



Sodexo Case Study with Clarke BOOST® Technology

Location: Sodexo, the leading provider of integrated food and facilities management services in the U.S., Canada and Mexico, with floor cleaning equipment used in Concord Hospital in New Hampshire.

Application: Removing floor finish in hospital facilities without the use of chemicals, where time, labor and hygiene are critical.

Product: Clarke BOOST® Autoscrubber.

Purpose: To cut time and labor in floor finish removal procedures, minimize the use of harsh chemicals and odors associated with them and increase facility sustainability.

Primary Choice Factors: Removes floor finish with only water, no chemicals and no odors; reduces the need to shut down corridors to get the job done; saves nearly half of the time and labor associated with traditional floor finish removal procedures; increases facility sustainability and safety.

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Chemical-Free Floor Finish Removal Maximizes Productivity for Hospital Cleaning

Sodexo faced a cleaning challenge when one of their contracted facilities required an alternative floor finish removal procedure—one completed in less time, with minimal labor and without the use of chemicals. John Rota, an employee of Sodexo, and Director of Environmental Services (EVS) at Concord Hospital in New Hampshire, required a cleaning solution that would not only meet these goals, but would also enhance the hospital's overall sustainability.

A Traditional Approach to Floor Finish

Rota used a labor-intensive process that involved multiple, time-consuming floor finish removal tasks—resulting in closed corridors, harsh chemical odors and extensive labor. For example, Rota's crew, which is comprised of 2 people, was required to strip and refinish Concord's main floor hallway, which is 1,232 sq. ft., and is the main traffic lane for the Emergency Department, Radiology and Laboratory. To effectively strip the floor finish from this area, the project team typically followed these steps:

- 1. Prep Area:** Break down the hallway in small sections and prep area by removing all obstacles and furniture. Then, vacuum or dust mop to remove all debris, dirt and large objects from the area.
- 2. Prep Stripping Materials:** Mix the stripper solution and gather equipment. This includes a mop bucket, cotton or blended mop, floor machine and stripper pads.
- 3. Apply Stripping Solution:** Apply the stripping solution with standard cotton string mop, then, agitate stripping solution with a floor machine using the appropriate stripper pads. Areas with finish build-up may require additional agitation.
- 4. Pick Up Dirty Solution:** After sufficient dwell time, pick up dirty solution before it dries. This can be done using a rotary floor machine or automatic floor scrubber. If the stripper solution dries, apply more stripper solution to loosen the finish.

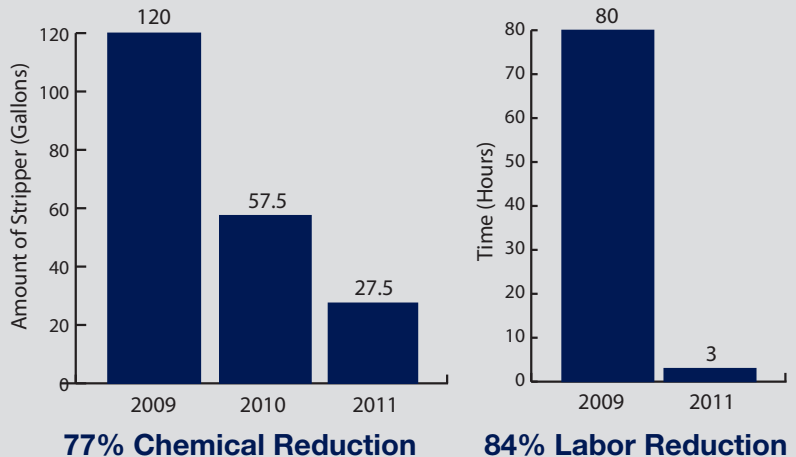
- 5. Rinse and Dry Floor:** Rinse the entire area, including all baseboards and corners, with warm water using a mop. Sometimes this must be done multiple times to ensure all stripping solutions are recovered.
- 6. Clean Up:** All solution tanks, mops, buckets, squeegees and hoses must be thoroughly rinsed and cleaned out to ensure zero stripping solution remains.

Once the above tasks are completed, the floor is ready to accept floor finish. However, multiple layers of finish are required to sufficiently cover the floor, with adequate drying time between each layer. This entire process took Rota's crew roughly 80 man hours of labor to perform a strip and apply 5 coats of finish. This procedure needed to be performed on the third shift to minimize disruptions in traffic and odor complaints from staff and patients, while ensuring the health and safety of facility occupants.



Clarke BOOST® in Concord Hospital

The graphs on the right illustrate the labor and chemicals saved using Clarke BOOST technology on the main floor hallway (154 ft X 8 ft). Prior to purchasing the Clarke BOOST, this hall took roughly 80 man hours to perform a deep scrub and apply 5 coats of finish. All the work needed to be performed on the 3rd shift to prevent disruption to facility occupants. With BOOST, Concord is now able to deep scrub this same floor during the 1st shift in 3 man hours, saving significant time, labor and chemical use.



Before / After

Concord main floor hallway before and after BOOST® Technology



Cleaning staff at Concord Hospital

A Chemical-Free, Sustainable Solution

After seeing the Clarke BOOST Autoscrubber at an ISSA (The International Sanitary Supply Association) trade show, Sodexo tested the machine in a hospital patient room. Sodexo was able to remove the floor finish in under 15 minutes—saving 45 minutes from the 60 minutes that it previously required with alternative methods. The patient room floor reflected a much smoother, more even surface appearance. Upon seeing the results, Sodexo decided to promote and use BOOST autoscrubbers within their facilities.

