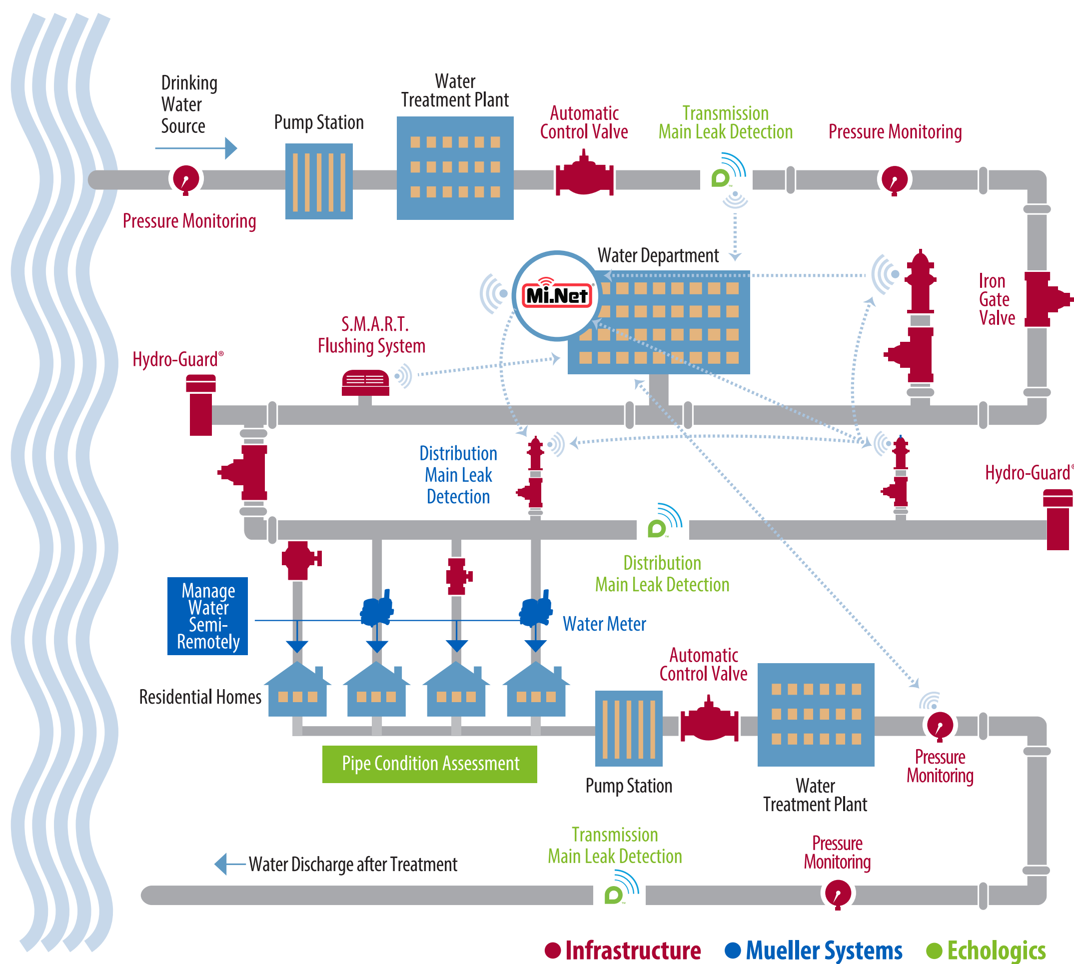
Where Intelligence Meets Infrastructure®

2017 ANNUAL REPORT

Overview

Mueller Water Products, Inc. (NYSE:MWA) is a leading manufacturer and marketer of products and services used in the transmission, distribution and measurement of water in North America. Our broad product and service portfolio includes engineered valves, fire hydrants, metering products and systems, leak detection and pipe condition assessment. We help municipalities increase operational efficiencies, improve customer service and prioritize capital spending, demonstrating why Mueller Water Products is Where Intelligence Meets Infrastructure®. Visit us at www.muellerwaterproducts.com.

Intelligent Water Technology



This diagram is for illustrative purposes only.

CEO's Letter

J. SCOTT HALL | President and Chief Executive Officer

December 14, 2017

To My Fellow Stockholders:

On behalf of our company, I would like to thank my predecessor, Greg Hyland, for his leadership and commitment over the past decade. During his tenure, he successfully led the company to becoming financially stronger and operationally more efficient, providing an important foundation for the future.

As I approach the one year mark as CEO of Mueller Water Products, I am energized by our progress in building on that foundation. We managed a tremendous amount of organizational change, positioning us for future growth, while at the same time, leveraging our strong brands and manufacturing capabilities to drive good results in 2017.

Thanks to the hard work and commitment of our team, we managed through the CEO transition, re-shaped our product portfolio, and refocused the strategic priorities in our operating units. We took decisive steps to reorganize our teams around value streams and new channel management, within the renamed segments "Infrastructure" (formerly Mueller Co.) and "Technologies" (formerly Mueller Technologies).

These steps are part of our broader strategy to make Mueller Water Products one company, with all of our brands operating together, providing a uniquely integrated offering to the market.

Fiscal 2017 Highlights

During 2017, we made important advances in our portfolio design, market position, and product development. These included:

- Divesting Anvil to sharpen our focus on water.
- Acquiring and integrating Singer Valve, which allowed us to enter the automatic pressure valve market.
- Implementing a new sales strategy that better aligns with key channel partners and distributors while also ensuring direct account ownership with our most important municipal customers.
- Introducing new products around fixed leak detection and migratable AMI.

We also maintained focus on delivering significant financial results vital to moving the business forward including:

- Reducing net debt leverage to below 1.0x.
- Increasing our quarterly dividend by 33 percent.
- Lowering our interest expense through debt repricing.
- Repurchasing $55 million of our common shares.

Our company delivered a solid operating performance in 2017 and made progress toward our goals. Our adjusted EBITDA was $163.8 million, or 19.8 percent of net sales, a margin improvement of 30 basis points as compared with the prior year. We also increased net sales, up 3.2 percent over the prior year, to $826.0 million.

We improved income from continuing operations to $54.3 million as compared with $45.1 million in the prior year. We delivered adjusted income from continuing operations per diluted share of $0.44, an 18.9 percent increase as compared with $0.37 in the prior year.

Future Growth

Looking toward the future, we anticipate continued growth in our primary end markets, including residential construction and municipal infrastructure.

As fiscal 2018 begins, we are encouraged by the market opportunities that lie ahead. Our strong brands and portfolio of products and services continue to have leading positions in their respective markets. However, there is still meaningful opportunity to further grow our business.

We will focus on expanding our horizons both geographically and from a product-specific perspective. New markets await the technological advances we are making in leak detection and smart metering. With that demand, we will seek to forge more partnerships with channel partners, providing coverage in new markets, all while reducing waste in the supply chain.

Additionally, accelerating our speed to market will be an important part of our strategic focus. On the product development side, we must introduce new products at a faster pace. To accomplish this, we are committed to freeing up capital to invest in engineering by driving efficiencies through cost-saving measures.

Finally, with channel sales playing an integral role in market scalability, we have implemented a strategy focused on tighter alignment with our key partners and direct account ownership of our large utility customers. Over the next year, we will seek to reinvigorate our M&A pipeline to add viable options to our capital deployment opportunities.

Innovating and Investing for the Future

In 2017, we invested $40 million in equipment upgrades and in our manufacturing capabilities and facilities to improve our long-term competitiveness. In 2018, we will continue this focus on the future with investments in our American foundries for productivity, safety, and environmental sustainability.

In today's competitive landscape, successful companies are building technologies, products and platforms to support smart and connected cities of the future. The future of those cities and their infrastructures are reliant on technologies that are being invented or developed by agile companies like Mueller Water Products. To remain competitive, we must continue to build a foundation based on engineering and innovation. To win, we need to develop new products and solutions that deliver exceptional value to our customers and support the visions of smart, modern cities.

Leading the Way Forward

When it comes to our ability to move forward as a leader in our industry, our employees have been, and continue to be, our greatest asset. I offer sincere thanks to them for their contributions. Their passion and commitment are the drivers that fuel our success as a company.

The growing populations of the future will require an investment of $1.7 trillion through 2050 in order to restore and expand existing water systems.* Mueller Water Products' strategic imperatives are focused on product development and engineering. Innovation around our proprietary smart technology products and services are bringing capabilities that help utilities actively diagnose, monitor, and control the delivery of clean drinking water.

"Where Intelligence Meets Infrastructure®" is more than a tagline. Mueller Water Products is the only company capable of leveraging its large installed base of fire hydrants and other products with new technology offerings that can enable smart cities of the future.

* American Water Works Association, Buried No Longer: Confronting America's Water Infrastructure Challenge 2012.

As we continue to bridge the gap between intelligence and infrastructure, our customers are at the center of “why” we do what we do. They are the front lines, supplying the most important resources to populations. At Mueller Water Products, we are committed to delivering sustainable and efficient solutions in support of our customers and the work they do.

I am proud of our Mueller Water Products team and the work we have done thus far. As I look to the future, we are well positioned to grow and play an integral role in building the future of our industry.

Sincerely,

J. Scott Hall
President and
Chief Executive Officer

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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 September 30, 2017

OR

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

Commission file number: 001-32892

MUELLER WATER PRODUCTS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**20-3547095**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

1200 Abernathy Road N.E.
Suite 1200
Atlanta, GA 30328
(Address of Principal Executive Offices)
Registrant's telephone number: **(770) 206-4200**
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $0.01	**New York Stock Exchange**

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 Section 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 and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulations S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files.) ☒ Yes ☐ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.505 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one): ☒ Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company

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

There were 158,061,628 shares of common stock of the registrant outstanding at November 17, 2017. At March 31, 2017, the aggregate market value of the voting and non-voting common stock held by non-affiliates (assuming only for purposes of this computation that directors and executive officers may be affiliates) was $1,856.5 million based on the closing price per share as reported on the New York Stock Exchange.

DOCUMENTS INCORPORATED BY REFERENCE

Applicable portions of the Proxy Statement for the upcoming 2018 Annual Meeting of Stockholders of the Company are incorporated by reference into Part III of this Form 10-K.

Introductory Note

In this Annual Report on Form 10-K ("annual report"), (1) the "Company," "we," "us" or "our" refer to Mueller Water Products, Inc. and its subsidiaries (2) "Infrastructure" refers to our Infrastructure segment (previously reported as "Mueller Co."); (3)"Technologies" refers to our Technologies segment (previously reported as "Mueller Technologies"); (4) "Anvil" refers to our former Anvil segment, which we sold on January 6, 2017; and (5) "U.S. Pipe" refers to our former U.S. Pipe segment, which we sold on April 1, 2012. With regard to the Company's segments, "we," "us" or "our" may also refer to the segment being discussed.

Certain of the titles and logos of our products referenced in this annual report are part of our intellectual property. Each trade name, trademark or service mark of any other company appearing in this annual report is the property of its owner.

Unless the context indicates otherwise, whenever we refer in this annual report to a particular year, we mean our fiscal year ended or ending September 30 in that particular calendar year. We manage our business and report operations through two business segments, Infrastructure and Technologies, based largely on the products they sell and the customers they serve.

Industry and Market Data

In this annual report, we rely on and refer to information and statistics from third-party sources regarding economic conditions and trends, the demand for our water infrastructure, flow control and other products and services and the competitive conditions we face in serving our customers and end users. We believe these sources of information and statistics are reasonably accurate, but we have not independently verified them.

Most of our primary competitors are not publicly traded companies. Only limited current public information is available with respect to the size of our end markets and our relative competitive position. Our statements in this annual report about our end markets and competitive positions are based on our beliefs, studies and judgments concerning industry trends.

Forward-Looking Statements

This annual report contains certain statements that may be deemed "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements that address activities, events or developments that we intend, expect, plan, project, design, believe or anticipate will or may occur in the future are forward-looking statements. Examples of forward-looking statements include, but are not limited to, statements we make regarding our business strategy, capital allocation plans and expectations for net sales and operating income margins, and the outlook for general economic conditions, spending by municipalities and the residential and non-residential construction markets and the impacts of these factors on our business and our expected financial performance. Forward-looking statements are based on certain assumptions and assessments made by us in light of our experience and perception of historical trends, current conditions and expected future developments. Actual results and the timing of events may differ materially from those contemplated by the forward-looking statements due to a number of factors, including regional, national or global political, economic, business, competitive, market and regulatory conditions and the other factors described under the section entitled "RISK FACTORS" in Item 1A of Part I of this annual report.

Undue reliance should not be placed on any forward-looking statements. We do not have any intention or obligation to update forward-looking statements, except as required by law.

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* All or a portion of the referenced section is incorporated by reference from our definitive proxy statement that will be issued in connection with the upcoming 2018 Annual Meeting of Stockholders.

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PART I

Item 1. BUSINESS

Our Company

Mueller Water Products, Inc. is a Delaware corporation that was incorporated on September 22, 2005 under the name Mueller Holding Company, Inc. On June 1, 2006, we completed an initial public offering of 28,750,000 shares of our common stock, and on December 14, 2006, Walter Industries, Inc., our parent company at that time, distributed to its shareholders 85,844,920 shares of our common stock to complete a spin-off of the Company.

On September 23, 2009, we completed a public offering of 37,122,000 shares of common stock.

On April 1, 2012, we sold U.S. Pipe.

On January 6, 2017, we sold Anvil. Anvil's results of operations and the gain from its sale have been classified as discontinued operations, and its assets and liabilities have been classified as held for sale, for all periods presented.

We are a leading manufacturer and marketer of products and services used in the transmission, distribution and measurement of water in North America. Our products and services are used by municipalities and the residential and non-residential construction industries. Certain of our products have leading positions due to their strong brand recognition and reputation for quality, service and innovation. We believe we have one of the largest installed bases of iron gate valves and fire hydrants in the United States. Our iron gate valve or fire hydrant products are specified for use in the largest 100 metropolitan areas in the United States. Our large installed base, broad product range and well-known brands have led to long-standing relationships with the key distributors and end users of our products. Our consolidated net sales were $826.0 million in 2017.

We operate our business through two segments, Infrastructure, formerly referred to as Mueller Co., and Technologies, formerly referred to as Mueller Technologies. Segment sales, operating results and additional financial data and commentary are provided in the Segment Analysis section in Part II, Item 7. “MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS” and in Note 16. of the Notes to Consolidated Financial Statements in Part II, Item 8. “FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA” of this annual report.

Infrastructure

Infrastructure manufactures valves for water and gas systems, including iron gate, butterfly, tapping, check, knife, plug, automatic control and ball valves, as well as dry-barrel and wet-barrel fire hydrants and a broad line of pipe repair products, such as clamps and couplings used to repair leaks. Infrastructure’s net sales were $739.9 million in 2017. Sales of Infrastructure products are driven principally by spending on water and wastewater infrastructure upgrade, repair and replacement, and by construction of new water and wastewater infrastructure, which is typically associated with construction of new residential communities. Infrastructure sells its products primarily through waterworks distributors. We estimate approximately 60% of Infrastructure’s 2017 net sales were for infrastructure upgrade, repair and replacement.

Technologies

Technologies offers residential and commercial water metering, water leak detection and pipe condition assessment products, systems and services. Technologies’ net sales were $86.1 million in 2017. Technologies is comprised of the Mueller Systems and Echologics businesses. Mueller Systems sells water metering systems, products and services directly to municipalities and to waterworks distributors. Echologics sells water leak detection and pipe condition assessment products and services primarily to municipalities.

Business Strategy

Our business strategy is to capitalize on the large, attractive and growing water infrastructure markets worldwide. Key elements of this strategy are as follows:

Realign our management and business processes to act as one company focused on the needs of our customers.

By centralizing common functions, integrating our information technology, and focusing management's attention on our customers and their needs, we expect to reduce operating costs, improve our responsiveness, and increase our net sales.

Accelerate development of new products.

We plan to make increasing investments in our product development capabilities, including expanding our engineering staff, to develop and market new products and services. We expect to add new products to our portfolio and offer new products into different end markets. We expect this expansion to come through internal investments as well as acquisitions.

Drive manufacturing productivity improvements.

By effectively deploying additional capital and driving efficiencies in our manufacturing facilities, we believe we can continue to drive down the cost of manufacturing our products. We plan to use a portion of the cost savings realized from improved productivity for continued investment in product development.

Implement a go-to-market strategy that leverages the scope of all our products and services

We plan to accelerate sales growth of our existing products by enhancing our relationships with our customers and channel partners and realizing synergies among our product lines with a unified sales and marketing strategy.

Continue to seek to acquire and invest in businesses and technologies that expand our existing portfolio of businesses or that allow us to enter new markets

We will continue to evaluate the acquisition of strategic businesses, technologies and product lines that have the potential to strengthen our competitive positions, enhance or expand our existing product and service offerings, expand our technological capabilities, provide synergistic opportunities or that allow us to enter new markets. As part of this strategy, we may pursue international opportunities, including acquisitions, joint ventures and partnerships, that allow us to expand product or service offerings or to enter new markets.

Description of Products and Services

We offer a broad line of water infrastructure, flow control, metrology and leak detection products and services primarily in the United States and Canada. Infrastructure sells water and gas valves and fire hydrants. Technologies sells water metering products and systems and leak detection and pipe condition assessment products and services. Our products are designed, manufactured and tested in compliance with industry standards, where applicable.

Infrastructure

Infrastructure's water distribution products are manufactured to meet or exceed American Water Works Association ("AWWA") Standards and, where applicable, certified to NSF/ANSI Standard 61 for potable water conveyance. In addition, Underwriters Laboratory ("UL") and FM Approvals ("FM") have approved many of these products. These products are typically specified by a water utility for use in its system.

Water and Gas Valves and Related Products. Infrastructure manufactures valves for water and gas systems, including iron gate, butterfly, tapping, check, knife, plug, automatic control and ball valves, and sells these products under a variety of brand names, including Mueller, U.S. Pipe Valve and Hydrant, and Singer Valve. Water and gas valves and related products, generally made of iron or brass, accounted for $516.9 million, $504.8 million and $495.7 million of our gross sales in 2017, 2016 and 2015, respectively. These valve products are used to control transmission of potable water, non-potable water or gas. Water valve products typically range in size from ¾ inch to 36 inches in diameter. Infrastructure also manufactures significantly larger valves as custom order work through its Henry Pratt business unit. Most of these valves are used in water transmission or distribution, water treatment facilities or industrial applications.

Infrastructure also produces small valves, meter bars and line stopper fittings for use in gas systems, as well as machines and tools for tapping, drilling, extracting, installing and stopping-off, which are designed to work with its water and gas fittings and valves as an integrated system.

Fire Hydrants. Infrastructure manufactures dry-barrel and wet-barrel fire hydrants. Sales of fire hydrants and fire hydrant parts accounted for $186.5 million, $184.9 million and $177.4 million of our gross sales in 2017, 2016 and 2015, respectively. Infrastructure sells fire hydrants for new water infrastructure development, fire protection systems and water infrastructure repair and replacement projects.

These fire hydrants consist of an upper barrel and nozzle section and a lower barrel and valve section that connects to a water main. In dry-barrel hydrants, the valve connecting the barrel of the hydrant to the water main is located below ground at or below the frost line, which keeps the upper barrel dry. Infrastructure sells dry-barrel fire hydrants under the Mueller and U.S. Pipe Valve and Hydrant brand names in the United States and the Canada Valve brand name in Canada. Infrastructure also makes wet-barrel hydrants, where the valves are located in the hydrant nozzles and the barrel contains water at all times. Wet-barrel hydrants are made for warm weather climates, such as in California and Hawaii, and are sold under the Jones brand name.

Most municipalities have approved a limited number of fire hydrant brands for installation within their systems due to their desire to use the same tools and operating instructions across their systems and to minimize inventories of spare parts. We believe Infrastructure's large installed base of fire hydrants throughout the United States and Canada, reputation for superior quality and performance and incumbent specification positions have contributed to the leading market positions of its fire hydrants. This large installed base also leads to recurring sales of replacement hydrants and hydrant parts.

Other Products and Services. Infrastructure also sells pipe repair products, such as clamps and couplings used to repair leaks, under the Mueller and Jones brand names.

Technologies

Technologies is comprised of companies that provide innovative solutions, products and services that actively diagnose and monitor the delivery of water.

Water Metering Products and Systems. Mueller Systems manufactures and sources a variety of water technology products under the Mueller Systems and Hersey brand names that are designed to help water providers accurately measure and control water usage. Mueller Systems offers a complete line of residential, fire line and commercial metering solutions. Residential and commercial water meters 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 gives a visual meter reading display. Meters equipped with radio transmitters (endpoints) use encoder registers to convert the measurement data from the meter (mechanical or static) into an encrypted digital format which is then transmitted via radio frequency to a receiver that collects and formats the data appropriately for water utility billing systems. These remotely read, or mobile, systems are either automatic meter reading ("AMR") systems, where equipment for meter reading purposes, including a radio receiver, computer and reading software, collects the data from utilities' meters; or fixed network advanced metering infrastructure ("AMI") systems, where data is gathered utilizing a network of permanent data collectors or gateway receivers that are always active or listening for the radio transmission from the utilities' meters. AMI systems eliminate the need for utility personnel to travel through service territories to collect meter reading data. These systems provide the utilities with more frequent and diverse data at specified intervals from the utilities' meters. Mueller Systems sells both AMR and AMI systems and related products. Mueller Systems' remote disconnect water meter enables the water flow to be stopped and started remotely via handheld devices or from a central operating facility.

Sales of water metering products and systems accounted for 83%, 83% and 88% of Technologies' net sales in 2017, 2016 and 2015, respectively.

Water Leak Detection and Pipe Condition Assessment Products and Services. Echologics develops technologies and offers products and services under the Echologics brand name that can non-invasively (without disrupting service or introducing a foreign object into the water system) detect underground leaks and assess the condition of water mains comprised of a variety of materials. Echologics leverages its proprietary acoustic technology to offer leak detection and condition assessment surveys. Echologics also offers fixed leak detection systems that allow customers to continuously monitor and detect leaks on water distribution and transmission mains. We believe Echologics' ability to offer accurate leak detection and pipe condition assessment services non-invasively is a key competitive advantage.

Manufacturing

See "Item 2. PROPERTIES" for a description of our principal manufacturing facilities.

We will continue to expand the use of Lean manufacturing and Six Sigma business improvement methodologies where appropriate to safely capture higher levels of quality, service and operational efficiency in our manufacturing facilities in both segments.

Infrastructure

Infrastructure operates twelve manufacturing facilities located in the United States, Canada and China. These manufacturing operations include foundry, machining, fabrication, assembly, testing and painting operations. Not all facilities perform each of these operations. Infrastructure's existing manufacturing capacity is sufficient for anticipated near-term requirements and Infrastructure has no current plans to expand capacity.

Infrastructure foundries use lost foam and green sand casting techniques. Infrastructure uses the lost foam technique for fire hydrant production in its Albertville, Alabama facility and for iron gate valve production in its Chattanooga, Tennessee facility. The lost foam technique has several advantages over the green sand technique for high-volume products, including a reduction in the number of manual finishing operations, lower scrap levels and the ability to reuse some of the materials.

Technologies

Mueller Systems operates one manufacturing facility in the United States and contracts with a manufacturing facility in Mexico. Mueller Systems designs, manufactures and assembles water metering products in Cleveland, North Carolina and designs and supports AMI systems in Middleborough, Massachusetts. Echologics designs leak detection and condition assessment products in Toronto, Ontario.

Purchased Components and Raw Materials

Our products are made using various purchased components and several basic raw materials, including brass ingot, scrap steel, sand and resin. Purchased parts and raw materials represented 39% and 9%, respectively, of cost of sales in 2017.

Patents, Licenses and Trademarks

We have active patents relating to the design of our products and trademarks for our brands and products. We have filed and continue to file, when appropriate, patent applications used in connection with our business and products. Many of the patents for technology underlying the majority of our products have been in the public domain for many years, and we do not believe third-party patents individually or in the aggregate are material to our business. However, we consider the pool of proprietary information, consisting of expertise and trade secrets relating to the design, manufacture and operation of our products to be particularly important and valuable. We generally own the rights to the products that we manufacture and sell, and we are not dependent in any material way upon any license or franchise to operate. See "Item 1A. RISK FACTORS-Any inability to protect our intellectual property or our failure to effectively defend against intellectual property infringement claims could adversely affect our competitive position."

The table below highlights selected brand names by segment.

Infrastructure	Technologies
Canada Valve™	Echologics®
Centurion®	Echoshore®
Hydro Gate®	ePulse®
Hydro-Guard®	Hersey™
Jones®	LeakFinderRT®
Milliken™	LeakFinderST™
Mueller®	LeakListener®
Singer™	LeakTuner®
Pratt®	Mi.Echo®
U.S. Pipe Valve and Hydrant™	Mi.Data®
	Mi.Hydrant™
	Mi.Net®
	Mueller Systems®

Seasonality

See “Item 1A. RISK FACTORS-Seasonal demand for certain of our products and services may adversely affect our financial results.” and “Item 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS-Seasonality.”

Sales, Marketing and Distribution

We sell primarily to distributors. Our distributor relationships are generally non-exclusive, but we attempt to align ourselves with key distributors in the principal markets we serve. We believe “Mueller” is the most recognized brand in the U.S. water infrastructure industry.

Infrastructure

Infrastructure sells its products primarily through waterworks distributors to a wide variety of end user customers, including municipalities, water and wastewater utilities, gas utilities, and fire protection and construction contractors. Sales of our products are heavily influenced by the specifications for the underlying projects. Approximately 8%, 8% and 9% of Infrastructure’s net sales were to Canadian customers in 2017, 2016 and 2015, respectively.

At September 30, 2017, Infrastructure had 88 sales representatives in the field and 91 inside marketing and sales professionals, as well as 129 independent manufacturer’s representatives. In addition to calling on distributors, these representatives call on municipalities, water companies and other end users to ensure the products specified for their projects are our products or comparable to our products.

Infrastructure’s extensive installed base, broad product range and well-known brands have led to many long-standing relationships with the key distributors in the principal markets we serve. Our distribution network covers all of the major locations for our principal products in the United States and Canada. Although we have long-standing relationships with most of our key distributors, we typically do not have long-term contracts with them, including our two largest distributors, which together accounted for approximately 34%, 35% and 34% of Infrastructure’s gross sales in 2017, 2016 and 2015, respectively. The loss of either of these distributors would have a material adverse effect on our business. See “Item 1A. RISK FACTORS-Our business depends on a small group of key customers for a significant portion of our sales.”

Technologies

Mueller Systems sells its water metering systems, products and services directly to municipalities and to waterworks distributors. Echologics sells water leak detection and pipe condition assessment products and services primarily to municipalities or utilities. At September 30, 2017, Technologies had 35 sales representatives in the field. Technologies’ five largest customers accounted for approximately 48%, 49% and 54% of its gross sales in 2017, 2016 and 2015, respectively. See “Item 1A. RISK FACTORS-Our business depends on a small group of key customers for a significant portion of our sales.”

Backlog

We consider backlog to represent orders placed by customers for which goods or services have yet to be delivered. Backlog is a meaningful indicator for the Henry Pratt business unit of Infrastructure and the Mueller Systems business unit of Technologies. Henry Pratt manufactures valves and other parts for large projects that typically require design and build specifications. The delivery lead time for parts used for these projects can be as long as nine months, and we expect approximately 15% of Henry Pratt’s backlog at the end of 2017 will not be shipped until beyond 2018. Mueller Systems manufactures or sources water meter systems that are sometimes ordered in large quantities with delivery dates over several years, and we expect approximately 10% of Mueller Systems’ backlog will not be shipped until beyond 2018. Backlog for Henry Pratt and Mueller Systems is presented below.

	September 30,	
	2017	**2016**
	(in millions)	
Henry Pratt	$ 73.2	$ 67.8
Mueller Systems	23.2	31.4

Sales cycles for metering systems can span several years and it is common for customers to place orders throughout the contract period. Although we believe we have a common understanding with our customer as to the total value of a contract when it is awarded, we do not recognize backlog until customer orders are received.

Competition

The U.S. and Canadian markets for water infrastructure and flow control products are very competitive. See "Item 1A. RISK FACTORS-Strong competition could adversely affect prices and demand for our products and services, which would adversely affect our operating results." There are only a few competitors for most of our product and service offerings. Many of our competitors are well-established companies with products that have strong brand recognition. We consider our installed base, product quality, customer service level, brand recognition, innovation, distribution and technical support to be competitive strengths.

The competitive environment for most of Infrastructure's valve and hydrant products is mature and many end users are slow to transition to brands other than their historically preferred brand. It is difficult to increase market share in this environment. We believe our fire hydrants and valves enjoy strong competitive positions based primarily on the extent of their installed base, product quality, specified position and brand recognition. Our principal competitors for fire hydrants and iron gate valves are McWane, Inc. and American Cast Iron Pipe Company. The primary competitors for our brass products are The Ford Meter Box Company, Inc. and A.Y. McDonald Mfg. Co. Many brass valves are interchangeable among different manufacturers.

The markets for products and services sold by Technologies are very competitive. Mueller Systems sells water metering products and systems in the United States. We believe a substantial portion of this market is in the process of transitioning from manually read meters to automatically read meters, but we also expect this transition to be relatively slow and that many end users will be reluctant to adopt brands other than their historically preferred brand. Although Mueller Systems' market position is relatively small, we believe its automatically read meters and associated technology are well positioned to gain a greater share of these markets. Its principal competitors are Sensus, Neptune Technology Group, Inc., Badger Meter, Inc., Aclara LLC and Itron, Inc. Echologics sells water leak detection and pipe condition assessment products and services in North America, the United Kingdom and select countries in Europe, Asia and the Middle East, with its primary markets being the United States and Canada. The worldwide market for leak detection and pipe condition assessment is highly fragmented with numerous competitors. Its more significant competitors are Pure Technologies Ltd., Gutermann AG and Syrinix Ltd.

Research and Development

Our primary research and development ("R&D") facilities are located in Chattanooga, Tennessee for Infrastructure and in Middleborough, Massachusetts and Toronto, Ontario for Technologies. The primary focus of these operations is to develop new products, improve and refine existing products and obtain and assure compliance with industry approval certifications or standards (such as AWWA, UL, FM, NSF and The Public Health and Safety Company). At September 30, 2017, we employed 85 people dedicated to R&D activities. R&D expenses were $12.1 million, $9.9 million and $12.1 million during 2017, 2016 and 2015, respectively.

