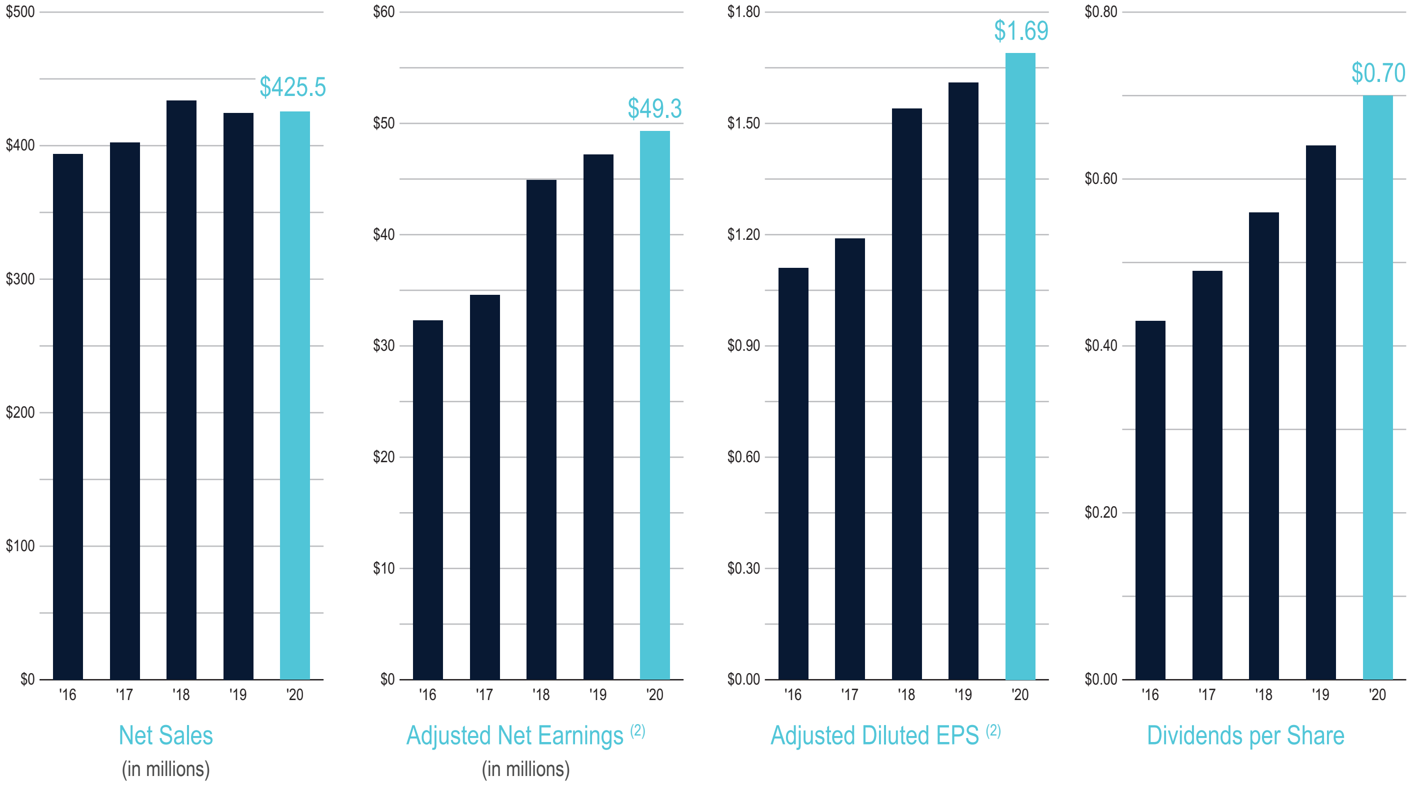
2020 BADGER METER ANNUAL REPORT

OUR COMPANY

With more than a century of water technology innovation, Badger Meter (NYSE:BMI) is a global provider of industry leading water solutions encompassing flow measurement, quality and other system parameters. These offerings provide our customers with the data and analytics essential to optimize their operations and contribute to the sustainable use and protection of the world's most precious resource.

PERFORMANCE DATA

December 31,	2019	2020	% Change
Operations (dollars in thousands)			
Net Sales	$ 424,625	$ 425,544	0.2
Operating Earnings	$ 62,148	$ 65,156	4.8
Net Earnings	$ 47,177	$ 49,343	4.6
Diluted per Common Share Amounts			
Diluted Earnings	$ 1.61	$ 1.69	5.0
Cash Dividends	$ 0.64	$ 0.70	9.4
Year-End Financial Position (dollars in thousands)			
Total Assets	$ 421,893	$ 468,380	
Net Cash (Debt)[1]	$ 44,391	$ 72,273	
Shareholders' Equity	$ 331,068	$ 361,259	
Other			
Free Cash Flow[2]	$ 73,218	$ 80,519	10.0
Number of Employees	1,567	1,602	



[1] Net cash (debt) equals cash and cash equivalents less short term debt and any long term debt.

[2] See last page for reconciliation of GAAP to non-GAAP measures, including adjusted operating earnings, net earnings, diluted earnings per share and free cash flow.

OUR SOLUTIONS

UTILITY WATER SOLUTIONS

Badger Meter offers a wide range of smart metering solutions used to measure and control the flow of liquids in a diverse array of applications, serving municipalities, water utilities, and residential, commercial and industrial customers worldwide.

SMART WATER IS BADGER METER

We work with utilities to increase operational efficiencies, effectiveness and responsiveness within their water systems. Our end-to-end solutions provide actionable information through data analytics from an interconnected and interoperable network of sensors and devices that empower people and organizations to efficiently use and conserve water.

Utilities are leveraging our highly reliable and secure infrastructure-free cellular network offerings to make their meter reading more efficient, scalable and secure for the long term. We offer fully integrated smart water solutions that provide real-time access to detailed water usage data and leak detection, so utilities can improve efficiency, reduce water loss and enhance event management.

To further expand our smart water portfolio, we recently acquired s::can GmbH and Analytical Technology, Inc. (ATi), two leaders in real-time water quality monitoring solutions. The combination of their optical and electrochemical sensing solutions provides for comprehensive and automated monitoring of a variety of parameters within the water distribution network, increasing water protection and security.

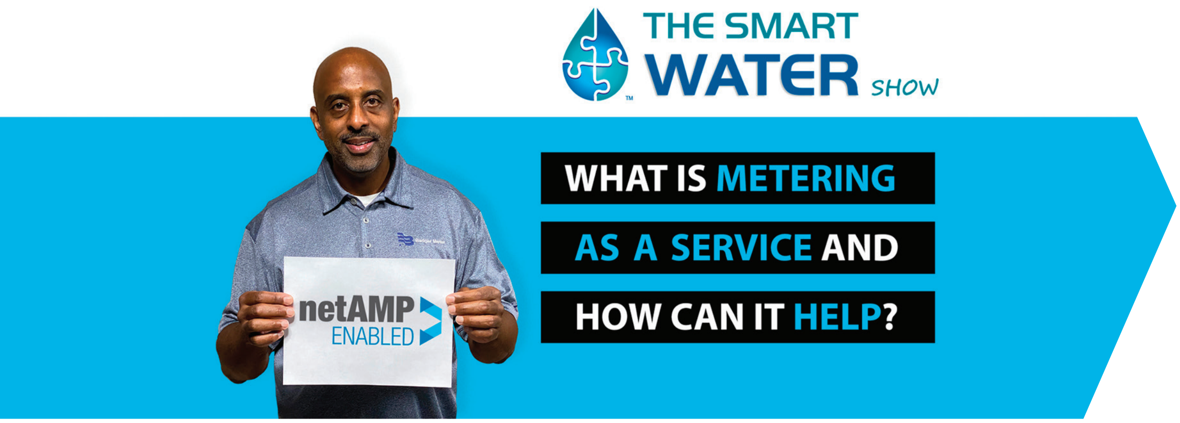
CHOICE MATTERS

At Badger Meter we believe choice matters. We offer a comprehensive product line for residential, commercial and fire service applications. Our leading meter families, E-Series®, Recordall® and ModMAG®, are available in a range of technologies, materials and sizes. Our experts help utilities choose the technology that best fits their needs, including ultrasonic, nutating disc and electromagnetic. Because all our meters are designed for accuracy and longevity, we have the right product for any application.

CELLULAR KEEPS IT EASY

Our ORION® Cellular endpoints utilize the existing Internet of Things (IoT) cellular infrastructure to efficiently and securely deliver meter reading data to the utility. This innovative technology eliminates the need for standard utility-owned fixed network advanced metering infrastructure (AMI), allows for rapid deployment and decreases ongoing maintenance when paired with our BEACON® Advanced Metering Analytics (AMA) solution.

Our smart water solutions work in tandem with BEACON AMA—a cloud-based Software as a Service (SaaS) that offers a wide choice of utility management and consumer engagement solutions to meet any meter reading, proactive exception management and reporting needs. The integrated EyeOnWater® consumer engagement tools give utility customers the power to manage their water use through easy-to-understand consumption graphs and configurable leak notifications, providing timely, visual access to their water usage behavior.



THE SMART WATER SHOW

To further advance our thought leadership efforts in support of our customers, Morrice Blackwell, a 25-year Badger Meter veteran and Senior Solution Architect created and hosts "The Smart Water Show." Each episode of the educational online show highlights important smart water topics, technologies and solutions to help utilities make informed decisions that best suit their unique needs.

COMMERCIAL & INDUSTRIAL SOLUTIONS

Badger Meter Flow Instrumentation products and solutions provide technology to measure and control whatever moves through a pipe or pipeline—including water, wastewater, air, steam, other liquids and gases. An industry leader in both mechanical and electrical flow metering technologies, we offer one of the broadest flow control and measurement portfolios in the industry. And we apply our expertise to further enhance our products' ease-of-use, accuracy and effectiveness.

In addition, the water quality monitoring solutions from s::can and ATi will provide our industrial customers with both process and discharge water quality monitoring capabilities.

Customers can rely on Badger Meter Flow Instrumentation for application-specific solutions that deliver accurate, timely and dependable data essential for product quality, cost management, regulatory compliance and safer, more sustainable operations.

A MESSAGE TO OUR SHAREHOLDERS

Kenneth C. Bockhorst
Chairman, President and
Chief Executive Officer

2020 will long be remembered as monumental, with a social justice movement and the entire world challenged by a public health and economic crisis. In such times, it is our ability to stay true to Badger Meter's values and vision that is of the utmost importance. As a company, I am proud of the response of our employees globally to the unprecedented and far-reaching impact of COVID-19, both to them personally and to our company. Our sales, service and support staff around the globe embraced new ways of working and increased productivity, and our operations and supply chain teams were able to safely respond to the needs of our customers despite the broad-based disruption caused by the virus.

Although this year taught us that no business is completely immune, the COVID-19 crisis reminded us of the criticality of the water industry. Serving this vital and essential industry requires resiliency and the capability to transform in the face of sweeping changes. One such transformation was the digital revolution that occurred in mere weeks. This was evident within our own operations, as well as within utilities who found themselves challenged to safely install and read meters, invoice customers, engage consumers, turn on previously shut-off water, and perform other critical services. For those customers already employing our ORION LTE-M Cellular radio AMI (advanced metering infrastructure) solution—with increased reads, two-way communication, unparalleled coverage, robust battery life—they were seamlessly able to leverage real-time data analytics to help manage their utility operations remotely.

COVID-19 will have a profound impact on the global water sector and its pace of digital transformation. For Badger Meter, the potential long-term implications of this crisis on our business includes two particular secular trends. First, the benefit of automated meter reading adoption, whether AMR (aka drive-by) or AMI, to remotely assess meter functionality, leak detection and usage reads. Second, remote actuation of flow restriction technology, to either limit, or in the case of this pandemic, immediately return to full service water availability to end consumers.

I am extremely proud of our ability to execute on our growth strategies, including pursuing strategic and accretive acquisitions during the COVID era. We recently completed two transactions, which serve to establish the foundation of our water quality monitoring portfolio. Water quality is a growing concern across the globe. The addition of s::can GmbH and Analytical Technology, Inc. (ATi), and their collective expertise in real-time water quality monitoring, to the trusted Badger Meter portfolio is of tremendous strategic value to our customers. Incorporating real-time water quality parameters, along with Badger Meter's core flow measurement, pressure and temperature sensing capabilities, enhance the scope of actionable data for municipalities to improve operational security, awareness and efficiency. In addition, the combined offerings provide industrial customers with both process and discharge water quality monitoring capabilities.

We continue to invest in enhancements to BEACON AMA, our integrated technology platform for smart water monitoring, which leverages our growing portfolio of smart products and solutions. Our customers benefit from more holistic, integrated solutions that operationalize real-time data. These digitally enabled solutions reduce overall costs and offer the safer, remote solutions spotlighted by the pandemic. These dynamics are in addition to the secular drivers that have already been evolving—such as the need to reduce unaccounted for water, simplify compliance reporting, drive conservation, address the aging workforce of utilities and connect with end consumers. We are also expanding the functionality of our EyeOnWater software app that effectively enables consumer engagement.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) COMMITMENT

In 2020, we issued a new global Sustainability Report, highlighting how we continue to create value for our stakeholders by strengthening our business in an environmentally and socially conscious manner. The Sustainability Report focuses on four strategic pillars that help define and guide Badger Meter's ESG strategies and execution of those strategies. Through these pillars, Badger Meter's ESG efforts are focused on the most material and impactful areas, including water conservation, health and safety, operational efficiency, and employee engagement and inclusion.

As I reflect on this past year, I naturally think of our employees—the roughly 1,600 of my colleagues around the globe who are critical to the achievement of our vision and the successful execution of our strategic plans. Of all the decisions our leadership team made in 2020, I am most proud of our unwavering support for our employees during this period of tremendous uncertainty. As the pandemic emerged in spring, we extended emergency sick pay to employees, and utilized a short-term furlough as a method to respond to the drop in sales activity versus resorting to widespread layoffs. This allowed us to retain and drive engagement of our exceptional team.

We remain deeply committed to developing a diverse and inclusive workplace, reflective of the diverse customer and other stakeholder groups we serve. We recognize racial equality as a basic human right, and respect the cultures, customs and values of the people in communities in which we operate.

While sustainability has long been core to our culture, and our commitment to preserve the world's most precious resource, we will continue to take action to ensure we are meeting the demands of the rapidly changing world we live in. There is much we have accomplished in our 115-year history, yet there is more we can and will do to make a real and positive impact on our planet.

FINANCIAL RESULTS DEMONSTRATE RESILIENCY

Early in the year, it would have been impossible to predict how fiscal year 2020 would conclude. While the arrival of COVID-19 to our primary US market in the March/April time frame brought a drop in order activity, we took swift and effective action to protect our employees and operations resulting in outstanding performance despite the unprecedented challenges we encountered. While we faced some ongoing order and award delays, most notably in the flow instrumentation product line, activity levels largely returned to “normal” as the severe lockdowns were lifted and customer operations resumed.

- Total sales in 2020 were $425.5 million, approximately flat with the $424.6 million in the previous year. However, sales into the utility water sector grew 4% for the year, even with the short-term impact on demand brought on by the health and economic crisis. This was due to continued penetration of smart water AMI solutions, ultrasonic meters and Software as a Service (SaaS) offerings.

- Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA) margin was a record 21.2%[1], an improvement of 90 basis points over the prior year’s 20.3% due to favorable product mix, cost management and the benefit of price/cost dynamics. Fiscal 2020 EPS was $1.69, a 5% increase from the $1.61 delivered in 2019.

- We generated free cash flow of $80.5[1] million, representing 163% conversion of net earnings into cash due to our strong earnings foundation and solid working capital management.

[1] See last page for reconciliation of GAAP to Non-GAAP financial metrics.

CAPITAL DEPLOYMENT DRIVING LONG-TERM RETURNS

Badger Meter continues to generate and deploy cash efficiently to accelerate growth and create strong returns for shareholders.

- In 2020, we increased our annual dividend per share by 9%, marking 28 consecutive years of increasing the annual dividend per share paid. This use of cash is aligned with our balanced capital allocation objectives.

- We deployed net cash of $29 million during the calendar year, and another approximately $44 million in early January 2021—a total of approximately $73 million on accretive, strategic acquisitions that extend and augment our offerings in the water sector with real-time water quality monitoring technologies.

Looking ahead, we will remain active in identifying and pursuing strategic acquisitions. In addition to a strong balance sheet, we generate excellent cash flow which we will continue to deploy in a disciplined manner, driving strong returns for our shareholders.

FINAL THOUGHTS

In summary, I am pleased with the resilience of our business model and our financial performance in relation to the economic severity of this unprecedented crisis. We are well positioned as we enter 2021 with ample organic and inorganic opportunities to build on our already strong foundation, and we are in a great financial position to support our longer-term aspirations of protecting the world's most precious resource.

Last, but not least, I want to thank our customers, suppliers and shareholders for their ongoing support and commitment to Badger Meter.

Sincerely –

Ken Bockhorst

Ken Bockhorst
Chairman, President and
Chief Executive Officer

Every drop counts.

CORPORATE INFORMATION

BOARD OF DIRECTORS

Todd A. Adams[1,2]
Chairman, President and Chief Executive Officer, Rexnord Corporation

Kenneth C. Bockhorst
Chairman, President and Chief Executive Officer, Badger Meter, Inc.

Gale E. Klappa (Lead Director)[2, 3]
Executive Chairman, WEC Energy Group

Gail A. Lione[2, 3]
Senior Counsel, Dentons; Retired Executive, Harley-Davidson, Inc.

James W. McGill[2]
Retired Executive, Eaton Corporation

Tessa M. Meyers[1,3]
Global Vice President – Software and Control, Rockwell Automation

James F. Stern[1, 3]
Executive Vice President, General Counsel and Secretary, A. O. Smith Corporation

Glen E. Tellock[1]
President and Chief Executive Officer, Lakeside Foods

Committees of the Board:
1. Audit and Compliance
2. Compensation
3. Corporate Governance

EXECUTIVE OFFICERS

Kenneth C. Bockhorst
Chairman, President and Chief Executive Officer

Karen M. Bauer
Vice President – Investor Relations, Corporate Strategy and Treasurer

Fred J. Begale
Vice President – Engineering

William R.A. Bergum
Vice President – General Counsel and Secretary

Gregory M. Gomez
Vice President – Global Flow Instrumentation and International Utility

Sheryl L. Hopkins
Vice President – Human Resources

William J. Parisen
Vice President – Global Operations

Kimberly K. Stoll
Vice President – Sales and Marketing

Daniel R. Weltzien
Vice President – Controller

Robert A. Wrocklage
Senior Vice President – Chief Financial Officer

OTHER

Badger Meter, Inc. Headquarters
4545 West Brown Deer Road
P.O. Box 245036
Milwaukee, Wisconsin 53224-9536
(414) 355-0400
www.badgermeter.com

Independent Registered Public Accounting Firm
Ernst & Young, LLP, Milwaukee, Wisconsin

Transfer Agent
American Stock Transfer & Trust Company, LLC
New York, New York
(877) 248-6415
www.amstock.com

Listing of Common Stock
New York Stock Exchange; Symbol – BMI

BMI LISTED NYSE

Form 10-K Report/Shareholder Information
The 2020 Form 10-K annual report (without exhibits) as filed with the Securities and Exchange Commission, is included in this report. Shareholder information, including news releases and Form 10-K, are available on the company's website: www.badgermeter.com.

Forward Looking Statements
Any forward looking statements contained in this document are subject to various risks and uncertainties, the most important of which are outlined in the Form 10-K.

