

**PERFECT SOLUTIONS
GROUP UK LTD**

SPECIALIST PRODUCTION & AIR QUALITY SOLUTIONS

An overview of our Brands,
Equipment, Technology
& Services

INTRODUCTION

Perfect Bindery Solutions is our family business which was founded in 2005. We specialise in technology and equipment for Print Finishing, Bookbinding and Stationery production. Our portfolio of machinery has been selected to address many post-press requirements for Digital and Litho production.

Our expertise with paper and board production has led us into the packaging sector, thus enabling us to offer equipment for the production of Luxury Boxes, with a new range of high-tech solutions for short to medium runs and fully automatic lines for large runs. This division is branded **Perfect Box Solutions**.

Perfect Box Solutions then led us further into the packaging sector, specifically to parcel logistics & sortation. We incorporated another division called **Perfect Sortation Solutions** to deal with automatic parcel sortation systems and secondary packaging such as labelling etc. Our solutions are designed to improve productivity, quality and efficiency. Our machinery is for materials such as paper and board ensuring a sustainable and eco friendly approach to production.

Since these 3 brands have been so successful, and having been introduced to an Active Air Purification system that is being used by printers, production factories as well as hospitals, care homes and other buildings etc we decided to include this within our portfolio of technology, branded **Perfect Air Solutions**! One of our customers installed technology to neutralise odours being produced by the printing and laminating processes and found that it also improved the efficiency and general running of the machinery too! This is the only technology that works in real time, purifying every cubic cm of air in the building, reducing the spread of viruses, bacteria, dust, odours, allergens etc therefore also reducing staff absenteeism.

Perfect Air Solutions also supplies solutions for ventilation to increase air flow and destratification fans, helping to regulate factory temperatures throughout the building, no matter the weather, ensuring your staff have a comfortable working environment from Summer to Winter, whilst saving you energy!

Perfect Technical Solutions is our engineering division which looks after all of our machinery safety upgrades, installation, training and factory moves etc.





PERFECT BINDERY SOLUTIONS



PRINT FINISHING & BOOK PRODUCTION EQUIPMENT

We have 60 years experience in the production of books, including finishing techniques and processes! We are specialists in 'Paper over Board' and our solutions are specifically for On Demand and medium run production.

We'd love to include all of our individual machines in this catalogue, but it would be the size of an old yellow pages, therefore we have given a simple overview of the solutions we can offer for individual processes. Please contact us for specific machinery, technical data, pricing, etc.

BOOK BLOCK PREPARATION & SOFT COVER

BOOK DE-STACKING

Our Super-D is designed to receive a pile of pre-glued/sewn books from a digital printing system, such as Hunkler, and feed individual books from the pile direct into a binder. Barcodes can be used for sorting individual book thickness from the hopper.

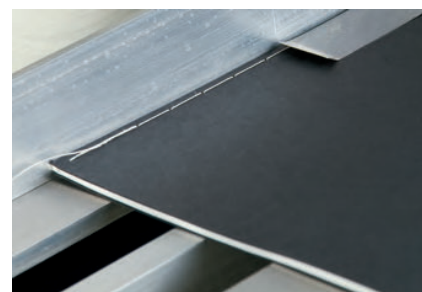


PERFECT BINDING/LAYFLAT BINDING

We have single, 4 and 7 clamp perfect binders available depending on your preference. These can be used for hard and soft cover production, there are options for PUR or hot melt spine glue, cover feeding, backlining, gauzing and end papering etc. We are able to build bespoke binders specifically for your requirements and also supply Layflat binders for photobook production etc.

SIDE SEWING

This type of sewing machine is designed for On Demand photo books, yearbooks, journals, children's text books (up to 24mm thick) etc. It stitches down the side of the book spine providing a strong, secure bind.



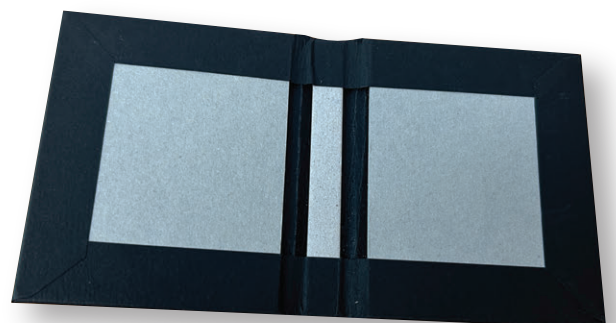
HARD COVER PRODUCTION

SPINE STRIP CUTTING (CENTRE BOARD)

Our solution produces accurate, burr free strips for all types of casemakers utilising shear knife action. Eliminate the guillotine and improve your casemaker performance and case quality with our robust machine.

BOARD CUTTING

We have semi-automatic and fully automatic machines available to suit all types of production needs. A rotary board cutter is essential for accurate, burr free, cut boards. Using a guillotine can cause issues during production as the size is not consistent and leaves burrs on the edges which can cause air bubbles under the cover material when glued.



