

# Hydraulic Workpiece Holding Device

Swarup Gothal<sup>1</sup>, Rutik Kamble<sup>2</sup>, Shubham Hone<sup>3</sup>, Siddhesh Rokade<sup>4</sup>,

Miss. P. R. Yadav<sup>5</sup>, Prof. S. R. Shaikh<sup>6</sup>

Students, Department of Mechanical Engineering<sup>1,2,3,4</sup>

Professor, Department of Mechanical Engineering<sup>5,6</sup>

Zeal Polytechnic, Pune, Maharashtra, India

**Abstract:** A bench vice is a tool used to hold or clamp a workpiece to allow operations such as cutting, filing, milling, drilling, grinding, etc. It is usually made from cast iron with a fixed jaw and another parallel jaw which moves towards or away from the fixed jaw using the screw. Design and fabrication of a modified vice to improve the productivity, flexibility and comfortability of the existing bench vices have been achieved in this study. In this vice, we can also hold components of different shapes with the help of the adjustable jaws that can be provided if needed. A lever slides the movable jaw, using a lead screw for forward and reverse movement of the movable jaw. Hydraulic machine vice can be used for all types of machines.

**Keywords:** Design and fabrication of a modified vice to improve the productivity

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