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The World Market for Vortex Flowmeters, 3rd Edition

Volume I: Vortex Flowmeter Market Analysis

Volume II: Worldflow Vortex User Perspective Survey

March 2006

Vortex Flowmeters

Vortex flowmeters were first introduced to industrial markets in the early 1970s. Since that time, growth in the vortex flowmeter market has been slow. Vortex flowmeters have never undergone a period of rapid growth that would enable them to catch up to ultrasonic, Coriolis, or magnetic flowmeters in terms of market size. Still, the past several years have been important ones for the vortex flowmeter market.

In conducting this study, we are contacting all known manufacturers of vortex flowmeters worldwide. Flow Research has identified about 20 vortex flowmeter manufacturers around the world. By obtaining detailed information about each company, we are assembling a picture of the total vortex flowmeter market. We are asking suppliers to provide detailed information about geographic segmentation, industries sold into, types of vortex flowmeters sold, and many other product segments. As a result, the study will identify where growth is occurring in the market, as well as the underlying factors for that growth. Our end-user survey provides additional perspectives on this market.

Segmentation

This study includes market size in dollars and units for vortex flowmeters worldwide and by geographic region. It reveals market shares by geographic region. It says what industries vortex flowmeters are sold into. The study also contains other important segmentation, including:

- Multivariable vs. smart vs. conventional
- Wafer vs. flanged vs. insertion
- Compact vs. remote
- Bore type
- Body material type
- Gas vs. liquid vs. steam
- Sensing technology
- Line sizes (from >0 inches to >12 inches)
- Pressure rating
- Industry (including semiconductor)
- Type of communication protocol (Foundation Fieldbus, Profibus, HART, etc.)
- Sales channel (Direct vs. Independent Reps vs. Distributors vs. E-Business)
- Customer type (End-users vs. OEMs vs. Systems Integrators vs. Engineers/Consultants)

Goals of Study

One main goal of this study is to determine the size of the vortex flowmeter market worldwide in 2005. Even though growth from 2000 to 2002 was slow, there are signs

that the vortex flowmeter market is breaking out of its slump. If this is true, it will be good news for vortex flowmeter suppliers and users alike.

One important issue is the role of multivariable flowmeters in the vortex market. This study seeks to determine if this technology is gaining traction, or if it is stuck in neutral. It is a good sign that several new suppliers have introduced vortex flowmeters. This is likely to give a push to multivariable vortex technology.

This study also examines the role of vortex flowmeters in gas flow measurement, and the role of industry approvals. The lack of industry approvals is one factor that has prevented the vortex flowmeter market from growing as rapidly as the ultrasonic and Coriolis markets. There are signs that this is changing, and that vortex flowmeters will gain the approvals they previously lacked. This study will examine the effect of industry approvals on the vortex flowmeter market.

Key Issues in this Study

- What are the causes of growth in the vortex flowmeter market?
- What is the growth outlook for vortex flowmeters for the next several years?
- How severe is the price pressure for vortex flowmeters? What are the sources of the pricing pressure? How are suppliers responding to pricing pressures?
- Will multivariable vortex flowmeters show any growth in the next several years?
- Is the use of vortex flowmeters for steam flow measurement a growing application? What is the future of the use of vortex flowmeters for steam?
- How well do vortex flowmeters stack up against other types of meters for district heating applications?
- Are accuracy levels for vortex flowmeters increasing or remaining stable?
- What improvements are occurring to vortex flowmeters?
- To what extent are low cost suppliers from China, India, and elsewhere penetrating the vortex flowmeter market and influencing prices?
- How quickly is e-business growing as a distribution channel?
- What features are end-users looking for in vortex flowmeters?
- What types of flowmeters are displacing vortex flowmeters, if any, and why? What types of flowmeters are vortex flowmeters displacing?

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ABB

Asahi/America

Bopp & Reuther

Emerson Rosemount

Endress+Hauser

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Worldflow Vortex User Perspective Survey

Flow Research has conducted a survey of flowmeter users. The purpose of this survey was to capture the views of the market's end-users as another means of informing suppliers to the markets. Purchase decisions and application requirements and changes are best understood – and most easily anticipated – from the perspective of end-users. The survey provides detailed insight into the purchasing plans and preferences of those who purchase, specify, and use flowmeters.

The industries sampled in the survey were drawn from the process industries. The pertinent questions regarding applications, product preferences, buying criteria, accuracy and safety considerations, purchase plans, and supplier sources were asked, and included in the results. Below is a brief outline of the *Worldflow Vortex User Perspective Survey* for your review:

Survey Segments

- Industry
- Company Size / Employee Totals
- Primary Applications
- Flowmeters in Use (by quantities and by types)
- Purchase Factors and Supporting Rationales (with priority ratings)
- Unmet Needs from Products and Suppliers
- Anticipated Changes in Applications
- Industry Growth Estimates (through 2008)
- Purchase Plans (through 2008)
- Purchase of Vortex Flowmeters in 2004
- Purchase of Vortex Flowmeters by Mounting Type (Wafer, Flanged, Insertion)
- Purchase of Vortex Flowmeters by Line Size
- Purchase of Vortex Flowmeters by Fluid Type (Air, Gas, Liquid, Steam)
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- Expectations to Purchase Multivariable Vortex Flowmeters in 2008
- Size of Installed Base of Flowmeters
- Communication Protocols Used with Flowmeters Purchased
- Safety and Other Approvals
- Non-Product Considerations in Flowmeter Selection
- Openness to Doing Business with New Suppliers
- Ways to Become Aware of Flowmeters and Vendors (Internet, Product Literature, Salespeople, Ads, Articles, etc.)
- Trade Periodicals and Trade Shows that are Sources of Information about Flowmeters and Vendors

Flow Research E-Z Faxback Response Form

Name: _____	Street: _____
Company: _____	City: _____
Phone: _____	State/Region: _____
Fax: _____	ZIP/Postal Code: _____
Email: _____	Country: _____



Please send more information on the following studies and services:

_____ Worldflow Monitoring Service
(Market Barometer, Energy Monitor)

_____ The Global Market for Magnetic
Flowmeters, 3rd Edition (includes user
survey)

_____ The World Market for Vortex Flowmeters, 3rd Edition (includes user survey)

_____ The Global Market for Differential Pressure (DP) Flowmeters and Primary
Elements (includes user survey)

_____ The Market for Temperature Sensors in the Americas, 2nd Edition (with survey)

_____ The Market for Temperature Transmitters in the Americas, 2nd Edition (with
survey)

_____ The World Market for Steam Flow Measurement

_____ We have specific needs. Please contact us about a possible custom project.

Please fax this page back to Flow Research at (781) 224-7552. More details are available on the above studies on our website at www.flowresearch.com.



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Thanks for your inquiry! We will be in touch with you right away.