The Market Barometer is the component of Worldflow that focuses on the flowmeter industry. Every quarter, the Market Barometer shines its spotlight on this industry, looking for important events to discuss or highlight.

We find the events, report them, and place them in the context of the flowmeter industry. The Market Barometer explains and interprets the importance of new technologies, new products, mergers, and acquisitions. We give you the information and ideas you need to generate forecasts, make budget decisions, and implement winning strategies.
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Market Barometer is part of the Worldflow Monitoring Service. Other publications in this service include the Energy Monitor and Flash Reports. The Living Database provides more in-depth information and analysis about the instrumentation business.

Here is the Worldflow publication schedule for the rest of 2006:

Q2 2006
Market Barometer—May 2006
Energy Monitor—June 2006

Q3 2006
Market Barometer—August 2006
Energy Monitor—September 2006

Q4 2006
Market Barometer—November 2006
Energy Monitor—December 2006
A closer look at mergers and acquisitions in flow

By Jesse Yoder

This edition of the Market Barometer contains an unusually large amount of news about mergers and acquisitions that have occurred in the past six months. Some of these have been the subject of Flash Reports. And additional acquisitions have occurred in the past year. Some of them are the following, including the most recent ones:

- Nu-Flo acquires Caldon (January 2006)
- Marsh-McBirney becomes part of Danaher and Hach (March 2006)
- McCrometer taking over Marsh-McBirney’s magnetic flowmeter line (March 2006)
- Dresser sells its instrument business to Ashcroft (December 2005)
- Krohne purchases INOR, a Swedish temperature transmitter manufacturer (January 2006)
- Bristol Babcock is sold to Emerson (March 2006)
- Cooper Cameron purchases Dresser’s flow control division (December 2005)
- AW Company is sold to TASI and IGP (February 2006)
- EMCO sold by AEI to Spirax Sarco (June 2005)
- Cooper Cameron acquires NuFlo Technologies (May 2005)
- Racine Federated purchases J-Tec’s line of industrial vortex flowmeters (April 2005)
- Venture Measurement sells its vortex flowmeter line to Aalborg (February 2005)

Why have there been so many acquisitions lately, and what is driving them? The following discussion is an attempt to provide some answers to this question.

One effect of globalization is that it is becoming more difficult for single product line companies who mainly sell into a single geographic region to remain competitive today. Larger companies that can take advantage of economies of scale and worldwide distribution systems have a competitive advantage in many cases over smaller companies with a more limited product line. The smaller companies most likely offer fewer products and may not have as efficient a delivery system.

The trend is for end-user companies to reduce their number of suppliers. This means that end-user companies in many cases are looking for broad-line suppliers who can provide a variety of products, not just one type of flowmeter. This variety could extend beyond flow to pressure and temperature, and it could also extend into valves, analytical equipment, systems, and other products. The need to have a broad product line is especially important for large projects, many of which go through engineering companies.
The flowmeter market is becoming increasingly competitive, and the larger companies are looking to add to their product portfolios. This means that, when companies become available for sale, there are usually multiple bidders for these companies. This tends to drive up the price.

It is becoming more difficult for the suppliers of traditional technology flowmeters, especially suppliers of turbine and positive displacement meters, to hold their own. In Flow Research’s recent *Worldwide Survey of Flowmeter Users, 2nd Edition*, fewer respondents say they plan to purchase or specify turbine or positive displacement in 2008 than they did in 2004. New-technology flowmeters such as Coriolis and ultrasonic are displacing the traditional technology flowmeters. This makes it likely that some of the less competitive suppliers of traditional technology flowmeters will become takeover targets in the future.

With the continued expansion of Coriolis, ultrasonic, magnetic, vortex, and thermal flow technologies, some companies offering these types of flowmeters will become objects of buyout speculation. This is especially true of smaller, family-owned companies, especially ones where the founder is still active in the company ownership or management. Examples of such companies include Controlotron, Hoffer Flow Controls, Sierra Instruments, Kurz Instruments, and Fluid Components International. Marsh McBirney, recently acquired by Danaher and Hach, is an example of such a family-owned business that was recently acquired.

