

FlowTimes – December 2018

*Your Strategic Update on Flow, Temperature, and Pressure Measurement
from Flow Research*

Executive Editor: Dr. Jesse Yoder; Volume 19, Number 3 – ISSN 1350-7204

1. Letter from the President — Happy Holiday Season!

One way to think of today’s flowmeter market is to divide it into these categories:

- Market leaders
- The competitive middle
- Smaller companies.

These categories are somewhat fluid, and vary by flowmeter type. Market leaders tend to be large companies who are among the top 3 to 5 leaders in the market share chart for a particular flowmeter type. The Competitive Middle is the rest of the companies on the market share chart, including the regional market share charts. The smaller companies appear in the “Other” category.



The reason for dividing the companies up in this way is that the strategies for being competitive depend on where a company falls in these categories. Market leaders tend to be large companies, often very diversified, with significant research and development budgets. They are often, though not always, responsible for many of the innovations made within a particular flowmeter type. Sometimes Competitive Middle companies or even small companies can be responsible for important innovations as well.

Strategies for Smaller Companies

How can smaller companies compete with the market leaders? Size does not guarantee success in today’s marketplace; in fact, in some cases, it can be a hindrance. What are your best strategies for competing with the market leaders, and with the Competitive Middle? Here are some strategies that can benefit smaller companies.

1. If your company cannot “Cover the Earth,” like the Sherwin Williams ad, then look for niche applications where you can compete and build products specifically for those applications.
2. Use social media to develop “buzz” around your product line.
3. Become a thought leader by publishing articles about applications covered by your products.
4. Focus on fast delivery times.
5. Provide timely and efficient service, either by using your own staff or by hiring an independent company to do it.
6. Are there areas of your country or region that you’re not covering? Recruit new distributors or reps to cover this territory. Create a centralized clearinghouse of article/whitepapers.

For more strategies for smaller companies, and for strategies for larger companies, see our Worldflow Market Barometer Q2/Q3 2018 (www.worldflow.com).

2. The Magnetic Flowmeter Market Is On Fire!



Condensed from article by Jesse Yoder, President Flow Research

What is going on with the magnetic flowmeter market? We are getting reports of double digit growth from some companies, and magnetic flowmeters seem to be one of the most popular types of flowmeters right now. This is unusual because the magnetic flowmeter market is already the largest market in terms of worldwide revenues. For a market that is already so large to grow at a substantial rate is highly unusual.

Before jumping to too many conclusions, a word of caution is in order. When we talk about growth in a market, we include all suppliers, not just a select few. And it is not unusual for some companies to be growing quickly, while other companies in the same market have flat to moderate growth. Therefore, the market as a whole doesn't grow at the same rate as the fastest growing companies. Also, this phenomenon seems to be about 2018. While it seems that 2017 was also a strong year, it seems that 2018 is even more so. Something special seems to be going on with magnetic flowmeters. What is causing this growth? There are a number of contributing factors, including the following:

Pent up demand. The downturn in oil prices from 2015–2017 affected more than just the oil and gas industry. It also affected industries dependent on oil and gas. Many projects were cancelled or put on hold during this time. Even though magnetic flowmeters have a limited use in the oil and gas industry, they are used to measure water in this industry. They are also used to measure the fluid that is pumped into wells during the process of hydraulic fracturing (“fracking”), which took a severe hit during the oil price downturn. In early October 2018, oil prices peaked at over \$75 per barrel. As a result of the increase in oil prices, many projects have come back online and companies are placing instrumentation orders again to implement these projects. Even though oil prices have since retreated, the outlook is good for strong oil prices in 2019, based on projected supply and demand.

Projects back online. The US and many world economies continue to show strong growth in 2018. Many of these economies did well in 2017, but 2018 has been an especially strong year. This has resulted in growth in water and wastewater projects, where magnetic flowmeters are widely used. In October 2018, Congress passed the Water Infrastructure Bill, which reauthorizes Army Corps of Engineers levee, port, dam, and environmental restoration projects, in addition to authorizing \$4.4 billion over three years for the drinking water revolving fund. Population growth and scarcity in water resources in many locations have created the need for more clean water and wastewater projects. This is true in the United States, in China, in India, and also in other Asian and European countries. Water is a resource that is necessary for life. The water and wastewater industry is the strongest industry for magnetic flowmeters.

For the full article and more articles like this, see our publication, **Market Barometer**. www.worldflow.com.

