
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

or

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

For the transition period from _____ to _____

Commission File Number 1-12981

AMETEK, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

1100 Cassatt Road
Berwyn, Pennsylvania
(Address of principal executive offices)

14-1682544
(I.R.S. Employer
Identification No.)

19312-1177
(Zip Code)

Registrant's telephone number, including area code: (610) 647-2121

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

Title of each class

Common Stock, \$0.01 Par Value (voting)

Trading symbol(s)

AME

Name of each exchange on which registered

New York Stock Exchange

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

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

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

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

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

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately \$25.2 billion as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter.

The number of shares of the registrant's Common Stock outstanding as of January 31, 2023 was 230,093,810.

Documents Incorporated by Reference

Part III incorporates information by reference from the Proxy Statement for the Annual Meeting of Stockholders on May 4, 2023.

AMETEK, Inc.

2022 Form 10-K Annual Report
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PART I

Item 1. Business

General Development of Business

AMETEK, Inc. (“AMETEK” or the “Company”) is incorporated in Delaware. Its predecessor was originally incorporated in Delaware in 1930 under the name American Machine and Metals, Inc. AMETEK is a leading global manufacturer of electronic instruments and electromechanical devices with operations in North America, Europe, Asia and South America. AMETEK maintains its principal executive offices in suburban Philadelphia at 1100 Cassatt Road, Berwyn, Pennsylvania, 19312. Listed on the New York Stock Exchange (symbol: AME), the common stock of AMETEK is a component of the Standard and Poor’s 500 and the Russell 1000 Indices.

Products and Services

AMETEK’s products are marketed and sold worldwide through two operating groups: Electronic Instruments (“EIG”) and Electromechanical (“EMG”). Electronic Instruments is a leader in the design and manufacture of advanced instruments for the process, power and industrial, and aerospace markets. Electromechanical is a differentiated supplier of precision motion control solutions, thermal management systems, specialty metals and electrical interconnects. Its end markets include aerospace and defense, medical, automation and other industrial markets.

Competitive Strengths

Management believes AMETEK has significant competitive advantages that help strengthen and sustain its market positions. Those advantages include:

Significant Market Share. AMETEK maintains significant market share in a number of targeted niche markets through its ability to produce and deliver high-quality, differentiated products at competitive prices. EIG has significant market positions in niche segments of the process, power and industrial, and aerospace markets. EMG holds significant positions in niche segments of the aerospace and defense, automation and medical markets.

Technological and Development Capabilities. AMETEK believes it has certain technological advantages over its competitors that allow it to maintain its leading market positions. Historically, the Company has demonstrated an ability to develop innovative new products and solutions that anticipate customer needs. AMETEK has consistently added to its investment in research, development and engineering, and improved its new product development efforts with the adoption of Design for Six Sigma and Value Analysis/Value Engineering methodologies. These have improved the pace and quality of product innovation and resulted in the introduction of a steady stream of new products across all of AMETEK’s businesses.

Efficient and Flexible Manufacturing Operations. Through its Operational Excellence initiatives, AMETEK has established a lean and flexible manufacturing platform for its businesses. In its effort to achieve best-cost manufacturing, AMETEK had operating facilities, as of December 31, 2022, in China, Czechia, Malaysia, Mexico, and Serbia. These facilities offer proximity to customers and provide opportunities for increasing international sales. Acquisitions also have allowed AMETEK to achieve operating synergies by consolidating operations, product lines and distribution channels, benefiting both of AMETEK’s operating groups.

Experienced Management Team. Another component of AMETEK’s success is the strength of its management team and that team’s commitment to improving Company performance. AMETEK senior management has extensive industry experience and an average of approximately 24 years of AMETEK service. The management team is focused on delivering strong, consistent and profitable growth, growing

shareholder value, and creating a sustainable future for all stakeholders. Individual performance is tied to financial results through Company-established stock ownership guidelines and equity incentive programs.

Business Strategy

AMETEK is committed to achieving earnings growth through the successful implementation of the AMETEK Growth Model. The goal of that model is double-digit annual percentage growth in sales and earnings per share over the business cycle and a superior return on total capital. Other financial initiatives have been or may be undertaken, including public and private debt or equity issuance, bank debt refinancing, local financing in certain foreign countries and share repurchases.

AMETEK's Growth Model integrates the four growth strategies of Operational Excellence, Strategic Acquisitions, Global and Market Expansion, and New Product Development with a focus on cash generation and capital deployment.

Operational Excellence. Operational Excellence is AMETEK's cornerstone strategy for accelerating growth, improving profit margins and strengthening its competitive position across its businesses. Operational Excellence focuses on initiatives to drive increased organic sales growth, improvements in operating efficiencies and sustainable practices. It emphasizes team building and a participative management culture. AMETEK's Operational Excellence strategies include lean manufacturing, global sourcing, Design for Six Sigma, Value Engineering/Value Analysis, growth kaizens, and digitalization. Each plays an important role in improving efficiency, enhancing the pace and quality of innovation and driving profitable sales growth. Operational Excellence initiatives have yielded lower operating and administrative costs, shortened manufacturing cycle times, resulted in higher cash flow from operations and increased customer satisfaction. They also have played a key role in achieving synergies from newly acquired companies.

Strategic Acquisitions. Acquisitions are a key to achieving the goals of the AMETEK Growth Model. Since the beginning of 2018 through December 31, 2022, AMETEK has completed 17 acquisitions with annualized sales totaling approximately \$1.3 billion. AMETEK targets companies that offer a compelling strategic, technical and cultural fit. It seeks to acquire businesses in adjacent markets with complementary products and technologies. It also looks for businesses that provide attractive growth opportunities aligned with strong secular growth themes, often in new and emerging markets. Through these and prior acquisitions, AMETEK's management team has developed considerable skill in identifying, acquiring and integrating new businesses. As it has executed its acquisition strategy, AMETEK's mix of businesses has shifted toward those that are more highly differentiated and, therefore, offer better opportunities for growth and profitability.

Global & Market Expansion. AMETEK has historically experienced growth outside the United States, reflecting an expanding international customer base, investments in its global infrastructure and the attractive growth potential of its businesses in overseas markets. While Europe remains its largest overseas market, AMETEK has pursued growth opportunities worldwide, especially in key emerging markets. It has grown sales in Latin America and Asia by strategically building, acquiring and expanding manufacturing facilities. AMETEK also has expanded its sales, service, and engineering capabilities globally. Recently acquired businesses have further added to AMETEK's international presence.

New Product Development. New products are essential to AMETEK's long-term growth. As a result, AMETEK has maintained a consistent investment in new product development and engineering. AMETEK's businesses help solve our customers' most complex challenges with differentiated technology solutions. In 2022, AMETEK added to its highly differentiated product portfolio with a range of new products across many of its businesses.

AMETEK focuses on cash generation and capital deployment. AMETEK generates strong cash flow given its asset-light business model and strong operational execution. This cash flow supports AMETEK's capital deployment strategy with its primary focus on strategic, value-enhancing acquisitions. AMETEK is also committed to paying a modest quarterly dividend.

Attracting, retaining, and developing talent is critical to the success and sustainability of the AMETEK Growth Model as our employees are responsible for successfully driving these strategies.

2022 Overview

Operating Performance

In 2022, the Company posted record sales, operating income, operating margins, net income, diluted earnings per share, backlog, and orders. The Company achieved these results from organic sales growth in both EIG and EMG, contributions from the 2022 acquisitions of Navitar, Inc. and RTDS Technologies, Inc., as well as the Company's Operational Excellence Initiatives. See "Results of Operations" in Part II, Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations for further details.

In 2022, the Company achieved record sales of \$6,150.5 million, an increase of 10.9% from 2021 due to an 11% organic sales increase, a 2% increase from acquisitions, partially offset by an unfavorable 2% effect of foreign currency translation. Diluted earnings per share for 2022 were a record \$5.01, an increase of \$0.76 or 17.8%, compared with \$4.25 per diluted share in 2021.

Recent Acquisitions

AMETEK spent \$429.7 million in cash, net of cash acquired, to purchase two businesses:

In September 2022, AMETEK acquired Navitar, Inc. ("Navitar"), a designer and manufacturer of customized, fully integrated optical imaging systems, components, and software.

In October 2022, AMETEK acquired RTDS Technologies ("RTDS"), a leading provider of real-time power simulation systems used by utilities, and research and education institutions in the development and testing of the electric power grid and renewable energy applications.

Financing

On May 12, 2022, the Company along with certain of its foreign subsidiaries amended and restated its credit agreement dated as of September 22, 2011, as amended and restated as of March 10, 2016 and as further amended and restated as of October 30, 2018, with the lenders, JPMorgan Chase Bank, N.A., as Administrative Agent and Bank of America, N.A., PNC Bank, National Association, Trust Bank and Wells Fargo Bank, National Association, as Co-Syndication Agents. The credit agreement amends and restates the Company's existing revolving credit facility to increase the size from \$1.5 billion to \$2.3 billion and terminates the \$800 million term loan. The credit agreement places certain restrictions on allowable additional indebtedness.

Recent Events and Market Conditions

Recent events and market conditions impacting our business include the inflationary cost environment, rising interest rates, supply chain constraints, the COVID-19 pandemic, and the ongoing conflict in Ukraine. As a result of these events and conditions, we anticipate the challenging global economic environment to continue into 2023.

Beginning in 2021, we experienced heightened levels of inflation in material and transportation costs. We have taken steps to mitigate the impacts of material and transportation cost inflation by implementing pricing actions. We experienced additional pressure in our supply chain due to component shortages and strained transportation capacity, as well as the impact of continued elevated customer demand. In response to these supply chain pressures, we have taken actions to build inventory and seek alternative sources of supply to support sales and backlog growth. The inflationary environment has also resulted in central banks raising short-term interest rates. We expect inflation to continue into 2023 and will continue to take actions to mitigate this inflationary pressure.

There still remains uncertainty concerning the COVID-19 pandemic, its effect on labor, government mandated lockdowns and other restrictive measures, and the pandemic's ultimate duration. Lockdowns in China during 2022 limited our ability to access customer sites, operate certain facilities, and placed additional constraints on our supply chain. Depending on the course of the pandemic, additional lockdowns in China or elsewhere could impact our operations and results of operations.

The invasion of Ukraine by Russia and the sanctions imposed in response to this conflict have increased global economic and political uncertainty. While we do not have operations in Russia or Ukraine and do not have significant exposure to customers and vendors in those countries, a significant expansion of the conflict's current scope could further complicate the economic environment.

While the ultimate impact of these events remains uncertain, we will continue to evaluate the extent to which these factors will impact our business, financial condition, and results of operations.

Description of Business

Described below are the products and markets of each reportable segment:

EIG

EIG is a leader in the design and manufacture of advanced analytical, test and measurement instruments for the process, aerospace, medical, research, power and industrial markets. Its growth is based on the strategies outlined in the AMETEK Growth Model. In many instances, EIG's products differ from or are technologically superior to its competitors' products. EIG has achieved competitive advantage through continued investment in research, development and engineering to develop market-leading products and solutions that serve niche markets. EIG has also expanded its sales and service capabilities globally to serve its customers.

EIG is a leader in many of the specialized markets it serves. Products supplied to these markets include process control instruments for the life sciences, pharmaceutical, semiconductor, automation, power, food and beverage, oil and gas, and petrochemical industries. It provides a growing range of instruments to the research and laboratory equipment, ultra-precision manufacturing, medical, and test and measurement markets. It is a leader in power quality monitoring and metering, uninterruptible power systems, programmable power equipment, electromagnetic compatibility test equipment, sensors for gas turbines, dashboard instruments for heavy trucks, and instrumentation and controls for the food and beverage industries. EIG supplies the aerospace industry with aircraft and engine sensors, monitoring systems, power supplies, fuel and fluid measurement systems, and data acquisition systems.

In 2022, 49% of EIG's net sales were to customers outside the United States. At December 31, 2022, EIG employed approximately 11,700 people, of whom approximately 800 were covered by collective bargaining agreements. At December 31, 2022, EIG had operating facilities in the United States, the United Kingdom, Germany, Canada, China, Denmark, Finland, France, Switzerland, Argentina, Austria and Mexico. EIG also shares operating facilities with EMG in China and Mexico.

Process and Analytical Instrumentation Markets and Products

Process and analytical instrumentation sales represented 72% of EIG's 2022 net sales. These businesses include process analyzers, emission monitors and spectrometers; elemental and surface analysis instruments; level, pressure and temperature sensors and transmitters; radiation measurement devices; level measurement devices; precision manufacturing systems; materials- and force-testing instruments; contact and non-contact metrology products; and clinical and educational communication solutions. Among the industries it serves are power generation; pharmaceutical manufacturing; medical and healthcare; research and development; water and waste treatment; renewable energy production, semiconductor manufacturing; natural gas distribution; emissions monitoring, and oil, gas, and petrochemical refining. Its instruments are used for precision measurement in a number of applications, including radiation detection, trace element and materials analysis, nanotechnology research, ultraprecise manufacturing, and test and measurement.

Acquired in September 2022, Navitar is a designer and manufacturer of customized, fully integrated optical imaging systems, components, and software. Navitar's market leading optical components and solutions complement the Company's existing optics portfolio.

Acquired in November 2021, Alphasense is a leading provider of gas and particulate sensors for use in environmental, health and safety, and air quality applications. Alphasense complements the Company's existing sensor business expanding the Company's presence in the environmental health and safety market.

Acquired in March 2021, Magnetrol is a leading provider of level and flow control solutions for challenging process applications across a diverse set of end markets including medical, pharmaceutical, oil and gas, food and beverage, and general industrial. Magnetrol's solutions combined with the Company's existing Sensors, Test and Calibration business, becomes an industry leading differentiated sensor platform with a broad range of level and flow measurement solutions.

Aerospace and Power Instrumentation Markets and Products

Aerospace and Power Instrumentation sales represented 28% of EIG's 2022 net sales. These businesses produce a wide array of instrumentation, systems and sensors for applications in the aerospace, power and industrial markets.

These businesses produce power monitoring and metering instruments, uninterruptible power supply systems and programmable power supplies used in a wide range of industrial settings. It is a leader in the design and manufacture of power measurement, quality monitoring and event recorders for use in power generation, transmission and distribution. These businesses provide uninterruptible power supply systems, multifunction electric meters, annunciators, alarm monitoring systems and highly specialized communications equipment for smart grid applications and renewable energy applications. It also offers precision power supplies and power conditioning products, and electrical immunity and EMC test equipment, sensors for electric vehicle testing, gas turbines, dashboard instruments for heavy trucks and other vehicles, and instrumentation and controls for the food and beverage industries.

AMETEK's aerospace products are designed to customer specifications and manufactured to stringent operational and reliability requirements. These products include airborne data systems, turbine engine temperature measurement products, vibration-monitoring systems, cockpit instruments and displays, fuel and fluid measurement products, embedded computing systems, and sensors and switches. AMETEK serves all segments of the commercial and military aerospace market, including commercial airliners, business jets, regional aircraft and helicopters.

AMETEK operates in highly specialized aerospace market segments in which it has proven technological or manufacturing advantages versus its competition. Among its more significant competitive advantages is its 70-year-plus reputation as an established aerospace supplier. AMETEK has long-standing relationships with the world's leading commercial and military aircraft, jet engine and original equipment manufacturers and aerospace system integrators. AMETEK also is a leading provider of spare part sales, repairs and overhaul services to commercial aerospace.

Acquired in October 2022, RTDS is a leading provider of real-time power simulation systems used by utilities, and research and education institutions in the development and testing of the electric power grid and renewable energy applications. RTDS's solutions complement the Company's existing power instruments businesses.

Acquired in April 2021, Abaco Systems specializes in open-architecture computing and electronic systems for aerospace, defense, and specialized industrial markets and is a leading provider of mission critical embedded computing systems. Abaco's solutions expand and complement the Company's existing aerospace and defense businesses.

Acquired in April 2021, NSI-MI is a leading provider of radio frequency and microwave test and measurement systems for niche applications across the aerospace, defense, automotive, wireless communications, and research markets. NSI-MI strengthens the Company's test and measurement platforms.

Acquired in March 2021, Crank Software is a leading provider of embedded graphical user interface software and services. Crank Software expands the Company's growing portfolio of software solutions.

Customers

EIG is not dependent on any single customer such that the loss of that customer would have a material adverse effect on EIG's operations. Approximately 6% of EIG's 2022 net sales were made to its five largest customers. No single customer comprises more than 3% of net sales.

EMG

EMG is a differentiated supplier of automation solutions, thermal management systems, specialty metals and electrical interconnects. EMG is a leader in many of the niche markets in which it competes. Products supplied to these markets include advanced precision motion control solutions, which are used in a wide range of automation applications across the medical, semiconductor, aerospace, defense, and food and beverage industries, as well as highly engineered electrical connectors and electronics packaging used in aerospace and defense, medical, and industrial applications.

EMG supplies high-purity powdered metals, strip and foil, specialty clad metals and metal matrix composites. EMG's heat exchangers provide electronic cooling and environmental control for the aerospace and defense and semiconductor industries. EMG's motors are widely used in commercial appliances, fitness equipment, food and beverage machines, hydraulic pumps and industrial blowers. Additionally, EMG operates a global network of aviation maintenance, repair and overhaul ("MRO") facilities.

EMG designs and manufactures products that, in many instances, are significantly different from or technologically superior to competitors' products. It has achieved competitive advantage through continued investment in research, development and engineering, efficiency improvements from operational excellence, acquisition synergies and improved supply chain management.

In 2022, 49% of EMG's net sales were to customers outside the United States. At December 31, 2022, EMG employed approximately 7,500 people, of whom approximately 1,900 were covered by collective bargaining agreements. At December 31, 2022, EMG had operating facilities in the United States, the United Kingdom, China, Germany, France, Italy, Mexico, Serbia, Czechia, Malaysia and Taiwan.

Automation and Engineered Solutions Markets and Products

Automation and Engineered Solution sales represented 71% of EMG's 2022 net sales. These businesses produce precision motion control solutions, brushless motors, blowers and pumps, heat exchangers and other electromechanical systems. These products are used in a wide variety of high-precision automation applications, including semiconductor equipment, and laboratory and medical equipment.

AMETEK is a leader in highly engineered electrical connectors and electronics packaging used to protect sensitive devices and mission-critical electronics. Its electrical connectors, terminals, headers and packaging are designed specifically for harsh environments and highly customized applications. In addition, AMETEK is an innovator and market leader in specialized metal powder, strip, wire and bonded products used in medical, aerospace and defense, telecommunications, automotive and general industrial applications.

Aerospace Markets and Products

Aerospace sales represented 29% of EMG's 2022 net sales. These businesses produce motor-blower systems and heat exchangers used in thermal management and other applications on a variety of military and commercial aircraft and military ground vehicles. In addition, these businesses provide the commercial and military aerospace industry with third-party MRO services on a global basis with facilities in the United States, Europe and Asia.

Customers

EMG is not dependent on any single customer such that the loss of that customer would have a material adverse effect on EMG's operations. Approximately 9% of EMG's 2022 net sales were made to its five largest customers. No single customer comprises greater than 3% of net sales.

Marketing

AMETEK's marketing efforts generally are organized and carried out at the business level. EIG makes use of specialized distributors and sales representatives to market its products along with a direct sales force for its technically sophisticated products. Within aerospace, the specialized customer base of aircraft and jet engine manufacturers is served primarily by direct sales engineers. Given the technical nature of its many products, as well as its significant market share, EMG conducts much of its domestic and international marketing activities through a direct sales force and makes some use of sales representatives and distributors, both in the United States and in other countries.

Competition

In general, AMETEK's markets are highly competitive with competition based on technology, performance, quality, service and price.

In EIG's markets, AMETEK believes it ranks as a leader in certain analytical measurement and control instruments, and power and industrial markets. It also is a major instrument and sensor supplier to commercial aviation. In process and analytical instruments, numerous companies compete in each market on the basis of product quality, performance and innovation. In power and industrial and in aerospace, AMETEK competes with a number of companies depending on the specific market segment.

EMG's businesses compete with a number of companies in each of its markets. Competition is generally based on product innovation, performance and price. There also is competition from alternative materials and processes.

Availability of Raw Materials

AMETEK's reportable segments obtain raw materials and supplies from a variety of sources and generally from more than one supplier. For EMG, however, certain items, including various base metals and certain steel components, are available from only a limited number of suppliers. AMETEK believes its sources and supplies of raw materials are adequate for its needs.

Environmental and Other Governmental Regulation

AMETEK's operations and properties are subject to laws and regulations relating to environmental protection, including those governing air emissions, water discharges, waste management, and workplace safety. The Company uses, generates and disposes of hazardous substances and waste in its operations and could be subject to material liabilities relating to the investigation and clean-up of contaminated properties and related claims. The Company is required to conform our operations and properties to these laws and adapt to regulatory requirements in all countries as these requirements change. The Company has a robust Environmental Health and Safety program responsible for supporting its environmental monitoring and compliance efforts. In connection with acquisitions, the Company will

assess potential material environmental liabilities, and determine regulatory and fiduciary obligations during the course of the due diligence process. In addition, new laws and regulations, the discovery of previously unknown contamination or the imposition of new requirements could increase costs or subject AMETEK to new or increased liabilities.

Information with respect to environmental matters is set forth in Note 13 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Patents, Licenses and Trademarks

AMETEK owns numerous unexpired U.S. and foreign patents, including counterparts of its more important U.S. patents, in the major industrial countries of the world. It is a licensor or licensee under patent agreements of various types, and its products are marketed under various registered and unregistered U.S. and foreign trademarks and trade names. AMETEK, however, does not consider any single patent or trademark, or any group of them, essential either to its business as a whole or to either one of its reportable segments. The annual royalties received or paid under license agreements are not significant to either of its reportable segments or to AMETEK's overall operations.

Environmental, Social, and Governance ("ESG") and Human Capital Management

Environmental, Social, and Governance

AMETEK is committed to providing a consistent and excellent return to our stakeholders, all while maintaining a strong commitment to environmental stewardship, social responsibility, diversity and inclusion, and sound corporate governance. We believe that effectively prioritizing and managing our ESG initiatives will help create long-term value and a better future for our stakeholders.

Our Sustainability Report highlights our sustainability initiatives and is available on our website at www.ametek.com/aboutus/sustainability.

The Company's ESG highlights include the following:

Core Values. Our core values — Ethics and Integrity, Respect for the Individual, Diversity and Inclusion, Teamwork, and Social Responsibility — remain the most critical components of our sustainability efforts. Sustainability is an integral aspect of the core values that guide the way we do business.

Environmental Stewardship. Our ongoing commitment to serve as environmental stewards and protect the environment for future generations is reflected in our corporate governance and oversight of compliance and risk management. We are reducing our environmental impact and increasing operational efficiency across our global footprint, and have established greenhouse gas emission reduction targets. Across AMETEK, our businesses are committed to developing innovative products and solutions to help reduce carbon emissions, increase the use and adoption of renewable energy, and address the impacts of climate change.

Commitment to Diversity and Inclusion. AMETEK is committed to developing a diverse and inclusive culture to help power innovation, growth and greater opportunities for all employees. Our hiring practices are geared toward identifying the most diverse set of candidates for open positions. Our training and development programs are focused on providing meaningful opportunities for personal and professional development. And our charitable arm, the AMETEK Foundation, provides wide-ranging support to nonprofit and educational organizations in the communities where we operate.

Our Solutions. AMETEK's portfolio of differentiated technology solutions has grown significantly. Many of AMETEK's products and solutions are creating a more sustainable future by supporting customers' environmentally focused applications across a diverse set of markets. AMETEK partners with customers to develop sustainable solutions with specialized technology that help in the effort to improve the quality of life and the environment.

Human Capital Management

As a global organization, we have seen firsthand that the innovation needed to solve our customers' biggest challenges can only come from employees that are fully engaged and committed, and who have diverse perspectives and backgrounds. Our Board regularly receives updates and presentations on key topics, including ESG, compliance, diversity and inclusion, and employee development and succession.

Our executive management team reviews the key talent across our company annually and assesses the adequacy of talent to meet business challenges and future growth needs. A major area of focus is a review of diversity and inclusion improvement efforts. We have a Women's Business Council and an African American Business Council, both of which drive initiatives focused on mentorship, education and career guidance. Diverse candidate slates are required for external salaried openings, including executive management and Board appointments, where at least one diverse candidate is interviewed.

We have created a leadership development program for employees on track to become P&L leaders in the company. This focused and intensive program involves both internal and external training on leadership effectiveness as well as specific job-related skills. In addition, participants receive hands-on experience in key AMETEK business system processes such as growth kaizens and acquisition due diligence. We have a long-standing commitment to responsible corporate conduct. Each employee is provided with annual performance goals which are reviewed in a performance review with their manager. Employee feedback is actively encouraged through an open-door policy for all managers, regular town hall/all hands meetings, executive presentations with Q&A sessions, a regular CEO podcast for all employees, and a hotline that can be used to report complaints.

Giving back to our community is an important part of our culture. Established in 1960, the AMETEK Foundation is the charitable giving arm of AMETEK, Inc. The Foundation's mission is to empower AMETEK colleagues making a positive impact in their local communities, with a focus on health and welfare, civic and social service programs, and education.

As of December 31, 2022, we have approximately 19,600 employees, of which 42% are diverse (global female full-time and part-time employees plus diverse U.S. male full-time and part-time employees). Our compensation programs are designed to provide competitive salaries and benefit programs to attract, retain and motivate a world-class workforce. Selected employees participate in short- and long-term incentive programs that align employee and shareholder interests and promote long-term retention. Additionally, we strive to protect health and safety in every aspect of our enterprise – from the way we design, manufacture and deliver our products to the way our customers use them. We continue to drive towards our goal of zero lost-time work incidents. 2022 was our lowest lost-time incident rate on record. We continue to enhance our safety initiatives as each facility is tasked with identifying opportunities for additional safety measures. Businesses with zero incidents share best practices and ensure ongoing training to maintain their safety excellence. In addition to our EHS facility audits, our facilities' activities include safety committees, continual training, documented self-audits, and behavior-based safety observations and feedback.

Our U.S. Federal Employment Information Report (EEO-1) for 2021 is available at www.ametek.com and offers a snapshot of U.S. diversity data as of December 31, 2021. The EEO-1 data captures only U.S. employees and does not reflect the broad diversity of our approximately 9,500 international employees.

Available Information

AMETEK's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 are made available free of charge on the Company's website at www.ametek.com in the "Investors – Reporting" section as soon as reasonably practicable after such material is electronically filed with, or furnished to, the U.S. Securities and Exchange Commission. All reports filed with the Securities Exchange Commission can also be viewed on their website at www.sec.gov. AMETEK has posted in the "Investors – Governance" section of its website its corporate governance guidelines, Board committee charters, codes of ethics, and social and environmental policies. Those documents also are available free of charge in published form to any stockholder who requests them by writing to the Investor Relations Department at AMETEK, Inc., 1100 Cassatt Road, Berwyn, Pennsylvania, 19312.