CORNER CUTTING - COVER MATERIALS

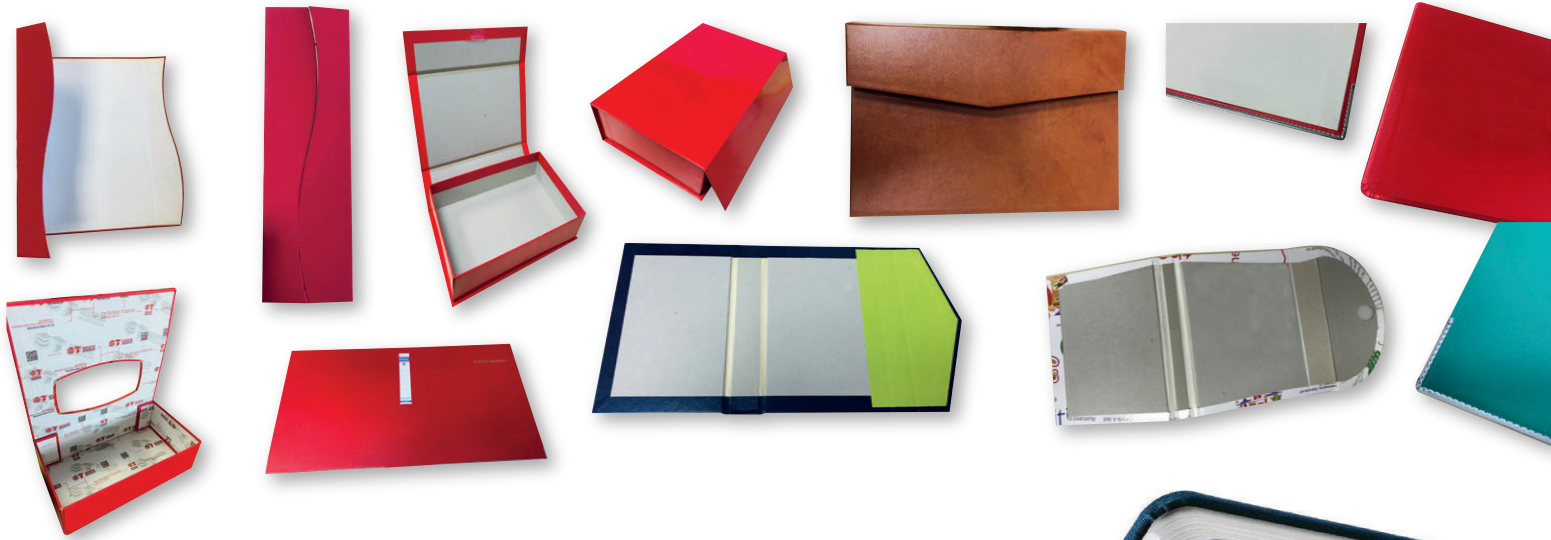
We have a few options for corner cutting, single and twin head units. These machines are used for cutting the 45° angle on the cover sheet in preparation for casemaking.

CASEMAKING

We are specialists in Casemakers and have a huge range available, covering everything from semi-automatic models for on demand/short run production up to high speed fully automatic models. We are also able to supply solutions for large cases, curved cases, shaped cases, 1 -7 piece cases, cases with windows/apertures etc so whatever your requirements are, we have it covered. Our machines can process a range of different glues too, from hot animal glue to cold glue and vegan glue options!

We recommend contacting us with your specific requirements so that we can advise you on the correct machine which will suit your production preferences.

We have produced a casemaker comparison chart to help you navigate the different models, optional extras available, board size min and max etc. Please let us know if you would like this and we'll send it over.



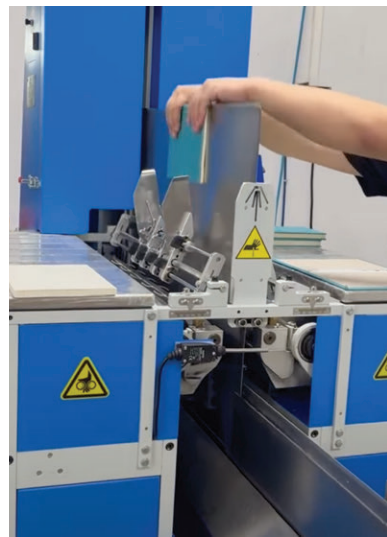
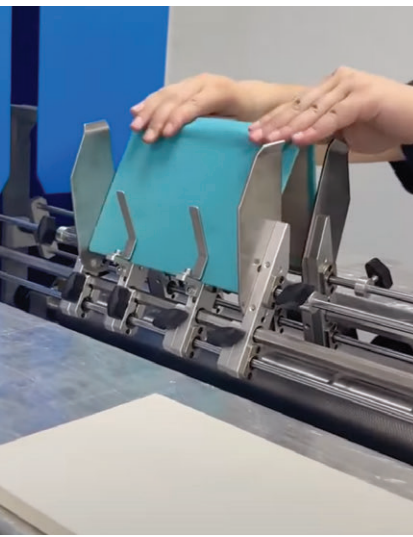
ROUND CORNERS

We have a machine that can be hand or automatically fed which forms the round the corners of pre-made cases. Childrens books often have rounded corners for safety.



CASING IN (APPLYING THE COVER TO THE BOOK BLOCK)

There are options for semi-automatic and fully automatic machines to suit your production runs and level of man power required. These machines apply glue to the book block or to the case and then apply the hardcover in position. They are then pressed, to ensure good adhesion, and a special bar forms the spine crease.



VALUE ADDED FINISHING

BOOK FINISHING

We have a range of solutions available for finishing your books. Including little extras on your books can really add value to your products, thus increasing the sales value!

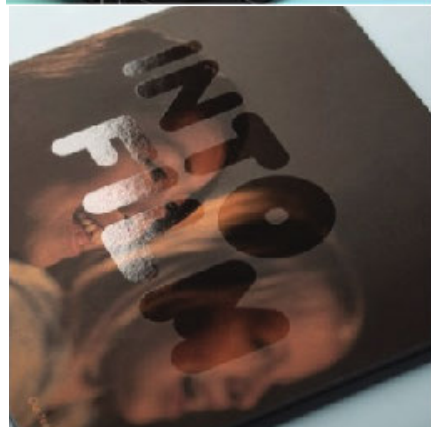
Our solutions include:

- Ribbon/bookmark inserting
- Head and tail bands
- Elastic strap application
- Round cornering (book blocks/soft cover)
- Book edge printing (33, 66, 99mm widths)



PRINT FINISHING - FOILING AND EMBELLISHMENTS

Everyone loves a bit of sparkle and enjoys feeling print, whether that's foil, spot uv or an emboss/deboss! We have solutions for traditional hot foil stamping, digital foil for personalisation of notebooks etc and cold foil embellishment lines including spot uv and cast & cure. The embellishment line model options are B1 litho, B2 and B3 digital. We'd love to test your files and materials, just send them over to us! Most uncoated stock can be processed on our cold foil embellishment lines!



