FUJ!FILM



Packaging Solutions

PRODUCT BROCHURE

Innovative products for packaging applications

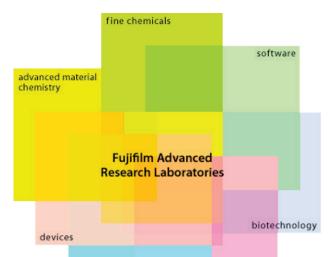


A dedication to development of innovative solutions.

For decades, Fujifilm has been meeting the demand for innovative print solutions for everything from commercial print to wide format and packaging applications. In fact, Fujifilm was recognized as one of the 100 most innovative companies in the world by Thomson Rueters, and has been recognized by Printing Industries of America with InterTech Technology Awards. At Fujifilm our Value from Innovation commitment is our promise to deliver a robust lineup of leading-edge products for decades to come.

The development of core technology is at the center of Fujifilm's mission. With Research & Development investments totaling more than \$2 billion annually, we're helping to advancing the Graphic Arts Industry in leaps and bounds.

At the center of our innovation-based culture are the Fujifilm Advanced Research Laboratories, which brings together scientists and engineers specializing in fields from chemistry to physics, optics to electronics for the purpose of collaborating, innovating and integrating across a broad range of fields. The technologies we've developed have translated directly to new advances across our full range of packaging solutions – from advances in offset and flexo plates, to high performance flexo and digital inkjet inks, and next-generation inkjet presses.







Our Latest Innovations

With a rich heritage of developing leading-edge, proprietary technologies, Fujifilm is developing new products and creating new value for label and packaging applications. Fujifilm's innovation in packaging includes our offset printing plates and Flenex FW waterwash flexo plates. The new Flenex FW flexo plate provides the highest possible quality while reducing platemaking processing times and offering the lowest cost in use in the industry. Compatible with standard waterwash equipment – as well as UV, waterbase and solvent-based inks – Flenex FW plates are establishing new standards for flexo print quality.

Leading the Inkjet Revolution

While we continue to further offset and flexographic printing methods, the world of commercial printing is rapidly transitioning to digital. Soon, inkjet printing will be dominating almost every aspect of print. To stay ahead of the curve, we've invested more than \$1 billion over the last six years in inkjet technology. From piezoelectric inkjet printheads, to high performance aqueous, solvent and UV inks, to proprietary screening technologies, Fujifilm is redefining inkjet print speed and quality.



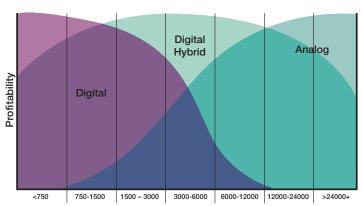


Graphium UV Inkjet Press

Minimize Set-up Time with Inkjet

The increasing demand for shorter run lengths to incorporate variable data and customized designs often results in jobs that require more time to set up than print on traditional flexo equipment. Graphium is a high-speed modular printer that utilizes UV ink that meets the most demanding applications in the packaging and labeling market. Graphium enables printers to produce short, medium and specialty work with virtually no setup time thereby freeing up your flexo presses for more profitable work.

Ideal for the majority of your label needs for short to medium runs



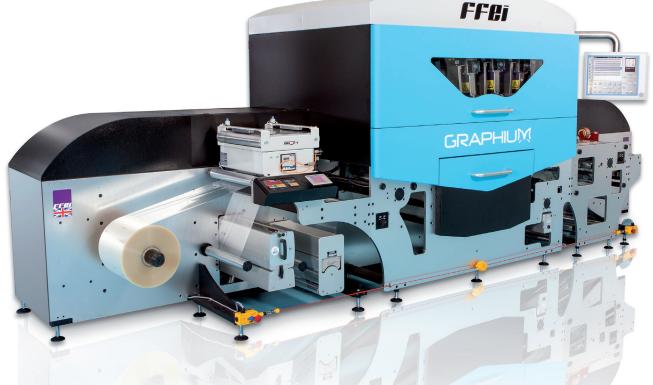
Run length in linear feet







Graphium design coupled with Fujifilm's UV ink enables printers to produce "fit-for-purpose" labels regardless of the application. The versatility that the Graphium provides allows printers to optimize production and maximize profit on every job.



