ANOCOIL™
A PRESSTEK COMPANY

Eco-Friendly Plate Solutions for Today's Newspapers

PRESSTEK

Organizational Structure

AMERICAN INDUSTRIAL PARTNERS

AIP acquired Presstek in Oct. 2012

GOSS INTERNATIONAL

AIP Acquired Goss in Sep. 2015

ANOCOIL A PRESSTEK COMPANY

Presstek acquired Anocoil in Mar. 2016

Sparsh Bhargava
AIP Partner & Presstek CEO

- **Sean Downey** — Chief Financial Officer
- **David Bujese** — Chief Operating Officer
- **Avigdor Bieber** — Chief Technology Officer
- **Cathy Cavanna** — VP, Human Resources & Administration
- **Ralph Jenkins** — Director, Worldwide Sales & Mktg
- **Jerry Aucoin** — Director, Worldwide Service
- **Kevin Ray** — Director, R&D Printing Plates







Anocoil – Fully Integrated within the Presstek Organization

Presstek Locations

~270 Employees Dedicated to Providing Quality Product and Service

Hudson, NH USA

- Corporate Offices
- Finance Administration
- Information Technology
- Sales & Marketing
- Customer Care

South Hadley, MA USA

- Distribution
- Research & Development
- Plate Manufacturing
- Technical Support
- Refurbishment Center

Anocoil, a Presstek Company Enfield CT & Rockville, CT USA

One of North America's largest independent producers of analog and digital offset printing plates for the newspaper and commercial printers.

Combined 16,000 sq. ft. production operation.

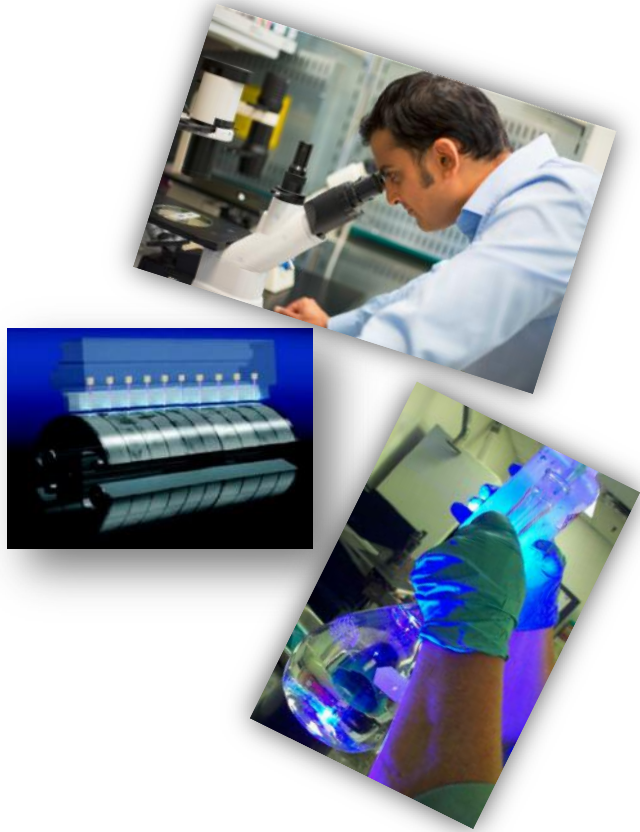
Middlesex, U.K.

- Distribution
- Sales, Customer Care
- Technical Support
- Refurbishment Center
- Demonstration Center

Committed to Service and Technology

- We have a strong and growing commitment to the graphic arts industry, our customers and distributors.
  - Anocoil has been developing high quality, innovative plate technologies for over 56 years.
  - Presstek has been developing innovative plate and thermal laser imaging technologies for nearly 30 years.

- Presstek and Anocoil have combined their talented resources to provide the market with an engaging, well-supported customer care experience.
  - Teams are comprised of research & development scientists, quality inspection teams, and plate applications and technical service experts.



