

Medora Corporation

GridBee AP500 Solves Wet Wipes Problem

Cromwell, CT



The \$2 billion wet-wipes market and the two million lift pump stations in the U.S. may be at an impasse—at the bottom of wet well lift stations. That’s where the wipes collect and form clogs, causing maintenance trauma for sewer department personnel. In one Connecticut town, a savvy sewer department foreman took the time to find the exact cause of the problem—and a simple, effective solution in GridBee® AP500 mixers.

Wet wipes are a handy commodity in households, hospitals, health care centers, schools and every place else where people need a quick tidy-up. But once flushed, they can form large knotted balls of material that clog lift station pumps and interfere with the level controls.

In Cromwell, Conn. (pop. 14,000), Curtis Rooth, sewer department foreman, was keenly aware of the problem. Normally, his lift station pumps fill to about ten feet of water, start the “on” cycle and pump the water/sewage. The pumps shut off when levels return to about three feet.

But one of the neighborhood lift stations would not always evacuate the collected water. The expensive solution was to send a repair crew and vacuum truck to clear the offending debris from the floor and



Curtis Rooth sewer department foreman, Cromwell, Connecticut, sought a less costly solution to the problem of wet wipes clogging lift station pumps.

the pumps. Seeking a less costly solution, Curtis observed that the wipes and other non-flushable material collected during the station's "off" cycle and combined with grease to form a large knotted clump. In addition, the clump would dislodge and move the liquid level transducer, resulting in a bad water-level signal and poor pump control. He suspected the clump formed at the grinder pumps inlet, which sometimes prevented enough water from entering the pump and causing it to cavitate, which could shorten pump life.

AP500 Mixer Moves Wipes Through Pumps

Rooth's initial idea was to try an electric submersible mixer with fan-like blades. The wet wipes collected and stuck on the blades during the "off" period, causing an excessive load on the motor and heavy vibration when running. Another concern was how to safely install the electric mixer without the mixer accidentally cutting electrical wires.



Medora Corporation GridBee AP500 Mixer

Then he tried the GridBee AP500 mixer from Medora Corporation. Since the unit is air-powered, there are no issues with electrical safety or mechanical rotating components. The installation also does not require fastening the mixer to the wall or the floor. The unit is simply lowered with a chain, either all the way to the bottom of the wet well or suspended from the chain slightly above the bottom.

The AP500 mixer creates an upward, mixing flow from the bottom of the lift station. A non-clogging diffuser and a flow-concentrating outlet effectively scour the



Installing the AP500

floor area of debris and send a one-foot diameter stream of water upward. This flow keeps the wet wipes from forming clumps, allowing the wipes and any grease which has been broken up to easily pass through the pump.

Since Rooth installed the AP500 mixer, the lift station has performed as expected with very clear water in the well. His ingenuity found the source of the problem; AP500 mixers took care of the rest.



GridBee AP 500 Water in the wet well remains clean without extra periodic cleaning.

About Medora Corporation

Medora Corporation, Dickinson, N.D., whose brands include GridBee® and SolarBee®, provides solutions for difficult problems in municipal and industrial wastewater treatment. Applications include energy savings, process improvement and odor control

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