Trademarks
Trademarks appearing in this document are the property of their respective entities.

Investor Relations
Financial analysts and investors should direct inquires to:
Karen Bauer
Vice President – Investor Relations, Corporate Strategy and Treasurer
kbauer@badgermeter.com
(414) 371-7276

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2020

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from______to______

Commission File No. 001-06706

BADGER METER, INC.

(Exact name of registrant as specified in its charter)

Wisconsin	**39-0143280**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4545 W. Brown Deer Road Milwaukee, Wisconsin	**53233**
(Address of principal executive offices)	(Zip code)

(414) 355-0400

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Common Stock	BMI	New York Stock Exchange
(Title of each class)	(Trading Symbol)	(Name of each exchange on which registered)

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Smaller reporting company	☐
Accelerated filer	☐	Emerging growth company	☐
Non-accelerated filer	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity: As of June 30, 2020, the aggregate market value of the shares of Common Stock held by non-affiliates of the Registrant was approximately $1.82 billion. For purposes of this calculation only, (i) shares of Common Stock are deemed to have a market value of $62.92 per share, the closing price of the Common Stock as reported on the New York Stock Exchange on June 30, 2020, and (ii) each of the Company's executive officers and directors is deemed to be an affiliate of the Company.

As of February 3, 2021, there were 29,145,410 shares of Common Stock outstanding with a par value of $1 per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's Proxy Statement for the 2021 Annual Meeting of Shareholders, which will be filed with the Securities and Exchange Commission under Regulation 14A within 120 days after the end of the registrant's fiscal year, are incorporated by reference from the definitive Proxy Statement into Part III of this Annual Report on Form 10-K.

Special Note Regarding Forward Looking Statements

Certain statements contained in this Annual Report on Form 10-K, as well as other information provided from time to time by Badger Meter, Inc. (the "Company") or its employees, may contain forward looking statements that involve risks and uncertainties that could cause actual results to differ materially from those in the forward looking statements. The words "anticipate," "believe," "estimate," "expect," "think," "should," "could" and "objective" or similar expressions are intended to identify forward looking statements. All such forward looking statements are based on the Company's then current views and assumptions and involve risks and uncertainties. Some risks and uncertainties that could cause actual results to differ materially from those expressed or implied in forward looking statements include those described in Item 1A of this Annual Report on Form 10-K for the year ended December 31, 2020.

PART I

ITEM 1. BUSINESS

Badger Meter, Inc. (the "Company") is a leading innovator, manufacturer and marketer of products incorporating flow measurement, quality, control and other system solutions serving markets worldwide. The Company was incorporated in 1905.

Throughout this 2020 Annual Report on Form 10-K, the words "we," "us" and "our" refer to the Company.

Available Information

The Company's internet address is http://www.badgermeter.com. The Company makes available free of charge through its website its Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, on the same day they are electronically filed with, or furnished to, the Securities and Exchange Commission. The Company is not including the information contained on or available through its website as a part of, or incorporating such information by reference into, this Annual Report on Form 10-K.

Market Overview, Products, Systems and Solutions

With more than a century of water technology innovation, Badger Meter is a global provider of industry leading water solutions encompassing flow measurement, quality and other system parameters. These offerings provide customers with the data and analytics essential to optimize their operations and contribute to the sustainable use and protection of the world's most precious resource. The Company's flow measurement products measure water and other fluids and are known for accuracy, long-lasting durability and for providing valuable and timely measurement data through various methods. The Company's water quality monitoring solutions include optical sensing and electrochemical instruments that provide real-time, on-demand data parameters. The Company's product lines fall into two categories: sales of water meters, radios and related technologies, and water quality monitoring solutions to water utilities (utility water) and sales of meters and other sensing instruments, valves and other products for industrial applications in water, wastewater, and other industries (flow instrumentation). The Company estimates that approximately 90% of its products are used in water related applications.

Utility water, the largest sales category, is comprised of either mechanical or static (ultrasonic) water meters along with the related radio and software technologies and services used by water utilities as the basis for generating their water and wastewater revenues. It further comprises other sensor technology used in the water distribution system to ensure the safe and efficient delivery of clean water. These sensors are used to detect leaks in the distribution piping system and to monitor various water quality parameters throughout the distribution system. The largest geographic market for the Company's utility water products is North America, primarily the United States, because most of the Company's meters are designed and manufactured to conform to standards promulgated by the American Water Works Association. The majority of water meters sold by the Company continue to be mechanical in nature; however, ultrasonic meters are an increasing percentage of the water meters sold by the Company and in the industry, due to a variety of factors, including their ability to maintain measurement accuracy over their useful life. Providing ultrasonic water meter technology, combined with advanced radio technology, provides the Company with the opportunity to sell into other geographical markets, for example the Middle East, Europe and Southeast Asia.

The flow instrumentation product line primarily serves water applications throughout the broader industrial markets. This product line includes meters, valves and other sensing instruments sold worldwide to measure and control the quantity of fluids going through a pipe or pipeline including water, air, steam, oil, and other liquids and gases. These products are used in a variety of industries and applications, with the Company's primary market focus being water/wastewater; heating, ventilating and air conditioning (HVAC) and corporate sustainability. Flow instrumentation products are generally sold to original equipment manufacturers as the primary flow measurement device within a product or system, as well as through manufacturers' representatives.

Utility water meters (both residential and commercial) are generally classified as either manually read meters or remotely read meters via radio technology. A manually read meter consists of a water meter and a register that provides a visual totalized meter reading. Meters equipped with radio technology (endpoints) receive flow measurement data from battery-powered encoder registers attached to the water meter, which is encrypted and transmitted via radio frequency to a receiver that collects and formats the data appropriately for water utility usage and billing systems. These remotely read systems are classified as either automatic meter reading (AMR) systems, where a vehicle equipped for meter reading purposes, including a radio receiver, computer and reading software, collects the data from the utilities' meters; or advanced metering infrastructure (AMI) systems, where data is gathered utilizing a network (either fixed or cellular) of data collectors or gateway receivers that are able to receive radio data transmission from the utilities' meters. AMI systems eliminate the need for utility personnel to drive through service territories to collect data from the meters. These systems provide utilities with more frequent and diverse data from their meters at specified intervals.

The ORION® branded family of radio endpoints provides water utilities with a range of industry-leading options for meter reading. These include ORION (ME) for migratable AMR meter reading, ORION (SE) for traditional fixed network applications, and ORION Cellular for an infrastructure-free meter reading solution. ORION Migratable makes the migration to fixed network easier for utilities that prefer to start with mobile reading and later adopt fixed network communications, allowing utilities to choose a solution for their current needs and be positioned for their future operational changes. ORION Cellular eliminates the need for utility-owned fixed network infrastructure, allows for gradual or full deployment, and decreases ongoing maintenance.

Information and analytics are critical to the water metering ecosystem. The Company's BEACON® Advanced Metering Analytics (AMA) software suite improves utility visibility to their water and water usage. BEACON AMA is a secure, cloud-hosted software suite that includes a customizable dashboard, and has the ability to establish alerts for specific conditions. It also allows for consumer engagement tools that permit end water users (such as homeowners) to view and manage their water usage activity. Benefits to the utility include improved customer service, increased visibility through faster leak detection, the ability to promote and quantify the effects of its water conservation efforts, and easier compliance reporting.

Water meter replacement and the adoption and deployment of new technology comprise the majority of water meter product sales, including radio products. To a much lesser extent, housing starts also contribute to the new product sales base. Over the last decade, there has been a growing trend in the conversion from manually read water meters to meters with radio technology. This conversion rate is accelerating, with the Company estimating that approximately 65% of water meters installed in the United States have been converted to a radio solution technology.

In addition to our water utility flow measurement solutions, the Company provides various water quality monitoring solutions utilizing optical sensors and electrochemical instruments that measure a variety of parameters including turbidity, pH, chlorine, nitrates and approximately 40 others. Utilizing these solutions, water quality can be monitored continually or periodically throughout the network from its original source to the point in which it is recycled and returned. The addition of real-time water quality parameters to core flow measurement, pressure and temperature sensing capabilities enhances the scope of actionable data for water utilities to improve operational security, awareness and efficiency.

The Company's net sales and corresponding net earnings depend on unit volume and product mix, with the Company generally earning higher average selling prices and margins on meters equipped with radio technology, and higher margins on ultrasonic compared to mechanical meters. The Company's proprietary radio products generally result in higher margins than remarketed, non-proprietary technology products. The Company also sells registers and endpoints separately to customers who wish to upgrade their existing meters in the field.

Flow instrumentation products are used in flow measurement and control applications across a broad industrial spectrum, occasionally leveraging the same technologies used in the municipal water category. Specialized communication protocols that control the entire flow measurement process and mandatory certifications drive these markets. The Company provides both standard and customized flow instrumentation solutions.

The industries served by the Company's flow instrumentation products face accelerating demands to contain costs, reduce product variability, and meet ever-changing safety, regulatory and sustainability requirements. To address these challenges, customers must reap more value from every component in their systems. This system-wide scrutiny has heightened the focus on flow instrumentation in industrial process, manufacturing, commercial fluid, building automation and precision engineering applications where flow measurement and control are critical.

A leader in both mechanical and static (ultrasonic) flow metering technologies for industrial markets, the Company offers one of the broadest flow measurement, control and communication portfolios in the market. This portfolio carries respected brand names including Recordall®, Hedland®, Dynasonics®, Blancett®, and Research Control®, and includes eight of the ten major flow meter technologies. Customers rely on the Company for application-specific solutions that deliver accurate, timely and dependable flow data and control essential for product quality, cost control, safer operations, regulatory compliance and more sustainable operations.

In addition, the Company provides various water quality monitoring solutions utilizing optical sensors and electrochemical instruments that measure a variety of parameters providing industrial customers with both process and discharge water quality monitoring capabilities.

The Company's products are sold throughout the world through employees, resellers and representatives. Depending on the customer mix, there can be a moderate seasonal impact on sales, primarily relating to higher sales of certain utility water products during the spring and summer months. No single customer accounts for more than 10% of the Company's sales.

Competition

The Company faces competition for both its utility water and flow instrumentation product lines. The competition varies from moderate to strong depending upon the products involved and the markets served. Major competitors for utility water meters include Xylem, Inc. (“Sensus”), Roper Technologies, Inc. (“Neptune”), Master Meter, Inc. and Mueller Water Products, Inc. Together with Badger Meter, it is estimated that these companies sell in excess of 90% of the water meters in the North American market, which has historically been somewhat insulated from penetration by other competitors due to the historic nature of the mechanical metering technology used. As static metering technology continues to gain traction in the North American market, additional competitors include firms such as Kamstrup A/S, Diehl Metering GmbH and Itron, Inc., although these competitors lack brand recognition and product breadth and do not have extensive water utility channel distribution to effectively reach the more than 50,000 water utilities in the United States, which impedes their ability to compete. In addition, as previously noted, the broader technology acceptance of static metering worldwide also provides competitive opportunities for Badger Meter outside North America.

The Company's primary competitors for utility water radio products in North America are Itron, Inc., Hubbel, Inc. (Aclara Technologies), Neptune and Sensus. The vast majority of the Company’s radio sales are of its own proprietary radio systems; however, the Company may also resell other third party radio products as part of an overall smart meter solution (e.g. Aclara, Itron®).

The Company’s primary competitors for water quality monitoring solutions vary depending on the products and offerings. Traditional water quality monitoring relies on reagents or test kits, along with lab samples with waiting time for results and the number and scale of competition can be extensive. The Company’s online, real-time water quality monitoring capabilities generally compete with smaller, specialized firms.

A number of the Company's competitors in certain markets have greater financial resources than the Company. The Company, however, believes it currently provides the leading technologies in water meters and water-dedicated radio solutions and analytics. As a result of significant research and development activities, the Company enjoys favorable patent positions and trade secret protections for several of its technologies, products and processes.

There are many competitors in the flow instrumentation markets due to the various end markets and applications served. They include, among others, Emerson Electric Company, Krohne Messtechnik GmbH, Endress+Hauser AG, Yokogawa Electric Corporation and Cameron International. With a broad portfolio consisting of products utilizing eight of the ten major flow meter technologies, the Company is well positioned to compete in niche, specialized applications within these markets, primarily focused on the water/wastewater and HVAC.

Raw Materials and Components

Raw materials used in the manufacture of the Company's products include purchased castings made of metal or alloys (such as brass, which uses copper as its main component, aluminum, stainless steel and cast iron), plastic resins, glass, microprocessors and other electronic subassemblies, and components. There are multiple sources for these raw materials and components, but the Company relies on single suppliers for certain brass castings, resins and electronic subassemblies. The Company believes these items would be available from other sources, but that the loss of certain suppliers may result in a higher cost of materials, delivery delays, short-term increases in inventory and higher quality control costs in the short term. The Company carries business interruption insurance on key suppliers. The Company's purchases of raw materials are based on production schedules, and as a result, inventory on hand is generally not exposed to price fluctuations. World commodity markets and currency exchange rates may also affect the prices of material purchased in the future. The Company does not hold significant amounts of precious metals.

Research and Development

Expenditures for research and development activities related to the development of new products, the improvement of existing products and manufacturing process improvements were $11.6 million in 2020, $11.9 million in 2019 and $11.1 million in 2018. Research and development activities are primarily sponsored by the Company. The Company also engages from time to time in joint research and development with other companies and organizations.

Intangible Assets

The Company owns or controls several trade secrets and many patents, trademarks and trade names in the United States and other countries that relate to its products and technologies. No single patent, trademark, trade name or trade secret is material to the Company's business as a whole.

Environmental Protection

The Company is subject to contingencies related to environmental laws and regulations. A future change in circumstances with respect to these specific matters or with respect to sites formerly or currently owned or operated by the Company, off-site disposal locations used by the Company, and property owned by third parties that is near such sites, could result in future costs to the Company and such amounts could be material. Expenditures for compliance control provisions and regulations during 2020, 2019 and 2018 were not material.

Government Regulations

The Company's operations worldwide are subject to various federal, state, local and foreign laws and regulations. Whether at the federal, state, or local level, the intent of these laws and regulations is to protect product safety, public health and the environment. Similar laws and regulations have been adopted by government authorities in other countries in which we manufacture, distribute, and sell our products.

The Company believes that its operations, including its manufacturing locations, are in substantial compliance with all applicable government laws and regulations, including those related to environmental, consumer protection, international trade, labor and employment, human rights, tax, anti-bribery and competition matters. Any additional measures to maintain compliance are not expected to materially affect the Company's capital expenditures, competitive position, financial position or results of operations.

There are currently no legislative or administrative regulations pending which we anticipate will have a substantial adverse impact on the Company's revenues, earnings or cash flows. However, if new or amended laws or regulations impose significant operational restrictions and compliance requirements upon the Company or its products, the Company's business, capital expenditures, results of operations, financial condition and competitive position could be negatively impacted. Refer to Part I, Item 1A. "Risk Factors" of this 2020 Annual Report on Form 10-K for further information.

Human Capital Resources

Our employees are our greatest strength and are critical to the achievement of our vision and successful execution of our strategies. We are committed to recruiting and retaining top talent, in addition to fostering an inclusive environment where all employees can thrive.

The Company and its subsidiaries employed 1,602 persons at December 31, 2020. Approximately 102 of these employees are covered by a collective bargaining agreement with District 10 of the International Association of Machinists. The Company is currently operating under a three-year contract with the union, which expires on October 31, 2022. The Company believes it has good relations with the union and all of its employees.

Some examples of key programs and initiatives that are focused on attracting, developing and retaining a diverse workforce include:

Core Values. Living our core values is at the heart of Badger Meter's culture. In 2020, we refreshed and contemporized our company values to define shifts in mindsets and behaviors needed to win in a competitive marketplace and strengthen the employee experience. Significant enhancements included a focus on diversity, continuous improvement and environmental responsibility.

Recruitment and Retention. In addition to market competitive compensation and benefits, we focus on open, two-way communication, training and development and early talent programs, among other activities to attract and retain key talent. Our regrettable turnover was 4.3% in 2020, down from 7.6% in 2019 and 9.9% in 2018.

Diversity, Equity and Inclusion. We believe that developing a diverse and inclusive business makes us and society stronger, energizes our growth through customer engagement and helps us attract and retain talent.

- 40% of our executive officer group is diverse (three women, one Latino).
- Implemented and completed a pay equity study, taking action to make adjustments where warranted, and continue to

actively monitor pay equity.
- Badger Meter is a signatory to the Equality Act, supporting LGBTQ rights.
- Signed Metropolitan Milwaukee Association of Commerce (MMAC) Diversity Pledge, a commitment to increasing diversity representation in the workforce.

Employee Rights, Health and Safety. In addition to on-the-job safety, Badger Meter takes a holistic view of employee health and well-being, including our multifaceted wellness program, B|Well which aims to provide information, activities and support for smart and healthy choices.

- Safety as measured by our Total Case Incident Rate (TCIR) was 0.65 in 2020, down from 0.98 in 2019 and 1.30 in 2018.
- Implemented COVID-19 health and safety measures including remote work, robust on-site safety protocols (temperature screening, face coverings, manufacturing modifications to accommodate social distancing, among others) and enhanced sick leave benefits.
- Badger Meter's Human Rights Policy outlines our commitment to respecting and supporting internationally recognized human rights and freedoms.
- We provide an Employee Assistance Program (EAP) and mental health coverage.

Community and Social Activities. Through both financial contributions and volunteer efforts of our employees, Badger Meter supports programs and organizations that address water conservation and quality, education and community concerns which are all vital to community sustainability.

Information about the Company's Executive Officers

The following table sets forth certain information regarding the Executive Officers of the Registrant.

Name	Position	Age at 2/28/2021
Kenneth C. Bockhorst	Chairman, President and Chief Executive Officer	48
Robert A. Wrocklage	Senior Vice President — Chief Financial Officer	42
Karen M. Bauer	Vice President — Investor Relations, Corporate Strategy and Treasurer	53
Fred J. Begale	Vice President — Engineering	56
William R. A. Bergum	Vice President — General Counsel and Secretary	56
Gregory M. Gomez	Vice President — Global Flow Instrumentation and International Utility	56
Sheryl L. Hopkins	Vice President — Human Resources	53
William J. Parisen	Vice President — Global Operations	54
Kimberly K. Stoll	Vice President — Sales and Marketing	54
Daniel R. Weltzien	Vice President — Controller	42

There are no family relationships between any of the executive officers. Officers are elected annually at the first meeting of the Board of Directors held after each annual meeting of the shareholders. Each officer holds office until his or her successor has been elected or until his or her death, resignation or removal. There is no arrangement or understanding between any executive officer and any other person pursuant to which he or she was elected as an officer.

Mr. Bockhorst was elected President in April 2018, Chief Executive Officer in January 2019 and Chairman in January 2020 after serving as Senior Vice President - Chief Operating Officer for the Company from October 2017 to April 2018. Prior to joining the Company, Mr. Bockhorst was Executive Vice President of the Energy segment, preceded by President of Hydratight and Global Vice President Operations of Enerpac, all within Actuant Corporation (now Enerpac Tool Group) from March 2011 to October 2017.

Mr. Wrocklage was elected Vice President – Chief Financial Officer and Treasurer in 2019 and Senior Vice President – Chief Financial Officer in January 2020 after serving as Vice President - Finance for the Company from August 2018 to December 2018. Prior to joining the Company, Mr. Wrocklage spent ten years with Actuant Corporation (now Enerpac Tool Group), holding various corporate and business unit financial leadership roles, most recently as Vice President - Corporate Controller and Chief Accounting Officer.