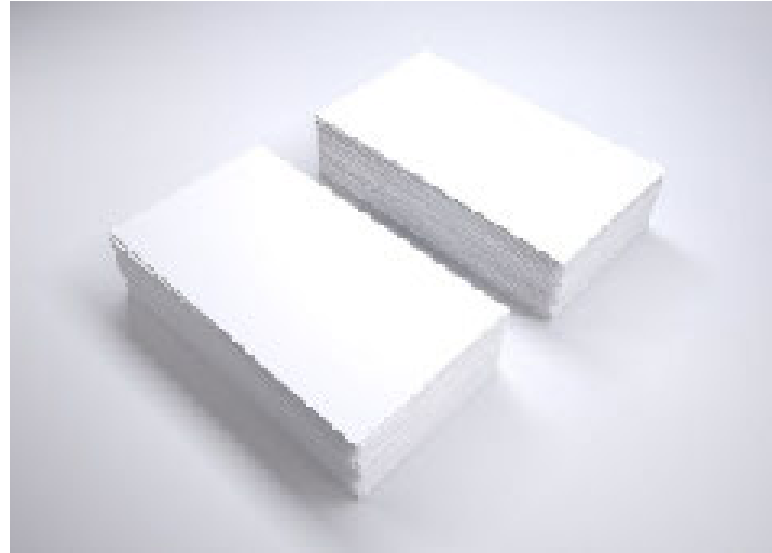
CUTTING AND TRIMMING

THREE KNIFE TRIMMING

Three knife trimmers are used to cut book blocks prior to casing in or to finish a soft cover book. The three blades offer accurate cutting for quality finished products. We have options for stand-alone models or to run inline with perfect binders.

GUILLOTINES

Guillotines should ideally be used for cutting paper only, whether that's finishing print and cutting to crop marks or cutting cover materials for books or boxes. Cutting board should be avoided to save your blades, it also leaves burred edges and the board sizes can be inconsistent. We can supply a range of different guillotines to suit your requirements.



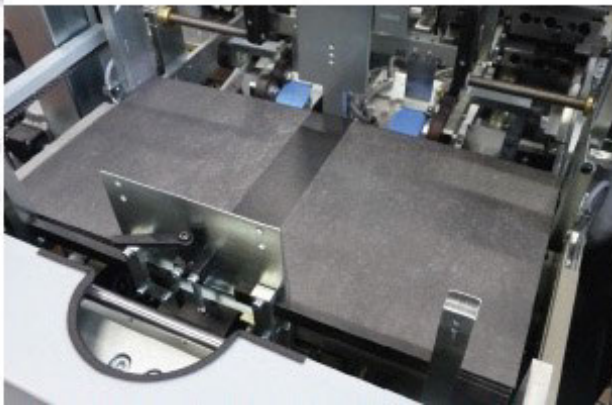
STATIONERY PRODUCTION

MACHINES FOR PRODUCING AND FINISHING STATIONERY PRODUCTS

Whether you're producing ring binders, lever arch files, or products that require rivets etc, we've got the solution! We can provide machinery for the following processes:

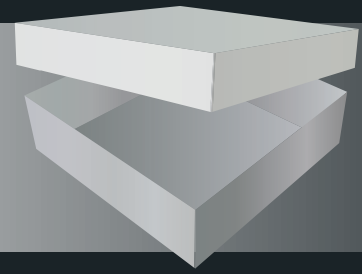
- Metal edges
- Labelling
- Welded plastic label holders
- Thumb rings
- Rado slots
- Riveting

(We have casemakers available for large cases which can be used to produce the actual ring binder cover).





PERFECT BOX SOLUTIONS



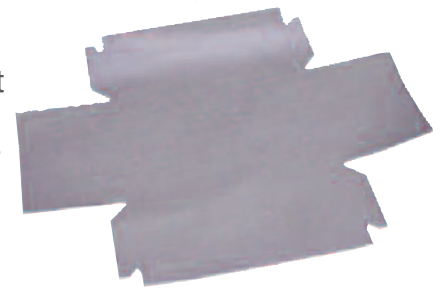
LUXURY BOX & CARTON PRODUCTION EQUIPMENT

We love helping our customers produce beautiful, quality packaging with simple/easy to use machinery, increasing your productivity and shortening lead times for your customers! Our solutions include equipment for production and finishing. Our modular solutions are designed so that as capacity increases, you can increase output by adding additional machinery to automate certain processes.

COVER MATERIAL PROCESSES

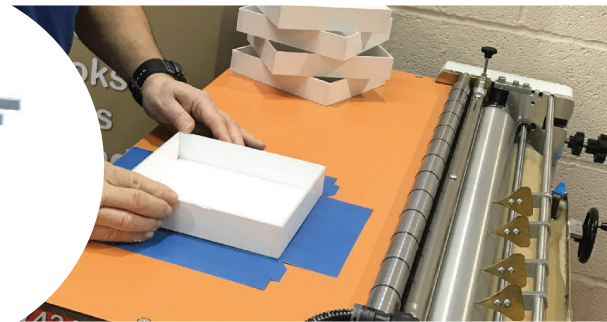
CUTTING

We have a range of cutting machines available for both manual sheet placement and automatic feeding. For box production, it's essential to test the cover sheet design prior to printing, foiling etc. CAD cutters/flatbed cutters are a perfect, low cost solution for cutting 1 cover sheet at a time to allow for testing. Once you are happy with the cover sheet design then you can go ahead and get your dies made, or cut your sheets for production using whichever process you have on site. By testing your sheet design first it should eliminate waste and any problems that may arise in production affecting overall productivity. Cutters can also be used for a variety of other products, such as flexible carton style packaging, labels etc.



GLUING

Our gluing machines are available in semi-automatic and automatic options, depending on your space, run lengths and budget. We are happy to advise you to ensure you choose the correct option. We also have machines that can include automatic robot positioning of the box carcass onto the glued sheet. Hot animal glue is the preferred glue for rigid box production due to the open time, with this in mind it's strongly advised to choose a gluer that has viscosity control to keep the glue consistent for production, eliminating the manual input of water into the glue etc.



BOX BOARD PROCESSES

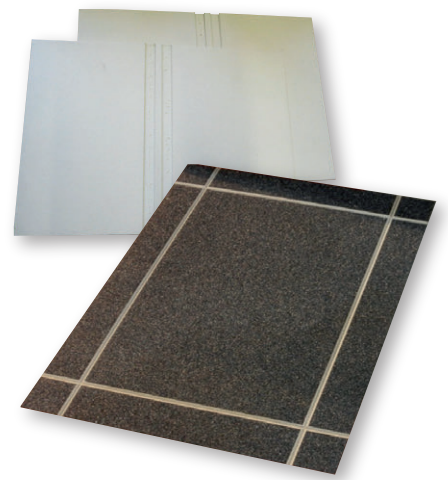
BOARD CUTTING

Board cutters are the preferred method of cutting board to size for rigid box and also hardcover book production. Using rotary blades, our board cutters cut the boards accurately, consistently and leave the edges burr free. Guillotines should only ever be used for cutting paper, board will destroy their blades and the sizes of the boards are inconsistent - not to mention the burred edges which cause problems with air pockets between the glued cover sheets and the board. We have semi-automatic and fully automatic board cutters to suit each customers requirements.



