

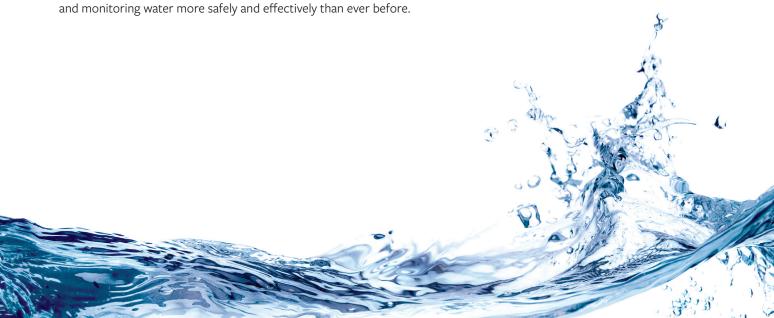


WHERE INTELLIGENCE MEETS INFRASTRUCTURE®

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, pipe connection and repair products, metering products, leak detection, pipe condition assessment, pressure management products and software technology that provides critical water system data. We help municipalities increase operational efficiencies, improve customer service and prioritize capital spending, demonstrating why Mueller Water Products is Where Intelligence Meets Infrastructure®.

Mueller Water Products is one of the only companies that can fulfill the needs of water utilities from end to end – at the source, at the plant, below the ground, on the street and in the cloud. Built on a solid legacy of innovation, we have the expertise and vision to provide advanced infrastructure and technology solutions for transmitting, distributing, measuring



Mueller brands include Mueller®, Echologics®, Hydro Gate®, Hydro-Guard®, HYMAX®, i2O®, Jones®, Krausz®, Mi.Net®, Milliken®, Pratt®, Pratt Industrial®, Sentryx™, Singer® and U.S. Pipe Valve and Hydrant.

To learn more visit www.muellerwaterproducts.com.

CEO'S LETTER

J. SCOTT HALL | President and Chief Executive Officer

December 22, 2022

Dear Fellow Shareholders,

Mueller stands on a strong heritage of innovation and execution built during the last 165 years. Today, our employees continue that tradition, in spite of the challenging operating environment. I thank them for their resilience and strong work ethic.

Throughout the year, we focused on delivering the benefits of our key initiatives, including capital investments to support our domestic manufacturing capabilities and completing our previously announced plant restructurings. We are on track to begin the initial start-up at our new brass foundry, which will have significantly more capacity, deliver the best long-term manufacturing solutions and advance our sustainability initiatives with a new lead-free brass alloy.

In January we published our second Environmental, Social and Governance Report, which included our initial targets and goals, highlighted our strategy, initiatives and annual performance, and reported on our progress.

As part of our ongoing commitment to Diversity, Equity and Inclusion, we launched DE&I Councils consisting of an executive council, a companywide employee council and local employee councils at each plant as well as a corporate and sales team council.

Once again, Mueller delivered a solid financial performance, despite the demanding macro-environment. The Company:

- Delivered our second consecutive year of double-digit net sales growth, increasing net sales 12.3 percent to \$1,247.4 million as compared to prior year net sales of \$1,111.0 million
- Generated net income of \$76.6 million as compared with \$70.4 million in the prior year
- Earned net income per diluted share of \$0.48, an increase of 9.1 percent, as compared with \$0.44 in the prior year; reported adjusted net income per diluted share of \$0.58, an increase of 3.6 percent
- Increased our quarterly dividend per share by 5.5 percent
- Repurchased \$35 million of common stock

As we look to 2023, we are well positioned to help water utilities address the challenges they face. We believe our record backlog and the price realization we expect during the year position us to deliver continued net sales growth and adjusted EBITDA growth.

I appreciate the support of our stockholders as we work through these economic and operational challenges. As we are close to finalizing our key capital projects and continue to work to accelerate new product development, I am confident we will deliver great accomplishments ahead.

Sincerely,

J. Scott Hall President and

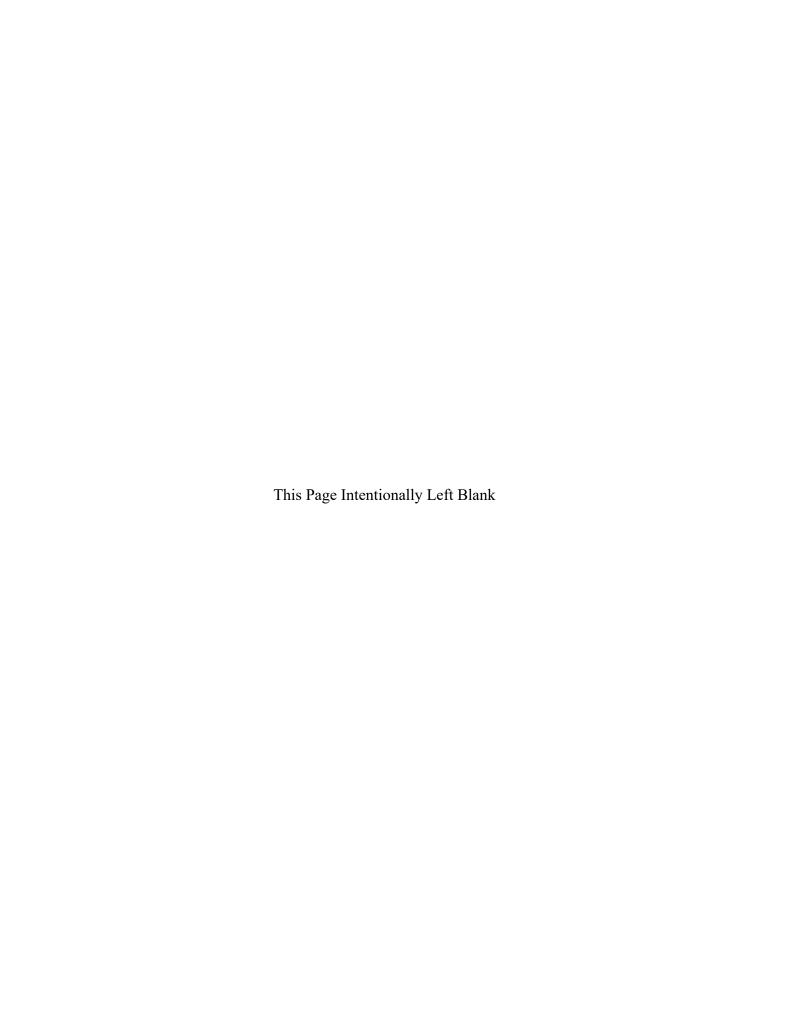
Chief Executive Officer

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSU	ANT TO SECTION 13 OR 15(d) OF TH	HE SECURITIES EXCHANGE ACT OF 1934
	For the fiscal year ended September	30, 2022
	OR	
☐ TRANSITION REPORT PUR	RSUANT TO SECTION 13 OR 15(d) OI	F THE SECURITIES EXCHANGE ACT OF 1934
	Commission file number: 001-32	892
MUELI	LER WATER PROI	OUCTS, INC.
(Ex	xact Name of Registrant as Specified in	n Its Charter)
Delaware		20-3547095
(State or Other Jurisdiction of Incorpor	· · · · · · · · · · · · · · · · · · ·	R.S. Employer Identification Number)
	1200 Abernathy Road N.E. Suite 1200	
	Atlanta, GA 30328	
	(Address of Principal Executive O	ffices)
	Registrant's telephone number: (770)	
	urities registered pursuant to Section 12	
Title of Each Class		e of Each Exchange on Which Registered
Common Stock, par value \$0.01	MWA	New York Stock Exchange
Securiti	es 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 is	In Rule 405 of the Securities Act. \mathbf{X} Yes \square No
Indicate by check mark if the registrant is	not required to file reports pursuant to Sec	tion 13 or Section 15(d) of the Act. Yes X No.
	(or for such shorter period that the registra	filed by Section 13 or 15(d) of the Securities Exchange ant was required to file such reports), and (2) has been
Indicate by check mark whether the regist	rant has submitted electronically every Into 232.405 of this chapter) during the preceding	eractive Data File required to be submitted and posted and 12 months (or for such shorter period that the
Indicate by check mark whether the regist	rant is a large accelerated filer, an accelera	ted filer, a non-accelerated filer, a smaller reporting
	_	er," "accelerated filer," "smaller reporting company,"
and "emerging growth company" in Rule 12	•	-
	reporting company	☐ Emerging growth company
		not to use the extended transition period for complying
with any new or revised financial accounting		-
	nder Section 404(b) of the Sarbanes-Oxley	its management's assessment of the effectiveness of Act (15 U.S.C. 7262(b)) by the registered public
Indicate by check mark whether the regist	rant is a shell company (as defined in Rule	12b-2 of the Act). ☐ Yes 🗷 No
market value of the voting and non-voting co	ommon stock held by non-affiliates (assum	wember 10, 2022. At March 31, 2022, the aggregate ing only for purposes of this computation that director per per share as reported on the New York Stock
	DOCUMENTS INCORPORATED BY RE	FERENCE
Applicable portions of the Proxy Staten reference into Part III of this Form 10-K.	nent for the upcoming 2023 Annual Meetin	ng of Stockholders of the Company are incorporated by



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) "Water Flow Solutions" refers to our Water Flow Solutions segment; (3) "Water Management Solutions" refers to our Water Management Solutions segment; (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, Water Flow Solutions and Water Management Solutions, 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, technology products, 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 regarding our end markets and competitive positions are based on our beliefs, studies and judgments concerning industry trends.

Forward-Looking Statements

This report contains certain statements that may be deemed "forward-looking statements" within the meaning of the federal securities laws. All statements that address activities, events or developments that the Company intends, expects, plans, projects, believes or anticipates will or may occur in the future are forward-looking statements including, without limitation, statements regarding outlooks, projections, forecasts, expectations, commitments, trend descriptions and the ability to capitalize on trends, value creation, Board and committee composition plans, long-term strategies and the execution or acceleration thereof, operational improvements and excellence, the benefits of capital investments, financial or operating performance including improving sales growth and driving increased margins, capital allocation and growth strategy plans, positioning the Company's product portfolio and the demand for the Company's products. Forward-looking statements are based on certain assumptions and assessments made by the Company in light of the Company's 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 the future impact of the COVID-19 pandemic on the Company's operations and results, including effects on the financial health of customers (including the collection of receivables); logistical challenges and supply chain disruptions, geopolitical conditions, or other events; an inability to realize the anticipated benefits from our operational initiatives, including our large capital investments in Chattanooga and Kimball, Tennessee and Decatur, Illinois, plant closures, and our reorganization and related strategic realignment activities; an inability to attract or retain a skilled and diverse workforce, increased competition related to the workforce and labor markets; an inability to protect the Company's information systems against service interruption, misappropriation of data or breaches of security; failure to comply with personal data protection and privacy laws; cyclical and changing demand in core markets such as municipal spending, residential construction, and natural gas distribution; government monetary or fiscal policies; the impact of adverse weather conditions; the impact of manufacturing and product performance; the impact of wage, commodity and materials price inflation; the impact of warranty claims; an inability to successfully resolve significant legal proceedings or government investigations; compliance with environmental, trade and anti-corruption laws and regulations; climate change and legal or regulatory responses thereto; changing regulatory, trade and tariff conditions; the failure to integrate and/or realize any of the anticipated benefits of recent acquisitions or divestitures; an inability to achieve some or all of our Environmental, Social and Governance goals; and other factors that are described in the section entitled "RISK FACTORS" in Item 1A of this Annual Report.

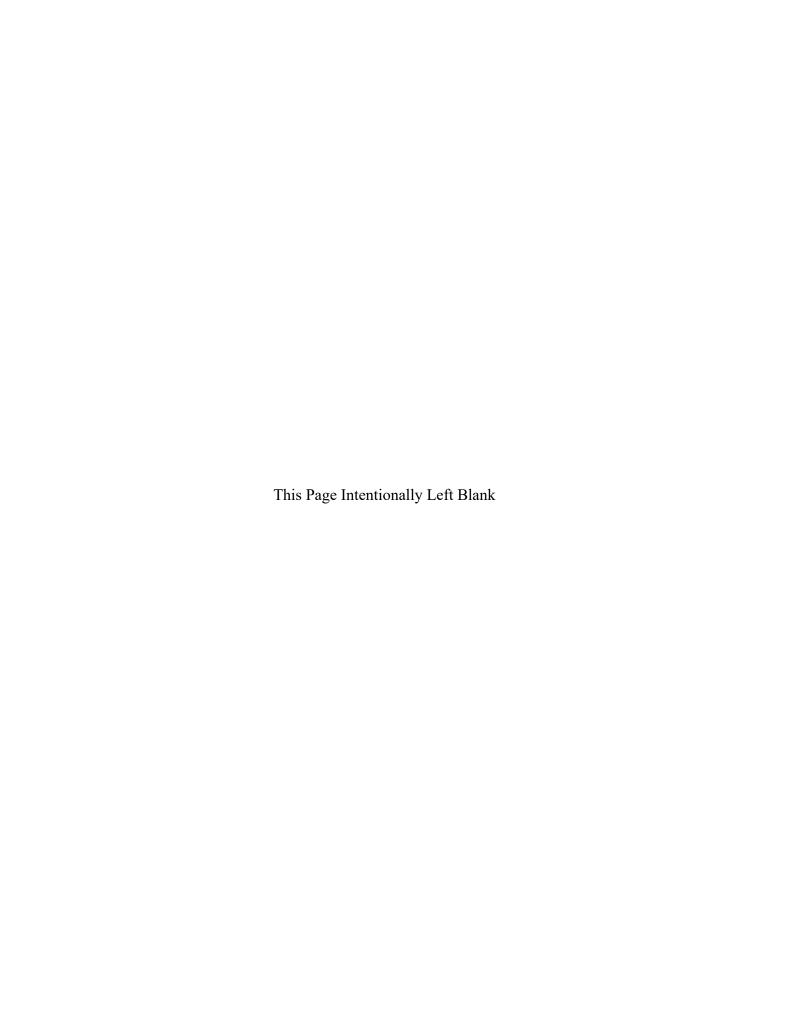
Forward-looking statements do not guarantee future performance and are only as of the date they are made. The Company undertakes no duty to update its forward-looking statements except as required by law. Undue reliance should not be placed on

any forward-looking statements. You are advised to review any further disclosures the Company makes on related subjects in subsequent Forms 10-K, 10-Q, 8-K and other reports filed with the U.S. Securities and Exchange Commission.

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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 2023 Annual Meeting of Stockholders.



Item 1. BUSINESS

Our Company

Mueller Water Products, Inc. ("Mueller," "we" or the "Company") is a 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. Some of our products have leading positions as a result of 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 \$1,247.4 million in 2022.

We operate our business through two segments, Water Flow Solutions and Water Management Solutions. 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.

Organization Updates

In October 2019, we acquired the remaining 51% noncontrolling ownership interest of our previously existing industrial valve joint venture, which we originally entered into in July 2014.

On June 14, 2021, we acquired all the outstanding capital stock of i2O Water Ltd ("i2O'), a provider of pressure management solutions to more than 100 water companies in 45 countries. i2O is organized under the laws of the United Kingdom.

Effective October 1, 2021, we implemented a new management structure designed to increase revenue growth, drive operational excellence, accelerate new product development and enhance profitability. We believe the reorganization has and will continue to strengthen the alignment of products, solutions and services with customer needs, accelerate new product introductions and improve product life cycle management. Our two operating segments, Water Flow Solutions and Water Management Solutions, align with this new management structure.

Water Flow Solutions

The Water Flow Solutions product portfolio includes iron gate valves, specialty valves and service brass products. Net sales of products in the Water Flow Solutions business unit were approximately 57% of fiscal 2022 consolidated net sales.

Water Management Solutions

The Water Management Solutions product and service portfolio includes fire hydrants, repair and installation, natural gas, metering, leak detection, pressure control and software products. Net sales of products and services in the Water Management Solutions business unit were approximately 43% of fiscal 2022 consolidated net sales.

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:

Accelerate development of new products.

We plan to continue to invest in our product development capabilities, including expanding our research and development 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.

Develop and implement a fully-integrated intelligent technology platform for infrastructure testing, monitoring and control.

We created a software platform, Sentryx $^{\text{TM}}$, that provides data intelligence to help water utilities make strategic and operational decisions. As our customers seek to use real-time data and analytics to manage and repair their aging infrastructures more efficiently, we believe we are uniquely positioned to provide solutions given our expertise and the large installed base of our products. This data includes leak detection, pressure monitoring, advanced metering and water quality, which are aggregated and consolidated within the Sentryx $^{\text{TM}}$ platform, providing utilities with critical information regarding their distribution systems.

Drive operational excellence.

We seek to bring best practices focused on Lean manufacturing and Six Sigma business process improvement methodologies, with an investment mindset to deliver manufacturing productivity improvements. We expect these efforts will facilitate innovation and new product development, drive sales growth and improve product margins. Productivity improvements at our facilities should allow us to lower costs, which can fund additional manufacturing initiatives and continued investment in product development.

Modernize manufacturing facilities.

We are prioritizing capital investments through 2023 to modernize our manufacturing facilities and processes. We believe this modernization will improve product quality, drive non-price margin expansion and expand our product portfolio. Our large valve manufacturing expansion in Chattanooga, Tennessee entered near full-scale production during the fiscal year 2022. We have completed the build out of our new facility in Kimball, Tennessee to support our machining and assembly capabilities in the Chattanooga area. During the fiscal year ended September 30, 2022, we completed the consolidation of our facilities in Aurora, Illinois and Surrey, British Columbia into the Kimball, Tennessee facility. We expect these investments will capitalize on the growing need for large valves because of the migration to more densely populated, urban areas and an increased focus by customers on products made in America. In addition, we are building a new brass foundry in Decatur, Illinois, scheduled to start-up initial production in 2023, although we do not expect full production until 2024 when it replaces our nearby, existing brass foundry.

Continue to seek, acquire, and invest in businesses and technologies that expand our existing portfolio or 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 position, enhance or expand our existing product and service offerings, expand our technological capabilities, leverage our manufacturing capabilities, provide synergistic opportunities, enhance our customer relationships or allow us to enter new markets. As part of this strategy, we may pursue international opportunities, including acquisitions, joint ventures and partnerships.

Description of Products and Services

We offer a broad line of water infrastructure, flow control, metering and leak detection products and services primarily in the United States and Canada. Water Flow Solutions sells iron gate and specialty valves, and service brass products. Water Management Solutions sells hydrants, repair and installation, natural gas, metering, leak detection and pressure control products and solutions. Our products are designed, manufactured and tested in compliance with relevant industry standards. Our water distribution products are manufactured to meet or exceed American Water Works Association ("AWWA") Standards and, where applicable, certified to National Science Foundation ("NSF")/American National Standards Institute ("ANSI") Standard

61 for potable water conveyance. Underwriters Laboratory ("UL") and FM Approvals ("FM") have approved many of these products. Additionally, our products are typically specified by a water utility for use in its infrastructure system.

Water Flow Solutions

Water Flow Solutions' product portfolio includes iron gate valves, specialty valves and service brass products. We recognized \$714.1 million, \$617.8 million and \$532.2 million of net sales in our 2022, 2021 and 2020 fiscal years, respectively, for Water Flow Solutions products.

Water Valves and Related Products. Water Flow Solutions manufactures valves for water systems, including iron gate, butterfly, tapping, check, knife, plug, and ball valves, and sells these products under a variety of brand names, including Mueller[®], Pratt[®], and U.S. Pipe Valve and Hydrant. These valve products are used to control distribution and transmission of potable water and non-potable water. Water valve products typically range in size from ¾ inch to 36 inches in diameter. Water Flow Solutions also manufactures significantly larger valves as custom orders through some of its product lines. Most of these valves are used in water transmission or distribution, water treatment facilities or industrial applications.

Water Management Solutions

Water Management Solutions' product and service portfolio includes fire hydrants, repair and installation, natural gas, metering, leak detection, pressure control and software products. We recognized \$533.3 million, \$493.2 million and \$431.9 million of net sales in our 2022, 2021, and 2020 fiscal years respectively, for Water Management Solutions products.

Fire Hydrants. Water Management Solutions manufactures dry-barrel and wet-barrel fire hydrants. Water Management Solutions sells fire hydrants for new water infrastructure development, fire protection systems and water infrastructure repair and replacement projects.

Our 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. Water Management Solutions sells dry-barrel fire hydrants under the Mueller and U.S. Pipe Valve and Hydrant brand names in the United States and Mueller and the Canada ValveTM brand names in Canada. Water Management Solutions 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 as a result of their desire to use the same tools and operating instructions across their systems and to minimize inventories of spare parts. We believe the large installed base of Mueller fire hydrants throughout the United States and Canada, reputation for superior quality and performance as well as specification positions have contributed to the leading market position of its fire hydrants. This large installed base also leads to recurring sales of replacement hydrants and hydrant parts.

Repair Products and Services. Water Management Solutions also sells pipe repair products, such as couplings, grips and clamps used to repair leaks, under the HYMAX[®], Mueller[®] and Krausz[®] brand names.

Water Metering Products and Systems. Water Management Solutions manufactures and sources a variety of water technology products under the Mueller® brand name that are designed to help water providers accurately measure and control water usage. Water Management Solutions 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 or electronically read systems are either automatic meter reading ("AMR") systems or fixed network advanced metering infrastructure ("AMI") systems. With an AMR system, utility personnel with mobile equipment, including a radio receiver, computer and reading software, collect the data from utilities' meters. With an AMI system, a network of permanent data collectors or gateway receivers that are always active or listening for the radio transmission from the utilities' meters gather the data. 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 and allow for two-way communication. Water Management Solutions sells both AMR and AMI systems and related products. Our remote disconnect water meter enables the water flow to be stopped and started remotely via handheld devices or from a central operating facility.

Water Leak Detection and Pipe Condition Assessment Products and Services. Water Management Solutions develops technologies and offers products and services under the Echologies® brand name that can non-invasively (i.e., 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. We leverage our proprietary acoustic technology to offer leak detection and condition assessment surveys. We also offer fixed leak detection systems that allow customers to continuously monitor and detect leaks on water distribution and transmission mains. We believe Water Management Solutions' ability to offer non-invasive leak detection and pipe condition assessment services is a key competitive advantage.

Additionally, Water Management Solutions produces 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. We also provide gas valve products primarily for use in gas distribution systems. With our Singer valve and i2O products, we provide a range of intelligent water solutions including pressure control valves, advanced pressure management, network analytics, event management and date logging.

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 process improvement methodologies where appropriate to safely capture higher levels of quality, service and operational efficiency in our manufacturing facilities in both segments.

Mueller Water Products operates ten manufacturing facilities located in the United States, Israel and China. These manufacturing operations include foundry, machining, fabrication, assembly, testing and painting operations. Not all facilities perform each of these operations. Our existing manufacturing capacity is sufficient for anticipated near-term requirements. In order to meet longer-term capacity requirements and modernize some production facilities, however, we have expanded the large valve casting capabilities at the foundry located in Chattanooga, Tennessee, and are currently building out our new manufacturing facility in nearby Kimball, Tennessee to expand certain activities and assemble some of our large valves. Additionally, we have under construction a new brass foundry in Decatur, Illinois, that will replace our existing brass foundry located nearby in Decatur. Our foundries use both lost foam and green sand casting techniques. We use the lost foam technique for fire hydrant production in our Albertville, Alabama, facility and for iron gate valve production in our 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.

Additionally, we design, manufacture, and assemble water metering products in Cleveland, North Carolina. In Atlanta, Georgia, we design and support AMR and AMI systems in our research and development center of excellence for software and electronics. Our research and development center in Toronto, Ontario, Canada, designs and supports leak detection and condition assessment. Product design and support for our intelligent water solutions products and services for pressure management are in Southampton, United Kingdom.

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 approximately 34% and 18%, respectively, of Cost of sales in 2022.

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."

Our brand names include:

Canada Valve™	Echologics [®]
Centurion [®]	Echoshore [®]
Ez-Max [®]	ePulse [®]
Hydro Gate [®]	Hersey [™]
Hydro-Guard®	i2O Water Ltd
HYMAX®	LeakFinderRT [®]
HYMAX VERSA®	LeakFinderST [™]
Jones®	LeakListener [®]
Krausz®	LeakTuner [®]
Milliken [™]	Mi.Echo®
Mueller®	Mi.Data®
Pratt®	Mi.Hydrant [™]
Pratt Industrial®	Mi.Net [®]
Repamax®	Mueller Systems®
Repaflex [®]	Sentryx [™]
Singer [™]	U.S. Pipe Valve and Hydrant, LLC

Seasonality

Parts of our business depends upon construction activity, which is seasonal in many areas as a result of 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. See "Item 1A. RISK FACTORS-Seasonal demand for certain of our products and services may adversely affect our financial results."

Sales, Marketing and Distribution

We sell primarily to national and regional waterworks distributors in the U.S. and Canada. 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 United States water infrastructure industry. Our 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 40%, 39% and 34% of our gross sales in 2022, 2021 and 2020 fiscal years, respectively. See "Item 1A. RISK FACTORS-Our business depends on a small group of key customers for a significant portion of our sales."

Water Flow Solutions

Water Flow Solutions sells its products primarily through waterworks distributors to a wide variety of end user customers, including water and wastewater utilities, and fire protection and construction contractors. Sales of the products are heavily influenced by the specifications for the underlying projects. Approximately 8% of Water Flow Solutions' net sales were to Canadian customers in our fiscal year 2022, and approximately 7% in fiscal years 2021 and 2020.

