



“we ARE the standard”

### Automation Designed to Reduce Operational Costs



Water and wastewater organizations of any municipality have a major investment in facilities and equipment. The repair and replacement of electric/electronic equipment is a major consumer of annual budget dollars. In this electronic age, there is a trend towards digital/electronic systems that are more efficient yet more susceptible to damage from surges/transients than previous equipment technologies. The expense for the maintenance and repair of these systems will only increase with time. The challenge of incorporating intelligent systems into the reality of unstable and untamed electrical power can be daunting, if not just outright overwhelming. The technology designed to improve our quality of life and increase our free time quickly evaporates and leaves technicians and management seeking answers to why it didn't benefit their municipality.

### Is there an answer for this Techno-Dilemma?

In a word, yes there is a way out of the maze. Electrical power quality plays an ever-increasing role in the successful utilization of anything electronic and micro-chip driven. The promised advantages of the latest SCADA system or PLC driven, VFD operated lift stations can be realized. But no longer can engineering publish and RFQ for the latest greatest 21<sup>st</sup> century equipment without taking the necessary steps to also specify the optimal 21<sup>st</sup> transient filtering technology with which to support the underlying electronic infrastructure.



**Primary Hot Spots benefiting from Surge Protective Device (SPD) Application:**



- |                       |                             |
|-----------------------|-----------------------------|
| Pumps and Motors      | Lift/Pump Stations          |
| Aerators              | Variable Frequency Drives   |
| UPS Systems           | Automated Transfer Switches |
| Motor Control Centers | Laboratory Equipment        |
| SCADA Systems         | Ultra Violet Banks          |
| Control Panels        | Blowers                     |
| Flow Meters           | Water Tanks/Level Controls  |
| Security Systems      | Medium Voltage Equipment    |

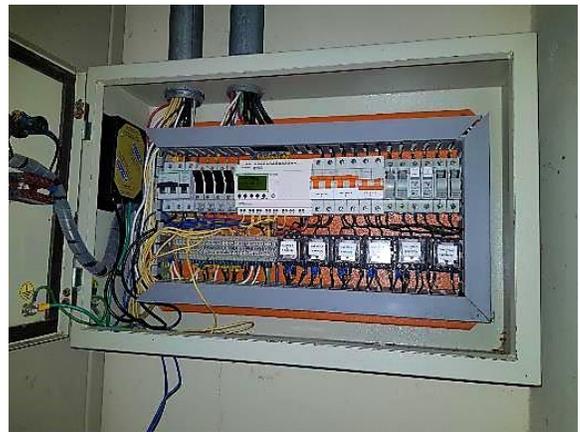
## 4<sup>th</sup> Generation Technology

Capitalizing on the benefits of the latest Water/Wastewater technology and all that it may offer requires a sure foundation. SineTamer® is that first step. Virtually all OEM's build in a simplified surge suppressor, typically a common MOV type device. The challenges arise when strange occurrences begin to plague the equipment, and no one has an answer, since surge protection is "built-in".

SineTamer® is not your common surge device. It is an engineered transient disturbance filter that is designed to monitor all 360° of the sine wave. According to numerous studies one of the predominant power quality issues involves loss of synchronization of processes and unexplained reboots or resets. Many of these events are triggered by false zero crossings of the sine wave, which the typical surge arrester can never prevent.

### Improve your Bottom Line

In a waste water facility in southern Brazil following the implementation of an automated water pumping system that was designed to meet the needs of the growing population, they began experiencing significant issues with downtime in the pumping stations. Maintenance installed several brands of spd's without success. The trial installation of cascaded Sinetamer® units eliminated failures and vastly improved system availability.



A community in Ecuador had been suffering significant losses annually (2016/2017) in their water treatment and pumping facilities. The annual cost was \$300,000 but the image of the community suffered even more. During city hall meetings the citizens continually demanded solutions. Our proposed Sinetamer® cascade system was projected to cost close to \$40,000. The budget was reluctantly approved and for the ensuing 6 months the system suffered zero downtime due to VFD failures or PLC lock up or confusion. Return on investment projected at less than 50 days.



In a large Chilean metropolitan area the water distribution company implemented a telemetry system designed to improve water availability within the various districts. The systems monitored water flow and pressure along with pump start-stop timing. After suffering through an average 44% uptime for each well telemetry site and the mounting man power and equipment costs; Sinetamer® cascade system was implemented. The results were outstanding! Each well was now operating at 99% efficiency!

Finally, one interesting case from a southern USA city reported to us an average of 85-90% reduction in instrumentation repair and replacements since utilizing our SPD technology. In addition to that they report motor repair had been reduced by 20% and normal maintenance labor call outs reduced by 50%! This all came after multiple other vendors and products had been installed.

Sinetamer® is unparalleled in providing a true return on investment that averages less than 9 months in installations in more than 45 countries around the world. Sinetamer® is the global standard in surge protection!