

Manufacturing of Disposable Syringes

Name of Project	Facility for Manufacturing of Disposable Syringes
Project Location	Gelapukhuri, Tinsukia, Assam
Area Requirement	10,000-12,000 sq ft
Approx. Project cost	Total cost for Machinery & Mould: INR 133-172 lakh 1ml syringe :INR 71 – 94 lakh 2ml syringe :INR 81– 101 lakh 5ml syringe :INR 83 – 105 lakh
Project Scale	Capacity production per annum with 3 shifts per day 1 ml syringe - 2,53,44,000 pieces 2 ml syringe -2,11,20,000 pieces 5 ml syringe - 1,90,08,000 pieces
Process	<p>Flow Chart</p> <pre> graph TD A[Tube by Injection Moulding] --> B[Piston by Injection Moulding Machine] A --> C[Assembling and Finishing] D[Rubber] --> C C --> E[Sterilization] E --> F[Packing and Dispatching] </pre> <p>Manufacturing Process Disposable syringes are moulded using Injection moulding machines and special Hot-Runner moulds, having 16 – 32 cavity mould. Polypropylene (PP), from Assam Gas Cracker Project (AGCP), is the raw material required for Injection Moulding Grade. Moulding is carried out in chilled condition to get better clarity of the PP used. The moulded syringes are then assembled with the rubber. The whole assembly is then sterilized in sterilization plant using ethylene oxide. The completed syringe is then blister packed in automatic packing machine.</p>
Utilities	Electricity (connected Load) : Approximately 88 kW 80 litre/min Water will be circulated through fixed tank capacity is 15,000-20,000 litre
Manpower Requirement	21 workers
Nodal Agency	Assam Industrial Development Corporation (AIDC)