

Litho laminated packs in B, E, F and N or G flute continue to show market growth as they displace unit containers, multi-packs, shelf ready transit outers and continue to dominate the decorative sector. Strong marketing of laminated fine-flute packs is helping to fuel that growth – with the finer micro-fluted grades set to take an increasing market share. This is a trend that is being seen across the whole of Europe and USA.

Laminators are available as semi-automatic sheet to sheet machines – for single face laminating, spot and full labelling, spot and full chipboard laminating, dual label mounting and windowing – through to full in-line laminators akin to a short, narrow width corrugator.

Most modular machines offer the facility to install a basic machine that can be upgraded to full reel to sheet or in-line operations to cope with expanding markets.

Touch is new

Bobst has more than 250 litho laminating lines installed and running worldwide. It makes both inline and sheet-to-sheet lines with a range of machinery for different requirements, though all deliver high capacity and high quality work.

The biggest news in the past year has been the introduction of the new 'Touch' control system for Bobst's flagship 1650mm wide Masterflute line. This replaces conventional physical push-buttons with virtual menus on a touch screen and adds optional camera monitors for safety and process monitoring to allow single-point operations.

Litho-laminating systems are made in Switzerland by Bobst Grenchen AG, in the foothills of the Jura Mountains about 80km north of the Bobst headquarters near Lausanne. This was originally the well-known Asitrade company, which Bobst acquired in 1993.

LAMINATORS

AN UPDATE REPORT



Bobst FolioStar

oppliger S.r.l.

The packaging and converting industry has chosen the sheet-to-sheet litho laminator series Sintesy 1616 S³, Swiss engineering made in Italy by Oppliger which led this innovative company to be one of the market leaders in this business.

Just some of our worldwide references:



DS Smith Group - Istanbul in Turkey

The international group DS Smith installed the first sheet-to-sheet litho laminator series Sintesy 1616 S³ in their Turkish facility based in the area of Istanbul in order to give an important impulse to their production system. The machine doubles the previous net output increasing in the meantime quality aspects.

DS Smith Group is one of the worldwide leading companies in the converting sector and represents for Oppliger srl an extremely important reference.



Grupo Mimó - Madrid in Spain

The Spanish company Mimó, leading member in the box and display converting industry, has decided to purchase their first Sintesy 1616 S³ during the Drupa 2016 in Germany. This high-tech machine, with the sheet size 165 x 165 cm, adapts perfectly to their new printing format and assures no production jam with a speed of up to 9.000 sheets per hour and a one-minute setup time.



Alizé - Alleur in Belgium

Alizé is a Belgian company that realizes since 1996 special solutions for the packaging and displays market. The company has chosen for the proper facility based in Alleur the fully automatic Sintesy 2020 S³ which is actually the biggest machine offered by Oppliger srl.

Sheets with a maximum size of 205 x 205 cm can be laminated without compromises on this machine. This format has been developed in order to satisfy the new printing formats required from the market.



Unipak - Wierp in Poland

Unipak is an important Polish converter, which decided to introduce the Sintesy S³ machine in the proper production concept in order to increase the turnover volume. The Oppliger machine opened for Unipak new markets and the compact construction permitted to install a full option machine where normally fits just a version with manual delivery.



Litocartotecnica Valsabbina srl - Storo (TN) in Italy

Valsabbina is a long-standing customer of Oppliger srl and they decided once again to install a fully automatic sheet-to-sheet litho laminator series Sintesy³ that replaces the existing Sintesy with the latest version in order to be always updated.



Cartonéo - Vaux-Les-Saints-Claude in France

This important French carton and corrugated converting company in the east of France produces packaging and display solutions for the European market and laminated products is one of the main focuses of Cartonéo. Short and long-term productions pass through the Sintesy S³ laminator day by day.



Bay Cities - Pico Rivera - California - United States of America

Strategically located within 25 miles of world-class intermodal ports, they welcome you to visit their plant and experience for yourself what sets Bay Cities apart from their competitors. Bay Cities are the premier designers and manufacturers of packaging and displays and their choice to buy the first Oppliger Sintesy 2020 S³ sheet-to-sheet litho laminator was a quality decision.

