

Automated Spray System Saves Manufacturer US\$27,000 Annually, Reduces Chemical Use by 50%



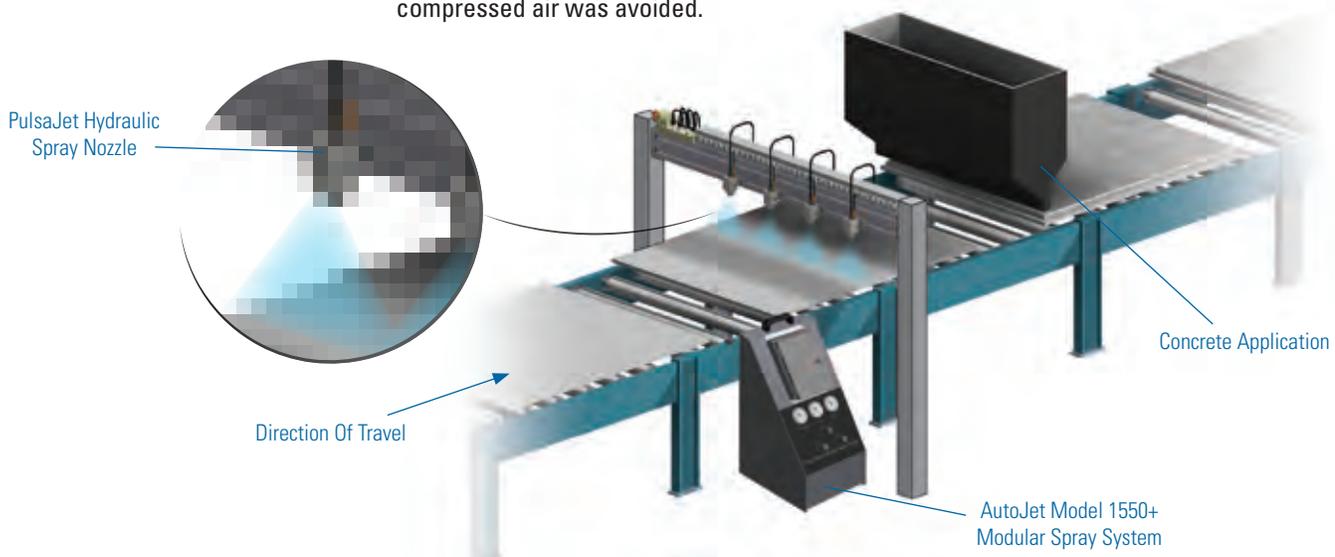
Problem:

A manufacturer of cement board was experiencing quality issues stemming from the manual application of a release agent. Ideally, the release agent is applied in a thin coating on 52-inch (1.3 m) wide forming boards prior to laying cement. The release agent allows for quick and complete removal of the cement boards after curing.

The previous process involved mopping the release agent onto each forming board before the conveyor took them to the cement pouring process. Various operators produced inconsistent results. Over-applying release agent was sloppy, wasteful and stained the final product. Under-applying caused damage to the cement board when it was removed from the forming board, creating rough surface finishes. The manufacturer wanted to eliminate product scrap, chemical waste and unnecessary labor.

Solution:

The Spraying Systems Co. AutoJet® Model 1550+ Modular Spray System with integral air-operated diaphragm pump provided the ideal solution. Four hydraulic PulsaJet® nozzles are mounted to a 60-inch (1.5 m) 98250 spray manifold, which is positioned 10 feet (3 m) before the cement is poured on the forming board. The PulsaJet nozzles provide uniform coverage of the forming boards from a spray height of 6 inches (152 mm). The spray controller allows operators to easily adjust the flow rate for different conveyor speeds to provide optimal release agent coverage to each forming board. By using Precision Spray Control (PSC) to generate very low flow rates with hydraulic PulsaJet nozzles, the need to use air atomizing nozzles and compressed air was avoided.





Automated Spray System Saves Manufacturer US\$27,000 Annually, Reduces Chemical Use by 50% – Continued

Results:

The AutoJet® system solved the manufacturer's quality issues and reduced chemical usage by as much as 50%. It also eliminated the manual labor previously used for the release agent application. Together, these benefits generated a six-month payback period and will continue to save the customer more than US\$27,000 annually.

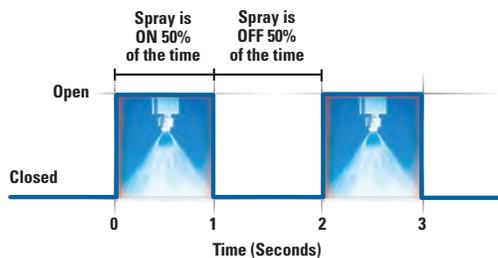
A CLOSER LOOK AT THE SYSTEM



98250 spray manifold features a compact design and sturdy aluminum construction and is available in a wide range of lengths and nozzle spacing options



Pulsajet® hydraulic nozzles cover the width of the conveyor and provide optimal release agent application, allowing easy removal of the cement boards after curing and eliminating mist and overspray



AutoJet Model 1550+ Modular Spray System

is a self-contained unit that sets up in minutes. It precisely controls the Pulsajet nozzles and provides cycle times up to 10,000 cycles per minute, all without the costly use of compressed air.



Precision Spray Control (PSC) turns nozzles on and off quickly to control flow rate. This cycling is so fast that the flow often appears to be constant. Unlike traditional nozzles, which require a change in liquid pressure, PSC allows the pressure to remain constant and enables flow rate changes without changing the spray angle or drop size.

For more information about Precision Spray Control, visit spray.com/psc



Spraying Systems Co.®
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