

## Stamp printing at Johan Enschedé

by Glenn H. Morgan, London, England  
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Every year in a different British town, the Philatelic Congress of Great Britain is held over a long weekend. This year in Bristol delegates were treated to a fascinating insight into security stamp printing at the world renowned Dutch company of Joh. Enschedé of Haarlem.

It was good for me to renew my acquaintance with their sales manager Bas Hilferink, who had flown over especially that morning to be with us – despite having a heavy cold. I first met Bas in 1995 when I had the rare chance of visiting the Enschedé factory and seeing first hand the wonderful skill of a master printer. That visit was not able to be reported on in detail due to the confidentiality agreement that I signed at the time. It is especially pleasing, therefore, that I am able to now record their activities and I thank Bas for checking and clearing the text of this article for publication.

The company was restructured in 1996 and is now split into five divisions namely Joh. Enschedé Banknotes, Joh. Enschedé Stamps, Joh. Enschedé Amsterdam, Joh. Enschedé Belgium and Aestron Design, a recently acquired security consultancy. This split has enabled a greater focus on stamps than hitherto.

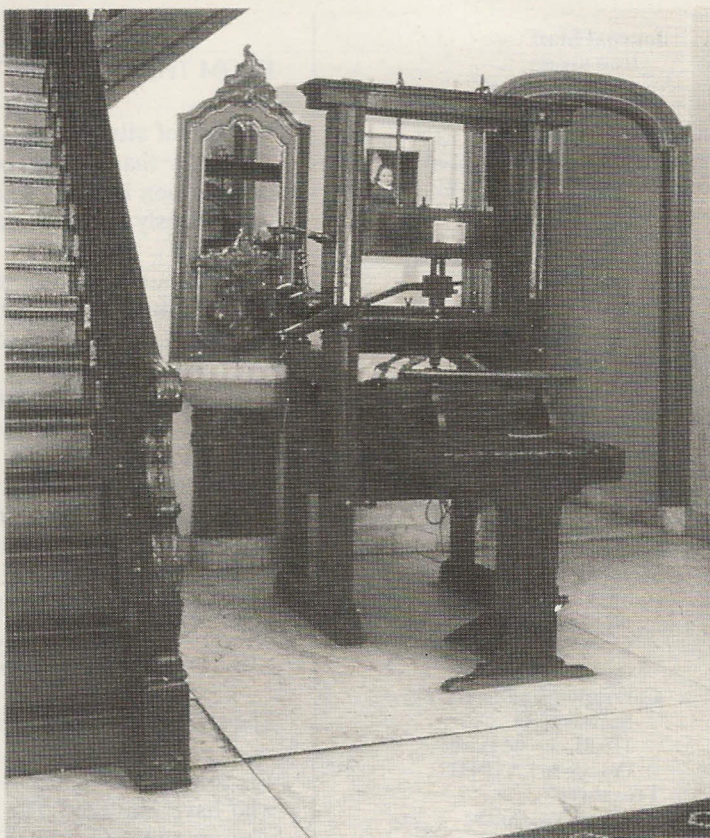
Activities include development, design, production and distribution of a portfolio of products that include banknotes, passports, driving licenses, fiscals, vouchers, shares, tickets and, of course, stamps – both postal and savings. Enschedé has clients in sixty countries worldwide, produces over 500 designs/values per annum and print 20 million stamps per day (yes, day!).

A variety of production techniques are employed including two presses printing in five or seven color photogravure, four color lithography, intaglio, letterpress, silk screen and foil printing. Holograms are now able to be applied and 1997 will see what is believed will be the first stamp in the world to be printed by silk screen (for Holland).

Enschedé offers 'one-stop-shopping' for its clients, producing gummed and self-adhesive stamps in sheets or sheetlets, coil stamps, postal stationery, booklets and ATM vended sheet formats which are dispensed through cash machines. Bas believes that the production and use of self-adhesive stamps will expand rapidly.

The lecture then covered stamps and security. To secure against what? Basically, there are two types. Firstly, counterfeiting (including printing and color copying) and, secondly, stamp washing which is a particular problem with litho printed stamps. It is understood that counterfeiting in the United States could be running at \$25 million per annum.

