



**Centre of Excellence for Medical Textiles,
Promoted by The Office of the Textile Commissioner,
Ministry of Textiles, Govt. of India**

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Project Profile for Surgeon Cap

Introduction:

Human scalp is unknowingly home to a number of microorganisms. These organisms are not visible with a naked eye and flow freely with the head movement. Their release can be curtailed if the head is kept absolutely still, which is not possible. So to cover the entire area of head, Surgeon Cap is widely used in surgical operations. Disposable Surgeon Caps are designed to cover the head in such a way, that no bacteria are allowed to move out. Disposable caps provide high level of sanitation and protect the hairs from any kind of air borne infection.



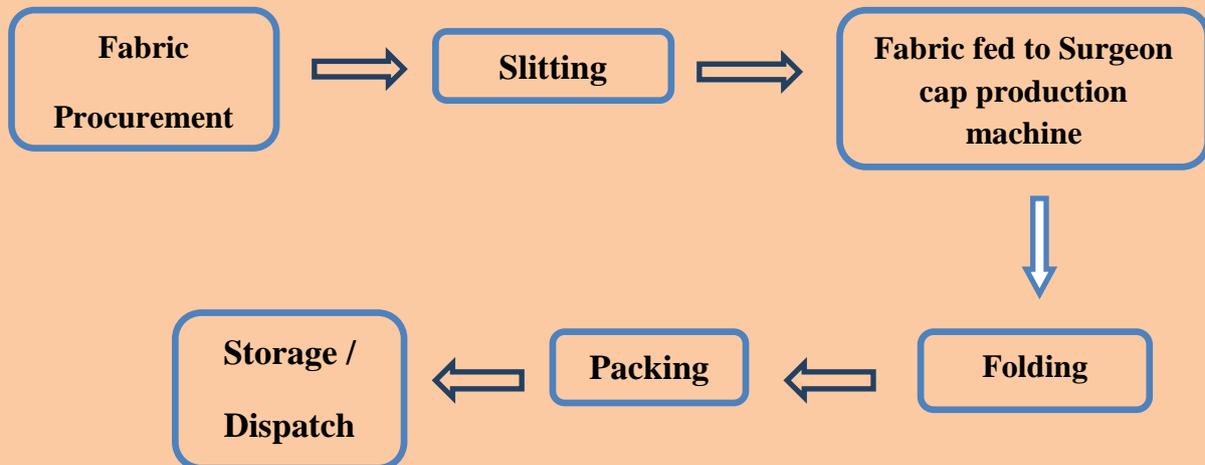
Scrub caps have graduated from being functional to also being a personalized accessory both in the operating room and outside. Before the antiseptic focus of the 1940s, hats were not considered essential to surgery. From the 1940s through the 1950s, as a hygienic focus swept the industry, hats became standard wear to help protect patients from contaminants in hair. Full-face hats were even designed for men with beards. These hats have been and continue to be distributed by group purchasing organizations (GPOs) who supply hospitals with most equipment.

Production process:

Non-woven surgical cap production machine is full automatic equipment, uses ultrasonic bonding technique to replace the traditional manual sewing with mechatronics automatic control. The machine can produce a variety of sizes of the hat, such as 18-inch /19-inch/21-inch/24-inch.



Flow chart:



Machinery and equipment required:

1. Slitting machine: 1 No
2. Surgical cap production machine: 1 No
3. Compressor: 1 No

Raw materials and consumables required:

Spunbond nonwoven fabric, Chemicals.

Utilities required:

Power: 7kW

Manpower required: 6Nos

Land area required: 5000 square feet

Building Area Required: 1000 Square feet

Investment required:

Including Plant & Machinery, Pre-Operative Cost, = 60 lakhs

Contingencies

Production capacity per annum or 300 days: 380 lakh pieces

Breakeven point in % = 55