Regulatory and Environmental Matters

Our operations are subject to numerous federal, state and local laws and regulations, both within and outside the United States, in areas such as: competition, government contracts, international trade, labor and employment, tax, licensing, consumer protection, environmental protection, workplace health and safety, and others. These and other laws and regulations impact the manner in which we conduct our business, and changes in legislation or government policies can affect our operations, both favorably and unfavorably. For example, the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and similar state laws affect our operations by, among other things, imposing investigation and cleanup requirements for threatened or actual releases of hazardous substances. Under CERCLA, joint and several liability may be imposed on operators, generators, site owners, lessees and others regardless of fault or the legality of the original activity that caused or resulted in the release of the hazardous substances. Thus, we may be subject to liability under CERCLA and similar state laws for properties that (1) we currently own, lease or operate, (2) we, our predecessors, or former subsidiaries previously owned, leased or operated, (3) sites to which we, our predecessors or former subsidiaries sent waste materials, and (4) sites at which hazardous substances from our facilities' operations have otherwise come to be located. The purchaser of U.S. Pipe has been identified as a "potentially responsible party" ("PRP") under CERCLA in connection with a former manufacturing facility operated by U.S. Pipe that was in the vicinity of a Superfund site located in North Birmingham, Alabama. Under the terms of the acquisition agreement relating to our sale of U.S. Pipe, we agreed to indemnify the purchaser for certain environmental liabilities, including those arising out of the former manufacturing site in North Birmingham. Accordingly, the purchaser tendered the matter to us for indemnification, which we accepted. Ultimate liability for the site will depend on many factors that have not yet been determined, including the determination of EPA's remediation costs, the number and financial viability of the other PRPs (there are four other PRPs currently) and the determination of the final allocation of the costs among the PRPs. For more information regarding this matter as well as others that may affect our business, including our capital expenditures, earnings and competitive position, see "Item 1A. RISK FACTORS," "Item 3. LEGAL PROCEEDINGS - Environmental," "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Contingencies" and Note 17. of the Notes to Consolidated Financial Statements.

Employees

At September 30, 2017, we employed approximately 2,600 people, of whom 88% work in the United States. At September 30, 2017, 69% of our hourly workforce was represented by collective bargaining agreements.

Our locations with employees covered by such agreements are presented below.

Location	Expiration of current agreement(s)
Aurora, IL	September 2018
Chattanooga, TN	October 2018, October 2019 and January 2020
Decatur, IL	June 2020
Albertville, AL	October 2020

We believe relations with our employees, including those represented by collective bargaining agreements, are good.

Geographic Information

See Note 16. of the Notes to Consolidated Financial Statements.

Securities Exchange Act Reports

We file annual and quarterly reports, proxy statements and other information with the U.S. Securities and Exchange Commission ("SEC"). You may read and print materials that we have filed with the SEC from its website at *www.sec.gov*. Our SEC filings may also be viewed and copied at the SEC public reference room located at 100 F Street, N.E., Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for further information on the public reference room.

In addition, certain of our SEC filings, including our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, our proxy statements and amendments to them can be viewed and printed free of charge from the investor information section of our website at *www.muellerwaterproducts.com*. Copies of our filings, specified exhibits and corporate governance materials are also available free of charge by writing us using the address on the cover of this annual report.

We are not including the information on our website as a part of, or incorporating it by reference into, this annual report.

Our principal executive offices are located at 1200 Abernathy Road N.E., Suite 1200, Atlanta, Georgia 30328, and our main telephone number at that address is (770) 206-4200.

Item 1A. RISK FACTORS

Our end markets are subject to risks relating to general economic cycles and conditions, which affect demand for our products and services and may adversely affect our financial results.

Our primary end markets are repair and replacement of water infrastructure, driven by municipal spending, and new water infrastructure installation driven by new residential construction. Sustained uncertainty about any of these end markets could cause our distributors and end use customers to delay purchasing, or determine not to purchase, our products or services. General economic and other factors, including unemployment levels, energy costs, the state of the credit markets (including municipal bonds, mortgages, home equity loans and consumer credit) and other factors beyond our control, could adversely affect our sales, profitability and cash flows.

A significant portion of our business depends on spending for water and wastewater infrastructure construction activity.

A significant portion of our business depends on local, state and federal spending on water and wastewater infrastructure upgrade, repair and replacement. Funds for water and wastewater infrastructure repair and replacement typically come from local taxes, water fees and water rates. State and local governments and private water entities that do not adequately budget for capital expenditures when setting tax rates, water rates and water fees, as applicable, may be unable to pay for water infrastructure repair and replacement if they do not have access to other funding sources. Governments and private water entities may have limited abilities to increase taxes, water fees or water rates, as applicable. It is not unusual for water and wastewater projects to be delayed and rescheduled for a number of reasons, including changes in project priorities and difficulties in complying with environmental and other governmental regulations. In addition, reductions or delays in federal spending related to water or wastewater infrastructure could adversely affect state or local projects and may adversely affect our financial results.

Some state and local governments have placed or may place significant restrictions on the use of water by their constituents. These types of water use restrictions may lead to reduced water revenues by private water entities, municipalities or other governmental agencies, which could similarly affect funding decisions for water-related projects.

Poor economic conditions may cause states, municipalities or private water entities to receive lower than anticipated revenues, which may lead to reduced or delayed funding for water infrastructure projects. Even if favorable economic conditions exist, water infrastructure owners may choose not to address deferred infrastructure needs due to a variety of political factors or competing spending priorities.

Low levels of spending for water and wastewater infrastructure construction activity could adversely affect our sales, profitability and cash flows.

Residential construction activity is important to our business and adverse conditions or sustained uncertainty regarding this market could adversely affect our financial results.

Because a significant portion of our business depends on new water and wastewater infrastructure spending, which in turn largely depends on residential construction, our financial performance depends significantly on the stability and growth of the residential construction market. This market depends on a variety of factors beyond our control, including household formation, consumer confidence, interest rates and the availability of mortgage financing, as well as the mix between single and multifamily construction and ultimately the extent to which new construction leads to the development of raw land. Adverse conditions or sustained uncertainty regarding the residential construction market could adversely affect our sales, profitability and cash flows.

Our business depends on a small group of key customers for a significant portion of our sales.

Infrastructure sells products primarily to distributors and our success depends on these outside parties operating their businesses profitably and effectively. These distributors' profitability and effectiveness can vary significantly from company to company and from region to region within the same company. Further, our largest distributors generally also carry competing products. We may fail to align our operations with successful distributors in any given market.

Distributors in our industry have experienced consolidation in recent years. If such consolidation continues, our distributors could be acquired by other distributors who have better relationships with our competitors and pricing and profit margin pressure may intensify. Pricing and profit margin pressure or the loss of any one of our key distributors in any market could adversely affect our operating results.

Technologies primarily sells directly to end users. Some of these customers represent a relatively high concentration of net sales. Over time, expected growth in sales is expected to lessen the significance of individual customers. In the short term, net sales could decline if existing significant customers do not continue to purchase our products or services and new customers are not obtained to replace them.

Strong competition could adversely affect prices and demand for our products and services, which would adversely affect our operating results.

The U.S. and Canadian markets for water infrastructure and flow control products are very competitive. While there are only a few competitors for most of our product and service offerings, many of our competitors are well-established companies with strong brand recognition. We compete on the basis of a variety of factors, including the quality, price and innovation of our products, services and service levels. Our ability to retain our customers in the face of competition depends on our ability to market our products and services to our customers and end users effectively.

The U.S. markets for water metering products and systems are highly competitive. Our primary competitors benefit from strong market positions and many end users are slow to transition to new products or new brands. Our ability to gain customers depends on our technological advancements and ability to market our products and services to our customers and end users effectively.

In addition to competition from North American companies, we face the threat of competition from outside of North America. The intensity of competition from these companies is affected by fluctuations in the value of the U.S. dollar against their local currencies, the cost to ship competitive products into North America and the availability of trade remedies, if any. Competition may also increase as a result of U.S. competitors shifting their operations to lower-cost countries or otherwise reducing their costs.

Our competitors may reduce the prices of their products or services, improve their quality, improve their functionality or enhance their marketing or sales activities. Any of these potential developments could adversely affect our prices and demand for our products and services.

The long-term success of our newer products and services, such as smart metering and leak detection and pipe condition assessment in Technologies, depends on market acceptance and our ability to manage the risks associated with the introduction of new products and systems.

Technologies' smart metering and leak detection and pipe condition assessment products and services have much less market history than many of Infrastructure's products. Our investments in smart metering have primarily focused on the market for AMI and have been based on our belief that water utilities will transition over time from traditional manually-read meters to automatically-read meters. The market for AMI is relatively new and continues to evolve, and the U.S. markets for water meter products and systems are highly competitive. Water utilities have traditionally been slow adopters of new technology and may

not adopt AMI as quickly as we expect, due, in part, to the substantial investment related to installation of AMI systems. The strong market positions of our primary competitors may also slow the adoption of our products. Similarly, the adoption of our leak detection and pipe condition assessment products and services depends on the willingness of our customers to invest in new product and service offerings, and the pace of adoption may be slower than we expect. If the market for AMI develops more slowly than we expect or if our new leak detection and pipe condition assessment products and services fail to gain market acceptance, our opportunity to grow these businesses will be limited.

In addition, the success of our new products and systems will depend on our ability to manage the risks associated with their introduction, including the risk that new products and systems may have quality or other defects or deficiencies in their early stages that result in their failure to satisfy performance or reliability requirements. Our success will depend in part on our ability to manage these risks, including costs associated with manufacturing, installation, maintenance and warranties. These challenges can be costly and technologically challenging, and we cannot determine in advance the ultimate effect they may have. For example, during the quarter ended March 30, 2017, we recorded a discrete warranty expense of $9.8 million associated with certain radio products that Technologies produced between 2011 and 2014, as described more fully in Note 17. to the Notes to the Consolidated Financial Statements. Failure to successfully manage these challenges could result in lost revenue, significant warranty and other expenses, and harm to our reputation.

We may not realize the expected benefits from our strategic reorganization plans.

During the quarter ended September 30, 2017, we announced our strategic reorganization plan designed to accelerate our product innovation and revenue growth. In particular, we reconfigured our divisional structure around products, with five business teams that have line and cross-functional responsibility for managing distinct product portfolios. We believe the new organizational structure will be better aligned with business needs and generate greater efficiencies.

Activities under the plan were initiated in the fourth quarter of 2017, and are expected to be completed in 2018. As a result of the restructuring and reorganization, we expect cost reductions of approximately $7 million annually, which includes headcount reduction and lower professional fees and other expenses, and takes into account the hiring and alignment of new administrative talent.

These measures, however, could yield unintended consequences, such as distraction of our management and employees, business disruption, inability to attract or retain key personnel, and reduced employee productivity, which could negatively affect our business, sales, financial condition and results of operations. We expect to incur about $11 million in restructuring charges associated with the reorganization. We cannot guarantee that the activities under the restructuring and reorganization activities will result in the desired efficiencies and estimated cost savings.

Our business strategy includes developing, acquiring and investing in companies and technologies that broaden our product portfolio or complement our existing business, which could be unsuccessful or consume significant resources and adversely affect our operating results.

We will continue to evaluate the development or acquisition of strategic businesses, technologies and product lines with the potential to strengthen our industry position, enhance our existing set of product and service offerings, or enter new markets. We may be unable to identify or successfully complete suitable acquisitions in the future and completed acquisitions may not be successful.

Acquisitions and technology investments may involve significant cash expenditures, debt incurrence, operating losses and expenses that could have a material adverse effect on our business, financial condition, results of operations and cash flows. These types of transactions involve numerous other risks, including:

- Diversion of management time and attention from existing operations;
- Difficulties in integrating acquired businesses, technologies and personnel into our business or into our compliance and control programs;
- Working with partners or other ownership structures with shared decision-making authority (our interests and other ownership interests may be inconsistent);
- Difficulties in obtaining and verifying relevant information regarding a business or technology prior to the consummation of the transaction, including the identification and assessment of liabilities, claims or other circumstances, including those relating to intellectual property claims, that could result in litigation or regulatory exposure;
- Assumptions of liabilities that exceed our assessed amounts;

- Verifying the financial statements and other business information of an acquired business;
- Inability to obtain required regulatory approvals and/or required financing on favorable terms;
- Potential loss of key employees, contractual relationships or customers;
- Increased operating expenses related to the acquired businesses or technologies;
- The failure of new technologies, products or services to gain market acceptance with acceptable profit margins;
- Entering new markets in which we have little or no experience or in which competitors may have stronger market positions;
- Dilution of interests of holders of our common shares through the issuance of equity securities or equity-linked securities; and
- Inability to achieve expected synergies.

Any acquisitions or investments may ultimately harm our business or financial condition, as they may not be successful and may ultimately result in impairment charges.

Inefficient or ineffective allocation of capital could adversely affect our operating results and/or stockholder value.

Our goal is to invest capital to maximize our overall long-term returns. This includes spending on capital projects, such as developing or acquiring strategic businesses, technologies and product lines with the potential to strengthen our industry position, enhancing our existing set of product and service offerings, or entering new markets, as well as periodically returning value to our stockholders through share repurchases and dividends. To a large degree, capital efficiency reflects how well we manage key risks. The actions taken to address specific risks may affect how well we manage the more general risk of capital efficiency. If we do not properly allocate our capital, we may fail to produce optimal financial results and we may experience a reduction in stockholder value, including increased volatility in our stock price.

Our reliance on vendors for certain products, some of which are single-source or limited source suppliers, could harm our business by adversely affecting product availability, reliability or cost.

We maintain several single-source or limited-source supplier relationships with manufacturers, including some outside of the United States. If the supply of a critical single- or limited-source product is delayed or curtailed, we may not be able to ship the related products in desired quantities or in a timely manner. Even where multiple sources of supply are available, qualification of the alternative suppliers and establishment of reliable supplies could result in delays and a possible loss of sales, which could harm our operating results.

These relationships reduce our direct control over production. Our reliance on these vendors subjects us to a greater risk of shortages, and reduced control over delivery schedules of products, as well as a greater risk of increases in product costs. In instances where we stock lower levels of product inventories, a disruption in product availability could harm our financial performance and our ability to satisfy customer needs. In addition, defective products from these manufacturers could reduce product reliability and harm our reputation.

A disruption in our supply chain or other factors impacting the distribution of our products could adversely affect our business.

A disruption within our logistics or supply chain network at any of the freight companies that deliver us components for our manufacturing operations in the United States or ship our fully-assembled products to our customers could adversely affect our business and result in lost sales or harm to our reputation. Our supply chain is dependent on third party ocean-going container ships, rail, barge and trucking systems and, therefore, disruption in these logistics services because of weather-related problems, strikes, bankruptcies or other events could adversely affect our financial performance and financial condition, negatively impacting sales, profitability and cash flows.

Transportation costs are relatively high for most of our products.

Transportation costs can be an important factor in a customer’s purchasing decision. Many of our products are big, bulky and heavy, which tend to increase transportation costs. We also have relatively few manufacturing sites, which tends to increase transportation distances to our customers and costs. High transportation costs could make our products less competitive compared to similar or alternative products offered by competitors.

Normal operations at our key manufacturing facilities may be interrupted.

Some of our key products, including fire hydrants and iron gate valves, are manufactured at single or few manufacturing facilities that depend on critical pieces of heavy equipment that cannot be economically moved to other locations. We are therefore limited in our ability to shift production among locations. The operations at our manufacturing facilities may be interrupted or impaired by various operating risks, including, but not limited to:

- Catastrophic events, such as fires, floods, explosions, natural disasters, severe weather or other similar occurrences;
- Interruptions in the delivery of raw materials or other manufacturing inputs;
- Adverse government regulations;
- Equipment breakdowns or failures;
- Information systems failures;
- Violations of our permit requirements or revocation of permits;
- Releases of pollutants and hazardous substances to air, soil, surface water or ground water;
- Shortages of equipment or spare parts; and
- Labor disputes.

The occurrence of any of these events may impair our production capabilities and adversely affect our sales, profitability and cash flows.

Any inability to protect our intellectual property or our failure to effectively defend against intellectual property infringement claims could adversely affect our competitive position.

Our business depends on our technology and expertise, which were largely developed internally and are not subject to statutory protection. We rely on a combination of patent protection, copyright and trademark laws, trade secrets protection, employee and third-party confidentiality agreements and technical measures to protect our intellectual property rights. The measures that we take to protect our intellectual property rights may not adequately deter infringement, misappropriation or independent development of our technology, and they may not prevent an unauthorized party from obtaining or using information or intellectual property that we regard as proprietary or keep others from using brand names similar to our own. The disclosure, misappropriation or infringement of our intellectual property could harm our competitive position. In addition, our actions to enforce our rights may result in substantial costs and the diversion of management time and other resources. We may also be subject to intellectual property infringement claims from time to time, which may result in additional expenses and diverting resources to respond to these claims. Finally, for those products in our portfolio that rely on patent protection, once a patent has expired the product is more subject to competition. Products under patent protection potentially generate significantly higher revenue and earnings than those not protected by patents. If we fail to successfully enforce our intellectual property rights or register new patents, our competitive position could suffer, which could adversely affect our business, financial condition, results of operations and cash flows.

If we do not successfully maintain our information and technology networks, including the security of those networks, our operations could be disrupted and unanticipated increases in costs and/or decreases in revenues could result.

We rely on various information technology systems, some of which are controlled by outside service providers, to manage key aspects of our operations. The proper functioning of our information technology systems is important to the successful operation of our business. If critical information technology systems fail, or are otherwise unavailable, our ability to manufacture products, process orders, track credit risk, identify business opportunities, maintain proper levels of inventories, collect accounts receivable, pay expenses and otherwise manage our business would be adversely affected.

We depend on the Internet and our information technology infrastructure for electronic communications among our locations around the world and between our personnel and suppliers and customers. Security breaches of this infrastructure can create system disruptions, shutdowns or unauthorized disclosure of confidential information. If we or our service providers are unable to prevent these breaches, our operations could be disrupted or we may suffer financial, reputational or other harm because of lost or misappropriated information.

We may fail to effectively manage confidential data, which could harm our reputation, result in substantial additional costs and subject us to litigation.

As we grow our Technologies businesses, we continue to accumulate increasing volumes of customer data. In addition, we store personal information in connection with our human resources operations. Our efforts to protect this information may be unsuccessful due to employee errors or malfeasance, technical malfunctions, the actions of third parties (such as cyber attack) or other factors. If we are unable to protect personal data, it could be accessed or disclosed improperly, which could expose us to liability, harm our reputation and deter current and potential users from using our products and services. The regulatory environment related to information security, data collection and privacy is increasingly rigorous, with new and constantly changing requirements applicable to our business, and compliance with those requirements could result in additional costs.

We are subject to a variety of claims, investigations and litigation that could adversely affect our results of operations and harm our reputation.

In the normal course of our business, we are subject to claims and lawsuits, including from time to time claims for damages related to product liability and warranties, investigations by governmental agencies, litigation alleging the infringement of intellectual property rights and litigation related to employee matters and commercial disputes. Defending these lawsuits and becoming involved in these investigations may divert our management's attention, and may cause us to incur significant expenses. In addition, we may be required to pay damage awards, penalties or settlements, or become subject to injunctions or other equitable remedies, that could have a material adverse effect on our business, financial condition, results of operations and cash flows. If we were required to participate in a product recall or take other action to address a product liability or other claim, our reputation could be harmed. Moreover, any insurance or indemnification rights that we have may be insufficient or unavailable to protect us against potential loss exposures. See "Item 1. BUSINESS - Regulatory and Environmental Matters," "Item 3. LEGAL PROCEEDINGS - Environmental," "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Contingencies" and Note 17. of the Notes to Consolidated Financial Statements.

We are subject to stringent environmental, health and safety laws and regulations that impose significant compliance costs. Any failure to satisfy these laws and regulations may adversely affect us.

We are subject to stringent laws and regulations relating to the protection of the environment, health and safety and incur significant capital and other expenditures to comply with these requirements. Failure to comply with any environmental, health or safety requirements could result in the assessment of damages, the imposition of penalties, suspension of production, changes to equipment or processes or a cessation of operations at our facilities, any of which could have a material adverse effect on our business. Because these laws are complex, subject to change and may be applied retroactively, we cannot predict with certainty the extent of our future liabilities with respect to environmental, health and safety matters and whether they will be material.

In addition, certain statutes such as CERCLA may impose joint and several liability for the costs of remedial investigations and actions on entities that generated waste, arranged for disposal of waste, transported to or selected the disposal sites and the past and present owners and operators of such sites. All such PRPs (or any one of them, including us) may be required to bear all of such costs regardless of fault, the legality of the original disposal or ownership of the disposal site. As a result, we may be required to conduct investigations and perform remedial activities at current and former operating and manufacturing sites where we have been, or in the future could be, named a PRP with respect to such environmental liabilities, any of which could require us to incur material costs. The final remediation costs of these environmental sites may exceed current estimated costs, and additional sites in the future may require material remediation expenses. If actual expenditures exceed our estimates, our results of operations and financial position could be materially and adversely affected. See "Item 1. BUSINESS - Regulatory and Environmental Matters," "Item 3. LEGAL PROCEEDINGS - Environmental," "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Contingencies" and Note 17. of the Notes to Consolidated Financial Statements.

We may have substantial additional liability for federal income tax allegedly owed by Walter Energy.

We were spun-off from Walter Industries, Inc. on December 14, 2006. Walter Industries, Inc. subsequently changed its name to Walter Energy, Inc. ("Walter Energy"). Under federal tax rules, each member of a consolidated group for federal income tax purposes is jointly and severally liable for the federal income tax liability of each other member of the consolidated group for any year in which it is a member of the group at any time during such year. In other words, each member of Walter Energy's consolidated tax group, which included us (and our subsidiaries) through the date of our spin-off from Walter Energy (i.e., December 14, 2006), is jointly and severally liable for the federal income tax liability of each other member of Walter Energy's consolidated group for any year in which it is a member of the group. Accordingly, we could be liable in the event any such liability is incurred, and not discharged, by any other member of Walter Energy's consolidated group for any period during which we were included in the Walter Energy consolidated group.

A dispute currently exists with regard to federal income taxes for years 1980 to 1994 and 1999 to 2001 allegedly owed by the Walter Energy consolidated group. As described above, because we were a member of Walter Energy's consolidated group during these years, we are jointly and severally liable for any final tax determination with respect to these years, which means that in the event Walter Energy is unable to pay any amounts owed, we would be liable.

Walter Energy filed a petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code in July 2015. In February 2017, the Chapter 11 case was converted to a liquidation proceeding under Chapter 7 of the Code. We continue to monitor these proceedings to determine whether we could be liable for all or a portion of any federal income tax liability resulting from this dispute if it is incurred, and not discharged, for any period during which we were included in the Walter Energy consolidated group. Our liability, if any, relating to the tax-related liabilities of Walter Energy's consolidated tax group for tax years prior to 2007 could have a material adverse effect on our business, financial condition, liquidity or results of operations. See Item 3. Legal Proceedings and Note 17. of the Notes to Consolidated Financial Statements.

We rely on successors to Tyco to indemnify us for certain liabilities and they may become financially unable or fail to comply with the terms of the indemnity.

Under the terms of the acquisition agreement relating to the August 1999 sale by Tyco of our businesses to a previous owner of these businesses, we are indemnified by certain Tyco entities ("Tyco Indemnitors") for all liabilities arising in connection with the operation of these businesses prior to their sale by Tyco, including with respect to products manufactured or sold prior to the closing of that transaction, as well as certain environmental liabilities. These indemnities survive indefinitely and are not subject to any dollar limits. In the past, Tyco Indemnitors have made substantial payments and assumed defense of claims in connection with these indemnification obligations. Tyco's indemnity does not cover liabilities to the extent caused by us or the operation of our businesses after August 1999, nor does it cover liabilities arising with respect to businesses or sites acquired after August 1999. Since 2007, Tyco has engaged in multiple corporate restructurings, split-offs and divestitures. The result of these transactions is that the assets of, and control over, Tyco Indemnitors has changed. Should any Tyco Indemnitor become financially unable or fail to comply with the terms of the indemnity, we may be responsible for such obligations or liabilities.

We depend on qualified personnel and, if we are unable to retain or hire executive officers, key employees and skilled personnel, we may not be able to achieve our strategic objectives and our business may be adversely affected.

Our ability to expand or maintain our business depends on our ability to hire, train and retain employees with the skills necessary to understand and adapt to the continuously developing needs of our customers. The increasing demand for qualified personnel makes it more difficult for us to attract and retain employees with requisite skill sets, particularly employees with specialized technical and trade experience. Changing demographics and labor work force trends also may result in a loss of knowledge and skills as experienced workers retire. If we fail to attract, motivate, train and retain qualified personnel, or if we experience excessive turnover, we may experience declining sales, manufacturing delays or other inefficiencies, increased recruiting, training and relocation costs and other difficulties, and our business, financial condition, results of operations and cash flows could be materially and adversely affected. Competition for qualified personnel is intense, particularly in several regions of the United States where we manufacture products and particularly within Technologies. We may not be successful in attracting or retaining qualified personnel, which could negatively impact our business.

In addition, we have recently made or announced several key changes to our leadership team, including the addition of a new Chief Executive Officer, Chief Financial Officer and Information Officer as well as a number of new general managers for our business units. If we fail to effectively implement these management and personnel changes, we may be unable to achieve our strategic objectives and operating efficiencies. Furthermore, the loss of any of our key personnel could jeopardize our relationships with customers and may adversely affect our business, financial condition, results of operations and cash flows.

Our expenditures for pension obligations could be materially higher than we have predicted.

We provide pension benefits to certain current and former employees. To determine our future payment obligations under the plans, certain rates of return on the plans' assets, growth rates of certain costs and participant longevity have been estimated. The proportion of the assets held by our U.S. pension plan invested in fixed income securities, instead of equity securities, has increased over historical levels. This shift in asset allocation has resulted in a decrease in the estimated rate of return on plan assets for this plan. Assumed discount rates, expected return on plan assets and participant longevity have significant effects on the amounts reported for the pension obligations and pension expense.

The funded status of our pension plans can also be influenced by regulatory requirements, which can change unexpectedly and impose higher costs if funding levels are below certain thresholds. We may increase contributions to our pension plans to avoid or reduce these higher costs.

Significant adverse changes in credit and capital markets or changes in investments could result in discount rates or actual rates of return on plan assets being materially lower than projected and require us to increase pension contributions in future years to meet funding level requirements. Increasing life spans for plan participants may increase the estimated benefit payments and increase the amounts reported for pension obligations, pension contributions and pension expense. If increased funding requirements are particularly significant and sustained, our overall liquidity could be materially reduced, which could cause us, among other things, to reduce investments and capital expenditures, or restructure or refinance our debt.

Any failure to satisfy international trade laws and regulations or to otherwise comply with changes or other trade developments may adversely affect us.

Our operations require importing and exporting goods and technology among countries on a regular basis. Thus, the sale and shipment of our products and services across international borders, as well as the purchase of components and products from international sources, subject us to extensive trade laws and regulations. Trade laws and regulations are complex, differ by country, and are enforced by a variety of government agencies. Because we are subject to extensive trade laws and regulations in the countries in which we operate, we are subject to the risk that laws and regulations could change in a way that would expose us to additional costs, penalties or liabilities, and our policies and procedures may not always protect us from actions that would violate international trade laws and regulations. For example, certain federal legislation requires the use of American iron and steel products in certain water projects receiving certain federal appropriations. We have incurred costs in connection with ensuring our ability to certify to these requirements, including those associated with enhancing our assembly operations and sourcing practices. As a result of the varying legal and regulatory requirements to which our cross-border activities are subject, we may not always be in compliance with the trade laws and regulations in all respects. Any improper actions could subject us to civil or criminal penalties, including material monetary fines, or other adverse actions, including denial of import or export privileges, and could harm our reputation and our business prospects.

Our high fixed costs may make it more difficult for us to respond to economic cycles.

A significant portion of our cost structure is fixed, including manufacturing overhead, capital equipment and research and development costs. In a prolonged economic downturn, these fixed costs may cause our gross margins to erode and earnings to decline.

The prices of our purchased components and raw materials can be volatile.

Our operations require substantial amounts of purchased components and raw materials, such as scrap steel, sand, resin, brass ingot and steel pipe. We generally purchase components and raw materials at current market prices. The cost and availability of these materials are subject to economic forces largely beyond our control, including North American and international demand, foreign currency exchange rates, freight costs and commodity speculation.

We may not be able to pass on the entire cost of price increases for purchased components and raw materials to our customers or offset fully the effects of these higher costs through productivity improvements. In particular, when purchased component or raw material prices increase rapidly or to significantly higher than normal levels, we may not be able to pass cost increases through to our customers on a timely basis, if at all, which would reduce our profitability and cash flows. In addition, if purchased components or raw materials were not available or not available on commercially reasonable terms, our sales, profitability and cash flows would be reduced. Our competitors may secure more reliable sources of purchased components and raw materials or they may obtain these supplies on more favorable terms than we do, which could give them a cost advantage.

Potential international business opportunities may expose us to additional risks.

A part of our growth strategy depends on us expanding internationally. Although net sales outside of the United States and Canada account for a small percentage of our total net sales, we expect to increase our level of business activity outside of the United States and Canada. Some countries that present good business opportunities also face political and economic instability and vulnerability to infrastructure and other disruptions. Seeking to expand our business internationally exposes us to additional risks, which include political and economic uncertainties, currency fluctuations, changes in local business conditions and national and international conflicts. A primary risk we face in connection with our export shipments relates to our ability to collect amounts due from customers. We also face the potential risks arising from staffing, monitoring and managing international operations, including the risk such activities may divert our resources and management time.

In addition, compliance with the laws and regulations of multiple international jurisdictions increases our cost of doing business. International operations are subject to anti-corruption laws and anti-competition regulations, among others. For example, the U.S. Foreign Corrupt Practices Act and similar non-U.S. anti-corruption laws generally prohibit companies and their intermediaries from making improper payments or providing anything of value to improperly influence foreign government officials and certain others for the purpose of obtaining or retaining business, or obtaining an unfair advantage. Violations of these laws and regulations could result in criminal and civil sanctions, disrupt our business and adversely affect our brands, international expansion efforts, business and operating results.