Water Management Solutions

Water Management Solutions sells its products primarily through waterworks distributors to a wide variety of end user customers, including water and wastewater utilities, gas utilities, integrated suppliers, as well as fire protection and construction contractors. Sales of our products are heavily influenced by the specifications for the underlying projects. Approximately 7% of Water Management Solutions' net sales were to Canadian customers in fiscal year 2022, and 8% in fiscal years 2021 and 2020.

Water Management Solutions also sells its water metering systems, products and services directly to municipalities and to waterworks distributors, and sells water leak detection, pressure monitoring, and pipe condition assessment products and services, and intelligent water network solutions primarily to municipalities and utility companies.

Backlog

We consider backlog to represent orders placed by customers for which goods or services have yet to be shipped. Backlog is a meaningful indicator for many of our product lines. The delivery lead time for certain product lines can be longer than one year, and we expect approximately 7% of Water Flow Solutions' backlog at the end of 2022 will not be shipped until beyond 2023. Water Management Solutions manufactures or sources water meter systems that are sometimes ordered in large quantities with delivery dates over several years. We expect approximately 1% of Water Management Solutions' backlog will not be shipped until beyond 2023. Due to demand levels in our end markets, we have experienced record levels of short-cycle backlog, primarily for our iron gate, service brass and hydrant products. Backlog for Water Management Solutions and Water Flow Solutions are as follows:

		September 30,			
	2	2022		2021	
		(in millions)			
Water Flow Solutions	\$	419.1	\$	287.9	
Water Management Solutions		309.8		152.3	
Total backlog	\$	728.9	\$	440.2	

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 include customer orders in our backlog until the customer order is received.

Competition

The United States 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 Water Flow Solutions' valve products is mature and many end users are slow to transition to brands other than their historically preferred brands making it difficult to increase market share in this environment. We believe our 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 iron gate valves are McWane, Inc. and American Cast Iron Pipe Company. The primary competitors for our service brass products are The Ford Meter Box Company, Inc. and A.Y. McDonald Mfg. Co. Many service brass valves are interchangeable among different manufacturers. For our specialty valve products such as butterfly, plug, and check valves, our principal competitors are DeZURIK, Val-Matic and McWane, Inc.

The markets for products and services sold by Water Management Solutions are very competitive, with some mature products, and many end users are slow to transition to brands other than their historically preferred brands. We believe that our hydrants enjoy a strong competitive position based primarily on the extent of their installed base, product quality, specified position and brand recognition. Our principal competitors for hydrants are McWane, Inc. and American Cast Iron Pipe Company. We believe the markets for many of our repair products are open to product innovation. For our pipe repair products, we believe our brand names, including Krausz[®], are generally associated with premium products as a result of our patented technology and superior features. Our current marketing strategy is primarily focused on repair, joining and restraining of water infrastructure piping systems. The majority of this infrastructure consists of cast iron, ductile iron and plastic pipe. Our repair solutions work well with all of these. Our primary competitors in the repair market are: Romac Industries, Smith Blair, Viking Johnson, AVK Group, JCM Industries, and Georg Fisher Ltd.

Within Water Management Solutions, we also sell water metering products and systems, primarily in the United States. We believe a substantial portion of this market is in the process of transitioning from manually read meters to electronically read meters; however, we 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 Water Management Solutions' market position is relatively small, we believe our electronically read meters and associated technology are well positioned to gain a greater share of these markets. Our principal competitors are Sensus, Neptune Technology Group Inc., Badger Meter, Inc., Itron, Inc., and Master Meter, Inc. We also sell pressure control valves and pressure loggers through our Singer Valve and i2O products. The primary competitors for these products are Cla-Val, Watts, OCV, Ross Valve, Bermad and Halma. Water Management Solutions also 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 our primary markets being the United States and Canada. The worldwide market for leak detection and pipe condition assessment is highly fragmented with numerous competitors. Our more significant competitors are Pure Technologies Ltd., Gutermann AG and Syrinix Ltd. Additionally, we sell gas repair products which are primarily used on distribution lines. Our primary competitors for these products are Smith Blair, T.D. Williamson, and A.Y. McDonald.

Research and Development

Our primary research and development ("R&D") facilities are located in Chattanooga, Tennessee; Ariel, Israel; Atlanta, Georgia; Toronto, Ontario; and Southampton, United Kingdom. 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. R&D expenses were \$24.5 million, \$17.1 million and \$15.0 million during 2022, 2021 and 2020, 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 the Environmental Protection Agency's ("EPA") remediation costs, the number and financial viability of the other PRPs (there are three 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 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS -Contingencies" and Note 17. of the Notes to Consolidated Financial Statements.

Our operations are subject to federal, state and local laws, regulations and ordinances relating to various environmental, health and safety matters. We believe our operations are in compliance with, or we are taking actions designed to ensure compliance with, these laws, regulations and ordinances. However, the nature of our operations exposes us to the risk of claims concerning non-compliance with environmental, health and safety laws or standards, and there can be no assurance that material costs or liabilities will not be incurred in connection with those claims. Except for certain orders issued by environmental, health and safety regulatory agencies, with which we believe we are in compliance and which we believe are immaterial to our financial condition, results of operations and liquidity, we are not currently named as a party in any judicial or administrative proceeding relating to environmental, health and safety matters.

Greenhouse gas ("GHG") emissions have increasingly become the subject of political and regulatory focus. Concern over potential climate change, including global warming, has led to legislative and regulatory initiatives directed at limiting GHG emissions. In addition to certain federal proposals in the United States to regulate GHG emissions, many states and countries are considering and are enacting GHG legislation, regulations or international accords, either individually and/or as part of regional initiatives. It is likely that additional climate change related mandates will be forthcoming, and it is expected that they may adversely impact our costs by increasing energy costs and raw material prices, requiring operational or equipment modifications to reduce emissions and creating costs to comply with regulations or to mitigate the financial consequences of such compliance.

Our environmental strategy focuses on responsible sourcing and manufacturing sustainable products that address numerous water infrastructure challenges. We have established reduction targets for key environmental performance indicators such as GHG emissions, internal water withdrawal intensity and waste to landfill, as well as targets for increased use of recycled materials in our products. In connection with these efforts, we work to minimize the amount of water we use at our manufacturing facilities and maintain stringent water quality standards. Our processes are designed to return the water used in manufacturing at a quality level that does not negatively impact the receiving environment.

Future events, such as changes in existing laws and regulations, new legislation to limit GHG emissions or contamination of sites owned, operated or used for waste disposal by us, including currently unknown contamination and contamination caused by prior owners and operators of such sites or other waste generators, may give rise to additional costs which could have a material effect on our financial condition, results of operations or liquidity.

Our anticipated capital expenditures for environmental projects are not expected to have a material effect on our financial condition, results of operations or liquidity.

Human Capital

We believe our employees are our greatest asset and we strive to provide a safe, inclusive, high-performance culture where our people can thrive. We strive to recruit, develop, engage, train and protect our workforce. The following are key human capital measures and objectives on which the Company currently focuses.

Core Values. Our core values of respect, integrity, trust, safety and inclusion shape our culture and define who we are. We are committed to upholding fundamental human rights and believe that all human beings should be treated with dignity, fairness, and respect.

Employee Total Compensation and Benefits Philosophy. We pay at or above a living wage at each of our locations. Living wage is defined as the minimum necessary income for a worker to meet the worker's basic needs, which can fluctuate based on physical location and other local factors. We base our calculations on a single worker with no children. We are dedicated to our employees' health and well-being. We provide access to benefits and offer programs that support work-life balance and overall well-being, including financial, physical and mental health resources, such as those listed below.

Financial	Health and Wellness	Work-Life Balance		
Competitive Base Pay	Medical, Dental and Vision Benefits (including telemedicine)	Paid time off, paid holidays and jury duty pay		
Employee Incentive Plan (Annual Bonus)	Flexible Spending Accounts and Health Savings Accounts	Paid Parental Leave (maternity, paternity, adoption)		
Supplemental Pay (Overtime)	Supplemental Health Benefits	Elder Care and Childcare Assistance		
Employee Stock Purchase Plan	Wellness Rewards Program	Employee Assistance Program (mental health, legal, financial services)		
Recognition Pay and Service Awards	Health Plan Incentives	Associate Discount Programs and Services		
401(k) Retirement Savings Plan with Company Match (Traditional and Roth)	On-site and complimentary Vaccinations	Flexible Work Arrangements		
Life Insurance (employee and dependents)				

Short-term and Long-term Disability Insurance

Commitment to Diversity and Inclusion. We strive to promote inclusion in the workplace, to build on our understanding of potential human rights issues by engaging with appropriate communities, and to interact with our employees and all communities in a manner that respects human rights. We encourage our suppliers to follow these practices as well. As of November 18, 2022, women represented 27% and minorities represented 36% of our Board of Directors.

We condemn human rights abuses and do not condone the use of slave or forced labor, human trafficking, child labor, the degrading treatment of individuals, physical punishment, or unsafe working conditions.

All employees are required to understand and obey local laws, to report any suspected violations, and to act in accordance with our Core Values and Code of Conduct.

Recently, we completed a pay equity study for all employees and job grades based on gender and race, and believe we addressed identified anomalies with appropriate pay adjustments. We also strive to ensure all offers to new employees or to employees being promoted internally are aligned with the market and equitable on an internal basis.

In addition, we expanded our Diversity and Inclusion ("D&I") Council framework during our 2022 fiscal year. The framework is now comprised of a series of councils including an executive council, a company-wide employee council and local employee councils at each plant as well as a corporate and sales team council.

Talent Acquisition and Retention. We strive to attract, develop and retain high-performing talent, and we support and reward employee performance. Programs to strengthen our talent include an employee referral program, tuition reimbursement, continued training and development and succession planning. We also have partnerships with local and national educational institutions for our recruiting efforts. We prioritize employee engagement and transparency by implementing programs and processes to ensure our employees have opportunities to ask questions, voice concerns, and share feedback. This is accomplished in part by conducting an annual employee satisfaction survey, and quarterly town hall meetings. Our fiscal year 2022 employee turnover rate was approximately 28%.

Leadership and Culture Development. As new generations enter the workforce, their passions and commitments to sustainability are fundamental to our future success. The Mueller Development Program ("MDP") is designed to provide a pipeline for future talent. During 2022, we continued our Frontline Leader training program to offer tools in time management, communication, and team building, along with personal coaching.

At September 30, 2022, we employed approximately 3,600 people, of whom 82% work in the United States. At September 30, 2022, 64% of our hourly workforce was represented by collective bargaining agreements. Additionally, certain foreign countries where we have employees, such as China, provide by law for employee rights which include requirements similar to collective bargaining agreements. We believe we have good relations with our employees, including those represented by collective bargaining agreements.

We have successfully negotiated and extended several of our collective bargaining agreements in the past. Our locations with employees covered by such agreements are presented below.

Location	Expiration of current agreement(s)		
Chattanooga, TN	January 2023		
Chattanooga, TN	October 2025		
Decatur, IL	June 2027		
Albertville, AL	October 2027		

Securities Exchange Act Reports

We file annual and quarterly reports, proxy statements and other information with the United States Securities and Exchange Commission ("SEC") as required. 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 any amendments thereto 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 office is 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

Risks related to our industries

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

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. As a result, 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 expenditures when setting tax rates, water rates and water fees, as applicable, could be unable to pay for water infrastructure repair and replacement if they do not have access to other funding sources. 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.

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, increasing interest rates, inflation and difficulties in complying with environmental and other governmental regulations. For example, changes in interest rates and credit markets, including municipal bonds, mortgages, home equity loans and consumer credit, have in the past and may in the future significantly increase the costs of the projects in which our products are utilized, such as in new residential construction and water and wastewater infrastructure upgrade, repair and replacement projects, and lead to such projects being reduced, delayed and/or rescheduled, which could result in a decrease in our revenues and earnings and adversely affect our financial condition. In addition, higher interest rates are often accompanied by inflation. We have in the past and may in the future be unable to raise the prices of our products sufficiently to keep up with the rate of inflation, which would reduce our profit margins and cash flows.

Some state and local governments may place significant restrictions on the use of water by their constituents and/or increase their water conservation efforts. These types of water use restrictions and water conservation efforts 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 as a result of 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 within this market could adversely affect our financial results.

New water and wastewater infrastructure spending is heavily dependent upon residential construction. As a result, 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, inflation and the availability of mortgage financing, as well as the mix between single and multifamily construction, availability of construction labor 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 have had and may in the future have an adverse effect on our sales, profitability and cash flows, including the risk that one or more of our distributors and/or end use customers decide to delay purchasing, or determine not to purchase, our products or services.

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

A majority of our products are sold 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 consequently,

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.

Certain products and solutions, primarily technology-enabled products and solutions, are sold directly to end users. Some of these customers represent a relatively high concentration of 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 United States 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 customers in the face of competition depends on our ability to market our products and services to our customers and end users effectively.

The United States 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 attract new 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 United States dollar against foreign 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 competitors located in the United States 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 systems and solutions, including the related products, software and services, such as smart metering, leak detection, pressure monitoring and pipe condition assessment, depends on market acceptance.

Our technology-enabled smart metering, leak detection, pressure monitoring and pipe condition assessment products and services have much less market history than many of our traditional 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 United States 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, partially as a result of 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 pressure monitoring, 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. The markets for our technology-enabled products and services have developed more slowly than we expected and may continue to do so. If these products and services fail to gain market acceptance, our opportunity to grow these businesses will be limited.

Risks related to our business strategy

We may not be able to adequately manage the risks associated with the introduction and deployment of new products and systems, including increased warranty costs.

The success of our new products and systems, such as our smart hydrant and Sentryx[™] software platform, 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. Warranty liabilities and the related reserve estimation process is highly judgmental as a result of the complex nature of these exposures and the unique circumstances of each claim. Furthermore, once claims are asserted for an alleged product defect by municipalities or other customers, it can be difficult to determine the level of potential exposure or liability related to such allegation to which the assertion of these claims will expand geographically. Although we have obtained insurance for product liability claims, such policies may not be available or adequate to cover the liability for damages, the cost of repairs and/or the expense of litigation. Current and future claims may arise out of events or circumstances not covered by insurance and not subject to effective indemnification agreements with our subcontractors. Failure to successfully manage these challenges could result in lost revenue, significant expense, and harm to our reputation.

Inefficient or ineffective allocation of capital, along with increased capital expenditure levels to modernize our aging facilities and expand our capabilities, could adversely affect our operating results and/or stockholder value, including negatively impacting our available cash reserves and prevent acquisition or other cash-intensive opportunities.

Our goal is to invest capital to generate long-term value for our stockholders. 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 into new markets, as well as periodically returning value to our stockholders through share repurchases and dividends. For example, we have completed the construction of our large valve manufacturing expansion in Chattanooga, Tennessee and made an additional investment in a facility in Kimball, Tennessee to further expand our capabilities in the area and allow us to insource more products and operations. We made significant progress in fiscal 2022 on the construction of our new brass manufacturing facility in Decatur, Illinois, which we expect to substantially complete in 2023. 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 allocate properly and manage our capital, we may fail to produce expected financial results, and we may experience a reduction in stockholder value, including increased volatility in our stock price.

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

Between November 2019 and September 2022, we transitioned all, or substantially all, operations from our facilities in Hammond, Indiana; Aurora, Illinois; Woodland, Washington; and Surrey, British Columbia, Canada; to our Kimball, Tennessee facility. We cannot guarantee that the activities under the restructuring and reorganization activities will result in the desired efficiencies and estimated cost savings, if any.

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.

As part of our long-term business strategy, we continue to evaluate the development or acquisition of strategic businesses, technologies and product lines with the potential to strengthen our industry position, enhance and expand 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, the incurrence of debt, 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 but not limited to:

- 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, particularly those that include international operations,
- 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 estimated 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 of the acquired company,
- 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 stockholder value through the issuance of equity securities or equity-linked securities, and
- Inability to achieve expected synergies or the achievement of such synergies taking longer than expected to realize, including increases in revenue, enhanced efficiencies, or increased market share, or the benefits ultimately may be smaller than we expected.

Any acquisitions or investments may ultimately harm our business or financial condition, as they may not be successful and may ultimately have an adverse effect on our operating results or financial condition and/or result in impairment charges.

Potential international business opportunities may expose us to additional risks, including currency exchange fluctuations.

A part of our growth strategy depends on us expanding internationally. Although sales outside of the United States and Canada account for a relatively small percentage of our total net sales, we expect to increase our level of business activity outside of the United States and Canada, as illustrated by our December 2018 acquisition of Krausz Industries, that is based in Israel, and our acquisition in June 2021 of i2O Water Ltd, that is based in Southampton, United Kingdom. Some countries that present potential 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 foreign exchange risks and currency fluctuations, as discussed more fully below, political and economic uncertainties, 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, regulations and taxes 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 United States Foreign Corrupt Practices Act and similar anti-corruption laws outside of the United States 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.

We earn revenues and incur expenses in foreign currencies as part of our operations outside of the United States. Accordingly, fluctuations in currency exchange rates may significantly increase the amount of United States dollars required for foreign currency expenses or significantly decrease the United States dollars we receive from revenues denominated in a foreign currency. Changes between a foreign exchange rate and the United States dollar affect the amounts we record for our foreign assets, liabilities, revenues and expenses, and could have a negative effect on our financial results. We expect that our exposure to foreign currency exchange rate fluctuations will grow as the relative contribution of our operations outside the United States increases through both organic and inorganic growth.

Risks related to our operations

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 profits, 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 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 and increased expenses 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.

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.

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 consequently increases our transportation costs. High transportation costs could make our products less competitive compared to similar or alternative products offered by competitors.

Our business, financial condition and results of operations may be adversely impacted by the effects of inflation.

Inflation has the potential to adversely affect our business, financial condition and results of operations by increasing our overall cost structure, including purchased parts, commodity and raw material costs. In an inflationary environment, we may be unable to raise the prices of our products sufficiently to keep up with the rate of inflation, which would reduce our profit margins and cash flows. Other inflationary pressures could affect wages, the cost and availability of components and raw materials and other inputs and our ability to meet customer demand. Inflation may further exacerbate other risk factors, including supply chain disruptions, risks related to international operations and the recruitment and retention of qualified employees.

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 our earnings to decline.

We may experience difficulties implementing upgrades to our software systems.

We engage in implementations and upgrades to our software systems, including to our Enterprise Resource Planning ("ERP") system. The ERP is designed to accurately maintain the company's books and records and provide information important to the operation of the business to the Company's management team. Any software implementation or upgrade requires significant investment of human and financial resources and we may experience significant delays, increased costs and other difficulties. Any significant disruption or deficiency in the design and implementation of our software systems, including our ERP, could adversely affect our ability to process orders, ship product, send invoices and track payments, fulfill contractual obligations or otherwise operate our business. While we invest significant resources in planning and project management, significant issues may arise.

Normal operations at our key manufacturing facilities may be interrupted.

Some of our key products, including fire hydrants, iron gate valves, service brass products, and repair products are manufactured at a single facility or few manufacturing facilities, that depend on critical pieces of heavy equipment that cannot be moved economically 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,
- Terrorist attacks, war, mass shootings or other acts of violence,
- Interruptions in the delivery of raw materials, shortages of equipment or spare parts, or other manufacturing inputs,
- Adverse government regulations,
- Equipment or information systems breakdowns or failures,
- Violations of our permit requirements or revocation of permits,
- Releases of pollutants and hazardous substances to air, soil, surface water or ground water,
- Labor disputes, and
- Cyberattacks and events.

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 as well as technical measures to protect our intellectual property rights. The methods we employ 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 the diversion of 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 further subjected 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 among our personnel and suppliers and customers. Cyber and other data 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 technology-enabled products, services and solutions, 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 as a result of employee errors or malfeasance, technical malfunctions, the actions of third parties such as a cyberattack or other factors. If our cyber defenses and other countermeasures 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 cyber and 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.

Cyberattacks and security vulnerabilities could lead to reduced revenue, increased costs, liability claims, unauthorized access to customer data, or harm to our reputation.

Cybersecurity threats are constantly evolving and can take a variety of forms, increasing the difficulty of detecting and successfully defending against them. Individual and groups of hackers and sophisticated organizations, including state-sponsored organizations or nation-states, continuously undertake attacks that pose threats to our customers and our information technology systems. These actors may use a wide variety of methods, which may include developing and deploying malicious software or exploiting vulnerabilities in hardware, software, radio communication protocols, or other infrastructure in order to attack our products and services. Additionally, these actors may reverse engineer trade secrets or other confidential intellectual property, or gain access to our networks and data centers, using social engineering techniques to induce our employees, users, partners, or customers to disclose passwords or other sensitive information or take other actions to gain access to our data or our users' or customers' data, or act in a coordinated manner to launch distributed denial of service attacks, deny or postpone access to critical water infrastructure telemetry through vulnerabilities in our cloud services and infrastructure, or logging, sensing, and telemetry products. Inadequate account security practices may also result in unauthorized access to confidential data.

We may have no current capability to detect certain vulnerabilities, which may allow them to persist in the environment over long periods of time. Cybersecurity threats can have cascading impacts that unfold with increasing speed across our internal networks and systems and those of our partners and customers. Breaches of our facilities, network, or data security could disrupt the security of our systems and business applications, impair our ability to provide services to our customers and protect the privacy of their data, result in product development delays, compromise confidential or technical business information harming our reputation, result in theft or misuse of our intellectual property or other assets, require us to allocate more resources to improved technologies, or otherwise adversely affect our business.

Misuse of our technology-enabled products, services and solutions could lead to reduced revenue, increased costs, liability claims, or harm to our reputation.

As we continue to design and develop products, services and solutions that leverage our hosted or cloud-based resources, the internet-of-things and other wireless/remote technologies and include networks of distributed and interconnected devices that contain sensors, data transfers and other computing capabilities, our customers' data and systems may be subjected to harmful or illegal content or attacks, including potential cybersecurity threats. Additionally, we may not have adequately anticipated or precluded such cybersecurity threats through our product design or development. These products, services and

solutions inevitably contain vulnerabilities or critical security defects which may not been remedied and cannot be disclosed without compromising security. We may also make prioritization decisions in determining which vulnerabilities or security defects to fix, and the timing of these fixes, which could result in compromised security. These vulnerabilities and security defects could expose us or our customers to a risk of loss, disclosure, or misuse of information/data; adversely affect our operating results; result in litigation, liability, or regulatory action (including under laws related to privacy, data protection, data security, network security, and consumer protection); deter customers or sellers from using our products, services and solutions; and otherwise harm our business and reputation.

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. We may also be subject to investigations, claims, litigation and other proceedings outside the ordinary course of business, such as the June 2021 mass shooting event in our Albertville, Alabama facility. Defending these lawsuits and becoming involved in these investigations may divert management's attention, and may cause us to incur significant expenses, even if there is no evidence that our systems or practices were the cause of the claim. 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. 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 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 "potentially responsible parties" ("PRP"), 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 deemed, 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 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS - Contingencies" and Note 17. of the Notes to Consolidated Financial Statements.

Climate change and legal or regulatory responses thereto may have an adverse impact on our business and results of operations.

There is growing concern that a gradual increase in global average temperatures as a result of increased concentration of carbon dioxide and other greenhouse gases in the atmosphere will cause significant changes in weather patterns around the globe and an increase in the frequency and severity of natural disasters. Many of our manufacturing plants use significant amounts of electricity generated by burning fossil fuels, which releases carbon dioxide. Such climate change may impair our production capabilities, disrupt our supply chain or impact demand for our products. Growing concern over climate change also may result in additional legal or regulatory requirements designed to reduce or mitigate the effects of carbon dioxide and other greenhouse gas emissions on the environment. Increased energy or compliance costs and expenses as a result of increased legal or regulatory requirements may cause disruptions in, or an increase in the costs associated with, the manufacturing and distribution of our products. The impacts of climate change and legal or regulatory initiatives to address climate change could have a long-term adverse impact on our business and results of operations. If we fail to achieve or improperly report on our

progress toward achieving our goals and commitments to reduce our carbon footprint or in environmental and sustainability programs and initiatives, the results could have an adverse impact on our business and results of operations.

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 businesses which make up certain of the companies within Mueller Water Products, Inc., 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.

Risks related to our human capital

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 and we may not be successful in attracting or retaining qualified personnel, which could negatively impact our business.

If we are unable to negotiate collective bargaining agreements on satisfactory terms or we experience strikes, work stoppages, labor unrest or higher than normal absenteeism, our business could suffer.

Many of our employees at our manufacturing locations are covered by collective bargaining agreements. While we generally have been able to renegotiate collective bargaining agreements on generally satisfactory terms, negotiations may be challenging as the Company must have a competitive cost structure in each market while meeting the compensation and benefits needs of our employees. If we are unable to renew collective bargaining agreements on satisfactory terms, our labor costs could increase, which could impact our financial position and results of operations. Strikes, work stoppages or other forms of labor unrest at any of our plants could impair our ability to supply products to our distributors and customers, which could reduce our revenues, increase our expenses and expose us to customer claims.

Furthermore, our ability to meet product delivery commitments and labor needs while controlling labor costs is subject to numerous external factors, including, but not limited to:

- Market pressures with respect to prevailing wage rates,
- Unemployment levels,
- Health and other insurance costs,
- The impact of legislation or regulations governing labor relations, immigration, minimum wage, and healthcare benefits,
- Changing demographics, and
- Our reputation within the labor market.