Item 1A. Risk Factors

You should consider carefully the following risk factors and all other information contained in this Annual Report on Form 10-K and the documents we incorporate by reference in this Annual Report on Form 10-K. Any of the following risks could materially and adversely affect our business, financial condition, results of operations and cash flows.

Risks Related to Our Operations

The coronavirus global pandemic could have a material adverse effect on our ability to operate, results of operations, financial condition, liquidity and ability to consummate future acquisitions.

We continue to address the impact of the COVID-19 pandemic. The outbreak of COVID-19, and any other significant outbreak of epidemic, pandemic or contagious disease, could have a negative effect on our ability to operate, results of operations, financial condition, liquidity and ability to consummate future acquisitions. In addition, the outbreak of COVID-19 has resulted in a widespread health crisis that is adversely affecting the economies and financial markets of many countries and the end markets for many of our products, which could result in an economic downturn that may negatively affect demand for our products. The extent to which COVID-19 will impact our business, results of operations and financial condition is highly uncertain and will depend on future developments. Such developments may include the geographic spread and duration of the virus, the severity of the disease and the actions that may be taken by various governmental authorities and other third parties in response to the outbreak.

Our global manufacturing facilities remain open with a focus on safety protocols, though a range of external factors related to the pandemic that are not within our control have restricted our ability to keep our manufacturing facilities fully operational. Any decline or lower than expected demand in our served markets could diminish demand for our products and services, which would adversely affect our financial condition and results of operations. Moreover, the COVID-19 pandemic may adversely affect the financial condition of our customers and suppliers in the future or their ability to purchase Company products, may delay customers' purchasing decisions, result in a shift to lower-priced products or away from discretionary products, and may result in longer payment terms or inability to collect customer payments. These issues may also materially affect our future access to our sources of liquidity, particularly our cash flows from operations, financial condition and ability to consummate future acquisitions.

In compliance with stay-at-home orders issued in connection with the COVID-19 pandemic, a significant subset of our employees have transitioned to working from home. As a result, more of our employees are working from locations where our cybersecurity program may be less effective and IT security may be less robust. This change may create increased vulnerability to cybersecurity incidents, including breaches of information systems

security, which could result in a disruption of our operations, customer dissatisfaction, damage to our reputation and a loss of customers or revenues.

If significant portions of our workforce are unable to work effectively, including because of illness, quarantines or absenteeism; government actions; facility closures; work slowdowns or stoppages; limited supplies or resources; or other circumstances related to COVID-19, our operations will be further impacted. We may be unable to perform fully on our customer obligations and we may incur liabilities and suffer losses as a result. The continued spread of COVID-19 may also affect our ability to hire, develop and retain our talented and diverse workforce, and our ability in short periods to fully maintain and support our corporate culture.

A scarcity of resources or other hardships caused by the COVID-19 pandemic may result in increased nationalism, protectionism and political tensions which may cause governments and/or other entities to take actions that may have significant negative impact on the Company, its suppliers, and its customers to conduct business in the future. Risks related to consumers and businesses lowering or changing spending, which impact domestic and cross-border spend, are described in our risk factor titled “Foreign and domestic economic, political, legal, compliance and business factors could negatively affect our international sales and operations”.

The duration and intensity of the impact of the COVID-19 pandemic and the resulting disruption to our operations is uncertain but could have a material impact on our operations, cash flows, financial condition and ability to consummate future acquisitions. We will continue to assess the financial impact of the pandemic on our business.

A downturn in the economy generally or in the markets we serve could adversely affect our business.

A number of the industries in which we operate are cyclical in nature and therefore are affected by factors beyond our control. A downturn in the U.S. or global economy, and, in particular, in the aerospace and defense, oil and gas, process instrumentation or power markets could have an adverse effect on our business, financial condition and results of operations.

Our growth could suffer if the markets into which we sell our products and services decline, do not grow as anticipated or experience cyclicality.

Our growth depends in part on the growth of the markets which we serve. Visibility into the future performance of certain of our markets is limited (particularly for markets into which we sell through distribution). Our quarterly sales and profits depend substantially on the volume and timing of orders received during the fiscal quarter, which are difficult to forecast. Any decline or lower than expected growth in our served markets could diminish demand for our products and services, which would adversely affect our financial statements. A number of our businesses operate in industries that may experience periodic, cyclical downturns. In addition, in certain of our businesses, demand depends on customers’ capital spending budgets, as well as government funding policies. Matters of public policy and government budget dynamics, as well as product and economic cycles, can affect the spending decisions of these customers. Demand for our products and services is also sensitive to changes in customer order patterns, which may be affected by announced price changes, changes in incentive programs, new product introductions and customer inventory levels. Any of these factors could adversely affect our growth and results of operations in any given period.

We may not properly execute, or realize anticipated cost savings or benefits from, our Operational Excellence initiatives.

Our success is partly dependent upon properly executing and realizing cost savings or other benefits from our ongoing production and procurement initiatives. These initiatives are primarily designed to make the Company more efficient, which is necessary in the Company’s highly competitive industries. These initiatives are often complex, and a failure to implement them properly may, in addition to not meeting projected cost savings or benefits, adversely affect our business and operations.

Foreign and domestic economic, political, legal, compliance and business factors could negatively affect our international sales and operations.

International sales for 2022 and 2021 represented 48.7% and 49.5% of our consolidated net sales, respectively. As a result of our growth strategy, we anticipate that the percentage of sales outside the United States will increase in the future. As of December 31, 2022, we have manufacturing operations in 18 countries outside the United States, with significant operations in China, Czechia, Germany, Mexico, Serbia and the United Kingdom. A disruption of our ability to obtain a supply of goods from these countries or a change in the cost to purchase, manufacture, or distribute these products could have an adverse effect on our sales and operations. International sales and operations are subject to the customary risks of operating in an international environment, including:

- Imposition of trade or foreign exchange restrictions, including in the United States;
- Overlap of different tax structures;
- Unexpected changes in regulatory requirements, including in the United States;
- Trade protection measures, such as the imposition of or increase in tariffs and other trade barriers, including in the United States;
- The difficulty and/or costs of designing and implementing an effective control environment across diverse regions and employee bases;
- Restrictions on currency repatriation;
- General economic conditions;
- Unstable political situations and social unrest, both internationally and in the United States;
- Increasing trade tensions between the United States and certain countries, including China;
- Nationalization of assets; and
- Compliance with a wide variety of international and U.S. laws and regulatory requirements.

Furthermore, fluctuations in foreign currency exchange rates, including changes in the relative value of currencies in the countries where we operate, subject us to exchange rate exposure and may adversely affect our financial statements. For example, increased strength in the U.S. dollar will increase the effective price of our products sold overseas, which may adversely affect sales or require us to lower our prices. In addition, our consolidated financial statements are presented in U.S. dollars, and we must translate our assets, liabilities, sales and expenses into U.S. dollars for external reporting purposes. As a result, changes in the value of the U.S. dollar due to fluctuations in currency exchange rates or currency exchange controls may materially and negatively affect the value of these items in our consolidated financial statements, even if their value has not changed in their local currency.

Our international sales and operations may be adversely impacted by compliance with export laws.

We are required to comply with various import, export, export control and economic sanctions laws, which may affect our transactions with certain customers, business partners and other persons, including in certain cases dealings with or between our employees and subsidiaries. In certain circumstances, export control and economic sanctions regulations may prohibit the export of certain products, services and technologies and in other circumstances, we may be required to obtain an export license before exporting a controlled item. In addition, failure to comply with any of these regulations could result in civil and criminal, monetary and non-monetary penalties,

disruptions to our business, limitations on our ability to import and export products and services and damage to our reputation.

Our reputation, ability to do business and financial statements may be impaired by improper conduct by any of our employees, agents or business partners.

We cannot provide assurance that our internal controls and compliance systems will always protect us from acts committed by employees, agents or business partners of ours (or of businesses we acquire or partner with) that would violate U.S. and/or non-U.S. laws, including the laws governing payments to government officials, bribery, fraud, kickbacks and false claims, pricing, sales and marketing practices, conflicts of interest, competition, export and import compliance, money laundering and data privacy. In particular, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to government officials for the purpose of obtaining or retaining business, and we operate in many parts of the world that have experienced governmental corruption to some degree. Any such improper actions or allegations of such acts could damage our reputation and subject us to civil or criminal investigations in the U.S. and in other jurisdictions and related shareholder lawsuits could lead to substantial civil and criminal, monetary and non-monetary penalties and could cause us to incur significant legal and investigatory fees. In addition, we rely on our suppliers to adhere to our supplier standards of conduct and violations of such standards of conduct could occur that could have a material effect on our financial statements.

Any inability to hire, train and retain a sufficient number of skilled officers and other employees could impede our ability to compete successfully.

If we cannot hire, train and retain a sufficient number of qualified employees, we may not be able to effectively integrate acquired businesses and realize anticipated results from those businesses, manage our expanding international operations and otherwise profitably grow our business. Even if we do hire and retain a sufficient number of employees, the expense necessary to attract and motivate these officers and employees may adversely affect our results of operations.

If we are unable to develop new products on a timely basis, it could adversely affect our business and prospects.

We believe that our future success depends, in part, on our ability to develop, on a timely basis, technologically advanced products that meet or exceed appropriate industry standards. Maintaining our existing technological advantages will require us to continue investing in research and development and sales and marketing. There can be no assurance that we will have sufficient resources to make such investments, that we will be able to make the technological advances necessary to maintain such competitive advantages or that we can recover major research and development expenses. We are not currently aware of any emerging standards or new products which could render our existing products obsolete, although there can be no assurance that this will not occur or that we will be able to develop and successfully market new products.

Our technology is important to our success and our failure to protect this technology could put us at a competitive disadvantage.

Many of our products rely on proprietary technology; therefore, we endeavor to protect our intellectual property rights through patents, copyrights, trade secrets, trademarks, confidentiality agreements and other contractual provisions. Despite our efforts to protect proprietary rights, unauthorized parties or competitors may copy or otherwise obtain and use our products or technology. In addition, our ability to protect and enforce our intellectual property rights may be limited in certain countries outside the U.S. Actions to enforce our rights may result in substantial costs and diversion of resources and we make no assurances that any such actions will be successful.

A disruption in, shortage of, or price increases for, supply of our components and raw materials may adversely impact our operations.

While we manufacture certain parts and components used in our products, we require substantial amounts of raw materials and purchase some parts and components, including semiconductor chips and other electronic components, from suppliers. The availability and prices for raw materials, parts and components may be subject to curtailment or change due to, among other things, suppliers' allocation to other purchasers, interruptions in production by suppliers, changes in exchange rates and prevailing price levels. In addition, our facilities, supply chains, distribution systems, and products may be impacted by natural or man-made disruptions, including armed conflict, damaging weather or other acts of nature, pandemics or other public health crises. A shutdown of, or inability to utilize, one or more of our facilities, our supply chain, or our distribution system could significantly disrupt our operations, delay production and shipments, damage our relationships and reputation with customers, suppliers, employees, stockholders and others, result in lost sales, result in the misappropriation or corruption of data, or result in legal exposure and large remediation or other expenses. Furthermore, certain items, including base metals and certain steel components, are available only from a limited number of suppliers and are subject to commodity market fluctuations. Shortages in raw materials or price increases therefore could affect the prices we charge, our operating costs and our competitive position, which could adversely affect our business, financial condition, results of operations and cash flows.

We are subject to numerous governmental regulations, which may be burdensome or lead to significant costs.

Our operations are subject to numerous federal, state, local and foreign governmental laws and regulations. In addition, existing laws and regulations may be revised or reinterpreted and new laws and regulations, including with respect to privacy legislation and climate change, may be adopted or become applicable to us or customers for our products. For example, we are subject to federal, state and international privacy laws relating to the collection, use, retention, security and transfer of personally identifiable information. In many cases, these laws apply not only to third-party transactions, but also to transfers of information between the Company and its subsidiaries, and among the Company, its subsidiaries and other parties with which the Company has commercial relations. Several jurisdictions have passed laws in this area, and other jurisdictions are considering imposing additional restrictions. These laws continue to develop and may be inconsistent from jurisdiction to jurisdiction. Complying with emerging and changing international requirements may cause the Company to incur substantial costs or require the Company to change its business practices. We cannot predict the form any such new laws or regulations will take or the impact any of these laws and regulations will have on our business or operations.

We operate in highly competitive industries, which may adversely affect our results of operations or ability to expand our business.

Our markets are highly competitive. We compete, domestically and internationally, with individual producers, as well as with vertically integrated manufacturers, some of which have resources greater than we do. The principal elements of competition for our products are product technology, quality, service, distribution and price. Although we believe EIG is a market leader, competition is strong and could intensify in the markets served by EIG. In the aerospace markets served by EIG, a limited number of companies compete on the basis of product quality, performance and innovation. EMG's competition in specialty metal products stems from alternative materials and processes. Our competitors may develop new or improve existing products that are superior to our products or may adapt more readily to new technologies or changing requirements of our customers. There can be no assurance that our business will not be adversely affected by increased competition in the markets in which it operates or that our products will be able to compete successfully with those of our competitors.

Our business and financial performance could be adversely impacted by a significant disruption in, or breach in security of, our information technology systems.

We rely on information technology systems, some of which are managed by third-parties, to process, transmit and store electronic information (including sensitive data such as confidential business information and personally identifiable data relating to employees, customers, other business partners and patients), and to manage or support a

variety of critical business processes and activities (such as receiving and fulfilling orders, billing, collecting and making payments, shipping products, providing services and support to customers and fulfilling contractual obligations). These systems, products and services may be damaged, disrupted or shut down due to attacks by computer hackers, computer viruses, ransomware, human error or malfeasance, power outages, hardware failures, telecommunication or utility failures, catastrophes or other unforeseen events. In any such circumstances our system redundancy and other disaster recovery planning may be ineffective or inadequate. Further, given a significant subset of our employees have transitioned to working from home, disaster recovery may take longer to complete.

Attacks may also target hardware, software and information installed, stored or transmitted in our products after such products have been purchased and incorporated into third-party products, facilities or infrastructure. Like most multinational corporations, our information technology systems have been subject to computer viruses, malicious codes, unauthorized access and other cyber-attacks and we expect the sophistication and frequency of such attacks to continue to increase. Any of the attacks, breaches or other disruptions or damage described above could interrupt our operations or the operations of our customers and partners, delay production and shipments, result in theft of intellectual property and trade secrets, damage customer and business partner relationships and our reputation or result in defective products or services, legal claims and proceedings, liability and penalties under privacy laws and increased costs for security and remediation, each of which could adversely affect our business, reputation and financial statements. Although we maintain cyber risk insurance, damages and claims arising from such incidents may not be covered or may exceed the amount of any insurance available.

Risks Related to Our Acquisitions

Our growth strategy includes strategic acquisitions. We may not be able to consummate future acquisitions or successfully integrate recent and future acquisitions.

A portion of our growth has been attributed to acquisitions of strategic businesses. We plan to continue making strategic acquisitions to enhance our global market position and broaden our product offerings. Although we have been successful with our acquisition strategy in the past, our ability to successfully effectuate acquisitions will be dependent upon a number of factors, including:

- Our ability to identify acceptable acquisition candidates;
- The impact of increased competition for acquisitions, which may increase acquisition costs, affect our ability to consummate acquisitions on favorable terms, and result in us assuming a greater portion of the seller's liabilities;
- Successfully integrating acquired businesses, including integrating the management, technological and operational processes, procedures and controls of the acquired businesses with those of our existing operations;
- Adequate financing for acquisitions being available on terms acceptable to us;
- Unexpected losses of key employees, customers and suppliers of acquired businesses;
- Mitigating assumed, contingent and unknown liabilities; and
- Challenges in managing the increased scope, geographic diversity and complexity of our operations.

The process of integrating acquired businesses into our existing operations may result in unforeseen operating difficulties and may require additional financial resources and attention from management that would otherwise be available for the ongoing development or expansion of our existing operations. Furthermore, even if successfully integrated, the acquired business may not achieve the results we expected or produce expected benefits in the time frame planned. Failure to continue with our acquisition strategy and the successful integration of acquired businesses could have an adverse effect on our business, financial condition, results of operations and cash flows.

The indemnification provisions of acquisition agreements by which we have acquired companies may not fully protect us and as a result we may face unexpected liabilities.

Certain of the acquisition agreements by which we have acquired companies require the former owners to indemnify us against certain liabilities related to the operation of the company before we acquired it. In most of these agreements, however, the liability of the former owners is limited, and certain former owners may be unable to meet their indemnification responsibilities. We cannot assure you that these indemnification provisions will protect us fully or at all, and as a result we may face unexpected liabilities that adversely affect our financial statements.

Risks Related to Our Financial Condition

Certain environmental risks may cause us to be liable for costs associated with hazardous or toxic substance clean-up which may adversely affect our financial condition.

Our businesses, operations and facilities are subject to a number of federal, state, local and foreign environmental and occupational health and safety laws and regulations concerning, among other things, air emissions, discharges to waters and the use, manufacturing, generation, handling, storage, transportation and disposal of hazardous substances and wastes. Environmental risks are inherent in many of our manufacturing operations. Certain laws provide that a current or previous owner or operator of property may be liable for the costs of investigating, removing and remediating hazardous materials at such property, regardless of whether the owner or operator knew of, or was responsible for, the presence of such hazardous materials. In addition, the Comprehensive Environmental Response, Compensation and Liability Act generally imposes joint and several liability for clean-up costs, without regard to fault, on parties contributing hazardous substances to sites designated for clean-up under the Act. We have been named a potentially responsible party at several sites, which are the subject of government-mandated clean-ups. As the result of our ownership and operation of facilities that use, manufacture, store, handle and dispose of various hazardous materials, we may incur substantial costs for investigation, removal, remediation and capital expenditures related to compliance with environmental laws. While it is not possible to precisely quantify the potential financial impact of pending environmental matters, based on our experience to date, we believe that the outcome of these matters is not likely to have a material adverse effect on our financial position or future results of operations. In addition, new laws and regulations, new classification of hazardous materials, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination or the imposition of new clean-up requirements could require us to incur costs or become the basis for new or increased liabilities that could have a material adverse effect on our business, financial condition and results of operations. There can be no assurance that future environmental liabilities will not occur or that environmental damages due to prior or present practices will not result in future liabilities.

We are subject to a variety of litigation and other legal and regulatory proceedings in the course of our business that could adversely affect our financial statements.

We are subject to a variety of litigation and other legal and regulatory proceedings incidental to our business (or the business operations of previously owned entities), including claims for damages arising out of the use of products or services and claims relating to intellectual property matters, employment matters, tax matters, commercial disputes, competition and sales and trading practices, environmental matters, personal injury, insurance coverage and acquisition-related matters, as well as regulatory investigations or enforcement. These lawsuits may include claims for compensatory damages, punitive and consequential damages and/or injunctive relief. The defense of these lawsuits may divert our management's attention, we may incur significant expenses in defending these lawsuits, and we may be required to pay damage awards or settlements or become subject to equitable remedies that could adversely affect our operations and financial statements. Moreover, any insurance or indemnification rights that we may have may be insufficient or unavailable to protect us against such losses. In addition, developments in proceedings in any given period may require us to adjust the loss contingency estimates that we have recorded in our financial statements, record estimates for liabilities or assets previously not susceptible of reasonable estimates or pay cash settlements or judgments. Any of these developments could adversely affect our financial statements in any particular period. We cannot assure you that our liabilities in connection with litigation and other legal and

regulatory proceedings will not exceed our estimates or adversely affect our financial statements and reputation. However, based on our experience, current information and applicable law, we do not believe that any amounts we may be required to pay in connection with litigation and other legal and regulatory proceedings in excess of our reserves will have a material effect on our financial statements.

Restrictions contained in our revolving credit facility and other debt agreements may limit our ability to incur additional indebtedness.

Our existing revolving credit facility and other debt agreements (each a “Debt Facility” and collectively, “Debt Facilities”) contain restrictive covenants, including restrictions on our ability to incur indebtedness. These restrictions could limit our ability to effectuate future acquisitions, limit our ability to pay dividends, limit our ability to make capital expenditures or restrict our financial flexibility. Our Debt Facilities contain covenants requiring us to achieve certain financial and operating results and maintain compliance with specified financial ratios. Our ability to meet the financial covenants or requirements in our Debt Facilities may be affected by events beyond our control, and we may not be able to satisfy such covenants and requirements. A breach of these covenants or our inability to comply with the financial ratios, tests or other restrictions contained in a Debt Facility could result in an event of default under one or more of our other Debt Facilities. Upon the occurrence of an event of default under a Debt Facility, and the expiration of any grace periods, the lenders could elect to declare all amounts outstanding under one or more of our other Debt Facilities, together with accrued interest, to be immediately due and payable. If this were to occur, our assets may not be sufficient to fully repay the amounts due under our Debt Facilities or our other indebtedness.

Our goodwill and other intangible assets represent a substantial proportion of our total assets and the impairment of such substantial goodwill and intangible assets could have a negative impact on our financial condition and results of operations.

Our total assets include substantial amounts of intangible assets, primarily goodwill. At December 31, 2022, goodwill and other intangible assets, net of accumulated amortization, totaled \$8,714.6 million or 70% of our total assets. The goodwill results from our acquisitions, representing the excess of cost over the estimated fair value of the net tangible and other identifiable intangible assets we have acquired. For the year ended December 31, 2022, the Company recorded an \$8.6 million non-cash impairment charge related to certain of the Company's trade names. If future operating performance at one or more of our reporting units were to fall significantly below current levels, we could record, under current applicable accounting rules, a non-cash charge to operating income for goodwill or other intangible asset impairment. Any determination requiring the impairment of a significant portion of goodwill or other intangible assets would negatively affect our financial condition and results of operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

At December 31, 2022, the Company conducted business from office and operating facilities at owned and leased locations throughout the United States and select global markets. The Company's leases a facility in Berwyn, Pennsylvania for its corporate headquarters.

The Company believes that all facilities have been adequately maintained, are in good operating condition, and are suitable for our current needs.

Item 3. Legal Proceedings

Please refer to Note 13 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for information regarding certain litigation matters.

The Company is subject to a variety of litigation and other legal and regulatory proceedings incidental to its business (or the business operations of previously owned entities), including claims for damages arising out of the use of the Company's products or services and claims relating to intellectual property matters, employment matters, tax matters, commercial disputes, competition and sales and trading practices, environmental matters, personal injury, insurance coverage and acquisition-related matters, as well as regulatory investigations or enforcement. Based upon the Company's experience, the Company does not believe that these proceedings and claims will have a material adverse effect on its results of operations, financial position or cash flows.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II**Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities**

The principal market on which the Company’s common stock is traded is the New York Stock Exchange and it is traded under the symbol “AME.” On January 31, 2023, there were approximately 1,700 holders of record of the Company’s common stock.

Market price and dividend information with respect to the Company’s common stock is set forth below. Future dividend payments by the Company will be dependent on future earnings, financial requirements, contractual provisions of debt agreements and other relevant factors.

Under its share repurchase program, the Company repurchased approximately 2,673,000 shares of its common stock for \$332.8 million in 2022 and approximately 113,000 shares of its common stock for \$14.7 million in 2021.

Issuer Purchases of Equity Securities

The following table reflects purchases of AMETEK, Inc. common stock by the Company during the three months ended December 31, 2022:

Period	Total Number of Shares Purchased (1)(2)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (2)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan
October 1, 2022 to October 31, 2022	43	\$ 120.45	43	\$ 825,294,533
November 1, 2022 to November 30, 2022	10,202	136.39	10,202	823,903,036
December 1, 2022 to December 31, 2022	—	—	—	823,903,036
Total	10,245	\$ 136.33	10,245	

(1) Represents shares surrendered to the Company to satisfy tax withholding obligations in connection with employees’ share-based compensation awards.

(2) Consists of the number of shares purchased pursuant to the Company’s Board of Directors \$1 billion authorization for the repurchase of its common stock announced in May 2022, which replaces the previous \$500 million authorization for repurchase of its common stock announced in February 2019. Such purchases may be effected from time to time in the open market or in private transactions, subject to market conditions and at management’s discretion.

Securities Authorized for Issuance Under Equity Compensation Plan Information

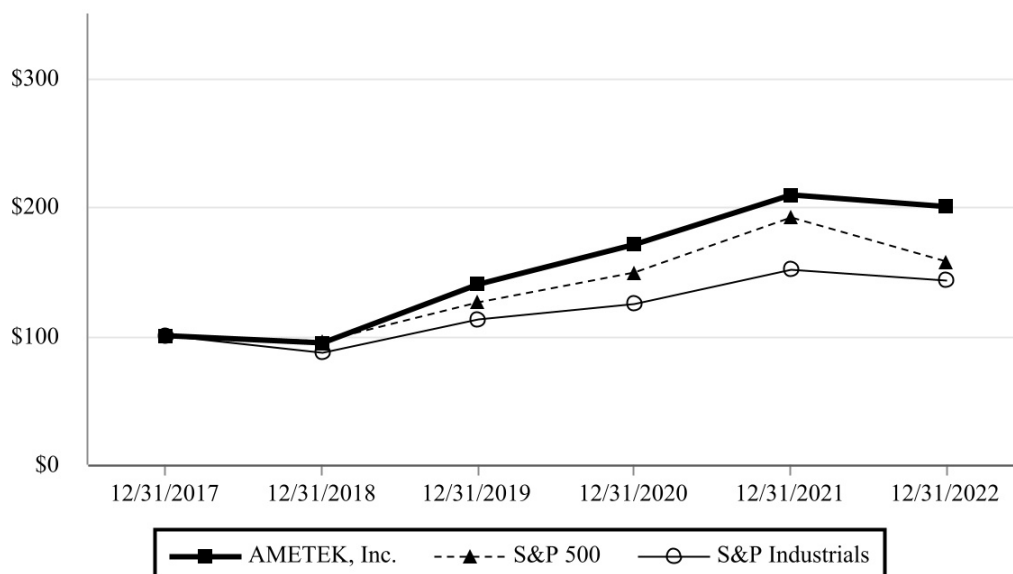
The following table sets forth information as of December 31, 2022 regarding all of the Company's existing compensation plans pursuant to which equity securities are authorized for issuance to employees and non-employee directors:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	3,059,845	\$ 79.46	6,118,226
Equity compensation plans not approved by security holders	—	—	—
Total	3,059,845	\$ 79.46	6,118,226

Stock Performance Graph

The following graph and accompanying table compare the cumulative total stockholder return for AMETEK over the last five years ended December 31, 2022 with total returns for the same period for the Standard and Poor's ("S&P") 500 Index and S&P Industrials. AMETEK's stock price is a component of both indices. The performance graph and table assume a \$100 investment made on December 31, 2017 and reinvestment of all dividends. The stock performance shown on the graph below is based on historical data and is not necessarily indicative of future stock price performance.

COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN



	December 31,					
	2017	2018	2019	2020	2021	2022
AMETEK, Inc.	\$ 100.00	\$ 94.11	\$ 139.53	\$ 170.55	\$ 208.62	\$ 199.60
S&P 500 Index	100.00	95.62	125.72	148.85	191.58	156.89
S&P Industrials	100.00	86.71	112.17	124.59	150.89	142.63

Item 6. Reserved

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This report includes forward-looking statements based on the Company's current assumptions, expectations and projections about future events. When used in this report, the words "believes," "anticipates," "may," "expect," "intend," "estimate," "project" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such words. In this report, the Company discloses important factors that could cause actual results to differ materially from management's expectations. For more information on these and other factors, see "Forward-Looking Information" herein.

The following Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with "Item 1A. Risk Factors," and the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

Business Overview

AMETEK's operations are affected by global, regional and industry-specific economic factors. However, the Company's strategic geographic and industry diversification, and its mix of products and services, have helped to mitigate the potential adverse impact of any unfavorable developments in any one industry or the economy of any single country on its consolidated operating results. In 2022, the Company posted record sales, operating income, operating margins, net income, diluted earnings per share, backlog, and orders. The Company also benefited from its strategic initiatives under AMETEK's four key strategies: Operational Excellence, Strategic Acquisitions, Global & Market Expansion and New Products.

Highlights in 2022 were:

- Net sales for 2022 were a record \$6,150.5 million, an increase of \$604.0 million or 10.9%, compared with net sales of \$5,546.5 million in 2021. The increase in net sales for 2022 was due to an 11% organic sales increase, a 2% increase from acquisitions, partially offset by an unfavorable 2% effect of foreign currency translation.
- Net income for 2022 was a record \$1,159.5 million, an increase of \$169.4 million or 17.1%, compared with \$990.1 million in 2021.
- Diluted earnings per share for 2022 were a record \$5.01, an increase of \$0.76 or 17.8%, compared with \$4.25 per diluted share in 2021.
- Orders for 2022 were a record \$6,639.1 million, an increase of \$164.7 million or 2.5%, compared with \$6,474.4 million in 2021. The increase in orders was due to a 9% organic order increase, partially offset by a 3% unfavorable effect of foreign currency translation, as well as a 3% decrease from the year-over-year impact of acquisitions. As a result, the Company's backlog of unfilled orders at December 31, 2022 was a record \$3,218.6 million.
- During 2022, the Company spent \$429.7 million in cash, net of cash acquired, to purchase two businesses:
 - In September 2022, AMETEK acquired Navitar, Inc. ("Navitar"), a designer and manufacturer of customized, fully integrated optical imaging systems, components, and software.
 - In October 2022, AMETEK acquired RTDS Technologies Inc. ("RTDS"), a leading provider of real-time power simulation systems used by utilities, and research and education institutions in the development and testing of the electric power grid and renewable energy applications.
- Cash flow provided by operating activities for 2022 was \$1,149.4 million. Free cash flow (cash flow provided by operating activities less capital expenditures) was \$1,010.4 million in 2022.

- EBITDA (earnings before interest, income taxes, depreciation, and amortization) was a record \$1,829.7 million in 2022, compared with \$1,594.3 million in 2021.
- The Company continued its emphasis on investment in research, development and engineering, spending \$322.1 million in 2022. Sales from products introduced in the past three years were \$1,674.2 million.

Recent Events and Market Conditions

Recent events and market conditions impacting our business include the inflationary cost environment, rising interest rates, supply chain constraints, the COVID-19 pandemic, and the ongoing conflict in Ukraine. As a result of these events and conditions, we anticipate the challenging global economic environment to continue into 2023.

Beginning in 2021, we experienced heightened levels of inflation in material and transportation costs. We have taken steps to mitigate the impacts of material and transportation cost inflation by implementing pricing actions. We experienced additional pressure in our supply chain due to component shortages and strained transportation capacity, as well as the impact of continued elevated customer demand. In response to these supply chain pressures, we have taken actions to build inventory and seek alternative sources of supply to support sales and backlog growth. The inflationary environment has also resulted in central banks raising short-term interest rates. We expect inflation to continue into 2023 and will continue to take actions to mitigate this inflationary pressure.

There still remains uncertainty concerning the COVID-19 pandemic, its effect on labor, government mandated lockdowns and other restrictive measures, and the pandemic's ultimate duration. Lockdowns in China during 2022 limited our ability to access customer sites, operate certain facilities, and placed additional constraints on our supply chain. Depending on the course of the pandemic, additional lockdowns in China or elsewhere could impact our operations and results of operations.

The invasion of Ukraine by Russia and the sanctions imposed in response to this conflict have increased global economic and political uncertainty. While we do not have operations in Russia or Ukraine and do not have significant exposure to customers and vendors in those countries, a significant expansion of the conflict's current scope could further complicate the economic environment.

While the ultimate impact of these events remains uncertain, we will continue to evaluate the extent to which these factors will impact our business, financial condition, and results of operations.

Results of Operations

The following table sets forth net sales and income by reportable segment and on a consolidated basis:

	Year Ended December 31,		
	2022	2021	2020
	(In thousands)		
Net sales:			
Electronic Instruments	\$ 4,229,353	\$ 3,763,758	\$ 2,989,928
Electromechanical	1,921,177	1,782,756	1,550,101
Consolidated net sales	<u>\$ 6,150,530</u>	<u>\$ 5,546,514</u>	<u>\$ 4,540,029</u>
Operating income and income before income taxes:			
Segment operating income:			
Electronic Instruments	\$ 1,089,729	\$ 958,183	\$ 770,620
Electromechanical	503,593	437,378	324,962
Total segment operating income	<u>1,593,322</u>	<u>1,395,561</u>	<u>1,095,582</u>
Corporate administrative expenses	<u>(92,630)</u>	<u>(86,891)</u>	<u>(67,698)</u>
Consolidated operating income	<u>1,500,692</u>	<u>1,308,670</u>	<u>1,027,884</u>
Interest expense	(83,186)	(80,381)	(86,062)
Other (expense) income, net	11,186	(5,119)	140,487
Consolidated income before income taxes	<u>\$ 1,428,692</u>	<u>\$ 1,223,170</u>	<u>\$ 1,082,309</u>

The following “Results of Operations of the year ended December 31, 2022 compared with the year ended December 31, 2021” section presents an analysis of the Company’s consolidated operating results displayed in the Consolidated Statement of Income. A discussion regarding our financial condition and results of operations for the year ended December 31, 2021 compared to the year ended December 31, 2020 can be found under Item 7 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the Securities and Exchange Commission on February 22, 2022.

Results of Operations for the year ended December 31, 2022 compared with the year ended December 31, 2021

Net sales for 2022 were a record \$6,150.5 million, an increase of \$604.0 million or 10.9%, compared with net sales of \$5,546.5 million in 2021. The increase in net sales for 2022 was due to an 11% organic sales increase, a 2% increase from acquisitions, partially offset by an unfavorable 2% effect of foreign currency translation. EIG net sales were \$4,229.4 million in 2022, an increase of 12.4%, compared with \$3,763.8 million in 2021. EMG net sales were \$1,921.2 million in 2022, an increase of 7.8%, compared with \$1,782.8 million in 2021.

Total international sales for 2022 were \$2,996.3 million or 48.7% of net sales, an increase of \$250.7 million or 9.1%, compared with international sales of \$2,745.6 million or 49.5% of net sales in 2021. The increase in international sales was primarily driven by strong demand in all regions as well as contributions from recent acquisitions. Export shipments from the United States, which are included in total international sales, were \$1,688.7 million in 2022, an increase of \$213.1 million or 14.4%, compared with \$1,475.6 million in 2021.

Orders for 2022 were a record \$6,639.1 million, an increase of \$164.7 million or 2.5% compared with \$6,474.4 million in 2021. The increase in orders was due to a 9% organic order increase, partially offset by a 3% unfavorable effect of foreign currency translation, as well as a 3% decrease from the year-over-year impact of acquisitions. The Company’s backlog of unfilled orders at December 31, 2022 was a record \$3,218.6 million, an increase of \$488.5 million or 17.9%, compared with \$2,730.1 million at December 31, 2021.

Segment operating income for 2022 was \$1,593.3 million, an increase of \$197.7 million or 14.2%, compared with segment operating income of \$1,395.6 million in 2021. Segment operating income was positively impacted in 2022 by the increased sales discussed above. Segment operating income, as a percentage of net sales, increased to 25.9% in 2022, compared with 25.2% in 2021. Segment operating margins for 2022 were negatively impacted by the dilutive impact of the 2021 acquisitions. Excluding the dilutive impact of recent acquisitions, segment operating margins for the core businesses increased 120 basis points compared to 2021, due to the Company's Operational Excellence initiatives.

Cost of sales for 2022 was \$4,005.3 million or 65.1% of net sales, an increase of \$371.4 million or 10.2%, compared with \$3,633.9 million or 65.5% of net sales for 2021. The cost of sales increase was primarily due to the net sales increase discussed above.

Selling, general and administrative expenses for 2022 were \$644.6 million or 10.5% of net sales, an increase of \$40.7 million or 6.7%, compared with \$603.9 million or 10.9% of net sales in 2021. Selling, general and administrative expenses increased primarily due to the increase in net sales discussed above.

Consolidated operating income was \$1,500.7 million or a record 24.4% of net sales for 2022, an increase of \$192.0 million or 14.7%, compared with \$1,308.7 million or 23.6% of net sales in 2021.

Other income, net was \$11.2 million for 2022, compared with \$5.1 million of other expense in 2021, a change of \$16.3 million. During 2022, the Company recorded higher pension income of \$9.9 million and lower acquisition-related due diligence expense compared to 2021.

The effective tax rate for 2022 was 18.8%, compared with 19.1% in 2021. See Note 9 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for further details.

Net income for 2022 was a record \$1,159.5 million, an increase of \$169.4 million or 17.1%, compared with \$990.1 million in 2021.

Diluted earnings per share for 2022 were a record \$5.01, an increase of \$0.76 or 17.8%, compared with \$4.25 per diluted share in 2021.

Segment Results

EIG's net sales totaled a record \$4,229.4 million for 2022, an increase of \$465.6 million or 12.4%, compared with \$3,763.8 million in 2021. The net sales increase was due to an 11% organic sales increase, a 4% increase from acquisitions, partially offset by an unfavorable 3% effect of foreign currency translation.

EIG's operating income was a record \$1,089.7 million for 2022, an increase of \$131.5 million or 13.7%, compared with \$958.2 million in 2021. EIG's operating margins were 25.8% of net sales for 2022, compared with 25.5% of net sales in 2021. EIG's operating margins in 2022 were negatively impacted by the dilutive impact of the 2021 acquisitions. Excluding the dilutive impact of the 2021 acquisitions, EIG operating margins increased 100 basis points compared to 2021, due to the increase in net sales discussed above, as well as continued benefits from the Company's Operational Excellence initiatives.

EMG's net sales totaled a record \$1,921.2 million for 2022, an increase of \$138.4 million or 7.8%, compared with \$1,782.8 million in 2021. The net sales increase was due to an 11% organic sales increase, partially offset by an unfavorable 3% effect of foreign currency translations.

EMG's operating income was a record \$503.6 million for 2022, an increase of \$66.2 million or 15.1%, compared with \$437.4 million in 2021. EMG's operating income included a \$7.1 million gain on the sale of a facility during 2022. EMG's operating margins were a record 26.2% of net sales for 2022, compared with 24.5% of net sales in 2021. Excluding the gain on the sale of a facility, EMG operating margins increased 130 basis points compared to

2021, due to the increase in net sales discussed above, as well as continued benefits from the Company's Operational Excellence initiatives.

Liquidity and Capital Resources

Cash provided by operating activities totaled \$1,149.4 million in 2022, a decrease of \$11.1 million or 1.0%, compared with \$1,160.5 million in 2021. The decrease in cash provided by operating activities for 2022 was due to higher working capital levels, primarily driven by higher investments in inventory to support sales and backlog growth, and to mitigate inventory supply chain constraints, partially offset by higher net income.

Free cash flow (cash flow provided by operating activities less capital expenditures) was \$1,010.4 million in 2022, compared with \$1,049.8 million in 2021. EBITDA (earnings before interest, income taxes, depreciation and amortization) was a record \$1,829.7 million in 2022, compared with \$1,594.3 million in 2021. Free cash flow and EBITDA are presented because the Company is aware that they are measures used by third parties in evaluating the Company. (See "Non-GAAP Financial Measures" for a reconciliation of U.S. GAAP measures to comparable non-GAAP measures).

Cash used by investing activities totaled \$552.8 million in 2022, compared with cash used by investing activities of \$2,055.8 million in 2021. In 2022, the Company paid \$429.7 million, net of cash acquired, to purchase Navitar, Inc. and RTDS Technologies Inc., compared to \$1,959.2 million, net of cash acquired, to purchase Abaco Systems, Magnetrol International, NSI-MI Technologies, Crank Software, EGS Automation, and Alphasense in 2021. Additions to property, plant and equipment totaled \$139.0 million in 2022, compared with \$110.7 million in 2021.

Cash used by financing activities totaled \$575.7 million in 2022, compared with \$39.3 million of cash provided by financing activities in 2021. At December 31, 2022, total debt, net was \$2,385.0 million, compared with \$2,544.2 million at December 31, 2021. In 2022, total borrowings decreased by \$73.7 million, compared with an increase of \$183.9 million in 2021. At December 31, 2022, the Company had available borrowing capacity of \$2,745.2 million under its revolving credit facility and term loan, including the \$700 million accordion feature.

On May 12, 2022, the Company along with certain of its foreign subsidiaries amended and restated its Credit Agreement dated as of September 22, 2011, as amended and restated as of March 10, 2016 and as further amended and restated as of October 30, 2018, with the lenders, JPMorgan Chase Bank, N.A., as Administrative Agent and Bank of America, N.A., PNC Bank, National Association, Trust Bank and Wells Fargo Bank, National Association, as Co-Syndication Agents. The credit agreement amends and restates the Company's existing revolving credit facility to increase the size from \$1.5 billion to \$2.3 billion and terminates the \$800 million term loan. The credit agreement places certain restrictions on allowable additional indebtedness. In November 2021, the Company further amended the Credit Agreement to address the cessation of LIBOR on certain currencies. At December 31, 2022, the Company had \$219.0 million outstanding on the revolver with a maturity date of May 2027.

In the fourth quarter of 2021, a 55 million Swiss franc (\$59.7 million) 2.44% senior note matured and was paid. The debt-to-capital ratio was 24.2% at December 31, 2022, compared with 27.0% at December 31, 2021. The net debt-to-capital ratio (total debt, net less cash and cash equivalents divided by the sum of net debt and stockholders' equity) was 21.4% at December 31, 2022, compared with 24.2% at December 31, 2021. The net debt-to-capital ratio is presented because the Company is aware that this measure is used by third parties in evaluating the Company. (See "Non-GAAP Financial Measures" for a reconciliation of U.S. GAAP measures to comparable non-GAAP measures).

In 2022, the Company repurchased approximately 2.7 million shares of its common stock for \$332.8 million, compared with \$14.7 million used for repurchases of approximately 113,000 shares in 2021. Effective May 5, 2022, the Company's Board of Directors approved a \$1 billion share repurchase authorization. This authorization replaces an earlier \$500 million share repurchase authorization approved by the Board in February 2019. At December 31, 2022, \$823.9 million was available under the Company's Board of Directors authorization for future share repurchases.

Additional financing activities for 2022 included cash dividends paid of \$202.2 million, compared with \$184.6 million in 2021. On February 9, 2022, the Company's Board of Directors approved a 10% increase in the quarterly cash dividend on the Company's common stock to \$0.22 per common share from \$0.20 per common share. Proceeds from the exercise of employee stock options were \$49.9 million in 2022, compared with \$60.3 million in 2021.

As a result of all of the Company's cash flow activities in 2022, cash and cash equivalents at December 31, 2022 totaled \$345.4 million, compared with \$346.8 million at December 31, 2021. At December 31, 2022, the Company had \$334.1 million in cash outside the United States, compared with \$344.0 million at December 31, 2021. The Company utilizes this cash to fund its international operations, as well as to acquire international businesses. The Company is in compliance with all covenants, including financial covenants, for all of its debt agreements. The Company believes it has sufficient cash-generating capabilities from domestic and unrestricted foreign sources, available credit facilities and access to long-term capital funds to enable it to meet its operating needs and contractual obligations for the foreseeable future.

Subsequent Event

Effective February 9, 2023, the Company's Board of Directors approved a 14% increase in the quarterly cash dividend on the Company's common stock to \$0.25 per common share from \$0.22 per common share.

Contractual Obligations and Other Commitments

Material contractual obligations arising in the normal course of business primarily consist of purchase obligations, long-term debt and related interest payments, and leases. See Note 10 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on the nature and timing of debt obligations.

Leases expire over a range of years from 2023 to 2032. Most of the leases contain renewal or purchase options, subject to various terms and conditions. See Note 14 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on the nature and timing of lease obligations.

Purchase obligations primarily consist of contractual commitments to purchase certain inventories at fixed prices. At December 31, 2022, the Company had \$1,003.9 million of purchase obligations due within one year and \$115.8 million of purchase obligations due in more than one year.

The Company has standby letters of credit and surety bonds of \$64.9 million related to performance and payment guarantees at December 31, 2022. Based on experience with these arrangements, the Company believes that any obligations that may arise will not be material to its financial position.

Non-GAAP Financial Measures

EBITDA represents earnings before interest, income taxes, depreciation and amortization. EBITDA is presented because the Company is aware that it is used by rating agencies, securities analysts, investors and other parties in evaluating the Company. It should not be considered, however, as an alternative to operating income as an indicator of the Company's operating performance or as an alternative to cash flows as a measure of the Company's overall liquidity as presented in the Company's consolidated financial statements. Furthermore, EBITDA measures shown for the Company may not be comparable to similarly titled measures used by other companies. The following table presents the reconciliation of net income reported in accordance with U.S. generally accepted accounting principles ("GAAP") to EBITDA:

	Year Ended December 31,		
	2022	2021	2020
	(In millions)		
Net income	\$ 1,159.5	\$ 990.1	\$ 872.4
Add (deduct):			
Interest expense	83.2	80.4	86.1
Interest income	(1.7)	(1.4)	(2.1)
Income taxes	269.2	233.1	209.9
Depreciation	113.7	108.5	101.3
Amortization	205.8	183.6	154.0
Total adjustments	670.2	604.2	549.2
EBITDA	\$ 1,829.7	\$ 1,594.3	\$ 1,421.6

Free cash flow represents cash flow from operating activities less capital expenditures. Free cash flow is presented because the Company is aware that it is used by rating agencies, securities analysts, investors and other parties in evaluating the Company. The following table presents the reconciliation of cash flow from operating activities reported in accordance with U.S. GAAP to free cash flow:

	Year Ended December 31,		
	2022	2021	2020
	(In millions)		
Cash provided by operating activities	\$ 1,149.4	\$ 1,160.5	\$ 1,281.0
Deduct: Capital expenditures	(139.0)	(110.7)	(74.2)
Free cash flow	\$ 1,010.4	\$ 1,049.8	\$ 1,206.8

Net debt represents total debt, net minus cash and cash equivalents. Net debt is presented because the Company is aware that it is used by rating agencies, securities analysts, investors and other parties in evaluating the Company. The following table presents the reconciliation of total debt, net reported in accordance with U.S. GAAP to net debt:

	December 31,	
	2022	2021
	(In millions)	
Total debt, net	\$ 2,385.0	\$ 2,544.2
Less: Cash and cash equivalents	(345.4)	(346.8)
Net debt	2,039.6	2,197.4
Stockholders' equity	7,476.5	6,871.9
Capitalization (net debt plus stockholders' equity)	\$ 9,516.1	\$ 9,069.3
Net debt as a percentage of capitalization	21.4 %	24.2 %

Internal Reinvestment

Capital Expenditures

Capital expenditures were \$139.0 million or 2.3% of net sales in 2022, compared with \$110.7 million or 2.0% of net sales in 2021. In 2022, approximately 64% of capital expenditures were for improvements to existing equipment or additional equipment to increase productivity and expand capacity. Capital expenditures in 2023 are expected to be approximately 2% of net sales, with a continued emphasis on spending to improve productivity.

Research, Development and Engineering

The Company is committed to, and has consistently invested in, research, development and engineering activities to design and develop new and improved products and solutions. Research, development and engineering costs before customer reimbursement were \$322.1 million in 2022, \$299.6 million in 2021 and \$246.2 million in 2020. These amounts included research and development expenses of \$198.8 million, \$194.2 million and \$158.9 million in 2022, 2021, and 2020, respectively. All such expenditures were directed toward the development of new products and solutions and the improvement of existing products and solutions.

Environmental Matters

Information with respect to environmental matters is set forth in Note 13 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Critical Accounting Policies and Estimates

Critical accounting policies are those policies that can have a significant impact on the presentation of the Company's financial condition and results of operations and that require the use of complex and subjective estimates based on the Company's historical experience and management's judgment. Because of the uncertainty inherent in such estimates, actual results may differ materially from the estimates used. Below are the policies used in preparing the Company's financial statements that management believes are the most dependent upon the application of estimates and assumptions. A complete list of the Company's significant accounting policies is in Note 1 to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

- *Business Combinations.* The Company allocates the purchase price of an acquired company, including when applicable, the acquisition date fair value of contingent consideration between tangible and intangible assets acquired and liabilities assumed from the acquired business based on their estimated fair values, with the residual of the purchase price recorded as goodwill. Third party appraisal firms and other consultants are engaged to assist management in determining the fair values of certain assets acquired and liabilities assumed. Estimating fair values requires significant judgments, estimates and assumptions, including but not limited to: discount rates, future cash flows and the economic lives of trade names, technology, and customer relationships. These estimates are based on historical experience and information obtained from the management of the acquired companies and are inherently uncertain.
- *Goodwill and Other Intangible Assets.* Goodwill and other intangible assets with indefinite lives, primarily trademarks and trade names, are not amortized; rather, they are tested for impairment at least annually. The Company performs either a qualitative or quantitative analysis to determine if it is more likely than not that the fair values of its reporting units are less than the respective carrying values of those reporting units.

When testing goodwill for impairment, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the estimated fair value of a reporting unit is less than its carrying amount. If the Company performs a qualitative assessment and determines that an impairment is more likely than not, then performance of a quantitative impairment test is required. In conducting a qualitative assessment, the

Company analyzes actual and forecasted net sales and selling profit for each reporting unit, as well as historical performance and the results of prior quantitative tests performed. Additionally, the Company assesses critical areas that may impact its business, including macroeconomic conditions, industry and market conditions, cost factors, or any relevant events and factors that may impact projected financial results.

If performed, the quantitative goodwill impairment test uses a discounted cash flow analysis to determine the fair value of each reporting unit, which considers cash flows discounted at an appropriate discount rate. The annual goodwill impairment test requires the Company to make a number of assumptions and estimates concerning future levels of revenue growth, operating margins, depreciation, amortization and working capital requirements, which are based on the Company's long-range plan and are considered level 3 inputs. The discount rate is an estimate of the overall after-tax rate of return required by a market participant whose weighted average cost of capital includes both equity and debt, including a risk premium. While the Company uses the best available information to prepare its cash flow and discount rate assumptions, actual future cash flows or market conditions could differ significantly resulting in future impairment charges related to recorded goodwill balances.

The impairment test for indefinite-lived intangibles other than goodwill (primarily trademarks and trade names) consists of a comparison of the estimated fair value of the indefinite-lived intangible asset to the carrying value of the asset as of the impairment testing date. The Company can elect to perform a qualitative analysis to determine if it is more likely than not that the fair values of its indefinite-lived intangible assets are less than the respective carrying values of those assets. The Company elected to perform its annual goodwill impairment test using the quantitative analysis method. The Company may elect to perform the quantitative analysis in future periods. The Company estimates the fair value of its indefinite-lived intangibles using the relief from royalty method using level 3 inputs, which is a widely used valuation technique for such assets. The fair value derived from the relief from royalty method is determined by applying a royalty rate to a projection of net revenues discounted using an appropriate discount rate. Each royalty rate is determined based on the profitability of the trade name to which it relates and observed market royalty rates. Certain impairment models have discount rates calculated based on a debt/equity cost of capital. While the Company uses the best available information to prepare its cash flow and discount rate assumptions, actual future cash flows or market conditions could differ significantly resulting in future impairment charges related to recorded intangible balances. While there are always changes in assumptions to reflect changing business and market conditions, the Company's overall methodology and the population of assumptions used have remained unchanged.

The Company's acquisitions have generally included a significant goodwill component and the Company expects to continue to make acquisitions. At December 31, 2022, goodwill and other indefinite-lived intangible assets totaled \$6,262.2 million or 50.4% of the Company's total assets. The Company completed its required annual indefinite-lived intangibles impairment tests in the fourth quarter of 2022 and determined that the carrying values of certain of the Company's indefinite-lived intangibles were impaired as a result of higher discount rates driven by higher interest rates. As a result, in the fourth quarter of 2022, the Company recorded an immaterial non-cash impairment charge related to certain of the Company's trade names. The Company completed its annual qualitative goodwill impairment test in the fourth quarter of 2022 and determined the carrying values of its goodwill intangibles were not impaired. There can be no assurance that goodwill or indefinite-lived intangibles impairment will not occur in the future.

- *Pensions.* The Company has U.S. and foreign defined benefit and defined contribution pension plans. The most significant elements in determining the Company's pension income or expense are the assumed pension liability discount rate and the expected return on plan assets. The pension discount rate reflects the current interest rate at which the pension liabilities could be settled at the valuation date. At the end of each year, the Company determines the assumed discount rate to be used to discount plan liabilities. In estimating this rate for 2022, the Company considered rates of return on high-quality, fixed-income investments that have maturities consistent with the anticipated funding requirements of the plan. In estimating the U.S. and foreign discount rates, the Company's actuaries developed a customized discount

rate appropriate to the plans' projected benefit cash flow based on yields derived from a database of long-term bonds at consistent maturity dates. The Company determines the expected long-term rate of return based primarily on its expectation of future returns for the pension plans' investments. Additionally, the Company considers historical returns on comparable fixed-income and equity investments and adjusts its estimate as deemed appropriate.

- *Income Taxes.* The process of providing for income taxes and determining the related balance sheet accounts requires management to assess uncertainties, make judgments regarding outcomes and utilize estimates. The Company conducts a broad range of operations around the world and is therefore subject to complex tax regulations in numerous international taxing jurisdictions, resulting at times in tax audits, disputes and potential litigation, the outcome of which is uncertain. Management must make judgments currently about such uncertainties and determine estimates of the Company's tax assets and liabilities. To the extent the final outcome differs, future adjustments to the Company's tax assets and liabilities may be necessary.

The Company assesses the realizability of its deferred tax assets, taking into consideration the Company's forecast of future taxable income, available net operating loss carryforwards and available tax planning strategies that could be implemented to realize the deferred tax assets. Based on this assessment, management must evaluate the need for, and the amount of, valuation allowances against the Company's deferred tax assets. To the extent facts and circumstances change in the future, adjustments to the valuation allowances may be required.