Seasonal demand for certain of our products and services may adversely affect our financial results.

Sales of some of our products, including iron gate valves and fire hydrants, are seasonal, with lower sales in our first and second fiscal quarters when weather conditions throughout most of North America tend to be cold resulting in lower levels of construction activity. This seasonality in demand has resulted in fluctuations in our sales and operating results. To satisfy demand during expected peak periods, we may incur costs associated with building inventory in off-peak periods, and our projections as to future needs may not be accurate. Because many of our expenses are fixed, seasonal trends can cause reductions in our profitability and profit margins and deterioration of our financial condition during periods affected by lower production or sales activity.

We may be affected by new governmental legislation and regulations relating to carbon dioxide emissions.

Many of our manufacturing plants use significant amounts of electricity generated by burning fossil fuels, which releases carbon dioxide. Federal and state courts and administrative agencies are considering the scope and scale of carbon dioxide emission regulation under various laws pertaining to the environment, energy use and development and greenhouse gas emissions. In addition, several states are considering various carbon dioxide registration and reduction programs. The final details and scope of these various legislative, regulatory and policy measures are unclear and their potential impact is still uncertain, so we cannot fully predict the impact on our business.

The potential impacts of climate change on our operations are highly uncertain. The EPA has found that global climate change could increase the severity and possibly the frequency of severe weather patterns. Although the financial impact of these potential changes is not reasonably estimable at this time, our operations in certain locations and those of our customers and suppliers could potentially be adversely affected, which could adversely affect our sales, profitability and cash flows.

Item 2. PROPERTIES

Our principal properties are listed below.

Location	Activity	Size (sq. ft.)	Owned or leased
Infrastructure:			
Albertville, AL	Manufacturing	422,000	Owned
Aurora, IL	Manufacturing	147,000	Owned
Aurora, IL	Distribution	84,000	Leased
Barrie, Ontario	Distribution	50,000	Leased
Brownsville, TX	Manufacturing	50,000	Leased
Calgary, Alberta	Distribution	11,000	Leased
Charlotte, NC	Manufacturing	7,000	Leased
Chattanooga, TN	Manufacturing	525,000	Owned
Chattanooga, TN	General and administration	17,000	Leased
Chattanooga, TN	Research and development	22,000	Leased
Cleveland, TN	Manufacturing	109,500	Owned
Decatur, IL	Manufacturing	467,000	Owned
Hammond, IN	Manufacturing	51,000	Owned
Jingmen, China	Manufacturing	154,000	Owned
Ontario, CA	Distribution	73,000	Leased
Surrey, British Columbia	Manufacturing	33,000	Leased
Tai Cang, China	Manufacturing	19,000	Leased
Woodland, WA	Manufacturing	20,000	Leased
Technologies:			
Cleveland, NC	Manufacturing	190,000	Owned
Toronto, Ontario	Research and development	10,000	Leased
Corporate:			
Atlanta, GA	Corporate headquarters	25,000	Leased

We consider our facilities to be well maintained and believe we have sufficient capacity to meet our anticipated needs through 2018. Our leased properties have terms expiring at various dates through January 2024.

Item 3. LEGAL PROCEEDINGS

We are involved in various legal proceedings that have arisen in the normal course of operations, including the proceedings summarized below.

The effect of the outcome of these matters on our future results of operations cannot be predicted with certainty, as any such effect depends on the amount and timing of the resolution of such matters. Other than the litigation described below, we do not believe any of our outstanding litigation would have a material adverse effect on our business or prospects.

Environmental. We are subject to a wide variety of laws and regulations concerning the protection of the environment, both with respect to the operations at many of our properties and with respect to remediating environmental conditions that may exist at our own or other properties. We accrue for environmental expenses resulting from existing conditions that relate to past operations when the costs are probable and reasonably estimable. These expenses were $2.6 million, $3.9 million and $3.5 million in 2017, 2016 and 2015, respectively. We capitalize environmental expenditures that increase the life or efficiency of long-term assets or that reduce or prevent environmental contamination. Capital expenditures for environmental requirements are anticipated to be approximately $1.8 million during 2018. Capitalized environmental-related expenditures were $0.3 million, $0.2 million and $0.6 million in 2017, 2016 and 2015, respectively.

In the acquisition agreement pursuant to which a predecessor to Tyco sold our businesses to a previous owner in August 1999, Tyco agreed to indemnify us and our affiliates, among other things, for all "Excluded Liabilities." Excluded Liabilities include, among other things, substantially all liabilities related to the time prior to August 1999, including environmental liabilities. The indemnity survives indefinitely. Tyco's indemnity does not cover liabilities to the extent caused by us or the operation of our businesses after August 1999, nor does it cover liabilities arising with respect to businesses or sites acquired after August 1999. Since 2007, Tyco has engaged in multiple corporate restructurings, split-offs and divestitures. While none of these transactions directly affects the indemnification obligations of the Tyco Indemnitors under the 1999 acquisition agreement, the result of such transactions is that the assets of, and control over, such Tyco Indemnitors has changed. Should any of these Tyco Indemnitors become financially unable or fail to comply with the terms of the indemnity, we may be responsible for such obligations or liabilities.

In September 1987, we implemented an Administrative Consent Order ("ACO") for our Burlington, New Jersey property, which was required under the New Jersey Environmental Cleanup Responsibility Act (now known as the Industrial Site Recovery Act). The ACO required soil and ground-water cleanup, and we completed, and received final approval on, the soil cleanup required by the ACO. We retained this property when we sold our former U.S. Pipe segment. We expect ground-water issues as well as issues associated with the demolition of former manufacturing facilities at this site will continue and remediation by us could be required. Long-term ground-water monitoring may also be required, but we do not know how long such monitoring would be required and do not believe monitoring or further remediation costs, if any, will have a material adverse effect on any of our financial statements.

On July 13, 2010, Rohcan Investments Limited, the former owner of property leased by Mueller Canada Ltd. and located in Milton, Ontario, filed suit against Mueller Canada Ltd. and its directors seeking C$10 million in damages arising from the defendants' alleged environmental contamination of the property and breach of lease. Mueller Canada Ltd. leased the property from 1988 through 2008. We are pursuing indemnification from a former owner for certain potential liabilities that are alleged in this lawsuit, and we have accrued for other liabilities not covered by indemnification. On December 7, 2011, the Court denied the plaintiff's motion for summary judgment.

The purchaser of U.S. Pipe has been identified as a "potentially responsible party" ("PRP") under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA" which is sometimes referred to as "Superfund") in connection with a former manufacturing facility operated by U.S. Pipe that was in the vicinity of a proposed Superfund site located in North Birmingham, Alabama. Under the terms of the acquisition agreement relating to our sale of U.S. Pipe, we agreed to indemnify the purchaser for certain environmental liabilities, including those arising out of the former manufacturing site in North Birmingham. Accordingly, the purchaser tendered the matter to us for indemnification, which we accepted. Ultimate liability for the site will depend on many factors that have not yet been determined, including the determination of whether the site will be added to the National Priorities List and designated as a "Superfund site," EPA's remediation costs, the number and financial viability of the other PRPs (there are four other PRPs currently) and the determination of the final allocation of the costs, if any, among the PRPs, if any. Accordingly, because the amount of such costs cannot be reasonably estimated at this time, no amounts had been accrued for this matter at September 30, 2017.

See "Item 1. BUSINESS - Regulatory and Environmental Matters," "Item 1A. RISK FACTORS - We are subject to increasingly stringent environmental, health and safety laws and regulations that impose significant compliance costs. Any failure to satisfy these laws and regulations may adversely affect us," "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Contingencies" and Note 17. of the Notes to Consolidated Financial Statements.

Walter Energy. Each member of the Walter Energy consolidated group, which included us (including our subsidiaries) through December 14, 2006, is jointly and severally liable for the federal income tax liability of each other member of the consolidated group for any year in which it is a member of the group at any time during such year. Accordingly, we could be liable in the event any such federal income tax liability is incurred, and not discharged, by any other member of the Walter Energy consolidated group for any period during which we were included in the Walter Energy consolidated group.

Walter Energy effectively controlled all of our tax decisions for periods during which we were a member of the Walter Energy consolidated group for federal income tax purposes and certain combined, consolidated or unitary state and local income tax groups. Under the terms of an income tax allocation agreement between us and Walter Energy, dated May 26, 2006, we generally computed our tax liability on a stand-alone basis, but Walter Energy has sole authority to respond to and conduct all tax proceedings (including tax audits) relating to our federal income and combined state tax returns, to file all such tax returns on our behalf and to determine the amount of our liability to (or entitlement to payment from) Walter Energy for such previous periods.

According to Walter Energy's quarterly report on Form 10-Q filed with the SEC on November 5, 2015 ("Walter November 2015 Filing"), a dispute exists with the IRS with regard to federal income taxes for years 1980 to 1994 and 1999 to 2001 allegedly owed by the Walter Energy consolidated group, which included U.S. Pipe during these periods. As a matter of law, we are jointly and severally liable for any final tax determination, which means we would be liable in the event Walter Energy is unable to pay any amounts owed. According to the Walter November 2015 Filing, at September 30, 2015, Walter Energy had $33.0 million of accruals for unrecognized tax benefits on the matters subject to disposition. In the Walter November 2015 Filing, Walter Energy stated it believed it had sufficient accruals to address any claims, including interest and penalties, and did not believe that any potential difference between any final settlements and amounts accrued would have a material effect on Walter Energy's financial position, but such potential difference could be material to its results of operations in a future reporting period.

In July 2015, Walter Energy filed a petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code before the Bankruptcy Court for the Northern District of Alabama ("Chapter 11 Case"). During the pendency of the Chapter 11 Case, we monitored the proceeding to determine whether we could be liable for all or a portion of this federal income tax liability if it is incurred, and not discharged, for any period during which we were included in the Walter Energy consolidated group. On January 11, 2016, the IRS filed a proof of claim ("Proof of Claim") in the Chapter 11 Case, alleging that Walter Energy owes amounts for prior taxable periods (specifically, 1983-1994, 2000-2002 and 2005) in an aggregate amount of $554.3 million ($229.1 million of which the IRS claims is entitled to priority status in the Chapter 11 Case). The IRS asserts that its claim is based on an alleged settlement of Walter Energy's tax liability for the 1983-1995 taxable periods in connection with Walter Energy's prior bankruptcy proceeding in the United States Bankruptcy Court for the Middle District of Florida. In the Proof of Claim, the IRS included an alternative calculation in the event the alleged settlement of the prior bankruptcy court is found to be non-binding, which provides for a claim by the IRS in an aggregate amount of $860.4 million ($535.3 million of which the IRS claims is entitled to priority status in the Chapter 11 Case).

According to a current report on Form 8-K filed by Walter Energy with the SEC on April 1, 2016 ("Walter April 2016 Filing"), on March 31, 2016, Walter Energy closed on the sale of substantially all of Walter Energy's Alabama assets pursuant to the provisions of Sections 105, 363 and 365 of the U.S. Bankruptcy Code. The Walter April 2016 Filing further stated that Walter Energy would have no further material business operations after April 1, 2016 and Walter Energy was evaluating its options with respect to the wind-down of its remaining assets. The asset sale did not impact the Proof of Claim, and the Proof of Claim, as well as the alleged tax liability thereunder, remain unresolved.

On February 2, 2017, at the request of Walter Energy, the Bankruptcy Court for the Northern District of Alabama signed an order converting the Chapter 11 Case to a liquidation proceeding under Chapter 7 of the U.S. Bankruptcy Code, pursuant to which Walter Energy will be wound-down and liquidated ("Chapter 7 Case"). In its objection contesting such conversion, the IRS indicated its intent to pursue collection of amounts included in the Proof of Claim from former members of the Walter Energy consolidated group.

We cannot predict whether or to what extent we may become liable for the tax-related amounts of the Walter Energy consolidated group asserted in the Proof of Claim, in part, because: (i) the amounts owed by the Walter Energy consolidated group for certain of the taxable periods from 1980 through 2006 remain unresolved and (ii) it is unclear what priority, if any, the IRS will receive in the Chapter 7 Case with respect to its claims against Walter Energy, and whether and to what extent funds will be available in the Chapter 7 Case to pay priority tax claims. We intend to vigorously assert any and all available defenses against any liability we may have as a member of the Walter Energy consolidated group. However, we cannot currently estimate our liability, if any, relating to the tax-related liabilities of Walter Energy's consolidated tax group for tax years prior to 2007, and such liability could have a material adverse effect on our business, financial condition, liquidity or results of operations.

In accordance with the income tax allocation agreement entered into in connection with our spin-off from Walter Energy, Walter Energy used certain tax assets of one of our predecessors in its calendar 2006 tax return for which payment to us is required. The income tax allocation agreement requires, among other things, Walter Energy to make the payment upon realization of this tax benefit by receiving a refund or otherwise offsetting taxes due. Walter Energy owed us $11.6 million that was payable pending completion of an IRS audit of Walter Energy's 2006 tax year and the related refund of tax from that year. As a result of the Bankruptcy Case, we wrote off this receivable during the quarter ended September 30, 2015.

Indemnifications. We are a party to contracts in which it is common for us to agree to indemnify third parties for certain liabilities that arise out of or relate to the subject matter of the contract. In some cases, this indemnity extends to related liabilities arising from the negligence of the indemnified parties, but usually excludes any liabilities caused by gross negligence or willful misconduct. We cannot estimate the potential amount of future payments under these indemnities until events arise that would trigger a liability under the indemnities.

Additionally, in connection with the sale of assets and the divestiture of businesses, such as the divestitures of U.S. Pipe and Anvil, we may agree to indemnify buyers and related parties for certain losses or liabilities incurred by these parties with respect to: (i) the representations and warranties made by us to these parties in connection with the sale and (ii) liabilities related to the pre-closing operations of the assets or business sold. Indemnities related to pre-closing operations generally include certain environmental, tax and other liabilities not assumed by these parties in the transaction.

Indemnities related to the pre-closing operations of sold assets or businesses normally do not represent additional liabilities to us, but simply serve to protect these parties from potential liability associated with our obligations existing at the time of the sale. As with any liability, we have accrued for those pre-closing obligations that are considered probable and reasonably estimable. Should circumstances change, increasing the likelihood of payments related to a specific indemnity, we will accrue a liability when future payment is probable and the amount is reasonably estimable.

Other Matters. Certain Mueller Technologies radio products produced between 2011 and 2014 and installed in particularly harsh environments have been failing at higher-than-expected rates. During the quarter ended March 31, 2017, we conducted additional testing of these products and revised our estimates of related warranty expenses. Consequently, we recorded an additional warranty expense of $9.8 million associated with these products in that quarter.

We are party to a number of other lawsuits arising in the ordinary course of business, including product liability cases for products manufactured by us or third parties. We provide for costs relating to these matters when a loss is probable and the amount is reasonably estimable. Administrative costs related to these matters are expensed as incurred. The effect of the outcome of these matters on our future financial statements cannot be predicted with certainty as any such effect depends on the amount and timing of the resolution of such matters. While the results of litigation cannot be predicted with certainty, we believe the final outcome of such other litigation is not likely to have a materially adverse effect on our business or prospects.

PART II

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

Our common stock is listed on the New York Stock Exchange under the trading symbol MWA.

Covenants contained in certain of the debt instruments described in Note 7. of the Notes to Consolidated Financial Statements restrict the amount we can pay in cash dividends. Future dividends will be declared at the discretion of our board of directors and will depend on our future earnings, financial condition and other factors.

The range of high and low intraday sales prices of our common stock and the dividends declared per share are presented below.

	High	Low	Dividends per share
2017			
4th quarter	$ 12.91	$ 11.14	$ 0.04
3rd quarter	12.91	10.84	0.04
2nd quarter	14.00	11.53	0.04
1st quarter	14.20	10.45	0.03
2016			
4th quarter	13.50	11.18	0.03
3rd quarter	11.75	9.55	0.03
2nd quarter	9.94	7.52	0.02
1st quarter	9.47	7.45	0.02

At September 30, 2017, there were 107 stockholders of record for our common stock.

Equity Compensation Plan Information

The information regarding our compensation plans under which equity securities are authorized for issuance is set forth in "Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS."

Sale of Unregistered Securities

We did not issue any unregistered securities within the past three years.

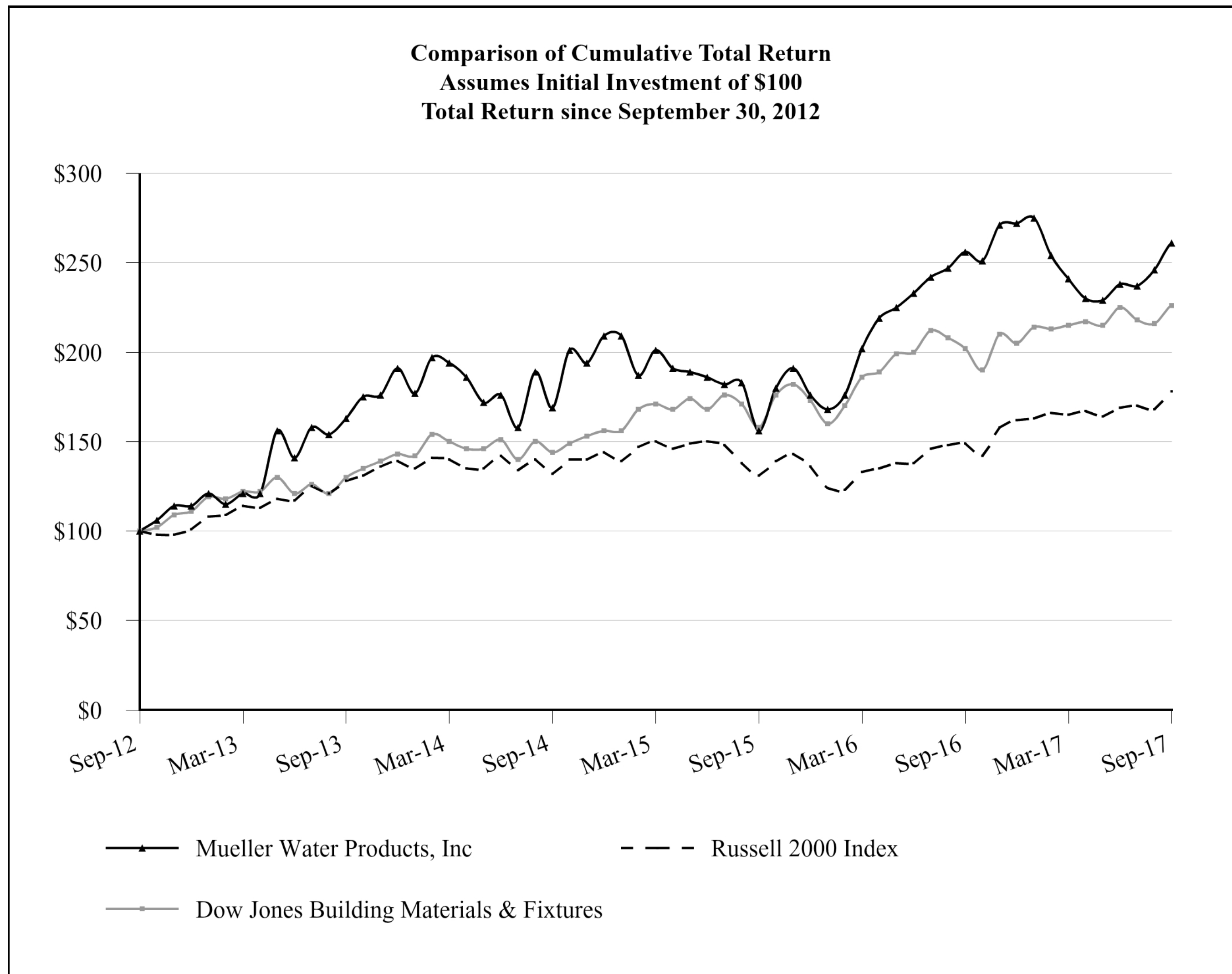
Issuer Purchases of Equity Securities

We did not repurchase shares of our common stock in the quarter ended September 30, 2017.

Stock Price Performance Graph

The following graph compares the cumulative quarterly stock market performance of our common stock with the Russell 2000 Stock Index (“Russell 2000”) and the Dow Jones U.S. Building Materials & Fixtures Index (“DJ Building Materials & Fixtures”) since September 30, 2012.

Total return values were calculated based on cumulative total return assuming (i) the investment of $100 in our common stock, the Russell 2000 and the DJ Building Materials & Fixtures on the dates indicated and (ii) reinvestment of all dividends.



Item 6. SELECTED FINANCIAL DATA

The selected financial and other data presented below should be read in conjunction with, and are qualified by reference to, "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS" and the consolidated financial statements and notes thereto included elsewhere in this annual report.

	2017	2016	2015	2014	2013
	(in millions, except per share data)				
Statement of operations data:					
Net sales	$ 826.0	$ 800.6	$ 793.4	$ 783.3	$ 729.5
Cost of sales	558.5	532.7	547.1	548.2	528.4
Gross profit	267.5	267.9	246.3	235.1	201.1
Selling, general and administrative expenses	156.4	151.2	146.7	151.0	143.7
Pension settlement	—	16.6	0.5	—	—
Loss on Walter receivable	—	—	11.6	—	—
Other charges	10.4	7.2	7.9	3.1	1.4
Interest expense, net	22.2	23.6	27.5	49.6	51.6
Loss on early extinguishment of debt	—	—	31.3	1.0	1.4
Income before income taxes	78.5	69.3	20.8	30.4	3.0
Income tax expense	24.2	24.2	8.3	1.5	8.2
Income (loss) from continuing operations	54.3	45.1	12.5	28.9	(5.2)
Discontinued operations[(1)]	69.0	18.8	18.4	26.6	46.0
Net income (loss)	$ 123.3	$ 63.9	$ 30.9	$ 55.5	$ 40.8
Earnings (loss) per basic share:					
Continuing operations	$ 0.34	$ 0.28	$ 0.08	$ 0.18	$ (0.03)
Discontinued operations[(1)]	0.43	0.12	0.11	0.17	0.29
Net income (loss)	$ 0.77	$ 0.40	$ 0.19	$ 0.35	$ 0.26
Earnings (loss) per diluted share:					
Continuing operations	$ 0.34	$ 0.28	$ 0.08	$ 0.18	$ (0.03)
Discontinued operations[(1)]	0.42	0.11	0.11	0.16	0.28
Net income (loss)	$ 0.76	$ 0.39	$ 0.19	$ 0.34	$ 0.25
Weighted average shares outstanding:					
Basic	160.1	161.3	160.5	159.2	157.7
Diluted	161.8	163.4	163.2	162.2	160.3
Balance sheet data (at September 30):					
Cash and cash equivalents	$ 361.7	$ 195.0	$ 113.1	$ 161.1	$ 121.7
Working capital	528.7	426.5	381.5	363.0	386.3
Property, plant and equipment, net	122.3	108.4	100.0	96.2	90.7
Total assets	1,258.3	1,280.6	1,229.8	1,312.5	1,275.9
Total debt	480.6	484.4	488.3	540.3	593.9
Long-term liabilities	627.2	675.3	694.0	716.5	764.6
Total liabilities	768.8	861.1	862.0	960.9	947.7
Total equity	489.5	419.5	367.8	351.6	328.2
Other data (year ended September 30):					
Depreciation and amortization[(2)]	41.9	39.5	43.4	42.5	45.0
Capital expenditures[(2)]	40.6	31.5	27.2	25.3	24.2
Cash dividends declared per share	0.150	0.100	0.075	0.070	0.070

(1) In 2017, we sold Anvil. In 2012, we sold U.S. Pipe. The results of their operations and the gain on the sale of Anvil are classified as discontinued operations for 2017 through 2013, as applicable.

(2) Excludes discontinued operations in 2017 through 2013.

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

The following discussion should be read in conjunction with the consolidated financial statements and notes thereto that appear elsewhere in this annual report.

Overview

Organization

On October 3, 2005, Walter Energy acquired all outstanding shares of capital stock representing the Mueller Co. and Anvil businesses and contributed them to its U.S. Pipe business to form the Company. In June 2006, we completed an initial public offering of common stock and in December 2006, Walter Energy distributed to its shareholders all of its equity interests in the Company, completing our spin-off.

Unless the context indicates otherwise, whenever we refer to a particular year, we mean our fiscal year ended or ending September 30 in that particular calendar year.

Business

We operate our business through two segments, Infrastructure, formerly referred to as Mueller Co., and Technologies, formerly referred to as Mueller Technologies.

We expect our primary end markets, repair and replacement of water infrastructure, driven by municipal spending, and new water infrastructure installation, driven by residential construction, to grow in 2018. We expect the residential construction market to be the faster growing.

Infrastructure

We estimate approximately 60% of Infrastructure's 2017 net sales were for repair and replacement directly related to municipal water infrastructure spending, approximately 30% were related to residential construction activity and approximately 10% were related to natural gas utilities.

Municipal spending in 2016 was relatively strong compared with the prior year and economic forecasts predicted this trend would continue. However, we believe municipal spending was down year over year in 2017. According to the U.S. Bureau of Economic Analysis, state and local tax receipts for the quarter ended September 30, 2017 were up year-over-year and, according to the U.S. Department of Labor, the trailing twelve-month average consumer price index for water and sewerage rates at September 30, 2017 increased 3.9%. However, water conservation efforts, particularly in areas impacted by recent drought conditions, have resulted in lower overall receipts for some U.S. water utilities.

The year-over-year percentage change in housing starts is a key indicator of demand for Infrastructure's products sold in the residential construction market. In September 2017, Zelman & Associates forecasted a 6% increase in housing starts for calendar 2018 compared to the prior year. In October 2017, Blue Chip Economic Indicators forecasted a 7% increase in housing starts for calendar 2018 compared to the prior year.

Technologies

The municipal market is the key end market for the Technologies companies. These businesses are project-oriented and depend on customer adoption of their technology-based products and services. We entered 2018 with a backlog of $23.2 million at Mueller Systems, largely for AMI products, and with higher volume of projects awarded for Echologics.

Consolidated

Overall in 2018 for Mueller Water Products, we expect year-over-year net sales percentage growth between 4% and 7%. We expect higher operating income and for productivity improvements to increase operating margin. We expect a conversion margin of 35% to 40% of our net sales growth.

Results of Operations

Year Ended September 30, 2017 Compared to Year Ended September 30, 2016

	Year ended September 30, 2017			
	Infrastructure	Technologies	Corporate	Total
	(in millions)			
Net sales	$ 739.9	$ 86.1	$ —	$ 826.0
Gross profit	$ 259.5	$ 8.0	$ —	$ 267.5
Operating expenses:				
Selling, general and administrative	93.4	27.6	35.4	156.4
Other charges	2.7	0.7	7.0	10.4
	96.1	28.3	42.4	166.8
Operating income (loss)	$ 163.4	$ (20.3)	$ (42.4)	100.7
Interest expense, net				22.2
Income before income taxes				78.5
Income tax expense				24.2
Income from continuing operations				$ 54.3

	Year ended September 30, 2016			
	Infrastructure	Technologies	Corporate	Total
	(in millions)			
Net sales	$ 715.7	$ 84.9	$ —	$ 800.6
Gross profit	$ 250.7	$ 17.2	$ —	$ 267.9
Operating expenses:				
Selling, general and administrative	88.4	27.4	35.4	151.2
Pension settlement	2.2	—	14.4	16.6
Other charges	0.8	0.9	5.5	7.2
	91.4	28.3	55.3	175.0
Operating income (loss)	$ 159.3	$ (11.1)	$ (55.3)	92.9
Interest expense, net				23.6
Income before income taxes				69.3
Income tax expense				24.2
Income from continuing operations				$ 45.1

Consolidated Analysis

Net sales for 2017 increased 3.2% to $826.0 million from $800.6 million in the prior year due primarily to higher shipment volumes of $15.4 million and $10.3 million in net sales of Singer Valve, which we acquired in February 2017.

Gross profit was $267.5 million for 2017 and $267.9 million in the prior year. Gross margin declined 110 basis points to 32.4% in 2017 from 33.5% in the prior year primarily due to a discrete warranty charge of $9.8 million at Technologies.

Selling, general and administrative expenses ("SG&A") increased 3.4% to $156.4 million for 2017 from $151.2 million in the prior year, but was 18.9% as a percent of net sales for both years. The increase in SG&A was primarily due to the acquisition of Singer Valve.

Other charges for 2017 consisted primarily of costs of our previously announced strategic reorganization and costs associated with the acquisition of Singer Valve. For 2016, other charges consisted primarily of costs associated with the demolition of a surplus facility.

In June 2016, our U.S. pension plan completed a pension benefit settlement program. Lump-sum distributions to fully settle existing obligations were offered to all vested participants who are no longer working for us and not yet receiving benefits. Approximately 75% of these participants accepted the offer. As a result, the plan disbursed $58.5 million and we recorded a non-cash pension settlement charge of $16.6 million.

Interest expense, net declined $1.4 million in 2017 from the prior year as a result of interest income earned on the cash proceeds from the sale of Anvil. Interest expense associated with the Term Loan decreased due to the repricing we completed in February 2017, which reduced the applicable interest rate spread by 75 basis points. The components of interest expense, net are provided below.

	2017	2016
	(in millions)	
Term Loan	$ 19.1	$ 20.5
Interest rate swap contracts	1.9	—
Deferred financing costs amortization	1.8	1.9
ABL Agreement	0.8	1.1
Other interest expense	0.6	0.5
	24.2	24.0
Interest income	(2.0)	(0.4)
	$ 22.2	$ 23.6

Income tax expense was $24.2 million for both 2017 and 2016, but the effective income tax rate decreased to 30.8% in 2017 from 34.9% in the prior year primarily due to increased domestic manufacturing deductions and excess tax benefits related to stock compensation.

Segment Analysis

Infrastructure

Net sales for 2017 increased 3.4% to $739.9 million from $715.7 million in the prior year. Net sales increased primarily due to higher shipment volumes of $14.0 million and $10.3 million in net sales of Singer Valve, which we acquired in February 2017. Domestic shipments of valves, hydrants and brass products increased 1.7% in 2017 compared to 2016.

