

*Flexography, today's
fastest growing packaging
printing method, can now
achieve a new level of
productivity...*

...Believe It.

NuDot[®]
by P H O T O T Y P E



Flexo faces the quality challenge.

Though flexography has many advantages for package printing, the process is plagued with some inherent quality challenges due to the way ink is applied to the substrate.

Flexo printing plates have the tendency to "hydroplane" over the surface of the substrate—particularly over non-absorptive film materials, as well as many other substrates. This hydroplaning causes the ink to transfer erratically from the plate.

The typical effects of hydroplaning are dot gain and uneven ink lay, which in turn produce a number of undesirable printing artifacts. Solid color areas may appear weak and mottled. Tints and vignettes aren't as smooth. Highlights and shadows lack brilliance and detail. Fine type and linework may fill in and have soft edges or halos. Overall, flexo's color gamut is shorter, so photos and illustrations appear less vibrant, less accurate to the original, and less eye-catching to the consumer.



Flexo printing can have some poor quality results with conventional round dot screening.

Until now...

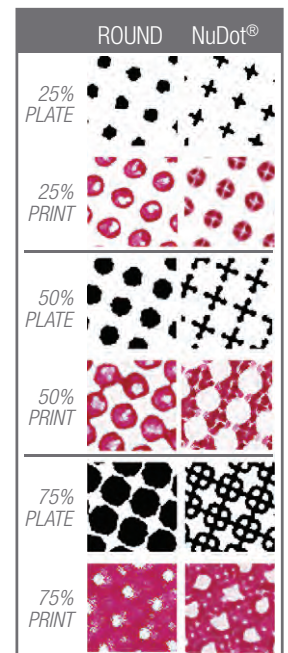
Phototype's revolutionary plating process was developed specifically to address these quality challenges. As its name implies, NuDot produces new and unique dot shapes that change the very way ink is transferred from the plate to the substrate.

The patent-pending NuDot process uses high frequency components to alter the dot shape resulting in an increased shoreline. These shorelines, which resemble crosses and honeycombs, work with the surface tension properties of ink much better than round dots and provide relief from hydroplaning.

NuDot offers three line extensions—GR3 and Radial 8b for digital and analog applications on high holdout substrates and NuDot PB4 designed for plates printing on paper and board substrates. Each application has specific attributes that are uniquely tailored to provide the highest quality possible in the designated environment.

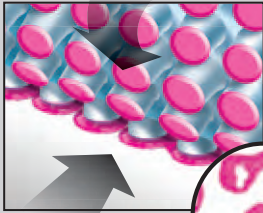
In side-by-side comparisons, NuDot plates consistently produce a range of exceptional printing results compared to round dot plates:

- Crisp, open positive and reverse type
- Rich, smooth overprints in screens and solids
- Clean, sharp edges on line work
- Well-blended vignettes with no dirty zones
- Improved color saturation
- Expanded tonal range from 5-18%
- Increased ink densities from 5-20%

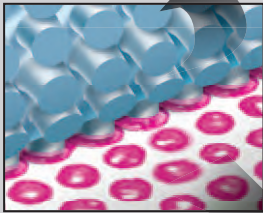
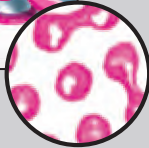


NuDot® shorelines virtually eliminate dot gain and assure a smooth, even ink lay

ROUND DOT



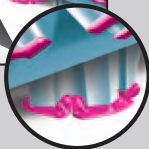
Conventional, round plate dots...



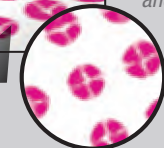
...ink is squeezed out from under the dot resulting in irregular, donut-shaped printed dots that gain and mottle.



Uniquely shaped shorelines...



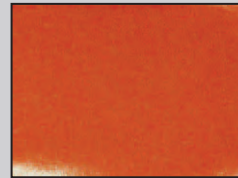
...ink remains within the structure of the dot resulting in well-formed printed dots for smoother ink lay and better image reproduction.



