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

Form 10-K

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 31, 2024**

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 1-13179

FLOWSERVE CORPORATION

(Exact name of registrant as specified in its charter)



New York	**31-0267900**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5215 N. O'Connor Boulevard Suite 700, Irving, Texas	**75039**
(Address of principal executive offices)	(Zip Code)

(972) 443-6500
(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $1.25 Par Value	FLS	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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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 Exchange Act). Yes ☐ No ☑

The aggregate market value of the common stock held by non-affiliates of the registrant, computed by reference to the closing price of the registrant's common stock as reported on June 28, 2024 (the last business day of the registrant's most recently completed second fiscal quarter), was approximately $3,676,745,049. For purposes of the foregoing calculation only, all directors, executive officers and known 5% beneficial owners have been deemed affiliates.

Number of the registrant's common shares outstanding as of February 21, 2025 was 131,745,177.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information contained in the definitive proxy statement for the registrant's 2025 Annual Meeting of Shareholders to be filed pursuant to Regulation 14A within 120 days after the end of the registrant's fiscal year covered by the report is incorporated by reference into Part III hereof.

FLOWSERVE CORPORATION
FORM 10-K

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PART I

ITEM 1. *BUSINESS*

Unless the context otherwise indicates, references to "Flowserve," "the Company" and such words as "we," "our" and "us" include Flowserve Corporation and its subsidiaries.

OVERVIEW

Flowserve's goal is to create extraordinary flow control solutions to make the world better for everyone. We are a world-leading manufacturer and aftermarket service provider of comprehensive flow control systems. We develop and manufacture precision-engineered flow control equipment integral to the movement, control and protection of the flow of materials in our customers' critical processes. Our product portfolio of pumps, valves, seals, automation and aftermarket services supports global infrastructure industries, including oil and gas, chemical, power generation, nuclear and water management, as well as certain general industrial markets where our products and services enable customers to achieve their goals. Through our manufacturing platform and global network of Quick Response Centers ("QRCs"), we offer a broad array of aftermarket equipment services such as installation, advanced diagnostics and turnkey maintenance programs.

Strategies

Flowserve has a clear growth strategy as we transform our operations to better meet our customers' needs. Our overarching strategic objectives are to remain a global leader in the flow control industry and capitalize on growth through our traditional end markets as well as through energy transition opportunities. We seek to be recognized by our customers as the most trusted brand of flow control technology in terms of reliability and quality, which we believe will help maximize shareholder value.

In pursuit of these objectives, we maintain a strategic plan that takes a balanced approach to integrating both short-term and long-term initiatives and accelerates growth through three key areas: diversification, decarbonization, and digitization (the "3D Strategy"). The goal of our 3D Strategy is to utilize our leadership in the flow control industry, and through our commitment to research and development, create innovative products and solutions which address the emerging climate and environmental issues that our customers face. In addition, we recently launched the Flowserve Business System to guide the enterprise on incorporating best in class operational practices within the following categories: People Excellence; Operational Excellence; Portfolio Excellence; Commercial Excellence; and Innovation Excellence (the "Flowserve Business System"). We believe that our 3D strategy, improved execution through our new operating model and the Flowserve Business System, and continued innovation efforts will drive long-term revenue growth and profit expansion. For further discussion of our new operating model, see the Executive Overview in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" included in this Annual Report.

Diversification

We are diversifying our traditional end markets to create a more balanced and less cyclical portfolio with a focus in the following end markets: water, specialty chemicals, and new vacuum and seal technologies. With a goal of supporting our customers today and in the future as they transition to new energy sources we focus on several elements to create a balanced and diverse portfolio based on cleaner sources of energy, including: (i) re-engaging our offerings with market participants in areas such as water, specialty chemicals, and other general industries where we maintain strong capabilities; (ii) increasing our exposure to end markets offering long-term outsized growth potential; and (iii) maintaining and growing our vacuum technology that supports chemical processing and advanced industrial manufacturing.

Decarbonization

We are supporting our customers through their energy transitions. A number of countries have net-zero targets and corporations around the world are investing to help achieve their climate and emission reduction goals. Our decarbonization strategy focuses on several areas to address the effects of climate change through our innovative portfolio of flow control solutions, including: (i) continuing to develop our products and services that can be utilized in our customers' carbon reduction efforts; (ii) providing overall product and solution offerings to help customers' energy transition efforts in energy efficiency, carbon reduction, and operational cost mitigation; and (iii) maintaining and improving our technologies already available in nuclear, liquefied natural gas ("LNG"), hydrogen, carbon capture, and renewables. The Flowserve Energy Advantage Program provides a holistic flow control approach aimed at helping operators reach their carbon reduction goals and lower total cost of ownership. It provides customers with Flowserve engineering expertise, a systematic data-driven evaluation process and a complete offering of products and services that

can help increase energy efficiency through optimization of pump and valve power consumption, reduce carbon emissions, improve plant productivity and reliability, and provide operational cost savings.

Digitization

We are leveraging technology and data to improve our, and our customers', operations. With a goal of digitizing our existing installed base and new original equipment, we focus on several efforts to help our customers digitize their operations, including: (i) implementing RedRaven, our proprietary Industrial Internet of Things ("IIoT") solution for equipment monitoring, to improve customers' internal operations; (ii) supporting customer sites across a diverse set of industry applications; and (iii) utilizing RedRaven to monitor existing assets, predict costly downtime in critical assets, and optimize flow loop operations.

History

Flowserve Corporation was created in 1997 through the merger of two leading fluid motion and control companies — BW/IP and Durco International. Under the name of a predecessor entity, we were incorporated in the State of New York on May 1, 1912, but some of our heritage product brand names date back to our founding in 1790. We have evolved through organic growth and strategic acquisitions, and our over 230-year history of Flowserve heritage brands serves as the foundation for the breadth and depth of our products and services today.

BUSINESS SEGMENTS AND PRODUCTS

Our Primary Industries

We sell our products and services to over 10,000 customers, including some of the world's leading engineering, procurement and construction firms ("EPC"), original equipment manufacturers, distributors and end users. Our products and services are used in several distinct industries having a broad geographic reach. Our total bookings in 2024, 2023 and 2022 were $4.7 billion, $4.3 billion and $4.4 billion, respectively. Our bookings mix by industry in 2024, 2023 and 2022 consisted of:

	2024	2023	2022
• oil and gas	37 %	38 %	40 %
• general industries(1)	26 %	26 %	22 %
• chemical(2)	19 %	21 %	22 %
• power generation	13 %	11 %	12 %
• water management	5 %	4 %	4 %

(1) General industries include mining and ore processing, pulp and paper, food and beverage and other smaller applications, as well as sales to distributors whose end customers typically operate in the other industries we primarily serve as identified above.

(2) Chemical industry is comprised of chemical-based and pharmaceutical products.

Demand

Demand for most of our products depends on the level of new capital investment as well as planned and unplanned maintenance expenditures by our customers. The level of new capital investment depends, in turn, on capital infrastructure projects driven by the need for products that rely on oil and gas, chemicals, power generation and water resource management, as well as general economic conditions. These drivers are generally related to the phase of the business cycle in their respective industries and the expectations of future market behavior, including changes in demand for certain products and processes as a result of evolving industry trends and needs. The levels of maintenance expenditures are additionally driven by the reliability of equipment, planned and unplanned downtime for maintenance and the required capacity utilization of the process. Energy transition has also resulted in increased demand for our products and services as customers and geographies look to secure more independent sources of energy.

Sales Channels

Sales to EPC firms and original equipment manufacturers are typically for large project orders and critical applications, as are certain sales to distributors. Project orders are typically procured for customers either directly from us or indirectly through contractors for new construction projects or facility enhancement projects that are longer-cycle projects and can take up to two years.

In contrast to large project orders, the quick turnaround business, which we also refer to as "short-cycle," is defined as orders that are received from the customer (booked) and shipped generally within six months of receipt. These orders are typically for more standardized, general-purpose products, parts or services, and are less cyclical than larger capital expenditures driven by project orders. Each of our two business segments generates certain levels of this type of short-cycle business.

In the sale of aftermarket products and services (collectively referred to as "aftermarket"), we benefit from a large installed base of our original equipment, which requires periodic maintenance, repair and replacement parts. We use our manufacturing platform and global network of Quick Response Centers ("QRCs") to offer a broad array of aftermarket equipment services such as installation, advanced diagnostics and turnkey maintenance. In geographic regions where we are positioned to provide quick response, we believe customers have traditionally relied on us, rather than our competitors, for aftermarket products due to our highly engineered and customized products. However, the aftermarket for standard products is competitive, as the existence of common standards allows for easier replacement of the installed products. As proximity of service centers, timeliness of delivery and quality are important considerations for all aftermarket products and services, we continue to selectively expand our global QRC capabilities to improve our ability to capture an increasing portion of this important aftermarket business. Each of our two business segments generates certain levels of aftermarket products and services.

We have pursued a strategy of industry diversity and geographic breadth to mitigate the impact on our business of normal economic downturns in any one of the industries or in any particular part of the world we serve. In addition, to augment our focus on growth, we have initiated the 3D Strategy to create a more balanced portfolio, supporting customers through the energy transition and leveraging technology and data to improve customer operations and provide solutions.

For events that may occur and adversely impact our business, financial condition, results of operations and cash flows, refer to "Item 1A. Risk Factors" of this Annual Report on Form 10-K for the year ended December 31, 2024 ("Annual Report"). For information on our sales and long-lived assets by geographic areas, see Note 20, "Business Segment Information," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" ("Item 8") of this Annual Report.

Business Functions

Our business segments share a focus on industrial flow control technology and have a number of common customers. These segments also have complementary product offerings and technologies that are often combined in applications that provide us a net competitive advantage. Our segments also benefit from our global footprint, our economies of scale in reducing administrative and overhead costs to serve customers more cost effectively and our shared leadership for operational support functions such as research and development ("R&D"), marketing and supply chain.

Our operations leadership reports to our Chief Executive Officer and the segments share leadership for operational support functions such as R&D, marketing and supply chain. We believe this leadership structure positions the Company to leverage the Flowserve Business System, cost reduction initiatives and internal synergies across our entire operating platform to drive shareholder value.

BUSINESS SEGMENTS

We report a two operating segment structure, consisting of our Flowserve Pumps Division and our Flow Control Division. In addition to the business segment information presented below, Note 20, "Business Segment Information," to our consolidated financial statements in "Item 8. Financial Statements and Supplementary Data" of this Annual Report contains additional financial information about our business segments and geographic areas in which we have conducted business in 2024, 2023 and 2022.

FLOWSERVE PUMPS DIVISION

Our largest business segment is the Flowserve Pumps Division ("FPD"), through which we design, manufacture, pretest, distribute and service highly custom engineered pumps, pre-configured industrial pumps, pump systems, mechanical seals and auxiliary systems (collectively referred to as "original equipment") and related services. FPD products and services are primarily used by companies that operate in the oil and gas, power generation, chemical, water management and general industries. We market our pump and mechanical seal products through our global sales force and our regional QRCs and service and repair centers or through independent distributors and sales representatives. A portion of our mechanical seal products are sold directly to other original equipment manufacturers for incorporation into their rotating equipment requiring mechanical seals.

Our pump products are manufactured in a wide range of metal alloys and with a variety of configurations to reliably meet the operating requirements of our customers. Mechanical seals are critical to the reliable operation of rotating equipment in that they prevent leakage and emissions of hazardous substances from the rotating equipment and reduce shaft wear on the equipment caused by the use of non-mechanical seals. We also manufacture a gas-lubricated mechanical seal that is used in high-speed compressors for gas pipelines and in the oil and gas production and process markets. Our products are currently manufactured in 37 manufacturing facilities worldwide, 12 of which are located in North America, 11 in Europe and the Middle East, eight in Asia Pacific and six in Latin America, and we have 130 QRCs, including those co-located in manufacturing facilities and/or shared with our Flow Control Division ("FCD").

We also conduct business through strategic foreign joint ventures. We have five unconsolidated joint ventures that are located in Chile, India, Saudi Arabia, South Korea and the United Arab Emirates, where a portion of our products are manufactured, assembled or serviced in these territories. These relationships provide numerous strategic opportunities, including increased access to our current and new markets, access to additional manufacturing capacity and expansion of our operational platform to support best-cost sourcing initiatives and balance capacity demands for other markets.

FPD Products

We currently manufacture approximately 150 active pump models, including American Petroleum Institute ("API") process pumps used in many downstream refining and petrochemical processing systems, and single case multistage axially split heavy duty pumps often used for high pressure hydrocarbon pipeline transmission. In addition, we manufacture double case diffuser style barrel pumps for medium duty applications in refining and petrochemical applications and submersible pump for deep well pumping in irrigation and municipal water supply service. We also manufacture approximately 190 active mechanical seal and sealing systems models. Our pump products are sold under globally recognized brands including Worthington, SIHI, Durco and Innomag and in some cases our brands date back as far as 230 years ago.

FPD Services

We also provide engineered aftermarket services through our global network of 130 QRCs, some of which are co-located in manufacturing facilities, in 45 countries. Our FPD service personnel provide a comprehensive set of equipment services for flow management control systems, including installation, commissioning services, seal systems spare parts, repairs, advanced diagnostics, re-rate and upgrade solutions and retrofit programs, machining and comprehensive asset management solutions. We provide asset management services and condition monitoring for rotating equipment through special contracts with many of our customers that reduce maintenance costs. A large portion of FPD's service work is performed on a quick response basis and we offer 24-hour service in all of our major markets.

FPD New Product Development

Our investments in new product R&D continue to focus on increasing the capability of our products as customer applications become more advanced, demanding greater levels of production (i.e., flow and power) and under more extreme conditions (i.e., erosive, corrosive and temperature) beyond the level of traditional technology. We continue to invest in our product platform and develop innovations to improve our competitive position in our key markets, including the global chemical industry and in the engineered equipment industry, specifically upstream, offshore and downstream applications for the oil and gas market. Continued engagement with our end users is exemplified through the completion of advancements that significantly improve energy efficiency, reduce total cost-of-ownership and enhance safety.

As the world continues to undergo energy transition in the coming years, significant investment towards renewable sources of energy and energy efficiency solutions will become increasingly more important. We continue to develop new

product designs to support our customers through energy transition in our key end markets, and those markets targeted through the diversification efforts of our 3D Strategy. We have launched and will continue to launch new initiatives to support renewable energy, energy efficiency, emissions reduction, decarbonization, and sustainability as the world continues to embrace energy transition into the future. Product development and continued improvements in these areas is a key aspect of our environmental, social and governance ("ESG") program.

In addition, we continue to advance our capabilities and technology position in our rapidly developing IIoT segment. Over the past several years we have continued to both invest and partner in this space to build remote monitoring solutions, as well as advanced equipment diagnostics in order to provide remote asset management and related services capabilities for our end-user customers. Our IIoT solution, RedRaven, includes delivering intelligent "edge" devices, advanced networking infrastructure, secure communication and security protocols, secure data management, and remote monitoring and reporting for our customers. In addition, we have moved beyond exploring new additive manufacturing capabilities, such as 3D printing and fast casting methods, and are exploring ways to economically scale these techniques as another means of manufacturing our products to both reduce lead time and lower our production costs.

None of these newly developed products or services required the investment of a material amount of our assets or was otherwise material to our business. Flowserve continues to develop cryogenic pumping products and technology for hydrogen and LNG applications. Furthermore, Flowserve continues to develop and commercialize new products with greater efficiency and capacity in the pressure exchanger portfolio. We expect to increase our R&D focus in the above areas.

FPD Customers

Our customer mix is diversified and includes leading EPC firms, major national and international companies, equipment end users in our served markets, other original equipment manufacturers, distributors and end users. Our sales mix of original equipment products and aftermarket products and services diversifies our business and helps mitigate the impact of normal economic cycles on our business. Our sales are diversified among several industries, including oil and gas, power generation, chemical, water management and general industries.

FPD Competition

The pump and mechanical seal industry is highly fragmented, with thousands of competitors globally. We compete, however, primarily with a limited number of large companies operating on a global scale. There are also a number of smaller, newer entrants in some of our emerging markets. Competition among our closest competitors is generally driven by delivery times, application knowledge, experience, expertise, price, breadth of product offerings, contractual terms, previous installation history and reputation for quality. Some of our largest industry competitors include: Sulzer Pumps; Ebara Corp.; Eagle Burgmann, which is a joint venture of two traditional global seal manufacturers, John Crane Inc., a unit of Smiths Group Plc; Weir Group Plc.; ITT Industries; and KSB SE & Co. KGaA.

The pump and mechanical seal industry continues to undergo consolidation, which is primarily driven by the need to lower costs through reduction of excess capacity and customers' preference to align with global full service suppliers to simplify their supplier base. Despite the consolidation activity, the market remains highly competitive.

We believe that our strongest sources of competitive advantage rest with our extensive range of pumps for the oil and gas, petrochemical, chemical and power generation industries, our large installed base of products, our strong customer relationships, our high quality technology, our more than 230 years of experience in manufacturing and servicing pumping equipment, our reputation for providing quality engineering solutions and our ability to deliver engineered new seal product orders within 72 hours from the customer's request.

FPD Backlog

FPD's backlog of orders as of December 31, 2024 was $1,930.4 million, compared with $1,891.7 million as of December 31, 2023. We expect to recognize revenue on approximately 81% of December 31, 2024 backlog during 2025.

FLOW CONTROL DIVISION

FCD designs, manufactures, and distributes a broad portfolio of engineered-to-order and configured-to-order isolation valves, control valves, valve automation products and related services and equipment. FCD leverages its experience and application know-how by offering a complete menu of engineered services to complement its expansive product portfolio. FCD products are used to control, direct and manage the flow of liquids, gases and multi-phase fluids, and are a critical part of any flow control system. Our valve and automation products are based on flexible architecture that can be customized or engineered to perform specific functions within each customer's unique flow control environment or objective.

Our flow control products are primarily used by companies operating in the chemical, power generation, oil and gas, water management and general industries, including the growing mining industry. Our products are currently manufactured in 19 principal manufacturing facilities, seven of which are located in Europe, six located in the United States, five located in Asia Pacific and one located in Latin America. We deliver our services through our global network of 27 QRCs worldwide, including nine sites in North America, eight in Asia Pacific, six in Europe and Africa, three in the Middle East and one in Latin America, including those co-located in manufacturing facilities.

FCD Products

Our valve, automation and controls products and engineered services portfolio represent one of the most comprehensive offerings in the flow control industry. Our products are used in a wide variety of applications, from general service to the most severe and demanding services, including those involving high levels of corrosion, extreme temperatures and/or pressures, zero fugitive emissions and emergency shutdown.

Our "smart" valve and diagnostic technologies integrate sensors, microprocessor controls and software into high performance integrated control valves, digital positioners and switch boxes for automated on/off valve assemblies and electric actuators. These technologies permit real-time system analysis, system warnings and remote indication of asset health. These technologies have been developed in response to the growing demand for reduced maintenance, improved process control efficiency and digital communications at the plant level. We are committed to further enhancing the quality of our product portfolio by continuing to upgrade our existing offerings with cutting-edge technologies.

Our valve actuation products encompass a broad range of pneumatic, electric, hydraulic and stored energy actuation designs to take advantage of the power source the customer has available, including utilizing the process fluid flowing through the pipeline as a source of power to actuate the valve. Our actuation products also cover one of the widest ranges of output torques in the industry, providing the ability to automate anything from the smallest linear globe valve to the largest multi-turn gate valve. Most importantly, FCD combines best-in-class mechanical designs with the latest in controls and communication technologies in order to provide complete integrated automation solutions that optimize flow control performance and enhance digital end-user experience.

We manufacture approximately 30 different active types of products, including valves, actuators, positioners, and switches. Our products are sold under globally recognized brands, including Valtek, Argus, Worcester, Limitorque and Durco.

FCD Services

Our service personnel provide comprehensive equipment maintenance services for flow control systems, including advanced diagnostics, repair, installation, commissioning, retrofit programs and field machining capabilities. A large portion of our service work is performed on a quick response basis, which includes 24-hour service in all of our major markets. We also provide in-house repair and return manufacturing services worldwide through our manufacturing facilities. We believe our ability to offer comprehensive, quick turnaround services provides us with a unique competitive advantage and unparalleled access to our customers' installed base of flow control products.

During 2022, we added the service of condition monitoring for our control valves, which is enabled by RedRaven, our proprietary IIoT solution, and digital positioners. Within any control valve system, the RedRaven solution acts as a condition monitoring system and provides critical operating information to the end users and therefore helps to reduce downtime, improve productivity and increase visibility into their flow processes. Additionally, RedRaven is connected to our QRC network for fast and reliable repair or replacement of valves, actuators and other related valve equipment.

FCD New Product Development

Our R&D investment is focused on areas that will enhance the end-user experience and advance our technological leadership by creating compelling value propositions for our customers, and lasting competitive advantage of our products and services in the market. In that respect, our investments have been focused on four critical areas:

(1) significantly enhancing the digital integration and interoperability of automation products (e.g., positioners, actuators, limit switches and associated accessories) with Distributed Control Systems ("DCS") and Asset Management Systems ("AMS");

(2) developing and deploying next-generation hardware and software solutions that leverage our in-depth domain knowledge and artificial intelligence, to further flow control diagnostics and bring insights that increase performance and efficiency of end-user processes;

(3) advancing material science and processing technologies to further increase our products' capabilities in severe and critical services – including but not limited to noise and cavitation reduction; and

(4) investing in our people and processes in the adoption of modern R&D project management tools (such as lean startup, SCRUM, agile and hybrid portfolio management, etc.) to enable effective risk mitigation and shorter commercialization cycles.

In addition, like FPD, a number of FCD's product development efforts are tied to assisting our customers with energy transition. These efforts are geared toward supporting our customers in their own decarbonization efforts with new valve offerings, including Flowtop and Mark linear control valves and Valbart ball valves, as well as cost-effective deployment of alternative energy technologies, such as hydrogen and renewable power with innovations in our Edward gate and globe valves, Valtek and Durco triple-offset butterfly valve and Worchestor ball valve product lines.

None of these newly developed valve products or services required the investment of a material amount of our assets or was otherwise material. We expect to increase our R&D focus in the above areas.

FCD Customers

Our customer mix spans several end markets, including the chemical, power generation, oil and gas, water management, and other general industries, which include mining. We are especially active in providing solutions for emerging applications that support sustainability (such as concentrated solar power, hydrogen economy, carbon capture, desalination, etc.) or increase energy productivity (such as LNG, Ethylene cracking and Hydro cracking, etc.). Lastly, our expertise in flow control management makes us a reliable partner to assist our customers with energy transition – by either making their processes more efficient and sustainable, or by providing products and solutions for new technologies that enable energy transition.

Our product offerings include original equipment, aftermarket parts, and a portfolio of services and solutions. Contracts and transactions are conducted through a variety of channels depending on customer requirements, including direct end-users, EPC firms, distributors and other original equipment manufacturers.

FCD Competition

While in recent years the valve market has undergone a significant amount of consolidation, the market remains highly fragmented. Some of the largest valve industry competitors include Emerson Electric Co., Cameron International Corp. (a Schlumberger company), Baker Hughes, Rotork plc, Neles, IMI Plc and Crane Co.

Our market research and assessments indicate that the top 10 global valve manufacturers collectively comprise less than 15% of the total valve market. Based on independent industry sources, we believe that FCD is the second largest industrial valve supplier on a global basis. We believe that our strongest sources of competitive advantage rest with our comprehensive portfolio of valve and automation products and services, our ability to provide complementary pump and rotating equipment products and services, our focus on execution, our expertise in severe corrosion and erosion applications, and strategic partnerships purposely built to advance market adoption of new technologies and digital tools.

FCD Backlog

FCD's backlog of orders as of December 31, 2024 was $869.6 million, compared with $826.8 million as of December 31, 2023. We expect to recognize revenue on approximately 89% of December 31, 2024 backlog during 2025.

ADDITIONAL INFORMATION REGARDING BOTH REPORTING SEGMENTS

Seasonality

Our financial results are seasonal, as we typically experience lower earnings in the first quarter of the year, with lower sales, coupled with fixed operating expenses, impacting our earnings and cash flows. We typically have higher sales, earnings and cash flows in the second half of the year. Given that certain of our operating expenses are fixed, fluctuations in sales volumes from quarter to quarter may affect operating income for the respective quarters.

Selling and Distribution

We primarily distribute our products through direct sales by employees assigned to specific regions, industries or products. In addition, we use distributors and sales representatives to supplement our direct sales force where it is more economically efficient. We generate a majority of our sales leads through existing relationships with vendors, customers and prospects or through referrals.

Intellectual Property

We own a number of trademarks and patents relating to the names and designs of our products. We consider our trademarks and patents to be valuable assets of our business. In addition, our pool of proprietary information, consisting of know-how and trade secrets related to the design, manufacture and operation of our products, is considered particularly valuable. Accordingly, we take proactive measures to protect such proprietary information. We generally own the rights to the products that we manufacture and sell and are unencumbered by licensing or franchise agreements. In limited circumstances, we have entered into agreements to license intellectual property. The operational and financial terms of these agreements are not material. Our trademarks can typically be renewed indefinitely as long as they remain in use, whereas our existing patents generally expire 10 to 20 years from the dates they were filed, which has occurred at various times in the past. We do not believe that the expiration of any individual patent will have a material adverse impact on our business, financial condition or results of operations.

Raw Materials

The principal raw materials used in manufacturing our products include ferrous and non-ferrous metals in the form of bar stock, machined castings, fasteners, forgings and motors, as well as silicon, carbon faces, gaskets and fluoropolymer components. A substantial volume of our raw materials is purchased from outside sources, and we have been able to develop a robust supply chain.