Consistent Color Match

Graphium combines a wide range of technologies to ensure consistent color matching both SWOP standards and most of the emerging color standards including ISO 12647 and GRAcoL. It features an innovative workflow, prepress and color management software, as well as revolutionary inkjet head calibration for color matching results that rival traditional flexo.

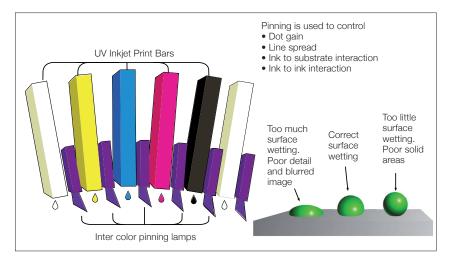
Flexibility to Expand

Graphium's modular approach enables printers to create a digital press line to match their requirements. Add flexo stations and inline finishing to widen your capabilities even further. Plus with full size unwind and rewind, you can use the exact same substrate width as traditional flexo press lines.

Fujifilm Uvijet Digital UV Inks Inkjet Inks that Hold Up

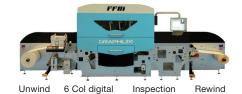
Our UV inkjet inks are more resistant to physical and chemical breakdown than their toner counterparts and are specially designed to allow long runs of high quality labels and self-adhesive decals. They also feature an ultra-opaque over and under white that can be printed at high speeds, setting a performance standard for digital label production that surpasses other digital technologies. The end product is a true digital emulation of traditional processes like UV flexo and screen printing.





For nearly twenty years, Fujifilm, has been the leading innovator for UV inkjet technology. The incorporation of "UV pinning" eliminates dot gain resulting in stunning print quality that exceeds traditional flexo printing.

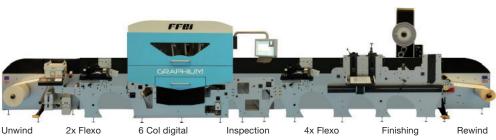






A Modular System

Incorporating in-line flexo stations and in-line finishing, Graphium provides choice and flexibility to accommodate different sectors and applications.





Flenex FW Digital and Analog Flexo Plates

Less Processing. More Productivity.

State-of-the-art Flenex FW plates reduce platemaking processing times to less than 40 minutes, 300% faster than leading solvent systems and 1.5 times faster than current thermal and water technologies. That translates to more time on press and a dramatic decrease in your time to press.

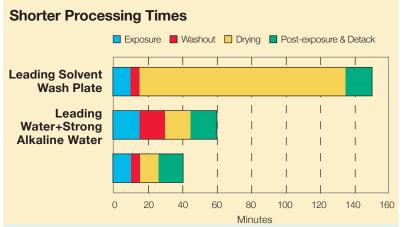
Higher Quality. Longer Runs.

Innovative water wash chemistry delivers longer runs while producing a consistent 200 lpi at 4,400 dpi, 1% flat top dot structure for print quality never before seen with flexo plates. The exclusive chemistry of Flenex FW enables each plate to perform longer on press while improvements in plate durability increases overall press uptime for longer print runs and shop profitability.

Environmentally Safer

Washout of Flenex FW plates is accomplished with only a mild detergent and typically allows for the residual solution to be treated as common wastewater after removing a small amount of residual particulate. When compared to the known impact solvents and wicking cloths have on the environment during their life cycle and disposal, it's clear to see how Flenex FW provides a greener solution.





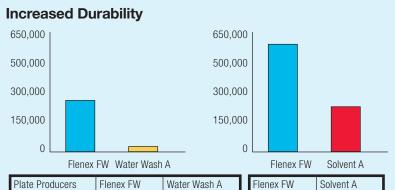
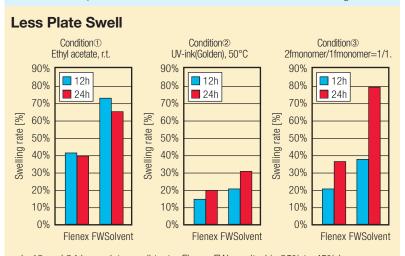


