

ANDREWS & WYKEHAM  
SECURITY BOUTIQUE



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## WHO WE ARE

**In today's security industry nothing is more important than trust built up through years of relationship. In a world that is torn apart by economic upheavals and where institutions which once seemed bedrocks of reliability fail spectacularly, only a solid business built on traditional values can provide the customer with peace of mind.**

At Andrews & Wykeham this is how we run our security business. A quintessential English company located in the heart of Hampshire, we aim to provide a complete "trust channel" to the customer, supplying security products of the highest standard.

With our extensive management experience in the world of international ID, banknote and security holography, we appreciate the demands and the sensitivities of this unique marketplace.

Our offices are located in the graceful Lutyens Building in the heart of Old Basing, Hampshire. Built in Tudor style by the famous English architect Edwin Lutyens in 1905 as the offices of the Daneshill Brick And Tile Works, this listed building, a fine example of early XX-century English architecture, provides an ideal setting for our Security Boutique™. Just behind the Lutyens Building is our secure manufacturing facility sited in a modern industrial complex. This reflects the conjunction of old and new where Andrews & Wykeham is positioned– the traditional approach to business combined with the active development of novel security technologies and solutions.



## SECURITY BOUTIQUE™

### **Our defining concept is Security Boutique™.**

Whatever we do, security considerations are always paramount. From the cutting edge physical security of our production site, to the use of encrypted communications in transfers or storage of sensitive data, to the diligent audit of material suppliers and in-house manufacturing processes, to the advanced security features of the products themselves, to tight security in storage, loading and transit of goods, and finally, strictest confidentiality, we integrate security into every stage of order performance.

Whatever we do, it is service, quality and style that make us different. As with the best tailors of Savile Row, utmost attention is given to every detail. Every design feature, every product specification and every contract is expertly tailored to suit the customer. We aim to provide a premium service environment where the customer feels fully assured of the integrity of the supply process and the quality of the outcome. And then of course... The business is done sitting comfortably in leather armchairs around the coffee table, the flames of the old fireplace reflecting in medieval-style glass panes, rain lashing outside. Our Security Boutique™ is about style. And the business is done among friends. Above all, our Security Boutique™ is about trust.

### **Accreditations**

One of the industry leaders in providing security components and systems, Andrews & Wykeham holds a number of international accreditations, ensuring peace of mind for our customers. The company is certified to the ISO 9001:2015 quality management standard, is a member of IHMA (International Hologram Manufacturers' Association) and accredited to the ISO 14298:2013 standard for the management of security printing processes. All aspects of our production facilities, security procedures, manager and director profiles, financial standing etc. have been repeatedly audited by our government and corporate customers and have been passed as suitable.

### **Customers**

Andrews & Wykeham is a truly global business. We are proud of the fact that more than fifty national governments worldwide have entrusted the manufacture of products critical for their national security to our company. Our other valued customers include major security integrators, security printers and brand owners on five continents. We have supplied security components for over thirty national passports, multiple national ID cards, driving licenses, visas and residency permits, and major sporting event credentials.



## TECHNOLOGIES

### **Holography**

Benefiting from our expertise in security holography and using only the most advanced holographic origination technologies, we combine and enhance these to create intrinsically secure images with overt, covert and forensic functionality. Our emphasis is on the visual aspect of our images where unique overt elements provide reliable first-line authentication by the non-specialist.

### **Demetallisation**

Chemical and laser demetallisation is a major security enhancement to any holographic product, which enables a wide array of counterfeit-proof features, integrating diffractive imagery with opaque and transparent artwork elements and codes implemented in metallised and transparent materials. Our HPMD (High Precision Micro-Demetallisation) technology with its high resolution and tight registration tolerances offers a further security upgrade.

### **Security print**

Using both in-house and outsourced security printing capabilities, integrating a number of printing techniques from intaglio to screen and gravure, we focus on security printed features for labels, passport and ID laminates and overlays. These comprise OVI (Optically Variable Ink), UV fluorescent, thermochromic, photochromic, IR fluorescent and other speciality print workings.