We continually monitor the business conditions of our suppliers to manage competitive market conditions and to avoid potential supply disruptions wherever possible. We continue to expand global sourcing to capitalize on localization in emerging markets and low-cost sources of purchased goods balanced with efficient consolidated and compliant logistics.

During 2023, our operating costs were impacted by inflation, including with respect to the cost of certain raw materials as well as wage and benefit costs. We saw these impacts moderate during the second half of 2023 and throughout 2024. The combined effects of tariffs, supply chain disruption, inflation and the strong U.S. dollar may adversely affect our ability to source raw materials from our suppliers.

Metal castings used in the manufacture of our pumps, valves, and mechanical seals are purchased from qualified and approved foundry sources. We remain vertically integrated with metal castings in certain strategic product families.

Concerning the products we supply to customers in the nuclear power generation industry, suppliers of raw materials for nuclear power generation markets must be qualified to meet the requirements of nuclear industry standards and governmental regulations. Supply channels for these materials are currently adequate, and we do not anticipate difficulty in obtaining such materials in the future.

Human Capital Management

Our associates worldwide are important to delivering on our purpose to create extraordinary flow control solutions. People Excellence is a core category and focus area of the Flowserve Business System. As a global manufacturer, our values start with our people - we strive to create a collaborative team environment that enables us to develop each other, embrace our differences and respect one another.

As of December 31, 2024, we had approximately 16,000 employees (“associates”) globally and a footprint of manufacturing facilities and QRCs in approximately 50 countries. Of our global associates, there are approximately 9,000 in FPD and 4,000 in FCD. The remaining 3,000 associates support core business functions including legal, human resources, information technology, finance, global engineering operations, marketing and technology operations. During 2023, we redesigned the commercial operations and sales functions to align with our new operating model, and these functions now reside within the business segments. Regionally, approximately 5,000 of our associates are in North America, approximately 1,600 of our associates are in Latin America, approximately 5,600 of our associates are in Europe, the Middle East and Africa, and approximately 3,800 of our associates are in Asia Pacific.

We are committed to achieving business success with integrity at the forefront. All associates and our Board of Directors are governed by our Code of Conduct as we continuously work together to improve our operations by fostering a work environment that supports employee health, safety, training, development and inclusion. To create that environment, members of management work together to identify areas of opportunity and develop and implement various policies, procedures, and initiatives in these key areas. Members of management also provide regular updates to our Board of Directors, who provide additional input and guidance to management on these key areas.

Workplace Health and Safety: Safety is one of the corporate values at the Company and is embedded throughout our organization. We strive to create and maintain a safe working environment, empowering our employees to identify and report safety concerns and act to correct hazards. Our focus on safety and environmental protection has led to meaningful reductions in workplace safety incidents, emissions to the environment, and solid waste and hazardous waste generation at our facilities worldwide. In addition, the Company regularly monitors performance metrics, such as incident rates and lost time rates, and performance indicators, such as observations reported and training completions to ensure our safety program is having a positive impact on these key safety metrics.

Compensation and Benefits: We maintain a market-based compensation strategy that provides a competitive total target compensation opportunity for our associates. We also value the health and well-being of our associates and offer competitive overall benefits, including health and wellness programs tailored to the specific localized needs of our employees. We offer a global employee wellness program at no cost to our employees that supports our employees through circumstances that may affect their health, job performance, or other mental and/or emotional well-being. We also aim to educate and engage our employees through wellness campaigns, educational content and partnerships with leading health and wellness partners across the globe to help foster healthy lives for our employees and their families.

Training, Development and Ethics: Developing our people is an essential aspect of Flowserve's strategy and we believe development is a continuous process. We offer developmental opportunities to help our associates build the skills needed to reach their short-term and long-term career goals, including but not limited to on-the-job training, online learning, rotational programs, professional memberships, language learning and leadership development. To help our associates see how their work contributes to overall Company objectives and successes, management uses a robust performance management system and provides regular feedback to develop talent and foster engagement.

Furthering our commitment to leadership development, we continue to build on the momentum of our Leadership in Motion ("LIM"), a development program focused on the foundational capabilities of leadership through the lens of Flowserve's values and behaviors. Together, these leaders advance their skills in collaborating across the enterprise, developing their teams, and strengthening our culture of inclusion for all associates. Our program continues to engage leaders new to management, and leaders new to Flowserve, building on our Values and Behaviors with clearly defined attributes and actions for people leaders.

With respect to our Integrity and Compliance program, we provide our associates with training on the Flowserve Code of Conduct annually, through which they gain an understanding of the types of behaviors and decisions that represent our ethics and values. We also provide associates with compliance trainings on relevant topics such as trade, anti-corruption, anti-trust, investigations and data privacy.

Culture and Engagement: To further enhance our culture, we conduct regular employee engagement surveys to solicit feedback and input directly from our associates. In 2024, approximately 88% of our associates participated in our employee engagement survey. The Company put action to the survey results by empowering leaders with results summaries and personalized action planning support to further advance our culture and values at a local level.

Flowserve also seeks to build an inclusive culture through targeted training and development opportunities for our associates. Flowserve participates in regular national and global observances by sharing educational content with employees that raises awareness of cultural celebrations and experiences. Through these observances, we believe we can inspire mutual understanding and greater empathy across our global workforce. As a multi-national organization,

recognition and education of cultural observances is an important part of creating a greater understanding and appreciation for our associates' experiences and for the experiences of our global customer base. With these programs and educational opportunities, we hope to foster an employee culture that drives inclusion, combats bias and positively impacts our communities in and outside of Flowserve.

Environmental, Social and Governance Activities

We structure our approach to sustainability around ESG principles that incorporate our values and business priorities so that all of our associates can contribute to our ESG priorities. One of the aims of our ESG program is to enable a clean energy future by advancing technologies that reduce climate impact, embedding sustainability within our core operations and strengthening our purpose-driven culture. Our ESG program is centered on three key pillars – climate, culture and core responsibility. Climate captures the environmental pillar of our ESG approach and outlines our commitment to enabling a clean energy future for our operations and our customers. Culture refers to the social pillar of our ESG strategy and is rooted in our belief that the collective energy of our people set us apart. It defines our commitment to strengthening our values-driven culture and investing in our communities through talent recruitment, engagement and inclusion, workplace health and safety, and employee well-being. Core responsibility represents governance and how we seek to conduct business ethically and in accordance with laws and regulations around the world.

We publish an annual ESG Report that discusses our ESG-related goals, activities and accomplishments, which can be accessed through the "Investor Relations" section of our Internet web site, and which is not incorporated by reference into this Annual Report on Form 10-K.

Environmental Regulations and Proceedings

We are subject to environmental laws and regulations in all jurisdictions in which we have operating facilities. These requirements primarily relate to the generation and disposal of waste, air emissions and wastewater discharges. We periodically make capital expenditures to enhance our compliance with environmental requirements, as well as to abate and control pollution. At present, we have no plans for any material capital expenditures for environmental control equipment at any of our facilities. However, we have incurred and continue to incur operating costs relating to ongoing environmental compliance matters, including with respect to proposed regulations on carbon emissions reporting. Based on existing and proposed environmental requirements and our anticipated production schedule, we believe that future environmental compliance expenditures will not have a material adverse effect on our financial condition, results of operations or cash flows.

We use hazardous substances and generate hazardous wastes in many of our manufacturing and foundry operations. Most of our current and former properties are or have been used for industrial purposes and some may require clean-up of historical contamination. During the due diligence phase of our acquisitions, we conduct environmental site assessments when warranted to identify potential environmental liabilities and required clean-up measures. We conduct follow-up investigation and/or remediation activities at locations where we have known environmental concerns and work with government authorities to comply with applicable laws and regulations.

Over the years, we have been involved as one of many potentially responsible parties ("PRP") at former public waste disposal sites that are or were subject to investigation and remediation. We are currently involved as a PRP at five Superfund sites. The sites are in various stages of evaluation by government authorities. Our total projected "fair share" cost allocation at these five sites is expected to be immaterial. See "Item 3. Legal Proceedings" included in this Annual Report for more information.

We have established reserves that we currently believe to be adequate to cover our currently identified on-site and off-site environmental liabilities.

Exports

Our export sales from the United States to foreign unaffiliated customers were $292.9 million in 2024, $300.3 million in 2023 and $246.6 million in 2022.

Licenses are required from U.S. and other government agencies to export certain products. In particular, products with nuclear power generation and/or military applications are restricted, as are certain other pump, valve and seal products.

AVAILABLE INFORMATION

We maintain a web site at www.flowserve.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any 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 through the "Investor Relations" section of our Internet web site as soon as reasonably practicable after we electronically file the reports with, or furnish the reports to, the U.S. Securities and Exchange Commission ("SEC"). Reports, proxy statements and other information filed or furnished with the SEC are also available at www.sec.gov.

Also available on our Internet web site are our Corporate Governance Guidelines for our Board of Directors and Code of Conduct, the charters of the Audit, Technology, Risk and Finance, Organization and Compensation and Corporate Governance and Nominating Committees of our Board of Directors, our annual ESG Report, and other important governance documents. All of the foregoing documents may be obtained through our Internet web site as noted above and are available in print without charge to shareholders who request them. Information contained on or available through our Internet web site is not incorporated into this Annual Report or any other document we file with, or furnish to, the SEC.

ITEM 1A. ***RISK FACTORS***

Please carefully consider the following discussion of material factors, events, and uncertainties that make an investment in our securities risky. If any of the factors, events and contingencies discussed below or elsewhere in this Annual Report materialize, our business, financial condition, results of operations, cash flows, reputation or prospects could be materially adversely affected. While we believe all known material risks are disclosed, additional risks and uncertainties not presently known to us, or that we currently deem immaterial, may also materially adversely affect our business, financial condition, results of operations, cash flows, reputation, prospects or stock price. Because of the risk factors discussed below and elsewhere in this Annual Report and in other filings we make with the SEC, as well as other variables affecting our operating results, past financial performance may not be a reliable indicator of future performance, historical trends should not be used to anticipate results or trends in future periods and actual results could differ materially from those projected in the forward-looking statements contained in this Annual Report.

Business and Operating Risks

Our business depends on our customers' levels of capital investment and maintenance expenditures, which in turn are affected by numerous factors, including changes in the state of domestic and global economies, global energy demand and the liquidity cyclicality and condition of global credit and capital markets, which have impacted and which could continue to impact the ability or willingness of our customers to invest in our products and services and adversely affect our financial condition, results of operations and cash flow.

Demand for most of our products and services depends on the level of new capital investment and planned maintenance expenditures by our customers. The level of capital expenditures by our customers depends, in turn, on general economic conditions, availability of credit, economic conditions within their respective industries and expectations of future market behavior. Additionally, volatility in commodity prices can negatively affect the level of these activities and can result in postponement of capital spending decisions or the delay or cancellation of existing orders. The ability of our customers to finance capital investment and maintenance is also affected by factors independent of the conditions in their industry, such as the condition of global credit and capital markets.

The businesses of many of our customers, particularly oil and gas companies, chemical companies and general industrial companies, are to varying degrees cyclical and have experienced periodic downturns. Our customers in these industries, particularly those whose demand for our products and services is primarily profit-driven, tend to delay large capital projects, including expensive maintenance and upgrades, during economic downturns. For example, our chemical customers generally tend to reduce their spending on capital investments and operate their facilities at lower levels in a soft economic environment, which reduces demand for our products and services. An economic slowdown or recession in the United States or in any other country that significantly affects the supply of or demand for oil or natural gas could negatively impact our operations and therefore adversely affect our results. Additionally, fluctuating energy demand forecasts and lingering uncertainty concerning commodity pricing, specifically the price of oil, have caused, and may in the future cause, our customers to be more conservative in their capital planning, reducing demand for our products and services. Reduced demand for our products and services from time to time results in the delay or cancellation of existing orders or leads to excess manufacturing capacity, which unfavorably impacts our absorption of fixed manufacturing costs. This reduced demand has in the past and may continue in the future to also erode average selling prices in our industry.

Any of these results could continue to adversely affect our business, financial condition, results of operations and cash flows.

Volatile regional and global economic conditions stemming from public health emergencies, such as outbreaks of epidemics, pandemics, and contagious diseases, including actions taken by governments in response, could in the future cause a substantial curtailment of business activities (including the decrease in demand for a broad variety of goods and services), weakened economic conditions, supply chain disruptions, significant economic uncertainty and volatility in the financial and commodity markets, including global volatility in supply and demand for oil and gas and may precipitate and aggravate many of the factors described above, and could cause these factors to adversely impact our operations and financial performance as well as those of many of our customers and suppliers.

Additionally, our customers sometimes delay capital investment and maintenance even during favorable conditions in their industries or markets. Despite these favorable conditions, the general health of global credit and capital markets and our customers' ability to access such markets impacts investments in large capital projects, including necessary maintenance and upgrades. In addition, the liquidity and financial position of our customers impacts capital investment decisions and their ability to pay in full and/or on a timely basis. Any of these factors, whether individually or in the aggregate, could have a material adverse effect on our customers and, in turn, our business, financial condition, results of operations and cash flows.

Volatility in commodity prices, effects from credit and capital market conditions and global economic growth forecasts have in the past prompted and may in the future prompt customers to delay or cancel existing orders, which could adversely affect the viability of our backlog and could impede our ability to realize revenues on our backlog.

Our backlog represents the value of uncompleted customer orders. While we cannot be certain that reported backlog will be indicative of future results, our ability to accurately value our backlog can be adversely affected by numerous factors, including the health of our customers' businesses and their access to capital, volatility in commodity prices (e.g., copper, nickel, stainless steel) and economic uncertainty. While we attempt to mitigate the financial consequences of order delays and cancellations through contractual provisions and other means, if we were to experience a significant increase in order delays or cancellations that can result from the aforementioned economic conditions or other factors beyond our control, it could impede or delay our ability to realize anticipated revenues on our backlog. Such a loss of anticipated revenues could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Our inability to deliver our backlog on time could affect our revenues, future sales and profitability and our relationships with customers.

At December 31, 2024, our backlog was $2.8 billion. In 2025, our ability to meet customer delivery schedules for backlog is dependent on a number of factors including, but not limited to, sufficient manufacturing plant capacity, adequate supply channel access to the raw materials and other inventory required for production, an adequately trained and capable workforce, project engineering expertise for certain large projects and appropriate planning and scheduling of manufacturing resources. Our manufacturing plant operations, capacity and supply chain are subject to disruption as a result of equipment failure, severe weather conditions and other natural or manmade disasters, including power outages, fires, explosions, terrorism, cyber-based attacks, conflicts or unrest, epidemics or pandemics, labor disputes, tariffs, acts of God, or other reasons. We may also encounter capacity limitations due to changes in demand despite our forecasting efforts. Many of the contracts we enter into with our customers require long manufacturing lead times and contain penalty clauses related to late delivery. Failure to deliver in accordance with contract terms and customer expectations could subject us to financial penalties, damage existing customer relationships, increase our costs, reduce our sales and have a material adverse effect on our business, financial condition, results of operations and cash flows.

Failure to successfully execute and realize the expected financial benefits from any restructuring and strategic realignment and other cost-saving initiatives could adversely affect our business.

Adverse effects from our execution of any current or future restructuring and realignment activities could interfere with our realization of anticipated synergies, customer service improvements and cost savings from these strategic initiatives. Moreover, because such expenses are difficult to predict and are necessarily inexact, we may incur substantial expenses in connection with the execution of any current or future restructuring and realignment plans in excess of what is currently anticipated. Further, restructuring and realignment activities are a complex and time-consuming process that can place substantial demands on management, which could divert attention from other business priorities or disrupt our daily operations. Any of these failures could, in turn, materially adversely affect our business, financial condition, results of operations and cash flows, which could constrain our liquidity.

If these measures are not successful or sustainable, we may undertake additional realignment and cost reduction efforts, which could result in future charges. Moreover, our ability to achieve our other strategic goals and business plans may be adversely affected, and we could experience business disruptions with customers and elsewhere if any restructuring and realignment efforts prove ineffective.

We sell our products in highly competitive markets, which results in pressure on our profit margins and limits our ability to maintain or increase the market share of our products.

The markets for our products and services are geographically diverse and highly competitive. We compete against large and well-established national and global companies, as well as regional and local companies, low-cost replicators of spare parts and in-house maintenance departments of our end-user customers. We compete based on price, technical expertise, timeliness of delivery, contractual terms, project management, proximity to service centers, previous installation history and reputation for quality and reliability. Competitive environments in slow-growth industries and for original equipment orders have been inherently more influenced by pricing and domestic and global economic conditions and current economic forecasts suggest that the competitive influence of pricing has broadened. Additionally, some of our customers have been attempting to reduce the number of vendors from which they purchase in order to reduce the size and diversity of their supply chain. To remain competitive, we must invest in manufacturing, technology, such as artificial intelligence and machine learning, marketing, customer service and support and our distribution networks. No assurances can be made that we will have sufficient resources to continue to make the investment required to maintain or increase our market share or that our investments will be successful. A relatively strong U.S. dollar has made and may continue to make our products more expensive overseas, which may make our ability to meet our international customers' pricing expectations particularly challenging and may result in erosion of product margin and market share. In addition, negative publicity or other organized campaigns critical of us, through social media or otherwise, could negatively affect our reputation and competitive position. If we do not compete successfully, our business, financial condition, results of operations and cash flows could be materially adversely affected.

Failure to successfully develop and introduce new products and integrate new technologies, including artificial intelligence and machine learning, could limit our ability to grow and maintain our competitive position and adversely affect our financial condition, results of operations and cash flow.

The success of new and improved products and services depends on their initial and continued acceptance by our customers. Our businesses are affected by varying degrees of technological change and corresponding shifts in customer demand, which result in unpredictable product transitions, shortened life cycles and increased importance of being first to market with new products and services. Difficulties or delays in the research, development, production and/or marketing of new products and services or adoption of new technologies, such as artificial intelligence and machine learning, may negatively impact our operating results and prevent us from recouping or realizing a return on the investments required to continue to bring these products and services to market.

In addition, the continued creation, development and advancement of new technologies such as artificial intelligence, machine learning, quantum computing, data analytics, 3-D printing, robotics, sensor technology, data storage, neural networks, and augmented reality, amongst others, as well as other technologies in the future that are not foreseen today, continue to transform the Company's processes, products and services. In order to remain competitive, the Company will need to stay abreast of such technologies, require its employees to continue to learn and adapt to new technologies and be able to integrate them into its current and future business models, products, services and processes and also guard against disruptions to its business by existing and new competitors using such technologies. The Company's strategy, operating model and new product innovation pipeline all have important technological elements and many of the Company's products and services are based on technological advances. In addition, the Company will need to compete for talent that is familiar with such technologies, including upskilling its workforce. There can be no assurance that the Company will continue to compete effectively with its industry peers as new technology evolves, which could result in a material adverse effect on the Company's business and results of operations.

Our inability to obtain raw materials at favorable prices may adversely affect our operating margins and results of operations.

We purchase substantially all electric power and other raw materials we use in the manufacturing of our products from outside sources. The costs of these raw materials have been volatile historically and are influenced by factors that are outside our control. In recent years, the prices for energy, metal alloys, nickel and certain other of our raw materials have been volatile. Our operating margins and results of operations and cash flows may be adversely affected if we are unable

to pass increases in the costs of our raw materials on to our customers or if other methods to offset our increased costs through supply chain management, contractual provisions and gains in operational efficiencies are not achieved.

Inflation has the potential to adversely affect our business, financial condition and results of operations by increasing our overall cost structure, including with respect to purchased parts, commodity and raw material costs. Our operating costs are subject to fluctuations, particularly due to changes in prices for commodities, parts, raw materials, energy and related utilities, freight, and cost of labor which have been and may continue to be driven by inflation, tightening labor markets, prevailing price levels, exchange rates, and other economic factors. Throughout 2024, our operating costs were impacted by price inflation, including with respect to the cost of certain raw materials, commodities, freight and logistics, and we expect this to continue for the foreseeable future. In order to remain competitive, we may not be able to recover all or a portion of these higher costs from our customers through price increases, which would reduce our profit margins and cash flows. Actions we take to mitigate volatility in manufacturing and operating costs may not be successful and, as a result, our business, financial condition, cash flows and results of operations could be materially and adversely affected.

Terrorist acts, conflicts, wars, natural or manmade disasters, epidemics or pandemics, acts of God and other such events around the world at times materially adversely affect our business, financial condition and results of operations and the market for our common stock.

As a global company with a large international footprint, we are subject to increased risk of damage or disruption to us, our employees, facilities, partners, suppliers, distributors, resellers or customers due to, among other things, terrorist acts, conflicts (including as a result of geopolitical uncertainty and/or conflicts in the countries and/or regions where we operate, including the Middle East, Ukraine, the European Union and the Trans-Pacific region), severe weather conditions, the potential physical effects of climate change, and other natural or manmade disasters, including power outages, fires, floods, earthquakes, hurricanes, storms, rising sea levels, explosions, cyber-based attacks, epidemics or pandemics, labor disputes, and acts of God wherever located around the world. The potential for future such events, the national and international responses to such events or perceived threats to national security, and other actual or potential conflicts or wars, such as the Russia-Ukraine conflict, the Israel-Hamas war and ongoing instability in Middle East, have created many economic and political uncertainties. In addition, as a global company with headquarters and significant operations located in the United States, actions against or by the United States may impact our business or employees. Changes in general economic conditions or any of the foregoing events, or our inability to accurately forecast these changes or events or mitigate the impact of these conditions on our business, could materially adversely affect us. See also the discussion below under the heading "Economic, political and other risks associated with international operations could adversely affect our business."

Global climate change and our commitments to reduce our carbon emissions presents challenges to our business which could materially adversely affect us.

The effects of climate change create financial and operational risks to our business, both directly and indirectly. There is a general consensus that greenhouse gas (“GHG”) emissions are linked to global climate change, and that these emissions must be reduced dramatically to avert the worst effects of climate change. Increased public awareness and concern regarding global climate change has and will result in more regulations designed to reduce GHG emissions. As a result, and as discussed hereafter in our risk factor entitled “We are exposed to certain regulatory and financial risks related to climate change, which could adversely affect our financial condition, results of operations and cash flows,” we may be required to make increased capital expenditures to adapt our business and operations to meet new regulations and standards.

Over the years, we have made several public commitments regarding our intended reduction of carbon emissions including other short- and mid-term environmental sustainability goals. We may be required to expend significant resources to meet these commitments, which could significantly increase our operational costs. Further, there can be no assurance of the extent to which any of our ambitions will be achieved, or that any future investments we make in furtherance of achieving our sustainability goals will meet customer expectations and needs, investor expectations or any binding or non-binding legal standards regarding sustainability performance. In particular, our ability to meet those commitments depends in part on innovations and significant technological advancements with respect to the development and availability of reliable, affordable and sustainable alternative solutions. Moreover, we may determine that it is in the best interest of our company and our shareholders to prioritize other business, social, governance or sustainable investments over the achievement of our current commitments based on economic, regulatory and social factors, business strategy or pressure from investors, activist groups or other stakeholders.

If we are unable to meet these commitments, then, in addition to regulatory and legal risks related to compliance, we could incur adverse publicity and reaction from investors, customers or other stakeholders, which could adversely impact our reputation, which could in turn adversely impact our results of operations. While we have been and remain committed to being responsive to climate change and to reducing our carbon footprint, there can be no assurance that our commitments and current and future strategic plans to achieve those commitments will be successful, that the costs related to the foregoing energy transition may not be higher than expected, that the technological advancements and innovations we are relying upon will come to fruition in the timeframe we expect, or at all, or that proposed regulation or deregulation related to climate change will not have a negative competitive impact, any one of which could have a material adverse effect on our capital expenditures, operating margins and results of operations.

Our business may be adversely impacted by work stoppages and other labor matters.

As of December 31, 2024, we had approximately 16,000 employees, of which approximately 4,700 were located in the United States. Approximately 3% of our U.S. employees are represented by unions. We also have unionized employees or employee work councils in Argentina, Australia, Austria, Brazil, Finland, France, Germany, India, Italy, Japan, Mexico, The Netherlands, South Africa, Spain, and Sweden. Although we believe that our relations with our employees are generally satisfactory and we have not experienced any material strikes or work stoppages recently, no assurances can be made that we will not in the future experience these and other types of conflicts with labor unions, works councils, other groups representing employees or our employees generally, or that any future negotiations with our labor unions will not result in significant increases in our cost of labor. Our ability to successfully negotiate new and acceptable agreements when the existing agreements with employees covered by collective bargaining expire could result in business disruptions or increased costs.

Our ability to implement our business strategy and serve our customers is dependent upon the continuing ability to employ talented professionals and attract, train, develop and retain a skilled workforce. We are subject to the risk that we will not be able to effectively replace the knowledge and expertise of an aging workforce as workers retire. Without a properly skilled and experienced workforce, our costs, including productivity costs and costs to replace employees may increase, and this could negatively impact our earnings.

We may also encounter additional costs from claims made and/or legal proceedings brought against us with respect to alleged workplace harassment or discrimination, and we could suffer reputational harm.

Our growth strategy depends on our ability to continue to expand our market presence through acquisitions, and any future acquisitions may present unforeseen integration difficulties or costs which could materially affect our business.

