

***Efected Of Air Pipe Diameter And Number Of Exhaust Valves On flow
Variations in Model T Hidram Pumps.*** Mochammad Nuruddin, ST, M.si
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ABSTRACT

Water is an important requirement for humans. However, in certain areas it is difficult to get it, especially people who live in high places where the water source is below. In this case the use of a hydraulic ram pump can help the community. Hidraulic ram pump currently use one waste valve. The metod used experimental method that increases the number of waste valves and varies the diameter of the air pipe. The result show that the number of waste valves has an influence on the performance of the hydram pump. Output discharge between 1 valve hydram pump with 3 inch and 4 inch diameter variation of air pipe, to the 2 valve hydram pump series with variations in the diameter of the air pipe 3 inches and 4 inches there was an in crease of 33% and 34% , between 2 waste valves in series with variations in the diameter of air pipe 3 inches and 4 inches, to a hydram pump 3 waste valves in parallel to the T model with variations in the diameter of the air pipe 3 inches and 4 inches an crease of 45% and 45% . The highest D'Aubuisson efficiency on a 2 valve pump in parallel with a variation of the air pipe 3 inches and 4 inches 32.217% and 49.337%. The efficiency of 1 valve hydram pump with 3 inch and 4 inch air pipe variations is 33.572%, and 31.807%. At the efficiency of the 3 valve hydram pump in parallel model T with variations of the air pipe 3 inches and 4 inches 27.714%, and 32.700%.

Key words: *Hidram Pump, Water, Valve*