

Using Different Presses to Print the Same Job

We sometimes create our own bottlenecks, where we offer fast turnaround for runs of over 20,000 sheets with as many as 20-plus colors. To meet deliveries, we have no option but to spread production over various types and makes of presses, knowing we are shooting ourselves in the foot registration-wise with some colors. Realizing it is good practice to start and finish any print job on the same press regardless of press condition, what guidelines can be given that could help to meet delivery demands without us suffering too much? We have repeatedly asked for more lead-time to no avail. I know it's easy to say this, but if we don't do it — they'll easily find someone who will.

Answer: You are absolutely right that no job should be “mixed & matched” over several different presses, because any sense of registration control (and perhaps other important quality features) will be lost. Having said that, we know it happens. Invariably one is caught between a rock and a hard place, just like your company. While there is no easy way to achieve the objective — production wants to circumvent something that it simply shouldn't do — there are some observations and precautions that can be made to ensure the print quality doesn't overly suffer.

Obviously, the idea when producing in this fashion is to create — as much as possible — similar mechanical settings and characteristics from one press to the next. Unfortunately, the wear and tear factor for each press will differ considerably — as will their levels of use and abuse. Two presses of the same make, model and size, with only a year apart in age would presumably present a reasonable expectation of producing a shared job with fewer risks than two with a 10-year differential or two completely different makes and models from the same year. Squeegee orientation, whether it is back-to-front or side-to-side, and the end from which it starts, understandably need to be the same.

Assuming pre-press tasks have been correctly applied (same frame size, fabric grade, tension level, etc.), consider the following points before sharing/mixing production across a range of presses:

- Keep to the same press manufacturer and model type, but ignore any press known to have a large age difference or serviceability [wear and tear] differential.
- Keep to the same size, or near, if possible.
- If different manufacturers, keep to the same size, or as near as possible
- If the presses cannot be the same size, use a smaller one if the option is available for better control of registration (everything being equal).
- Do not use any press known to have registration issues or other serious problems.

- Extremely important — Ensure all presses used in the group have the squeegee stroke traveling in the same orientation (i.e., left-to-right, right-to-left, back-to-front or front-to-back) and starting from the same position.
- Never switch jobs from flatbeds to cylinders or vice versa.
- Use the same squeegee length and durometer throughout the press run.
- Employ the same squeegee speed throughout if on flatbeds; adjust running speed to the same impressions per hour with cylinders. (Check this with a stop watch because they may not all reflect accurate output rates.)
- Ensure make-ready is similar for all presses (off-contact distance, peel-off, etc.).
- If one or more printer has different mechanical edge guide orientation, tape manual edge guides on to reflect the same positioning as those with the majority of presses

All things being equal (which they seemingly never are), the most important points for flatbed presses are to operate with the same squeegee orientation and at the same speed. With cylinders, it is with the same size presses and IPH (speed/hour).

Two words of caution with cylinder presses, though: If a press is known to create a distorted print (which is not uncommon and usually because the cylinder drum itself is not seated precisely square on the chassis) lock it out from the group sharing the job. Even if using the same size cylinder press, but of another brand, chances are that it may require a different configuration in screen size, however slight. If it does, reject the press from consideration because accurate registration control will not be possible.

-- The Print Guru, Mike Young, August 2004