

Design and Fabrication of Mini Hydraulic Press

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Abstract: *The work is focused on design and optimization of top plate of the press machine. The hydraulic jack is placed in between top plate and adjustable frame. They are analyzed to improve their performance and quality for press working operation. Hydraulic press being used for forming and pressing operations with wide range of capacities. Hydraulic press machine works under continuous impact load. Because of these continuous load, tensile and compressive stresses are experienced in various parts of machine. These stresses cause permanent deformation in some parts of machine. This work is based on optimization of a 5-ton capacity hydraulic press considering constraints like design, weight and cost. Using the optimum resources possible in designing the hydraulic press components can affect reduction in the cost by optimizing the weight of material utilized for building the structure. In the present scenario, time constrain is a crucial part for completion of any production process*

Keywords: Hydraulic press.

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