We also compete with many other industries and businesses for most of our hourly production employees. An inability to provide wages and/or benefits that are competitive could adversely impact our ability to attract and retain employees. Further, changes in market compensation rates may adversely affect our labor costs.

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 United States pension plan invested in fixed income securities, instead of equity securities, has decreased over historical levels. This shift in asset allocation has not resulted in a material change to our 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 may 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 to reduce investments and capital expenditures, or restructure or refinance our debt, among other things.

Risks related to our international operations

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 manner 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.

If significant tariffs or other restrictions continue to be placed on foreign imports by the United States and related countermeasures are taken by impacted foreign countries, our revenue and results of operations may be harmed.

If significant tariffs or other restrictions continue to be placed on foreign imports by the United States and related countermeasures are taken by impacted foreign countries, our revenue and results of operations may be harmed. For example, trade tensions between the United States and China have led to series of significant tariffs on the importation of certain product categories over recent years. The materials subject to these tariffs could impact our raw material costs as well. However, if further tariffs are imposed on a broader range of imports, or if further retaliatory trade measures are taken by China or other countries in response to additional tariffs, we may be required to raise our prices or incur additional expenses, which may result in the loss of customers and harm our operating performance, revenue and profit.

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. The cost and availability of these materials are subject to economic forces largely beyond our control, including North American and international demand, inflation, foreign currency exchange rates, freight costs, tariffs, commodity speculation and other external factors beyond our control, such as the COVID-19 pandemic or other supply chain

challenges. Inflation in raw material costs has occurred in fiscal 2022, which has led to increased raw material price volatility and costs, which we expect to continue into fiscal 2023.

We may not be able to pass on the entire cost of price increases, or at all, 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 are 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.

Other risks related to our business

The negative impact of the COVID-19 pandemic on our operations may increase.

The COVID-19 pandemic has had, and continues to have, meaningful adverse impacts on our financial condition and results of operations as discussed in PART II, "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS." We may from time-to-time experience plant closures, limitations in the ways we operate within our facilities, illness or quarantine of our employees, supply chain disruptions, transportation delays, cost increases, more extensive travel restrictions, closures or disruptions of businesses and facilities, or social, economic, political or labor instability in the affected areas. These same factors may continue to impact our suppliers, customers and distributors and the severity of such impacts could increase. The health implications of the pandemic are extensive and the extent, duration and severity of the pandemic remain highly uncertain. We are unable to estimate the impact of measures we may undertake in the future and the actions taken, or that will be taken, by governmental agencies. Should there be unexpected health implications for our employees, communities or others, we could face litigation or other claims and suffer damage to our reputation, brand and operations, which could adversely affect our business.

We have incurred additional costs to address the pandemic as discussed in PART II, "Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS", including costs associated with unfavorable volume variances, voluntary emergency paid leave, incentive payments for vaccinations, additional cleaning, disinfectants and sanitation materials for our employees and at our facilities. We expect to continue to incur such costs, which may be significant, as we continue to implement operational changes in response to the pandemic. The pandemic is causing disruptions in our supply chain that have caused and could result in further higher costs in the manufacture and delivery of our products. We expect these conditions to persist for the near term and may worsen until the pandemic abates. Further, we expect additional costs, added administrative burdens and other negative cost and operational impacts as a result of the United States' Occupational Safety and Health Administration ("OSHA") emergency temporary standard (the "Vaccine/ Test Mandate") related to COVID-19 vaccination and testing requirements.

Continued disruptions in our markets and the global economy may cause us to have to assess impairments of our assets and cause us to incur and record non-cash impairment charges.

Management is focused on mitigating the impact of the pandemic on our operations, which has required, and will continue to require, a large investment of time and resources across our business and may delay other strategic initiatives and large capital projects that are important to the business. Additionally, many of our employees are working remotely. An extended period of remote work arrangements could strain our business continuity plans, introduce operational risk, including but not limited to cybersecurity risks, and consequently impair our ability to manage our business.

The extent to which the pandemic and the evolving regulatory environment impacts us will depend on a number of factors and developments that we are not able to predict or control, including, among others: the severity of the virus; the duration of the outbreak; governmental, business and other actions which could include limits on funding for our products or services; the health of and the effect on our workforce; and the potential effects on our internal controls including those over financial reporting and information technology as a result of changes in working environments such as shelter-in-place and similar orders that are applicable to our employees, including management. In addition, if the pandemic continues to create disruptions or turmoil in the credit or financial markets, it could adversely affect our ability to access capital on favorable terms, it at all, and continue to meet our liquidity needs, all of which are highly uncertain and cannot be predicted.

The pandemic may also impact third parties with which we do business, and each of their financial conditions, including their viability and ability to pay for our products and services, which could adversely impact us. The extent of the impact of the pandemic on our operations and financial results depends on future developments and is highly uncertain. The situation is ever

changing and future impacts may materialize that are not yet known.

Item 2. PROPERTIES

Our principal properties are listed below.

Location	Activity	Square Footage	Owned or leased	
Albertville, AL	Manufacturing	422,000	Owned	
Ariel, Israel	Manufacturing	221,000	Leased	
Atlanta, GA	Corporate headquarters	25,000	Leased	
Atlanta, GA	Research and development	21,000	Leased	
Barrie, Ontario	Distribution	50,000	Leased	
Brownsville, TX	Manufacturing	50,000	Leased	
Calgary, Alberta	Distribution	40,000	Leased	
Chattanooga, TN	Manufacturing	525,000	Owned	
Chattanooga, TN	General and administration	17,000	Leased	
Chattanooga, TN	Research and development	22,000	Leased	
Cleveland, NC	Manufacturing	190,000	Owned	
Cleveland, TN	Manufacturing	109,500	Owned	
Cleveland, TN	Warehouse	100,000	Leased	
Dallas, TX	Distribution	26,000	Leased	
Decatur, IL	Manufacturing	467,000	Owned	
Emporia, KS	Manufacturing	63,000	Leased	
Jingmen, China	Manufacturing	154,000	Owned	
Kimball, TN	Manufacturing	233,000	Owned	
Ocala, FL	Distribution	50,000	Leased	
Ontario, CA	Distribution	73,000	Leased	
Rosh Haayin, Israel	General and administration	8,400	Leased	
Sharjah, United Arab Emirates	Distribution	10,000	Leased	
Southampton, United Kingdom	Research and development	2,300	Leased	
Toronto, Ontario	Research and development	18,000	Leased	

We consider our facilities to be well maintained and believe we have sufficient capacity to meet our anticipated needs through 2023. Our leased properties have terms expiring at various dates through 2033.

Item 3. LEGAL PROCEEDINGS

We are involved in various legal proceedings that have arisen in the normal course of operations. 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 elsewhere in this Annual Report, we do not believe that any of our outstanding litigation would have a material adverse effect on our business or prospects.

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.

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 8. of the Notes to Consolidated Financial Statements restrict our ability to declare and pay 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.

At September 30, 2022, there were 97 stockholders of record for our common stock. This figure does not include stockholders whose shares are held in the account of a stockbroker, bank or custodian on behalf of a stockholder or shares which are otherwise beneficially held.

Equity Compensation Plan Information

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

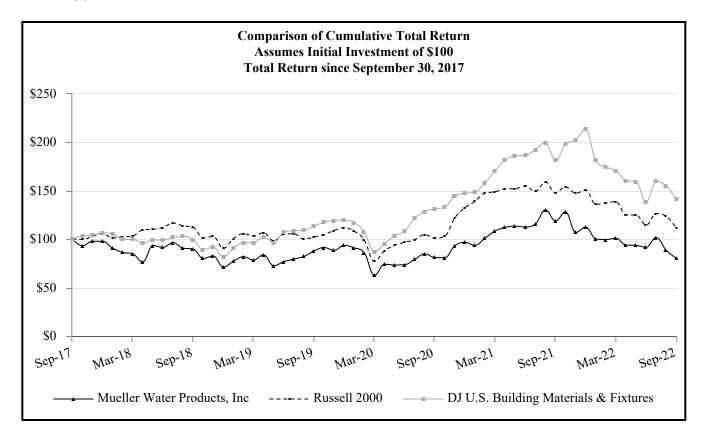
In 2015, we announced the authorization of a stock repurchase program for up to \$50.0 million of our common stock. The program does not commit us to any particular timing or quantity of purchases, and we may suspend or discontinue the program at any time. In 2017, we announced an increase to the authorized amount of this program to \$250.0 million.

During the three months ended September 30, 2022, we repurchased 830,842 shares of our common stock for \$10.0 million under our share repurchase authorization, and we had \$100.0 million remaining under this authorization as of September 30, 2022.

Period	Total number of shares purchased	Average price paid per share		Total number of shares purchased as part of publicly announced plans or programs	Maximum dollar value of shares that may yet be purchased under the plans or programs (in millions)	
July 1-31, 2022	200	\$	11.74	_	\$	110.0
August 1-31, 2022	830,842	\$	12.02	830,842	\$	100.0
September 1-30, 2022	3,681	\$	10.53		\$	100.0
Total	834,723	\$	12.01	830,842		

Stock Price Performance Graph

The following graph compares the Company's cumulative quarterly common stock price performance with the Russell 2000 Stock Index ("Russell 2000") and the Dow Jones U.S. Building Materials & Fixtures Index ("DJ U.S. Building Materials & Fixtures") since September 30, 2017. 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 U.S. Building Materials & Fixtures on the dates indicated and (ii) reinvestment of all dividends.



Item 6. [Reserved]

Not applicable.

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 related notes included in Item 8. "Financial Statements and Supplementary Data" of this Annual Report. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and other factors that may cause actual results to differ materially from those projected in any forward-looking statements, as discussed in "Disclosure Regarding Forward-Looking Statements." These risks and uncertainties include but are not limited to those set forth in "Item 1A. RISK FACTORS".

Overview

Business

We adopted a new management structure effective October 1, 2021 which resulted in a change to our reportable segments. Under this new structure, we operate our business through two segments, Water Flow Solutions and Water Management Solutions.

We estimate approximately 60% to 65% of the Company's 2022 net sales were associated with repair and replacement directly related to municipal water infrastructure spending, approximately 25% to 30% were related to residential construction activity and less than 10% were related to natural gas utilities.

After experiencing challenges in 2020 and 2021 resulting from the pandemic, municipal spending in 2022 recovered during the fiscal year as compared with the prior year. According to the United States Department of Labor, the trailing twelve-month average consumer price index for water and sewerage rates at September 30, 2022 increased 4.7%. While the economic effects of the pandemic have impacted revenues for some water utilities in the United States, water utilities were generally able to maintain repair and replacement activities.

We expect the operating environment during fiscal year 2023 to be very challenging as a result of the inflationary environment, labor challenges and potential recession. We anticipate healthy demand in the municipal repair and replacement market due to favorable budgets, especially at larger municipalities. While demand from the new residential construction end market has been at healthy levels during fiscal 2022, especially for lot and land development activity, we anticipate that activity levels will slow during fiscal 2023 based on higher interest rates leading to a decrease in demand for new residential housing. In November 2022, Blue Chip Economic Indicators forecasted a 12.3% decrease in housing starts for the calendar year 2023 compared to the calendar year 2022.

Consolidated

For our fiscal year 2023, we anticipate that consolidated net sales will be 6% to 8% higher than our fiscal year 2022 primarily driven by the benefits of higher pricing. In 2022, we encountered increased material costs as a result of higher raw material prices, particularly brass ingot and scrap steel, as well as higher purchased parts, freight, labor costs and energy expenses. In 2023, we anticipate that inflation will continue to increase material and other costs.

Results of Operations

Year Ended September 30, 2022 Compared to Year Ended September 30, 2021

	Year ended September 30, 2022						
		ter Flow lutions	Ma	Water nagement olutions	Corporate	Co	nsolidated
			(in millions)				
Net sales	\$	714.1	\$	533.3	\$ —	\$	1,247.4
Gross profit		212.4		151.9		\$	364.3
Operating expenses:							
Selling, general and administrative		87.1		102.8	48.8		238.7
Strategic reorganization and other charges		0.2		0.4	6.6		7.2
Goodwill impairment		6.8		_	_		6.8
Total operating expenses		94.1		103.2	55.4		252.7
Operating income (loss)	\$	118.3	\$	48.7	\$ (55.4)		111.6
Pension benefit other than service						■la	(3.9)
Interest expense, net							16.9
Income before income taxes							98.6
Income tax expense							22.0
Net income						\$	76.6

	Year ended September 30, 2021						
		ter Flow olutions	Ma	Water nagement olutions	Corporate	Co	nsolidated
				(in mi	llions)		
Net sales	\$	617.8	\$	493.2	<u>\$</u>	\$	1,111.0
Gross profit	\$	202.8	\$	155.7	\$ —	\$	358.5
Operating expenses:							
Selling, general and administrative		81.8		85.8	51.2		218.8
Strategic reorganization and other charges (benefits)		0.1		(0.4)	8.3		8.0
Total operating expenses		81.9		85.4	59.5		226.8
Operating income (loss)	\$	120.9	\$	70.3	\$ (59.5)		131.7
Pension benefit other than service							(3.3)
Interest expense, net							23.4
Loss on early extinguishment of debt							16.7
Income before income taxes							94.9
Income tax expense							24.5
Net income						\$	70.4

Consolidated Analysis

Net sales for 2022 increased \$136.4 million, or 12.3%, to \$1,247.4 million from \$1,111.0 million in the prior year primarily as a result of higher pricing across most of our product lines in addition to increased volumes.

Gross profit increased \$5.8 million, or 1.6%, to \$364.3 million for 2022 compared with \$358.5 million in the prior year. This increase was primarily a result of higher pricing and increased volumes which were partially offset by higher cost of sales

associated with inflation, unfavorable manufacturing performance, including labor challenges, and supply chain disruptions. Gross margin decreased to 29.2% in 2022 as compared with 32.3% in the prior year.

Selling, general and administrative expenses ("SG&A") increased 9.1% to \$238.7 million for 2022 from \$218.8 million in the prior year. The increase in SG&A was primarily a result of higher travel and trade show expenditures, higher costs associated with inflation, investments in research and development as well as information technology, and the inclusion of i2O Water, partially offset by lower incentive compensation in personnel-related expenses and foreign exchange gains. As a percentage of net sales, SG&A decreased 60 basis points to 19.1% of net sales from 19.7% in the prior year.

Strategic reorganization and other charges for 2022 of \$7.2 million primarily consisted of certain transaction-related costs, expenses associated with our ongoing restructuring activities, and the Albertville tragedy. For the fiscal year 2021, Strategic reorganization and other charges of \$8.0 million primarily relate to termination benefits associated with our plant closures in Aurora, Illinois and Surrey, British Columbia, Canada, the Albertville tragedy, and certain transaction-related costs, partially offset by a one-time settlement gain in connection with an indemnification of a previously owned property.

During the year ended September 30, 2022, we incurred a non-cash impairment charge on our goodwill of \$6.8 million within the Water Flow Solutions segment.

Interest expense, net declined \$6.5 million in 2022 from the prior year primarily as a result of the retirement of our 5.5% Senior Unsecured Notes ("5.5% Senior Notes"), which were replaced with 4.0% Senior Unsecured Notes ("4.0% Senior Notes") as well as an increase in capitalized interest on our large capital projects, and higher interest income.

	2	2022	2021
		(in millions	s)
5.5% Senior Notes	\$	— \$	17.6
4.0% Senior Notes		18.0	6.2
Deferred financing costs amortization		1.0	1.1
ABL Agreement		0.9	0.9
Capitalized interest		(2.6)	(2.3)
Other interest expense		0.3	0.3
Total interest expense		17.6	23.8
Interest income		(0.7)	(0.4)
Total interest expense, net	\$	16.9 \$	23.4

Income tax expense of \$22.0 million in 2022 resulted in an effective income tax rate of 22.3%, which was lower than the 25.8% rate in the prior year reflecting benefits from research and development tax credits and lower foreign tax rates.

Segment Analysis

Water Flow Solutions

Net sales for 2022 increased \$96.3 million, or 15.6%, to \$714.1 million from \$617.8 million in the prior year. Net sales increased primarily as a result of higher pricing and increased volumes across most of the Water Flow Solutions segment's product lines.

Gross profit for 2022 increased \$9.6 million, or 4.7%, to \$212.4 million from \$202.8 million in the prior year primarily as a result of higher pricing and increased volumes across most product lines except for service brass products, partially offset by higher cost of sales associated with inflation and unfavorable manufacturing performance, primarily at our brass foundry. Gross margin was 29.7% in 2022, as compared with 32.8% in the prior year.

SG&A in 2022 increased 6.5% to \$87.1 million from \$81.8 million in the prior year primarily as a result of increased travel and trade show expenditures, higher costs associated with inflation, and investments in research and development and information technology. SG&A as a percentage of net sales was 12.2% and 13.2% for 2022 and 2021, respectively.

During the year ended September 30, 2022, Water Flow Solutions incurred a non-cash goodwill impairment charge of \$6.8 million.

Water Management Solutions

Net sales in 2022 increased 8.1% to \$533.3 million from \$493.2 million in the prior year primarily as a result of higher pricing across most of the Water Management Solutions segment's product lines and increased volumes for fire hydrants, natural gas, and repair and installation product lines.

Gross profit in 2022 decreased \$3.8 million to \$151.9 million from \$155.7 million in the prior year. Gross margin decreased to 28.5% in 2022 from 31.6% in the prior year primarily as a result of higher cost of sales associated with inflation, and unfavorable manufacturing performance, partially offset by higher pricing and increased volumes.

SG&A increased 19.8% to \$102.8 million in 2022 from \$85.8 million in the prior year primarily as a result of investments in research and development, the inclusion of i2O Water, increased travel and trade show expenditures, and higher costs associated with inflation, partially offset by foreign exchange gains. SG&A as a percentage of net sales was 19.3% for 2022 and 17.4% in the prior year.

Corporate

SG&A decreased by \$2.4 million from \$51.2 million in 2021 to \$48.8 million in 2022 as a result of lower personnel-related expenses partially offset by higher costs associated with inflation.

	Year ended September 30, 2021							
		iter Flow olutions		Water anagement Solutions	Coi	rporate	Con	solidated
				(in mi	llions)			
Net sales	\$	617.8	\$	493.2	\$		\$	1,111.0
Gross profit	\$	202.8	\$	155.7	\$		\$	358.5
Operating expenses:								
Selling, general and administrative		81.8		85.8		51.2		218.8
Strategic reorganization and other (benefits) charges		0.1		(0.4)		8.3		8.0
Total operating expenses		81.9		85.4		59.5		226.8
Operating income (loss)	\$	120.9	\$	70.3	\$	(59.5)		131.7
Pension benefit other than service								(3.3)
Interest expense, net								23.4
Loss on early extinguishment of debt								16.7
Income before income taxes								94.9
Income tax expense								24.5
Net income							\$	70.4

	Year ended September 30, 2020							
		ter Flow olutions		Water Ianagement Solutions	C	orporate	Con	solidated
				(in mi	llions)			
Net sales	\$	532.2	\$	431.9	\$		\$	964.1
Gross profit	\$	180.0	\$	148.2	\$	_	\$	328.2
Operating expenses:								
Selling, general and administrative		75.1		78.8		44.5		198.4
Strategic reorganization and other charges		_		0.7		12.3		13.0
Total operating expenses		75.1		79.5		56.8		211.4
Operating income (loss)	\$	104.9	\$	68.7	\$	(56.8)		116.8
Pension benefit other than service								(3.0)
Interest expense, net								25.5
Walter Energy accrual								0.2
Income before income taxes								94.1
Income tax expense								22.1
Net income							\$	72.0

Consolidated Analysis

Net sales for 2021 increased 15.2% to \$1,111.0 million from \$964.1 million in the prior year primarily as a result of higher volume across most of our product lines and higher pricing. Additionally, net sales benefited as a result of \$6.0 million of Krausz sales from the elimination of the one-month reporting lag.

Gross profit increased \$30.3 million to \$358.5 million for 2021 compared with \$328.2 million in the prior year. This increase was primarily a result of increased volume and higher pricing, partially offset by higher manufacturing costs as a result of inflation, higher labor costs, and a \$2.4 million inventory write-off associated with the announcement of our plant closures in

Aurora, Illinois and Surrey, British Columbia, Canada. Gross margin decreased to 32.3% in 2021 as compared with 34.0% in the prior year.

SG&A increased 10.3% to \$218.8 million for 2021 from \$198.4 million in the prior year. As a percentage of net sales, SG&A decreased 90 basis points to 19.7% of net sales from 20.6% in the prior year. The increase in SG&A was primarily a result of increased personnel-related expenses, including incentive compensation, sales commissions associated with higher net sales and orders, and stock-based compensation. Additional SG&A increases were a result of inflation, new product development and information technology spending. Fiscal year 2020 SG&A included pandemic-driven benefits from temporarily reduced travel, trade show and event spending as well as temporary employee furloughs and temporary salary reductions.

Strategic reorganization and other charges of \$8.0 million for 2021 primarily related to termination benefits associated with our plant closures in Aurora, Illinois and Surrey, British Columbia, Canada, the Albertville tragedy, and certain transaction-related costs, partially offset by a one-time settlement gain in connection with an indemnification of a previously owned property. In 2020, Strategic reorganization and other charges of \$13.0 million primarily related to a legal settlement, facility closure costs, transaction costs associated with the acquisition of Krausz, and personnel matters.

Interest expense, net declined \$2.1 million in 2021 from the prior year primarily as a result of an increase in capitalized interest on our large capital projects and the retirement of our 5.5% Senior Unsecured Notes ("5.5% Senior Notes"), which were replaced with 4.0% Senior Unsecured Notes ("4.0% Senior Notes"), partially offset by lower interest income.

	2021	2020
	(in r	nillions)
5.5% Senior Notes	\$ 17.6	\$ 24.8
4.0% Senior Notes	6.2	
Deferred financing costs amortization	1.1	1.2
ABL Agreement	0.9	0.6
Capitalized interest	(2.3) (0.3)
Other interest expense	0.3	0.3
Total interest expense	23.8	26.6
Interest income	(0.4	(1.1)
Total interest expense, net	\$ 23.4	\$ 25.5

Income tax expense of \$24.5 million in 2021 yielded an effective income tax rate of 25.8%, which was higher than the 23.5% rate in the prior year.

Segment Analysis

Water Flow Solutions

Net sales for 2021 increased \$85.6 million, or 16.1%, to \$617.8 million from \$532.2 million in the prior year. Net sales increased primarily as a result of increased volume, and favorable pricing. The increased volume was a result of strong demand driven by both residential construction and municipal repair and replacement activity.

Gross profit for 2021 increased \$22.8 million, or 12.7%, to \$202.8 million from \$180.0 million in the prior year primarily as a result of increased volume. These increases were partially offset by higher material and other costs associated with inflation, specifically related to brass ingot, scrap steel and purchased parts, a \$2.4 million inventory write-off associated with the announcement of the closure of our Aurora, Illinois and Surrey, British Columbia, Canada facilities and certain expenses related to the pandemic, including voluntary emergency paid leave and other employee costs as well as additional sanitation and cleaning expenses. Gross margin was 32.8% in 2021, a 100 basis point decrease compared with 33.8% in the prior year.

SG&A in 2021 increased \$6.7 million, or 8.9% to \$81.8 million from \$75.1 million in the prior year primarily as a result of increased personnel-related costs including higher sales commissions associated with higher net sales and orders, inflation, information technology spending, and new product development. Fiscal year 2020 SG&A included pandemic-driven benefits resulting from temporarily reduced travel, trade show and event spending as well as temporary employee furloughs and temporary salary reductions. SG&A was 13.2% and 14.1% of net sales for 2021 and 2020, respectively.

Water Management Solutions

Net sales in 2021 increased 14.2% to \$493.2 million from \$431.9 million in the prior year primarily as a result of higher volumes, \$6.0 million in Krausz net sales as a result of the elimination of the one-month reporting lag, and the acquisition of i2O.

Gross profit in 2021 increased \$7.5 million to \$155.7 million from \$148.2 million in the prior year as a result of higher volumes partially offset by higher inflation. Gross margin decreased to 31.6% in 2021 from 34.3% in the prior year.

SG&A increased to \$85.8 million in 2021 from \$78.8 million in the prior year primarily as a result of personnel-related expenses and information technology spending. Fiscal year 2020 SG&A included pandemic-driven benefits resulting from temporarily reduced travel, trade show and event spending as well as temporary employee furloughs and temporary salary reductions. SG&A as a percentage of net sales was 17.4% for 2021 and 18.2% in the prior year.

Corporate

SG&A increased by \$6.7 million from \$44.5 million in 2020 to \$51.2 million in 2021 as a result of increased personnel-related expenses and inflation. Fiscal year 2020 SG&A included pandemic-driven benefits resulting from temporary reductions in travel, trade show and event spending as well as temporary employee furloughs and temporary salary reductions.

Financial Condition

Cash and cash equivalents were \$146.5 million at September 30, 2022 and \$227.5 million at September 30, 2021. Cash and cash equivalents decreased during 2022 as a result of capital expenditures of \$54.7 million, dividend payments of \$36.5 million, \$35.0 million in share repurchases, and \$6.4 million in effect of currency exchange rate changes on cash, partially offset by \$52.3 million in cash provided by operating activities.