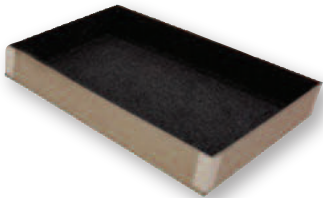
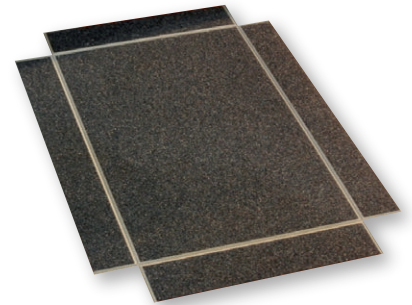
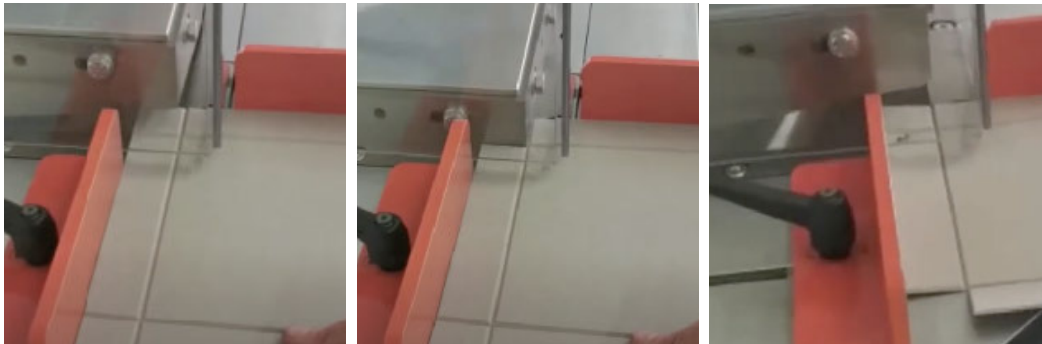
BOARD GROOVING

Our range of grooving machines covers everything from small 'sample making' hand operated grooving machines, up to fully automatic high speed grooving machines for production runs. There are options for MDF grooving, automatic waste corner removal etc, large boards, V groove and U groove etc. We will be able to advise on the best machine to suit your requirements. Grooved boards are often preferred over die cut boards due to the nice sharp 90° edges, much like the iPhone boxes etc. They are also much stronger boxes and allow the following box making processes to run much easier, for example corner taping! Groove angle range = 80° - 130°.



CORNER CUTTING

Grooved boards require waste corner removal to allow you to form your box carcass. Some grooving machines offer automatic waste corner removal as part of the grooving process. There are other options to remove the waste corners such as die cutting your boards to size with kiss cuts in the corners, during the grooving process these kiss cut corners will fall out or you can choose to remove them with a corner cutter. Longer run production would benefit from automatic waste corner removal on the grooving machine, or the kiss cut corner option. For shorter runs, we can provide a corner cutter which removes one corner at a time. It also has a function to cut a basic cover sheet design/profile.



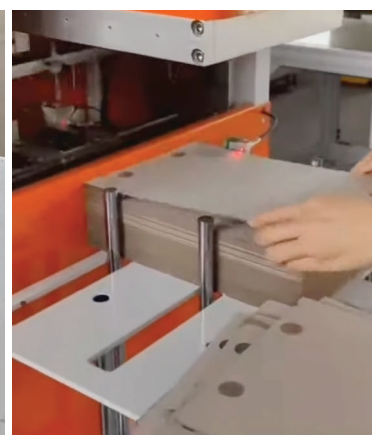
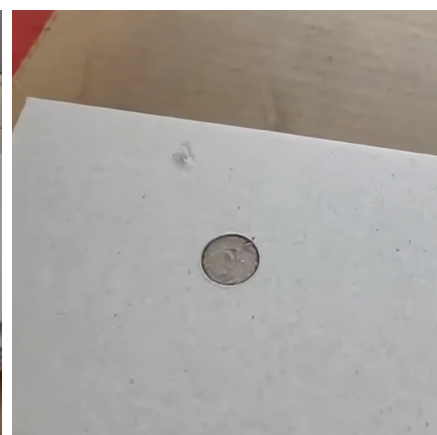
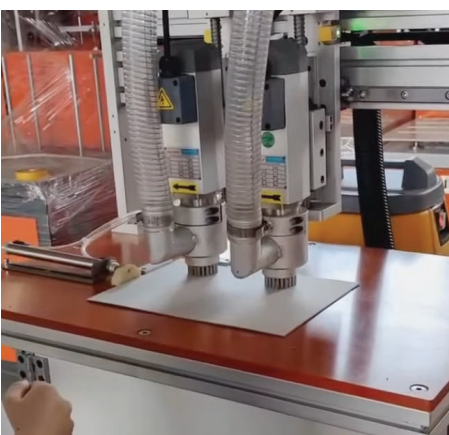
CORNER TAPING

We have solutions for single corner taping or 4 corner taping. The machine you choose will depend on your production runs. Single corner taping is for On Demand box making, samples and short runs. Our quad stayers are for longer runs as they tape all 4 corners simultaneously. The quad stayers can also run inline with our positioning robots such as 450B and 450Plus models. Tape options include plastic and paper, either 19 or 22mm width.



MAGNET DRILLING AND INSERTING

Some box designs require a hardcover lid with a magnetic closure. We have solutions to not only drill/route a small hole in the board, but also to insert the magnets in position using a small amount of glue to ensure the product is secure. We can supply semi-auto and fully automatic machines to suit all production requirements.



BOX WRAPPING & VALUE ADDED FINISHING

BOX WRAPPING

We have various solutions for wrapping the cover material around the box carcass, depending on the box style that you are trying to produce. Standard lid and tray style boxes, 3 sided boxes etc can all be wrapped on our F7 Digital Box Wrapper, or our manual set up F6 Box Wrapper. Optimus Prime is the perfect wrapper for slip cases, drawer boxes and bottle boxes for wines and spirits etc. Optimus Prime also has the facility to form and wrap from flat pre-grooved/die-cut boards thanks to the vacuum function! Therefore, no need to tape corners first! These machines are semi-automatic as our automatic wrappers are part of our fully automatic lines. Tools/moulds are required for each box size on all of our box wrapping machines. These can be 3D printed, laser cut from ply etc.