Sintesy S³ - No Compromises

To win...
run fast.



oppliger

Sintesy S³

Sheet-to-Sheet Litho Laminator

One minute setup,
the fastest worldwide



www.oppliger.eu

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LITHO LAMINATORS

Bobst Grenchen maintains its market position with a programme of continuous investment in research and development, investment in manufacturing processes and with its worldwide sales and service support network.

The high end 1650mm Masterflute is used by leading producers of litho-laminated products. The past year has seen the introduction of Masterflute Touch, which incorporates a completely new control architecture with no push-buttons anywhere, other than emergency stop buttons. New lines have already been installed at several user sites, with more on order and being installed.

All operations are controlled by touch screens, which in turn can be linked to a factory network that can record and analyse production performance. Operating parameters can be stored centrally and recalled for use on future jobs. Previously, each production module stored its parameters individually.

The graphical user interface is intuitive, with no need to refer to instruction manuals to learn to operate the line. Bobst has created

'Touch' to suit a new generation of operators who have been brought up with smartphones and tablets and expect machine operations to work the same way.

The development has also allowed the adoption of a new 'Livecam' system of optional camera monitors to aid safety and operational/process oversight. This allows all operations to be set and controlled by the same operator on the remote central control desk, instead of going in turn to multiple individual touch screens fitted to the stacker, belt press, Gapro glue unit, sheet feeder, module facers and main desk.

The safety cameras display clear views of critical points so the operator at the central control desk can be sure there are no people in the way and it is safe to commence operations. Optional process monitoring cameras can also be placed on the production line to provide a visual reference in addition to machine sensors. Livecam images can be stored for up to 24 hours and can be replayed to analyse events over time.

The main operating functions of

the line remain as before, though with the addition of the new MF324 module facer with cassette and pull roll system for minimised line pressure. This is also controlled by the 'Touch' system.

The line can be configured for a range of applications including sheet-to-web lamination, high speed in-line double-wall laminating, the conversion of pre-printed liner, and web-to-web laminating. When it was introduced in late 2010, the Masterflute system set new standards for speed and accuracy – even for difficult sizes and low base weight sheets. It can be configured for sheet lengths of 1650 or 2050mm.

The entry level to the company's inline laminator range is the 1450mm wide Novaflute, designed to be especially suited to Chinese, Asian and other emerging markets. Supplied with a new MF150 cassette Module Facer, the line incorporates touch screen operations with a similar concept of ease of use as the Masterflute Touch, though for manual setting-up.

It is available in three versions: Basic, Advanced and Premium. A Gapro Nano glue applicator is optional on these line and guarantees the optimal glue consumption, eliminating the need for a flip/flop unit.

For 1650mm working widths, the new entry to the range is Visionflute, a sheet to web laminator running up to 150m per minute (or 10000 sheets per hour). It is suited to developing markets with low to medium-high volumes and can be configured with optional equipment such as single face sheet production and pre-print (roll to web). Manual setup makes it easy to use.

Sitting above Visionflute in the 1650mm range is Expertflute, a high performance sheet to web



OPERATING EXCELLENCE

MASTERFLUTE TOUCH



With 220 m/min or 12,000 sheets per hour, an intuitive graphical Human-Machine Interface (HMI), a GAPRO glue unit as standard and the POWERALIGNER sheet registration system, the MASTERFLUTE TOUCH is by far the most productive litho-laminator in the world.

Salient new features

- Full touch screen HMI
- Live cams for remote operation
- Optional process cams with 24hr footage storage
- Web to web laminating on double face web

With its new control and drive system, MASTERFLUTE TOUCH is ready for the future — enabling quality-control systems to be included and statistical data output prepared.



Discover more





laminator with a performance of up to 180m per minute (or 10,500 sheets per hour). It is intended for mature markets with high volumes or precise tolerance demands. It can be configured with many options to suit individual requirements, such as MiniTriplo (doublewall), single face sheet production and Preprint roll to web.

Both Visionflute and Expertflute can be combined with the new MF260 cassette Module Facer, replacing the MF250 (for up to 150 m/min) or they can be configured for offline use. The Expertflute 180 can be combined with the MF324 for 180 m/min production speed.

For sheet to sheet laminating, the Foliostar is capable of fast set ups (less than 5 minutes) with automatic format changes and can be combined with various press sections and stacking configurations. It runs at up to 9000 sheets per hour (150m per minute) and is suitable for short run orders like display work as well as high volume orders in mature markets. The Gapro Nano glue unit is available to ensure the best glue consumption and best board quality. A moistening device is optionally available for humidity correction of dry substrates.