The Company assesses the uncertainty in its tax positions, by applying a minimum recognition threshold which a tax position is required to meet before a tax benefit is recognized in the financial statements. Once the minimum threshold is met, using a more likely than not standard, a series of probability estimates is made for each item to properly measure and record a tax benefit. The tax benefit recorded is generally equal to the highest probable outcome that is more than 50% likely to be realized after full disclosure and resolution of a tax examination. The underlying probabilities are determined based on the best available objective evidence such as recent tax audit outcomes, published guidance, external expert opinion, or by analogy to the outcome of similar issues in the past. There can be no assurance that these estimates will ultimately be realized given continuous changes in tax policy, legislation and audit practice. The Company recognizes interest and penalties accrued related to uncertain tax positions in income tax expense.

Recent Accounting Pronouncements

See Note 2, Recent Accounting Pronouncements, to the Company's Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for information regarding recently issued accounting pronouncements.

Forward-Looking Information

Certain matters discussed in this Form 10-K are "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 ("PSLRA"), which involve risk and uncertainties that exist in the Company's operations and business environment and can be affected by inaccurate assumptions, or by known or unknown risks and uncertainties. Many such factors will be important in determining the Company's actual future results. The Company wishes to take advantage of the "safe harbor" provisions of the PSLRA by cautioning readers that numerous important factors in some cases have caused, and in the future could cause, the Company's actual results to differ materially from those expressed in any forward-looking statements made by, or on behalf of, the Company. Some, but not all, of the factors or uncertainties that could cause actual results to differ from present expectations are set forth above and under Item 1A. Risk Factors. The Company undertakes no obligation to publicly update any forward-looking statements, whether as a result of new information, subsequent events or otherwise, unless required by the securities laws to do so.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The Company's primary exposures to market risk are fluctuations in interest rates, foreign currency exchange rates and commodity prices, which could impact its financial condition and results of operations. The Company addresses its exposure to these risks through its normal operating and financing activities. The Company's differentiated and global business activities help to reduce the impact that any particular market risk may have on its operating income as a whole.

The Company's short-term debt carries variable interest rates and generally its long-term debt carries fixed rates. These financial instruments are more fully described in the Notes to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

The foreign currencies to which the Company has the most significant exchange rate exposure are the Euro, the British pound, the Japanese yen, the Chinese renminbi, the Canadian dollar, and the Mexican peso. Exposure to foreign currency rate fluctuation is modest, monitored, and when possible, mitigated through the use of local borrowings and occasional derivative financial instruments in the foreign currency affected. The effect of translating foreign subsidiaries' balance sheets into U.S. dollars is included in other comprehensive income within stockholders' equity. Foreign currency transactions have not had a significant effect on the operating results reported by the Company because revenues and costs associated with the revenues are generally transacted in the same foreign currencies.

The primary commodities to which the Company has market exposure are raw material purchases of nickel, aluminum, copper, steel, titanium, and gold. Exposure to price changes in these commodities are generally mitigated through adjustments in selling prices of the ultimate product and purchase order pricing arrangements, although forward contracts are sometimes used to manage some of those exposures.

Based on a hypothetical ten percent adverse movement in interest rates, commodity prices or foreign currency exchange rates, the Company's best estimate is that the potential losses in future earnings, fair value of risk-sensitive financial instruments and cash flows are not material, although the actual effects may differ materially from the hypothetical analysis.

Item 8. Financial Statements and Supplementary Data

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Financial Statement Schedules (Item 15(a)(2))

Financial statement schedules have been omitted because either they are not applicable, or the required information is included in the financial statements or the notes thereto.

Management's Responsibility for Financial Statements

Management has prepared and is responsible for the integrity of the consolidated financial statements and related information. The statements are prepared in conformity with U.S. generally accepted accounting principles consistently applied and include certain amounts based on management's best estimates and judgments. Historical financial information elsewhere in this report is consistent with that in the financial statements.

In meeting its responsibility for the reliability of the financial information, management maintains a system of internal accounting and disclosure controls, including an internal audit program. The system of controls provides for appropriate division of responsibility and the application of written policies and procedures. That system, which undergoes continual reevaluation, is designed to provide reasonable assurance that assets are safeguarded, and records are adequate for the preparation of reliable financial data.

Management is responsible for establishing and maintaining adequate internal control over financial reporting. AMETEK, Inc. maintains a system of internal controls that is designed to provide reasonable assurance as to the fair and reliable preparation and presentation of the consolidated financial statements; however, there are inherent limitations in the effectiveness of any system of internal controls.

Management recognizes its responsibility for conducting the Company's activities according to the highest standards of personal and corporate conduct. That responsibility is characterized and reflected in a code of business conduct for all employees and in a financial code of ethics for the Chief Executive Officer and Senior Financial Officers, as well as in other key policy statements publicized throughout the Company.

The Audit Committee of the Board of Directors, which is composed solely of independent directors who are not employees of the Company, meets with the independent registered public accounting firm, the internal auditors and management to satisfy itself that each is properly discharging its responsibilities. The report of the Audit Committee is included in the Company's Proxy Statement for the 2023 Annual Meeting of Stockholders. Both the independent registered public accounting firm and the internal auditors have direct access to the Audit Committee.

The Company's independent registered public accounting firm, Ernst & Young LLP, is engaged to render an opinion as to whether management's financial statements present fairly, in all material respects, the Company's financial position and operating results. This report is included herein.

Management's Report on Internal Control over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in the Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, AMETEK, Inc. conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022 based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on that evaluation, our management concluded that the Company's internal control over financial reporting was effective as of December 31, 2022.

The Company acquired Navitar, Inc. ("Navitar") in September 2022 and RTDS Technologies Inc. ("RTDS") in October 2022. As permitted by the U.S. Securities and Exchange Commission staff interpretative guidance for newly acquired businesses, the Company excluded Navitar and RTDS from management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022. Navitar, and RTDS constituted 3.5% of total assets as of December 31, 2022 and 0.4% of net sales for the year then ended.

The Company's internal control over financial reporting as of December 31, 2022 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

/s/ DAVID A. ZAPICO
Chairman of the Board and Chief Executive Officer
February 21, 2023

/s/ WILLIAM J. BURKE
Executive Vice President – Chief Financial Officer

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
ON INTERNAL CONTROL OVER FINANCIAL REPORTING**

To the Board of Directors and Stockholders of AMETEK, Inc.:

Opinion on Internal Control over Financial Reporting

We have audited AMETEK, Inc.'s internal control over financial reporting as of December 31, 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, AMETEK, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

As indicated in the accompanying *Management's Report on Internal Control over Financial Reporting*, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of Navitar, Inc. and RTDS Technologies Inc., which are included in the 2022 consolidated financial statements of the Company and constituted 3.5% of total assets as of December 31, 2022 and 0.4% of net sales for the year then ended. Our audit of internal control over financial reporting of the Company also did not include an evaluation of the internal control over financial reporting of Navitar, Inc. and RTDS Technologies Inc.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of AMETEK, Inc. as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and our report dated February 21, 2023 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
Philadelphia, Pennsylvania
February 21, 2023

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
ON FINANCIAL STATEMENTS**

To the Board of Directors and Stockholders of AMETEK, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AMETEK, Inc. (the Company) as of December 31, 2022 and 2021, the related consolidated statements of income, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 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 December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 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 December 31, 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 February 21, 2023 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 include 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 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 accounts or disclosures to which it relates.

Impairment Assessment of Indefinite Lived Intangible Assets (other than Goodwill)

Description of the Matter At December 31, 2022, the Company's indefinite lived intangible assets (other than goodwill) totaled \$889.7 million, consisting of trademarks and trade names. As described in Note 1 to the consolidated financial statements, indefinite lived intangible assets are not amortized but are tested for impairment at least annually in the Company's fourth quarter.

Auditing management's indefinite lived intangible asset impairment tests was complex and highly judgmental due to the significant measurement uncertainty in estimating the fair value of the trademarks and trade names. In particular, the fair value estimates were sensitive to significant assumptions such as discount rate, forecasted revenues and royalty rates, which are affected by expectations about future market or economic conditions.

How We Addressed the Matter in Our Audit

We obtained an understanding, evaluated the design and tested the operating effectiveness of controls over the Company's indefinite lived intangible asset impairment process. For example, we tested controls over management's review of the valuation models and significant assumptions, including forecasted financial information, as well as management's controls to validate that the data used in the valuations was complete and accurate.

To test the estimated fair value of the Company's indefinite lived intangible assets, we performed audit procedures that included, among others, assessing the fair value methodologies utilized by management and the significant assumptions discussed above, including the underlying data used in the analyses. For example, when evaluating the significant assumptions, we compared them to current financial and operating plans, market and industry studies, historical trends, and royalty rates used in prior periods. We also assessed the historical accuracy of management's forecasts and performed sensitivity analyses of significant assumptions to evaluate the changes in the fair value estimates of the trademarks and trade names that would result from changes in the assumptions. We involved our valuation specialists to assist in evaluating the discount rate, royalty rate and valuation methodologies used by the Company.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 1930.

Philadelphia, Pennsylvania
February 21, 2023

AMETEK, Inc.
Consolidated Statement of Income
(In thousands, except per share amounts)

	Year Ended December 31,		
	2022	2021	2020
Net sales	\$ 6,150,530	\$ 5,546,514	\$ 4,540,029
Cost of sales	4,005,261	3,633,900	2,996,515
Selling, general and administrative	644,577	603,944	515,630
Total operating expenses	4,649,838	4,237,844	3,512,145
Operating income	1,500,692	1,308,670	1,027,884
Interest expense	(83,186)	(80,381)	(86,062)
Other income (expense), net	11,186	(5,119)	140,487
Income before income taxes	1,428,692	1,223,170	1,082,309
Provision for income taxes	269,150	233,117	209,870
Net income	\$ 1,159,542	\$ 990,053	\$ 872,439
Basic earnings per share	\$ 5.04	\$ 4.29	\$ 3.80
Diluted earnings per share	\$ 5.01	\$ 4.25	\$ 3.77
Weighted average common shares outstanding:			
Basic shares	230,208	230,955	229,435
Diluted shares	231,536	232,813	231,150

See accompanying notes.

AMETEK, Inc.
Consolidated Statement of Comprehensive Income
(In thousands)

	Year Ended December 31,		
	2022	2021	2020
Net income	\$ 1,159,542	\$ 990,053	\$ 872,439
Other comprehensive income (loss):			
Amounts arising during the period – gains (losses), net of tax (expense) benefit:			
Foreign currency translation:			
Translation adjustments	(123,756)	(47,331)	64,521
Change in long-term intercompany notes	(21,419)	(16,333)	16,695
Net investment hedge instruments gain (loss), net of tax of \$(17,070), \$(12,631) and \$14,787 in 2022, 2021 and 2020, respectively	52,416	39,047	(45,716)
Defined benefit pension plans:			
Net actuarial (loss) gain, net of tax of \$4,769, \$(15,298) and \$8,637 in 2022, 2021 and 2020, respectively	(18,238)	46,049	(18,733)
Amortization of net actuarial loss, net of tax of \$(2,111), \$(4,103) and \$(3,539) in 2022, 2021 and 2020, respectively	6,420	12,249	11,940
Amortization of prior service costs, net of tax of \$(25), \$(114) and \$7 in 2022, 2021 and 2020, respectively	76	343	(36)
Other comprehensive (loss) income	(104,501)	34,024	28,671
Total comprehensive income	\$ 1,055,041	\$ 1,024,077	\$ 901,110

See accompanying notes.

AMETEK, Inc.
Consolidated Balance Sheet
(In thousands, except share amounts)

	December 31,	
	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 345,386	\$ 346,772
Receivables	919,335	829,213
Inventories, net	1,044,284	769,175
Other current assets	219,053	183,605
Total current assets	<u>2,528,058</u>	<u>2,128,765</u>
Property, plant and equipment, net	635,641	617,138
Right of use assets, net	170,295	169,924
Goodwill	5,372,562	5,238,726
Other intangibles, net	3,342,085	3,368,629
Investments and other assets	382,479	375,005
Total assets	<u>\$ 12,431,120</u>	<u>\$ 11,898,187</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings and current portion of long-term debt, net	\$ 226,079	\$ 315,093
Accounts payable	497,134	470,252
Customer advanced payments	357,674	298,728
Income taxes payable	48,171	35,904
Accrued liabilities and other	435,144	443,337
Total current liabilities	<u>1,564,202</u>	<u>1,563,314</u>
Long-term debt, net	2,158,928	2,229,148
Deferred income taxes	694,267	719,675
Other long-term liabilities	537,211	514,166
Total liabilities	<u>4,954,608</u>	<u>5,026,303</u>
Stockholders' equity:		
Preferred stock, \$0.01 par value; authorized 5,000,000 shares; none issued	—	—
Common stock, \$0.01 par value; authorized 800,000,000 shares; issued: 2022 – 268,588,293 shares; 2021 – 267,800,160 shares	2,700	2,689
Capital in excess of par value	1,094,236	1,012,526
Retained earnings	8,857,485	7,900,113
Accumulated other comprehensive loss	(574,945)	(470,444)
Treasury stock: 2022 – 38,537,635 shares; 2021 – 36,137,864 shares	(1,902,964)	(1,573,000)
Total stockholders' equity	<u>7,476,512</u>	<u>6,871,884</u>
Total liabilities and stockholders' equity	<u>\$ 12,431,120</u>	<u>\$ 11,898,187</u>

See accompanying notes.

AMETEK, Inc.
Consolidated Statement of Stockholders' Equity
(In thousands)

	Year Ended December 31,		
	2022	2021	2020
Capital stock			
Preferred stock, \$0.01 par value	\$ —	\$ —	\$ —
Common stock, \$0.01 par value			
Balance at the beginning of the year	2,689	2,676	2,662
Shares issued	11	13	14
Balance at the end of the year	2,700	2,689	2,676
Capital in excess of par value			
Balance at the beginning of the year	1,012,526	921,752	832,821
Issuance of common stock under employee stock plans	34,335	44,671	47,366
Share-based compensation costs	47,375	46,103	41,565
Balance at the end of the year	1,094,236	1,012,526	921,752
Retained earnings			
Balance at the beginning of the year	7,900,113	7,094,656	6,387,612
Net income	1,159,542	990,053	872,439
Cash dividends paid	(202,169)	(184,595)	(165,035)
Adoption of ASU 2016-13	—	—	(360)
Other	(1)	(1)	—
Balance at the end of the year	8,857,485	7,900,113	7,094,656
Accumulated other comprehensive (loss) income			
Foreign currency translation:			
Balance at the beginning of the year	(275,365)	(250,748)	(286,248)
Translation adjustments	(123,756)	(47,331)	64,521
Change in long-term intercompany notes	(21,419)	(16,333)	16,695
Net investment hedge instruments gain (loss), net of tax of \$(17,070), \$(12,631) and \$14,787 in 2022, 2021 and 2020, respectively	52,416	39,047	(45,716)
Balance at the end of the year	(368,124)	(275,365)	(250,748)
Defined benefit pension plans:			
Balance at the beginning of the year	(195,079)	(253,720)	(246,891)
Net actuarial (loss) gain, net of tax of \$4,769, \$(15,298) and \$8,637 in 2022, 2021 and 2020, respectively	(18,238)	46,049	(18,733)
Amortization of net actuarial loss, net of tax of \$(2,111), \$(4,103) and \$(3,539) in 2022, 2021 and 2020, respectively	6,420	12,249	11,940
Amortization of prior service costs, net of tax of \$(25), \$(114) and \$7 in 2022, 2021 and 2020, respectively	76	343	(36)
Balance at the end of the year	(206,821)	(195,079)	(253,720)
Accumulated other comprehensive loss at the end of the year	(574,945)	(470,444)	(504,468)
Treasury stock			
Balance at the beginning of the year	(1,573,000)	(1,565,270)	(1,574,464)
Issuance of common stock under employee stock plans	2,857	6,981	13,879
Purchase of treasury stock	(332,821)	(14,711)	(4,685)
Balance at the end of the year	(1,902,964)	(1,573,000)	(1,565,270)
Total stockholders' equity	\$ 7,476,512	\$ 6,871,884	\$ 5,949,346

See accompanying notes.

AMETEK, Inc.
Consolidated Statement of Cash Flows
(In thousands)

	Year Ended December 31,		
	2022	2021	2020
Cash provided by (used for):			
Operating activities:			
Net income	\$ 1,159,542	\$ 990,053	\$ 872,439
Adjustments to reconcile net income to total operating activities:			
Depreciation and amortization	319,427	292,112	255,275
Deferred income taxes	(67,818)	(29,762)	1,839
Share-based compensation expense	47,375	46,103	41,565
Gain on sale of business/investment	(3,584)	(6,349)	(141,020)
Gain on sale of facilities	(7,054)	—	(7,523)
Changes in assets and liabilities, net of acquisitions:			
(Increase) decrease in receivables	(86,713)	(172,791)	163,471
(Increase) decrease in inventories and other current assets	(322,467)	(129,593)	77,448
Increase in payables, accruals and income taxes	95,481	212,101	7,017
Increase (decrease) in other long-term liabilities	47,226	(35,104)	20,430
Pension contributions	(8,959)	(10,277)	(9,527)
Other, net	(23,083)	3,964	(434)
Total operating activities	<u>1,149,373</u>	<u>1,160,457</u>	<u>1,280,980</u>
Investing activities:			
Additions to property, plant and equipment	(139,005)	(110,671)	(74,199)
Purchases of businesses, net of cash acquired	(429,714)	(1,959,218)	(116,509)
Proceeds from sale of business/investment	3,734	12,000	245,311
Proceeds from sale of facilities	11,754	2,341	9,508
Other, net	471	(294)	(2,481)
Total investing activities	<u>(552,760)</u>	<u>(2,055,842)</u>	<u>61,630</u>
Financing activities:			
Net change in short-term borrowings	(73,691)	243,615	(328,003)
Repayments of long-term borrowings	—	(59,718)	(102,947)
Repurchases of common stock	(332,821)	(14,711)	(4,685)
Cash dividends paid	(202,169)	(184,595)	(165,035)
Proceeds from stock option exercises	49,937	60,297	64,903
Other, net	(16,955)	(5,551)	(3,669)
Total financing activities	<u>(575,699)</u>	<u>39,337</u>	<u>(539,436)</u>
Effect of exchange rate changes on cash and cash equivalents	<u>(22,300)</u>	<u>(10,002)</u>	<u>16,618</u>
(Decrease) increase in cash and cash equivalents	<u>(1,386)</u>	<u>(866,050)</u>	<u>819,792</u>
Cash and cash equivalents:			
Beginning of year	346,772	1,212,822	393,030
End of year	<u>\$ 345,386</u>	<u>\$ 346,772</u>	<u>\$ 1,212,822</u>

See accompanying notes.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Significant Accounting Policies*Basis of Consolidation*

The accompanying consolidated financial statements reflect the results of operations, financial position and cash flows of AMETEK, Inc. (the “Company”), and include the accounts of the Company and subsidiaries, after elimination of all intercompany transactions in the consolidation.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates and assumptions.

Cash Equivalents, Securities and Other Investments

All highly liquid investments with maturities of three months or less when purchased are considered cash equivalents.

Accounts Receivable

The Company maintains allowances for estimated credit losses resulting from the inability of customers to meet their financial obligations to the Company. The Company recognizes an allowance for credit losses, on all accounts receivable and contract assets, which considers risk of future credit losses based on factors such as historical experience, contract terms, as well as general and market business conditions, country, and political risk. Balances are written off when considered uncollectible. Bad debt expense was \$3.7 million in 2022, \$1.2 million in 2021 and \$3.6 million in 2020. At December 31, 2022 and 2021, the allowance for estimated credit losses was \$14.1 million and \$11.2 million, respectively.

Inventories

The Company uses the first-in, first-out (“FIFO”) method of accounting, which approximates current replacement cost, for approximately 90% of its inventories at December 31, 2022. The last-in, first-out (“LIFO”) method of accounting is used to determine cost for the remaining 10% of the Company’s inventory at December 31, 2022. For inventories where cost is determined by the LIFO method, the FIFO value would have been \$40.3 million and \$29.8 million higher than the LIFO value reported in the consolidated balance sheet at December 31, 2022 and 2021, respectively. The Company provides estimated inventory reserves for slow-moving and obsolete inventory based on current assessments about future demand, market conditions, customers who may be experiencing financial difficulties and related management initiatives.

Business Combinations

The Company allocates the purchase price of an acquired company, including when applicable, the acquisition date fair value of contingent consideration between tangible and intangible assets acquired and liabilities assumed from the acquired business based on their estimated fair values, with the residual of the purchase price recorded as goodwill. The results of operations of the acquired business are included in the Company’s operating results from the date of acquisition.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Expenditures for additions to plant facilities, or that extend their useful lives, are capitalized. The cost of minor tools, jigs and dies, and maintenance and repairs is charged to expense as incurred. Depreciation of plant and equipment is calculated principally on a straight-line basis over the estimated useful lives of the related assets. The range of lives for depreciable assets is generally three to 10 years for machinery and equipment, five to 27 years for leasehold improvements and 25 to 50 years for buildings.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Depreciation expense was \$113.7 million, \$108.5 million and \$101.3 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Goodwill and Other Intangible Assets

Goodwill and other intangible assets with indefinite lives, primarily trademarks and trade names, are not amortized; rather, they are tested for impairment at least annually.

The Company identifies its reporting units at the component level, which is one level below its operating segments. Generally, goodwill arises from acquisitions of specific operating companies and is assigned to the reporting unit in which the operating company resides. The Company's reporting units are divisions that are one level below its operating segments and for which discrete financial information is prepared and regularly reviewed by segment management.

When testing goodwill for impairment, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the estimated fair value of a reporting unit is less than its carrying amount. If the Company performs a qualitative assessment and determines that an impairment is more likely than not, then performance of a quantitative impairment test is required. In conducting a qualitative assessment, the Company analyzes actual and forecasted net sales and selling profit for each reporting unit, as well as historical performance and the results of prior quantitative tests performed. Additionally, the Company assesses critical areas that may impact its business, including macroeconomic conditions, industry and market conditions, cost factors, or any relevant events and factors that may impact projected financial results.

If performed, the quantitative goodwill impairment test is performed using a discounted cash flow analysis to determine the fair value of each reporting unit, which considers cash flows discounted at an appropriate discount rate. The annual goodwill impairment test requires the Company to make a number of assumptions and estimates concerning future levels of revenue growth, operating margins, depreciation, amortization and working capital requirements, which are based on the Company's long-range plan and are considered level 3 inputs. The discount rate is an estimate of the overall after-tax rate of return required by a market participant whose weighted average cost of capital includes both equity and debt, including a risk premium. While the Company uses the best available information to prepare its cash flow and discount rate assumptions, actual future cash flows or market conditions could differ significantly resulting in future impairment charges related to recorded goodwill balances.

During the fourth quarter of 2022, the Company completed its annual goodwill impairment tests and elected to perform a qualitative assessment.

The impairment test for indefinite-lived intangibles other than goodwill (primarily trademarks and trade names) consists of a comparison of the estimated fair value of the indefinite-lived intangible asset to the carrying value of the asset as of the impairment testing date. The Company estimates the fair value of its indefinite-lived intangibles using the relief from royalty method using level 3 inputs for revenue growth rates and royalty rates. The fair value derived from the relief from royalty method is measured as the discounted cash flow savings realized from owning such trademarks and trade names and not having to pay a royalty for their use.

The Company completed its required annual impairment tests in the fourth quarter of 2022, 2021, and 2020 and determined that the carrying values of the Company's goodwill were not impaired. The Company completed its required annual indefinite-lived intangibles impairment test as of October 1, 2022 and determined that the carrying values of certain of the Company's trademarks and trade names with indefinite lives were impaired as a result of higher discount rates driven by higher interest rates. As a result, during the fourth quarter of 2022, the Company recorded an immaterial non-cash impairment charge related to certain of the Company's trade names. The Company completed its required annual impairment tests in the fourth quarter of 2021 and 2020 and determined that the carrying values of the Company's other intangible assets with indefinite lives were not impaired.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Other intangible assets with finite lives are evaluated for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. The carrying value of other intangible assets with finite lives is considered impaired when the total projected undiscounted cash flows from the asset group are less than the carrying value. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair value of those assets. Fair value is determined primarily using present value techniques based on projected cash flows from the asset group.

Intangible assets, other than goodwill, with definite lives are amortized over their estimated useful lives. Patents and technology are being amortized over useful lives of nine to 20 years, with a weighted average life of 14 years. Customer relationships are being amortized over a period of ten to 20 years, with a weighted average life of 19 years. On a quarterly basis, the Company evaluates the reasonableness of the estimated useful lives of these intangible assets.

Financial Instruments and Foreign Currency Translation

Assets and liabilities of foreign operations are translated using exchange rates in effect at the balance sheet date and their results of operations are translated using average exchange rates for the year. Certain transactions of the Company and its subsidiaries are denominated in currencies other than their functional currency. Exchange gains and losses from those transactions are included in operating results for the year.

The Company makes infrequent use of derivative financial instruments. Forward contracts are primarily entered into from time to time to hedge debt or foreign currency transactions, thereby minimizing the Company's exposure to foreign currency fluctuation.

In instances where transactions are designated as hedges of an underlying item, the gains and losses on those transactions are included in accumulated other comprehensive income within stockholders' equity to the extent they are effective as hedges. An evaluation of hedge effectiveness is performed by the Company at inception and on an ongoing basis and any changes in the hedge are made as appropriate.

Leases

The Company determines if an arrangement is a lease at inception. This determination generally depends on whether the arrangement conveys to the Company the right to control the use of an explicitly or implicitly identified fixed asset for a period of time in exchange for consideration. The Company has lease agreements which include lease and non-lease components, which the Company has elected to account for as a single lease component for all classes of underlying assets. Lease expense for variable lease components are recognized when the obligation is probable.

Operating leases are included in right-of-use ("ROU") assets, accrued liabilities and other, and other long-term liabilities on our consolidated balance sheets. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Operating lease payments are recognized as lease expense on a straight-line basis over the lease term. The Company has no finance leases. The Company primarily leases buildings (real estate) and automobiles which are classified as operating leases.

The lease term for all of the Company's leases includes the non-cancellable period of the lease plus any additional periods covered by either a Company option to extend (or not to terminate) the lease that the Company is reasonably certain to exercise, or an option to extend (or not to terminate) the lease controlled by the lessor. Options for lease renewals have been excluded from the lease term (and lease liability) for the majority of the Company's leases as the reasonably certain threshold is not met.

Lease payments included in the measurement of the lease liability are comprised of fixed and variable payments that depend on an index or rate.

Variable lease payments not dependent on a rate or index associated with the Company's leases are recognized when the events, activities, or circumstances in the lease agreement on which those payments are

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

assessed are probable. Variable lease payments are presented as operating expense in the Company's income statement in the same line item as expense arising from fixed lease payments. Cash used in operations for operating leases is not materially different than total lease costs.

