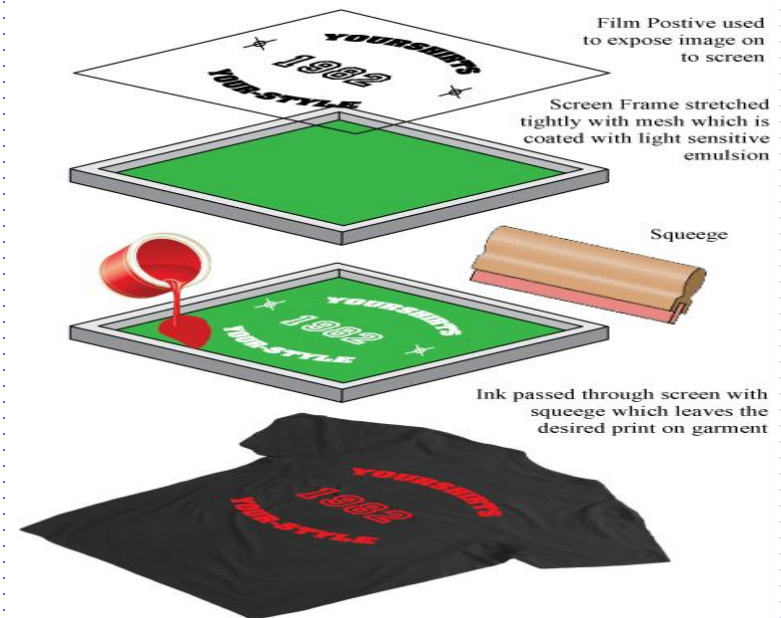
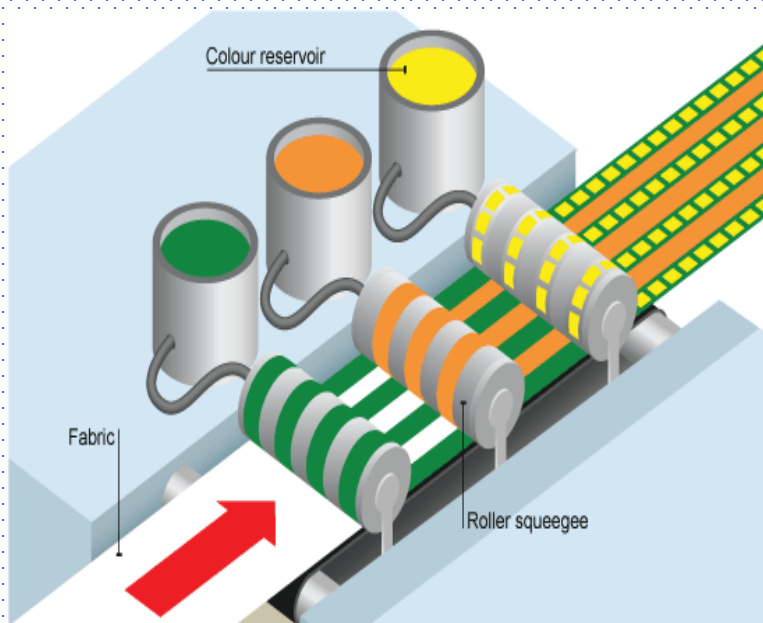


# Printing

Printing is actually a type of dyeing. The main difference between printing and dyeing is that in dyeing the fabric is given one color only by dipping in the solution of dye, whereas in printing different colors are applied according to the requirement of design.



# The Printing

- Printing can also be defined as localized dyeing.
- Defined as the application of dye or pigment in a different pattern on the fabric and by subsequent after treatment of fixing the dye or pigment to get a particular design.
- Sometimes a printed fabric can be identified by looking at the back side of fabric where there is no design or color as face side.
- In cotton, dyes like vat, reactive are used
- In manmade, dyes like disperse and cationic are used



