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The World Market for Positive Displacement Flowmeters, 2nd Edition

Overview

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www.flowPD.com

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Flow Research has conducted a new market study on the worldwide positive displacement flowmeter market. The primary goal was to determine the size of the positive displacement flowmeter market in 2011. Forecasts through 2016 are included. The study is called ***The World Market for Positive Displacement Flowmeters, 2nd Edition***.

The study accomplished multiple purposes:

- Determine worldwide market size for the positive displacement flowmeter market in 2011
- Determine worldwide market shares for the positive displacement flowmeter market in 2011
- Forecast market growth for all types of positive displacement flowmeters through 2016
- Identify the industries and applications where positive displacement flowmeters are used, and identify market growth sectors
- Provide a product analysis for the main companies selling into the positive displacement flowmeter market
- Provide strategies to manufacturers to sell into the positive displacement flowmeter market
- Provide company profiles of the main suppliers of positive displacement flowmeters

Why Flow Research?

- We specialize in flowmeter markets and technologies
- We have researched all flowmeter types
- We study suppliers, distributors, and end-users
- Our worldwide network of contacts provides a unique perspective
- Our mission is to supply the data to help your business succeed

Background of Study

Flow Research has focused exclusively on the study of process control technologies and instrumentation since its inception. Over the last ten years, our research has resulted in the publication of more than 100 comprehensive market studies that have covered the following subject areas: all fourteen existing flowmeter technologies, temperature sensors and transmitters, pressure sensors and transmitters, and API valves. We have also conducted studies of specific flow applications such as gas flow, steam flow, water, and wastewater. Positive displacement flowmeters are undergoing immense competitive pressure from more recently invented flowmeter technologies, yet remain a solid choice within several basic applications in today's modern process control environment. We are pleased to have the opportunity to update the information on this important market.

Positive displacement flowmeters remain one of the most widely used types of flowmeters for measuring the flow of water and other liquids. The basic design was developed and first produced in 1815 by Samuel Clegg. Later innovations included the nutating disc design (1830) and the gas diaphragm model (1843). These and other positive displacement measurement techniques have evolved to the point where today there are six distinct technologies on the market.

Flow Research uses the perspective of all three segments – manufacturer, distributor/representative, and end-user – when analyzing target markets. We maintain regular communication with all three of these groups in order to be best positioned to note both subtle and significant shifts in technologies or buying patterns. We also use this steady flow of new information in support of our two quarterly publications, **Market Barometer** and **Energy Monitor**. (see: www.worldflow.com).

Operating Principle

A positive displacement flowmeter measures process fluid flow by continually filling and emptying compartments of known and fixed volume. In its most basic design, these compartments are placed between rotors that serve as measuring elements as they are rotated. Flowrate is calculated based on the number of times these compartments are filled and emptied in a period of time. The number of rotations of the rotor is typically counted by a pulse transmitter and converted to fluid volume and flowrate.

Popular positive displacement flowmeter designs include: rotary, helical, oscillating piston, diaphragm, nutating disc (or wobble plate), and oval gear (or spur gear). Many of these variations from the original invention have interesting technical histories. The original diaphragm meters of the 1830's, for instance - created in response to problems with the existing sealed drum meters of the day - had sheepskin diaphragms and sheet metal enclosures. Today's diaphragm meters are made of cast aluminum and the diaphragms themselves consist of the latest synthetics.

The evolution of the positive displacement flowmeter is described from a historical viewpoint in this study. More importantly, the state-of-the art of today's design is also discussed, and the paradigm case for its use in process applications is described in detail. Users of this study will possess both the technical and application contexts for use of this flowmeter instrument type.

Rationale for Study

Flow Research published the first edition of our worldwide positive displacement flowmeter study in 2002. We have been following the positive displacement flowmeter market regularly since then, providing quarterly updates in our **Market Barometer** (www.worldflow.com). We have also done user interviews that show that the interest in these flowmeters remains among selected end-user groups. Positive displacement flowmeters have been under substantial competitive pressure over a long period of time. We believe that this is an optimal time to quantify the actual growth in this market, and to determine and assess the present and future fortunes of this traditional measurement technology.

Key Issues Addressed

This study addresses the key issues in the positive displacement flowmeter market, including:

- The growth outlook for positive displacement flowmeters
- The use of positive displacement flowmeters in water, gas, oil and other process applications
- The replacement of positive displacement flowmeters by other technology types
- The competitive price pressure on positive displacement flowmeters
- The need for positive displacement flowmeters by end-users
- Adoption rate of communication protocols in positive displacement flowmeters
- Features that end-users are looking for in positive displacement flowmeters
- How to successfully compete in this highly competitive market

The segmentation for this study is as follows:

Geographic Segmentation

- North America (United States, Canada)
- Europe, including Eastern Europe and FSU
- Mideast/Africa
- Japan
- China
- Rest of Asia
- Latin America (Mexico, Central & South America)

Technology Types

- Oval Gear
- Rotary
- Helical Gear
- Nutating Disc
- Piston

What's in this for my company?