Revenue Recognition

Revenue is derived from sales of products and services. The Company's products and services are marketed and sold worldwide through two operating groups: EIG and EMG. See Note 15 *Descriptive Information about Reportable Segments*.

The majority of the Company's revenues on product sales were recognized at a point in time when the customer obtains control of the product. The transfer in control of the product to the customer was typically evidenced by one or more of the following: the customer having legal title to the product, the Company's present right to payment, the customer's physical possession of the product, the customer accepting the product, or the customer having the benefits of ownership or risk of loss. For a small percentage of sales where title and risk of loss transfers at the point of delivery, the Company recognized revenue upon delivery to the customer, which is the point that control transferred, assuming all other criteria for revenue recognition were met.

The Company determined that revenues from certain of its customer contracts met the criteria of satisfying its performance obligations over time, primarily in the areas of the manufacture of custom-made equipment and for service repairs of customer-owned equipment. Recognizing revenue over time for custom-manufactured equipment is based on the Company's judgment that, in certain contracts, the product does not have an alternative use and the Company has an enforceable right to payment for performance completed to date.

The Company recognizes incremental cost of obtaining contracts as an expense when incurred if the amortization period of the contract cost assets that the Company would have otherwise recognized is one year or less. These costs are included in Selling, general and administrative expenses in the consolidated statement of income.

The determination of the revenue to be recognized in each period for performance obligations satisfied over time is based on the input method. The Company recognizes revenue over time as it performs on these contracts because the transfer of control to the customer occurs over time. Revenue is recognized based on the extent of progress towards completion of the performance obligation. The Company generally uses the total cost-to-cost input method of progress because it best depicts the transfer of control to the customer that occurs as costs are incurred. Under the cost-to-cost method, the extent of progress towards completion is measured based on the proportion of costs incurred to date to the total estimated costs at completion of the performance obligation. On certain contracts, labor hours are used as the measure of progress when it is determined to be a better depiction of the transfer of control to the customer due to the timing and pattern of labor hours incurred.

Performance obligations also include post-delivery service, installation and training. Post-delivery service revenues are recognized over the contract term. Installation and training revenues are recognized over the period the service is provided. Warranty terms in customer contracts can also be considered separate performance obligations if the warranty provides services beyond assurance that a product complies with agreed-upon specification or if a warranty can be purchased separately. The Company does not incur significant obligations for customer returns and refunds.

The Company has certain contracts with variable consideration in the form of volume discounts, rebates and early payment options, which may affect the transaction price used as the basis for revenue recognition. In these contracts, the amount of the variable consideration is allocated among the various performance obligations in the customer contract based on the relative standalone selling price of each performance obligation to the total standalone value of all the performance obligations.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Payment terms generally begin upon shipment of the product. The Company does have contracts with multiple billing terms that are all due within one year from when the product is delivered. No significant financing component exists. Payment terms are generally 30-60 days from the time of shipment or customer acceptance, but terms can be shorter or longer, not exceeding one year. For customer contracts that have revenue recognized over time, revenue is generally recognized prior to a payment being due from the customer. In such cases, the Company recognizes a contract asset at the time the revenue is recognized. When payment becomes due based on the contract terms, the Company reduces the contract asset and records a receivable. In contracts with billing milestones or in other instances with a long production cycle or concerns about credit, customer advance payments are received. The Company may receive a payment in excess of revenue recognized to that date. In these circumstances, a contract liability is recorded. Contract liabilities are derecognized when the performance obligations are satisfied, and revenue is recognized.

Research and Development

Research and development costs are included in Cost of sales as incurred and were \$198.8 million in 2022, \$194.2 million in 2021 and \$158.9 million in 2020.

Shipping and Handling Costs

Shipping and handling costs are included in Cost of sales and were \$103.7 million in 2022, \$86.1 million in 2021 and \$56.8 million in 2020.

Share-Based Compensation

The Company expenses the fair value of share-based awards made under its share-based plans in the consolidated financial statements over their requisite service period of the grants.

Income Taxes

The Company conducts a broad range of operations around the world and is therefore subject to complex tax regulations in numerous international taxing jurisdictions, resulting at times in tax audits, disputes and potential litigation, the outcome of which is uncertain. Management must make judgments currently about such uncertainties and determine estimates of the Company's tax assets and liabilities. To the extent the final outcome differs, future adjustments to the Company's tax assets and liabilities may be necessary.

The Company assesses the realizability of its deferred tax assets, taking into consideration the Company's forecast of future taxable income, available net operating loss carryforwards and available tax planning strategies that could be implemented to realize the deferred tax assets. Based on this assessment, management must evaluate the need for, and amount of, valuation allowances against the Company's deferred tax assets. To the extent facts and circumstances change in the future, adjustments to the valuation allowances may be required.

The Company assesses the uncertainty in its tax positions, by applying a minimum recognition threshold which a tax position is required to meet before a tax benefit is recognized in the financial statements. Once the minimum threshold is met, using a more likely than not standard, a series of probability estimates is made for each item to properly measure and record a tax benefit. The tax benefit recorded is generally equal to the highest probable outcome that is more than 50% likely to be realized after full disclosure and resolution of a tax examination. The underlying probabilities are determined based on the best available objective evidence such as recent tax audit outcomes, published guidance, external expert opinion, or by analogy to the outcome of similar issues in the past. There can be no assurance that these estimates will ultimately be realized given continuous changes in tax policy, legislation and audit practice. The Company recognizes interest and penalties accrued related to uncertain tax positions in income tax expense.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Pensions

The Company has U.S. and foreign defined benefit and defined contribution pension plans. The key assumptions in determining the Company's pension income or expense are the assumed pension liability discount rate and the expected return on plan assets. All unrecognized prior service costs, remaining transition obligations or assets and actuarial gains and losses have been recognized, net of tax effects, as a charge to accumulated other comprehensive income in stockholders' equity and will be amortized as a component of net periodic pension cost. The Company uses a measurement date of December 31 (its fiscal year end) for its U.S. and foreign defined benefit plans.

Earnings Per Share

The calculation of basic earnings per share is based on the weighted average number of common shares considered outstanding during the periods. The calculation of diluted earnings per share reflects the effect of all potentially dilutive securities (principally outstanding stock options and restricted stock grants). The number of weighted average shares used in the calculation of basic earnings per share and diluted earnings per share was as follows for the years ended December 31:

	2022	2021	2020
	(In thousands)		
Weighted average shares:			
Basic shares	230,208	230,955	229,435
Equity-based compensation plans	1,328	1,858	1,715
Diluted shares	231,536	232,813	231,150

The calculation of diluted earnings per share for 2022 excluded an immaterial number of stock options because the exercise prices of these stock options exceeded the average market price of the Company's common shares, and the effect of their inclusion would have been antidilutive. There were no antidilutive shares in 2021 and 2020.

2. Recent Accounting Pronouncements*Recently Adopted Accounting Pronouncement*

In October 2021, the FASB issued ASU No. 2021-08, Business Combinations (Topic 8050): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers ("ASU 2021-08"), which provides a single comprehensive accounting model for the acquisition of contract balances under ASC 805. ASU 2021-08 is effective for fiscal years beginning after December 15, 2022. Early adoption is permitted. The Company early adopted the ASU on January 1, 2022, and the amendments in this ASU were applied on a prospective basis to all periods presented. The adoption of ASU 2021-08 did not impact the Company's consolidated results of operations, financial position, cash flows or financial statement disclosures.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

3. Revenues

The outstanding contract asset and liability accounts were as follows:

	2022	2021
	(In thousands)	
Contract assets – January 1	\$ 95,274	\$ 68,971
Contract assets – December 31	119,741	95,274
Change in contract assets – increase	24,467	26,303
Contract liabilities – January 1	328,816	215,093
Contract liabilities – December 31	398,692	328,816
Change in contract liabilities – (increase)	(69,876)	(113,723)
Net change	\$ (45,409)	\$ (87,420)

The net change in 2022 and 2021 was primarily driven by the receipt of advance payments from customers significantly exceeding the recognition of revenue and customer advance payments from acquired businesses. For the years ended December 31, 2022 and 2021, the Company recognized revenue of \$272 million and \$184 million, respectively, that was previously included in the beginning balance of contract liabilities.

Contract assets are reported as a component of Other current assets in the consolidated balance sheet. At December 31, 2022 and 2021, \$41.0 million and \$30.1 million, respectively, of Customer advanced payments (contract liabilities) were recorded in Other long-term liabilities in the consolidated balance sheet.

The remaining performance obligations exceeding one year as of December 31, 2022 and 2021 were \$526.0 million and \$342.5 million, respectively. Remaining performance obligations represent the transaction price of firm, non-cancelable orders, with expected delivery dates to customers greater than one year from the balance sheet date, for which the performance obligation is unsatisfied or partially unsatisfied. These performance obligations will be substantially satisfied within two to three years.

Geographic Areas

Net sales were attributed to geographic areas based on the location of the customer. Information about the Company's operations in different geographic areas was as follows for the year ended December 31:

	2022		
	EIG	EMG	Total
	(In thousands)		
United States	\$ 2,171,684	\$ 982,579	\$ 3,154,263
International ⁽¹⁾ :			
United Kingdom	92,668	117,788	210,456
European Union countries	510,052	420,756	930,808
Asia	1,050,843	266,011	1,316,854
Other foreign countries	404,106	134,043	538,149
Total international	2,057,669	938,598	2,996,267
Consolidated net sales	\$ 4,229,353	\$ 1,921,177	\$ 6,150,530

(1) Includes U.S. export sales of \$1,688.7 million.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	2021		
	EIG	EMG	Total
	(In thousands)		
United States	\$ 1,910,203	\$ 890,737	\$ 2,800,940
International ⁽¹⁾ :			
United Kingdom	96,206	121,290	217,496
European Union countries	482,426	403,890	886,316
Asia	927,027	254,370	1,181,397
Other foreign countries	347,896	112,469	460,365
Total international	1,853,555	892,019	2,745,574
Consolidated net sales	<u>\$ 3,763,758</u>	<u>\$ 1,782,756</u>	<u>\$ 5,546,514</u>

(1) Includes U.S. export sales of \$1,475.6 million.

	2020		
	EIG	EMG	Total
	(In thousands)		
United States	\$ 1,513,967	\$ 816,159	\$ 2,330,126
International ⁽¹⁾ :			
United Kingdom	54,158	117,469	171,627
European Union countries	371,884	324,203	696,087
Asia	769,532	189,987	959,519
Other foreign countries	280,387	102,283	382,670
Total international	1,475,961	733,942	2,209,903
Consolidated net sales	<u>\$ 2,989,928</u>	<u>\$ 1,550,101</u>	<u>\$ 4,540,029</u>

(1) Includes U.S. export sales of \$1,196.4 million

Major Products and Services

The Company's major products and services in the reportable segments were as follows for the year ended December 31:

	2022		
	EIG	EMG	Total
	(In thousands)		
Process and analytical instrumentation	\$ 3,061,263	\$ —	\$ 3,061,263
Aerospace and power	1,168,090	549,735	1,717,825
Automation and engineered solutions	—	1,371,442	1,371,442
Consolidated net sales	<u>\$ 4,229,353</u>	<u>\$ 1,921,177</u>	<u>\$ 6,150,530</u>

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	2021		
	EIG	EMG	Total
	(In thousands)		
Process and analytical instrumentation	\$ 2,627,476	\$ —	\$ 2,627,476
Aerospace and power	1,136,282	506,925	1,643,207
Automation and engineered solutions	—	1,275,831	1,275,831
Consolidated net sales	<u>\$ 3,763,758</u>	<u>\$ 1,782,756</u>	<u>\$ 5,546,514</u>
	2020		
	EIG	EMG	Total
	(In thousands)		
Process and analytical instrumentation	\$ 2,199,167	\$ —	\$ 2,199,167
Aerospace and power	790,761	466,343	1,257,104
Automation and engineered solutions	—	1,083,758	1,083,758
Consolidated net sales	<u>\$ 2,989,928</u>	<u>\$ 1,550,101</u>	<u>\$ 4,540,029</u>

Timing of Revenue Recognition

The Company's timing of revenue recognition was as follows for the year ended December 31:

	2022		
	EIG	EMG	Total
	(In thousands)		
Products transferred at a point in time	\$ 3,471,118	\$ 1,680,558	\$ 5,151,676
Products and services transferred over time	758,235	240,619	998,854
Consolidated net sales	<u>\$ 4,229,353</u>	<u>\$ 1,921,177</u>	<u>\$ 6,150,530</u>
	2021		
	EIG	EMG	Total
	(In thousands)		
Products transferred at a point in time	\$ 3,048,819	\$ 1,596,911	\$ 4,645,730
Products and services transferred over time	714,939	185,845	900,784
Consolidated net sales	<u>\$ 3,763,758</u>	<u>\$ 1,782,756</u>	<u>\$ 5,546,514</u>
	2020		
	EIG	EMG	Total
	(In thousands)		
Products transferred at a point in time	\$ 2,427,254	\$ 1,390,574	\$ 3,817,828
Products and services transferred over time	562,674	159,527	722,201
Consolidated net sales	<u>\$ 2,989,928</u>	<u>\$ 1,550,101</u>	<u>\$ 4,540,029</u>

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Product Warranties

The Company provides limited warranties in connection with the sale of its products. The warranty periods for products sold vary among the Company's operations, but the majority do not exceed one year. The Company calculates its warranty expense provision based on its historical warranty experience and adjustments are made periodically to reflect actual warranty expenses. Product warranty obligations are reported as a component of Accrued liabilities and other in the consolidated balance sheet.

Changes in the accrued product warranty obligation were as follows:

	2022	2021	2020
	(In thousands)		
Balance at the beginning of the year	\$ 27,478	\$ 27,839	\$ 27,611
Accruals for warranties issued during the year	11,414	11,518	12,000
Settlements made during the year	(11,835)	(13,669)	(14,602)
Warranty accruals related to acquired businesses and other during the year	(570)	1,790	2,830
Balance at the end of the year	<u>\$ 26,487</u>	<u>\$ 27,478</u>	<u>\$ 27,839</u>

4. Fair Value Measurements

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability in an orderly transaction between market participants on the measurement date. The Company utilizes a hierarchy for disclosure of the inputs to the valuations used to measure fair value. The hierarchy prioritizes the inputs into three broad levels as follows:

Level 1 - quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 - quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument

Level 3 - unobservable inputs based on the Company's own assumptions used to measure assets and liabilities at fair value

A financial asset or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement.

The following tables provide the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31:

	2022			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Mutual fund investments	\$ 9,856	\$ 9,856	\$ —	\$ —
Foreign currency forward contracts	3,032	—	3,032	—

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	2021			
	Total	Level 1	Level 2	Level 3
	(In thousands)			
Mutual fund investments	\$ 10,703	\$ 10,703	\$ —	\$ —

The fair value of mutual fund investments is based on quoted market prices. The mutual fund investments are shown as a component of long-term assets in the consolidated balance sheet. For the years ended December 31, 2022 and 2021, gains and losses on the investments were not significant.

Foreign Currency

At December 31, 2022 the Company had a Euro forward contract for a total notional value of 40.0 million Euros and a Canadian dollar forward contract for a notional value of 26.5 million dollars. At December 31, 2021 the Company had no foreign currency forward contracts outstanding. Foreign currency forward contracts are valued as level 2 assets as they are corroborated by foreign currency exchange rates and shown as a component of other current assets in the consolidated balance sheet. For the year ended December 31, 2022 and 2021, realized gains and losses on foreign currency forward contracts were not significant. The Company does not typically designate its foreign currency forward contracts as accounting hedges.

Financial Instruments

Cash, cash equivalents and mutual fund investments are recorded at fair value at December 31, 2022 and 2021 in the consolidated balance sheet.

The fair value of short-term borrowings, net approximates the carrying value. The Company's long-term debt, net is all privately held with no public market for this debt, therefore, the fair value of long-term debt, net was computed based on comparable current market data for similar debt instruments and is considered to be a level 3 liability. At December 31, 2022 and 2021, the fair value of long-term debt (including current portion) was \$2,010.9 million and \$2,378.9 million and the recorded amount of long-term debt (including current portion) was \$2,161.6 million and \$2,233.7 million, respectively. See Note 10 for long-term debt principal amounts, interest rates and maturities.

5. Hedging Activities

The Company has designated certain foreign-currency-denominated long-term borrowings as hedges of the net investment in certain foreign operations. As of December 31, 2022, and 2021, these net investment hedges included British-pound and Euro-denominated long-term debt. These borrowings were designed to create net investment hedges in each of the designated foreign subsidiaries. The Company designated the British-pound- and Euro-denominated loans referred to above as hedging instruments to offset translation gains or losses on the net investment due to changes in the British pound and Euro exchange rates. These net investment hedges are evidenced by management's contemporaneous documentation supporting the hedge designation. Any gain or loss on the hedging instruments (the debt) following hedge designation is reported in accumulated other comprehensive income in the same manner as the translation adjustment on the hedged investment based on changes in the spot rate, which is used to measure hedge effectiveness.

At December 31, 2022 and 2021, the Company had \$271.7 million and \$304.6 million, respectively, of British-pound denominated loans, which were designated as a hedge against the net investment in British pound functional currency foreign subsidiaries. At December 31, 2022 and 2021, the Company had \$572.1 million and \$654.1 million, respectively, in Euro-denominated loans, which were designated as a hedge against the net investment in Euro functional currency foreign subsidiaries. As a result of the British-pound and Euro-denominated loans being designated and 100% effective as net investment hedges, \$69.5 million of pre-tax currency remeasurement losses and \$51.7 million of pre-tax currency remeasurement losses have been included in the foreign currency translation component of other comprehensive income for the years ended December 31, 2022 and 2021, respectively.

6. Acquisitions and Divestiture

Acquisitions

The Company spent \$429.7 million in cash, net of cash acquired, to acquire Navitar, Inc. ("Navitar") in September 2022 and RTDS Technologies Inc. ("RTDS") in October 2022. Navitar is a market leader in the design, development and manufacturing of customized, fully integrated optical imaging systems, cameras, components and software. RTDS is a leading provider of real-time power simulation systems used by utilities, and research and education institutions in the development and testing of the electric power grid and renewable energy applications. Navitar and RTDS are part of EIG.

The following table represents the allocation of the purchase price for the net assets of the 2022 acquisitions based on the estimated fair values at acquisition (in millions):

Property, plant and equipment	\$	11.8
Goodwill		197.8
Other intangible assets		213.3
Deferred income taxes		(23.5)
Net working capital and other ⁽¹⁾		30.3
Total cash paid	\$	<u>429.7</u>

(1) Includes \$18.4 million in accounts receivable, whose fair value, contractual cash flows and expected cash flows are approximately equal.

The amount allocated to goodwill is reflective of the benefits the Company expects to realize from the Navitar and RTDS acquisitions. Navitar's market leading optical components and solutions complement the Company's existing optics portfolio. RTDS' products and solutions complement the Company's existing power instruments businesses. The Company expects approximately \$71.4 million of the goodwill relating to the acquisitions will be tax deductible in future years.

At December 31, 2022, the purchase price allocated to other intangible assets of \$213.3 million consists of \$37.2 million of indefinite-lived intangible trade names, which are not subject to amortization. The remaining \$176.1 million of other intangible assets consists of \$120.1 million of customer relationships, which are being amortized over a period of 19 years and \$56.0 million of purchased technology, which is being amortized over a period of 11 to 15 years. Amortization expense for each of the next five years for the acquisitions is expected to be \$11.1 million per year.

The Company is in the process of finalizing the measurement of the intangible assets and tangible assets and liabilities, as well as accounting for income taxes, for Navitar and RTDS.

The acquisitions had an immaterial impact on reported net sales, net income, and diluted earnings per share for the year ended December 31, 2022. Had the acquisitions been made at the beginning of 2022 or 2021, pro forma net sales, net income, and diluted earnings per share for the year ended December 31, 2022 and 2021, would not have been materially different than the amounts reported.

In 2021, the Company spent \$1,959.2 million in cash, net of cash acquired, to acquire Magnetrol International ("Magnetrol"), Crank Software, and EGS Automation ("EGS") in March 2021, NSI-MI Technologies ("NSI-MI") and Abaco Systems, Inc. ("Abaco") in April 2021, and Alphasense in November 2021. Magnetrol is a leading provider of level and flow control solutions for challenging process applications across a diverse set of end markets including medical, pharmaceutical, oil and gas, food and beverage, and general industrial. Crank Software is a leading provider of embedded graphical user interface software and services. EGS is an automation solutions

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

provider that designs and manufactures highly engineered, customized robotic solutions used in critical applications for the medical, food and beverage, and general industrial markets. NSI-MI is a leading provider of radio frequency and microwave test and measurement systems for niche applications across the aerospace, defense, automotive, wireless communications, and research markets. Abaco specializes in open-architecture computing and electronic systems for aerospace, defense, and specialized industrial markets and is a leading provider of mission critical embedded computing systems. Alphasense is a leading provider of gas and particulate sensors for use in environmental, health and safety, and air quality applications. Magnetrol, Crank Software, NSI-MI, Abaco, and Alphasense are part of EIG. EGS is part of EMG.

In 2020, the Company spent \$116.5 million in cash, net of cash acquired, to acquire IntelliPower in January 2020. IntelliPower designs and manufactures a broad portfolio of ruggedized solutions including uninterruptible power systems, external battery packs, power distribution units and power conditioners. IntelliPower was privately held and is headquartered in Orange, California. IntelliPower is part of EIG.

Divestiture

The Company completed its sale of Reading Alloys to Kymera International in March 2020 for net cash proceeds of \$245.3 million. The transaction resulted in a pre-tax gain of \$141.0 million, recorded in Other Income (expense) in the Consolidated Statement of Income, and income tax expense of \$31.4 million in connection with the sale. Reading Alloys revenue and costs were reported within the EMG segment through the date of sale.

7. Goodwill and Other Intangible Assets

The changes in the carrying amounts of goodwill by segment were as follows:

	EIG	EMG	Total
	(In millions)		
Balance at December 31, 2020	\$ 3,050.3	\$ 1,174.6	\$ 4,224.9
Goodwill acquired	1,037.9	5.9	1,043.8
Purchase price allocation adjustments and other	1.9	—	1.9
Foreign currency translation adjustments	(16.3)	(15.6)	(31.9)
Balance at December 31, 2021	4,073.8	1,164.9	5,238.7
Goodwill acquired	197.8	—	197.8
Purchase price allocation adjustments and other	1.8	—	1.8
Foreign currency translation adjustments	(37.3)	(28.4)	(65.7)
Balance at December 31, 2022	<u>\$ 4,236.1</u>	<u>\$ 1,136.5</u>	<u>\$ 5,372.6</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Other intangible assets were as follows at December 31:

	2022	2021
	(In thousands)	
Definite-lived intangible assets (subject to amortization):		
Patents	\$ 46,418	\$ 48,071
Purchased technology	722,277	677,896
Customer lists	3,023,762	2,930,120
	<u>3,792,457</u>	<u>3,656,087</u>
Accumulated amortization:		
Patents	(37,215)	(37,713)
Purchased technology	(269,155)	(235,989)
Customer lists	(1,033,658)	(888,092)
	<u>(1,340,028)</u>	<u>(1,161,794)</u>
Net intangible assets subject to amortization	<u>2,452,429</u>	<u>2,494,293</u>
Indefinite-lived intangible assets (not subject to amortization):		
Trademarks and trade names	<u>889,656</u>	<u>874,336</u>
	<u>\$ 3,342,085</u>	<u>\$ 3,368,629</u>

Amortization expense was \$205.8 million, \$183.6 million, and \$154.0 for the years ended December 31, 2022, 2021 and 2020, respectively. Amortization expense for each of the next five years is expected to approximate \$204 million per year, not considering the impact of potential future acquisitions.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

8. Other Consolidated Balance Sheet Information

	December 31,	
	2022	2021
	(In thousands)	
INVENTORIES, NET		
Finished goods and parts	\$ 130,989	\$ 89,985
Work in process	138,043	122,356
Raw materials and purchased parts	775,252	556,834
	<u>\$ 1,044,284</u>	<u>\$ 769,175</u>
PROPERTY, PLANT AND EQUIPMENT, NET		
Land	\$ 55,915	\$ 41,709
Buildings	365,679	343,996
Machinery and equipment	1,199,600	1,149,316
	<u>1,621,194</u>	<u>1,535,021</u>
Less: Accumulated depreciation	<u>(985,553)</u>	<u>(917,883)</u>
	<u>\$ 635,641</u>	<u>\$ 617,138</u>
ACCRUED LIABILITIES AND OTHER		
Employee compensation and benefits	\$ 213,478	\$ 205,994
Product warranty obligation	26,487	27,478
Realignment	34,394	30,476
Short term lease liability	46,366	47,353
Other	114,419	132,036
	<u>\$ 435,144</u>	<u>\$ 443,337</u>

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

9. Income Taxes

The components of income before income taxes and the details of the provision for income taxes were as follows for the years ended December 31:

	2022	2021	2020
	(In thousands)		
Income before income taxes:			
Domestic	\$ 893,478	\$ 958,206	\$ 810,844
Foreign	535,214	264,964	271,465
Total	\$ 1,428,692	\$ 1,223,170	\$ 1,082,309
Provision for income taxes:			
Current:			
Federal	\$ 183,619	\$ 99,706	\$ 126,427
Foreign	119,148	146,890	61,672
State	34,201	16,282	19,932
Total current	336,968	262,878	208,031
Deferred:			
Federal	(37,810)	23,538	(1,254)
Foreign	(20,818)	(56,572)	(4,072)
State	(9,190)	3,273	7,165
Total deferred	(67,818)	(29,761)	1,839
Total provision	\$ 269,150	\$ 233,117	\$ 209,870

Significant components of the deferred tax (asset) liability were as follows at December 31:

	2022	2021
	(In thousands)	
Non-current deferred tax (asset) liability:		
Differences in basis of property and accelerated depreciation ⁽¹⁾	\$ 43,594	\$ 44,199
Reserves not currently deductible	(131,958)	(118,578)
Pensions	66,558	63,329
Differences in basis of intangible assets and accelerated amortization	726,525	768,542
Net operating loss carryforwards	(54,318)	(44,164)
Share-based compensation	(13,279)	(12,728)
Foreign Tax Credit Carryforwards	(2,317)	(2,291)
Unremitted earnings	12,429	11,361
Other	(13,448)	(28,343)
	633,786	681,327
Less: Valuation allowance	9,613	11,349
	643,399	692,676
Portion included in non-current assets	50,868	26,999
Gross non-current deferred tax liability	\$ 694,267	\$ 719,675

(1) Presented net of deferred tax assets of approximately \$34.1 million and \$33.3 million at December 31, 2022 and 2021, respectively, resulting from lease obligations.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The Company's effective tax rate reconciles to the U.S. Federal statutory rate as follows for the years ended December 31:

	2022	2021	2020
U.S. Federal statutory rate	21.0 %	21.0 %	21.0 %
State income taxes, net of federal income tax benefit	1.6	1.5	2.3
Foreign operations, net	(1.0)	(0.4)	(1.4)
U.S. Benefits for Manufacturing, Export and credits	(2.9)	(2.6)	(1.9)
Uncertain Tax Items	1.0	(0.1)	(1.3)
Stock compensation	(0.9)	(1.7)	(1.0)
U.S. Tax on Foreign Earnings	0.5	3.9	2.2
U.S. General Basket FTC	(0.1)	(2.9)	(0.1)
Other	(0.4)	0.3	(0.5)
Consolidated effective tax rate	18.8 %	19.1 %	19.4 %

The Company elected to pay the cash tax cost of the one-time mandatory tax on previously deferred earnings of non-U.S. subsidiaries over an eight-year period. As of December 31, 2022, the Company has a remaining cash tax obligation of \$35.9 million, all of which is classified as non-current.

