



An upper-level view of HLS' 185,000 square-foot healthcare and hospitality laundry that opened in April near Ottawa International Airport. Everything in this plant is designed for ease of movement of textiles and people. The design—coupled with efficient systems and equipment—adds up to a highly productive facility with steadily growing throughput that is currently at some 30 million lbs. annually.

HLS Ottawa

A Model Success Story

New plant sets high standards for efficiency, throughput and staff relations

By Jack Morgan

Stop and think for a moment ... What if you had the mandate and the means to oversee the design and construction of a very large, ultramodern commercial laundry? Your mission would be to enhance your company's ability to compete in growing healthcare and hospitality markets both today and for decades to come. How would you do it?

Easy in, easy out

Rocco Romeo and Pete Rainville, CEO and COO, respectively, of HLS Linen Services, Ottawa, Canada, confronted this challenge three years ago. That's when they launched a strategy that led to the



The exterior of the plant features a clean modern look with landscaped grounds that present an inviting image to visitors.

formal opening earlier this year of a new 185,000 square-foot laundry near the Ottawa International Airport.

You might wonder: What were the organizing principles these managers used to tackle this complex task? For Romeo and Rainville it came down to two basic issues: moving textiles and moving people.

“We said, ‘Here’s what we want,’” says Romeo of the initial planning for the plant that’s now processing 30 million lbs. annually. “This is the layout and size we want this to be. This is how we want it to flow.

“If you look at our original diagram that we did of this building back in September of 2004 on a napkin ... that vision ... there was tweaking but we didn’t compromise very much. The other thing that we looked at very closely when we designed it is people movements. I think you see this in the plant.

“If you look at this place, we’ve designed a lot of things that look specifically at egress. How are people going to move? Where are people going to go? It’s a lot of little efficiency things because this business is about seconds. It’s not that you’re going to uncover one

major thing that’s going to be the key to success. It’s about a bunch of little things where you save a whole bunch of time and take advantage of efficiencies to make things happen.”

Swift soil sort

On a recent visit to HLS, this *Textile Rental* correspondent took a close look at this new plant—starting with the five receiving docks in the soil department, where goods are moved off of trucks to cart dumpers that drop textiles onto a conveyor that moves them to an upper-level area for sorting. The morning we visited, rows of carts stood by the dock in neat lines like soldiers awaiting orders to move to the cart dumpers. At the start of the process, all goods are weighed on a platform scale. A barcode symbol on each cart is scanned to keep track of inventory from the time it arrives soiled to the time it goes back clean to customers. High-value or high-loss items such as surgical gowns, drapes and scrubs have individual barcodes. The plant doesn’t use Radio Frequency ID chips. “Nothing has convinced me yet that they’re more efficient than barcodes,” says Romeo.

Plant Profile



Here is a side view of the plant, including loading bays. HLS was constructed earlier this year on a 13-acre site. Company CEO Rocco Romeo and COO Pete Rainville worked with a team of architects and consultants to build a plant that would meet their short- and long-term needs amid growth in their healthcare and hospitality markets.



(l/r) HLS COO Pete Rainville and CEO Rocco Romeo take timeout for a photo, while standing beside a stack of clean linens.



An HLS semi-trailer truck helps deliver textile goods to the plant's 75 customers throughout metro Ottawa and greater Ontario. HLS' fleet also includes five 5-ton trucks.

The flow of goods in this plant is designed for ease of movement from one department to the next. "I'm a firm believer: keep it simple," says Romeo. "With the size of our workforce the more simple you keep things the better the operation runs. Another reason why I like to keep things simple is anybody who comes into this facility should know what's going on rather quickly. There is no need to add complexity. I believe when you add complexity you add time."

Moving up a stairway, we see employees sorting soiled healthcare linens into 48 hoppers. These goods drop into slings that move via an E-Tech overhead rail system to the wash aisle when they meet a preset weight. In this plant, chemicals provided by Gurtler are piped under the floor to the wash aisle equipment. Hand-adjustable blower pipes extend down from the ceiling at every work station to provide fresh cool air for employees. Standing by as employees sort linens, we detect no odors.

After sorting, the plant is able to store up to 360 slings, or 59,000 lbs. of sorted goods as they await movement to the wash aisle. Once emptied, carts are moved to a Pioneer cart washer for cleaning. In an unusual set up, they move through the cart washer and onto an

automatic conveyor that moves the clean carts through a tunnel that goes underneath the plant. The carts emerge on the clean side, ready for loading finished goods. This dual system with cart washers at either end can move up to 200 carts per hour. Romeo and Rainville adapted the idea for the cart tunnel from a plant they visited in Sweden. Some were skeptical about the idea when the plant was in the planning phase. "Then we went to Sweden and we thought, 'This isn't so crazy,'" says Romeo.