Rota began using the Clarke BOOST autoscrubber in the Concord Hospital for corridors, patient rooms and the facility lobby. Rota found that the new equipment reduced time and labor and eliminated the use of chemicals, resulting in less downtime, closed facility areas and staff and patient complaints. When using BOOST in Concord's main floor hallway, which previously took up to 80 man hours to complete, Rota's crew was able to remove the floor finish during the first shift in as little as 3 man hours. With BOOST, the floor finish removal procedure resulted in an 84 percent labor reduction. BOOST also used 77 percent less stripper solution than previous methods, allowing Rota to largely eliminate air quality issues associated with stripping, including concerns regarding chemical sensitivity, odors and burns from using high pH products. BOOST helped to improve Concord's sustainability, enhance environmentally-friendly cleaning procedures and optimize the health and safety of the facility, its workers and its occupants.

The Results: Sustainable, Efficient Floor Finish Removal

The Clarke BOOST autoscrubber helped Rota's team meet their productivity and sustainability requirements at Concord Hospital. Cleaning equipment used by Sodexo within the Concord system also meets the LEED-EBOM IEQ Credit 3.4-Sustainability Cleaning Equipment standard. With Clarke BOOST, Sodexo found a solution to help promote its own 'better tomorrow commitments' to reduce water consumption and inorganic waste. Sodexo now promotes the technology behind Clarke BOOST autoscrubbers with Sodexo Shine, which is recognized as an eco-friendly process that saves time and money. By utilizing BOOST technology, Sodexo Shine ensures chemical-free floor finish removal, labor savings, reduced clean-up time and less water usage.

"We all understand that cleanliness promotes healing and better health. With Sodexo's new eco-friendly process, combined with the unique BOOST technology, we can help our facilities create a healthier, safe environment that will also help the outside environment."

— John Rota, CHESP,
Director, Environmental Services
Sodexo Services, Concord Hospital

How BOOST® Works

BOOST® Technology utilizes orbital scrubbing technology, allowing operators to clean more uniformly and more consistently than disc scrubbers. With a rectangular pad, BOOST provides consistent contact across the floor surface.

BOOST Technology operates at 2,250 RPMs compared to 200-300 RPMs of a conventional disc scrubber, which generally employs dual counter-rotating pads or brushes and requires increased pad pressure. The orbital action of BOOST, combined with high RPM orbital action, attacks dirt from multiple directions and requires less pad pressure to achieve the desired cleaning result. This can extend the life of floor pads by up to 40 percent. The unique rectangular shape of the BOOST scrub head permits operators to clean immediately along the edge of baseboards and in corners without overspray — virtually eliminating additional labor steps in cleaning operations.

With a BOOST autoscrubber, cleaning solution is introduced in front of the rectangular scrubbing pad. The orbital pad contains the cleaning solution and carries it for the full length of the pad. Compared to traditional disc scrubbers that output water continuously and sling it away from the pad, BOOST's efficient use of the cleaning solution results in water and chemical savings of 50 to 70 percent.

IEQ Credit 3.4: Green Cleaning—Sustainable Cleaning Equipment

Requirement: Implement a program for the use of janitorial equipment that reduces building contaminants and minimizes environmental impact. The cleaning equipment program must require the following:

- Vacuum cleaners are certified by the Carpet and Rug Institute "Seal of Approval" Testing Program for vacuum cleaners and operate with a sound level of less than 70 dB A.
- Carpet extraction equipment used for restorative deep cleaning is certified by the Carpet and Rug Institute's "Seal of Approval" Testing Program for deep-cleaning extractors.
- Powered floor maintenance equipment, including electric and battery-powered floor buffers and burnishers, is equipped with vacuums, guards and/or other devices for capturing fine particulates and operates with a sound level of less than 70 dB A.
- Propane-powered floor equipment has high-efficiency, low-emissions engines with catalytic converters and mufflers that meet the California Air Resources Board (CARB) or Environmental Protection Agency (EPA) standards for the specific engine size and operate with a sound level of less than 90 dB A.
- Automated scrubbing machines are equipped with variable-speed feed pumps and onboard chemical metering to optimize the use of cleaning fluids. Alternatively, the scrubbing machines use only tap water with no added cleaning products.
- Battery-powered equipment is equipped with environmentally preferable gel batteries.
- Powered equipment is ergonomically designed to minimize vibration, noise and user fatigue.
- Equipment is designed with safeguards, such as rollers or rubber bumpers, to reduce potential damage to building surfaces.

Clarke Delivers Sustainable Solutions for Floor Care Applications

Clarke manufactures rugged floor maintenance equipment for the healthcare, education, retail and other commercial markets. From automatic floor scrubbers and floor burnishers to carpet extractors and vacuum cleaners, Clarke delivers innovative equipment designs focusing on performance, reliability and sustainability.

To learn more about the Clarke BOOST autoscrubber and other Clarke equipment, or to find a dealer near you, visit www.clarkeus.com or call 800-253-0367.

To learn more about Sodexo, and the Sodexo Shine program, visit www.sodexousa.com or call 800-763-3946.

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