# Different styles of printing

There are three

Direct printing

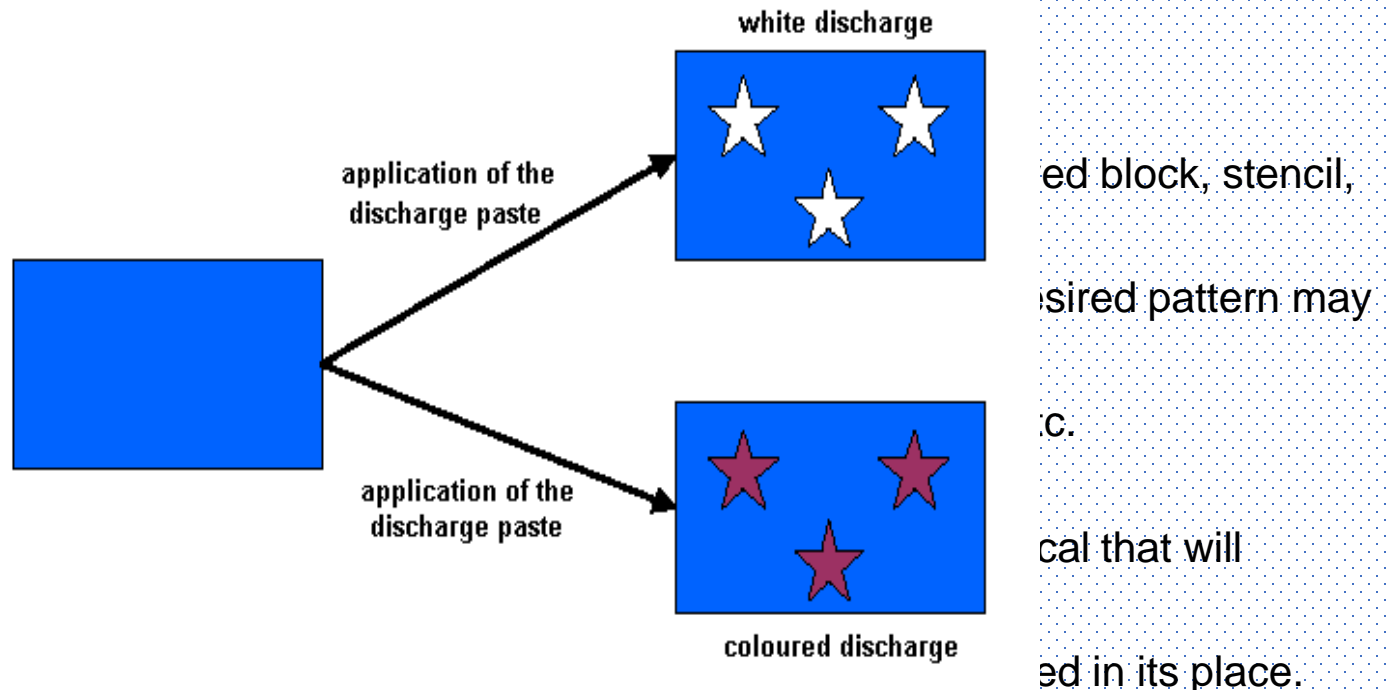
- In
- Tr
- Ex

Discharge printing

- In this
- Some

Resist printing

- In this method bleached fabric are printed with a resist paste ( a resinous substance that cannot be penetrated when the fabric is immersed in a dye ).
- The dye will only affect only the parts that are not covered by the resist paste .
- After the fabric has passed through a subsequent dyeing process the resist paste is removed, leaving a pattern on a dark background



# Different types of printing

1. Block printing
2. Roller printing
3. Screen printing
4. Flat-screen printing
5. Rotary printing
6. Transfer printing
7. Stencil printing
8. Digital printing
9. Batik printing
10. Tie & dye



# Block printing

- It is the oldest and simplest way of printing
- In this method a wooden block with a raised pattern on the surface was dipped into the printing colorant and then pressed face down on to fabric.
- The desired pattern was obtained by repeating the process using different colors.
- Generally the wooden block is carved out of hand
- Printing is done manually