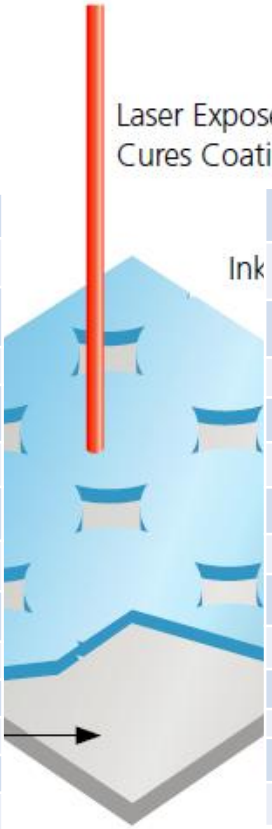
Newspaper Printing – Portfolio Matrix

Thermal Plates	GemPlate™ Newz DEVELOP ON PRESS	N200 WIDE LATITUDE THERMAL PLATE	Zahara™ Newz CHEMISTRY-FREE PLATE FOR WATERLESS NEWSPAPER PRESSES
Violet Plates	NuVio™ Newz NO PREHEAT VIOLET	HSUV High Speed Ultraviolet Plates	

Violet vs Thermal Processed Plates

NuVio™ Newz
NO PREHEAT VIOLET

Wavelength sensitivity	Violet 405nm
Laser energy required	Violet 50-80 μj/cm²
Substrate	Electrochemically grained, anodized aluminum
Thickness availability	0.15, 0.20 and 0.30 mm
Resolution	1 to 98% at 200 lpi (imager dependant)
FM screen qualification	25 micron
Safelight	4 hours – yellow (G-10) fluorescent light
Plate shelf life	12 months at 45º-80˚F and 20-70% RH
Run length unbaked	100,000 - 200,000 exposure dependent
Run length baked	1 million
Chemistry	X3 developer + VN finisher
Change frequency	1,000 ft² per gallon average
Inks	Conventional and UV inks
Slipsheet / Interleave	Dependent on imager loading process



N200
WIDE LATITUDE THERMAL PLATE

Wavelength sensitivity	Thermal (800-920nm) - UV 200-350nm
Laser energy required	Thermal 90-120 mj/cm² UV 50-100 mj/cm²
Substrate	Electrochemically grained, anodized aluminum
Thickness availability	0.15, 0.20 and 0.30 mm
Resolution	1 to 99% at 300 lpi (imager dependant)
FM screen qualification	25 micron
Safelight	Safelight 24 hours UV-cut white light
Plate shelf life	12 months at 45º-80˚F and 20-70% RH
Run length unbaked	100,000 - 200,000 exposure dependent
Run length baked	1.5 million
Developer	N200 developer or Washout Solution
Change frequency	1,000 ft² per gallon average
Inks	Conventional and UV inks
Slipsheet / Interleave	Not required

GemPlate – Develop-on-Press Technology

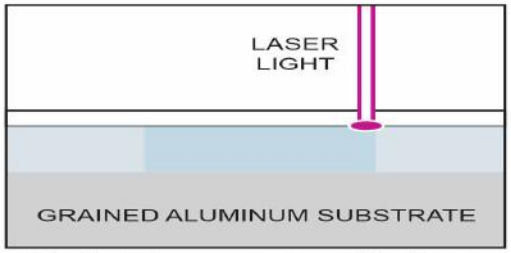
Wavelength sensitivity	Thermal 800-850nm
Laser energy required	Thermal 150-180 mj/cm²
Substrate	Electrochemically grained, anodized aluminum
Thickness availability	0.15, 0.20 and 0.30 mm
Resolution	1 to 99% at 300 lpi (imager dependant)
FM screen qualification	25 micron
Safelight - prepress	8 hours – yellow (G-10) fluorescent light 4 hours – white fluorescent light
Safelight - press	4 hours – white fluorescent light
Latent image after exposure	2-3 days if plate is kept out of light
Plate shelf life	12 months at 45º-80˚F and 20-70% RH
Run length	100,000 - 150,000 (depending on exposure)
Inks	Conventional and UV inks
Slipsheet / Interleave	Not Required

