

## EchoSpan Success



The World Water Park Association estimates that there will be 1300 water theme parks in the US by 2010. New park designs have become increasingly complex and automated with level as a primary measurement. Flowline ultrasonic transmitters are the non-contact level measurement solution for water theme park ride and exhibit monitoring applications. It's water park level made simple!



Largely concentrated in KY, LA and TX, the \$5.7B US rubber manufacturing industry spends \$300M per year in new capital equipment. Latex, the fastest growing industry segment, presents a storage and material handling challenge due to the extreme coating nature of the media. Flowline ultrasonic transmitters are the non-contact level measurement solution for latex bulk storage tank monitoring applications. It's latex level made simple!



In a major metropolitan city, a customer is measuring fuel levels for backup generators in a high rise building. Using Flowline's EchoSpan™ ultrasonic transmitter, they are receiving continuous level measurement that informs the building maintenance crew of current fuel levels. The property management group is working with Homeland Security, who highly recommends they take better means in managing backup systems in case of emergency. Flowline is providing reliable, accurate and dependable level measurement, making sure the right amount of fuel is there when it's needed. It's backup system readiness made simple!

## About Flowline - We Do Your Level Best

Flowline supplies industrial manufacturers and municipalities with quality tank inventory monitoring, automation and safety solutions for corrosive liquids.

Demand for chemical storage and feed systems has grown steadily since the 1960's, fueled by industrial automation, municipal water treatment and environmental regulations. As a result, Flowline introduced the first family of thermoplastic liquid level sensor, installation and control technologies for water-based chemicals.

Our core competency is non-contact level measurement using our patented digital signal processing technology that makes level simple. Flowline primarily serves the water, wastewater, chemical, health and electronics industries. We enable users to best manage their liquid assets with dependable level solutions that reduce fluid handling costs.

Design or process engineering, system integrator, original equipment and maintenance users are well served through our global network of technical distribution partners. Together, we deliver innovative solutions that automate containment processes, ensure workplace safety and protect our environment.

# EchoSpan Level Measurement



Flowline's EchoSpan® ultrasonic level transmitter, designed for bulk storage applications, replacing contact level technology. EchoSpan is your accurate and reliable level solution.

**FLOWLINE**  
We Do Your Level Best

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## How Does It Benefit Me?

### Made for Bulk Storage applications

- Compact design allows for installation in applications with limited mounting options and space
- Minimum 8" dead band allows for maximum fill of media
- Rugged PVDF transducer for challenging or corrosive media

### Non-contact benefits in a small package

- Higher accuracy with no moving parts
- Measures corrosive liquid media without affecting product performance
- Advanced Digital Signal Processing (DSP) provides advanced surface imaging in applications with obstacles in the beam width

### Low cost of ownership

- Economical to purchase and install
- Doesn't require adjustments once initial configuration is complete
- No moving or exposed parts, virtually maintenance free

### Fast and easy configuration

- 3 push buttons set-up allows for quick and accurate configuration
- 6 digit LCD gives a reliable display of sensor and tank values
- Diagnostic capabilities for sensor placement, making installation simple

EchoSpan, an ultrasonic level transmitter designed for bulk storage applications. A 2-wire (loop-powered) ultrasonic level transmitter that provides non-contact level measurement up to 10 m (32.8') in bulk storage, day tank, waste treatment and sump applications, and is well suited for challenging corrosive, slurry or waste media.

EchoSpan utilizes Flowline's patented digital surface processing (DSP) technology, enabling surface imaging that provides adaptive technology for obstructions that may enter the beam column. This allows for greater dependability and accuracy in installations where obstructions below the sensor can't be avoided. Additionally the adaptive signal processing intelligence continuously optimizes sensor power, output filtering and environmental noise rejection

## How Does EchoSpan Work?

### DSP Technology

- Allows measurement in limited space
- 3" beam width column
- Minimum 8" dead band for maximum fill capacity



### Compact Enclosure

- Viewing window
- Dual 1/2" conduit connections
- 2" NPT thread



### Level Measurement

- 4 - 20 mA output
- Reversible output signals



### Push Button Configuration

- Fast, accurate and simple configuration
- Documented configuration control



### Corrosive Liquid Media

- Rugged PVDF transducer
- NEMA 4 housing
- Potted for additional durability



## Where Can I Use It?

EchoSpan design and performance capabilities position it well for applications focused on bulk level storage and automation:

- Industrial water treatment / make-up
- Wastewater management / processing
- Bulk storage
- Chemical storage, process and waste

## Potential Applications

### Water and Waste Water

- Process water
- Remediation
- Neutralization
- Combined sewer / storm drain lift stations
- Fuel storage for diesel generators

### Petrochemical

- Resin storage tanks
- Chemical bulk storage
- Waste treatment process and storage

### Health Care

- Pharmaceutical
- Dialysis
- Disinfecting

### Mining

- Water, chemical and waste storage tanks
- Storm water run off / retention

### Cleaning

- Car wash chemical storage / waste storage
- Laundry run off

### HVAC

- Chemical treatment for boilers
- Monitoring cooling towers

### Chemical

- Chemical storage tanks
- Chemical waste sumps

### Semiconductor

Water Parks / Swimming Pools

Agriculture

Electric Power