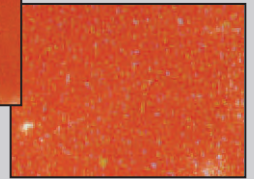
ROUND DOT VS. NU DOT® SCREENING

ROUND DOT VS. NU DOT® SCREENING

BETTER TINT MATCHES



NuDot®

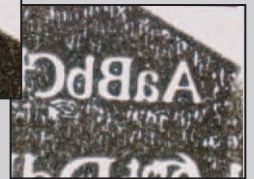


ROUND DOT

SHARPER, CRISPER TYPE



NuDot®

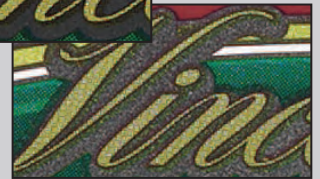


ROUND DOT

SMOOTHER, DARKER SOLIDS



NuDot®



ROUND DOT

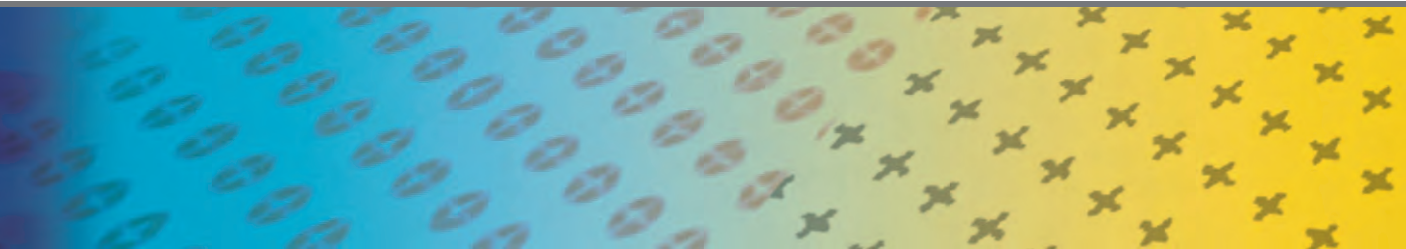
RICHER PROCESS IMAGERY



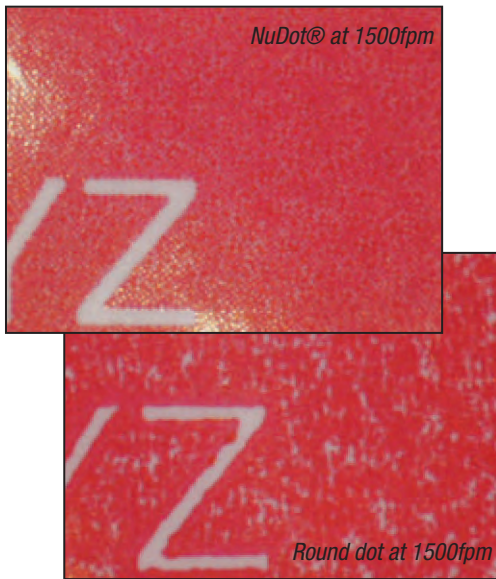
NuDot®



ROUND DOT



NuDot® in the pressroom...



NuDot® controls the hydraulic forces that limit press speeds and lets you run faster without compromising quality.

NuDot plates can be introduced into your standard pressroom parameters without making any changes to anilox rolls, ink formulation, or press operating conditions—with a couple of notable and welcome exceptions: NuDot plates typically run with lighter impression, and many printers report they can actually run *faster* (in some cases 200-300 fpm faster) using NuDot plates.

NuDot technology is field-proven to give you a new level of productivity and performance from your flexo printing equipment:

- More accurate match to client-approved proof
- Fewer plates by combining line and tone
- Less cylinder impression and longer plate life
- Faster makeready with less waste
- Higher press speeds
- Tailored for use with existing anilox roll selection and press set-ups

NuDot® is the only screening technology that assures even ink lay throughout the entire tonal range.

	NuDot®	Solid-only Cell Patterning (like Plate Cell)**	Hybrid Screening for Highlight Transitions (like Samba)**	Hybrid Screening for Solids and Shadow Transitions (like Groovy)**
Highlights	+		●	
Quarter Tones	+			
Midtones	+			
Three Quarter Tones	+			
93% – 99%	+			●
Solids	+	●		●

Accept no substitutes.

NuDot isn't the first, or the only, alternative flexo screening system designed to tackle the negative effects of dot gain and poor ink lay. It is, however, the only technology solution that addresses these problems throughout the entire tonal range—from the darkest solids straight through to the finest highlights. No other screening technique can give you the extraordinary accuracy and control of NuDot.



* NuDot is a registered trademark of Phototype

** All other trademarks and trade names belong to their respective owners

Join the believers.

NuDot plates are currently being specified by printers and packaging buyers for a wide variety of packaging printing applications on film substrates such as PET, PVC, OPP, LDPE, and paper or board substrates. NuDot works with solvent, water base and UV inks and has been field-proven on many different wide and narrow web flexo presses.

"We're running our presses faster, stopping less often and still keeping the print open and clean."

Jeff Zeber,
Amcor Stevens/Flexibles

"Our brands never looked better on shelf!"

Krys Bush,
Roman Meal

"NuDot gives us the same excellent quality as gravure without the cost."

Dennis Allen,
O.K. Foods

"NuDot brought new life to our older 6-color presses. It performs for us every day, all day long."

John Phillips,
Gibraltar Packaging Group



Winner of the
Gold Ink Award for
Flexible Packaging



NuDot plates are available exclusively from



PHOTOTYPE

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most recognized brands since 1919.

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