The largest flowmeter companies are continuing to expand their product portfolio. These include Emerson Process, Endress+Hauser, Krohne, Siemens, Teledyne, and Cooper Cameron. Krohne has not traditionally expanded through acquisition, but it recently acquired INOR, the Swedish temperature transmitter supplier. The other companies have all expanded their product lines in flowmeters through acquisitions, and in some cases in related areas as well.

In some cases, being acquired can be a very positive event for a company. Any company that is acquired is likely to go through a period of adjustment. But in many cases, the acquiring company has additional resources for research, marketing, product development, and personnel that the original company lacks. It will be interesting to see, for example, if Caldon and Marsh McBirney grow more rapidly in the next few years with the greater resources of Cooper Cameron and Danaher behind them.

NuFlo Measurement Systems is an example of how an acquisition can work positively. NuFlo was formed in 2003 by a capital investment firm in Houston called SCF Partners. NuFlo was created out of Barton Instrument Systems, Halliburton Measurement Systems, and PMC Global Industries. SCF put management in place, and established corporate headquarters in Houston. In August 2004, SCF added North Star Flow Products and Specialty Products Division, both of Canada, to its portfolio. Then in May 2005, SCF sold the entire NuFlo company to Cooper Cameron for $120 million.

Stay tuned to the Market Barometer as we continue to follow the twists and turns of the companies that make up the flowmeter industry!
NuFlo acquires Caldon

NuFlo Measurement Systems of Houston, Texas has acquired Caldon, Inc. of Pittsburgh, Pennsylvania. The acquisition was announced on January 5, 2006. Caldon is a manufacturer of ultrasonic flowmeters and systems, many of which are used in the nuclear industry. Some of Caldon’s ultrasonic flowmeters are also used in the petroleum and refining industry.

NuFlo Measurement Systems was formed in 2003 as a result of the combination of three separate companies: Barton Instruments, Halliburton Measurement Systems, and PMC Global Industries. In May 2005, NuFlo was acquired by the Cooper Cameron Corporation, a major supplier of valves, flow control, pressure control, processing, and compression systems. Cooper Cameron is headquartered in Houston, Texas.

Caldon specializes in transit time ultrasonic flowmeter technology. The company’s LEFT Systems are in use in more than 50 nuclear plants worldwide. In addition to nuclear plants, Caldon also markets its systems to hydroelectric plants and the defense industry.

In addition to being a leading supplier of valves, Cooper Cameron has become very active in the flow control and flow measurement business. After acquiring NuFlo in May 2005, Cooper Cameron purchased Dresser’s Flow Control business for $224 million. Included in this are ball valves, check valves, actuators, gate valves, and plug valves. This acquisition was closed in December 2005. NuFlo’s purchase of Caldon followed in early January 2006.

What it Means

The acquisition of Caldon makes it clear that Cooper Cameron is becoming a significant force in the flowmeter industry. As previously constituted, NuFlo offered mainly traditional technology products, including positive displacement flowmeters, turbine flowmeters, chart recorders, totalizers, and transmitters. With the addition of Caldon, NuFlo now is offering new-technology flowmeters, and has become a part of the fast-growing ultrasonic flowmeter segment. While Caldon has mainly focused on serving the nuclear industry, the company has also begun expanding its offerings into the refining and other process industries.

In August 2004, NuFlo purchased two subsidiaries of Barber Engineering and Controls Ltd. of Edmonton, Alberta, Canada: North Star Flow Products and the Specialty Products Division. North Star is a manufacturer of orifice plates and meter runs, while Specialty Products offers specialty parts and orifice plates. This purchase fits in with NuFlo’s focus on products that are sold into the oil & gas markets. North Star has annual sales of about $4.5 million with 30 employees.

Caldon’s strength has traditionally been in the nuclear industry. It has in the past had limited success in transferring its ultrasonic technology to the oil & gas and refining industries. Considering NuFlo’s emphasis on the oil & gas industries, expect Caldon to place renewed emphasis on petroleum applications for its ultrasonic flowmeters, under NuFlo’s guidance.

www.coopercameron.com
www.nuflotech.com
www.caldon.net
Marsh-McBirney becomes part of Danaher and Hach

Loveland, Colorado (March, 2006) — Hach Company is pleased to announce the acquisition of Marsh-McBirney and welcomes Marsh-McBirney to the Hach family of products. By combining both companies’ strengths with a shared commitment to accuracy, reliability and service, the new partnership will help further provide support of their leading edge products for the benefit of customers worldwide.

For more than 34 years, Marsh-McBirney has been highly regarded for its innovative flow measuring technologies. The Frederick, Maryland based company’s Flo-Dar™ Flowmeter, winner of the prestigious 2005 Innovative Technology Award from the Water Environment Federation, is the first sewer flow monitoring technology that provides accurate velocity and flow measurements without making contact with sewage.

"Water monitoring and analysis is Hach’s top focus. Marsh-McBirney brings strong technical capabilities, that, combined with Hach’s global reach and world-class manufacturing, distribution, and customers service capabilities creates a unique position to best serve the growing demand for flow measurement products and technologies worldwide," said Tom Joyce, President of Hach.

"We are delighted about our partnering with Hach," said Marsh-McBirney CEO/President and Founder, Larry Marsh. "Our companies have a similar approach — success through a single-minded commitment to providing superior technologies and service. Combining our forces is an exceptional catalyst for the future growth of our technologies and business."

### Marsh McBirney’s Flowmeter Products

<table>
<thead>
<tr>
<th>Type of Flowmeter</th>
<th>Series/Model</th>
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<tbody>
<tr>
<td>Open Channel Flowmeters</td>
<td>Flo-Dar Models 450/464/460 radar-based velocity area flowmeters</td>
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<tr>
<td></td>
<td>Flow-Tote II Portable Magnetic Flowmeter—Model 260 Series</td>
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<td>Flo-Mate Portable Flowmeter Model 20-00</td>
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<td>Flo-System Permanent Open Channel Magnetic Flowmeter Model 253</td>
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<td>Model 270 SCADA-Flo Magnetic Flowmeter</td>
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<tr>
<td>Insertion Magnetic Flowmeters</td>
<td>Multi-Mag Averaging Magnetic Flowmeter Model 285</td>
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<tr>
<td></td>
<td>Flo-System AC Magnetic Flowmeter Model 282</td>
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<tr>
<td></td>
<td>Flo-Tote Portable Magnetic Flowmeter Model 368</td>
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</tbody>
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Marsh-McBirney’s magnetic flowmeters go to McCrometer

Hemet, CA (March 17, 2006)—McCrometer is acquiring Marsh-McBirney’s popular full pipe Multi-Mag and Flow-System flow meter product lines, bringing together two of the water industry’s leading suppliers of electromagnetic flow measurement technology.

For more than 34 years, Marsh-McBirney has been highly regarded for its innovative, reliable and accurate flow measuring technologies. The Frederick, Maryland based company’s Multi-Mag and Flow System Insertable Averaging Electromagnetic Flow Meters are frequently selected for municipal and industrial water and wastewater applications based on their performance, ease-of-use and cost-effectiveness.

Founded in 1955, McCrometer is a world leader in advanced differential pressure, electromagnetic and propeller flow meter technologies in the oil/gas, process, water, agriculture and facilities industries. The company’s application engineers, researchers and designers have put their knowledge of flow physics and real-world operating dynamics into developing some of the most accurate, innovative and trusted flow meters on the market today.

“Combining the strengths of Marsh-McBirney’s Multi-Mag and Flow-System products with our own Ultra Mag® Flow Meters offers our customers an unbeatable combination when it comes to performance, reliability, quality and value. With our strengths in electromagnetic flow sensor technology, manufacturing and distribution, we will be in a unique position to meet the evolving needs of customers in the municipal and industrial water markets,” said Kerry McCall, President of McCrometer.

The Marsh-McBirney open channel flow meter product lines will also complement McCrometer’s sister company, Hach, further enhancing the global technical, business and service capabilities of Hach’s, McCrometer’s and Marsh-McBirney’s product lines.

What It Means: Marsh-McBirney is another example of an independent, family-owned flowmeter company being taken over by one of the larger, multi-company players in the flowmeter market. Hach Company is a subsidiary of the Danaher Corporation. Danaher’s revenues in 2005 were close to $8 billion, with 35,000 employees. Hach Company also owns American Sigma, which has area velocity and other types of open channel flowmeters and samplers. Owning both Marsh-McBirney and Hach gives Danaher control of two of the leading suppliers of open channel flowmeters. The main competitor of Marsh McBirney and American Sigma is Isco.

McCrometer is also a Danaher company that is already in the magnetic flowmeter market, so to that extent it makes sense to consolidate March-McBirney’s magnetic flowmeters with McCrometer’s. McCrometer’s Ultra-Mag magnetic flowmeter was acquired as part of the Water Specialties acquisition in 2000. The two lines are complementary, since McCrometer’s Multi-Mag is a flanged meter designed for line sizes from 2-48 inches. Marsh McBirney’s meters are insertion-type meters. Both companies sell into the water & wastewater industry.

www.marsh-mcbirney.com
KROHNE acquires INOR to round out product portfolio

Duisburg, Germany (January 18, 2006) — KROHNE has acquired 100 percent ownership of the Swedish company INOR Process AB, thereby adding temperature measuring instruments for the process industry to its product portfolio. INOR has 56 employees and generates sales of 7.2 million Euros. The company is a technology leader in the field of temperature measurement.

It is the number one producer in Scandinavia and has a broad market presence around the world. KROHNE will maintain the business philosophy of the prior owners of the private company and, above all, will continue to service its customers and partners in the same way as before. The parties have agreed not to disclose the purchase price. On January 18th, the day of the INOR takeover, Michael Dubbick, managing director of KROHNE said, "INOR will be another strong partner in the KROHNE Group. We will now be able to offer our customers a complete family of temperature measuring instruments."

For Felix Brakl, managing director of INOR, the sale of his company to KROHNE means that it will continue to be in business for a long time, and that its location and jobs have been secured. “KROHNE is an ideal partner. Not only will we continue to be in business, but we will also be able to grow faster.”

The takeover will result in numerous synergies, both for KROHNE and INOR, which above all will benefit the companies' customers. KROHNE will continue to actively foster INOR's long-term customer relationships and partnerships. Felix Brakl will continue to manage INOR's business to maximize continuity.

INOR Process AB (Malmö) specializes in the development, production and sale of temperature transmitters. They are sold through a worldwide network of OEM resellers. The company sells its complete line of temperature measuring instruments directly in the Scandinavian market. INOR, inventor of the head-mounted transmitter, is a leading manufacturer of innovative temperature transmitters. It was founded in 1940 by Alfred Brakl.

Dresser sells instrument business to Ashcroft

Dallas, TX and Stratford, CT (December 1, 2005) — Dresser, Inc. announced today that it has completed the previously announced sale of its worldwide Dresser Instruments business to Ashcroft Holdings, Inc., an affiliate of KPS Special Situations Funds. Net proceeds from the sale will be used to pay down debt.

Dresser said it was selling the division, which represents less than six percent of its annual revenue, because it was not part of its core business of supplying highly engineered equipment and services to the energy industry.

On the same day, John McKenna, CEO of Ashcroft, announced the formation of Ashcroft Holdings, Inc. ("Ashcroft"), a newly formed company, formerly known as Dresser Instruments. KPS intends to invest substantial capital in Ashcroft to fund growth opportunities, including new product introductions and working capital requirements.

Ashcroft Holdings Inc. manufactures gauges, thermometers, switches, transducers, transmitters, data loggers, calibration equipment and isolators for pressure measurement, monitoring and control. Product brands include Ashcroft®, Heise®, Willy®, ebro® and Weksler®. As a global provider, Ashcroft Inc. maintains a network of manufacturing facilities, sales offices and distributors worldwide. Headquartered in Stratford, CT, it also has operations in Brazil, Germany, Canada, Mexico and Singapore.