Since 1997, we have expanded through a number of acquisitions, and we may pursue strategic acquisitions of businesses in the future. Our ability to implement this growth strategy may be limited by our ability to identify appropriate acquisition candidates, secure the requisite regulatory approvals, covenants in our credit agreement and other debt agreements and our financial resources, including available cash and borrowing capacity. Acquisitions may require additional debt financing, resulting in higher leverage and an increase in interest expense or may require equity financing, resulting in ownership dilution to existing shareholders. In addition, acquisitions sometimes require large one-time charges and can result in the incurrence of contingent liabilities, adverse tax consequences, substantial depreciation or deferred compensation charges, the amortization of identifiable purchased intangible assets or impairment of goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

When we acquire another business, the process of integrating acquired operations into our existing operations creates operating challenges and requires significant financial and managerial resources that would otherwise be available for the ongoing development or expansion of existing operations. Some of the more common challenges associated with acquisitions that we may experience, and have experienced in the past, include:

- loss of key employees or customers of the acquired company;
- conforming the acquired company's standards, processes, procedures and controls, including accounting systems and controls, with our operations, which could cause deficiencies related to our internal control over financial reporting;
- coordinating operations that are increased in scope, geographic diversity and complexity;
- retooling and reprogramming of equipment;
- hiring additional management and other critical personnel; and

- the diversion of management's attention from our day-to-day operations.

Further, no guarantees can be made that we would realize the cost savings, synergies or revenue enhancements that we may anticipate from any acquisition, or that we will realize such benefits within the time frame that we expect. If we are not able to timely address the challenges associated with acquisitions and successfully integrate acquired businesses, or if our integrated product and service offerings fail to achieve market acceptance, our business could be adversely affected.

A significant data breach or disruption to our information technology infrastructure could materially adversely affect our business operations.

Our information technology networks and related systems and devices and those technology systems under control of third parties with whom we do business are critical to the operation of our business and essential to our ability to successfully perform day-to-day operations. These information technology networks and related systems and devices and those under control of third parties are susceptible to damage, disruptions or shutdowns due to programming errors, defects or other vulnerabilities, power outages, hardware failures, computer viruses, cyber-attacks, malware attacks, ransomware attacks, theft, misconduct by employees or other insiders, misuse, human errors or other cybersecurity incidents. If any of the aforementioned cybersecurity incidents or disruptions occur and our business continuity plans do not effectively resolve the issues in a timely manner, our business, financial condition, results of operations, and liquidity could be materially adversely affected.

In addition, any of the aforementioned cybersecurity incidents or disruptions could expose us to a risk of loss, disclosure, misuse, corruption, or interruption of sensitive and critical data, information and functions, including our proprietary and confidential information and information related to our customers, suppliers and employees. It is also possible a cybersecurity incident could result in theft of material trade secrets or other material intellectual property. While we devote substantial resources to maintaining adequate levels of cybersecurity, there can be no assurance that we will be able to prevent all of the rapidly evolving forms of increasingly sophisticated and frequent cyberattacks, or avoid or limit a material adverse impact on our systems after such incidents or attacks occur. The rapid evolution and increased availability of artificial intelligence may intensify cybersecurity risks by making targeted attacks more sophisticated and cybersecurity incidents more difficult to detect, contain, and mitigate. The potential consequences of a material cybersecurity incident include reputational damage, loss of customers, litigation with third parties, regulatory actions and fines, theft of intellectual property, systems disruption, disruption of manufacturing plant operations and increased cybersecurity protection and remediation costs. Any of the foregoing can be exacerbated by a delay or failure to detect a cybersecurity incident or the full extent of such incident. In addition, our liability insurance, which includes cyber insurance, might not be sufficient in type or amount to cover us against claims related to cybersecurity incidents, attacks and other related incidents. If we are unable to prevent, anticipate, detect or adequately respond to cybersecurity incidents, our operations could be disrupted and our business could be materially and adversely affected.

Developments in the applicable legal standards for the handling of personal data from time to time require changes to our business practices, penalties, increased cost of operations, or otherwise harm our business. To conduct our operations, we regularly move data across national borders and must comply with increasingly complex and rigorous regulatory standards enacted to protect business and personal data in the United States and elsewhere. For example, the European Union has adopted the General Data Protection Regulation (the "GDPR"). The GDPR imposes additional obligations on companies regarding the handling of personal data and provides certain individual privacy rights to persons whose data is stored. Compliance with GDPR, new state laws, and other current and future applicable U.S. and international privacy, data protection, cybersecurity, artificial intelligence and other data-related laws can be costly and time-consuming; any failure to comply with these regulatory standards could subject us to legal and reputational risks, including proceedings against the Company by governmental entities or others, fines and penalties, damage to our reputation and credibility and could have a negative impact on our business and results of operations.

Risks Related to International Operations

Economic, political and other risks associated with our international operations could adversely affect our business.

A substantial portion of our operations is conducted and located outside the United States. We have manufacturing, sales or service facilities in approximately 50 countries and sell to customers in over 90 countries, in addition to the United States. Moreover, we primarily source certain of our manufacturing and engineering functions, raw materials and components from China, Eastern Europe, India and Latin America. Accordingly, our business and results of operations are subject to risks associated with doing business internationally, including:

- instability in a specific country's or region's political or economic conditions, particularly economic conditions in Europe and Latin America, and political conditions in the Middle East, Asia, North Africa, Latin America, the Trans-Pacific region and other emerging markets;
- trade protection measures, such as tariff increases, and import and export licensing and control requirements;
- political, financial market or economic instability relating to epidemics or pandemics;
- uncertainties related to any geopolitical, economic and regulatory effects or changes due to recent or upcoming domestic and international elections;
- the imposition of governmental economic sanctions on countries in which we do business;
- potentially negative consequences from changes in tax laws or tax examinations;
- difficulty in staffing and managing widespread operations;
- increased aging and slower collection of receivables, particularly in Latin America and other emerging markets;
- difficulty of enforcing agreements and collecting receivables through some foreign legal systems;
- differing and, in some cases, more stringent labor regulations;
- potentially negative consequences from fluctuations in foreign currency exchange rates;
- partial or total expropriation;
- differing protection of intellectual property;
- inability to repatriate income or capital; and
- difficulty in administering and enforcing corporate policies, which may be different than the customary business practices of local cultures.

For example, political unrest or work stoppages negatively impact the demand for our products from customers in affected countries and other customers, such as U.S. oil refineries, that are affected by the resulting disruption in the supply of crude oil. Similarly, military conflicts in Russia/Ukraine, the Middle East, Asia and North Africa could soften the level of capital investment and demand for our products and services. We have experienced logistics disruptions as a result of the Israel-Hamas war that have increased expenses and delayed import of our products in the region. The conflict is ongoing and the length, impact, and outcome is highly unpredictable. If the conflict further intensifies or develops, it could have an adverse impact on our business operations in the Middle East or other affected areas. In response to the Russia-Ukraine conflict, several countries, including the United States, have imposed economic sanctions and export controls on certain industry sectors and parties in Russia. As a result of this conflict, including the aforementioned sanctions and overall instability in the region, in March 2022 we permanently ceased all Company operations in Russia. See Note 1, "Significant Accounting Policies and Accounting Developments" to our consolidated financial statements included in "Item 8. Financial Statements and Supplemental Data" of this Annual Report for further discussion of the termination of our Russian operations.

In order to manage our day-to-day operations, we must overcome cultural and language barriers and assimilate different business practices. In addition, we are required to create compensation programs, employment policies and other administrative programs that comply with laws of multiple countries. We also must communicate and monitor standards and directives across our global network. In addition, emerging markets pose other uncertainties, including challenges to our ability to protect our intellectual property, pressure on the pricing of our products and increased risk of political instability, and may prefer local suppliers because of existing relationships, local restrictions or incentives. Our failure to successfully manage our geographically diverse operations could impair our ability to react quickly to changing business and market conditions and to enforce compliance with standards and procedures.

Additionally, increasing tensions between the United States and China may result in further restrictions or actions by the U.S. government with respect to doing business in China or by the Chinese government with respect to business conducted by foreign entities in China, which could impact certain of our manufacturing operations, as well as supply for our raw materials and components.

Our future success will depend, in large part, on our ability to anticipate and effectively manage these and other risks associated with our international operations. Any of these factors could, however, materially adversely affect our international operations and, consequently, our financial condition, results of operations and cash flows.

Implementation of new tariffs and changes to or uncertainties related to tariffs and trade agreements could adversely affect our business.

The United States has implemented certain tariffs on steel and aluminum imported into the country. In response, certain foreign governments have implemented or reportedly considered implementing additional tariffs on U.S. goods. The current U.S. Presidential administration has indicated the possibility of imposing tariffs on imports from Mexico, Canada and China during his second term. In addition, there have been recent changes to trade agreements, like the United States withdrawal from the Trans-Pacific Partnership and the replacement of the North American Free Trade Agreement with the United States-Mexico-Canada Agreement, and more changes may be forthcoming under the current U.S. administration. Uncertainties with respect to tariffs, trade agreements, or any potential trade wars may negatively impact the global economic markets and could affect our customers' ability to invest in capital expenditures, which may in turn result in reduced demand for our products and services, and could have a material adverse effect on our financial condition, results of operations and cash flows. Changes in tariffs could also result in changes in supply and demand of our raw material needs, affect our manufacturing capabilities and lead to increased prices that we may not be able to effectively pass on to customers, each of which could materially adversely affect our operating margins, results of operations and cash flows.

Our international operations expose us to fluctuations in foreign currency exchange rates which could adversely affect our business.

A significant portion of our revenue and certain of our costs, assets and liabilities, are denominated in currencies other than the U.S. dollar. The primary currencies to which we have exposure are the Euro, British pound, Mexican peso, Brazilian real, Indian rupee, Japanese yen, Singapore dollar, Argentine peso, Canadian dollar, Australian dollar, Chinese yuan, Colombian peso, Hungarian forint and Malaysian ringgit. Certain of the foreign currencies to which we have exposure, such as the Argentine peso, have undergone significant devaluation in the past, which reduce the value of our local monetary assets, reduce the U.S. dollar value of our local cash flow, generate local currency losses that may impact our ability to pay future dividends from our subsidiary to the parent company and potentially reduce the U.S. dollar value of future local net income. Although we enter into forward exchange contracts to economically hedge some of our risks associated with transactions denominated in certain foreign currencies, no assurances can be made that exchange rate fluctuations will not adversely affect our financial condition, results of operations and cash flows.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and similar worldwide anti-bribery laws and regulations.

The U.S. Foreign Corrupt Practices Act ("FCPA") and similar anti-bribery laws and regulations in other jurisdictions, such as the UK Bribery Act, generally prohibit companies and their intermediaries from making improper payments to government officials for the purpose of obtaining or retaining business or securing an improper advantage. Because we operate in many parts of the world and sell to industries that have experienced corruption to some degree, our policies mandate compliance with applicable anti-bribery laws worldwide. Violation of the FCPA or other similar anti-bribery laws or regulations, whether due to our or others' actions or inadvertence, could subject us to civil and criminal penalties or other sanctions that could have a material adverse impact on our business, financial condition, results of operations and cash flows. In addition, actual or alleged violations could damage our reputation or ability to do business.

Regulatory and Legal Risks

Our operations are subject to a variety of complex and continually changing laws, regulations and policies, both internationally and domestically, which could adversely affect our business.

Due to the international scope of our operations, the system of laws, regulations and policies to which we are subject is complex and includes, without limitation, regulations issued by the U.S. Customs and Border Protection, the U.S. Department of Commerce's Bureau of Industry and Security, the U.S. Treasury Department's Office of Foreign Assets Control and various foreign governmental agencies, including applicable export controls, customs, currency exchange control and transfer pricing regulations, as applicable. No assurances can be made that we will continue to be found to be operating in compliance with, or be able to detect violations of, any such laws, regulations or policies. In addition, we

cannot predict the nature, scope or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted. Compliance with laws and any new laws or regulations may increase our operations costs or require significant capital expenditures. Any failure to comply with applicable laws, regulations or policies in the United States or in any other country in which we operate could result in substantial fines and penalties, which could adversely affect our business.

In particular, there is uncertainty related to new or existing treaty and trade relationships with other countries which may affect restrictions or tariffs imposed on products we buy or sell. These factors, together with other key global events during 2024 (such as the ongoing conflicts and terrorist activity), may adversely impact the ability or willingness of non-U.S. companies to transact business in the United States. This uncertainty may also affect regulations and trade agreements affecting U.S. companies, global stock markets (including the NYSE, on which our common shares are traded), currency exchange rates, and general global economic conditions. All of these factors are outside of our control, but may nonetheless cause us to adjust our strategy in order to compete effectively in global markets. For further discussion of the impact of tariffs and trade agreements on our business, please see the discussion above under the heading "Implementation of new tariffs and changes to or uncertainties related to tariffs and trade agreements could adversely affect our business."

Environmental compliance costs and liabilities could adversely affect our financial condition, results of operations and cash flows.

Our operations and properties are subject to regulation under environmental laws, which can impose substantial sanctions for violations. We must conform our operations to applicable regulatory requirements and adapt to changes in such requirements in all countries in which we operate.

We use hazardous substances and generate hazardous wastes in many of our manufacturing and foundry operations. Most of our current and former properties are or have been used for industrial purposes, and some may require clean-up of historical contamination. We are currently conducting investigation and/or remediation activities at a number of locations where we have known environmental concerns. In addition, we have been identified as one of many PRPs at five Superfund sites. The projected cost of remediation at these sites, as well as our alleged "fair share" allocation, while not anticipated to be material, has been reserved. However, until all studies have been completed and the parties have either negotiated an amicable resolution or the matter has been judicially resolved, some degree of uncertainty remains with respect to the anticipated impact.

We have incurred, and expect to continue to incur, operating and capital costs to comply with environmental requirements. In addition, new laws and regulations, stricter enforcement of existing requirements, 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. Moreover, environmental and sustainability initiatives, practices, rules and regulations are under increasing scrutiny of both governmental and non-governmental bodies, which can cause rapid change in operational practices, standards and expectations and, in turn, increase our compliance costs. Any of these factors could have a material adverse effect on our financial condition, results of operations and cash flows.

We are exposed to certain regulatory and financial risks related to climate change, which could adversely affect our financial condition, results of operations and cash flows.

Emissions of carbon dioxide and other greenhouse gases and their role in climate change are receiving ever increasing attention worldwide, which has led to significant legislative and regulatory efforts to limit GHG emissions. Existing or future legislation and regulations related to GHG emissions and climate change by the U.S. Congress, state and foreign legislatures and federal, state, local and foreign governmental agencies could adversely affect our business. Additionally, it is uncertain whether, when and in what form mandatory carbon dioxide emissions reduction programs may be adopted. Similarly, certain countries, have adopted the Paris Climate Agreement and these and other existing international initiatives, such as the agreement resulting from the 2023 United Nations Climate Change Conference, or those under consideration may affect our operations.

As regulators and investors increasingly focus on climate change and sustainability issues, we are subject to new disclosure frameworks and regulatory reporting obligations. For example, the Corporate Sustainability Reporting Directive (“CSRD”), one of the key directives of the European Union sustainability legal framework, mandates enhanced corporate responsibility reporting that will affect both our E.U. and non-E.U. business operations in the coming years (i.e., E.U. operations by 2025 and non-E.U. operations by 2029). The new reporting obligations under the CSRD require in-scope companies to provide expansive disclosures on various sustainability topics including climate change, biodiversity, workforce, supply chain, and business ethics, all of which will significantly increase our reporting obligations and costs of

compliance. As regulatory requirements such as CSRD and other climate change regulations continue to evolve, the anticipated costs and operational impacts could adversely affect our financial condition and results of operations.

When our customers, particularly those involved in the oil and gas, power generation, petrochemical processing or petroleum refining industries, are subject to any of these or other similar proposed or newly enacted laws and regulations, we are exposed to risks that the additional costs by customers to comply with such laws and regulations could impact their ability or desire to continue to operate at similar levels in certain jurisdictions as historically seen or as currently anticipated, which could negatively impact their demand for our products and services. In addition, new laws and regulations that might favor the increased use of non-fossil fuels, including nuclear, wind, solar and bio-fuels or that are designed to increase energy efficiency, could dampen demand for oil and gas production or power generation resulting in lower spending by customers for our products and services. These actions could also increase costs associated with our operations, including costs for raw materials and transportation. There is also increased focus, including by governmental and non-governmental organizations, environmental advocacy groups, investors and other stakeholders on these and other sustainability matters, and adverse publicity in the global marketplace about the levels of GHG emissions by companies in the manufacturing and energy industry could reduce customer demand for our products and services or harm our reputation. Because it is uncertain what laws will be enacted, we cannot predict the potential impact of such laws on our future financial condition, results of operations and cash flows, but such new or additional laws could adversely affect our business.

We are party to asbestos-containing product litigation that could adversely affect our financial condition, results of operations and cash flows.

We are a defendant in a substantial number of lawsuits that seek to recover damages for personal injury allegedly resulting from exposure to asbestos-containing products formerly manufactured and/or distributed by us. Such products were used as internal components of process equipment, and we do not believe that there was any significant emission of asbestos-containing fibers during the use of this equipment. Although we are defending these allegations vigorously and believe that a high percentage of these lawsuits are covered by insurance or indemnities from other companies, there can be no assurance that we will prevail or that coverage or payments made by insurance or such other companies would be adequate. Unfavorable rulings, judgments or settlement terms could have a material adverse impact on our business, financial condition, results of operations and cash flows.

Inability to protect our intellectual property could negatively affect our competitive position.

We cannot guarantee that the steps we have taken to protect our intellectual property will be adequate to prevent infringement of our rights or misappropriation of our technology. For example, effective patent, trademark, copyright and trade secret protection are unavailable or limited in some of the foreign countries in which we operate. In addition, confidentiality agreements which we enter into with employees and third parties could be breached or otherwise may not provide meaningful protection for our trade secrets and know-how related to the design, manufacture or operation of our products. Resorting to litigation to protect our intellectual property rights is burdensome and costly, and we may not always prevail. Further, adequate remedies are not always available in the event of an unauthorized use or disclosure of our trade secrets and manufacturing expertise. Failure to successfully enforce our intellectual property rights could harm our competitive position, business, financial condition, results of operations and cash flows.

Increased costs as a result of product liability and warranty claims could adversely affect our financial condition, results of operations and cash flows.

From time to time, we are exposed to product liability and warranty claims when the use of one of our products results in, or is alleged to result in, bodily injury and/or property damage or our products actually or allegedly fail to perform as expected. Some of our products are designed to support the most critical, severe service applications in the markets that we serve and any failure of such products could result in significant product liability and warranty claims, as well as damage to our reputation in the marketplace. While we maintain insurance coverage with respect to certain product liability claims, we may not be able to obtain such insurance on acceptable terms in the future, and any such insurance may not provide adequate coverage against product liability claims. In addition, product liability claims can be expensive to defend and can divert the attention of management and other personnel for significant periods of time, regardless of the ultimate outcome. An unsuccessful defense of a product liability claim could have an adverse effect on our business, financial condition, results of operations and cash flows. Even if we are successful in defending against a claim relating to our products, claims of this nature could cause our customers to lose confidence in our products and our company.

Warranty claims are not generally covered by insurance, and we may incur significant warranty costs that are not reimbursable, which could adversely affect our financial condition, results of operations and cash flows.

Financial and Accounting Risks

Significant changes in pension fund investment performance or assumptions changes may have a material effect on the valuation of our obligations under our defined benefit pension plans, the funded status of these plans and our pension expense.

We maintain funded defined benefit pension plans that are either currently funded in accordance with local requirements in the United States, Belgium, Canada, The Netherlands, Switzerland and the United Kingdom, or above funded requirements in India and Mexico, and defined benefit plans that are not required to be funded and are not funded in Austria, Saudi Arabia, Qatar, UAE, France, Germany, Italy and Japan. Our pension liability is materially affected by the discount rate used to measure our pension obligations and, in the case of the plans that are required to be funded, the level of plan assets available to fund those obligations and the expected long-term rate of return on plan assets. A change in the discount rate can result in a significant increase or decrease in the valuation of pension obligations, affecting the reported status of our pension plans and our pension expense. Significant changes in investment performance or a change in the portfolio mix of invested assets can result in increases and decreases in the valuation of plan assets or in a change of the expected rate of return on plan assets. Changes in the expected return on plan assets assumption can result in significant changes in our pension expense and future funding requirements. We also continually monitor global pension regulations in the jurisdictions where we sponsor defined benefit plans as complex laws can present financial risks in the event of non-compliance. While we were not a party to or involved in the case, we are monitoring further developments related to the United Kingdom's High Court ruling in the case of Virgin Media Ltd v. NTL Pensions Trustees II Limited.

We continually review our funding policy related to our U.S. pension plan in accordance with applicable laws and regulations. U.S. regulations have increased the minimum level of funding for U.S. pension plans in prior years, which has at times required significant contributions to our pension plans. Contributions to our pension plans reduce the availability of our cash flows to fund working capital, capital expenditures, R&D efforts and other general corporate purposes.

The recording of increased deferred tax asset valuation allowances in the future or the impact of tax law changes on such deferred tax assets could adversely affect our operating results.

We currently have significant net deferred tax assets resulting from tax credit carryforwards, net operating losses and other deductible temporary differences that are available to reduce taxable income in future periods. Based on our assessment of our deferred tax assets, we determined, based on projected future income and certain available tax planning strategies, that approximately $326 million of our deferred tax assets will more likely than not be realized in the future, and no valuation allowance is currently required for this portion of our deferred tax assets. Should we determine in the future that these assets are not more likely than not to be realized, we will be required to record an additional valuation allowance in connection with these deferred tax assets and our operating results would be adversely affected in the period such determination is made. In addition, tax law changes could negatively impact our deferred tax assets.

Our outstanding indebtedness and the restrictive covenants in the agreements governing our indebtedness limit our operating and financial flexibility.

Under certain events of default, mandatory repayments on our outstanding indebtedness, which requires us to dedicate a substantial portion of our cash flows from operations to payments on our indebtedness, thereby reducing the availability of our cash flows to fund working capital, capital expenditures, R&D efforts and other general corporate purposes, such as dividend payments and share repurchases, and could generally limit our flexibility in planning for, or reacting to, changes in our business and industry. In addition, we may need new or additional financing in the future to expand our business or refinance our existing indebtedness. Our current Second Amended and Restated Credit Agreement matures on October 10, 2029 and our senior notes are due in 2030 and 2032. Additionally, we have drawn amounts under a term loan fund. For additional information regarding our current indebtedness refer to Note 13, "Debt and Finance Lease Obligations," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report. Our inability to timely access capital on satisfactory terms, including as a result of market disruptions, could limit our ability to expand our business as desired and refinance our indebtedness.

In addition, the agreements governing our indebtedness impose certain operating and financial restrictions on us and somewhat limit management's discretion in operating our businesses. These agreements limit or restrict our ability, among other things, to: incur additional debt; fully utilize the capacity under the senior credit facility; pay dividends and make other distributions; repurchase shares of our common stock in certain circumstances; prepay subordinated debt; make investments and other restricted payments; create liens; sell assets; and enter into transactions with affiliates.

We are also required to maintain debt ratings, comply with leverage and interest coverage financial covenants and deliver to our lenders audited annual and unaudited quarterly financial statements. Our ability to comply with these covenants may be affected by events beyond our control. Failure to comply with these covenants could result in an event of default which, if not cured or waived, may have a material adverse effect on our business, financial condition, results of operations and cash flows.

Goodwill impairment could negatively impact our net income and shareholders' equity.

Goodwill is not amortized but is tested for impairment at the reporting unit level, which is an operating segment or one level below an operating segment. Goodwill is required to be tested for impairment annually and between annual tests if events or circumstances indicate that it is more likely than not that the fair value of a reporting unit is less than its carrying value. Reductions in or impairment of the value of our goodwill or other intangible assets will result in charges against our earnings, which could have a material adverse effect on our reported results of operations and financial position in future periods.

There are numerous risks that may cause the fair value of a reporting unit to fall below its carrying amount, which could lead to the measurement and recognition of goodwill impairment. These risks include, but are not limited to, lowered expectations of future financial results, adverse changes in the business climate, increase in the discount rate, an adverse action or assessment by a regulator, the loss of key personnel, a more-likely-than-not expectation that all or a significant portion of a reporting unit may be disposed of, failure to realize anticipated synergies from acquisitions, a sustained decline in the Company’s market capitalization, and significant, prolonged negative variances between actual and expected financial results. In past years, the estimated fair value of our pump reporting unit has fluctuated, partially due to broad-based capital spending declines and heightened pricing pressures experienced in the oil and gas markets. Although we have concluded that there is no impairment on the goodwill associated with our pump reporting unit as of December 31, 2024, we will continue to monitor its performance and related market conditions for future indicators of potential impairment. For additional information, see the discussion in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," of this Annual Report and under Note 1, "Significant Accounting Policies and Accounting Developments," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

The failure to maintain effective internal controls could impact the accuracy and timely reporting of our business and financial results.

Our internal control over financial reporting has not always prevented or detected misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls or fraud. We have in the past discovered, and may in the future discover, areas of our internal controls that need improvement, including material weaknesses in internal controls. We have devoted significant resources to remediate and improve our internal controls and to monitor the effectiveness of these remediated measures. There can be no assurance that these measures will ensure that we maintain at all times effective internal controls over our financial processes and reporting in the future. Even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. Any future failures to maintain the adequacy of our internal controls, including any failure to implement required new or improved controls, or difficulties in their implementation, could harm our business and financial results and we could fail to meet our financial reporting obligations.

General Risks

We depend on key personnel, the loss of whom would harm our business.

