

# Transfer printing



Graphic



Dye sublimation  
Dye fixation

*Klieverik*  
THE NETHERLANDS



# Transfer printing

## Introduction Klieverik

Klieverik Heli BV, allied with the GSG-group, has been active for over 40 years as an engineer and a manufacturer of innovative systems and stand-alone units which improve efficiency of textile printing, laminating, non-woven fixation and other finishing operations.



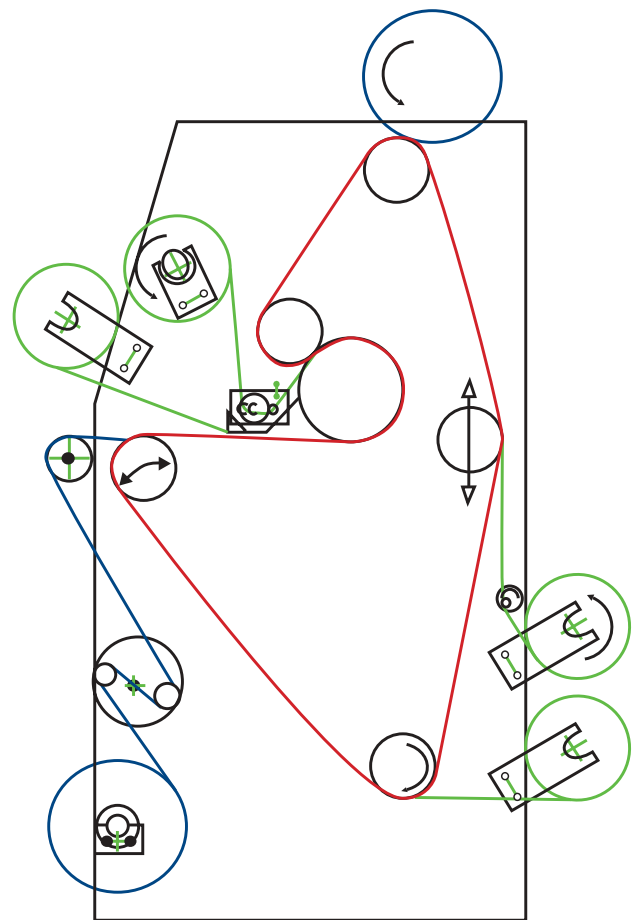
## Transfer printing by means of Dye Sublimation

Transfer printing is a well proven technology with a very high print definition. The key advantage of this process is that it is a relatively simple operation in which disperse dyes are transferred from printed transfer paper to textile by means of heat and time. This technology makes for a reliable and compact system with the use of disperse dyestuff and synthetic woven, knitted or non-woven fabrics like polyester, nylon, acrylic and blends. At temperatures of 170 °C and higher, the dyes sublimate, penetrate and fixate into the synthetic fibres.

The standard equipment of the GTC includes unwinding for fabric, transfer- and protective paper, together with a driven cloth contact-winder and a transfer- and protective paper winding. It is possible to work from roll to roll or with single printed sheets.

The combination of an adjustable belt tension with an electrical thermo-oil heated system guarantees a very even and accurate temperature. Pressure, together with the dwell time and temperature ensures a good penetration of the dyestuff into the fibres.

The temperature of the drum can be adjusted from 0 – 240° C. It is possible to achieve a speed up to 2 m/min with a contact time between 12 - 112 seconds, which is sufficient for sublimating all kinds of substrates.





### Dye fixation

This process is based on the same principle as sublimation, however the print is made directly onto the polyester fabric by means of a digital printer and disperse dyestuff. Hereafter there is still a need to sublimate the disperse dyestuff into the fibre. One can also use the calender for the thermo fixation of pigment dyestuff on cotton or cotton/polyester. For these purposes the calender is the most economical and secure system.

### Advantages of the Transfer printing System

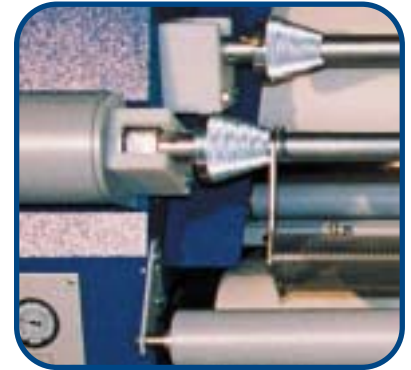
The immediate transfer of the pre-printed image creates a totally different approach of the production of advertising materials. The image can be altered by means of a computer and can be pre-printed with a digital printer on paper while preserving every photographic-sharp detail, which can be transferred immediately (or in a later stadium if needed) onto the fabric. The print quality is excellent, resulting in high colour yield, very good light fastness and washing resistance, which make these prints extremely suitable for outdoor use. The sharpness of the print results in a very good readability of the characters and a very sharp image, even when viewed from a great distance.





## GTC calender

GTC Available drum widths:  
1850 mm, 2300 mm and 3400 mm.



**Klieverik**  
THE NETHERLANDS

Supplier of  
(thermo) processing  
equipment for:

transferprinting

laminating

thermobonding for non-woven

heatsetting



### How to find us?

Coming from the direction of Amsterdam on highway A1, take exit 33 "Oldenzaal Zuid". Turn left at the first traffic lights. At the second and third traffic lights, go straight ahead. Turn left at the fourth traffic light. Klieverik is the second company at your right.

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