

# **Print Control Wizard**

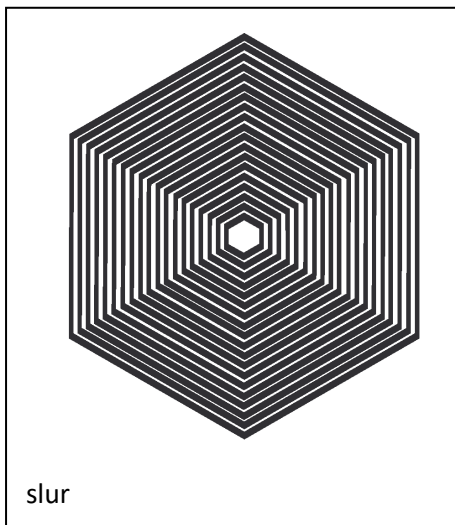
## How to Check Corrugated Prints

02 - 2021

# 1. Slur mark

On servo driven presses there is a setting to adjust the repeat length of the printing cylinder as well as an adjustment for the repeat length of the ink-transfer-drum. This function is often being misused to improve the ink laydown and/or to achieve the desired printed length of the design. If the repeat is not being set correct there is a speed difference between the plate and the substrate or between the plate and the ink-transfer-drum. This is called slur

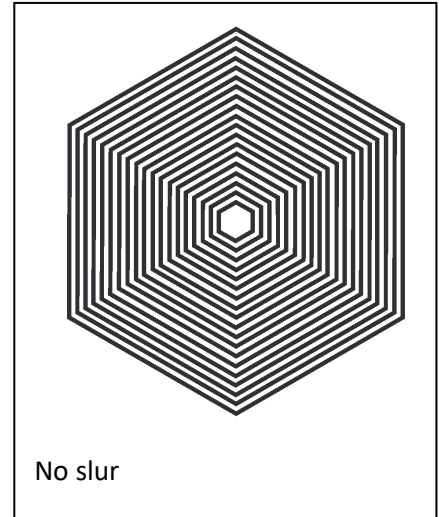
and it is going to reduce the print quality as well as harming the durability of the printing plate.



slur

On gear driven presses it might also be the case that the repeat length is wrong but here it is caused by other factors such as wrong plate- or tape-thickness. Hence the slur mark is detecting slur, but it doesn't help directly to adjust it on press.

The slur mark consists of several hexagons. It is intended to have a vertical orientation. Without slur setting the hexagon will look and print homogenously. In case of a slur setting the elements are printing wider in printing direction, this is indicated at the images below.



