

Screen Printing Technology

Screen Printing Frames, Screen
Press, Surfaces Printing, Printing
Process, Tabulation

Introduction

Screen printing is a printing technique whereby a mesh is used to transfer ink onto a substrate, except in areas made impermeable to the ink by a blocking stencil. Screen printing is also a stencil method of print making in which a design is imposed on a screen of polyester or other fine mesh, with blank areas coated with an impermeable substance. Ink is forced into the mesh openings by the fill blade or squeegee and by wetting the substrate, transferred onto the printing surface during the squeegee stroke.

As the screen rebounds away from the substrate the ink remains on the substrate. It is also known as silk-screen, screen, serigraphy, and serigraph printing. One color is printed at a time, so several screens can be used to produce a multi coloured image or design.

Screen printing is arguably the most versatile of all printing processes. It can be used to print on a wide variety of substrates, including paper, paperboard, plastics, glass, metals, fabrics, and many other materials. including paper, plastics, glass, metals, nylon and cotton.



Some common products from the screen printing industry include posters, labels, decals, signage, and all types of textiles and electronic circuit boards. The advantage of screen printing over other print processes is that the press can print on substrates of any shape, thickness and size.

Screen-printing is a fantastic technology that is used by many industries with so many old, new and not yet discovered applications – both flat (plastics, cloth, metal, thin to thick papers, sunpack/sunboard, rubber, leather, wood, glass, foot wears, PCBs, ceramics, etc) and non-flat substrates, by using appropriate machinery and inks.

The most important piece of equipment for screen printing is the screen. The simplest screen for screen printing is nothing more than a piece of mesh stretched across a square wooden frame. In order to make a stencil on the mesh, an image is first drawn on the mesh. Certain areas of the mesh are then covered with an ink-blocking substance, which makes it impossible for ink or paint to pass through. Utilization of screen printing presses has begun to increase because production rates have improved.

Today, Screen printing offers ample innovation and creativity, thus playing a major role in printing industry because of the availability of advanced screen printing machines, UV technology coupled with availability of innovative special effects inks.

Screen printing is now quicker, cheaper, produces better quality images and offers a number of special applications. Quality in screen printing seems to have come a long way. Today, with automatic precision machines, it is possible to get a result that years ago would have been a dream.

Screen printing has its own distinct advantages – versatility, suppleness, wide range of applications, brightness and solidity of colours for outdoor applications, possibilities of special effects in graphic and textile; and wide range of presses available for different applications. It also provides a possibility of combination printing with other imaging and printing processes like offset, digital, etc.

Some fundamentals of this book are basic concept and classification of stencils, basic screen printing process, basic registration techniques, screen printing frames, pre treatment of screen printing fabrics, screen printing press, principal of screen process printing, printing on paper and card, printing on vertical surfaces, printing on shaped objects, cylindrical object printing, printing on uneven surfaces, ceramic and glass printing, printing on plastics etc. This method of Printing has achieved wide spread popularity since the Second World War, although the basic ideas in this process were used by the Chinese centuries ago.

The present book contains latest technologies of screen printing along with machinery photographs, addresses of suppliers of machinery and raw materials. This book will be very helpful to new entrepreneurs, existing units and for those who want to diversify in to this field.

Table of Contents

1. Introduction

What is Screen Printing?

Seeking a challenging and creative career?

Screen printing is ancient, yet a highly revolutionary industry

Print on virtually anything

Screen printing is universal - you see it everywhere

Screen printing is simple

Screen Print Materials

Frames

Screen Mesh

Screen Prep Tape

Stencil Systems

Capillex Film (Pre-Sensitized Photo Stencils)

G&S Pigment System

Essential Components

Base

Pigment

Resfix

Anti-bleed Screen

Softener

Ink Retarder

Creating Artwork

Other basic Tools and Supplies

Creating a Positive by Hand

Rubbing Dry Transfer Lettering onto

Clear Acetate (Transtay)

