

# Plasterboard Surface Inspection Defects Detection System

## Customer Overview

A leading manufacturer of building and construction materials identified a critical need to improve its quality inspection process. Plasterboard with unacceptable surface faults was passing the existing quality test and going to market.

The manufacturer was forced to remove and replace flawed plasterboard mid-construction on numerous occasions, at their own expense.

## MSA Solution

A more accurate quality inspection system was required to detect surface faults before the plasterboard is cut and enters the oven for drying.

The chosen solution was a Limab FalconEye Surface Inspection System. It detects all types of surface defects such as scratches, grooves, depressions, foreign particles and colour spots, down to a size of 1mm<sup>2</sup>.

A powerful, angled LED light illuminates the board, and 2 high-speed grey scale cameras detect dents and bumps to identify periodic surface faults (signals a fault in the manufacturing process).

The line speed is 45 metres per minute, resulting in 2,700 metres of board per hour 60 minutes (1 hour). Rejecting in 2 metre units.

If unacceptable faults are detected on the board, the section is rejected and cut-away before ever reaching the oven. This has had a secondary benefit of improving the efficiency of the ovens, saving energy for good quality boards.

The installation of FalconEye was designed and project managed by the MSA team, along with the customisation of special brackets. The manufacturer is considering rolling out the solution to other plants around Australia.

