

SunChemical[®]

Digital



CORRUGATED

D I G I T A L H I G H S P E E D P R I N T I N G

FASTJET™

CHANGING THE WAY YOU THINK ABOUT PRINTING PACKAGING.

Digital printing will be a dynamic force changing the face of the corrugated market. Sun Chemical recognizes the impact of market changes to this industry, and has developed an innovative solution to assist customers in capturing value through

- Quick turnaround printing
- On demand, economic short runs
- Mass customization, variable data printing

WINNING IN A CHANGING WORLD

The FastJet™ technology is targeted at transport packaging / shipping containers and point-of-purchase display applications to take advantage of opportunities to increase speed to market, address just-in-time concepts, and increase the sales promotion impact for target marketing campaigns. FastJet™ provides operational flexibility and enables economical production of short runs and personalized package designs. Turnaround time and cost point are dramatically enhanced vs. traditional printing processes.

Just imagine, a high speed digital printing press with throughput equal to flexographic press.

Productivity

Cost Control

Just imagine, a production process without pre-press cost, set-up time and set-up waste. Just imagine economic printing of small and medium sized orders from 1 to 2000 m² (22000 sq.ft.).

Flexibility

Just imagine, a high speed digital printing press that offers unlimited flexibility in managing design changes.

FASTJET™

Colour Control

Just imagine, a print technology that allows for the instantaneous reproduction of a previous print job without colour variation.

Simplicity

Just imagine, a workflow that allows your customer to create a new image, proof it on press, print it immediately and launch it instantaneously.

JUST IMAGINE ...

FastJet™ – Changing the way you think about printing packaging.

A BREAKTHROUGH IN DIGITAL INKJET PRINTING.

FastJet™ has been designed to print corrugated sheets at high speeds. Its new single pass print technology allows full-color sheetfed printing on corrugated substrates at more than 10 times the speed of previous ink jet technology.

INNOVATIVE TECHNOLOGY

FastJet™ is a joint development by Sun Chemical, the world's largest ink producer, and Inca Digital, Cambridge UK, a leading manufacturer of high-speed digital flatbed printers. Unlike standard scanning inkjet systems, where the print head shuttles back and forth, the print heads in a single-pass system are fixed. The sheet passes underneath the stationary print heads and emerges fully printed.



Printing Speed	30 to 100 m/min (90 to 300 ft/min)
Print Width	1040 mm (41 in)
Sheet Size max. (W x L)	120 x 170 cm (47 x 67 in)
Sheet Thickness	1.5 - 9 mm (0.06 - 0.35 in)
Throughput	up to 6000 m²/h (64500 sq.ft./h)
Resolution	300 x 200 dpi
Colours	CMYK + Varnish
Inks	Mitras™ from SunJet®, UV curing
Pre-Coating	Waterbased FastJet™ UV coating

Single pass, fixed array technology



FASTJET™ MODULES AT A GLANCE.

CURING

Instantaneous ink cure with UV lamps and nitrogen inertion.

PRINTING

Single pass Inca printer with fixed print head arrays and piezoelectric drop-on-demand inkjet technology.

TRANSPORTING

Vacuum roller system for perfect substrate pass control.

PRE-COATING

Pre-treatment of liner surface with UV primer to control ink wetting and ink absorption.

FEEDING

High precision feeder.

IN-LINE WITH BEST INDUSTRY PRACTICES

The mechanical sections have been developed in partnership with leading equipment providers to comply with precision demands. A roller driven vacuum transport system ensures that sheets maintain their required position throughout the print process for superior registration. The in-line cleaner and coater prepare the surface for printing ensuring the best print quality possible.

SETTING NEW STANDARDS IN DIGITAL INK JET INKS.

Sun Chemical is not only involved in researching inks, but also conducts extensive research and development of the building blocks of inks, including pigments and polymer technology, supporting the formulation of application-focused inks.