3. Available soon! The World Market for Primary Elements, 2nd Edition

Flow Research is finishing up a new market study called *The World Market for Primary Elements, 2nd Edition*. The study determines the size of the worldwide market in 2017, and the market shares of all major suppliers. Market forecasts through 2022 will be included.

This study focuses on a number of important objectives:

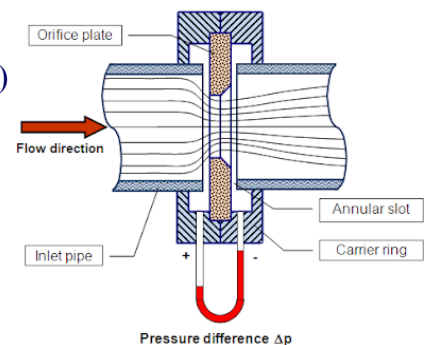
- To provide the 2017 market size in US dollars and unit volume for primary elements worldwide
- To provide 2017 market shares of the leading suppliers of primary elements worldwide
- To provide a forecast of the growth market for primary elements in dollars and unit volumes through 2022
- To provide segmented data both on a worldwide basis and for each of eight global regions
- To provide a product analysis for the significant suppliers of primary elements
- To identify the industries and applications where primary elements are used, and to identify market growth sectors
- To provide market and product strategies for suppliers of primary elements worldwide
- To provide company profiles for the significant suppliers of primary elements worldwide

Key issues addressed in this study

- The growth outlook for primary elements worldwide and by region
- The chief types of primary elements manufactured
- New product developments
- The integration of different types of primary elements into a single unit
- The encroachment of new-technology flowmeters into the primary elements market
- The large number of primary elements suppliers in the market
- Mergers and acquisitions of primary elements suppliers

Primary elements included in this study:

- Orifice Measuring Points (singly or with assembly/flange)
- Pitot Tubes (single port, multiport/averaging)
- Venturis
- Cone Elements
- Flow Nozzles
- Wedge Elements
- Combinations Elements (e.g., Nozzle/Pitot Tubes)
- Other (e.g., Dall Tubes, Laminar Flow Elements)



Other segmentations include Fluid Types, Industries and Applications, Distribution Channels and Customer Types.

To learn more about this soon-to-be released study, please visit www.FlowPlate.com

4. KROHNE officially opens new manufacturing facility and North America HQ in Beverly, MA

Duisburg; October 30, 2018 — On September 27th, KROHNE opened its newest manufacturing facility and North America headquarters in Beverly, Massachusetts (USA). The new facility was celebrated with a formal inauguration event, tours of



the manufacturing facility, and presentations from executives at KROHNE. Michael Rademacher-Dubbick, Managing Director of KROHNE Group, opened the facilities in a ribbon cutting ceremony.

The new facility is managed and operated by KROHNE, Inc., the KROHNE group's subsidiary responsible for the North American region since 1979. The operations expansion represents the company's long-term commitment to manufacturing in the United States. The new headquarters facility will produce a variety of new and existing flow and level products, while continuing to serve as the main distribution hub to North American markets for all other products. Administration, sales, service and marketing, and a new training center will also be located in Beverly. The new production building will be interconnected to a new state of the art, two story office building, tripling the floor space compared to the existing facility in Peabody,



Massachusetts. Production and distribution operations will also be transferred to the new space.

“2018 will be a watershed year for KROHNE in North America as we move into our brand-new factory in Beverly, MA, where

a variety of key products will be produced,” said Stephan Mimler, CEO of KROHNE Inc. “KROHNE is dedicated to the idea of producing the absolute best process measurement instrumentation for worldwide process industry users, and now, we will bring that production to the USA. This will surely enhance our opportunity for timely deliveries and for providing a broader range of resources to serve customer needs better.”

(Full press release at www.krohne.com)

5. The World Market for Vortex Flowmeters, 6th Edition

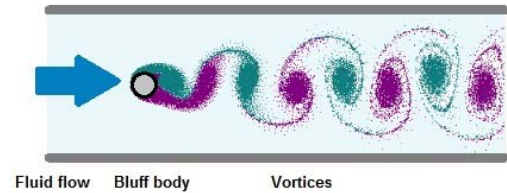
Flow Research is doing a new market study, **The World Market for Vortex Flowmeters, 6th Edition**. Previous editions of this study have been published in 2001, 2003, 2006, 2010 and 2014. Since our last vortex study, much has happened in economies and industries, especially those affected by fluctuations in oil prices, which in turn affected flowmeter markets. User interviews that show that interest in vortex flowmeters remains very high. Some reasons for this interest are that vortex flowmeters are approved for use in custody transfer applications by the American Petroleum Institute and investment in oil & gas operations are increasing once again.

The study has multiple purposes

- To determine worldwide market size and market shares for all vortex flowmeters in 2017
- To forecast market growth for all types of vortex flowmeters through 2022
- To identify the industries and applications where vortex flowmeters are used, and to identify market growth sectors
- To provide a product analysis for the main companies selling into the vortex flowmeter market
- To provide strategies to manufacturers for selling into the vortex flowmeter market
- To provide company profiles of the main suppliers of vortex flowmeters

Key issues addressed in this study

- The factors causing the market to grow
- Growth in the use of multivariable flowmeters
- The effects of the API's adoption of a custody transfer standard on vortex sales
- The use of vortex flowmeters in district heating applications
- Line sizes for vortex flowmeter applications
- The use of vortex flowmeters in steam applications
- The importance of reducer vortex flowmeters
- New product and technology developments
- Growth strategies for vortex flowmeter suppliers



To read the overview, please visit www.flowvortex.com. To order this study, contact Flow Research by email at jesse@flowresearch.com, call Flow Research at 781-245-3200, or visit our secure online store at <https://flowstudy.com/>.

6. Transforming the Norwegian continental shelf

August 28, 2018 — Equinor is today presenting plans for transforming the Norwegian continental shelf (NCS) for continued high value creation and low emissions for the coming decades. Equinor is on track to maintain profitable production from the NCS at current level towards 2030. After 2030, the NCS will enter a more mature phase. It is therefore necessary to introduce new measures to tackle the future challenges of declining production from the big fields, ageing installations and the need for reduced CO₂ emissions.

Specific activities to renew the NCS include:

- Drill up to 3000 wells during the coming decades
- Extend the lifetime of more than 20 installations
- Drill 20-30 exploration wells annually and actively explore for gas
- Explore the possibilities of floating offshore wind and electrification as means to reduce greenhouse gas emissions
- Increase the pace of digitalization and use of new technology
- Strengthen and renew the competence in own workforce within traditional and new disciplines and conduct targeted recruitment to ensure new competence



“We need to start now. After 2022, there are currently few big projects remaining. The choices that we, the authorities, and the industry make today will be decisive. It is about stable framework conditions, investments and collaboration to develop new and innovative solutions. We have the expertise, platforms, pipelines, bases and onshore facilities, a competitive industry and a fast-developing technology,” says Nylund.

Exploring for gas: Gas exploration is important to solve the climate challenge, since gas can replace coal, and to maintain Norway's position as a long-term gas supplier to Europe. There are still substantial remaining oil and gas resources on the NCS. Some of these resources are near existing infrastructure, while other resources are difficult to find or located in smaller deposits requiring further technology development to become profitable.

“We have developed a strategy for more gas exploration. We will also test new ideas in some prospects every year,” says Tim Dodson, executive vice president for Exploration, later adding: “We see it as necessary to regularly test a few of what we call ‘game changing wells’ in order to explore the NCS to its full potential.”

Record number of wells and lifetime extensions: The plan is to drill around 20–30 exploration wells every year for the coming years. Over the coming decades Equinor plans to drill up to 3,000 production and exploration wells. This is almost as many wells as the company has drilled since it was established close to 50 years ago. The drilling will yield ripple effects by utilizing existing fields, pipelines, bases and onshore facilities along the entire coast of Norway. The company’s plans for the next decades also call for a lifetime extension of more than 20 fields. The production lifetime of Equinor’s NCS fields is already two to three times longer than assumed in original plans.

“This is an important measure to extract more profitable barrels from the fields we operate. We aim to achieve an average recovery rate of 60 and 85 per cent respectively at our oil and gas fields. This is almost twice the average global oil recovery rate of 35 per cent,” says Nylund.

(Full press release at www.equinor.com)

For more articles like this, see our publication, **Energy Monitor**. www.worldflow.com.

7. You can still get the early discount on the upcoming new editions of *Volume X* and *Module A*

Flow Research will soon be bringing out the 7th edition of *Volume X, The World Market for Flowmeters*, and *Volume X Module A, Strategies, Industries, and Applications*. These are must-haves for anyone who needs to get quickly up-to-speed on the global flowmeter market and its many components, and are high among our all-time most popular studies.

There’s still time for you to order them at the pre-publication discounted price.

Benefit from knowledge gleaned from 20+ years of data and 250+ studies. Capitalize on insights from our onsite visits to suppliers and end-users in the Middle East, Europe, the United States, and Australia. Be among the first to get the latest edition of this ‘instant classic’ – at a price you can afford.

Volume X, The World Market for Flowmeters, 7th Edition presents a comprehensive overview of the both the whole and the parts of the worldwide flowmeter market covering it with data for all flowmeters, for new-technology, for traditional technology and for emerging technology flowmeters, and for each individual flowmeter technology: **Coriolis, magnetic, ultrasonic, vortex, thermal, multivariable and differential pressure transmitters, primary elements, positive displacement, turbine, open channel, and variable area.**

The in-depth research in **Module A: Strategies, Industries, & Applications** complements and builds on the results of *Volume X: The World Market for Flowmeters, 7th Edition*. The module can be ordered as a standalone report or as an add-on to the main study.

For each technology, this module provides worldwide **shipments, by industry and application**, in dollars and percentages, with the same geographic breakouts and format as *Volume X* so that

you can quickly and easily use *Volume X* and *Module A* together. Major industries are covered as a common set for all and each of the flowmeter technologies. Major applications vary considerably for each flowmeter technology so those are covered specific to each technology, but are based on a consistent set to facilitate comparisons.

Module A provides **focused insights into industry trends**, explaining product improvements, and advantages and disadvantages inherent to each flowmeter type.



This content-rich module provides **strategies for companies** whether already in or considering joining the flowmeter market. It provides tactical and strategic recommendations including strategies that apply to the entire flowmeter market, to individual product lines, and for each market segment.

A world view of the market forecasts the best areas for future growth.

For more information on Volume X and Module A, you can visit www.flowvolumex.com or contact Flow Research. Already know you want to gain valuable knowledge while saving money by ordering now at the prepublication discounted price? Click the Order links at www.flowvolumex.com or visit our secure on-line store at www.flowstudy.com or contact Flow Research by email or phone.

8. Studies from Flow Research

Upcoming Studies:

- **The World Market for Primary Elements, 2nd Edition**, www.FlowPlate.com
- **The World Market for Vortex Flowmeters, 6th Edition**, www.FlowVortex.com
- Covering all the main flowmeter types: www.FlowVolumeX.com
Volume X: The World Market for Flowmeters, 7th Edition, and
Volume X: Module A: Strategies, Industries, and Applications
- **The World Market for Mass Flow Controllers, 3rd Edition** www.FlowMFC.com
- **The World Market for Magnetic Flowmeters, 7th Edition (2019)** www.FlowMags.com
- **The World Market for Coriolis Flowmeters, 6th Ed. (2019)** www.FlowCoriolis.com
- Ultrasonic flowmeters series (2019), www.FlowUltrasonic.com
Core Study: The World Market for Ultrasonic Flowmeters, 6th Edition
Module A: The World Market for Inline Ultrasonic Flowmeters
Module B: The World Market for Clamp-on and Insertion Ultrasonic Flowmeters

Recently Published Studies:

- **The World Market for Thermal Flowmeters, 2nd Edition**, published January 2018 – www.TempResearch.com
- **The World Market for Magnetic Flowmeters, 6th Edition**, published October 2017 – www.FlowMags.com

- **Ultrasonic Flowmeters Series** – www.FlowUltrasonic.com
 - **Core Study:** published September 2017
 - **Module A: Inline,** published July 2017
 - **Module B: Clamp-on and Insertion** (separate data sections), published August 2017
- **Module A (to Multiphase): The World Market for Watercut Meters,** published April 2017 – www.WatercutMeters.com
(for the multiphase study: www.FlowMultiphase.com)
- **The Market for Temperature Sensors in the Americas, 3rd Edition,** published February 2017 – www.TempResearch.com

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9. Get your free trial subscription to Worldflow Monitoring Service!

Did you know you can get a free trial subscription to our Worldflow Monitoring Service? A trial subscription includes the quarterly publications Energy Monitor and Market Barometer, plus any Flash Reports (hot topics between issues) & Whitepapers that come out during the trial period.

Energy Monitor features news, trends and projects in the Oil & Gas, LNG & Fracking, and Power & Renewables industries and related topics. It also includes “Issues and Perspectives” market analysis by Jesse Yoder, and a highlight of a region, organization, or company.

Market Barometer reports on industry news and trends, acquisitions, mergers and other company changes, industry-related topics and new product developments in categories covering each major flowmeter types plus several other process instrumentation types and flow calibration. It also includes “State of the Industry” summaries of current market research by Jesse Yoder, and a “Company Korner” profile.

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