

## EUROCALCO: PRINTING SYSTEMS

Printing System	Definition	CARBONLESS	
		REELS	SHEETS
OFFSET	<b>Print and non-print areas are at the same level.</b> Separation is achieved with an oil based ink and the action of water. (During the preparation of the plates, photosensitive materials and chemical treatments are used to make the print areas receptive to ink and water-repellent. Conversely, they make non-print areas receptive to water and ink-repellent. In this way, when water and ink solutions are applied to the plates, the water covers the non-print areas while the ink adheres only to the print areas. <b>Capable of printing rough substrates. Printing in Sheets or Reels</b>	Especially recommended All kinds of ink (including UV)	
TYPOGRAPHY	<b>Printing system beginning with plates in relief.</b> The print areas of printing plates are situated at a higher level (in relief) than non-print areas. The print areas transmit the ink to the paper. <b>Hard metal plates.</b>	Contraindicated because it exerts pressure. If used, minimum pressure possible	
FLEXOGRAPHY	<b>Printing system in relief in which the printing plate is made up of a polymer,</b> instead of metal as in typography. <b>Printing is always in reels,</b> except for corrugated cardboard which is printed in flexographic machines in sheets	Usual printing system Minimum pressure possible Possible capsule rupture in print area	
ROTOGRAVURE	Opposite of the typographic system. <b>Uses hollow plates:</b> print areas constitute an empty space in the surface of the cylinder while non-print areas make up the exterior surface of the cylinder. The cylinder is submerged in ink, and the excess ink, that is, the ink in the exterior area (non-print areas), is eliminated with a scraper. The ink that remains in the empty spaces (print areas) is the ink that gets transferred to the paper in the printing of the image. <b>Requires high smoothness of paper.</b> <b>Normally solvent-based inks are used</b> <b>Heat drying (60-70°C)</b> <b>Always in reels.</b>	Not applicable as it requires high smoothness of paper, which self-copy does not have.	
DIGITAL	Any printing method, from desktop laser printers to offset digital presses, in which the image is created from a digital archive. The printing is based on the electrostatic principal (attraction of charges of different signs) produced by the toner load and the substrate, and <b>setting is carried out by heat.</b>	Our paper cannot be printed. Non-corrosive microcapsule oils are required.	Behaves well. Not guaranteed due to the variety of kinds of printers. Requires high grammages for high rigidity.

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# Technical knowledge