A security printer is part of a chain, which can only be as strong as the weakest link. Designers, material suppliers of papers and inks, transportation companies used and storage methods employed, all play a part in protecting the stamp product. Post Offices also have a role to play and perhaps should be more open in telling the public what to look for in a stamp, which consists of a balanced number of overt (visible) and covert (invisible) security features.



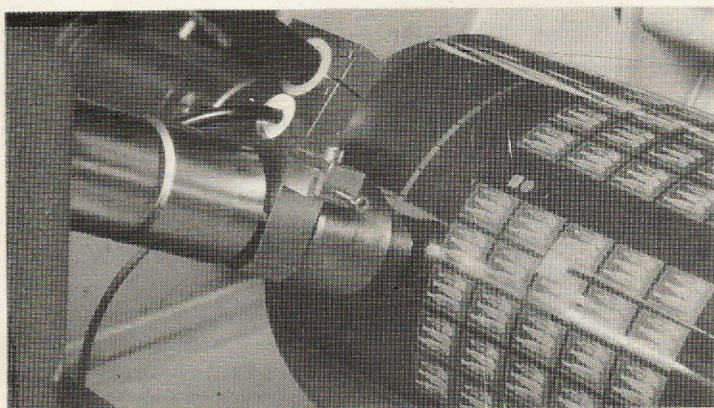
*Old Press on display*

Overt features include the obvious, such as perforations, a head of state or monarch, elliptical perforations, size or consistency of print quality and color. Covert features invariably require a device to read and include phosphorescent, metallic or fluorescent inks and microprinting. Metallic foils are particularly good at stopping color photocopying fraud.

The various elements involved in stamp production all have their part to play in helping to protect the product.

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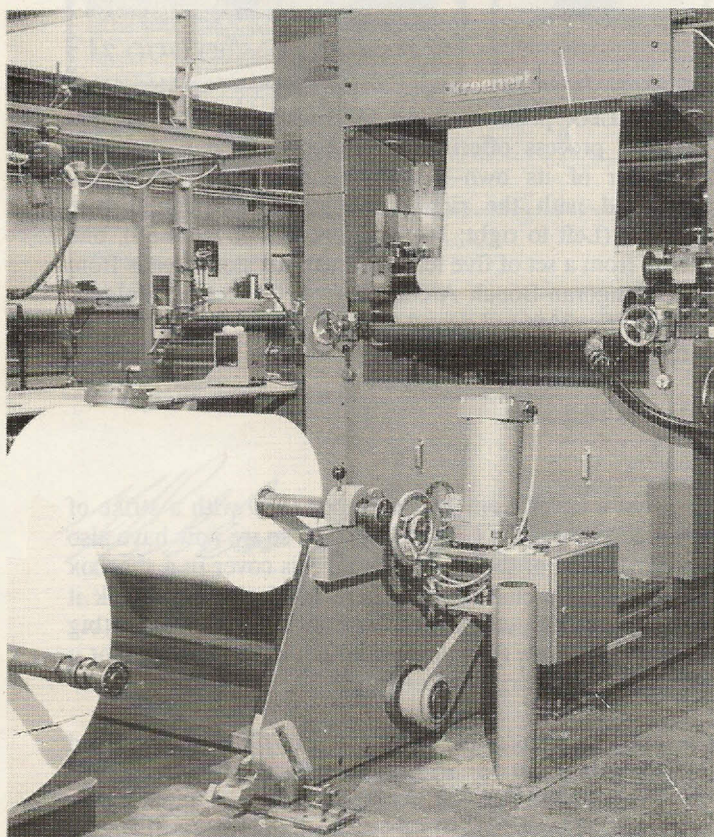




