

Drying Water-Based Adhesive on Steel with a Model 4765 High Density Pyropanel Array

Application

An office furniture manufacturer drying water-based contact cement on steel skins.

Problem

Water-Based Adhesive - The water-based contact cement was applied four to five mils wet and was difficult to dry.

Poor Quality - Existing drying method frequently caused the adhesive to blister or skin over.

Line Speed - Line speeds of 30 feet (9 meters) per minute were required.

Solution

Heat - A Model 4765 High Density Pyropanel Array was used to heat the steel skins before the adhesive was applied, causing the water in the adhesive to begin evaporating immediately on contact with the steel.

Power Control - A Model 664 Phase Angle SCR Power Control System controlled the voltage to the High Density Pyropanel Array.

Benefits

Improved Quality - Preheating the steel with a Model 4765 High Density Pyropanel Array helped dry the water-based contact cement without causing it to blister or skin over.

System Integration - The Model 664 Phase Angle SCR Power Control System automatically adjusted the High Density Pyropanel Array so it consumed only the amount of energy required for specific line speeds and product flow conditions.

Speed - The required line speed was achieved by preheating the steel to 250°F (121°C) in six seconds.