

Department : **Mechanical**

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Group No: **27**

Guided By

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SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA

Project Title

DESIGN AND FABRICATION OF ECONOMICAL PLASTIC INJECTION MOLDING MACHINE

Abstract:

Design Development, fabrication of small injection molding machine for forming small plastic articles in small-scale industries. Our project which entailed design, Construction and test small injection molding machine that will capable of forming small plastic articles by injecting molten resins into a closed, cooled mould, where it solidifies to give the desired products will developed. The machine will design and constructed to work as a prototype for producing very small plastic components. Design concept, operation, and assembly of components parts will be made. Also, working drawings and materials selection will be made based on calculations of the diameter of injection plunger, number of teeth required for the plunger rack and spur gear, the angular velocity, number of revolution, torque and power obtained from the leverage on the handle of the machine. The machine parts/components will then assemble in line with the designed made, thereafter the constructed machine will be tested using high density polypropylene and master batch. The results will obtain from the test were satisfactory.

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