Gross profit for 2017 increased 3.5% to $259.5 million from $250.7 million in the prior year primarily due to increased shipment volumes. Gross margin was 35.1% for 2017 and 35.0% in the prior year.

SG&A in 2017 increased 5.7% to $93.4 million from $88.4 million in the prior year primarily due to personnel-related costs and the acquisition of Singer Valve. SG&A was 12.6% and 12.4% of net sales for 2017 and 2016, respectively.

Technologies

Net sales in 2017 increased to $86.1 million from $84.9 million in the prior year primarily due to $1.4 million of higher shipment volumes.

Gross profit in 2017 decreased $9.2 million to $8.0 million from $17.2 million in the prior year. Gross margin declined to 9.3% in 2017 from 20.3% in the prior year. These decreases are primarily due to the $9.8 million warranty charge related to certain radio products produced between 2011 and 2014, which we recorded in our second quarter.

SG&A was $27.6 million in 2017 and $27.4 million in the prior year. SG&A as a percentage of net sales decreased to 32.1% for 2017 from 32.3% in the prior year.

Corporate

SG&A was $35.4 million in both 2017 and 2016.

Year Ended September 30, 2016 Compared to Year Ended September 30, 2015

	Year ended September 30, 2016			
	Infrastructure	**Technologies**	**Corporate**	**Total**
		(in millions)		
Net sales	$ 715.7	$ 84.9	$ —	$ 800.6
Gross profit	$ 250.7	$ 17.2	$ —	$ 267.9
Operating expenses:				
Selling, general and administrative	88.4	27.4	35.4	151.2
Pension settlement	2.2	—	14.4	16.6
Other charges	0.8	0.9	5.5	7.2
	91.4	28.3	55.3	175.0
Operating income (loss)	$ 159.3	$ (11.1)	$ (55.3)	92.9
Interest expense, net				23.6
Income before income taxes				69.3
Income tax expense				24.2
Income from continuing operations				$ 45.1

	Year ended September 30, 2015			
	Infrastructure	**Technologies**	**Corporate**	**Total**
		(in millions)		
Net sales	$ 702.2	$ 91.2	$ —	$ 793.4
Gross profit	$ 229.2	$ 17.1	$ —	$ 246.3
Operating expenses:				
Selling, general and administrative	83.8	29.9	33.0	146.7
Loss on Walter Receivable	—	—	11.6	11.6
Pension settlement	0.2	—	0.3	0.5
Other charges	8.2	0.1	(0.4)	7.9
	92.2	30.0	44.5	166.7
Operating income (loss)	$ 137.0	$ (12.9)	$ (44.5)	79.6
Interest expense, net				27.5
Loss on early extinguishment of debt				31.3
Income before income taxes				20.8
Income tax expense				8.3
Income from continuing operations				$ 12.5

Consolidated Analysis

Net sales for 2016 increased to $800.6 million from $793.4 million in the prior year due primarily to higher shipment volumes of $12.4 million, which were partially offset by unfavorable changes in Canadian currency exchange rates of $3.6 million and in pricing.

Gross profit for 2016 increased to $267.9 million from $246.3 million in the prior year. Gross margin increased 250 basis points to 33.5% in 2016 from 31.0% in the prior year due primarily to lower raw material and other costs.

SG&A for 2016 increased to $151.2 million from $146.7 million in the prior year. SG&A as a percentage of net sales increased to 18.9% in 2016 from 18.5% in the prior year.

In June 2016, our U.S. pension plan completed a pension benefit settlement program. Lump-sum distributions to fully settle existing obligations were offered to all vested participants who are no longer working for us and not yet receiving benefits. Approximately 75% of these participants accepted the offer. As a result, the plan disbursed $58.5 million and we recorded a non-cash pension settlement charge of $16.6 million.

We had a tax-related receivable from Walter Energy from prior to our spin-off from Walter in December 2006. Walter filed a petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code in July 2015. As a result of this petition, we wrote off this receivable in 2015.

Interest expense, net declined $3.9 million in 2016 compared to the prior year due primarily to the debt refinancing we completed in November 2014, which replaced the Senior Subordinated Notes and the Senior Unsecured Notes with the lower-rate Term Loan. The components of interest expense, net are provided below.

	2016	2015
	(in millions)	
Term Loan	$ 20.5	$ 17.5
7.375% Senior Subordinated Notes	—	4.0
8.75% Senior Unsecured Notes	—	2.4
Deferred financing costs amortization	1.9	2.0
ABL Agreement	1.1	1.7
Other interest expense	0.5	0.2
	24.0	27.8
Interest income	(0.4)	(0.3)
	$ 23.6	$ 27.5

Segment Analysis

Infrastructure

Net sales for 2016 increased to $715.7 million from $702.2 million in the prior year. Net sales increased primarily due to higher shipment volumes of $18.8 million, but this was partially offset by unfavorable changes in Canadian currency exchange rates of $3.6 million and pricing. Domestic shipments of valves, hydrants and brass products increased 6.4% in 2016 compared to 2015.

Gross profit for 2016 increased to $250.7 million from $229.2 million in the prior year. Gross profit for 2016 increased primarily due to lower raw material costs, increased shipment volumes, and improved overhead absorption resulting from increased production. Gross margin increased to 35.0% for 2016 compared to 32.6% in the prior year. Gross margin improved primarily due to lower raw material costs, improved overhead absorption and more favorable product mix.

SG&A in 2016 increased to $88.4 million compared to $83.8 million in the prior year primarily due to personnel-related costs. SG&A were 12.4% and 11.9% of net sales for 2016 and 2015, respectively.

During 2015, Infrastructure ceased operations at a foundry in Canada that primarily produced commodity municipal castings. This resulted in a loss of $7.2 million, which comprised most of the total other charges of $8.2 million recorded during the year.

Technologies

Net sales in 2016 decreased to $84.9 million from $91.2 million in the prior year due to $6.4 million of lower shipment volumes. The decrease in sales volume was primarily due to the loss of a single customer's AMR purchases from 2015, which was partially offset by increases in sales of AMI products and mobile and fixed leak detection solutions.

Gross profit was essentially flat at $17.2 million in 2016 compared to $17.1 million in the prior year. Gross margin increased to 20.3% in 2016 compared to 18.8% in the prior year due primarily to favorable product mix, particularly the partial replacement of AMR sales with higher-margin AMI sales.

SG&A decreased to $27.4 million in 2016 compared to $29.9 million in the prior year. SG&A decreased primarily due to personnel-related cost savings. SG&A decreased to 32.3% of net sales for 2016 from 32.8% of net sales in the prior year.

Corporate

SG&A increased to $35.4 million in 2016 from $33.0 million in the prior year primarily due to higher personnel-related expenses.

Financial Condition

Cash and cash equivalents were $361.7 million at September 30, 2017 and $195.0 million at September 30, 2016. Cash proceeds received from the sale of Anvil were $305.7 million. In addition to these proceeds, cash and cash equivalents increased during 2017 as a result of cash provided by operating activities of $59.4 million, which was offset by cash used in investing activities of $66.3 million, primarily capital expenditures and the acquisition of Singer Valve, and cash used in financing activities of $81.4 million, primarily our share repurchases and dividend payments. Cash and cash equivalents also increased by $1.2 million during 2017 due to changes in currency exchange rates.

Receivables, net were $145.3 million at September 30, 2017 and $131.8 million at September 30, 2016. Receivables at September 30, 2017 and September 30, 2016 represented approximately 64 and 60 days net sales, respectively.

Inventories were $138.9 million at September 30, 2017 and $130.7 million at September 30, 2016. Inventories increased during 2017 due primarily to the acquisition of Singer Valve.

Property, plant and equipment, net was $122.3 million at September 30, 2017 and $108.4 million at September 30, 2016, and depreciation expense was $19.8 million in 2017 compared to $18.3 million in 2016. Capital expenditures, including external-use software development costs capitalized, were $40.6 million in 2017.

Intangible assets were $439.3 million at September 30, 2017 and $434.6 million at September 30, 2016. Finite-lived intangible assets, $159.6 million of net book value at September 30, 2017, are amortized over their estimated useful lives. This amortization expense was $22.1 million during 2017 and is expected to be approximately $22 million to $24 million in each of the next five years. Indefinite-lived intangible assets, $279.7 million at September 30, 2017, are not amortized, but tested at least annually for possible impairment.

Accounts payable and other current liabilities were $136.0 million, which included the liabilities of Singer Valve, at September 30, 2017 and $135.4 million at September 30, 2016 .

Net outstanding borrowings were $480.6 million at September 30, 2017 and $484.4 million at September 30, 2016.

Deferred income taxes were net liabilities of $114.0 million at September 30, 2017 and net liabilities of $108.8 million at September 30, 2016. The $5.2 million increase in the net liability was primarily due to a decrease in the deferred tax asset related pension plans after the 2017 pension contribution. Deferred tax liabilities related to intangible assets and other were $158.4 million and $180.8 million at September 30, 2017 and 2016, respectively.

Liquidity and Capital Resources

We amended our term loan credit agreement in February, which reduced the applicable interest rate spread by 75 basis points.

We had cash and cash equivalents of $361.7 million at September 30, 2017 and approximately $113 million of additional borrowing capacity under our ABL Agreement based on September 30, 2017 data. Undistributed earnings from our subsidiaries in Canada and China are considered to be permanently invested outside of the United States. At September 30, 2017, cash and cash equivalents included $15.1 million and $7.5 million in Canada and China, respectively.

On January 6, 2017, we sold Anvil to affiliates of One Equity Partners for cash proceeds of $305.7 million and the agreement by the purchaser to reimburse us for expenditures to settle certain previously existing liabilities.

In 2017, we acquired Singer Valve, a manufacturer of automatic control valves, and its affiliates that distribute Singer Valve products in the U.S. and China for an aggregate cash consideration of $26.6 million net of post-closing adjustments. Singer Valve is included in Infrastructure.

Cash flows from operating activities are categorized below.

	2017	2016
	(in millions)	
Collections from customers	$ 816.6	$ 788.1
Disbursements, other than interest and income taxes	(705.8)	(625.4)
Interest payments, net	(19.5)	(21.1)
Income tax payments, net	(31.9)	(27.1)
Cash provided by operating activities	$ 59.4	$ 114.5

We collected $28.5 million more in 2017 than in 2016, which is relatively consistent with the $25.4 million increase in net sales in 2017 compared with 2016.

Capital expenditures were $40.6 million during 2017 and $31.5 million during 2016. We estimate 2018 capital expenditures will be $38 million to $44 million.

While we were not required to make any contributions to our U.S. pension plan in 2017, we made a voluntary contribution of $35 million. The proportion of the assets held by our U.S. pension plan invested in fixed income securities, instead of equity securities, has increased over historical levels. Because of this shift in the strategic asset allocation, the estimated rate of return on pension plan assets has decreased, which could ultimately cause our pension expense and our required contributions to this plan to increase.

Income tax payments were higher during 2017 compared to the prior year due to the timing of our income and our required quarterly payments. We expect the effective tax rate in 2018 to be between 33% and 35%.

In2015, we announced the authorization of a stock repurchase program for up to $50.0 million of our common stock. The program does not commit us to any particular timing or quantity of purchases, and we may suspend or discontinue the program at any time. In 2015, we acquired 523,851 shares of our common stock through open market purchases. In 2017, we announced an increase in the authorization of the program to $250 million and acquired 4,581,227 shares of our common stock. At September 30, 2017, we had remaining authorization of $190.0 million to repurchase shares of our common stock.

We anticipate our existing cash, cash equivalents and borrowing capacity combined with our expected operating cash flows will be sufficient to meet our anticipated operating expenses, capital expenditures and debt service obligations as they become due through September 30, 2018. However, our ability to make these payments will depend partly upon our future operating performance, which will be affected by general economic, financial, competitive, legislative, regulatory, business and other factors beyond our control.

ABL Agreement

At September 30, 2017, the ABL Agreement consisted of a revolving credit facility for up to $225 million of revolving credit borrowings, swing line loans and letters of credit. The ABL Agreement permits us to increase the size of the credit facility by an additional $150 million in certain circumstances subject to adequate borrowing base availability. We may borrow up to $25 million through swing line loans and may have up to $60 million of letters of credit outstanding.

Borrowings under the ABL Agreement bear interest at a floating rate equal to LIBOR plus a margin ranging from 125 to 150 basis points, or a base rate, as defined in the ABL Agreement, plus a margin ranging from 25 to 50 basis points. At September 30, 2017, the applicable LIBOR-based margin was 125 basis points.

The ABL Agreement terminates on July 13, 2021. We pay a commitment fee for any unused borrowing capacity under the ABL Agreement of 25 basis points per annum.

The ABL Agreement is subject to mandatory prepayments if total outstanding borrowings under the ABL Agreement are greater than the aggregate commitments under the revolving credit facility or if we dispose of overdue accounts receivable in certain circumstances. The borrowing base under the ABL Agreement is equal to the sum of (a) 85% of the value of eligible accounts receivable and (b) the lesser of (i) 70% of the value of eligible inventory or (ii) 85% of the net orderly liquidation value of the value of eligible inventory, less certain reserves. Prepayments can be made at any time with no penalty.

Substantially all of our U.S. subsidiaries are borrowers under the ABL Agreement and are jointly and severally liable for any outstanding borrowings. Our obligations under the ABL Agreement are secured by a first-priority perfected lien on all of our U.S. inventory, accounts receivable, certain cash and other supporting obligations.

Borrowings are not subject to any financial maintenance covenants unless excess availability is less than the greater of $17.5 million and 10% of the Loan Cap as defined in the ABL Agreement. The ABL Agreement contains customary negative covenants and restrictions on our ability to engage in specified activities, such as:

- Limitations on other debt, liens, investments and guarantees;
- Restrictions on dividends and redemptions of our capital stock and prepayments and redemptions of debt; and
- Restrictions on mergers and acquisition, sales of assets and transactions with affiliates.

Term Loan

We had $486.3 million face value outstanding under the Term Loan at September 30, 2017. Term Loan borrowings accrue interest at a floating rate equal to LIBOR, subject to a floor of 0.75%, plus 250 basis points. We may voluntarily repay amounts borrowed under the Term Loan at any time. The principal amount of the Term Loan is required to be repaid in quarterly installments of $1.225 million. The Term Loan matures on November 25, 2021. The Term Loan is guaranteed by substantially all of our U.S. subsidiaries and secured by essentially all of our assets, although the ABL Agreement has a senior claim on certain collateral securing borrowings thereunder.

As described more fully in Note 8. of the Notes to Consolidated Financial Statements, we entered into interest rate swap contracts in April 2015 that hedge interest payments on $150 million of our Term Loan borrowings from September 30, 2016 through September 30, 2021.

Our corporate credit rating and the credit rating for our debt are presented below.

	Moody's		**Standard & Poor's**	
	September 30,		**September 30,**	
	2017	**2016**	**2017**	**2016**
Corporate credit rating	Ba3	Ba3	BB-	BB-
ABL Agreement	Not rated	Not rated	Not rated	Not rated
Term Loan	Ba3	Ba3	BB	BB
Outlook	Stable	Stable	Stable	Stable

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we do not have any undisclosed borrowings or debt or any derivative contracts other than those described in "Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK" or synthetic leases. Therefore, we are not exposed to any financing, liquidity, market or credit risk that could have arisen had we engaged in such relationships.

We use letters of credit and surety bonds in the ordinary course of business to ensure the performance of contractual obligations. At September 30, 2017, we had $19.8 million of letters of credit and $52.1 million of surety bonds outstanding.

Contractual Obligations

Our contractual obligations at September 30, 2017 are presented below.

	2018	2019-2020	2021-2022	After 2022	Total
			(in millions)		
Debt:					
Principal payments[(1)]	$ 5.6	$ 10.7	$ 471.7	$ —	$ 488.0
Interest[(2)]	20.3	39.9	22.6	—	82.8
Operating leases	3.6	4.8	4.1	4.5	17.0
Unconditional purchase obligations[(3)]	73.0	2.5	—	—	75.5
Other current liabilities[(4)]	1.2	—	—	—	1.2
	$ 103.7	$ 57.9	$ 498.4	$ 4.5	$ 664.5

(1) The long-term debt balance at September 30, 2017 is net of $1.5 million of unamortized discount on the term loan.

(2) Includes payment of interest associated with interest rate swap contracts.

(3) Includes contractual obligations for purchases of raw materials and capital expenditures.

(4) Consists of obligations for required pension contributions. Actual payments may differ. We have not estimated required pension contributions beyond 2018.

Effect of Inflation

We experience changing price levels primarily related to purchased components and raw materials. Infrastructure experienced a 12% increase in the average cost per ton of scrap steel and a 12% increase in the average cost of brass ingot purchased in 2017 compared to 2016. The Technologies businesses are not significantly impacted by fluctuations in commodity prices.

Seasonality

Our water infrastructure business depends on construction activity, which is seasonal in many areas due to the impact of cold weather conditions on construction. Net sales and operating income have historically been lowest in the quarters ending December 31 and March 31 when the northern United States and all of Canada generally face weather conditions that restrict significant construction and other field crew activity. For Infrastructure, approximately 45% of a fiscal year's net sales occurs in the first half of the fiscal year with 55% occurring in the second half of the fiscal year. See "Item 1A. RISK FACTORS-Seasonal demand for certain of our products and services may adversely affect our financial results."

Critical Accounting Estimates

The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosure of contingent assets and liabilities. These estimates are based upon experience and on various other assumptions we believe to be reasonable under the circumstances. Actual results may differ from these estimates. We consider an accounting estimate to be critical if changes in the estimate that are reasonably likely to occur over time or the use of reasonably different estimates could have a material impact on our financial condition or results of operations. We consider the accounting topics presented below to include our critical accounting estimates.

Revenue Recognition

We recognize revenue when delivery of a product or performance of a service has occurred and there is persuasive evidence of a sales arrangement, sales prices are fixed and determinable and collectability from the customers is reasonably assured. Sales are recorded net of estimated discounts, returns and rebates. Discounts, returns and rebates are estimated based upon current offered sales terms and historical return and allowance rates.

In May 2014, the Financial Accounting Standards Board ("FASB") issued new guidance for the recognition of revenue and requiring additional financial statement disclosures. We plan to adopt this guidance using the modified retrospective transition method beginning in the first quarter of fiscal 2019. We have completed our initial scoping and are developing a project plan to classify our revenue streams, to evaluate revenue recognition practices for each stream against the new requirements, to consider changes to the terms of our sales contracts, and to design and implement processes to quantify the effects of necessary changes. This work is ongoing, but at this time, we do not expect the new guidance to materially impact our stockholder's equity, net sales or operating income.

Receivables

We present trade receivables net of an allowance for credit losses. Our consolidated statements of operations reflect the measurement of credit losses for newly recognized trade receivables, as well as the expected increases or decreases of expected credit losses that have taken place during the period.

Our periodic evaluations of expected credit losses are based upon our judgments regarding prior collection experience, specific customer creditworthiness, other current conditions and forecasts of current economic trends within the industries served that may affect the collectibility of the reported amounts. Significantly weaker than anticipated industry or economic conditions could impact customers' ability to pay such that actual credit losses may be greater than the amounts provided for in this allowance.

When we determine a specific trade receivable will not be collected, we charge off the uncollectible amount against the allowance.

Inventories

We record inventories at the lower of first-in, first-out method cost or estimated net realizable value. Inventory cost includes an overhead component that can be affected by levels of production and actual costs incurred. We evaluate the need to record adjustments for impairment of inventory at least quarterly. This evaluation includes such factors as anticipated usage, inventory levels and ultimate product sales value. If in our judgment persuasive evidence exists that the net realizable value of inventory is lower than its cost, the inventory value is written-down to its estimated net realizable value. Significant judgments regarding future events and market conditions must be made when estimating net realizable value.

Income Taxes

We recognize deferred tax liabilities and deferred tax assets for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax liabilities and assets are determined based on the differences between the financial statements and the tax basis of assets and liabilities, using enacted tax rates in effect for the years in which the differences are expected to reverse. A valuation allowance is provided to offset any net deferred tax assets when, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Our tax balances are based on our expectations of future operating performance, reversal of taxable temporary differences, tax planning strategies, interpretation of the tax regulations currently enacted and rulings in numerous tax jurisdictions.

We only record tax benefits for positions that we believe are more likely than not of being sustained under audit examination based solely on the technical merits of the associated tax position. The amount of tax benefit recognized for any position that meets the more likely than not threshold is the largest amount of the tax benefit that we believe is greater than 50% likely of being realized.

Accounting for the Impairment of Long-Lived Assets Including Goodwill and Other Intangible Assets

We test indefinite-lived intangible assets for impairment annually (or more frequently if events or circumstances indicate possible impairment). We performed this annual impairment testing at September 1, and concluded that our indefinite-lived intangible assets were not impaired. We tested the indefinite-lived intangible assets for impairment using a "royalty savings method," which is a variation of the discounted cash flow method. This method estimates a fair value by calculating an estimated discounted future cash flow stream from the hypothetical licensing of the indefinite-lived intangible assets. If this estimated fair value exceeds the carrying value, no impairment is indicated. This analysis is dependent on management's best estimates of future operating results and the selection of reasonable discount rates and hypothetical royalty rates. Significantly different projected operating results could result in a different conclusion regarding impairment. Standard valuation methodologies using rates considered reasonable by management have not indicated an impairment.

Other long-lived assets, including finite-lived intangible assets, are amortized over their respective estimated useful lives and reviewed for impairment if events or circumstances indicate possible impairment.

Contingencies

We are involved in litigation, investigations and claims arising out of the normal conduct of our business. We estimate and accrue liabilities resulting from such matters based on a variety of factors, including outstanding legal claims and proposed settlements; assessments by counsel of pending or threatened litigation; and assessments of potential environmental liabilities and remediation costs. We believe we have adequately accrued for these potential liabilities; however, facts and circumstances may change and could cause the actual liability to exceed the estimates, or may require adjustments to the recorded liability balances in the future. As we learn new facts concerning contingencies, we reassess our position both with respect to accrued liabilities and other potential exposures. Estimates particularly sensitive to future changes include liabilities recorded for environmental remediation, tax and legal matters. Estimated future environmental remediation costs are subject to change due to such factors as the uncertain magnitude of cleanup costs, the unknown time and extent of such remedial actions that may be required, and the determination of our liability in proportion to that of other responsible parties. Estimated future costs related to tax and legal matters are subject to change as events evolve and as additional information becomes available during the administrative and litigation processes. For more information on these and other contingencies, see Note 17. of the Notes to Consolidated Financial Statements. See also "Item 1. BUSINESS - Regulatory and Environmental Matters," "Item 1A. RISK FACTORS" and "Item 3. LEGAL PROCEEDINGS"

Workers Compensation, Defined Benefit Pension Plans, Environmental and Other Long-term Liabilities

We are obligated for various liabilities that will ultimately be determined over what could be a very long future time period. We established the recorded liabilities for such items at September 30, 2017 using estimates for when such amounts will be paid and what the amounts of such payments will be. These estimates are subject to change based on numerous factors, including among others, regulatory changes, technology changes, the investment performance of related assets, longevity of participants, the discount rate used and changes to plan designs.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

We are exposed to various market risks, including potential losses arising from adverse changes in market prices and rates, such as various commodity prices, interest rates and foreign exchange rates. We do not enter into derivatives or other financial instruments for trading or speculative purposes.

Our primary financial instruments are cash and cash equivalents. This includes cash in banks and highly rated, liquid money market investments. We believe those instruments are not subject to material potential near-term losses in future earnings from reasonably possible near-term changes in market rates or prices.

Commodity Price Risk

Our products are made using various purchased components and several basic raw materials, including brass ingot, scrap steel, sand and resin. We expect prices for these items to fluctuate based on marketplace demand and our product margins and level of profitability may fluctuate if we do not pass changes in purchased component and raw material costs on to our customers.

Infrastructure experienced a 12% increase in the average cost per ton of scrap steel and a 12% increase in the average cost of brass ingot purchased in 2017 compared to 2016. See "Item 1A. RISK FACTORS-The prices of our purchased components and raw materials can be volatile."

Interest Rate Risk

At September 30, 2017, we have variable rate debt with a face value of $486.3 million. To the extent LIBOR is above our Term Loan's rate floor of 0.75%, the impact on pre-tax earnings or cash flows resulting from a 100 basis point increase in interest rates on variable rate debt, holding other variables constant, would be approximately $5 million per year. Our interest rate swap contracts described in Note 8. of the Notes to Consolidated Financial Statements reduce this annual hypothetical exposure by approximately $1.5 million annually during 2018-2021.

Currency Risk

Our principal assets, liabilities and operations outside the U.S. are in Canada and China. These assets and liabilities are translated into U.S. dollars at currency exchange rates in effect at the end of each period, with the effect of such translation reflected in other comprehensive loss. Our stockholders' equity will fluctuate depending upon the weakening or strengthening of the U.S. dollar against these non-U.S. currencies. Net sales and expenses of these subsidiaries are translated into U.S. dollars at the average currency exchange rate during the period. At September 30, 2017, $74.7 million of our net assets were denominated in non-U.S. currencies.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Reports of Independent Registered Public Accounting Firm, Consolidated Financial Statements and the accompanying Notes to Consolidated Financial Statements that are filed as part of this annual report are listed under "Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES" and are set forth beginning on page F-1 .

Selected quarterly financial data for 2017 and 2016 are provided in Note 19. of the Notes to Consolidated Financial Statements.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports we file or submit under the Securities Exchange Act of 1934, as amended (the "Exchange Act") is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission and that such information is accumulated and communicated to our management, including the Chief Executive Officer and the Chief Financial Officer as appropriate, to allow timely decisions regarding required disclosure.

Our Chief Executive Officer and Chief Financial Officer evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of the end of the period covered by this annual report. Based on this evaluation, those officers have concluded that, at September 30, 2017, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There were no changes in internal control over financial reporting during the quarter ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act). 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 generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

We assessed the effectiveness of our internal control over financial reporting at September 30, 2017. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control - Integrated Framework* (2013 framework). After doing so, management concluded that, at September 30, 2017, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting at September 30, 2017 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included in this annual report.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The name, age at November 15, 2017 and position of each of our current executive officers and directors are presented below.

Name	Age	Position
Gregory E. Hyland	66	Executive Chairman of the board of directors
Scott Hall	53	President and Chief Executive Officer
Keith L. Belknap	59	Executive Vice President, Business Development, General Counsel, Chief Compliance Officer and Corporate Secretary
Evan L. Hart	52	Senior Vice President and Chief Financial Officer
Kevin G. McHugh	59	Vice President and Controller
Gregory S. Rogowski	58	Executive Vice President, Sales and Marketing
Marietta Edmunds Zakas	58	Executive Vice President, Strategy, Corporate Development and Communications
Hassan Ali	47	Senior Vice President, Engineering and Information Technology Officer
John Van Gerwen	59	Senior Vice President, Operations
Shirley C. Franklin	72	Director
Thomas J. Hansen	68	Director
Jerry W. Kolb	81	Director
Mark J. O’Brien	74	Director
Bernard G. Rethore	76	Director
Lydia W. Thomas	73	Director
Michael T. Tokarz	68	Director

Gregory E. Hyland has been Executive Chairman of the board of directors since January 2017. Previously, Mr. Hyland was Chairman of the board of directors from October 2005 to January 2017, and President and Chief Executive Officer from January 2006 to January 2017. Mr. Hyland was Chairman, President and Chief Executive Officer of Walter Energy, a homebuilding, financial services and natural resources company, from September 2005 to December 2006. Prior to that time, he was President, U.S. Fleet Management Solutions of Ryder System, Inc. (“Ryder”), a transportation and logistics company, from June 2005 to September 2005. Mr. Hyland was Executive Vice President, U.S. Fleet Management Solutions of Ryder from October 2004 to June 2005. He earned Bachelor and Master of Business Administration degrees from the University of Pittsburgh.

Scott Hall has been President and Chief Executive Officer since January 2017. He served as President and CEO of Textron’s Industrial segment from December 2009 until January 2017. Mr. Hall joined Textron in 2001 as president of Tempo, a multi-facility roll-up of communication test equipment. He was named president of Greenlee, a manufacturer of tools used in installing wire and cable, in 2003 when Tempo became part of Textron's Greenlee business unit. Prior to joining Textron, Mr. Hall had several leadership roles at General Cable, a leading manufacturer of wire and cable. Mr. Hall ran General Cable’s Canadian businesses before taking over responsibility for General Cable’s global Communications business. Mr. Hall received his Bachelor of Commerce degree from Memorial University of Newfoundland and his MBA from the University of Western Ontario Ivey School of Business.

Keith L. Belknap has been our Executive Vice President, Business Development since October 2017 and was President of Mueller Technologies from July 2015 to October 2017. Mr. Belknap has been our General Counsel and Corporate Secretary since April 2012 and our Chief Compliance Officer since October 2012. Previously, Mr. Belknap was Senior Vice President, General Counsel and Corporate Secretary of PRIMEDIA, Inc., a digital media and real estate advertising company, since 2007. Prior to that time, he held senior legal positions with PPG Industries, a supplier of paint, coating, optical product, specialty material, chemical, glass and fiberglass, and Georgia-Pacific Corporation, a manufacturer and marketer of tissue, packaging, paper, pulp and building products. Mr. Belknap earned a Bachelor of Arts degree with honors from the University of Tulsa (Phi Beta Kappa) and a Juris Doctor with honors from Harvard Law School.

Evan L. Hart has been our Senior Vice President and Chief Financial Officer since July 2008. Mr. Hart was our Controller from December 2007 to July 2008 and our Vice President of Financial Planning and Analysis from September 2006 to December 2007. Previously, he was Vice President, Controller and Treasurer for Unisource Worldwide, Inc., a marketer and distributor of commercial printing and business imaging papers, packaging systems and facility supplies and equipment from 2002 to 2006. Mr. Hart earned a Bachelor of Science degree from Birmingham-Southern College and is a certified public accountant.

Kevin G. McHugh has been our Vice President and Controller since July 2008. Mr. McHugh was our Vice President, Financial Reporting from January 2008 to July 2008. Previously, he was Corporate Controller at Unisource Worldwide, Inc. from 2003 to 2007. Mr. McHugh earned a Bachelor of Business Administration degree with honors from the University of Notre Dame and is a certified public accountant.