SunJet®, Sun Chemical's division for inkjet inks, has over 25 years of experience in digital printing and the integration of ink, into both continuous, and drop-on-demand ink jet printing systems. As digital technology challenges the traditional printing business, SunJet® inks are accelerating the development and growth of digital technologies into emerging industrial markets. Our broad formulation capabilities and application expertise help create new market opportunities for the printer.



MEETING UNIQUE DEMANDS WITH MITRAS™

Mitras™ inks were specifically developed by SunJet® to optimize the print quality of the FastJet™ press. Mitras™ has been developed to provide high quality colour at a line speed of 1.6 m/s (5.2 ft./s) and a print resolution of 300 x 200 dpi. The result is up to 6000 square meters (64500 square feet) per hour of output, surpassing any product currently available in the market.



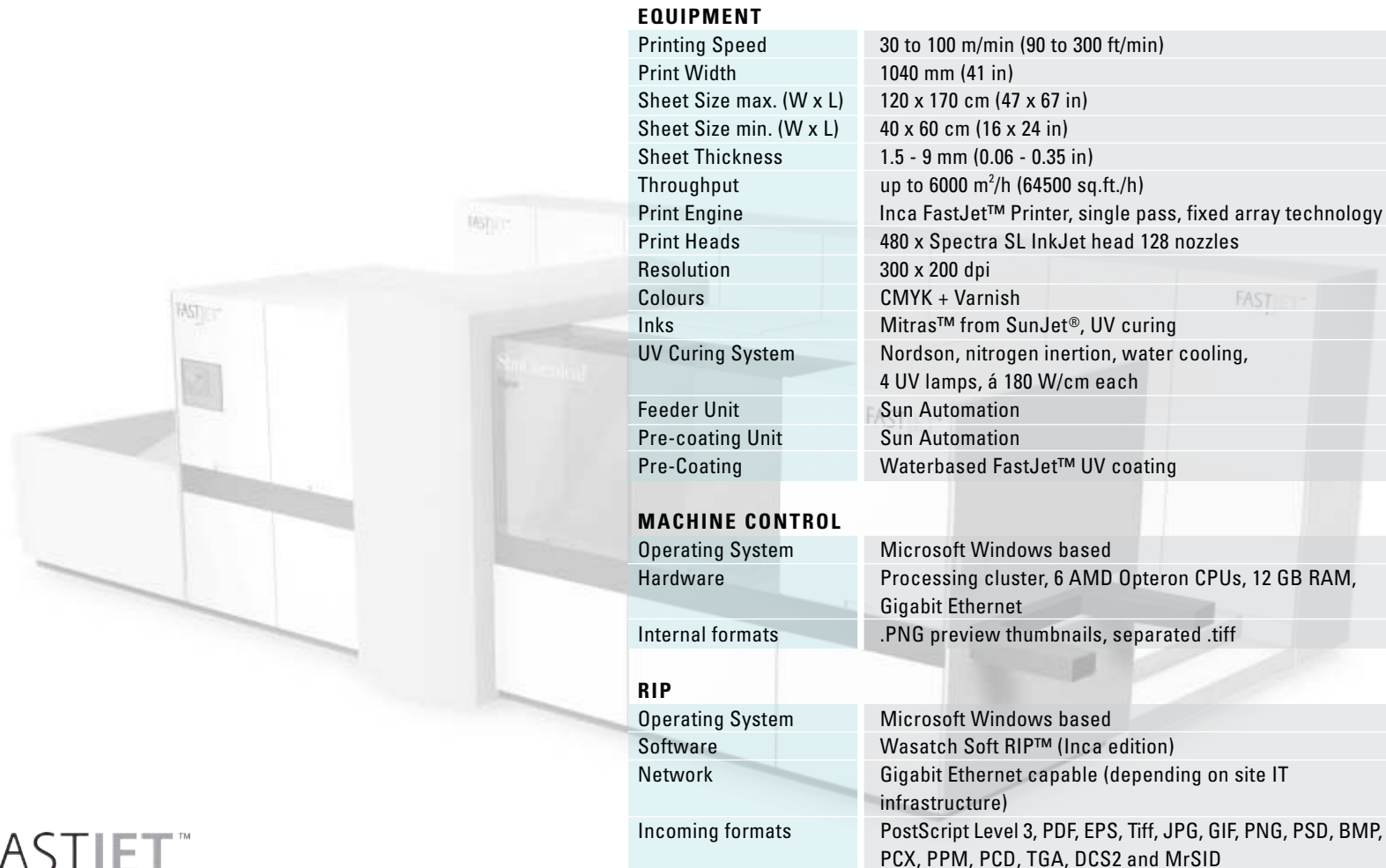
Ink compatibility with the print head is critical for reliable jetting performance and image quality. The Mitras™ inks therefore have been specially formulated to provide reliable jetting on the FastJet™ press.

