

Flexo & Gravure Int'l

Technical Magazine for the World's Paper, Film and Foil Converting Industries



■ SWITZERLAND

Learning for practice

IPI ■ The world's first Master of Engineering in Packaging Technology course to be conducted in English runs at the *International Packaging Institute* in Neuhausen am Rheinfall. The six candidates come from Great Britain, Italy, Belgium, Germany and Switzerland, and work for such »blue-chip« companies as *Unilever*, *Tetra Pak*, *Cilag AG (Johnson & Johnson)* and *SIG Combibloc*.

The Masters course comprises four semesters, which run concurrently with the participants' professional duties. The study modules run in the form of 16 one-week blocks spread over a period of 24 months. In addition to the lectures in Neuhausen am Rheinfall, e-learning modules from *Michigan State University* are on offer along with study trips to the USA and to the *ESIEC (Ecole Supérieurs d'Ingenieurs en Emballage et Condi-*

tionnement) in Reims/F. In addition, the participants have an opportunity to put what they have learned into practice on production lines and in laboratories within industry. In the fourth semester, the masters thesis (assessed final project including oral examination) is completed over a period of three months. On successful completion of the course of study, participants are awarded the academic degree of »Master of Engineering in Packaging Technology« by the *University of Applied Sciences Constance/D.*

→ www.ipi.sh

■ GERMANY

Direct laser for flexo is on its way

HELL GRAVURE SYSTEMS ■ The *PremiumSetter 1600* is a laser engraver for direct engraving of elastomer flexo printing formes. For the first time, a high-resolution laser is being used in direct engraving.

The extremely fine recording beam means plates and sleeves are engraved at an unheard-of level of quality, the company claims. The new engraver is part of an innovative process for producing flexographic printing formes for the high-end sector.



This only uses flexo plates and sleeves based on cutting-edge elastomer materials. The *PremiumSetter* is controlled by a newly-developed 3D-Rip, which enables each individual screen dot to be profiled precisely in three dimensions. The potential of this high-resolution laser is thus used to the full. A leading packaging material manufacturer has already experienced the outstanding printability and excellent print quality in production. The new engraver will shortly be starting beta operations in this printshop.

→ www.hell-gravure-systems.com

■ POLAND

Third decor production line

INTERPRINT POLSKA ■ Since December 2005, the company has been printing decorative paper with its third production line. The new investment was completed with a trial start-up and a successful test run. The *Kochsiek* printing machine made by *Fischer & Krecke* is the third production line at *Interprint Polska*. The total investment amounts to about EUR 4.4 million. Similarly to the first process line launched in 1999, the new four-colour machine prints paper up to the max. width of 2,200 mm.

The new press is equipped with a new doctor blade drive system, which can control the position of blades along three axes. Cameras were also installed to enable the entire line to be monitored. A modern link with *Fischer & Krecke* facilitates remote troubleshooting as well as modifications of the program.

→ www.interprint.com

■ POLAND

From Italy to Poland

TEICH POLAND ■ The flexible packaging company has decided for an eight-colour *Cerutti R970 gravure press*

with *ELS*. Installation in the plant in Rogowiec (in the Lodz re-gion) is scheduled for early 2007.

Teich Poland is part of Austrian *Teich Group*, which itself is part of *Constantia Packaging AG* – one of Europe's biggest flexible packaging manufacturers.

→ www.constantia-teich.com
→ www.cerutti.it

■ GREAT BRITAIN

A strategic move

VALE-TECH ■ The company has acquired *Inovex Systems*. This strategic move will combine the specialist skills of both companies in the market place. *Vale-Tech's* particular strengths are ink dispensing and colour matching equipment for paste ink as well as UV ink and coatings, whilst *Inovex* have gained a growing reputation in dispensing of both solvent and water-based liquid inks.