NAKED BOX CONSTRUCTION - NO COVER MATERIAL, NO CORNER TAPE!

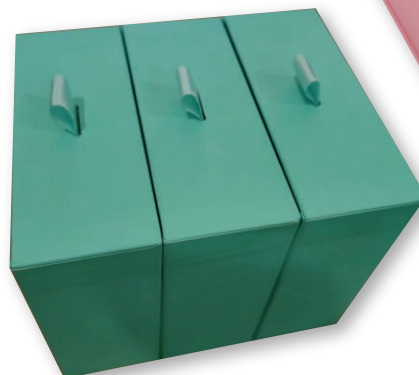
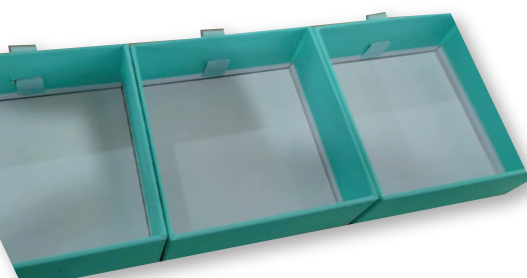
You might prefer not to cover your boxes with material, in which case check out our semi-automatic machine which applies glue into the grooves of your board (or 3 pieces of board) and forms the box, thus eliminating the requirement of corner tape! These boxes can look great when using coloured boards, or even duplexed coloured boards!



RIGID BOX FINISHING

Adding value to your packaging products is a great way to increase the luxury vibe. We have the following machinery available:

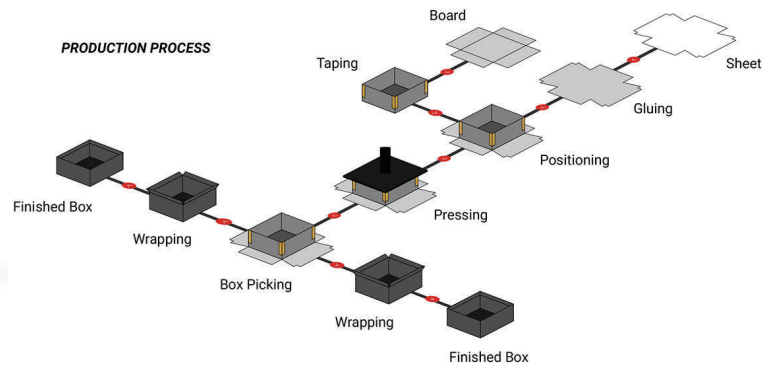
- Ribbon inserting
- Thumb hole cutting
- Box edge printing
- Aperture/window wrapping
- Collapsible/folding box construction



AUTOMATIC BOX PRODUCTION LINES

FULLY AUTOMATIC BOX PRODUCTION

We have a range of automatic lines which incorporate all of the processes required for box production, such as gluing, corner taping, robot positioning of the boxes onto glued sheets, pressing and then finally wrapping the cover material around the box. Materials must be prepared correctly so they can be inserted into the relevant hoppers/feeders on the automatic lines. Some of our lines can also include inline casemaking, which is great for boxes that require magnetic closures etc. We are also able to offer a line which can run lids and bases simultaneously so you can offer shorter lead times to your customers, and some lines have two wrapping facilities giving an output of up to 40 boxes/min! Our lines include fast wash up (under 2 mins) and use touch screen automatic set up offering a size change time of approx 1-2hours, manual installation of tools/moulds is required on the quad stayers and the box wrappers.



CARTON PRODUCTION & LASER TECHNOLOGY

E-PACK ECO FRIENDLY CARTON DISPATCH (SECURING CONTENTS AND ERECTING CARTONS)

Our unique small order packaging machine is designed to efficiently pack a variety of products into cartons for immediate dispatch to the customer. The e-Pack secures the product inside the carton, (eliminating filler), using environmentally friendly stretch film. The box containing the secured item is then closed and taped ready for immediate dispatch, automatic labelling can be fitted as well as robotic stacking to minimise labour cost. A variety of box blanks can be deployed depending on the dimensions of the contents. The E-Pack has been designed for low energy consumption/carbon footprint



