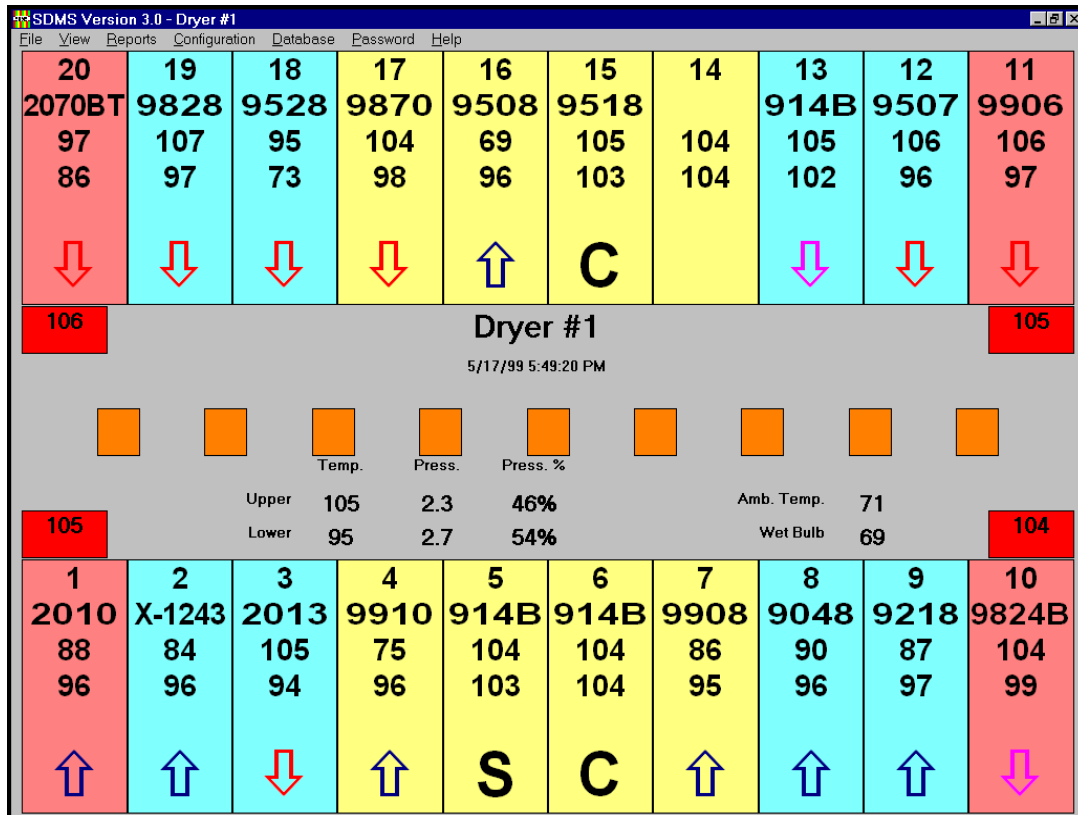




Seed Dryer Management System

A Product Of The Jacobsen Holz Corporation

SDMS – Seed Dryer Management System



- **Improved Dryer Resource Efficiency** Resulting In **Reduced Dryer Usage And Costs!**
- **Automated Data Capture** Resulting In **Less Busywork And More Management Time!**
- **Complete Seed Drying Information** Resulting In **Informed Dryer Management!**
- **Improved Seed Quality** Resulting From **Improved Dryer Management!**
- **Historical Seed Drying Data** Available For **Post Season Data Analysis!**
- **Process Control Interfaces** For Remote **Control of Burner And Airflow Processes!**

“Providing Seed Data Management Products To The Seed Industry”

Jacobsen Holz Corporation 1224 Pattee Street P. O. Box 280 Perry, IA 50220-0280
www.jacobsenholz.com



Seed Dryer Management System

A Product Of The Jacobsen Holz Corporation

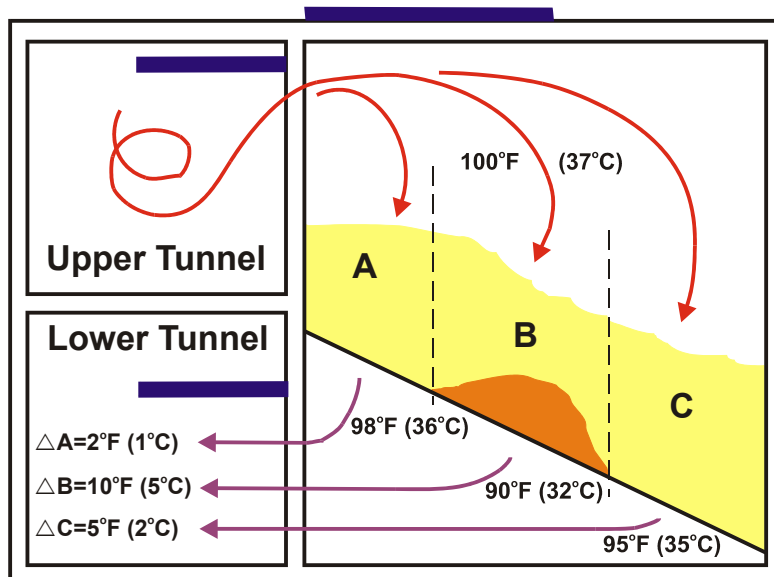
The SDMS Lower Bin Sensing Grid Advantage

The bin temperature delta (*inlet – outlet*) across a seed pile in a bin is an indicator of the moisture content of the seed. The **Bin Temperature Delta** is commonly used by operators to help make bin reversal and shutoff decisions. However, the **Bin Temperature Delta** can vary significantly at different points in a bin due to factors such as loading, shelled seed pockets, seed set, etc.

The **SDMS** Lower Bin Sensor Grid is designed to provide the dryer operator with “**better**” **bin inlet-outlet temperature delta data** to make reversal and shutoff decisions. It compensates for bin temperature delta variations that may exist in a bin due to variations in bin loading by averaging multiple points of temperature data from different areas of the bin.

Bin Temperature Delta Variation With POOR Bin Loading

Figure 1 illustrates what may be the result of **POOR bin loading** for a Down Air bin near the end of the drying cycle.



Down Air Bin Illustrating POOR Bin Loading Effects

Figure 1

- **Bin Section A** has experienced **shallow depth** due to excessive seed settling resulting in **faster drying** and a **reduced temperature** across this section of only 2° F (1° C)
- **Bin Section B** has experienced **shelled seed pocket** resulting in a **slower drying** and **increased temperature** across this section of 10° F (5° C)
- **Bin Section C** has experienced **increased depth** due to excessive seed settling resulting in a **slower drying** and **increased temperature** across this section of 5° F (2° C)

A single sensing point would give the operator a delta reading of either 2° F (1° C), or 10° F (5° C) or 5° F (2° C) depending on bin conditions and sensor location.

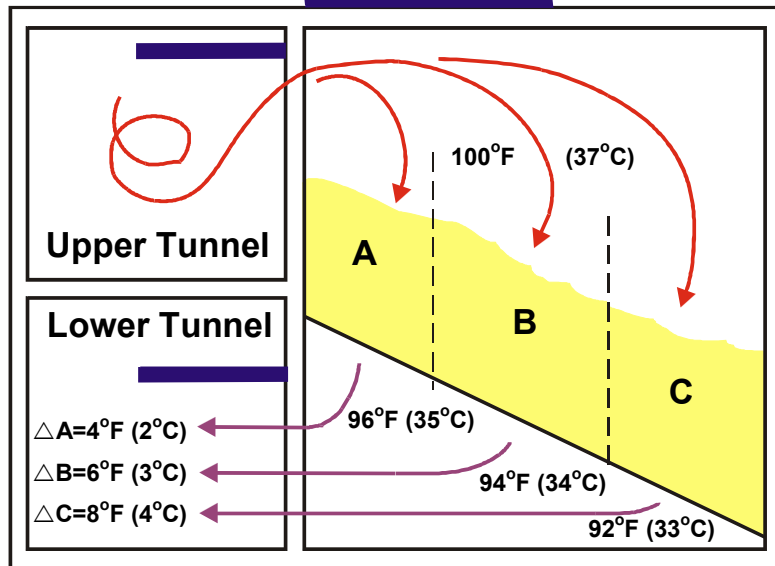
The **SDMS Lower Bin Sensor Grid** would give the operator an **averaged delta reading of 6° F (3° C)**,

“Providing Seed Data management Products To The Seed Industry”

This is not only an issue with poorly loaded bins as the previous example illustrates. Even a bin that has been loaded properly will exhibit these temperature variations. The question is always “how much” variation is occurring.

Bin Temperature Delta Variation With GOOD Bin Loading

Figure 2 illustrates what may be the result of **GOOD bin loading** for a Down Air bin near the end of the drying cycle.



Down Air Bin Illustrating GOOD Bin Loading Effects
Figure 2

- **Bin Section A** has maintained a more **uniform depth** resulting in more **uniform drying** and a **nominal temperature** across this section of 4° F (2° C)
- **Bin Section B** has maintained a more **uniform depth** resulting in more **uniform drying** and a **nominal temperature** across this section of 6° F (3° C)
- **Bin Section C** has maintained a more **uniform depth** resulting in more **uniform drying** and a **nominal temperature** across this section of 8° F (4° C)

A single sensing point would give the operator a delta reading of either 4° F (2° C), or 6° F (3° C) or 8° F (4° C) depending on bin conditions and sensor location.

The **SDMS Lower Bin Sensor Grid** would give the operator an **averaged delta reading of 6° F (3° C)**,

When an operator is trying to make a decision to reverse or shutoff a bin based on **bin temperature delta** data, +/- 1° F (.5° C) accuracy of this data is significant. Data from a single sensing point cannot be consistently relied on for this purpose. The **SDMS Lower Bin Sensor Grid** is a cost effective solution to this problem.

Contact the **Jacobsen Holz Corporation** for more information about this product and other products and services available that will give you the “**advantage**” in seed dryer management.

“Providing Seed Data management Products To The Seed Industry”

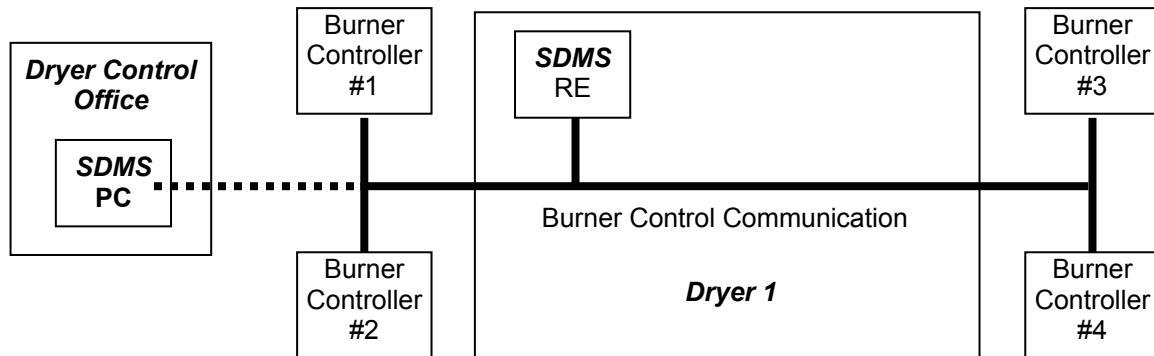


Seed Dryer Management System

A Product Of The Jacobsen Holz Corporation

Remote Burner Control Benefits

The **SDMS Remote Burner Control** option enables direct monitoring and control of the dryer burner controllers from **SDMS - Seed Dryer Management System** via a communications network as illustrated below.



Burner Control Communications Network

Generally, dryers such as Double Pass Reversing (DPR) dryers are managed by maintaining specified **Lower Tunnel Temperatures**. Dryer temperature management via lower tunnel temperature is done for quality purposes. Because the lower tunnel varies as the seed dries, frequent adjustments to the Upper Tunnel Temperatures are made via the burner controls.

With the **SDMS Remote Burner Control** option, the dryer operator can observe bin and tunnel temperatures in the dryer from the **SDMS PC** and make appropriate adjustments without having to walk to the dryer. This enhances the management of the dryer for the following reasons:

- **More Frequent Temperature Adjustment Resulting In Increased Accuracy Of Lower Tunnel Temperatures For Improved Quality**
- **Better Utilizes Dryer Operator's Time To Focus On SDMS Drying Process Data And Dryer Management**

SDMS Remote Burner Control is one of the dryer management tools available in the **JHC** family of **SDMS** products designed to equip the dryer operator for optimum seed dryer management.

"Providing Seed Data Management Products To The Seed Industry"

Jacobsen Holz Corporation 1224 Pattee Street P. O. Box 280 Perry, IA 50220-0280
www.jacobsenholz.com