CHARACTERISTIC OF HUMIDIFIER ON MINI PLANT USING CFD

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Abstract
This research concerns the problem of thermal comfort in rooms with views characteristic of the humidifier with variable temperature and humidity. The results of calculations in comparison with CFD analysis of the mini plant that have been there.

Entry the mini-plant is the steam from the heater and fresh air from the inlet with an average velocity of 3 m/s, while the mini-plant output of excess steam from the process in a room with an average velocity of 3 m/s. This plant mini conditioned at a temperature between 35 ° C to 37 ° C, while the experiment of the object is 20 minute.

With the calculation method of Cooling Load Temperature Difference (CLTD), Heat Stress Index (HSI), obtained the results of the total heat load of 2927.06 watts, from the object for 450 watts, the heater of 2290 watts, the lamp of 30.69 watts, from the ventilation (t=20menit) of 156.3 watts, from infiltration (t=20menit) of 0.069 watts. While analysis of the characteristics represented by the dots on the graph and Givony Chart inconvenience.

Key Word: Humidifier, temperature, humidity, CFD, velocity, CLTD, heat load, HSI.
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