Delta T Moisture Control Technology

Increased Production  Improved Quality  Energy Savings

Patented Moisture Control Technology for Direct and In-Direct Dryers

Yankee Hood  Can  Flotation  Flow-Through

http://www.moisturecontrols.com

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Why current moisture control methods don’t work ......

Most current moisture control methods are based on after-the-fact (outside the dryer) moisture measurements (feedback) which make the right decision (too dry, too wet, or just right) only one time in three (3). Broad moisture content distributions result.

Why the Delta T method is superior........

The model-based Delta T method \( M = K_1(\Delta T)^p - K_2/S^q \) senses moisture content inside-the-dryer. This enables faster response to moisture variations and the elimination of feedback control.

Delta T Benefits

The ability to measure moisture inside-the-dryer narrows the final moisture standard deviation (quality improvement). This narrowing allows the average moisture content to be increased (production increase and energy savings) without exceeding the established upper moisture content limit. Use the graph on the right to calculate approximate production increases after increasing the average moisture content.

Delta T Application: In-Direct Dryers (i.e. Can)

The moisture content is measured by taking the difference \( \Delta T \) in temperature between the hot surface of the can (or steam temperature) and the temperature of the web leaving the hot surface.

Delta T Application: Direct Dryers (i.e. Yankee Hood, flotation, flow-through)

The moisture content is measured by taking the difference \( \Delta T \) in temperature of the hot air before and after contact with the product.