

Fashion Printing (????)

michael.heinrich / PDF / ??, 08/10/2017 - 08:15



Basics

- Fabric may be from woven or knitted construction.
- Material may be from cellulose or artificial fiber.
- The construction may be incoherent or firm and tight, open or tense, elastic in length and/or width etc.
- The fabric surface may be flat or structured jacquard, rip, velour, plush or others.
- Fabric weight may range from 20 g/m² up to 300 g/m².

Printing Methods

Fashion may be printed with any type of machine and process:



ROTASCREEN.PRINTING

This is the method for mass production:

- Fast print speed of up to 100 m/min
- Limited repeat
- Limited number of colors



FLATSCREEN.PRINTING

This was the preferred method in the past and is still used widely:

- Simple but labour-intensive process
- Limited number of colors



COLARIS.TEXTILE PRINTER

| Inkjet printing

The most flexible method of the future - already available;

- Highest flexibility in design and colors
- Not all type of dye systems can be used

Printing on Cellulose and Protein Fiber based Fabrics

- Cellulose based fabric can be printed with Reactive or VAT dye inks.
- PA (Nylon) and Protein fiber based fabrics are mostly printed with Acid dye inks.
- Pigment inks may be used on fabric made from any fiber or yarn blend.
- Reactive prints are known for brilliant and bright print results with good washing fastness, but have a limited light fastness, especially with red shades.

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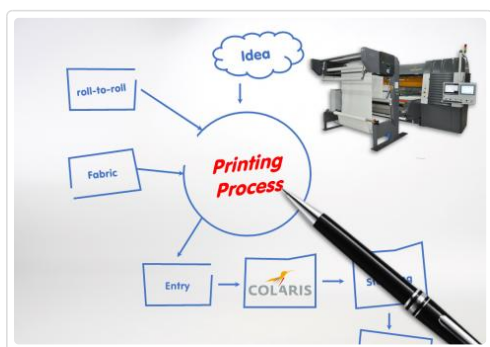
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- Acid dye prints are very bright, but have limited light fastness properties. Chlorine fastness is poor.
- VAT dye inks have excellent light and wash fastness properties, including chlorine bleach. For real high-end fabrics, VAT dye inks are the best solution.
- Pigment inks are good for high light fastness, but have poor haptics and a low resistance against dry and wet rubbing.

Printing on PES Fabrics

- On PES and PES Microfiber fabrics, direct disperse and direct sublimation inks are used.
- PES inks give bright and brilliant prints and have excellent light, rub and wash fastness properties.

Printing Process



Reactive printing

- Inkjet pre-treatment for the fabric
- Design printing with **COLARIS** systems using Reactive dye inks
- Drying

Offline processing

- Ink fixation through steaming process
- Post-print washing to clear the fabric from unfixed dyes and pre-treatment chemicals
- Final fabric finishing according to the customer's individual needs

VAT dye printing

- Inline inkjet pre-treatment applied by the **CHROMOJET** digital pre-coating unit
- Design printing with **COLARIS** with VAT dye inks
- Inline fixation for about 40 seconds by steam process
- Inline post-print neutralization and washing-out of unfixed dyes and pre-treatment chemicals
- Final fabric finishing according to the customer's individual needs

COLARIS.PIGMENT PRINTING

- Inkjet pre-treatment of the fabric
- Design printing with **COLARIS** with inline drying
- Rub fastness improvement by applying a fixing agent, followed by a polymerization process
- Final fabric finishing according to the customer's individual needs

Option: Mechanical finishing to improve the fabric's haptics.

Disperse and direct sublimation dye printing

- Inkjet pre-treatment of the fabric
- Design printing with **COLARIS** with direct disperse or direct sublimation inks
- Post-print drying - inline right after printing
- HT steam fixation in a loop steamer for 8 to 10 minutes

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- Reductive washing and vacuum extraction for high light and rubbing fastness

*Option: Inline inkjet pre-treatment applied by the **CHROMOJET** digital pre-coating unit*

*Option: **SUPRAPRESS** penetration support*

Option: Inline fixation for about 4 minutes

Printing Machines

As most of the fabrics come with a width of 1,400 to 1,600 mm, the **COLARIS.PRINTER** with 1,800 mm working width will cover the demand easily.



COLARIS.INFINITI PRINTER

Equipped with SPT 1024 printheads (in combination with Dystar **COLARIS**inks), this is the most economic printer in the market.



COLARIS.TEXTILE PRINTER

Equipped with FUJIFILM Dimatix StarFire™ printheads, this printer is perfect for high-volume printing and for special applications.

- The ReadyJet™ ink circulation system guarantees sufficient ink availability at any working condition.
- The ink circulation prevents the sedimentation of solid ink particles. This is important especially when printing with VAT dyes or Pigment inks.
- The **COLARIS.PRINTER** concept allows a flexible layout, especially in regard to the requirement of different ink dye classes.
- The open ink system offers ink selection from various manufacturers present in the market.

Get more information from our PDF leaflets: