In with the wash

Knoxville Fire Dept. brings laundry in-house; saves \$40,000 per year by Haley Jorgensen

y cleaning turnout gear, sheets, blankets, towels and station uniforms in-house, the Knoxville, Tenn. Fire Dept. expects to save around \$40,000 per year.

Recently, the fire department installed a Continental E-Series® Washer-Extractor and matching dryer in each of its 18 fire stations located throughout Knoxville. By bringing laundry in-house, the department saves money and simplifies the process of cleaning protective turnout gear—a win-win.

The Knoxville Fire Dept. delivers fire protection and rescue services to 175,000 people, via 18 strategically located fire stations throughout Knoxville. Its 308 full-time firefighters respond to more than 30,000 fire, emergency medical service and hazmat calls each year; most often in four minutes or less. Because each firefighter works three, 24-hour shifts per week, the department is responsible for regularly cleaning bed linens, station uniforms and towels, on top of protective turnout gear. By installing a highly programmable industrial-grade washer and dryer in each station, the department eliminated its dependence on a costly linen/laundry service.

"After the initial set up of the laundry equipment, it will cost us around \$10,000 per year to do our laundry in-house," says

Chris Foster, logistics officer and captain. "That includes linen replacement, cleaning chemicals, water and gas. We estimate that after the first two years, we will save \$40,000 per year. That was the biggest factor for me selling the idea to the administration."

Selecting a Highly Programmable Washer-Extractor

Choosing the right washer and dryer wasn't easy, according to Foster. Ultimately, the department installed a 20-pound

"Right now with the economy, every dime or penny helps the budget. When you have 18 stations and 300 guys, the little things add up."

capacity Continental E-Series Washer-Extractor and matching dryer in each of its 18 stations. The laundry equipment was selected for its superior programmability, energy-efficiency, ease of use and durability. With a soft-mount design, the washer and dryer slid into place without need of concrete foundations and bolts—critical for installations in small spaces or areas with in-floor radiant heat.

Programmability Key to Cleaning Protective Gear and Other Items

"The biggest thing was that the washer was programmable to meet the specifications of cleaning the turnout gear," Foster says. The new washers can not only be programmed to handle cleaning turnout gear shells and liners according to manufacturer's instructions, they can also be programmed to properly clean the department's sheets, towels, blankets and station uniforms. That's critical since the department's firefighters sleep, shower and eat at their respective stations while on duty.

Care of Turnout Gear

The control on each washer is programmed to ensure water temperature, extract speed, cleaning chemicals, fill levels, cycle time and the number of baths and rinses are perfectly suited to fabric type—eliminating the possibility of damage to fabric.

"Fire departments should follow manufacturers' recommendations and NFPA 1851 guidelines for the care and maintenance of protective apparel," according to Jeff Large of Laundry Systems



The Knoxville Fire Department installed a highly programmable Continental E-Series Washer in each of its 18 fire stations, eliminating its dependence on a laundry service and saving money. Pictured from left, are, Chris Glenn, Ronal Cook and Gary Ellis.

of Tennessee. Large helped the department select and install its new laundry equipment. "Soiled protective gear should be properly washed in a highly programmable, front-load washer-extractor. A highly programmable washer allows fire departments to easily alter how they wash gear based on changing recommendations and fabric innovations," he says. "You want a washer that can easily be programmed for today's gear or emerging protective fabrics still on the horizon."

At the Knoxville Fire Dept., the 18 E-Series Washers clean turnout gear at a lower G-force extract (not greater than 100 G-force) and optimum water temperature. But, the washers also feature separate programs for cleaning linens, towels and station uniforms. Linens and towels are washed using much higher (354 G-force) extract speeds, so that more water is removed at the end of the cycle—shortening subsequent dry-time by as much as 50 percent.

"With many other washers, the maximum G-force is only 100. Those washers don't have the programming flexibility or efficiency of the E-Series," says Large.

Once the turnout gear is cleaned, it either hangs dry or is laid across a blower system that gently blows air onto the fabric, according to Foster. Turnout gear is never put into the new dryers; those are reserved for sheets and towels.

Energy Efficiency Critical to Saving Dollars

And while the flexibility of the washer is key for the Knoxville Fire Dept., so is its efficiency and durability. The Continental E-Series 20-pound capacity frontloading washer is listed by ENERGY STAR® as among the most energy-efficient washers in its class and uses as little as 13.4 gallons of water per load. By comparison, most top-load washers consume 31-40 gallons of water per load. As a result, the department reduces water and sewer costs and the gas required to heat the water ...

"Right now with the economy, every little dime or penny helps the budget," says DJ Corcoran, community relations officer. "Anything we can do to save the city some money is important. When you have 18 stations and 300 guys, the little things add up. That was a big selling point for us."

"I am responsible for all the buildings and maintenance so I wanted something that was going to last," adds Foster. "The washer and dryer's stainless construction was important."

Clean Gear Better Protects Firefighters & Lasts Longer

The new in-house laundries also make it simpler for firefighters to wash soiled

gear, which is critical to ensuring protective fabrics do their job to keep firefighters safe, according to Foster and Corcoran. The process is simple. Firefighters load their washer, select a program number for washing turnout gear, and press start.

"You get carbon buildup when you wear dirty gear and it emits odors," says Corcoran. "When firefighters are closed up in the truck compartment, dirty gear can really smell and may be hazardous. So you want to clean that out and try to be as healthy as possible."

Since the department's firefighters have

two sets of turnout gear each—at a cost of around \$1,600 per set—it's important to keep it clean. In doing so, gear lasts longer and does a better job of protecting the wearer, according to Foster. "Any carbon buildup on the gear will not let it perform properly," says Foster. Keeping gear clean helps keep Knoxville firefighters safe ...

To find out more about the Knoxville Fire Dept., visit http://www.cityofknoxville.org/kfd/default.asp. To discover more about Continental laundry products, visit www.continentalgirbau.com/firedepartments.

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