Receivables, net were \$228.0 million at September 30, 2022 and \$212.2 million at September 30, 2021. This increase was primarily a result of the increase in net sales year over year.

Inventories, net were \$278.7 million at September 30, 2022 and \$184.7 million at September 30, 2021. Inventories increased during 2022 as a result of increased volume, inflationary costs, and inventory management due to supply chain issues.

Property, plant and equipment, net was \$301.6 million at September 30, 2022 and \$283.4 million at September 30, 2021. Property, plant and equipment increased primarily as a result of our previously-announced capital expansion projects in Kimball, Tennessee and Decatur, Illinois. Capital expenditures were \$54.7 million in 2022. Depreciation expense was \$32.0 million in 2022 compared with \$31.4 million in 2021 as a result of generally higher level of capital expenditures over the last three years.

Intangible assets were \$361.2 million at September 30, 2022 and \$392.5 million at September 30, 2021. Finite-lived intangible assets, net totaling \$88.5 million at September 30, 2022, are amortized over their estimated useful lives. Amortization expense was \$28.5 million in 2022 and \$28.2 million in 2021. We expect amortization expense for these assets to be approximately \$28 million and \$27 million in the next two years with a decrease to approximately \$8 million in fiscal 2025, approximately \$6 million in fiscal 2026 and approximately \$5 million in fiscal 2027. Indefinite-lived intangible assets, \$272.7 million at September 30, 2022, are not amortized but are tested for possible impairment at least annually.

Accounts payable and other current liabilities were \$240.2 million at September 30, 2022 and \$219.1 million at September 30, 2021. Accounts payable increased during 2022 as a result of increased production volume and the impact of higher inventory costs. Other current liabilities decreased during 2022 primarily as a result of lower personnel-related expenses, including incentive compensation and sales commissions, as well as customer rebates and income taxes.

Total outstanding debt was \$446.9 million as of September 30, 2022 and September 30, 2021.

Deferred income taxes were net liabilities of \$86.3 million at September 30, 2022 and \$94.8 million at September 30, 2021, primarily related to intangible assets. The \$8.5 million decrease in the net liability was primarily a result of reductions in intangible assets.

Liquidity and Capital Resources

We had cash and cash equivalents of \$146.5 million at September 30, 2022 and approximately \$160.7 million of additional borrowing capacity under our asset-based lending arrangement (the "ABL") based on September 30, 2022 data. Undistributed earnings from our subsidiaries in Israel, Canada and China are considered to be permanently invested outside of the United States. At September 30, 2022, cash and cash equivalents included \$40.5 million, \$18.9 million, and \$5.2 million in Israel, Canada and China, respectively.

We declared a quarterly dividend of \$0.061 per share on October 21, 2022, payable on or about November 21, 2022 to holders of record as of November 10, 2022, which will result in an estimated \$9.5 million cash outlay.

We repurchased \$35.0 million of our outstanding common stock during the fiscal year ended September 30, 2022 and had \$100.0 million remaining under our share repurchase authorization as of September 30, 2022.

The ABL and 4.0% Senior Notes contain customary representations and warranties, covenants and provisions governing an event of default. The covenants restrict our ability to engage in certain specified activities including, but not limited to, the payment of dividends and the redemption of our common stock.

Collections from customers were higher during the fiscal year ended September 30, 2022 as compared with the prior year period primarily as a result of net sales growth. Inventory purchases increased during the fiscal year ended September 30, 2022 as compared with the fiscal year ended September 30, 2021 as a result of inflation, increased sales, and inventory management due to supply chain factors. Other current liabilities and other noncurrent liabilities decreased as a result of employee incentive payouts, income tax payments, the repayment of the CARES Act employer payroll tax deferral and the payment of customer rebates.

Capital expenditures were \$54.7 million for 2022 compared with \$62.7 million for 2021. Capital expenditures decreased primarily as a result of lower expenditures associated with the new Decatur foundry as compared with the prior year period. We estimate 2023 capital expenditures will be between \$70.0 million and \$80.0 million.

Income tax payments were higher during 2022 compared with the prior year primarily as a result of the timing of certain federal and state extension payments. We expect the effective tax rate in 2023 to be between 23% and 25%.

Our stock repurchase program allows us to repurchase up to \$250.0 million of our common stock, of which we had remaining authorization of \$100.0 million as of September 30, 2022. 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. We acquired 2,654,254 and 651,271 shares of our common stock in 2022 and 2021, respectively.

We use letters of credit and surety bonds in the ordinary course of business to ensure the performance of contractual obligations. As of September 30, 2022, we had \$14.1 million of letters of credit and \$31.1 million of surety bonds outstanding.

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 needs, income tax payments, capital expenditures and debt service obligations as they become due through September 30, 2023. However, our ability to make these payments will depend largely on our future operating performance, which may be affected by general economic, financial, competitive, legislative, regulatory, business and other factors beyond our control.

ABL Agreement

Our ABL, as amended, is provided by a consortium of banking institutions and consists of a revolving credit facility that \$175.0 million in borrowing that expires in July 29, 2025. Included in the ABL is the ability to borrow up to \$25.0 million of swing line loans and up to \$60.0 million of letters of credit. The ABL permits us to increase the size of the credit facility by an additional \$150.0 million in certain circumstances subject to adequate borrowing base availability.

Borrowings under the ABL bear interest at a floating rate equal to the London Inter Bank Offered Rate ("LIBOR") plus an applicable margin range of 200 to 225 basis points, or a base rate, as defined in the ABL, plus an applicable margin of 100 to 125 basis points. At September 30, 2022, the applicable margin was 200 basis points for LIBOR-based loans and 100 basis points for base rate loans.

The ABL is subject to mandatory prepayments if total outstanding borrowings under the ABL 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 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 eligible inventory, less certain reserves. Prepayments can be made at any time without penalty.

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

The ABL includes a commitment fee for any unused borrowing capacity of 37.5 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. Excess availability based on September 30, 2022 data was \$160.7 million, as reduced by \$14.1 million of outstanding letters of credit and \$0.2 million of accrued fees and expenses.

4.0% Senior Unsecured Notes

On May 28, 2021, we privately issued \$450.0 million of 4.0% Senior Unsecured Notes ("4.0% Senior Notes"), which mature on June 15, 2029 and bear interest at 4.0%, paid semi-annually in June and December. We capitalized \$5.5 million of financing costs, which are being amortized over the term of the 4.0% Senior Notes using the effective interest method. Proceeds from the 4.0% Senior Notes, along with cash on hand were used to redeem previously existing 5.5% Senior Notes. Substantially all of our U.S. subsidiaries guarantee the 4.0% Senior Notes, which are subordinate to borrowings under our ABL. Based on quoted market prices the outstanding 4.0% Senior Notes had a fair value of \$382.1 million at September 30, 2022.

An indenture securing the 4.0% Senior Notes ("Indenture") contains customary covenants and events of default, including covenants that limit our ability to incur certain debt and liens. We believe we were in compliance with these covenants at September 30, 2022. There are no financial maintenance covenants associated with the Indenture.

As set forth in the Indenture, we may redeem some or all of the 4.0% Senior Notes at any time prior to June 15, 2024, at certain "make-whole" redemption prices and on or after June 15, 2024 at specified redemption prices. Additionally, we may redeem up to 40% of the aggregate principal amount of the 4.0% Senior Notes at any time prior to June 15, 2024, with the net proceeds of specified equity offerings at specified redemption prices as set forth in the Indenture. Upon a change of control as defined in the Indenture, we would be required to offer to purchase the 4.0% Senior Notes at a price equal to 101% of the outstanding principal amount of the 4.0% Senior Notes.

5.5% Senior Unsecured Notes

On June 12, 2018, we privately issued \$450.0 million of 5.5% Senior Unsecured Notes ("5.5% Senior Notes"), which were set to mature in 2026 and bore interest at 5.5%, paid semi-annually. We called the 5.5% Senior Notes effective June 17, 2021 and settled with proceeds from the issuance of the 4.0% Senior Notes and cash on hand. As a result, we incurred \$16.7 million in loss on early extinguishment of debt, comprised of a \$12.4 million call premium and a \$4.3 million write-off of the remaining deferred debt issuance costs associated with the retirement of the 5.5% Senior Notes.

Credit Ratings

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

	NIO	oay's	Standard & Poor's			
	Septem	nber 30,	Septem	ber 30,		
	2022 2021		2022	2021		
Corporate credit rating	Ba1	Ba1	BB	BB		
ABL Agreement	Not rated	Not rated	Not rated	Not rated		
4.0% Senior Notes	Ba1	Ba1	BB	BB		
Outlook	Stable	Stable	Stable	Stable		

Effect of Inflation

We experience changing price levels primarily related to purchased components and raw materials. During the fiscal year 2022, we experienced a 40% increase in the average cost per ton of scrap steel and a 20% increase in the average cost of brass as compared to 2021. We anticipate inflation in raw and other material costs in 2023, which may have an adverse effect on our margins to the extent we are unable to pass on such higher costs to our customers.

Material Cash Requirements

We enter into a variety of contractual obligations as part of our normal operations in addition to capital expenditures. As of September 30, 2022, we have (i) debt obligations related to our \$450.0 million 4.0% Senior Notes which mature in 2029 and include cash interest payments of \$18.0 million in 2023 annually through 2029; (ii) cumulative cash obligations of \$32.6 million for operating leases through 2033 and \$1.7 million for finance leases through 2026; and (iii) purchase obligations for raw materials and other purchased parts of approximately \$155.1 million which we will incur during 2023. We expect to fund these cash requirements from cash on hand and cash generated from operations.

Seasonality

Our business is seasonal as a result of the impact of cold weather conditions. Net sales and operating income historically have been lowest in the three month periods ending December 31 and March 31 when the northern United States and all of Canada generally face weather conditions that restrict significant construction activity. 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 ("GAAP") 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. Our critical accounting estimates include the below items.

Revenue Recognition

We recognize revenue when control of promised products or services is transferred to our customers, in amounts that reflect the consideration to which we expect to be entitled in exchange for those products or services. We account for a contract when it has approval and commitment from both parties, the rights of the parties are identified, the payment terms are identified, the contract has commercial substance and collectability of consideration is probable. We determine the appropriate revenue recognition for our contracts with customers by analyzing the type, terms and conditions of each contract or arrangement with a customer. See Note 3. for more information regarding our revenues.

Inventories, net

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 deferred tax liabilities and assets 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 Goodwill and Indefinite-lived Intangible Assets

We test goodwill and 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, 2022, using standard valuation methodologies and rates that we considered reasonable and appropriate.

We evaluate goodwill for impairment using a quantitative analysis. The carrying value of the reporting unit, including goodwill, is compared with the estimated fair value of the reporting unit utilizing a combination of the income and market approaches. The income approach, which is a level 3 fair value measurement, is based on projected debt-free cash flow which is discounted to the present value using discount rates that consider the timing and risk of the cash flows. The market approach is based on the guideline public company method, which uses market multiples to value our reporting units. We weight the income and market approaches in a manner considering the risks of the underlying cash flows.

This income approach is dependent on management's best estimates of future operating results, including forecasted revenues, earnings before interest, taxes, depreciation and amortization ("EBITDA") margins and the selection of discount rates. There are inherent uncertainties related to the assumptions used and to management's application of these assumptions.

We test our trade name 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.

We performed our annual impairment testing at September 1, 2022. As a result of this quantitative testing, we recognized a \$6.8 million goodwill impairment charge for a reporting unit within our Water Flow Solutions segment as the carrying value exceeded its fair value. Our determination of the estimated fair value was based on a combination of the discounted cash flow method and the guideline public company method. Our testing indicated no other impairment.

Warranty Cost

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. Critical factors in our analyses include warranty terms, specific claim situations, general incurred and projected failure rates, the nature of product failures, product and labor costs, and general business conditions. These estimates are inherently uncertain as they are based on historical data. If warranty claims are made in the current period for issues that have not historically been the subject of warranty claims and were not taken into consideration in establishing the accrual or if claims for issues already considered in establishing the accrual exceed expectations, warranty expense may exceed the accrual for that particular product. Additionally, a significant increase in costs of repair or replacement could require additional warranty expense. We monitor and analyze our warranty experience and costs periodically and revise our warranty accrual as necessary. However, as we cannot predict actual future claims, the potential exists for the difference in any one reporting period to be material.

Contingencies

We are involved in litigation, investigations and claims arising in the normal course of 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 as a result of 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".

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

We are obligated for various liabilities that ultimately will be determined over what could be very long future time periods. We established the recorded liabilities for such items at September 30, 2022 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.

Business Combinations

We recognize assets acquired and liabilities assumed at their estimated acquisition date fair values, with the excess of purchase price over the estimated fair values of identifiable net assets recorded as goodwill. Assigning fair values requires us to make significant estimates and assumptions regarding the fair value of identifiable intangible assets. We may refine these estimates if necessary over a period not to exceed one year by taking into consideration new information that, if known at the acquisition date, would have affected the fair values recognized for assets acquired and liabilities assumed.

Significant estimates and assumptions are used in estimating the value of acquired identifiable intangible assets, including estimating future cash flows based on forecasted revenues and EBITDA margins that we expect to generate following the acquisition, selecting an applicable royalty rate where needed, applying an appropriate discount rate to estimate a present value of those cash flows and determining their useful lives. These assumptions are forward-looking and could be affected by future economic and market conditions.

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 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 these 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. Our product margins and level of profitability may fluctuate whether or not we sufficiently pass increases in purchased component and raw material costs on to our customers.

We experienced a 40% increase in the average cost per ton of scrap steel and a 20% increase in the average cost of brass ingot in 2022 compared to 2021. See "Item 1A. RISK FACTORS-The prices of our purchased components and raw materials can be volatile."

Currency Risk

Our principal assets, liabilities and operations outside the United States are in Israel, Canada and China. Foreign reporting entities are remeasured into local currencies with the effect reflected in the consolidated statements of operations. Assets and liabilities are translated into United States dollars at currency exchange rates in effect at the end of each period, with the effect of such translation reflected in other comprehensive income (loss). Our stockholders' equity will fluctuate depending upon the weakening or strengthening of the United States dollar against these non-United States currencies. Net sales and expenses of these subsidiaries are translated into United States dollars at the average currency exchange rate during the period.

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.

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, 2022, our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

There have been no changes in internal control over financial reporting during the quarter ended September 30, 2022 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, 2022. 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, 2022, our internal control over financial reporting was effective.

The effectiveness of our internal control over financial reporting at September 30, 2022 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.

Item 9B. OTHER INFORMATION

Not applicable.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The name and position at November 18, 2022 and age of each of our executive officers and directors at September 30, 2022 are presented below.

Name	Age	Position
Scott Hall	57	President and Chief Executive Officer
Steven S. Heinrichs	54	Executive Vice President, Chief Legal and Compliance Officer and Secretary
Marietta Edmunds Zakas	63	Executive Vice President and Chief Financial Officer
William A. Cofield	63	Senior Vice President, Operations & Supply Chain
Scott P. Floyd	53	Senior Vice President, Water Flow Solutions
Todd P. Helms	55	Senior Vice President and Chief Human Resources Officer
Chad D. Mize	46	Senior Vice President, Sales and Marketing
Kenji Takeuchi	50	Senior Vice President, Water Management Solutions
Richelle R. Feyerherm	51	Vice President, Operations Controller
Suzanne G. Smith	55	Vice President and Chief Accounting Officer
Mark J. O'Brien	79	Non-Executive Chairman of the Board of Directors
Shirley C. Franklin	77	Director
Thomas J. Hansen	73	Director
Christine Ortiz	52	Director
Bernard G. Rethore	81	Director
Jeffery S. Sharritts	54	Director
Brian L. Slobodow	54	Director
Lydia W. Thomas	77	Director
Michael T. Tokarz	72	Director
Stephen C. Van Arsdell	72	Director

Scott Hall has served as our 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 earned his Bachelor of Commerce degree from Memorial University of Newfoundland and a Master of Business Administration from the University of Western Ontario Ivey School of Business. Mr. Hall is a director of Altra Industrial Motion, Inc.

Steven S. Heinrichs has served as our Executive Vice President, Chief Legal and Compliance Officer and Secretary since August 2018. He served as Senior Vice President, General Counsel and Secretary of Neenah, Inc. (f/k/a Neenah Paper, Inc.), which spun off from Kimberly-Clark Corporation in December 2004, from June 2004 to July 2018. Mr. Heinrichs joined Kimberly-Clark as Chief Counsel, Pulp and Paper and General Counsel for Neenah, Inc. Prior to his employment with Kimberly-Clark, Mr. Heinrichs served as Associate General Counsel and Assistant Secretary for Mariner Health Care, Inc., a nursing home and long-term acute care hospital company. Before joining Mariner Health Care in 2003, Mr. Heinrichs served as Associate General Counsel and Assistant Secretary for American Commercial Lines LLC, a leading inland barge and shipbuilding company from 1998 through 2003. Mr. Heinrichs engaged in the private practice of law with Skadden, Arps, Slate, Meagher and Flom LLP and Shuttleworth, Smith, McNabb and Williams PLLC from 1994 through 1998. Mr. Heinrichs earned a Master of Business Administration from the Kellogg School of Management at Northwestern University in 2008, his law degree from Tulane University in 1994, and his Bachelor of Arts degree from the University of Virginia.

Marietta Edmunds Zakas has served as our Executive Vice President and Chief Financial Officer since January 2018. She served as Senior Vice President, Strategy, Corporate Development and Communications from November 2006 to December 2017. She was also the interim head of Human Resources from January 2016 to December 2017. 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 BlueLinx Holdings Inc. and is a former director of Atlantic Capital Bank and Atlantic Capital Bancshares.

William A. Cofield has served as our Senior Vice President, Operations & Supply Chain since January 2018. Previously, Mr. Cofield served as Vice President of Operations and Supply Chain for MGA Entertainment from May 2014 to December 2018 and Vice President of Operations for the Rubbermaid business within Newell Brands, Inc. (formerly Newell Rubbermaid, Inc.) from January 2009 to May 2014. Mr. Cofield earned his Bachelor of Science degree from the United States Military Academy. Upon graduation, he was commissioned as an officer in the United States Army where he served for 10 years. Mr. Cofield achieved the rank of Major before resigning his commission.

Scott P. Floyd has served as our Senior Vice President, Water Flow Solutions since October 2021. He served as Senior Vice President, Infrastructure from June 2020 to September 2021; Vice President and General Manager - Specialty Valves from February 2019 to May 2020; Plant Manager of our Cleveland, Tennessee facility from October 2007 to February 2019; Plant Manager of our Brownsville, Texas facility from March 2016 to February 2019; and Operations Manager of our Cleveland, Tennessee facility from September 1998 to October 2007.

Todd P. Helms has served as our Senior Vice President and Chief Human Resources Officer since February 2020. Previously, Mr. Helms held the position of Executive Vice President and Chief Human Resource Officer at Synovus Financial Corporation and as Senior Vice President, Human Resources at Genuine Parts Company. Mr. Helms earned a Bachelor of Science degree from King College, a Bachelor of Mechanical Engineering from Georgia Institute of Technology and a Master of Business Administration from Ohio University.

Chad D. Mize has served as our Senior Vice President, Sales and Marketing since October 2019. He served as Vice President and General Manager of the Brass, Gas and Repair Value Stream from October 2017 to September 2019; Chief Financial Officer and Vice President of Mueller Co. LLC from March 2010 to September 2017; Corporate Controller from January 2007 to February 2010; and Manager of Financial Reporting and Analysis from October 2004 to December 2006. Previously, Mr. Mize worked in accounting and finance for Archer Daniels Midland from May 1998 to September 2004. Mr. Mize earned a Bachelor of Science degree in Accounting from Illinois State University and a Master of Business Administration from Millikin University.

Kenji Takeuchi has served as our Senior Vice President, Water Management Solutions since October 2021. He served as Senior Vice President, Technology Solutions from October 2019 to September 2021. Previously, Mr. Takeuchi served as a Startup Catalyst at the Advanced Technology Development Center at Georgia Tech, Georgia's technology incubator. Prior to that, he served as Chief Technology Officer and Vice President of Engineering of Honeywell International Inc. and held various executive-level positions at Flextronics, culminating in his role as Vice President, Products and Technology. Mr. Takeuchi earned a Bachelor of Mechanical Engineering from Georgia Institute of Technology and a Master of Engineering from the University of California at Berkeley and completed the Executive Education Program at Stanford University's Graduate School of Business.

Richelle R. Feyerherm has served as our Vice President, Operations Controller since November 2019. Previously, Ms. Feyerherm served as a Financial Officer of the Water Products division of Lonza Group, Ltd. from October 2011 to February 2019. Ms. Feyerherm earned her Bachelor of Science degree from the State University of New York and is a certified public accountant.

Suzanne G. Smith has served as our Vice President and Chief Accounting Officer since January 2021. Previously, Ms. Smith served as Chief Accounting Officer for ModivCare Inc., from February 2019 through November 2020 and for Cumulus Media from May 2017 through February 2019. Ms Smith is a certified public accountant, and she earned a Bachelor of Science degree from The Ohio State University and a Master of Business Administration from Georgia State University.

Mark J. O'Brien has been a member of our Board of Directors since April 2006 and has served as our Non-Executive Chairman since January 2018. He served as Chairman of Walter Investment Management Corp. (formerly Walter Industries' Homes Business), a mortgage portfolio owner and mortgage originator and servicer, from 2009 through December 2015, and he served as its Chief Executive Officer from 2009 to October 2015. Mr. O'Brien served as President and Chief Executive Officer of Brier Patch Capital and Management, Inc., a real estate management and investment firm, from 2004 to 2009. He served in various executive capacities at Pulte Homes, Inc., a home building company, for 21 years, retiring as President and Chief Executive Officer in 2003. Mr. O'Brien earned a Bachelor of Arts degree in history from the University of Miami.

Shirley C. Franklin has been a member of our Board of Directors since November 2010. Ms. Franklin serves as the President of Clarke-Franklin & Associates, Inc., a management consulting firm, and is a co-founder of Authenticity Partners. In addition, Ms. Franklin serves as Chair of the board of directors of the National Center for Civil and Human Rights and is a board member of the Paul Volcker Alliance, both non-profit organizations dedicated to public service missions. Ms. Franklin also serves as a board member on CDC Foundation and several other non-profit organizations including CF Foundation, Atlanta Regional Commission on Homelessness, National Alliance for Public Charter Schools, and Purpose Built Schools Atlanta. From 2002 to 2010, Ms. Franklin was mayor of Atlanta, Georgia. Ms. Franklin earned a Bachelor of Arts degree in sociology from Howard University and a Master of Arts 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 served as the Executive Vice President and 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 served as Executive Vice President of ITW. 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.

Christine Ortiz has been a member of our Board of Directors since November 2018. Dr. Ortiz is the Morris Cohen Professor of Materials Science and Engineering at the Massachusetts Institute of Technology. The author of more than 200 scholarly publications, she has supervised research projects across multiple academic disciplines, received 30 national and international honors, including the Presidential Early Career Award in Science and Engineering awarded to her by President George W. Bush, and served as the Dean for Graduate Education at Massachusetts Institute of Technology from 2010 to 2016. She is also the founder of an innovative, nonprofit, higher education educational institution, Station1. Dr. Ortiz has served as a director of Enovis Corporation since 2022. She earned a Bachelor of Science degree from Rensselaer Polytechnic Institute and a Master of Science degree and a Doctor of Philosophy degree from Cornell University, each in the field of materials science and engineering.

Bernard G. Rethore has been a member of our Board of Directors since April 2006. Mr. Rethore has served as Chairman Emeritus of Flowserve Corporation, a manufacturer of pumps, valves, seals and components, since 2000. From January 2000 to April 2000, he served as Flowserve's Chairman and previously served as its Chairman, President and Chief Executive Officer. In 2008, Mr. Rethore 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.

Jeffery S. Sharritts has been a member of our Board of Directors since March 2021. Mr. Sharritts is the Executive Vice President and Chief Customer and Partner Officer at Cisco. During his 22-year tenure at Cisco, Mr. Sharritts has held several executive sales roles, most recently Senior Vice President of the Americas from 2018 to 2022 and Senior Vice President, U.S. Commercial Sales from 2014 to 2018. Mr. Sharritts holds Advisory Board Member positions with the Georgia Chamber of Commerce and Metro Atlanta Chamber of Commerce. Mr. Sharritts earned a Bachelor of Science degree in Business Administration from The Ohio State University.

Brian L. Slobodow has been a member of our Board of Directors since October 2022. Mr. Slobodow is an Operating Partner of Operational Resource Group, LLC ("ORG"), whose clients include a leading middle-market private equity firm. From 2015 to 2020, he served as an Operating Executive at Golden Gate Capital, where, between 2007 and 2015, he also held senior leadership positions in multiple former portfolio companies. Prior to joining Golden Gate Capital, Mr. Slobodow held multiple leadership positions within Johnson & Johnson Consumer Products from 2003 to 2007 and was a Principal at A.T. Kearney from 2000 to 2003. Mr. Slobodow holds a Bachelor of Science degree in Industrial and Manufacturing Engineering and a Master of Business Administration degree from the Massachusetts Institute of Technology Sloan School of Management.