Our future success will depend in part on the continued service of key executive officers and personnel. The loss of the services of any key individual could harm our business. Our future success also depends on our ability to recruit, retain and engage our personnel sufficiently, both to maintain our current business and to execute our strategic initiatives.

Competition for officers and employees in our industry is intense and we may not be successful in attracting and retaining such personnel.

Changes in accounting principles and guidance could result in unfavorable accounting charges or effects.

We prepare our consolidated financial statements in conformity with accounting principles generally accepted in the United States. A change in these principles can have a significant effect on our reported financial position and financial results. The adoption of new or revised accounting principles may require us to make changes to our systems, processes and internal controls, which could have a significant effect on our reported financial results and internal controls, cause unexpected financial reporting fluctuations, retroactively affect previously reported results or require us to make costly changes to our operational processes and accounting systems upon adopting these standards.

Forward-Looking Information is Subject to Risk and Uncertainty

This Annual Report and other written reports and oral statements we make from time-to-time include “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts included in this Annual Report regarding our financial position, business strategy and expectations, plans and objectives of management for future operations, industry conditions, market conditions and indebtedness covenant compliance are forward-looking statements. Forward-looking statements may include, among others, statements about our goals and strategies, new product introductions, plans to cultivate new businesses, future economic conditions, revenue, pricing, gross profit margin and costs, capital spending, expected cost savings from our realignment programs, depreciation and amortization, research and development expenses, potential impairment of assets, tax rate and pending tax and legal proceedings. In some cases forward-looking statements can be identified by terms such as "may," "should," "expects," "could," "intends," "projects," "predicts," "plans," "anticipates," "estimates," "believes," "forecasts," "seeks" or other comparable terminology. These statements are not historical facts or guarantees of future performance, but instead are based on current expectations and are subject to material risks, uncertainties and other factors, many of which are outside of our control.

We have identified factors that could cause actual plans or results to differ materially from those included in any forward-looking statements. These factors include those described above under this "Risk Factors" heading, or as may be identified in our other SEC filings from time to time. These uncertainties are beyond our ability to control, and in many cases, it is not possible to foresee or identify all the factors that may affect our future performance or any forward-looking information, and new risk factors can emerge from time to time. Given these risks and uncertainties, undue reliance should not be placed on forward-looking statements as a prediction of actual results.

All forward-looking statements included in this Annual Report are based on information available to us on the date of this Annual Report and the risk that actual results will differ materially from expectations expressed in this report will increase with the passage of time. We undertake no obligation, and disclaim any duty, to publicly update or revise any forward-looking statement or disclose any facts, events or circumstances that occur after the date hereof that may affect the accuracy of any forward-looking statement, whether as a result of new information, future events, changes in our expectations or otherwise. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995 and all of our forward-looking statements are expressly qualified in their entirety by the cautionary statements contained or referenced in this section.

ITEM 1B. *UNRESOLVED STAFF COMMENTS*

None.

ITEM 1C. *CYBERSECURITY*

Governance

Our Board of Directors has delegated the primary responsibility to oversee cybersecurity matters to the Technology, Risk and Finance Committee of our Board of Directors. The Technology, Risk and Finance Committee receives regular reports from management, including our Chief Information Officer (CIO), and reports to the Board of Directors at least annually on data protection and cybersecurity matters and reviews the measures implemented by the Company to identify and mitigate data protection and cybersecurity risks. In addition to regularly scheduled Technology, Risk and Finance Committee reviews, we have in place processes and protocols by which certain cybersecurity incidents are reported

immediately to the Company's executive leadership team, and subsequently thereafter, as appropriate to the Technology, Risk and Finance Committee.

Our CIO and our Director of Cybersecurity, who reports in to the CIO, have extensive cybersecurity knowledge and skills gained from over 30 years of work experience at the Company and elsewhere, respectively, and head the team responsible for implementing and maintaining cybersecurity and data protection practices across our business. Reporting to our CIO and Director of Cybersecurity are a number of experienced information security specialists responsible for various parts of our business, each of whom is supported by a team of trained cybersecurity professionals. The CIO and Director of Cybersecurity are informed about and monitor the prevention, detection, mitigation, and remediation of cybersecurity incidents through reports from this team and regularly review risk management measures implemented by the Company to identify and mitigate cyber security risks. The CIO also attends regular meetings of the Technology, Risk and Finance Committee to report information on material risks from cybersecurity threats.

Risk Management and Strategy

We have documented processes in place for assessing, identifying, and managing material risks from potential unauthorized occurrences on or through our electronic information systems that may result in adverse effects on the confidentiality, integrity, and availability of our information systems and the information residing therein. These include a wide variety of mechanisms, controls, technologies, methods, systems, and other processes designed to prevent or mitigate data loss, theft, misuse, or other security incidents or vulnerabilities affecting the data we collect, process, store, and transmit as part of our business. We also employ systems and processes designed to oversee, identify, and reduce the potential impact of a security incident at a third-party vendor or customer.

As part of our risk management process and compliance with our ISO 27001 cybersecurity certification requirements, we conduct penetration testing, security audits, and ongoing risk assessments using a company-wide risk framework. We also require employees with access to information systems, to undertake data protection and cybersecurity training and compliance programs as part of the employee onboarding process, as well as annually thereafter.

In addition to our in-house cybersecurity capabilities, we engage consultants and other third parties as necessary to assist with assessing, identifying, and managing cybersecurity risks. We have adopted a Cybersecurity Incident Response Policy (the "CIRP"), which provides governance and guidance in responding to cybersecurity incidents. The CIRP sets out a coordinated approach to investigating, containing, documenting and mitigating incidents, including reporting findings and keeping senior management and other key stakeholders informed and involved as appropriate. In general, the CIRP aligns with the ISO 27001 standard. The CIRP applies to all Company personnel (including third-party contractors, vendors and partners) that perform functions or services that require access to secure Company information, and to all devices and network services that are owned or managed by the Company.

Cybersecurity risks and the adequacy of associated mitigations are analyzed by senior leadership as part of the enterprise risk assessments that are reported to and discussed by our Board of Directors. To date, risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, have not materially affected us, including our business strategy, results of operations or financial condition, and we do not believe that such risks are reasonably likely to have such an effect over the long term. While we have not experienced any material cybersecurity incidents, there can be no guarantee that we will not be the subject of future incidents. For additional information on cybersecurity risks we face, see "Item 1A. Risk Factors", of this Annual Report, which should be read in conjunction with the foregoing information.

ITEM 2. *PROPERTIES*

Our principal executive offices, including our global headquarters, are located at 5215 N. O'Connor Boulevard, Suite 700, Irving, Texas 75039. Our global headquarters is a leased facility, which we began to occupy on January 1, 2004. In December 2018, we extended our original lease term an additional 10 years to December 2030. We have the option to renew the current lease for two additional five-year periods. We currently occupy approximately 130,000 square feet at this facility.

Our major manufacturing facilities (those with 50,000 or more square feet of manufacturing capacity) operating at December 31, 2024 are presented in the table below. See "Item 1. Business" in this Annual Report for further information with respect to all of our manufacturing and operational facilities, including QRCs.

	Number of Facilities	Approximate Aggregate Square Footage
FPD		
U.S.	7	1,171,000
Non-U.S.	19	3,975,000
FCD		
U.S.	6	1,121,000
Non-U.S.	11	1,151,000

We own the majority of our manufacturing facilities, and those manufacturing facilities we do not own are leased. We also maintain a substantial network of U.S. and foreign service centers and sales offices, most of which are leased. The majority of our manufacturing leased facilities are covered by lease agreements with terms ranging from two to seven years, with individual lease terms generally varying based on the facilities' primary usage. We believe we can extend any potential expiring lease as necessary.

We believe that our current facilities are adequate to meet the requirements of our present and foreseeable future operations. We continue to review our capacity requirements as part of our strategy to optimize our global manufacturing efficiency. See Note 5, "Leases," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report for additional information regarding our lease obligations.

ITEM 3. *LEGAL PROCEEDINGS*

We are party to the legal proceedings that are described in Note 16, "Legal Matters and Contingencies," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report, and such disclosure is incorporated by reference into this "Item 3. Legal Proceedings." In addition to the foregoing, we and our subsidiaries are named defendants in certain other routine lawsuits incidental to our business and are involved from time to time as parties to governmental proceedings, all arising in the ordinary course of business. Although the outcome of lawsuits or other proceedings involving us and our subsidiaries cannot be predicted with certainty, and the amount of any liability that could arise with respect to such lawsuits or other proceedings cannot be predicted accurately, management does not currently expect the amount of any liability that could arise with respect to these matters, either individually or in the aggregate, to have a material adverse effect on our financial position, results of operations or cash flows. We have established reserves covering exposures relating to contingencies to the extent believed to be reasonably estimable and probable based on past experience and available facts.

ITEM 4. *MINE SAFETY DISCLOSURES*

Not applicable.

PART II

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

Market Information

Our common stock is traded on the New York Stock Exchange ("NYSE") under the symbol "FLS". On February 21, 2025, our records showed 798 shareholders of record. We have historically paid quarterly dividends based on a dividend date-of-record in the last month of each quarter with the dividend paid the following month. Any subsequent dividends will be reviewed by our Board of Directors and declared in its discretion.

Issuer Purchases of Equity Securities

Effective February 19, 2024, the Board of Directors approved a $300.0 million share repurchase authorization, which included approximately $96.1 million of remaining capacity under the prior $500.0 million share repurchase authorization. During the quarter ended December 31, 2024, we had no repurchases of our common stock shares. As of December 31, 2024, we had $279.9 million of remaining capacity under our current share repurchase program. The following table sets forth the repurchase data for each of the three months during the quarter ended December 31, 2024:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (3)(4)	Approximate Dollar Value That May Yet Be Purchased Under the Plan
				(In millions)
October 1 - 31	76 (1)	$ 53.69	—	$ 279.9
November 1 - 30	1,893 (2)	59.33	—	279.9
December 1 - 31	1,874 (1)	60.84	—	279.9
Total	3,843	$ 59.95	—	

(1) Shares tendered by employees to satisfy minimum tax withholding amounts for Restricted Shares.

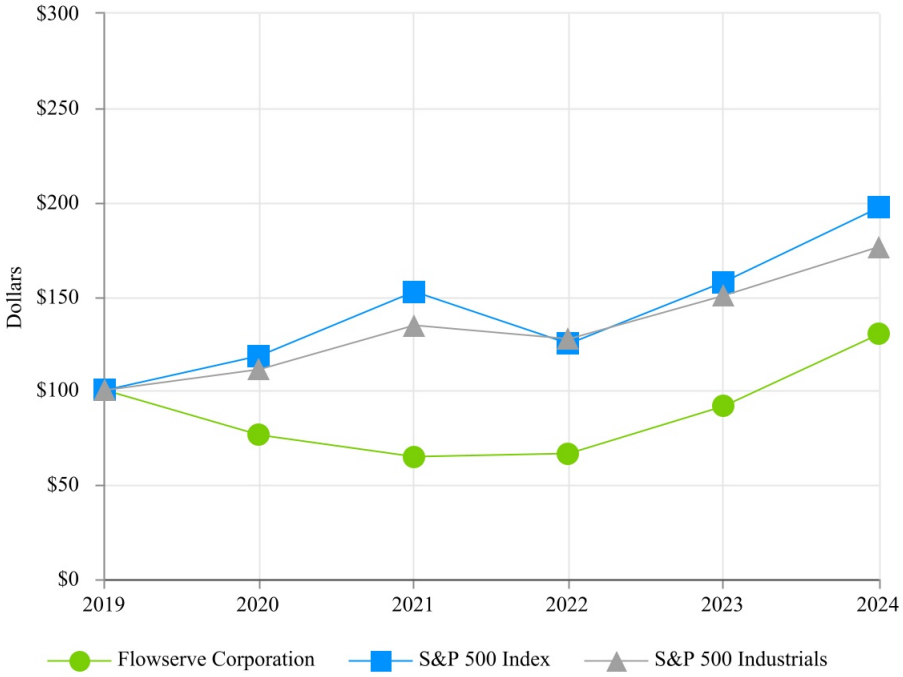
(2) Includes 263 shares that were tendered by employees to satisfy minimum tax withholding amounts for Restricted Shares at an average price per share of $59.88 and 1,630 shares purchased at a price of $59.24 per share by a rabbi trust that we established in connection with our director deferral plans, pursuant to which non-employee directors may elect to defer directors' quarterly cash compensation to be paid at a later date in the form of common stock.

(3) On November 13, 2014, our Board of Directors approved a $500.0 million share repurchase authorization. Effective February 19, 2024, the Board of Directors approved a $300.0 million share repurchase authorization, which included approximately $96.1 million of remaining capacity under the prior $500.0 million share repurchase authorization. Our share repurchase program does not have an expiration date, and we reserve the right to limit or terminate the repurchase program at any time without notice.

(4) Note 18, "Shareholders' Equity," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report provides additional information regarding our share repurchase activity.

Stock Performance Graph

The following graph depicts the most recent five-year performance of our common stock with the S&P 500 Index and S&P 500 Industrials. The graph assumes an investment of $100 on December 31, 2019, and assumes the reinvestment of any dividends over the following five years. The stock price performance shown in the graph is not necessarily indicative of future price performance.



	Base Period	December 31,				
Company/Index	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Flowserve Corporation	$100.00	$76.13	$64.63	$66.62	$91.48	$129.79
S&P 500 Index	100.00	118.39	152.34	124.73	157.48	196.85
S&P 500 Industrials	100.00	111.05	134.48	127.07	150.04	176.00

ITEM 6. [Reserved]

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

The following discussion and analysis of our financial condition and results of operations is provided to increase the understanding of, and should be read in conjunction with, the accompanying consolidated financial statements and notes. See "Item 1A. Risk Factors" and the section titled "Forward-Looking Information is Subject to Risk and Uncertainty" included in this Annual Report on Form 10-K for the year ended December 31, 2024 ("Annual Report") for a discussion of the risks, uncertainties and assumptions associated with these statements. Unless otherwise noted, all amounts discussed herein are consolidated.

EXECUTIVE OVERVIEW

Our Company

We are a world-leading manufacturer and aftermarket service provider of comprehensive flow control systems. We develop and manufacture precision-engineered flow control equipment integral to the movement, control and protection of the flow of materials in our customers' critical processes. Our product portfolio of pumps, valves, seals, automation and aftermarket services supports global infrastructure industries, including oil and gas, chemical, power generation including nuclear plants and water management, as well as general industrial markets where our products and services enable customers to achieve their goals. Through our manufacturing platform and global network of QRCs, we offer a broad array of aftermarket equipment services, such as installation, advanced diagnostics and turnkey maintenance programs. As of December 31, 2024, we have approximately 16,000 employees globally and a footprint of manufacturing facilities and QRCs in approximately 50 countries.

Our business model is significantly influenced by the capital and operating spending of global infrastructure industries for the placement of new products into service and maintenance spending for aftermarket services for existing operations. The worldwide installed base of our products is an important source of aftermarket revenue, where products are relied upon to maximize the operating time of many key industrial processes. We continue to invest in our aftermarket strategy to provide local support to drive customer investments in our offerings and use of our services to replace or repair installed products. The aftermarket portion of our business also helps provide business stability during various economic periods. The aftermarket business, which is primarily served by our network of 157 QRCs (some of which are shared by our two business segments) located around the globe, provides a variety of service offerings for our customers including spare parts, service solutions, product life cycle solutions and other value-added services. It is generally a higher margin business compared to our original equipment business and a key component of our profitable growth strategy.

Our operations are conducted through two business segments that are referenced throughout this Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A"):

- FPD designs, manufactures, pretests, distributes and services highly custom engineered pumps, pre-configured industrial pumps, pump systems, mechanical seals, auxiliary systems and replacement parts and related services; and
- FCD designs, manufactures and distributes a broad portfolio of engineered-to-order and configured-to-order isolation valves, control valves, valve automation products and related equipment.

Our business segments share a focus on industrial flow control technology and have a high number of common customers. These segments also have complementary product offerings and technologies that are often combined in applications that provide us a net competitive advantage. Our segments also benefit from our global footprint, our economies of scale in reducing administrative and overhead costs to serve customers more cost effectively and our shared leadership for operational support functions, such as research and development, marketing and supply chain.

The reputation of our product portfolio is built on more than 50 well-respected brand names such as Worthington, IDP, SIHI, INNOMAG, Valtek, Limitorque, Durco and Argus, which we believe to be one of the most comprehensive in the industry. Our products and services are sold either directly or through designated channels to more than 10,000 customers, including some of the world's leading engineering, procurement and construction ("EPC") firms, original equipment manufacturers, distributors and end users.

Through the Flowserve Business System, we are committed to operational excellence, which includes continuous enhancements of our global supply chain capability to increase our ability to meet global customer demands and improve the quality and timely delivery of our products over the long term. Additionally, we continue to devote resources to improving the supply chain processes across our business segments to find areas of synergy and cost reduction and to improving our supply chain management capabilities to meet global customer demands. We also remain focused on improving on-time delivery and quality, while managing warranty costs across our global operations, through our operational excellence program. The goal of the program, which includes lean manufacturing, six sigma business management strategy and value engineering, is to maximize service fulfillment to customers through on-time delivery, reduced cycle time and quality at the highest internal productivity. Another main focus area of the Flowserve Business System is portfolio excellence. As part of these efforts, in 2024, we launched the complexity reduction ("CORE") program that focuses on product rationalization and continuous improvement of our overall product portfolio.

In the first quarter of 2023, we identified and initiated certain realignment activities concurrent with the consolidation of our FPD aftermarket and pump operations into a single operating model. This consolidated operating model was designed to better align our go-to-market strategy with our product offerings, enable end-to-end lifecycle responsibility and accountability, and to facilitate more efficient operations. Additionally, we committed to an estimated $50 million in cost reduction efforts beginning in 2023. Collectively, the above realignment activities are referred to as the "2023 Realignment Programs." The activities of the 2023 Realignment Programs were identified and implemented in phases throughout 2023 and 2024. In the fourth quarter of 2024, we launched the CORE program within the portfolio excellence category of the Flowserve Business System, referred to as the "CORE Realignment Program." Together with the 2023 Realignment Programs, all realignment activities are referred to as the "2023 and CORE Realignment Programs."

Our Markets

Our products and services are used in several distinct industries: oil and gas, chemical, power generation, water management, and several other industries, such as mining, food and beverage, steel, and pulp and paper, that are collectively referred to as "general industries."

Oil and Gas

The oil and gas industry represented approximately 37% and 38% of our bookings in 2024 and 2023, respectively. Customer repair and maintenance spending improved during 2024 supported by strong asset utilization, while larger project activity and short cycle investments continued in order to support global demand.

The outlook for the oil and gas industry is dependent on the overall macroeconomic environment, including fuel demand, demand growth from both mature markets and developing geographies as well as changes in the regulatory environment. We currently expect continued growth in our business, including increased investment related to energy security and decarbonization efforts in 2025. We further believe consistent asset utilization at our customers' facilities provides support for increased demand for our aftermarket products and services. We believe the medium and long-term fundamentals for this industry remain attractive and see a stabilized environment with expected increased fuel demand on expected global economic growth. In addition, we believe projected depletion rates of existing fields and forecasted long-term demand growth will require additional investments. With our long-standing reputation in providing successful solutions for upstream, mid-stream and downstream applications, along with the advancements in our portfolio of offerings, we believe that we continue to be well-positioned to assist our customers in this improving environment.

General Industries

General industries represented, in the aggregate, approximately 26% of our bookings in both 2024 and 2023, respectively. General industries comprise a variety of different businesses, including mining and ore processing, pulp and paper, food and beverage and other smaller applications, none of which individually represented more than 5% of total bookings in 2024 and 2023. General industries also include sales to distributors, whose end customers operate in the industries we primarily serve. General industry activity levels increased in 2024 for the second consecutive year, primarily due to customers' increased repair and maintenance budgets.

The outlook for this group of industries is heavily dependent upon the condition of global economies and consumer confidence levels. The long-term fundamentals of many of these industries remain sound, as many of the products produced by these industries are common staples of industrialized and urbanized economies. We believe that our specialty product offerings designed for these industries and our aftermarket service capabilities will provide continued business opportunities.

Chemical

The chemical industry represented approximately 19% and 21% of our bookings in 2024 and 2023, respectively. The chemical industry is comprised of petrochemical, specialty chemical and pharmaceutical products. Customer spending in 2024 remained resilient for the fourth consecutive year following the pandemic's negative impact on demand for chemical products in 2020. Customers' repair and maintenance budgets increased in 2024 and 2023, and bookings levels returned to roughly pre-pandemic levels.

The outlook for the chemical industry remains heavily dependent on global economic conditions. As global economies and unemployment conditions improve, a rise in consumer spending should follow. An increase in spending would drive greater demand for petrochemical, specialty chemical and pharmaceutical products supporting improved levels of capital investment. We believe the chemical industry will continue to invest in North America and Middle East capacity additions, maintenance and upgrades for optimization of existing assets and that developing regions will selectively invest in capital infrastructure to meet current and future indigenous demand. We believe our global presence and our localized aftermarket capabilities are well-positioned to serve the potential growth opportunities in this industry.

Power Generation

The power generation industry represented approximately 13% and 11% of our bookings in 2024 and 2023, respectively. In 2024, energy security concerns drove continued investment in the power generation industry, including nuclear new build and life extensions as well as traditional thermal power sources.

Natural gas-fired combined cycle ("NGCC") plants have increased their share of the energy mix, driven by market prices for gas remaining low and stable (partially due to the increasing global availability of LNG), low capital expenditures, and the ability of NGCC to stabilize unpredictable renewable sources provide base-load power. With the potential of unconventional sources of gas, the global power generation industry is forecasting an increased use of this form of fuel for power generation plants.

As countries around the world look for opportunities to gain additional energy independence, nuclear power remains an important contributor to the global energy mix and is a key factor in our Diversification strategy. We continue to support our significant installed base in the global nuclear fleet by providing aftermarket and life extension products and services. Due to our extensive history, we believe we are well positioned to take advantage of this ongoing source of aftermarket and new project opportunities.

Global efforts to limit the emissions of carbon dioxide may have some adverse effect on thermal power investment plans depending on the potential requirements imposed and the timing of compliance by country. However, many proposed methods of capturing and limiting carbon dioxide emissions offer business opportunities for our products and services. At the same time, we continue to take advantage of new investments in concentrated solar power generating capacity, where our pumps, valves, and seals are uniquely positioned for both molten salt applications as well as the traditional steam cycle.

We believe the long-term fundamentals for the power generation industry remain solid based on projected increases in demand for electricity driven by the continued use and proliferation of artificial intelligence systems and machine learning, global population growth, growth of urbanization in developing markets and the increased use of electricity driven transportation. We also believe that our long-standing reputation in the power generation industry, our portfolio of offerings for the various generating methods, our advancements in serving the renewable energy market and carbon capture methodologies, as well as our global service and support structure, position us well for the future opportunities in this important industry.

Water Management

The water management industry represented approximately 5% and 4% of our bookings in 2024 and 2023, respectively. Water management industry activity levels increased in 2024. Worldwide demand for fresh water, water treatment and re-use, desalination and flood control are expected to create requirements for new facilities or for upgrades of existing systems, many of which require products that we offer, particularly pumps. We expect capital and aftermarket spending to rise in developed and emerging markets with governments and private industry providing funding for critical projects.

The proportion of people living in regions that find it difficult to meet water requirements is expected to increase significantly in the coming years. We believe that the persistent demand for fresh water during all economic cycles supports continued investments, especially in North America and developing regions.

Outlook for 2025

We have seen growth from the end-markets we serve and continue to focus on our strategic plan that takes a balanced approach to integrating both short-term and long-term initiatives and aims to accelerate growth through three key areas: diversification, decarbonization, and digitization, the "3D Strategy." Our sales volume is expected to deliver sustainable and healthy growth, while the Flowserve Business System is expected to unlock gains in organizational and operational efficiency. With our strong backlog, improved market environment and recent acquisition of MOGAS, we expect to deliver annual revenue growth in 2025.

Our bookings were $4.7 billion during 2024. Because a booking represents a contract that can be, in certain circumstances, modified or canceled, and can include varying lengths between the time of booking and the time of revenue recognition, there is no guarantee that bookings will result in comparable revenues or otherwise be indicative of future results. Assuming a positive general macroeconomic environment and continued supportive environments in our end markets, we expect full-year bookings growth in 2025.

On October 10, 2024, we entered into the Second Amended and Restated Credit Agreement, which includes a $800.0 million Revolving Credit Facility and $500.0 million Term Loan. On December 31, 2024, we had $991.5 million of fixed-rate Senior Notes outstanding. We expect our interest expense in 2025 will be higher compared with amounts incurred in 2024 primarily as a result of term loan financing under our Second Amended and Restated Credit Agreement. Our results of operations may also be impacted by unfavorable foreign currency exchange rate movements. See “Item 7A. Quantitative and Qualitative Disclosures about Market Risk” of this Annual Report.

We expect to generate sufficient cash from operations and have sufficient capacity under our Senior Credit Facility to fund any working capital, capital expenditures, dividend payments, share repurchases, debt payments and pension plan contributions in 2025. The amount of cash generated or consumed by working capital is dependent on our level of revenues, customer cash advances, backlog, customer-driven delays and other factors. We will seek to improve our working capital utilization, with a particular focus on improving the management of accounts receivable and inventory. In 2025, our cash flows for investing activities will be focused on strategic initiatives, information technology infrastructure, general upgrades and cost reduction opportunities and we currently estimate capital expenditures to be between $80 million and $90 million, before consideration of any acquisition activity. We currently anticipate that our contributions to our non-U.S. pension plans will be approximately $2 million in 2025, excluding direct benefits paid. We have no obligation to make contributions to our U.S. pension plans in 2025, but have authorization for contributions up to $10 million.

