule of thumb is to think of the proper grain direction as if it was a belt around a waist, the belt being aligned with the grain.

Glue Seams

The glue seam is where half of the carton blank is folded and glued to the other half meeting at the glue tab. Most cartons are cut out in such a way to align them along the rear panel where they don't interfere with the artwork as much as they would in the front. When artwork has to cross through a glue seam it will often be slightly misaligned, especially with diagonal lines.

Glossary of terms

Blanks- The term for the flat, cut-out and creased piece before it is folded and glued.

Closure Panel- This is another term for the cover that is opened and closed.

Crease- This is an indentation pressed into the paperboard that does two things, first it forces the paper to fold exactly where you want it to and second, to keep the printing from cracking. Often the term score is used interchangeably with crease but either term is essentially the same thing

Dust Flap- These are the small flaps that the closure panels fold over. They are attached to the width panel.

Grain- When paper and paperboard is manufactured, the wood pulp aligns in one direction making the material stronger and stiffer in one way more so than the other. Folding cartons are cut out of sheets in a way that the grain makes them optimally strong and squared.

Paperboard- Thick, stiff wood-pulp based material, thicker than what would be considered just paper. Also known as boxboard.

Pye Lock- Also known as a Slit Lock. This is a clever closure panel locking mechanism. They are a two part system of short slits on the outer ends of the Tuck Flap that are engaged by a tiny bump on the Dust Flap to lock the covers down.

Score- See Crease.

Tuck- These are the narrow panels that are attached to the top and/or bottom covers that tuck into the body to keep the covers closed. Usually rounded or tapered on the corners.