In addition to a growing healthcare business (about 88% of throughput), HLS also has seen rapid growth in COG hospitality work at major hotels in metro Ottawa. It started with a single Hilton Hotel, then grew quickly. "Our reputation in hospitality has grown," says Rainville. "We have grown from one hotel to 12. That's mostly due to our quality. Our growth has about doubled in the past four years." Romeo adds that HLS' reputation for quality in healthcare has spilled over into the hospitality arena. Textile goods from these different sectors are processed separately from start to finish.

Plant Profile



Laundry carts move on a conveyor through a cart washer and into a tunnel that transports them below the length of the plant from the soil side to the clean side. The system can transport 200 carts per hour.



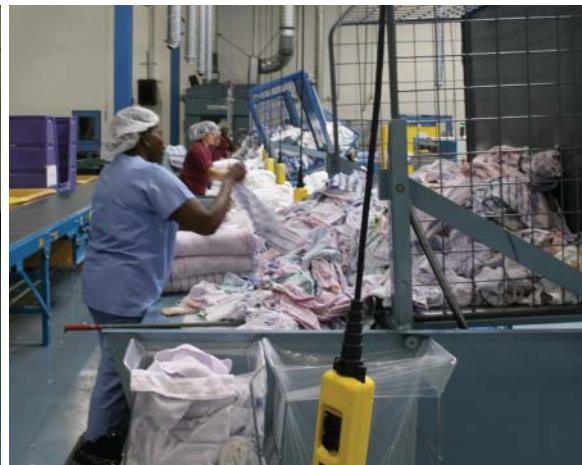
Employees sort soiled healthcare textiles into 48 hoppers. The goods then drop into slings that move to the wash aisle via an overhead rail system that automatically dispatches them when they reach a preset weight.



A backup electric generating system is available in case of power outages.



Air filtering machinery used in conjunction with the plant's air compressors



Employees fold clean textile goods dropped onto tables by automatic cart dumpers (at right).

Wash Aisle— room to grow

Moving on to the wash aisle, the heart and soul of this department is HLS' quartet of four, Kannegiesser tunnel washers. Each of these highly automated machines feature 16, 165 lb. compartments. Wash cycles are 90 seconds for hospitality, 120 seconds for healthcare linens and 180 seconds for surgical textiles. The area where the tunnels are located is designed with extra space and ready-made utility links for the addition of two more tunnels, if needed. "We'll be able to put in a new tunnel very quickly," says Rocco. While planning for future growth is an important feature of this plant, the facility also has abundant back-up capacity. "We have a lot of equipment redundancy," says Romeo. "We always have to be able to provide service."

That commitment to keeping linen flowing to healthcare and other customers applies even in case of earthquakes. While few on the U.S. side of the border associate Ottawa with seismic disturbances, the city does lie on a fault line. Romeo and Rainville and their team of consultants took this into account when building the plant. Extra construction beams are visible in various areas of the

plant, including the boiler and chemical storage rooms. The plant features four 300 hp Miura boilers for general steam needs and one 100 hp Miura boiler that supplies steam for sterilization in the OR packroom. The plant also has two Sullair 125 hp air compressors.

The plant's chemical storage room features double-walled tanks for chemicals. There are heavy-duty cables on the walls and a containment area under the floor in case of any emergency. "Safety is our No. 1 priority," says Romeo. "You can see it everywhere."

Many plants tout the importance of safety on wall posters. At HLS, safety precautions include limiting the movement of people in the plant. A biometric system reads an employee thumbprint and limits access to areas, such as chemical storage, where most employees have no need to go. "It's very neat, very tidy and we don't have to worry about nonsense," says Romeo.

Additional safety-related space restrictions are seen in the automated conveyor area that lifts "cakes" of clean wet linens to the dryers after excess water is removed by a 45 bar press that applies 3,600 psi of extraction pressure. The conveyor area is entirely caged off and locked. "You have to have two keys, sort of like a ballistic



An employee drops soiled goods onto a conveyor that moves to an upper level for sorting by another group of employees.



An employee puts goods into a sheet feeder.



An employee feeds flatwork in the finishing department.

missile system,” says Rainville. Romeo adds, “There’s no way you can get in there. We made sure there was no way to bypass that system.”