Mitras™ inks are compliant with European standards for printing food packaging. The scuff resistance and flexibility of the Mitras™ ink film are designed to meet the unique demands for cutting and creasing corrugated sheets.

WHAT MAKES THE FASTJET™ INKS WORLD CLASS?

- **Fine dispersion of pigments and maximum ink purity**
- **Stable viscosity**
- **Maximum reliability and stability**
- **Wetting / dot gain control**
- **Low viscosity yet 100 % curing at high speed**
- **Low odour**
- **Gloss vs low slip**
- **Rub resistance**
- **Flexibility (creasing and cutting)**

FASTJET™ SPECIFICATIONS AT A GLANCE.



EQUIPMENT	
Printing Speed	30 to 100 m/min (90 to 300 ft/min)
Print Width	1040 mm (41 in)
Sheet Size max. (W x L)	120 x 170 cm (47 x 67 in)
Sheet Size min. (W x L)	40 x 60 cm (16 x 24 in)
Sheet Thickness	1.5 - 9 mm (0.06 - 0.35 in)
Throughput	up to 6000 m ² /h (64500 sq.ft./h)
Print Engine	Inca FastJet™ Printer, single pass, fixed array technology
Print Heads	480 x Spectra SL InkJet head 128 nozzles
Resolution	300 x 200 dpi
Colours	CMYK + Varnish
Inks	Mitras™ from SunJet®, UV curing
UV Curing System	Nordson, nitrogen inertion, water cooling, 4 UV lamps, á 180 W/cm each
Feeder Unit	Sun Automation
Pre-coating Unit	Sun Automation
Pre-Coating	Waterbased FastJet™ UV coating
MACHINE CONTROL	
Operating System	Microsoft Windows based
Hardware	Processing cluster, 6 AMD Opteron CPUs, 12 GB RAM, Gigabit Ethernet
Internal formats	.PNG preview thumbnails, separated .tiff
RIP	
Operating System	Microsoft Windows based
Software	Wasatch Soft RIP™ (Inca edition)
Network	Gigabit Ethernet capable (depending on site IT infrastructure)
Incoming formats	PostScript Level 3, PDF, EPS, Tiff, JPG, GIF, PNG, PSD, BMP, PCX, PPM, PCD, TGA, DCS2 and MrSID



JUST IMAGINE



SUN CHEMICAL – GLOBAL SUCCESS IN A WORLD OF COLOUR

Sun Chemical is the world's largest producer of printing inks and pigments. It also is a leading provider of materials and services to packaging, publication, coatings, plastics, cosmetics and other industrial markets. Sun Chemical has more than 300 locations worldwide to provide customers local service with a global perspective.

Sun Chemical has an historic pedigree, tracing its history back to 1818. Since then, Sun Chemical has expanded its operations, bringing many well-known companies and brands under its umbrella including Coates Lorilleux, HARTMANN, US Ink and Kohl & Madden.

www.fastjet.com

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