High Volume Process - Combination Engraving (Solid and Tone)

- High line count, high volume engraving offering numerous benefits
- Combines solids and tonal print on one plate not possible with conventional 60° engravings
- Increased print latitude for one anilox, helping reduce anilox inventories
- Improved solids, reducing pin-holing and improving lay
- Greater release characteristics helping keep print cleaner on the run
- Increased lifespan on wear against conventional 60° engraving
- Increased cleaning characteristics
HVP – High Volume Process - Combination Engraving (Solid and Tone)

The HVP engraving allows Sandon Global customers to combine good solids and tonal areas on one plate. It does this by combining high line counts and high volume through its unique cell design. This is in comparison to conventional 60° engravings that are only capable of offering either a high volume or a high line count but not both, without compromising the crucial release characteristics of the anilox.

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

The HVP is a highly versatile engraving and took eighteen months of research and development to perfect. Our laser technicians have designed strict tolerances to work to in order to maintain the crucial release characteristics necessary to provide such excellent solids whilst maintaining high line counts. Sandon Global have specific Standard Operating Procedures concentrating on the crucial tri-axial ratios that our laser technicians and finishing operatives work to in order to produce this cell format consistently each time.

**Fig.2** Highlighting the tri-axial ratios that our staff work to in order to produce consistent engravings.

Due to these tri-axial ratios our HVP engraving is capable of producing solid print that is far in advance of conventional 60° engravings. The increased release characteristics of the HVP engraving evacuate more ink from their cells, which will in turn help eliminate any pin-holing issues. Furthermore the quality of the lay is far improved by the increased line counts available. The increased amount of cells in a sq/cm will create far improved resolution in print as the ink releases from the cells in a more controlled manner leading to less reticulation and an improved all over lay. This control element produced by the increased line count is also what allows our customers to print vignettes and tonal areas without the large deposits of ink bridging and filling-in through tonal areas. The factor of depositing more ink but with greater control is why HVP has proven to be the industries best combination anilox.

The ability to combine solid and tonal work with one anilox has encouraged many of our customers to significantly reduce their anilox inventories. Unlike some of our competitors we do not make marketing boasts that one HVP specification can print everything. This type of claim is only relevant dependent on the spectrum of work a specific customer is required to print. For instance a 6.00 cm^3/m^2 engraving will never give you the optical density available from a 11.00 cm^3/m^2 and a 11.00 cm^3/m^2 will not be able to print fine tonal areas. We do however know as a fact that with one HVP specification printers will now be able to do far more that with a conventional 60° engraving due to its increased print latitude. With this in mind we have found that numerous customers have significantly reduced their inventories to the point where two specifications of line anilox are able to print all their solid and tonal work.

The HVP engraving is also proving to out last conventional engravings on wear tests in comparison to conventional 60° engravings due to the enhanced release characteristics of the tri-axial ratios. Furthermore the improved release characteristics mean that the anilox stay cleaner longer and require less abrasive cleaning methods in comparison to the equivalent conventional 60° anilox.