

MANUFACTURER SAVES US\$176,000 ANNUALLY WITH AUTOJET® CARPET AND FLOORING SPRAY SYSTEM

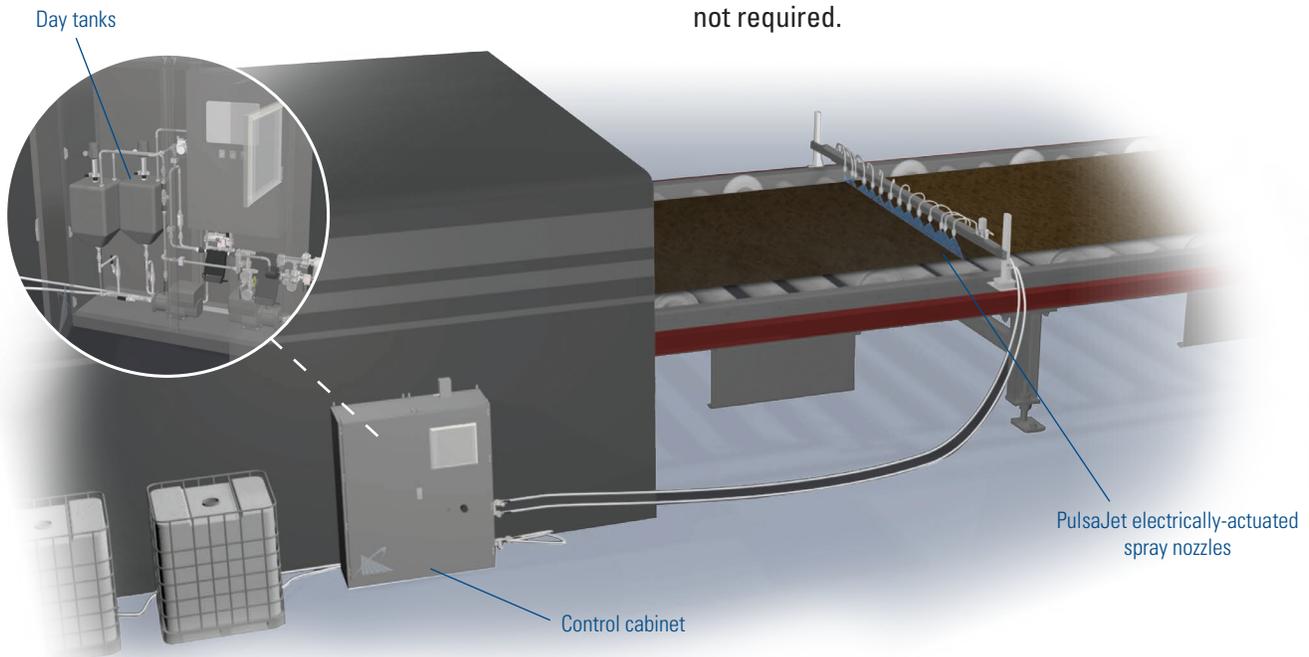


PROBLEM:

A flooring manufacturer was using a foam rolling system to apply stain-resistant chemistries on commercial carpet. The chemicals, dispensed as foam, were rolled into the carpet. However, the foam was not applied uniformly to the carpet. Costly chemicals were wasted when the foam was over-applied. When the foam was under-applied, quality problems occurred after the carpet was installed. The foam rolling system also required fluoridated chemistry which limited the regions in which the carpet could be sold.

SOLUTION:

An AutoJet Carpet and Flooring Spray System is now used to apply the stain-resistant chemistries on the carpet. Hydraulic PulsaJet® electrically-actuated spray nozzles, mounted on a spray header, apply the exact volume of chemistry required uniformly across the width of the carpet just before it enters the dryer. The spray controller monitors operating conditions, makes automatic flow rate adjustments when line speed changes and turns nozzles on and off as needed when carpet width changes. Small day tanks, housed inside the control cabinet, enable fast change between chemistries and provide automatic mixing with water to the required concentration. Fluoridated chemistries can be used with the system but are not required.



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RESULTS:

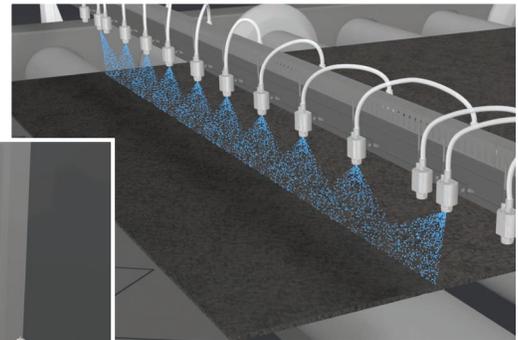
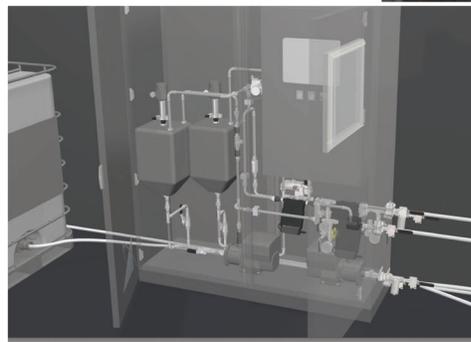
The uniform coverage provided by the AutoJet Carpet and Flooring Spray System had a dramatic impact on operations. Applying the proper volume of chemistries reduced waste by more than 47,000 lbs (21,319 kg) per year – a savings of US\$176,000. Carpet quality has

improved and customer returns have decreased. In addition, now that non-fluoridated chemicals can be applied to the carpet, the manufacturer has expanded its distribution. The cost of the system was recouped in less than six months.

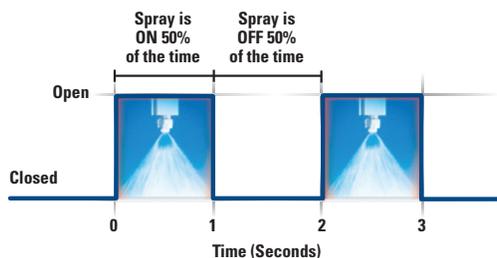
A CLOSER LOOK AT THE SYSTEM

The AutoJet Carpet and Flooring Spray System consists of an Allen-Bradley® PLC, a spray header, hydraulic PulsaJet® electrically-actuated spray nozzles, dosing pumps and day tanks.

Day tanks



Pulsajet header



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.

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



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