

Perfect Plate Production – Seeing the Light!

TIPS
AND
TRICKS

THE RIGHT CHEMICALS ARE NOT ENOUGH: The only way of achieving optimum print results is if the actual medium transferring the text and image data – the printing plate – is perfect, too. Although thermal imaging and subsequent processing of the plate is fairly straightforward, it does require a certain degree of specialist know-how.

To all intents and purposes, even state-of-the-art CtP platesetters contain a mini photo lab. Although they avoid having to go through the laborious process of developing negatives (film), the images (plates) still need to be imaged correctly – and that means, for example, that the imaging time and energy need to be right. It is also important to perform regular checks on the developing chemicals and other process parameters used. If something goes wrong here, this may result in banding in the print. This takes the form of fine lines or stripes approximately 0.04 to 0.1 inches (1 to 2.5 mm) apart that spoil the print image (Ill. 1).

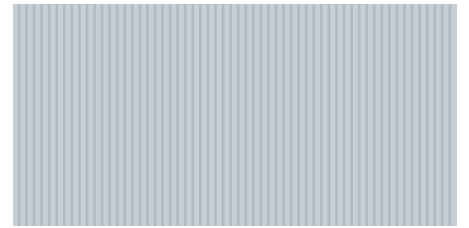
Before wasting valuable hours looking for the cause of the problem on the press, it is therefore worth taking a look at prepress, including the platesetter settings. Although cutting-edge CtP devices such as the Suprasetter from Heidelberg monitor and adjust the laser power on an ongoing basis, incorrect settings almost inevitably lead to unwanted effects. Irrespective of the make of the platesetter, it is also a good idea to regularly check the loading and unloading mechanisms for signs of wear. And what about the plates? They should be stored correctly so that their sensitivity and thus their imaging performance are not impaired (Ill. 2).

It goes without saying that chemicals also play a key role in the processor. For example, consumption and evaporation must be balanced correctly – and constantly – to ensure that the developer does not show any “signs of fatigue.” This only works, however, if an eye is also kept on consumption/oxidation on a day-to-day basis so that the developing fluid can be refilled as required. Otherwise, it gradually becomes less effective. A backflow of water from the squeegees can have a similar effect, in some cases. In order to prevent dilution of the developing fluid, the setting of the squeegees

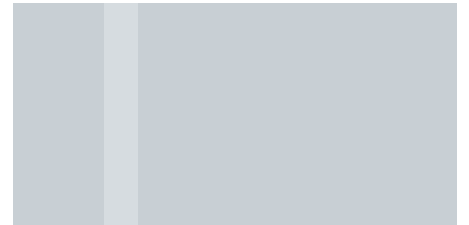
and the position of the spray tube should also be checked. The condition of the developer can be assessed using either a pH measurement (in the case of developers for photopolymer plates) or a conductivity measurement (suitable for many thermal plates).

If the chemicals are right but the print is still somewhat cloudy, it may be worth taking a closer look at plate transport. If a wave of developer runs back as the plate is passing through the machine, this could indicate that the chain tension or the rollers on the drive need to be readjusted. Last but not least – and as in any conventional photo lab – there is also a possibility of the developing fluid simply being too hot or too cold. For safety purposes, a digital or alcohol thermometer is used to establish whether the heating or cooling system is faulty because there is a risk of conventional mercury thermometers breaking and ruining the entire machine. The ideal temperature of the developing fluid is indicated by the relevant plate suppliers.

To keep printing operations running smoothly, it is thus advisable to ensure that plate production is always up to scratch. The test forms included as standard with all Heidelberg platesetters can make a significant contribution in this respect. They make the operator’s daily checks much easier, especially given that they also enable conclusions to be drawn about the actual developing process. In other words, the operator always has effective help at hand to ensure the process is stable. Plates and processing chemicals in the Saphira range from Heidelberg go a long way towards ensuring that the prepress “photo lab” operates smoothly – as do the customized Systemservice maintenance programs that can be agreed with Heidelberg. In order to keep downtimes to an absolute minimum, an appropriately equipped



Ill. 1: Possible causes of the phenomenon known as banding include incorrect setting of the platesetter system and wear on the loading/unloading mechanisms.



Ill. 2: Uneven results and cloudiness are often caused by faulty plate transport.

Suprasetter can even provide Heidelberg service specialists with details on the machine’s status or inform them if a wear part will soon need to be replaced. This is done over the Internet in a matter of seconds. If the modern-day “photo lab assistant” gives the go-ahead for the data to be sent, it saves time, money, and hassle – to the benefit of everyone involved! ■

Info

Products described here may not be available in all markets. You can get further information from your local Heidelberg representative.