Ms. Bauer was elected Vice President - Investor Relations, Corporate Strategy and Treasurer effective June 2019. She joined Badger Meter in July 2018 as Director, Investor Relations and Corporate Strategy. In her role she also oversees the Company's ESG (Environmental, Social & Governance) initiatives. Prior to joining Badger Meter, she served at Actuant Corporation (now Enerpac Tool Group), most recently as Director, Investor Relations & Communications.

Mr. Begale has served as Vice President - Engineering for more than five years.

Mr. Bergum has served as Vice President - General Counsel and Secretary for more than five years.

Mr. Gomez was elected Vice President – Flow Instrumentation and International Utility in March 2019. Mr. Gomez served as Vice President - Business Development and Flow Instrumentation from April 2017 to March 2019, Vice President - Flow Instrumentation from September 2014 to April 2017.

Ms. Hopkins was elected Vice President - Human Resources in October 2020. Prior to joining the Company, Ms. Hopkins served as Vice President of Human Resources for ADVENT from April 2019 to October 2020 and Senior Vice President of Human Resources for Runzheimer International from July 2010 to March 2018. Previously, she held roles of increasing responsibility at Eaton Corporation and other multinational public companies.

Mr. Parisen was elected Vice President - Global Operations in June 2019. He joined Badger Meter in August 2018 as Senior Director, Global Supply Chain. Prior to joining Badger Meter, he was employed at Actuant Corporation (now Enerpac Tool Group) where he most recently held the position of Vice President - Global Operations for the Industrial and Energy segments.

Ms. Stoll has served as Vice President - Sales and Marketing for more than five years.

Mr. Weltzien was elected Vice President – Controller in March 2019. Prior to joining the Company, Mr. Weltzien spent eight years with Actuant Corporation (now Enerpac Tool Group), holding various corporate and business unit financial leadership roles, most recently as Senior Director of Finance for its Hydratight business unit.

Foreign Operations and Export Sales

The Company sells its products through employees, resellers and representatives throughout the world. Additionally, the Company has sales, distribution and manufacturing facilities in Neuffen, Germany and Vienna, Austria; sales and customer service offices in Mexico, Singapore, China, United Arab Emirates and other similar locations throughout the world; manufacturing facilities in Nogales, Mexico, Brno, Czech Republic and Bern, Switzerland; and a development facility in Luleå, Sweden. The Company exports products from the United States that are manufactured in Milwaukee, Wisconsin; Racine, Wisconsin and Tulsa, Oklahoma.

Information about the Company's foreign operations and export sales is included in Note 9 "Industry Segment and Geographic Areas" in the Notes to Consolidated Financial Statements in Part II, Item 8 of this 2020 Annual Report on Form 10-K.

Financial Information about Industry Segments

The Company operates in one industry segment as an innovator, manufacturer and marketer of products incorporating flow measurement, control and communication solutions. Information about the Company's sales, operating earnings and assets is included in the Consolidated Financial Statements and in Note 9 "Industry Segment and Geographic Areas" in the Notes to Consolidated Financial Statements in Part II, Item 8 of this 2020 Annual Report on Form 10-K.

ITEM 1A RISK FACTORS

Shareholders, potential investors and other readers are urged to consider the significant business risks described below in addition to the other information set forth or incorporated by reference in this 2020 Annual Report on Form 10-K, including the "Special Note Regarding Forward Looking Statements" at the front of this 2020 Annual Report on Form 10-K. If any of the events contemplated by the following risks actually occur, our financial condition or results of operations could be materially adversely affected. The following list of risk factors may not be exhaustive. We operate in a continually changing business, economic and geopolitical environment, and new risk factors may emerge from time to time. We can neither predict these new risk factors with certainty nor assess the precise impact, if any, on our business, or the extent to which any factor, or combination of factors, may adversely impact our results of operations. While there is much uncertainty, we do analyze the risks we face, perform a probability assessment of their impacts and attempt to soften their potential impact when and if possible.

PRODUCTS, TECHNOLOGY AND SERVICES

The inability to develop technologically advanced products could harm our future success.

We believe that our future success depends, in part, on our ability to develop technologically advanced products that meet or exceed appropriate industry standards. Although we believe that we currently have a competitive advantage in this area, maintaining such advantage will require continued investment in research and development, sales, marketing and manufacturing capabilities. There can be no assurance that we will have sufficient resources to make such investments or that we will be able to make the technological advances necessary to maintain such competitive advantage. If we are unable to maintain our competitive advantage, our future financial performance may be adversely affected. We are not currently aware of any emerging standards, technologies or new products that could render our existing products obsolete in the near term. Our radios operate on networks which are changing as part of the natural evolution of technology. The pace of that change is largely outside of the Company's control and the sun-setting of a network may have an adverse impact on the Company. The municipal water industry is continuing to see the adoption of static water meters. Static water metering has lower barriers to entry that could affect the competitive landscape in North America. We believe we have a competitive product. If the adoption rate for static meters were to accelerate, we believe competitors lack brand recognition and product breadth and do not have extensive water utility channel distribution to effectively reach the more than 50,000 water utilities in the United States.

Failure to manufacture quality products could have a material adverse effect on our business.

If we fail to maintain and enforce quality control and testing procedures, our products will not meet required performance standards. Product quality and performance are a priority for us since our products are used in various applications where precise control of fluids is essential. Although we believe our products are perceived as high quality, any future production and/or sale of substandard products could seriously harm our reputation, resulting in both a loss of current customers to competitors and damage to our ability to attract new customers. In addition, if any of our products prove to be defective, we may be required to participate in a recall involving such products or incur warranty related expenses. A successful claim brought against us with respect to a defective product in excess of available insurance coverage, if any, or a requirement to participate in a major product recall, could have a material adverse effect on our business, results of operations or financial condition.

If our technology products do not operate as intended, our business could be materially and adversely affected.

We sell and install software products, including some that are provided in "the cloud," that may contain unexpected design defects or may encounter unexpected complications during installation or when used with other technologies utilized by the customer. A failure of our technology products to operate as intended and in a seamless fashion with other products or a failure or breach of a cloud network could materially and adversely affect our results of operations, financial position and cash flows.

Our expanded role as a prime contractor brings certain risks that could have a material adverse effect to our business.

The Company periodically assumes the role of prime contractor for providing complete technology systems, installation and other services and project management to governmental entities, which brings with it added risks, including but not limited to, our responsibility for managing subcontractor performance and project timelines and the potential for expanded warranty and performance obligations. While we have managed a number of these types of arrangements, it is possible to encounter a situation where we may not be able to perform to the expectations of the governmental entity, and thus incur additional costs that could affect our profitability or harm our reputation.

If we are not able to protect our proprietary rights to our software and related products, our ability to market our software products could be hindered and our results of operations, financial position and cash flows could be materially and adversely affected.

We rely on our agreements with customers, confidentiality agreements with employees, and our trademarks, trade secrets, copyrights and patents to protect our proprietary rights. These legal protections and precautions may not prevent misappropriation of our proprietary information. In addition, substantial litigation regarding intellectual property rights exists in the software industry, and software products and other components may increasingly be subject to third-party infringement claims. Such litigation and misappropriation of our proprietary information could hinder our ability to market and sell products and services and our results of operations, financial position and cash flows could be materially and adversely affected.

BUSINESS CONDITIONS

The global coronavirus (COVID-19) pandemic, or other global public health pandemics, could have a material adverse effect on our business, results of operations and financial condition.

Our business, results of operations and financial condition may be adversely affected if a global public health pandemic, including the current global coronavirus (COVID-19) pandemic, interferes with the ability of our employees, suppliers, and customers to perform our and their respective responsibilities and obligations relative to the conduct of our business and operations. The COVID-19 pandemic has significantly impacted economic activity and markets around the world, and it could have a material negative impact on our business and operations in numerous ways, including but not limited to those outlined below:

- The risk that we, or our employees, suppliers or customers may be prevented from conducting business activities for an indefinite period of time, including shutdowns that may be requested or mandated by governmental authorities.

- Restrictions on shipping products from certain jurisdictions where they are produced or into certain jurisdictions where customers are located.

- Inability to meet our customers' needs and achieve cost targets due to disruptions in our manufacturing and supply arrangements caused by the loss or disruption of essential manufacturing and supply elements, such as raw materials or other finished product components, transportation, workforce or other manufacturing and distribution capability.

- Failure of third parties on which we rely, including our suppliers, distributors, contractors and commercial banks, to meet their obligations to the Company, or significant disruptions in their ability to do so, which may be caused by their own financial or operational difficulties and may adversely impact our operations.

- Significant reductions in demand or significant volatility in demand and a global economic recession that could further reduce demand for our products, resulting from actions taken by governments, businesses, and/or the general public in an effort to limit exposure to and spreading of such infectious diseases, such as travel restrictions, quarantines, and business shutdowns or slowdowns.

- Deterioration of worldwide credit and financial markets that could limit our ability to obtain external financing to fund our operations and capital expenditures.

- Actions we have taken or may take, or decisions we have made or may make, as a consequence of the COVID-19 pandemic may result in legal claims or litigation against us.

The extent to which the COVID-19 pandemic, or other outbreaks of disease or similar public health threats, materially and adversely impacts our business, results of operations and financial condition is highly uncertain and will depend on future developments. Such developments may include the geographic spread and duration of the virus, the severity of the disease, the development and timeline of an effective and broadly available vaccine and the actions that may be taken by various governmental authorities and other third parties in response to the outbreak. In addition, how quickly, and to what extent, normal economic and operating conditions can resume cannot be predicted, and the resumption of normal business operations may be delayed or constrained by lingering effects of the COVID-19 pandemic on our suppliers, third-party service providers, and/or customers.

The inability to obtain adequate supplies of raw materials and component parts at favorable prices could decrease our profit margins and negatively impact timely delivery to customers.

We are affected by the availability and prices for raw materials and component parts, including purchased castings made of metal or alloys (such as brass, which uses copper as its main component, aluminum, stainless steel and cast iron), plastic resins, microprocessors and other electronic subassemblies, and components that are used in the manufacturing process. The inability to obtain adequate supplies of raw materials and component parts for our products at favorable prices could have a material adverse effect on our business, financial condition or results of operations by decreasing profit margins and by negatively impacting timely deliveries to customers. In the past, we have been able to offset price increases in raw materials and component parts by increased sales prices, active materials management, product engineering programs and the diversity of materials used in the production processes. However, we cannot be certain that we will be able to accomplish this in the future. Since we do not control the actual production of these raw materials and component parts, there may be delays caused by an interruption in the production or transportation of these materials for reasons that are beyond our control. World commodity markets and inflation may also affect raw material and component part prices. In addition, we rely on single suppliers for microprocessors, castings and components in several of our product lines and the loss of such suppliers could temporarily disrupt operations in the short term.

Economic conditions could cause a material adverse impact on our sales and operating results.

As a supplier of products and software, the majority of which are to water utilities, we may be adversely affected by global economic conditions, delays in governmental programs created to stimulate the economy, and the impact of government budget cuts or partial shutdowns of governmental operations that affect our customers, including independent distributors, large city utilities, public and private water companies and numerous smaller water utilities. These customers may delay capital projects, including non-critical maintenance and upgrades, or may not have the ability to authorize and finance purchases during economic downturns or instability in world markets. We also sell products for other applications to reduce our dependency on the municipal water market. A significant downturn in this market could cause a material adverse impact on sales and operating results. Therefore, a downturn in general economic conditions, as well as in the municipal water market, and delays in the timing or amounts of possible annual federal funding and periodic stimulus fund programs, government budget cuts or partial shutdowns of governmental operations, or the availability of funds to municipalities could result in a reduction in demand for our products and services and could harm the business.

Geopolitical crisis, including terrorism or pandemics, could adversely affect our business.

Our operations are susceptible to global events, including acts or threats of war or terrorism, international conflicts, political instability, and widespread outbreak of an illness or other health issue. The occurrence of any of these events could have an adverse effect on our business results and financial condition. See the separate risk factor specific to the global coronavirus (COVID-19) pandemic.

Risks related to foreign markets could decrease our profitability.

Since we sell products worldwide as well as manufacture products in several countries, we are subject to risks associated with doing business internationally. These risks include such things as changes in foreign currency exchange rates, changes in political or economic conditions of specific countries or regions, potentially negative consequences from changes in tax laws or regulatory requirements, differing labor regulations, and the difficulty of managing widespread operations.

An inability to attract and retain skilled employees could negatively impact our growth and decrease our profitability.

Our success depends on our continued ability to identify, attract, develop and retain skilled personnel throughout our organization. Current and future compensation arrangements, including benefits, may not be sufficient to attract new employees or retain existing employees, which may hinder our growth.

Competitive pressures in the marketplace could decrease our revenues and profits.

Competitive pressures in the marketplace for our products could adversely affect our competitive position, leading to a possible loss of market share or a decrease in prices, either of which could result in decreased revenues and profits. We operate in an environment where competition varies from moderate to strong and a number of our competitors have greater financial resources. Our competitors also include alliance partners that sell products that do or may compete with our products. The principal elements of competition for our most significant product applications, residential and commercial water meters for the municipal water utility market (with various radio technology systems), are price, product technology, quality and service. The competitive environment is also affected by the movement toward radio technologies and away from manually read meters, the demand for replacement units and, to some extent, such things as global economic conditions, the timing and size of governmental programs such as stimulus programs, the ability of municipal water utility customers to authorize and finance purchases of our products, our ability to obtain financing, housing starts in the United States, and overall economic activity. For our flow instrumentation products, the competitive environment is affected by the general economic health of various industrial sectors particularly in the United States and Europe.

GOVERNMENT REGULATION

Violations or alleged violations of laws that impose requirements for the conduct of the Company's overseas operations, including the Foreign Corrupt Practices Act (FCPA) or other anti-corruption laws, trade sanctions and sanctioned parties restrictions could adversely affect our business.

In foreign countries where we operate, a risk exists that our employees, third party partners or agents could engage in business practices prohibited by applicable laws and regulations, such as the FCPA. Such anti-corruption laws generally prohibit companies from making improper payments to foreign officials, require companies to keep accurate books and records, and maintain appropriate internal controls. Our policies mandate strict compliance with such laws and we devote resources to ensure compliance. However, we operate in some parts of the world that have experienced governmental corruption, and, in certain circumstances, local customs and practice might not be consistent with the requirements of anti-corruption laws. We remain subject to the risk that our employees, third party partners or agents will engage in business practices that are prohibited by our policies and violate such laws and regulations. Violations by us or a third party acting on our behalf could result in significant internal investigation costs and legal fees, civil and criminal penalties, including prohibitions on the conduct of our business and reputational harm.

We may also be subject to legal liability and reputational damage if we violate U.S. trade sanctions administered by the U.S. Treasury Department's Office of Foreign Assets Control (OFAC), the European Union, the United Nations and trade sanction laws, such as the Iran Threat Reduction and Syria Human Rights Act of 2012. Our policies mandate strict compliance with such laws and we devote resources to ensure compliance.

Changes in environmental or regulatory requirements could entail additional expenses that could decrease our profitability.

We are subject to a variety of laws in various countries and markets, such as those regulating lead or other material content in certain of our products, the handling, recycling and disposal of certain electronic and other materials, the use and/or licensing of radio frequencies necessary for radio products, data privacy and protection, as well as customs and trade practices. We cannot predict the nature, scope or effect of future environmental or regulatory requirements to which our operations might be subject or the manner in which existing or future laws will be administered or interpreted. Currently, the cost of complying with existing laws is included as part of our on-going expenses and does not have a material effect on our business or financial position, but a change in the future could adversely affect our profitability.

GENERAL

Economic impacts due to leadership or policy changes in the countries where we do business could negatively affect our profitability.

We may be affected by adjustments to economic and trade policies, such as taxation, changes to or withdrawal from international trade agreements, or the like, when countries where we produce or sell our products change leadership or economic policies. These types of changes, as well as any related regulatory changes, could significantly increase our costs and adversely affect our profitability and financial condition.

Global and regional economic and political conditions could adversely affect our business.

In June 2016, voters in the United Kingdom approved the United Kingdom's exit from the European Union ("Brexit"), and the United Kingdom officially withdrew from the European Union on January 31, 2020. On December 30, 2020, the European Union and the United Kingdom entered into an agreement regarding their future relationship (EU-UK Trade and Cooperation Agreement), which provisionally applies until February 28, 2021, by which date it is expected to be fully ratified by all the parties. Despite this development, Brexit continues to be the source of significant economic uncertainty in the United Kingdom and in Europe, the Middle East, and Asia, which may negatively impact our business results in those regions. In addition, changes related to Brexit could result in disruptions to trade and free movement of goods, services and people to and from the United Kingdom, increased foreign exchange volatility with respect to the British pound and additional legal, political and economic uncertainty, all of which could potentially disrupt the markets we serve, the tax jurisdictions in which we operate, adversely change tax benefits or liabilities in these or other jurisdictions and may cause us to lose customers, suppliers and employees. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which European Union laws to replace or replicate. Any of these effects could adversely affect our business and results of operations.

Climate change, unusual weather and other natural phenomena could adversely affect our business.

Climate changes and weather conditions may affect, or cause volatility in, our financial results. Drought conditions could drive higher demand for smart water solutions that advance conservation efforts in residential and commercial applications. Our sales also may be adversely affected by unusual weather, weather patterns or other natural phenomena that could have an impact on the timing of orders in given periods, depending on the particular mix of customers being served by us at the time. The unpredictable nature of weather conditions and climate change therefore may result in volatility for certain portions of our business, as well as the operations of certain of our customers and suppliers.

Litigation against us could be costly, time consuming to defend and could adversely affect our profitability.

From time to time, we are subject to legal proceedings and claims that arise in the ordinary course of business. For example, we may be subject to workers' compensation claims, employment/labor disputes, customer and supplier disputes, product liability claims, intellectual property disputes and contractual disputes related to warranties arising out of the conduct of our business. Litigation may result in substantial costs and may divert management's attention and resources, which could adversely affect our profitability or financial condition.

Disruptions and other damages to our information technology and other networks and operations, and breaches in data security or cybersecurity attacks could have a negative financial impact and damage our reputation.

Our ability to serve customers, as well as increase revenues and control costs, depends in part on the reliability of our sophisticated technologies, system networks and cloud-based software. We use information technology and other systems to manage our business in order to maximize our revenue, effectiveness and efficiency. Unauthorized parties gaining access to digital systems and networks for purposes of misappropriating assets or sensitive financial, personal or business information, corrupting data, causing operational disruptions and other cyber-related risks could adversely impact our customer relationships, business plans and our reputation. In some cases, we are dependent on third-party technologies and service providers for which there is no certainty of uninterrupted availability or through which hackers could gain access to sensitive and/or personal information. These potential disruptions and cyber-attacks could negatively affect revenues, costs, customer demand, system availability and our reputation.

Further, as the Company pursues its strategy to grow through acquisitions and to pursue newer technologies that improve our operations and cost structure, the Company is also expanding and improving its information technologies, resulting in a larger technological presence and corresponding exposure to cybersecurity risk. Certain new technologies present new and significant cybersecurity safety risks that must be analyzed and addressed before implementation. If we fail to assess and identify cybersecurity risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks.

Failure to successfully identify, complete and integrate acquired businesses or products could adversely affect our operations.

