

Manufacturing of Woven Jumbo Bag/ Flexible Intermediate Bulk Containers

Name of Project	Facility for Manufacturing of Woven Jumbo Bag/Flexible Intermediate Bulk Containers
Project Location	Gelapukhuri, Tinsukia, Assam
Area Requirement	35,000-40,000 sq ft
Approx. Project cost	Machinery Cost : INR 685-720 lakh
Project Scale	Machine Output : 500kg/hr
Process	<p>Manufacturing Process Production of FIBC involves the conversion of PP Granules to long tapes and later woven, cut to size, printed and stitched to be used. The step wise production process is explained below.</p> <p>Extrusion Here the mix of virgin and recycled PP(optional) granules are being melted and converted into form of tapes in a extrusion plant and at the end of the process are wound on bobbins of required size. This is the first stage of process which determines the tensile strength of the tape.</p> <p>Weaving Extruded tape bobbins will be loaded in the Circular weaving machine or Flat weaving machine. Here the tapes will be woven to fabric of required specification and will be wound in roll form. These fabrics will become the body fabric of the FIBC.</p> <p>Lamination (Optional) PP fabric is being laminated with LDPE film for making the fabric moisture proof. This is optional process as per the requirement of the customer.</p> <p>Cutting The woven PP fabric in rolls will be fed in the automatic cutting machine and will be cut in to cut bit of required size. This Automatic process is adopted to get better accuracy in cut size.</p> <p>Printing The cut bits that are the body fabric will be fed into the heavy duty printing machine to make the printing impression on the fabric. Heavy duty printing machine, gives the best impression with maximum of three colours.</p> <p>Webbing Heavier Polypropylene Tapes are woven in to webbing which forms the lifting loop of the Jumbo bag.</p> <p>Sewing Here all the components used to manufacture Jumbo bags are brought together along with the printed body fabric. All the gathered parts are assembled to a Jumbo bag by highly skilled labours under the supervision of technically qualified supervisors.</p> <p>Packing / Bailing Here the bags which have been produced will be compressed with the help of the bale press and neatly packed as per the requirement of the customers.</p> <p>Storage Once the bag is baled, it will be immediately shifted to a clean storage room, from where the dispatches are affected.</p>
Utilities	<p>Tape Extrusion Line: Compressor: Capacity Pressure-165 CFM, 6-7 bar, Separate air tank of capacity 1,000 litres is recommended for tape line & winders (excluding tape guns Air Drying Unit: Capacity 165 CFM, Pressure 6-7 bar, Dew point 3 degree Centigrade Chilled War Requirement: Process Requirement 58 TR, flow rate: 42,686 L/hr, Intel Temp: 18 degree centigrade Water pressure: 4 bar Filament/Tape Winder : Three phase voltage with mains supply of 3X 415 V/50 Hz or 3X 415V/50 Hz or 3X420V/50 Hz with separate neutral and earth Admissible fluctuations Voltage- 10% to +5% Frequency : +/- 2%</p>
Manpower Requirement	38 workers
Nodal Agency	Assam Industrial Development Corporation (AIDC)