The Company has evaluated the impact of the global intangible low-taxed income ("GILTI") section of the Tax Act and has made a tax accounting policy election to record the annual tax cost of GILTI as a current period expense when incurred and, as such, will not be measuring an impact of GILTI in its determination of deferred taxes.

As a result of the one-time mandatory deemed repatriation and the taxable inclusions under the GILTI provisions of the Tax Act, the Company has approximately \$898.0 million in previously taxed income ("PTI") as of December 31, 2022 which can be repatriated without incremental U.S. Federal tax. The Company intends to reinvest its earnings indefinitely in operations outside the United States except to the extent of the PTI. There has been no provision for U.S. deferred income taxes for the undistributed earnings over PTI of approximately \$60.4 million and \$186.4 million at December 31, 2022 and 2021 respectively because determination of the amount of the unrecognized deferred income tax liability on these undistributed earnings is not practicable.

As of December 31, 2022, and 2021, the Company recorded deferred income taxes totaling \$12.4 million and \$11.4 million respectively in state income and foreign withholding taxes expected to be incurred when the cash amounts related to the mandatory tax are ultimately repatriated to the U.S.

The Company is acquisitive and at times acquires entities with tax attributes (net operating losses or tax credits) that carry over to post-acquisition tax periods of the Company. At December 31, 2022, the Company had tax effected benefits, net of uncertain tax positions of \$54.3 million related to net operating loss carryforwards, which will be available to offset future income taxes payable, subject to certain annual or other limitations based on foreign and U.S. tax laws. This amount includes net operating loss carryforwards of \$2.2 million for federal income tax purposes with no valuation allowance for the U.S. consolidated group, \$10.7 million for state income tax purposes with a valuation allowance of \$2.7 million, and \$41.4 million for foreign income tax purposes with a valuation allowance of \$2.7 million. These net operating loss carryforwards, if not used, will expire between 2023 and 2042.

At December 31, 2022, the Company had tax effected benefits of \$9.3 million related to tax credit carryforwards, which will be available to offset future income taxes payable, subject to certain annual or other limitations based on foreign and U.S. tax laws. This amount includes tax credit carryforwards of \$2.9 million for federal income tax purposes with a valuation allowance of \$0.6 million, \$6.4 million for state income tax purposes with a valuation allowance of \$2.4 million, and no remaining credit carryforwards for foreign income tax purposes. These tax credit carryforwards, if not used, will expire between 2023 and 2042.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The Company maintains a valuation allowance (VA) to reduce certain deferred tax assets to amounts that are more likely than not to be realized. This allowance primarily relates to deferred tax assets established for federal and state credits and state net operating loss carryforwards. In 2022, the Company recorded a net decrease of \$1.7 million in the valuation allowance. The reduction primarily relates to the reversal of a valuation allowance on federal tax credits in the amount of \$2.3 million, which after considering significant positive evidence the company will be able to utilize in the future. Additionally, there was a reduction of \$0.3 million to the valuation allowance due to changes in net operating losses in the normal course of business. Offsetting the reductions was an increase of \$1.3 million relating to foreign net operating losses which are not expected to be utilized.

At December 31, 2022, the Company had gross unrecognized tax benefits of \$174.7 million, of which \$128.5 million, if recognized, would impact the effective tax rate. At December 31, 2021, the Company had gross unrecognized tax benefits of \$147.0 million, of which \$110.0 million, if recognized, would impact the effective tax rate.

At December 31, 2022 and 2021, the Company reported \$12.4 million and \$9.1 million, respectively, related to interest and penalties as a component of other long term liabilities in the consolidated balance sheet. During 2022, the Company recognized a net expense of \$3.2 million, and in 2021 a net benefit of \$2.5 million, for interest and penalties related to uncertain tax positions in the consolidated statement of income as a component of income tax expense.

Approximately 64% of the Company's overall tax liability is incurred in the United States. The Company files income tax returns in various other state and foreign tax jurisdictions, in some cases for multiple legal entities per jurisdiction. Generally, the Company has open tax years subject to tax audit on average of between three and six years in these jurisdictions. At December 31, 2022, the Internal Revenue Service ("IRS") audit of the Company's consolidated U.S. income tax returns for the year 2018 and 2019 is ongoing. The Company has not materially extended any other statutes of limitation for any significant location and has reviewed and accrued for, where necessary, tax liabilities for open periods including state and foreign jurisdictions that remain subject to examination. There have been no penalties asserted or imposed by the IRS related to substantial understatement of income, gross valuation misstatement or failure to disclose a listed or reportable transaction.

During 2022, the Company added \$43.4 million of tax, interest and penalties related to identified uncertain tax positions and reversed \$4.4 million of tax and interest related to statute expirations and settlement of prior uncertain positions. During 2021, the Company added \$58.6 million of tax, interest and penalties related to identified uncertain tax positions and reversed \$35.2 million of tax and interest related to statute expirations and settlement of prior uncertain positions.

The following is a reconciliation of the liability for uncertain tax positions at December 31:

	2022	2021	2020
	(In millions)		
Balance at the beginning of the year	\$ 147.0	\$ 100.7	\$ 109.1
Additions for tax positions related to the current year	29.3	41.4	15.6
Additions for tax positions of prior years	2.1	34.9	6.2
Reductions for tax positions of prior years	(1.0)	(1.5)	(0.3)
Reductions related to settlements with taxing authorities	(0.2)	(0.1)	(0.5)
Reductions due to statute expirations	(2.5)	(28.4)	(29.4)
Balance at the end of the year	<u>\$ 174.7</u>	<u>\$ 147.0</u>	<u>\$ 100.7</u>

In 2022, the additions above primarily reflect the increase in tax liabilities for uncertain tax positions related to certain higher transfer pricing risks for intangible assets. The reductions above primarily relate to statute expirations. The net increase of \$27.7 million in uncertain tax positions resulted in an increase of \$23.1 million to income tax expense and the remainder primarily in long term receivable. At December 31, 2022, tax, interest and

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

penalties of \$173.2 million were classified as a non-current liability and \$13.9 million was reflected as a reduction against deferred tax assets.

10. Debt

Long-term debt, net consisted of the following at December 31:

	2022	2021
	(In thousands)	
U.S. dollar 3.73% senior notes due September 2024	\$ 300,000	\$ 300,000
U.S. dollar 3.91% senior notes due June 2025	50,000	50,000
U.S. dollar 3.96% senior notes due August 2025	100,000	100,000
U.S. dollar 4.18% senior notes due December 2025	275,000	275,000
U.S. dollar 3.83% senior notes due September 2026	100,000	100,000
U.S. dollar 4.32% senior notes due December 2027	250,000	250,000
U.S. dollar 4.37% senior notes due December 2028	50,000	50,000
U.S. dollar 3.98% senior notes due September 2029	100,000	100,000
U.S. dollar 4.45% senior notes due August 2035	50,000	50,000
British pound 2.59% senior note due November 2028	181,157	203,046
British pound 2.70% senior note due November 2031	90,579	101,510
Euro 1.34% senior notes due October 2026	320,808	341,284
Euro 1.71% senior notes due December 2027	80,205	85,323
Euro 1.53% senior notes due October 2028	213,894	227,541
Revolving credit facility borrowings	219,000	314,480
Other, principally foreign	11,759	1,976
Less: Debt issuance costs	(7,395)	(5,919)
Total debt, net	<u>2,385,007</u>	<u>2,544,241</u>
Less: Current portion, net	<u>(226,079)</u>	<u>(315,093)</u>
Total long-term debt, net	<u>\$ 2,158,928</u>	<u>\$ 2,229,148</u>

Maturities of long-term debt borrowings outstanding at December 31, 2022 were as follows: \$300.0 million in 2024; \$425.0 million in 2025; \$420.8 million in 2026; \$330.2 million in 2027; \$445.1 million in 2027; and \$240.6 million in 2028 and thereafter.

In the fourth quarter of 2021, the Company paid in full, at maturity, a 55 million Swiss franc (\$59.7 million) in aggregate principal amount of 2.44% senior note.

In December 2018, the Company completed a private placement agreement to sell \$575 million and 75 million Euros in senior notes to a group of institutional investors (the “2018 Private Placement”) utilizing two funding dates. The first funding occurred in December 2018 for \$475 million and 75 million Euros (\$80.2 million at December 31, 2022). The second funding was in January 2019 for \$100 million. The 2018 Private Placement senior notes carry a weighted average interest rate of 3.93% and are subject to certain customary covenants, including financial covenants that, among other things, require the Company to maintain certain debt-to-EBITDA (earnings before interest, income taxes, depreciation and amortization) and interest coverage ratios.

In September 2014, the Company issued \$300 million in aggregate principal amount of 3.73% senior notes due September 2024, \$100 million in aggregate principal amount of 3.83% senior notes due September 2026 and \$100 million in aggregate principal amount of 3.98% senior notes due September 2029. In June 2015, the Company

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

issued \$50 million in aggregate principal amount of 3.91% senior notes due June 2025. In August 2015, the Company issued \$100 million in aggregate principal amount of 3.96% senior notes due August 2025 and \$50 million in aggregate principal amount of 4.45% senior notes due August 2035.

In October 2016, the Company issued 300 million Euros (\$320.8 million at December 31, 2022) in aggregate principal amount of 1.34% senior notes due October 2026 and 200 million Euros (\$213.9 million at December 31, 2022) in aggregate principal amount of 1.53% senior notes due October 2028. In November 2016, the Company issued 150 million British pounds (\$181.2 million at December 31, 2022) in aggregate principal amount of 2.59% senior notes due November 2028 and 75 million British pounds (\$90.6 million at December 31, 2022) in aggregate principal amount of 2.70% senior notes due November 2031.

On May 12, 2022, the Company along with certain of its foreign subsidiaries amended its credit agreement dated as of September 22, 2011, as amended and restated as of March 10, 2016 and as further amended and restated as of October 30, 2018 (the "Credit Agreement"). The Credit Agreement amends and restates the Company's existing revolving credit facility to increase the size from \$1.5 billion to \$2.3 billion and terminates the \$800 million term loan. The Credit Agreement consists of a five-year revolving credit facility with a final maturity date in May 2027. The revolving credit facility total borrowing capacity excludes an accordion feature that permits the Company to request up to an additional \$700 million in revolving credit commitments at any time during the life of the Credit Agreement under certain conditions. The credit agreement places certain restrictions on allowable additional indebtedness. In November 2021, the Company further amended the Credit Agreement to address the cessation of LIBOR on certain currencies. At December 31, 2022, the Company had available borrowing capacity of \$2,745.2 million under its revolving credit facility, including the \$700 million accordion feature.

Interest rates on outstanding borrowings under the revolving credit facility are at the applicable benchmark rate plus a negotiated spread or at the U.S. prime rate. At December 31, 2022 and 2021 the Company had \$219.0 million and \$314.5 million of borrowings outstanding under the revolving credit facility, respectively. The weighted average interest rate on the revolving credit facility for the years ended December 31, 2022 and 2021 was 3.57% and 1.34%, respectively. The Company had outstanding letters of credit primarily under the revolving credit facility totaling \$35.8 million and \$38.0 million at December 31, 2022 and 2021, respectively.

The private placements, the senior notes and the revolving credit facility are subject to certain customary covenants, including financial covenants that, among other things, require the Company to maintain certain debt-to-EBITDA and interest coverage ratios. The Company was in compliance with all provisions of the debt arrangements at December 31, 2022.

Foreign subsidiaries of the Company had available credit facilities with local foreign lenders of \$64.1 million and \$56.8 million at December 31, 2022 and 2021, respectively. At December 31, 2022, foreign subsidiaries had \$11.8 million in debt borrowings outstanding, which was reported in short-term borrowings. At December 31, 2021, foreign subsidiaries had \$2.0 million of debt borrowings outstanding.

The weighted average interest rate on total debt borrowings outstanding at December 31, 2022 and 2021 was 3.4% and 3.1%, respectively.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

11. Share-Based Compensation

Under the terms of the Company's stockholder-approved share-based plans, performance restricted stock units ("PRSUs"), incentive and non-qualified stock options and restricted stock have been, and may be, issued to the Company's officers, management-level employees and members of its Board of Directors. Stock options granted prior to 2018 generally vest at a rate of one-fourth on each of the first four anniversaries of the grant date and have a maximum contractual term of seven years. Beginning in 2018, stock options granted generally vest at a rate of one-third on each of the first three anniversaries of the grant date and have a maximum contractual term of ten years. Restricted stock granted to employees prior to 2018 generally vests four years after the grant date (cliff vesting) and is subject to accelerated vesting due to certain events, including doubling of the grant price of the Company's common stock as of the close of business during any five consecutive trading days. Beginning in 2018, restricted stock granted to employees generally vests one-third on each of the first three anniversaries of the grant date. Restricted stock granted to non-employee directors generally vests two years after the grant date (cliff vesting) and is subject to accelerated vesting due to certain events, including doubling of the grant price of the Company's common stock as of the close of business during any five consecutive trading days.

Share Based Compensation Expense

The Company measures and records compensation expense related to all stock awards by recognizing the grant date fair value of the awards over their requisite service periods in the financial statements. For grants under any of the Company's plans that are subject to graded vesting based on a service condition, the Company recognizes expense on a straight-line basis over the requisite service period for the entire award.

Total share-based compensation expense was as follows for the years ended December 31:

	2022	2021	2020
	(In thousands)		
Stock option expense	\$ 13,021	\$ 12,733	\$ 13,695
Restricted stock expense	20,115	21,393	17,997
PRSU expense	14,239	11,977	9,873
Total pre-tax expense	<u>\$ 47,375</u>	<u>\$ 46,103</u>	<u>\$ 41,565</u>

Pre-tax share-based compensation expense is included in the consolidated statement of income in either Cost of sales or Selling, general and administrative expenses, depending on where the recipient's cash compensation is reported.

Stock Options

The fair value of each stock option grant is estimated on the date of grant using a Black-Scholes-Merton option pricing model. The following weighted average assumptions were used in the Black-Scholes-Merton model to estimate the fair values of stock options granted during the years indicated:

	2022	2021	2020
Expected volatility	24.5 %	24.2 %	22.2 %
Expected term (years)	5.0	5.0	5.0
Risk-free interest rate	2.33 %	0.85 %	0.52 %
Expected dividend yield	0.65 %	0.66 %	1.14 %
Black-Scholes-Merton fair value per stock option granted	\$ 32.54	\$ 25.63	\$ 11.01

Expected volatility is based on the historical volatility of the Company's stock over the stock options' expected term. The Company used historical exercise data to estimate the stock options' expected term, which represents the period of time that the stock options granted are expected to be outstanding. Management anticipates that the future stock option holding periods will be similar to the historical stock option holding periods. The risk-free interest rate for periods within the expected term of the stock option is based on the U.S. Treasury yield curve at

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

the time of grant. The expected dividend yield is calculated by dividing the Company's annual dividend, based on the most recent quarterly dividend rate, by the Company's closing common stock price on the grant date. Compensation expense recognized for all share-based awards is net of estimated forfeitures. The Company's estimated forfeiture rates are based on its historical experience.

The following is a summary of the Company's stock option activity and related information for the year ended December 31, 2022:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
	(In thousands)		(Years)	(In millions)
Outstanding at the beginning of the year	3,352	\$ 76.08		
Granted	608	134.69		
Exercised	(788)	63.75		
Forfeited	(107)	108.79		
Expired	(5)	101.38		
Outstanding at the end of the year	<u>3,060</u>	<u>\$ 79.46</u>	<u>6.5</u>	<u>\$ 153.0</u>
Exercisable at the end of the year	<u>1,944</u>	<u>\$ 75.00</u>	<u>5.4</u>	<u>\$ 125.8</u>

The aggregate intrinsic value of stock options exercised during 2022, 2021 and 2020 was \$50.3 million, \$59.1 million and \$63.7 million, respectively. The total fair value of stock options vested during 2022, 2021 and 2020 was \$11.4 million, \$13.7 million and \$12.9 million, respectively.

The following is a summary of the Company's non-vested stock option activity and related information for the year ended December 31, 2022:

	Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Non-vested stock options outstanding at the beginning of the year	1,292	\$ 18.41
Granted	608	32.54
Vested	(677)	16.78
Forfeited	(107)	23.86
Non-vested stock options outstanding at the end of the year	<u>1,116</u>	<u>\$ 26.57</u>

As of December 31, 2022, there was approximately \$18 million of expected future pre-tax compensation expense related to the 1.1 million non-vested stock options outstanding, which is expected to be recognized over a weighted average period of less than two years.

Restricted Stock

The fair value of restricted shares under the Company's restricted stock arrangement is determined by the product of the number of shares granted and the Company's closing common stock price on the grant date. Upon the grant of restricted stock, the fair value of the restricted shares (unearned compensation) at the grant date is charged as a reduction of capital in excess of par value in the Company's consolidated balance sheet and is amortized to expense on a straight-line basis over the vesting period, which is the same as the calculated derived service period as determined on the grant date.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following is a summary of the Company's non-vested restricted stock activity and related information for the year ended December 31, 2022:

	Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Non-vested restricted stock outstanding at the beginning of the year	413	\$ 96.07
Granted	184	134.52
Vested	(195)	90.78
Forfeited	(46)	109.08
Non-vested restricted stock outstanding at the end of the year	356	\$ 117.18

The total fair value of restricted stock vested during 2022, 2021 and 2020 was \$17.7 million, \$28.6 million and \$14.4 million, respectively. The weighted average fair value of restricted stock granted per share during 2022 and 2021 was \$134.52 and \$122.60, respectively. As of December 31, 2022, there was approximately \$27 million of expected future pre-tax compensation expense related to the 0.4 million non-vested restricted shares outstanding, which is expected to be recognized over a weighted average period of less than two years.

Performance Restricted Stock Units

The PRSUs vest over a period up to three years from the grant date based on continuous service, with the number of shares earned (0% to 200% of the target award) depending upon the extent to which the Company achieves certain financial and market performance targets measured over the period from January 1 of the year of grant through December 31 of the third year. Half of the PRSUs are valued in a manner similar to restricted stock as the financial targets are based on the Company's operating results. The grant date fair value of these PRSUs are recognized as compensation expense over the vesting period based on the number of awards expected to vest at each reporting date. The other half of the PRSUs were valued using a Monte Carlo model as the performance target is related to the Company's total shareholder return compared to a group of peer companies, which represents a market condition. The Company recognizes the grant date fair value of these awards as compensation expense ratably over the vesting period.

The following is a summary of the Company's non-vested performance restricted stock activity and related information for the year ended December 31, 2022:

	Shares	Weighted Average Grant Date Fair Value
	(In thousands)	
Non-vested performance restricted stock outstanding at the beginning of the year	289	\$ 85.29
Granted	87	134.69
Performance assumption change ¹	66	81.76
Vested	(161)	81.76
Forfeited	(6)	98.07
Non-vested performance restricted stock outstanding at the end of the year	275	\$ 101.98

¹ Reflects the number of PRSUs above target levels based on performance metrics.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

As of December 31, 2022, there was approximately \$4 million of expected future pre-tax compensation expense related to the 0.3 million non-vested performance restricted shares outstanding, which is expected to be recognized over a weighted average period of less than one year.

The Company issues previously unissued shares when stock options are exercised, and shares are issued from treasury stock upon the award of restricted stock.

12. Retirement Plans and Other Postretirement Benefits

Retirement and Pension Plans

The Company sponsors several retirement and pension plans covering eligible salaried and hourly employees. The plans generally provide benefits based on participants' years of service and/or compensation. The following is a brief description of the Company's retirement and pension plans.

The Company maintains contributory and non-contributory defined benefit pension plans. Benefits for eligible salaried and hourly employees under all defined benefit plans are funded through trusts established in conjunction with the plans. The Company's funding policy with respect to its defined benefit plans is to contribute amounts that provide for benefits based on actuarial calculations and the applicable requirements of U.S. federal and local foreign laws. The Company estimates that it will make both required and discretionary cash contributions of approximately \$7 million to \$11 million to its worldwide defined benefit pension plans in 2023.

The Company uses a measurement date of December 31 (its fiscal year end) for its U.S. and foreign defined benefit pension plans.

The Company sponsors a 401(k) retirement and savings plan for eligible U.S. employees. Participants in the retirement and savings plan may contribute a specified portion of their compensation on a pre-tax basis, which varies by location. The Company matches employee contributions ranging from 20% to 100%, up to a maximum percentage ranging from 1% to 8% of eligible compensation or up to a maximum of \$1,200 per participant in some locations.

The Company's retirement and savings plan has a defined contribution retirement feature principally to cover U.S. salaried employees joining the Company after December 31, 1996. Under the retirement feature, the Company makes contributions for eligible employees based on a pre-established percentage of the covered employee's salary subject to pre-established vesting. Employees of certain of the Company's foreign operations participate in various local defined contribution plans.

The Company has non-qualified unfunded retirement plans for certain Directors and retired employees. It also provides supplemental retirement benefits, through contractual arrangements and/or a Supplemental Executive Retirement Plan ("SERP") covering certain current and former executives of the Company. These supplemental benefits are designed to compensate the executive for retirement benefits that would have been provided under the Company's primary retirement plan, except for statutory limitations on compensation that must be taken into account under those plans. The projected benefit obligations of the SERP and the contracts will primarily be funded by a grant of shares of the Company's common stock upon retirement or termination of the executive. The Company is providing for these obligations by charges to earnings over the applicable periods.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following tables set forth the changes in net projected benefit obligation and the fair value of plan assets for the funded and unfunded defined benefit plans for the years ended December 31:

U.S. Defined Benefit Pension Plans:

	2022	2021
	(In thousands)	
Change in projected benefit obligation:		
Net projected benefit obligation at the beginning of the year	\$ 504,773	\$ 532,357
Service cost	2,067	2,767
Interest cost	14,889	14,074
Actuarial (gains) losses	(106,159)	(12,593)
Gross benefits paid	(32,090)	(31,832)
Acquisition	(337)	—
Net projected benefit obligation at the end of the year	<u>\$ 383,143</u>	<u>\$ 504,773</u>
Change in plan assets:		
Fair value of plan assets at the beginning of the year	\$ 701,627	\$ 662,298
Actual return on plan assets	(101,381)	70,540
Employer contributions	1,230	621
Gross benefits paid	(32,090)	(31,832)
Acquisition	(337)	—
Fair value of plan assets at the end of the year	<u>\$ 569,049</u>	<u>\$ 701,627</u>

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Foreign Defined Benefit Pension Plans:

	2022	2021
	(In thousands)	
Change in projected benefit obligation:		
Net projected benefit obligation at the beginning of the year	\$ 332,422	\$ 351,584
Service cost	2,852	4,218
Interest cost	5,235	4,458
Foreign currency translation adjustments	(31,367)	(6,580)
Employee contributions	—	76
Actuarial (gains) losses	(100,201)	(10,199)
Expenses paid from assets	(686)	(1,121)
Gross benefits paid	(9,409)	(10,426)
Settlements	(102)	—
Curtailments	—	412
Net projected benefit obligation at the end of the year	<u>\$ 198,744</u>	<u>\$ 332,422</u>
Change in plan assets:		
Fair value of plan assets at the beginning of the year	\$ 266,288	\$ 250,735
Actual return on plan assets	(77,643)	20,184
Employer contributions	7,729	9,656
Employee contributions	—	76
Foreign currency translation adjustments	(26,585)	(2,816)
Expenses paid from assets	(686)	(1,121)
Settlements	(102)	—
Gross benefits paid	(9,409)	(10,426)
Fair value of plan assets at the end of the year	<u>\$ 159,592</u>	<u>\$ 266,288</u>

The projected benefit obligation assumptions impacting net actuarial losses (gains) primarily consist of changes in discount and mortality rates. A significant component of the actuarial gains in 2022 for both the U.S. and Foreign Defined Benefit Plans was the increase in discount rates.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The accumulated benefit obligation consisted of the following at December 31:

U.S. Defined Benefit Pension Plans:

	2022	2021
	(In thousands)	
Funded plans	\$ 374,979	\$ 492,957
Unfunded plans	2,869	3,913
Total	<u>\$ 377,848</u>	<u>\$ 496,870</u>

Foreign Defined Benefit Pension Plans:

	2022	2021
	(In thousands)	
Funded plans	\$ 167,495	\$ 284,013
Unfunded plans	30,924	47,761
Total	<u>\$ 198,419</u>	<u>\$ 331,774</u>

Weighted average assumptions used to determine benefit obligations at December 31:

	2022	2021
U.S. Defined Benefit Pension Plans:		
Discount rate	5.65 %	3.02 %
Rate of compensation increase (where applicable)	3.75 %	3.75 %
Foreign Defined Benefit Pension Plans:		
Discount rate	4.73 %	1.78 %
Rate of compensation increase (where applicable)	2.50 %	2.50 %

The following is a summary of the fair value of plan assets for U.S. plans at December 31:

Asset Class	2022			2021		
	Total	Level 1	Level 2	Total	Level 1	Level 2
	(In thousands)					
Corporate debt instruments	\$ 6,192	\$ —	\$ 6,192	\$ 4,053	\$ —	\$ 4,053
Corporate debt instruments – Preferred	13,425	—	13,425	11,265	—	11,265
Corporate stocks – Common	53,629	53,629	—	67,975	67,975	—
Municipal bonds	711	—	711	676	—	676
Registered investment companies	155,541	155,541	—	150,535	150,535	—
U.S. Government securities	1,253	—	1,253	663	—	663
Total investments	<u>230,751</u>	<u>209,170</u>	<u>21,581</u>	<u>235,167</u>	<u>218,510</u>	<u>16,657</u>
Investments measured at net asset value	338,298	—	—	466,460	—	—
Total investments	<u>\$ 569,049</u>	<u>\$ 209,170</u>	<u>\$ 21,581</u>	<u>\$ 701,627</u>	<u>\$ 218,510</u>	<u>\$ 16,657</u>

U.S. equity securities and global equity securities categorized as level 1 are traded on national and international exchanges and are valued at their closing prices on the last trading day of the year. Some U.S. equity securities and global equity securities are public investment vehicles valued using the Net Asset Value (“NAV”) provided by the fund manager. The NAV is the total value of the fund divided by the number of shares outstanding.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Fixed income securities categorized as level 2 are valued by the trustee using pricing models that use verifiable observable market data, bids provided by brokers or dealers or quoted prices of securities with similar characteristics.