The line can be extended with a special pre-feeder for single face sheets. Several units are in operation today, increasing the average output of the sheet to sheet process by approximately

20 per cent compared to manual loading of the single face sheets.

In the broader industry, Bobst Grenchen continues to participate in "The Lamination Academy," a competence group of industry specialists comprising a paper supplier, an adhesive producer and Bobst.

www.bobst.com

Oppliger success in Turkey

After significant sales success at Drupa, Oppliger Srl has entered several new markets with its range of litho laminating equipment.

One of the most significant orders came from the DS Smith, who ordered their first sheet to sheet litho laminator developed by Swiss engineer, Fernand Robert Oppliger, for their facility in Istanbul, Turkey.

It is interesting to understand DS Smith's decision to invest in the Sintesy S³ Oppliger machine for their Istanbul facility. "The

main aspects are the high quality construction, a quick setup of just one minute and the 'no waste' concept which means that the first sheet is saleable," explains Michael Raab, Sales Director at Oppliger Srl. "Other considerations include the compact length of the machine – at only 16.9m this line saves around 10m in length when compared to some other machines in the market. In addition, the low glue consumption makes the ROI very short. Sintesy S³ is one of the only machines on the market which can apply almost 'too little' glue on the surface of the base material, meaning minimum requirement of glue quantity."



Edge to edge and board with board lamination and the possibility of using 120gsm top sheets makes it a versatile machine. It can handle base sheets up to 10mm in thickness, another important feature of the Oppliger Sintesy S³.

www.oppliger.eu



New addition

Stock Maschinenbau GmbH of Germany has been an international manufacturer of litho laminating equipment for over 45 years and has always incorporated the latest technology into its machines and extended the line of equipment offered. At this time, Stock offers full sheet laminators, spot labelling machines and sheeters stackers for single face and carton material. Extra care has been taken in the manufacture of all machines to provide fast set-up, modular design, high durability and minimum waste.

The company has increased its range of laminators by way of a new, innovative sheetfed laminator, with electronically controlled sheet registration for meeting the highest demands for laminating accuracy and productivity. The new model SLOTF-laminator, with its on-the-fly registration (electronic set-up of the sheet overlap), is suitable for laminating all common materials, edge to edge, or with overlap, for the production of POS boxes, displays and puzzles. The newest development is a fully automatic

machine without mechanical front lays, combined with lateral adjustment of the top and base sheets for high performance and accuracy. The machine is suitable for thin top sheets, offering material savings, because the surrounding sheet overhang can be a maximum of 4mm.

The laminator runs at up to 10,000 sheets per hour with good registration. Without the use of mechanical front stops, there are no more impressions to the front edge of the sheets, neither for the first lamination process nor for the counter lamination. Manual adjustment – requiring time for the adjustment of the front stops – is eliminated. As an option, the machine can be equipped with a pre-feeder for automatic non-stop substrate sheet feeding. The largest format is capable of processing a maximum sheet size of 2050 x 1510 mm. The latest fully automatic sheetfed SLOTF-machine, including an electronic register and fully automatic set-up, as well as a pre-feeder for the substrate sheets, has been installed at a European sheet feeder.

The machines are distinguished by solid construction, modular design, laminating accuracy, short set-up times (a fully automatic format set-up is available), little maintenance and operating comfort. A number of additional units can be added to increase automation, including a non-stop down-stacker, a batch pile turner (flip-flop) and pre-feeder. The machines are designed to be versatile to run single and double face corrugated, solid board, foam board, plastics and more.

As one of the largest independent suppliers of laminating machines in Germany, Stock recognises that service is the foundation of its business. Every effort is made to ensure that machinery is safe and working to its optimum capacity. Stock produces their own parts and spare parts in house. The engineering capacity is varied from computer-aided design to manufacturing and machine assembling and test, as well as installation, service and training by highly skilled service engineers.

www.stock-maschinenbau.de



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BP Agnati and Stock

The in-line laminator, LithoLiner, combines a Stock reel-to-sheet machine with a BP Agnati wet-end and is the result of the continuous investment strategy of both companies in R&D to offer a high

bring together an ultralight single face web (60 + 40 gsm) with the printed top sheet (110 gsm).

