

How to Manufacture

Disposable Surgical Devices, Medical Products, Hospital Products, Surgical Products, Medical Blood Bags, Plastic Gloves, I.V. Cannula, Infusion Set, Gowns, Masks, Catheter, Cotton and Bandage, Surgical Wear, Disposable Plastic Syringes
(Medical and Surgical Disposable Products)

Introduction

Medical and surgical device manufacturers worldwide produce a multitude of items that are intended for one use only. The primary reason is infection control; when an item is used only once it cannot transmit infectious agents to subsequent patients. Like medicines and other health technologies, they are essential for patient care – at the bedside, at the rural health clinic or at the large, specialized hospital.

The demand of these goods is not only because of their “one time use” property but also due to the hygienic methods adopted to produce them. From manufacturing to Marketing, production of disposable goods is stacked with numerous standards and regulations. This book includes the basic manufacturing method and labeling requirements, required for the bulk production of such life saving devices.

General medical disposables that are being in demand in domestic as well as in international market includes: medical gloves, syringes, gowns, catheters, blood transfusion units and so on.

The information provided is not only confined to the different methods involved in the manufacturing of medical disposables but also describes the raw material used and other information related to product, which are necessary for the manufacturers knowledge.

The details given will be very good for an individual/entrepreneur who is willing to invest in the field of medical disposables.

The main demand of medical disposables are, nowadays not limited to the super specialty hospitals but is also continuously increasing in rural hospitals and clinics. The work provides an idea to reader about the final product, hygiene, safety, packaging, uses, manufacturers and suppliers of the machinery, raw material involved in the processes etc.

The book covers various aspects concerned with the disposable medical devices and presents an overview of the processes involved with their machineries and specifications. The work provides the complete details of the suppliers and manufacturers with machinery photographs for better understanding of the reader.

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ISO-11607

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- 2. Flexibility (Low Bending Stiffness) so can Process by Squeezing the Bag**
- 3. Heat Resistance, so can Steam Sterilize Prior to Use**
- 4. Materials Property-Melting Temperature**
- 5. Must Not Burst in the Centrifuge, or Tear on Handling**
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Advantages

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SMMS

DuPont T Isolation Wear T Medical Fabrics

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Characteristic

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Non-Woven Gown making Machine

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Surgical Disposable Products Photograph

Surgical Gowns

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Disposable Gown

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Suppliers of Raw Material

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Raw Material

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2. Polyamides, PA

Properties

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Properties

LDPE Properties

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Properties

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Properties

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- 3. Cooling the Mould**
- 4. Unloading/Demoulding**

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- A. Injection Blow Moulding**
- B. Extrusion Blow Moulding**
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Semi Automatic Body Assembly/Wing Assembly Machine

Semi Automatic Tip Forming Machine

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Automatic Needle Assembly Machine

Automatic Luer Lock & Flash Back Chamber Assembly Machine

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Ethylene Oxide (ETO) Sterilization Process

Pre-Conditioning Stage

Sterilizer Stage

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Machinery for IV Cannula Production Line

Automatic Needle Assembly Machine

Automatic Luer Lock & Flash Back Chamber Assembly Machine

Cannula Assembly Machine

Body Assembly Machine

Tip Forming Machine
Cup Forming Machine
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Suppliers of Raw Material

12. INFUSION SET & BLOOD TRANSFUSION SET

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During the Blood Transfusion

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Manufacturing Process

Plastic Injection Moulding

- 1. Preparing the Mould**
- 2. Injection of Polymer Melt into the Mould**
- 3. Cooling the Mould**
- 4. Unloading/Demoulding**

The Blow Moulding Process

- 1. Injection Blow Moulding**
- 2. Extrusion Blow Moulding**
- 3. Stretch Blow Moulding**

Stretch Blow Moulding

The Compression Moulding Process

Plastic Extrusions

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Tubing Cutter - Pneumatic Operated

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- 4. Hydro-extraction**

5. Drying

6. Carding

7. Sterilization

8. Packing

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2. Drawing

3. Combing

4. Spinning

5. Weaving

6. Washing and Bleaching

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8. Cutting the Bandages Cloth into Bandage

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Flow Sheet for the Manufacture of Surgical Bandage

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Plant & Machinery Suppliers

Niir Project Consultancy Services (NPCS)
can provide Process Technology Book on
Medical and Surgical Disposable Products
(Blood Bags, Plastic Gloves, I.V. Cannula, Infusion Set, Gowns, Masks, Catheter, Cotton and Bandage, Surgical Wear, Syringes)

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- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
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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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- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
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- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

Sectors We Cover Cont...

- *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*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

Sectors We Cover Cont...

- *Copper & Copper Based Projects*
- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*

Sectors We Cover Cont...

- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitality Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*

Sectors We Cover Cont...

- *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.*

Sectors We Cover Cont...

- *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.*

Sectors We Cover Cont...

- *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*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*

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