

## Multiphase Flow Meter Really Three In One

Measuring the flow of any product can be carried out with the use of flow meters. However, some requirements involve the measurement of different products within the same area and require the use of a multiphase flow meter.

Possibly one of the most advanced multiphase flow meter is used in oil wells to measure flow of oil, gas and water as it is extracted from the well. Most of these flow meters are in use in oil fields and quick repairs are often necessary. Circuits are modular in design for quick and easy maintenance repairs even under potentially extreme weather conditions.

The purpose of a multiphase flow meter is to be able to accurately measure flows of different types of items. In oil wells they can measure oil, gas and water coming out of a well to track production of each species being removed. Most measurements by a multiphase flow meter can track flows by mass, volume, velocity or a combination of all.

Earlier designs of multiphase flow meters used separation technology, typically by weight of the item being measured, but were often unwieldy to use and repairs were costly and constant. Newer designs allow for measurements to be made without the need for separation of the different products.

### Industries Benefit From New Designs

Multiphase flow meters have also been designed to help in the measurement of emissions for corporations and the Environmental Protection Agency. Measuring the particulate released in the air, as well as the types of particulate can be measured as well as the velocity of the emissions to help determine in which direction they are being released.

Transient partial flow emission sampling systems are used to take samples of air quality and determining the average flow helps to analyze exactly how much of what is being released. This knowledge helps decide which steps need to be taken to keep the air clean.

Ultrasonic multiphase flow meter can measure flow of a product through a pipeline or other enclosed transmission device without the need to shut down the equipment. It's faster and more accurate to measure the flow with the use of ultrasound, similar to sonar, while the product is flowing. They can measure by mass, volume or velocity.

The new types of multiphase flow meters make accurate metering of product simpler and repair work easier with their module construction. Simply remove the old one and replace it with a new one and the meter is functioning again.

Source: <http://www.articlecircle.com>

### About the Author

For more information on multiphase flow meters visit <http://www.FlowMeterBasics.com/> or <http://FlowMeterBasics.blogspot.com/>