No slur

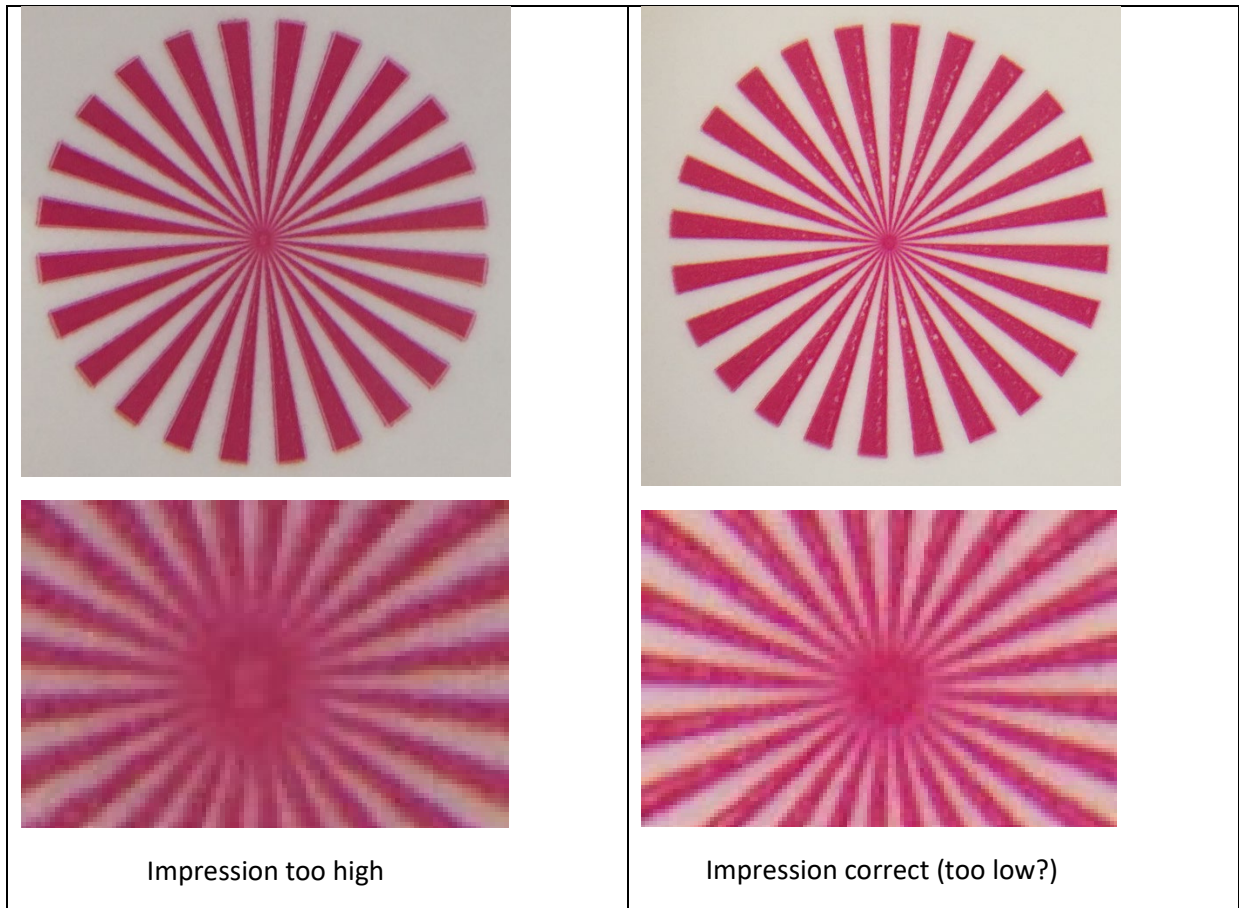
## 2. Impression mark

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The impression on the press need to set in a way the ink is being transferred without squeezing the plate more than needed. There is no real risk the impression is too low; the press operator will immediately identify non-printing areas and increase impression. In case the pressure is too high the quality in midtone and highlights will be compromised as well as the durability.

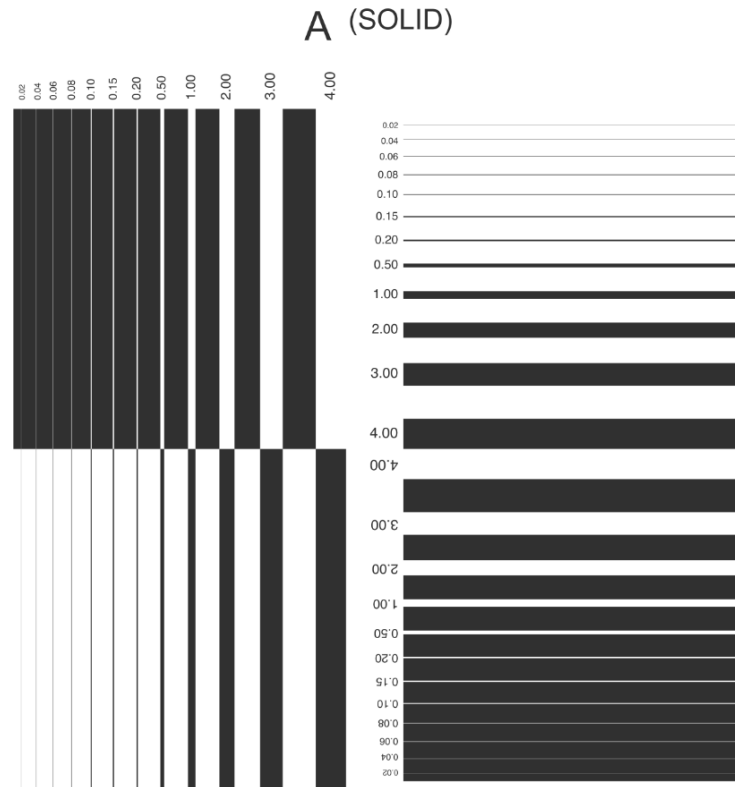
The impression mark is designed in a way it will visually show the impression. The element looks like a star. The center of this star is printing solid in case of correct or too low impression setting. The rays of the star can still clearly be seen.