For Straight Type

For Arched Type

Tracing an Image onto Matte Acetate

Assembling Base Art

Putting together all parts of your artwork - images and message

Cutting the Image out of Masking Film

For All Multi-Colour Artwork

Labeling Artwork

Mesh Preparation

Roughening the Mesh

Procedure

Degreasing the Mesh

Procedure

Preparing the Stencil

Using Capillary Film

Using Direct Emulsions

Mixing the Emulsion

Coating the Emulsion onto A Screen

Storage and Handling of Stencil Materials

Capillary Films

Direct Emulsions

Exposing the Stencil

Positioning the Artwork: Size and Placement of Image on Substrate

Positioning the Artwork on the Screen

Exposing Units

Table Top Exposing Unit

Features

Building An Exposing Unit

The Fluorescent Tube Unit

To Expose

The Plate Light

To Expose

Exposure Time of Different Stencil Materials

Direct Emulsions

Preparing the Screen For Printing

Washing Out the Stencil

Blocking Out Pinholes

Taping the Screen

Printers

Table Top 4 Colour Printer

Printing on A Table Surface

Off-Contact Printing

Printing
Flood Stroke
Print Stroke
Stencil Removal/Screen Reclaiming
Reclaiming A Screen
Removing Tape And Ink
Removing Stencil Material
Procedure
Removing Stains Or Ghost Images with
Autohaze
Procedure
Roughening the Mesh with Autoprep
Degreasing the Mesh with Universal
Mesh Prep
Review - Screen Reclaiming
Fault Finding Guide
Capillex Films

*Stencil film washes off mesh
Ragged edges
Fine detail filling
Pinholes
Poor adhesion
Patchy stencil
Difficult washout
Direct Emulsions
Sawtoothing
Exposed emulsion washes off mesh
Fine detail filling in
Premature stencil breakdown
Pinholes
Scumming
Image does not wash out at all*

2. Screen Printing

Historical Background

Introduction

Section 1

Basic Concept and Classification of Stencils

The Stencil

Types of Stencils

Fabric and Frame Preparation

Screen Fabrics

Screen Frames

Fabric Stretching Techniques

Mechanical Stretching

Hand Stretching

Fabric Treatment

Photographic Stencil Methods

Direct Process

Direct/Indirect Process

Determining Photographic Stencil Exposures

Indirect Photographic Stencil Process

Exposure

Development and Washing

Application of the Stencil

Drying

Removal of the Base Material

Direct photographic Stencil Process

Preparation

Application

Drying

Exposure

Development

Masking the Stencil

Preparing a Paper Mask

Preparing a Liquid Block-out Mask

Squeegee and Ink Considerations

*Selecting the Proper Squeegee
Shape*

Chemical Makeup

Flexibility

Length

Squeegee Preparation

Selecting the Proper Ink

Product Characteristics

Production Limitations

Ink Preparation

Basic Screen Printing Process

Basic Registration Techniques

On-Contact and Off-contact Printing

Printing the Stencil

Multicolor Printing

Drying the Image

Cleaning the Screen

Removing the Stencil
Troubleshooting Clogged Screens
Halftone Reproduction in Screen Printing
Methods of Halftone preparation for Screen Printing
Fabric Selection
Moire Patterns
Printing Considerations
High-Speed Production Presses
Semiautomatic Presses
Fully Automatic Presses
Special Machine Configurations
Screening Cylindrical surfaces
Carousel Units

3 Screen printing frames

Pre-treatment of Frames

Stretching equipment

Pneumatic stretching clamps

Advantages

Mounting

Components of the SST system

Correct stretching

Optimum tensioning force for different fabrics

Stability

Control of tension in measuring fabric stretch

Stretching at a fabric angle

Stretching methods

Angled stretching with a prop profile

Adhesive

Adhering screen printing fabrics onto the frame

Screen Storage

The manufacture of diapositives

Manual diapositives

Photographically prepared diapositives

Important

Stencils

Pre-treatment of Screen Printing Fabrics

Stencil making

Manual stencils

Photo-mechanical stencils

Manual stencil making

The hand-cut stencil

Water soluble hand-cut film

Cellulose hand-cut film

Causes of errors

Bad adherence

Turned-up film edges

The direct stencil with emulsion

General procedure

Sources of errors with direct stencils

made only with emulsion

Formation of fish-eyes after coating

Air inclusions during coating

Poor adherence of the photo emulsion after exposure

Light scatter when copying (loss of detail)

Saw-tooth effect

Half-tone printing

Difficulties in decoating

Stencils for water-based inks

Emulsions (photo emulsions)

Sensitizers

CHROMATE photo emulsion

DIAZO photo emulsions

Printing requirements

Lines

Half-tones

UV-inks

Fineness of fabrics

Examples for coating

The direct stencil with film and emulsion

General procedure

*Sources of errors with direct stencils
made with film and emulsion*

Bad adherence of the film on the fabric

Use of too fine a fabric

Too hard or too sharp a squeegee

Dust inclusions

Too short an exposure time

Error in exposure

General procedure

*Source of errors with direct stencil
made with film and water*

Bad adherence of the film on the fabric

Insufficient treatment of the fabric

Error in exposure

Indirect stencil

General procedure

Sources of errors with indirect stencils

Bad adherence of the film on the fabric

Insufficient treatment of the fabric

Insufficient degreasing of the fabric

Too long an exposure time

Inactive developer

Drying the stencil with warm air

Exposure

Hardening of stencils for printing of water based colours in textile printing

General procedure

The hardening procedure

Attention
Suggestion
The diapositive
The stencil
Steel and light-alloy frames
The linear co-efficient of thermal expansion
Frame distortion by fabric pull
Warping of the frames under various mechanical stresses
Steel versus Aluminium
Recommendations for frame size and profile
Screen printing fabrics
Optimum tightness of the fabric stretch
Degree of Stretch
Gluing the fabrics to the printing frames
The printing substrate
Stencils for half-tone printing
Types of screen rulings
Printing