Gregory S. Rogowski has been our Executive Vice President, Sales and Marketing since October 2017, and was President of Infrastructure from May 2009 to October 2017. Previously, Mr. Rogowski was President and/or Chief Executive Officer of Performance Fibers, Inc., a polyester industrial fibers business from 2004 to 2009. He earned a Bachelor of Science degree from Virginia Polytechnic Institute and State University, a Master of Science degree from the University of Akron and a Master of Business Administration degree from the University of Richmond.

Marietta Edmunds Zakas has been our Executive Vice President, Strategy, Corporate Development and Communications since November 2006. She has also been the interim head of Human Resources since January 2016. Previously, Ms. Zakas held various positions at Russell Corporation, an athletic apparel, footwear and equipment company, culminating in her role as Corporate Vice President, Chief of Staff, Business Development and Treasurer. She earned a Bachelor of Arts degree with honors from Randolph-Macon Woman's College (now known as Randolph College), a Master of Business Administration degree from the University of Virginia Darden School of Business and a Juris Doctor from the University of Virginia School of Law. Ms. Zakas is a director of Atlantic Capital Bank and Atlantic Capital Bancshares.

Hassan Ali has been our Senior Vice President, Engineering and Information Technology Officer since October 2017 and was Vice President and General Manager of Mueller Systems, LLC from November 2009 to October 2017. Previously, Mr. Ali served as General Manager, Vice President and Director of Marketing for Landis+Gyr and Director of Quality and Business Excellence at Siemens Power Transmission & Distribution. Mr Ali received his Bachelor of Science degree from the State University of New York at Buffalo.

John H. Van Gerwen, has been our Senior Vice President, Operations since October 2017, and was Vice President of Operations of our Infrastructure segment from May 2010 to October 2017. Previously, Mr. Van Gerwen was Vice President of Acquisition Integration at Camber Corporation, a leading provider of engineering and advanced training solutions to federal government agencies, primarily within the Department of Defense, from 2008 to 2009. Mr. Van Gerwen earned a Bachelor of Science degree in Mechanical Engineering from the University of Waterloo in Ontario, Canada.

Shirley C. Franklin has been a member of our board of directors since November 2010. Ms. Franklin is the Barbara Jordan visiting professor at the LBJ School of the University of Texas and the Executive Chair of the board of directors of Purpose Built Communities, Inc., a national non-profit organization established to transform struggling neighborhoods into sustainable communities. She also is Co-Chair of the Atlanta Regional Commission on Homelessness and Chair of the board of directors of the National Center for Civil and Human Rights. From 2002 to 2010, Ms. Franklin was mayor of Atlanta, Georgia. She is a director of Delta Air Lines, Inc., a provider of air transportation for passengers and cargo. Ms. Franklin earned a Bachelor of Science degree in sociology from Howard University and a Master's degree in sociology from the University of Pennsylvania.

Thomas J. Hansen has been a member of our board of directors since October 2011. Until 2012, Mr. Hansen was Vice Chairman of Illinois Tool Works Inc. ("ITW"), a manufacturer of fasteners and components, consumable systems and a variety of specialty products and equipment. He joined ITW in 1980 as sales and marketing manager of the Shakeproof Industrial Products businesses. From 1998 until May 2006, Mr. Hansen was Executive Vice President of ITW. He is a director of Terex Corporation, a diversified global manufacturer of a variety of machinery products, and Standex International Corporation, a manufacturer of products and services for diverse industrial market segments. Mr. Hansen earned a Bachelor of Science degree in marketing from Northern Illinois University and a Master of Business Administration degree from Governors State University.

Jerry W. Kolb has been a member of our board of directors since April 2006. Mr. Kolb was a director of Walter Energy from 2003 until 2016. He was a Vice Chairman of Deloitte & Touche LLP, a registered public accounting firm, from 1986 to 1998. Mr. Kolb earned a Bachelor of Science degree in accountancy from the University of Illinois and Master of Business Administration degree in finance from DePaul University. Mr. Kolb is a certified public accountant.

Mark J. O'Brien has been a member of our board of directors since April 2006. He serves as Chairman of Walter Investment Management Corp. (formerly Walter Energy's financing business), and from 2009 to October 2015 he served as Chief Executive Officer of the company. Mr. O'Brien has been President and Chief Executive Officer of Brier Patch Capital and Management, Inc., a real estate investment firm, since September 2004. He held various executive positions at Pulte Homes, Inc., a home building company, for 21 years, retiring as President and Chief Executive Officer in June 2003. Mr. O'Brien earned a Bachelor of Arts degree in history from the University of Miami.

Bernard G. Rethore has been a member of our board of directors since April 2006. He was a director of Walter Energy from 2002 until 2016. Mr. Rethore has been Chairman of the Board Emeritus of Flowserve Corporation, a manufacturer of pumps, valves, seals and components, since April 2000. From January 2000 to April 2000, he was Flowserve's Chairman. Mr. Rethore had previously served as its Chairman, President and Chief Executive Officer. He had been a director of Belden, Inc., a manufacturer of specialty signal-transmission products, from 1997 until May 2012 and of Dover Corp., a diversified manufacturer of a wide range of proprietary products, from 2001 until May 2017. In 2008, he was honored by the Outstanding Directors Exchange as an Outstanding Director of the Year and in 2012, he was designated a Board Leadership Fellow by the National Association of Corporate Directors. Mr. Rethore earned a Bachelor of Arts degree in Economics (Honors) from Yale University and a Master of Business Administration degree from the Wharton School of the University of Pennsylvania, where he was a Joseph P. Wharton Scholar and Fellow.

Lydia W. Thomas has been a member of our board of directors since January 2008. Dr. Thomas was President and Chief Executive Officer of Noblis, Inc., a public interest research and development company, from 1996 to 2007. She was previously with The MITRE Corporation, Center for Environment, Resources and Space, serving as Senior Vice President and General Manager from 1992 to 1996, Vice President from 1989 to 1992 and Technical Director from 1982 to 1989. Dr. Thomas is a director of Cabot Corporation, a global performance materials company. In 2013, she was honored by the Outstanding Directors Exchange as an Outstanding Director of the Year. Dr. Thomas earned a Bachelor of Science degree in zoology from Howard University, a Master of Science degree in microbiology from American University and a Doctor of Philosophy degree in cytology from Howard University.

Michael T. Tokarz has been a member of our board of directors since April 2006. Mr. Tokarz served as non-executive Chairman of the Board of Walter Energy from 2006 until 2016. Since February 2002, he has been a member of the Tokarz Group, LLC, an investment company. From January 1996 until February 2002, Mr. Tokarz was a member of the limited liability company that serves as the general partner of Kohlberg Kravis Roberts & Co. L.P., a private equity company. He is a director of CNO Financial Group, Inc. (formerly Conseco, Inc.), an insurance provider, MVC Capital, Inc., a registered investment company and Walter Investment Management Corp. Until February 2015, he served as a director of IDEX Corporation and until January 2014 he served as a director of Dakota Growers Pasta Company. In 2007, he was honored by the Outstanding Directors Exchange as an Outstanding Director of the Year. Mr. Tokarz earned a Bachelor of Arts degree in economics with high distinction and a Master of Business Administration degree in finance from the University of Illinois.

Additional Information

Additional information required by this item will be contained in our definitive proxy statement issued in connection with the 2018 Annual Meeting of Stockholders filed with the SEC within 120 days after September 30, 2017 and is incorporated herein by reference.

Our website address is *www.muellerwaterproducts.com*. You may read and print our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and all amendments to those reports from the investor relations section of our website free of charge. These reports are available on our website soon after we file them with or furnish them to the SEC. These reports should also be available through the SEC's website at *www.sec.gov*.

We have adopted a written code of conduct that applies to all directors, officers and employees, including a separate code that applies only to our principal executive officer and senior financial officers in accordance with Section 406 of the Sarbanes-Oxley Act of 2002 and the rules of the SEC promulgated thereunder. Our Code of Business Conduct and Ethics is available in the corporate governance section of our website. In the event that we make changes in, or provide waivers from, the provisions of this Code of Business Conduct and Ethics that the SEC requires us to disclose, we will disclose these events in the corporate governance section of our website.

We have adopted corporate governance guidelines. The guidelines and the charters of our board committees are available in the corporate governance section of our website. Copies of the Code of Business Conduct and Ethics, corporate governance guidelines and board committee charters are also available in print upon written request to the Corporate Secretary, Mueller Water Products, Inc., 1200 Abernathy Road N.E., Suite 1200, Atlanta, GA 30328.

Item 11. EXECUTIVE COMPENSATION

The information required by this item will be contained in our definitive proxy statement issued in connection with the 2018 Annual Meeting of Stockholders and is incorporated herein by reference.

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

Except for the information set forth below and the information set forth in "Part II, Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES," the information required by this item will be contained in our definitive proxy statement issued in connection with the 2018 Annual Meeting of Stockholders and is incorporated herein by reference.

Securities Authorized for Issuance under Equity Compensation Plans

We have two compensation plans under which our equity securities are authorized for issuance. The Mueller Water Products, Inc. 2006 Employee Stock Purchase Plan ("ESPP") was approved by our sole stockholder in May 2006 and amended by our stockholders in February 2016. The Mueller Water Products, Inc. 2006 Stock Incentive Plan ("2006 Plan") was approved by our sole stockholder in May 2006 and amended by our stockholders in January 2008, January 2009 and January 2012.

The following table sets forth certain information relating to these equity compensation plans at September 30, 2017.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance
Equity compensation plans approved by stockholders:			
2006 Plan	3,853,687 (1)	$ 5.72 (2)	7,204,369 (3)
ESPP	35,894	—	2,901,604 (4)
Total	3,889,581		10,105,973

(1) Consists of the maximum number of shares that could to be earned upon exercise or vesting of outstanding stock-based awards granted under the 2006 Plan. This includes 426,432 shares associated with share-settled performance units that may not be earned, depending on Company performance, as described in Note 11. of the Notes to the Consolidated Financial Statements.

(2) Weighted average exercise price of 2,440,654 outstanding stock options.

(3) The number of securities remaining available for future issuance under the 2006 Plan is 20,500,000 shares less the cumulative number of shares granted under the plan, assuming maximum payout of all share-settled performance units for which performance goals have not yet been set, plus the cumulative number of awards canceled under the plan and, after January 25, 2012, shares surrendered upon issuance to cover employees' related tax liability.

(4) The number of securities remaining available for future issuance under the ESPP Plan is 5,800,000 shares less the cumulative number of shares that have been issued under the plan.

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

The information required by this item will be contained in our definitive proxy statement issued in connection with the 2018 Annual Meeting of Stockholders and is incorporated herein by reference.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item will be contained in our definitive proxy statement issued in connection with the 2018 Annual Meeting of Stockholders and is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

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Consolidated Balance Sheets at September 30, 2017 and 2016	F-3
Consolidated Statements of Operations for the years ended September 30, 2017, 2016 and 2015	F-4
Consolidated Statements of Comprehensive Income for the years ended September 30, 2017, 2016 and 2015	F-5
Consolidated Statements of Stockholders' Equity for the years ended September 30, 2017, 2016 and 2015	F-6
Consolidated Statements of Cash Flows for the years ended September 30, 2017, 2016 and 2015	F-7
Notes to Consolidated Financial Statements for the three years ended September 30, 2017	F-8

(b) Financial Statement Schedules

Except for Schedule II, Valuation and Qualifying Accounts, the schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions or are inapplicable and, therefore, have been omitted. The information required by Schedule II is included in the Notes to Consolidated Financial Statements.

(c) Exhibits

Exhibit no.	Document
2.1	Agreement and Plan of Merger dated as of June 17, 2005 among Mueller Water Products, Inc., Walter Industries, Inc., JW MergerCo, Inc. and DLJ Merchant Banking II, Inc., as stockholders' representative. Incorporated by reference to Exhibit 2.1 to Mueller Water Products, Inc. Form 8-K (File no. 333-116590) filed on June 21, 2005.
2.2	Letter Agreement dated as of February 23, 2006 between Walter Industries, Inc. and Mueller Water Products, Inc. Incorporated by reference to Exhibit 10.1 to Mueller Water Products, Inc. Form 8-K (File no. 333-131521) filed February 27, 2006.
2.3	Agreement and Plan of Merger, dated as of January 31, 2006, by and among Mueller Holding Company, Inc., Mueller Water Products, LLC and Mueller Water Products Co-Issuer, Inc. Incorporated by reference to Exhibit 2.1 Mueller Water Products, Inc. Form 8-K (File no. 333-116590) filed on February 3, 2006.
2.4	Certificate of Merger, dated February 2, 2006, of Mueller Water Products, LLC and Mueller Water Products Co-Issuer, Inc. with and into Mueller Holding Company, Inc. Incorporated by reference to Exhibit 3.1.2 to Mueller Water Products, Inc. Form 8-K (File no. 333-116590) filed on February 3, 2006.
2.5	Purchase Agreement dated as of January 6, 2017, by and among OEP Pioneer LLC, OEP Pioneer (Canada) Holdings Corp., Mueller Co. LLC, Anvil International, LLC and Mueller Water Products, Inc. Incorporated by reference to Exhibit 2.1 to Mueller Water Products, Inc. Form 8-K (File No. 001-32892) filed January 10, 2017.
3.1	Amended and Restated Bylaws of Mueller Water Products, Inc. Incorporated by reference to Exhibit 3.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on January 25, 2012.
3.2	Second Restated Certificate of Incorporation of Mueller Water Products, Inc. Incorporated by reference to Exhibit 3.2 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on January 25, 2012.
4.1	Indenture dated as of May 24, 2007 among Mueller Water Products, Inc., the guarantors named on the signature pages thereto and The Bank of New York (including form of global notes). Incorporated by reference to Exhibit 4.6 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on May 30, 2007.
4.2	Indenture, dated August 26, 2010, among Mueller Water Products, Inc., the guarantors named on the signature pages thereto and The Bank of New York Mellon Trust Company, N.A., as trustee (including form of global notes). Incorporated by reference to Exhibit 4.6 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on August 27, 2010.
10.2	Income Tax Allocation Agreement by and among Walter Industries, Inc., the Walter Affiliates (as defined therein), Mueller Water Products, Inc. and the Mueller Affiliates (as defined therein). Incorporated by reference to Exhibit 10.2 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on May 30, 2006.
10.3*	Mueller Water Products, Inc. Amended and Restated 2006 Stock Incentive Plan. Incorporated by reference to Exhibit A to Mueller Water Products, Inc. Form DEF 14A (File no. 001-32892) filed on December 14, 2011.

Exhibit no.	Document
10.3.1*	Mueller Water Products, Inc. Second Amended and Restated 2006 Stock Incentive Plan. Incorporated by reference to Exhibit D to Mueller Water Products, Inc. Form DEF 14A (File no. 001-32892) filed on January 15, 2016.
10.4*	Mueller Water Products, Inc. Form of Notice of Stock Option Grant. Incorporated by reference to Exhibit 10.21 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 9, 2010.
10.4.1*	Mueller Water Products, Inc. Form of Notice of Stock Option Grant. Incorporated by reference to Exhibit 10.4 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 7, 2014.
10.4.2*	Mueller Water Products, Inc. Form of Notice of Stock Option Grant. Incorporated by reference to Exhibit 10.4.2 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 26, 2014.
10.5*	Mueller Water Products, Inc. Form of Restricted Stock Unit Award Agreement. Incorporated by reference to Exhibit 10.5 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 29, 2012.
10.5.1*	Mueller Water Products, Inc. Form of Restricted Stock Unit Award Agreement. Incorporated by reference to Exhibit 10.5 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 7, 2014.
10.5.2*	Mueller Water Products, Inc. Form of Restricted Stock Unit Award Agreement. Incorporated by reference to Exhibit 10.5.2 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 26, 2014.
10.6*	Mueller Water Products, Inc. 2006 Employee Stock Purchase Plan, as amended September 27, 2006. Incorporated by reference to Exhibit 10.5 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on December 21, 2006.
10.6.1*	Mueller Water Products, Inc. Amended and Restated 2006 Employee Stock Purchase Plan. Incorporated by reference to Exhibit C to Mueller Water Products, Inc. Form DEF 14A (File no. 001-32892) filed on January 15, 2016.
10.7*	Mueller Water Products, Inc. Directors' Deferred Fee Plan. Incorporated by reference to Exhibit 10.7 to Mueller Water Products, Inc. 8-K (File no. 001-32892) filed on May 30, 2006.
10.8*	Form of Mueller Water Products, Inc. Director Indemnification Agreement. Incorporated by reference to Exhibit 99.2 to Mueller Water Products, Inc. 8-K (File no. 001-32892) filed on October 31, 2008.
10.9*	Executive Incentive Plan of Mueller Water Products, Inc. Incorporated by reference to Exhibit 10.6 to Mueller Water Products, Inc. 8-K (File no. 001-32892) filed on May 30, 2006.
10.10*	Mueller Water Products, Inc. Executive Deferred Compensation Plan. Incorporated by reference to Exhibit 99.3 to Mueller Water Products, Inc. 8-K (File no. 001-32892) filed on October 31, 2008.
10.11*	Employment Agreement, dated September 15, 2008 between Mueller Water Products, Inc. and Gregory E. Hyland. Incorporated by reference to Exhibit 99.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on October 6, 2008.
10.11.1*	Amendment, dated as of March 2, 2006, to Executive Employment Agreement dated September 9, 2005 between Walter Industries, Inc. and Gregory E. Hyland. Incorporated by reference to Exhibit 10.1 to Mueller Water Products, Inc. Form 8-K (File no. 333-131521) filed on March 3, 2006.
10.11.2*	Amended and Restated Mueller Water Products, Inc. Supplemental Defined Contribution Plan, effective as of January 1, 2009. Incorporated by reference to Exhibit 10.13.2 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on February 9, 2009.
10.11.3*	Amendment, dated December 1, 2009, to Executive Employment Agreement, dated September 9, 2005, between Mueller Water Products, Inc. and Gregory E. Hyland. Incorporated by reference to Exhibit 99.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on December 4, 2009.
10.11.4*	Amendment, dated December 1, 2010, to Executive Employment Agreement, dated September 9, 2005, between Mueller Water Products, Inc. and Gregory E. Hyland. Incorporated by reference to Exhibit 99.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on December 6, 2010.
10.11.5*	Amendment, dated March 31, 2012, to Executive Employment Agreement, dated September 9, 2005, between Mueller Water Products, Inc. and Gregory E. Hyland. Incorporated by reference to Exhibit 99.1 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on May 10, 2012.
10.12*	Executive Employment Agreement, dated as of July 16, 2008, between Mueller Water Products, Inc. and Evan L. Hart. Incorporated by reference to Exhibit 10.18 to Mueller Water Products, Inc. Form 10-Q (File 001-32892) filed on August 11, 2008.
10.12.1*	Amendment, dated December 1, 2009, to Executive Employment Agreement, dated September 6, 2006, between Mueller Water Products, Inc. and Evan L. Hart. Incorporated by reference to Exhibit 99.3 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on December 4, 2009.
10.12.2*	Amendment, dated March 31, 2012, to Executive Employment Agreement, dated September 6, 2006, between Mueller Water Products, Inc. and Evan L. Hart. Incorporated by reference to Exhibit 99.3 to Mueller Water Products, Inc. Form 8-K (File no. 001-3892) filed on May 10, 2012.

Exhibit no.	Document
10.12.3*	Fourth Amendment to Employment Agreement, dated September 7, 2017, by and between Mueller Water Products, Inc. and Evan L. Hart. Incorporated by reference to Exhibit 10.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on September 7, 2017.
10.13*	Employment Agreement, dated as of July 31, 2006, between Mueller Water Products, Inc. and Thomas E. Fish. Incorporated by reference to Exhibit 10.2 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on August 3, 2006.
10.14	Joint Litigation Agreement dated December 14, 2006 between Walter Industries, Inc. and Mueller Water Products, Inc. Incorporated by reference to Exhibit 10.3 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on December 19, 2006.
10.15*	Form of Executive Change-in-Control Severance Agreement. Incorporated by reference to Exhibit 99.3 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on October 6, 2008.
10.16*	Form of Amendment to Executive Employment Agreement. Incorporated by reference to Exhibit 99.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on February 6, 2009.
10.17*	Mueller Water Products, Inc. 2010 Management Incentive Plan. Incorporated by reference to Exhibit 10.20 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 9, 2010.
10.17.1*	Mueller Water Products, Inc. Amended and Restated 2010 Management Incentive Plan. Incorporated by reference to Exhibit B to Mueller Water Products, Inc. Form DEF 14A (File no. 001-32892) filed on January 15, 2016.
10.19	Credit Agreement, dated August 26, 2010, among Mueller Water Products, Inc. and the borrowing subsidiaries named on the signature pages thereto, each as a Borrower, certain financial institutions, as Lenders, JPMorgan Chase Bank, N.A., as Syndication Agent, Wells Fargo Bank, National Association and SunTrust Bank, as Co-Documentation Agents, Bank of America, N.A. as Administrative Agent and Banc of America Securities LLC and J.P. Morgan Securities Inc., as Joint Lead Arrangers and Joint Bookrunners. Incorporated by reference to Exhibit 10.23 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on August 27, 2010.
10.19.1	First Amendment to Credit Agreement, dated December 18, 2012. Incorporated by reference to Exhibit 10.20.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on December 19, 2012.
10.19.2	Second Amendment to Credit Agreement, dated November 25, 2014. Incorporated by reference to Exhibit 10.19.2 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 26, 2014.
10.19.3	Third Amendment to Credit Agreement, dated July 12, 2016. Incorporated by reference to Exhibit 10.19.3 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on August 8, 2016.
10.19.4	Agreement, by and between Mueller Water Products, Inc. and Gregory S. Rogowski, dated May 5, 2017. Incorporated by reference to Exhibit 10.20.4 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed May 9, 2017.
10.20*	Employment Agreement, dated April 10, 2009, between Mueller Water Products, Inc. and Gregory Rogowski. Incorporated by reference to Exhibit 10.26 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 23, 2010.
10.20.1*	Amendment to Employment Agreement, date December 1, 2009, between Mueller Water Products, Inc. and Gregory Rogowski. Incorporated by reference to Exhibit 10.27 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 23, 2010.
10.20.2*	Executive Change-in-Control Severance Agreement, dated May 4, 2009, between Mueller Water Products, Inc. and Gregory Rogowski. Incorporated by reference to Exhibit 10.28 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 23, 2010.
10.20.3*	Amendment, dated March 31, 2012, to Executive Employment Agreement, dated September 9, 2005, between Mueller Water Products, Inc. and Gregory Rogowski. Incorporated by reference to Exhibit 99.1 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on May 10, 2012.
10.21	Purchase Agreement, dated March 7, 2012, among Mueller Water Products, Inc., Mueller Group, LLC and USP Holdings Inc. Incorporated by reference to Exhibit 2.3 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed on March 8, 2012.
10.22*	Employment Agreement, dated April 1, 2012, between Mueller Water Products, Inc. and Keith L. Belknap. Incorporated by reference to Exhibit 10.22 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 22, 2013.
10.22.1*	Executive Change-in-Control Severance Agreement, dated April 1, 2012, between Mueller Water Products, Inc. and Keith L. Belknap. Incorporated by reference to Exhibit 10.22.1 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 22, 2013.
10.23*	Mueller Water Products, Inc. Form of Performance Share Award Agreement for October 1, 2012 to September 30, 2015 award cycle. Incorporated by reference to Exhibit 10.25 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 29, 2012.

Exhibit no.	Document
10.23.1*	Exhibit A (2013-15 Award Cycle). Incorporated by reference to Exhibit 10.23.1 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 6, 2015.
10.23.2*	Exhibit A (2014-16 Award Cycle). Incorporated by reference to Exhibit 10.24.1 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 6, 2015.
10.23.3*	Exhibit A (2015-17 Award Cycle). Incorporated by reference to Exhibit 10.27.1 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 6, 2015.
10.24*	Mueller Water Products, Inc. Form of Performance Share Award Agreement (Stub Period). Incorporated by reference to Exhibit 10.26 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 29, 2012.
10.25*	Mueller Water Products, Inc. Form of Performance Share Award Agreement for October 1, 2013 to September 30, 2016 award cycle. Incorporated by reference to Exhibit 10.23 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 7, 2014.
10.26*	Mueller Water Products, Inc. Form of Performance Share Award Agreement for October 1, 2014 to September 30, 2017 award cycle. Incorporated by reference to Exhibit 10.27 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on February 6, 2015.
10.27*	Term Loan Credit Agreement, dated November 25, 2014, among Mueller Water Products, Inc., as borrower, the several lenders from time to time parties thereto, SunTrust Robinson Humphrey, Inc., TD Securities (USA) LLC and Goldman Sachs Lending Partners LLC, as co-documentation agents, and Bank of America, N.A., as administrative agent. Incorporated by reference to Exhibit 10.26.2 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed on November 26, 2014.
10.27.1	First Amendment to Credit Agreement, dated February 21, 2017, Incorporated by reference to Exhibit 10.1 to Mueller Water Products, Inc. Form 8-K (File No. 001-32892) filed February 21, 2017.
10.28*	Employment Agreement, dated May 2, 2016, between Mueller Water Products Inc. and Patrick M. Donovan. Incorporated by reference to Exhibit 10.28 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on August 8, 2016.
10.28.1*	Executive Change-in-Control Severance Agreement, dated May 2, 2016, between Mueller Water Products and Patrick M. Donovan. Incorporated by reference to Exhibit 10.28.1 to Mueller Water Products, Inc. Form 10-Q (File no. 001-32892) filed on August 8, 2016.
10.29*	Employment Agreement, dated September 15, 2008, as amended, between Mueller Water Products Inc. and Marietta Edmunds Zakas. Incorporated by reference to Exhibit 10.28 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed November 22, 2016.
10.29.1*	Executive Change-in-Control Severance Agreement, dated September 15, 2008, between Mueller Water Products and Marietta Edmunds Zakas. Incorporated by reference to Exhibit 10.28.1 to Mueller Water Products, Inc. Form 10-K (File no. 001-32892) filed November 22, 2016.
10.30*	Employment Agreement, dated January 4, 2017, by and between Mueller Water Products Inc. and John Scott Hall. Incorporated by reference to Exhibit 10.2 to Mueller Water Products, Inc. Form 8-K (File No. 001-32892) filed January 10, 2017.
10.30.1*	Executive Change-in-Control Severance Agreement, dated January 4, 2017,by and between Mueller Water Products and John Scott Hall. Incorporated by reference to Exhibit 10.3 to Mueller Water Products, Inc. Form 8-K (File No. 001-32892) filed January 10, 2017.
12.1**	Computation of Ratio of Earnings to Fixed Charges
14.1*	Code of Business Conduct and Ethics for Mueller Water Products, Inc. Incorporated by reference to Exhibit 14.1 to Mueller Water Products, Inc. Form 10-Q (File no. 00132892) filed on February 7, 2014.
21.1**	Subsidiaries of Mueller Water Products, Inc.
23.1**	Consent of Independent Registered Accounting Firm
31.1**	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2**	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101**	The following financial information from the Annual Report on Form 10-K for the year ended September 30, 2015, formatted in XBRL (Extensible Business Reporting Language), (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations and Other Comprehensive Income, (iii) the Consolidated Statements of Stockholders' Equity, (iv) the Consolidated Statements of Cash Flows, and (v) the Notes to Consolidated Financial Statements.

* Management compensatory plan, contract or arrangement

** Filed with this annual report

SIGNATURES

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

Date: November 21, 2017

MUELLER WATER PRODUCTS, INC.

By: /s/ Scott Hall

Name: Scott Hall

Title: *President and Chief Executive Officer*

Pursuant to the requirements of the Securities Act of 1934, as amended, this report has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Gregory E. Hyland Gregory E. Hyland	Executive Chairman of the Board of Directors	November 21, 2017
/s/ Scott Hall Scott Hall	President and Chief Executive Officer	November 21, 2017
/s/ Evan L. Hart Evan L. Hart	Senior Vice President and Chief Financial Officer (principal financial officer)	November 21, 2017
/s/ Kevin G. McHugh Kevin G. McHugh	Vice President and Controller (principal accounting officer)	November 21, 2017
/s/ Shirley C. Franklin Shirley C. Franklin	Director	November 21, 2017
/s/ Thomas J. Hansen Thomas J. Hansen	Director	November 21, 2017
/s/ Jerry W. Kolb Jerry W. Kolb	Director	November 21, 2017
/s/ Mark J. O'Brien Mark J. O'Brien	Director	November 21, 2017
/s/ Bernard G. Rethore Bernard G. Rethore	Director	November 21, 2017
/s/ Lydia W. Thomas Lydia W. Thomas	Director	November 21, 2017
/s/ Michael T. Tokarz Michael T. Tokarz	Director	November 21, 2017

Report of Independent Registered Public Accounting Firm

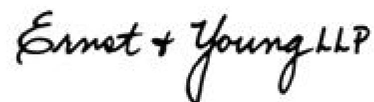
The Board of Directors and Stockholders of Mueller Water Products, Inc.

We have audited the accompanying consolidated balance sheets of Mueller Water Products, Inc. and subsidiaries as of September 30, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, equity, and cash flows for each of the three years in the period ended September 30, 2017. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Mueller Water Products, Inc. and subsidiaries at September 30, 2017 and 2016, and the consolidated results of their operations and their cash flows for each of the three years in the period ended September 30, 2017, 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), Mueller Water Products, Inc.'s internal control over financial reporting as of September 30, 2017, 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 November 21, 2017 expressed an unqualified opinion thereon.



Atlanta, Georgia

November 21, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Mueller Water Products, Inc.

We have audited Mueller Water Products, Inc. and subsidiaries' internal control over financial reporting as of September 30, 2017, 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). Mueller Water Products, Inc. and subsidiaries' 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 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.

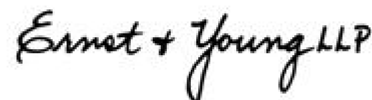
We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material 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.

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.

In our opinion, Mueller Water Products, Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of September 30, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Mueller Water Products, Inc. and subsidiaries as of September 30, 2017 and 2016, and the related consolidated statements of operations, comprehensive income, equity, and cash flows for each of the three years in the period ended September 30, 2017 and our report dated November 21, 2017 expressed an unqualified opinion on those financial statements.



