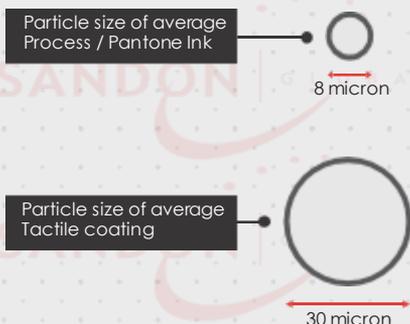


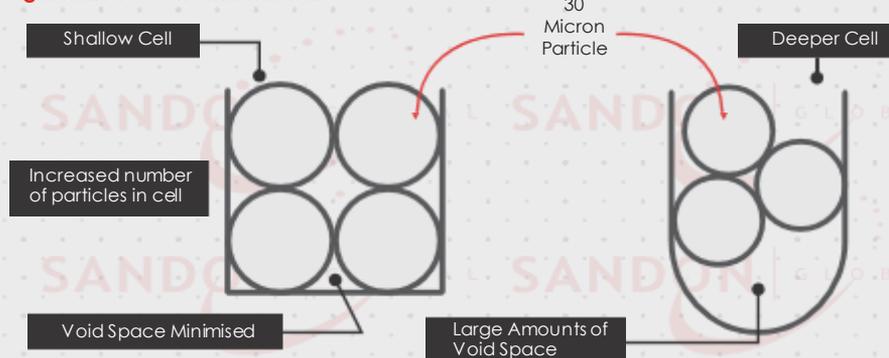
## Heavy Solid & Coating Engraving

- ▮ Unique shallow cell design, Patent Pending
- ▮ High coat weights and deposits of ink (large particle sizes)
- ▮ Efficient and consistent ink and coating application
- ▮ Avoids cell blocking of large coating particles
- ▮ Reduction of vibration due to smoother cell engravings
- ▮ Easier cleaning than conventional engravings
- ▮ Confident volume and coat weight prediction with Sandon Global COCAL formula

**Fig.1 Average Particle Sizes**



**Fig.2 GMX Vs. Conventional Cell**



## GMX Heavy Solid & Coating Engraving

GMX is a patent pending engraving unique to Sandon Global. It was designed to enable heavy coat weights of tactiles, adhesives, metallics, varnishes, special applications and large deposits of ink to be applied efficiently and consistently. The engraving has a unique design making it the perfect cell for difficult coating applications.

**Fig.1 Difference in particle size between a tactile coating and standard pantone ink. Highlighting the necessity for an anilox engraving with maximum pick up and transfer.**

One of the key issues with printing special applications is the size of particles within the material. A regular issue with using conventional engravings to print these coarse coatings is evacuating their large particles from the cell. Often large particles will become blocked in cell designs or not even fit within the cells, making it impossible to get the coat weight or optical density required. The unique GMX engraving allows for maximum pick-up and transfer of the ink or coating. It is able to do this due to the bottom of the engraving being very flat and very shallow in comparison to conventional engravings. This means that an increased number of large micron particles can comfortably fit in the cell without causing evacuation or transfer issues and therefore helping improve print results.

**Fig.2 Highlighting how the shallow GMX cell design allows large particles to better pick up and transfer compared to a conventional engraving. It does this by utilising more of the space in the cell.**

Due to its uniform cell structure, we are able to definitively measure the volume of the engraving. This can be an issue with alternative channelled and pin-up engravings which rely upon a microscopic depth measurement which is open to interpretation and does not always give volumetric consistency.

GMX can be measured consistently with our volume standard measuring equipment "Voltec" which guarantees accuracy.

Due to the excellent release characteristics of GMX, the engraving lends itself to an increased cell micro-finish. This is particularly important when considering some of the high volumes and coat weights that need to be achieved with this type of cell. Coarser engravings often lead to vibration against the Doctor Blade and cause inconsistent print results. We can increase the micro-finishing after laser engraving on GMX without hindering its excellent pick up and transfer properties which therefore reduces potential vibration issues.

The shallow nature of GMX makes it far easier to clean than traditional cells. This is particularly important when considering the complex nature of many coatings. It is therefore an important design aspect of GMX that it can be easily cleaned to maintain crucial coat weights.

### Consistently Achieve Coat Weights

Sandon Global are vastly experienced in predicting dry coat weights for use with our GMX engraving. We do this through our specialised coat weight predictor called 'COCAL.' It is important when considering coating applications to achieve a specific dry coat weight (g/m<sup>2</sup>) on varying substrates. By applying our mathematical 'COCAL' formula to the applicable data we are able to confidently determine an accurate volume (cm<sup>3</sup>/m<sup>2</sup>) for the GMX engraving required.

We have experience with many companies who have made major savings by utilising the Sandon Global predictive 'COCAL' calculator, reducing their annual spend on lacquers and anti mist etc. Achieving the correct dry coat weight (g/m<sup>2</sup>) time after time not only improves product efficiency and performance but enhances print quality and ultimately improves profitability.