GEMPLATE™
DEVELOP ON PRESS

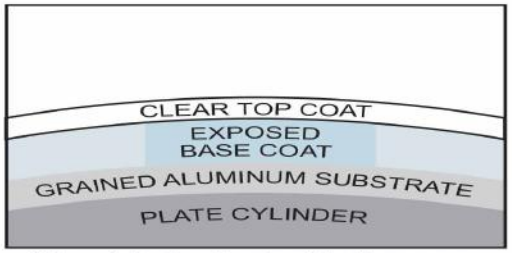
GEMPLATE™ NEWZ
DEVELOP ON PRESS

GEMPLATE™ NEWZ
DEVELOP ON PRESS

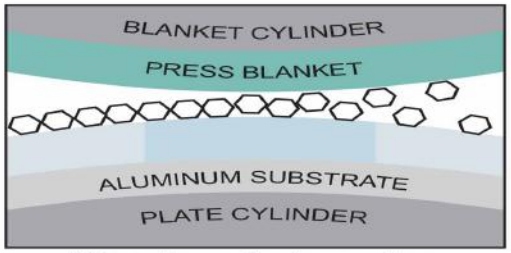
On-Press Development Process



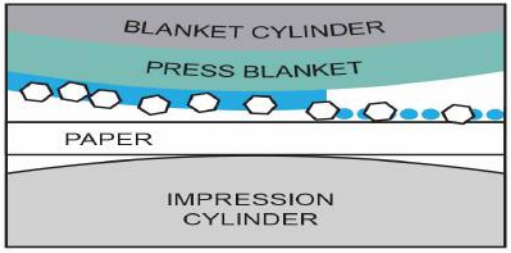
Verti plates are exposed by laser light in the areas that will take ink. Light energy hardens the coating making it adhere to the grained aluminum substrate.



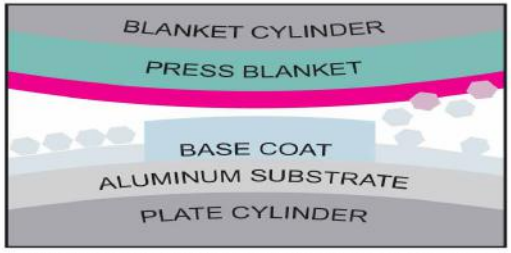
The plate is attached to the press cylinder and the press is started using what we consider to be a normal sequence of water, ink and impression.



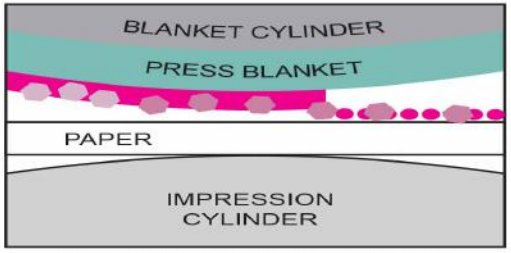
When the water form rollers come on, the clear protective top coating is broken up and removed by the blanket.



When the impression cylinder is activated, paper begins feeding and removes the clear protective top coating from the blanket.



When the ink form rollers come on, the ink bonds to the base coat. Non exposed areas are pulled away and transferred to the blanket.



The blanket then transfers the coating to the paper.

Ink and water balance is key to clean, fast starts.

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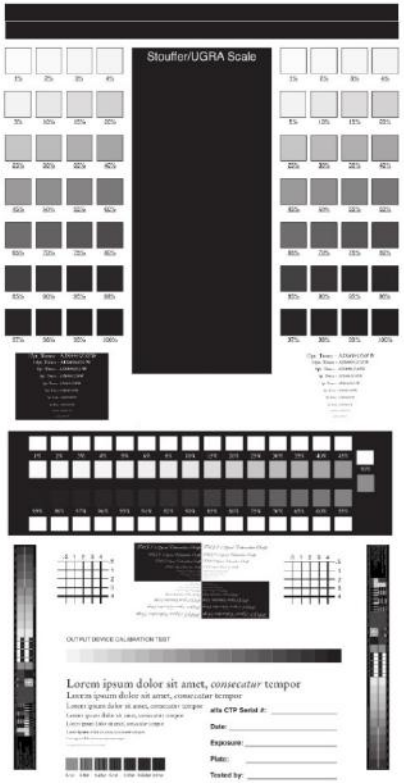
Exposure and Calibration Tests



- Exposure can vary from 150 to 180mJ/cm^2 and will affect run length. High end exposure levels will reach 150,000 impressions.
- Once an exposure level is determined a screen percentage test can be ripped to plate for evaluation.
- Pre press plate development can be achieved by the following process
  Gently wipe the area of the plate you want to develop with our Washout Solution
  Rinse with water or wipe with a wet cloth, let dry
  Wipe on White Vinegar and the image will darken immediately
- Screen percentages can be read, rip curves can be reviewed and or adjusted to then literalize the imager to the plate.