Atlanta, Georgia

November 21, 2017

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	September 30,	
	2017	2016
	(in millions, except share amounts)	
Assets:		
Cash and cash equivalents	$ 361.7	$ 195.0
Receivables, net	145.3	131.8
Inventories	138.9	130.7
Other current assets	24.4	12.7
Current assets held for sale	—	142.1
Total current assets	670.3	612.3
Property, plant and equipment, net	122.3	108.4
Intangible assets	439.3	434.6
Other noncurrent assets	26.4	25.4
Noncurrent assets held for sale	—	99.9
Total assets	$ 1,258.3	$ 1,280.6
Liabilities and equity:		
Current portion of long-term debt	$ 5.6	$ 5.6
Accounts payable	82.5	73.7
Other current liabilities	53.5	61.7
Current liabilities held for sale	—	44.8
Total current liabilities	141.6	185.8
Long-term debt	475.0	478.8
Deferred income taxes	115.1	109.9
Other noncurrent liabilities	37.1	85.8
Noncurrent liabilities held for sale	—	0.8
Total liabilities	768.8	861.1
Commitments and contingencies (Note 17.)		
Common stock: 600,000,000 shares authorized; 158,590,383 and 161,693,051 shares outstanding at September 30, 2017 and 2016, respectively	1.6	1.6
Additional paid-in capital	1,494.2	1,563.9
Accumulated deficit	(955.6)	(1,078.9)
Accumulated other comprehensive loss	(51.8)	(68.3)
Total Company stockholders’ equity	488.4	418.3
Noncontrolling interest	1.1	1.2
Total equity	489.5	419.5
Total liabilities and equity	$ 1,258.3	$ 1,280.6

The accompanying notes are an integral part of the consolidated financial statements.

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended September 30,		
	2017	2016	2015
	(in millions, except per share amounts)		
Net sales	$ 826.0	$ 800.6	$ 793.4
Cost of sales	558.5	532.7	547.1
Gross profit	267.5	267.9	246.3
Operating expenses:			
Selling, general and administrative	156.4	151.2	146.7
Pension settlement	—	16.6	0.5
Loss on Walter receivable	—	—	11.6
Other charges	10.4	7.2	7.9
Total operating expenses	166.8	175.0	166.7
Operating income	100.7	92.9	79.6
Interest expense, net	22.2	23.6	27.5
Loss on early extinguishment of debt	—	—	31.3
Income before income taxes	78.5	69.3	20.8
Income tax expense	24.2	24.2	8.3
Income from continuing operations	54.3	45.1	12.5
Income from discontinued operations	69.0	18.8	18.4
Net income	$ 123.3	$ 63.9	$ 30.9
Earnings per basic share:			
Continuing operations	$ 0.34	$ 0.28	$ 0.08
Discontinued operations	0.43	0.12	0.11
Net Income	$ 0.77	$ 0.40	$ 0.19
Earnings per diluted share:			
Continuing operations	$ 0.34	$ 0.28	$ 0.08
Discontinued operations	0.42	0.11	0.11
Net income	$ 0.76	$ 0.39	$ 0.19
Weighted average shares outstanding:			
Basic	160.1	161.3	160.5
Diluted	161.8	163.4	163.2
Dividends declared per share	$ 0.150	$ 0.100	$ 0.075

The accompanying notes are an integral part of the consolidated financial statements.

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year ended September 30,		
	2017	2016	2015
		(in millions)	
Net income	$ 123.3	$ 63.9	$ 30.9
Other comprehensive income (loss):			
Minimum pension liability	17.4	2.8	6.3
Income tax effects	(6.7)	(1.1)	(2.6)
Foreign currency translation	2.8	0.2	(8.7)
Derivative instruments	4.9	(4.7)	(2.6)
Income tax effects	(1.9)	1.8	1.0
	16.5	(1.0)	(6.6)
Comprehensive income	$ 139.8	$ 62.9	$ 24.3

The accompanying notes are an integral part of the consolidated financial statements.

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
FOR THE THREE YEARS ENDED SEPTEMBER 30, 2017

	Common stock	Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive loss	Non-controlling interest	Total
			(in millions)			
Balance at September 30, 2014	$ 1.6	$ 1,582.8	$ (1,173.7)	$ (60.7)	$ 1.6	$ 351.6
Net income (loss)	—	—	30.9	—	(0.1)	30.8
Dividends declared	—	(12.0)	—	—	—	(12.0)
Stock-based compensation	—	4.9	—	—	—	4.9
Excess tax benefit on stock option exercises	—	3.2	—	—	—	3.2
Shares retained for employee taxes	—	(2.4)	—	—	—	(2.4)
Common stock issued	—	3.3	—	—	—	3.3
Stock repurchased under buyback program	—	(5.0)	—	—	—	(5.0)
Other comprehensive loss, net of tax	—	—	—	(6.6)	—	(6.6)
Balance at September 30, 2015	1.6	1,574.8	(1,142.8)	(67.3)	1.5	367.8
Net income (loss)	—	—	63.9	—	(0.3)	63.6
Dividends declared	—	(16.1)	—	—	—	(16.1)
Stock-based compensation	—	5.2	—	—	—	5.2
Shares retained for employee taxes	—	(3.3)	—	—	—	(3.3)
Common stock issued	—	3.3	—	—	—	3.3
Other comprehensive loss, net of tax	—	—	—	(1.0)	—	(1.0)
Balance at September 30, 2016	1.6	1,563.9	(1,078.9)	(68.3)	1.2	419.5
Net income (loss)	—	—	123.3	—	(0.1)	123.2
Dividends declared	—	(24.0)	—	—	—	(24.0)
Stock-based compensation	—	6.2	—	—	—	6.2
Shares retained for employee taxes	—	(2.7)	—	—	—	(2.7)
Common stock issued	—	5.8	—	—	—	5.8
Stock repurchased under buyback program	—	(55.0)	—	—	—	(55.0)
Other comprehensive loss, net of tax	—	—	—	16.5	—	16.5
Balance at September 30, 2017	$ 1.6	$ 1,494.2	$ (955.6)	$ (51.8)	$ 1.1	$ 489.5

The accompanying notes are an integral part of the consolidated financial statements.

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended September 30,		
	2017	2016	2015
		(in millions)	
Operating activities:			
Net income	$ 123.3	$ 63.9	$ 30.9
Less income from discontinued operations	69.0	18.8	18.4
Income from continuing operations	54.3	45.1	12.5
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	19.8	18.3	17.5
Amortization	22.1	21.2	25.9
Pension plans	3.4	21.0	1.1
Deferred income taxes	(5.7)	(6.6)	5.0
Stock-based compensation	6.0	4.7	4.0
Loss on early extinguishment of debt	—	—	31.3
Loss on Walter receivable	—	—	11.6
Other, net	1.1	3.8	4.6
Changes in assets and liabilities, net of acquisitions:			
Receivables	(9.9)	(12.3)	(3.2)
Inventories	(1.9)	3.5	(21.4)
Other assets	(3.4)	(5.7)	(0.2)
Pension obligations, related to contributions	(35.0)	—	(1.2)
Other liabilities	8.6	21.5	(29.4)
Net cash provided by operating activities	59.4	114.5	58.1
Investing activities:			
Capital expenditures	(40.6)	(31.5)	(27.2)
Business acquisitions, net of cash acquired	(26.6)	—	0.3
Proceeds from sales of assets	0.9	0.3	4.5
Net cash used in investing activities	(66.3)	(31.2)	(22.4)
Financing activities:			
Dividends paid	(24.0)	(16.1)	(12.0)
Repayment of debt	(4.9)	(5.0)	(589.0)
Shares retained for employee taxes	(2.7)	(3.3)	(2.4)
Common stock issued	5.8	3.3	3.3
Deferred financing costs paid	(1.0)	(1.2)	(8.5)
Issuance of debt	—	—	512.5
Stock repurchased under buyback program	(55.0)	—	(5.0)
Excess tax benefit on stock-based compensation	—	—	3.2
Other	0.4	(1.4)	(1.1)
Net cash used in financing activities	(81.4)	(23.7)	(99.0)
Net cash flows from discontinued operations:			
Operating activities	(43.3)	30.6	29.7
Investing activities	297.2	(7.9)	(9.2)
Financing activities	(0.1)	—	—
Net cash provided by discontinued operations	253.8	22.7	20.5
Effect of currency exchange rate changes on cash	1.2	(0.4)	(5.2)
Net change in cash and cash equivalents	166.7	81.9	(48.0)
Cash and cash equivalents at beginning of year	195.0	113.1	161.1
Cash and cash equivalents at end of year	$ 361.7	$ 195.0	$ 113.1

The accompanying notes are an integral part of the consolidated financial statements.

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE THREE YEARS ENDED SEPTEMBER 30, 2017

Note 1. Organization

Mueller Water Products, Inc., a Delaware corporation, together with its consolidated subsidiaries, operates in two business segments: Infrastructure and Technologies. Infrastructure (previously referred to as "Mueller Co.") manufactures valves for water and gas systems, including butterfly, iron gate, tapping, check, knife, plug and ball valves, as well as dry-barrel and wet-barrel fire hydrants. Technologies (previously referred to as "Mueller Technologies") offers metering systems, leak detection, pipe condition assessment and other products and services for the water infrastructure industry. The "Company," "we," "us" or "our" refer to Mueller Water Products, Inc. and its subsidiaries. With regard to the Company's segments, "we," "us" or "our" may also refer to the segment being discussed.

In July 2014, Infrastructure acquired a 49% ownership in an industrial valve joint-venture for $1.7 million. Due to substantive control features in the joint-venture agreement, all of the joint venture's assets, liabilities and results of operations are included in our consolidated financial statements. We included an adjustment for the loss attributable to noncontrolling interest in selling, general and administrative expenses. Noncontrolling interest is recorded at its carrying value, which approximates fair value.

Our consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"), which require us to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, sales and expenses and the disclosure of contingent assets and liabilities for the reporting periods. Actual results could differ from those estimates. All significant intercompany balances and transactions have been eliminated. Certain reclassifications have been made to previously reported amounts to conform to the current presentation.

Unless the context indicates otherwise, whenever we refer to a particular year, we mean our fiscal year ended or ending September 30 in that particular calendar year.

Note 2. Summary of Significant Accounting Policies

Revenue Recognition-Revenue is recognized when delivery of products has occurred or services have been rendered and there is persuasive evidence of a sales arrangement, selling prices are fixed or determinable and collectibility is reasonably assured. Revenue is reported net of estimated discounts, returns and rebates as "net sales."

In May 2014, the Financial Accounting Standards Board ("FASB") issued new guidance for the recognition of revenue and requiring additional financial statement disclosures. We plan to adopt this guidance using the modified retrospective transition method beginning in the first quarter of fiscal 2019. We have completed our initial scoping and are developing a project plan to classify our revenue streams, to evaluate revenue recognition practices for each stream against the new requirements, to consider changes to the terms of our sales contracts, and to design and implement processes to quantify the effects of necessary changes. This work is ongoing, but at this time, we do not expect the new guidance to materially impact our stockholders' equity, net sales or operating income.

Stock-based Compensation-Compensation expense for stock-based awards granted to employees and directors is based on the fair value at the grant dates for our stock-settled share awards and is based on the fair value at each reporting date for our cash-settled share awards. See Note 11. for more information regarding our stock-based compensation. Stock-based compensation expense is a component of selling, general and administrative expenses.

At March 31, 2016, we adopted FASB Accounting Standards Update 2016-09 *Improvements to Employee Share-Based Payment Accounting.* Most significantly, this update changes the accounting for "excess tax benefits" related to stock-based compensation awards by requiring such benefits be included in earnings, rather than recorded directly to additional paid-in capital.

Cash and Cash Equivalents-All highly liquid investments with remaining maturities of 90 days or less when purchased are classified as cash equivalents. Where there is no right of offset against cash balances, outstanding checks are included in accounts payable.

Receivables-Receivables are amounts due from customers. To reduce credit risk, credit investigations are generally performed prior to accepting orders from new customers and, when necessary, letters of credit, bonds or other instruments are required to ensure payment.

We present trade receivables net of an allowance for credit losses. Our consolidated statements of operations reflect the measurement of credit losses for newly recognized trade receivables, as well as the expected increases or decreases of expected credit losses that have taken place during the period.

Our periodic evaluations of expected credit losses are based upon our judgments regarding prior collection experience, specific customer creditworthiness, other current conditions and forecasts of current economic trends within the industries served that may affect the collectibility of the reported amounts. Significantly weaker than anticipated industry or economic conditions could impact customers' ability to pay such that actual credit losses may be greater than the amounts provided for in this allowance.

When we determine a specific trade receivable will not be collected, we charge off the uncollectible amount against the allowance.

The following table summarizes information concerning our allowance for credit losses.

	2017	2016	2015
		(in millions)	
Balance at beginning of year	$ 4.5	$ 3.9	$ 3.8
Provision charged to expense	0.3	0.6	0.2
Balances written off, net of recoveries	(0.8)	—	(0.2)
Other	0.1	—	0.1
Balance at end of year	$ 4.1	$ 4.5	$ 3.9

Inventories-Inventories are recorded at the lower of first-in, first-out method cost or estimated net realizable value. We evaluate our inventory in terms of excess and obsolete exposures. This evaluation includes such factors as anticipated usage, inventory turnover, inventory levels and ultimate product sales value. Inventory cost includes an overhead component that is affected by levels of production and actual costs incurred. We periodically evaluate the effects of production levels and costs capitalized as part of inventory.

The following table summarizes information concerning our inventory valuation reserves.

	2017	2016	2015
		(in millions)	
Balance at beginning of year	$ 4.6	$ 4.4	$ 4.8
Provision charged to expense	2.0	2.1	1.4
Inventory disposed	(2.1)	(2.1)	(1.8)
Other	(0.1)	0.2	—
Balance at end of year	$ 4.4	$ 4.6	$ 4.4

Other Current Assets-Other current assets include maintenance supplies and tooling costs. Costs for perishable tools and maintenance items are expensed when put into service. Costs for more durable items are amortized over their estimated useful lives, ranging from 3 to 10 years.

Property, Plant and Equipment-Property, plant and equipment is recorded at cost, less accumulated depreciation. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets. Estimated useful lives are 10 to 20 years for land improvements, 10 to 40 years for buildings and 3 to 15 years for machinery and equipment. Leasehold improvements and capitalized leases are depreciated using the straight-line method over the lesser of the useful life of the asset or the remaining lease term. Gains and losses upon disposition are reflected in operating results in the period of disposition.

Direct internal and external costs to implement computer systems and internal-use software are capitalized. Capitalized costs are depreciated over the estimated useful life of the system or software, generally 6 years, beginning when site installation or module development is complete and ready for use.

Liabilities are recognized at fair value for asset retirement obligations related to plant and landfill closures in the period in which they are reasonably estimable and the carrying amounts of the related long-lived assets are correspondingly increased. Over time, the liabilities are accreted to their estimated future values. At September 30, 2017 and 2016, asset retirement obligations were $3.8 million and $7.5 million, respectively.

During 2016, FASB issued Accounting Standards Update 2016-02 *Leases*, which will require us to recognize lease assets and lease liabilities for those leases currently referred to as operating leases. This requirement is effective for 2020, although early adoption is permitted. The update allows for several different methods of application and adoption of the requirement. We are currently evaluating these methods, in what period we will adopt the requirement, and the impact of this requirement, which we do not believe will be material to our consolidated financial statements as a whole.

Accounting for the Impairment of Long-Lived Assets-We test indefinite-lived intangible assets and goodwill for impairment annually (or more frequently if events or circumstances indicate possible impairment.) We perform our annual impairment testing at September 1. We amortize finite-lived intangible assets over their respective estimated useful lives and review for impairment if events or circumstances indicate possible impairment.

Workers Compensation-Our exposure to workers compensation claims is generally limited to $1 million per incident. Liabilities, including those related to claims incurred but not reported, are recorded principally using annual valuations based on discounted future expected payments and using historical data combined with insurance industry data when historical data is limited. We are indemnified under an agreement with a predecessor to Tyco for all Mueller Co. and Anvil workers compensation liabilities related to incidents that occurred prior to August 16, 1999. See Note 17. We retained U.S. Pipe workers compensation liabilities related to incidents that occurred prior to the segment's April 1, 2012 sale date, but the purchaser agreed to reimburse us for up to $11.8 million in payments we make related to these liabilities. At September 30, 2017, the remaining reimbursements may be up to $4.1 million, which we have recorded on a discounted basis as $0.5 million in other current assets and $3.6 million in other noncurrent assets. On an undiscounted basis, workers compensation liabilities were $10.7 million and $13.7 million at September 30, 2017 and 2016, respectively. On a discounted basis, workers compensation liabilities were $9.1 million and $11.8 million at September 30, 2017 and 2016, respectively.

We apply a discount rate at a risk-free interest rate, generally a U.S. Treasury bill rate, for each policy period. The rate used is one with a duration that corresponds to the weighted average expected payout period for each policy period. Once a discount rate is applied to a policy period, it remains the discount rate for that policy period until all claims are paid.

Warranty Costs-We accrue for warranty expenses that can include customer costs of repair and/or replacement, including labor, materials, equipment, freight and reasonable overhead costs. We accrue for the estimated cost of product warranties at the time of sale if such costs are determined to be reasonably estimable at that time. Warranty cost estimates are revised throughout applicable warranty periods as better information regarding warranty costs becomes available.

As discussed in Note 17. we recognized $9.8 million of Technologies' warranty expense during the year ended September 30, 2017 related to certain radios sold in prior periods.

Activity in accrued warranty, reported as part of both other current liabilities and other noncurrent liabilities, is presented below.

	2017	2016	2015
		(in millions)	
Balance at beginning of year	$ 2.0	$ 2.9	$ 2.4
Warranty expense	12.3	5.3	5.1
Warranty payments	(5.8)	(6.2)	(4.6)
Balance at end of year	$ 8.5	$ 2.0	$ 2.9

Deferred Financing Costs-Costs of debt financing are charged to expense over the lives of the related financing agreements. Remaining costs and the future period over which they would be charged to expense are reassessed when amendments to the related financing agreements or prepayments occur.

ABL Agreement deferred financing costs are included in other noncurrent assets and other deferred financing costs are offset against long-term debt in the accompanying consolidated balance sheets. Deferred financing costs of $7.4 million at September 30, 2017 are scheduled to amortize as follows: $1.5 million related to the ABL Agreement amortizes on a straight-line basis; $5.9 million related to the Term Loan amortizes using the effective-interest rate method. All such amortization will be over the remaining term of the respective debt. See Note 7.

Derivative Instruments and Hedging Activities-We manage interest rate risk to some extent using derivative instruments. We designated our interest rate swap contracts as cash flow hedges of interest payments. As a result, the changes in the fair value of these contracts prior to settlement are reported as a component of accumulated other comprehensive loss and are reclassified into earnings in the periods during which the hedged transactions affect earnings.

We also manage U.S. dollar - Canadian dollar exchange risk related to an intercompany loan with swap contracts that we have not designated as hedges. As a result, the changes in the fair value of these contracts are reported currently in earnings.

Income Taxes-Deferred tax liabilities and deferred tax assets are recognized for the expected future tax consequences of events that have been included in the financial statements or tax returns. Such liabilities and assets are determined based on the differences between the financial statement basis and the tax basis of assets and liabilities, using tax rates in effect for the years in which the differences are expected to reverse. A valuation allowance is provided when, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

We only record tax benefits for positions that management believes are more likely than not of being sustained under audit based solely on the technical merits of the associated tax position. The amount of tax benefit recognized for any position that meets the more likely than not threshold is the largest amount of the tax benefit that we believe is greater than 50% likely of being realized.

Environmental Expenditures-We capitalize environmental expenditures that increase the life or efficiency of noncurrent assets or that reduce or prevent environmental contamination. We accrue for environmental expenses resulting from existing conditions that relate to past operations when the costs are probable and reasonably estimable. We are indemnified under an agreement with a predecessor to Tyco for certain environmental liabilities that existed at August 16, 1999. See Note 17.

Research and Development-Research and development costs are expensed as incurred.

Advertising-Advertising costs are expensed as incurred.

Translation of Foreign Currency-Assets and liabilities of our businesses whose functional currency is other than the U.S. dollar are translated into U.S. dollars using currency exchange rates at the balance sheet date. Revenues and expenses are translated at average currency exchange rates during the period. Foreign currency translation gains and losses are reported as a component of accumulated other comprehensive loss. Gains and losses resulting from foreign currency transactions are included in operating results as incurred.

Note 3. Divestiture

On January 6, 2017, we sold Anvil to affiliates of One Equity Partners for cash proceeds of $305.7 million and the agreement by the purchaser to reimburse us for expenditures to settle certain previously existing liabilities.

The table below presents a summary of the sale of Anvil, in millions.

Gross cash proceeds	$ 305.7
Noncash proceeds	1.9
Total proceeds	307.6
Transaction expenses	(8.3)
Net proceeds	299.3
Assets and liabilities disposed	(189.8)
Gain on sale, pre-tax	109.5
Income tax	(41.6)
Gain on sale, net of tax	$ 67.9

The table below presents a summary of the operating results for the Anvil discontinued operations. These operating results do not reflect what they would have been had Anvil not been classified as discontinued operations.

	2017	2016	2015
		(in millions)	
Net sales	$ 83.1	$ 338.3	$ 371.1
Cost of sales	62.8	241.9	270.1
Gross profit	20.3	96.4	101.0
Operating expenses:			
Selling, general and administrative	17.2	67.6	69.7
Other charges	0.2	1.1	1.3
Total operating expenses	17.4	68.7	71.0
Operating income	2.9	27.7	30.0
Interest expense, net	—	—	0.1
Income before income taxes	2.9	27.7	29.9
Income tax expense	1.8	8.9	11.5
	1.1	18.8	18.4
Gain on sale, net of tax	67.9	—	—
Income from discontinued operations	$ 69.0	$ 18.8	$ 18.4

The table below presents the components of the balance sheet accounts classified as assets and liabilities held for sale and the related net deferred income tax liability.

	September 30, 2016
	(in millions)
Assets:	
Receivables, net	$ 54.9
Inventories	83.1
Other current assets	4.1
Total current assets held for sale	142.1
Property, plant and equipment, net	46.7
Intangible assets	51.4
Other noncurrent assets	1.8
Total noncurrent assets held for sale	99.9
Total assets held for sale	$ 242.0
Liabilities:	
Current portion of long-term debt	$ 0.3
Accounts payable	27.1
Other current liabilities	17.4
Total current liabilities held for sale	44.8
Long-term debt	0.4
Other noncurrent liabilities	0.4
Total noncurrent liabilities held for sale	0.8
Total liabilities held for sale	$ 45.6
Net deferred income tax liability associated with discontinued operations	$ 13.0

Note 4. Acquisition

On February 15, 2017, we acquired Singer Valve, a manufacturer of automatic control valves, and its affiliates for aggregate cash consideration of $26.6 million, net of post-closing adjustments. Singer Valve had net sales of approximately $15 million in calendar 2016 and is included in Infrastructure. The preliminary allocation of consideration to the assets and liabilities of these companies, is presented below, in millions.

Assets acquired, net of cash:		
Receivables	$	3.0
Inventories		5.8
Other current assets		0.2
Property, plant and equipment		1.0
Intangible assets		11.4
Goodwill		7.2
Liabilities assumed:		
Accounts payable		0.7
Other current liabilities		0.4
Current and long term debt		0.1
Deferred income tax liability		0.8
Consideration paid	$	26.6

The goodwill recognized represents expected benefits of the acquisition that do not qualify for recognition as intangible assets and is deductible for income tax purposes.

Note 5. Intangible Assets

Direct internal and external costs to develop software used by Technologies' customers are capitalized. Capitalized costs are amortized over the 6-year estimated useful life of the software, beginning when the software is complete and ready for sale. At September 30, 2017, the remaining weighted-average amortization period for external-use software was 3.7 years. Amortization expense related to such software assets was $2.4 million, $1.9 million and $1.6 million for 2017, 2016 and 2015, respectively. Amortization expense for each of the next five years is scheduled to be $3.9 million in 2018, $3.6 million in 2019, $3.3 million in 2020, $2.6 million in 2021 and $2.1 million in 2022.

At September 30, 2017, the remaining weighted-average amortization period for the business combination-related finite-lived intangible assets was 6.8 years. Amortization expense related to these assets was $19.7 million, $19.3 million and $24.3 million for 2017, 2016 and 2015, respectively. Amortization expense for each of the next five years is scheduled to be $20.0 million in 2018, $19.8 million in 2019, $19.8 million in 2020, $19.8 million in 2021 and $19.7 million in 2022.

Intangible assets are presented below.

	September 30, 2017	September 30, 2016
	(in millions)	
Capitalized external-use software:		
Cost	$ 28.4	$ 20.9
Accumulated amortization	(11.3)	(8.9)
Net book value	17.1	12.0
Business combination-related:		
Cost:		
Finite-lived intangible assets:		
Technology	76.7	76.8
Customer relationships and other	359.2	350.5
Indefinite-lived intangible assets:		
Trade names and trademarks	266.8	263.6
Goodwill	12.9	5.4
	715.6	696.3
Accumulated amortization:		
Technology	(72.2)	(71.5)
Customer relationships and other	(221.2)	(202.2)
	(293.4)	(273.7)
Net book value	422.2	422.6
Total intangible assets net book value	$ 439.3	$ 434.6

Note 6. Income Taxes

The components of income before income taxes from continuing operations are presented below.

	2017	2016	2015
		(in millions)	
U.S.	$ 82.7	$ 69.7	$ 25.2
Non-U.S.	(4.2)	(0.4)	(4.4)
Income before income taxes	$ 78.5	$ 69.3	$ 20.8

The cumulative amount of undistributed earnings of foreign subsidiaries that we consider to be indefinitely reinvested, and thus for which United States income taxes have not been provided, was $52.4 million at September 30, 2017. It is not currently practical to estimate the amount of unrecognized United States income taxes that might be payable on the repatriation of these earnings.

The components of income tax expense from continuing operations are presented below.

	2017	2016	2015
		(in millions)	
Current:			
U.S. federal	$ 25.4	$ 28.9	$ 3.1
U.S. state and local	4.0	2.0	0.2
Non-U.S.	0.5	(0.1)	—
	29.9	30.8	3.3
Deferred:			
U.S. federal	(4.3)	(9.8)	2.8
U.S. state and local	(0.2)	3.4	2.7
Non-U.S.	(1.2)	(0.2)	(0.5)
	(5.7)	(6.6)	5.0
Income tax expense	$ 24.2	$ 24.2	$ 8.3

The reconciliation between income tax expense at the U.S. federal statutory income tax rate and reported income tax expense from continuing operations is presented below.

	2017	2016	2015
		(in millions)	
Expense at U.S. federal statutory income tax rate of 35%	$ 27.5	$ 24.3	$ 7.3
Adjustments to reconcile to income tax expense:			
State income taxes, net of federal benefit	2.7	3.1	2.0
Domestic production activities deduction	(4.5)	(3.0)	(0.5)
Tax credits	(1.4)	(2.0)	(1.4)
Nondeductible expenses, other than compensation	0.6	0.7	0.6
Federal valuation allowance	0.4	—	0.5
Foreign income taxes	0.3	0.2	0.4
Nondeductible compensation	0.5	0.4	0.3
State tax rate change	(0.4)	0.4	—
Excess tax benefits related to stock compensation	(2.1)	(0.5)	—
Other	0.6	0.6	(0.9)
Income tax expense	$ 24.2	$ 24.2	$ 8.3

Deferred income tax balances are presented below.

	September 30,	
	2017	2016
	(in millions)	
Deferred income tax assets:		
Inventory reserves	$ 12.0	$ 14.8
Accrued expenses	14.9	15.0
Pension and other postretirement benefits	6.0	25.0
Stock-based compensation	6.2	7.7
State net operating losses	3.2	5.0
Federal credit carryovers	0.9	0.6
Other	2.7	4.8
	45.9	72.9
Valuation allowance	(1.5)	(0.9)
Total deferred income tax assets, net of valuation allowance	44.4	72.0
Deferred income tax liabilities:		
Intangible assets	151.2	177.0
Other	7.2	3.8
Total deferred income tax liabilities	158.4	180.8
Net deferred income tax liabilities	$ 114.0	$ 108.8
Balance sheet presentation:		
Deferred income taxes	$ 115.1	$ 109.9
Less deferred tax assets included in other noncurrent assets	1.1	1.1
Net deferred income tax liabilities	$ 114.0	$ 108.8

We reevaluate the need for a valuation allowance against the U.S. deferred tax assets each quarter, considering results to date, projections of taxable income, tax planning strategies and reversing taxable temporary differences.

Our state net operating loss carryforwards, which expire between calendar years 2018 and 2033, remain available to offset future taxable earnings.

The following table summarizes information concerning our gross unrecognized tax benefits.

	2017	2016
	(in millions)	
Balance at beginning of year	$ 2.8	$ 2.6
Increases related to prior year positions	0.1	0.3
Increases related to current year positions	0.2	0.2
Decreases due to lapse in statute of limitations	(0.1)	(0.3)
Balance at end of year	$ 3.0	$ 2.8

Substantially all unrecognized tax benefits would, if recognized, impact the effective tax rate. We recognize interest related to uncertain tax positions as interest expense and recognize any penalties incurred as a component of selling, general and administrative expenses. At September 30, 2017 and 2016, we had $0.7 million and $0.5 million, respectively, of accrued interest expense related to unrecognized tax benefits.

We expect to settle certain state income tax audits within the next 12 months and believe it is reasonably possible that these audit settlements will reduce the gross unrecognized tax benefits by $0.8 million.

The federal income tax returns for Mueller Co. and Anvil are closed for years prior to 2005 and for Mueller Water Products, Inc. for 2007 and 2008. Our 2009 through 2012 returns are closed except to the extent net operating losses from those years have been utilized on subsequent years' returns. Tax years 1980 to 1994 and 1999 to 2001 remain open for our predecessor company, U.S. Pipe, which was a subsidiary of Walter Energy in those years. See Note 17. We also remain liable for any taxes related to periods prior to the sale of U.S. Pipe in 2012 pursuant to the terms of the sale agreement with the purchaser of the segment.

