



In-Line Gluing with Infrared

The installation of an infrared drying system has allowed specialist direct mail printer, Abbey Direct, to provide in-house gluing of printed products, affording them the capability to greatly expand their customer base, while offering better control over the total production process.

In the printing of direct mail shots, essentially, there are three stages of this process. First the main body of the item is printed on a six-colour offset litho machine. Then the re-moisten glue, which is necessary to seal the returnable section of the mail shot, is applied. Finally, the addresses or personalisation details are printed on a laser printing machine.

Abbey Direct has always carried out the offset part of the print production in-house. Until recently, the glue application was sub-contracted, mainly because of space restrictions, as a glue-drying station is required as well as a glue applicator because it is vital that the glue is completely dried before passing to the laser printing process.

After successful tests, a full-scale infrared drying system was installed. In operation, the printed matter leaves the offset litho machine and is glued at a glue application station. It then passes under the first IR module, whose emitters can be switched on and off in banks of three according to the width of the web to be dried. The web's direction of travel is then turned through 180° by the roller conveyor system so that it passes above the second module, which is thyristor controlled using a manual potentiometer to adjust the drying to suit production requirements. This arrangement of the two zones has allowed the infrared system to be installed within a length of just over a metre. Currently the system is using only the zone 1 module to dry print at a rate of 400 ft/min, with the capability to increase this rate to 800 ft/min when the zone 2 module is switched on.

Since installation, the system has performed exactly as predicted, as Abbey Direct Director, Mark Cantwell, explains, "Medium wave infrared is ideal for this type of application, there has been no burning or scorching and the fast response of the carbon emitters also means that there is no damage to the paper in the event of unexpected line stoppage. Moreover, we can now offer a more comprehensive product and this is reflected by the increase in sales we are experiencing."



Features

- in-house gluing of printed products
- increased quality of coating
- energy efficient

Technical Data

- carbon medium wave infrared system
- two modules, arranged in two individually controlled zones
- each containing nine 4kW emitters
- fitting in available space of about one metre

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