In a production crunch, Quebecor World Richmond engraved cylinders, ordered paper, and started up the run, producing a near-perfect match that pleased the customer from start to finish of the run and achieved record time for all deliveries without delay or problems. The 125'-wide Albert-Frankenthal TR-8 press, rated at 50,000 impressions per hour and equipped with automatic inking, viscosity controls, and electrostatic assist, printed the magazine, then stitched, trimmed, strapped, and stacked copies in line without aid of a bindery or human hands.

Designer, Separator: The Boston Globe
Engraver, Printer: Quebecor World Richmond
Press Manufacturer: Koenig & Bauer AG, Frankenthal Facility
Substrate: Myllykoski North America
Ink: Sun Chemical

Steve Eggleston, general manager of Quebecor World, Atglen, PA, and Quebecor World, Richmond, VA, poses with the Golden Cylinder Award.
Publication | Supercalendered, Magazine

Submitted by: RR Donnelley

The editorial pages of this publication, the printer’s representatives contend, illustrate numerous striking examples of the gravure process at its finest in creating mood and emotion: stunning portraits that showcase exceptional detail, soft-focus photography, vibrant colors, spectacular lighting techniques, and detailed reproduction of Gael Garcia Bernal’s jacket and adjacent chair. RR Donnelley printed The New York Times Magazine on 33-lb. supercalendered stock.

Designer: The New York Times
Separator, Engraver, Printer: RR Donnelley
Press Manufacturer: Cerutti and Koenig & Bauer AG
Substrate: Madison Paper
Ink: Flint Ink

Publication | Lightweight Coated, Magazine

Submitted by: RR Donnelley Mattoon

One of the oldest women’s magazines in print features a wide variety of tones and color combinations, from soft flesh to dense gardens and from two- to four-color tight-register reproduction of editorial copy and crisp reverse type. While the inking system controls temperature, ink strength, and viscosity, these factors must constantly be reviewed and adjusted to maintain consistent high quality. Fold and line-up are also crucial in production of the magazine to a consistent, high-quality level. Paper category: under 40-lb.

Company: Meredith Corporation
Designer: Steve Johnson
Separator: Hudson Yards, Two Rivers Corporate Centre
Engraver, Printer: RR Donnelley Mattoon
Press Manufacturer: Cerutti/Motter
Substrate: Verso Paper Corp.
Ink: Flint Ink
Quebecor World Richmond produced this retail publication on its 125”-wide Albert-Frankenthal TR-8 press, which is rated at 50,000 impressions per hour and is equipped with automatic inking, viscosity controls, and electrostatic assist. Quebecor printed the insert, then stitched, trimmed, strapped, and stacked copies in line without aid of a bindery or human hands; representatives note that such advanced technology presents customers with the competitive advantage of a later press-start date, along with the cost savings of not tying up the job in the bindery.

Designer, Separator: RR Donnelley, Elgin
Engraver, Printer: Quebecor World Richmond
Press Manufacturer: Koenig & Bauer AG, Frankenthal Facility
Substrate: UPM
Ink: Sun Chemical

Steve Eggleston, general manager of Quebecor World, Atglen, PA, and Quebecor World, Richmond, VA, is shown with the award.
To help its client reduce cycle time in the color-critical production of specialty catalogs, Quebecor World Franklin eliminated the intermediate step of creating a hardcopy color proof by going straight from color monitor to press. Once the printer creates a “soft” proof, it saves subsequent iterations as a record of the page, eventually using final approved images to create an approved certified soft-proof PDF. Quebecor, which is installing a second soft-proofing system, will soon process all JCP catalog work using the virtual proofing process. (In the publication shown, virtual proofing was used for body pages only.) Paper category: under 40-lb.

Designer: JCPenney Media LP
Separator: JCP Company
Engraver, Printer: Quebecor World Franklin
Press Manufacturer: Albert-Frankenthal AG
Substrate: Verso Paper Corp.
Ink: Sun Chemical
Publication | Coated (over 40-lb.), Retail

Product: Ethan Allen Autumn Magazine 2007
Submitted by: Quad/Graphics

Quad/Graphics printed separate versions of this piece for domestic use, use in Canada, and international use, printing the 36-page body on 67.6-lb. UPM Star Plus Silk. The company initially achieved a customer-requested matte finish by using special “ink-flattening” extenders obtained from a local vendor, but by the third printing Quad/Graphics had worked with its ink supplier to eliminate any need for extenders. The company uses offset to print a center-bound insert and the covers, the latter on 80-lb. Opus Web Dull Coated Cover stock with a satin varnish applied to the front and back covers. Quad also ink-jet prints store locations and/or driving directions to the consumer’s nearest Ethan Allen store.

