Performance of Finned Heat Exchangers and Heat Sinks After Air-side Fouling and Cleaning

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Motivation:
1. HX fouling is common regardless of application, operation, design, or service duration.
2. Fouling affects HX performance.
3. HX cleaning may help regain clean coil performance.

Objectives:
1. Experimentally foul heat exchangers and measure fouling and quantify performance.
2. Measure sensitivity of fouling to operating parameters.
3. standardize fouling experiments.
4. Develop numerical fouling model.

Key Conclusions:
1. Air velocity, air humidity, and particulate concentration in air affect fouling.
2. Flow resistance (pressure drop) is more important than thermal resistance (heat transfer).

Expected publications: 1 × journal paper
+ 2 × conference papers

Member benefits: Experimental data
Experience of fouling tests
Fouling model

Motivation:

Objectives:

Key Conclusions:

Expected publications:

Member benefits: