k-Space Custom Metrology Solutions

Custom Metrology Software Solution for Thickness Measurement and Statistical Analysis

USG Corporation, a leading manufacturer of building products and innovative solutions, is known for its innovations and products that solve challenges like productivity, sustainability and higher performance for customers all over the globe. To improve its business efficiency, USG worked with k-Space Associates, Inc. to implement an improved thickness measurement solution for its Durock® Brand Cement Board.

Challenge

USG had already purchased sensors for the project and had an existing scanner. What they required was a software solution that would work with their new IT infrastructure and an interface that was effective in a production environment that generated a lot of dust.

Solution

k-Space provided a metrology solution that not only satisfied all of USG's required features using the pre-purchased sensors, but also provided real-time acquisition and analysis of in-line board thickness data. A large touchscreen display eliminated the need for a keyboard, which was ideal in the dusty environment. k-Space's custom software and database solution, as well as their on-site installation and training, provided a seamless transition from concept to use.

Results

The installation was easily performed during routine maintenance without causing any additional downtime. Both the operators and the maintenance departments were trained and were working with the new software in less than two hours. USG can now perform statistical analysis of data stored in their production management system for future process and efficiency improvements, and they also have the capability to move to automated process control.

USG Corporation

CHALLENGE

A need for new custom thickness measurement software and database that would work with existing purchased sensors.

SOLUTION

An operator friendly interface was developed along with custom metrology software and a database to store data for future analysis.

RESULTS

- **Software compatible with new IT Infrastructure**

- **Capability to do statistical analysis on long term data**

- **Capability to move to automated process control**