Our state income tax returns are generally closed for years prior to 2012, except to the extent of our state net operating loss carryforwards. Our Canadian income tax returns are generally closed for years prior to 2009. We are currently under audit by several jurisdictions at various levels of completion. We do not have any material unpaid assessments.

Note 7. Borrowing Arrangements

The components of our long-term debt are presented below.

	September 30,	
	2017	2016
	(in millions)	
ABL Agreement	$ —	$ —
Term Loan	484.8	489.4
Other	1.7	1.3
	486.5	490.7
Deferred financing costs	(5.9)	(6.3)
Less current portion	(5.6)	(5.6)
Long-term debt	$ 475.0	$ 478.8

ABL Agreement. Our asset based lending agreement ("ABL Agreement") consists of a revolving credit facility for up to $225 million of revolving credit borrowings, swing line loans and letters of credit. The ABL Agreement also permits us to increase the size of the credit facility by an additional $150 million in certain circumstances subject to adequate borrowing base availability. We may borrow up to $25 million through swing line loans and may have up to $60 million of letters of credit outstanding.

Borrowings under the ABL Agreement bear interest at a floating rate equal to LIBOR plus a margin ranging from 125 to 150 basis points, or a base rate, as defined in the ABL Agreement, plus a margin ranging from 25 to 50 basis points. At September 30, 2017 the applicable rate was LIBOR plus 125 basis points.

The ABL Agreement terminates on July 13, 2021. We pay a commitment fee for any unused borrowing capacity under the ABL Agreement of 25 basis points per annum. Borrowings are not subject to any financial maintenance covenants unless excess availability is less than the greater of $17.5 million and 10% of the Loan Cap as defined in the ABL Agreement. Excess availability based on September 30, 2017 data, as reduced by outstanding letters of credit, swap contract liabilities and accrued fees and expenses of $23.6 million, was approximately $113 million.

Term Loan. On November 25, 2014, we entered into a $500.0 million senior secured term loan ("Term Loan"). We capitalized $8.5 million of financing costs, which are being amortized over the term of the Term Loan using the effective interest rate method. The proceeds from the Term Loan, along with other cash, were used to prepay our 7.375% Senior Subordinated Notes ("Senior Subordinated Notes") and 8.75% Senior Unsecured Notes ("Senior Unsecured Notes") and to satisfy and discharge our obligations under the respective indentures. We recorded a loss on early extinguishment of debt of $31.3 million, which consisted of $25.2 million of tender and call premiums, $4.4 million of deferred financing costs and $1.7 million of unamortized discount written off.

The Term Loan accrues interest at a floating rate equal to LIBOR, subject to a floor of 0.75%, plus 250 basis points. At September 30, 2017, the weighted-average effective interest rate, including amortization of deferred finance costs and original issue discount and the effect of interest rate swaps, was 4.56%. We may voluntarily repay amounts borrowed under the Term Loan at any time. The principal amount of the Term Loan is required to be repaid in quarterly installments of $1.225 million, with any remaining principal due on November 25, 2021. The Term Loan is guaranteed by substantially all of our U.S. subsidiaries and is secured by essentially all of our assets, although the ABL Agreement has a senior claim on certain collateral securing borrowings thereunder. The Term Loan is reported net of unamortized discount of $1.5 million. Based on quoted market prices, the outstanding Term Loan had a fair value of $490.9 million at September 30, 2017.

The Term Loan contains affirmative and negative operating covenants applicable to us and our restricted subsidiaries. We believe we were compliant with these covenants at September 30, 2017 and expect to remain in compliance through September 30, 2018.

The scheduled maturities of all borrowings outstanding at September 30, 2017 for each of the following years are $5.6 million for 2018, $5.4 million for 2019, $5.3 million for 2020, $5.0 million for 2021 and $466.7 million for 2022.

Note 8. Derivative Financial Instruments

We are exposed to interest rate risk that we manage to some extent using derivative instruments. Under our April 2015 interest rate swap contracts, we receive interest calculated using 3-month LIBOR, subject to a floor of 0.750%, and pay fixed interest at 2.341%, on an aggregate notional amount of $150.0 million. These swap contracts effectively fix the cash interest rate on $150.0 million of our borrowings under the Term Loan at 4.841% through September 30, 2021.

We have designated our interest rate swap contracts as cash flow hedges of our future interest payments and elected to apply the “shortcut” method of assessing hedge effectiveness. As a result, the gains and losses on the swap contracts are reported as a component of other comprehensive loss and are reclassified into interest expense as the related interest payments are made.

In connection with the acquisition of Singer Valve discussed in Note 4., Mueller Water Products, Inc. loaned funds to one of our Canadian subsidiaries. Although this intercompany loan has no direct effect on our consolidated financial statements, it creates exposure to currency risk for the Canadian subsidiary. To reduce this exposure, we entered into a U.S. dollar-Canadian dollar swap contract with the Canadian subsidiary and an offsetting Canadian dollar-U.S. dollar swap with a domestic bank. We have not designated these swaps as hedges and the changes in their fair value are included in earnings, where they offset the currency gains and losses associated with the intercompany loan.

The fair values of the swap contracts are presented below.

	September 30,	
	2017	2016
	(in millions)	
Interest rate swap contracts, designated as cash flow hedges:		
Other current liabilities	$ 1.2	$ 2.0
Other noncurrent liabilities	1.3	5.3
	$ 2.5	$ 7.3
Currency swap contracts, not designated as hedges:		
Other noncurrent liabilities	$ 1.3	$ —

The fair values and the classification of the fair values between current and noncurrent portions are based on calculated cash flows using publicly available interest rate forward rate yield curve information, but amounts due at the actual settlement dates are dependent on actual rates in effect at the settlement dates and may differ significantly from amounts shown above.

The fair values of the currency swaps are as reported to us by the bank counterparty, which we believe to be a reliable source.

Note 9. Retirement Plans

We have various pension plans (“Pension Plans”), which we fund in accordance with their requirements and, where applicable, in amounts sufficient to satisfy the minimum funding requirements of applicable laws. The Pension Plans provide benefits based on years of service and compensation or at stated amounts for each year of service. The measurement date for all Pension Plans was September 30. Our U.S. pension plan (“Plan”) comprised 98% of the Pension Plans’ obligations and 98% of the Pension Plans’ assets at September 30, 2017.

We made a voluntary contribution of $35.0 million to the Plan in 2017. We do not anticipate making any contributions to the Plan in 2018.

During 2016, the Plan completed a pension obligation settlement program targeting vested, terminated participants not yet receiving benefits. Approximately 75% of eligible participants accepted settlement offers. The Plan distributed assets totaling

$58.5 million. We incurred a non-cash pension settlement charge of $16.6 million as a result of the program, which had an immaterial impact on the Plan's funded ratio.

During 2015, we contributed $1.2 million to fully fund two of our Canadian plans and recorded a pension settlement charge of $0.5 million. We currently plan to make $1.2 million of contributions to a Canadian pension plan in 2018.

During March 2017, the Financial Accounting Standards Board issued Accounting Standards Update No. 2017-07 ("ASU 2017-07"). This amendment to GAAP will require us to exclude from operating income the components of net periodic benefit cost other than service cost. We adopted this amendment on October 1, 2017, and this adoption will require reclassification of amounts included in 2017 and 2016 results. The components of net periodic benefit cost for our Pension Plans and the effects this adoption will have on operating income are presented below.

	2017	2016	2015
		(in millions)	
Service cost	$ 2.0	$ 1.7	$ 1.9
Components of net periodic benefit cost that will be excluded from operating income upon adoption of ASU 2017-07:			
Interest cost	14.3	18.9	20.1
Expected return on plan assets	(16.9)	(19.7)	(24.6)
Amortization of actuarial net loss	4.0	3.4	3.2
Pension settlement	—	16.6	0.5
Other	—	0.1	—
	1.4	19.3	(0.8)
Net periodic benefit cost	$ 3.4	$ 21.0	$ 1.1

Balance sheet information for Pension Plans with accumulated benefit obligations in excess of plan assets is presented below.

	September 30,	
	2017	2016
	(in millions)	
Projected benefit obligations	$ 379.5	$ 402.0
Accumulated benefit obligations	379.5	402.0
Fair value of plan assets	364.2	337.9

Balance sheet information for Pension Plans with accumulated benefit obligations less than plan assets is presented below.

	September 30,	
	2017	2016
	(in millions)	
Projected benefit obligations	$ 1.0	$ 1.1
Accumulated benefit obligations	1.0	1.1
Fair value of plan assets	2.1	2.1

Pension Plan activity in accumulated other comprehensive loss, before tax, in 2017 is presented below, in millions.

Balance at beginning of year	$ 110.8
Actuarial loss	(13.5)
Prior year actuarial loss amortization to net periodic cost	(4.0)
Other	0.1
Balance at end of year	$ 93.4

We amortize amounts in accumulated other comprehensive loss representing unrecognized prior year service cost and unrecognized loss related to the Pension Plans over the weighted average life expectancy of their inactive participants.

The components of accumulated other comprehensive loss related to Pension Plans that we expect to amortize into net periodic benefit cost in 2018 are presented below, in millions.

Amortization of unrecognized prior year service cost	$ —
Amortization of unrecognized loss	3.2
	$ 3.2

Amounts recognized for Pension Plans and other postretirement benefit plans are presented below.

	Pension Plans	
	2017	2016
	(in millions)	
Projected benefit obligations:		
Beginning of year	$ 403.1	$ 428.2
Service cost	2.0	1.7
Interest cost	14.3	18.9
Actuarial loss (gain)	(14.5)	37.7
Benefits paid	(24.8)	(25.1)
Currency translation	0.4	0.2
Decrease in obligation due to curtailment / settlement	—	(58.5)
End of year	$ 380.5	$ 403.1
Accumulated benefit obligations at end of year	$ 380.5	$ 403.1
Plan assets:		
Beginning of year	$ 340.0	$ 383.4
Actual return on plan assets	15.8	40.1
Employer contributions	35.0	—
Settlement	—	(58.5)
Currency translation	0.4	0.1
Benefits paid	(24.8)	(25.1)
Other	(0.1)	—
End of year	$ 366.3	$ 340.0
Accrued benefit cost at end of year:		
Unfunded status	$ (14.2)	$ (63.1)
Recognized on balance sheet:		
Other noncurrent assets	$ 1.1	$ 1.0
Other current liabilities	(1.1)	(1.2)
Other noncurrent liabilities	(14.2)	(62.9)
	$ (14.2)	$ (63.1)
Recognized in accumulated other comprehensive loss, before tax:		
Prior year service cost	$ —	$ —
Net actuarial loss	93.4	110.8
	$ 93.4	$ 110.8

The discount rates for determining the present value of pension obligations were selected using a "bond settlement" approach, which constructs a hypothetical bond portfolio that could be purchased such that the coupon payments and maturity values could be used to satisfy the projected benefit payments. The discount rate is the equivalent rate that results in the present value of the projected benefit payments equaling the market value of this bond portfolio. Only high quality (AA graded or higher), non-callable corporate bonds are included in this bond portfolio. We rely on the Pension Plans' actuaries to assist in the development of the discount rate model. The actuarial loss in 2016 was primarily due to the decrease in the discount rate at September 30, 2016 compared to September 30, 2015.

Management's expected returns on plan assets were determined with the assistance of the Pension Plans' actuaries and investment consultants. Expected returns on plan assets were developed using forward looking returns over a time horizon of 10 to 15 years for major asset classes along with projected risk and historical correlations.

A summary of key assumptions for our pension plans is below.

	Pension Plans		
	2017	**2016**	**2015**
Weighted average used to determine benefit obligations:			
Discount rate	3.88%	3.68%	4.84%
Weighted average used to determine net periodic cost:			
Discount rate	3.68%	3.92%	4.49%
Expected return on plan assets	5.16	5.50	6.21

We maintain a single trust to hold the assets of the U.S. pension plan. Throughout 2015 and most of 2016, the strategic asset allocation was about 40% equity investments. Near the end of 2016, we directed our investment manager to adjust the asset allocation to about 30% equity investments. Near the end of 2017, we directed our investment manager to adjust the asset allocation to about 20% equity investments. This trust's strategic asset allocations, tactical range at September 30, 2017 and actual asset allocations are presented below.

	Strategic asset allocation	**Tactical range**	**Actual asset allocations at September 30,**		
			2017	**2016**	**2015**
Equity investments:					
Large capitalization stocks	12%				
Small capitalization stocks	3				
International stocks	5				
	20	15 - 20%	21%	29%	39%
Fixed income investments	80	80	78	69	60
Cash	—	0 - 5	1	2	1
	100%		100%	100%	100%

Assets of the Pension Plans are allocated to various investments to attain diversification and reasonable risk-adjusted returns while also managing the exposure to asset and liability volatility. These ranges are targets and deviations may occur from time to time due to market fluctuations. Portfolio assets are typically rebalanced to the allocation targets at least annually.

The valuation methodologies used to measure the assets of the Pension Plans at fair value are:

- Equity investments are valued at the closing price reported on the active market when reliable market quotations are readily available. When market quotations are not readily available, assets of the Pension Plans are valued by a method the trustees of the Pension Plans believe accurately reflects fair value;
- Fixed income fund investments are valued using the closing price reported in the active market in which the investment is traded or based on yields currently available on comparable securities of issuers with similar credit ratings; and
- Other investments are valued as determined by the trustees of the Pension Plans based on their net asset values and supported by the value of the underlying securities and by the unit prices of actual purchase and sale transactions occurring at or close to the financial statement date.

The assets of the Pension Plans by level within the fair value hierarchy are presented below.

	September 30, 2017		
	Level 1	**Level 2**	**Total**
		(in millions)	
Equity:			
Large cap stocks:			
Large cap growth funds	$ —	$ 32.6	$ 32.6
Mid cap stocks:			
Mid cap index funds	—	10.9	10.9
Small cap stocks:			
Small cap growth funds	—	11.3	11.3
International stocks:			
Mutual funds	15.4	—	15.4
International funds	—	7.4	7.4
Total equity	15.4	62.2	77.6
Fixed income	—	284.4	284.4
Cash and cash equivalents	4.3	—	4.3
	$ 19.7	$ 346.6	$ 366.3

	September 30, 2016		
	Level 1	**Level 2**	**Total**
		(in millions)	
Equity:			
Large cap stocks:			
Large cap growth funds	$ —	$ 7.3	$ 7.3
Large cap index funds	—	38.2	38.2
Large cap value funds	—	7.2	7.2
Small cap stocks:			
Small cap growth funds	—	15.1	15.1
International stocks:			
Mutual funds	13.5	—	13.5
International funds	—	18.1	18.1
Total equity	13.5	85.9	99.4
Fixed income	—	233.3	233.3
Cash and cash equivalents	7.3	—	7.3
	$ 20.8	$ 319.2	$ 340.0

Our estimated future pension benefit payments are presented below in millions.

2018	$ 32.1
2019	25.4
2020	25.4
2021	25.2
2022	25.0
2023-2027	120.1

Defined Contribution Retirement Plans-Certain of our employees participate in defined contribution 401(k) plans or similar non-U.S plans. We make matching contributions as a function of employee contributions. Matching contributions were $4.1 million, $4.0 million and $4.2 million during 2017, 2016 and 2015, respectively.

Note 10. Capital Stock

Common stock share activity is presented below.

Shares outstanding at September 30, 2014	159,760,671
Vesting of restricted stock units, net of shares withheld for taxes	541,839
Exercise of stock options	506,632
Exercise of employee stock purchase plan instruments	212,550
Stock repurchased under buyback program	(523,851)
Shares outstanding at September 30, 2015	160,497,841
Vesting of restricted stock units, net of shares withheld for taxes	370,138
Settlement of performance-based restricted stock units, net of shares withheld for taxes	335,998
Exercise of stock options	270,599
Exercise of employee stock purchase plan instruments	218,475
Shares outstanding at September 30, 2016	161,693,051
Exercise of employee stock purchase plan instruments	150,174
Exercise of stock options	905,834
Vesting of restricted stock units, net of shares withheld for taxes	262,488
Settlement of performance-based restricted stock units, net of shares withheld for taxes	160,063
Stock repurchased under buyback program	(4,581,227)
Shares outstanding at September 30, 2017	158,590,383

Note 11. Stock-based Compensation Plans

The effect of stock-based compensation on our statements of operations, including discontinued operations, is presented below.

	2017	2016	2015
	(in millions, except per share data)		
Decrease in operating income	$ 8.6	$ 9.1	$ 7.0
Decrease in net income	4.8	5.8	4.4
Decrease in earnings per basic share	0.03	0.04	0.03
Decrease in earnings per diluted share	0.03	0.04	0.03

We excluded 238,826, 867,065 and 1,165,414 instruments from the calculation of diluted earnings per share for 2017, 2016 and 2015, respectively, because the effect of including them would have been antidilutive.

At September 30, 2017, there was approximately $8.0 million of unrecognized compensation expense related to stock-based awards not yet vested. We expect to recognize this expense over a weighted average life of approximately 1.6 years.

The Mueller Water Products, Inc. 2006 Stock Incentive Plan ("2006 Plan") authorizes an aggregate of 20,500,000 shares of common stock that may be granted through the issuance of stock-based awards. Any awards canceled are available for reissuance. Generally, all of our employees and members of our board of directors are eligible to participate in the 2006 Plan. At September 30, 2017, 7,204,369 shares of common stock were available for future grants of awards under the 2006 Plan. This total assumes that the maximum number of shares will be earned for awards for which the final number of shares to be earned has not yet been determined.

An award granted under the 2006 Plan vests at such times and in such installments as set by the Compensation and Human Resources Committee of the board of directors, but no award will be exercisable after the ten-year anniversary of the date on which it is granted. Management expects some instruments will be forfeited prior to vesting. Grants to members of our board of the directors are expected to vest fully. Based on historical forfeitures, we expect grants to others to be forfeited at an annual rate of 2%.

Restricted Stock Units. Depending on the specific terms of each award, restricted stock units generally vest ratably over the life of the award, usually three years, on each anniversary date of the original grant. Compensation expense for restricted stock units is recognized between the grant date and the vesting date (or the date on which a participant becomes Retirement-eligible, if sooner) on a straight-line basis for each tranche of each award. Fair values of restricted stock units are determined using the closing price of our common stock on the respective dates of grant. Restricted stock unit activity under the 2006 Plan is summarized below.

	Restricted stock units	Weighted average grant date fair value per unit	Weighted average remaining contractual term (years)	Aggregate intrinsic value (millions)
Outstanding at September 30, 2014	1,206,761	$ 5.04	0.7	
Granted	459,659	9.70		
Vested	(793,630)	3.99		$ 7.7
Cancelled	—	—		
Outstanding at September 30, 2015	872,790	8.45	0.8	
Granted	360,255	9.33		
Vested	(510,535)	7.94		4.7
Cancelled	(59,062)	8.23		
Outstanding at September 30, 2016	663,448	9.34	1.0	
Granted	343,860	13.05		
Vested	(359,797)	9.34		4.7
Cancelled	(21,681)	13.26		
Outstanding at September 30, 2017	625,830	$ 11.23	0.9	

Performance Shares. Performance-based restricted stock units ("PRSUs") represent a target number of units that may be paid out at the end of a multi-year award cycle consisting of annual performance periods coinciding with our fiscal years. As determined at the date of award, PRSUs may settle in cash-value equivalent of, or directly in, shares of our common stock. Settlement will range from zero to two times the number of PRSUs granted, depending on our financial performance against predetermined targets. The Compensation and Human Resources Committee of our board of directors ("Committee") establishes performance goals within 90 days of the beginning of each performance period, with such date referred to as the "grant date". At the end of each annual performance period, the Committee confirms performance against the applicable performance targets. PRSUs do not convey voting rights or earn dividends. PRSUs vest on the last day of an award cycle, unless vested sooner due to a "Change of Control" of the Company, or the death, disability or Retirement of a participant.

We recognize compensation expense for stock-settled PRSUs starting on the first day of the applicable performance period and ending on the respective vesting dates. We base the recognized compensation expense upon the number of units awarded for each performance period, the closing price of our common stock on the grant date and the estimated performance factor. In 2017 and 2016, we issued 263,410 shares and 542,212 shares, respectively, to settle PRSUs. Stock-settled PRSUs activity under the 2006 Plan is summarized below.

Award date	Settlement year	Performance period	Grant date per unit fair value	Units awarded	Units forfeited	Net units	Performance factor	Shares earned
November 27, 2012	2016	2013	$ 5.22	135,553	—	135,553	2.000	271,106
		2014	$ 8.52	135,553	—	135,553	2.000	271,106
		2015	$ 9.78	135,552	—	135,552	0.000	—
December 3, 2013	2017	2014	$ 8.52	90,841	(4,401)	86,440	2.000	172,880
		2015	$ 9.78	90,841	(4,401)	86,440	0.000	—
		2016	$ 9.38	90,849	(7,402)	83,447	1.021	85,195
December 2, 2014	2018	2015	$ 9.78	80,233	(3,835)	76,398	0.000	—
		2016	$ 9.38	80,229	(6,447)	73,782	1.021	75,327
		2017	$ 13.26	80,229	(11,673)	68,556	1.000	68,556
December 1, 2015	2019	2016	$ 9.38	77,823	(3,998)	73,825	1.021	75,375
		2017	$ 13.26	77,824	(3,997)	73,827	1.000	73,827
		2018		77,824	(6,752)	71,072		
November 29, 2016	2020	2017	$ 13.26	59,285	(5,279)	54,006	1.000	54,006
		2018		59,286	(7,227)	52,059		
		2019		59,290	(7,227)	52,063		
January 23, 2017	2020	2017	$ 13.15	19,012	—	19,012	1.000	19,012
		2018		19,011	—	19,011		
		2019		19,011	—	19,011		

Stock Options. Stock options generally vest ratably over three years on each anniversary date of the original grant. Stock options granted since November 2007 also vest upon the Retirement of a participant. Compensation expense for stock options is recognized between the grant date and the vesting date (or the date on which a participant becomes Retirement-eligible, if sooner) on a straight-line basis for each tranche of each award. No stock options were granted in 2017 or 2016. Stock option activity under the 2006 Plan is summarized below.

	Options	Weighted average exercise price per option	Weighted average remaining contractual term (years)	Aggregate intrinsic value (millions)
Outstanding at September 30, 2014	4,552,235	$ 6.37	5.0	$ 13.6
Granted	97,119	9.97		
Exercised	(506,632)	3.42		3.2
Cancelled	(150,056)	13.90		
Outstanding at September 30, 2015	3,992,666	6.54	4.2	9.3
Exercised	(270,599)	6.83		0.8
Cancelled	(167,759)	17.82		
Outstanding at September 30, 2016	3,554,308	5.99	3.4	23.8
Exercised	905,834	4.71		7.3
Cancelled	(207,820)	14.72		
Outstanding at September 30, 2017	2,440,654	$ 5.72	2.5	$ 17.3
Exercisable at September 30, 2017	2,415,475	$ 5.67	2.5	$ 17.2
Expected to vest after September 30, 2017	25,179	$ 9.97	7.3	$ 0.1

Stock option exercise prices are equal to the closing price of our common stock on the relevant grant date. The ranges of exercise prices for stock options outstanding at September 30, 2017 are summarized below.

Exercise price	Options	Weighted average exercise price	Weighted average remaining contractual term (years)	Exercisable options	Weighted average exercise price
$ 0.00 - $ 4.99	804,173	$ 3.29	3.4	804,173	$ 3.29
$ 5.00 - $ 9.99	1,330,050	6.05	2.5	1,304,871	5.97
$10.00 - $14.99	306,431	10.66	0.2	306,431	10.66
	2,440,654	$ 5.72	2.5	2,415,475	$ 5.67

Compensation expense attributed to stock options is based on the fair value of the awards on their respective grant dates, as determined using a Black-Scholes model. The weighted average grant-date fair values of stock options granted in 2015 and the weighted average assumptions used to determine these fair values are indicated below.

Grant-date fair value	$ 5.93
Risk-free interest rate	1.74%
Dividend yield	0.80%
Expected life (years)	8.0
Expected annual volatility	0.6199

The risk-free interest rate is based on the U.S. Treasury zero-coupon yield in effect at the grant date with a term equal to the expected life. The expected dividend yield is based on our estimated annual dividend and stock price history at the grant date. The expected term represents the period of time the awards are expected to be outstanding.

Employee Stock Purchase Plan. The Mueller Water Products, Inc. 2006 Employee Stock Purchase Plan (“ESPP”) authorizes the sale of up to 5,800,000 shares of our common stock to employees. Generally, all full-time, active employees are eligible to participate in the ESPP, subject to certain restrictions. Employee purchases are funded through payroll deductions, and any excess payroll withholdings are returned to the employee. The price for shares purchased under the ESPP is 85% of the lower of the closing price on the first day or the last day of the offering period. At September 30, 2017, 2,901,604 shares were available for issuance under the ESPP.

Phantom Plan. Under the Mueller Water Products, Inc. Phantom Plan we adopted in 2012 ("Phantom Plan"), we have awarded "phantom units" to certain non-officer employees. A phantom unit settles in cash equal to the price of one share of our common stock on the vesting date. Phantom units vest ratably over three years on each anniversary date of the original grant. We recognize compensation expense for phantom units on a straight-line basis for each tranche of each award based on the closing price of our common stock at each balance sheet date. The outstanding phantom units had a fair value of $12.80 per unit at September 30, 2017 and our accrued liability for such units was $3.0 million. Phantom Plan activity is summarized below.

	Phantom Plan units	Weighted average grant date fair value per unit	Weighted average remaining contractual term (years)	Aggregate intrinsic value (millions)
Outstanding at September 30, 2014	643,288	$ 6.22	0.8	
Granted	289,524	9.78		
Vested	(317,409)			$ 3.1
Cancelled	(56,525)	8.29		
Outstanding at September 30, 2015	558,878	8.49	0.8	
Granted	302,875	9.84		
Vested	(270,822)			2.5
Cancelled	(56,905)	9.28		
Outstanding at September 30, 2016	534,026	9.60	0.9	
Granted	199,260	13.22		
Vested	(278,000)			3.7
Cancelled	(103,279)	10.87		
Outstanding at September 30, 2017	352,007	$ 11.36	0.9	

Note 12. Supplemental Balance Sheet Information

Selected supplemental balance sheet information is presented below.

	September 30,	
	2017	2016
	(in millions)	
Inventories:		
Purchased components and raw material	$ 67.7	$ 67.0
Work in process	35.6	31.4
Finished goods	35.6	32.3
	$ 138.9	$ 130.7
Other current assets:		
Maintenance and repair tooling	$ 3.3	$ 2.9
Income taxes	10.9	1.5
Other	10.2	8.3
	$ 24.4	$ 12.7
Property, plant and equipment:		
Land	$ 5.6	$ 5.7
Buildings	53.4	50.6
Machinery and equipment	266.7	248.3
Construction in progress	24.7	14.8
	$ 350.4	$ 319.4
Accumulated depreciation	(228.1)	(211.0)
	$ 122.3	$ 108.4
Other current liabilities:		
Compensation and benefits	$ 26.9	$ 32.7
Customer rebates	6.5	8.3
Taxes other than income taxes	3.2	3.0
Warranty	3.5	2.0
Environmental	1.3	5.0
Income taxes	0.9	4.6
Interest	0.6	0.5
Restructuring	3.3	—
Other	7.3	5.6
	$ 53.5	$ 61.7

Note 13. Supplemental Statement of Operations Information

On September 7, 2017, we announced a strategic reorganization plan designed to accelerate our product innovation and revenue growth. We have adopted a matrix management structure, where business teams have line and cross-functional responsibility for managing distinct product portfolios and engineering, operations, sales & marketing and other functions are centralized to better align with business needs and generate greater efficiencies. We recorded $4.2 million in other charges primarily for severance related to this strategic reorganization plan, of which $3.3 million is accrued at September 30, 2017.

During the quarter ended June 30, 2016, we initiated certain demolition and related activities for our Statesboro, Georgia property, some of the costs of which are indemnified by Tyco as explained in Note 17. Corporate recorded a receivable from Tyco for our estimated recovery under the indemnification and a net charge of $4.1 million under the caption other charges in 2016.

Selected supplemental statement of operations information is presented below.

	2017	2016	2015
		(in millions)	
Included in selling, general and administrative expenses:			
Research and development	$ 12.1	$ 9.9	$ 12.1
Advertising	$ 5.2	$ 4.0	$ 4.0
Interest expense, net:			
Term Loan	$ 19.1	$ 20.5	$ 17.5
Deferred financing costs amortization	1.8	1.9	2.0
ABL Agreement	0.8	1.1	1.7
Interest rate swap contracts	1.9	—	—
7.375% Senior Subordinated Notes	—	—	4.0
8.75% Senior Unsecured Notes	—	—	2.4
Other interest expense	0.6	0.5	0.2
	24.2	24.0	27.8
Interest income	(2.0)	(0.4)	(0.3)
	$ 22.2	$ 23.6	$ 27.5

Note 14. Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss is presented below.

	Foreign currency translation	Minimum pension liability, net of tax	Derivative instruments, net of tax	Total
		(in millions)		
Balance at September 30, 2016	$ (6.1)	$ (57.7)	$ (4.5)	$ (68.3)
Other comprehensive income before reclassifications	2.8	8.3	3.0	
Amounts reclassified out of accumulated other comprehensive loss	—	2.4	—	
Other comprehensive income	2.8	10.7	3.0	16.5
Balance at September 30, 2017	$ (3.3)	$ (47.0)	$ (1.5)	$ (51.8)

Note 15. Supplemental Cash Flow Information

Supplemental cash flow information is presented below.

	September 30,		
	2017	2016	2015
		(in millions)	
Cash paid, net:			
Interest	$ 19.5	$ 21.1	$ 36.8
Income taxes	$ 31.9	$ 27.1	$ 3.7

Note 16. Segment Information

Our operations consist of two business segments: Infrastructure (previously referred to as "Mueller Co.") and Technologies (previously referred to as "Mueller Technologies"). These segments are organized primarily based on products sold and customers served and are consistent with how the segments are managed, how resources are allocated and how information is used by the chief operating decision maker. Infrastructure manufactures valves for water and gas systems including butterfly, iron gate, tapping, check, knife, plug and ball valves and dry-barrel and wet-barrel fire hydrants. Technologies offers metering, leak detection, pipe condition assessment and other products and services for the water infrastructure industry.