While HLS focuses on safety, protecting the environment and saving energy are also high priorities. The plant features a Kemco wastewater heat recovery system, heat exchangers and stack economizers that reduce natural gas consumption. The plant uses 140,000 cubic meters of fuel a month vs. 170,000 cubic meters in the old plant. Electricity use is about the same, at 400,000 kWh per month despite a near doubling of the building’s footprint from 95,000 square feet to 185,000 square feet. Water consumption is lower at 13,000 cubic meters per month vs. 17,000 cubic meters per month in HLS’ old facility on Sheffield Road. Savings accrue from more efficient equipment in virtually every department. In addition, HLS is experimenting with some novel ideas for saving resources. “We’re trying to be as environmentally conscious as possible,” says Rainville. “We even thought of using the drainage from the roof to supply a tank for our mat cell (an undeveloped area of the plant for processing mats). We do every possible thing that we can think of

in terms of saving energy, utilities, even the water from the sky.” Romeo says the plant’s water treatment /reuse system is saving significant dollars and earning a quick payback. “Our water bill used to be \$32,000 a month. Now it’s \$22,000. Multiply that out and that’s some good savings.”

Fast finishing

Moving from the wash aisle, textiles ride a conveyor to a mezzanine level where they are dropped into 24 Kannegiesser 190 lb. dryers. Other textiles move directly to the finishing side of the plant. All “clean” areas are sealed off from the soil side by walls and pass-through corridors with changing rooms, showers and lockers for employees. HLS’ array of flatwork finishing equipment includes:

- 7 Kannegiesser flatwork ironers
- 2 Jensen Extreme Feeders
- 2 Jensen Classic Folders
- 2 Chicago King Edge Feeders

Plant Profile



An employee feeds towels into a small-piece folder.



An employee feeds blankets into a folding machine.



An employee inspects machinery that automatically moves slings of soiled goods to the wash aisle.



A computer monitor lets employees see where goods are in the tunnel washer.



A view of a tunnel finisher used for healthcare garments in the plant

- 2 Chicago Skyline Feeders
- 6 Kannegiesser Small Piece Folders
- 6 G.A. Braun Small Piece Folders
- 2 Kannegiesser sheet pickers
- 2 Kannegiesser EMT feeders
- 2 Kannegiesser folders
- 1 G.A. Braun Theta Blanket folder
- 12 lift tables strategically set in various areas of the plant for the hand folding of various items.

By the time we reach this area of the plant, it's late morning. Pointing to then idle drying equipment, Romeo notes that all of the day's hospitality goods have already moved to the ironers or to packout. Michael Bautista, the plant's senior production manager often finds himself ahead of schedule on these goods. "It's like a video game," says Romeo. "He gets a higher score every day. When we get a new customer, it will give him a challenge."

"One thing about this plant is we're fast at everything. At 10:30, we've done all the hospitality. It used to take us all day."

Rainville notes that Canadian luxury hotels, like those in the United States, prefer high-end linens. "It's all high quality," he says.

Standing by carts filled with linens, Romeo points to barcode labels on each one. "Put a sign on everything, so you know what it is and where it goes. That's the key to processing hospitality. Everything is kept separate."

As employees feed flatwork into ironers in relaxed but rapid motions, we pass by two folding machines that look similar, yet different. Romeo smiles and says, "Our dry-fold department has small piece folders from Braun and Kannegiesser." The two machines from competing companies work side by side so that HLS management can compare the performance of each. Romeo makes no mention of which machine he prefers, so the jury could still be out on this question.

While equipment in the finishing area is high tech, HLS hasn't yet installed monitoring equipment so employees can track their performance by looking at LCD screens attached to their ironers.

Plant Profile



OR packroom employees sort textiles for use in OR packs.



Another view of employees sorting goods for OR packs



A view from the clean side of the plant, rows of empty carts stand ready for loading.

Romeo says plans are in the works to do that. “There were a few things that we waited on to get here because we wanted to get everything running, so that when we get set up we’re going to get LCD displays for our staff so that they can see their production numbers.”

Near the packout area, we pass two large machines that seal each cart in clear plastic. These carts are ready to go onto one of the plant’s five 5-ton trucks and one semi-tractor trailer that services HLS’ 75 customers. Near the wrapping machine is the clean end of the underground tunnel that delivers carts from the soil side. In this part of the plant, a visitor is struck by the sight of several of the 24 skylights in the ceiling that Romeo says not only save electricity, but improve visibility and the look of the plant. “Why does a laundry have to be ugly? Our architect had a wonderful idea with natural lighting. We’ve designed a building that has great natural lighting so that stains can be seen. You can assess color a lot better when your selling the product, and quite frankly you’re saving energy at the same time. How do you lose on that?”

Controlling lint and dust is another area that contributes not only

to reducing fire hazards, but to projecting a positive image of the plant to employees and visitors. HLS uses Northern Air lint-removal systems wherever they’re needed. “You notice that the plant is very clean,” Romeo says. “Because we are selling a clean product. And that means the place itself should be clean. There’s a couple of reasons for that. No. 1, I firmly believe if we’re going to sell something clean, the place should be clean. No. 2, your employees know that it’s clean. It affects their morale and their own work.