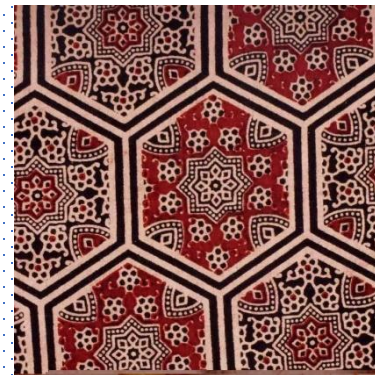
# Block printing

## ADVANTAGES

1. Simple method of printing
2. No expensive equipment required
3. No limitation in repeat of size of style
4. Prints produced have great decorative value and stamp of craftsmanship

## DISADVANTAGES

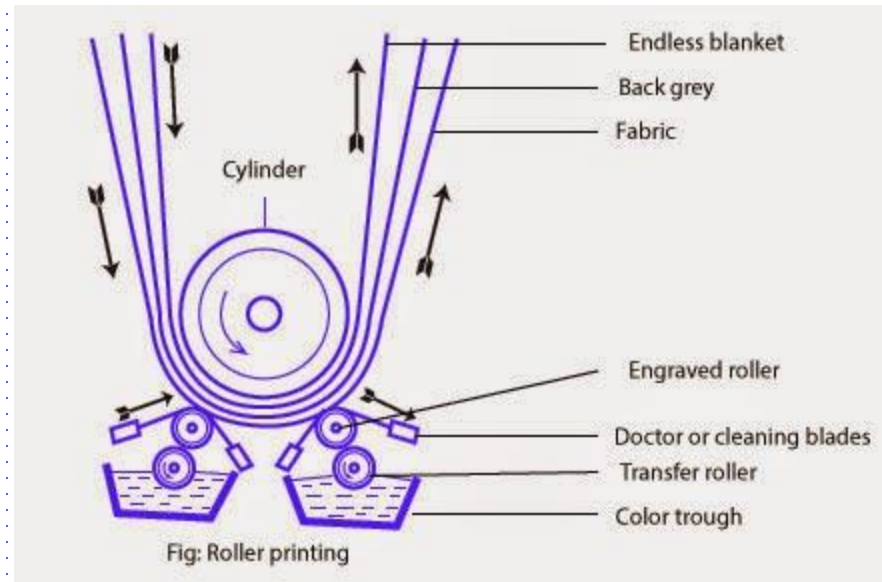
1. Involves much manual work
2. Method is slow and therefore low output
3. Good skilled labors needed for multi color design
4. Fine and delicate designs hard to produce



