

Development of Experimental Setup of Venturi and Orifice Meter

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Abstract: *This research aims to manufacture and test a machine for cutting sugar cane buds to develop mechanization of the stage of preparing sugarcane seedlings in the nursery. The developed machine consists of a frame, cutting unit, electric motor, and power transmission system. The machine will save the time, effort, and cost spent on cutting reeds by traditional methods. The machine cuts the sugarcane stalks that are used as seeds and which contain undamaged buds, the operator cuts the groups of sprouts by bud cutting machine. It also aimed at improving agricultural efficiency in sugar cane cultivation. The machine utilizes advanced cutting mechanisms and precision control to ensure accurate and efficient cutting of sugar cane buds, facilitating the propagation process. Key features include adjustable cutting parameters, automated bud detection, and robust construction for durability and reliability in agricultural environments. The performance of the machine was evaluated through field trials, demonstrating significant improvements in cutting accuracy, speed, and overall efficiency compared to traditional manual methods. The adoption of this innovative machine promises to revolutionize sugar cane cultivation practices, offering farmers a cost-effective solution to streamline their operations and increase productivity.*

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