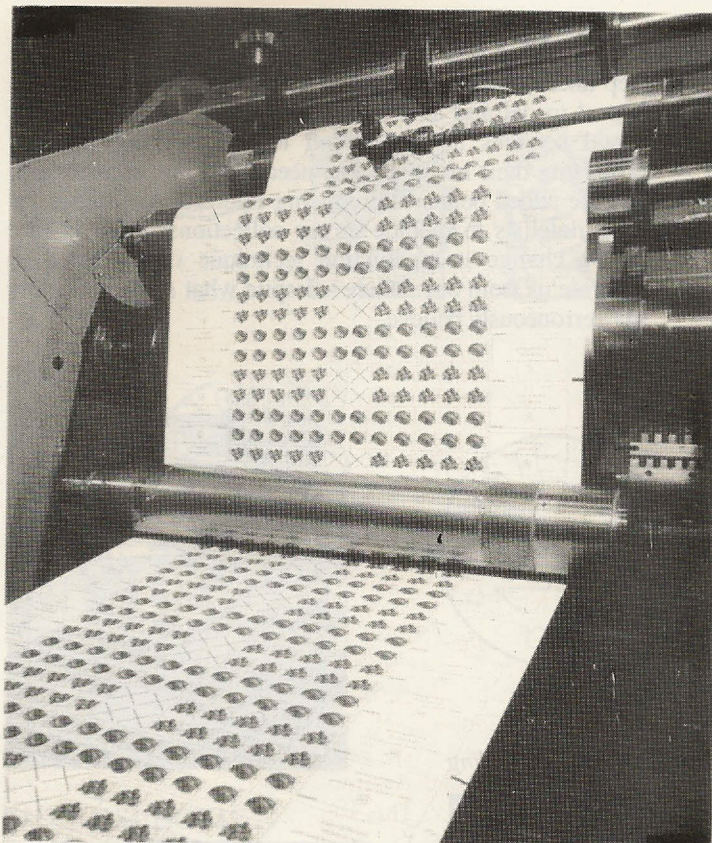
*Computer controlled etching*



*A recess printing plate, partially inked*



*Gumming the stamp paper*



*Printing stamps for a stamp booklet*

The use of seven or eight colors on one stamp, employing certain colors that photocopy differently, using metallic inks such as gold, silver or Optical Variable Ink (OVI) all can add to the difficulty of unauthorized reproduction. Similarly, colored inks in gumming, Optical Brightening Agent (OBA)-free papers, visible or invisible security threads or watermarks impressed in the paper all add further protection.

The printing technique can be of prime importance, for photogravure offers better protection than lithography and a combination of litho and intaglio is difficult to replicate, requiring a skilled craftsman on the intaglio portion of the design. Perforations are hard to replicate, especially if they are unusual in format - i.e not just round! Numbering can be extended to every stamp as added security, although this is rarely employed in postage stamps, being restricted mainly to trading or saving stamps.

All this protection of the product is fine, but unless other aspects of security are considered, all the efforts of the printer can be in vain. This is why Enschedé undertakes all waste destruction on site, burning in winter for heating and in the summer for use in the factory air conditioning system. There is no chance of sheets turning up at the local garbage dump, as has happened elsewhere in the world in the past. Physical security is also of paramount importance with entry into and out of the plant being tightly controlled by its own security force. They may be justifiably proud of their employees, for no-one has ever been caught stealing.



It is clear from this article that Enschedé considers all aspects of security in an ongoing attempt at staying one step ahead of the fraudster. As postage rates increase the appeal to defraud also increases, so it is good to see that postal services have a friend in the printing industry protecting their interests. The need for stamp security also has the added bonus of producing interesting varieties for us philatelists to include in our collections, for it is rare that a change in production technique is generated to separate us from our money - despite what some collectors may erroneously believe.



*Enschede building*



**GRAVURE** printed stamps by Enschedé. Subtle rendering of soft delicate tones and rich tonal values--maximum contrast effects and brilliant colors (Left to right: **Netherlands**, 9/5/89 (Sc 749), Royal Dutch Soccer Association. **Thailand**, 10/1/93 (SC 1545), one stamp from a set of four featuring dogs. International Letter

Writing Week.)



**OFFSET** printed stamps by Enschedé: Perfect clarity and faithful rendering of details using very fine screen--accurate reproduction of the finest lines in 100% solid color. (Left to right: **Ivory Coast**, 1/30/88 (Sc 850), 'The Eternal Dance' by Monne Bou, one stamp from a set of five featuring local artists; **United Nations**, 3/18/94 (Sc 640), Endangered Species, St. Lucia Amazon, one stamp from a set of four.)



**INTAGLIO** printed stamp by Enschedé. The ancient printing process offering high security and a dignified character of its own-- hand-engraved and, if desired, combined with the rich coloring of the photogravure process. (Left to right: **Ivory Coast**, 7/9/88 (Sc 858), one stamp from a set of five featuring various stone heads from the Niangoran-Bouah Archaeological Collection; **Poland**, 5/7/93 (Sc 3156), Legend of the White Eagle, from a single stamp souvenir sheet.)