# Taking a load off

## More facilities are pulling the plug on resource-robbing laundry practices — as they seek to lessen environmental burden and improve the bottom line

**By Julie E. Williamson**

As more long-term care providers work to increase efficiencies and leave a smaller environmental footprint, on-premise laundry operations are being put under increased scrutiny.

With labor accounting for more than half of the laundry budget and laundry equipment consuming significant energy, water and other precious resources, finding ways to do more with less — and with better outcomes — makes good business sense.

Swapping outdated washer-extractors and dryers for more sophisticated, efficient models is a high-impact strategy worth considering. Although these capital equipment purchases can initially put a dent in the budget, they also can quickly pay for themselves in increased throughput and a reduction in resource consumption, Practice Green Health reports. Washers built before 2003 are a prime example. According to the Environmental Protection Agency, which created the ENERGY STAR international standard for energy-efficient consumer products, older washers are significantly less efficient than newer models.

"ENERGY STAR-certified washers use roughly one-third less energy and 40 percent less water than regular models," the EPA notes.

Of course, dryers, extractors, chemicals and staff practices also factor heavily into overall efficiencies and a facility's environmental impact. These days, the market is brimming with innovative solutions that make it easier than ever for staff to improve laundry operations, without taking a toll on the environment or bottom line.


Photo: Carl Caruso, Levindale Hebrew Geriatric Center

**Lightly soiled linens don't need the same type of big-gun cycles as heavily soiled linens, experts remind. Many providers unknowingly waste chemicals, water — and money — by not adjusting washer's water levels.**

### Cycle right

Incorrect cycle selection is one of the biggest and most costly mistakes laundry operators make, experts say.

"Lightly-soiled linens, for example, typically don't require the same wash program or treatment as heavily-soiled linens. If staff are running the same cycles for all loads, that means wasted water, energy and chemicals," explains Bill Brooks, UniMac North American sales manager.

Today's advanced washer-extractors feature dozens of wash cycles — as many as 30 water levels and temperature choices — he pointed out. But if programmable features aren't being used effectively, they're a wasted benefit. Brooks recommends long-term care facilities work with their equipment distributors and chemical representatives to pre-program the wash cycles and chemical usage based on the most popular loads and health regulations.

"Then, selecting the correct option is as easy as staff touching a button and pressing start," he says.

Brooks recommends facilities without an advanced washer-extractor with flexible programmable options familiarize themselves with typical loads, and which cycles and chemicals those loads typically require to ensure that resources are used wisely.

Water is a dwindling and costly resource, yet experts say many facilities unknowingly use too much. Laundry operators nationwide should adjust their washers' water levels and, if possible, program their machines to ensure that fill levels aren't set too high, and that chemicals aren't wasted when too much water is in the cylinder. Proper water level programming can save thousands of gallons of water over the course of one month, says Dan Goldman, OPL national sales manager for Laundrylux.

At the same time, operators should avoid under-filling their machines, an all too common problem that's not only costly and wasteful, but can impact the washer's performance and lead to premature breakdown of both linen and the equipment itself.

"Under-loading occurs seventy percent of the time, especially when the operator doesn't weigh the loads prior to processing," Goldman says. Electrolux's latest washers weigh laundry and automatically adjust water levels

according to poundage.

Facilities using front-loading washer-extractors without the latest high-tech features can follow this advice from Gary Gauthier, regional sales manager for Milnor Laundry Systems: Fill the machine until there's a football-shaped and football-sized space at the top of the basket.

"Some people worry that putting too much into a washer is bad for the machine or that the goods won't get clean," he says. "In fact, under-loading is much worse on front-loaders because this can cause out-of-balance extracts that will prematurely damage bearings and the machine's frame."

### Get the formula

Cleaning chemistries should also be carefully evaluated for their efficacy and environmental impact, sources agree. Sunrise Senior Living has seen a big ecological and economical impact by using a solid chemical system.

"By using solids, we're able to mix with water on site and help reduce the gasoline that would have been used to deliver gallons of water-based chemical product," notes Andy Coelho, SVP of facilities at Sunrise.

A number of cold-water chemistries that can clean textiles effectively with less heated water are also on the market. Energy use is often most impacted by water temperature, stresses Gauthier, so it's important to consult with the laundry chemical supplier to ensure that appropriate water temperatures are being used.

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Another piece of expert advice: Don't overuse high efficiency detergents. As Dan Hayes, president of Creative Laundry Systems Inc., explains, HE detergents, which capture and hold dirt particles away from fabric, so they can be rinsed away cleanly, are designed for use in low water environments.

"Using too much detergent is like using too much shampoo and not rinsing it all out," he says, adding that too much detergent leaves fabric stiff and scratchy. To release detergent residue, he suggests washing with a half cup of white vinegar instead of detergent. "If you do this with towels, you'll feel how soft they are without soap when the residual soap is gone."

Excess detergent also can interfere with sensors in the machine that monitor the balance of the load, Hayes cautions, and can clog drains and plumbing. What's more, excess bubbles build up in the cabinet and drum, and can reach the main bearings that ease the drum's spin.

"Once the bearings fail due to soap build-up, you have to buy a new machine," he warns.