OUR RESULTS OF OPERATIONS

The following is the discussion and analysis of changes in the financial condition and results of operations for fiscal year December 31, 2024 compared to fiscal year 2023. The discussion and analysis of changes in the financial condition and results of operations for fiscal year 2023 compared to fiscal year 2022 that are not included in this Form 10-K may be found in Part II, "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on February 20, 2024.

Throughout this discussion of our results of operations, we discuss the impact of fluctuations in foreign currency exchange rates. We have calculated currency effects on operations by translating current year results on a monthly basis at prior year exchange rates for the same periods.

Effective October 15, 2024, we acquired for inclusion in FCD, all of the equity interests of MOGAS Industries, Inc., MOGAS Real Estate LLC and MOGAS Systems & Consulting LLC (such entities collectively, "MOGAS"), including 100% of MOGAS's valve products. The impact of the acquisition of MOGAS for the year ended December 31, 2024 includes bookings of $14 million, sales of $37 million, gross profit of $8 million, operating loss of $3 million (including acquisition related amortization charges of $4 million) and period end backlog of $87 million. Cumulative transaction and integration costs incurred by Flowserve in 2024 related to the acquisition were $10 million.

The activities of the 2023 and CORE Realignment Programs were identified and implemented in phases throughout 2023 and 2024. We currently anticipate a total investment in realignment activities that have been evaluated and initiated of approximately $134 million of which $45 million is estimated to be non-cash. Based on the activities of the 2023 and CORE Realignment Programs initiated to date, we estimate that we recognized cost savings of approximately $114 million through December 31, 2024. Upon completion of the activities of the 2023 and CORE Realignment Programs that have been identified and initiated to date, we expect to achieve annualized cost savings in excess of $100 million. Actual savings could vary from expected savings, which represent management's best estimate to date. There are certain remaining realignment activities that are currently being evaluated, but have not yet been approved and therefore not included in the above anticipated total investment or estimated savings.

Realignment Activity

The following tables present our realignment activity by segment related to our 2023 and CORE Realignment Programs:

	December 31, 2024				
(Amounts in thousands)	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
Total Realignment Charges					
COS	$ 30,727	$ 1,076	$ 31,803	$ (228)	$ 31,575
Selling, General and Administrative Expenses ("SG&A")	1,078	3,096	4,174	766	4,940
Loss on sale of business(1)	—	12,981	12,981	—	12,981
Total	$ 31,805	$ 17,153	$ 48,958	$ 538	$ 49,496

(1) Loss on sale of business related to NAF AB control valves business as described within Note 1, "Significant Accounting Policies and Accounting Developments," to our consolidated financial statements included in this Annual Report.

	December 31, 2023				
(Amounts in thousands)	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
Total Realignment Charges					
COS	$ 10,797	$ 10,576	$ 21,373	$ (361)	$ 21,012
SG&A	14,533	11,393	25,926	19,099	45,025
Total	$ 25,330	$ 21,969	$ 47,299	$ 18,738	$ 66,037

Restructuring charges are included within Total Realignment charges and include charges related to approved, but not yet announced, facility closures.

Bookings and Backlog

	2024	2023	2022
	(Amounts in millions)		
Bookings	$ 4,660.8	$ 4,271.8	$ 4,447.5
Backlog (at period end)	2,789.6	2,695.1	2,735.3

We define a booking as the receipt of a customer order that contractually engages us to perform activities on behalf of our customer with regard to manufacturing, service or support. Bookings recorded and subsequently canceled within the

year-to-date period are excluded from year-to-date bookings. Bookings cancelled from the prior fiscal periods are excluded from the reported bookings and represent less than 1% for all periods presented. Bookings of $4.7 billion in 2024 increased by $389.0 million, or 9.1%, as compared with 2023. The increase included negative currency effects of approximately $30 million. The increase was driven by increased customer bookings of $125 million in the power generation, $115 million in the oil and gas, $71 million in the general industries and $61 million water management industries, partially offset by decreased customer bookings of $13 million in the chemical industry. The increase in customer bookings was driven by both original equipment bookings and aftermarket bookings and included the impact of FPD orders booked in the second quarter of 2024 in excess of $150 million to supply pumps and related equipment to support the continued development of an onshore unconventional gas project and a petrochemical project in the Middle East.

Backlog represents the aggregate value of booked but uncompleted customer orders and is influenced primarily by bookings, sales, cancellations and currency effects. Backlog of $2.8 billion at December 31, 2024 increased by $94.5 million, or 3.5%, as compared with December 31, 2023. Currency effects yielded a decrease of approximately $84 million (currency effects on backlog are calculated using the change in period end exchange rates). Approximately 37% of the backlog at both December 31, 2024 and December 31, 2023 was related to aftermarket orders. We expect to recognize revenue on approximately 83% of the December 31, 2024 backlog during 2025. Backlog includes our unsatisfied (or partially unsatisfied) performance obligations related to contracts having an original expected duration in excess of one year of approximately $853 million as discussed in Note 3, "Revenue Recognition," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

Sales

	2024	2023	2022
	(Amounts in millions)		
Sales	$ 4,557.8	$ 4,320.6	$ 3,615.1

Sales in 2024 increased by $237.2 million, or 5.5%, as compared with 2023. The increase included negative currency effects of approximately $21 million. The increased sales were driven by both aftermarket and original equipment customer sales, with increased customer sales of $86.1 million into the Middle East, $63.9 million into Europe, $52.4 million into Asia Pacific, $26.9 million into North America and $24.1 million into Latin America, partially offset by decreased customer sales of $2.5 million into Africa. Aftermarket sales represented approximately 51% of total sales, as compared with approximately 52% of total sales for the same period in 2023.

Sales to international customers, including export sales from the United States, were approximately 64% of total sales in 2024 and 62% in 2023. Sales into Europe, the Middle East and Africa ("EMA") were approximately 35% of total sales in 2024 and 34% in 2023. Sales into Asia Pacific were approximately 17% of total sales in both 2024 and 2023. Sales into Latin America were approximately 7% of total sales in both 2024 and 2023.

Gross Profit and Gross Profit Margin

(Amounts in millions, except percentages)	2024	2023	2022
	(Amounts in millions, except percentages)		
Gross profit	$ 1,434.2	$ 1,276.8	$ 994.3
Gross profit margin	31.5 %	29.6 %	27.5 %

Gross profit in 2024 increased by $157.4 million, or 12.3%, as compared with 2023. Gross profit margin in 2024 of 31.5% increased from 29.6% in 2023. The increase was primarily due to the favorable impact of previously implemented sales price increases, higher sales volumes, an improved selective bidding approach and lower broad-based annual incentive compensation, partially offset by increased charges of $10.6 million related to our 2023 and CORE Realignment Programs, $3.1 million in amortization of step-up in value of acquired inventories and acquisition related intangible assets associated with the MOGAS acquisition, and $2.7 million in one-time U.S. pension transition benefit expense as compared to the same period in 2023.

SG&A

	2024	2023	2022
	(Amounts in millions, except percentages)		
SG&A	$ 978.0	$ 961.2	$ 815.5
SG&A as a percentage of sales	21.5 %	22.2 %	22.6 %

SG&A in 2024 increased by $16.8 million, or 1.7%, as compared with 2023. Currency effects yielded a decrease of approximately $3 million. In 2024, SG&A increased due to increased research and development costs of $21.2 million which includes the $7.2 million strategic acquisition of intellectual property related to certain LNG technology, $9.9 million of acquisition and integration expense related to the MOGAS acquisition, an increase in bad debt expense of $6.0 million, $2.3 million in one-time U.S. pension plan transition benefit expense, a $1.8 million discrete software asset impairment, increased asbestos-related costs of $1.7 million for IBNR asbestos liability accruals and $1.0 million in amortization of step-up in value of acquisition related intangible assets associated with the MOGAS acquisition, partially offset by decreased charges of $40.1 million related to our 2023 and CORE Realignment Programs, $8.5 million of expense related to the terminated Velan acquisition incurred in 2023 that did not recur, lower broad-based annual incentive compensation, a $2.9 million impairment of a licensing intangible in 2023 that did not recur and the reversal of previously recognized expenses of $2.0 million related to our financial exposure in Russia as compared with the same period in 2023. SG&A as a percentage of sales decreased 70 basis points primarily due to increased sales leverage.

Loss on Sale of Business

	2024	2023	2022
	(Amounts in millions)		
Loss on sale of business	$ (13.0)	$ —	$ —

The loss on sale of business increased by $13.0 million from zero in 2023 to $13.0 million in 2024 due to the divestiture of NAF AB, a previously wholly owned subsidiary and control valves business within our FCD segment, including the NAF AB facility located in Linkoping, Sweden. See Note 1, "Basis of Presentation and Accounting Policies," to our consolidated financial statements included in this Annual Report for additional information on this transaction.

Net Earnings from Affiliates

	2024	2023	2022
	(Amounts in millions)		
Net earnings from affiliates	$ 19.1	$ 17.9	$ 18.5

Net earnings from affiliates represents our net income from investments in five joint ventures (one located in each of Chile, India, Saudi Arabia, South Korea and the United Arab Emirates) that are accounted for using the equity method of accounting. Net earnings from affiliates in 2024 increased by $1.2 million, or 6.7%, as compared to the prior year, primarily as a result of increased earnings of our FPD joint venture in South Korea.

Operating Income

	2024	2023	2022
	(Amounts in millions, except percentages)		
Operating income	$ 462.3	$ 333.6	$ 197.2
Operating income as a percentage of sales	10.1 %	7.7 %	5.5 %

Operating income in 2024 increased by $128.7 million, or 38.6%, as compared with 2023. The increase included negative currency effects of approximately $5 million. The increase was primarily a result of the $157.4 million increase in gross profit, partially offset by $16.8 million increase in SG&A and $13.0 million loss on sale of business.

Interest Expense and Interest Income

	2024	2023	2022
	(Amounts in millions)		
Interest expense	$ (69.3)	$ (66.9)	$ (46.2)
Interest income	5.4	7.0	4.0

Interest expense in 2024 increased by $2.4 million as compared with 2023. The increase was primarily attributable to higher outstanding debt during the year related to the issuance of the Second Amended and Restated Credit Agreement due October 10, 2029 as discussed in Note 13, "Debt and Finance Lease Obligations," as compared to 2023. Interest income in 2024 decreased by $1.6 million as compared to 2023. The decrease in interest income was primarily attributed to lower interest rates on our average cash balances compared with same period in 2023.

Other Income (Expense), net

	2024	2023	2022
	(Amounts in millions)		
Other income (expense), net	$ (12.2)	$ (49.9)	$ (0.6)

Other expense, net decreased by $37.7 million as compared to 2023, primarily due to a $20.7 million decrease in losses from transactions in currencies other than our sites' functional currencies and a $22.7 million decrease in losses arising from transactions on foreign exchange forward contracts. The net currency related change was primarily due to the foreign currency exchange rate movements in the Euro, Argentinian peso, Hungarian forint and Mexican peso in relation to the U.S. dollar during the year ended December 31, 2024, as compared with the same period in 2023.

Income Tax and Tax Rate

	2024	2023	2022
	(Amounts in millions, except percentages)		
Provision for (benefit from) income taxes	$ 84.9	$ 18.6	$ (43.6)
Effective tax rate	22.0 %	8.3 %	(28.3)%

Our effective tax rate of 22.0% for the year ended December 31, 2024 increased from 8.3% in 2023 and differed from the federal statutory tax rate of 21% primarily due to the net impact of foreign divestiture and foreign operations.

The 2023 effective tax rate differed from the federal statutory rate of 21% primarily due to the benefits of a tax planning strategy and the release of valuation allowances on the net deferred tax assets in Brazil and France, partially offset by the net impact of foreign operations.

Our effective tax rate is based upon current earnings and estimates of future taxable earnings for each domestic and international location. The assumptions about future taxable income require the use of significant judgment and are consistent with the plans and estimates used in the underlying business. Changes in any of these and other factors, including our ability to utilize foreign tax credits and net operating losses or results from tax audits, could impact the tax rate in future periods. As of December 31, 2024, we had U.S. foreign tax credit carryforwards of $67.4 million, expiring in 2028-2034 tax years, against which we recorded a valuation allowance of $54.1 million related to the U.S. foreign tax credit carryforwards on foreign branch category income. Additionally, we have recorded other net deferred tax assets of $206.7 million, which relate to net operating losses, tax credits and other deductible temporary differences that are available to reduce taxable income in future periods, most of which do not have a definite expiration. Should we not be able to utilize all or a portion of these credits and losses, our effective tax rate would increase.

Net Earnings and Earnings Per Share

	2024	2023	2022
	(Amounts in millions, except per share amounts)		
Net earnings attributable to Flowserve Corporation	$ 282.8	$ 186.7	$ 188.7
Net earnings per share — diluted	$ 2.14	$ 1.42	$ 1.44
Average diluted shares	132.4	131.9	131.3

Net earnings in 2024 increased by $96.1 million to $282.8 million, or to $2.14 per diluted share, as compared with 2023. The increase was primarily attributable to an increase in operating income of $128.7 million and a $37.7 million decrease in other expense, net, partially offset by a $66.3 million increase in tax expense and a $2.4 million increase in interest expense.

Other Comprehensive Income (Loss)

	2024	2023	2022
	(Amounts in millions)		
Other comprehensive income (loss)	$ (102.2)	$ (4.6)	$ (82.9)

Other comprehensive loss in 2024 increased by $97.6 million from a loss of $4.6 million in 2023. The net loss in 2024 was primarily due to foreign currency translation adjustments resulting primarily from exchange rate movements of the Euro, Brazilian real and Mexican peso versus the U.S. dollar at December 31, 2024 as compared with 2023, partially offset by pension and other postretirement activity.

Business Segments

We conduct our operations through two business segments based on type of product and how we manage the business. We evaluate segment performance and allocate resources based on each segment's operating income. See Note 20, "Business Segment Information," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report for further discussion of our segments. The key operating results for our two business segments, FPD and FCD, are discussed below.

Flowserve Pumps Division Segment Results

Our largest business segment is FPD, through which we design, manufacture, pretest, distribute and service highly custom engineered pumps, pre-configured industrial pumps, pump systems, mechanical seals and auxiliary systems (collectively referred to as "original equipment") and related services. FPD includes highly engineered pump products with longer lead times and mechanical seals that are generally manufactured within shorter lead times. FPD also manufactures replacement parts and related equipment and provides aftermarket services. FPD primarily operates in the oil and gas, power generation, chemical, water management and general industries. FPD operates in 49 countries with 37 manufacturing facilities worldwide, 12 of which are located in North America, 11 in Europe and the Middle East, eight in Asia Pacific and six in Latin America, and we have 130 QRCs, including those co-located in manufacturing facilities and/or shared with FCD.

	FPD		
	2024	2023	2022
	(Amounts in millions, except percentages)		
Bookings	$ 3,304.3	$ 2,941.2	$ 3,214.7
Sales	3,158.6	3,064.5	2,522.5
Gross profit	1,017.0	906.8	728.1
Gross profit margin	32.2 %	29.6 %	28.9 %
SG&A	556.2	575.8	538.5
Segment operating income	480.2	348.9	208.0
Segment operating income as a percentage of sales	15.2 %	11.4 %	8.2 %
Backlog (at period end)	1,930.4	1,891.7	2,008.9

Bookings in 2024 increased by $363.1 million, or 12.3%, as compared with 2023. The increase included negative currency effects of approximately $26 million. The increase in customer bookings was driven by increased orders of $102 million in the oil and gas, $94 million in the power generation, $74 million in the general industries, $66 million the water management and $12 million in the chemical industries. Increased customer orders of $191.7 million into the Middle East, $116.5 million into North America, $108.0 million into Europe and $12.3 million into Africa were partially offset by decreased customer orders of $70.6 million into Asia Pacific and $9.2 million into Latin America. The increase in customer bookings was substantially driven by original equipment bookings, including the impact of original equipment orders booked in the second quarter of 2024 in excess of $150 million to supply pumps and related equipment to support the continued development of an onshore unconventional gas project and a petrochemical project in the Middle East. Of the $3.3 billion of bookings in 2024, approximately 39% were from oil and gas, 27% from general industries, 16% from chemical, 12% from power generation and 6% from water management.

Sales in 2024 increased $94.1 million, or 3.1%, as compared with 2023. The increase included negative currency effects of approximately $19 million. The increase was mostly driven by aftermarket customer sales, resulting from increased customer sales of $51.9 million into Europe, $30.5 million into North America, $24.3 million into Latin America and $14.5 million into the Middle East, partially offset by decreased customer sales of $9.9 million into Asia Pacific and $8.6 million into Africa.

Gross profit in 2024 increased by $110.2 million, or 12.2%, as compared with 2023. Gross profit margin in 2024 of 32.2% increased from 29.6% in 2023. The increase was primarily due to the favorable impact of previously implemented sales price increases, higher sales volume, an improved selective bidding approach, lower broad-based annual incentive compensation and slightly favorable mix as compared to the same period in 2023, partially offset by increased charges of $19.9 million related to our 2023 and CORE Realignment Programs and $1.7 million in one-time U.S. pension plan transition benefit expense as compared to the same period in 2023.

SG&A in 2024 decreased by $19.6 million, or 3.4%, as compared with 2023. Currency effects yielded a decrease of approximately $2 million. The decrease in SG&A was primarily due to realized cost savings associated with previously implemented 2023 Realignment Programs, decreased charges of $13.5 million related to our 2023 and CORE Realignment Programs, lower broad-based annual incentive compensation, a $2.9 million impairment of a licensing intangible in 2023 that did not recur, the reversal of previously recognized expenses of $2.0 million related to our financial exposure in Russia and a $0.3 million decrease in bad debt expense, partially offset by a $13.7 million increase in research and development costs which includes the $7.2 million strategic acquisition of intellectual property related to certain LNG technology and $0.8 million in one-time U.S. pension plan transition benefit expense as compared to the same period in 2023.

Operating income in 2024 increased by $131.3 million, or 37.6%, as compared with 2023. The increase included negative currency effects of approximately $5 million. The increase was primarily due to the $110.2 million increase in gross profit and the $19.6 million decrease in SG&A.

Backlog of $1.9 billion at December 31, 2024 increased by $38.7 million, or 2.0%, as compared with December 31, 2023. Currency effects yielded a decrease of approximately $66 million.

Flow Control Division Segment Results

FCD designs, manufactures and distributes a broad portfolio of engineered-to-order and configured-to-order isolation valves, control valves, valve automation products and related equipment. FCD leverages its experience and application know-how by offering a complete menu of engineered services to complement its expansive product portfolio. FCD has a total of 46 manufacturing facilities and QRCs in 22 countries around the world, with seven of its 19 manufacturing operations located in Europe, six located in the United States, five located in Asia Pacific and one located in Latin America. Based on independent industry sources, we believe that FCD is the second largest industrial valve supplier on a global basis.

	FCD		
	2024	2023	2022
	(Amounts in millions, except percentages)		
Bookings	$ 1,370.7	$ 1,345.9	$ 1,247.2
Sales	1,409.3	1,266.0	1,100.6
Gross profit	424.0	372.8	305.5
Gross profit margin	30.1 %	29.4 %	27.8 %
SG&A	252.7	224.8	192.1
Loss on sale of businesses	(13.0)	—	—
Segment operating income	158.3	148.0	113.4
Segment operating income as a percentage of sales	11.2 %	11.7 %	10.3 %
Backlog (at period end)	869.6	826.8	745.5

Bookings in 2024 increased $24.8 million, or 1.8%, as compared with 2023. The increase included negative currency effects of approximately $4 million. The increase in customer bookings was driven by increased orders of $31 million in the power generation and $13 million in the oil and gas industries, partially offset by $25 million in the chemical, $5 million in the water management and $3 million in the general industries industries. There were increased customer orders of $11.3 million into North America, $10.8 million into Europe and $10.6 million into Latin America, partially offset by decreased customer orders of $12.5 million into Asia Pacific, $6.6 million into Africa and $3.0 million into the Middle East. The increase in customer bookings was driven by aftermarket bookings. Of the $1.4 billion of bookings in 2024, approximately 33% were from oil and gas, 28% were from chemical, 24% from general, 14% from power generation and 1% from water management industries.

Sales in 2024 increased by $143.3 million, or 11.3%, as compared with 2023. The increase included negative currency effects of approximately $2 million. The increase was driven by both increased customer original equipment and aftermarket sales, resulting from increased customer sales of $71.5 million into the Middle East, $62.3 million into Asia Pacific, $12.1 million into Europe and $6.1 million into Africa, partially offset by decreased customer sales of $3.6 million into North America and $0.2 million into Latin America.

Gross profit in 2024 increased by $51.2 million, or 13.7%, as compared with 2023. Gross profit margin in 2024 of 30.1% increased from 29.4% in 2023. The increase in gross profit margin was primarily due to the favorable impact of previously implemented sales price increases, higher sales volume, decreased charges of $9.5 million related to our 2023 and CORE Realignment Programs and lower broad-based annual incentive compensation, partially offset by $3.1 million in amortization of step-up in value of acquired inventories and acquisition related intangible assets associated with the MOGAS acquisition, $0.8 million in one-time U.S. pension plan transition benefit expense and slightly unfavorable mix as compared to the same period in 2023.

SG&A in 2024 increased by $27.9 million, or 12.4% as compared with 2023. Currency effects yielded a decrease of less than a million. The increase in SG&A was primarily due to increased sales volume, $9.9 million of acquisition and integration related expense related to the MOGAS acquisition, $6.0 million increase in bad debt expense, $5.6 million increase in research and development costs, $1.0 million in amortization of step-up in value of acquisition related intangible assets associated with the MOGAS acquisition, and $0.4 million in one-time U.S. pension plan transition benefit expense, partially offset by $8.5 million of expense related to the terminated Velan acquisition incurred in 2023 that did not recur, decreased charges of $8.3 million related to our 2023 and CORE Realignment Programs and lower broad-based annual incentive compensation as compared to the same period in 2023.

The loss on sale of business increased by $13.0 million from zero in 2023 to $13.0 million in 2024 due to the divestiture of NAF AB, a previously wholly owned subsidiary and control valves business within our FCD segment, including the NAF AB facility located in Linkoping, Sweden. The loss on sale of business is included within charges related to our 2023 Realignment Programs.

Operating income in 2024 increased by $10.3 million, or 7.0%, as compared with 2023. The increase included negative currency effects of approximately $1 million. The increase was primarily due to the $51.2 million increase in gross profit partially offset by the increase in SG&A of $27.9 million and $13.0 million loss on sale of business.

Backlog of $869.6 million at December 31, 2024 increased by $42.8 million, or 5.2%, as compared with December 31, 2023. Currency effects yielded a decrease of approximately $19 million.

LIQUIDITY AND CAPITAL RESOURCES

Cash Flow Analysis

	2024	2023	2022
	(Amounts in millions)		
Net cash flows provided (used) by operating activities	$ 425.3	$ 325.8	$ (40.0)
Net cash flows provided (used) by investing activities	(387.2)	(68.6)	(6.1)
Net cash flows provided (used) by financing activities	117.5	(153.0)	(150.0)

The following is a discussion and analysis of the Company's liquidity and capital resources for the years ended December 31, 2024 and 2023. A discussion of changes in the Company's liquidity and capital resources for the year ended December 31, 2023 and 2022 can be found in Part II, "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on February 20, 2024.

Existing cash, cash generated by operations and borrowings available under our Second Amended and Restated Credit Agreement are our primary sources of short-term liquidity. We monitor the depository institutions that hold our cash and cash equivalents on a regular basis, and we believe that we have placed our deposits with creditworthy financial institutions. Our sources of operating cash generally include the sale of our products and services and the conversion of our working capital, particularly accounts receivable and inventories. Our cash balance at December 31, 2024 was $675.4 million, compared with $545.7 million at December 31, 2023.

For the year ended December 31, 2024 our cash provided by operating activities was $425.3 million, as compared to cash provided of $325.8 million in 2023. Working capital levels vary from period to period and are primarily affected by our volume of work, and can be impacted by billing schedules on our projects. Cash flow used by working capital increased in 2024, primarily due to increased cash flows used by, or decreased cash flows provided by, accounts receivable, prepaid expenses and other assets, accounts payable, contract liabilities, and accrued liabilities, partially offset by increased cash flows provided by, or decreased cash flows used by, inventories and contract assets as compared to the same period in 2023.

Increases in accounts receivable used $82.2 million of cash flow in 2024, compared to cash provided of $4.7 million in 2023. For the fourth quarter of 2024 our days' sales outstanding ("DSO") was 74 days as compared to 68 days in 2023. We have not experienced a significant increase in customer payment defaults in 2024.

Decreases in inventory provided $38.9 million of cash flow in 2024, compared with cash flows used of $59.8 million in 2023. Inventory turns were 3.8 times at December 31, 2024 and 3.6 times at 2023. Our calculation of inventory turns does not reflect the impact of advanced cash received from our customers.

Increases in contract assets used $18.5 million of cash flow and decreases in contract liabilities used $6.1 million of cash flow in 2024.

Decreases in accounts payable used $12.3 million of cash flow in 2024 compared with cash provided of $53.1 million in 2023. Increases in accrued liabilities provided $49.6 million of cash flow in 2024 compared to cash provided of $59.2 million in 2023.

