

Power Generation from Sewage by a Micro-Hydraulic Turbine

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Abstract : This study is concerned with the development of a micro-hydraulic turbine for power generation installed in sewer pipes. The runner has a circular hollow around the central (rotating) axis so that solid materials included in water can be easily flow through the runner without blocking the turbine. The laboratory experiments are also conducted. The hollow is very effective to make polyester fibers pass through the turbine. The guide vane is useful to heighten the turbine performance. But it is easily blocked by the fibers, making the turbine lose the function.

Keywords : micro-hydraulic turbine, power generation, sewage, sewer pipe

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