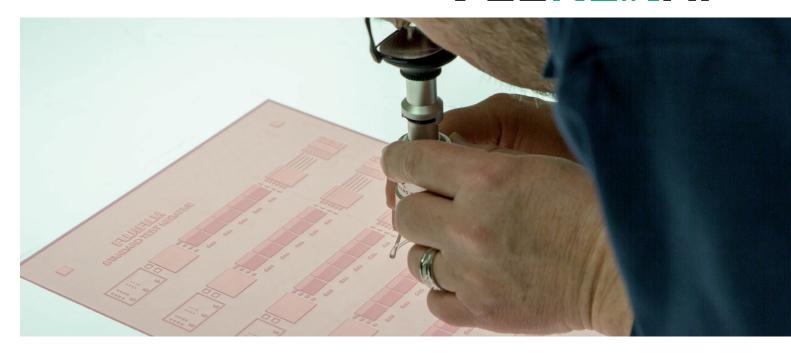
Plate Producers	Flenex FW	Water Wash A	Ш	Flenex FW	Solvent A	
Durability(ft)	262,467	16,404	Ш	590,051	262,467	
Application	Stickers/Labels		Ш	Cartons		
Printing Machine	Mark Andy			OMET		
The kind of paper	Tack Paper		Ш	Coated Paper		
Press speed	70~100/minute		Ш	55m/minute		
Printing Plate	Digital1.14mm(0.045")			Digital1.14mm(0.045")		

Flenex FW plates were four to 10 times more durable than the most commonly used waterwash flexo plates and more than twice as durable as solvent technologies.



In 12 and 24 hour plate swell tests, Flenex FW resulted in 25% to 45% less swelling compared to solvent plates.

FLENEXFW

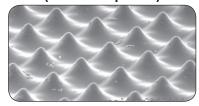


Complete Product Offering

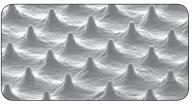
- Sizes form 15" x 18" to 42" x 60"
- Soft, medium and hard durometer
- Analog and digital
- Compatible with UV, water-base and solvent inks

Extended image of Screen (SEM image x 200)

Solvent plate ("Round-Top-Dot")





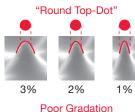


Works with Existing Processors

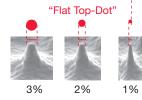
While Flenex FW plates can be used with almost all waterwash flexo processors, optimal results are achieved with the best processing equipment. Fujifilm offers the industry's leading purpose-made equipment and a full range of in-line and batch processors up to 42 X 60.



Screen shape of the plate



to their closed cell technology.



Gradation High Gradation

Tesa Tape

Fujifilm is proud to exclusively represent Tesa's full line of flexographic mounting tapes. Tesa manufactures the high tech Steelmaster cushioned tape series in a variety of durometers and adhesion strengths. Available in the all common thicknesses and widths, Tesa tapes reduce plate lift and offer extended resistance to compression due



Innovative Inks for Any Job

Fujifilm has developed a complete line of flexo inks specifically for the narrow and medium web printing technologies used for packaging. Our innovative waterbase ink provides superior performance on both film and paper while our UV inks offer exceptional adhesion on almost any substrate.

Fujifilm Flexo Inks One-solution Waterbase Ink

The color density and chemistry of the Fujifilm 700 Series ink allow for up to 200 line screen capability for the most demanding applications and is designed to be the only ink you need for both film and paper. The full range of 17 line/spot colors (including economy black and ultra dense black) is designed to simply "pour-and-print" and can be used with an extender base for excellent mileage.



Fujifilm SLV Series could be the only ink you'll ever need for UV applications. It works beautifully on almost all substrates – even shrink sleeve. Fujifilm SLV inks offer superb dot reproduction and maintain crisp print definition, sharp copy and clean reverses without the gain typical of water or solvent based flexo inks.



WB Flexo

700-HTM/8#

SuperNova White Ink

Fujifilm Supernova White has been engineered to be the only white needed for non-shrink flexo applications. The advanced design enables the extreme opacity and smooth laydown of a rotary screen white running at flexo speeds. SuperNova White also prints exceptional detail when used with fine line anilox volumes allowing it to be a one-ink for all flexo applications.

Wide Range of Clears

The Fujifilm 800 Series Varnish line consists of many different clears designed for different applications and demands. The line includes a series of high gloss, matte, scuff resistant, super scuff resistant, chemical resistant, tactile, non-slip, velvet touch and imprintable varnishes, many with optical brightener options.