Lydia W. Thomas has been a member of our Board of Directors since January 2008. Dr. Thomas served as President and Chief Executive Officer of Noblis, Inc., a public interest scientific research, technology and strategy 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. In 2013, she was honored by the Outstanding Directors Exchange as an Outstanding Director of the Year. Dr. Thomas is also a member of the Council on Foreign Relations. She 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. From 1985 until 2002, Mr. Tokarz served as 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 served as non-executive Chairman of the Board of Walter Energy, Inc. until July 2016, and until May 2017, he served as a director of CNO Financial Group, Inc. (formerly Conseco, Inc.), an insurance provider, and as a director of Walter Investment Management Corp. Mr. Tokarz has served as the Chairman of the Board of the Tokarz Group, LLC, an investment company, since 2002 and the Chairman of MVC Capital, Inc., a registered investment company, since 2003. He assumed the role of vice chair of Shield T3, LLC in 2020. 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.

Stephen C. Van Arsdell has been a member of our Board of Directors since July 2019. Mr. Van Arsdell is a former senior partner of Deloitte LLP, where he served as Chairman and Chief Executive Officer of Deloitte & Touche LLP from 2010-2012 and as Deputy Chief Executive Officer from 2009-2010. He also served as a member of Deloitte's board of directors from 2003-2009, during which time he held the position of Vice Chairman. Mr. Van Arsdell has served as a member of the board of directors of Old National Bancorp since February 2022 and has been a member of the audit committee of Brown Brothers Harriman since 2015. Mr. Van Arsdell previously served as a director of First Midwest Bancorp, Inc. from 2017 to February 2022. Mr. Van Arsdell earned both a Bachelor of Science degree in Accounting and a Master of Accounting Science degree from the University of Illinois. He is a certified public accountant.

Additional Information

Additional information required by this item will be contained in our definitive proxy statement issued in connection with the 2023 Annual Meeting of Stockholders filed with the SEC within 120 days after September 30, 2022 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 any 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 for which SEC disclosure is required, we will make such disclose 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 2023 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 2023 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: (1) The Mueller Water Products, Inc. 2006 Employee Stock Purchase Plan ("ESPP"), as amended; and (2) The Mueller Water Products, Inc. 2006 Stock Incentive Plan ("2006 Plan"), as amended.

The following table sets forth certain information relating to these equity compensation plans at September 30, 2022.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	exe outst	ghted average rcise price of anding options, ants and rights	Number of securities remaining available for future issuance
Equity compensation plans approved by stockholders:				
2006 Plan	2,576,183 (1)	\$	12.19 (2)	5,083,831 (3)
ESPP	47,463		_	2,103,114 (4)
Total	2,623,646			7,186,945

- (1) Consists of the maximum number of shares that could be earned upon exercise or vesting of outstanding stock-based awards granted under the 2006 Plan. This includes 1,410,503 shares associated with share-settled performance units that may or may not be earned, depending on Company performance or stock market performance, as described in Note 12. of the Notes to the Consolidated Financial Statements.
- (2) Weighted-average exercise price of 1,013,293 options.
- (3) The number of securities initially available for issuance under the 2006 Plan was 20,500,000 shares.
- (4) The number of securities initially available for issuance under the ESPP Plan was 5,800,000 shares.

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 2023 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 2023 Annual Meeting of Stockholders and is incorporated herein by reference.

PART IV

Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements

Index to financial statements	Page number
Reports of Independent Registered Public Accounting Firm (PCAOB ID: 42)	F-1
Consolidated Balance Sheets at September 30, 2022 and 2021	F-4
Consolidated Statements of Operations for the years ended September 30, 2022, 2021 and 2020	F-5
Consolidated Statements of Comprehensive Income for the years ended September 30, 2022, 2021 and 2020	F-6
Consolidated Statements of Stockholders' Equity for the years ended September 30, 2022, 2021 and 2020	F-7
Consolidated Statements of Cash Flows for the years ended September 30, 2022, 2021 and 2020	F-8
Notes to Consolidated Financial Statements for the three years ended September 30, 2022	F-9

(b) Financial Statement Schedules

The information required by Schedule II is included in the Notes to Consolidated Financial Statements. All other schedules required by Item 15(b) are not applicable or not required.

(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.
2.5	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 December 4, 2017.
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.
4.2	Description of Securities registered under Section 12 of the Securities Exchange Act of 1934.
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.
10.3.1*	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.
10.4.2*	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.
10.6.1*	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.

Exhibit no.	Document
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.
10.11.2*	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.
10.14	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.
10.16*	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.
10.17.1*	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.
10.21	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.
10.29*	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.
10.29.2*	Fourth Amendment, dated December 27, 2017, to Employment Agreement, dated September 15, 2008, as amended, between Mueller Water Products Inc. and Marietta Edmunds Zakas. Incorporated by reference to Exhibit 10.1 to Mueller Water Products, Inc. Form 8-K (File no. 001-32892) filed December 28, 2017.
10.29.4*	Executive Change-in-Control Severance Agreement, dated September 30, 2019 by and between Mueller Water Products and Marietta Edmunds Zakas
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.
10.30.3*	Executive Change-in-Control Severance Agreement, dated September 30, 2019 by and between Mueller Water Products and J. Scott Hall
10.31*	Employment Agreement, dated July 18, 2018, by and between Mueller Water Products Inc. and Steven S. Heinrichs. Incorporated by reference to Exhibit 10.31 to Mueller Water Products, Inc. Form 10-K (File No. 001-32892) filed November 21, 2018.
10.31.2*	Executive Change-in-Control Severance Agreement, dated September 30, 2019 by and between Mueller Water Products and Steven S. Heinrichs
10.32 *	Mueller Water Products, Inc. Form of Performance Restricted Stock Unit Award Agreement. Incorporated by reference to Exhibit 10.32 to Mueller Water Products, Inc. Form 10-K (File No. 001-32892) filed November 19, 2021.
10.33 *	Mueller Water Products, Inc. Form of Restricted Stock Unit Award Agreement. Incorporated by reference to Exhibit 10.33 to Mueller Water Products, Inc. Form 10-K (File No. 001-32892) filed November 19, 2021.
10.34 *	Mueller Water Products, Inc. Form of Stock Option Grant Award Agreement. Incorporated by reference to Exhibit 10.34 to Mueller Water Products, Inc. Form 10-K (File No. 001-32892) filed November 19, 2021.

Exhibit	
no.	Document
10.35	Cooperation Agreement dated October 11, 2022, among Mueller Water Products, Inc. and Ancora Catalyst Institutional, LP; Ancora Merlin Institutional, LP; Ancora Catalyst, LP; Ancora Merlin, LP; Ancora Alternatives LLC; Ancora Advisors, LLC; Ancora Family Wealth Advisors, LLC; The Ancora Group LLC; Inverness Holdings LL; Ancora Holdings Group, LLC and Frederick D. DiSanto. Incorporated by reference to Exhibit 10.1 to Mueller Water Products, Inc. Form 8-K (File no 001-32892) filed October 13, 2022.
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, 2022, 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.
104**	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)
*	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 18, 2022

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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ Scott Hall	President and Chief Executive Officer	November 18, 2022
Scott Hall		
/s/ Marietta Edmunds Zakas	Executive Vice President and Chief Financial	November 18, 2022
Marietta Edmunds Zakas	Officer (principal financial officer)	
/s/ Suzanne G. Smith	Vice President and Chief Accounting Officer	November 18, 2022
Suzanne G. Smith	(principal accounting officer)	
/s/ Mark J. O'Brien	Non-Executive Chairman of the Board of Directors	November 18, 2022
Mark J. O'Brien		
/s/ Shirley C. Franklin	Director	November 18, 2022
Shirley C. Franklin		
/s/ Thomas J. Hansen	Director	November 18, 2022
Thomas J. Hansen		
/s/ Christine Ortiz	Director	November 18, 2022
Christine Ortiz		
/s/ Bernard G. Rethore	Director	November 18, 2022
Bernard G. Rethore		
/s/ Jeffery S. Sharritts	Director	November 18, 2022
Jeffery S. Sharritts		
/s/ Brian L. Slobodow	Director	November 18, 2022
Brian L. Slobodow		
/s/ Lydia W. Thomas	Director	November 18, 2022
Lydia W. Thomas	_	
/s/ Michael T. Tokarz	Director	November 18, 2022
Michael T. Tokarz		
/s/ Stephen C. Van Arsdell	Director	November 18, 2022
Stephen C. Van Arsdell		

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Mueller Water Products, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Mueller Water Products, Inc. and subsidiaries (the Company) as of September 30, 2022 and 2021, the related consolidated statements of operations, comprehensive income, equity and cash flows for each of the three years in the period ended September 30, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at September 30, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2022, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of September 30, 2022, 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 18, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

Critical Audit Matter

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

Valuation of Goodwill

Description of the Matter

At September 30, 2022, the Company's goodwill was \$98.6 million. As described in Note 6 to the consolidated financial statements, goodwill is tested at the reporting unit level on an annual basis and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying value. The Company performed its annual impairment tests of goodwill and determined the fair values of its reporting units using the discounted cash flow method, a form of the income approach, and the guideline public company method, a form of the market approach.

Auditing management's estimates of reporting unit fair values using the discounted cash flow method involved especially subjective judgments due to the significant estimation uncertainty in determining the fair values of the reporting units. In particular, the fair value estimates were sensitive to significant assumptions such as forecasted revenues, EBITDA margins and discount rates. These significant assumptions are forward-looking and could be affected by future industry, market and economic conditions.

How We Addressed the Matter in Our Audit We obtained an understanding, evaluated the design and tested the operating effectiveness of the Company's controls over review of the fair values of the reporting units. This included testing controls over management's review of the significant assumptions described above.

To test the estimated fair values of the reporting units, we performed audit procedures that included, among others, assessing the methodologies used to estimate fair values, testing the significant assumptions used to develop the fair value estimates, and testing the underlying data used by the Company in its analysis for completeness and accuracy. For example, we evaluated management's forecasted revenues and EBITDA margins used in the fair value estimates by comparing those assumptions to historical results and current industry, market and economic forecasts. We also involved our valuation specialists to evaluate the valuation methodologies and the discount rates. As part of this evaluation, we compared the discount rates to market data. In addition, we performed a sensitivity analysis on the significant assumptions to evaluate the potential change in the fair values of the reporting units that would result from changes in the assumptions.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2007.

Atlanta, Georgia November 18, 2022

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Mueller Water Products, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Mueller Water Products, Inc. and subsidiaries' internal control over financial reporting as of September 30, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Mueller Water Products, Inc. and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of September 30, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of September 30, 2022 and 2021, the related consolidated statements of operations, comprehensive income, equity and cash flows for each of the three years in the period ended September 30, 2022, and the related notes and our report dated November 18, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

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

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

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

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP

Atlanta, Georgia November 18, 2022

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

		Septem	ber 3	0,
		2022	2021 ept share amounts)	
	(in	millions, exce		
Assets:				
Cash and cash equivalents	\$	146.5	\$	227.5
Receivables, net of allowance for credit losses of \$5.6 million and \$3.5 million		228.0		212.2
Inventories, net		278.7		184.7
Other current assets		26.8		29.3
Total current assets		680.0		653.7
Property, plant and equipment, net		301.6		283.4
Intangible assets, net		361.2		392.5
Goodwill		98.6		115.1
Other noncurrent assets		56.7		73.3
Total assets	\$	1,498.1	\$	1,518.0
Liabilities and stockholders' equity:				
Current portion of long-term debt	\$	0.8	\$	1.0
Accounts payable		122.8		92.0
Other current liabilities		117.4		127.1
Total current liabilities		241.0		220.1
Long-term debt		446.1		445.9
Deferred income taxes		86.3		95.1
Other noncurrent liabilities		55.4		62.0
Total liabilities		828.8		823.1
Commitments and contingencies (Note 17.)				
Common stock: 600,000,000 shares authorized; 155,844,138 and 157,955,433 shares outstanding at September 30, 2022 and 2021, respectively		1.6		1.6
Additional paid-in capital		1,279.6		1,342.2
Accumulated deficit		(567.3)		(643.9
Accumulated other comprehensive loss		(44.6)		(5.0
Total stockholders' equity		669.3		694.9
Total liabilities and stockholders' equity	\$	1,498.1	\$	1,518.0

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

		Year ended September 30,						
		2022	2021		2020			
	(in millions, except per share amounts)							
Net sales	\$	1,247.4	\$ 1,111.0	\$	964.1			
Cost of sales		883.1	752.5		635.9			
Gross profit		364.3	358.5		328.2			
Operating expenses:								
Selling, general and administrative		238.7	218.8		198.4			
Strategic reorganization and other charges		7.2	8.0		13.0			
Goodwill impairment		6.8			_			
Total operating expenses		252.7	226.8		211.4			
Operating income		111.6	131.7		116.8			
Pension benefit other than service		(3.9)	(3.3)		(3.0)			
Interest expense, net		16.9	23.4		25.5			
Loss on early extinguishment of debt		_	16.7		_			
Walter Energy accrual					0.2			
Income before income taxes		98.6	94.9		94.1			
Income tax expense		22.0	24.5		22.1			
Net income	\$	76.6	\$ 70.4	\$	72.0			
Net income per share:								
Basic	\$	0.49	\$ 0.44	\$	0.46			
Diluted	\$	0.48	\$ 0.44	\$	0.45			
Weighted average shares outstanding:								
Basic		157.4	158.4		157.8			
Diluted	_	158.0	159.2		158.6			
Dividends declared per share	\$	0.232	\$ 0.22	\$	0.21			

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

	 Year ended September 30,						
	2022				2020		
		(in million	ıs)		_		
Net income	\$ 76.6	\$ 7	0.4	\$	72.0		
Other comprehensive (loss) income:					_		
Pension	(18.8)	1	4.1		4.4		
Income tax effects	4.7	((3.6)		(1.1)		
Foreign currency translation	 (25.5)		9.2		8.0		
Total other comprehensive (loss) income	(39.6)	1	9.7		11.3		
Total comprehensive income	\$ 37.0	\$ 9	0.1	\$	83.3		

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF EQUITY FOR THE THREE YEARS ENDED SEPTEMBER 30, 2022

	Common stock	Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive (loss) income	Non- controlling interest	Total
			(in mill	ions)		
Balance at September 30, 2019	\$ 1.6	\$ 1,410.7	\$ (786.2)	\$ (36.0)	\$ 2.2	\$ 592.3
Net income		_	72.0			72.0
Dividends declared	_	(33.1)	_	_	_	(33.1)
Stock-based compensation		5.3	_			5.3
Shares retained for employee taxes	_	(0.9)	_	_	_	(0.9)
Common stock issued		3.5	_			3.5
Stock repurchased under buyback program	_	(5.0)	_	_	_	(5.0)
Acquisition of joint venture partner's interest	_	(2.5)	_	_	(2.2)	(4.7)
Other comprehensive loss, net of tax				11.3		11.3
Balance at September 30, 2020	1.6	1,378.0	(714.2)	(24.7)	_	640.7
Net income	_	_	70.4	_	_	70.4
Dividends declared		(34.8)	_		_	(34.8)
Cumulative effect of accounting change (Note 2.)	_	_	(0.1)	_	_	(0.1)
Stock-based compensation		8.1	_			8.1
Shares retained for employee taxes	_	(1.0)	_	_	_	(1.0)
Common stock issued		1.9	_	_	_	1.9
Stock repurchased under buyback program	_	(10.0)	_	_	_	(10.0)
Other comprehensive income, net of tax				19.7		19.7
Balance at September 30, 2021	1.6	1,342.2	(643.9)	(5.0)	_	694.9
Net income	_	_	76.6	_	_	76.6
Dividends declared	_	(36.5)	_	_	_	(36.5)
Stock-based compensation	_	8.7			_	8.7
Shares retained for employee taxes	_	(1.8)	_	_	_	(1.8)
Common stock issued		2.0			_	2.0
Stock repurchased under buyback program	_	(35.0)	_	_	_	(35.0)
Other comprehensive income, net of tax				(39.6)		(39.6)
Balance at September 30, 2022	\$ 1.6	\$ 1,279.6	\$ (567.3)	\$ (44.6)	\$	\$ 669.3

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

	Year ended September 30,				
		2022	2021	2020	
			(in millions)		
Operating activities:					
Net income	\$	76.6	\$ 70.4	\$ 72.0	
Adjustments to reconcile net income to net cash provided by operating activities:					
Depreciation		32.0	31.4	29.0	
Amortization		28.5	28.2	28.2	
Goodwill impairment		6.8	_	_	
Loss on early extinguishment of debt		_	16.7	_	
Stock-based compensation		8.7	8.1	5.3	
Pension (benefit) cost		(2.6)	(1.9)	2.8	
Deferred income taxes		(3.5)	(5.3)	7.2	
Inventory reserves provision		1.6	3.1	4.3	
Other, net		1.3	1.3	3.′	
Changes in assets and liabilities, net of acquisitions:					
Receivables, net		(17.8)	(29.9)	(7.5	
Inventories, net		(98.3)	(23.5)	24.9	
Other assets		1.3	(4.9)	0.9	
Accounts payable		32.2	23.0	(17.0	
Walter Energy accrual		_	_	(22.0	
Other current liabilities		(8.5)	37.5	6.0	
Other noncurrent liabilities		(6.0)	2.5	1.9	
Net cash provided by operating activities		52.3	156.7	140.3	
Investing activities:					
Capital expenditures		(54.7)	(62.7)	(67.	
Acquisitions, net of cash acquired		(0.2)	(19.7)	_	
Proceeds from sales of assets			0.7	0.2	
Net cash used in investing activities		(54.9)	(81.7)	(67.:	
Financing activities:					
Repayment of 5.5% Senior Notes		_	(462.4)	_	
Issuance of 4.0% Senior Notes		_	450.0	_	
Dividends paid		(36.5)	(34.8)	(33.	
Deferred financing costs paid			(6.0)	(1.	
Proceeds from financing transaction		_	3.9	_	
Acquisition of joint venture partner's interest		_	_	(5.2	
Employee taxes related to stock-based compensation		(1.8)	(1.0)	(0.9)	
Common stock issued		2.0	1.9	3.:	
Stock repurchased under buyback program		(35.0)	(10.0)	(5.0	
Financing leases		(0.7)	(0.4)	0.4	
Net cash used in financing activities		(72.0)	(58.8)	(41.4	
Effect of currency exchange rate changes on cash		(6.4)	2.4	0.0	
Net change in cash and cash equivalents		(81.0)	18.6	32.2	
Cash and cash equivalents at beginning of year		227.5	208.9	176.	
Cash and cash equivalents at end of year	\$		\$ 227.5	\$ 208.9	
1 J		- : : : :			

Supplemental cash flow information:

Cash paid for interest	\$ 19.2 \$	25.3 \$	24.3
Cash paid for income taxes	\$ 26.9 \$	16.8 \$	15.3

MUELLER WATER PRODUCTS, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. Organization

Mueller Water Products, Inc., a Delaware corporation, together with its consolidated subsidiaries, operates in two business segments: Water Flow Solutions and Water Management Solutions. These segments are based on a management reorganization that became effective October 1, 2021; prior period information has been recast to conform to the current presentation. Water Flow Solutions' product portfolio includes iron gate valves, specialty valves and service brass products. Water Management Solutions' product and service portfolio includes fire hydrants, repair and installation, natural gas, metering, leak detection, pressure control and monitoring services. 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.

We have approximately 3,600 employees globally, of which 64% of our hourly workers are covered by collective bargaining agreements.

In July 2014, we acquired a 49% ownership in an industrial valve joint-venture for \$1.7 million. As a result of substantive control features in the joint-venture agreement, all of the joint venture's assets, liabilities and results of operations were included in our consolidated financial statements. The noncontrolling interest portion was included in selling, general and administrative expenses. Noncontrolling interest was recorded at its carrying value, which approximated fair value. We acquired the remaining 51% noncontrolling interest on October 3, 2019.

On December 3, 2018, we completed our acquisition of Krausz Industries Development Ltd. and subsidiaries ("Krausz"). During our 2020 and 2019 fiscal years, we included the financial statements of Krausz on a one-month lag. During the three months ended March 31, 2021, we aligned the consolidation of the financial statements of Krausz in the Company's consolidated financial statements, eliminating the previous inclusion of Krausz financial statements with a one-month reporting lag. In accordance with applicable accounting literature, the elimination of the one-month reporting lag is considered to be a change in accounting principle. We believe this change in accounting principle is preferable as the financial statements of all of our subsidiaries are now reported on the same basis, providing the most current information available. The effect of the elimination of the reporting lag during the year ended September 30, 2021 resulted in an increase of \$6.0 million to net sales and an increase of \$1.4 million to operating income. We concluded that the effect of this change is not material to the balance sheets, statements of operations, statements of cash flows, net income and earnings per share and therefore have not retrospectively applied this change.

On June 14, 2021, we acquired all the outstanding capital stock of i2O Water Ltd ("i2O") a provider of pressure management solutions to more than 100 water companies in 45 countries. The consolidated balance sheet at September 30, 2021 includes the preliminary estimated fair values of the net assets of i2O. The accounting for this business combination became final during the three months ended March 31, 2022. The results of i2O's operations and cash flows for the period subsequent to the acquisition are included in the consolidated statement of operations and consolidated statement of cash flows, respectively. Refer to Note 5. for additional disclosures related to the acquisition.

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.

New Markets Tax Credit Program On December 22, 2020, we entered into a financing transaction with Wells Fargo Community Investment Holdings, LLC ("Wells Fargo") related to our brass foundry construction project in Decatur, Illinois under a qualified New Markets Tax Credit program ("NMTC"). The NMTC is a federal program intended to encourage capital investment in qualified lower income communities. Under the NMTC, investors claim federal income tax credits over a period of seven years in connection with qualified investments in the equity of community development entities ("CDE"s), which are privately managed investment institutions that are certified to make qualified low-income community investments, such as in our foundry project.

Under the NMTC, Wells Fargo contributed capital of \$4.8 million to an investment fund and we loaned \$12.2 million to the fund. Wells Fargo is entitled to the associated tax credits, which are subject to 100% recapture if we do not comply with various regulations and contractual provisions surrounding the foundry project. We have indemnified Wells Fargo for any loss

or recapture of tax credits related to the transaction until the seven-year period elapses. We do not anticipate any credit recaptures will be required in connection with this arrangement.

The investment fund contributed \$16.5 million cash for a 99.99% stake in a joint venture ("Sub-CDE") with a CDE. The Sub-CDE then loaned \$16.2 million to us, with the use of the loan proceeds restricted to foundry project expenditures. This transaction also includes a put/call provision under which we may be obligated or entitled to repurchase Wells Fargo's interest in the investment fund. We believe that Wells Fargo will exercise its put option in December 2027 for nominal consideration, resulting in our becoming the sole owner of the investment fund, cancelling the related loans, and recognizing an estimated gain of \$3.9 million.

We determined that the investment fund and the Sub-CDE are variable interest entities ("VIEs") and that we are the primary beneficiary of the VIEs. The ongoing activities of the VIEs, namely collecting and remitting interest and fees and administering NMTC compliance, were contemplated in the initial design of the transaction and are not expected to significantly affect economic performance throughout the life of the VIEs. Additionally, we are obligated to deliver tax benefits and provide various other guarantees to Wells Fargo and to absorb the losses of the VIEs. Wells Fargo does not have a material interest in the underling economics of the project. Consequently, we have included the financial statements of the VIEs in our consolidated financial statements.

Intercompany transactions between us and the VIEs have been eliminated in consolidation. Wells Fargo's contribution to the investment fund is consolidated in our financial statements as an Other noncurrent liability as a result of its redemption features.

Direct costs associated with Wells Fargo's capital contribution have been netted against the recorded proceeds, resulting in a net cash contribution of \$3.9 million. Other direct costs associated with the transaction were capitalized and will be recognized as interest expense over the seven-year tax credit period. Incremental costs to maintain the structure during the compliance period are expensed as incurred.

Note 2. Summary of Significant Accounting Policies

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, net. 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 customer discounts and 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. When we determine a specific trade receivable will not be collected, we charge off the uncollectible amount against the allowance. 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 collectability of the reported amounts. Significantly weaker than anticipated industry or economic conditions could impact our customers' ability to pay such that actual credit losses may be greater than the amounts provided for in this allowance.

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

	2	2022		2021		2020
			(in n	nillions)		
Balance at beginning of year	\$	3.5	\$	2.5	\$	1.5
Provision charged to expense		2.5		1.1		1.1
Other		(0.4)		(0.1)		(0.1)
Balance at end of year	\$	5.6	\$	3.5	\$	2.5

Inventories, net. 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.

	2	2022		2021		2020
		(in millions)				
Balance at beginning of year	\$	14.8	\$	11.7	\$	7.5
Provision charged to expense		1.8		5.9		4.7
Inventory disposed		(1.4)		(3.6)		(0.7)
Other		1.3		0.8		0.2
Balance at end of year	\$	16.5	\$	14.8	\$	11.7

Maintenance and repair supplies and tooling. Maintenance and repair supplies and tooling is included in Other current assets and Other noncurrent assets. 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, net. 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 six years, beginning when software is ready for its intended 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 adjusted. Over time, the liabilities are accreted to their estimated future values. At September 30, 2022 and 2021, asset retirement obligations were \$3.6 million and \$3.8 million, respectively.

Leases. Refer to Note 4. for information regarding our leases.

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 impairment is possible. 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 impairment is possible. Refer to Note 6. for information regarding our goodwill impairment testing.

