

Modular Retaining Wall Manufacturer Cuts Release Agent Use by 75%, Saves More Than US\$60,000 per Year



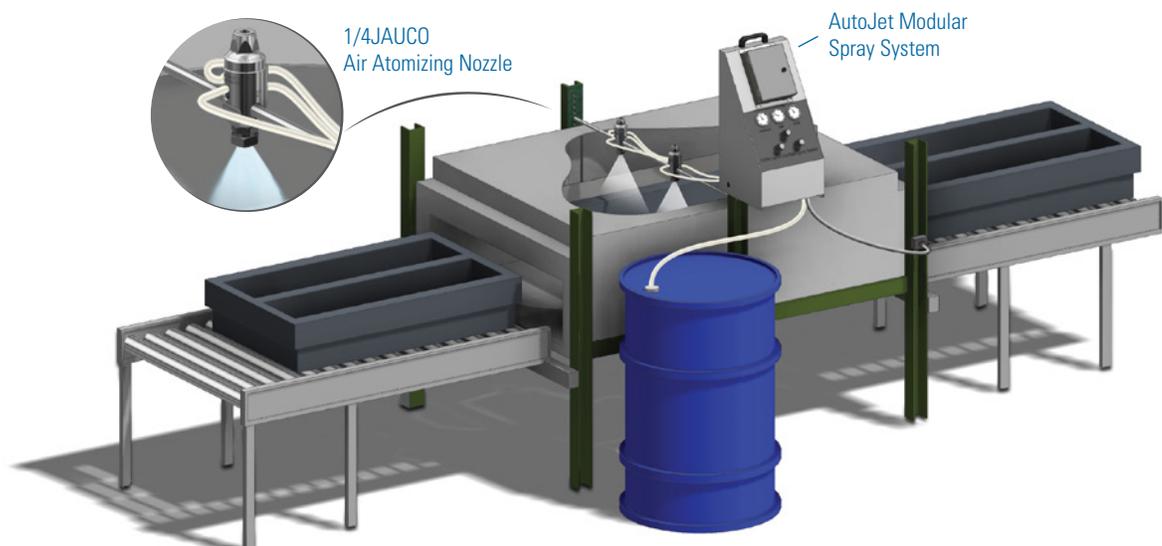
Problem:

A manufacturer of concrete retaining wall components needed a better system for applying release agent to its molds. Previously, a worker using a handheld air atomizing spray gun and pressure pot sprayed each empty mold as it moved down the conveyor before being filled with fresh concrete. This required one 55 gallon (208 liter) drum of release agent per week, but more than half was being wasted through over-application.

Much of the oily release agent accumulated in the mold and left noticeable marks on the finished products, which then had to be touched up by hand or scrapped. The hand spraying also created a misting problem and left a slippery mess on the conveyor, walls and floor.

Solution:

An AutoJet® Model 1550+ Modular Spray System with an integral air-operated diaphragm pump and two 1/4JAUCO air atomizing nozzles positioned over the conveyor solved the problem. Using external mix spray set-ups produces complete atomization and makes it possible to spray the viscous fluid without heating it. A photoelectric sensor triggers spray application of the release agent to each mold as it moves down the conveyor. An automatic cleanout needle operates with every spray cycle to reduce clogging and ensure consistent, problem-free spray performance. The AutoJet spray controller enables the operator to easily increase the application rate for deeper molds or turn it down for shallower molds.





Modular Retaining Wall Manufacturer Cuts Release Agent Use by 75%, Saves More Than US\$60,000 per Year – Continued

Results:

Automating the spray application has reduced release agent usage by 75%, so one drum now lasts for a month. It also enabled reassignment of the worker previously assigned to that task and has allowed an increase in the production rate because there is no more waiting while the release agent is being applied. The estimated US\$60,000 per year in cost reductions generated a payback period of less than two months.

In addition, eliminating the accumulation of excess release agent in the mold has improved product quality and consistency. More accurate application also cut the time necessary for cleanup and enhanced workplace safety.

A CLOSER LOOK AT THE SYSTEM

Two 1/4JAUCO automatic air atomizing nozzles are used to cover the entire width of the conveyor. The air-actuated nozzles cycle up to 180 times per minute and feature a clean-out needle to prevent nozzle plugging



External mix spray set-ups produce a completely atomized spray by mixing the liquid and air outside the nozzle body. They are particularly useful when spraying viscous liquids. The SUE configuration shown here produces a flat spray pattern

AutoJet® Model 1550+ Modular Spray System is a self-contained unit that sets up in minutes. The system provides automatic control of both electrically- and pneumatically-actuated spray nozzles. An integrated air-operated diaphragm pump is available as an option



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