Setting a flat bed printing table

SST-measuring wedge

The squeegee

Squeegee System

Flood coat squeegee (Doctor blade)

Printing speed

Printing shaped objects

Single operation multiple colour printing

*4. The difference between multi-filament
& mono-filament screen printing*

fabrics

UV-Goldorange

5. Screen Printing Press

The Screen-Printing Press

Types of Fabrics

Construction of Fabrics

Mesh Count, Mesh Strength, and Mesh Opening

Stretching The Screen Fabric

How to Build A Screen-Process Press?

Step 1 : Assemble Needed Materials

Bill of Materials

Step 2 : Construct the Frame

Step 3: Attach the Screen Fabric

Step 4: Tape and Seal the Screen

Step 5: Prepare the Base

Step 6: Hinge the Frame to the Base

Step 7: Add a Frame Support

Print drying equipment
Constructing Specialty Equipment
Screen Printing On: Papers, Textiles and Other Printing Substrates
Type of Paper
Principal of Screen Process Printing
Common Types of Paper
Color of Stock
Textiles
Type of Fabric
Common Types of Fabrics
Printing on T-shirts
Plastics
Types of Plastics
Metals
Woods
Ceramics
Screen-Process Stencils

Hand-cut Paper Stencil

To Prepare a Paper Stencil

Step 1: Image the Paper

Step 2: Cut the Stencil

Step 3: Adhere the Stencil

Hand-cut film stencil

To prepare a Film Stencil

Step 1: Prepare for Cutting

Step : Cut the Stencil

Step : Adhere the Stencil

Step 4: Remove the Backing Sheet

Photographic stencils

To Prepare an Indirect Photographic Stencil

Step 1: Prepare for Exposure

Step 2: Load the Frame

Step 3: Expose the Stencil

Step 4: Develop the stencil

Step 5: Wash Out the Stencil

Step 6: Adhere the Stencil

To Prepare a Direct Photographic Stencil

Step 1: Mix the Emulsion

Step 2: Coat the Screen

Step 3: Expose the Screen

Step 4: Process the Stencil

To prepare a Direct/Indirect Photographic Stencil

Step 1: Sensitize the Coating Solution

Step 2: Adhere the Film to the Fabric

Step 3: Expose the Stencil

Step 4: Wash out the Stencil

Screen Printing

Automatic Press

The printing form makes it possible

The screen printing features and their singularity

Choosing A printing Process

Letter Press

Advantage

Limitations

Lithography

Advantage

Limitation

Photo Gravure

Advantage

Limitation

Screen Printing

Advantage

Limitation

Collo Type

Advantage

Limitation

Flexo Graphic

Advantages

Limitation

What process to use

6. Printing On Various Surfaces

Printing on Paper and Card

Articles With Thick Surfaces

Printing on Metal & Metal Foils

Textile Printing

Textile Inks

Make Ready

Very long Banners

Printing On Vertical Surfaces

Printing On Shaped Objects

Cylindrical Object Printing

Printing on Uneven Surfaces

Ceramic and Glass Printing

Printing On Plastics

Summary

7. The Printing Process

Actual Printing

Elementary Work

*Selection of Ink
Use of Squeegee
Coating of ink layer
Racking or Drying
Multi - Colour Screen Printing
Colour Scheme
Colour Separation
Temporary Blockout
Permanent Blockout
Single Operation Multiple Colour Printing
Printing of coloured background (Patch)
Halftone Printing
Preparation of stencil for half tone printing
Stickers (Transfers)
Transfer stickers
Gumming
Cleaning Operations
Summary*

8. Tabulation

Polyester Monofilament

Nylon Monofilament

Metallized Polyester Monofilament

UV-Goldorange

Polyester Monofilament

Fabric number

Carbon

Machinery Section

Director Section

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- *We help catalyze business growth by providing distinctive and profound market analysis*
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Our Approach

Requirement collection



Thorough analysis of the project



Economic feasibility study of the Project



Market potential survey/research



Report Compilation

Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
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- *Consultancies*
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- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
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- *Coal & Coal Byproduct*

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- *Engineering Goods*
- *Fibre Glass & Float Glass*
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- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

- *Paints, Pigments, Varnish & Lacquer*
- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

- *Township & Residential Complex*
- *Textiles And Readymade Garments*
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