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For immediate release

Positive Displacement Flowmeter Market Still Alive and Well

Wakefield, Massachusetts; September 12, 2002 — The worldwide market for positive displacement flowmeters will decline slowly over the next few years, according to a new market study from [Flow Research](http://www.flowresearch.com) and [Ducker Worldwide](http://www.ducker.com). The study, entitled [The World Market for Positive Displacement Flowmeters](#), finds that positive displacement flowmeters are growing in some segments and declining in others. The study projects that worldwide positive displacement flowmeter revenues will decline from \$520 million in 2001 to \$452 million in 2006. This represents a compound annual growth rate of –2.7 percent. (See Figure 1.) Commercial and industrial flowmeters are included, but not residential meters.

Positive displacement flowmeters are a traditional technology flowmeter. These types of flowmeters were introduced before 1950, and in many cases rely on mechanical means or

moving parts to make the flow measurement. Other traditional technology flowmeters include differential pressure (DP), turbine, open channel, and variable area meters. Traditional technology flowmeters face competition from new-technology meters, including Coriolis, magnetic, ultrasonic, and vortex meters, for some applications.

While new-technology meters are reducing sales of positive displacement (PD) flowmeters, PD meters are still the best solution for some applications. In particular, they are especially good for measuring fluids with low flowrates, and for high viscosity liquids. **The World Market for Positive Displacement Flowmeters** analyzes the use of PD meters in municipal water, gas, oil, and industrial liquid measurement. The study was released early in September 2002.

“While there is no doubt that new-technology flowmeters are having an impact on the sales of positive displacement meters, it is also important to look at market size and installed base when evaluating the future of a flowmeter technology,” according to Dr. Jesse Yoder, president of Flow Research, Inc. “The positive displacement flowmeter market is so large that it will be around for many years to come. In 2001, for example, more positive displacement flowmeters for commercial and industrial applications were sold worldwide than the sum total of all new-technology flowmeters sold worldwide. So this technology is alive and well, and any reports to the contrary are greatly exaggerated.”



Dr. Jesse Yoder, Flow Research, Inc.

Municipal Water. Positive displacement flowmeters are widely used by utility companies for billing purposes to measure water use in residential, commercial, and industrial buildings. The main competitors to PD meters for utility billing purposes are turbine meters, including single jet, multi-jet, and Woltman. Revenues from PD meters for commercial and industrial utility measurement are forecast to grow at a

compound annual growth rate (CAGR) in the one percent range through 2006.

Gas. Positive displacement meters are also used for gas flow measurement. Most PD meters for gas applications are between 1 ½ inches and 10 inches in size. While PD meters do compete with turbine meters for measuring gas flow, turbine meters perform best with steady, high-speed flows that occur in larger line sizes. Ultrasonic meters are also used to measure high-speed flows. While PD, turbine, and ultrasonic meters overlap in the 4 to 10 inch size range, positive displacement meters have an advantage in the lower line sizes. As a result, they will continue to be used to measure gas flow in the lower line sizes.

Oil. Positive displacement meters are widely used for oil flow measurement, especially at custody transfer points. PD meters are used to measure petroleum production and petroleum transportation. They are also used at petroleum marketing terminals, and to measure hydrocarbon liquids transferred onto and from trucks and aircraft. The main competitors for these applications are Coriolis meters, which also excel at measuring flow in smaller pipe sizes. Since oil is such a valuable product, some end-users are willing to pay the higher price for Coriolis meters.

Industrial Liquids. PD meters are used to measure the flow of industrial liquids where high accuracy is required, and for custody transfer operations, including in-plant custody transfer. Coriolis and magnetic flowmeters are replacing some PD meters for industrial applications. Magnetic flowmeters can measure the flow of industrial liquids that are not hydrocarbon based, so they are playing a role here. The decline in PD meters could be slowed if PD suppliers would build more intelligence and capability into their meters.

