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The Effect Of Turbine Level Of Model L And Turbine Model S In Gravitation Of Water Vortex Plant Power (GWVPP) Based On Cylinder Basin

Pengaruh Ketinggian Turbin Model L Dan Turbin Model S Pada Gravitasi Air Vortex Plant Power (GWVPP) Berbasis Basin Silinder

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The effect of the height of the L model turbine and the S model turbine on the Vortex Power Pland Gravitation Water Using a Cylinder Basin Based Gearbox using a DC generator. This study aims to determine how much torque is generated, rotations per minute, voltage, current, and power generated by the power plant of gravity vortex airs and compare the influence of the height of the turbine position on the results of the data obtained. The study was conducted using a cylindrical basin that has an input diameter of 50 cm while the output diameter is 5 cm, using a 4 blade turbine shaped L and S models and using variations in the height of the turbine placement at depths of 10 cm, 12 cm, 14 cm, 16 cm, and 18 cm is calculated from the surface of the water, the fluid flow varies. The largest electric power using a L model turbine at a torque load of 0,0005886 Nm with a water discharge of 0.66 l / s obtained electrical power of 1.368 watts, and low electrical power is present at a torque load of 0,0002943 Nm with a water discharge of 0.73 electrical power obtained 0.872 watts. Whereas in the S model turbine, the largest electric power with a torque load of 0.0011772Nm with a water discharge of 0.85 l / s obtained an electric power of 2.097 watts, and low electrical power was found when the torque load was 0.0005886 Nm with a water discharge of 0.75 obtained electric power 1,856 watts. The highest elevation of the turbine position produces maximum data at 28 cm height.

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