As part of our business strategy, we continue to evaluate and may pursue selected business or product acquisition opportunities that we believe may provide us with certain operating and financial benefits. There can be no assurance that we will identify or complete transactions with suitable acquisition candidates in the future. If we complete any such acquisitions, they may require integration into our existing business with respect to administrative, financial, legal, sales, marketing, manufacturing and other functions to realize these anticipated benefits. If we are unable to successfully integrate a business or product acquisition, we may not realize the benefits identified in our due diligence process, and our financial results may be negatively impacted. Additionally, significant unexpected liabilities may arise during or after completion of an acquisition.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The Company has sales, development, distribution and manufacturing facilities and customer service offices as noted in Part I, Item 1 of this 2020 Annual Report on Form 10-K under the heading "Foreign Operations and Export Sales." The principal facilities utilized by the Company at December 31, 2020 are listed below. The Company owns all such facilities except as noted. The Company believes that its facilities are generally well maintained and have sufficient capacity for its current needs.

Location	Principal use	Approximate area (square feet)	
Milwaukee, Wisconsin, USA	Manufacturing and offices	324,200	
Racine, Wisconsin, USA	Manufacturing and offices	134,300	(1)
Nogales, Mexico	Manufacturing	181,300	

(1) Leased facility. Lease term expires December 31, 2025.

ITEM 3. LEGAL PROCEEDINGS

In the normal course of business, the Company is named in legal proceedings from time to time. There are currently no material legal proceedings pending with respect to the Company.

The Company is subject to contingencies related to environmental laws and regulations. Information about the Company's compliance with environmental regulations is included in Part I, Item 1 of this 2020 Annual Report on Form 10-K under the heading "Environmental Protection."

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

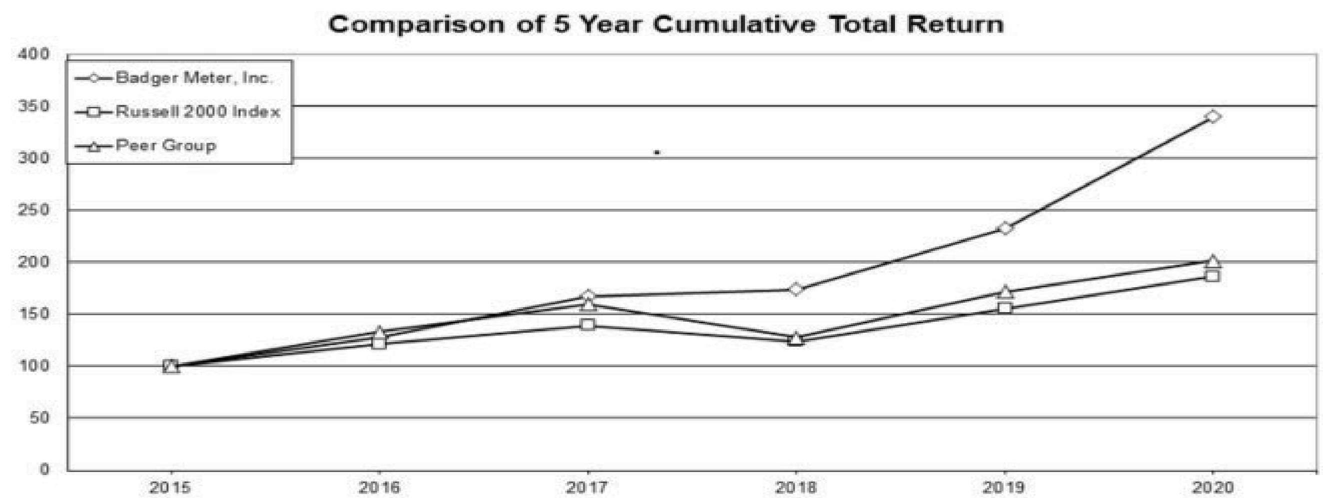
ITEM 5. MARKET FOR THE REGISTRANT'S COMMON STOCK, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company’s Common Stock is traded on the New York Stock Exchange (NYSE Trading Symbol: BMI). At February 3, 2021, there were approximately 652 holders of the Company’s Common Stock. Other information required by this Item is set forth in Note 2 “Common Stock” and Note 10 “Unaudited: Quarterly Results of Operations, Common Stock Price and Dividends” in the Notes to Consolidated Financial Statements in Part II, Item 8 of this Annual Report on Form 10-K.

The following information in Item 5 of this Annual Report on Form 10-K is not deemed to be “soliciting material” or to be “filed” with the Securities and Exchange Commission or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934, as amended, or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, except to the extent the Company specifically incorporates it by reference into such a filing.

The following graph compares on a cumulative basis the yearly percentage change since January 1, 2016 in (a) the total shareholder return on the Company’s Common Stock with (b) the total return on the Russell 2000® Index, and (c) the total return of the peer group made up of 14 companies, including the Company, in similar industries and with similar market capitalization. The Russell 2000® Index is a trademark of the Frank Russell Company, and is used herein for comparative purposes in accordance with Securities and Exchange Commission regulations.

The graph assumes $100 invested on December 31, 2015. It further assumes the reinvestment of dividends. The returns of each component company in the peer groups have been weighted based on such company's relative market capitalization.



December 31		2015	2016	2017	2018	2019	2020
Badger Meter, Inc.	Return %		27.71%	30.94%	4.10%	33.45%	46.39%
	Cumulative $	$ 100.00	$ 127.71	$ 167.22	$ 174.08	$ 232.31	$ 340.07
Russell 2000 Index	Return %		21.31%	14.65%	-11.01%	25.52%	19.96%
	Cumulative $	$ 100.00	$ 121.31	$ 139.08	$ 123.76	$ 155.35	$ 186.36
Peer Group	Return %		33.10%	20.10%	-20.18%	34.49%	17.56%
	Cumulative $	$ 100.00	$ 133.10	$ 159.85	$ 127.59	$ 171.59	$ 201.73

The peer group consists of A. O. Smith Corp. (AOS), Badger Meter, Inc. (BMI), CIRCOR International, Inc. (CIR), ESCO Technologies Inc. (ESE), Franklin Electric Co, Inc. (FELE), Gorman-Rupp Company (GRC), Itron, Inc. (ITRI), Lindsay Corporation (LNN), Perma-Pipe International Holdings, Inc. (PPIH), Mueller Water Products (MWA), Northwest Pipe Company (NWPX), Rexnord Corporation (RXN), Helios Technologies (SNHY) and Watts Water Technologies, Inc. (WTS).

In February 2020, the Board of Directors authorized the repurchase of up to an additional 400,000 shares of the Company's Common Stock through February 2023. The following table provides information about the Company's purchases under this repurchase program during the quarter ended December 31, 2020 of equity securities that are registered by the Company pursuant to Section 12 of the Exchange Act.

	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of a publicly announced program	Maximum number of shares that may yet be purchased under the program
October 1, 2020 - October 31, 2020	2,500	$ 72.97	49,953	350,047
November 1, 2020 - November 30, 2020	—	—	49,953	350,047
December 1, 2020 - December 31, 2020	—	—	49,953	350,047
Total as of December 31, 2020	2,500		49,953	350,047

ITEM 6. SELECTED FINANCIAL DATA

Omitted per the amendments to Regulation S-K.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Current Business Trends – COVID-19

In December 2019, a novel coronavirus disease ("COVID-19") was reported and in January 2020, the World Health Organization ("WHO") declared it a Public Health Emergency of International Concern. On February 28, 2020, the WHO raised its assessment of the COVID-19 threat from high to very high at a global level due to the continued increase in the number of cases and affected countries. On March 11, 2020, the WHO characterized COVID-19 as a pandemic.

During the second quarter of 2020, the Company implemented remote work arrangements for non-production personnel, adopted robust safety, social distancing and temperature screening protocols throughout its manufacturing sites and enacted other measures to be able to deliver products to meet customer orders on a timely basis. While the pandemic has had varying levels of impact to demand trends, to date it has not materially affected our ability to maintain business operations, including the operation of financial reporting systems, internal control over financial reporting, and disclosure controls and procedures. The Company has enacted various return-to-work protocols for non-production personnel.

During April 2020 and through the first part of May 2020, the majority of the United States, the Company's primary commercial market, was subject to various levels of government shelter-in-place or other lockdown orders. During this time, we experienced some customer order delays and intermittent manufacturing interruptions. As the lock-downs were lifted and customers adapted to remote work and field safety protocols, order demand gradually improved. Our operations returned to a more normalized level of output as the lockdowns lifted at the end of the second quarter and into the third quarter of 2020. Municipal water order trends have been more resilient in their sequential performance while flow instrumentation orders showed less resiliency and will likely be negatively affected for a longer period, albeit flow instrumentation orders were improved slightly over the second quarter of 2020.

As a result of COVID-19, the Company implemented certain cost contingency actions, including travel restrictions, a hiring freeze, reductions in discretionary spending, short-term reduced work hour furloughs globally and executive salary reductions. The temporary actions generally lasted nine weeks, ending in mid-June 2020. The Company continues to manage hiring and discretionary spending actions in light of continuing market uncertainty. Our Board of Directors and Company management continues to monitor the rapidly changing implications of COVID-19 and is prepared to take additional cost actions if warranted.

On March 27, 2020, the "Coronavirus Aid, Relief and Economic Security (CARES) Act" was signed into law. The Act includes provisions relating to refundable payroll tax credits, deferment of the employer portion of certain payroll taxes, net operating loss carryback periods, alternative minimum tax credit refunds, modifications to the net interest deduction limitations and technical corrections to tax depreciation methods for qualified improvement property. In accordance with the CARES Act the Company delayed federal tax installment payments to the third quarter of 2020. The CARES Act is not expected to have a material impact on the Company's consolidated financial statements.

It remains difficult to estimate the severity and duration of the impact of the COVID-19 pandemic on the Company's business, financial position or results of operations. The magnitude of the impact will be determined by the duration and span of the pandemic, operational disruptions including those resulting from government actions, delivery interruptions due to component supply availability or logistical challenges, the timeline of an effective and broadly available vaccine and the overall impact on the economy. The Company has contingency plans in place to adequately respond to a wide range of potential economic scenarios and our Board of Directors continues to monitor and evaluate the ongoing situation.

Long Term Business Trends

Across the globe, increasing regulations and a focus on sustainability are driving companies and utilities to better manage critical resources like water, monitor their use of hazardous materials and reduce exhaust gases. Some customers measure fluids to identify leaks and/or misappropriation for cost control or add measurement points to help automate manufacturing. Other customers employ measurement to comply with government mandates and laws including those associated with process and discharge water quality monitoring. The Company provides flow measurement technology to measure water, oil, chemicals and other fluids, gases and steams. This technology is critical to provide baseline usage data and to quantify reductions as customers attempt to reduce consumption. For example, once water usage metrics are better understood, a strategy for water-use reduction can be developed with specific water-reduction initiatives targeted to those areas where it is most viable. With the Company's technology, customers have found costly leaks, pinpointed equipment in need of repair, and identified areas for process improvements.

Increasingly, customers in the utility water market are interested in more frequent and diverse data collection and the use of water metering and quality analytics to evaluate water distribution activity. Specifically, AMI technology enables water utilities to capture readings from each meter at more frequent and variable intervals. There are more than 50,000 water utilities in the United States and the Company estimates that approximately 65% of them have converted to a radio solution. The Company believes it is well positioned to meet this continuing conversion trend with its comprehensive radio and software solutions.

In addition, certain water utilities are converting from mechanical to static meters. Ultrasonic water metering maintains a high level of measurement accuracy over the life of the meter, reducing a utility's non-revenue water. The Company has over a decade of proven reliability in the market with its ultrasonic meters and has recently launched its next generation of ultrasonic metering with its D-Flow technology, which the Company believes increases its competitive differentiation. While the introduction of ultrasonic technology into North America may increase competition, it also opens up further geographic penetration opportunities for the Company as previously described.

For over 115 years, the Company has offered innovative flow metering and control solutions for smart water management, smart buildings and smart industrial processes. The acquisition of s::can GmbH and subsidiaries ("s::can"), a leading provider of online water quality monitoring solutions, adds real-time water quality parameters to our capabilities and enhances the scope of actionable data for our customers to help measure and protect resources for a smarter world. The combined solutions from Badger Meter and s::can offer technology that measures both the quantity and quality of liquids.

Finally, the concept of "Smart Cities" is one avenue to affect efficient city operations, conserve resources and improve service and delivery. Smart water solutions ("Smart Water") are those that provide actionable information through data analytics from an interconnected and interoperable network of sensors and devices that help people and organizations efficiently use and conserve one of the world's most precious resources. Badger Meter is well positioned to benefit from the advancement of Smart Water applications within the Smart Cities framework. Cities have a keen interest in Smart Water as it provides both a revenue base, quality monitoring and conservation outcome. Badger Meter is one of approximately a dozen firms, and the only smart water company, that participates in the AT&T Smart City Alliance. By leveraging this alliance, the Company has been able to gain access and sell its broad smart water solutions to higher level decision makers within a city such as the mayor's office. In addition, it allows Badger Meter to keep abreast of emerging cellular technology changes which the Company believes is the premier infrastructure-free AMI solution.

Revenue and Product Mix

As the industry continues to evolve, the Company has been at the forefront of innovation across metering, radio and software technologies in order to meet its customers' increasing expectations for accurate and actionable data. As technologies such as ORION Cellular and BEACON AMA managed solutions have become more readily adopted, the Company's revenue from Software as a Service (SaaS) has increased significantly, albeit from a small base, and is margin accretive.

In addition, the Company has expanded its smart water offering with the addition of online water quality monitoring solutions, adding real-time water quality parameters to augment the scope of actionable data for water utility and industrial customers to optimize their operations.

The Company also seeks opportunities for additional revenue enhancement. For instance, the Company has made inroads into the Middle East market with its ultrasonic meter technology and is pursuing other geographic expansion opportunities. Additionally, the Company is periodically asked to oversee and perform field installation of its products for certain customers. In these cases, the Company assumes the role of general contractor and either performs the installation or hires installation subcontractors and supervises their work.

Acquisitions

On November 2, 2020, the Company acquired 100% of the outstanding stock of s::can headquartered in Vienna, Austria. s::can specializes in optical water quality sensing solutions that provide real-time measurement of a variety of parameters in water and wastewater utilizing in-line monitoring systems.

The total purchase consideration for s::can was $30.6 million, which included $29.1 million in cash and $1.5 million in payments that are anticipated to be made in the first quarter of 2021, which are recorded in payables on the Consolidated Balance Sheet at December 31, 2020. The Company's preliminary allocation of the purchase price at December 31, 2020 included $3.1 million of receivables, $4.3 million of inventory, $1.2 million of other assets, $12.7 million of intangibles and $17.4 million of goodwill that is not deductible for tax purposes. The intangible assets acquired are primarily customer relationships and developed technology with an estimated average useful life of 12 years. The Company also assumed $3.6 million of accounts payable, $3.2 million of deferred tax liabilities and $1.3 million of other liabilities as part of the acquisition. The preliminary allocation of the purchase price to the assets acquired was based upon the estimated fair values at the date of acquisition. As of December 31, 2020, the Company had not completed its analysis for estimating the fair value of the assets acquired. This acquisition is further described in Note 3 "Acquisitions" in the Notes to Consolidated Financial Statements.

On April 2, 2018, the Company acquired 100% of the outstanding stock of Innovative Metering Solutions, Inc. ("IMS") of Odessa, Florida, which was one of the Company's distributors serving Florida.

The total purchase consideration was approximately $12.0 million, which included $7.7 million in cash, a $0.3 million working capital adjustment, a balance sheet holdback of $0.7 million and a $3.3 million settlement of pre-existing Company receivables. The working capital adjustment was settled in the second quarter of 2018 and the balance sheet holdback was paid in the second quarter of 2019. As of March 31, 2019, the Company had completed its analysis for estimating the fair value of the assets acquired with no additional adjustments. This acquisition is further described in Note 3 "Acquisitions" in the Notes to Consolidated Financial Statements.

In the first quarter of 2019 and the fourth quarter of 2020, the Company made separate payments of contingent acquisition consideration of $1.0 million related to the May 1, 2017 acquisition of 100% of the outstanding common stock of D-Flow Technology AB ("D-Flow") of Lulea, Sweden. These were the final payments associated with the acquisition.

RESULTS OF OPERATIONS

Net Sales

Net sales in 2020 increased $0.9 million, or less than 1%, to $425.5 million from $424.6 million in 2019. Sales into the utility water market were $344.3 million, an increase of 4% over the prior year's $330.7 million. The increase was attributable to higher sales of advanced technology products including ORION Cellular LTE-M endpoints, E-Series Ultrasonic water meters as well as increased BEACON SaaS revenue associated with data collection and software analytics. It also included approximately $2.5 million of sales related to s::can, acquired on November 2, 2020. These favorable trends more than offset the short term decline in orders that occurred in April and May 2020 from the stay-at-home orders throughout much of the United States in response to COVID-19. Sales of products into the global flow instrumentation end markets were $81.2 million, 13.6% lower than the prior year's $94.0 million due to significantly reduced activity across the array of industrial end markets served and also the result of widespread COVID-19 shelter-in-place and lockdown restrictions.

Net sales in 2019 decreased $9.1 million, or 2%, to $424.6 million from $433.7 million in 2018. Sales into the utility water market were $330.7 million, a decrease of 1% compared to the prior year's $334.7 million, while sales into the flow instrumentation end markets were $93.9 million, a 5% decrease from 2018 sales of $99.0 million. Utility water sales benefitted from higher sales of smart water solutions in North America where sales increased 1% year-over-year, however, sales into international markets, primarily the Middle East, declined significantly as a $5.5 million sale from 2018 did not repeat. While the Company continued to benefit from favorable market demand, it experienced a mid-year pause in certain order activity as a result of new product launches, most notably commercial ultrasonic meters and next generation cellular radio offerings. Sales of products into the global flow instrumentation end markets declined due to sluggish global industrial activity across multiple end markets served.

Operating Earnings

Operating earnings in 2020 were $65.2 million, or 15.3% of sales, compared to $62.1 million, or 14.6% of sales, in 2019. Gross margin increased $4.7 million, and as a percent of sales increased from 38.5% in 2019 to 39.5% in 2020. The improvement was due to higher volumes and improved sales mix as noted above, along with favorable pricing actions. These benefits were modestly offset by a net increase in warranty provisions year-over-year, including a $3.5 million cellular network sunset provision recorded in the fourth quarter of 2020. Selling, engineering and administration ("SEA") expenses were $103.1 million or 24.2% of sales compared to $101.4 million or 23.9% of sales in the comparable prior year period. The increase was primarily due to higher personnel, research and development and business optimization investments, as well as the inclusion of s::can. These increases were partially offset by the net benefit of COVID-19 cost reduction actions and lower pandemic-impacted expenses such as travel and convention costs.

Operating earnings in 2019 were $62.1 million or 14.6% of sales, compared to $56.9 million, or 13.1% of sales, in 2018. Gross margin increased $1.2 million, despite lower sales volumes, and increased as a percent of sales from 37.4% in 2018 to 38.5% in 2019. This was largely the result of improved utility sales mix attributed to selling more meters with radios, SaaS revenues, and favorable regional sales mix. In addition, gross margins benefitted from positive price/cost dynamics due primarily to lower commodity costs in 2019, particularly brass. SEA expenses declined $4.1 million year-over-year, which included $2.6 million of executive retirement charges incurred in the prior year which did not repeat. The remaining decrease in SEA was associated with tighter discretionary spending controls that more than offset normal inflation for employee salaries and benefits as well as higher engineering expenses to support product innovation and development.

Interest Expense, Net

Net interest expense was less than $0.1 million in 2020 compared to $0.3 million in 2019 and $1.2 million in 2018. The decreases were due to the repayment of borrowings using cash from operations.

