



How a simple pressure measurement keeps wastewater flowing through the Muffin Monster

Every veteran wastewater treatment plant operator has a story about the most outrageous thing someone's flushed. Kids' toys, cell phones, jewelry, and money make up some of the best stories, but flushable wipes are far more common and cause much bigger problems.

Flushable wipes don't dissolve like toilet paper. Instead, the wipes get stuck in home plumbing, wastewater collection systems, and wastewater treatment plants. To reduce the number of backups, wastewater treatment plants began installing inline wastewater grinders, also known as Muffin Monsters, but even these aren't invincible to blockages.

Too many solids at once can stop up the grinder and cause a blockage, but operators can identify this problem before it stops the flow all together with a pressure measurement. Operators at a wastewater treatment plant in the American Midwest installed a simple pressure gauge next to their Muffin Monster, so they would know when to shut down their process and clean the grinder.



Automating a manual process

The simple pressure gauge worked well enough because operators could walk by and check the pressure. When it was too high, it was time to clean the grinder. Unfortunately, this system relied on people regularly walking by, and that didn't always happen. The ideal solution needed a pressure sensor connected to their control system.

The wastewater treatment plant was already using VEGA radar sensors for multiple level measurements and a few VEGABAR 82 pressure sensors for various pressure measurements throughout the facility. They told their local VEGA seller what they wanted: a simple, cost-effective pressure sensor they could connect to their PLC.

After learning more about the application, VEGA suggested a VEGABAR 38 with a watertight M12 electrical connection. The new pressure sensor easily connected to the wastewater facility's control system, and it had a large on-site display operators were already accustomed to. Plus, the customizable 360° switching status display made it even easier for passers-by to know when the Muffin Monster was nearly clogged.

After using the new pressure sensor for a few months, one plant operator said, "I can't wait to use more of these. They are so simple, easy to see from far away, simple communication to my PLC, and we have places all over the plant where we'd like to know if something is flowing right or plugged."

Simple pressure measurement instrumentation in every aspect

The VEGABAR 20 and 30 series pressure sensors offer several benefits that make them easy and improved replacements for simple gauge pressure measurements. These VEGA pressure sensors have a compact design, so they can fit in tight spaces just like simple gauge pressure sensors.

The customizable LED light ring and the display on the VEGABAR 38 and VEGABAR 39 provide visual indications of the pressure measurement, and both features easily surpass their gauge pressure transmitter counterparts. With multiple pressure ranges and different output options, these electronic pressure sensors can connect to control systems to fully automate processes previously disconnected from the overall process entirely.

Simple, cost-effective pressure measurement solutions like the VEGABAR 20 and 30 series are making it easy for the wastewater industry and others to improve their processes and increase efficiency with a small investment.



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