### **Synthegram®**

Synthegram® is a novel security element from Andrews & Wykeham, combining up to five technologies in a unique way to provide the ultimate in counterfeit resistance. Images generated by electron-beam lithography and optical lithography, metallic and transparent features and colour and colour-switch elements deliver a visual authentication device of unparalleled performance.

### **Synthegram® Plus**

Synthegram® Plus is an enhancement of the original Synthegram® technology, benefiting from the futuristic 20-nanometre resolution super-e-beam, making available pioneering visual and covert features.

### **FLO-MO™**

FLO-MO™ integrates novel dual-parallax imaging technology with a polycarbonate-based embedded thin inlay for polycarbonate ID cards and datapages, offering a ground-breaking, ultra-secure solution for modern ID documents.

### **RFID, NFC and printed electronics**

We use and integrate contactless RFID technology, NFC (Near Field Communication) devices and elements of advanced printed electronics into holographic and security printed materials to deliver smart machine-readable labels to the global marketplace, in particular, to the document authentication and vehicle identification segments.





#### Security components for PVC and PET-G cards

While hot-stamped metallised holographic foils are used to protect PVC and PET-G cards from counterfeit, transparent patch laminates and overlays (transfer films) secure personal data against fraudulent alteration. Incorporating holographic images and security print features, these products are normally supplied in reel-form and are laminated to the card in roller-based printer-laminators. While patch laminates with their durable PET layer are more hard-wearing, overlays have better tamper-resistance and can be overlaminated with additional plain patch laminates to enhance durability where required.

#### Security components for PC cards and passport data pages

Despite the relatively secure laser personalisation of PC cards or data pages, these still need to be counterfeit-proof and their personal data can benefit from surface protection from fraudulent alteration attempts. We supply three types of security elements for PC cards and data pages: hot-stamping inlays, embeddable tapes and full-face Integrated Surface Elements (ISE).

VISION™ and FLO-MO™ transparent PC-based inlays can be hot-stamped to the reverse of the top layer of a PC card or data page prior to card assembly and provide a localised security feature, often in the photo area. The key advantage of an inlay versus hot-stamping foil is that it adheres to both adjacent PC layers of the card or data page construction, providing

both better tamper evidence and superior durability. Both solutions guarantee effective visual authentication while being compatible with laser engraving.

FIREBIRD™ is a PC-based HPMD-demetalised embeddable tape providing an excellent solution for protecting the reverse of the card or data page. Its mechanical and chemical durability is superior to PET-based security threads. The PEONY™ inlay is conceptually similar but is delivered as a hot-stampable patch.

An ISE is PC film, securitised with either an HRI (high refractive index) or HPMD-demetalised Synthegram®, applied as the top layer of the card or page during the standard PC lamination process and providing security images all over the document.

#### Visa labels

We supply complete ICAO-compatible machine-readable self-adhesive visa labels. Manufactured to the strictest standards of security printing, these labels combine the overt and covert features of special paper (fibres, other inclusions, high-performance adhesives), security print features including OVI, UV and IR fluorescent features, holograms and secure numbering. Suitable for different methods of infilling personal data (laser printers, inkjet, dot-matrix), and supplied in a variety of formats, visa labels can be integrated with any existing or projected issuing system.



## VEHICLE IDENTIFICATION

Andrews & Wykeham supplies secure windscreen labels, number plate security components, card-based vehicle and driver identification documents and turnkey vehicle identification and tracking systems.

### **WHIZDISC™ smart windscreen label**

WHIZDISC™ is an RFID-enabled holographic self-adhesive windscreen label. A smart windscreen label can be used as an additional vehicle identifier (third number plate), to confirm that the vehicle is taxed, insured and has passed its technical inspection and to provide means of access control or monitoring the vehicle's movements. WHIZDISC™ combines holography, demetallisation, security print and a UHF RFID tag readable at up to ten meters by a fixed or hand-held reader. The RFID tag is encoded simultaneously with personalising the windscreen label via an RFID-compatible thermal-transfer printer. Simpler non-RFID versions of secure windscreen labels are also available.