Income Taxes

There were no significant variations in income taxes as a percentage of earnings before income taxes which were 24.1%, 23.4% and 22.5% for 2020, 2019 and 2018, respectively.

Earnings and Diluted Earnings per Share

For 2020, the increase in operating earnings and lower interest expense resulted in net earnings of $49.3 million compared to $47.2 million in 2019. On a diluted basis, earnings per share were $1.69 in 2020 compared to $1.61 in 2019.

For 2019, the increase in operating earnings and lower interest expense, along with the non-recurring pension termination charges in 2018, resulted in net earnings of $47.2 million compared to $27.8 million in 2018. On a diluted basis, earnings per share were $1.61 in 2019 compared to $0.95 in 2018.

LIQUIDITY AND CAPITAL RESOURCES

The main sources of liquidity for the Company are cash from operations and borrowing capacity. In addition, depending on market conditions, the Company may access the capital markets to strengthen its capital position and to provide additional liquidity for general corporate purposes.

Primary Working Capital

We use primary working capital (PWC) as a percentage of sales as a key metric for working capital efficiency. We define this metric as the sum of receivables and inventories less payables, divided by annual net sales. The following table shows the components of our PWC (in millions):

	12/31/2020		12/31/2019	
	$	PWC%	$	PWC%
Receivables	$ 61,689	14.5%	$ 61,365	14.5%
Inventories	81,586	19.2%	81,948	19.3%
Payables	(34,923)	-8.2%	(31,523)	-7.4%
Primary Working Capital	$ 108,352	25.5%	$ 111,790	26.4%

Overall PWC decreased $3.4 million as the Company undertook several working capital improvement actions during the year, reducing PWC by $8.8 million, which was partially offset by the acquisition of s::can which added $5.4 million of PWC. Receivables at December 31, 2020 were $61.7 million compared to $61.4 million at the end of 2019. Excluding s::can, a decrease of $3.0 million was due to robust collection efforts and active monitoring processes instituted during the year. The Company believes its receivables balance is fully collectible. Inventories at December 31, 2020 were $81.6 million, a modest decrease from $81.9 million at December 31, 2019, with the acquisition of s::can offsetting a core inventory reduction of $4.6 million resulting from improved inventory planning actions. Payables at December 31, 2020 were $34.9 million, up from $31.5 million at the end of 2019 with the majority of the increase due to the acquisition of s::can.

Cash Provided by Operations

Cash provided by operations in 2020 was $89.6 million compared to $80.7 million in 2019. The increase from 2019 was driven primarily by improved working capital management as well as higher operating earnings. Operating cash flow was more than adequate to fund the acquisition of s::can ($29.1 million, net of cash acquired), capital expenditures of $9.1 million along with dividends of $20.3 million and $3.1 million in share repurchases to partially offset equity compensation dilution. The remaining cash flow was used to reduce short term borrowings and add to cash balances.

Cash provided by operations in 2019 was $80.7 million compared to $60.4 million in 2018. The increase from 2018 was driven primarily by improved working capital management as well as higher operating earnings (excluding the non-cash pension termination settlement charges). Operating cash flow was more than adequate to fund capital expenditures of $7.5 million along with dividends of $18.6 million and $5.2 million in share repurchases to offset equity compensation dilution. The remaining cash flow was used to reduce short term borrowings and add to cash balances.

Capital expenditures were $9.1 million, $7.5 million and $8.6 million in fiscal 2020, 2019 and 2018, respectively. Capital expenditures for fiscal 2021 are expected to be in the $10-12 million range, but could vary depending on timing of R&D projects, growth opportunities and the amount of assets purchased.

Short-term debt decreased to $0 from $4.5 million at December 31, 2019 due to the strong cash flow from operations. At the end of 2020, the Company was in a net cash position of $72.3 million.

The Company's financial condition remains strong. In June 2018, the Company amended its May 2012 credit agreement with its primary lender and extended its term until September 2021. The credit agreement includes a $125.0 million line of credit that supports commercial paper (up to $70.0 million) and includes $5.0 million of a Euro line of credit. While the facility is unsecured, there are a number of financial covenants with which the Company must comply, and the Company was in compliance as of December 31, 2020. The Company intends to enter into a new credit facility in 2021, prior to the expiration of existing agreement. The Company believes that its operating cash flows, available borrowing capacity, and its ability to raise capital provide adequate resources to fund ongoing operating requirements, future capital expenditures and the development of new products. The Company had $133.5 million of unused credit lines available at December 31, 2020.

OFF-BALANCE SHEET ARRANGEMENTS

The Company had no off-balance sheet arrangements at December 31, 2020.

CONTRACTUAL OBLIGATIONS

The following table includes the Company's significant contractual obligations as of December 31, 2020. There are no material undisclosed guarantees.

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
			(In thousands)		
Operating leases (undiscounted)	$ 8,448	$ 2,526	$ 2,753	$ 2,348	$ 821
Total contractual obligations	$ 8,448	$ 2,526	$ 2,753	$ 2,348	$ 821

Other than items included in the preceding table, as of December 31, 2020, the Company had no additional material purchase obligations other than those created in the ordinary course of business related to inventory and property, plant and equipment, which generally have terms of less than 90 days. The Company also has long-term obligations related to its postretirement plans which are discussed in detail in Note 7 "Employee Benefit Plans" in the Notes to Consolidated Financial Statements in Part II, Item 8 of this 2020 Annual Report on Form 10-K. Postretirement medical claims are paid by the Company as they are submitted, and they are anticipated to be $0.4 million in 2021 based on actuarial estimates; however, these amounts can vary significantly from year to year because the Company is self-insured.

CRITICAL ACCOUNTING POLICIES AND USE OF ESTIMATES

The Company's accounting policies are more fully described in Note 1 "Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements in Part II, Item 8 of this 2020 Annual Report on Form 10-K. As discussed in Note 1, the preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company's more significant estimates relate primarily to the following judgmental reserves: allowance for doubtful accounts, reserve for obsolete inventories, and warranty and after-sale costs reserve. Each of these reserves is evaluated quarterly and is reviewed with the Company's internal Disclosure Committee and the Audit and Compliance Committee of the Board of Directors. The basis for these reserve amounts is determined by analyzing the anticipated exposure for each account, and then selecting the most likely amount based upon historical experience and various other considerations that are believed to be reasonable under the circumstances. These methods have been used for all years in the presented financials and have been used consistently throughout each year. Actual results may differ from these estimates if actual experiences vary from the Company's assumptions.

The criteria used for calculating each of the reserve amounts vary by type of reserve. For the allowance for doubtful accounts reserve, significant past due balances are individually reviewed for collectability, while the balance of accounts is reviewed in conjunction with applying historical write-off ratios. The calculation for the obsolete and excess inventories reserve is determined by analyzing the relationship between the age and quantity of items on hand versus estimated usage to determine if excess quantities exist. The calculation for warranty and after-sale costs reserve uses criteria that include known potential warranty issues on past sales as well as historical claim experience and current warranty trends. The changes in the balances of these reserves at December 31, 2020 compared to the prior year were due to normal business conditions and developments. While the Company continually strives to improve its estimates, no significant changes in the underlying processes are expected for 2021.

The Company also uses estimates in four other significant areas: (i) stock-based compensation, (ii) acquisitions, (iii) income taxes, and (iv) evaluating goodwill, at least annually, for impairment.

The total cost of the Company's stock-based awards is equal to the grant date fair value per award multiplied by the number of awards granted, adjusted for forfeitures. Forfeitures are initially estimated based on historical Company information and subsequently updated over the life of the awards to ultimately reflect actual forfeitures, which could have an impact on the amount of stock compensation cost recognized from period to period. The grant date fair value of stock options relies on assumptions including the risk-free interest rate, dividend yield, market volatility and expected option life.

The Company records assets and liabilities acquired in a business combination at fair value. The excess of the purchase price over the estimated fair value is recorded as goodwill. Acquired intangible assets, excluding goodwill, are valued using a discounted cash flow methodology which is based on future cash flows that are specific to the type of intangible asset purchased.

In calculating the provision for income taxes on an interim basis, the Company uses an estimate of the annual effective tax rate based upon the facts and circumstances known at each interim period. On a quarterly basis, the actual effective tax rate is adjusted as appropriate based upon the actual results compared to those forecasted at the beginning of the fiscal year. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The reserve for uncertain income tax positions is a matter of judgment based on an evaluation of the individual facts and circumstances of each tax position in light of all available evidence, including historic data and current trends. A tax benefit is recognized when it is “more likely than not” to be sustained based solely on the technical merits of each tax position. The Company evaluates and updates all of these assumptions quarterly.

Goodwill impairment, if any, is determined by comparing the fair value of the reporting unit with its carrying value and is reviewed at least annually. Actual results may differ from these estimates.

OTHER MATTERS

The Company is subject to contingencies related to environmental laws and regulations. A future change in circumstances with respect to these specific matters or with respect to sites formerly or currently owned or operated by the Company, off-site disposal locations used by the Company, and property owned by third parties that is near such sites, could result in future costs to the Company and such amounts could be material. Expenditures for compliance with environmental control provisions and regulations during 2020, 2019 and 2018 were not material.

See the “Special Note Regarding Forward Looking Statements” at the front of this Annual Report on Form 10-K and Part I, Item 1A “Risk Factors” in this Annual Report on Form 10-K for the year ended December 31, 2020 for a discussion of risks and uncertainties that could impact the Company's financial performance and results of operations.

MARKET RISKS

In the ordinary course of business, the Company is exposed to various market risks. The Company operates in an environment where competition varies from moderate to strong. The Company believes it currently provides the leading technology in water meters and radio systems for water utilities. A number of the Company's competitors in certain markets have greater financial resources. Competitors also include alliance partners that sell products that do or may compete with our products. As the global water metering market begins to shift to adopt static metering technology, the number of competitors may increase. We believe new static metering market entrants lack brand recognition and product breadth and do not have the appropriate utility sales channels to meaningfully compete in the North American market. In addition, the market's level of acceptance of the Company's newer product offerings, including the BEACON AMA system, may have a significant effect on the Company's results of operations. As a result of significant research and development activities, the Company enjoys favorable patent positions for several of its products.

The Company's ability to generate operating income and to increase profitability depends somewhat on the general conditions of the United States and foreign economies, including to some extent such things as the length and severity of global economic downturns; the timing and size of governmental programs such as annual federal funding and periodic stimulus fund programs, as well as the impact of government budget cuts or partial shutdowns of governmental operations; international or civil conflicts that affect international trade; the ability of municipal water utility customers to authorize and finance purchases of the Company's products; the Company's ability to obtain financing; housing starts in the United States; and overall industrial activity. In addition, changes in governmental laws and regulations, particularly laws dealing with the content or handling of materials, customs or trade practices, may impact the results of operations. These factors are largely beyond the Company's control and depend on the economic condition and regulatory environment of the geographic region of the Company's operations.

The Company relies on single suppliers for certain castings and components in several of its product lines. Although alternate sources of supply exist for these items, the loss of certain suppliers could temporarily disrupt operations in the short term. The Company attempts to mitigate these risks by working closely with key suppliers, purchasing minimal amounts from alternative suppliers and by purchasing business interruption insurance where appropriate.

Raw materials used in the manufacture of the Company's products include purchased castings made of metal or alloys (such as brass, which uses copper as its main component, aluminum, stainless steel and cast iron), plastic resins, glass, microprocessors and other electronic subassemblies, and components. The Company does not hold significant amounts of precious metals. The price and availability of raw materials is influenced by economic and industry conditions, including supply and demand factors that are difficult to anticipate and cannot be controlled by the Company. Commodity risk is managed by keeping abreast of economic conditions and locking in purchase prices for quantities that correspond to the Company's forecasted usage.

The Company's foreign currency risk relates to the sales of products to foreign customers and purchases of material from foreign vendors. The Company uses lines of credit with U.S. and European banks to offset currency exposure related to European receivables and other monetary assets. As of December 31, 2020 and 2019, the Company's foreign currency net monetary assets were partially offset by comparable debt resulting in no material exposure to the results of operations. The Company believes the effect of a change in foreign currency rates will not have a material adverse effect on the Company's financial position or results of operations, either from a cash flow perspective or on the financial statements as a whole.

The Company typically does not hold or issue derivative instruments and has a policy specifically prohibiting the use of such instruments for trading purposes.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Information required by this Item is set forth in Part II, Item 7 “Management's Discussion and Analysis of Financial Condition and Results of Operations” under the heading “Market Risks” in this 2020 Annual Report on Form 10-K.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTAL DATA

BADGER METER, INC.

Management's Annual Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2020 using the criteria set forth in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework). Based on this assessment, the Company's management believes that, as of December 31, 2020, the Company's internal control over financial reporting was effective based on those criteria.

Ernst & Young LLP, an independent registered public accounting firm, has audited the Consolidated Financial Statements included in this Annual Report on Form 10-K and, as part of its audit, has issued an attestation report, included herein, on the effectiveness of the Company's internal control over financial reporting.

BADGER METER, INC.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Badger Meter, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Badger Meter, Inc.'s internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Badger Meter, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, and the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and our report dated February 24, 2021, expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP

Milwaukee, Wisconsin
February 24, 2021

BADGER METER, INC.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Badger Meter, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Badger Meter, Inc. (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 24, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matters do not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinion on the critical audit matters or on the accounts or disclosures to which they relate.

	Warranty and After-Sale Costs Reserve
Description of the Matter	As described in Note 1 to the consolidated financial statements, the Company estimates and records provisions for warranties and other after-sale costs. Warranty provisions are recorded in the period of sale, using historical claims data revised for recent trending and expectations to estimate future warranty costs. After-sale costs represent costs expected to be incurred related to specifically identified product issues as well as activities outside the written warranty policy and are estimated by the Company based on the individual facts and circumstances. The Company's accrued liability was $11.6 million as of December 31, 2020, representing its best estimate of the expected warranty and after-sale costs. Auditing management's estimates for warranty and after-sale costs involved significant auditor judgment because the reserve for warranty and after-sale costs requires the Company to estimate future claims. The calculation to estimate future claims includes a number of inputs and assumptions, the most significant of which include the number and type of claims, an evaluation of warranty trends, consideration of product developments, and estimates of future costs to replace or repair specifically identified items.

How We Addressed the Matter in Our Audit	We evaluated the design and tested the operating effectiveness of internal controls over the Company's warranty and after-sale costs reserve process, including management's assessment of the assumptions and data underlying the projection of future warranty and after-sale costs. Our substantive audit procedures included, among others, evaluating the significant assumptions discussed above and the accuracy and completeness of the underlying data used in management's warranty and after-sales costs reserve calculation. We evaluated the historical activity used to develop the lag calculation, including reviewing the data for any developing trends in the claims data, considered the impact of product developments on the calculation, and evaluated the cost build up for any specific reserve items, including procedures to support the completeness of the number and type of products impacted and the estimated future cost to repair or replace the products. We assessed the historical accuracy of management's estimates by comparing the warranty and after-sale costs reserve in prior years to the actual claims paid in the subsequent years. We assessed management's methodology and tested the valuation of the warranty and after-sale costs reserve by developing an independent expectation for the reserve based on the historical amounts recorded as a percentage of sales and compared our expectation to the amount recorded by management. We evaluated the completeness of the reserve estimate for known warranty claims or product issues based on our review of after sales costs and through inquiries of operational and executive management and evaluated whether specific product issues were appropriately considered in the determination of the warranty and after-sale costs reserve.
	Accounting for Acquisitions – Valuation of s::can Messtechnik GmbH Intangible Assets
Description of the Matter	As discussed in Note 3 to the financial statements, during 2020, the Company completed its acquisition of s::can Messtechnik GmbH ("s::can") for consideration of $30.6 million, net of cash acquired. The transaction was accounted for using the guidance under ASC 805 Business Combinations. Auditing the Company's accounting for its acquisition of s::can was complex due to the significant estimation uncertainty in the Company's determination of the fair value of identified intangible assets of $12.7 million, which principally consisted of developed technology, customer relationships, and trademarks. The significant estimation uncertainty was primarily due to the sensitivity of the respective fair values to underlying assumptions about the future performance of the acquired business. The significant assumptions used to estimate the value of the intangible assets included discount rates and certain assumptions that form the basis of the forecasted results (including revenue growth rates, attrition rates and royalty rates). These assumptions are forward looking and could be affected by future economic and market conditions.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of the Company's controls over its accounting for acquisitions. For example, we tested controls over the estimation process supporting the measurement of developed technology, customer relationships, and trademark intangible assets, including management's review of the significant assumptions used in the valuation models. To test the estimated fair value of the developed technology, customer relationships, and trademark intangible assets, our audit procedures included, among others, evaluating the Company's valuation methodology, and testing the significant assumptions discussed above including the completeness and accuracy of the underlying data supporting the significant assumptions and estimates. We compared the revenue growth rates to third-party industry projections and to the historical performance of the acquired business. We involved our valuation specialists to assist with our evaluation of the methodology used by the Company and significant assumptions included in the fair value estimates. For example, we evaluated the discount rates by comparing them to discount rate ranges that were independently developed using publicly available market data for comparable peers. We also compared the customer attrition rates to historical customer retention rates and the royalty rate to relevant comparable licensing agreements.

/s/ Ernst & Young LLP

We have served as Badger Meter, Inc.'s auditor since 1927.

Milwaukee, Wisconsin
February 24, 2021

BADGER METER, INC.

Consolidated Balance Sheets

	December 31, 2020	December 31, 2019
	(Dollars in thousands)	
Assets		
Current assets:		
Cash	$ 72,273	$ 48,871
Receivables	61,689	61,365
Inventories:		
Finished goods	24,881	22,946
Work in process	16,841	17,728
Raw materials	39,864	41,274
Total inventories	81,586	81,948
Prepaid expenses and other current assets	5,303	7,910
Total current assets	220,851	200,094
Property, plant and equipment, at cost:		
Land and improvements	9,156	9,056
Buildings and improvements	69,700	68,443
Machinery and equipment	138,548	132,326
	217,404	209,825
Less accumulated depreciation	(134,699)	(124,064)
Net property, plant and equipment	82,705	85,761
Intangible assets, at cost less accumulated amortization	53,598	48,163
Other assets	17,428	15,875
Deferred income taxes	5,090	742
Goodwill	88,708	71,258
Total assets	$ 468,380	$ 421,893
Liabilities and Shareholders' Equity		
Current liabilities:		
Short-term debt	$ -	$ 4,480
Payables	34,923	31,523
Accrued compensation and employee benefits	14,617	12,754
Warranty and after-sale costs	11,617	5,583
Other current liabilities	4,042	2,907
Total current liabilities	65,199	57,247
Other long-term liabilities	25,283	22,980
Deferred income taxes	5,696	876
Accrued non-pension postretirement benefits	5,789	5,711
Other accrued employee benefits	5,154	4,011
Commitments and contingencies (Note 6)		
Shareholders' equity:		
Common Stock, $1 par; authorized 40,000,000 shares; issued 37,221,098 shares in 2020 and 37,200,698 shares in 2019	37,221	37,200
Capital in excess of par value	44,964	41,956
Reinvested earnings	314,850	285,879
Accumulated other comprehensive income	1,313	425
Less: Employee benefit stock	-	(154)
Treasury stock, at cost; 8,073,307 shares in 2020 and 8,082,166 shares in 2019	(37,089)	(34,238)
Total shareholders' equity	361,259	331,068
Total liabilities and shareholders' equity	$ 468,380	$ 421,893

See accompanying notes.