Cash flows used by investing activities were $387.2 million in 2024, as compared to $68.6 million in 2023. The increase of cash flows used in 2024 resulted primarily from the $305.9 million payment for the acquisition of MOGAS, $2.6 million payment for disposition of business, partially offset by higher cash flows proceeds provided from the disposal of assets of $2.2 million, an increase of $0.2 million as compared to 2023. Capital expenditures were $81.0 million in 2024, as compared to $67.4 million in 2023. In 2025, we currently estimate capital expenditures to be between $80 million and $90 million, before consideration of any acquisition activity.

Cash provided by financing activities was $117.5 million in 2024 compared to cash used of $153.0 million in 2023. Cash inflows during 2024 resulted primarily from $366.0 million in proceeds from our Term Loan, partially offset by $110.4 million in dividend payments, $95.4 million in payments on our Term Loan, $20.1 million in stock repurchase and $13.0 million in non controlling interest dividend payments.

In 2024 we repurchased 423,785 shares of our outstanding common stock. As of December 31, 2024, we had $279.9 million of remaining capacity for Board of Directors approved share repurchases. While we currently intend to continue to return cash through dividends and/or share repurchases for the foreseeable future, any future returns of cash through dividends will be reviewed individually, declared by our Board of Directors at its discretion and implemented by management.

Our material cash requirements for the next 12 months, include our estimated 2025 capital expenditures described above and our contractual obligations summarized below under the subheading "Contractual Obligations". In the aggregate, our cash needs vary based on working capital activity and will be evaluated throughout 2025. Considering our current debt structure and cash needs, we currently believe cash flows generated from operating activities combined with availability under our Second Amended and Restated Credit Agreement and our existing cash balance will be sufficient to meet our cash needs for our short-term (next 12 months) and long-term (beyond the next 12 months) business needs. However, cash flows from operations could be adversely affected by a decrease in the rate of general global economic growth and an extended decrease in capital spending of our customers, as well as economic, political and other risks associated with sales of our products, operational factors, competition, regulatory actions, fluctuations in foreign currency exchange rates and fluctuations in interest rates, among other factors. We believe that cash flows from operating activities and our expectation of continuing availability to draw upon our credit agreements are also sufficient to meet our cash flow needs for periods beyond the next 12 months.

Financing

On September 13, 2021, we amended and restated our credit agreement (the "Senior Credit Agreement") under our Senior Credit Facility ("Credit Facility") with Bank of America, N.A. and the other lenders to provide greater flexibility in maintaining adequate liquidity and access to available borrowings (the "Amended and Restated Credit Agreement"). The Amended and Restated Credit Agreement, (i) retained, from the previous credit agreement, the $800.0 million unsecured Revolving Credit Facility (the "Revolving Credit Facility"), which includes a $750.0 million sublimit for the issuance of letters of credit and a $30.0 million sublimit for swing line loans ii) provides for an up to $300 million unsecured Term Loan Facility (the "Term Loan"), (iii) extends the maturity date of the agreement to September 13, 2026, (iv) reduces commitment fees, (v) extends net leverage ratio covenant definition through the maturity of the agreement, and (vi) provides the ability to make certain adjustments to the otherwise applicable commitment fee, interest rate and letter of credit fees based on the Company's performance against to-be-established key performance indicators with respect to certain of the Company's environmental, social and governance targets. On February 3, 2023, we entered into an amendment to the Credit Facility (the "Amendment") which (i) replaced LIBOR with Secured Overnight Financing Rate ("SOFR") as the benchmark reference rate, (ii) lowered the Material Acquisition (as defined in the Credit Facility) threshold from $250 million to $200 million and (iii) extended compliance dates for certain financial covenants. Subsequently, on October 10, 2024, we amended and restated our Senior Credit Agreement and entered into the Second Amended and Restated Credit Agreement (the "Second Amended and Restated Credit Agreement") with Bank of America, N.A., as administrative agent, and the other lenders (together, the "Lenders") and letter of credit issuers party thereto to (i) retain from the Senior Credit Agreement the $800.0 million Revolving Credit Facility, and the right, subject to certain conditions including a Lender approving such increase, to increase the amount of such Revolving Credit Facility by an aggregate amount not to exceed $400.0 million, (ii) increase our Term Loan from $300.0 million to $500.0 million, and (iii) extend the maturity date to October 10, 2029. As of December 31, 2024, we had an available capacity of $656.0 million under our Second Amended and Restated Credit Agreement, which provided for a $800.0 million unsecured revolving credit facility. We believe this Second Amended and Restated Credit Agreement will provide greater flexibility

and additional liquidity under our Credit Facility as we continue to pursue our business goals and strategy. Most other terms and conditions under the previous Credit Facility remained unchanged.

Under the terms and conditions of the Second Amended and Restated Credit Agreement, the interest rates per annum applicable to the Revolving Credit Facility and Term Loan, other than with respect to swing line loans, are adjusted Term Secured Overnight Financing Rate ("Adjusted Term SOFR") plus between 1.000% to 1.750%, depending on our debt rating by either Moody's Investors Service, Inc. ("Moody's") or Standard & Poor's Financial Services LLC ("S&P"), or, at our option, the Base Rate (as defined in the Second Amended and Restated Credit Agreement) plus between 0.000% to 0.750% depending on our debt rating by either Moody's or S&P. At December 31, 2024, the interest rate on the Revolving Credit Facility was the Adjusted Term SOFR plus 1.375% in the case of Adjusted Term SOFR loans and the Base Rate plus 0.375% in the case of Base Rate loans. In addition, a commitment fee is payable quarterly in arrears on the daily unused portions of the Revolving Credit Facility. The commitment fee will be between 0.080% and 0.250% of unused amounts under the Revolving Credit Facility depending on our debt rating by either Moody's or S&P. The commitment fee was 0.175% (per annum) during the period ended December 31, 2024. At December 31, 2024, the interest rate on the Term Loan was Adjusted Term SOFR plus 1.375% in the case of Adjusted Term SOFR loans and the Base Rate plus 0.250% in the case of Base Rate loans.

A discussion of our debt and related covenants is included in Note 13, "Debt and Finance Lease Obligations," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report. We were in compliance with the covenants as of December 31, 2024.

Liquidity Analysis

Our cash balance increased by $129.8 million to $675.4 million as of December 31, 2024 as compared with $545.7 million as of December 31, 2023. The cash increase included $425.3 million in operating cash inflows and $366.0 million from proceeds on our Term Loan, partially offset by the $305.9 million payment for the acquisition of MOGAS and $20.1 million payments for repurchases of common shares.

During 2024, we made $20.0 million cash contributions to our U.S. pension plan, compared to $2.0 million cash contributions in 2023. At December 31, 2024 and 2023, as a result of the values of the plan's assets and our contributions to the plan, our U.S. pension plan was fully-funded as defined by applicable law. As of December 31, 2024 direct benefits paid by the U.S. pension plan were $1.8 million. We continue to maintain an asset allocation consistent with our strategy to maximize total return, while reducing portfolio risks through asset class diversification.

As of December 31, 2024, we had approximately $1,331 million of liquidity, consisting of cash and cash equivalents of $675 million and $656 million of borrowings available under our Credit Facility. In light of the liquidity currently available to us, and the costs savings measures planned and already in place, we expect to be able to maintain adequate liquidity over the next 12 months. We do not currently anticipate, nor are we aware of, any significant market conditions or commitments that would change any of our conclusions of the liquidity currently available to us. We will continue to actively monitor the credit markets in order to maintain sufficient liquidity and access to capital throughout 2025.

Contractual Obligations

The following table presents a summary of our contractual obligations at December 31, 2024:

	Payments Due By Period				
(Amounts in millions)	Within 1 Year	1-3 Years	3-5 Years	Beyond 5 Years	Total
Senior Notes and Term Loan Facility	$ 37.2	$ 96.4	$ 356.0	$ 991.5	$ 1,481.1
Fixed interest payments(1)	31.5	63.0	63.0	41.8	199.3
Other debt	6.6	16.5	—	—	23.1
Leases:					
Operating	41.7	65.3	46.3	66.4	219.7
Finance	7.4	9.1	2.5	3.6	22.6
Purchase obligations:(2)					
Inventory	689.1	16.6	12.9	1.7	720.3
Non-inventory	53.3	2.7	0.6	0.5	57.1
Pension and postretirement benefits(3)	74.3	118.4	111.5	257.8	562.0
Total	$ 941.1	$ 388.0	$ 592.8	$ 1,363.3	$ 3,285.2

(1) Fixed interest payments represent interest payments on the Senior Notes as defined in Note 13, "Debt and Finance Lease Obligations," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

(2) Purchase obligations are presented at the face value of the purchase order, excluding the effects of early termination provisions. Actual payments could be less than amounts presented herein.

(3) Retirement and postretirement benefits represent estimated benefit payments for our U.S. and non-U.S. defined benefit plans and our postretirement medical plans, as more fully described below and in Note 14, "Pension and Postretirements Benefits," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

The following table presents a summary of our commercial commitments at December 31, 2024:

	Commitment Expiration By Period				
	Within 1 Year	1-3 Years	3-5 Years	Beyond 5 Years	Total
	(Amounts in millions)				
Letters of credit	$ 569.7	$ 210.3	$ 44.6	$ 14.1	$ 838.7
Surety bonds	66.3	15.6	0.3	—	82.2
Total	$ 636.0	$ 225.9	$ 44.9	$ 14.1	$ 920.9

We expect to satisfy these commitments through performance under our contracts.

PENSION AND POSTRETIREMENT BENEFITS OBLIGATIONS

Plan Descriptions

We and certain of our subsidiaries have defined benefit pension plans and defined contribution plans for full-time and part-time employees. Approximately 68% of total defined benefit pension plan assets and approximately 58% of defined benefit pension obligations are related to the U.S. qualified plan as of December 31, 2024. Unless specified

otherwise, the references in this section are to all of our U.S. and non-U.S. plans. None of our common stock is directly held by these plans.

In August 2023, we amended the Company-sponsored qualified defined benefit pension plan in the United States (the "Qualified Plan") for non-union employees to discontinue future benefit accruals under the Qualified Plan and freeze existing accrued benefits effective January 1, 2025. Benefits earned by participants under the Qualified Plan prior to January 1, 2025, are not affected. We also amended the Company-sponsored non-qualified defined benefit pension plan in the United States (the "Non-Qualified Plan") that provides enhanced retirement benefits to select members of management. The Qualified Plan and the Non-Qualified Plan were closed to new entrants effective January 1, 2024, and September 1, 2023, respectively. The amendments resulted in a curtailment of both plans during the year ended December 31, 2023. The curtailment loss incurred and the change in projected benefit obligation was immaterial.

In conjunction with the amendment of the qualified plan, the Organization and Compensation Committee of our Board of Directors approved certain transition benefits associated with freezing the qualified plan. In January 2025, a one-time cash transition benefit was paid to a limited group of employees in the United States that meet certain criteria. We recorded a $5.0 million liability during the year ended December 31, 2024, included within accrued liabilities in our consolidated balance sheet to recognize this obligation, with corresponding expense included within cost of sales ("COS") and SG&A in our consolidated statements of income. We expect to issue approximately the same amount of value in the form of restricted shares to an additional group of employees in the United States in 2025. The restricted shares are expected to be subject to three year cliff-vesting.

Our U.S. defined benefit plan assets consist of a portfolio of equity and fixed income securities. Our non-U.S. defined benefit plan assets include a significant concentration of United Kingdom fixed income securities, as discussed in Note 14, "Pension and Postretirements Benefits," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report. We monitor investment allocations and manage plan assets to maintain an acceptable level of risk. At December 31, 2024, the estimated fair market value of U.S. and non-U.S. plan assets for our defined benefit pension plans decreased to $520.0 million from $540.6 million at December 31, 2023. Assets were allocated as follows:

	U.S. Plan	
Asset category	**2024**	**2023**
Cash and Cash Equivalents	1 %	2 %
Global Equity	24 %	21 %
Global Real Assets	19 %	15 %
Equity securities	43 %	36 %
Diversified Credit	18 %	15 %
Liability-Driven Investment	38 %	47 %
Fixed income	56 %	62 %

	Non-U.S. Plans	
Asset category	**2024**	**2023**
Cash and Cash Equivalents	1 %	0 %
U.K. Government Gilt Index	32 %	39 %
Liability-Driven Investment	15 %	12 %
Fixed income	47 %	51 %
Multi-asset	21 %	19 %
Buy-in Contract	18 %	18 %
Other	13 %	12 %
Other types	52 %	49 %

The projected benefit obligation ("Benefit Obligation") for our defined benefit pension plans was $700.7 million and $715.2 million as of December 31, 2024 and 2023, respectively. Benefits under our defined benefit pension plans are based primarily on participants' compensation and years of credited service.

We sponsor defined benefit postretirement medical plans covering certain current retirees and a limited number of future retirees in the United States. These plans provide for medical and dental benefits and are administered through insurance companies. We fund the plans as benefits are paid, such that the plans hold no assets in any period presented. Accordingly, we have no investment strategy or targeted allocations for these plans. The benefits under the plans are not available to new employees or most existing employees.

The Benefit Obligation for our defined benefit postretirement medical plans was $11.8 million and $12.4 million as of December 31, 2024 and 2023, respectively.

Accrual Accounting and Significant Assumptions

We account for pension benefits using the accrual method, recognizing pension expense before the payment of benefits to retirees. The accrual method of accounting for pension benefits requires actuarial assumptions concerning future events that will determine the amount and timing of the benefit payments.

Our key assumptions used in calculating our cost of pension benefits are the discount rate, the rate of compensation increase and the expected long-term rate of return on plan assets. We, in consultation with our actuaries, evaluate the key actuarial assumptions and other assumptions used in calculating the cost of pension and postretirement benefits, such as discount rates, expected return on plan assets for funded plans, mortality rates, retirement rates and assumed rate of compensation increases, and determine such assumptions as of December 31 of each year to calculate liability information as of that date and pension and postretirement expense for the following year. See discussion of our accounting for and assumptions related to pension and postretirement benefits in the "Our Critical Accounting Estimates" section of this MD&A.

In 2024, the service cost component of the pension expense for our defined benefit pension plans included in operating income was $30.3 million compared to $26.0 million in 2023. The non-service cost portion of net pension expense (e.g., interest cost, actuarial gains and losses and expected return on plan assets) for our defined benefit pension plans included in other income (expense), net was $6.0 million in 2024, compared to $4.5 million in 2023.

The following are assumptions related to our defined benefit pension plans as of December 31, 2024:

	U.S. Plan	Non-U.S. Plans
Weighted average assumptions used to determine Benefit Obligation:		
Discount rate	5.73 %	4.71 %
Rate of increase in compensation levels	4.00	3.51
Weighted average assumptions used to determine 2024 net pension expense:		
Long-term rate of return on assets	6.00 %	4.65 %
Discount rate	5.41	4.22
Rate of increase in compensation levels	4.00	3.24
Weighted-average interest crediting rates	4.00 %	2.06 %

The following provides a sensitivity analysis of alternative assumptions on the U.S. qualified, aggregate non-U.S. pension plans and U.S. postretirement plans.

Effect of Discount Rate Changes and Constancy of Other Assumptions:

	0.5% Increase	0.5% Decrease
	(Amounts in millions)	
U.S. defined benefit pension plan:		
Effect on net pension expense	$ 0.1	$ 2.1
Effect on Benefit Obligation	(13.4)	14.4
Non-U.S. defined benefit pension plans:		
Effect on net pension expense	0.4	0.7
Effect on Benefit Obligation	(15.1)	16.8
U.S. Postretirement medical plans:		
Effect on Benefit Obligation	(0.3)	0.3

Effect of Changes in the Expected Return on Assets and Constancy of Other Assumptions:

	0.5% Increase	0.5% Decrease
	(Amounts in millions)	
U.S. defined benefit pension plan:		
Effect on net pension expense	$ (1.9)	$ 1.9
Non-U.S. defined benefit pension plans:		
Effect on net pension expense	(0.8)	0.8

As discussed below, accounting principles generally accepted in the U.S. ("U.S. GAAP") provide that differences between expected and actual returns are recognized over the average future service of employees or over the remaining expected lifetime for plans with only inactive participants.

At December 31, 2024, as compared with December 31, 2023, we increased our discount rate for the U.S. plan from 5.41% to 5.73% based on an analysis of publicly traded investment grade U.S. corporate bonds, which had higher yields due to current market conditions. The average discount rate for the non-U.S. plans increased from 4.22% to 4.71% based on analysis of bonds and other publicly traded instruments, by country, which had higher yields due to market conditions. The average assumed rate of compensation for the U.S. plan was 4.00%, for both 2024 and 2023, and for our non-U.S. plans increased to 3.51% from 3.24% in 2023. To determine the 2024 pension expense, the expected rate of return on the U.S. plan assets was 6.00% for both 2024 and 2023, and on the non-US plan assets increased to 4.65% from 3.97% in 2023, based on our target allocations and expected long-term asset returns. As the expected rate of return on plan assets is long-term in nature, short-term market fluctuations do not significantly impact the rate. For all U.S. plans, we adopted the Pri-2012 mortality tables and the MP-2021 improvement scale published in October 2021. We applied the Pri-2012 tables based on the constituency of our plan population for union and non-union participants. We adjusted the improvement scale to utilize the Proxy SSA Long Term Improvement Rates, consistent with assumptions adopted by the Social Security Administration trustees, based on long-term historical experience. Currently, we believe this approach provides the best estimate of our future obligation. Most plan participants elect to receive plan benefits as a lump sum at the end of service, rather than an annuity. As such, the updated mortality tables had an immaterial effect on our pension obligation.

We expect that the net pension expense for our defined benefit pension plans included in earnings before income taxes will be approximately $22.3 million lower in 2025 than the $36.4 million in 2024, primarily due to the freezing of benefits on the U.S. qualified plan. We have used discount rates of 5.73%, 4.71% and 5.78% at December 31, 2024, in calculating our estimated 2025 net pension expense for the U.S. pension plans, non-U.S. pension plans and postretirement medical plans, respectively.

The assumed ranges for the annual rates of increase in health care costs were 7.00% for 2024, 7.00% for 2023 and 7.25% for 2022, with a gradual decrease to 5.00% for 2032 and future years. If actual costs are higher than those assumed, this will likely put modest upward pressure on our expense for retiree health care.

Plan Funding

Our funding policy for defined benefit plans is to contribute at least the amounts required under applicable laws and local customs. In 2024, we contributed $32.6 million, to our defined benefit plans, compared to $15.0 million in 2023. We have no obligation to make contributions to our U.S. pension plans in 2025, but have authorization for contributions up to $10 million. We expect to contribute approximately $2 million to our non-U.S. pension plans in 2025, excluding direct benefits paid.

For further discussion of our pension and postretirement benefits, see Note 14, "Pension and Postretirements Benefits," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

OUR CRITICAL ACCOUNTING ESTIMATES

The process of preparing financial statements in conformity with U.S. GAAP requires the use of estimates and assumptions to determine reported amounts of certain assets, liabilities, revenues and expenses and the disclosure of related contingent assets and liabilities. These estimates and assumptions are based upon information available at the time of the estimates or assumptions, including our historical experience, where relevant. The most significant estimates made by management include: timing and amount of revenue recognition; deferred taxes, tax valuation allowances and tax reserves;

reserves for contingent loss; pension and postretirement benefits; and valuation of goodwill, indefinite-lived intangible assets and other long-lived assets. The significant estimates are reviewed at least annually if not quarterly by management. Because of the uncertainty of factors surrounding the estimates, assumptions and judgments used in the preparation of our financial statements, actual results may differ from the estimates, and the difference may be material.

Our critical accounting policies are those policies that are both most important to our financial condition and results of operations and require the most difficult, subjective or complex judgments on the part of management in their application, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. We believe that the following represent our critical accounting policies. For a summary of all of our significant accounting policies, see Note 1, "Basis of Presentation and Accounting Policies," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report. Management and our external auditors have discussed our critical accounting estimates and policies with the Audit Committee of our Board of Directors.

Business Combinations

We allocate the purchase price of acquired businesses to the estimated fair values of the assets acquired and liabilities assumed, as well as any contingent consideration, as of the date of acquisition. The fair values of the long-lived assets acquired, primarily intangible assets, are determined using calculations which can be complex and require significant judgment. Estimates include many factors such as the nature of the acquired company's business, its historical financial position and results, technology obsolescence, customer retention rates, discount rates, royalty rates and expected future performance. Independent valuation specialists are used to assist in determining certain fair value calculations.

While we use our best estimates and assumptions, especially at the acquisition date, including estimates for intangible assets, pre-acquisition contingencies and contingent considerations, the fair value estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Any adjustments required after the measurement period are recorded in the Consolidated Statements of Income. The judgments required in determining the estimated fair values and expected useful lives assigned to each class of assets and liabilities acquired can affect net income.

Revenue Recognition

We recognize revenue when (or as) we satisfy a performance obligation by transferring control to a customer. Transfer of control is evaluated based on the customer's ability to direct the use of and obtain substantially all of the benefits of a performance obligation. Revenue is recognized either over time or at a point in time, depending on the specific facts and circumstances for each contract, including the terms and conditions of the contract as agreed with the customer and the nature of the products or services to be provided. Service-related revenues do not typically represent a significant portion of the contracts with our customers and do not meet the thresholds requiring separate disclosure.

Our primary method for recognizing revenue over time is the percentage of completion ("POC") method, whereby progress towards completion is measured by applying an input measure based on costs incurred to date relative to total estimated costs at completion. If control of the products and/or services does not transfer over time, then control transfers at a point in time. We determine the point in time that control transfers to a customer based on the evaluation of specific indicators, such as title transfer, risk of loss transfer, customer acceptance and physical possession. For a discussion related to revenue recognition refer to Note 3, "Revenue Recognition," included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

Deferred Taxes, Tax Valuation Allowances and Tax Reserves

We recognize valuation allowances to reduce the carrying value of deferred tax assets to amounts that we expect are more likely than not to be realized. Our valuation allowances primarily relate to the deferred tax assets established for certain tax credit carryforwards, capital loss carryforwards, and net operating loss carryforwards for non-U.S. subsidiaries, and we evaluate the realizability of our deferred tax assets and adjust the amount of the valuation allowances, if necessary. We assess such factors as our forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets in determining the sufficiency of our valuation allowances. Failure to achieve forecasted taxable income in the applicable tax jurisdictions could affect the ultimate realization of deferred tax assets and could result in an increase in our effective tax rate on future earnings. Implementation of different tax structures in certain jurisdictions could, if successful, result in future reductions of certain valuation allowances.

The amount of income taxes we pay is subject to ongoing audits by federal, state and foreign tax authorities, which often result in proposed assessments. Significant judgment is required in determining income tax provisions and evaluating

tax positions. We establish reserves for open tax years for uncertain tax positions that may be subject to challenge by various tax authorities. The consolidated tax provision and related accruals include the impact of such reasonably estimable losses and related interest and penalties as deemed appropriate. Tax benefits recognized in the financial statements from uncertain tax positions are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

While we believe we have adequately provided for any reasonably foreseeable outcomes related to these matters, our future results may include favorable or unfavorable adjustments to our estimated tax liabilities. To the extent that the expected tax outcome of these matters changes, such changes in estimate will impact the income tax provision in the period in which such determination is made. For a discussion related to deferred taxes, tax valuation allowances and tax reserves refer to Note 19, "Income Taxes," included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

Reserves for Contingent Loss

We are a defendant in a number of lawsuits that seek to recover damages for personal injury allegedly resulting from exposure to asbestos-containing products formerly manufactured and/or distributed by heritage companies of the Company. We have estimated that the liability for pending and future claims not yet asserted, and which are probable and estimable, could be experienced through 2054, which represents the expected end of our asbestos liability exposure with no further ongoing claims expected beyond that date. In light of the uncertainties and variables inherent in the long-term projection of the total asbestos liability, as part of our ongoing review of asbestos claims, each year we will reassess the projected liability of unasserted asbestos claims to be filed through 2054, and we will continually reassess the time horizon over which a reasonable estimate of unasserted claims can be projected.

In connection with our ongoing review of asbestos-related claims, we have also reviewed the amount of potential insurance coverage for such claims, taking into account the remaining limits of such coverage, the number and amount of claims on our insurance from co-insured parties, ongoing litigation against the Company's insurers, potential remaining recoveries from insolvent insurers, the impact of previous insurance settlements and coverage available from solvent insurers not party to the coverage litigation. We review ongoing insurance coverage available for a significant amount of the potential future asbestos-related claims and in the future could secure additional insurance coverage as deemed necessary. For a discussion pertaining to asbestos claims refer to Note 16, "Legal Matters and Contingencies," included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

Liabilities are recorded for various non-asbestos contingencies arising in the normal course of business when it is both probable that a loss has been incurred and such loss is reasonably estimable. Assessments of reserves are based on information obtained from our independent and in-house experts, including recent legal decisions and loss experience in similar situations. The recorded legal reserves are susceptible to changes due to new developments regarding the facts and circumstances of each matter, changes in political environments, legal venue and other factors. Recorded environmental reserves could change based on further analysis of our properties, technological innovation and regulatory environment changes.

Pension and Postretirement Benefits

We provide pension and postretirement benefits to certain of our employees, including former employees, and their beneficiaries. The assets, liabilities and expenses we recognize and disclosures we make about plan actuarial and financial information are dependent on the assumptions and estimates used in calculating such amounts. The assumptions include factors such as discount rates, health care cost trend rates, inflation, expected rates of return on plan assets, retirement rates, mortality rates, turnover, rates of compensation increases and other factors.

