

# Maintenance and Modification of Blow Injection Molding Process

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**Abstract:** Blow moulding is a manufacturing process for forming and joining together hollow plastic parts. It is also used for forming glass bottles or other hollow shapes. The parison is then clamped into a mould and air is blown into it. The air pressure then pushes the plastic out to match the mould. Blow moulding uses a parison (a hollow tube) inserted into a mould and filled with molten plastic. When air is injected, the tube expands, conforming the plastic to the shape of the mould. While there are a few more moving parts involved in blow moulding, the result is a much faster and more precise cycle. This process enables the production of higher volumes of parts in shorter periods of time. These advantages also offer economies of scale, increasingly lowering the cost-per-part on larger runs.

In this project we are going to analyse the Working of blow moulding process find the causes of the problems, identified causes of problems will be eliminated by Maintenance and modification in Blow moulding process. The idea was that instead of purchasing a costly new machine, the old one can be modified. In case of failure, however, the modification cost would only be commensurate to a tiny amount of a new machine's price. The study relies especially on the development of the single extruder and production of the container with translucent view strip.

Main objective of this project is- To increase the efficiency of blow moulding process, to remove the pressure variations in blow moulding process, to decrease the operational cost by using new mechanism, to decrease labour cost by blow moulding process, to increase the productivity, to save the time & materials. The machine modification constitutes a qualitative move in the factory. Compared to the high purchasing price of a new machine, the cost of the old machine's development is rather low. Moreover, the qualitative improvement of the produce has promoted the factory's stature, let alone the remarkable reduction in the product's cost

**Keywords:** Blow Moulding, Manufacturing Process, Failure, Extrusion, Injection, Blowing, Ejection, Machine Modification