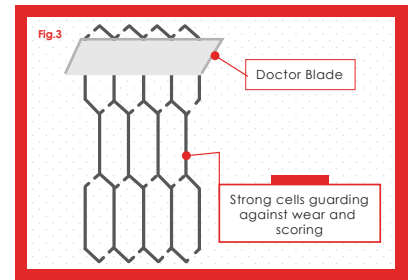
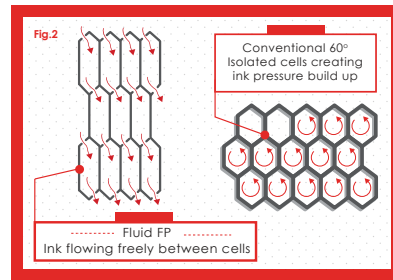
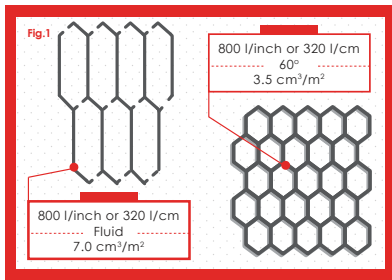


**HD & Combination Engraving
(Solid and Tone)**

- ✓ High line counts allowing for HD print capability and lowering dot gain
- ✓ Vibrant HD colours
- ✓ Reducing anilox inventories due to increased print latitude
- ✓ Combining solid and tonal print on one plate unlike 60° engravings
- ✓ Improving solids, reducing pin-holing and improving lay
- ✓ Greater release characteristics keeping print cleaner on the run
- ✓ Smoother cells with greater doctor blade support reducing vibration, increasing print consistency and making the engraving more resistant to scoring
- ✓ Increased lifespan on wear against conventional 60° engravings in normal operating conditions
- ✓ Increased cleaning characteristics



Fluid FP - HD & Combination Engraving (Solid and Tone)

Fluid FP is the evolution of our highly successful HVP and iPro engravings developed over 9 months and offering a range of benefits for the printer. Fluid FP is a semi-channelled engraving which allows an easier and controlled flow of ink between cells whilst maintaining a strong element of cell control.

Enhanced Print Quality & Efficiency

As print tolerances set for printers are narrowed by brands and end-users it is increasingly difficult to maintain profitability. Therefore print efficiency, speed and quality become critical. The flowing nature of Fluid FP reduces ink starvation in the chamber at high speeds by allowing ink to transfer to and from the cell with greater ease thus enabling printers to increase speed.

As with the Sandon iPro engraving, Fluid FP is capable of HD quality print. Its cell structure allows for a more robust cell formation which enables our laser engineers to increase the line counts of anilox whilst providing a stronger engraving design. Higher line counts give increased print quality and ink control for fine highlight print with low dot gain and vivid HD colours making Fluid FP ideal for HD print.

Fig.1 A comparison between the cell configuration and capability of a Fluid FP and conventional 60° engraving.

Also, like HVP, Fluid FP allows customers to combine good solids and tonal areas on one plate by utilising high line counts and high volume through its unique cell design. This is in contrast to 60° engravings which are only capable of offering either high volume or high line count but not both. This increased print latitude allows customers to decrease their number of anilox specifications helping improve print consistency and press efficiency. The increased amount of cells in a sq/cm gives better print resolution as the ink releases from the cells in a more controlled manner leading to an improved all over lay. This control element allows our customers to print vignettes and tonal areas without large deposits of ink bridging in fine areas. Depositing more ink with greater control is why Fluid FP is the perfect combination anilox to help printers reduce their inventory.

Fig.2 The open nature of the Fluid FP engraving allows ink to flow smoothly between cells improving the engraving release characteristics, helping cleaning and optical density at high speed.

Increased Cleanability

A major benefit of Fluid FP is that the anilox will stay cleaner for longer as the ink is less likely to become trapped in the cell due to its open nature. If the cell does become blocked with ink, the open nature of Fluid FP allows for easier cleaning with both hand chemicals and mechanical methods. This ability for the anilox to stay cleaner for longer allows improved efficiencies through an increase in volume consistency both during use and after cleaning.

Lifespan

Tests show that lifespan of the anilox is improved due to the increased release characteristics of Fluid FP meaning that ink continues to release well from the cell configuration over time.

Due to the flowing nature of Fluid FP, we are able to increase the automated micro-finishing process that is conducted after engraving. On traditional cells this increased "polish" would create poor release characteristics by creating a closed cell wall. However with the open nature of the Fluid FP design, we are able to increase micro-finishing without compromising cell release characteristics. The major benefit of this is to create a stronger, smoother cell that is more robust against the doctor blade, which makes the cell more resistant to polish and score lines and therefore offers the printer a potential benefit in terms of lifespan. Furthermore the smoother engraving creates less vibration against the doctor blade and therefore improves print consistency.

Fig.3 The extra micro-polishing of the engraving allows for improved resistance to wear and scoring.