The assumptions utilized to compute expense and benefit obligations are shown in Note 14, "Pension and Postretirements Benefits," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report. These assumptions are assessed annually in consultation with independent actuaries and investment advisors as of December 31 and adjustments are made as needed. We evaluate prevailing market conditions and local laws and requirements in countries where plans are maintained, including appropriate rates of return, interest rates and medical inflation (health care cost trend) rates. We ensure that our significant assumptions are within the reasonable range relative to market data. The methodology to set our significant assumptions includes:

- Discount rates are estimated using high quality debt securities based on corporate or government bond yields with a duration matching the expected benefit payments. For the United States, the discount rate is obtained from an analysis of publicly-traded investment-grade corporate bonds to establish a weighted average discount rate. For

plans in the United Kingdom and the Eurozone we use the discount rate obtained from an analysis of AA-graded corporate bonds used to generate a yield curve. For other countries or regions without a corporate AA bond market, government bond rates are used. Our discount rate assumptions are impacted by changes in general economic and market conditions that affect interest rates on long-term high-quality debt securities, as well as the duration of our plans' liabilities.

- The expected rates of return on plan assets are derived from reviews of asset allocation strategies, expected long-term performance of asset classes, risks and other factors adjusted for our specific investment strategy. These rates are impacted by changes in general market conditions, but because they are long-term in nature, short-term market changes do not significantly impact the rates. Changes to our target asset allocation also impact these rates.
- The expected rates of increase in compensation levels reflect estimates due to general price levels, seniority, age and other factors.

Depending on the assumptions used, the pension and postretirement expense could vary within a range of outcomes and have a material effect on reported earnings. In addition, the assumptions can materially affect benefit obligations and future cash funding. Actual results in any given year may differ from those estimated because of economic and other factors.

We evaluate the funded status of each retirement plan using current assumptions and determine the appropriate funding level considering applicable regulatory requirements, tax deductibility, reporting considerations, cash flow requirements and other factors. We discuss our funding assumptions with the Technology, Risk and Finance Committee of our Board of Directors.

Valuation of Goodwill, Indefinite-Lived Intangible Assets and Other Long-Lived Assets

The initial recording of goodwill and intangible assets requires subjective judgments concerning estimates of the fair value of the acquired assets. We test the value of goodwill, indefinite-lived intangible assets and long-lived assets for impairment as of December 31 each year or whenever events or circumstances indicate such assets may be impaired. The test for goodwill impairment involves significant judgment in estimating projections of fair value generated through future performance of each of the reporting units. We did not record a material impairment for goodwill, indefinite-lived intangible assets or long-lived assets in 2024, 2023 or 2022.

Due to uncertain market conditions and potential changes in strategy and product portfolio, it is possible that forecasts used to support asset carrying values may change in the future, which could result in non-cash charges that would adversely affect our financial condition and results of operations. For a discussion pertaining to goodwill, indefinite-lived intangible assets and long-lived assets refer to Note 1 included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

ACCOUNTING DEVELOPMENTS

We have presented the information about accounting pronouncements not yet implemented in Note 1, "Basis of Presentation and Accounting Policies," to our consolidated financial statements included in "Item 8. Financial Statements and Supplementary Data" of this Annual Report.

ITEM 7A. *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

We have market risk exposure arising from changes in foreign currency exchange rate movements in foreign exchange forward contracts. We are exposed to credit-related losses in the event of non-performance by counterparties to financial instruments, but we currently expect the counterparties will continue to meet their obligations given their current creditworthiness.

Foreign Currency Exchange Rate Risk

A substantial portion of our operations are conducted by our subsidiaries outside of the United States in currencies other than the U.S. dollar. The primary currencies in which we operate, in addition to the U.S. dollar, are the Argentine peso, Australian dollar, Brazilian real, British pound, Canadian dollar, Chinese yuan, Colombian peso, Euro, Hungarian forint, Indian rupee, Japanese yen, Mexican peso, Singapore dollar and Malaysian ringgit. Almost all of our non-U.S. subsidiaries conduct their business primarily in their local currencies, which are also their functional currencies. Foreign currency exposures arise from translation of foreign-denominated assets and liabilities into U.S. dollars and from transactions, including firm commitments and anticipated transactions, denominated in a currency other than a non-U.S. subsidiary's functional currency. We recognized net gains (losses) associated with foreign currency translation of $(108.2) million, $30.8 million and $(98.7) million for the years ended December 31, 2024, 2023 and 2022, respectively, which are included in other comprehensive income (loss). The net loss in 2024 was primarily due to foreign currency translation adjustments resulting primarily from exchange rate movements of the Euro, Brazilian real and Mexican peso versus the U.S. dollar at December 31, 2024 as compared with December 31, 2023.

We employ a foreign currency risk management strategy to minimize potential changes in cash flows from unfavorable foreign currency exchange rate movements. Where available, the use of forward exchange contracts allows us to mitigate transactional exposure to exchange rate fluctuations as the gains or losses incurred on the foreign exchange forward contracts will help offset, in whole or in part, losses or gains on the underlying foreign currency exposure. Our policy allows foreign currency coverage only for identifiable foreign currency exposures. As of December 31, 2024, we had a U.S. dollar equivalent of $695.9 million in aggregate notional amount outstanding in foreign exchange contracts with third parties, compared with $656.6 million at December 31, 2023. Transactional currency gains and losses arising from transactions outside of our sites' functional currencies and changes in fair value of foreign exchange contracts are included in our consolidated results of operations. We recognized foreign currency net gains (losses) of $2.3 million, $(41.1) million and $9.7 million for the years ended December 31, 2024, 2023 and 2022, respectively, which are included in other income (expense), net in the accompanying consolidated statements of income.

Based on a sensitivity analysis at December 31, 2024, a 10% change in the foreign currency exchange rates for the year ended December 31, 2024 would have impacted our net earnings by approximately $23 million. At December 31, 2023, a 10% change in the foreign currency exchange rates for the year ended December 31, 2023 would have impacted our net earnings by approximately $1 million. This calculation assumes that all currencies change in the same direction and proportion relative to the U.S. dollar and that there are no indirect effects, such as changes in non-U.S. dollar sales volumes or prices.

ITEM 8. ***FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Flowserve Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Flowserve Corporation and its subsidiaries (the "Company") as of December 31, 2024 and 2023, and the related consolidated statements of income, of comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2024, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control Over Financial Reporting, management has excluded MOGAS Industries, Inc., MOGAS Real Estate LLC and MOGAS Systems & Consulting LLC (such entities collectively, "MOGAS") from its assessment of internal control over financial reporting as of December 31, 2024 because it was acquired by the Company in a purchase business combination during 2024. We have also excluded MOGAS from our audit of internal control over financial reporting. MOGAS is a wholly-owned subsidiary whose total assets and total revenues

excluded from management's assessment and our audit of internal control over financial reporting represent approximately 3% and less than 1%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2024.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters 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.

Goodwill Impairment Test FPD Reporting Unit

As described in Note 1 and 6 to the consolidated financial statements, the Company's consolidated goodwill balance was $1,286.3 million as of December 31, 2024, and the goodwill associated with the FPD reporting unit was approximately $766 million. The value of goodwill is tested for impairment as of December 31 each year or whenever events or circumstances indicate goodwill may be impaired. If the carrying value of a reporting unit exceeds its fair value, the goodwill of that reporting unit is impaired and an impairment loss is recorded equal to the excess of the carrying value over its fair value. Fair value is estimated using a discounted cash flow analysis, which requires management to make various judgmental assumptions about future sales, operating margins, growth rates and discount rate.

The principal considerations for our determination that performing procedures relating to the goodwill impairment test of the FPD reporting unit is a critical audit matter are (i) the significant judgment by management when estimating the fair value of the reporting unit; (ii) a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating management's significant assumption related to the discount rate; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment test, including controls over the valuation of the FPD reporting unit. These procedures also included, among others (i) testing management's process for estimating the fair value of the FPD reporting unit, (ii) evaluating the appropriateness of the discounted cash flow analysis, (iii) testing the completeness and accuracy of underlying data used in the analysis, and (iv) evaluating the significant assumption used by management related to the discount rate. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flow analysis and assumption related to the discount rate.

/s/ PricewaterhouseCoopers LLP

Dallas, Texas
February 26, 2025

We have served as the Company's auditor since 2000.

FLOWSERVE CORPORATION

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2024	2023
	(Amounts in thousands, except per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 675,441	$ 545,678
Accounts receivable, net of allowance for expected credit losses of $79,059 and $80,013, respectively	976,739	881,869
Contract assets, net	298,906	280,228
Inventories	837,254	879,937
Prepaid expenses and other	116,157	116,065
Total current assets	2,904,497	2,703,777
Property, plant and equipment, net	539,703	506,158
Operating lease right-of-use assets, net	159,400	156,430
Goodwill	1,286,295	1,182,225
Deferred taxes	221,742	218,358
Other intangible assets, net	188,604	122,248
Other assets, net	200,580	219,523
Total assets	$ 5,500,821	$ 5,108,719
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 545,310	$ 547,824
Accrued liabilities	561,486	504,430
Contract liabilities	283,670	287,697
Debt due within one year	44,059	66,243
Operating lease liabilities	33,559	32,382
Total current liabilities	1,468,084	1,438,576
Long-term debt due after one year	1,460,132	1,167,307
Operating lease liabilities	149,838	138,665
Retirement obligations and other liabilities	371,055	389,120
Commitments and contingencies (See Note 16)		
Shareholders' equity:		
Common shares, $1.25 par value	220,991	220,991
Shares authorized — 305,000		
Shares issued — 176,793 and 176,793, respectively		
Capital in excess of par value	502,045	506,525
Retained earnings	4,025,750	3,854,717
Treasury shares, at cost — 45,688 and 45,885 shares, respectively	(2,007,869)	(2,014,474)
Deferred compensation obligation	8,172	7,942
Accumulated other comprehensive loss	(741,424)	(639,601)
Total Flowserve Corporation shareholders' equity	2,007,665	1,936,100
Noncontrolling interests	44,047	38,951
Total equity	2,051,712	1,975,051
Total liabilities and equity	$ 5,500,821	$ 5,108,719

See accompanying notes to consolidated financial statements.

FLOWSERVE CORPORATION

CONSOLIDATED STATEMENTS OF INCOME

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands, except per share data)		
Sales	$ 4,557,806	$ 4,320,577	$ 3,615,120
Cost of sales	(3,123,560)	(3,043,749)	(2,620,825)
Gross profit	1,434,246	1,276,828	994,295
Selling, general and administrative expense	(978,037)	(961,169)	(815,545)
Loss on sale of business	(12,981)	—	—
Net earnings from affiliates	19,051	17,894	18,469
Operating income	462,279	333,553	197,219
Interest expense	(69,301)	(66,924)	(46,247)
Interest income	5,371	6,991	3,963
Other income (expense), net	(12,194)	(49,870)	(559)
Earnings before income taxes	386,155	223,750	154,376
(Provision for) benefit from income taxes	(84,929)	(18,562)	43,639
Net earnings, including noncontrolling interests	301,226	205,188	198,015
Less: Net earnings attributable to noncontrolling interests	(18,467)	(18,445)	(9,326)
Net earnings attributable to Flowserve Corporation	$ 282,759	$ 186,743	$ 188,689
Net earnings per share attributable to Flowserve Corporation common shareholders:			
Basic	$ 2.15	$ 1.42	$ 1.44
Diluted	2.14	1.42	1.44
Weighted average shares – basic	131,488	131,117	130,630
Weighted average shares – diluted	132,356	131,931	131,315

See accompanying notes to consolidated financial statements.

FLOWSERVE CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Net earnings, including noncontrolling interests	$ 301,226	$ 205,188	$ 198,015
Other comprehensive income (loss):			
Foreign currency translation adjustments, net of taxes of $(3,023), $3,735 and $(20,526) in 2024, 2023 and 2022, respectively	(108,224)	30,810	(98,658)
Pension and other postretirement effects, net of taxes of $(128), $8,700 and $(8,423) in 2024, 2023 and 2022, respectively	5,984	(35,526)	15,309
Cash flow hedging activity, net of taxes of $(57), $0 and $286 in 2024, 2023 and 2022, respectively	66	120	403
Other comprehensive income (loss)	(102,174)	(4,596)	(82,946)
Comprehensive income, including noncontrolling interests	199,052	200,592	115,069
Comprehensive (income) attributable to noncontrolling interests	(18,117)	(5,661)	(10,579)
Comprehensive income attributable to Flowserve Corporation	$ 180,935	$ 194,931	$ 104,490

See accompanying notes to consolidated financial statements.

FLOWSERVE CORPORATION

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Total Flowserve Corporation Shareholders' Equity									
	Common Stock		Capital in Excess of Par Value	Retained Earnings	Treasury Stock		Deferred Compensation Obligation	Accumulated Other Comprehensive Income (Loss)	Noncontrolling Interests	Total Equity
	Shares	Amount			Shares	Amount				
	(Amounts in thousands)									
Balance—January 1, 2022	176,793	$ 220,991	$ 506,386	$ 3,691,023	(46,794)	$ (2,057,706)	$ 7,214	$ (563,589)	$ 33,026	$ 1,837,345
Stock activity under stock plans	—	—	(24,432)	—	435	20,824	(235)	—	—	(3,843)
Stock-based compensation	—	—	25,530	—	—	—	—	—	—	25,530
Net earnings	—	—	—	188,689	—	—	—	—	9,326	198,015
Cash dividends declared ($0.80 per share)	—	—	—	(105,503)	—	—	—	—	—	(105,503)
Repurchases of common shares	—	—	—	—	—	—	—	—	—	—
Other comprehensive income (loss), net of tax	—	—	—	—	—	—	—	(84,199)	1,253	(82,946)
Other, net	—	—	—	—	—	—	—	—	(9,991)	(9,991)
Balance—December 31, 2022	176,793	$ 220,991	$ 507,484	$ 3,774,209	(46,359)	$ (2,036,882)	$ 6,979	$ (647,788)	$ 33,614	$ 1,858,607
Stock activity under stock plans	—	—	(28,767)	—	474	22,408	963	—	—	(5,396)
Stock-based compensation	—	—	27,808	—	—	—	—	—	—	27,808
Net earnings	—	—	—	186,743	—	—	—	—	18,445	205,188
Cash dividends declared ($0.80 per share)	—	—	—	(106,235)	—	—	—	—	—	(106,235)
Other comprehensive income (loss), net of tax	—	—	—	—	—	—	—	8,187	(12,783)	(4,596)
Other, net	—	—	—	—	—	—	—	—	(325)	(325)
Balance—December 31, 2023	176,793	$ 220,991	$ 506,525	$ 3,854,717	(45,885)	$ (2,014,474)	$ 7,942	$ (639,601)	$ 38,951	$ 1,975,051
Stock activity under stock plans	—	—	(34,954)	—	621	26,675	230	—	—	(8,049)
Stock-based compensation	—	—	30,474	—	—	—	—	—	—	30,474
Net earnings	—	—	—	282,759	—	—	—	—	18,467	301,226
Cash dividends declared ($0.84 per share)	—	—		(111,726)	—	—	—	—		(111,726)
Repurchases of common shares	—	—	—	—	(424)	(20,070)	—	—	—	(20,070)
Other comprehensive income (loss), net of tax	—	—	—	—	—	—	—	(101,824)	(350)	(102,174)
Other, net	—	—	—	—	—	—	—	1	(13,021)	(13,020)
Balance—December 31, 2024	176,793	$ 220,991	$ 502,045	$ 4,025,750	(45,688)	$ (2,007,869)	$ 8,172	$ (741,424)	$ 44,047	$ 2,051,712

See accompanying notes to consolidated financial statements.

FLOWSERVE CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Cash flows — Operating activities:			
Net earnings, including noncontrolling interests	$ 301,226	$ 205,188	$ 198,015
Adjustments to reconcile net earnings to net cash provided (used) by operating activities:			
Depreciation	75,849	73,464	77,636
Amortization of intangible and other assets	9,749	10,283	13,317
Loss on sale of business	12,981	—	—
Stock-based compensation	30,474	27,808	25,530
Foreign currency, asset write downs and other non-cash adjustments	24,172	(17,331)	(27,758)
Change in assets and liabilities, net of effects of businesses acquired:			
Accounts receivable, net	(82,188)	4,744	(152,011)
Inventories	38,872	(59,831)	(147,492)
Contract assets, net	(18,513)	(41,149)	(41,768)
Prepaid expenses and other assets, net	15,116	7,825	17,461
Accounts payable	(12,336)	53,065	78,968
Contract liabilities	(6,070)	26,837	61,684
Accrued liabilities	49,578	59,213	(5,226)
Retirement obligations and other	1,456	38,497	(1,430)
Net deferred taxes	(15,058)	(62,841)	(136,936)
Net cash flows provided (used) by operating activities	425,308	325,772	(40,010)
Cash flows — Investing activities:			
Capital expenditures	(81,019)	(67,359)	(76,287)
Payments for acquisition, net of cash acquired	(305,924)	—	—
Proceeds from disposal of assets	2,244	2,057	4,422
Payments for disposition of business	(2,555)	—	—
Proceeds from termination of cross-currency swap	—	—	66,004
Affiliate investment activity	40	(3,278)	(225)
Net cash flows provided (used) by investing activities	(387,214)	(68,580)	(6,086)
Cash flows — Financing activities:			
Proceeds from term loan	366,000	—	—
Payments on term loan	(95,375)	(40,000)	(32,500)
Proceeds under revolving credit facility	100,000	280,000	45,000
Payments under revolving credit facility	(100,000)	(280,000)	(45,000)
Proceeds under other financing arrangements	1,437	1,114	1,733
Payments under other financing arrangements	(1,455)	(2,604)	(1,790)
Payments related to tax withholding for stock-based compensation	(9,581)	(6,245)	(4,683)
Repurchases of common shares	(20,070)	—	—
Payments of dividends	(110,440)	(104,955)	(104,549)
Other	(13,021)	(324)	(8,223)
Net cash flows provided (used) by financing activities	117,495	(153,014)	(150,012)
Effect of exchange rate changes on cash	(25,826)	6,529	(27,373)
Net change in cash and cash equivalents	129,763	110,707	(223,481)
Cash and cash equivalents at beginning of year	545,678	434,971	658,452
Cash and cash equivalents at end of year	$ 675,441	$ 545,678	$ 434,971
Supplemental Cash Flow Information:			
Income taxes paid (net of refunds)	$ 81,172	$ 119,275	$ 60,085
Interest paid	66,809	64,865	41,629
Non-Cash Investing and Financing Activities:			
Contingent liabilities incurred related to acquired business, but not paid	$ 15,000	$ —	$ —

See accompanying notes to consolidated financial statements.

1. SIGNIFICANT ACCOUNTING POLICIES AND ACCOUNTING DEVELOPMENTS

We are principally engaged in the worldwide design, manufacture, distribution and service of industrial flow management equipment. We provide long lead time, custom and other highly engineered pumps; standardized, general-purpose pumps; mechanical seals; engineered and industrial valves; related automation products; and services and solutions primarily for oil and gas, chemical, power generation, water management and other general industries requiring flow management products and services. Equipment manufactured and serviced by us is predominantly used in industries that deal with difficult-to-handle and corrosive fluids, as well as environments with extreme temperatures, pressure, horsepower and speed. Our business is affected by economic conditions in the United States ("U.S.") and other countries where our products are sold and serviced, by the cyclical nature and competitive environment of our industries served, by the relationship of the U.S. dollar to other currencies and by the demand for and pricing of our customers' end products.

Russia and Ukraine Conflict - In response to the Russia-Ukraine conflict, several countries, including the United States, have imposed economic sanctions and export controls on certain industry sectors and parties in Russia. As a result of this conflict, including the aforementioned sanctions and overall instability in the region, in March 2022 we permanently ceased all Company operations in Russia.

In the first quarter of 2022, we recorded a $20.2 million pre-tax charge ($21.0 million after-tax) to reserve the asset positions of our Russian subsidiary (excluding cash) as of March 31, 2022, to record contra-revenue for previously recognized revenue and estimated cancellation fees on open contracts that were previously accounted for under the percentage of completion ("POC") method and subsequently canceled, to establish a reserve for the estimated cost to exit the operations of our Russian subsidiary and to record a reserve for our estimated financial exposure on contracts that have been or are anticipated to be canceled.

In addition, we reevaluated our financial exposure as of December 31, 2022 and recorded an incremental $13.6 million pre-tax charge ($9.8 million after-tax) in the fourth quarter of 2022 for additional contract cancellation fees, to reserve our residual financial exposure due to increased Russia sanctions imposed during the latter part of 2022 and our decision to cancel backlog as a result of the additional sanctions.

We continue to monitor the situation involving Russia and Ukraine and its impact on the rest of our global business. This includes the macroeconomic impact, including with respect to global supply chain issues and inflationary pressures. We reevaluated our financial exposure and made a $2 million adjustment during the period ended March 31, 2024 to reduce the existing reserves. We made no further adjustments through December 31, 2024. To date, impacts have not been material to our business and we do not currently expect that any incremental impact in future quarters, including any financial impacts caused by our cancellation of customer contracts and ceasing of operations in Russia, will be material to the Company.

The following table presents the above impacts of the Russia pre-tax charge for the year ended December 31, 2022:

	Year Ended December 31, 2022		
(Amounts in thousands)	Flowserve Pumps Division	Flow Control Division	Consolidated Total
Sales	$ (9,330)	$ —	$ (9,330)
Cost of sales ("COS")	7,442	1,418	8,860
Gross loss	(16,772)	(1,418)	(18,190)
Selling, general and administrative expense ("SG&A")	13,977	1,720	15,697
Operating loss	$ (30,749)	$ (3,138)	$ (33,887)

Terminated Acquisition — On February 9, 2023, the Company entered into a definitive agreement to acquire all of the outstanding equity of Velan Inc., a manufacturer of highly engineered industrial valves. In October 2023, we received

notice that the required French foreign investment screening approval was not obtained. As a result, the transaction was terminated. According to the terms of the agreement, no termination fee was paid by either party. Acquisition related expenses incurred during 2023 associated with the transaction were $7.3 million.

NAF AB Divestiture — Effective May 4, 2024, we divested NAF AB, a previously wholly owned subsidiary and control valves business within our Flow Control Division ("FCD") segment, including the NAF AB facility located in Linkoping, Sweden. The sale included cash paid to the buyer of $2.6 million and resulted in both a pre-tax and after-tax loss of $13.0 million recorded in loss on sale of business in the consolidated statements of income in the period ended June 30, 2024. In 2024, through the date of disposition, we recorded revenues of approximately $3.0 million and an immaterial amount of operating income.

Principles of Consolidation — The consolidated financial statements include the accounts of our company and our wholly and majority owned subsidiaries. In addition, we consolidate any variable interest entities for which we are deemed to be the primary beneficiary. Noncontrolling interests of non-affiliated parties have been recognized for all majority-owned consolidated subsidiaries. Intercompany profits/losses, transactions and balances among consolidated entities have been eliminated from our consolidated financial statements.

In the ordinary course of our operations worldwide, we have entered into joint ventures and interests (collectively referred to as “affiliates”) to provide greater flexibility in delivering our products and services, gain access to markets and geographical locations and reduce exposure and diversify risk. Investments in affiliate companies with a noncontrolling ownership interests between 20% and 50%, are unconsolidated and are accounted for using the equity method, which approximates our equity interest in their underlying equivalent net book value under accounting principles generally accepted in the U.S. ("U.S. GAAP"). All equity method investments are reviewed for impairment whenever events and conditions indicate that a decrease in the value of an investment has occurred that is other than temporary. If impaired, an impairment loss representing the difference between our carrying value and fair value is recorded and the investment is written down to a new carrying value. Investment in affiliate companies where we own less than 20% are accounted for by the cost method, whereby income is only recognized in the event of dividend receipt. Investments accounted for by the cost method are tested for impairment if an impairment indicator is present.

Use of Estimates — The process of preparing financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect reported amounts of certain assets, liabilities, revenues and expenses. We believe our estimates and assumptions are reasonable; however, actual results may differ materially from such estimates. The most significant estimates and assumptions are used in determining:

- Timing and amount of revenue recognition;
- Deferred taxes, tax valuation allowances and tax reserves;
- Reserves for contingent loss;
- Pension and postretirement benefits;
- Valuation of goodwill, indefinite-lived intangible assets and other long-lived assets; and
- Assets and liabilities acquired in a business combination.

Revenue Recognition — The majority of our revenues relate to customer orders that typically contain a single commitment of goods or services which have lead times under a year. More complex contracts with our customers typically have longer lead times and multiple commitments of goods and services, including any combination of designing, developing, manufacturing, modifying, installing and commissioning of flow management equipment and providing services and parts related to the performance of such products. We recognize revenue when (or as) we satisfy a performance obligation by transferring control to a customer. Transfer of control is evaluated based on the customer’s ability to direct the use of and obtain substantially all of the benefits of a performance obligation. Revenue is recognized either over time or at a point in time, depending on the specific facts and circumstances for each contract, including the terms and conditions of the contract as agreed with the customer and the nature of the products or services to be provided. Service-related revenues do not typically represent a significant portion of the contracts with our customers and do not meet the thresholds requiring separate disclosure.

Our primary method for recognizing revenue over time is the POC method, whereby progress towards completion is measured by applying an input measure based on costs incurred to date relative to total estimated costs at completion. If

control of the products and/or services does not transfer over time, then control transfers at a point in time. We determine the point in time that control transfers to a customer based on the evaluation of specific indicators, such as title transfer, risk of loss transfer, customer acceptance and physical possession. For a detailed discussion related to revenue recognition refer to Note 3, "Revenue Recognition."