BADGER METER, INC.

Consolidated Statements of Operations

	Years ended December 31, 2020	2019	2018
	(In thousands except per share amounts)		
Net sales	$ 425,544	$ 424,625	$ 433,732
Cost of sales	257,295	261,097	271,383
Gross margin	168,249	163,528	162,349
Selling, engineering and administration	103,093	101,380	105,480
Operating earnings	65,156	62,148	56,869
Interest expense, net	30	253	1,157
Other pension and postretirement costs	145	288	19,860
Earnings before income taxes	64,981	61,607	35,852
Provision for income taxes	15,638	14,430	8,062
Net earnings	$ 49,343	$ 47,177	$ 27,790
Earnings per share:			
Basic	$ 1.70	$ 1.63	$ 0.96
Diluted	$ 1.69	$ 1.61	$ 0.95
Shares used in computation of earnings per share:			
Basic	29,052	29,028	28,993
Impact of dilutive securities	178	192	196
Diluted	29,230	29,220	29,189

See accompanying notes.

BADGER METER, INC.

Consolidated Statements of Comprehensive Income

	Years ended December 31,		
	2020	2019	2018
		(Dollars in thousands)	
Net earnings	$ 49,343	$ 47,177	$ 27,790
Other comprehensive income :			
Foreign currency translation adjustment	1,096	(58)	(484)
Pension and postretirement benefits, net of tax	(208)	(97)	13,657
Comprehensive income	$ 50,231	$ 47,022	$ 40,963

See accompanying notes.

BADGER METER, INC.

Consolidated Statements of Cash Flows

	Years ended December 31, 2020	2019	2018
	(Dollars in thousands)		
Operating activities:			
Net earnings	$ 49,343	$ 47,177	$ 27,790
Adjustments to reconcile net earnings to net cash provided by operations:			
Depreciation	12,253	11,569	11,354
Amortization	12,963	12,577	12,961
Deferred income taxes	(3,082)	(1,524)	(5,269)
Pension termination settlement charges	—	—	19,900
Contributions to pension plan	—	—	(2,860)
Noncurrent employee benefits	206	(40)	464
Stock-based compensation expense	1,415	1,214	4,174
Changes in:			
Receivables	3,036	5,451	(7,999)
Inventories	5,129	(1,220)	4,859
Payables	(391)	11,642	(9,868)
Prepaid expenses and other current assets	(3,522)	(7,732)	(5,062)
Other liabilities	12,228	1,600	9,906
Total adjustments	40,235	33,537	32,560
Net cash provided by operations	89,578	80,714	60,350
Investing activities:			
Property, plant and equipment additions	(9,059)	(7,496)	(8,643)
Acquisitions, net of cash acquired	(29,134)	—	(8,048)
Net cash used for investing activities	(38,193)	(7,496)	(16,691)
Financing activities:			
Net decrease in short-term debt	(4,600)	(13,500)	(21,012)
Payment of contingent acquisition consideration	(1,001)	(2,555)	(2,034)
Dividends paid	(20,340)	(18,595)	(16,265)
Proceeds from exercise of stock options	1,058	1,961	1,443
Purchase of common stock for treasury stock	(3,116)	(5,207)	(4,795)
Issuance of treasury stock	180	187	523
Net cash used for financing activities	(27,819)	(37,709)	(42,140)
Effect of foreign exchange rates on cash	(164)	276	403
Increase in cash	23,402	35,785	1,922
Cash and cash equivalents — beginning of year	48,871	13,086	11,164
Cash and cash equivalents — end of year	$ 72,273	$ 48,871	$ 13,086
Supplemental disclosures of cash flow information:			
Cash paid during the year for:			
Income taxes	$ 17,995	$ 13,066	$ 12,503
Interest	$ 91	$ 268	$ 1,175
Non cash transactions:			
Settlement of Innovative Metering Systems payables prior to the acquisition	$ —	$ —	$ 3,246

See accompanying notes.

BADGER METER, INC.

Consolidated Statements of Shareholders' Equity

	Years ended December 31,						
	Common Stock at $1 par value*	Capital in excess of par value	Reinvested earnings	Accumulated other comprehensive income (loss)	Employee benefit stock	Treasury stock	Total
	(In thousands except per share amounts)						
Balance, December 31, 2017	$ 37,165	$ 32,182	$ 244,224	$ (10,893)	$ (460)	$ (24,766)	$ 277,452
Net earnings	—	—	27,790	—	—	—	27,790
Pension and postretirement benefits (net of $5,127 tax effect)	—	—	—	13,657	—	—	13,657
Foreign currency translation	—	—	—	(484)	—	—	(484)
Cash dividends of $0.56 per share	—	—	(16,273)	—	—	—	(16,273)
ASU 2014-09 adoption impact	—	—	(128)	—	—	—	(128)
ASU 2018-02 adoption impact	—	—	1,700	(1,700)	—	—	—
Stock options exercised	33	1,410	—	—	—	68	1,511
ESSOP transactions	—	(78)	—	—	154	—	76
Stock-based compensation	—	4,174	—	—	—	—	4,174
Purchase of common stock for treasury stock	—	—	—	—	—	(4,795)	(4,795)
Issuance of treasury stock (40 shares)	—	394	—	—	—	129	523
Balance, December 31, 2018	37,198	38,082	257,313	580	(306)	(29,364)	303,503
Net earnings	—	—	47,177	—	—	—	47,177
Pension and postretirement benefits (net of $16 tax effect)	—	—	—	(97)	—	—	(97)
Foreign currency translation	—	—	—	(58)	—	—	(58)
Cash dividends of $0.64 per share	—	—	(18,611)	—	—	—	(18,611)
Stock options exercised	2	1,708	—	—	—	251	1,961
ESSOP transactions	—	401	—	—	152	—	553
Stock-based compensation	—	1,214	—	—	—	—	1,214
Purchase of common stock for treasury stock	—	—	—	—	—	(5,207)	(5,207)
Issuance of treasury stock (72 shares)	—	551	—	—	—	82	633
Balance, December 31, 2019	37,200	41,956	285,879	425	(154)	(34,238)	331,068
Net earnings	—	—	49,343	—	—	—	49,343
Pension and postretirement benefits (net of $69 tax effect)	—	—	—	(208)	—	—	(208)
Foreign currency translation	—	—	—	1,096	—	—	1,096
Cash dividends of $0.70 per share	—	—	(20,372)	—	—	—	(20,372)
Stock options exercised	21	877	—	—	—	160	1,058
ESSOP transactions	—	280	—	—	154	—	434
Stock-based compensation	—	1,415	—	—	—	—	1,415
Purchase of common stock for treasury stock	—	—	—	—	—	(3,116)	(3,116)
Issuance of treasury stock (22 shares)	—	436	—	—	—	105	541
Balance, December 31, 2020	$ 37,221	$ 44,964	$ 314,850	$ 1,313	$ —	$ (37,089)	$ 361,259

* Each common share of stock equals $1 par value; therefore, the number of common shares is the same as the dollar value.

See accompanying notes.

BADGER METER, INC.

Notes to Consolidated Financial Statements

Note 1 Summary of Significant Accounting Policies

Profile

With more than a century of water technology innovation, Badger Meter is a global provider of industry leading water solutions encompassing flow measurement, quality and other system parameters. These offerings provide customers with the data and analytics essential to optimize their operations and contribute to the sustainable use and protection of the world's most precious resource. The Company's flow measurement products measure water and other fluids and are known for accuracy, long-lasting durability and for providing valuable and timely measurement data through various methods. The Company's water quality monitoring solutions include optical sensing and electrochemical instruments that provide real-time, on-demand data parameters. The Company's product lines fall into two categories: sales of water meters, radios and related technologies, and water quality monitoring solutions to water utilities (utility water) and sales of meters and other sensing instruments, valves and other products for industrial applications in water, wastewater, and other industries (flow instrumentation). The Company estimates that approximately 90% of its products are used in water related applications.

Utility water, the largest sales category, is comprised of either mechanical or static (ultrasonic) water meters along with the related radio and software technologies and services used by water utilities as the basis for generating their water and wastewater revenues. It further comprises other sensor technology used in the water distribution system to ensure the safe and efficient delivery of clean water. These sensors are used to detect leaks in the distribution piping system and to monitor various water quality parameters throughout the distribution system. The largest geographic market for the Company's utility water products is North America, primarily the United States, because most of the Company's meters are designed and manufactured to conform to standards promulgated by the American Water Works Association. The majority of water meters sold by the Company continue to be mechanical in nature; however, ultrasonic meters are an increasing percentage of the water meters sold by the Company and in the industry, due to a variety of factors, including their ability to maintain measurement accuracy over their useful life. Providing ultrasonic water meter technology, combined with advanced radio technology, provides the Company with the opportunity to sell into other geographical markets, for example the Middle East, Europe and Southeast Asia.

The flow instrumentation product line primarily serves water applications throughout the broader industrial markets. This product line includes meters, valves and other sensing instruments sold worldwide to measure and control the quantity of fluids going through a pipe or pipeline including water, air, steam, oil, and other liquids and gases. These products are used in a variety of industries and applications, with the Company's primary market focus being water/wastewater; heating, ventilating and air conditioning (HVAC) and corporate sustainability. Flow instrumentation products are generally sold to original equipment manufacturers as the primary flow measurement device within a product or system, as well as through manufacturers' representatives.

Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany transactions have been eliminated in consolidation.

Receivables

Receivables consist primarily of trade receivables. The Company does not require collateral or other security and evaluates the collectability of its receivables based on a number of factors. An allowance for doubtful accounts is recorded for significant past due receivable balances based on a review of the past due items and the customer's ability and likelihood to pay, as well as applying a historical write-off ratio to the remaining balances. Changes in the Company's allowance for doubtful accounts are as follows:

	Balance at beginning of year	Provision and reserve adjustments	Write-offs less recoveries	Balance at end of year
		(In thousands)		
2020	$ 224	$ 356	$ (28)	$ 552
2019	$ 360	$ (132)	$ (4)	$ 224
2018	$ 387	$ —	$ (27)	$ 360

Inventories

Inventories are valued at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method. The Company estimates and records provisions for obsolete and excess inventories. Changes to the Company's obsolete and excess inventories reserve are as follows:

	Balance at beginning of year	Net additions charged to earnings	Disposals	Balance at end of year
		(In thousands)		
2020	$ 5,440	$ 2,964	$ (2,004)	$ 6,400
2019	$ 4,131	$ 2,663	$ (1,354)	$ 5,440
2018	$ 3,881	$ 2,195	$ (1,945)	$ 4,131

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is provided over the estimated useful lives of the respective assets by the straight-line method. The estimated useful lives of assets are: for land improvements, 15 years; for buildings and improvements, 10 to 39 years; and for machinery and equipment, 3 to 20 years.

Capitalized Software and Hardware

Capitalized internal use software and hardware included in other assets in the Consolidated Balance Sheets were $6.0 million and $5.7 million at December 31, 2020 and 2019, respectively. These amounts are amortized on a straight-line basis over the estimated useful lives of the software and/or hardware, ranging from 1 to 5 years. Amortization expense recognized for the years ending December 31, 2020, 2019 and 2018 was $3.7 million, $3.1 million and $3.2 million, respectively.

Long-Lived Assets

Property, plant and equipment and identifiable intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If the sum of the expected undiscounted cash flows is less than the carrying value of the related asset or group of assets, a loss is recognized for the difference between the fair value and carrying value of the asset or group of assets.

Intangible Assets

Intangible assets are amortized on a straight-line basis over their estimated useful lives, ranging from 5 to 20 years. The Company does not have any intangible assets deemed to have indefinite lives. Amortization expense recognized for 2020 and 2019 was $7.2 million and $7.5 million in 2018. Amortization expense expected to be recognized is $8.2 million in 2021 and $7.1 in 2022, $6.4 million in 2023, $6.3 million in 2024, $6.0 million in 2025 and $19.6 million thereafter. The carrying value and accumulated amortization by major class of intangible assets are as follows:

	December 31, 2020		December 31, 2019	
	Gross carrying amount	Accumulated amortization	Gross carrying amount	Accumulated amortization
		(In thousands)		
Technologies	$ 52,536	$ 30,598	$ 47,608	$ 27,650
Intellectual property	10,000	1,833	10,000	1,333
Non-compete agreements	931	413	572	431
Licenses	650	526	650	509
Customer lists	8,023	3,846	8,023	3,234
Customer relationships	28,630	16,146	25,220	14,730
Trade names	12,136	5,946	9,203	5,226
Total intangibles	$ 112,906	$ 59,308	$ 101,276	$ 53,113

Goodwill

Goodwill is tested for impairment annually during the fourth quarter or more frequently if an event indicates that the goodwill might be impaired. Potential impairment is identified by comparing the fair value of a reporting unit with its carrying value. No adjustments were recorded to goodwill as a result of these tests during 2020, 2019 and 2018. Goodwill was $88.7 and $71.3 million at December 31, 2020 and 2019, respectively. The increase resulted from the acquisition of s::can, headquartered in Vienna, Austria in 2020. This acquisition is further described in Note 3 "Acquisitions".

Warranty and After-Sale Costs

The Company estimates and records provisions for warranties and other after-sale costs in the period in which the sale is recorded, based on a lag factor and historical warranty claim experience. After-sale costs represent a variety of activities outside of the written warranty policy, such as investigation of unanticipated issues after the customer has installed the product or analysis of water quality issues. Changes in the Company's warranty and after-sale costs reserve are as follows:

	Balance at beginning of year	Provision of acquired business	Net additions charged to earnings	Costs incurred	Balance at end of year
			(In thousands)		
2020	$ 5,583	$ 500	$ 7,855	$ (2,321)	$ 11,617
2019	$ 4,206	$ —	$ 6,616	$ (5,239)	$ 5,583
2018	$ 3,367	$ —	$ 3,274	$ (2,435)	$ 4,206

Research and Development

Research and development costs are charged to expense as incurred and amounted to $11.6 million in 2020, $11.9 million in 2019 and $11.1 million in 2018.

Healthcare

The Company estimates and records provisions for healthcare claims incurred but not reported, based on medical cost trend analysis, reviews of subsequent payments made and estimates of unbilled amounts.

Accumulated Other Comprehensive Income

Components of accumulated other comprehensive income at December 31, 2020 are as follows:

	Pension and postretirement benefits	Foreign currency	Total
		(In thousands)	
Balance at beginning of period	$ 263	$ 162	$ 425
Other comprehensive income before reclassifications	—	1,096	1,096
Amounts reclassified from accumulated other comprehensive income (loss), net of tax of $69	(208)	—	(208)
Net current period other comprehensive (loss) income, net	(208)	1,096	888
Accumulated other comprehensive income	$ 55	$ 1,258	$ 1,313

Reclassifications out of accumulated other comprehensive income during 2020 are immaterial.

Components of accumulated other comprehensive income at December 31, 2019 are as follows:

	Pension and postretirement benefits	Foreign currency	Total
		(In thousands)	
Balance at beginning of period	$ 360	$ 220	$ 580
Other comprehensive income (loss) before reclassifications	—	(58)	(58)
Amounts reclassified from accumulated other comprehensive income, net of tax of $16	(97)	—	(97)
Net current period other comprehensive income (loss), net	(97)	(58)	(155)
Accumulated other comprehensive income	$ 263	$ 162	$ 425

Reclassifications out of accumulated other comprehensive income during 2019 are as follows:

	Amount reclassified from accumulated other comprehensive income
	(In thousands)
Amortization of employee benefit plan items:	
Actuarial gains and losses (1)	$ (639)
Plan settlement (2)	526
Total before tax	(113)
Income tax impact	16
Amount reclassified out of accumulated other comprehensive income	$ (97)

(1) These accumulated other comprehensive loss components are included in the computation of benefit plan costs in Note 7 “Employee Benefit Plans.”

(2) This accumulated other comprehensive income component results from an international pension plan settlement.

Use of Estimates

The preparation of financial statements in conformity with U.S. Generally Accepted Accounting Principles ("GAAP") requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Fair Value Measurements of Financial Instruments

The carrying amounts of cash, receivables and payables in the financial statements approximate their fair values due to the short-term nature of these financial instruments. Short-term debt is comprised of notes payable drawn against the Company's lines of credit. Because of its short-term nature, the carrying amount of the short-term debt also approximates fair value. Included in other assets are insurance policies on various individuals who were associated with the Company. The carrying amounts of these insurance policies approximate their fair value.

Subsequent Events

The Company evaluates subsequent events at the date of the balance sheet as well as conditions that arise after the balance sheet date but before the financial statements are issued. The effects of conditions that existed at the balance sheet date are recognized in the financial statements. Events and conditions arising after the balance sheet date but before the financial statements are issued are evaluated to determine if disclosure is required to keep the financial statements from being misleading. To the extent such events and conditions exist, if any, disclosures are made regarding the nature of events and the estimated financial effects for those events and conditions. For purposes of preparing the accompanying consolidated financial statements and the notes to these financial statements, the Company evaluated subsequent events through the date the accompanying financial statements were issued.

Effective January 1, 2021, the Company acquired 100% of the outstanding stock of Analytical Technology, LLC ("ATi"), headquartered in Collegeville, Pennsylvania, a provider of water quality monitoring systems. The purchase consideration, net of cash acquired, was approximately $44 million. The ATi acquisition will be accounted for under the purchase method, and accordingly, the results of operations will be included in the Company's financial statements from the date of acquisition. The acquisition is not expected to have a material impact on the Company's consolidated financial statements and notes thereto.

New Pronouncements

In December 2019, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2019-12, "Simplifying the Accounting for Income Taxes" under ASC 740, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740 and modifies the existing guidance to enable more consistent application. This guidance is effective for fiscal years beginning after December 15, 2020, including interim periods within that fiscal year with early adoption being permitted. The Company adopted ASU No. 2019-12 on January 1, 2021 and noted no significant changes to the Company's financial position or results of operations.

In June 2016, the FASB issued ASU No. 2016-13 "Financial Instruments - Credit Losses (Topic 326)," which amends the accounting for credit losses on purchased financial assets and available-for-sale debt securities with credit deterioration. This ASU requires the measurement of all expected credit losses for financial assets, including accounts receivables, held at the reporting date based upon current conditions, historical experience and reasonable forecasts. This ASU is effective for annual reporting periods beginning after December 15, 2019. The Company adopted ASU No. 2016-13 on January 1, 2020 and noted no significant changes to the Company's financial position or results of operations.

Note 2 Common Stock

Common Stock

The authorized common stock of the Company as of December 31, 2020 consisted of 40,000,000 shares of common stock, $1 par value, of which 37,221,098 and 37,200,698 were issued and outstanding as of December 31, 2020 and 2019, respectively.

Stock Options

There were no anti-dilutive options in 2020. Stock options to purchase 54,139 shares in 2019 and 21,887 shares in 2018 were not included in the computation of dilutive securities because their inclusion would have been anti-dilutive.

Note 3 Acquisitions

Acquisitions are accounted for under the purchase method, and accordingly, the results of operations were included in the Company's financial statements from the date of acquisition. The acquisitions did not have a material impact on the Company's consolidated financial statements or the notes thereto.

On November 2, 2020, the Company acquired 100% of the outstanding stock of s::can, headquartered in Vienna, Austria. s::can specializes in optical water quality sensing solutions that provide real-time measurement of a variety of parameters in water and wastewater utilizing in-line monitoring systems.