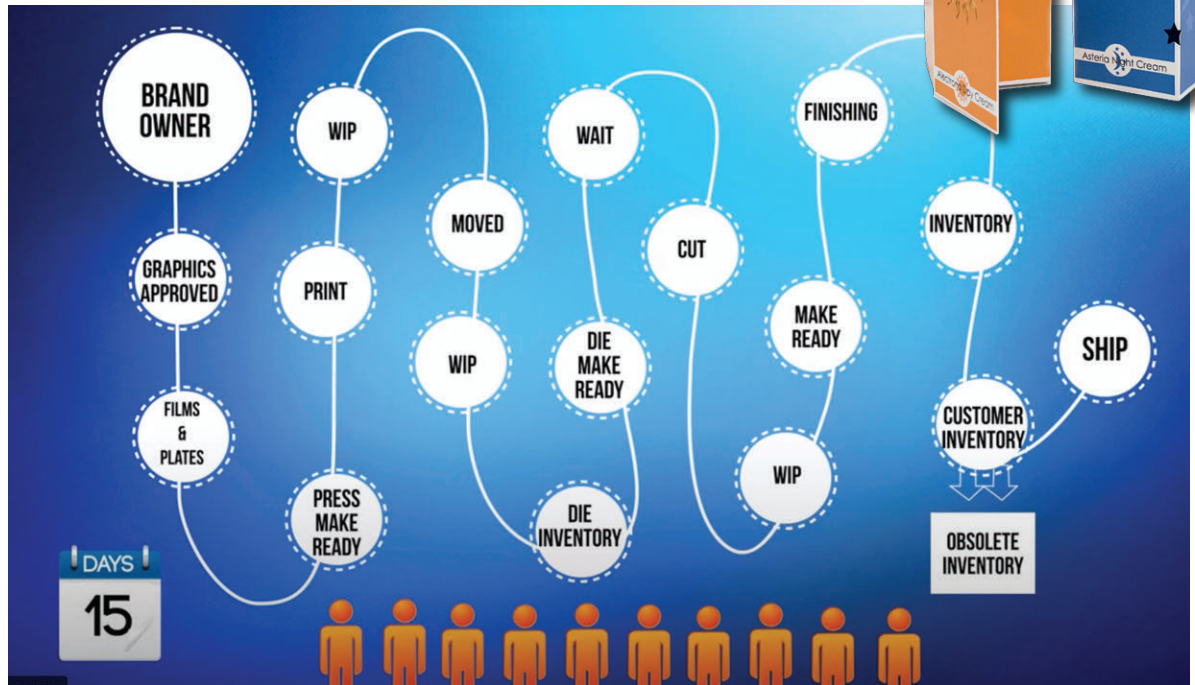
LASER TECHNOLOGY

Our lasers use SmartFinish laser processing technology. This comprehensive system combines custom laser cutting, scoring, and perforating with instant job changeover technology that eliminates the need for costly mechanical dies and expensive set-up times. Create affordable 'run of one' samples or prototypes, or perform profitable short runs of ultra-complex processing of full sheet papers, paperboard, plastics and acrylics at remarkable productions speeds. You can choose between roll or sheet fed, or both, and there's also a facility to run folder gluers inline for continuous folding carton/crashlock carton production. Robotic handling of products is another feature which is excellent for saving time, run multiple jobs on one sheet and the robot will pick and place them into piles ready for the next process, or quality control etc. Our lasers are fully customisable to suit your production requirements!

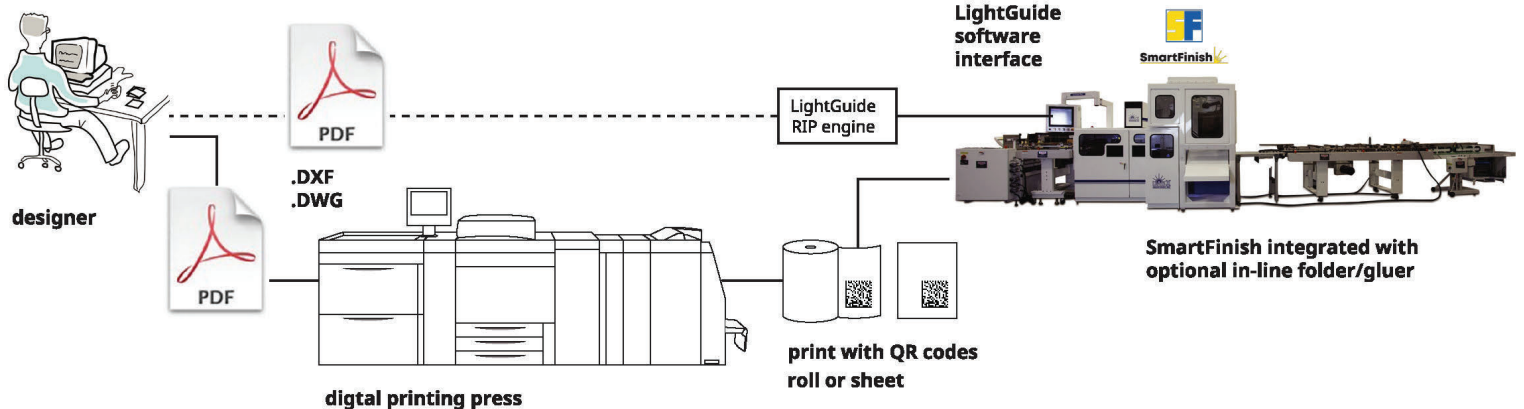
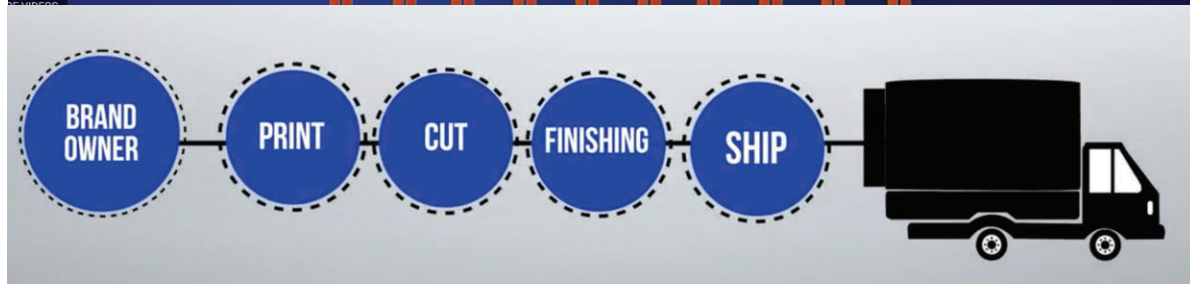


