Wonder why everyone is chatting about magmeters? It’s because the industrial community is rushing to use the most advanced generation of insertion magmeters. And with benefits like low cost, easy installation, and high performance, they are ideally adaptable for many water and wastewater applications.

Many users have found that insertion magmeters (IMs) have an attractive price as well as superb performance in many applications. The most recent insertion magmeters to hit the market sell for less than $1000. This presents an irresistible opportunity for many users. For applications of incoming raw water, treated city water, or process plant wastewater, an IM flow measurement with a typical 1% of reading accuracy is sufficient and should be specified in these types of applications.

Insertion magmeters have a high tolerance for particulates and debris without interrupting the measurement. They also have little or no pressure drop pass the sensor. There aren’t any moving parts that will wear out. With so many clear advantages to an insertion magmeter, prospective users’ curiosities are heightened and they crave more details. For instance, just how easy is the installation, how do you maintain or replace the sensors, and are there examples of some applications?

- **Installation**: Many insertion magmeters can be installed via a ball valve or some type of mounting system that allows installation in full pipes and pipes that have high pressure. For plastic pipes and systems that can be shut down, a simpler installation device can be used and even mounted directly in a mounting tee.
- **Maintenance and replacements**: Magmeters are typically know as having a non-fouling nature; however, they may need occasional cleaning (when used in extremely dirty liquids) to insure a good measurement. If sensors need to be cleaned or components need to be replaced, an insertion magmeter can be quickly and easily removed and re-installed.
- **Applications**: Insertion magmeters can be used in a variety of industries and applications. For instance, any water or wastewater application is an ideal candidate. Below is an example of a typical application:

  Industrial wastewater neutralization: Local water authorities require the neutralization of wastewater discharge to protect the ecological systems in the surrounding lakes, rivers, and oceans or to protect the local sewer networks and treatment plants. Measuring the volume of wastewater into the neutralization tank insures proper dosing of neutralizing chemicals. GF Piping Systems’ Signet 2551 Magmeter and other Signet products are featured in this over-simplified graphic.

With so many advantages, it’s no wonder that insertion magmeters are becoming an attractive choice. Insertion magmeters are becoming increasingly important for system design engineers and technical crews requiring a flow sensor that offers benefits like low cost, easy installation, and adaptability to many water and wastewater processes.