The expected long-term rate of return on these plan assets was 6.75% in 2022 and 6.75% in 2021. Equity securities included 352,601 shares of AMETEK, Inc. common stock with a market value of \$49.3 million (8.7% of total plan investment assets) at December 31, 2022 and 384,788 shares of AMETEK, Inc. common stock with a market value of \$56.6 million (8.1% of total plan investment assets) at December 31, 2021.

The objectives of the Company's U.S. defined benefit plans' investment strategy are to maximize the plans' funded status and minimize Company contributions and plan expense. Because the goal is to optimize returns over the long term, an investment policy that favors equity holdings has been established. Since there may be periods of time where both equity and mutual fund markets provide poor returns, an allocation to alternative assets may be made to improve the overall portfolio's diversification and return potential. The Company periodically reviews its asset allocation, taking into consideration plan liabilities, plan benefit payment streams and the investment strategy of the pension plans. The actual asset allocation is monitored frequently relative to the established targets and ranges and is re-balanced when necessary. The target allocations for the U.S. defined benefits plans are approximately 50% equity securities, 20% fixed income securities and 30% other securities and/or cash.

The equity portfolio is diversified by market capitalization and style. The equity portfolio also includes international components.

The objective of the mutual fund portion of the pension assets is to provide interest rate sensitivity for a portion of the assets and to provide diversification. The mutual fund portfolio is diversified within certain quality and maturity guidelines to minimize the adverse effects of interest rate fluctuations.

Certain investments are prohibited and include venture capital, private placements, unregistered or restricted stock, margin trading, commodities, short selling and rights and warrants. Foreign currency futures, options and forward contracts may be used to manage foreign currency exposure.

The following is a summary of the fair value of plan assets for foreign defined benefit pension plans at December 31:

<u>Asset Class</u>	2022		2021	
	Total	Level 3	Total	Level 3
	(In thousands)			
Life insurance	\$ 13,043	\$ 13,043	\$ 18,806	\$ 18,806
Total investments	13,043	13,043	18,806	18,806
Investments measured at net asset value	146,549	—	247,482	—
Total investments	\$ 159,592	\$ 13,043	\$ 266,288	\$ 18,806

Life insurance assets are considered level 3 investments as their values are determined by the sponsor using unobservable market data.

Life insurance assets categorized as level 3 are valued based on unobservable inputs and cannot be corroborated using verifiable observable market data. Investments in level 3 funds are redeemable, however, cash reimbursement may be delayed, or a portion held back until asset finalization.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following is a summary of the changes in the fair value of the foreign plans' level 3 investments (fair value determined using significant unobservable inputs):

	Life Insurance
	(In thousands)
Balance, December 31, 2020	\$ 20,908
Actual return on assets:	
Unrealized losses relating to instruments still held at the end of the year	\$ (2,102)
Realized gains (losses) relating to assets sold during the year	\$ —
Purchases, sales, issuances and settlements, net	\$ —
Balance, December 31, 2021	\$ 18,806
Actual return on assets:	
Unrealized gains (losses) relating to instruments still held at the end of the year	\$ (5,763)
Realized gains (losses) relating to assets sold during the year	\$ —
Purchases, sales, issuances and settlements, net	\$ —
Balance, December 31, 2022	\$ 13,043

The objective of the Company's foreign defined benefit plans' investment strategy is to maximize the long-term rate of return on plan investments, subject to a reasonable level of risk. Liability studies are also performed on a regular basis to provide guidance in setting investment goals with an objective to balance risks against the current and future needs of the plans. The trustees consider the risk associated with the different asset classes, relative to the plans' liabilities and how this can be affected by diversification, and the relative returns available on equities, mutual fund investments, real estate and cash. Also, the likely volatility of those returns and the cash flow requirements of the plans are considered. It is expected that equities will outperform mutual fund investments over the long term. However, the trustees recognize the fact that mutual fund investments may better match the liabilities for pensioners. Because of the relatively young active employee group covered by the plans and the immature nature of the plans, the trustees have chosen to adopt an asset allocation strategy more heavily weighted toward equity investments. This asset allocation strategy will be reviewed, from time to time, in view of changes in market conditions and in the plans' liability profile. The target allocations for the foreign defined benefit plans are approximately 23% equity securities, 21% fixed income securities, 51% multi-asset funds and 5% other securities, insurance or cash.

The assumption for the expected return on plan assets was developed based on a review of historical investment returns for the investment categories for the defined benefit pension assets. This review also considered current capital market conditions and projected future investment returns. The estimates of future capital market returns by asset class are lower than the actual long-term historical returns. Therefore, the assumed rate of return for U.S. plans is 7.59% and 6.41% for foreign plans in 2023.

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The projected benefit obligation, accumulated benefit obligation and fair value of plan assets for pension plans with a projected benefit obligation in excess of plan assets and pension plans with an accumulated benefit obligation in excess of plan assets were as follows at December 31:

U.S. Defined Benefit Pension Plans:

	Projected Benefit Obligation Exceeds Fair Value of Assets		Accumulated Benefit Obligation Exceeds Fair Value of Assets	
	2022	2021	2022	2021
	(In thousands)			
Benefit obligation	\$ 4,043	\$ 6,234	\$ 4,043	\$ 6,234
Fair value of plan assets	707	1,239	707	1,239

Foreign Defined Benefit Pension Plans:

	Projected Benefit Obligation Exceeds Fair Value of Assets		Accumulated Benefit Obligation Exceeds Fair Value of Assets	
	2022	2021	2022	2021
	(In thousands)			
Benefit obligation	\$ 162,105	\$ 272,245	\$ 161,780	\$ 271,596
Fair value of plan assets	120,056	200,862	120,056	200,862

The following table provides the amounts recognized in the consolidated balance sheet at December 31:

	2022	2021
	(In thousands)	
Funded status asset (liability):		
Fair value of plan assets	\$ 728,641	\$ 967,915
Projected benefit obligation	(581,887)	(837,195)
Funded status at the end of the year	\$ 146,754	\$ 130,720
Amounts recognized in the consolidated balance sheet consisted of:		
Non-current asset for pension benefits (other assets)	\$ 192,140	\$ 207,099
Current liabilities for pension benefits	(2,700)	(2,133)
Non-current liability for pension benefits	(42,686)	(74,246)
Net amount recognized at the end of the year	\$ 146,754	\$ 130,720

The following table provides the amounts recognized in accumulated other comprehensive income, net of taxes, at December 31:

<u>Net amounts recognized:</u>	2022	2021
	(In thousands)	
Net actuarial loss	\$ 205,193	\$ 193,220
Prior service costs	1,625	1,855
Transition asset	3	4
Total recognized	\$ 206,821	\$ 195,079

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

The following table provides the components of net periodic pension benefit expense (income) for the years ended December 31:

	2022	2021	2020
	(In thousands)		
Defined benefit plans:			
Service cost	\$ 4,919	\$ 6,985	\$ 7,261
Interest cost	20,124	18,532	22,611
Expected return on plan assets	(60,104)	(56,752)	(54,629)
Curtailment	—	3,151	—
Settlement	(58)	—	—
Amortization of:			
Net actuarial loss	8,531	16,353	15,479
Prior service costs	100	456	486
Transition asset	1	1	1
Total net periodic benefit income	(26,487)	(11,274)	(8,791)
Other plans:			
Defined contribution plans	39,326	31,149	30,829
Foreign plans and other	8,373	8,454	7,902
Total other plans	47,699	39,603	38,731
Total net pension expense	\$ 21,212	\$ 28,329	\$ 29,940

The total net periodic benefit expense (income) is included in Cost of sales, General and administrative expense and Other income and expense in the consolidated statement of income.

The following weighted average assumptions were used to determine the above net periodic pension benefit income for the years ended December 31:

	2022	2021	2020
U.S. Defined Benefit Pension Plans:			
Discount rate	3.02 %	2.69 %	3.45 %
Expected return on plan assets	6.75 %	6.75 %	7.00 %
Rate of compensation increase (where applicable)	3.75 %	3.75 %	3.75 %
Foreign Defined Benefit Pension Plans:			
Discount rate	1.78 %	1.27 %	1.83 %
Expected return on plan assets	5.85 %	5.47 %	5.97 %
Rate of compensation increase (where applicable)	2.50 %	2.50 %	2.50 %

Estimated Future Benefit Payments

The estimated future benefit payments for U.S. and foreign plans are as follows: 2023 – \$42.7 million; 2024 – \$43.3 million; 2025 – \$42.9 million; 2026 – \$42.8 million; 2027 – \$42.4 million; 2028 to 2032 - \$208.3 million. Future benefit payments primarily represent amounts to be paid from pension trust assets. Amounts included that are to be paid from the Company's assets are not significant in any individual year.

Postretirement Plans and Post-employment Benefits

The Company provides limited postretirement benefits other than pensions for certain retirees and a small number of former employees. Benefits under these arrangements are not funded and are not significant.

The Company also provides limited post-employment benefits for certain former or inactive employees after employment but before retirement. Those benefits are not significant in amount.

The Company has a deferred compensation plan, which allows employees whose compensation exceeds the statutory IRS limit for retirement benefits to defer a portion of earned bonus compensation. The plan permits deferred amounts to be deemed invested in either, or a combination of, (a) an interest-bearing account, benefits from which are payable out of the general assets of the Company, or (b) the equivalent of a fund which invests in shares of the Company's common stock on behalf of the employee. The amount deferred under the plan, including income earned, was \$31.8 million and \$28.4 million at December 31, 2022 and 2021, respectively. Administrative expense for the deferred compensation plan is borne by the Company and is not significant.

13. Contingencies

Indemnifications

In conjunction with certain acquisition and divestiture transactions, the Company may agree to make payments to compensate or indemnify other parties for possible future unfavorable financial consequences resulting from specified events (e.g., breaches of contract obligations or retention of previously existing environmental, tax or employee liabilities) whose terms range in duration and often are not explicitly defined. Where appropriate, the obligation for such indemnifications is recorded as a liability. Because the amount of these types of indemnifications generally is not specifically stated, the overall maximum amount of the obligation under such indemnifications cannot be reasonably estimated. Further, the Company indemnifies its directors and officers for claims against them in connection with their positions with the Company. Historically, any such costs incurred to settle claims related to these indemnifications have been minimal for the Company. The Company believes that future payments, if any, under all existing indemnification agreements would not have a material impact on its consolidated results of operations, financial position or cash flows.

Asbestos Litigation

The Company (including its subsidiaries) has been named as a defendant in a number of asbestos-related lawsuits. Certain of these lawsuits relate to a business which was acquired by the Company and do not involve products which were manufactured or sold by the Company. In connection with these lawsuits, the seller of such business has agreed to indemnify the Company against these claims (the "Indemnified Claims"). The Indemnified Claims have been tendered to, and are being defended by, such seller. The seller has met its obligations, in all respects, and the Company does not have any reason to believe such party would fail to fulfill its obligations in the future. To date, no judgments have been rendered against the Company as a result of any asbestos-related lawsuit. The Company believes that it has good and valid defenses to each of these claims and intends to defend them vigorously.

Environmental Matters

Certain historic processes in the manufacture of products have resulted in environmentally hazardous waste by-products as defined by federal and state laws and regulations. At December 31, 2022, the Company is named a Potentially Responsible Party ("PRP") at 13 non-AMETEK-owned former waste disposal or treatment sites (the "non-owned" sites). The Company is identified as a "de minimis" party in 12 of these sites based on the low volume of waste attributed to the Company relative to the amounts attributed to other named PRPs. In eight of these sites, the Company has reached a tentative agreement on the cost of the de minimis settlement to satisfy its obligation and is awaiting executed agreements. The tentatively agreed-to settlement amounts are fully accrued. In the other four sites, the Company is continuing to investigate the accuracy of the alleged volume attributed to the Company as estimated by the parties primarily responsible for remedial activity at the sites to establish an appropriate settlement amount. At the remaining site where the Company is a non-de minimis PRP, the Company is participating in the investigation and/or related required remediation as part of a PRP Group and reserves have been established sufficient to satisfy the Company's expected obligations. The Company historically has resolved these issues within established reserve levels and reasonably expects this result will continue. In addition to these non-owned sites, the Company has an ongoing practice of providing reserves for probable remediation activities at certain of its current or previously owned manufacturing locations (the "owned" sites). For claims and proceedings against the Company

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

with respect to other environmental matters, reserves are established once the Company has determined that a loss is probable and estimable. This estimate is refined as the Company moves through the various stages of investigation, risk assessment, feasibility study and corrective action processes. In certain instances, the Company has developed a range of estimates for such costs and has recorded a liability based on the best estimate. It is reasonably possible that the actual cost of remediation of the individual sites could vary from the current estimates and the amounts accrued in the consolidated financial statements; however, the amounts of such variances are not expected to result in a material change to the consolidated financial statements. In estimating the Company's liability for remediation, the Company also considers the likely proportionate share of the anticipated remediation expense and the ability of the other PRPs to fulfill their obligations.

Total environmental reserves at December 31, 2022 and 2021 were \$41.0 million and \$37.2 million, respectively, for both non-owned and owned sites. In 2022, the Company recorded \$12.0 million in reserves. Additionally, in 2022 the Company spent \$8.2 million on environmental matters.

The Company has agreements with other former owners of certain of its acquired businesses, as well as new owners of previously owned businesses. Under certain of the agreements, the former or new owners retained, or assumed and agreed to indemnify the Company against, certain environmental and other liabilities under certain circumstances. The Company and some of these other parties also carry insurance coverage for some environmental matters.

The Company believes it has established reserves for the environmental matters described above, which are sufficient to perform all known responsibilities under existing claims and consent orders. In the opinion of management, based on presently available information and the Company's historical experience related to such matters, an adequate provision for probable costs has been made and the ultimate cost resulting from these actions is not expected to materially affect the consolidated results of operations, financial position or cash flows of the Company.

14. Leases and Other Commitments

Leases

The Company has commitments under operating leases for certain facilities, vehicles and equipment used in its operations. Our leases have initial lease terms ranging from 1 month to 15 years.

The components of lease expense were as follows:

	2022	2021	2020
	(In thousands)		
Operating lease cost	\$ 59,296	\$ 61,680	\$ 44,498
Variable lease cost	11,096	7,724	4,526
Total lease cost	<u>\$ 70,392</u>	<u>\$ 69,404</u>	<u>\$ 49,024</u>

Supplemental balance sheet information related to leases was as follows:

	December 31,	
	2022	2021
	(In thousands)	
Right of use assets, net	\$ 170,295	\$ 169,924
Lease liabilities included in Accrued liabilities and other	46,366	47,353
Lease liabilities included in Other long-term liabilities	129,227	129,101
Total lease liabilities	<u>\$ 175,593</u>	<u>\$ 176,454</u>

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

Supplemental cash flow information and other information related to leases was as follows for the year ended December 31:

	2022	2021
	(In thousands)	
Cash used in operations for operating leases	\$ 54,724	\$ 55,657
Right-of-use assets obtained in exchange for new operating liabilities	\$ 59,802	\$ 64,653
Weighted-average remaining lease terms – operating leases (years)	5.07	5.36
Weighted-average discount rate – operating leases	3.32 %	2.91 %

Maturities of lease liabilities as of December 31, 2022 were as follows:

Lease Liability Maturity Analysis	Operating Leases
	(In thousands)
2023	\$ 51,740
2024	41,047
2025	31,338
2026	23,770
2027	15,467
Thereafter	29,523
Total lease payments	192,885
Less: imputed interest	17,292
	<u>\$ 175,593</u>

The Company does not have any significant leases that have not yet commenced.

Other Commitments

As of December 31, 2022, and 2021, the Company had \$1,119.7 million and \$890.9 million, respectively, in purchase obligations outstanding, which primarily consisted of contractual commitments to purchase certain inventories at fixed prices.

The Company does not provide significant guarantees on a routine basis. The Company primarily issues guarantees, stand-by letters of credit and surety bonds in the ordinary course of its business to provide financial or performance assurance to third parties on behalf of its consolidated subsidiaries to support or enhance the subsidiary's stand-alone creditworthiness. The amounts subject to certain of these agreements vary depending on the covered contracts outstanding at any particular point in time. At December 31, 2022, the maximum amount of future payment obligations relative to these various guarantees was \$128.0 million and the outstanding liability under certain of those guarantees was \$12.4 million.

15. Reportable Segments and Geographic Areas Information

Descriptive Information about Reportable Segments

The Company has two reportable segments, EIG and EMG. The Company's operating segments are identified based on the existence of segment managers. Certain of the Company's operating segments have been aggregated for segment reporting purposes primarily on the basis of product type, production processes, distribution methods and similarity of economic characteristics.

EIG manufactures advanced instruments for the process, power and industrial, and aerospace markets. It provides process and analytical instruments for the oil and gas, petrochemical, pharmaceutical, semiconductor, automation, and food and beverage industries. EIG also provides instruments to the laboratory equipment, ultra-

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

precision manufacturing, medical, and test and measurement markets. It makes power quality monitoring and metering devices, uninterruptible power supplies, programmable power equipment, electromagnetic compatibility test equipment and gas turbines sensors. EIG also provides dashboard instruments for heavy trucks and other vehicles, as well as instrumentation and controls for the food and beverage industries. It supplies the aerospace industry with aircraft and engine sensors, monitoring systems, power supplies, fuel and fluid measurement systems, and data acquisition systems.

EMG is a differentiated supplier of automation solutions, thermal management systems, specialty metals and electrical interconnects. It manufactures highly engineered electrical connectors and electronic packaging used to protect sensitive electronic devices. EMG also makes precision motion control products for data storage, medical devices, business equipment, automation and other applications. It supplies high-purity powdered metals, strip and foil, specialty clad metals and metal matrix composites. EMG also manufactures motors used in commercial appliances, fitness equipment, food and beverage machines, hydraulic pumps and industrial blowers. It produces motor-blower systems and heat exchangers used in thermal management and other applications on a variety of military and commercial aircraft and military ground vehicles. EMG also operates a global network of aviation maintenance, repair and overhaul facilities.

Measurement of Segment Results

Segment operating income represents net sales less all direct costs and expenses (including certain administrative and other expenses) applicable to each segment but does not include interest expense. Net sales by segment are reported after elimination of intra- and inter-segment sales and profits, which are insignificant in amount. Reported segment assets include allocations directly related to the segment's operations. Corporate assets consist primarily of investments, pensions, insurance deposits and deferred taxes.

Reportable Segment Financial Information

	2022	2021	2020
	(In thousands)		
Operating income and income before income taxes:			
Segment operating income:			
Electronic Instruments	\$ 1,089,729	\$ 958,183	\$ 770,620
Electromechanical	503,593	437,378	324,962
Total segment operating income	1,593,322	1,395,561	1,095,582
Corporate administrative expenses	(92,630)	(86,891)	(67,698)
Consolidated operating income	1,500,692	1,308,670	1,027,884
Interest and other income (expenses), net	(72,000)	(85,500)	54,425
Consolidated income before income taxes	<u>\$ 1,428,692</u>	<u>\$ 1,223,170</u>	<u>\$ 1,082,309</u>
Assets:			
Electronic Instruments	\$ 9,430,797	\$ 8,672,711	
Electromechanical	2,617,685	2,638,773	
Total segment assets	12,048,482	11,311,484	
Corporate	382,638	586,703	
Consolidated assets	<u>\$ 12,431,120</u>	<u>\$ 11,898,187</u>	

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

	2022	2021	2020
	(In thousands)		
Additions to property, plant and equipment⁽¹⁾:			
Electronic Instruments	\$ 93,505	\$ 168,267	\$ 48,638
Electromechanical	38,186	34,586	26,381
Total segment additions to property, plant and equipment	131,691	202,853	75,019
Corporate	19,757	10,417	1,007
Consolidated additions to property, plant and equipment	<u>\$ 151,448</u>	<u>\$ 213,270</u>	<u>\$ 76,026</u>
Depreciation and amortization:			
Electronic Instruments	\$ 238,436	\$ 210,118	\$ 174,494
Electromechanical	77,896	79,497	78,297
Total segment depreciation and amortization	316,332	289,615	252,791
Corporate	3,095	2,497	2,484
Consolidated depreciation and amortization	<u>\$ 319,427</u>	<u>\$ 292,112</u>	<u>\$ 255,275</u>

(1) Includes \$12.4 million in 2022, \$102.6 million in 2021 and \$1.8 million in 2020 from acquired businesses.

Geographic Areas

Information about the Company's operations in different geographic areas for the years ended December 31, 2022 and 2021 is shown below.

	2022	2021
	(In thousands)	
Long-lived assets from continuing operations (excluding intangible assets):		
United States	\$ 412,577	\$ 416,323
International ⁽¹⁾ :		
United Kingdom	71,462	74,525
European Union countries	89,993	87,117
Asia	11,479	11,971
Other foreign countries	50,130	27,202
Total international	223,064	200,815
Total consolidated	<u>\$ 635,641</u>	<u>\$ 617,138</u>

(1) Represents long-lived assets of foreign-based operations only.

16. Additional Consolidated Income Statement and Cash Flow Information

Included in other income (expense), net are interest and other investment income of \$1.0 million, \$2.0 million and \$2.7 million for 2022, 2021 and 2020, respectively. Income taxes paid in 2022, 2021 and 2020 were \$299.3 million, \$245.5 million and \$210.4 million, respectively. Cash paid for interest was \$80.2 million, \$78.7 million and \$86.2 million in 2022, 2021 and 2020, respectively.

17. Stockholders' Equity

In 2021, the Company repurchased approximately 113,000 shares of its common stock for \$14.7 million in cash under its share repurchase authorization. On May 5, 2022, the Company's Board of Directors approved a

AMETEK, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS – (Continued)

\$1 billion authorization of its common stock, which replaced the previous \$500 million authorization announced in February 2019. In 2022, the Company repurchased approximately 2.7 million shares of its common stock for \$332.8 million in cash under its share repurchase authorization. At December 31, 2022, \$823.9 million was available under the Company’s Board of Directors authorization for future share repurchases.

Effective February 9, 2022, the Company’s Board of Directors approved a 10% increase in the quarterly cash dividend on the Company’s common stock to \$0.22 per common share from \$0.20 per common share.

At December 31, 2022, the Company held 38.5 million shares in its treasury at a cost of \$1,903.0 million, compared with 36.1 million shares at a cost of \$1,573.0 million at December 31, 2021. The number of shares outstanding at December 31, 2022 was 230.1 million shares, compared with 231.7 million shares at December 31, 2021.

Subsequent Event

Effective February 9, 2023, the Company’s Board of Directors approved a 14% increase in the quarterly cash dividend on the Company’s common stock to \$0.25 per common share from \$0.22 per common share.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

The Company maintains a system of disclosure controls and procedures that is designed to provide reasonable assurance that information, which is required to be disclosed, is accumulated and communicated to management in a timely manner. Under the supervision and with the participation of our management, including the Company's principal executive officer and principal financial officer, we have evaluated the effectiveness of our system of disclosure controls and procedures as required by Exchange Act Rule 13a-15(b) as of December 31, 2022. Based on that evaluation, the Company's principal executive officer and principal financial officer concluded that the Company's disclosure controls and procedures are effective at the reasonable assurance level.

Such evaluation did not identify any change in the Company's internal control over financial reporting during the quarter ended December 31, 2022 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Internal Control over Financial Reporting

Management's report on the Company's internal controls over financial reporting is included in Part II, Item 8 of this Annual Report on Form 10-K. The report of the independent registered public accounting firm with respect to the effectiveness of internal control over financial reporting is included in Part II, Item 8 of this Annual Report on Form 10-K.

Item 9B. Other Information

None

PART III

Item 10. Directors, Executive Officers and Corporate Governance

a) Directors of the Registrant.

Information with respect to Directors of the Company is set forth under the heading “Election of Directors” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders and is incorporated herein by reference.

b) Executive Officers of the Registrant.

Information with respect to executive officers of the Company is set forth under the heading “Executive Officers” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders and is incorporated herein by reference.

c) Identification of the Audit Committee.

Information concerning the audit committee of the Company is set forth under the heading “Committees of the Board” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders and is incorporated herein by reference.

d) Audit Committee Financial Experts.

Information concerning the audit committee financial experts of the Company is set forth under the heading “Committees of the Board” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders and is incorporated herein by reference.

e) Corporate Governance/Nominating Committee.

Information concerning any material changes to the way in which security holders may recommend nominees to the Company’s Board of Directors is set forth under the heading “Information about the 2024 Annual Meeting” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders and is incorporated herein by reference.

f) Code of Ethics for Chief Executive Officer and Senior Financial Officers.

The Company has adopted a Code of Ethics for the principal executive officer, principal financial officer and principal accounting officer, which may be found on the Company’s website at www.ametek.com. Any amendments to the Code of Ethics or any grant of a waiver from the provisions of the Code of Ethics requiring disclosure under applicable U.S. Securities and Exchange Commission rules will be disclosed on the Company’s website.

Item 11. Executive Compensation

Information regarding executive compensation, including the “Compensation Discussion and Analysis,” the “Compensation Committee Report,” “Compensation Tables” and “Potential Payments Upon Termination or Change of Control” is set forth under the heading “Executive Compensation” in the Company’s Proxy Statement for 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

Information regarding security ownership of certain beneficial owners and management appearing under “Stock Ownership of Executive Officers and Directors” and “Beneficial Ownership of Principal Stockholders” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information appearing under “Certain Relationships and Related Transactions” and “Independence” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

Information appearing under “Ratification of Appointment of Independent Registered Public Accounting Firm” in the Company’s Proxy Statement for the 2023 Annual Meeting of Stockholders is incorporated herein by reference.

PART IV**Item 15. Exhibits and Financial Statement Schedules**

(a)(1) Financial Statements:

Financial statements are shown in the Index to Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules:

Financial statement schedules have been omitted because either they are not applicable or the required information is included in the financial statements or the notes thereto.