The total purchase consideration for s::can was $30.6 million, which included $29.1 million in cash and $1.5 million in payments that are anticipated to be made in the first quarter of 2021, which are recorded in payables on the Consolidated Balance Sheet at December 31, 2020. The Company's preliminary allocation of the purchase price at December 31, 2020 included $3.1 million of receivables, $4.3 million of inventory, $1.2 million of other assets, $12.7 million of intangibles and $17.4 million of goodwill that is not deductible for tax purposes. The intangible assets acquired are primarily customer relationships and developed technology with an estimated average useful life of 12 years. The Company also assumed $3.6 million of accounts payable, $3.2 million of deferred tax liabilities and $1.3 million of other liabilities as part of the acquisition. The preliminary allocation of the purchase price to the assets acquired was based upon the estimated fair values at the date of acquisition. As of December 31, 2020, the Company had not completed its analysis for estimating the fair value of the assets acquired.

On April 2, 2018, the Company acquired 100% of the outstanding stock of IMS of Odessa, Florida, which was one of the Company's distributors serving Florida.

The total purchase consideration was approximately $12.0 million, which included $7.7 million in cash, a $0.3 million working capital adjustment, a balance sheet holdback of $0.7 million and a $3.3 million settlement of pre-existing Company receivables. The working capital adjustment was settled in the second quarter of 2018 and the balance sheet holdback was paid in the second quarter of 2019. The Company's allocation of the purchase price at March 31, 2019 included $3.8 million of receivables, $0.8 million of inventories, $0.1 million of machinery and equipment, $3.6 million of intangibles and $3.7 million of goodwill. The intangible assets acquired are customer relationships with an estimated average useful life of 10 years. As of March 31, 2019, the Company had completed its analysis for estimating the fair value of the assets acquired with no additional adjustments.

In the first quarter of 2019 and the fourth quarter of 2020, the Company made separate payments of contingent acquisition consideration of $1.0 million each related to the May 1, 2017 acquisition of 100% of the outstanding common stock of D-Flow Technology AB (“D-Flow”) of Lulea, Sweden. These were the final payments associated with the acquisition.

Note 4 Short-term Debt and Credit Lines

The Company did not have short-term debt at December 31, 2020. Short-term debt at December 31, 2019 consisted of notes payable to banks of $4.5 million outstanding under a 4.0 million Euro-based revolving loan facility that does not expire, and which bore interest at 1.50%.

In June 2018, the Company amended its May 2012 credit agreement with its primary lender and extended its term until September 2021. The credit agreement includes a $125.0 million line of credit that supports commercial paper (up to $70.0 million) and includes $5.0 million of a Euro line of credit. Under the principal line of credit, the Company had $125.0 million of unused credit lines available out of the total of $133.5 million available short-term credit lines at December 31, 2020. While the facility is unsecured, there are a number of financial covenants with which the Company must comply, and the Company was in compliance as of December 31, 2020.

Note 5 Stock Compensation

As of December 31, 2020, the Company has an Omnibus Incentive Plan under which 1,400,000 shares are reserved for restricted stock and stock options grants for employees, as well as stock grants for directors. The plan was originally approved in 2011 and replaced all prior stock-based plans except for shares and options previously issued under those plans. As of December 31, 2020 and 2019, there were 443,370 shares and 502,839 shares, respectively, of the Company's Common Stock available for grant under the 2011 Omnibus Incentive Plan. The Company recognizes the cost of stock-based awards in net earnings for all of its stock-based compensation plans on a straight-line basis over the service period of the awards. The following sections describe the three types of grants in more detail.

Stock Options

The Company estimates the fair value of its option awards using the Black-Scholes option-pricing formula, and records compensation expense for stock options ratably over the stock option grant's vesting period. Stock option compensation expense recognized by the Company for the year ended December 31, 2020 was $0.4 million compared to $0.3 million in 2019 and $2.1 million in 2018.

The following table summarizes the transactions of the Company's stock option plans for the three-year period ended December 31, 2020:

	Number of shares		Weighted-average exercise price
Options outstanding - December 31, 2017	386,283	$	25.74
Options granted	43,778	$	48.20
Options modified	80,642	$	52.44
Options exercised	(53,161)	$	21.47
Options canceled	(80,642)	$	37.04
Options forfeited	—		n/a
Options outstanding - December 31, 2018	376,900	$	28.95
Options granted	34,926	$	59.44
Options exercised	(66,969)	$	29.29
Options forfeited	(7,525)	$	38.81
Options outstanding - December 31, 2019	337,332	$	31.82
Options granted	41,807	$	62.76
Options exercised	(55,716)	$	18.99
Options forfeited	(7,229)	$	50.19
Options outstanding - December 31, 2020	316,194	$	37.75
Price range $ 18.08 — $ 27.18			
(weighted-average contractual life of 2.1 years)	106,390	$	22.53
Price range $ 28.33 — $ 42.50			
(weighted-average contractual life of 5 years)	102,484	$	33.30
Price range $ 48.20 — $ 72.30	.		
(weighted-average contractual life of 8.2 years)	107,320	$	57.09
Options outstanding - December 31, 2020	316,194		
Exercisable options —			
December 31, 2018	321,122	$	27.16
December 31, 2019	271,252	$	27.17
December 31, 2020	235,829	$	30.82

The following assumptions were used for valuing options granted in the years ended December 31:

	2020	2019
Per share fair value of options granted during the period	$ 17.49	$ 18.20
Risk-free interest rate	0.64%	2.52%
Dividend yield	1.05%	0.97%
Volatility factor	30.0%	32.4%
Weighted-average expected life in years	7.0	5.3

The expected life is based on historical exercise behavior and the projected exercise of unexercised stock options. The risk-free interest rate is based on the U.S. Treasury yield curve in effect on the date of grant for the respective expected life of the option. The expected dividend yield is based on the expected annual dividends divided by the grant date market value of the Company's Common Stock. The expected volatility is based on the historical volatility of the Company's Common Stock.

The following table summarizes the aggregate intrinsic value related to options exercised, outstanding and exercisable as of and for the years ended December 31:

	2020	2019
	(In thousands)	
Exercised	$ 3,054	$ 1,870
Outstanding	$ 17,805	$ 11,170
Exercisable	$ 14,913	$ 10,243

As of December 31, 2020, the unrecognized compensation cost related to stock options was approximately $1.0 million, which will be recognized over a weighted average period of 3.4 years.

Director Stock Grant

Non-employee directors receive an annual award of $58,000 worth of restricted shares of the Company's Common Stock under the shareholder-approved 2011 Omnibus Incentive Plan. The Company values stock grants for directors at the closing price of the Company's stock on the day the grant was awarded. The Company records compensation expense for this plan ratably over the annual service period beginning May 1. Director stock compensation expense recognized by the Company for the years ended December 31, 2020 was $0.4 million compared to $0.3 million in 2019 and $0.5 million in 2018. As of December 31, 2020, the unrecognized compensation cost related to the director stock award that is expected to be recognized over the remaining three months is estimated to be approximately $0.1 million.

Restricted Stock

The Company periodically issues nonvested shares of the Company's Common Stock to certain eligible employees. The Company values restricted stock on the closing price of the Company's stock on the day the grant was awarded. The Company records compensation expense for this plan ratably over the vesting periods. Restricted stock compensation expense recognized by the Company for the year ended December 31, 2020 was $1.0 million compared to $0.9 million in 2019 and $2.1 million in 2018.

The fair value of nonvested shares is determined based on the market price of the shares on the grant date.

	Shares	Fair value per share
Nonvested at December 31, 2017	111,473	$ 35.21
Granted	32,268	$ 49.10
Modified	30,488	$ 52.47
Vested	(68,289)	$ 40.16
Canceled	(30,488)	$ 38.62
Forfeited	(2,650)	$ 36.83
Nonvested at December 31, 2018	72,802	$ 42.58
Granted	16,034	$ 59.42
Vested	(19,227)	$ 30.08
Forfeited	(5,129)	$ 41.31
Nonvested at December 31, 2019	64,480	$ 48.21
Granted	20,758	$ 64.19
Vested	(25,044)	$ 39.87
Forfeited	(2,645)	$ 54.35
Nonvested at December 31, 2020	57,549	$ 57.33

As of December 31, 2020, there was $1.8 million of unrecognized compensation cost related to nonvested restricted stock that is expected to be recognized over a weighted average period of 2.1 years.

Note 6 Commitments and Contingencies

Commitments

The Company makes commitments in the normal course of business. The Company rents equipment, vehicles and facilities under operating leases, some of which contain renewal options. Total rental expense charged to operations under all operating leases was $3.1 million, $3.4 million and $3.7 million in 2020, 2019 and 2018, respectively. The Company's lease commitments and future minimum lease payments are discussed in Note 12 "Leases."

Contingencies

In the normal course of business, the Company is named in legal proceedings. There are currently no material legal proceedings pending with respect to the Company.

The Company is subject to contingencies related to environmental laws and regulations. A future change in circumstances with respect to specific matters or with respect to sites formerly or currently owned or operated by the Company, off-site disposal locations used by the Company, and property owned by third parties that is near such sites, could result in future costs to the Company and such amounts could be material. Expenditures for compliance with environmental control provisions and regulations during 2020, 2019 and 2018 were not material.

The Company relies on single suppliers for most brass castings and certain resin and electronic subassemblies in several of its product lines. The Company believes these items would be available from other sources, but that the loss of certain suppliers could result in a higher cost of materials, delivery delays, short-term increases in inventory and higher quality control costs in the short term. The Company attempts to mitigate these risks by working closely with key suppliers, purchasing minimal amounts from alternative suppliers and by purchasing business interruption insurance where appropriate.

The Company reevaluates its exposures on a periodic basis and makes adjustments to reserves as appropriate.

Note 7 Employee Benefit Plans

Historically, the Company maintained a non-contributory defined benefit pension plan that covered substantially all U.S. employees who were employed at December 31, 2011. After that date, no further benefits were accrued in the plan. For the frozen pension plan, benefits were based primarily on years of service and, for certain employees, levels of compensation. In 2018, the Company completed the termination of the non-contributory defined benefit pension plan.

The Company maintains supplemental non-qualified plans for certain officers and other key employees, and an Employee Savings and Stock Option Plan (“ESSOP”) for the majority of the U.S. employees.

The Company also has a postretirement healthcare benefit plan that provides medical benefits for certain U.S. retirees and eligible dependents hired prior to November 1, 2004. Employees are eligible to receive postretirement healthcare benefits upon meeting certain age and service requirements. No employees hired after October 31, 2004 are eligible to receive these benefits. This plan requires employee contributions to offset benefit costs.

Amounts included in accumulated other comprehensive income, net of tax, at December 31, 2020 that have not yet been recognized in net periodic benefit cost are as follows:

	Pension plans	Other postretirement benefits
	(In thousands)	
Net actuarial loss (gain)	$ 68	$ (123)

Amounts included in accumulated other comprehensive income, net of tax, at December 31, 2020 expected to be recognized in net periodic benefit cost during the fiscal year ending December 31, 2021 are not expected to be material.

Qualified Pension Plan

The Company completed the termination of the non-contributory defined benefit pension plan in 2018 and therefore the tables below show no activity or actuarial assumptions for the years ended December 31, 2020 and 2019.

The following table sets forth the components of net periodic pension cost for the year ended December 31, 2018 based on a December 31 measurement date:

	2018
	(In thousands)
Service cost - benefits earned during the year	$ —
Interest cost on projected benefit obligations	305
Expected return on plan assets	(835)
Amortization of net loss	262
Settlement expense	19,900
Net periodic pension cost	$ 19,632

Actuarial assumptions used in the determination of the net periodic pension cost are:

	2018
Discount rate	2.00%
Expected long-term return on plan assets	3.00%
Rate of compensation increase	n/a

The Company's discount rate assumptions for the qualified pension plan are based on the average yield of a hypothetical high quality bond portfolio with maturities that approximately match the estimated cash flow needs of the plan. The assumptions for expected long-term rates of return on assets are based on historical experience and estimated future investment returns, taking into consideration anticipated asset allocations, investment strategies and the views of various investment professionals. The use of these assumptions can cause volatility if actual results differ from expected results.

The fair value of the qualified pension plan assets was $0 at December 31, 2020 and 2019. As there were no benefit obligations, plan assets or pension liabilities at December 31, 2020, 2019 & 2018, no reconciliation as of those measurement dates are provided.

Supplemental Non-qualified Unfunded Plans

The Company also maintains supplemental non-qualified unfunded plans for certain officers and other key employees. The expense for these plans was not material for 2020, 2019 or 2018. The discount rate used to measure the net periodic pension cost was 2.87% for 2020, 2.86% for 2019 and 2.16% for 2018. The amount accrued was $0.4 million and $0.5 million as of December 31, 2020 and 2019, respectively.

Other Postretirement Benefits

The Company has a postretirement plan that provides medical benefits for certain U.S. retirees and eligible dependents hired prior to November 1, 2004. The following table sets forth the components of net periodic postretirement benefit cost for the years ended December 31, 2020, 2019 and 2018:

	2020	2019	2018
		(In thousands)	
Service cost, benefits attributed for service of active employees for the period	$ 103	$ 103	$ 124
Interest cost on the accumulated postretirement benefit obligation	154	210	189
Amortization of actuarial gain	(22)	(117)	(30)
Amortization of prior service credit	—	—	(13)
Net periodic postretirement benefit cost	$ 235	$ 196	$ 270

The discount rate used to measure the net periodic postretirement benefit cost was 3.19% for 2020, 4.33% for 2019 and 3.65% for 2018. It is the Company's policy to fund healthcare benefits on a cash basis. Because the plan is unfunded, there are no plan assets. The following table provides a reconciliation of the projected benefit obligation at the Company's December 31 measurement date:

	2020	2019
	(In thousands)	
Benefit obligation at beginning of year	$ 6,075	$ 5,551
Service cost	103	103
Interest cost	154	210
Actuarial gain	202	657
Plan participants' contributions	474	532
Benefits paid	(863)	(978)
Benefit obligation and funded status at end of year	$ 6,145	$ 6,075

The amounts recognized in the Consolidated Balance Sheets at December 31 are:

	2020	2019
	(In thousands)	
Accrued compensation and employee benefits	$ 356	$ 364
Accrued non-pension postretirement benefits	5,789	5,711
Amounts recognized at December 31	$ 6,145	$ 6,075

The discount rate used to measure the accumulated postretirement benefit obligation was 2.45% for 2020 and 3.19% for 2019. The Company's discount rate assumptions for its postretirement benefit plan are based on the average yield of a hypothetical high quality bond portfolio with maturities that approximately match the estimated cash flow needs of the plan. Because the plan requires the Company to establish fixed Company contribution amounts for retiree healthcare benefits, future healthcare cost trends do not generally impact the Company's accruals or provisions.

Estimated future benefit payments of postretirement benefits, assuming increased cost sharing, expected to be paid in each of the next five years beginning with 2021 are $0.4 million through 2025, with an aggregate of $2.0 million for the five years thereafter. These amounts can vary significantly from year to year because the cost sharing estimates can vary from actual expenses as the Company is self-insured.

Badger Meter Employee Savings and Stock Ownership Plan (ESSOP)

The ESSOP includes a voluntary 401(k) savings plan that allows certain employees to defer up to 20% of their income on a pretax basis subject to limits on maximum amounts. The Company matches 25% of each employee’s contribution, with the match percentage applying to a maximum of 7% of each employee's salary. The match was paid using the Company's Common Stock released through the ESSOP loan payments. For ESSOP shares purchased prior to 1993, compensation expense is recognized based on the original purchase price of the shares released and dividends on unreleased shares are charged to compensation expense. For shares purchased in or after 1993, expense is based on the market value of the shares on the date released and dividends on unreleased shares are charged to compensation expense. Compensation expense of $ 0.5 million in 2020 compared to $0.6 million in 2019 and $0.5 million in 2018. As the last ESSOP loan payment was made during 2020, the Company will make future ESSOP match payments in cash.

On December 31, 2010, the Company froze the qualified pension plan for its non-union participants and formed a new defined contribution feature within the ESSOP plan in which each employee received a similar benefit. On December 31, 2011, the Company froze the qualified pension plan for its union participants and included them in the same defined contribution feature within the ESSOP. Compensation expense under the defined contribution feature was $2.0 million in 2020 $3.1 million in 2019 and $3.0 in 2018.

Note 8 Income Taxes

The Company is subject to income taxes in the United States and numerous foreign jurisdictions. Significant judgment is required in determining the worldwide provision for income taxes and recording the related deferred tax assets and liabilities.

Details of earnings before income taxes are as follows:

	2020	2019	2018
		(In thousands)	
Domestic	$ 65,908	$ 62,639	$ 31,584
Foreign	(927)	(1,032)	4,268
Total	$ 64,981	$ 61,607	$ 35,852

The provision (benefit) for income taxes is as follows:

	2020	2019	2018
		(In thousands)	
Current:			
Federal	$ 14,482	$ 12,113	$ 9,223
State	3,419	2,591	2,640
Foreign	819	1,250	1,468
Deferred:			
Federal	(2,495)	(1,066)	(2,890)
State	(644)	417	(1,765)
Foreign	57	(875)	(614)
Total	$ 15,638	$ 14,430	$ 8,062

The provision for income tax differs from the amount that would be provided by applying the statutory U.S. corporate income tax rate in each year due to the following items:

	2020	2019	2018
		(In thousands)	
Provision at statutory rate	$ 13,646	$ 12,938	$ 7,529
State income taxes, net of federal tax benefit	2,196	2,080	717
Valuation allowance	1,302	515	—
Foreign - tax rate differential and other	(267)	70	159
Federal tax credits	(517)	(609)	(742)
Compensation subject to section 162(m)	110	66	562
Stock based compensation	(682)	(253)	(384)
Tax rate difference on temporary adjustments	—	—	(460)
Other	(150)	(377)	681
Actual provision	$ 15,638	$ 14,430	$ 8,062

The components of deferred income taxes as of December 31 are as follows:

	2020	2019
	(In thousands)	
Deferred tax assets:		
Reserve for receivables and inventories	$ 2,618	$ 2,108
Accrued compensation	1,874	888
Reserves & payables	2,741	1,410
Non-pension postretirement benefits	1,535	1,505
Net operating loss and credit carryforwards	2,106	1,401
Accrued pension benefits	982	933
Accrued employee benefits	1,574	1,747
Deferred revenue	2,596	2,219
Operating lease liabilities	1,708	1,861
Other	713	497
Total gross deferred tax assets	18,447	14,569
Less: valuation allowance	(2,140)	(863)
Total net deferred tax assets	16,307	13,706
Deferred tax liabilities:		
Depreciation	5,204	4,673
Amortization	8,795	6,158
Prepaids	552	529
Operating lease assets	1,699	1,850
Other	663	630
Total deferred tax liabilities	16,913	13,840
Net deferred tax liabilities	$ (606)	$ (134)

As of December 31, 2020, the Company has foreign net operating loss carryforwards of approximately $6 million with an unlimited carryforward period. The Company's tax credit carryforward of $0.4 million relates to state specific tax credits that the Company expects to fully utilize in future tax periods. The Company has recorded a full valuation allowance against certain deferred tax assets which are not likely to be realized. The valuation allowance relates primarily to a foreign net operating loss carryforward.

No provision for federal income taxes was made on the earnings of foreign subsidiaries that are considered indefinitely invested or that would be offset by foreign tax credits upon distribution. Such undistributed earnings at December 31, 2020 were $20.6 million, all of which was previously taxed in the U.S. under the transition tax provisions and other provisions of the Internal Revenue Code.