### Heating up the savings

Another simple way to shave waste is to nix over-drying. Excessive dry cycles drain time and energy, and also break down textiles, resulting in higher replacement costs. Bypassing set drying times on the tumbler is a common mistake seen in almost every laundry room, according to Goldman.

"Often, you'll see fingerprints on the door glass from the same operators as they try to determine if the laundry is dry. What they

fail to realize is that by opening the door prematurely, a minimum of twenty degrees Fahrenheit is expelled from the dryer." Often, he says, they'll feel the linen, decide it requires additional time and then seven components must be energized to relight the flame. "It may take an additional ten minutes to get back to the temperature the dryer was prior to opening the door."

Dryers with residual moisture control features that sense remaining moisture in the fabric and automatically shut off the dryer when specified levels of dryness are reached take the guesswork out of the process and allow staff to focus their efforts elsewhere until the cycle is complete. Educating staff on how "dry" feels is also important. Contrary to common belief, items should have a slight hint of moisture in them at the end of a cycle. Bone dry items that are hot to the touch are over-dried.

According to a UniMac survey, 70% of respondents believe on-premise laundries are over-drying linens by at least eight minutes.

Photo: UniMac

**Operators must carefully avoid overusing detergents — a common error — industry veterans say. White vinegar can release detergent residue.**

With a 75-pound capacity tumble dryer, cutting eight minutes of over-drying from ten loads a day could save $883 in utility costs and $4,866 in labor a year.

Even low-tech best practices can have a big impact on overall efficiencies. Professionally cleaning dryer ducts, cleaning lint screens between loads and providing continuing education to staff on laundry efficiency measures are all simple, yet effective solutions, reminds Coelho.

Forgoing dryer sheets is another wise move, Hayes says. Dryer sheets contain wax that holds the softener in place. This wax melts and then coats the drying sensors inside the machine, as well as the air filter that carries out lint. "Because air flow is impeded, the dryer doesn't work as efficiently. Rinsing the air filters in hot water will melt the wax and allow air to flow freely."

### Benchmark practices

Solutions that deliver sophisticated, computer-based monitoring capabilities are another major leap in laundry management innovation. They're also helping long-term care facilities see their laundries as bonafide businesses.

"One of the best ways to ensure the laundry is operating as effectively as possible is by establishing benchmarks of the factors that contribute to throughput and cost per pound, including labor, utilities, equipment usage and the types of cycles being programmed," says Brooks. UniMac debuted the UniLink control system on its washer-extractors in 2007 and on tumble dryers in 2011 to collect machine performance and maintenance data. One update to the system, a Cloud-based system called TotalVue, presents UniLinc data in easier-to-read dashboards. This system offers an at-a-glance view of laundry efficiency, based on the cost to process one pound of laundry.

"Performance dashboards make it easy to assess the laundry room or multiple locations while on the go, and ensure they're running at desired levels," says Brooks. ■

## HOUSEKEEPING GETS CLEANER, GREENER

There's a growing emphasis on using fewer chemicals and more organic, green products to keep facilities clean and safe for residents, visitors and staff.

"This applies to both housekeeping and cleaning, as well as pest control," says Ron Harrison, Ph.D., entomologist and Orkin Technical Services Director.

Carpet and textile cleaning practices are just one area getting a greener overhaul. Encapsulation or crystalline cleaning products are applied as a spray, brushed in, allowed to dry, and then vacuumed from the carpet. Although these products have been around since the 1990s, they've recently become more popular, notes Stephen Lewis, Technical Director for MilliCare Textile and Carpet Care. These dry compound extraction products leave less residue, reducing the risk for resoiling, and they allow carpet to be walked on immediately.

"Because very little water is used, there's little to no risk of mold or mildew developing in the carpet," says Lewis, adding that the compounds also remove pollutants such as allergens and volatile organic compounds, to promote good indoor air quality.

Greener cleaners used for hard surface floors, surfaces, drains and trash areas are also available, allowing facilities to nix foul odors, grease and grime, while also eliminating conditions that insects need to breed. Organic products are just one part of integrated pest management, a recommended practice of the Association for the Healthcare Environment and Practice Greenhealth. IPM focuses on facility maintenance, sanitation and prevention measures to help stave off pest infestations.

"IPM protects the hot spots around healthcare facilities that pets target in search of harborage or food and water sources," explains Harrison. "With IPM, chemical treatments are only used as a last resort, and then only in highly targeted treatments in the healthcare environment."

Sound practices are just as critical as product selection. At Jewish Home Lifecare in New York, broad-spectrum, eco-friendly cleaning products that are effective against microorganisms and bodily fluids are combined with standardized cleaning practices. All housekeeping staff start at the farthest point in the room, beginning with high dusting and working down toward the floor. Vertical surfaces, such as window blinds, are tackled first, followed by bedrails, headboards and mattresses, and eye-level furnishings, such as televisions, nightstands and dressers. Bathroom cleaning comes last, beginning with mirrors and medicine cabinets, followed by disinfection of the sink, trashcan, grab rails, and toilet seat, flush handle and bowl.

"Floors are the last step when cleaning a room, and the bathroom floor always comes last," notes one veteran New York City provider who has had a lot of experience cleaning some of the messiest rooms. "Also, be sure to replace the water in the mop bucket between rooms."