

Research Paper :

An evaluation of fabric screen printing industries using conventional and modern methods

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ABSTRACT

The screen printing industries of India, considered as the back bone of India's economy is growing rapidly. The continuous demand of the screen printed goods manufacturing units brightened the future and scope of screen printing industries. Understanding this, the present study on the screen printing industries was conducted through interview schedule and observation technique to gather the information about raw material, preparation for the designs of screens, printing, equipments, Motif and colours, marketing, problems faced by both the workers and entrepreneurs. Information were gathered from purposively selected 40 units through interview schedule. Collected data were tabulated under various categories on master sheets and content analyses were carried out. The screen-printing units, due to the ever increasing demands are constantly towards betterment and do add to countries economy.

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India is proceeding towards complete globalization and liberalization. New areas of technology are coming very fast in all the fields of course textile is not the exceptional one. There is a vast scope to enhance textile export by improving quality of goods, diversifying the products and timely shipment of materials. To make niche in export market, it becomes necessary for Indian textile market to tune with the present changing scenario and keep their eyes open for the future requirement of textile export. Textile screen-printing is the area where one has to take extra cares toward quality up gradation and diversification to meet export requirements. Computer aided print design (CAD) is one of the important tools for printing which now a days is getting momentum in textile industry.

Mostly articles, used for screen printing are 'bed sheets, bed covers, curtains, cushion covers, ladies suits, sarees, kids wear, upholstery, towels, ties and table covers etc. The latest development in the screen printing side of textile industry is its adoption of the rotary principle. The method embodies all the good points of flat screen of nickel and is engraved in hexagonal mesh form. The nickel screens are coated with high sensitive emulsion. The screens are coated with specially designed circular squeegee or doctor blade which is moved upwards and 3-4 coats are applied with short drying period in between. This is done at a suitable temperature of about 77^o-86^o F

when ready to expose the screen are placed in a copying machine. This consists of a driving shaft or mandre which rotates and carried on in flatable rubber sleeves. Over this, the rotary screen is placed, the sleeve is inflated until it exactly fits inside circumferences of the cylinder, behind this is a light source. The positive wrapped round the screen and the other areas are blacked out, the shutter is opened to allow the light through and the screen rotates for a controlled amount of time. After exposure the screen is removed from the sleeve and immersed in interaft 50^o to 77^o F for about 15 minutes. Proper supports must be provided at both sides. The non-exposed parts will wash off easily.

Furthermore, the export of the Indian screen printed fabrics had a tremendous impact on the entire screen printing production. This leads to the phenomenal growth of the industry and also completely revolutionised the design and colours. The production of screen printing is spread all over India with its main centres in Delhi, Faridabad, Mumbai, Sanghaner, Pilakhwa, Meerut, Surat and Tamilnadu.

Objectives:

- To study the conventional and modern method of fabric screen printing.
- To evaluate quality, cost, time, rawmaterial,