



RECIRCULATING WATER TUNNEL

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ABSTRACT

The technique of dimensional analysis is used to indicate the parameter groups that may influence flow under any particular set of prevailing conditions. Model testing, based upon a systematic variation of these groups, is necessary to determine their relative importance. Once this has been established the rules of geometric and dynamic similarity must be invoked to allow design decisions to be taken based upon test results. The study of re-circulating water tunnel has been made for the purposes of achieving the dimensional analysis experiment. The testing area of re-circulating water tunnel is design to satisfy the steady flow condition. The speeds of the flow are designing to be variable. The height of sharp crest and the rotational speed of propeller will control the flow. The re-circulating water tunnel is powered by the electric motor with the variable speed control. The various models that can be tested in this re-circulating water tunnel are ship, submarine and other equipment that is used in water.

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