- See the emerging applications and where the growth is
- Understand world and regional markets
- Get to know your real competition
- Learn what other suppliers manufacture, where, and for whom
- The best information creates the best decisions

- Diaphragm
- Other

Casing Types

- Single
- Double

Application Types

- Water/Wastewater
- Municipal/Industrial Gas
- Oil
- Industrial Liquids

Industries

- Oil & Gas (Production)
- Gas Transportation (Upstream Pipelines)
- Refining (Oil/Gas Processing/Treatment)
- Gas Distribution (Downstream)
- Oil Distribution (from Refinery to Point of Use)
- Commercial/ Industrial Gas Utility
- Chemical
- Food & Beverage
- Pharmaceutical
- Pulp & Paper
- Metals & Mining
- Electric Power
- Water & Wastewater
- District Energy
- Aerospace
- Other

Sales by Distribution Channel

- Direct Sales
- Distributors
- Independent Representatives
- E-Business

Sales by Customer Type

- End-Users
- OEMs
- Systems Integrators
- Engineering and Consulting Firms

The following is a partial list of the companies to be profiled in this study

- Aichi Tokei Denki
- Badger Meter
- Bopp & Reuther
- Brodie Meter
- Dresser
- Elster-Instromet
- Flow Technology Inc.
- FMC Technologies
- Isoil
- Itron
- Kem Kueppers
- Kral
- Liquid Controls (IDEX Corp.)
- MacNaught
- Max Machinery
- OVAL Corp.
- Sappel
- Satam
- Sensus Metering Systems
- Tuthill Transfer
- Venture Meas. (Danaher)
- And many more

Strategies for Success

- Discussion of market forces at work
- Strategic action perspectives
- Real world success stories

Publication Date

This study was published in March 2012.

Background

Dr. Jesse Yoder is President of Flow Research Inc., a company he founded in 1998. Dr. Yoder has 24 years of experience as a writer and an analyst in process control and instrumentation. Since 1990, he has written more than 100 market research studies, most of them regarding flow and instrumentation. A selection of recent and scheduled Flow Research studies is as follows:

I.	The World Market for Coriolis Flowmeters, 4th Edition	(Q2/2012)
II.	The World Market for Magnetic Flowmeters, 5th Edition	(Q3/2012)
III.	The World Market for Ultrasonic Flowmeters, 4th Edition	(Q2/2012)
IV.	The World Market for Vortex Flowmeters, 4th Edition	(7/2010)
V.	The World Market for Diff. Pressure Flowmeters and Primary Elements	(1/2007)
VI.	Worldwide Survey of Flowmeter Users, 2nd Edition	(1/2006)
VII.	The World Market for Positive Displacement Flowmeters, 2nd Edition	(3/2012)
VIII.	The World Market for Turbine Flowmeters, 2nd Edition	(1/2012)
IX.	The World Market for Pressure Transmitters, 3rd Edition	(8/2011)
X.	Volume X: The World Market for Flowmeters, 4th Edition	(Q3/2012)
XI.	The World Market for Gas Flow Measurement, 2nd Edition	(Q2/Q3/11)
XII.	The World Market for Steam Flow Measurement	(3/2008)
XIII.	The World Market for Mass Flow Controllers, 2nd Edition	(Q2/2012)
XIV.	The World Market for Thermal Flowmeters	(10/2009)
XV.	The World Market for Liquid Analytical Instruments	(2/2011)

The above studies are described at http://www.flowstudies.com.

Dr. Yoder has also written more than 120 articles on flow and instrumentation for trade journals. Links to many of these can be found at http://www.flowarticles.com.

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Blaise Pascal

The Flow Research Founding Sponsor Program

To produce studies that most closely match our clients' needs, Flow Research instituted the Founding Sponsor Program. This program enables companies who wish to participate at a high level in a study's research to influence its scope and segmentation. In addition, Founding Sponsors receive regular updates from Flow Research on study progress, and receive a significant discount on the regular price of the study.

Procedure: Early in the planning phase of a study, Founding Sponsors receive a proposal that includes the proposed segmentation. Founding Sponsors can propose additional segmentation, and can also suggest changes to the proposed segmentation. While the decision to adopt particular segmentation ultimately lies with Flow Research, and is based on input from all contributors, we will do our best to accommodate the specific needs of each of our clients.

During the research phase of a study, Flow Research will issue regular reports that provide updates on the progress of the research. These reports will be sent to Founding Sponsors, who are then invited to provide any additional input or comments into the study.

Being a Founding Sponsor requires making an early commitment to purchase the study. However, in return, Founding Sponsors receive a significant discount off the regular price of the study. Payment can be made either in one amount at the beginning of the study, or split into two, with the second payment due upon delivery of the study.

For additional details, or to find out how the Founding Sponsor program applies to any particular study, please contact Flow Research. We look forward to working with you!

If you have any questions about the Founding Sponsor program, please contact Norm Weeks at (781) 245-3200, or norm@flowresearch.com.

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(Photo courtesy of FMC Technologies)

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- We offer our studies in both electronic and color-printed hardcopy format.

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