(a)(3) Exhibits:

Exhibit Number	Description	Incorporated Herein by Reference to
3.1	Conformed Copy of Amended and Restated Certificate of Incorporation of AMETEK, Inc. as amended to and including May 9, 2019.	Exhibit 3.1 to Form 8-K, dated May 13, 2019, SEC File No. 1-12981.
3.2	By-Laws of AMETEK, Inc. as amended to and including November 9, 2018.	Exhibit 3.2 to Form 10-Q dated March 31, 2020, SEC File No. 1-12981.
4.3†	AMETEK, Inc. 2011 Omnibus Incentive Compensation Plan, dated as of May 3, 2011 (the “2011 Plan”).	Exhibit 4 to Form S-8 dated May 6, 2011, SEC File No. 1-12981.
4.4†	Amendment No. 1 to the 2011 Plan.	Exhibit 4.5 to 2012 Form 10-K, SEC File No. 1-12981.
4.5†	AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan	Exhibit 4.3 to Form S-8 dated May 8, 2020, No. 1-12981
10.1†	AMETEK, Inc. Retirement Plan for Directors, amended and restated effective January 1, 2005.	Exhibit 10.4 to Form 10-Q dated September 30, 2007, SEC File No. 1-12981.
10.2†	AMETEK, Inc. Director’s Deferred Compensation Plan, amended and restated as of October 1, 2018.	Exhibit 10.1 to Form 10-Q dated September 30, 2018, SEC File No. 1-12981.
10.3†	AMETEK, Inc. Deferred Compensation Plan, amended and restated as of June 15, 2018.	Exhibit 10.1 to Form 10-Q dated June 30, 2018, SEC File No. 1-12981.
10.5†	AMETEK, Inc. 2004 Executive Death Benefit Plan, amended and restated effective January 1, 2017.	Exhibit 10.5 to 2016 Form 10-K, SEC File No. 1-12981.
10.6†	AMETEK, Inc. Directors’ Death Benefit Plan, effective January 1, 2005.	Exhibit 10.3 to Form 10-Q dated September 30, 2007, SEC File No. 1-12981.
10.7†	Form of Executive Change of Control Separation Agreement between AMETEK, Inc. and a named executive.	Exhibit 10.7 to Form 10-Q dated September 30, 2007, SEC File No. 1-12981.

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<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated Herein by Reference to</u>
10.8†	<u>Termination and Change of Control Agreement between AMETEK, Inc. and a named executive, dated May 8, 2017.</u>	Exhibit 10.1 to Form 10-Q dated March 31, 2017, SEC File No. 1-12981.
10.9†	<u>AMETEK, Inc. Retirement and Savings Plan, amended and restated as of September 4, 2018.</u>	Exhibit 10.2 to Form 10-Q dated September 30, 2018, SEC File No. 1-12981.
10.10†	<u>AMETEK, Inc. Supplemental Executive Retirement Plan, amended and restated as of October 1, 2018.</u>	Exhibit 10.3 to Form 10-Q dated September 30, 2018, SEC File No. 1-12981.
10.11†	<u>Form of Performance Restricted Stock Unit Agreement for Chief Executive Officer.</u>	Exhibit 10.1 to Form 10-Q dated March 31, 2018, SEC File No. 1-12981.
10.12†	<u>Form of Performance Restricted Stock Unit Agreement.</u>	Exhibit 10.2 to Form 10-Q dated March 31, 2018, SEC File No. 1-12981.
10.13†	<u>AMETEK, Inc. 2011 Omnibus Incentive Compensation Plan, Form of Restricted Stock Agreement for non-employee Directors.</u>	Exhibit 10.1 to Form 8-K dated May 8, 2018, SEC File No. 1-12981.
10.14†	<u>AMETEK, Inc. 2011 Omnibus Incentive Compensation Plan, Form of Restricted Stock Agreement for Chief Executive Officer.</u>	Exhibit 10.2 to Form 8-K dated May 8, 2018, SEC File No. 1-12981.
10.15†	<u>AMETEK, Inc. 2011 Omnibus Incentive Compensation Plan, Form of Restricted Stock Agreement for Employees.</u>	Exhibit 10.3 to Form 8-K dated May 8, 2018, SEC File No. 1-12981.
10.16†	<u>AMETEK, Inc. 2011 Omnibus Incentive Compensation Plan, Form of Global Non-Qualified Stock Option Agreement for Employees.</u>	Exhibit 10.4 to Form 8-K dated May 8, 2018, SEC File No. 1-12981.
10.17	<u>Amended and Restated Credit Agreement as of September 22, 2011, as amended and restated as of March 10, 2016, and as further amended and restated as of October 30, 2018, among AMETEK, Inc., the Foreign Subsidiary Borrowers Party Hereto, the Lenders Party Hereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America, N.A., PNC Bank, National Association, SunTrust Bank and Wells Fargo Bank, National Association, as Co-Syndication Agents, and U.S. Bank National Association, Mizuho Bank (USA), BNP Paribas, National Westminster Bank Plc and Commerzbank AG, New York Branch, as Co-Documentation Agents.</u>	Exhibit 10.4 to Form 10-Q dated September 30, 2018, SEC File No. 1-12981.

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<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated Herein by Reference to</u>
10.18	<u>Amendment No. 1 to Amended and Restated Credit Agreement, dated April 26, 2021, by and among AMETEK, Inc., AMETEK European Holdings Limited, AMETEK Canada Limited Partnership and AMETEK Material Analysis Holdings GmbH as Foreign Subsidiary Borrowers, with the lenders from time to time party thereto and JPMorgan Chase Bank, N.A., as Administrative Agent and Bank of America, N.A., PNC Bank, National Association, Truist Bank and Wells Fargo Bank, National Association, as Co-Syndication Agents.</u>	Exhibit 10.1 to Form 8-K dated April 29, 2021, SEC File No. 1-12981
10.19	<u>Amendment No. 2 to Amended and Restated Credit Agreement, dated November 18, 2021.</u>	Exhibit 10.19 to Form 10-K dated February 22, 2022, SEC File No. 1-12981
10.24	<u>AMETEK, Inc. Note Purchase Agreement, as of September 30, 2014.</u>	Exhibit 10.1 to Form 8-K dated October 2, 2014, SEC File No. 1-12981.
10.25	<u>Amendment No. 1 to Note Purchase Agreement, as of September 30, 2014.</u>	Exhibit 10.1 to Form 10-Q dated September 30, 2016, SEC File No. 1-12981.
10.26	<u>AMETEK, Inc. Note Purchase Agreement, as of October 31, 2016.</u>	Exhibit 10.1 to Form 8-K dated November 2, 2016, SEC File No. 1-12981.
10.27	<u>AMETEK, Inc. 2018 Note Purchase Agreement, dated as of December 13, 2018.</u>	Exhibit 10.1 to Form 8-K dated December 13, 2018, SEC File No. 1-12981.
10.28	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Performance Restricted Stock Unit Award for Chief Executive Officer</u>	Exhibit 10.1 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.29	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Performance Restricted Stock Unit Award</u>	Exhibit 10.2 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.30	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Restricted Stock Award for Chief Executive Officer</u>	Exhibit 10.3 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.31	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Restricted Stock Award for Non-Employee Directors</u>	Exhibit 10.4 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.32	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Restricted Stock Award</u>	Exhibit 10.5 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.33	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Global Non-Qualified Stock Option Award for Chief Executive Officer</u>	Exhibit 10.6 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.34	<u>AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan Form of Global Non-Qualified Stock Option Award</u>	Exhibit 10.7 to Form 10-Q dated March 31, 2021, SEC File No. 1-12981.
10.35*	<u>Amendment No. 1 to AMETEK Inc. 2020 Omnibus Incentive Compensation Plan</u>	
21*	<u>Subsidiaries of the Registrant.</u>	

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<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated Herein by Reference to</u>
23*	Consent of Independent Registered Public 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.INS*	XBRL Instance Document.	
101.SCH*	XBRL Taxonomy Extension Schema Document.	
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.	
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document.	
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document.	
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.	
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibit 101).	

† Management contract or compensatory plan required to be filed pursuant to Item 601 of Regulation S-K.

* Filed electronically herewith.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

AMETEK, Inc.

By: /s/ DAVID A. ZAPICODavid A. Zapico
Chief Executive Officer

Date : February 21, 2023

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u> /s/ DAVID A. ZAPICO</u> David A. Zapico	Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer)	February 21, 2023
<u> /s/ WILLIAM J. BURKE</u> William J. Burke	Executive Vice President – Chief Financial Officer (Principal Financial Officer)	February 21, 2023
<u> /s/ THOMAS M. MONTGOMERY</u> Thomas M. Montgomery	Senior Vice President – Comptroller (Principal Accounting Officer)	February 21, 2023
<u> /s/ THOMAS A. AMATO</u> Thomas A. Amato	Director	February 21, 2023
<u> /s/ TOD E. CARPENTER</u> Tod E. Carpenter	Director	February 21, 2023
<u> /s/ ANTHONY J. CONTI</u> Anthony J. Conti	Director	February 21, 2023
<u> /s/ STEVEN W. KOHLHAGEN</u> Steven W. Kohlhagen	Director	February 21, 2023
<u> /s/ GRETCHEN W. MCCLAIN</u> Gretchen W. McClain	Director	February 21, 2023
<u> /s/ KARLEEN M. OBERTON</u> Karleen M. Oberton	Director	February 21, 2023
<u> /s/ DEAN SEAVERS</u> Dean Seavers	Director	February 21, 2023
<u> /s/ SUZANNE L. STEFANY</u> Suzanne L. Stefany	Director	February 21, 2023

First Amendment to AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan

WHEREAS, AMETEK, Inc. (the “Corporation”) sponsors the AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan (the “Plan”);

WHEREAS, pursuant to Section 18 of the Plan, the Board may amend or terminate the Plan at any time, provided, however, that if stockholder approval of an amendment is required in order to comply with applicable law or stock exchange requirements, then such amendment must be approved by the Corporation’s stockholders;

WHEREAS, the Board desires to amend the Plan as set forth below; and

WHEREAS, the Board has determined that no stockholder approval is required to adopt the amendment.

NOW THEREFORE, the Plan is hereby amended as follows:

1. Section 3(a) is replaced in its entirety with the following:

Committee. The Plan shall be administered and interpreted by the Committee, provided that, notwithstanding anything to the contrary herein, in its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee under the Plan except with respect to matters which under applicable law or applicable stock exchange requirements are required to be determined in the sole discretion of the Committee.

2. Section 3(d) is hereby added to the Plan as follows:

Delegation. To the extent permitted by applicable law and the Company’s governing documents, the Board or the Committee may delegate any of the authorities of the Committee identified herein to an individual or committee of individuals (who may, but need not, serve on the Board), including without limitation the authority to grant awards hereunder. To the extent that the Board or the Committee so delegates authority, applicable references in the Plan to the Committee’s authority to make awards and determinations with respect thereto shall be deemed to include the delegate. Notwithstanding the foregoing, the Committee will retain broad authority to administer the Plan, including the authority to make determinations with respect to awards previously granted by a delegate. The Board or the Committee, as applicable, may revoke any delegation it previously effectuated under this Section 3(d) at any time, for any reason, with or without prior notice.

Except as set forth in this amendment, all other terms and conditions of the Plan shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, this amendment has been executed by a duly authorized officer of the Corporation as of the 3rd day of November, 2022.

By: /s/ Lynn Carino

Name: Lynn
Carino

Title: Assistant
Secretary

SUBSIDIARIES OF AMETEK, INC.

AS OF DECEMBER 31, 2022

Exhibit 21

Company	State or other jurisdiction of incorporation or organization	Percentage of voting securities owned by its immediate parent*
4DSP B.V.	Netherlands	100%
4DSP, LLC	Nevada	100%
Abaco Systems Holding Corp.	Delaware	100%
Abaco Systems Limited	United Kingdom	100%
Abaco Systems Private Limited	India	100%
Abaco Systems S.R.L.	Italy	100%
Abaco Systems Technology Corp.	New York	100%
Abaco Systems, Inc.	Delaware	100%
Abaco UK Holdco Limited	United Kingdom	100%
Advanced Measurement Technology, Inc.	Delaware	100%
AEM Limited	United Kingdom	100%
AIP/MPM Funding, Inc.	Delaware	100%
AIP/MPM Holdings, Inc.	Delaware	100%
Airtechnology Pension Trustees Limited	United Kingdom	100%
Akron Standard Bestry (Guangzhou) Measurement Equipment Co., Ltd.	China	50%
Alphasense Limited	United Kingdom	100%
Alphasense SV Limited	United Kingdom	100%
Alphasense USA, Inc.	Delaware	100%
Amekai (BVI) Ltd.	British Virgin Islands	50%
Amekai Meter (Xiamen) Co., Ltd.	China	100%
Amekai Singapore Private Ltd.	Singapore	50%
Amekai Taiwan Co., Ltd.	Taiwan	50%
AMEPS USVI LLC	United States Virgin Islands	100%
AMETEK (Barbados) SRL	Barbados	100%
AMETEK (Bermuda), Ltd.	Bermuda	100%
AMETEK (GB) Limited	United Kingdom	100%
AMETEK (Thailand) Co., Ltd.	Thailand	99.999%
AMETEK Advanced Industries, Inc.	Delaware	100%
AMETEK Aegis, Inc.	Delaware	100%
AMETEK Aerospace & Defense Group UK Ltd.	United Kingdom	100%
AMETEK Aerospace & Power Holdings, Inc.	Delaware	100%
AMETEK Aircraft Parts & Accessories, Inc.	Delaware	100%
AMETEK Airtechnology Group Limited	United Kingdom	100%
AMETEK Ameron, LLC	Delaware	100%
AMETEK Arizona Instrument LLC	Arizona	100%
AMETEK B.V.	The Netherlands	100%
AMETEK Canada 3 ULC	Canada	100%
AMETEK Canada Limited Partnership	Canada	99.9%
AMETEK Co., Ltd.	Japan	100%

SUBSIDIARIES OF AMETEK, INC.

AS OF DECEMBER 31, 2022

Company	State or other jurisdiction of incorporation or organization	Percentage of voting securities owned by its immediate parent*
AMETEK Commercial Enterprise Shanghai	China	100%
AMETEK Creaform ULC	Canada	99.9%
AMETEK CTS Europe GmbH	Germany	100%
AMETEK CTS GmbH	Switzerland	100%
AMETEK CTS US, Inc.	New York	100%
AMETEK Customer Service S. de R. L. de C.v.	Mexico	100%
AMETEK d.o.o. Subotica	Serbia	100%
AMETEK DELCO, Inc.	Delaware	100%
AMETEK Denmark A/S	Denmark	100%
AMETEK do Brasil Ltda.	Brazil	99%
AMETEK Edinburgh Holdings LP	Scotland	99%
AMETEK Elektromotory, s.r.o	Czech Republic	99.97%
AMETEK EMG Holdings, Inc.	Delaware	100%
AMETEK Engineered Materials Sdn. Bhd.	Malaysia	100%
AMETEK Europe, L.L.C.	Berwyn, PA	100%
AMETEK European Holdings GmbH	Germany	100%
AMETEK European Holdings Limited	United Kingdom	100%
AMETEK Finland Oy	Finland	100%
AMETEK Germany GmbH	Germany	100%
AMETEK Global Limited	United Kingdom	100%
AMETEK Global Tubes, LLC	Delaware	100%
AMETEK GmbH	Germany	31.99%
AMETEK Grundbesitz GmbH	Germany	100%
AMETEK Haydon Kerk, Inc.	Delaware	100%
AMETEK Holdings B.V.	The Netherlands	100%
AMETEK Holdings de Mexico, S. de R.L.	Mexico	50%
AMETEK Holdings SARL	France	74%
AMETEK Hong Kong Private Limited	Hong Kong	100%
AMETEK HSA, Inc.	Delaware	100%
AMETEK Industrial Technology (Shanghai) Co., Ltd.	China	100%
AMETEK Instrumentos, S.L.	Spain	100%
AMETEK Instruments Group UK Limited	United Kingdom	100%
AMETEK Instruments India Private Limited	India	100%
AMETEK International Limited	United Kingdom	100%
AMETEK Korea Co., Ltd.	Korea	100%
AMETEK Lamb Motores de Mexico, S. de R.L. de C.V.	Mexico	99.99%
AMETEK Land, Inc.	Delaware	100%
AMETEK Latin America Holding Company S.à r.l.	Luxembourg	100%
AMETEK Magnetrol USA, LLC	Delaware	100%
AMETEK Material Analysis Holdings GmbH	Germany	100%
AMETEK Mexico Holding Company, LLC	Delaware	100%
AMETEK Middle East FZE	United Arab Emirates	100%
AMETEK Motors Asia Pte. Ltd.	Singapore	100%
AMETEK MRO Florida, Inc.	Delaware	100%
AMETEK Nordic AB	Sweden	100%
AMETEK PIP Holdings, Inc.	Delaware	100%
AMETEK Precitech, Inc.	Delaware	100%

SUBSIDIARIES OF AMETEK, INC.

AS OF DECEMBER 31, 2022

Company	State or other jurisdiction of incorporation or organization	Percentage of voting securities owned by its immediate parent*
AMETEK Programmable Power, Inc.	Delaware	100%
AMETEK S.A.S.	France	76.7%
AMETEK S.r.l.	Italy	70%
AMETEK SCP (Barrow) Limited	United Kingdom	100%
AMETEK SCP, Inc.	Rhode Island	100%
AMETEK Singapore Private Ltd.	Singapore	100%
AMETEK Solution ULC	Canada	100%
AMETEK Taiwan Co. Ltd.	Taiwan	50.5%
AMETEK Technical & Industrial Products, Inc.	Minnesota	51.9%
AMETEK Thermal Systems, Inc.	Delaware	100%
AMETEK UK Finance Limited	United Kingdom	100%
Amptek, Inc.	Delaware	100%
Antavia SAS	France	100%
Atlas Material Holdings Corporation	Delaware	100%
Atlas Material Testing Technology (India) Private Limited	India	100%
Atlas Material Testing Technology BV	The Netherlands	100%
Atlas Material Testing Technology GmbH	Germany	100%
Atlas Material Testing Technology L.L.C.	Delaware	100%
Atlas Netherlands AcquisitionCo Coöperatief U.A.	The Netherlands	99.99%
Avicenna Technology, Inc.	Minnesota	100%
CAMECA Instruments, Inc.	New York	100%
CAMECA SAS	France	96.15%
Chandler Instruments Company L.L.C.	Texas	100%
Coining, Inc.	Delaware	100%
Controls Southeast, Inc.	North Carolina	100%
Crank Software ULC	Canada	100%
Creaform Software Inc.	Canada	100%
Creaform Inc.	Canada	100%
Creaform Shanghai Ltd.	China	100%
Creaform U.S.A. Inc.	Delaware	100%
Crystal Engineering Corporation	California	100%
Direl GmbH	Germany	100%
Direl Holding GmbH	Germany	100%
Drake Air, Inc.	Oklahoma	100%
Dunkermotoren GmbH	Germany	100%
Dunkermotoren Taicang Co., Ltd.	China	100%
Dunkermotoren USA Inc.	Delaware	100%
EDAX, LLC	Delaware	100%
EGS Automation GmbH	Germany	100%
EMA Corp.	Delaware	98.43%
EMA Finance 1 LLC	Delaware	100%
EMA Finance 2 LLC	Delaware	100%
EMA Finance 3, LLC	Delaware	100%
EMA Holdings UK Limited	United Kingdom	100%

SUBSIDIARIES OF AMETEK, INC.

AS OF DECEMBER 31, 2022

Company	State or other jurisdiction of incorporation or organization	Percentage of voting securities owned by its immediate parent*
EMA Holdings, LLC	Delaware	100%
EMA MX, LLC	Delaware	100%
Fine Tubes Limited	United Kingdom	100%
FMH Aerospace Corp.	California	100%
Forza Silicon Corporation	California	100%
Foundation Technology Ltd.	United Kingdom	100%
Frameflair Limited	United Kingdom	100%
Gatan, Inc.	Pennsylvania	100%
Glasseal Products, Inc.	New Jersey	100%
Grabner Instruments Messtechnik Gesellschaft m.b.H.	Austria	100%
Hamilton Precision Metals, Inc.	Delaware	100%
Haydon Kerk Motion Solutions, Inc.	Massachusetts	100%
Haydon Linear Motors (Changzhou) Co., Ltd.	China	100%
HCC Industries, Inc.	Delaware	100%
HDR Power Systems, LLC	Delaware	100%
Hermetic Seal Corporation	Delaware	100%
IntelliPower, Inc.	California	100%
Land Instruments International Ltd.	United Kingdom	100%
Magnetrol International N.V.	Belgium	100%
MCG Acquisition Corporation	Minnesota	100%
MI Technologies, LLC	Delaware	100%
Micro-Poise Industrial Equipment (Beijing) Ltd.	China	100%
Micro-Poise Measurement Systems, LLC	Delaware	100%
Milmega Limited	United Kingdom	100%
MOCON Europe A/S	Denmark	100%
MOCON, Inc.	Minnesota	100%
Modern Field Holdings, Inc.	British Virgin Islands	7.6%
Motec GmbH	Germany	100%
Motec USA LLC	Delaware	100%
Muirhead Aerospace Limited	United Kingdom	100%
Navitar, Inc.	New York	100%
Nearfield Systems, LLC	California	100%
NewAge Testing Instruments, Inc.	Pennsylvania	100%
NSI-MI Technologies Inc.	Delaware	100%
NSI-MI UK Limited	United Kingdom	100%
Nu Instruments Limited	United Kingdom	100%
OBCORP LLC	Missouri	100%
Pacific Design Technologies, Inc.	California	100%
Patriot Sensors & Controls Corporation	Delaware	100%
Petrolab, L.L.C.	Delaware	100%
Pixelink, Inc.	Canada	100%

SUBSIDIARIES OF AMETEK, INC.

AS OF DECEMBER 31, 2022

Company	State or other jurisdiction of incorporation or organization	Percentage of voting securities owned by its immediate parent*
Powervar Deutschland GmbH	Germany	100%
Powervar Mexico S.A. de C.V.	Mexico	99.9980%
Powervar, Inc.	Illinois	100%
Rauland-Borg Corporation	Illinois	100%
Rauland-Borg Corporation of Florida	Delaware	100%
Reichert, Inc.	Delaware	100%
Responder Systems Corporation	California	100%
RETE Holding GmbH	Germany	100%
Rotron Incorporated	New York	100%
RTDS Technologies Inc.	Canada	100%
Sealtron, Inc.	Delaware	100%
Seiko EG&G Co. Ltd.	Japan	49%
Six Brookside Drive Corporation	Connecticut	100%
SkyBitz Petroleum Logistics LLC	South Carolina	100%
SkyBitz Tank Monitoring Corporation	Illinois	100%
SkyBitz, Inc.	Delaware	100%
Solartron Metrology Limited	United Kingdom	100%
Solidstate Controls Mexico, S.A. de C.V.	Mexico	99.998%
Solidstate Controls, Inc. de Argentina S.R.L.	Argentina	90%
Solidstate Controls, LLC	Delaware	100%
Sound Com Corporation	Ohio	100%
Southern Aero Partners, Inc.	Oklahoma	100%
Special Optics, Inc.	New Jersey	100%
SPECTRO Analytical Instruments (Pty) Ltd	South Africa	100%
SPECTRO Analytical Instruments GmbH	Germany	100%
SPECTRO Analytical Instruments, Inc.	Delaware	100%
Spectro Scientific, Inc.	Massachusetts	100%
Spectro, Inc.	Massachusetts	100%
SSH Non-Destructive Testing, Inc.	Delaware	100%
Sunpower, Inc.	Ohio	100%
Superior Tube Company, Inc.	Pennsylvania	100%
Taylor Hobson Inc.	Delaware	100%
Taylor Hobson Limited	United Kingdom	100%
Taylor Hobson Trustees Limited	United Kingdom	100%
Technical Manufacturing Corporation	Delaware	100%
Technical Services for Electronics, Inc.	Minnesota	100%
Telular Corporation	Delaware	100%
Tritex Corporation	Delaware	100%
Tubes Holdco Limited	United Kingdom	100%
Universal Analyzers Inc.	Nevada	100%
Vision Research Europe B.V.	The Netherlands	100%
Vision Research S.R.L.	Romania	100%
Vision Research, Inc.	Delaware	100%
VTI Instruments Private Limited	India	99.999%
VTI Integrated Systems Private Limited	India	99.89%
Zemetrics, Inc.	Delaware	100%

SUBSIDIARIES OF AMETEK, INC.

AS OF DECEMBER 31, 2022

Company	State or other jurisdiction of incorporation or organization	Percentage of voting securities owned by its immediate parent*
Zygo Corporation	Delaware	100%
Zygo Germany GmbH	Germany	41.36%
Zygo Pte Ltd.	Singapore	100%
Zygo Richmond Corporation	Delaware	100%
ZygoLamda Metrology Instrument (Shanghai) Co., Ltd.	China	100%

(*) Exclusive of directors' qualifying shares and shares held by nominees as required by the laws of the jurisdiction of incorporation.

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. 333-173988) pertaining to the AMETEK, Inc. 2011 Omnibus Incentive Compensation Plan,
- (2) Registration Statement (Form S-8 No. 333-87491) pertaining to the AMETEK Retirement and Savings Plan,
- (3) Registration Statement (Form S-8 No. 333-91507) pertaining to the AMETEK, Inc. Deferred Compensation Plan,
- (4) Registration Statement (Form S-8 No. 333-176068) pertaining to the Hamilton Precision Metals 401(k) Employee Savings Plan and Solidstate Controls, Inc. Hourly Employees' (CWA) Retirement Plan,
- (5) Registration Statement (Form S-8 No. 333-214847) pertaining to the Superior Tube Company, Inc. Union 401(k) Plan,
- (6) Registration Statement (Form S-3 No. 333-75892) of AMETEK, Inc. and,
- (7) Registration Statement (Form S-8 No. 333-238099) pertaining to the AMETEK, Inc. 2020 Omnibus Incentive Compensation Plan.

of our reports dated February 21, 2023, with respect to the consolidated financial statements of AMETEK, Inc. and the effectiveness of internal control over financial reporting of AMETEK, Inc., included in this Annual Report (Form 10-K) of AMETEK, Inc. for the year ended December 31, 2022.

/s/ ERNST & YOUNG LLP

Philadelphia, Pennsylvania
February 21, 2023

CERTIFICATIONS

I, David A. Zapico, certify that:

1. I have reviewed this Annual Report on Form 10-K of AMETEK, Inc. (the “registrant”);
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 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 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.

Date: February 21, 2023

/s/ DAVID A. ZAPICO

David A. Zapico

Chairman of the Board and Chief Executive Officer

CERTIFICATIONS

I, William J. Burke, certify that:

1. I have reviewed this Annual Report on Form 10-K of AMETEK, Inc.(the “registrant”);
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 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 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.

Date: February 21, 2023

/s/ WILLIAM J. BURKE

William J. Burke

Executive Vice President – Chief Financial Officer

AMETEK, Inc.

**Certification Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of AMETEK, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, David A. Zapico, Chairman of the Board and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ DAVID A. ZAPICO

David A. Zapico

Chairman of the Board and Chief Executive Officer

Date: February 21, 2023

A signed original of this written statement required by Section 906 has been provided to AMETEK, Inc. and will be retained by AMETEK, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

AMETEK, Inc.

**Certification Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of AMETEK, Inc. (the “Company”) on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, William J. Burke, Executive Vice President – Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ WILLIAM J. BURKE

William J. Burke

Executive Vice President – Chief Financial Officer

Date: February 21, 2023

A signed original of this written statement required by Section 906 has been provided to AMETEK, Inc. and will be retained by AMETEK, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.