

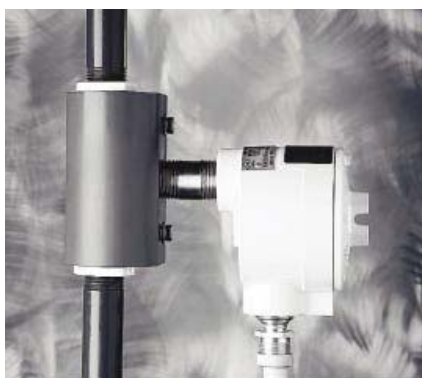
## Water & Wastewater Chemical additive flow detection FLT93S FlexSwitch

### Application

User: Wastewater Treatment Plant,  
Location: Fairfield, CA USA,  
Media: Alum, Sodium Hydroxide, Hydrofluosilicic Acid,  
Flow Range: 1.27 to 1.59 gph [0.08 to 0.10 lpm],  
Alarm Setpoint: 0.48 to 0.65 gph [0.03 to 0.04 lpm].

The water treatment industry uses a variety of methods to treat potable water in order to bring it into compliance with taste, odor, appearance and health standards. A fundamental part of the treatment process is the use of chemical additives such as alum, polymer, caustic soda, and ferric chloride. Chemicals are added at different points in the treatment process to help purify and clarify the water.

To dispense and meter the chemical additives, positive displacement pumps are commonly used. The quantities of chemicals added to the water are very small and flow rates of 1 to 2 gallons per hour (gph) are typical. Because the chemical content of the water is critical to its quality and safety, treatment plant operators must assure that the chemical additives are flowing.



### Challenge

It is common industry practice to assume the chemical additives are flowing as long as the actuators in the displacement pumps are moving. However, plant operators soon find out that monitoring the actuator movement does not guarantee chemical flow. Chemical reservoirs run dry, blocking valves are accidentally closed, lines leak and injectors clog, yet, the pump's actuator continues its cyclic motion.

Monitoring the flow of the chemical additives is a more dependable way to assure chemical flow. Unfortunately, flow monitors typically are not sensitive enough to detect extremely low flow rates nor robust enough to withstand corrosive chemicals.

### Solution

FCI created the VelociTee® Flow Conditioner in response to the water treatment industry's need for a reliable, chemical additive flow monitor. The VelociTee is a special PVC tee designed to boost the velocity and dampen the flow pulsation of the chemical additives. It's unique construction also maintains a flooded

Do you have any comments or questions?  
Please share them with us.

### KM26 Magnetic Level Gauges

Application: **New Orleans Levees**  
Several KM26 MLG's have been sold for diesel tanks involved in the new pump stations located in New Orleans. They will be used to pump water out of the canals when the locks, installed after Hurricane Katrina, are closed. They aim is to protect the canal from future hurricane storm surges. [Read more about KM26..](#)

### User Application Guide

Solving critical process applications for the **Water & Wastewater Industry** by utilizing Thermal Dispersion & Coriolis technologies in all flow, level, temperature switches & mass flow meters.

Read more details at [www.measurIT.com](http://www.measurIT.com)

### OUR PRODUCTS

#### Systems of Valves:

Tideflex Mixing Systems  
Tideflex Effluent Diffusers

#### Valves:

Water Control Valves - **SINGER**  
Pinch Valves (manual, air-operated)  
All-rubber Check Valves - **TIDEFLEX**  
Flow Regulators  
Rubber Expansion Joints

#### Sensors:

Oil Spill Detectors - **OilSpy**  
Flow Conditioners - **VORTAB**  
Flow Meters - **FCI** (Thermal Dispersion)  
Flow Meters - **ACCELABAR** (Pitot Pipe)  
Flow Switches  
Pressure & Temp. Switches  
**new items!** Pressure Sensors  
**new items!** Level Gauges & Transmitters  
pH Sensors  
Suspended Solids & Turbidity Sensors  
Humidity & Lux Monitoring

### CONTACT US

our new contact details:

#### MeasurIT Technologies Ltd.

Craan, Craanford,  
Gorey, Co. Wexford, Ireland

phone: +353 (0)53 942 8962

fax: +353 (0)53 942 8963

email: [info@measurIT.com](mailto:info@measurIT.com)

[www.measurIT.com](http://www.measurIT.com)



measurement cavity. The VelociTee is used with [FLT93S Flow Switch](#). The Model [FLT93S](#) has been an industry flow switch standard of reliability since 1993. Pairing the all-welded [FLT93S](#) with the VelociTee creates a chemical additive flow monitoring system that exceeds the water treatment industry's dependability, sensitivity and

ruggedness requirements.

[Thermal Dispersion - How Stuff Works?](#)

Read more about [Thermal Dispersion Flow Switches](#) at [www.measurIT.com](http://www.measurIT.com).