Company: Ethan Allen
Designer: Jennifer Eyring
Separator: Ethan Allen & Que Net
Engraver, Printer: Quad/Graphics Martinsburg
Press Manufacturer: Cerutti
Substrate: UPM
Ink: CR/T (Chemical Research/Technology)

Publication | Coated (over 40-lb.), Magazine

Product: National Geographic, March 2007
Submitted by: Quad/Graphics

This issue of one of the most recognized magazines in the world illustrates the photographic range of capabilities of the gravure process, from underwater scenes in “An Eden for Sharks,” photographed in the Bahamas and spanning pages 116 to 137 printed in four-color process with a second perfectly aligned application of cyan on each side of the paper, to dark and heavy tones of African elephant photos, bright and intense colors of the galaxy, and finally to rock formations of the desert. The issue also featured two gatefolds.

Company, Designer, Separator: National Geographic Society
Engraver, Printer: Quad/Graphics Martinsburg
Press Manufacturer: Cerutti
Substrate: Verso Paper Corp.
Ink: CR/T (Chemical Research/Technology)
Product: Haverty’s Summer Catalog 2007
Submitted by: Quebecor World Franklin

The purpose of this catalog was to introduce Haverty’s customers to home furnishings and decorative accessories that are described as clean, modern, relaxed-looking, and yet sophisticated. The designers used both bold and soft colors, sharp detail, and a crossover design on almost every two-page spread, along with color bars on the face of every page. Achieving the required critical register and squareness of trim helped Quebecor earn praise from Haverty’s CEO for the “beauty and styling” of the catalog. Quebecor printed the body pages by gravure.

Designer: Haverty’s
Separator: Quebecor World Premedia
Engraver, Printer: Quebecor World Franklin
Press Manufacturer: Albert-Frankenthal AG
Substrate: UPM
Ink: Sun Chemical
Product: Martha Stewart Living, January 2008
Submitted by: RR Donnelley Mattoon

Often referred to as the “homemaker’s bible,” this magazine might be perceived as a reference publication, a pinnacle of both quality and content. A broad variety of tone ranges and color families, including subtle flesh tones and vivid garden shots, appears to jump off the page, as do light food pictorials contrasted by heavy ink coverage in outdoor shots. RR Donnelley Mattoon’s gravure press utilizes an inking system that measures and regulates ink viscosity, temperature, and density for superior results on 45-lb. coated paper. The equipment also monitors and corrects fold, line-up, and register, to maintain consistent high quality of graphic reproduction.

Company, Designer: Martha Stewart Living Omnimedia, Inc.
Separator: Hudson Yards
Engraver, Printer: RR Donnelley Mattoon
Press Manufacturer: Cerutti/Motter
Substrate: Verso Paper Corp.
Ink: Flint Ink

Product: Digra USB Microscope
Developer: AABACH Graphic Systems GmbH & Co. KG

The Digra USB Microscope can be easily linked to a user’s Notebook or Personal Computer via USB cable without further hardware, enabling use of the tool anywhere without need for external power. Also, a digital video camera provides excellent colored screen shots of any measurements for use in reports, which are HTML-based and can easily be opened by any computer without installing extra software. The Digra Microscope can measure electromechanical engraved cylinders, etched or embossed cylinders, laser-engraved ceramic and zinc rolls, flexo plates, and intaglio-type security printing applications. The DM2005USB unit features four lenses and digital depth measurement, whereas the lighter DM2004USB can be transported in a small case.
Product: Packaging of Chips (Gold)  
Submitted by: Ukrplastic

Ukrplastic, Kyiv, Ukraine, is a diversified engraving company, gravure and flexographic printer, and producer of many diverse films and substrates (i.e. three- and five-layer coextruded polyethylene films and barrier polymer films, heat-sealable membranes, plus lamination, metallization, and adhesive labels). In this entry, the company proposes a new gravure application for stochastic screening, a process that uses randomly located print dots to achieve required color density with less ink usage, typically with savings of up to 10%. Compared to conventional screening, stochastic images, says Ukrplastic, look fuller, reproduce halftones with higher realistic effect, and exhibit improved texture.

