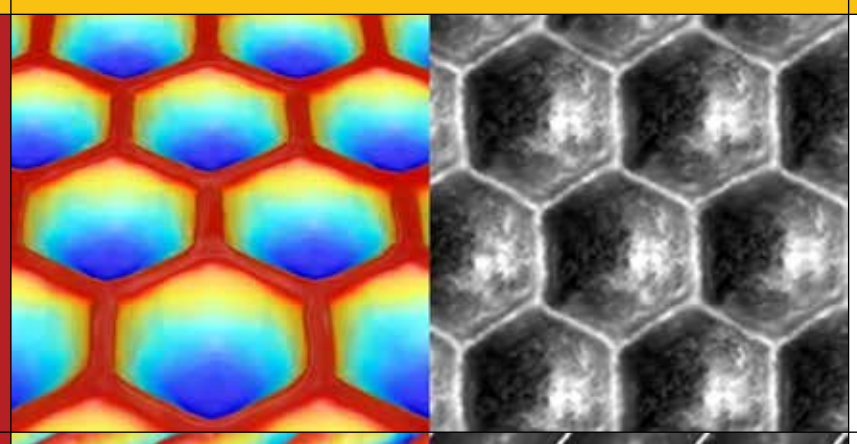
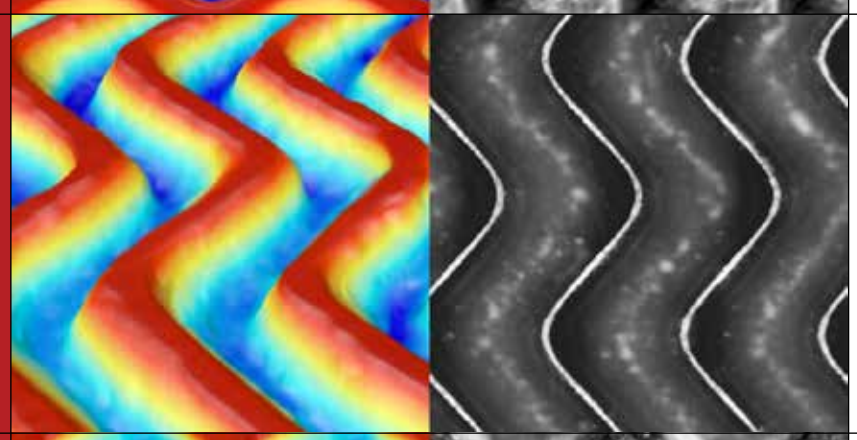
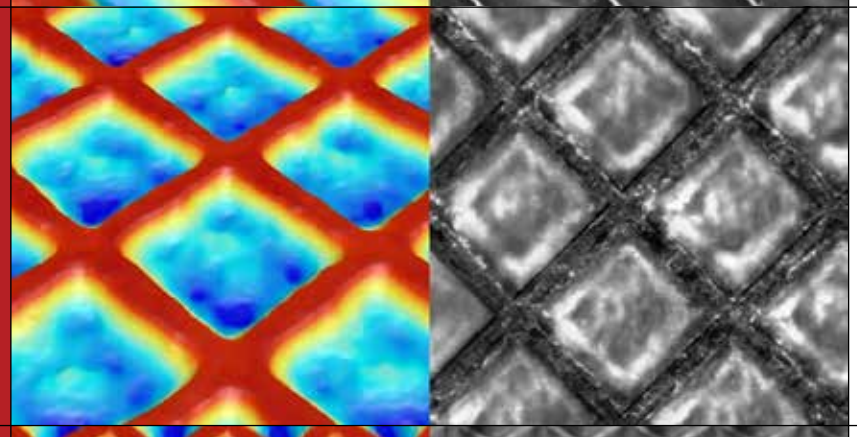
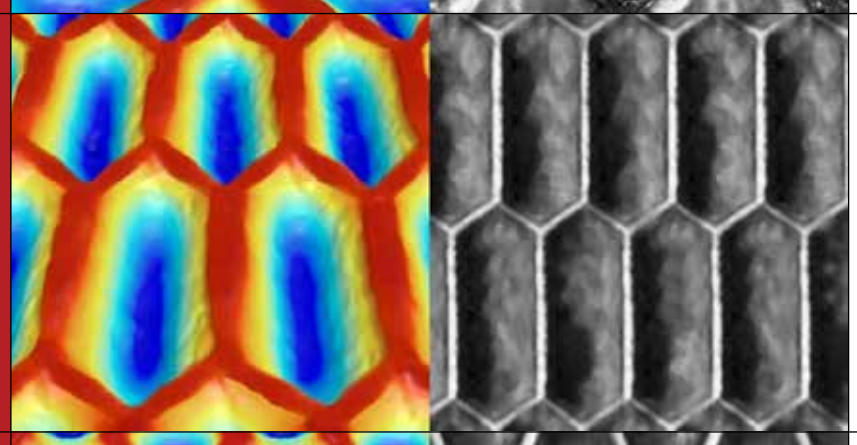
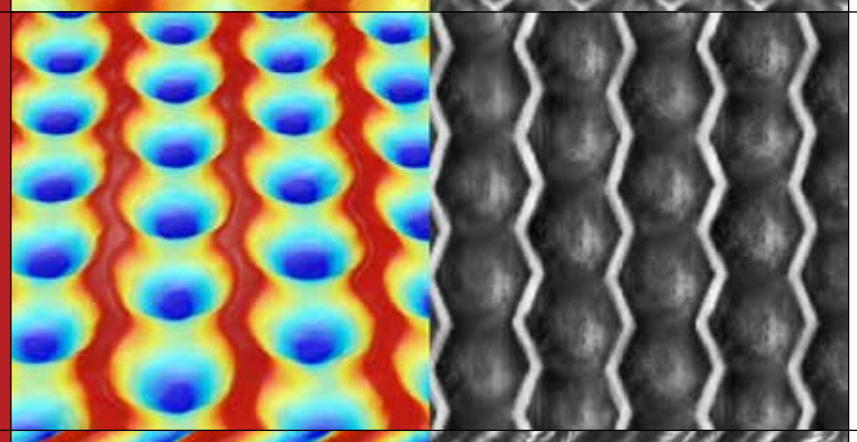
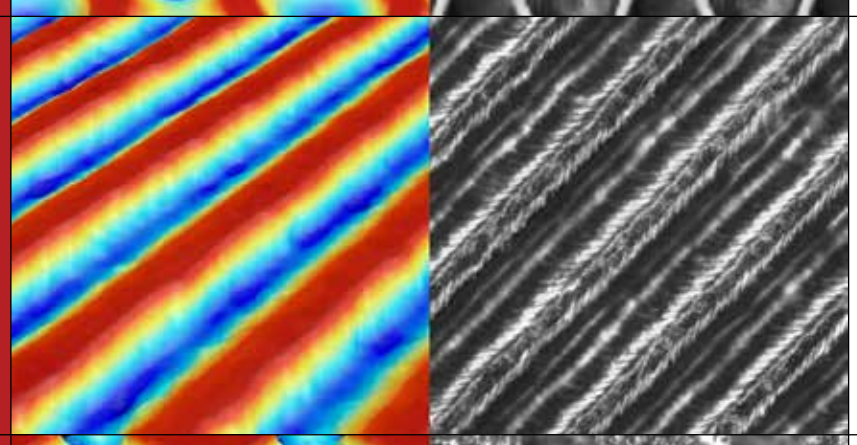
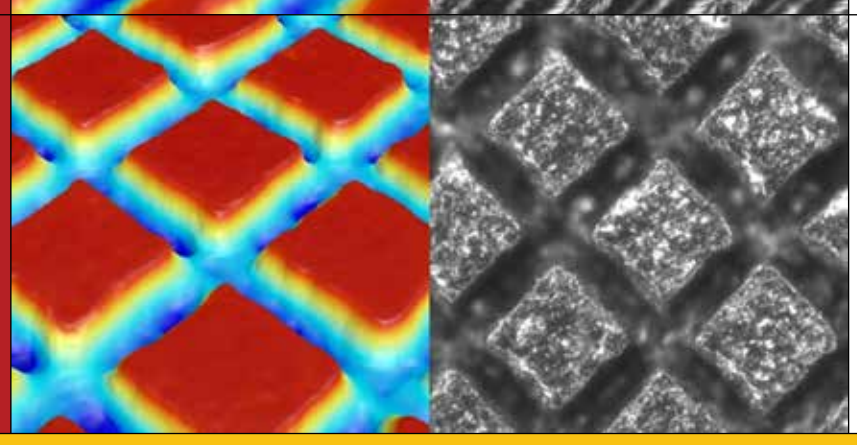
ANILOX CELL ENGRAVINGS

	CELL ENGRAVINGS	IDENTIFIERS	APPLICATIONS	ADVANTAGES	DISADVANTAGES
HEXAGONAL		• Six uniform sides • 60° or 30° angle • Honeycomb pattern • One of the most common cell engravings • LPI range of 120-1500	• Best used in solvent-based flexible packaging applications • Performs well with thinner, less viscous inks • Ideal in narrow web and wide web printing applications	• Good dot support • Maximizes cells per inch • Does not clash with plate angle of CMYK applications • Suitable for a wide range of applications	• Restricted printing range • Inconsistent transfer from roll to roll • Weakened walls when extreme specs are required • Requires more cleaning than other cell shapes
GTT 2.0 OPEN SLALOM CHANNEL		• Smooth, consistent open slalom channel geometry • Resembles the waves of an "S"	• Ideal for ECG printing, UV inks, water-based inks and value lacquers	• Smoother ink transfers • Better solids • Easier cleaning • Maximum ink mileage • Reduction in print defects • Reduction in liquid turbulence eliminates ink spitting & foaming • Does not clash with screen angles CYMK • Improves consistency & makes ECG printing easier to implement	• The change from a historically accepted technology to a new, more advanced one requires customers to have a better understanding of quality & cost saving advantages • Higher cost • Patented technology only available through Apex International
