

Analisa Parameter Udara Basah pada Kinerja Direct Evaporative Cooler dengan Variasi Kecepatan dan Temperatur Udara Masuk

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20305658&lokasi=lokal>

Abstrak

There are some parameters that identify the quantity of air i.e. dry bulb temperature, wet bulb temperature, humidity ratio, relative humidity, and dew point temperature. These parameters can be used to construct a new formula in order to determine the effectiveness of air processing equipment. When air passes through an evaporative pad its dry bulb temperature will decrease. It can be lowered to 5°C, when its wet bulb temperature is maintained constant. Due to the air temperature is higher than the water temperature, so then the heat will flow from the air to water. If the temperature of flow air assumed remain constant, this heat is to be used to evaporate the water drops. So, it is caused increasing of the air humidity ratio. This research found out that the humidity ratio increased until 2.22-gram water/ kg dry air.