Drying Water-Based Primer on Metal with Model 54775 High Density Pyrospans

Application

A manufacturer of roof deck and wall module panels drying water-based primer on aluminum, cold-rolled steel and galvanized steel.

Problem

Stock Differences - The stock, coated on both sides, has a variety of materials, widths and thicknesses.

Slow Line Speed - Existing convection oven significantly slowed line speed below the required speed of 300 feet (91 meters) per minute for a material thickness of .020 inch (.5 mm) was required.

Poor Quality - The existing convection oven did not consistently produce a quality end product.

Excessive Cost - The existing solvent-based coating was too costly to use due to expenditures for Environmental Protection Agency (EPA) compliance.

Limited Floor Space - Floor space used by the existing convection oven was need for other processes.

Excessive Energy Consumption - Excessive energy was consumed by the existing convection oven.

Solution

Heat - Six Model 54775 High Density Pyrospans used infrared heat to dry the water based primer.

Vertical Installation - Using vertical burn lamps, the Pyrospans were installed vertically in an existing line.

Benefits

Decreased Cost - By switching from a solvent-based to a water-based primer, the manufacturer significantly reduced expenditures for EPA compliance.

Increased Production Output - By drying the water-based primer with the Model 54775 High Density Pyrospans, the required line speeds were achieved and production output increased by over 60 percent.

Increased Quality - The uniform heating supplied by the High Density Pyrospans consistently produced a quality end product on the variety of stocks used by the manufacturer.

Regained Floor Space - The vertical installation of the High Density Pyrospans allowed the manufacturer to reclaim the floor space previously used by the convection oven.