Among other benefits will be a stronger infrastructure by rationalising sales, support and production demands, as most of *Inovex's* business will be relocated to *Vale-Tech's* headquarters in Newmarket. The *Inovex* brand and product range will remain and alongside the current *Vale-Tech* comprehensive product range places the business in a position to supply systems for almost every conceivable dispensing application. *Inovex's* facility in Corby will remain as a global technical service centre.

→ www.vale-tech.com
→ www.inovexsystems.com

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Continuous and automatic distillation

Inhouse solvent recovery is not only environment-friendly but also economically interesting through short payback time

For the inhouse recovery of solvents, a Germany-based flexo tradeshop installed an ASC-200 solvent recovery plant, including a tank system for continuous recovery of flexo polymer solvent. This installation was successfully used for approx. 15 years. Since then, the plate manufacturer has grown and in 2004 moved to larger premises. At present, only flexo plates are produced. The new building contains two *Flint Group Printing Plates* washers for polymer plates based on solvents, a *nyloflex F IV* and a *nyloflex F II* washer, operating with the *nylosolv A* solvent. The proportion of solids in the washers does not exceed 5%, which implies that the distillation of these solvent works optimally. In the old rooms, a ASC-200 distillation plant was used for distillation. The system was equipped with a scraper system, still heated with thermal oil and recycled approx. 700 litres of solvent per day. At this time, the washers were linked to 2000 litre tanks that provided the necessary buffer capacity for the solvents.

Investment in a modern solvent-recycling plant was planned as part of the move. An estimate showed that the new distillation plant had to process approx. 500 litres of *nylosolv A*. Due to the good experience with the old *OFRU* system, it was decided to purchase the smaller

model ASC-150, which was state-of-the-art.

Since 1998, *OFRU Recycling* has built the ASC models with integrated steam heating, which have a design test certificate, are TÜV approved and ATEX-compatible. The systems only require electricity and all parts are integrated into the device and no external oil heaters, pumps or steam generators are needed. The complete solvent charge is heated within a short time with steam at up to 10 bar. This saves time when the plant is heated up and has a positive impact on the distillation performance per hour.



View of the inside of a distillation vessel.

Furthermore, exchange of thermal oil is no longer required, heating elements cannot cake up and the distillation vessel stays operational longer without possible corrosion due to humid thermal oil.

These advantages were the focus of the tradeshop's investigation. A further advantage is a completely new scraper system that is used on the inside of the conical distillation vessel. It completely cleans the inner wall of the vessel of polymer residues that have a honey-like consistency. The scrapers are firmly attached to the wall and never need to be re-tightened. The contact pressure always remains constant and effective, even after wear. The liquid polymers are therefore optimally removed and sink to the conical bottom of the vessel during distillation, where they can be

drained from the middle in a fully automated process.

In a first step, a 2000 litre tank, which is automatically supplied by the two washers, is filled with used solvent. The distillation plant continuously works around the clock in an automated operation and continuously sucks the used solvent into the distillation vessel. The inspection glass in the vessel allows adequate observation of the filling process and the distillation. The system is set up so that for 23 hours it continuously fills and distils and subsequently switches to sump distillation. During this time, approx. 800 litres *nylosolv* are recycled, approx. 40-50 l/hour during peak time. During the sump distillation phase, the mixture of solvent and polymer in the vessel is concentrated to form a honey-like mixture. The duration of the process is vari-



Draining slide for automated draining.

able and can be adjusted. Thereafter, the draining slide at the bottom of the vessel automatically opens and the complete residue falls into a 200 litre residue barrel. After automated closing of the drainage slide, the software restarts the continuous 24-hour operation. The regenerated solvent is collected in a second solvent tank that continuously supplies the washers.

»This plant is already amortised. We could no longer imagine life in our company without the ASC-150«, said the Managing Director of the tradeshop. »Every month we save approx. EUR 12,000 in disposal costs.« If one adds the purchasing and the installation costs, payback time for this plant was less than six months – a profitable investment.

→ www.ofru.com
→ www.flintgrp.com

Recycling plant ASC-150.

