The detergent dilution dilemma: A new approach to solution mixing and dispensing eliminates detergent waste and saves operator time.

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Today’s janitorial and housekeeping managers are constantly on the lookout for cleaning equipment innovations that deliver better performance and increased productivity with less labor, both in an effort to help reduce their total cost to clean. Research has shown that 90 percent of cleaning costs are spent on labor, so innovative cleaning methods that help reduce labor and increase cleaning efficiency have become of prime importance to the bottom line.

An exacting and time-consuming task for cleaning personnel is the accurate pre-mixing of detergent and water solutions. Cleaning professionals face the challenge of maximizing scrub time while minimizing the time it takes to mix cleaning solutions and to dump and clean machine solution tanks. Because of this, the task of mixing detergent and water is often rushed and solutions are made too strong or too weak, resulting in poor cleaning performance or wasted dollars. This dilemma is now avoidable with sophisticated integrated detergent-dispensing systems that can provide significant labor savings and cost-savings while maintaining cleaning performance and flexibility.

THE MANUAL MIXING CHALLENGE

Floor-cleaning machine operators face several challenges when they manually mix cleaning chemicals and water in the solutions tank. The familiar “glug-glug” method of detergent proportioning invariably results in an incorrect detergent to water ratio. Plus, there is an underlying assumption that more detergent is better — which is not the case. Here are two problems with manual cleaning solution mixing.

Inaccurate detergent proportioning: Operators who calculate their own mixing ratios often dispense too much or not enough detergent into the solution tank, resulting in either unclean surfaces or floors stripped of their finish. This inaccuracy can result in poor cleaning performance, wasted detergent or both.

Increased safety concerns: Improper dilution of detergents can leave floors with a slippery residue that is a potential slip-and-fall hazard. Some public facilities, such as supermarkets, require a sanitizer to be properly mixed in with the cleaning solution to avoid the spread of germs and disease. Used in the wrong proportion, the sanitizer will not do its job properly.
AXP DETERGENT DISPENSING SYSTEM SOLVES MULTIPLE PROBLEMS

The Advance AXP dispensing system eliminates issues surrounding detergent and water mixing, while at the same time reducing labor and controlling costs. First introduced on some models of Advance scrubbers in 2004, the AXP onboard system eliminates detergent waste and ensures proper dilution ratios by precisely metering detergent and combining it with clean water at the scrub deck, just before the solution is applied. By keeping the detergent and the water separate, the solution tank never needs cleaning. The system also avoids wasting detergent because no premixed detergent and water is ever left in the solution tank.

One key to the system is the refillable 1.25-gallon AXP detergent cartridge that features a sliding dilution rate selector. By simply setting the dilution ratio selector to match the detergent manufacturer’s recommended dilution ratio, the need to pre-mix detergent and water in the solution tank is eliminated. A patented magnetic reader on the cleaning machine enables the system to accurately dispense detergent at the recommended dilution ratio without waste.

By having multiple AXP cartridges, detergents can be quickly and conveniently changed when cleaning needs change. For example, an owner/operator may want to use a green detergent in one part of a facility, and a more aggressive detergent in another area. With the AXP OptimAX system, this change can be accomplished in a matter of seconds without having to flush and clean the solution tank.

Conventional wall-mount detergent dilution systems help get the detergent/water ratios right, but only providing that the solution tank has been emptied and cleaned properly. With AXP, only plain water is needed in the floor machine tank. This virtually eliminates tank emptying and cleaning, which in turn saves time and labor.

CLEANING PERFORMANCE AND PRODUCTIVITY BENEFITS

There are many other advantages of the AXP onboard solution dispensing system that are designed to increase productivity, decrease overall cleaning time, and lower costs.

Application flexibility – Once the detergent ratio is set on the AXP cartridge, the detergent flow will automatically adjust for regular, high or extreme soil conditions as selected by the operator controls.

Detergent manufacturer neutrality – Operators can use any manufacturers’ detergent at the recommended dilution ratio. This eliminates operators from being “locked into” using proprietary brands of detergents or having to change existing detergent programs when purchasing an Advance scrubber with AXP.
Detergent flexibility – Easy AXP cartridge access combined with a dry-disconnect allows quick and clean swapping of different detergent formulas for different applications. Operators have the flexibility of using specialty detergents such as degreasers, neutralizers, or those that are green-certified, and being able to change detergents in seconds.

Low detergent warning – A low detergent light on walk-behind machines notifies operators when the detergent level is low and if the cartridge needs refilling.

Clean water in solution tank – Since only clean water is required in the solution tank, the tank never needs to be emptied or cleaned. Detergent is never wasted when the solution tank is drained.

CONCLUSION
Today’s janitorial and sanitation industry managers demand simplified and cost-effective cleaning solutions. They are also seeking better ways to reduce waste and increase cleaning team productivity. Advance’s AXP Detergent Dispensing System solves the cleaning challenges associated with calibrating detergent and water ratios by accurately dispensing detergent at the manufacturers’ recommended dilution ratios. The refillable and semi-transparent AXP cartridges help operators see when refills are needed. Extra cartridges can be conveniently filled and labeled to interchange detergents for different applications. AXP technology gives cleaning professionals the flexibility to use any detergent they want at the manufacturer’s recommended dilution ratios, knowing they will achieve superior and consistent cleaning results while driving down the cost to clean.