Printer: Ukrplastic

At left, Andriy Gora-Gorovsky, cylinder production manager, joins Alexandr M. Kozik, chief expert in printing and prepress, Ukrplastic, Kyiv, Ukraine, in accepting the Golden Cylinder Award.
Product: Project VR (Player’s)
Submitted by: Southern Graphic Systems-Canada, Co.

To create a premium packaging design for male adult smokers, Imperial Tobacco turned to embossing, colored foils, metallic inks, and an iconic design combining bold solids and soft vignettes to achieve in-store impact and product appeal while providing required messaging. The company chose the packaging with which to debut its slide pack design in Canada. Gravure was the process of choice for its high quality and reproduction consistency throughout the run.

Company: Imperial Tobacco Canada Ltd.
Engraver: Southern Graphic Systems-Canada, Co.
Printer: Shorewood Packaging Brockville (Canada)

Imperial Tobacco Canada’s Louis-Phillipe Pelletier (left), marketing, and Daniel Major, procurement, flank Drew Townshend, technical sales representative for Southern Graphic Systems Canada, in accepting the award.
Product: Gravostar 857 Engraver  
Developer: Daetwyler R&D Corporation

Daetwyler’s latest engraver fulfills the need for a low-cost machine with the latest electronics, improved productivity, and enhanced engraving quality. Features include the multiple-tune Vision 2 engrave head (rated speed to 5,500 cells per second and cell depth to 90µ); Vista cell-measuring system with integrated microscope; and touchscreen display for improved operator interaction. The unit features digital midtone correction, advanced hysteresis correction, and use of Daetwyler’s Transcribe high-resolution engraving system. The Gravostar 857 is built on an existing Ohio B-7XX series frame, which allows reuse of many parts following disassembly, cleaning, inspection, and replacement or updating as necessary. The result: a familiar but updated engraver at about one-third the cost of a new system.
Technical Innovation | Inks & Substrates

Product: Adhesive Gift Wrap  
Developer: Hallmark Cards, Inc.

This new adhesive wrap, created for people not accustomed to wrapping gifts, provides an easy yet professional-looking result. To combine a superbly printed four-color design with coating and adhesive layers requiring no release paper, Hallmark chemists perfected an adhesive with just the right amount of tackiness. Further, the use of water-based inks and unique top coating enable eco-friendly manufacture of the wrap, which requires no added release liner. When combined in gravure, the unique characteristics and precise application of the adhesive and top coating create the desired result. The consistency of the gravure process delivers the right amount of adhesive: enough to hold tight but not too much to cause the paper to completely stick together.

Designer, Separator, Engraver, Printer:  
Hallmark Cards, Inc.
Press Manufacturer: Cerutti
Substrate: Verso Paper Corp.
Ink: Flint Ink & API Adhesive

Technical quality planner Kathleen Booker and senior graphic arts engineer Ken Bower accept the award for Hallmark Cards, Inc., Kansas City, MO.
Product: UPM iRoll Portable Service
Developer: UPM-Kymmene

The UPM iRoll portable trouble-shooting service provides reliable, real-time analysis of tension or related problems in a printing press, using technology presently in use in paper machine controls. It enables the printer, press manufacturer, and paper supplier to analyze any tension profiles and unusual variations caused by dirty or misaligned rollers, paste cycle problems, printing unit variations, or folder pull. UPM’s concept could include mounting a fixed-width iRoll to the press to improve closed-loop control. Easy, fast installation allows immediate analysis. The service, tested and used in newspaper and gravure printing plants, includes a sensor taped on the selected roll surface, a signal processing module, a transmitter, and a receiver connecting the sensor to a PC.

Erik Ohls, director of technical marketing for UPM-Kymmene OY, Helsinki, Finland, receives the award.
Product: SHIEE-Scent Varnish Printing
Developer: Editora Abril S.A.

After first developing an in-line method of applying scent varnishes by adding a ninth printing unit to an eight-color Cerutti press, Editora Abril, printing and publishing company of Brazil, has designed a multiple-head device and synchronization system that uses gravure press motors’ panel data as inputs. The system consists of multiple application heads and varnish baths synchronized to the printing press. Editora Abril claims to operate the only printing plant in the world offering Avon up to 20 different fragrances per gravure-printed catalog, now available in a wider range of printing possibilities, structures, and schedules.