OR packroom innovation

The light and airy look of the plant lends something of a “home away from home” feel to the facility. In a break room used by staff who work on surgical textiles, the homelike atmosphere is especially strong. Employees have decorated their break room dining area with placemats and other donated items. “They make it their own little kitchen,” says Romeo. “A little bit cozy.”

Before entering the packroom, we don hairnets to reduce the risk of contamination as we walk through. Employees here sort, pack and sterilize roughly 11,000 packs in two large Getinge Castle



A view of the plant's chemical injection system



A view of the plant's chemical storage area, which is reinforced with heavy-duty shelving and metal-frame boxes to reduce the risk of spills in case of earthquakes



A water-heating system in the plant



A hot water storage tank



A view of three of the plant's four tunnel washers

Sterilizers. Unlike U.S. hospitals, Romeo says healthcare facilities in Canada favor reusable OR textiles over disposable goods.

Looking for opportunities to further expand the use of reusables inspired HLS management to come up with a new product idea. It consists of a reusable wrapper for OR packs with a microfiber exterior layer on one side and polyester material on the other. Rainville said a textile manufacturer adapted the idea and is now producing the wrappers for HLS and other companies.

Bold moves

Seeing the plant and talking to Romeo and Rainville convinced this correspondent that HLS has accomplished much of what it set out to do in planning and building the new plant. What's the secret of their success? Romeo cites detailed, realistic planning for efficiency and growth—but equally important is a focus on meeting the needs of employees. I saw plenty of examples of this priority in action, from ventilation fans to skylights and more. "Our strength is our people, basically," Romeo says. "The people are highly motivated, passionate about their work. Our slogan is dedicated, reliable

and dependable, and I think if you look across the board at any person who works here, managers or whatever, I think those words apply. I think that people are the difference." HLS earns this loyalty in part because it focuses on providing a high-quality work environment. "Your No. 1 cost is your people," says Romeo. "You should be looking at employee comfort. You should be looking at employee productivity. You can't just jam them in somewhere and say, 'Produce in heat. Or produce in cold weather.' It's not going to happen. You've got to make your employees comfortable. Happy employees are productive employees, and that's why every year we have four or five lunches that management prepares for the employees at Thanksgiving, Christmas, Easter. ... We have an annual barbecue where we thank our employees for their hard work and that's served by management."

Of course, HLS' latest reason to celebrate, its Sept. 28 open house event at the new plant, could never have happened without management and hourly staff pulling together to make the move to the new facility in a timely fashion. "We basically converted to this plant in a weekend," says Romeo. "And in hindsight I think we

Plant Profile



An employee inspects folded textiles before moving them to packout.



Employees place goods onto a sheet feeder.



Finished goods are wrapped in plastic to ensure quality and hygiene before carts are moved onto trucks for delivery to customers.



While healthcare is HLS' main business, its base of high-end hospitality customers also is growing.



Stacks of fully assembled OR packs sit on shelves in the OR packroom.

were losing our minds because I don't know how we managed to do that. We really did plan it well and this is why the conversion went as smooth as it did. We were on such an adrenaline rush. We went in with a positive attitude and said, 'We'll get it done. We can do it,' despite a lot of people being apprehensive and thinking we were rushing it through. And we literally did it on a weekend shift. And when you think of what it takes to move 26 million lbs. over a weekend and what that involved, that was a bold move, but we did it and we are proud of that."

Come Monday morning after the move, Rainville and Romeo looked on in amazement. "On the opening day (April 9), Rocco and I were here with everyone else, first thing in the morning, 4 a.m. Before the sun came up," says Rainville. "After working 20-hour days nonstop. We looked through the front door of the building ... looked out into the parking lot as all the employees were coming in and we were just awed at the whole journey."

Now that the plant is up and running, Rainville and Romeo say they're glad they thought through the details and did the job right. "Our goal was to make sure that 35 years from now, when we are

long gone and somebody else is managing this facility that they won't have to fight as to where to put things," says Rainville. "Or where they're going to expand. The services are here. The building size is sufficient for aggressive growth over the years."

Another benefit of meticulous planning is the fact that these managers have few regrets about their new plant. "I think Pete and I have had this discussion about what would you do differently again and you know what? There's not too many," says Romeo. "I think that is the most satisfying thing. We spent a lot of time planning this facility. We are such perfectionists, he and I, that had we had a lot of regrets about stuff, I don't think we'd be able to sleep at night. We look at it and go: 'No, we've really got a good model here. It really works.'" TR



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