

# 제습조건에서 루버 핀-튜브 열교환기의 공기측 열전달 특성

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## Air-side Thermal Behavior of Louver-fin and Tube Heat Exchangers In Dehumidifying Conditions

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### Abstract

An Experimental study was conducted to investigate the effect of the tube row, fin spacing and inlet humidity on air-side performance of louvered fin-and-tube heat exchangers in dehumidifying conditions. Test condition was varied by three fin pitches, two number of rows, two inlet relative humidity conditions and various Reynolds number of air which ranged from 1000 to 2200 in fully wet condition. The heat transfer coefficient of heat exchangers in dehumidifying conditions was reduced by enthalpy-potential method. The test results indicates that the effect of fin pitch on heat transfer performance is negligible with three row heat exchangers. For two row configuration, heat transfer performance decrease with decrease of fin pitch. The changes in relative humidity does not affect the sensible heat transfer. The present data in this work were compared with exiting correlations.

### References

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