Press Manufacturer: Cerutti
Substrate: Stora Enso
Ink: Siegwerk, Sun Chemical
Varnish Scent: Siegwerk, Schubert & Arcade

At left, Sérgio Felix, production supervisor, and Marcelo Tobo, technical supervisor, accept award for Editora Abril S.A., São Paulo, Brazil.
To streamline print file production, minimize costs, save materials and energy required by hardcopy proofs, and incorporate color, copy, and layout changes—all while achieving later deadlines—JCPenney adopted a soft-proof workflow. It now utilizes Eizo CG221 color monitors and Oris software to supply RR Donnelley with final files. In preparation, customer and printer developed press fingerprinting to minimize proof/production variation and devised a 12-step brown scale for interim control. Also, Donnelley utilizes an ICS chart and Eye-One Spectrophotometer for closer color match on press. Most JCPenney forms run on Donnelley’s three-meter-wide presses, which can deliver up to 144 pages or three 48-page signatures.

Company, Designer: JCPenney Media Corporation
Separator: JCPenney Color Systems
Engraver, Printer: RR Donnelley Warsaw
Press Manufacturer: KBA North America
Ink: Flint Group
Technical Innovation | Press

Product: Lemanic Delta
Developer: Bobst Group

Bobst Group introduced its Lemanic Delta multipurpose gravure press for single-pass, reel-to-output production of high-quality cartons printed on paper or cardboard in medium to long runs. Says Bobst, the compact, cost-effective, and highly productive machine (820 fpm) is designed as a viable alternative to sheetfed offset production; the system accommodates a web width of 32” and a cylinder printing repeat range from 15.7” to 31.5”. Bobst debuted the press last year at its initial customer’s plant, Kekai, in China; it has since sold presses in Jordan, Russia, and Ukraine. The press is equipped with an electronic line shaft system, Bobst Registron S 5100 register control, and high-dynamic interface, which enhances waste reduction.

Holding the award is Christopher Raney, vice president of folding carton products for Bobst Group North America, Roseland, NJ.
Product: Intelligent In-Line Viscosity Control System  
Developer: InkSpec

When installed between the ink pump and the printing press, the Intelligent In-Line System (IIS) from InkSpec operates as an in-line viscosity control system said to be equally efficient controlling water- or solvent-based inks. The viscometer reads in real-time and displays actual ink viscosity on the multichannel controller, comparing that to the value desired by the press operator. When a viscosity adjustment is required, a solenoid valve injects a predetermined amount of adjuster fluid, then the system pauses until thorough mixing is achieved. Several hundred print station installations are in operation worldwide.

Daniel Poissant, president of InkSpec, Boucherville, Quebec, holds the innovation award.
Sonoco developed its SmartSeal technology to provide an innovative flexible packaging structure that has a built-in opening and reclose feature, which bypasses the need by consumers to repack cookies to maintain their freshness. The technology utilizes a lamination of at least two flexible films in combination with pressure-sensitive adhesive and precision scoring. The outer layer is reverse-printed and laminated with pressure-sensitive adhesive to an inner heat-sealable layer. The outer and inner layers are then precision scored in register to create the unique opening feature. When the outer layer is peeled back, a perimeter of pressure-sensitive adhesive is exposed and used to reclose the package. Graphics on the face panel communicates the innovative opening feature.

Company: Kraft Foods, Inc.
Designer: Barker Associates
Separator, Engraver: Southern Graphic Systems Inc.
Printer: Sonoco
Press Manufacturer: Cerutti
Substrate: SKC & Vifan
Ink: Flint Ink

Accepting the award is Chad Schellinck, graphics manager for Sonoco, Parsippany, NJ.
**Product: Ecore™ Advanced Wall Technology**

**Developer: OMNOVA Solutions, Inc.**

Ecore technology from OMNOVA Solutions is called the industry’s first “no-compromise,” eco-friendly wallcovering platform utilizing patented nanotechnology in the form of a unique “nano-textile” as a wallcovering substrate. Polyester and polyamide are spun into endless segmented filaments, which are then split by high-pressure water jets into nanosized microfilaments and subsequently printed by gravure utilizing water-based inks. The technology required completion of more than 50 product development trials. Gravure was used for creating base colors, achieving print fidelity requiring new ink viscosity standards and specific line screen cylinders, and developing new color matching methodology. Cylinder suppliers were required to create cylinders that would print on a rough surface.

Ronnie Bell, principal engineer/Contract Interiors for OMNOVA Solutions, Inc., Columbus, MS, poses with the GAA 2008 Golden Cylinder Award.