

Stamp Production: Gravure

For Royal Mail's *Stamps and Collecting* Website

Gravure is Royal Mail's specified printing process for its definitive stamp range and has been the main method used in Britain since 1934. Learn about it in this month's feature.

Photogravure was invented in 1890s Germany for commercial printing of periodicals and books, and was first used in Munich for stamp production during 1914 on an issue for Bavaria. It is known in America as 'rotogravure' and in France as 'heliogravure'. The famous firm of Harrison and Sons first used it on an issue for Egypt in 1923 and in 1934 it was being used by them to print British stamps.

Until recently, collectors would have only encountered stamps that had employed a photographic process in manufacturing the cylinders / plates (i.e. *photogravure*). Engraving can now be computer generated by a system known as electro-mechanical engraving (EME) and for collectors where EME is used there was a need to differentiate old from new methods and the simpler term gravure is used.

To print by gravure, a fluid ink is applied to the plate (for short-run sheet-fed printings) or cylinder (for long-run printing using web-fed paper) and is held there in microscopic recessed cells. Excess ink is then removed with a wiper known by printers as a 'doctor blade', and the ink is transferred from the cells onto the paper.

This process is generally used for print runs over ten million stamps and offers greatly increased security. This is because, unlike the modern offset-lithography process, gravure production requires much higher manufacturing and pre-production set-up costs which deters counterfeiters. Understandably, Royal Mail specifies to its suppliers that gravure should be used to print its definitive range of stamps.

A combination of sheet-fed and web-fed gravure printing has been the mainstream process for British definitive stamp production since 1934, though lithography has been increasingly used for the printing of special stamps.

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