Workers' Compensation. Our exposure to workers' compensation claims is generally limited to \$0.8 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. Our gross workers' compensation liabilities were \$11.1 million as of September 30, 2022, and we expect to recover \$5.9 million in insurance which is included as a receivable in Other current assets and Other noncurrent assets as of September 30, 2022. As of September 30, 2021, our gross worker's compensation liability was \$10.5 million and our insurance receivable was 3.5 million.

Warranty Costs. We accrue for warranty expenses, which include 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 probable and reasonably estimable at that time. We monitor and analyze our warranty experience and costs periodically and revise our warranty accruals as necessary. Critical factors in our accrual analyses include warranty terms, specific claim situations, general incurred and projected failure rates, the nature of product failures, product and labor costs, and general business conditions.

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

	2022		2021		2020
			(in	millions)	
Balance at beginning of year	\$	9.7	\$	14.4	\$ 17.1
Warranty accruals		9.5		3.5	2.6
Warranty costs		(8.5)		(8.2)	 (5.3)
Balance at end of year	\$	10.7	\$	9.7	\$ 14.4

Deferred Financing Costs. Debt issuance costs to obtain debt are deferred and charged to expense over the life of the underlying debt agreement. Remaining costs and the future period over which financing costs would be charged to expense are reassessed when amendments to the related financing agreements or prepayments occur.

Deferred financing costs are offset against the underlying long-term debt in the accompanying consolidated balance sheets. Deferred financing costs under agreements that do not have outstanding debt and in other instances, such as our ABL and with regard to our NMTC transaction, are included in Other noncurrent assets consistent with the life of the instrument. Deferred financing costs of \$5.6 million at September 30, 2022 are scheduled to amortize as follows: \$0.7 million related to the ABL, \$0.3 million related to the NMTC transaction which are amortized on a straight-line basis and; \$4.6 million related to the 4.0% Senior Unsecured Notes ("4.0% Senior Notes") which is amortized using the effective interest rate method. These amounts are amortized over the remaining term of the respective debt. Refer to Note 8. for disclosures related to our borrowing arrangements.

Derivative Instruments and Hedging Activities. We manage U.S. dollar - Canadian dollar exchange rate risk related to intercompany loans with swap contracts from time to time without designating these swap contracts as a hedge. As a result, the changes in the fair value of these contracts have been reported in earnings. As of September 30, 2021, we had a \$1.1 million liability in Other current liabilities in our consolidated balance sheets related to such a hedge. These currency swap contracts expired in February 2022, and we did not have any liabilities related to currency swap contracts as of September 30, 2022.

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 assets and liabilities 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 for certain environmental liabilities under an agreement with a predecessor to Tyco that existed at August 16, 1999. Refer to Note 17. for additional disclosures regarding our environmental liabilities.

Revenue Recognition. Refer to Note 3. for disclosures regarding our revenues.

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. Stock-based compensation expense is included within Selling, general and administrative expense within our consolidated statements of operations. Refer to Note 12. for more information regarding our stock-based compensation.

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

Advertising. Advertising costs are expensed as incurred.

Translation of Foreign Currency. Foreign reporting entities are remeasured into local currencies with the effect reflected in the consolidated statements of operations. Assets and liabilities of our businesses whose functional currencies are not denominated in the United States dollar are translated into United States 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 income (loss). Gains and losses resulting from foreign currency transactions are included in earnings as incurred.

Recently Adopted Accounting Pronouncements

During 2016, the Financial Accounting Standards Board ("FASB") issued standard Accounting Standard Codification ("ASC") 326 - Current Expected Credit Losses ("ASC 326") to replace the "incurred loss" impairment approach with an "expected loss" approach. This requires consideration of a broader range of reasonable and supportable information to estimate credit losses. We have completed historical and forward-looking analyses for receivables and adopted this guidance effective October 1, 2020. Upon adoption, there was no material impact to our financial statements.

In December 2019, the FASB issued Accounting Standards Update ("ASU") No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes" ("ASU 2019-12"). ASU 2019-12 simplifies the accounting for income taxes by clarifying and amending existing guidance related to the recognition of franchise tax, the evaluation of a step up in the tax basis of goodwill, and the effects of enacted changes in tax laws or rates in the effective tax rate computation, among other clarifications. ASU 2019-12 is effective for public business entities for fiscal years beginning after December 15, 2020, including interim periods within that fiscal year, with early adoption permitted. We adopted this standard on October 1, 2021 and there was no material impact to our financial statements.

In March 2020, the FASB issued ASU No. 2020-04, "Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting" ("ASU 2020-04"). The new guidance provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by reference rate reform if certain criteria are met. The amendments apply only to contracts and hedging relationships that reference the London Inter Bank Offered Rate ("LIBOR") or another reference rate expected to be discontinued due to reference rate reform. ASU 2020-04 is effective from March 12, 2020; however, can be adopted prospectively from a date within an interim period subsequent to March 12, 2020. We adopted this standard on October 1, 2021, and there was no material impact to our financial statements.

Accounting Pronouncements Not Yet Adopted

ASU 2022-03 Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions: The FASB issued this update in June 2022, to (1) clarify the guidance in Topic 820 on the fair value measurement of an equity security that is subject to a contractual sale restriction; and (2) to require specific disclosures related to such an equity security. This guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years, with early adoption permitted. Management does not expect that changes required by the new standard will have a material impact on our financial statements and related disclosures.

Note 3. Revenue from Contracts with Customers

We recognize revenue when control of promised products or services is transferred to our customers, in amounts that reflect the consideration to which we expect to be entitled in exchange for those products or services. We account for a contract when it has approval and commitment from both parties, the rights of the parties are identified, the payment terms are identified, the contract has commercial substance and collectability of consideration is probable. We determine the appropriate revenue recognition for our contracts with customers by analyzing the type, terms and conditions of each contract or arrangement with a customer.

Disaggregation of Revenue

Refer to Note 16. for disaggregation our revenues from contracts with customers by reportable segment and by geographical region, which we believe best depicts how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors. Geographical region represents the location of the customer.

Contract Asset and Liability Balances

Differences in the timing of revenue recognition, billing and cash collection result in customer receivables, advance payments and billings in excess of revenue recognized. Customer receivables include amounts billed and currently due from customers as well as unbilled amounts (contract assets). Amounts are billed in accordance with contractual terms and unbilled amounts arise when the timing of billing differs from the timing of revenue recognized.

Advance payments and billings in excess of revenue are recognized and recorded as deferred revenue, the majority of which is classified as current based on the timing when we expect to recognize revenue. We include current deferred revenue

within Other current liabilities in the accompanying consolidated balance sheets. Deferred revenues represent contract liabilities and are recorded when customers remit cash payments in advance of our satisfaction of performance obligations under contractual arrangements. Contract liabilities are reversed when the performance obligation is satisfied and revenue is recognized.

The table below represents the balances of our customer receivables and deferred revenues.

		September 30,				
	2	2022				
		(in millio	ns)			
Billed receivables	\$	230.5 \$	213.4			
Unbilled receivables		3.1	2.3			
Gross customer receivables	\$	233.6 \$	215.7			
Allowance for credit losses		(5.6)	(3.5)			
Receivables, net	\$	228.0 \$	212.2			
Deferred revenues	\$	8.1 \$	5.4			

Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. Our performance obligations are satisfied at a point in time as related to sales of equipment or over time as related to our software hosting and leak detection monitoring services. Performance obligations are supported by customer contracts, which provide frameworks for the nature of the distinct products or services. The transaction price is adjusted for our estimate of variable consideration which may include discounts, and rebates. To estimate variable consideration, we apply the expected value or the most likely amount method, based on whichever method most appropriately predicts the amount of consideration we expect to receive. The method applied is typically based on historical experience and known trends. We constrain the amounts of variable consideration that are included in the transaction price, to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur or when uncertainties around the variable consideration are resolved.

We exclude from the measurement of the transaction price all taxes assessed by a governmental authority.

We have elected to use the practical expedient to not adjust the transaction price of a contract for the effects of a significant financing component if, at the inception of the contract, we expect that the period between when we transfer a product or service to a customer and when a customer remits payment will be one year or less.

Revenues from products and services transferred to customers at a point in time represented 98% in the fiscal years 2022 and 2021, and 99% of our revenues in the fiscal year 2020. The revenues recognized at a point in time related to the sale of our products are recognized when the obligations of the terms of our contract are satisfied, which is when the customer is able to direct the use of and obtain substantially all of the benefits from the product, which generally occurs upon shipment when control of the product transfers to the customer.

Revenues from products and services transferred to customers over time represented 2% of our revenues in the fiscal years 2022, and 2021, and 1% of our revenues in the fiscal year 2020.

We offer warranties to our customers in the form of assurance-type warranties, which provide assurance that the products provided will function as intended and comply with any agreed-upon specifications. These cannot be purchased separately.

Costs to Obtain or Fulfill a Contract

Shipping and handling costs associated with freight activities after the customer has obtained control are accounted for as fulfillment costs and are expensed and accrued at the time revenue is recognized, as a component of cost of sales.

We incur certain incremental costs to obtain a contract, which primarily relate to incremental sales commissions. Our commissions are paid based on a combination of orders and shipments, and we reserve the right to claw back any commissions in case of product returns or lost collections. As the expected benefit associated with these incremental costs is generally one year or less based on the nature of the product sold and benefits received, we have applied a practical expedient and therefore do not capitalize the related costs and expense them as incurred.

Note 4. Leases

On October 1, 2019, we adopted ASC 842 - Leases utilizing the modified retrospective approach. Adoption of the new standard resulted in an increase to total assets and liabilities as a result of recording lease right-of-use assets ("ROU") and lease liabilities related to our operating lease portfolio.

We elected three practical expedients for transition, which include the carry forward of our leases without reassessing whether any contracts are leases or contain leases, lease classification and initial direct costs as well as applying hindsight when determining the lease term and when assessing impairment of ROU assets at the adoption date. This allows us to update our assessments according to new information and changes in facts and circumstances that have occurred since lease inception.

Presentation of Leases

We lease certain office, warehouse, manufacturing, distribution, and research and development facilities and equipment under operating leases. Our leases have remaining lease terms of up to 12 years. The terms and conditions of our leases may include options to extend or terminate the lease which are considered and included in the lease term when these options are reasonably certain of exercise.

We determine if a contract is, or contains, a lease at inception by evaluating whether the contract conveys the right to control the use of an identified asset. For all classes of leased assets, we have elected the practical expedient to account for any non-lease components in the contract together with the related lease component in the same unit of account.

ROU assets and lease liabilities are recognized in our consolidated balance sheets at the commencement date based on the present value of remaining lease payments over the lease term. Additionally, ROU assets include any lease payments made at or before the commencement date, as well as any initial direct costs incurred, and are reduced by any lease incentives received. As most of our operating leases do not provide an implicit rate, we apply our incremental borrowing rate to determine the present value of remaining lease payments. Our incremental borrowing rate is determined based on information available at the commencement date of the lease.

For all classes of leased assets, we have applied an accounting policy election to exclude short-term leases from recognition in our consolidated balance sheets. A short-term lease has a lease term of 12 months or less at the commencement date and does not include a purchase option that is reasonably certain of exercise. We recognize short-term lease expense in our condensed consolidated statements of operations on a straight-line basis over the lease term.

Our short-term lease expense for the years ended September 30, 2022 and 2021 and short-term lease commitments at September 30, 2022 are immaterial.

We have certain lease contracts with terms and conditions that provide for variability in the payment amount based on changes in facts or circumstances occurring after the commencement date. These variable lease payments are recognized in our consolidated statements of operations as the obligation is incurred.

At September 30, 2022, any legally-binding minimum lease payments for operating leases signed but not yet commenced, subleases, leases that imposed significant restrictions or covenants, related party leases or sale-leaseback arrangements were immaterial.

The components of lease cost are presented below.

		Year ended September 30,					
	2022		2021			2020	
			(in mil	lions)			
Operating lease cost	\$	5.8	\$	6.1	\$	6.3	
Finance lease cost		1.3		1.2		1.3	
Total lease expense	\$	7.1	\$	7.3	\$	7.6	

Supplemental cash flow information related to leases are presented below, in millions.

	Year end	Year ended September 30,				
	2022	2021				
Operating cash used for operating leases	\$.8 \$	6.1			
Financing cash used for finance leases	\$.3 \$	1.2			

Supplemental information regarding our lease assets and liabilities is below.

		September 30,			,
		2022		2022 2	
		(in millions)			
Right-of-use assets:					
Operating leases	Other noncurrent assets	\$	26.0	\$	27.1
Finance leases	Plant, property and equipment		1.4		2.2
Total right-of-use assets		\$	27.4	\$	29.3
Lease liabilities:					
Operating leases - current	Other current liabilities	\$	4.4	\$	4.0
Operating leases - noncurrent	Other noncurrent liabilities		22.4		24.6
Finance leases - current	Current portion of long-term debt		0.8		1.0
Finance leases - noncurrent	Long-term debt		0.8		1.2
Total lease liabilities		\$	28.4	\$	30.8

Supplemental information related to lease terms and discount rates are presented below.

	Year ended Sep	otember 30,
	2022	2021
Weighted-average remaining lease term (years):		
Operating leases	6.67	7.82
Finance leases	2.15	2.53
Weighted-average interest rate:		
Operating leases	5.48 %	5.36 %
Finance leases	3.64 %	4.24 %

Total lease liabilities at September 30, 2022 have scheduled maturities as follows:

	erating Leases	Finance Leases	
	(in millions)		
2023	\$ 5.9	\$ 0.9	
2024	5.7	0.5	
2025	5.1	0.2	
2026	4.7	0.1	
2027	3.9	_	
Thereafter	 7.3	_	
Total lease payments	32.6	1.7	
Less: imputed interest	 (5.8)	(0.1)	
Present value of lease liabilities	\$ 26.8	\$ 1.6	

Note 5. Acquisitions

Acquisition of i20 Water Ltd

On June 14, 2021, we acquired all of the outstanding capital stock of i2O Water Ltd for \$19.7 million, net of cash acquired. The purchase agreement provided for customary final adjustments, including a net working capital adjustment that was completed during the three months ended December 31, 2021, resulting in a purchase price of \$19.5 million.

We have recognized the assets acquired and liabilities assumed at their estimated acquisition date fair values, with the excess of the purchase price over the estimated fair values of the identifiable net assets acquired recorded as goodwill. The accounting for the business combination is considered to be final. The results of i2O are included in our Water Management Solutions segment.

The goodwill below is attributable to the strategic opportunities and synergies that we expect to arise from the acquisition of i2O and the value of its workforce. Goodwill is nondeductible for income tax purposes. Identified intangible assets consist of customer relationships, non-compete agreements and developed technology with an estimated weighted-average useful life of approximately 12 years and trade names with an indefinite life. Values of intangible assets were determined using a discounted cash flow method.

The following is a summary of the fair values of the net assets acquired (in millions):

Assets, net of cash:	
Receivables	\$ 0.5
Inventories	0.6
Other current assets	0.9
Identified intangible assets:	
Tradename	1.8
Customer relationships	2.1
Non-compete agreements	0.1
Developed technology	3.5
Goodwill	12.1
Liabilities:	
Accounts payable	(0.8)
Other current liabilities	 (1.3)
Fair value of net assets acquired, net of cash	\$ 19.5

Note 6. Intangible Assets and Goodwill

Goodwill is tested for impairment at the reporting unit level (operating segment or one level below an operating segment) on an annual basis each September 1st and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying value. We performed the annual impairment testing at September 1, 2022 and recognized a \$6.8 million goodwill impairment charge related to a reporting unit within our Water Flow Solutions segment as the carrying value exceeded its fair value primarily due to an increase in the discount rate.

The carrying value of the reporting unit, including goodwill, is compared with the estimated fair value of the reporting unit as determined utilizing a combination of the income and market approaches. The income approach, which involved significant unobservable inputs (Level 3 inputs), is based on projected debt-free cash flow which is discounted to the present value using discount rates that consider the timing and risk of the cash flows. The market approach is based on the guideline public company method, which uses market multiples to value our reporting units. The Company weights the income and market approaches in a manner considering the risks of the underlying cash flows. The key assumptions used in estimating the fair value of the Company's reporting units utilizing the income approach include management's best estimate of revenue, EBITDA margin, and discount rate, and accordingly, a change in market conditions or other factors could have a material effect on the estimated values. There are inherent uncertainties related to the assumptions used and to management's application of these assumptions.

Intangible Assets

Direct internal and external costs to develop software used in the provision of services to customers by Water Management Solutions are capitalized and amortized over the 6-year estimated useful life of the software, beginning when the software is ready for its intended use. At September 30, 2022, the remaining weighted-average amortization period for this software was 3.6 years. Amortization expense related to such software assets was \$2.9 million in 2022, and \$3.3 million in each of fiscal years 2021 and 2020. Amortization expense for each of the next five years is expected to be \$3.1 million in 2023, \$2.5 million in 2024, \$1.5 million in 2025, \$0.9 million in 2026, and \$0.5 million in 2027.

At September 30, 2022, the remaining weighted-average amortization period for business combination-related finite-lived customer relationships and technology intangible assets were 3.3 years and 8.5 years, respectively. Amortization expense related to these assets was \$25.5 million, \$25.2 million and \$24.9 million for 2022, 2021 and 2020, respectively. Amortization expense for each of the next five years is scheduled to be \$25.1 million in 2023, \$24.6 million in 2024, \$5.6 million in 2025, \$4.9 million in 2026 and \$4.7 million in 2027.

Intangible assets are presented below.

	September 30,			
	 2022		2021	
	 (in millions)			
Capitalized internal-use software:				
Cost	\$ 35.5	\$	34.1	
Accumulated amortization	 (26.8)		(24.1)	
Capitalized internal-use software, net	\$ 8.7	\$	10.0	
Business combination-related:				
Cost:				
Finite-lived intangible assets:				
Technology	119.9		123.5	
Customer relationships and other	371.6		373.0	
Indefinite-lived intangible assets:				
Trade names and trademarks	 272.7		273.8	
	\$ 764.2	\$	770.3	
Accumulated amortization:				
Technology	(89.5)		(85.8)	
Customer relationships and other	 (322.2)		(302.0)	
	 (411.7)		(387.8)	
Business combination-related intangible assets, net	352.5		382.5	
Intangible assets, net	\$ 361.2	\$	392.5	

Goodwill

We recognized a \$6.8 million goodwill impairment charge related to a reporting unit within our Water Flow Solutions segment in our fiscal year 2022. As of September 30, 2022, our remaining goodwill balance is within our Water Management Solutions segment. Changes in the carrying amount of goodwill for the years ended September 30, 2022 and 2021 were as follows:

Balance at September 30, 2020:	(in	millions)
Goodwill	\$	817.1
Accumulated impairment		(717.3)
Net goodwill		99.8
2021 Activity:		
Acquisition of i2O Water Ltd		12.1
Change in foreign currency exchange rates		3.2
Balance at September 30, 2021:		
Goodwill		832.4
Accumulated impairment		(717.3)
Net goodwill		115.1
2022 Activity:		
Goodwill impairment		(6.8)
Change in foreign currency exchange rates		(9.7)
Balance at September 30, 2022:		
Goodwill		822.7
Accumulated impairment		(724.1)
Net goodwill	\$	98.6

Note 7. Income Taxes

The components of income before income taxes are presented below.

	2	2022		2021		2020
			(in n	nillions)		
U.S.	\$	81.6	\$	94.0	\$	89.7
Non-U.S.		17.0		0.9		4.4
Income before income taxes	\$	98.6	\$	94.9	\$	94.1

The Tax Cuts and Jobs Act (the "Act") imposed a one-time transition tax on the undistributed, previously untaxed, post-1986 foreign "earnings and profits" as defined by the Internal Revenue Services ("IRS") of certain United States-owned corporations. At September 30, 2022, the remaining balance of our transition obligation is \$4.1 million, which will be paid annually through January 2026, as provided in the Act. Other than for Krausz's investment in its United States subsidiary, we have not recorded income taxes for unrepatriated foreign earnings that may be subject to withholding tax or any outside cost basis differences inherent in our foreign subsidiaries, as these amounts continue to be indefinitely reinvested in foreign operations. We have a foreign tax credit carryforward of \$4.5 million, for which we have recorded a valuation allowance as we do not expect to utilize it prior to expiration.

The federal income tax returns for Mueller Water Products, Inc. are closed for years prior to 2018. We remain liable for any taxes related to U.S. Pipe income for periods prior to 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 2018, except with regard to our state net operating loss carryforwards. Our Canadian income tax returns are generally closed for years prior to 2015. We do not have any material unpaid assessments.

The components of income tax expense are as follows:

	2022		2021	2020	
			(in millions)		
Current:					
U.S. federal	\$	19.5	\$ 21.9	\$	10.9
U.S. state and local		4.3	6.3		2.7
Non-U.S.		1.7	1.6		1.3
Total current income tax expense		25.5	29.8		14.9
Deferred:					
U.S. federal		(3.4)	(4.7)		5.6
U.S. state and local		(0.9)	(1.3)		2.0
Non-U.S.		0.8	0.7		(0.4)
Total deferred income tax (benefit) expense		(3.5)	(5.3)		7.2
Income tax expense	\$	22.0	\$ 24.5	\$	22.1

The reconciliation between income tax expense at the United States federal statutory income tax rate and reported income tax expense is presented below.

	 2022	2021	2020
	 	(in millions)	
Expense at U.S. federal statutory income tax rate	\$ 20.7	\$ 19.9	\$ 19.8
Adjustments to reconcile to income tax expense:			
State income taxes, net of federal benefit	2.6	3.1	3.3
Uncertain tax positions	_	0.3	1.0
Nondeductible compensation	0.9	0.6	0.6
Nondeductible expenses, other than compensation	0.8	0.5	0.4
Valuation allowances	1.0	(0.4)	0.1
Basis difference in foreign investment	0.1	1.5	0.1
Foreign income taxes	(1.5)	(1.7)	(0.5)
Excess tax benefits related to stock compensation	(0.1)	(0.2)	(0.5)
Tax credits	(2.3)	(1.6)	(1.8)
Other	 (0.2)	2.5	(0.4)
Income tax expense	\$ 22.0	\$ 24.5	\$ 22.1

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

	 2022		2021
	(in mi	lions)	
Balance at beginning of year	\$ 4.8	\$	4.5
Increase related to current year positions	0.7		0.6
Decrease related to current year positions	(0.4)		_
Decrease as a result of statute of limitations lapse	(0.3)		(0.3)
Foreign currency exchange losses	 (0.1)		_
Balance at end of year	\$ 4.7	\$	4.8

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, 2022 and 2021, we had \$0.7 million and \$0.6 million, respectively, of accrued interest expense related to unrecognized tax benefits.

Deferred income tax balances are presented below.

	 September 30,		
	2022		2021
	(in millions)		
Deferred income tax assets:			
Accrued expenses	\$ 10.5	\$	12.7
Lease liabilities	8.1		8.2
Inventories	7.0		6.1
State net operating losses	2.1		2.8
Net operating losses and credit carryovers	12.9		14.8
Stock-based compensation	4.1		3.8
Pension	0.1		
Other	 2.3		2.9
Total deferred income tax assets	47.1		51.3
Valuation allowance	 (13.2)		(13.6)
Total deferred income tax assets, net of valuation allowance	 33.9		37.7
Deferred income tax liabilities:			
Intangible assets	77.7		86.3
Lease assets	7.4		7.6
Basis difference in foreign investment	6.2		6.8
Pension	_		3.9
Property, plant and equipment	28.4		27.4
Other	 0.5		0.5
Total deferred income tax liabilities	 120.2		132.5
Net deferred income tax liabilities	\$ 86.3	\$	94.8

We reevaluate the need for a valuation allowance against our 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 the years 2024 and 2032, remain available to offset future taxable earnings.

Note 8. Borrowing Arrangements

The components of our long-term debt are as follows:

	Se	September 30,		
	2022	2021		
		in millions)		
4.0% Senior Notes	\$ 4.	50.0 \$ 450.0		
Finance leases		1.6 2.2		
Total debt	4.	51.6 452.2		
Less deferred financing costs		(4.7) (5.3)		
Less current portion of long-term debt		(0.8) (1.0)		
Long-term debt	\$ 4	46.1 \$ 445.9		

The scheduled maturities of all borrowings outstanding at September 30, 2022 for each of the following years are \$0.8 million in 2023, \$0.5 million in 2024, \$0.3 million in 2025, \$0 million in 2026 and \$450.0 million thereafter.

ABL Agreement. Our ABL Agreement, as amended, ("ABL") is provided by a consortium of banking institutions and consists of a revolving credit facility for up to \$175 million in borrowings that expires on July 29, 2025. Included in the ABL is the ability to borrow up to \$25 million of swing line loans and up to \$60 million of letters of credit. The ABL permits us to increase the size of the credit facility by an additional \$150 million in certain circumstances subject to adequate borrowing base availability.

Borrowings under the ABL bear interest at a floating rate equal to LIBOR plus an applicable margin range of 200 to 225 basis points, or a base rate, as defined in the ABL, plus an applicable margin range of 100 to 125 basis points. At September 30, 2022, the applicable margin was 200 basis points for LIBOR-based loans, and 100 basis points for base rate loans.

The ABL is subject to mandatory prepayments if total outstanding borrowings under the ABL 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 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 eligible inventory, less certain reserves. Prepayments can be made at any time without penalty.

