

RAPID WATER TECHNOLOGIES™

CASE STUDY: New Wash-Down Procedure Saves \$10,000 Annually

As anyone who has ever cleaned a bathroom knows, dried-on toothpaste takes significant effort to scrub off any surface. For one Michigan-based toothpaste manufacturer, it took two people, a half-gallon of caustic cleaner, a scissor lift and six hours to clean the crusty mess of silica that clung to the exterior of its stainless steel mixing tanks, despite brief, daily washdowns. This process had to be repeated every 90 days, **costing the company more than \$10,000 annually in labor and production downtime.**

The company's process technician led a four-month study to improve this cleaning procedure, installing a 1x2 Nanobubble Generator from Rapid Water Technologies on the wash-down system used to clean the toothpaste tanks.



“After using water from the generator, we immediately noticed that we didn't need to scrub as hard and **the stainless steel surface became easier to clean**,” said the technician. At first the facilities team continued using the cleaning agent mixed with the nanobubble water. “We found that our **chemical use decreased**,” he continued. “Eventually, and to our surprise, we were able to stop using chemicals all together and still see the same results. **We've found that it cleans even better than the naked eye can see.**”

Today, the six-hour scrubbing ritual has been eliminated from the manufacturing facility. Instead, a team member simply sprays the tanks' exteriors using only nanobubble water from washdown system that was modified by Rapid Water Technologies. **The process fits within the 15-minute daily washdown, does not interrupt production, and is conducted at floor level, eliminating the need for a scissor lift and accompanying safety gear. The result is a safer facility, less downtime and increased production.**

The company's Quality Assurance team has noticed other impressive benefits, which they attribute to the negative charge in nanobubble water. They say that because the toothpaste residue is positively charged, less residue remains on even the interior of the tanks after each batch. With less residue, each subsequent batch is easier to clean, creating a compounding effect and reducing downtime between every toothpaste batch.

“We've looked into other nano-type processes,” explained the company's process technician. “But they all use chemicals. **With Rapid Water Technologies, we don't have to introduce new chemicals and that's why our QA lab got 100% behind this process.**”

Next, the company's QA team is exploring other applications and plans to add Rapid Water Technologies Nanobubble Generators to additional water piping locations. The goal is to prevent buildup on the inside of piping. By eliminating buildup, they will see better heat transfer and longer equipment life, which translates to savings on energy and maintenance costs.

For more information: **616-437-4038** or www.rapidwatertech.com