

SLP Develop on Press Technology

How DOP works and which small changes to press startup procedures achieve quick, saleable copy.

First let's visit the conventional plates printers have used for decades. These plates are processed with a developer in a processor that removes the coating in the non-image areas on the plates. The plates are then ready to go to press and print. Sometimes a finisher is used to protect the non-image areas on the plates from scratching, finger printing and generally from any other contaminant that might cause a defect on the plates. These water-soluble finishers are eliminated in the dampening sequence at press startup. The preferred press startup procedure is to go on impression, drop water and then drop ink within just a few impressions of each other. Generally, press operators use this method or variations thereof.

After startup, press operators generally increase the water amount to remove the finisher, hastening clean up and allowing the plates to accept ink faster. With conventional plates, this sequence works well as long as water levels are maintained to avoid wet paper/web breaks. Once the press operators see the plates cleaning up and ink density being achieved, the water is reduced to the correct level. This is the customary process for conventional plate make-ready on web presses.

DOP technology is slightly different in a few key ways. Often referred to as No Process, this is inaccurate because DOP still needs to be processed — *however not* via a plate processor unit — but actually on the press. How the plates are processed on press is very important for operators to understand, because it can make a significant difference in achieving good copies quickly, with minimal waste. The faster you get the plate developed on press, the faster you can get registration set, ink density set and start the good copy counter.

How are most DOP plates developed on press?

Essentially, by utilizing the press's ink/water combination. Most No Process plates have some level of solubility in ink and/or water; but, that's not what develops the plates. It is here the **Gem 5** DOP procedure departs from conventional plate/press operation: the fountain will wet the plate but does not develop or process it. The tack of your ink/water mix literally pulls the coating out of the non-image areas during initial make-ready, effectively transferring the coating material in the non-image areas to the blanket and then onto the paper. This process prevents the non-image area effluent from contaminating the fountain solution and ink train.

Specifically, drop your water... then your ink, quickly and respectively. As you will observe on make-ready, **Gem 5** initially takes on a full charge of ink/water for a few impressions. Then the non-imaged area coating begins transferring to the paper. **NOTE: At startup DO NOT** turn your water up, because this will cause emulsification

of your ink, slowing make-ready. If done properly, the plates develop quickly, with the initial charge of ink dissipating rapidly from the non-image areas. Once the plates are developed, you then use the water controls to set ink/water balance as you would with any other plate. It is very important that you understand the No Process method, as it will be your key to reduced waste and faster, saleable copy.

*To summarize, the **preferred startup procedure for DOP is to go on impression, drop water and ink immediately.** This sequence permits the plates to develop before you increase the water. The plates will then respond just like any conventional plate.*