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

The ABL includes a commitment fee for any unused borrowing capacity of 37.5 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. Excess availability based on September 30, 2022 data was \$160.7 million, as reduced by \$14.1 million of outstanding letters of credit and \$0.2 million of accrued fees and expenses.

4.0% Senior Unsecured Notes. On May 28, 2021, we privately issued \$450.0 million of 4.0% Senior Notes, which mature on June 15, 2029 and bear interest at 4.0%, paid semi-annually in June and December. We capitalized \$5.5 million of financing costs, which are being amortized over the term of the 4.0% Senior Notes using the effective interest method. Proceeds from the 4.0% Senior Notes, along with cash on hand were used to redeem our previously existing 5.5% Senior Notes. Substantially all of our United States subsidiaries guarantee the 4.0% Senior Notes, which are subordinate to borrowings under our ABL. Based on quoted market prices, which is a Level 1 measurement, the outstanding 4.0% Senior Notes had a fair value of \$382.1 million as of September 30, 2022.

An indenture securing the 4.0% Senior Notes ("Indenture") contains customary covenants and events of default, including covenants that limit our ability to incur certain debt and liens. There are no financial maintenance covenants associated with the Indenture. We believe we were in compliance with these covenants at September 30, 2022.

As set forth in the Indenture, we may redeem some or all of the 4.0% Senior Notes at any time prior to June 15, 2024 at certain "make-whole" redemption prices and on or after June 15, 2024, at specified redemption prices. Additionally, we may redeem up to 40% of the aggregate principal amount of the 4.0% Senior Notes at any time prior to June 15, 2024 with the net proceeds of specified equity offerings at specified redemption prices as set forth in the Indenture. Upon a change of control as defined in the Indenture, we would be required to offer to purchase the 4.0% Senior Notes at a price equal to 101% of the outstanding principal amount.

5.5% Senior Unsecured Notes. On June 12, 2018, we privately issued \$450.0 million of 5.5% Senior Notes, which were set to mature in June 2026 and bore interest at 5.5%, paid semi-annually. We called the 5.5% Senior Notes effective June 17, 2021 and redeemed the 5.5% Senior Notes with the proceeds from the 4.0% Senior Notes and cash on hand. As a result, we incurred \$16.7 million in loss on early extinguishment of debt, comprised of a \$12.4 million call premium and a \$4.3 million write-off of the remaining deferred debt issuance costs.

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Note 9. Derivative Financial Instruments

In connection with the acquisition of Singer Valve in 2017, we 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 United States dollar-Canadian dollar swap contract with the Canadian subsidiary and an offsetting Canadian dollar-United States dollar swap with a domestic bank, without designating these swap contracts as a hedge. As a result, the changes in the fair value of these contracts have been reported in earnings. As of September 30, 2021, we had a \$1.1 million liability in Other current liabilities in our consolidated balance sheets related to such a hedge. These currency swap contracts expired in February 2022. As a result, we did not have any liabilities related to currency swap contracts as of September 30, 2022.

Note 10. Retirement Plans

Defined Benefit Plans. We have had various pension plans that we funded in accordance with their requirements and, where applicable, in amounts sufficient to satisfy the minimum funding requirements of applicable laws. Our pension plans provide benefits based on years of service and compensation or at stated amounts for each year of service with an annual measurement date as of September 30. After September 30, 2019, our only remaining defined benefit plan is our United States Pension Plan ("Pension Plan").

A summary of key assumptions for the valuations of our Pension Plan is as follows:

	September 30,			
	2022	2021	2020	
Weighted average used to determine benefit obligations:				
Discount rate	5.79 %	3.01 %	2.84 %	
Weighted average used to determine net periodic cost:				
Discount rate	3.01 %	2.84 %	3.26 %	
Expected return on plan assets	4.50 %	4.50 %	5.00 %	

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 Plan's actuaries to assist in the development of the discount rate model.

The expected returns on plan assets are determined with the assistance of the Pension Plan's 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.

Amounts recognized for the Pension Plan are presented below.

	September 30,),
		2022		2021
	(in millions)			
Projected benefit obligations:				
Beginning of year	\$	336.8	\$	359.5
Service cost		1.3		1.5
Interest cost		9.8		9.9
Actuarial gain		(74.0)		(10.8)
Benefits paid		(22.7)		(23.3)
Accumulated benefit obligations at end of year	\$	251.2	\$	336.8
Plan assets:				
Beginning of year	\$	353.5	\$	360.4
Actual return on plan assets		(79.0)		16.4
Benefits paid		(22.7)		(23.3)
Fair value of plan assets at end of year	\$	251.8	\$	353.5
Accrued benefit cost at end of year:				
Funded status	\$	0.6	\$	16.8
Recognized on balance sheet:				
Other noncurrent assets	\$	0.6	\$	16.8
Recognized in accumulated other comprehensive income (loss), before tax:				
Net actuarial loss		78.7		59.9
	\$	78.7	\$	59.9

The components of net periodic (benefit) cost for our Pension Plan are presented below.

	2022		2021	2020
			(in millions)	
Service cost	\$	1.3	\$ 1.5	\$ 1.5
Components of net periodic cost (benefit) excluded from operating income:				
Interest cost		9.8	9.9	11.2
Expected return on plan assets		(15.4)	(15.7)	(16.9)
Amortization of actuarial net loss		1.7	2.5	2.8
Other		_	_	(0.1)
Pension benefit other than service		(3.9)	(3.3)	(3.0)
Net periodic benefit	\$	(2.6)	\$ (1.8)	\$ (1.5)

Pension Plan activity in accumulated other comprehensive loss, before tax, in 2022 is presented below, in millions.

Balance at beginning of year	\$ 59.9
Actuarial loss	20.5
Prior year actuarial loss amortization to net periodic cost	(1.7)
Balance at end of year	\$ 78.7

We amortize amounts in accumulated other comprehensive loss representing unrecognized prior year service cost and unrecognized loss related to the Pension Plan over the weighted average life expectancy of their inactive participants. Actuarial gains and losses are amortized using a corridor approach. The gain/loss corridor is equal to 10% of the greater of the benefit obligation and the market-related value of assets. Gains and losses in excess of the corridor are generally amortized over the average remaining lifetime of the plan participants.

We expect to amortize \$3.7 million of unrecognized loss into net periodic expense from accumulated other comprehensive loss in 2023.

Strategic asset allocations, tactical range at September 30, 2022 and actual asset allocations are as follows:

Actual	asset	allo	cations	at
_		_		

	Strategic asset			;	September 30,	
	allocation	Tactical ra	ange	2022	2021	2020
Fixed income investments	70 %	65 % -	70 %	70 %	70 %	78 %
Equity investments	30	25 % -	30 %	29	29	21
Cash	_	0 % -	5 %	1	1	1
	100 %			100 %	100 %	100 %

Assets of the Pension Plan 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 as a result of market fluctuations. Portfolio assets are typically rebalanced to the allocation targets at least annually.

The assets of the Pension Plan are primarily invested in mutual funds and investment trusts valued at net asset value, which in turn hold fixed income and equity investments. The valuation methodologies used to measure the assets of the Pension Plan at fair value are:

- Mutual funds are valued at the closing price reported on the active market;
- Fixed income fund investments held by the investment trusts are valued using the closing price reported in the active market in which the investment is traded. When market quotations are not readily available, these assets are valued by a method the trustees believe accurately reflects fair value.

The assets of the Plan by level within the fair value hierarchy are as follows:

	September 30, 2022				
		Level 1	Level 2		Total
			(in millions)		
Fixed income	\$	125.2	\$ 50.1	\$	175.3
Equity:					_
Large cap index funds		37.2	_		37.2
International stocks:					
International funds		37.4	_		37.4
Total equity		74.6	_		74.6
Cash and cash equivalents		1.9	_		1.9
	\$	201.7	\$ 50.1	\$	251.8

	 September 30, 2021			
	 Level 1	Level 2		Total
		(in millions)		
Fixed income	\$ 176.7	\$ 70.3	\$	247.0
Equity:				
Large cap index funds	52.1	_		52.1
International stocks:				
International funds	 52.5			52.5
Total equity	104.6	_		104.6
Cash and cash equivalents	 1.9	<u> </u>		1.9
	\$ 283.2	\$ 70.3	\$	353.5

Our estimated future pension benefit payments are presented below (in millions):

2023	\$ 23.3
2024	23.1
2025	22.8
2026	22.4
2027	21.9
2028-2032	\$ 100.7

Defined Contribution Retirement Plans. Certain of our employees participate in defined contribution 401(k) plans or similar plans outside of the United States. We make matching contributions as a function of employee contributions which were \$7.3 million, \$5.9 million and \$5.3 million during 2022, 2021 and 2020, respectively.

Note 11. Capital Stock

Common stock share activity is presented below.

Shares outstanding at September 30, 2019	157,462,140
Vesting of restricted stock units, net of shares withheld for taxes	242,112
Exercise of stock options	534,291
Exercise of employee stock purchase plan instruments	182,971
Settlement of performance-based restricted stock units, net of shares withheld for taxes	61,610
Stock repurchased under buyback program	(418,374)
Shares outstanding at September 30, 2020	158,064,750
Vesting of restricted stock units, net of shares withheld for taxes	182,024
Exercise of stock options	151,399
Exercise of employee stock purchase plan instruments	146,135
Settlement of performance-based restricted stock units, net of shares withheld for taxes	62,396
Stock repurchased under buyback program	(651,271)
Shares outstanding at September 30, 2021	157,955,433
Vesting of restricted stock units, net of shares withheld for taxes	195,156
Exercise of stock options	36,731
Exercise of employee stock purchase plan instruments	150,909
Settlement of performance-based restricted stock units, net of shares withheld for taxes	160,163
Stock repurchased under buyback program	(2,654,254)
Shares outstanding at September 30, 2022	155,844,138

The Company has authorized 20.0 million shares of \$0.01 par value preferred stock. The preferred stock may be issued in one or more series and with such designations and preferences for each series as shall be stated in the resolutions providing for the designation and issue of each such series adopted by the Board of Directors of the Company. The Board of Directors is authorized by the Company's articles of incorporation to determine the voting, dividend, redemption and liquidation preferences pertaining to each such series. No shares of preferred stock have been issued by the Company as of September 30, 2022.

Note 12. Stock-based Compensation Plans

The effect of stock-based compensation on our consolidated statements of operations is presented below. Such amounts are included within selling, general, and administrative costs.

	20	22	2021	2020
		(in million	s, except per sh	are data)
Decrease in operating income	\$	9.9	\$ 11.0	\$ 7.2
Decrease in net income		7.6	8.2	5.5
Decrease in earnings per basic share		0.05	0.05	0.03
Decrease in earnings per diluted share		0.05	0.05	0.03

We excluded 790,759, 578,005 and 267,298 instruments from the calculation of diluted earnings per share for 2022, 2021 and 2020, respectively, because the effect of including them would have been antidilutive.

At September 30, 2022, there was approximately \$7.6 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 1.5 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, 2022, 5,083,831 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 our Board of Directors ("Compensation Committee"), but no award will be exercisable after the 10-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 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	av grant	eighted verage t date fair e per unit	Weighted average remaining contractual term (years)	 Aggregate intrinsic value (millions)
Outstanding at September 30, 2019	437,022	\$	11.31	0.9	
Granted	301,979		11.55		
Vested	(295,241)		11.40		\$ 3.4
Cancelled	(35,254)		11.48		
Outstanding at September 30, 2020	408,506		11.41	0.9	
Granted	220,795		12.29		
Vested	(228,121)		11.62		\$ 2.8
Cancelled	(5,083)		11.41		
Outstanding at September 30, 2021	396,097		11.78	0.8	
Granted	223,379		13.41		
Vested	(251,981)		11.81		\$ 2.8
Cancelled	(8,763)		11.87		
Outstanding at September 30, 2022	358,732	\$	12.77	0.7	

Performance-Based Awards. Our performance-based awards consist of performance-based restricted stock units ("PRSUs"). 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 grant date for each year's performance period is set when the Compensation Committee establishes performance goals for the period, normally within 90 days of the beginning of each performance period. At the end of each annual performance period, the Compensation 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 as a result of 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 2022 and 2021, 240,412 shares and 103,058 shares, respectively, vested related to PRSUs.

Stock-settled PRSUs activity under the 2006 Plan is summarized below.

Award date	Settlement year	Performance period	da ui	Grant ate per nit fair value	Units awarded	Units forfeited	Net units	Performance factor	Shares earned
November 29, 2016	2020	2017	\$	13.26	59,285	(5,279)	54,006	1.000	54,006
		2018	\$	12.50	59,286	(39,910)	19,376	1.357	26,294
		2019	\$	10.53	59,290	(39,909)	19,381	0.645	12,501
January 23, 2017	2020	2017	\$	13.15	19,012	_	19,012	1.000	19,012
		2018	\$	12.50	19,011	_	19,011	1.357	25,798
		2019	\$	10.53	19,011	_	19,011	0.645	12,263
November 28, 2017	2021	2018	\$	12.50	57,092	_	57,092	1.357	77,474
		2019	\$	10.53	57,092	(4,793)	52,299	0.645	33,733
		2020	\$	11.26	57,104	(21,679)	35,425	0.909	32,202
November 27, 2018	2022	2019	\$	10.53	110,954	(8,751)	102,203	0.645	65,921
		2020	\$	11.26	110,954	(13,182)	97,772	0.909	88,875
		2021	\$	11.86	110,967	(28,478)	82,489	1.161	95,770
December 3, 2019	2023	2020	\$	11.26	69,988	(2,391)	67,597	0.909	61,446
		2021	\$	11.86	69,989	(9,614)	60,375	1.161	70,096
		2022	\$	13.81	69,988	(9,614)	60,374	0.700	42,262

Market-Based Awards. Our market-based awards consist of market-based restricted stock units ("MRSUs"). MRSUs represent a target number of units that may be paid out at the end of a three-fiscal year award cycle based on a calculation of our relative total shareholder return ("TSR") performance as compared with the TSRs of a selected peer group. Settlements in our common shares, will range from zero to two times the number of MRSUs granted, depending on our TSR performance ranking within the peer group. The fair values of MRSUs are fixed at the date of grant and the related expense is recognized ratably over the vesting period, which is roughly three years from the date of grant.

The table below provides information regarding MRSU awards, which were valued using Monte Carlo simulations on the grant date.

	No	vember 30, 2021	Ja	nuary 27, 2021	D	ecember 2, 2020	Fe	ebruary 24, 2020	J	anuary 28, 2020	D	ecember 3, 2019
Fair value at grant date	\$	15.76	\$	14.26	\$	15.39	\$	18.17	\$	16.76	\$	14.94
Units granted		230,089		4,187		234,199		7,498		2,763		147,213
Variables used in determining grant date fair value:												
Dividend yield		1.70 %		1.84 %		1.77 %		1.73 %		1.76 %		1.87 %
Risk-free rate		0.76 %		0.16 %		0.21 %		1.23 %		1.44 %		1.53 %
Expected term (in years)		2.83		2.67		2.83		2.60		2.67		2.83

Stock Options. Stock options generally vest on each anniversary date of the original grant ratably over three years. 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 assumptions used to determine the grant date fair value are indicated below for grants issued during our 2022 fiscal year.

	November 30, 2021
Variables used in determining grant date fair value:	
Dividend yield	1.62%
Risk-free rate	1.33%
Expected term (in years)	6.0

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

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, 2019	862,390	\$ 4.89	2.0	\$ 5.5
Exercised	(534,291)	4.15		3.3
Cancelled		_		
Outstanding at September 30, 2020	328,099	\$ 6.11	2.3	\$ 1.4
Granted	431,520	11.86		
Exercised	(151,399)	4.09		1.7
Cancelled	(8,421)	_		
Outstanding at September 30, 2021	599,799	\$ 10.67	7.8	\$ 2.7
Granted	457,482	13.64		
Exercised	(36,731)	5.67		0.2
Cancelled	(7,257)	_		
Outstanding at September 30, 2022	1,013,293	\$ 12.19	7.7	\$ 0.3
Exercisable at September 30, 2022	278,569	\$ 10.12	4.8	\$ 0.3

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, 2022 are summarized below.

Exercise price	Options	Weighted average exercise price	Weighted average remaining contractual term (years)	Exercisable options	Weighted average exercise price
\$ 5.00 - \$ 9.99	139,969	8.40	1.4	139,969	8.40
\$10.00 - \$14.99	873,324	\$ 12.79	8.7	138,600	\$ 11.86
	1,013,293	\$ 12.19	7.7	278,569	\$ 10.12

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, 2022, 2,103,114 shares were available for issuance under the ESPP.

Phantom Plan. Under the Mueller Water Products, Inc. Phantom Plan 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 \$10.27 per unit at September 30, 2022 and our accrued liability for such units was \$2.3 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, 2019	256,154	\$ 11.61	0.9	
Granted	188,973	11.26		
Vested	(118,908)			\$ 1.3
Cancelled	(11,744)	11.23		
Outstanding at September 30, 2020	314,475	11.16	0.9	
Granted	185,808	11.91		
Vested	(131,182)			\$ 1.6
Cancelled	(24,257)	11.30		
Outstanding at September 30, 2021	344,844	11.51	0.9	
Granted	203,834	13.60		
Vested	(162,969)			\$ 1.6
Cancelled	(46,578)	12.39		
Outstanding at September 30, 2022	339,131	\$ 12.74	1.1	

Note 13. Supplemental Balance Sheet Information

Selected supplemental asset information is presented below.

serected suppremental asset information is presented below.	Septem	ber 3	0,
	 2022		2021
	 (in mi	llions)
Inventories, net:			
Purchased components and raw materials	\$ 181.8	\$	106.6
Work in process	56.8		33.5
Finished goods	 40.1		44.6
Total inventories, net	\$ 278.7	\$	184.7
Other current assets:			
Prepaid expenses	\$ 14.6	\$	12.8
Non-trade receivables	1.6		10.7
Income taxes	0.8		0.2
Maintenance and repair supplies and tooling	2.8		2.9
Workers' compensation reimbursement receivable	2.6		0.8
Other current assets	 4.4		1.9
Total other current assets	\$ 26.8	\$	29.3
Property, plant and equipment, net:			
Land	\$ 5.7	\$	6.1
Buildings	87.6		84.6
Machinery and equipment	456.0		433.3
Construction in progress	 104.7		83.7
Total property, plant and equipment	\$ 654.0	\$	607.7
Accumulated depreciation	 (352.4)		(324.3)
Total property, plant and equipment, net	\$ 301.6	\$	283.4
Other noncurrent assets:			
Operating lease right-of-use assets	\$ 26.0	\$	27.1
Maintenance and repair supplies and tooling	20.4		19.3
Workers' compensation reimbursement receivable	3.6		2.7
Note receivable	1.7		1.8
Pension assets	0.6		16.8
Deferred financing fees	1.0		1.3
Other noncurrent assets	 3.4		4.3
Total noncurrent assets	\$ 56.7	\$	73.3

Total current liabilities Compensation and benefits \$ 40.2 \$ 44.6 Customer rebates 16.2 \$ 40.2 \$ 44.6 Customer rebates 16.2 \$ 5.0 \$ 6.7 Deferred revenues 8.1 5.4 \$ 6.7 Deferred revenues 4.2 \$ 6.0 \$ 6.0 Refund liability 4.2 \$ 6.0			September 30,				
Other current liabilities: S 40.2 \$ 44.6 Customer rebates 16.2 19.6 19.2 19.6 19.6 19.6 19.6 19.2 19.6 19.6 19.6			2022	2021			
Compensation and benefits \$ 40.2 \$ 44.6 Customer rebates 16.2 19.6 Interest payable 5.3 6.2 Warranty accrual 6.5 6.7 Deferred revenues 8.1 5.4 Refund liability 4.2 6.0 Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.6 2.6 Other current liabilities 7.6 11.2 Operating lease liabilities \$ 22.4 \$ 24.0 Operating lease liabilities \$ 22.4 \$ 2.6 Operating lease liabilities			(in mil	lions)			
Customer rebates 16.2 19.6 Interest payable 5.3 6.2 Warranty accrual 6.5 6.7 Deferred revenues 8.1 5.4 Refund liability 4.2 6.0 Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 11.2 \$ 12.1 Other noncurrent liabilities \$ 2.24 \$ 2.4 Operating lease liabilities \$ 2.24 \$ 2.4 Operating lease liabilities \$ 2.24 \$ 2.4 Operating lease liabilities \$ 2.4 \$ 2.4 Operating lease liabilities \$ 2.4 \$ 2.4 Operating lease liabilities \$ 2.4 \$ 2.6 Warranty accrual	Other current liabilities:						
Interest payable 5.3 6.2 Warranty accrual 6.5 6.7 Deferred revenues 8.1 5.4 Refund liability 4.2 6.0 Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities 8 17.4 \$ 127.1 Operating lease liabilities \$ 2.2 \$ 2.4 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation <td>Compensation and benefits</td> <td>\$</td> <td>40.2</td> <td>\$ 44.6</td>	Compensation and benefits	\$	40.2	\$ 44.6			
Warranty accrual 6.5 6.7 Deferred revenues 8.1 5.4 Refund liability 4.2 6.0 Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 11.74 \$ 127.1 Other noncurrent liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 <td>Customer rebates</td> <td></td> <td>16.2</td> <td>19.6</td>	Customer rebates		16.2	19.6			
Deferred revenues 8.1 5.4 Refund liability 4.2 6.0 Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 11.7 \$ 127.1 Other noncurrent liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.1 4.7 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant	Interest payable		5.3	6.2			
Refund liability 4.2 6.0 Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabiliti	Warranty accrual		6.5	6.7			
Operating lease liabilities 4.4 4.0 Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Deferred revenues		8.1	5.4			
Taxes other than income taxes 4.4 4.4 Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Refund liability		4.2	6.0			
Restructuring liabilities 3.3 3.1 Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Operating lease liabilities		4.4	4.0			
Environmental liabilities 0.7 1.2 Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities: \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Taxes other than income taxes		4.4	4.4			
Income taxes payable 7.5 8.5 Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities: \$ 117.4 \$ 127.1 Other noncurrent liabilities: \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Restructuring liabilities		3.3	3.1			
Workers' compensation accrual 4.6 2.6 CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities Other noncurrent liabilities: Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Environmental liabilities		0.7	1.2			
CARES Act payroll tax liabilities 4.4 3.6 Other current liabilities 7.6 11.2 Total current liabilities Other noncurrent liabilities: Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Income taxes payable		7.5	8.5			
Other current liabilities 7.6 11.2 Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities: Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Workers' compensation accrual		4.6	2.6			
Total current liabilities \$ 117.4 \$ 127.1 Other noncurrent liabilities: Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	CARES Act payroll tax liabilities		4.4	3.6			
Other noncurrent liabilities: Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Other current liabilities		7.6	11.2			
Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Total current liabilities	\$	117.4	\$ 127.1			
Operating lease liabilities \$ 22.4 \$ 24.6 Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4							
Warranty accrual 4.2 3.0 Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Other noncurrent liabilities:						
Transition tax liability 4.1 4.7 Uncertain tax position liability 4.7 4.8 Workers' compensation accrual 6.5 7.9 NMTC liability 3.9 3.9 Asset retirement obligation 3.6 3.6 CARES Act payroll tax liabilities — 3.6 Deferred development grant 2.5 2.5 Other noncurrent liabilities 3.5 3.4	Operating lease liabilities	\$	22.4	\$ 24.6			
Uncertain tax position liability4.74.8Workers' compensation accrual6.57.9NMTC liability3.93.9Asset retirement obligation3.63.6CARES Act payroll tax liabilities—3.6Deferred development grant2.52.5Other noncurrent liabilities3.53.4	Warranty accrual		4.2	3.0			
Workers' compensation accrual6.57.9NMTC liability3.93.9Asset retirement obligation3.63.6CARES Act payroll tax liabilities—3.6Deferred development grant2.52.5Other noncurrent liabilities3.53.4	Transition tax liability		4.1	4.7			
NMTC liability3.93.9Asset retirement obligation3.63.6CARES Act payroll tax liabilities—3.6Deferred development grant2.52.5Other noncurrent liabilities3.53.4	Uncertain tax position liability		4.7	4.8			
Asset retirement obligation3.63.6CARES Act payroll tax liabilities—3.6Deferred development grant2.52.5Other noncurrent liabilities3.53.4	Workers' compensation accrual		6.5	7.9			
CARES Act payroll tax liabilities—3.6Deferred development grant2.52.5Other noncurrent liabilities3.53.4	NMTC liability		3.9	3.9			
Deferred development grant2.52.5Other noncurrent liabilities3.53.4	Asset retirement obligation		3.6	3.6			
Other noncurrent liabilities 3.5 3.4	CARES Act payroll tax liabilities		_	3.6			
	Deferred development grant		2.5	2.5			
Total noncurrent liabilities \$ 55.4 \$ 62.0	Other noncurrent liabilities	_	3.5	3.4			
	Total noncurrent liabilities	\$	55.4	\$ 62.0			

CARES Act

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") was signed into law. The CARES Act is a relief package intended to assist in many aspects of the American economy through direct secured loans and deferrals of the employer portion of social security taxes through the end of calendar year 2020, with 50% of the deferral due December 31, 2021 and the remainder due December 31, 2022. For the fiscal year ended September 30, 2022 and September 30, 2021, we have elected to defer these obligations, which are approximately \$4.4 million and \$7.2 million, respectively, as shown above.