QUAD		• Four-wall engraving • 90° uniform angles • Resembles a diamond or square • Often called a 45° engraving • One of the original anilox engraving geometry	• Ideal for rough printing and coating environments	• Larger cell walls for structural support • Available through all anilox suppliers	• Restricted printing range • Inconsistent transfer from roll to roll • Clashes with CMYK standard plate angles can cause ink spitting, ghosting & foaming • Not suited for detailed process work
LONGCELL		• Elongated version of the traditional hex 60˚ cell • Six walls with two elongated sides • Introduced to the industry in early 2000s	• Ideal for corrugated block-style print applications and coatings	• Increased cell volume • Increased ink transfer for solid block areas	• Inconsistent transfer from roll to roll • Elongated walls weaken when extreme specs are required • Clashes with plate screen angles can cause ink spitting, ghosting & foaming, misting • No clear industry fixed angle
CHANNEL		• Cell walls run from top to bottom • Ink flows freely throughout the roll	• Ideal for thick, viscous inks & coatings in label applications	• Reduced cell wall surface area • Increased ink transfer • Reduced ink spitting & foaming • Works with most process work while minimizing print defects	• Print dots are less supported • Dirty print around areas of fine text & edges • Inconsistent transfer performance due to the loss of ink density • Ink transfer and color density can tend to reduce as press speeds are increased • Clashes with angles CYMK
TRIHELICAL		• Straight channel across the roll • Resembles a line • Made of deep, uniform channels • Maximum of 80 lpcm/ 30LPI	• Ideal for thick coating, flood coats, protective varnishes, & lacquers	• Incredible volume possibilities • Strong wall surface • Maximum transfer volume onto print plates or directly to substrate • Highly durable	• Not suited for any image or design printing in flexo, label or corrugated • Lose of volume at high press speeds • Sensitive to high pressure settings • Variable ink transfer performance • Commonly has coating aeration
POSITIVE		• Raised engraving • Volume is created in the valleys between cells • Resembles the inverted shape of hex 60˚ or quad 45˚ cell engravings	• Ideal for thick, course coatings • Created for glue, starch, & silicone metering • 45˚ positive works well in silicone & cold seal applications	• Very open engraving structure • Delivers high volume across the roll • Reduced risk of clogging & foaming • Requires less cleaning • Highly durable	• Lose of volume at high press speeds • Sensitive to high pressure settings • Doesn't perform well in image & process work • Increased wear when used with doctor blade chambers, aggressive coatings & lacquers

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