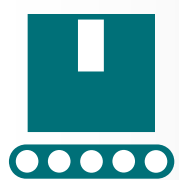
CHANGE YOUR PRODUCTION

FROM THIS

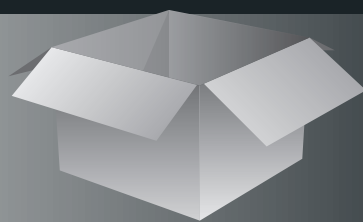


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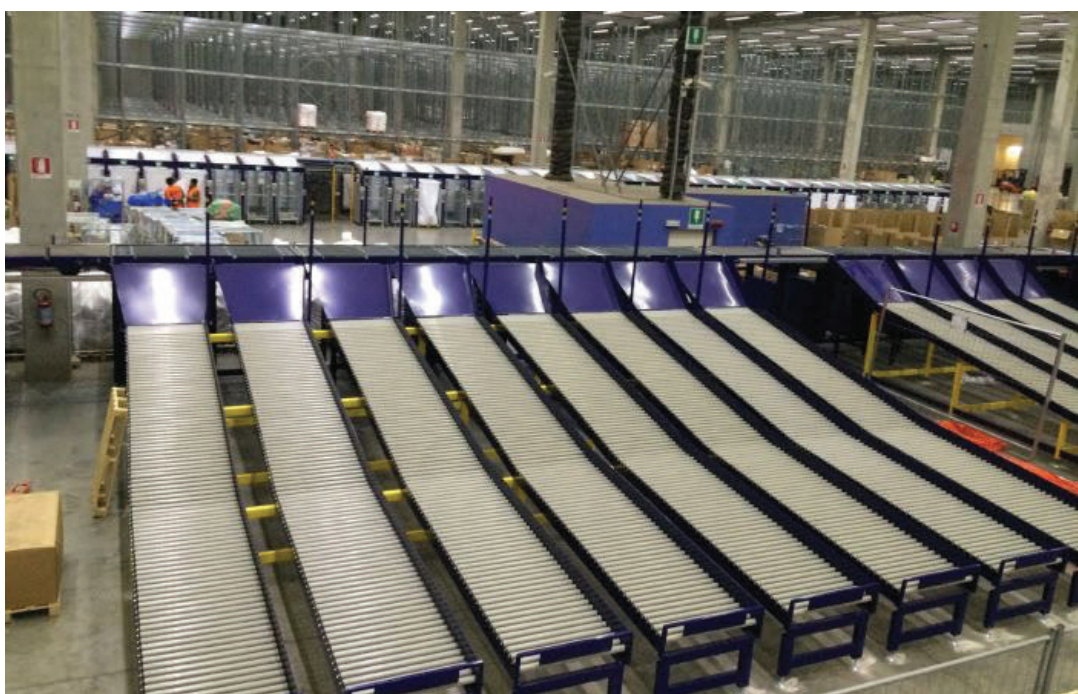
PERFECT SORTATION SOLUTIONS



SECONDARY PACKAGING, CARTON & SORTATION SOLUTIONS

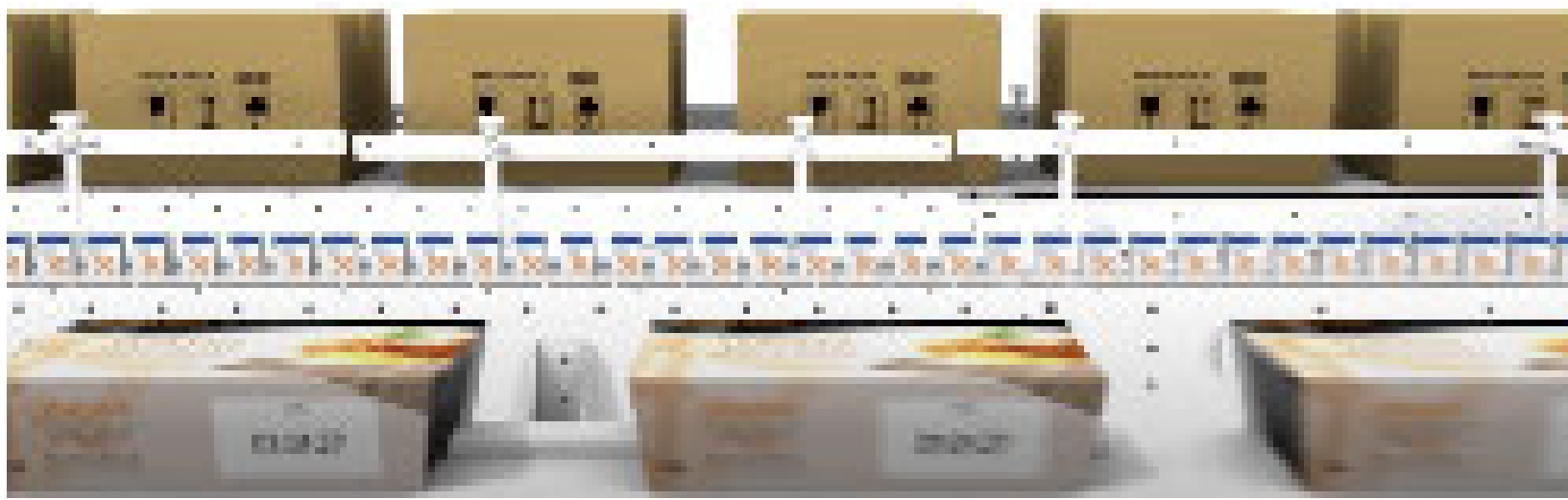
LOGISTICS SORTATION

Does your company need to raise the level of efficiency and accuracy to suitably deliver the ever increasing parcel movements? Each system is bespoke, scalable, fully customisable and designed to grow with your future demands, including automated scanning, labelling, volumetric calculation, weighing etc, which in turn eliminates mistakes and reduces manual sorting! The systems are suitable for distribution centres, manufacturers, and large digital printers for direct delivery of parcels/packages including books, clothing, cosmetics etc to final customers.



SECONDARY PACKAGING

Labelling is used by manufacturers to add data and traceability to products. This ensures that products are easily identifiable and trackable as they make their way down the supply chain. Our new Vector pallet labeller print labels incorporating data-embedded barcodes, such as GS1-128 and contain data over and above a traditional barcode, for example, real-time best before dates, batch codes and the choice of over a 100 application identifiers leading to better stock management, legal compliance and automated procedures saving time and money. Talk to us about your secondary packaging requirements and we'll get our experts to advise you on the right solution for your industry!





AIR PURIFICATION, VENTILATION & DESTRATIFICATION TECHNOLOGY

ACTIVE AIR PURIFICATION

With our Active Air Purification technology we can neutralise/kill viruses, bacteria, odours, mould spores etc and reduce VOC's (Volatile Organic Compounds) to ensure a safe working environment for all employees, visitors and patients etc. It also controls dust, which is desirable for inkjet printers to help them produce high quality print and run more efficiently! Our solutions replicate outdoor fresh air, indoors! We use patented Photohydroionisation (PHI)[®] / REME[®] technology. These solutions are for both domestic and commercial and we have a huge range of products available to suit all indoor spaces! Did you know that most air purifiers on the market use Passive technology, not Active technology? Our enclosed leaflet explains Active vs Passive technology, and there's more info on our website www.solutionsgroupuk.com

Reduce the following pollutants from your indoor space!



