



# ELECTROMAGNETIC (MAG) METER WATER DISCHARGE MONITORING

**APPLICATION** Water / chemical solution used to clean parts prior to painting.  
The used solution is pre-treated and disposed into drains

**COMPANY** Powder / Paint / Protective Coating Provider

**WHY METERING?** City requirement to log total volume of process water discharged  
to sewer treatment plant

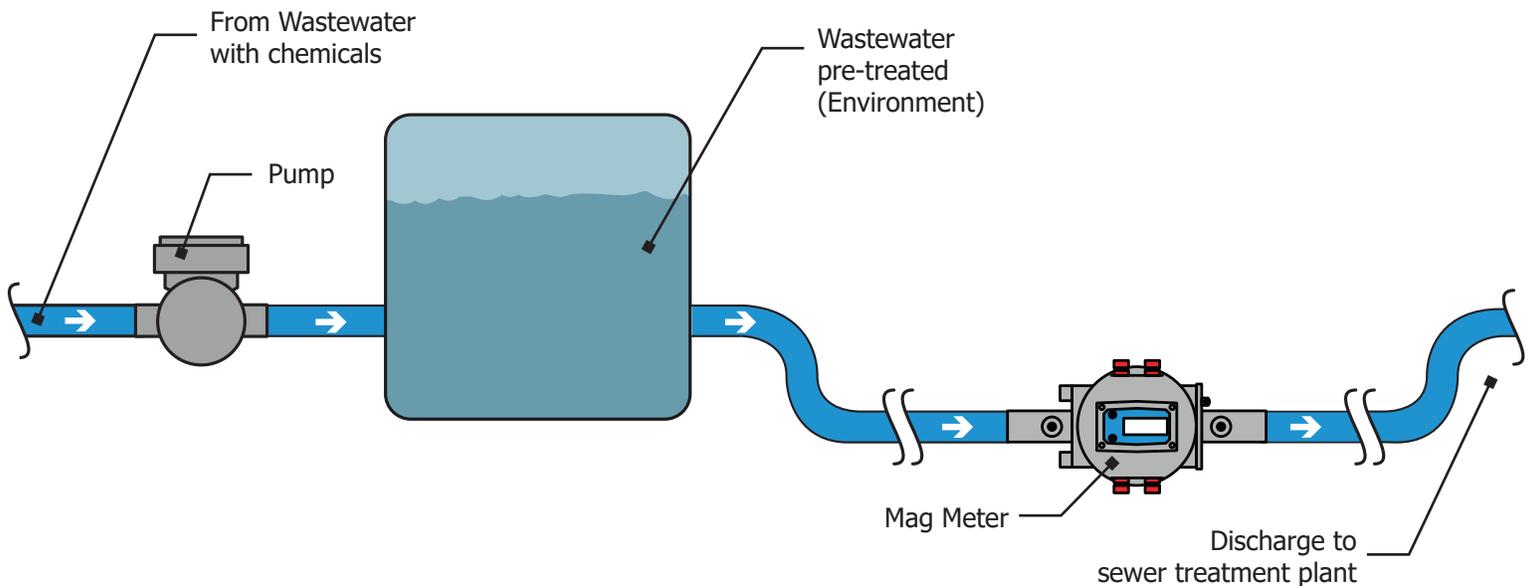
**LIQUID MEASURED** Process water, pre-treated with some particles present

## MAG ADVANTAGE

- No moving parts to wear out
- High accuracy (low and high flows)
- Solids handling capability
- No pressure drop through meter
- Low maintenance
- Very reliable technology

## MODEL

FLOMEC® QSE Series





## MAG METER - WATER DISCHARGE MONITORING

**APPLICATION** Measurement of used process water discharged into a storm or sewage pipe system.

### SITE

Powder-Coating Company: this company provides custom paint and protective coatings to various metal parts. The parts are processed through a wash system then powder coated for protection and aesthetics. Large amounts of water and some chemicals are used in the wash system to prepare the parts for the powder-coating process. Once the water is used, it is filtered and recycled, but a portion of it is treated and ultimately discharged to sewer treatment plant.

### CHALLENGE

After the water is used in the cleaning process, it is filtered and reused, but some of it is not reusable and must be disposed of. The unusable water (with diluted chemical solution) is treated to minimize the environmental impact and then disposed of into the drain/sewage system. The additional challenge is that some suspended particles are present, which are damaging to a conventional flowmeter.

The city requires the company to install a flowmeter on the discharge pipe and keep daily logs of the “total volume” of the process water discharged into the sewer system.

### SOLUTION

The FLOMEC® Electromagnetic (Mag) Meter (QSE) is ideal for this application. The QSE can read low volume flows and provide accurate total volume readouts. Additionally, Mag technology is excellent for applications where small solid particles are often present. The QSE Mag flowmeter has “No moving parts,” which means that there is no risk of damage to the interior of the meter, such as impellers, and consequently, it requires practically no maintenance.

The QSE Mag meter benefits to the powder-coating company are:

- Very low and easy maintenance
- High reliability
- Exceptional accuracy
- No moving parts to break or replace

The recommended maintenance on the QSE (see owner’s manual) is minimal and is largely based on the purity of the liquid measured. Total volume flow readings can be done quickly from the local display. For several years the powder-coating company had virtually no maintenance on the QSE meter while continuously meeting the city requirements for accurately logging process water volume being discharged into the city’s sewer.

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