Issues in Negative Space Web Guiding

Blog Post

Issues in Negative Space Web Guiding as Substitute for Line Guiding

In a previous post we presented the concept of negative space web guiding as an option to line guiding. We are talking about using the negative spaces between printed features, such as the separation between labels. This application does come with its challenges.

Negative Space Web Guiding

Consistency of the negative space

As with any line, the negative space must maintain the width and hue throughout the entire run. It cannot be efficiently tracked by the sensor if it varies in width or color tone, as the sensor will consider it a different line.

Negative space in the cross machine direction

Guiding a web using the negative requires that the negative space is available in the cross machine direction. As with line guiding, the line is tracked as it passes in front of the face of the sensor.

Intermittent negative space

Negative species can be constant or intermittent. Intermittent spaces occur when there are breaks on the space, such as when labels are separated in both machine and cross-machine direction. They are treated as intermittent lines.

Gradients around the negative space

There are labels that do not have a defined edge of the same color. Typically, you find labels that have a border, sometimes a very fine line of the same width and color. However, there are cases where not only does the label not have a border, but also has color gradients that might even blend into the negative space.

Negative Space in Labels

Web flutter

In any contrast sensing application, including line guiding, the web has to be stable. This means that there is no flutter as the web passes in front of the sensor. When a web flutters, the changes in the web plane will cause issues in detecting the line or contrast. This in turn hinders the web guiding performance. The solution for web flutter affecting detection by the sensor is the use of a back-up idler roller. The sensor is positioned so it looks at the web as it passes over the idler roller face. Idler rollers with a dark face cover or coating are mostly used for contrast applications.

With all these issues it seems that guiding off a negative space is not a simple task. Well, it isn't. However, we will discuss in depth some of these issues and solutions to them that will allow you to use the negative space as a line guiding option in future posts .

Contact us if you have a challenging application or are interested in more information on web guiding and monitoring.