Note 14. Supplemental Statement of Operations Information

Between November 2019 and March 2021, we announced the purchase and closure of several facilities. We purchased a new facility in Kimball, Tennessee, to support and enhance our investment in our Chattanooga, Tennessee large casting foundry and closed our facilities in Hammond, Indiana and Woodland, Washington. We also completed the closures of our facilities in Aurora, Illinois and Surrey, British Columbia, Canada during our fiscal year 2022. The majority of the activities from these plants were transferred to our Kimball, Tennessee facility. We incurred \$1.5 million and \$5.6 million of expenses, respectively, for the years ended September 30, 2022, and 2021, as a result of these plant closures. The \$5.6 million incurred during fiscal 2021 included approximately \$3.2 million of termination benefit costs which are included in Strategic reorganization and other charges and approximately \$2.4 million in inventory write-downs which are included in Cost of sales in our consolidated statements of operations.

Additionally, fiscal year 2022 included Strategic reorganization and other charges related to the Albertville tragedy and certain transaction-related costs. Fiscal year 2021 included Strategic reorganization and other charges related to the Albertville tragedy, and certain transaction costs, partially offset by a one-time settlement gain in connection with an indemnification from a previously owned property.

Activity in accrued restructuring, reported as part of other current liabilities, is presented below.

	2	2022		2021		2020
			(in	millions)		
Beginning balance	\$	3.1	\$	2.8	\$	1.7
Expenses incurred	\$	7.2	\$	5.4	\$	4.8
Amounts paid	\$	(7.0)	\$	(5.1)	\$	(3.7)
Ending balance	\$	3.3	\$	3.1	\$	2.8

Selected supplemental statement of operations information is presented below.

	2022		2021		2020	
			(i	n millions)		
Included in selling, general and administrative expenses:						
Research and development	\$	24.5	\$	17.1	\$	15.0
Advertising	\$	5.5	\$	3.2	\$	3.3
Interest expense, net:						
5.5% Senior Notes	\$	_	\$	17.6	\$	24.8
4.0% Senior Notes		18.0		6.2		
Deferred financing costs amortization		1.0		1.1		1.2
ABL Agreement		0.9		0.9		0.6
Capitalized interest		(2.6)		(2.3)		(0.3)
Other interest expense		0.3		0.3		0.3
Total interest expense		17.6		23.8		26.6
Interest income		(0.7)		(0.4)		(1.1)
Net interest expense	\$	16.9	\$	23.4	\$	25.5

Note 15. Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) is as follows:

	Foreign currency translation		liability, net of		Total
			(in mi	llions)	
Balance at September 30, 2021	\$	17.2	\$	(22.2)	\$ (5.0)
Current period other comprehensive income		(25.5)		(14.1)	(39.6)
Balance at September 30, 2022	\$	(8.3)	\$	(36.3)	\$ (44.6)

Note 16. Segment Information

We adopted a new management structure effective October 1, 2021 which resulted in a change to our reportable segments. Prior period information has been recast to conform to the current presentation. The recasting has no effect on our previously reported consolidated balance sheets, consolidated statements of operations, or consolidated statements of cash flows. The two newly named business units and reportable segments are Water Flow Solutions and Water Management Solutions. Water Flow Solutions' product portfolio includes iron gate valves, specialty valves and service brass products. Water Management Solutions' product and service portfolio includes fire hydrants, repair and installation, natural gas, metering, leak detection, pressure control and software products.

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. The determination of segment results excludes certain 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. Corporate assets principally consist of our cash, operating lease assets, and certain real property previously owned by U.S. Pipe and Anvil. Business segment assets consist primarily of receivables, inventories, property, plant and equipment, intangible assets and other noncurrent assets.

The Company has two significant customers that comprise greater than 10% of our gross sales. One customer comprised 21%, 18%, and 17% of consolidated revenues for the fiscal years ended September 30, 2022, 2021, and 2020, respectively. The Company has outstanding accounts receivable from this customer of \$52.1 million and \$48.1 million as of September 30, 2022 and 2021, respectively. Another customer comprised 20%, 19%, and 17% of consolidated revenues for the fiscal years ended September 30, 2022, 2021, and 2020, respectively. The Company has outstanding accounts receivable from this customer of \$38.6 million and \$32.1 million as of September 30, 2022 and 2021, respectively. The Company reports revenue for these customers in both reportable segments, Water Flow Solutions and Water Management Solutions.

Geographical area information is presented below.

	Unite	ed States	Israel	Other	Total
			(in millio	ons)	
Property, plant and equipment, net:					
September 30, 2022	\$	284.9	\$ 12.6 \$	4.1	\$ 301.6
September 30, 2021		263.9	13.8	5.7	283.4

		2022	Sep	ear ended tember 30, 2021		2020
Water Flow Solutions disaggregated net revenues:			(1n	millions)		
Central	\$	190.9	\$	155.1	\$	133.6
Northeast	*	125.3	Ψ	110.4	Ψ	95.1
Southeast		154.3		125.7		108.3
West		182.8		172.4		148.5
United States	\$	653.3	\$	563.6	\$	485.5
Canada	*	55.0		45.7		39.4
Other international locations		5.8		8.5		7.3
	\$	714.1	\$	617.8	\$	532.2
Water Management Solutions disaggregated net revenues:		· · · · · · · · · · · · · · · · · · ·			Ė	
Central	\$	142.9	\$	125.6	\$	107.3
Northeast	·	115.1	•	100.2		112.1
Southeast		109.4		106.5		76.3
West		102.9		99.1		81.8
United States	\$	470.3	\$	431.4	\$	377.5
Canada		39.2		38.1		33.4
Other international locations		23.8		23.7		21.0
	\$	533.3	\$	493.2	\$	431.9

Summarized financial information for our segments is presented below.

	Water Flow Solutions		Management Solutions		Corporate		Total
				(in mi	llior	ns)	 _
Net revenue:							
2022	\$	714.1	\$	533.3	\$		\$ 1,247.4
2021		617.8		493.2		_	1,111.0
2020		532.2		431.9		_	964.1
Operating income (loss):							
2022	\$	118.3	\$	48.7	\$	(55.4)	\$ 111.6
2021		120.9		70.3		(59.5)	131.7
2020		104.9		68.7		(56.8)	116.8
Depreciation and amortization:							
2022	\$	30.0	\$	30.3	\$	0.2	\$ 60.5
2021		30.5		28.9		0.2	59.6
2020		28.9		28.7		0.2	57.8
Strategic reorganization and other charges:							
2022	\$	0.2	\$	0.4	\$	6.6	\$ 7.2
2021		0.1		(0.4)		8.3	8.0
2020		_		0.7		12.3	13.0
Capital expenditures:							
2022	\$	43.4	\$	11.3	\$	_	\$ 54.7
2021		51.0		11.6		0.1	62.7
2020		57.3		10.1		0.3	67.7
Intangible assets, net and goodwill							
September 30, 2022	\$	302.6	\$	157.2	\$	_	\$ 459.8
September 30, 2021		324.1		183.5		_	507.6
Inventories, net:							
September 30, 2022	\$	160.5	\$	118.2	\$	_	278.7
September 30, 2021	\$	104.5	\$	80.2	\$	_	184.7

Water

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. We provide for costs relating to these matters when a loss is probable and the amount is reasonably estimable. Legal and administrative costs related to these matters are expensed as incurred. 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 materially adverse effect on our financial position, results of operations, cash flows or liquidity.

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 International plc, now Johnson Controls International plc ("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.

On July 13, 2010, Rohcan Investments Limited, the former owner of property leased by Mueller Canada Ltd. and located in Milton, Ontario, filed suit in the Ontario Superior Court of Justice 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 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 the Environmental Protection Agency'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. Since the amounts of such costs cannot be reasonably estimated at this time, no amounts have been accrued for this matter at September 30, 2022.

The COVID-19 Pandemic. The pandemic has caused, and is likely to continue to cause, severe economic, market and other disruptions to the U.S. and global economies. We have taken action and continue to counter such disruption, and work to protect the safety of our employees. While the extent to which the pandemic affects our results will depend on future developments, the pandemic could result in material effects to our future financial position, results of operations, cash flows and liquidity.

Mass Shooting Event at our Facility in Albertville, Alabama. On June 15, 2021, we experienced a mass shooting event at our facility in Albertville, Alabama. Various claims arising from the event have been filed to date, some of which have been resolved, and we anticipate that additional claims may be made. Liability under such claims, if any, is not expected to have a material adverse effect on our results of operations or cash flows. However, the outcome of outstanding and potential claims, legal proceedings and related effects arising from this event cannot be predicted with certainty.

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. We monitor and analyze our warranty experience and costs periodically and may revise our accruals as necessary. Critical factors in our analyses include warranty terms, specific claim situations, general incurred and projected failure rates, the nature of product failures, product and labor costs, and general business conditions.

We are party to a number of lawsuits arising in the ordinary course of business, including product liability cases for products manufactured by us or third parties. 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 financial position, results of operations, cash flows or liquidity.

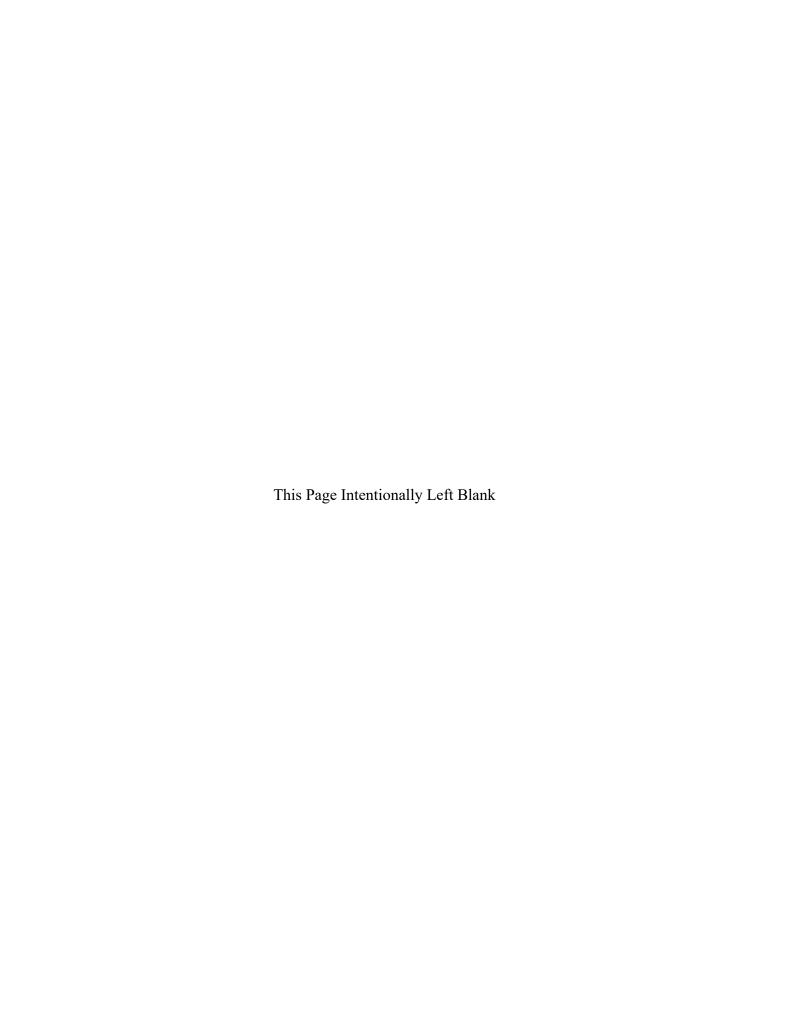
Note 18. Subsequent Events

Dividend Declaration.

On October 21, 2022, our Board of Directors declared a dividend of \$0.061 per share on our common stock, payable on or about November 21, 2022 to stockholders of record at the close of business on November 10, 2022.

Collective Bargaining Agreement Extension.

On October 29, 2022, we successfully negotiated a collective bargaining agreement with the United Steelworkers in our Chattanooga, Tennessee facility. The agreement expires October 29, 2025.



Subsidiaries of Mueller Water Products, Inc.

Entity	State of incorporation or organization	Doing business as
CAM Valves and Automation, LLC	Kansas	Pratt Industrial
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
i2O Water Ltd	United Kingdom	N/A
i2O Water International Holdings Limited	United Kingdom	N/A
i2O Water Latinoamérica S.A.S.	Colombia	N/A
i2O Water Malaysia Sdn. Bhd.	Malaysia	N/A
i2O Water Spain SLU	Spain	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
Krausz Industries Development Ltd.	Israel	N/A
Krausz Industries Ltd.	Israel	N/A
Krausz USA Inc.	Delaware	Krausz Industries, Inc.
Mueller Canada Holdings Corp.	Canada	N/A
Mueller Canada Ltd.	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 Co. New York LLC
Mueller Denmark ApS	Denmark	N/A
Mueller FBM, Inc.	Delaware	N/A
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 Middle East (FZE)	United Arab Emirates	N/A
Mueller Products and Solutions, LLC	Delaware	N/A
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	Mueller Systems of Delaware, LLC
Mueller Systems PR, LLC	Puerto Rico	N/A
MWP Israel, Ltd	Israel	N/A
OSP, LLC	Delaware	OSP Properties, LLC
		OSP of Delaware, Limited Liability Company
PCA-Echologics Pty Ltd.	Australia	N/A
Singer Valve (Taicang) Co., Ltd.	People's Republic of China	N/A
U.S. Pipe Valve & Hydrant, LLC	Delaware	N/A

Consent of Independent Registered Public Accounting Firm

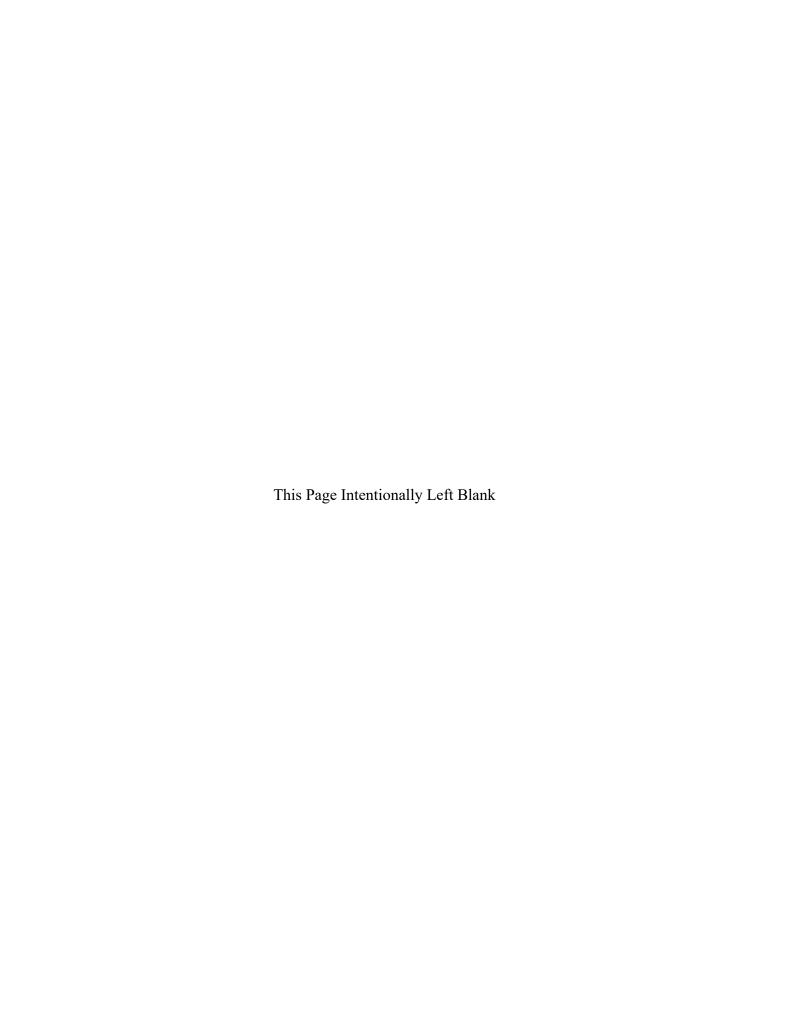
We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-179441) pertaining to the Mueller Water Products, Inc. Amended and Restated 2006 Stock Incentive Plan, and
- (2) Registration Statement (Form S-8 No. 333-209834) pertaining to the Mueller Water Products, Inc. Amended and Restated 2006 Stock Incentive Plan;

of our reports dated November 18, 2022, 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) of Mueller Water Products, Inc. for the year ended September 30, 2022.

/s/ Ernst & Young LLP

Atlanta, Georgia November 18, 2022



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 18, 2022

/s/ Scott Hall

Scott Hall

Chief Executive Officer

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

I, Marietta Edmunds Zakas, 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 18, 2022

/s/ Marietta Edmunds Zakas

Marietta Edmunds Zakas Chief Financial Officer

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 year ended September 30, 2022 (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.

/s/ Scott Hall
Scott Hall

Dated: November 18, 2022 Chief Executive Officer

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

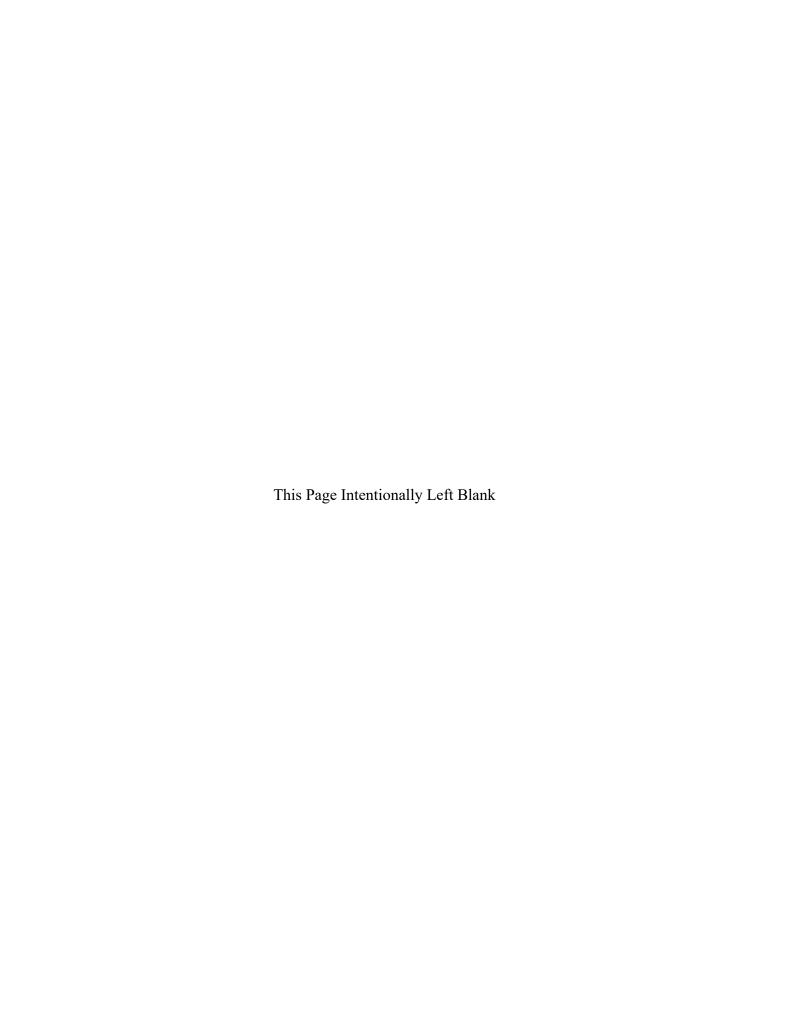
In connection with the accompanying Annual Report on Form 10-K of Mueller Water Products, Inc. (the "Company") for the year ended September 30, 2022 (the "Report"), I, Marietta Edmunds Zakas, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

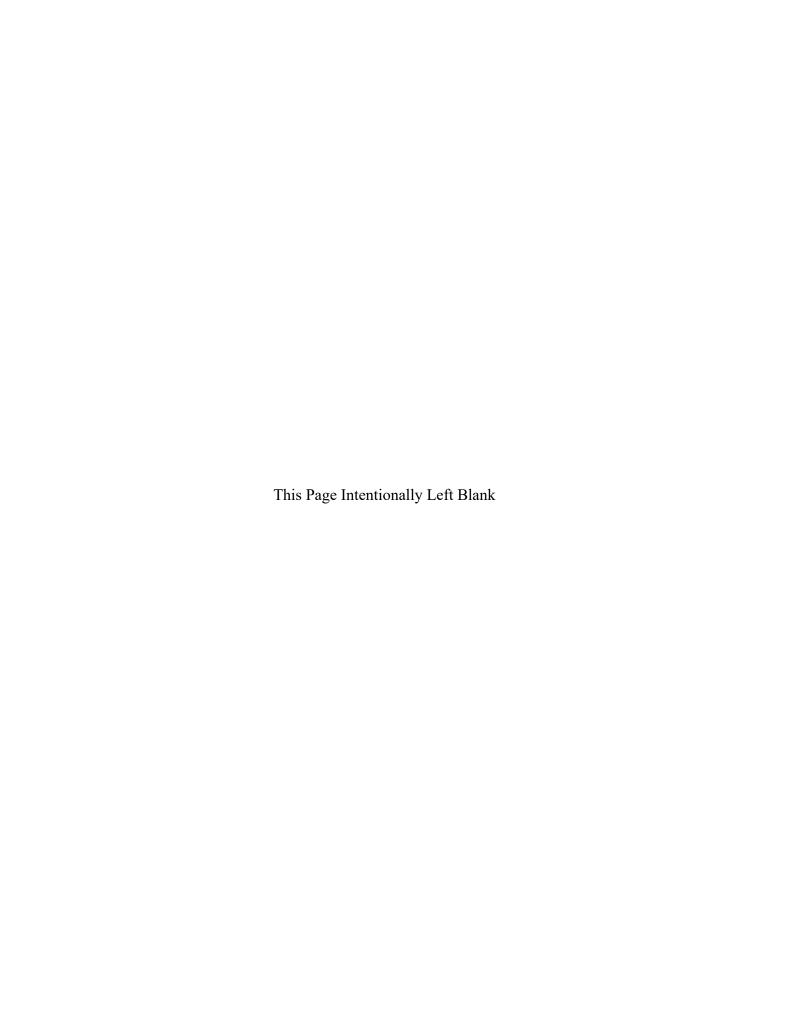
- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Marietta Edmunds Zakas

Marietta Edmunds Zakas Chief Financial Officer

Dated: November 18, 2022





BOARD OF DIRECTORS

Mark J. O'Brien

Non-Executive Chair Former Chairman and Chief Executive Officer Walter Investment Management Corp.

J. Scott Hall

President and Chief Executive Officer Mueller Water Products, Inc.

Shirley C. Franklin

President Clarke-Franklin & Associates, Inc. Former Mayor of Atlanta

EXECUTIVE OFFICERS

J. Scott Hall

President and Chief Executive Officer

Marietta Edmunds Zakas

Executive Vice President and Chief Financial Officer

Steven S. Heinrichs

Executive Vice President, Chief Legal and Compliance Officer and Secretary

STOCKHOLDER INFORMATION

The annual meeting of stockholders of

February 7, 2023 at 10:00 a.m. ET

www.meetnow.global/MLMGXU5

virtually via live webcast at:

Mueller Water Products, Inc. will be held

Media Contact

Corporate Communications Mueller Water Products, Inc. 1200 Abernathy Road, N.E. Suite 1200 Atlanta, GA 30328 (770) 206-4152 Fax: (770) 206-4271

Form 10-K

A copy of the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2022, including financial statements, is available on the Company's website 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

Thomas J. Hansen

Former Vice Chairman Illinois Tool Works Inc.

Christine Ortiz

Morris Cohen Professor of Materials Science and Engineering Massachusetts Institute of Technology

Bernard G. Rethore

Chairman Emeritus and Former Chief Executive Officer Flowserve Corporation

Jeffery S. Sharritts

Suzanne G. Smith

Vice President and

Chad D. Mize

Chief Accounting Officer

Senior Vice President,

Sales and Marketing

William A. Cofield

Senior Vice President,

Operations and Supply Chain

Executive Vice President and Chief Customer and Partner Officer Cisco

Michael T. Tokarz Chairman

Noblis, Inc.

Tokarz Group LLC

Brian L. Slobodow

Operational Resource Group

Operating Partner

Lydia W. Thomas

Former President and

Chief Executive Officer

Stephen C. Van Arsdell

Former Senior Partner, Deloitte LLP and Former Chairman and Chief Executive Officer Deloitte & Touche LLP

Richelle R. Feyerherm

Vice President, **Operations Controller**

Todd P. Helms

Senior Vice President and Chief Human Resources Officer

Kenji Takeuchi

Senior Vice President, Water Management Solutions

Scott Floyd

Senior Vice President, Water Flow Solutions

Common Stock

Trading Symbol: MWA New York Stock Exchange

Transfer Agent and Registrar

Computershare Shareowner Services LLC 150 Royall Street, Suite 101 Canton, MA 02021 Toll Free Number: (866) 205-6698 www.computershare.com/investor

TDD for Hearing Impaired: (800) 952-9245 Foreign Shareowners: (201) 680-6578 TDD Foreign Shareowners: (781) 575-4592

Corporate Office

Annual Meeting

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. Suite 1200 Atlanta, GA 30328 (770) 206-4116 Fax: (770) 206-4271

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SINGER®

U.S. PIPE VALVE AND HYDRANT

Mueller Water Products, Inc.

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