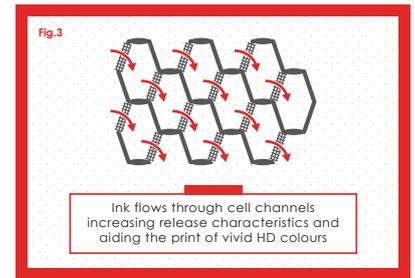
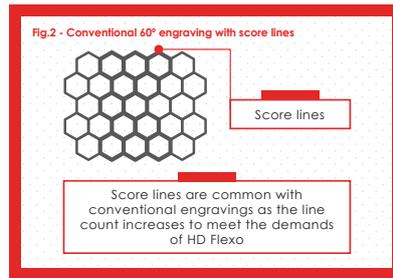
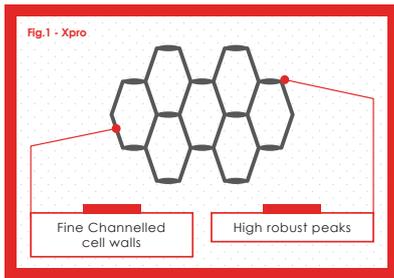


Process and Combination Engraving

- ✓ Fine inter-linking cells guaranteeing HD print performance
- ✓ Robust high peaked cells reducing the risk of wear and engraving damage
- ✓ Channelled engraving offering good ink transfer and vivid HD colours
- ✓ Volume control increased by precision micro-finishing
- ✓ 61° engraving reducing the risk of moire (screen flash)
- ✓ Reduced plugging and increased cleanability due to channelled cell nature
- ✓ Consistent ink transfer at up to 600 mpm (reduced ink starvation due to excellent ink cell evacuation)



Xpro – Process and Combination Engraving

Xpro is a multi purpose engraving designed to meet the specific requirements of HD flexo as well as combination (vignette) and solid print.

As flexo evolves, the resolution of the printing plate continues to increase. This demands ever higher anilox screens in order to print the finest highlight dots which inevitably create finer and more fragile cells. Unfortunately although anilox technology is becoming increasingly microscopic, the parameters within which the anilox cells are being asked to work is not becoming easier.

The doctor blades that are in use to meter the anilox are often variable in hardness and quality. The temptation is for printers to increase blade pressure to overcome various print related issues. Also, the demands placed upon many printers mean that presses and therefore anilox are running more hours in a week with less time scheduled for maintenance and care for anilox. All of these factors contribute towards faster anilox wear and increase in potential damage.

Xpro has been designed specifically to adapt to an environment of increased line counts, HD printing and the specific demands of the flexo process. Xpro has fine channelled cell walls formed around high peaks enabling it to be robust whilst allowing increased HD line counts.

Strength Characteristics

Xpro has peaks which are engraved to a fractionally higher height than the rest of the engraving. The high peaks are given an increased micro-finish in order to give the cell improved resilience to the pressure of the doctor blade, thus strengthening the cell. The blade is supported by millions of these high peaks giving enough support to the doctor blade to create an even wipe and equal blade wear. The durability and increased micro-polish that this engraving can endure makes Xpro less likely to succumb to issues such as score lines. It is also more resistant to every day cell wall wear and thickening at fine line counts.

HD and Print Characteristics

The fine channelled cell walls that are created around the

high peaks are critical to allow Xpro to provide the high line counts and finesse required for HD dots. These fine cell walls give the print definition required in highlight areas. The fine cells are channelled to guarantee good ink transfer and provide vivid HD colours. We also apply defined ratios between the widths of the peaks and cell walls which ensure that the cells have the necessary structure to control fine dots in HD highlight areas and therefore minimise dot-gain. It is our experience with HD printing that an element of structure and control is advantageous in the cell design to provide print clarity and definition. This is opposed to open engraving structures which are prone to flooding the printing plate, creating dot bridging and dirty print on process screens, it is for this reason the Xpro cell is not entirely channelled. Another key benefit of Xpro is that the angle of the engraving is 61° returning close to a conventional 60° style unlike other HD engravings. Furthermore this helps to reduce the likelihood of moire (screen flash) on the printing plate.

Volume Control

At Sandon Global we take our guarantee of volume control very seriously in order to maximise print consistency for our customers. We measure this internally with statistical quality control on a daily basis to ensure our volume measurements are consistent. One of the major benefits of Xpro is our ability to increase the volume consistency of this engraving. The high peaks that part-form the engraving are micro-finished with increased precision. This ensures that volume is attained without affecting the integrity of the finer adjoining cell walls which must remain fine in order to aid ink release and print definition.

Cleaning

The channelled nature of the Xpro engraving lends itself to easy cleaning. Ink flows through the cells making it less likely to trap and plug. When the anilox is dirty the flowing nature of the engraving means that both mechanical and hand cleaning methods will be more effective as stubborn ink has physically less area to adhere to. Improved cleanability gives print operations more consistency in terms of optical density therefore reducing downtime and increasing efficiency.