



Designing labels for tapered (conical) bottles

All Great Engineering machines can apply labels on a range of tapered/conical glass bottles.

Because we manufacture small, portable applicators, the bottles lay down horizontally, which means the larger diameter end of the bottle and the smaller diameter end of the bottle will rotate at the same rpm, but have different surface linear speeds, ie. the larger diameter end is trying to pull the label on faster than the smaller diameter end.

Due to this, it's not recommended for a label to cover more than 50% of the circumference, as further label coverage will lead to an increased chance of folds, wrinkles or other imperfections in the label.

We always suggest choosing a front and back label on conical bottles, with the ideal label coverage being up to 40% per label for most conical shaped bottles.

We have many customers labelling up to 50% coverage but suggest sending us a couple of bottle and a sample or small roll of labels for testing so that we can guide your label printer on offsetting the labels.



Offsetting the labels

When your label covers more than 35% of the bottle circumference, the label will need to be offset on the backing paper, so that the end of the label doesn't sit higher up than the start of the label.

This slanted angle is due to the widest part of the bottle pulling the label up higher as it rotates in the machine. The more length your label covers, the greater the offset of your label will need to be.

Most tapered bottles with labels that cover 35% or less circumference will not need any offsetting as they will apply straight, or be slanted by 1mm or less from the start to the end of the label and the difference is undetectable to the eye.

For labels which cover between 36% - 40% of the circumference, the label is usually offset between 2mm-4mm.

For labels between 41% - 50% coverage, the label may be offset by as much as 6mm in some cases.

These recommendations are based on our experiences with hundreds of combinations of labels and tapered bottles, but because every tapered bottle is different, and every label length differs as well, there is no easy answer for how much your label will need to be offset by.

We encourage sending us several bottles and a roll of labels for testing, so we can film and share the results with you and your label printer. We generally use approx. 20-30 labels during this test, but require them to be on a roll so they aren't damaged in transit.



FAQs

What if my label covers more than 50% of the bottle?

We recommend outsourcing or investing in larger square equipment, which labels vertically and can be customised to suit your bottle.

What's the largest taper Great Engineering machines can label?

The biggest taper we can currently label is up to 15mm difference in diameter between the area where the top of your label and bottom of your label is applied. For example, if the top of your label is placed on a bottle diameter of 90mm, the diameter where the bottle of your label is applied can be no less than 75mm diameter.

Can my front and back label be different sizes?

Absolutely, we often see larger front labels and much smaller back labels, but

Does the height of my label matter?

Height doesn't play an important role in labelling tapered containers, so we often see very tall or very short labels. Either option is fine and won't affect how much you need to offset your label.