### **ARGUS vehicle registration and tracking system**

ARGUS is a system for vehicle registration and vehicle tracking built on the WHIZDISC™ RFID windscreen label platform. The system includes vehicle/owner data capture, windscreen label personalisation, vehicle tracking and access control modules and can be augmented with or interface with road tax payment, MOT and insurance subsystems. An optional ANPR (Automatic Number Plate Recognition) module is available. ARGUS provides reliable, cost-effective and flexible vehicle identification and vehicle tracking solution designed to operate in challenging environments.

### **HOLOPLATE™ high-security number plates**

Andrews & Wykeham offers a breakthrough solution in number plate security. Our HOLOPLATE™ high-security number plate includes a metallised holographic patch embedded between the layers of the retro-reflective film, reliably protected against both tamper and environmental factors. This hologram can be personalised with the vehicle's registration number or VIN using laser evaporation after the number-plate has been assembled, embossed and printed. As a lower-cost alternative to HOLOPLATE™, we offer long-life holographic validation labels and chromium-metallised hot-stamping foil for number plate use.



## DOCUMENT SECURITY

### Holographic and colour-switch foils

Holographic and colour-switch foils have long been a requirement on a variety of government documents (banknotes, excise stamps, forms and certificates) as valuable overt/covert security elements. Andrews & Wykeham supplies colour-switch, holographic and combined security foils for document authentication. Our foils ensure quick and reliable application on most types of hot-stamping machinery, both as stripe and patch, wallpaper or registered. Our high-resolution holographic images offer overt, covert and forensic features, including our highly secure White $\delta$  achromatic elements. Foils are available in metallised (aluminium, copper, chromium), HRI transparent and colour-switch ranges. High-security Synthegram<sup>®</sup> foils feature combined optical and e-beam originations, colour features and HPMD demetallisation.

### Signature protection labels

Protecting an authorised signature on a document such as a power of attorney, transfer form or title certificate is important for preventing document fraud. A frangible HRI (high-refractive index) or partially-demetallised holographic label applied over a signature reliably protects the genuine signature from fraudulent alteration. Our signature protection labels include sophisticated holographic images, print features, detector-readable moiré coding and hi-tech sequential numbering and barcodes applied using laser evaporation technology. These labels can also be used for protecting other sensitive data, such as dates and amounts on financial documents and contracts.





## REVENUE AND BRAND PROTECTION

### Excise and revenue stamps

Excise stamps are increasingly used worldwide to protect government revenues from sales of cigarettes and alcohol. Applied to product packaging either as dry or self-adhesive paper labels, excise stamps are often quite sophisticated, resembling banknotes in miniature. A range of features - security paper and print, holographic stripes and secure numbering - are used to protect excise stamps from counterfeit. Barcodes are often used to provide machine readability within a track-and-trace environment enabling control of product origin and product movement. Andrews & Wykeham supply a range of excise stamp formats from self-adhesive alcohol and beer stamps to dry paper stamps for the cigarette market.

### Brand protection labels

Security printed and holographic tamper-evident labels are used by brand owners to protect their products from counterfeit. Smart labels (carrying sequential numbers, barcodes or NFC tags) are also used to combat grey imports and product diversion. Our range of brand protection labels spans a wide variety of formats and materials - including tamper-evident PET, acetates, and frangible papers - ensuring tamper-evidence on diverse packaging substrates. These labels can utilise a variety of security devices such as high-resolution holographic

images, colour-switch effects, HPMD demetallisation, detector-readable moiré coding, hi-tech sequential numbering and barcodes applied using laser evaporation technology and also NFC components.

### THESEUS™ track & trace system

The THESEUS™ system helps governments dramatically improve collection of excise duty on alcohol and cigarettes and minimize product counterfeit by enabling tracking of each saleable item from its point of origin to the point of sale. Item-specific product data are recorded on each THESEUS™ label using machine readable digitally signed QR code and also uncoded alphanumeric data. The physical security of the label is enhanced by using high-security paper, a holographic stripe and colour-switch effects. The product data can be authenticated by a tax inspector both online, connecting to the central database via a mobile device, or offline. The system also includes an open public interface providing a quick and simple product authenticity check by the consumer. The THESEUS™ platform is also applicable to other markets such as pharmaceuticals.



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