Viruses



Bacteria



Moulds



Odours



Pollen



Dust



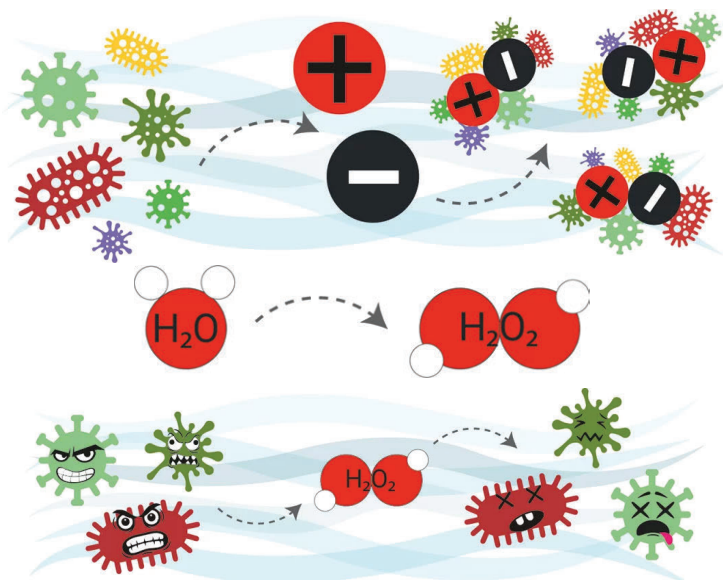
Smoke



Dander

PHOTOHYDROIONISATION =

MACHINERY RUNS MORE EFFICIENTLY
ABSENTEEISM IS REDUCED, ENERGY COST SAVINGS
STAFF/PATIENTS WELLBEING IMPROVES



DESTRATIFICATION

With our Destratification technology we can regulate your air temperature and improve air flow throughout your building ensuring a more manageable working environment both in the Summer and Winter without costly AC installations and alternatives. This will save the amount you pay for your energy and means the temperature is consistent everywhere; ground floor, first floor, offices, factory floor, mezzanine etc. Controlling the temperature on mezzanine floors assists box and book production when using hot adhesives. Temperature variations throughout the day/shift cause challenges for output and quality as well as staff comfort. Please talk to us to find out more, or visit our website.



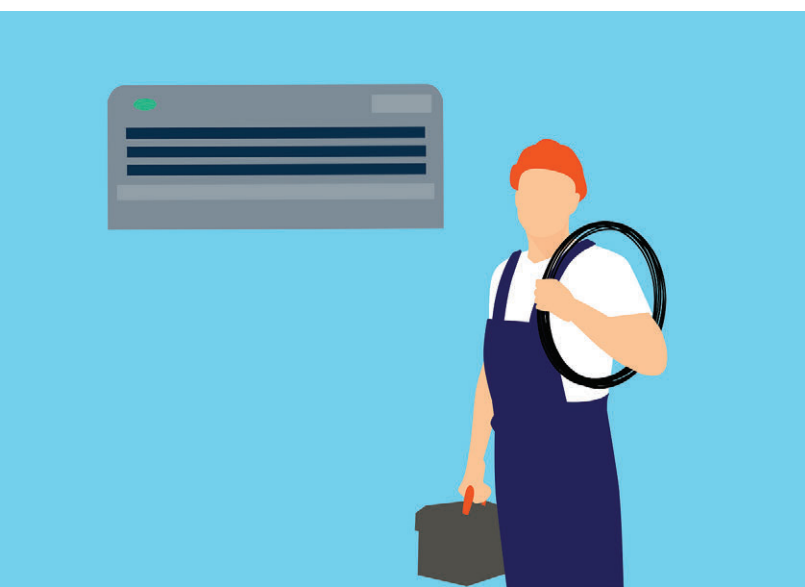
VENTILATION (MOULD, CONDENSATION & DUST MITE CONTROL)

Did you know that most mould, condensation and dust mite infestation is a direct result of poor ventilation, causing high relative humidity issues? Our systems fix the root cause and eliminate the reoccurrence of these issues. We can also integrate our active air purification technology for adding an extra layer of protection! Mould/damp issues are often misdiagnosed and the 'solution' tends to be a costly building structural issue, which is rarely the case, and doesn't fix the problem! If these issues are left untreated they can cause many dangerous health and wellbeing conditions, and in some cases death. We'd love to come and survey your building to give you an honest explanation and solution to your issues. Talk to us to find out more!



RADON MITIGATION

Radon is a colourless, odourless radioactive gas that comes from the natural decay of uranium in rocks and soil. While outdoors radon levels are very low, it can collect in enclosed spaces like homes and workplaces. The primary health risk of high radon exposure is an increased risk of lung cancer, making it crucial to test for and reduce high levels. We have the expertise and solutions to reduce radon concentrations to below the Action level and ideally below the Target level. These are specialist ventilation systems which include one or both of the following: Positive Pressure Ventilation or Powerful Sump Extraction Ventilation. Major Radon hotspot areas in the UK include South West England (especially Cornwall, Devon, Bristol, Bath, Somerset and Dorset), Wales, Cumbria, Northumberland and parts of the Peak District and Gloucestershire .



AIR CONDITIONING

We can undertake any residential or commercial air conditioning project from single splits, multi-room splits and ducted systems. We always survey your site before quoting. We are F-Gas certified and registered as well as members of REFCOM and our installers are all suitably qualified and experienced.

Our Brands include



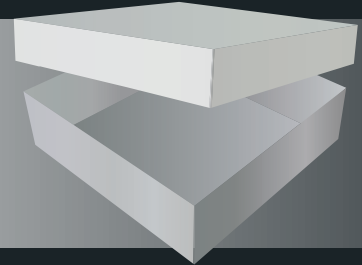
**PERFECT BINDERY
SOLUTIONS**



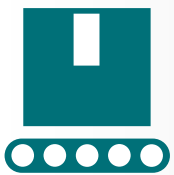
PRINT FINISHING & BOOK PRODUCTION EQUIPMENT



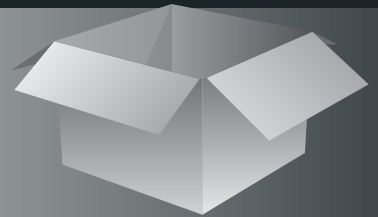
**PERFECT BOX
SOLUTIONS**



LUXURY BOX & CARTON PRODUCTION EQUIPMENT



**PERFECT SORTATION
SOLUTIONS**



SECONDARY PACKAGING, CARTON & SORTATION SOLUTIONS



**PERFECT AIR
SOLUTIONS**



AIR PURIFICATION, VENTILATION & DESTRATIFICATION TECHNOLOGY

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