Plate Handling Suggestions

• Exposure to Sunlight or direct fluorescent white light beyond 4 hour periods should be avoided.

• Reduced lighting storage areas following imaging will prolong the latent image for identification up to 2-3 days.

• Optimum startup sequence is Water, Impression, Ink for the quickest roll up.

• Will work with all Ink providers, Fountain solutions, and pressroom chemicals. Prefer a mild acid fountain solution.

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Product Development Challenges

What are some important characteristics in a on-press developed plate ?

Vivid Latent Image for easy identification

Quick rollup on press starts for reduced waste and cleanup on restarts

Run length longevity

What are the challenges with a on-press developed plate ?

Variety of press types, age of equipment

Cylinder, and blanket variances from site to site

Ink and Water system (digital, well, spray bars, brushes, etc)

Variety of ink types and levels of tack

Startup sequences and pressman preferences

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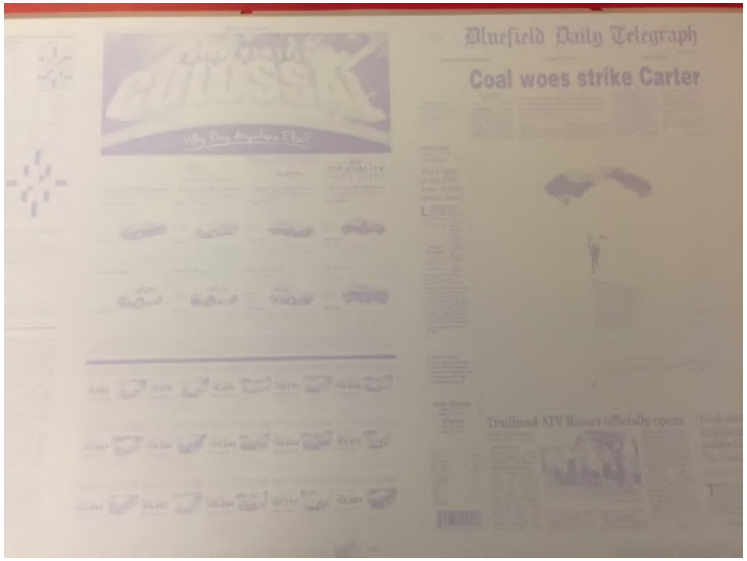
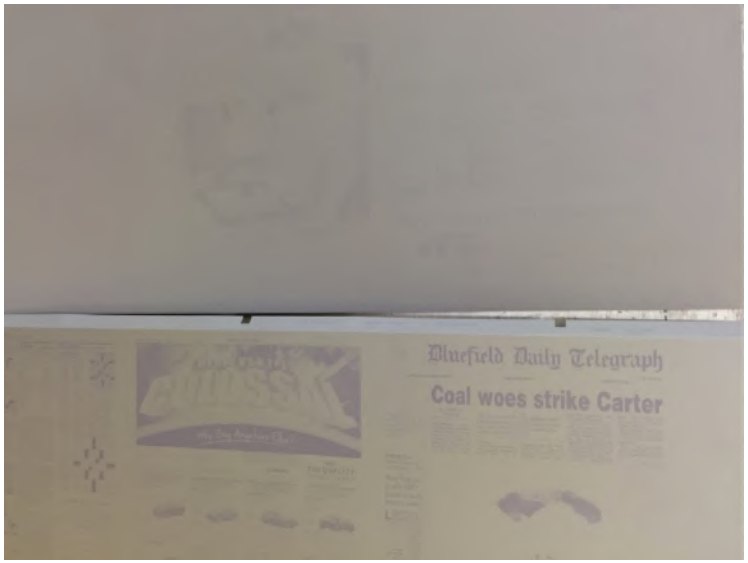
DEVELOP ON PRESS

Research & Development

Current Beta Product Development with Improved Latent Image
For Optical Bender Target Identification





Thank You