In case the impression is too high a white ring in the center is showing up and the rays of the star are merging.



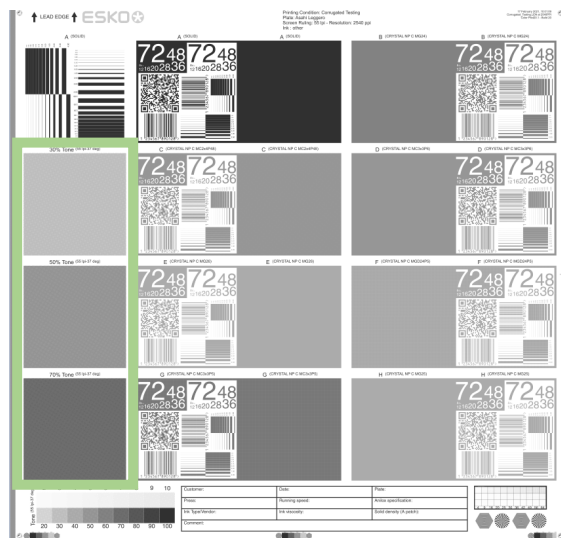
## 3. Linework

Additional to the slur mark (chapter 1) thin lines are also indicating wrong repeat-settings. An area with positive and negative lines is on the printed chart. In case the repeat is wrong the horizontal and vertical lines show deviation one to another. It is essential both orientations print the same.



## 4. Tonal areas

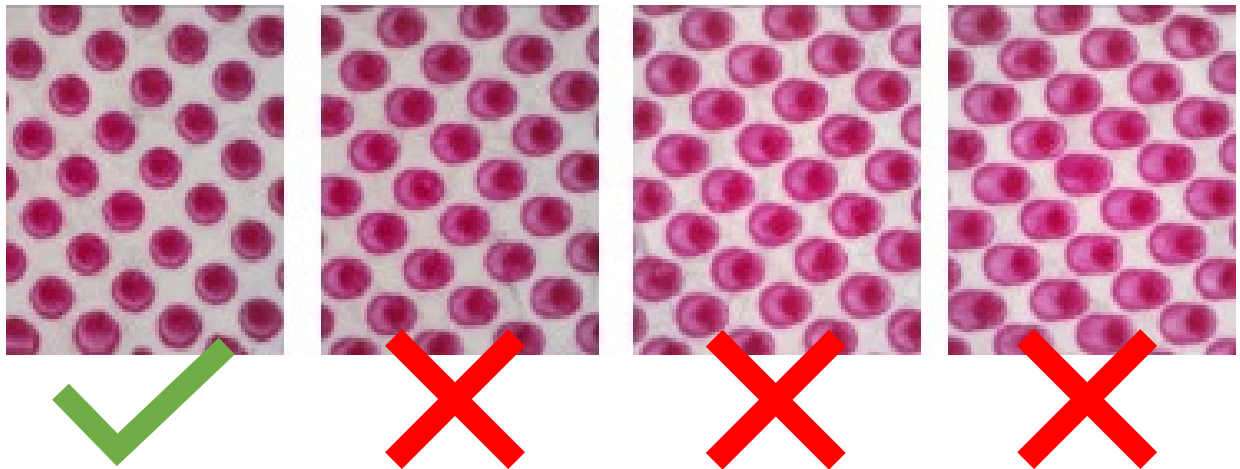
On the left-hand side there are areas with flat tonal values of 30, 50 and 70%. In these areas the rasterized dots might also indicate a slur setting (wrong repeat length). It might be seen macroscopically or microscopically. In either case the repeat needs to be adjusted for the same surface speed of Anilox, plate and substrate.



## 4.1 Tonal areas microscopic view

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When checking with a microscope the dots should look round and symmetrical. The more the surface speeds are out-of-sync, the more deformed the dots are becoming.



## 4.2 Tonal areas macroscopic view

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At a lot of printing conditions washboarding can be observed without tools. This is getting more prominent when a slur-setting has been applied, so the repeat length has to be adjusted to minimize this effect. T