Segment results are not reflective of their results on a stand-alone basis. Intersegment sales and transfers are made at selling prices generally intended to cover costs. Infrastructure personnel provide certain administrative services, including management of accounts payable and accounts receivable, without any allocation of cost to Technologies. We do not believe the costs of such administrative services are material to the segments' results. The determination of segment results excludes certain corporate expenses designated as Corporate because they are not directly attributable to segment operations. Interest expense, loss on early extinguishment of debt and income taxes are not allocated to the segments. Corporate expenses include those costs incurred by our corporate function, such as accounting, treasury, risk management, human resources, legal, tax and other administrative functions and also costs associated with assets and liabilities retained following the sales of U.S. Pipe and Anvil. Corporate assets principally consist of our cash, Anvil assets held for sale at September 30, 2016 and certain real property previously owned by U.S. Pipe. Business segment assets consist primarily of receivables, inventories, property, plant and equipment, intangible assets and other noncurrent assets.

Geographical area information is presented below.

	United States	Canada	Other	Total
		(in millions)		
Net sales:				
2017	$ 732.0	$ 62.3	$ 31.7	$ 826.0
2016	716.5	57.1	27.0	800.6
2015	700.9	62.2	30.3	793.4
Property, plant and equipment, net:				
September 30, 2017	$ 116.1	$ 3.0	$ 3.2	$ 122.3
September 30, 2016	103.3	2.1	3.0	108.4

Approximately 53% of our 2017 gross sales were to our 10 largest customers, and approximately 34% of our 2017 gross sales were to our two largest customers, Ferguson Enterprises, Inc. ("Ferguson Enterprises") and HD Supply, Inc. ("HD Supply"). Sales to Ferguson Enterprises comprised approximately 18%, 17% and 15% of our total gross sales during 2017, 2016 and 2015, respectively. In 2017, Ferguson Enterprises accounted for approximately 17% and 24% of gross sales for Infrastructure and Technologies, respectively. Receivables from Ferguson Enterprises totaled $20.0 million and $21.9 million at September 30, 2017 and 2016, respectively. Sales to Core & Main (formerly known as HD Supply Waterworks) comprised approximately 16%, 16% and 16% of our total gross sales during 2017, 2016, and 2015, respectively. In 2017, Core & Main accounted for approximately 17% of gross sales for Infrastructure. Receivables from HD Supply totaled $27.3 million and $23.8 million at September 30, 2017 and 2016, respectively.

Summarized financial information for our segments is presented below.

	Infrastructure	Technologies	Corporate	Total
		(in millions)		
Net sales, excluding intercompany:				
2017	$ 739.9	$ 86.1	$ —	$ 826.0
2016	715.7	84.9	—	800.6
2015	702.2	91.2	—	793.4
Intercompany sales:				
2017	$ 1.1	$ —	$ —	$ 1.1
2016	5.8	—	—	5.8
2015	7.2	—	—	7.2
Operating income (loss):				
2017	$ 163.4	$ (20.3)	$ (42.4)	$ 100.7
2016	159.3	(11.1)	(55.3)	92.9
2015	136.9	(12.9)	(44.4)	79.6
Depreciation and amortization:				
2017	$ 36.3	$ 5.2	$ 0.4	$ 41.9
2016	34.2	4.8	0.5	39.5
2015	38.8	4.2	0.4	43.4
Total pension settlement, loss on Walter receivable and other charges:				
2017	$ 2.7	$ 0.7	$ 7.0	$ 10.4
2016	3.0	0.9	19.9	23.8
2015	8.4	0.1	11.5	20.0
Capital expenditures:				
2017	$ 28.5	$ 11.4	$ 0.7	$ 40.6
2016	24.3	7.0	0.2	31.5
2015	20.5	6.5	0.2	27.2
Total assets:				
September 30, 2017	$ 792.6	$ 88.4	$ 377.3	$ 1,258.3
September 30, 2016	750.4	86.1	444.1	1,280.6
Intangible assets, net:				
September 30, 2017	$ 417.2	$ 22.1	$ —	$ 439.3
September 30, 2016	416.9	17.7	—	434.6

Note 17. Commitments and Contingencies

We are involved in various legal proceedings that have arisen in the normal course of operations, including the proceedings summarized below. The effect of the outcome of these matters on our financial statements cannot be predicted with certainty as any such effect depends on the amount and timing of the resolution of such matters. Other than the litigation described below, we do not believe that any of our outstanding litigation would have a material adverse effect on our business or prospects.

Environmental. We are subject to a wide variety of laws and regulations concerning the protection of the environment, both with respect to the operations at many of our properties and with respect to remediating environmental conditions that may exist at our own or other properties. We accrue for environmental expenses resulting from existing conditions that relate to past operations when the costs are probable and reasonably estimable.

In the acquisition agreement pursuant to which a predecessor to Tyco sold our businesses to a previous owner in August 1999, Tyco agreed to indemnify us and our affiliates, among other things, for all "Excluded Liabilities." Excluded Liabilities include, among other things, substantially all liabilities relating to the time prior to August 1999, including environmental liabilities. The indemnity survives indefinitely. Tyco's indemnity does not cover liabilities to the extent caused by us or the operation of our businesses after August 1999, nor does it cover liabilities arising with respect to businesses or sites acquired after August 1999. Since 2007, Tyco has engaged in multiple corporate restructurings, split-offs and divestitures.

While none of these transactions directly affects the indemnification obligations of the Tyco indemnitors under the 1999 acquisition agreement, the result of such transactions is that the assets of, and control over, such Tyco indemnitors has changed. Should any of these Tyco indemnitors become financially unable or fail to comply with the terms of the indemnity, we may be responsible for such obligations or liabilities.

In September 1987, we implemented an Administrative Consent Order ("ACO") for our Burlington, New Jersey property, which was required under the New Jersey Environmental Cleanup Responsibility Act (now known as the Industrial Site Recovery Act). The ACO required soil and ground-water cleanup, and we completed, and received final approval on, the soil cleanup required by the ACO. We retained this property related to the sale of U.S. Pipe. We expect ground-water issues as well as issues associated with the demolition of former manufacturing facilities at this site will continue and remediation by us could be required. Long-term ground-water monitoring may also be required, but we do not know how long such monitoring would be required and do not believe monitoring or further remediation costs, if any, will have a material adverse effect on any of our financial statements.

On July 13, 2010, Rohcan Investments Limited, the former owner of property leased by Mueller Canada Ltd. and located in Milton, Ontario, filed suit against Mueller Canada Ltd. and its directors seeking C$10.0 million in damages arising from the defendants' alleged environmental contamination of the property and breach of lease. Mueller Canada Ltd. leased the property from 1988 through 2008. We are pursuing indemnification from a former owner for certain potential liabilities that are alleged in this lawsuit, and we have accrued for other liabilities not covered by indemnification. On December 7, 2011, the Court denied the plaintiff's motion for summary judgment.

The purchaser of U.S. Pipe has been identified as a "potentially responsible party" ("PRP") under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") in connection with a former manufacturing facility operated by U.S. Pipe that was in the vicinity of a proposed Superfund site located in North Birmingham, Alabama. Under the terms of the acquisition agreement relating to our sale of U.S. Pipe, we agreed to indemnify the purchaser for certain environmental liabilities, including those arising out of the former manufacturing site in North Birmingham. Accordingly, the purchaser tendered the matter to us for indemnification, which we accepted. Ultimate liability for the site will depend on many factors that have not yet been determined, including the determination of EPA's remediation costs, the number and financial viability of the other PRPs (there are four other PRPs currently) and the determination of the final allocation of the costs among the PRPs. Accordingly, because the amount of such costs cannot be reasonably estimated at this time, no amounts had been accrued for this matter at September 30, 2017.

Walter Energy. Each member of the Walter Energy consolidated group, which included us through December 14, 2006, is jointly and severally liable for the federal income tax liability of each other member of the consolidated group for any year in which it is a member of the group at any time during such year. Accordingly, we could be liable in the event any such federal income tax liability is incurred, and not discharged, by any other member of the Walter Energy consolidated group for any period during which we were included in the Walter Energy consolidated group.

Walter Energy effectively controlled all of our tax decisions for periods during which we were a member of the Walter Energy consolidated group for federal income tax purposes and certain combined, consolidated or unitary state and local income tax groups. Under the terms of an income tax allocation agreement between us and Walter Energy, dated May 26, 2006, we generally compute our tax liability on a stand-alone basis, but Walter Energy has sole authority to respond to and conduct all tax proceedings (including tax audits) relating to our federal income and combined state tax returns, to file all such tax returns on our behalf and to determine the amount of our liability to (or entitlement to payment from) Walter Energy for such previous periods.

According to Walter Energy's quarterly report on Form 10-Q filed with the SEC on November 5, 2015 ("Walter November 2015 Filing"), at September 30, 2015, a dispute exists with the IRS regarding federal income taxes for years 1980 to 1994 and 1999 to 2001 allegedly owed by the Walter Energy consolidated group, which included U.S. Pipe during these periods. As a matter of law, we are jointly and severally liable for any final tax determination, which means we would be liable in the event Walter Energy is unable to pay any amounts owed. According to the Walter November 2015 Filing, Walter Energy had $33.0 million of accruals for unrecognized tax benefits on the matters subject to disposition. In the Walter November 2015 Filing, Walter Energy stated that it believed that it had sufficient accruals to address any claims, including interest and penalties, and did not believe that any potential difference between the final settlements and the amounts accrued would have a material effect on Walter Energy's financial position, but such potential difference could be material to results of its operations in a future reporting period.

In July 2015, Walter Energy filed a petition for reorganization under Chapter 11 of the U.S. Bankruptcy Code before the Bankruptcy Court for the Northern District of Alabama ("Chapter 11 Case"). During the pendency of the Chapter 11 Case, we monitored the proceeding to determine whether we could be liable for all or a portion of this federal income tax liability if it is incurred, and not discharged, for any period during which we were included in the Walter Energy consolidated group. On January 11, 2016, the IRS filed a proof of claim in the Chapter 11 Case, alleging that Walter Energy owes amounts for prior taxable periods (specifically, 1983-1994, 2000-2002 and 2005) in an aggregate amount of $554.3 million ($229.1 million of which the IRS claims is entitled to priority status in the Chapter 11 Case). The IRS asserts that its claim is based on an alleged settlement of Walter Energy's tax liability for the 1983-1995 taxable periods in connection with Walter Energy's prior bankruptcy proceeding in the United States Bankruptcy Court for the Middle District of Florida. In the proof of claim, the IRS included an alternative calculation in the event the alleged settlement of the prior bankruptcy court is found to be non-binding, which provides for a claim by the IRS in an aggregate amount of $860.4 million ($535.3 million of which the IRS claims is entitled to priority status in the Chapter 11 Case).

According to a current report on Form 8-K filed by Walter Energy with the SEC on April 1, 2016 ("Walter April 2016 Filing"), on March 31, 2016, Walter Energy closed on the sale of substantially all of Walter Energy's Alabama assets pursuant to the provisions of Sections 105, 363 and 365 of the Bankruptcy Code. The Walter April 2016 Filing further stated that Walter Energy would have no further material business operations after April 1, 2016 and Walter Energy was evaluating its options with respect to the wind down of its remaining assets. The asset sale did not impact the IRS' proof of claim filed in the Bankruptcy Case and the proof of claim, as well as the alleged tax liability thereunder, remain unresolved.

On February 2, 2017, at the request of Walter Energy, the Bankruptcy Court for the Northern District of Alabama signed an order converting the Chapter 11 Case to a liquidation proceeding under Chapter 7 of the U.S. Bankruptcy Code, pursuant to which Walter Energy will be wound-down and liquidated ("Chapter 7 Case"). In its objection contesting such conversion, the IRS indicated its intent to pursue collection of amounts included in the Proof of Claim from former members of the Walter Energy consolidated group.

We cannot predict whether or to what extent we may become liable for the tax-related amounts of the Walter Energy consolidated group asserted in the IRS' proof of claim filed in the Bankruptcy Case, in part, because: (i) the amounts owed by the Walter Energy consolidated group for certain of the taxable periods from 1980 through 2006 remain unresolved; (ii) it is unclear what priority, if any, the IRS will receive in the Chapter 7 Case with respect to its claims against Walter Energy, and whether and to what extent funds will be available in the Chapter 7 Case to pay priority tax claims. We also intend to vigorously assert any and all available defenses against any liability we may have as a member of the Walter Energy consolidated group. However, we cannot currently estimate our liability, if any, relating to the tax-related liabilities of Walter Energy's consolidated tax group for tax years prior to 2007, and such liability could have a material adverse effect on our business, financial condition, liquidity or results of operations.

In accordance with the income tax allocation agreement entered into in connection with our spin-off from Walter Energy, Walter Energy used certain tax assets of one of our predecessors in its calendar 2006 tax return for which payment to us is required. The income tax allocation agreement requires, among other things, Walter Energy to make the payment upon realization of this tax benefit by receiving a refund or otherwise offsetting taxes due. Walter Energy owed us $11.6 million that was payable pending completion of an IRS audit of Walter Energy's 2006 tax year and the related refund of tax from that year. As a result of the aforementioned Chapter 11 petition, we wrote off this receivable during the quarter ended September 30, 2015.

Indemnifications. We are a party to contracts in which it is common for us to agree to indemnify third parties for certain liabilities that arise out of or relate to the subject matter of the contract. In some cases, this indemnity extends to related liabilities arising from the negligence of the indemnified parties, but usually excludes any liabilities caused by gross negligence or willful misconduct. We cannot estimate the potential amount of future payments under these indemnities until events arise that would trigger a liability under the indemnities.

Additionally, in connection with the sale of assets and the divestiture of businesses, such as the divestitures of U.S. Pipe and Anvil, we may agree to indemnify buyers and related parties for certain losses or liabilities incurred by these parties with respect to: (i) the representations and warranties made by us to these parties in connection with the sale and (ii) liabilities related to the pre-closing operations of the assets or business sold. Indemnities related to pre-closing operations generally include certain environmental and tax liabilities and other liabilities not assumed by these parties in the transaction.

Indemnities related to the pre-closing operations of sold assets or businesses normally do not represent additional liabilities to us, but simply serve to protect these parties from potential liability associated with our obligations existing at the time of the sale. As with any liability, we have accrued for those pre-closing obligations that are considered probable and reasonably estimable. Should circumstances change, increasing the likelihood of payments related to a specific indemnity, we will accrue a liability when future payment is probable and the amount is reasonably estimable.

Other Matters. At September 30, 2016, Anvil was in a dispute with Victaulic Company ("Victaulic") regarding two patents held by Victaulic, U.S. Patent 7,086,131 (the "131 Patent") and U.S. Patent 7,712,796 (the "796 Patent" and collectively with the 131 Patent, the "U.S. Patents"), which Anvil believed were invalid. The U.S. Patents potentially related to a coupling product currently manufactured and marketed by Anvil. During the course of this dispute, Anvil filed multiple reexamination requests with the U.S. Patent and Trademark Office (the "PTO") regarding the U.S. Patents, and the PTO granted the requests. Although the PTO examiner initially invalidated most of the claims of the 796 Patent, the PTO examiner affirmed the validity of the 796 Patent in September 2014. In April 2015, the PTO examiner invalidated the original claim of the 131 Patent but found several claims added during reexamination that appear substantially similar to those included in the 796 Patent patentable. The PTO examiners' decisions with respect to the U.S. Patents were appealed to the Patent Trial and Appeal Board by Anvil and Victaulic. In July 2016, the Patent Trial and Appeal Board rejected as unpatentable all claims of the 131 Patent. Relatedly, at September 30, 2016, Anvil and Victaulic were also engaged in lawsuits with respect to these patent matters in the U.S. District Court for the Northern District of Georgia and in the Federal Court of Toronto, Ontario, Canada. In October 2016, we entered into a settlement and license agreement with Victaulic, which amicably resolved all of these lawsuits and patent matters.

During our second quarter, we became aware that some radio products produced between 2011 and 2014 and installed in particularly harsh environments were failing at a higher-than-expected rate. Consequently, we recorded a discrete warranty expense of $9.8 million associated with these products in our Technologies segment. We have carefully examined our product processes and accelerated lifecycle testing data with respect to radios produced after the period referenced above and expect our future warranty experience to be in line with industry norms.

We are party to a number of other lawsuits arising in the ordinary course of business, including product liability cases for products manufactured by us or third parties. We provide for costs relating to these matters when a loss is probable and the amount is reasonably estimable. Administrative costs related to these matters are expensed as incurred. The effect of the outcome of these matters on our future financial statements cannot be predicted with certainty as any such effect depends on the amount and timing of the resolution of such matters. While the results of litigation cannot be predicted with certainty, we believe that the final outcome of such other litigation is not likely to have a materially adverse effect on our business or prospects.

Operating Leases. We maintain operating leases primarily for equipment and facilities. Rent expense was $5.9 million, $5.8 million and $5.8 million for 2017, 2016 and 2015, respectively. Future minimum payments under non-cancellable operating leases are $3.6 million, $2.5 million, $2.3 million, $2.2 million and $1.9 million during 2018, 2019, 2020, 2021 and 2022, respectively. Total minimum payments due beyond 2022 are $4.5 million.

Note 18. Subsequent Events

On October 25, 2017, our board of directors declared a dividend of $0.04 per share on our common stock, payable on or about November 20, 2017 to stockholders of record at the close of business on November 10, 2017.

In November 2017, we repurchased 823,739 shares of our common stock under our buyback program for $10.0 million.

Note 19. Quarterly Consolidated Financial Information (Unaudited)

	Quarter			
	Fourth	Third	Second	First
	(in millions, except per share amounts)			
2017				
Net sales	$ 226.9	$ 232.2	$ 199.7	$ 167.2
Gross profit	80.9	82.5	52.4	51.7
Operating income	33.3	42.6	10.9	13.9
Income from continuing operations	20.1	24.1	4.7	5.4
Discontinued operations	(0.8)	(0.1)	68.6	1.3
Net income	19.3	24.0	73.3	6.7
Earnings per basic share[(1)]				
Continuing operations	0.13	0.15	0.03	0.03
Discontinued operations	(0.01)	—	0.43	0.01
Net income	0.12	0.15	0.46	0.04
Earnings per diluted share[(1)]				
Continuing operations	0.13	0.15	0.03	0.03
Discontinued operations	(0.01)	—	0.42	0.01
Net income	0.12	0.15	0.45	0.04
2016				
Net sales	$ 215.6	$ 224.7	$ 197.2	$ 163.1
Gross profit	77.8	83.2	59.3	47.6
Operating income	37.8	22.6	21.1	11.4
Income from continuing operations	19.8	11.0	10.3	4.0
Discontinued operations	6.7	4.5	5.4	2.2
Net income	26.5	15.5	15.7	6.2
Earnings per basic share[(1)]				
Continuing operations	0.12	0.07	0.06	0.02
Discontinued operations	0.04	0.03	0.04	0.02
Net income	0.16	0.10	0.10	0.04
Earnings per diluted share[(1)]				
Continuing operations	0.12	0.07	0.06	0.02
Discontinued operations	0.04	0.02	0.04	0.02
Net income	0.16	0.09	0.10	0.04

(1) The sum of the quarterly amounts may not equal the full year amount due to rounding.

Exhibit 21.1

Subsidiaries of Mueller Water Products, Inc.

Entity	State of incorporation or organization	Doing business as
Echologics B.V.	Netherlands	N/A
Echologics, LLC	Delaware	Delaware Echologics, LLC
		Echologics Delaware, LLC
		Echologics of Delaware, LLC
Echologics Pte. Ltd.	Singapore	N/A
Henry Pratt Company, LLC	Delaware	Hydro Gate
		Lined Valve Company
		Milliken Valve
Henry Pratt International, LLC	Delaware	N/A
James Jones Company, LLC	Delaware	James Jones Company of Delaware, LLC
Jingmen Pratt Valve Co. Ltd.	People's Republic of China	N/A
Mueller Canada Holdings Corp.	Canada	N/A
Mueller Canada Ltd.	Canada	Anvil International, Canada
		Echologics
		Mueller Canada
		Mueller Canada Echologics
Mueller Co. International Holdings, LLC	Delaware	N/A
Mueller Co. LLC	Delaware	Mueller Manufacturing Company, LLC
		Mueller Company, LLC
		Mueller Co. LP
Mueller Group Co-Issuer, Inc.	Delaware	N/A
Mueller Group, LLC	Delaware	Mueller Flow, LLC
		Mueller Group of Delaware, LLC
Mueller International Holdings Limited	United Kingdom	N/A
Mueller International, LLC	Delaware	Mueller International (N.H.)
Mueller Property Holdings, LLC	Delaware	N/A
Mueller Service California, Inc.	Delaware	N/A
Mueller Service Co., LLC	Delaware	Mueller Service Co. of Delaware
		Mueller Service Co. of Delaware, LLC
Mueller Systems, LLC	Delaware	N/A
Mueller SV, Ltd.	Canada	Singer Valve
OSP, LLC	Delaware	OSP Properties, LLC
		OPS of Delaware, Limited Liability Company
PCA-Echologics Pty Ltd.	Australia	N/A
Singer Valve, LLC	North Carolina	N/A
Singer Valve (Taicang) Co., Ltd.	People's Republic of China	N/A
U.S. Pipe Valve & Hydrant, LLC	Delaware	NA

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in (1) the Registration Statement (Form S-8 No. 333-179441) pertaining to the 2006 Stock Incentive Plan, (2) the Registration Statement (Form S-8 No. 333-209834) pertaining to the 2006 Employee Stock Purchase Plan of Mueller Water Products, Inc. and (3) the Registration Statement (Form S-3 No. 333-205094) of our reports dated November 21, 2017, with respect to the consolidated financial statements of Mueller Water Products, Inc. and the effectiveness of internal control over financial reporting of Mueller Water Products, Inc. included in this Annual Report (Form 10-K) for the year ended September 30, 2017.

Ernst & Young LLP

Atlanta, Georgia
November 21, 2017

Exhibit 31.1

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Scott Hall, certify that:

1. I have reviewed this annual report on Form 10-K of Mueller Water Products, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: November 21, 2017

/s/ Scott Hall

Scott Hall,
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Evan L. Hart, certify that:

1. I have reviewed this annual report on Form 10-K of Mueller Water Products, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
   c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of registrant’s board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Dated: November 21, 2017

/s/ Evan L. Hart

Evan L. Hart,

Senior Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)

In connection with the accompanying annual report on Form 10-K of Mueller Water Products, Inc. (the “Company”) for the fiscal year ended September 30, 2017 (the “Report”), I, Scott Hall, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 21, 2017

/s/ Scott Hall

Scott Hall,
President and Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)

In connection with the accompanying annual report on Form 10-K of Mueller Water Products, Inc. (the "Company") for the fiscal year ended September 30, 2017 (the "Report"), I, Evan L. Hart, Senior Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: November 21, 2017

/s/ Evan L. Hart

Evan L. Hart,
Senior Vice President and Chief Financial Officer

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Board of Directors

Gregory E. Hyland
Executive Chairman
Mueller Water Products, Inc.

J. Scott Hall
President and Chief Executive Officer
Mueller Water Products, Inc.

Shirley C. Franklin
Executive Chair of Purpose Built Communities, Inc.
Former Mayor of Atlanta

Thomas J. Hansen
Former Vice Chairman
Illinois Tool Works Inc.

Jerry W. Kolb
Retired Vice Chairman
Deloitte & Touche LLP

Mark J. O'Brien
Former Chairman and Chief Executive Officer
Walter Investment Management Corp.

Bernard G. Rethore
Chairman Emeritus and Former Chief Executive Officer
Flowserve Corporation

Lydia W. Thomas
Retired President and Chief Executive Officer
Noblis, Inc.

Michael T. Tokarz
Chairman, MVC Capital, Inc.

Executive Officers

Gregory E. Hyland
Executive Chairman

J. Scott Hall
President and Chief Executive Officer

Evan L. Hart
Senior Vice President and Chief Financial Officer

Keith L. Belknap
Executive Vice President, Business Development, General Counsel, Corporate Secretary and Chief Compliance Officer

Marietta Edmunds Zakas
Executive Vice President, Strategy, Corporate Development and Communications

Gregory S. Rogowski
Executive Vice President, Sales and Marketing

Hassan Ali
Senior Vice President, Engineering and Information Technology

John Van Gerwen
Senior Vice President, Operations

Kevin G. McHugh
Vice President and Controller

Stockholder Information

Annual Meeting
The annual meeting of stockholders of Mueller Water Products, Inc. will be held January 24, 2018 at 10:00 A.M.
Peachtree Dunwoody Room
500 Northpark Building
1100 Abernathy Road, N.E.
Atlanta, Georgia 30328

Corporate Office
Mueller Water Products, Inc.
1200 Abernathy Road, N.E.
Suite 1200
Atlanta, GA 30328
(770) 206-4200
www.muellerwaterproducts.com

Investor Contact
Investor Relations
Mueller Water Products, Inc.
1200 Abernathy Road, N.E.
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(770) 206-4237
Fax: (770) 206-4260

Media Contact
Corporate Communications
Mueller Water Products, Inc.
1200 Abernathy Road, N.E.
Suite 1200
Atlanta, GA 30328
(770) 206-4131
Fax: (770) 206-4235

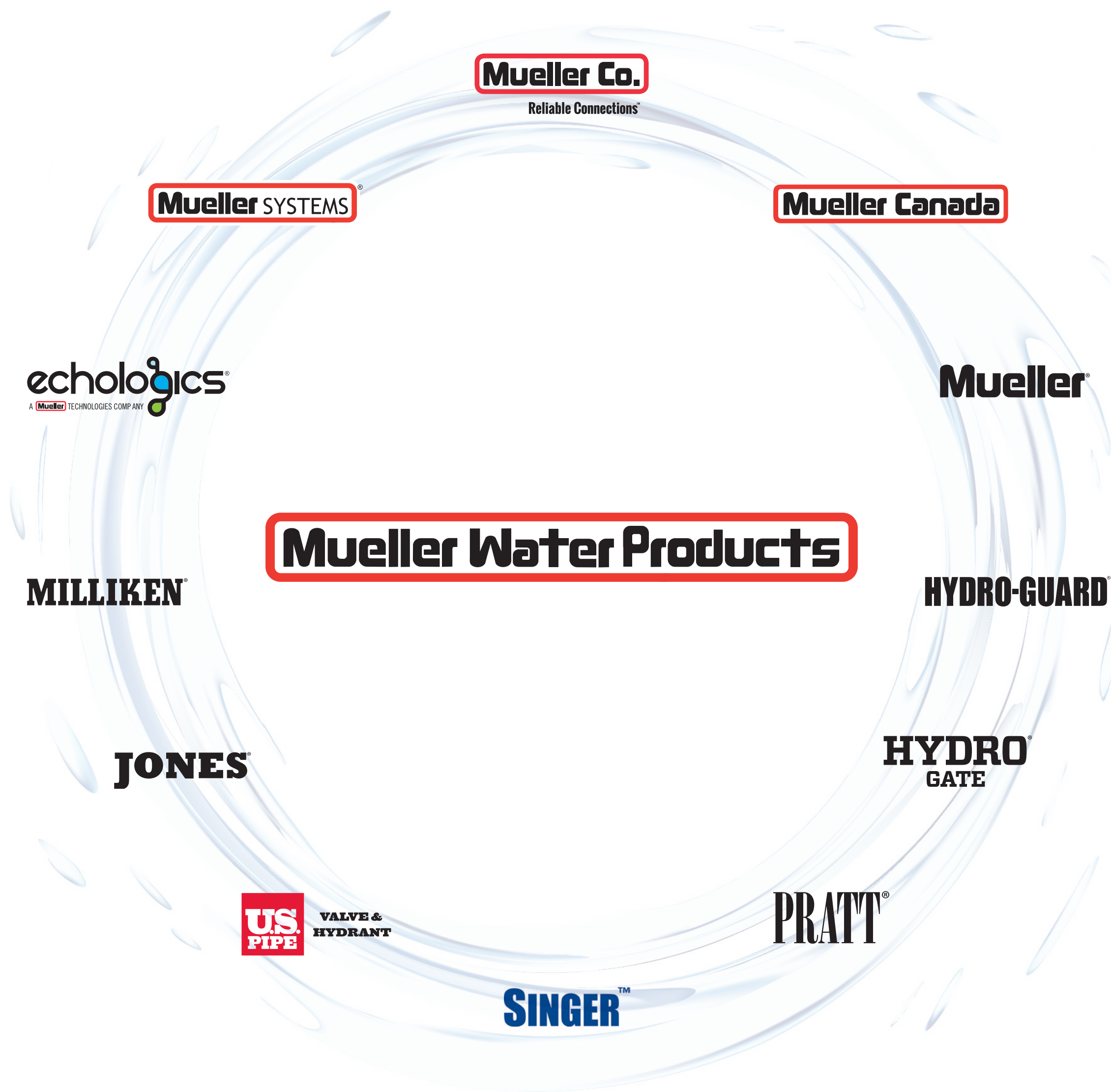
Form 10-K
A copy of the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2017, including financial statements, is available on the Company's Web site at www.muellerwaterproducts.com or by written request to:

Investor Relations
Mueller Water Products, Inc.
1200 Abernathy Road, N.E.
Suite 1200
Atlanta, GA 30328

Common Stock
Trading Symbol: MWA
New York Stock Exchange

Transfer Agent and Registrar
Computershare Shareowner Services LLC
250 Royall Street
Canton, MA 02021
Toll Free Number: 866-205-6698
www.computershare.com/investor

TDD for Hearing Impaired:
800-231-5469
Foreign Shareowners:
201-680-6578
TDD Foreign Shareowners:
201-680-6610



Mueller Water Products, Inc.
1200 Abernathy Road, N.E., Suite 1200
Atlanta, GA 30328
www.muellerwaterproducts.com

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The 2017 Mueller Water Products, Inc. annual report saved the following resources by printing on processed-chlorine-free paper containing up to 30% post-consumer waste.

trees	waste water	net energy	solid waste	greenhouse gases
4 grown	1,777 gallons	1 million BTUs	108 pounds	369 pounds