Flow Research, Inc.

[Flow Research](#) is a market research company that specializes in providing market data and strategies on flowmeters and other measurement devices. Dr. Jesse Yoder, who has 16 years' experience as a writer and analyst in process control, founded flow Research in 1998. The company recently completed a series of eight market studies on the worldwide

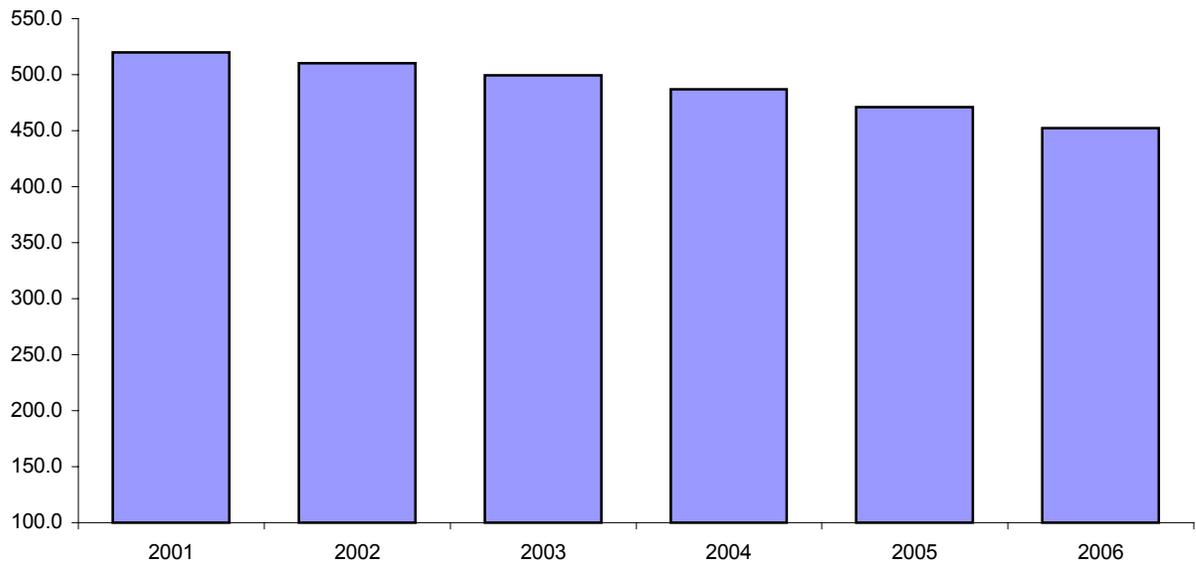
flowmeter market, comprising over 4,000 pages. In addition to market research, Flow Research conducts technical research on flowmeters in its flowlab.

[Flow Research](#) is partnering with [Ducker Worldwide](#) (Bloomfield Hills, MI) to produce a series of nine market studies on flowmeters, covering all the flow technologies. [The World Market for Positive Displacement Flowmeters](#) is the seventh study in this series. Flow Research has also completed [The World Market for Turbine Flowmeters](#). Ducker Worldwide has 40 years' experience researching industrial and business markets, and has offices throughout the world. **Flow Research can provide additional charts and graphics from The World Market for Positive Displacement Flowmeters upon request.**

[Flow Research](#) recently announced a new service called the [Worldflow Monitoring Service](#) that includes Quarterly Reports on the flow and process industries. These reports include the [Market Barometer](#), [Process Industry Monitor](#), and [User Perspective](#). It also includes a centralized "[Living Database](#)" of detailed product information from many suppliers of flowmeters worldwide. Flow Research and [Ducker Worldwide](#) are partnering on the user surveys that are part of the Worldflow Monitoring Service.

[See Figure 1 below]

Figure 1
Total Shipments of Positive Displacement Flowmeters Worldwide from
2001 - 2006
(Millions of Dollars)



CAGR = -2.7%