

ALKON PUMP APPLICATION TYPE NS 100 AS A WATER POWER PLANT

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ABSTRACT

Alkon pump type ns 100 is a type of centrifugal pump. The working principle of the pump is the opposite of the working principle of the water turbine, which was originally used to suck water from the bottom up and was changed to receive water in order to move the generator. The research was conducted in Dusun Cempaka Desa Pakis Kecamatan Panti Kabupaten Jember. This study aims to determine the performance of the pump that functions as a turbine and the effect of height variations on turbine rotation. The results of the test of generated power reached 158.67 watts at a height of 5.28 m with no load while the smallest power was 31,66 watts at a water level of 3.12 m with a load of 90 watts. The variation in height affects the turbine rotation coupled with the addition of the power load on the generator resulting in decreased turbine rotation, voltage, turbine power, and frequency.

Keywords: *pump ns 100, performance, height variation*