The SRS7-model is an innovative machine, designed without mechanical registration of the lead edge of the printed

sheets. The machine is provided with an electronic registering system, suitable for high laminating performance. Both sheets (the printed and carrier sheet) are scanned on the flow before being laminated together, with the printed sheet registered to the carrier sheet. Before the laminating process, the single face web is glued and cut into sheets. The laminating process is still sheet-to-sheet.

Further benefits are maintainability and ease of operation, together with a state-of-the-art computerised set-up. A conveyor system for an automatic pallet change is already included for the printed sheet feeder, as well as for the down-stacker to reduce the need of the operators

speed machine with ease of use. The line can be easily customised to meet different production demands, including laminating on double board.

The combination of BP Agnati and Stock offers high quality finished laminated sheets with high performance. The machine is equipped with the newest technology and is designed for a speed of up to 220m per min (12,000 sph) and is equipped with a fully automatic set-up. A special feature of this line is the ability to



for a pallet change. The rotary knife with connected direct drive system and two cut-off knife cylinders with helical blades have easy access for cleaning, readjusting and replacing the knife blades. The line is equipped with mechanical lateral printed sheet alignment to a side guide (on-the-fly); a gluing unit with reversible glue metering roller that ensures minimum glue application; PC-control with internet remote access capabilities for service and troubleshooting and pallet conveyor



BP Agnati S.r.l.

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Inline - Single Facer & Laminator



Combined with a BP Agnati WET-END with VANTAGE Single Facer
Designed for speed up to 190 m/min or 11.000 sheets per hour
To meet the highest demands of quality and efficiency to produce
and laminate a single face corrugated web with pre-print sheets



STOCK
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systems for the printed sheet feeder as well as for the down-stacker.

As an option, the machine can be equipped with an additional flip-flop sheet feeder – with or without pre-feeder – for sheet-to-sheet laminating, a reel-to-reel device for laminating a pre-printed liner or a second gluing unit for producing double corrugated board to be laminated inline. An optional sheet feeder for sheet-to-sheet lamination with the same inline-machine is also available.

A key element of a litho-laminator wet-end is the single facer group. The proven BP Agnati Vantage Single Facer has an excellent dynamic stability at all speeds and allows users to produce a single faced web with any flute profile, thanks to the possibility of changing the corrugating rolls, assembled in a cartridge, in only five minutes. The high quality of the single faced web is further improved by the lack of pressure marks, thanks to the exclusive solid non-metallic pressure roll installed on the VSF. The widest range of papers can be run, from the heaviest to the

lightest, thanks to the reduced and adjustable crown on the lower corrugating roll and the reduced labyrinth between the corrugating rolls for a better flute formation. A further advantage of the VSF single facer is the low cost of ownership. Preheaters and preconditioners are integrated in the single facer for a more compact machine.

The BP Agnati mill roll stands and the high speed splicers, which are equipped with a push-pull device to eliminate web wrinkles – typically when running ultra-light papers – allows high speed production without the need to slow down. An automatic paper and glue dam alignment system is available as an option.

The proven performance of this combination has resulted in the sales of the LithoLiner to the most demanding companies across Europe and overseas in the last few years.

www.bpagnati.com

On-the-fly registration

The new Lamina Fasline Edge is a fully automatic, high speed, sheet-to-sheet laminating/mounting machine. The machine is equipped with both the Lamina Edge-to-Edge register for high precision registration and the company's all-new on-the-fly register for continuous, non-stop registration with adjustable overlap by the press of a button. With the on-the-fly register, the machine has a speed of up to 8,000 sheets per hour.

The machine features a high capacity, rear edge, top feeder that allows for loading pallets directly in to the unit for short stops when reloading. Bottom sheets are fed in to the machine using a servo controlled non-stop belt feeder. The feeder is equipped with a heavy-duty vacuum system to ensure reliable feeding of various types of materials.

The Lamina Fasline Edge comes in several sizes; 1116, 1416, 1420 and 1620 (maximum width



+46 33 23 34 00



BLACKLINE 1116-1620 FA FEEDER 1600/800 HIGH SPEED FULLY AUTOMATIC SHEET-TO-SHEET LAMINATING/MOUNTING MACHINE

HIGH SPEED

Up to 5000 sheets/hour



EDGE TO EDGE

Constant registration accuracy up to 0,2mm

HIGH CAPACITY

800mm Top feeder - 1600mm Bottom feeder



AUTOMATIC FEEDER

Suction cup picker for top and bottom feeder

BLACKLINE - HIGH CAPACITY

The Lamina FA Blackline 1600/800 is a fully automatic, high speed sheet-to-sheet laminating/mounting machine designed for one operator. The machine model is constructed with high capacity feeders for top and bottom sheets that can be reloaded directly on pallets.