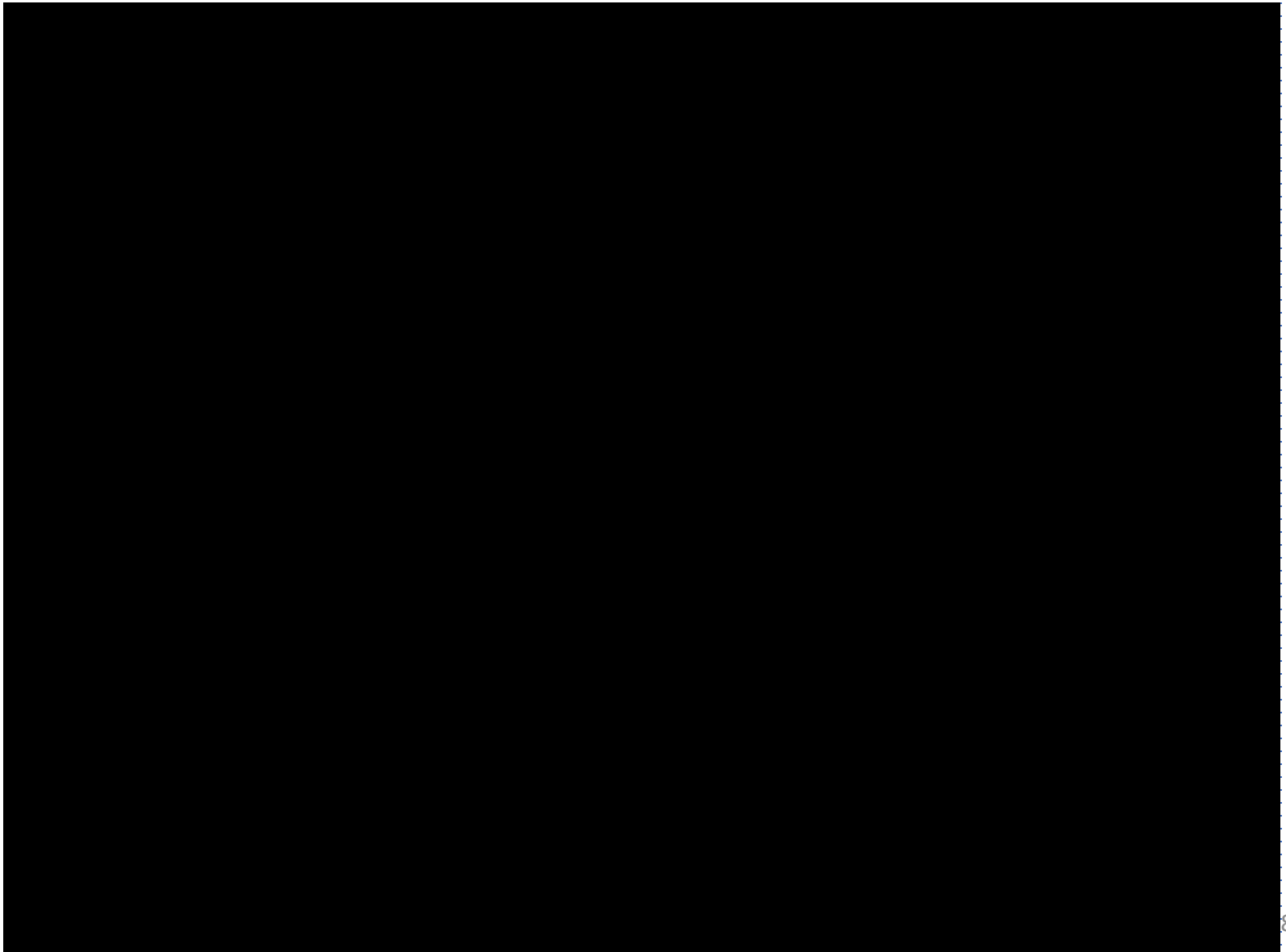


# Roller printing

- It is the machine method of printing designs on cloths by engraved rollers.
- The design is engraved on the surface of a metal roller, to which dye is applied, and the excess is scraped off the roller's surface, leaving dye in the engraved sections. When it rolls across the fabric, the dye on the roller transfers to the fabric.



# Roller printing





# ROLLER PRINTING

## ADVANTAGES

- 1. Large quantities of fabric at the rate of 914-3658m per hour can be printed.**
- 2. Faulty joints or joint marks are absent.**
- 3. Fine sharp outlines and good prints can be obtained which is difficult to get in block printing.**

## DISADVANTAGES

- 1. Not economical for short run of fabrics.**
- 2. Difficult to produce blotch designs.**
- 3. Repeat of design limited to the size of the rollers.**
- 4. Setup cost of roller printing m/c is high**

# Stencil printing

- It is one of the oldest way of printing.
- In this printing technique color is applied to the fabric by brushing or spraying the interstices of a pattern cut out from a flat sheet of metal or waterproof paper or plastic sheet or laminated sheet.
- A stencil is prepared by cutting out a design from a flat sheet of paper, metal, or plastic.



# Screen printing

- It involves the application of the printing paste through a fine screen placed in contact with the fabric to be printed.
- A design is created in reverse on the screen by blocking areas of the screen with a material such as an opaque paint.
- The screen is then placed over the fabric and the printing paste is forced through the open areas of the screen using a flexible synthetic rubber or steel blade known as a squeegee.

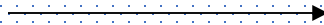


<https://youtu.be/RSpsWewtxXw> (14:11)

# PROCESS OF SCREEN PRITING



SCREEN PAPER SIDE



SCREEN SQUEEZE SIDE



ORIGINAL PRINT



PRINT ON FABRIC





# SCREEN PRINTING

## ADVANTAGES

1. Simple and cost effective.
2. Quick pattern making
3. 16 colors can be used in a design.
4. Sharp lines and features easily produced.

## DISADVANTAGES

1. For high production large no. of tables required.
2. Delicate shading difficult to obtain.
3. Screen clogging may be there in fine areas.