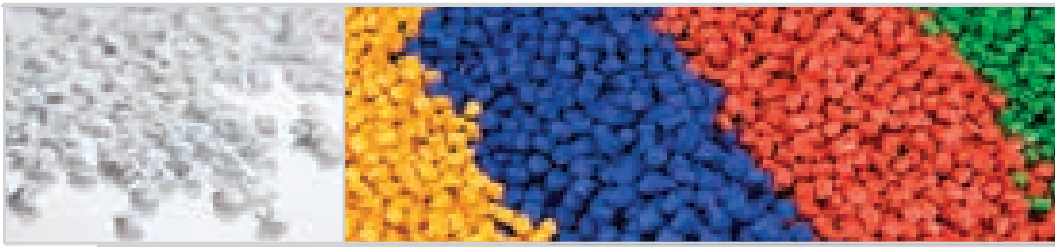


Automated Spray System Helps Elastomer Manufacturer Reduce Release Agent Usage and Save US\$50,000 Annually



Problem:

A manufacturer of emulsion styrene butadiene rubber (ESBR) needed to spray a release agent on a drying conveyor. The release agent prevents rubber crumbs from sticking to the stainless steel conveyor during the drying process, a problem that can cause numerous production headaches.

The previous spray system used hydraulic nozzles on an oscillating arm. The system didn't apply the release agent evenly across the width of the conveyor and lacked the ability to control flow based on line speed. This resulted in sticking problems and a messy, unsafe production environment requiring frequent maintenance. When fouling of the system occurred, production was interrupted while the drying conveyor and surrounding area were cleaned by contract cleaners.

Solution:

Spraying Systems Co.'s solution consisted of an AutoJet® Model 1550 Modular Spray System and a header equipped with six AA250AUH automatic spray nozzles. The spray header applies the release agent as a thin, uniform film across the entire width of the stainless steel conveyor. The AutoJet system uses Precision Spray Control (PSC) to produce very low flow rates. As line speed changes, operators can easily adjust the flow rate of the nozzles without changing pressure – maintaining consistent spray coverage and drop size. And because the AA250AUH nozzles use only low pressure hydraulic atomization, mist and overspray are avoided.



AA250AUH Automatic Spray Nozzles



AutoJet Model 1550 Modular Spray System

Dewaterer

Dryer



Automated Spray System Helps Elastomer Manufacturer Reduce Release Agent Usage and Save US\$50,000 Annually – Continued

Results:

The AutoJet® Spray System provides a consistent application of release agent and has eliminated the previous mess and safety issues. The ESRB manufacturer has saved more than US\$50,000 per year by reducing chemical use and cleaning expense. The payback on the new spray system was less than two months.

A CLOSER LOOK AT THE SYSTEM

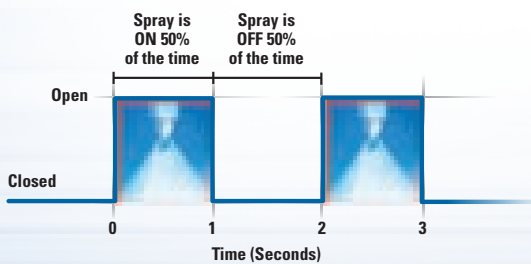


Six AA250AUH automatic spray nozzles coat the drying conveyor to prevent rubber crumbs from sticking.



AutoJet Model 1550 Modular Spray System provides precise on/off automatic control of nozzles.

Precision Spray Control



Precision Spray Control (PSC) involves turning nozzles on and off very quickly to control flow rate. This cycling is so fast that the flow often appears to be constant. With traditional nozzles, flow rate adjustments require a change in liquid pressure, which also changes the nozzle's spray angle/coverage and drop size. With PSC, pressure remains constant enabling flow rate changes without changes in spray performance. PSC requires the use of electrically-actuated spray nozzles and an AutoJet spray controller.



Spraying Systems Co.®
Experts in Spray Technology

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