Because of the compact construction it is a very operator friendly machine with quick set-ups and easy handling.

The machine can handle most of the materials on the market with a high output and perfect registration. Lamina FA Blackline can be upgraded with several options such as Pressure Belt, Downstacker, Flip-Flop, Single Face Feeder etc.



← More info and video

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www.laminasystem.com

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1100mm to 1600 mm. Maximum Length 1600 mm to 2000mm).

There are several optional extras available including, anti wrap pickers, glue system for containers, pressure belt, down stacker and the Flip-Flop unit.

"We believe that the new Lamina Fasline Edge will be an ideal machine for all customers, both new and old. The output and the new Lamina On-The-Fly register will benefit and improve our customer's products with both registration and speed," says Magnus Hansson, Area Sales Manager for the Scandinavian market along with the Gulf markets.

www.laminasystem.com

Sheeter stacker is new
CONTROL-ING® Laminators have taken a huge step forward by developing a new sheeter-stacker for single face corrugated material. In order to supply the substrate for sheet to sheet laminators, there is a high demand for precise sheeters with a good quality stacking capability. The new Control-ing sheeter, called RDV, has the following special features:

- Low inertia carbon fibre double helical cut-off knife;



- Clean cut auto set slitting knives for up to 3 sheets in the width;
- No crush polyurethane coated traction drum;
- Vacuum drive belts before and behind the cut-off knife;
- Vacuum transfer (from above) for full position control and to create sheet separation;
- Vacuum assisted sheet positioning (from above), releasing the sheet only when the end stop is reached;
- Non-Stop pallet change with option of automatic empty pallet insertion;
- Bad sheet elimination in transfer section by a simple pushbutton action;

- Working width 1850mm, or more if necessary;
- Suitable to run in-line with a single facer;
- Able to cut and stack solid board in the typical range of offset printed top sheets for lamination.

The L-INC® laminator division is currently also very busy, with orders for a manual fed sheet to sheet laminator model M2000 and an automatic sheet to sheet machine of the M7000 range.

CONTROL-ING® reel to sheet (off-line) laminators show production figures of up to 20 million sqm per annum and are manufactured by Simon Corrugated Machinery s.l. in Spain.

www.control-ing.com



Control-ing: all concepts in one

• sheet to sheet • reel to sheet • web to web • double wall • in-line www.control-ing.com

VKM 1100.2 is new

Tünkers of Germany are a well established manufacturer of equipment for the paper and packaging industries, as well as other industrial sectors.

The company's newest litho laminating machine is the VKM 1100.2. For this new model, the stack of base sheets are moved into the base sheet depositor by means of a forklift truck and placed into position. The new model is easy to operate, because the cover sheet stack is moved into the cover sheet depositor at floor level and is lifted to the top work position by an electrical stack lift.

Tünkers VKM 1100



The cover sheet depositor is centrally equipped with two swivelling conveyor belts for the further transport of the base sheets, which are fed into an internal area during the feeding procedure. This work method provides for feeding of the cover sheet depositor easily and with no physical effort from the operator. In addition, the machine offers a high net capacity due to the fast feeding of the stack. The key advantages of the machine are:

- Only one person is needed to operate the machine;
- Fast feeding of the base sheet and cover sheet stacks at floor level using a forklift truck;

- Excess length of cover sheet front edge, adjustable from 0 to 2mm;
- Laminating accuracy of ± 0.25 mm;
- Automatic cleaning of the gluing station by circulation of water;
- High production speed of 4000 sheets per hour (depending on material and format).

www.tuenkers.com

IOBox to launch in North America

Following a period of sustained success with European and South American converters, IOBox, the Spanish manufacturer of Single Facers and Litho Laminators based in Barcelona, is launching its range of equipment into the North American market. Speaking for IOBox, CEO Daniel Jubany-Ferré commented, "Our technology has a proven 24/7 performance record and we are delighted we can now offer it to companies in the USA and Canada who are producing high quality boxes with added value."

www.iobox.es