Print on Porous Stock

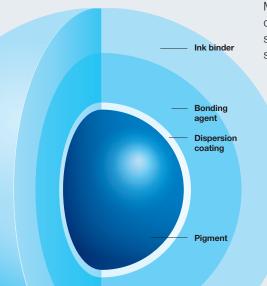
Wine labels, envelopes and other porous stock prove a particular challenge for most inks. Fujifilm 800 Series high gloss UV inks provide the flow, leveling properties and high gloss level needed for these absorbent paper substrates. It even provides some adhesion to films.

Don't Fear Films or Foils

Fujifilm 850 Series UV flexo inks adhere to slick substrates others can't. They're specifically formulated for use with PET, PVC and other films and foils.

Micro-V Dispersion Technology

Micro-V is a unique Fujifilm technology that breaks down pigment particles to smaller than a human cell, applies a dispersion coating that prevents pigment agglomeration, and adds a molecular stabilizing bonding agent to prevent gravitational settlement. The result is higher impact prints with stronger, more consistent and vibrant colors even on the most difficult spot color match requests.





These images at 400x magnification illustrate the quality of the dispersions produced by Fujifilm Micro-V dispersion technology against lower quality dispersions. Micro-V produces a fine, stable dispersion (left image). The lower quality dispersion is unstable and pigment particles clump together (right image).





Additional Products and Supplies

Ink Dispensers

A Ink Dispenser frees you ordering pre-blended inks and allows you to achieve precise batch-to-batch consistency quickly and efficiently. Up to 16 containers can be custom configured in sizes from 3 gallon to 55 gallon drums. This unit is ideal for both UV and waterbase flexo inks.

Tower Chemicals

Rely on Fujifilm to deliver Tower Chemical's full lineup of flexographic pressroom chemistry. From patented low VOC press washes to ink cleaners and developing solution, Tower offers products to meet your every requirement.

Allison Doctor Blades

With a full lineup of plastic and composite doctor blades designed for flexo printing, Fujifilm can help specify the right Allison doctor blade for your press and specific printing applications.



ColorSense

This innovative system allows you to input cost and inventory data on all blending colors, finished colors, bases or other components in your inventory. It even prompts you when a requested color is already on your shelf. ColorSense can also determine how your excess inventories of previously matched color can be worked into your current color needs.







Computer to Press Solutions

Skip the Film and Image Straight to Plate

Esko Computer to Plate (CTP) technology streamlines the flexo platemaking process. No longer do you need to create plates from film. Instead, your workflow goes straight from computer to platesetter. With this boost to efficiency, customers generally report a 20% cost reduction in the plate making. CTP technology delivers fine highlights, excellent details and superb coverage in the shadows.





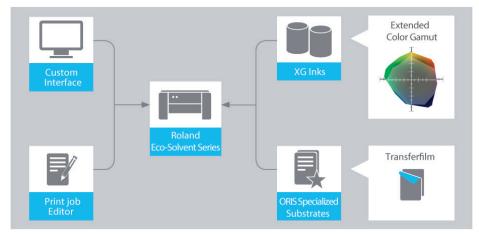
Packaging Proofing

Proof Faster and More Efficiently

ORIS Flex Pack // Web software is a web-based hard copy and soft proofing solution with a patented four-dimensional interactive color management software and specially designed custom interface for Roland VersaCAMM VS series printers. It offers the ultimate in production flexibility for halftone and continuous tone printing, and works in tandem with XG inks that have been specifically formulated to reproduce almost all Pantone colors accurately.







Fujifilm Technical Services and Solutions

Just a Phone Call Away

We realize that when production stops, so do the profits. Our trained and experienced technicians are available by phone, and more than 50% of our service calls are solved remotely in under an hour. If the issue can't be resolved over the phone, a service call is dispatched immediately. Your service is tracked by our system to help technicians address the underlying problem rather than just symptoms.

Get Up and Running

Every piece of equipment we sell comes with pre-site audits, professional installation and onsite training. We even make sure it's set up to integrate with any existing equipment you have – regardless of manufacturer.

More than Just Installation and Repair

At Fujifilm, we're not only dedicated to delivering the solution you need, we're here to be proactive – to keep you running at peak efficiency, anticipate your supply needs, assist you when it's time to expand your capabilities and much more.











values in mind. We strive to be a dedicated steward of the environment and assist our customers and

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corporate partners in doing the same.



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