Changes in the Company's gross liability for unrecognized tax benefits, excluding interest and penalties, were as follows:

	2020	2019
	(In thousands)	
Balance at beginning of year	$ 1,165	$ 1,121
Increases in unrecognized tax benefits as a result of positions taken during the prior year	—	88
Increases in unrecognized tax benefits as a result of positions taken during the current year	209	235
Reductions to unrecognized tax benefits as a result of a lapse of the applicable statute of limitations	(251)	(279)
Balance at end of year	$ 1,123	$ 1,165

The Company does not expect a significant increase or decrease to the total amounts of unrecognized tax benefits during the fiscal year ending December 31, 2021. To the extent these unrecognized tax benefits are ultimately recognized, they will impact the effective tax rate. The Company and its subsidiaries file income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. The Company is no longer subject to U.S. federal income tax examinations by tax authorities for years prior to 2017, and, with few exceptions, state and local income tax examinations by tax authorities for years prior to 2016. The Company's policy is to recognize interest related to unrecognized tax benefits as interest expense and penalties as operating expenses. Accrued interest was approximately $0.1 million at both December 31, 2020 and 2019 and there were no penalties accrued in either year.

Note 9 Industry Segment and Geographic Areas

The Company is an innovator, manufacturer, marketer and distributor of products incorporating flow measurement, control and communication solutions, which comprise one reportable segment. The Company manages and evaluates its operations as one segment primarily due to similarities in the nature of the products, production processes, customers and methods of distribution.

Information regarding revenues by geographic area is as follows:

	2020	2019 (In thousands)	2018
Revenues:			
United States	$ 376,426	$ 369,163	$ 374,650
Foreign:			
Asia	6,437	9,111	9,081
Canada	10,406	13,568	11,893
Europe	18,255	15,784	20,147
Mexico	4,886	5,791	3,603
Middle East	6,114	7,868	11,318
Other	3,020	3,340	3,040
Total	$ 425,544	$ 424,625	$ 433,732

Information regarding assets by geographic area is as follows:

	2020	2019
	(In thousands)	
Long-lived assets:		
United States	$ 48,805	$ 51,539
Foreign:		
Europe	15,142	14,768
Mexico	18,758	19,454
Total	$ 82,705	$ 85,761

	2020	2019
	(In thousands)	
Total assets:		
United States	$ 365,748	$ 326,248
Foreign:		
Europe	80,337	72,296
Mexico	22,295	23,349
Total	$ 468,380	$ 421,893

Note 10 Unaudited: Quarterly Results of Operations, Common Stock Price and Dividends

	Quarter ended			
	March 31	June 30	September 30	December 31
	(In thousands except per share data)			
2020				
Net sales	$ 108,508	$ 91,119	$ 113,587	$ 112,329
Gross margin	$ 43,322	$ 35,850	$ 45,023	$ 44,055
Net earnings	$ 11,854	$ 9,534	$ 14,861	$ 13,094
Earnings per share:				
Basic	$ 0.41	$ 0.33	$ 0.51	$ 0.45
Diluted	$ 0.41	$ 0.33	$ 0.51	$ 0.45
Dividends declared	$ 0.17	$ 0.17	$ 0.18	$ 0.18
Stock price:				
High	$ 70.83	$ 68.01	$ 68.25	$ 96.00
Low	$ 41.50	$ 47.00	$ 59.53	$ 64.96
Quarter-end close	$ 53.60	$ 62.92	$ 65.37	$ 94.06
2019				
Net sales	$ 104,881	$ 103,542	$ 108,646	$ 107,556
Gross margin	$ 40,457	$ 40,276	$ 41,670	$ 41,125
Net earnings	$ 10,824	$ 11,358	$ 12,721	$ 12,274
Earnings per share:				
Basic	$ 0.37	$ 0.39	$ 0.44	$ 0.42
Diluted	$ 0.37	$ 0.39	$ 0.44	$ 0.42
Dividends declared	$ 0.15	$ 0.15	$ 0.17	$ 0.17
Stock price:				
High	$ 61.57	$ 60.28	$ 60.52	$ 66.64
Low	$ 47.59	$ 51.56	$ 49.66	$ 50.67
Quarter-end close	$ 55.64	$ 59.69	$ 53.70	$ 64.93

The Company's Common Stock is listed on the New York Stock Exchange under the symbol BMI. Earnings per share are computed independently for each quarter. As such, the annual per share amount may not equal the sum of the quarterly amounts due to rounding. The Company currently anticipates continuing to pay cash dividends. Shareholders of record as of December 31, 2020 and 2019 totaled 656 and 790, respectively. Voting trusts and street name shareholders are counted as single shareholders for this purpose.

Note 11 Revenue Recognition

Revenue for sales of products and services is derived from contracts with customers. The products and services promised in contracts include the sale of utility water and flow instrumentation products, such as flow meters and radios, software access and other ancillary services. Contracts generally state the terms of sale, including the description, quantity and price of each product or service. Since the customer typically agrees to a stated rate and price in the contract that does not vary over the life of the contract, the majority of the Company's contracts do not contain variable consideration. The Company establishes a provision for estimated warranty and returns as well as certain after sale costs as discussed in Note 1 “Summary of Significant Accounting Policies.”

In accordance with ASU No. 2016-10 “Revenue from Contracts with Customers” (“Topic 606”), the Company disaggregates revenue from contracts with customers into geographical regions and by the timing of when goods and services are transferred. The Company determined that disaggregating revenue into these categories meets the disclosure objective in Topic 606 which is to depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by regional economic factors. Information regarding revenues disaggregated by geographic area is disclosed in Note 9 “Industry Segment and Geographic Areas.”

Information regarding revenues disaggregated by the timing of when goods and services are transferred is as follows:

	December 31,			
(In thousands)	2020		2019	
Revenue recognized over time	$ 21,479	5.0%	$ 16,146	3.8%
Revenue recognized at a point in time	404,065	95.0%	408,479	96.2%
Total	$ 425,544	100.0%	$ 424,625	100.0%

The Company performs its obligations under a contract by shipping products or performing services in exchange for consideration. The Company typically invoices its customers as soon as control of an asset is transferred and a receivable to the Company is established. The Company, however, recognizes a contract liability when a customer prepays for goods or services and the Company has not transferred control of the goods or services.

The Company's receivables and contract liabilities are as follows:

	December 31,	
(In thousands)	2020	2019
Receivables	$ 61,689	$ 61,365
Contract liabilities	24,761	20,143

Contract liabilities are included in payables and other-long term liabilities on the Company’s Consolidated Balance Sheet. The balance of contract assets was immaterial as the Company did not have a significant amount of uninvoiced receivables at December 31, 2020 and 2019.

A performance obligation in a contract is a promise to transfer a distinct good or service to the customer, and is the unit of measurement in Topic 606. At contract inception, the Company assesses the products and services promised in its contracts with customers. The Company then identifies performance obligations to transfer distinct products or services to the customer. In order to identify performance obligations, the Company considers all of the products or services promised in the contract regardless of whether they are explicitly stated or are implied by customary business practices.

The Company's performance obligations are satisfied at a point in time or over time as work progresses. The majority of the Company's revenue recognized at a point in time is for the sale of utility and flow instrumentation products. Revenue from these contracts is recognized when the customer is able to direct the use of and obtain substantially all of the benefits from the product which generally coincides with title transfer during the shipping process. The majority of the Company's revenue that is recognized over time relates to the BEACON AMA software as a service.

The Company records revenue for BEACON AMA SaaS over time as the customer benefits from the use of the Company's software. Control of an asset is therefore transferred to the customer over time and the Company will recognize revenue for BEACON AMA SaaS as service units are used by the customer.

Revenue is recorded for various ancillary services, such as project management and training, over time as the customer benefits from the services provided. The majority of this revenue will be recognized equally throughout the contract period as the customer receives benefits from the Company's promise to provide such services. If the service is not provided evenly over the contract period, revenue will be recognized by the associated input/output method that best measures the progress towards contract completion.

As of December 31, 2020, the Company had certain contracts with unsatisfied performance obligations. For contracts recorded as long-term liabilities, $24.8 million was the aggregate amount of the transaction price allocated to performance obligations that were unsatisfied or partially unsatisfied as of the end of the reporting period. The Company estimates that revenue recognized from satisfying those performance obligations will be approximately $5.8 million in 2021 and $2.5 million in each year from 2022 through 2025 and $9.0 million thereafter.

The Company also has contracts that include both the sale and installation of flow meters as performance obligations. In those cases, the Company records revenue for installed flow meters at the point in time when the flow meters have been accepted by the customer. The customer cannot control the use of and obtain substantially all of the benefits from the equipment until the customer has accepted the installed product. Therefore, for both the flow meter and the related installation, the Company has concluded that control is transferred to the customer upon customer acceptance of the installed flow meter. In addition, the Company has a variety of ancillary revenue streams which are minor. The types and composition of the Company's revenue streams did not materially change during the year ended December 31, 2020.

Certain customers may receive cash-based incentives or credits, which are accounted for as variable consideration. Variable consideration in contracts for the year ended December 31, 2020 was insignificant.

The transaction price for a contract is allocated to each distinct performance obligation and recognized as revenue when, or as, each performance obligation is satisfied. For contracts with multiple performance obligations, the Company allocates the contract's transaction price to each performance obligation using the best estimate of the standalone selling price of each distinct good or service in a contract. The primary method used to estimate standalone selling price is the observable price when the good or service is sold separately in similar circumstances and to similar customers. If standalone selling price is not directly observable, it is estimated using either a market adjustment or cost plus margin approach.

The recording of assets recognized from the costs to obtain and fulfill customer contracts primarily relate to the deferral of sales commissions on the Company's BEACON AMA software arrangements. The Company's costs incurred to obtain or fulfill a contract with a customer are amortized over the period of benefit of the related revenue. The Company expenses any costs incurred immediately when the amortization period would be one year or less. These costs are recorded within selling, engineering and administration expenses.

For the year ended December 31, 2020, the Company elected the following practical expedients:

In accordance with Subtopic 340-40 “Other Assets and Deferred Costs - Contracts with Customers,” the Company elected to expense the incremental costs of obtaining a contract when the amortization period for such contracts would have been one year or less. The Company does not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less, and contracts for which it has the right to invoice for services performed.

The Company has made an accounting policy election to exclude all taxes by governmental authorities from the measurement of the transaction price.

Note 12 Leases

The Company rents facilities, equipment and vehicles under operating leases, some of which contain renewal options. Upon inception of a rent agreement, the Company determines whether the arrangement contains a lease based on the unique conditions present. Leases that have a term over a year are recognized on the balance sheet as right-of-use assets and lease liabilities. Right-of-use assets are included in other assets on the Company’s Consolidated Balance Sheet. Lease liabilities are included in other current liabilities and other long-term liabilities on the Company’s Consolidated Balance Sheet. Information regarding the Company's right-of-use assets and the corresponding lease liabilities are as follows:

(In thousands)	2020	2019
Right-of-use assets	$ 6,865	$ 8,411
Lease liabilities	7,218	8,792

The Company's operating lease agreements have lease and non-lease components that require payments for common area maintenance, property taxes and insurance. The Company has elected to account for both lease and non-lease components as one lease component. The fixed and in-substance fixed consideration in the Company's rent agreements constitute operating lease expense that is included in the capitalized right-of-use assets and lease liabilities. The variable and short-term lease expense payments are not included in the present value of the right-of use-assets and lease liabilities on the Consolidated Balance Sheet. The Company's rent expense is as follows:

	December 31,	
(In thousands)	**2020**	**2019**
Operating lease expense	$ 2,858	$ 3,095
Variable and short-term lease expense	203	270
Rent expense	$ 3,061	$ 3,365

The Company records right-of-use assets and lease liabilities based upon the present value of lease payments over the expected lease term. The Company's lease agreements typically do not have implicit interest rates that are readily determinable. As a result, the Company utilizes an incremental borrowing rate that would be incurred to borrow on a collateralized basis over a similar term in a comparable economic environment. As of December 31, 2020 and 2019, the remaining lease term on the Company's leases was 6.0 years and 4.5 years, respectively. As of December 31, 2020 and 2019, the discount rate was 5.0%. The future minimum lease payments to be paid under operating leases are as follows:

	December 31, 2020 (In thousands)
2021	$ 2,526
2022	1,435
2023	1,318
2024	1,264
2025	1,084
Thereafter	821
Total future lease payments	8,448
(Present value adjustment)	(1,230)
Present value of future lease payments	$ 7,218

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

In accordance with Rule 13a-15(b) of the Securities Exchange Act of 1934 (the “Exchange Act”), as amended, the Company's management evaluated, with the participation of the Company's Chairman, President and Chief Executive Officer and the Company's Senior Vice President - Chief Financial Officer, the effectiveness of the design and operation of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the year ended December 31, 2020. Based upon their evaluation of these disclosure controls and procedures, the Company's Chairman, President and Chief Executive Officer and the Company's Senior Vice President - Chief Financial Officer concluded that, as of the date of such evaluation, the Company's disclosure controls and procedures were effective.

Changes in Internal Controls over Financial Reporting

There was no change in the Company's internal control over financial reporting that occurred during the quarter ended December 31, 2020 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Annual Report on Internal Control over Financial Reporting

The report of management required under this Item 9A is contained in Item 8 of this 2020 Annual Report on Form 10-K under the heading “Management's Annual Report on Internal Control over Financial Reporting.”

Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting

The attestation report required under this Item 9A is contained in Item 8 of this 2020 Annual Report on Form 10-K under the heading “Report of Independent Registered Public Accounting Firm.”

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this Item with respect to directors is included under the headings "Nomination and Election of Directors" and in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 30, 2021 and is incorporated herein by reference.

Information concerning the executive officers of the Company is included in Part I, Item 1 of this 2020 Annual Report on Form 10-K under the heading "Business - Employees."

The Company has adopted the Badger Meter, Inc. Code of Conduct for Financial Executives that applies to the Company's Chairman, President and Chief Executive Officer, the Company's Senior Vice President - Chief Financial Officer and other persons performing similar functions. A copy of the Badger Meter, Inc. Code of Conduct for Financial Executives is posted on the Company's website at www.badgermeter.com. The Badger Meter, Inc. Code of Conduct for Financial Executives is also available in print to any shareholder who requests it in writing from the Secretary of the Company. The Company satisfies the disclosure requirements under Item 5.05 of Form 8-K regarding amendments to, or waivers from, the Badger Meter, Inc. Code of Conduct for Financial Executives by posting such information on the Company's website at www.badgermeter.com.

The Company is not including the information contained on its website as part of, or incorporating it by reference into, this 2020 Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

Information required by this Item is included under the headings "Executive Compensation," "Compensation Committee Interlocks and Insider Participation" and "CEO Pay Ratio" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 30, 2021, and is incorporated herein by reference; provided, however, that the information under the subsection "Executive Compensation - Compensation Committee Report" is not deemed to be "soliciting material" or to be "filed" with the Securities and Exchange Commission or subject to Regulation 14A or 14C under the Exchange Act or to be the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent it is specifically incorporated by reference into such a filing.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this Item is included under the headings "Stock Ownership of Beneficial Owners," "Stock Ownership of Management" and "Equity Compensation Plan Information" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 30, 2021 and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this Item is included under the headings "Related Person Transactions" and "Nomination and Election of Directors - Independence, Committees, Meetings and Attendance" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 30, 2021, and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information required by this Item is included under the heading "Principal Accounting Firm Fees" in the Company's definitive Proxy Statement relating to the Annual Meeting of Shareholders to be held on April 30, 2021, and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Documents filed as part of this Annual Report on Form 10-K:

1. Financial Statements. See the financial statements included in Part II, Item 8 "Financial Statements and Data" in this 2020 Annual Report on Form 10-K, under the headings "Consolidated Balance Sheets," "Consolidated Statements of Operations," "Consolidated Statements of Comprehensive Income," "Consolidated Statements of Cash Flows" and "Consolidated Statements of Shareholders' Equity."

2. Financial Statement Schedules. Financial statement schedules are omitted because the information required in these schedules is included in the Notes to Consolidated Financial Statements.

3. Exhibits. The exhibits listed in the following Exhibit Index are filed as part of this 2020 Annual Report on Form 10-K that is incorporated herein by reference.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 24, 2021.

BADGER METER, INC.

By: /s/ Kenneth C. Bockhorst
Kenneth C. Bockhorst
Chairman, President and Chief
Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 24, 2021.

Name	Title
/s/ Kenneth C. Bockhorst Kenneth C. Bockhorst	Chairman, President and Chief Executive Officer and Director (Principal executive officer)
/s/ Robert A. Wrocklage Robert A. Wrocklage	Senior Vice President — Chief Financial Officer (Principal financial officer)
/s/ Daniel R. Weltzien Daniel R. Weltzien	Vice President — Controller (Principal accounting officer)
/s/ Todd A. Adams Todd A. Adams	Director
/s/ Gale E. Klappa Gale E. Klappa	Director
/s/ Gale A. Lione Gale A. Lione	Director
/s/ James W. McGill James W. McGill	Director
/s/ Tessa M. Myers Tessa M. Myers	Director
/s/ James F. Stern James F. Stern	Director
/s/ Glen E. Tellock Glen E. Tellock	Director

BADGER METER, INC.

RECONCILIATION OF NON-GAAP PERFORMANCE MEASURES TO GAAP PERFORMANCE MEASURES
(in thousands, except share and earnings per share data)

	2020	2019	2018	2017	2016
Operating earnings (GAAP measure)	$65,156	$62,148	$56,869	$56,595	$52,672
Executive retirement charges	-	-	2,575	-	-
Adjusted operating earnings	$65,156	$62,148	$59,444	$56,595	$52,672
Net earnings (GAAP measure)	$49,343	$47,177	$27,790	$34,571	$32,295
Executive retirement charges, net of tax	-	-	2,357	-	-
Pension termination settlement charge, net of tax	-	-	14,786	-	-
Adjusted net earnings	$49,343	$47,177	$44,933	$34,571	$32,295
Net earnings (GAAP measure)	$49,343	$47,177	$27,790	$34,571	$32,295
Interest expense, net	30	253	1,157	789	921
Provision for income taxes	15,638	14,430	8,062	20,262	17,549
Depreciation	12,253	11,569	11,354	12,056	10,715
Amortization	12,963	12,577	12,961	12,342	11,727
Executive retirement charges	-	-	2,575	-	-
Pension termination settlement charge	-	-	19,900	-	-
Adjusted EBITDA	$90,227	$86,006	$83,799	$80,020	$73,207
Net Sales	$425,544	$424,625	$433,732	$402,440	$393,761
Adjusted EBITDA %	21.2%	20.3%	19.3%	19.9%	18.6%
Diluted earnings per share (GAAP measure)	$1.69	$1.61	$0.95	$1.19	$1.11
Executive retirement charges, net of tax	-	-	0.09	-	-
Pension termination settlement charge, net of tax	-	-	0.50	-	-
Adjusted diluted earnings per share	$1.69	$1.61	$1.54	$1.19	$1.11
Cash provided by operations (GAAP measure)	$89,578	$80,714	$60,350	$49,751	$56,185
Capital expenditures	(9,059)	(7,496)	(8,643)	(15,069)	(10,596)
Free cash flow	$80,519	$73,218	$51,707	$34,682	$45,589
Free cash flow	$80,519	$73,218	$51,707	$34,682	$45,589
Adjusted net earnings	$49,343	$47,177	$44,933	$34,571	$32,295
Free cash flow conversion	163%	155%	115%	100%	141%

Badger Meter

4545 West Brown Deer Road
P.O. Box 245036
Milwaukee, Wisconsin 53224
www.badgermeter.com