

Water Discharge Management Based on Open and Closed Cylinders in the Gravitation Water Vortex Power Plant

Pengaturan Debit Air Berbasis Basin Silinder Terbuka Dan Tertutup Pada Alat Gravitation Water Vortex Power Plant

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A Gravitation Water Vortex Power Plant (GWVPP) tool has been made to determine how much water flow is needed to generate electricity. This research was conducted by changing the flow rate and water pressure to determine the effect on the performance of a vortex power plant, and in previous studies, no one has made changes to the discharge and water pressure. The type of basin position used in this study is an open basin position and a closed basin position. Based on the advantages and disadvantages of each type of blade used, a study was carried out using the type of turbine blade model L by changing the water flow rate and water pressure at a predetermined position to determine the effect of water discharge and pressure on the turbine rotational speed. From the results of testing the water discharge measurement in a closed basin which is carried out on the addition of each flow of water discharge at the angle of the faucet 0o to 90o with a volume (V) 98 L and time (t) 1.11 minutes to 2.5 minutes, it can be seen that the average discharge value (Q) the resulting 81.08 l / s. and from the results of testing the water discharge measurement in the open basin which is carried out to the addition of each flow of water discharge at the angle of the faucet 0o to 90o with a volume (V) 98 L and time (t) 1.28 minutes to 4.1 minutes it can be seen that the average discharge value (Q) resulting in 65.21 l / s.

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