

Drying Water on Aluminum Coil Stock with a Custom High Density Infrared Heating System

Application

A manufacturer drying a thin film of water after a cleaning process on an aluminum web.

Problem

Slow Speed - Existing method of drying the water with ambient air was inefficient.

Poor Quality - The quality of the end product was not consistently good because the water was not always completely removed from the aluminum before additional processing took place.

Limited Space - The manufacturer only had eight feet (2.5 meters) available for an in-line drying system.

Solution

High Density Infrared Heat - The drying process was accelerated with a Custom High Density Infrared Heating System that applied heat to the top and bottom of the aluminum.

Air - Two air nozzles incorporated into the System sheared the water film from the surface before the aluminum was heated. Two additional air nozzles flashed off any moisture that remained on the aluminum after it was heated.

Benefits

Increased Line Speed - Line speeds were increased by 80 percent to 600 feet (183 meters) per minute.

Improved Quality - The quality of the end product was consistently good because the water was always completely removed from the aluminum before additional processing took place.

Well-Utilized Space - The Custom High Density Infrared Heating System fit in the space available for an in-line drying system.