Cash and Cash Equivalents — We place temporary cash investments with financial institutions and, by policy, invest in those institutions and instruments that have minimal credit risk and market risk. These investments, with an original maturity of three months or less when purchased, are classified as cash equivalents. They are highly liquid and principal values are not subject to significant risk of change due to interest rate fluctuations.

Accounts Receivable, Allowance for Expected Credit Losses and Credit Risk — Trade accounts receivables are recorded at the invoiced amount and do not bear interest. We establish an allowance for expected credit losses on an aging schedule and according to historical losses as determined from our billings and collections history. Additionally, we consider factors that are specific to our customers' credit risk such as financial difficulties, liquidity issues, insolvency, and country and political risk. We also consider both the current and forecasted direction of macroeconomic conditions at the reporting date in estimating expected credit losses. Receivables are written off against the allowance in the period when the receivable is deemed to be uncollectible and further collection efforts have ceased. Subsequent recoveries of amounts previously written off are reflected as a reduction to credit impairment losses in the income statement.

Credit risks are mitigated by the diversity of our customer base across many different geographic regions and industries and by performing creditworthiness analyses on our customers. Additionally, we mitigate credit risk through letters of credit and advance payments received from our customers. We do not believe that we have any other significant concentrations of credit risk.

Inventories and Related Reserves — Inventories are stated at the lower of cost or net realizable value. Cost is determined by the first-in, first-out method. Reserves for excess and obsolete inventories are based upon our assessment of market conditions for our products determined by historical usage and estimated future demand. Due to the long life cycles of our products, we carry spare parts inventories that have historically low usage rates and provide reserves for such inventory based on demonstrated usage and aging criteria.

Income Taxes, Deferred Taxes, Tax Valuation Allowances and Tax Reserves — We account for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are calculated using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that includes the enactment date. We record valuation allowances to reduce the carrying value of deferred tax assets to amounts that we expect are more likely than not to be realized. We assess existing deferred tax assets, net operating losses and tax credits by jurisdiction and expectations of our ability to utilize these tax attributes through a review of past, current and estimated future taxable income and establishment of tax planning strategies.

We provide deferred taxes for the temporary differences associated with our investment in foreign subsidiaries that have a financial reporting basis that exceeds tax basis, unless we can assert permanent reinvestment in foreign jurisdictions. Financial reporting basis and tax basis differences in investments in foreign subsidiaries consist of both unremitted earnings and losses, as well as foreign currency translation adjustments.

The amount of income taxes we pay is subject to ongoing audits by federal, state, and foreign tax authorities, which often result in proposed assessments. We establish reserves for open tax years for uncertain tax positions that may be subject to challenge by various tax authorities. The consolidated tax provision and related accruals include the impact of such reasonably estimable losses and related interest and penalties as deemed appropriate.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities. The determination is based on the technical merits of the position and presumes that each uncertain tax position will be examined by the relevant taxing authority that has full knowledge of all relevant information. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

Legal and Environmental Contingencies — Legal and environmental reserves are recorded based upon a case-by-case analysis of the relevant facts and circumstances and an assessment of potential legal obligations and costs. Amounts relating to legal and environmental liabilities are recorded when it is probable that a loss has been incurred and such loss is reasonably estimable. Assessments of legal and environmental costs are based on information obtained from our independent and in-house experts and our loss experience in similar situations. Estimates are updated as applicable when new information regarding the facts and circumstances of each matter becomes available. Legal fees associated with legal and environmental liabilities are expensed as incurred.

We are a defendant in a number of lawsuits that seek to recover damages for personal injury allegedly resulting from exposure to asbestos-containing products formerly manufactured and/or distributed by heritage companies of the Company. We have estimated that the liability for pending and future claims not yet asserted, and which are probable and estimable, could be experienced through 2054, which represents the expected end of our asbestos liability exposure with no further ongoing claims expected beyond that date. This estimate is based on the Company's historical claim experience and estimates of the number and resolution cost of potential future claims that may be filed based on anticipated levels of unique plaintiff asbestos-related claims in the U.S. tort system against all defendants, the diminished volatility and consistency of observable claims data, the period of time that has elapsed since we stopped manufacturing products that contained encapsulated asbestos and an expected downward trend in claims due to the average age of our claimants. This estimate is not discounted. In light of the uncertainties and variables inherent in the long-term projection of the total asbestos liability, as part of our ongoing review of asbestos claims, each year we will reassess the projected liability of unasserted asbestos claims to be filed through 2054, and we will continually reassess the time horizon over which a reasonable estimate of unasserted claims can be projected.

We assess the sufficiency of the estimated liability for pending and future claims on an ongoing basis by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, we consider additional quantitative and qualitative factors such as changes in legislation, the legal environment and the Company's defense strategy. In connection with our ongoing review of asbestos-related claims, we have also reviewed the amount of potential insurance coverage for such claims, taking into account the remaining limits of such coverage, the number and amount of claims on our insurance from co-insured parties, ongoing litigation against the Company’s insurers, potential remaining recoveries from insolvent insurers, the impact of previous insurance settlements and coverage available from solvent insurers not party to the coverage litigation. We review ongoing insurance coverage available for a significant amount of the potential future asbestos-related claims and in the future could secure additional insurance coverage as deemed necessary.

The study from the Company's actuary, based on data as of June 30, 2024, provided for a range of possible future liability from approximately $93.2 million to $143.7 million. The Company does not believe any amount within the range of potential outcomes represents a better estimate than another given the many factors and assumptions inherent in the projections and therefore the Company has recorded the liability at the actuarial central estimate of approximately $110.3 million as of December 31, 2024. In addition, the Company has recorded estimated insurance receivables of approximately $35.8 million as of December 31, 2024. The amounts recorded for the asbestos-related liability and the related insurance receivables are based on facts known at the time and a number of assumptions. However, projecting future events, such as the number of new claims to be filed each year, the length of time it takes to defend, resolve, or otherwise dispose of such claims, coverage issues among insurers and the continuing solvency of various insurance companies, as well as the numerous uncertainties surrounding asbestos litigation in the United States, could cause the actual liability and insurance recoveries for us to be higher or lower than those projected or recorded. Additionally, we have claims pending against certain insurers that, if resolved more favorably than reflected in the recorded receivables, would result in discrete gains in the applicable year. Changes recorded in the estimated liability and estimated insurance recovery based on projections of asbestos litigation and corresponding insurance coverage, result in the recognition of additional expense or income. For a discussion pertaining to the activity related to asbestos claims refer to Note 16, "Legal Matters and Contingencies."

Warranty Accruals — Warranty obligations are based upon product failure rates, materials usage, service delivery costs, an analysis of all identified or expected claims and an estimate of the cost to resolve such claims. The estimates of expected claims are generally a factor of historical claims and known product issues. Warranty obligations based on these factors are adjusted based on historical sales trends for the preceding 24 months.

Insurance Accruals — Insurance accruals are recorded for wholly or partially self-insured risks such as medical benefits and workers’ compensation and are based upon an analysis of our claim loss history, insurance deductibles, policy

limits and other relevant factors that are updated annually and are included in accrued liabilities in our consolidated balance sheets. The estimates are based upon information received from actuaries, insurance company adjusters, independent claims administrators or other independent sources. Receivables from insurance carriers are estimated using our historical experience with insurance recovery rates and estimates of future recoveries, which include estimates of coverage and financial viability of our insurance carriers. Estimated receivables are included in accounts receivable, net and other assets, net, as applicable, in our consolidated balance sheets.

Pension and Postretirement Obligations — Determination of pension and postretirement benefits obligations is based on estimates made by management in consultation with independent actuaries and investment advisors. Inherent in these valuations are assumptions including discount rates, expected rates of return on plan assets, retirement rates, mortality rates and rates of compensation increase and other factors all of which are reviewed annually and updated if necessary. Current market conditions, including changes in rates of return, interest rates and medical inflation rates, are considered in selecting these assumptions.

Actuarial gains and losses and prior service costs are recognized in accumulated other comprehensive loss as they arise and we amortize these costs into net pension expense over the remaining expected service period.

Property, Plant and Equipment and Depreciation — Property, plant and equipment are stated at historical cost, less accumulated depreciation. If asset retirement obligations exist, they are capitalized as part of the carrying amount of the asset and depreciated over the remaining useful life of the asset. The useful lives of leasehold improvements are the lesser of the remaining lease term or the useful life of the improvement. When assets are retired or otherwise disposed of, their costs and related accumulated depreciation are removed from the accounts and any resulting gains or losses are included in income from operations for the period. Depreciation is computed by the straight-line method based on the estimated useful lives of the depreciable assets, or in the case of assets under finance leases, over the related lease term. Generally, the estimated useful lives of the assets are:

Buildings and improvements	10 to 40 years
Machinery, equipment and tooling	3 to 14 years
Software, furniture and fixtures and other	3 to 7 years

Costs related to routine repairs and maintenance are expensed as incurred.

Leases — We have operating and finance leases for certain manufacturing facilities, offices, service and quick response centers, machinery, equipment and automobiles. Our leases have remaining lease terms of up to 28 years. The terms and conditions of our leases may include options to extend or terminate the lease which are considered and included in the lease term when these options are reasonably certain of exercise.

We determine if a contract is, or contains, a lease at inception by evaluating whether the contract conveys the right to control the use of an identified asset. For all classes of leased assets, we account for any non-lease components in the contract together with the related lease component in the same unit of account. For lease contracts containing more than one lease component, we allocate the contract consideration to each of the lease components on the basis of relative standalone prices in order to identify the lease payments for each lease component.

Right-of-use ("ROU") assets and lease liabilities are recognized in our consolidated balance sheets at the commencement date based on the present value of remaining lease payments over the lease term. Additionally, ROU assets include any lease payments made at or before the commencement date, as well as any initial direct costs incurred, and are reduced by any lease incentives received. In determining the discount rate used to measure the right-of-use asset and lease liability, we utilize the Company's incremental borrowing rate and consider the term of the lease, as well as the geographic location of the leased asset. Our incremental borrowing country-specific rate is determined based on information available at the commencement date of the lease.

Operating leases are included in operating lease right-of-use assets, net and operating lease liabilities in our consolidated balance sheets. Finance leases are included in property, plant and equipment, debt due within one year and long-term debt due after one year in our consolidated balance sheets.

For all classes of leased assets, we have applied an accounting policy election to exclude short-term leases from recognition in our consolidated balance sheets. A short-term lease has a lease term of 12 months or less at the commencement date and does not include a purchase option that is reasonably certain of exercise. We recognize short-term lease expense in our consolidated income statements on a straight-line basis over the lease term. Our short-term lease expense and short-term lease commitments as of December 31, 2024 are immaterial.

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

We have certain lease contracts where we provide a guarantee to the lessor that the value of an underlying asset will be at least a specified amount at the end of the lease. Estimated amounts expected to be paid for residual value guarantees are included in lease liabilities and ROU assets.

Supplier Finance Programs — We partner with two banks to offer our suppliers the option of participating in a supplier financing program and receive payment early. Under the program agreement, we must reimburse each bank for approved and valid invoices in accordance with the originally agreed upon terms with the supplier. We have no obligation for fees; subscription, service, commissions or otherwise with either bank. We also have no obligation for pledged assets or other forms of guarantee and may terminate either program agreement with appropriate notice. As of December 31, 2024, $8.6 million remained outstanding with the supply chain financing partner banks and recorded within accounts payable on our consolidated balance sheet.

The rollforward of our outstanding obligations confirmed as valid under the supplier finance programs for the year ended December 31, 2024 is as follows:

(Amounts in thousands)		**2024**
Obligations outstanding at the beginning of the year	$	13,527
Invoices confirmed		61,198
Confirmed invoices settled		66,154
Obligations outstanding at the end of the year	$	8,571

Internally Developed Software — We capitalize certain costs associated with the development of internal-use software. Generally, these costs are related to significant software development projects and are amortized over their estimated useful life, typically three to seven years, upon implementation of the software. We also capitalize certain costs incurred during the application development stage of implementation of cloud computing arrangements. Amounts capitalized for cloud arrangements are amortized on a straight-line basis over a period of three to seven years and are reported as a component of other long-term assets.

Intangible Assets — Intangible assets, excluding trademarks (which are considered to have an indefinite life), consist primarily of engineering drawings, patents, existing customer relationships, software, distribution networks, acquired backlog, and other items that are being amortized over their estimated useful lives generally ranging from one to 40 years. These assets are reviewed for impairment whenever events and circumstances indicate impairment may have occurred.

Valuation of Goodwill, Indefinite-Lived Intangible Assets and Other Long-Lived Assets — The value of goodwill and indefinite-lived intangible assets is tested for impairment as of December 31 each year or whenever events or circumstances indicate such assets may be impaired. The identification of our goodwill reporting units begins at the operating segment level and considered whether components one level below the operating segment levels should be identified as reporting units for the purpose of testing goodwill for impairment based on certain conditions. These conditions included, among other factors, (i) the extent to which a component represents a business and (ii) the aggregation of economically similar components within the operating segments based on the similarity of the nature of the products and services, the nature of the production processes, the methods of distribution and the types of industries served. This resulted in two reporting units that are consistent with our operating and reportable segments, FPD and FCD, as no components exist one level below the operating segment levels for which discrete financial information is available for review by segment management.

Accounting Standards Codification ("ASC") 350 allows an optional qualitative assessment, prior to a quantitative assessment test, to determine whether it is more likely than not that the fair value of a reporting unit exceeds its carrying

amount. For goodwill, we generally do not attempt a qualitative assessment and proceed directly to the quantitative assessment, except in instances where we have completed an acquisition shortly before our annual impairment assessment. If the carrying value of a reporting unit exceeds its fair value, the goodwill of that reporting unit is impaired and an impairment loss is recorded equal to the excess of the carrying value over its fair value. We estimate the fair value of our reporting units based on an income approach, whereby we calculate the fair value of a reporting unit based on the present value of estimated future cash flows. A discounted cash flow analysis requires us to make various judgmental assumptions about future sales, operating margins, growth rates and discount rate, which are based on our budgets, business plans, economic projections, anticipated future cash flows and market participants.

Based on our year-end annual analysis, we did not record an impairment of goodwill in 2024, 2023 or 2022. The FPD reporting unit is primarily focused on highly custom engineered pumps, pre-configured industrial pumps, pump systems, mechanical seals, auxiliary systems and replacement parts and related services. As of December 31, 2024 our FPD reporting unit had approximately $766 million of goodwill and an estimated fair value that exceeded its carrying value. The FCD reporting unit is primarily focused on a broad portfolio of engineered-to-order and configured-to-order isolation valves, control valves, valve automation products and related equipment. As of December 31, 2024 our FCD reporting unit had approximately $521 million of goodwill and an estimated fair value that exceeded its carrying value. The key factors considered in determining the estimated fair value of our reporting units included the annual operating plan and forecasted operating results, successful execution of our current continuous improvement and identified strategic initiatives, cost of capital, continued stabilization and mid to long-term improvement of the macro-economic conditions of the industries we serve, and a relatively stable global gross domestic product. Although we have concluded that there is no impairment on the goodwill associated with our reporting units as of December 31, 2024, we will continue to closely monitor performance and related market conditions for future indicators of potential impairment and reassess accordingly.

We also considered our market capitalization in our evaluation of the fair value of our goodwill. Our market capitalization as of December 31, 2024 was favorable compared with 2023 and did not indicate a potential impairment of our goodwill as of December 31, 2024.

Impairment losses for indefinite-lived intangible assets are recognized whenever the estimated fair value is less than the carrying value. Fair values are calculated for trademarks using a "relief from royalty" method, which estimates the fair value of a trademark by determining the present value of estimated royalty payments that are avoided as a result of owning the trademark. This method includes judgmental assumptions about sales growth and discount rates that have a significant impact on the fair value and are substantially consistent with the assumptions used to determine the fair value of our reporting unit discussed above. We did not record a material impairment of our trademarks in 2024, 2023 or 2022.

The recoverable value of other long-lived assets, including property, plant and equipment and finite-lived intangible assets, is reviewed when indicators of potential impairments are present. The recoverable value is based upon an assessment of the estimated future cash flows related to those assets, utilizing assumptions similar to those for goodwill. Additional considerations related to our long-lived assets include expected maintenance and improvements, changes in expected uses and ongoing operating performance and utilization.

Deferred Loan Costs — Deferred loan costs, consisting of fees and other expenses associated with debt financing, are amortized over the term of the associated debt using the effective interest method. Additional amortization is recorded in periods where optional prepayments on debt are made.

Fair Values of Financial Instruments — Our financial instruments are presented at fair value in our consolidated balance sheets, with the exception of our long-term debt. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or inputs are not available, valuation models may be applied.

Assets and liabilities recorded at fair value in our consolidated balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair values. Hierarchical levels, as defined by ASC 820, "Fair Value Measurements and Disclosures," are directly related to the amount of subjectivity associated with the inputs to fair valuation of these assets and liabilities. An asset or a liability's categorization within the fair value hierarchy is based on the lowest level of significant input to its valuation. Hierarchical levels are as follows:

Level I — Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level II — Inputs (other than quoted prices included in Level I) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level III — Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

Recurring fair value measurements are limited to investments in derivative instruments. The fair value measurements of our derivative instruments are determined using models that maximize the use of the observable market inputs including interest rate curves and both forward and spot prices for currencies, and are classified as Level II under the fair value hierarchy. The fair values of our derivative instruments are included in Note 9, "Derivatives and Hedging Activities."

Derivatives and Hedging Activities — We have a foreign currency derivatives and hedging policy outlining the conditions under which we can enter into financial derivative transactions. We do not use derivative instruments for trading or speculative purposes. All derivative instruments are recognized on the balance sheet at their fair values.

We employ a foreign currency economic hedging strategy to mitigate certain financial risks resulting from foreign currency exchange rate movements that impact foreign currency denominated receivables and payables, firm committed transactions and forecasted sales and purchases. The changes in the fair values are recognized immediately in other income (expense), net in the consolidated statements of income. See Note 9, "Derivatives and Hedging Activities," for further discussion of forward exchange contracts.

We are exposed to risk from credit-related losses resulting from nonperformance by counterparties to our financial instruments. We perform credit evaluations of our counterparties and expect all counterparties to meet their obligations. If necessary, we would adjust the values of our derivative contracts for our or our counterparties' credit risks.

Foreign Currency Translation — Assets and liabilities of our foreign subsidiaries are translated to U.S. dollars at exchange rates prevailing at the balance sheet date, while income and expenses are translated at average rates for each month. Translation gains and losses are reported as a component of accumulated other comprehensive loss. Transactional currency gains and losses arising from transactions in currencies other than our sites' functional currencies are included in our consolidated results of operations.

Transaction and translation gains and losses arising from intercompany balances are reported as a component of accumulated other comprehensive loss when the underlying transaction stems from a long-term equity investment or from debt designated as not due in the foreseeable future. Otherwise, we recognize transaction gains and losses arising from intercompany transactions in our consolidated statements of income.

Stock-Based Compensation — Stock-based compensation is measured at the grant-date fair value. The exercise price of stock option awards and the value of restricted shares, restricted share units and performance-based unit awards (collectively referred to as "Restricted Shares") are set at the closing price of our common stock on the New York Stock Exchange on the date of grant, which is the date such grants are authorized by our Board of Directors. Restricted share units and performance-based units refer to restricted awards that do not have voting rights and accrue dividends, and are forfeited if vesting does not occur.

The intrinsic value of Restricted Shares, which is typically the product of share price at the date of grant and the number of Restricted Shares granted, is amortized on a straight-line basis to compensation expense over the periods in which the restrictions lapse based on the expected number of shares that will vest. We account for forfeitures as they occur resulting in the reversal of cumulative expense previously recognized.

Earnings Per Share — We use the two-class method of calculating Earnings Per Share ("EPS"), which determines earnings per share for each class of common stock and participating security as if all earnings for the period had been distributed. Unvested restricted share awards that earn non-forfeitable dividend rights qualify as participating securities and, accordingly, are included in the basic computation as such. Our unvested Restricted Shares participate on an equal basis with common shares; therefore, there is no difference in undistributed earnings allocated to each participating security.

Research and Development Expense — Research and development costs are charged to expense when incurred. Aggregate research and development costs included in SG&A were $69.9 million, $48.7 million and $39.9 million in 2024, 2023 and 2022, respectively. Costs incurred for research and development primarily include salaries and benefits and consumable supplies, as well as rent, professional fees, utilities and the depreciation of property and equipment used in research and development activities.

Shipping and Handling Costs — Amounts billed to customers for reimbursement of shipping and handling costs are recorded as revenue when the related revenue is recognized and shipping and handling costs are recognized in COS. All other shipping and handling costs are recognized in COS in the period in which they are incurred.

Business Combination — The total purchase consideration for an acquisition is measured as the fair value of the assets transferred, equity instruments issued, and liabilities assumed at the acquisition date. Costs that are directly attributable to the acquisition are expensed as incurred and included in general and administrative expense in our consolidated statements of income. Identifiable assets (including intangible assets) and liabilities assumed (including contingent liabilities) are measured initially at their fair values at the acquisition date. We recognize goodwill if the fair value of the total purchase consideration is in excess of the net fair value of the identifiable assets acquired and the liabilities assumed. Determining the fair value of assets acquired and liabilities assumed requires us to use significant judgment and estimates including the selection of valuation methodologies, cost of capital, future cash flows, and discount rates. Our estimates of fair value are based on assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. During the measurement period, not to exceed one year from the date of acquisition, we may record adjustments to the assets acquired and liabilities assumed, with a corresponding offset to goodwill. We include the results of operations of the acquired business in the consolidated financial statements beginning on the acquisition date.

Our business combinations may include earn-out considerations as part of the purchase price that are liability-classified. The fair value of the earn-out consideration is estimated as of the acquisition date based on our estimates and assumptions. The fair value measurement may include inputs that are Level I, II or III under the fair value hierarchy, depending on their nature. Should actual results increase or decrease as compared to the assumption used in our analysis, the fair value of the earn-out consideration obligations will increase or decrease, as applicable. Changes in the fair value of the earn-out consideration are recorded within operating expenses.

Accounting Developments

Pronouncements Implemented

In March 2023, the FASB issued ASU No. 2023-01, "Leases (Topic 842): Common Control Arrangements." The amendments permit leasehold improvements to be amortized over the useful life of the asset when the lessee controls the use of the underlying asset, and the lease is between common control entities. The amendments further allow entities to account for leasehold improvements as a transfer of assets between entities under common control through an equity adjustment when the lessee is no longer in control of the underlying asset. The amendments are effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. The adoption of this ASU did not have a material impact on our consolidated balance sheets, consolidated statements of income or consolidated statements of cash flows.

In March 2023, the FASB issued ASU No. 2023-02, "Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method." The amendments allow companies to account for all of their tax equity investments using the proportional amortization method if certain conditions are met. Companies can elect to apply the proportional amortization method on a tax-credit-program-by-tax-credit-program basis rather than unilaterally or on an individual investment basis. The amendments are effective on either a modified retrospective or retrospective basis for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years, depending on whether the company elects to evaluate its investments for which it still expects to receive income tax credits or other income tax benefits as of the beginning of the period of adoption or at the beginning of the earliest period presented. The adoption of this ASU did not have a material impact on our consolidated balance sheets, consolidated statements of income or consolidated statements of cash flows.

In November 2023, the FASB issued ASU No. 2023-07, "Segment Reporting (Topic 280) - Improvements to Reportable Segment Disclosures." The amendments enhance the disclosure requirements of significant segment expenses and other segment items. The amendments are effective for annual periods beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024. The amendments are to be applied retrospectively to all prior periods presented in the financial statements. Upon transition, the segment expense categories and amounts disclosed in the prior periods should be based on the significant segment expense categories identified and disclosed in the period of adoption. Early adoption is permitted. Our adoption of this ASU effective January 1, 2024, applied retroactively as required, did not have an impact on our consolidated balance sheets, consolidated statements of income or consolidated statements of cash flows. Refer to Note 20, "Business Segment Information," for further implementation Topic 280.

Pronouncements Not Yet Implemented

In August 2023, the FASB issued ASU No. 2023-05, "Business Combinations - Joint Venture Formations (Subtopic 805-60): Recognition and Initial Measurement." The amendments require that newly formed joint ventures measure the net assets and liabilities contributed at fair value. Subsequent measurement is in accordance with the requirements for acquirers of a business in Sections 805-10-35, 805-20-35, and 805-30-35, and other generally accepted accounting principles. The amendments are effective prospectively for all joint venture formations with a formation date on or after January 1, 2025, but companies may elect to apply the amendments retrospectively to joint ventures formed prior to January 1, 2025, if it has sufficient information. Early adoption is permitted in any interim or annual period in which financial statements have not yet been issued (or made available for issuance), either prospectively or retrospectively. We do not expect the impact of this ASU to be material.

In December 2023, the FASB issued ASU No. 2023-08, "Intangibles - Goodwill and Other - Crypto Assets (Subtopic 350-60)." The amendments require that assets that qualify as a crypto asset, in accordance with the new guidance, must be recorded and subsequently valued at fair value at each reporting period, recognizing changes within net income of the same period. The amendments also require that companies present crypto assets measured at fair value separately from other intangible assets on the balance sheet with changes related to the remeasurement of crypto assets reported separately from changes in carrying amounts of other intangible assets in the income statement. Specific disclosure is required around the activity of crypto assets during the reporting period. The amendments are effective for all entities for fiscal years beginning after December 15, 2024, including interim periods within those fiscal years. Early adoption is permitted. We do not own crypto assets, and therefore, do not expect the impact of this ASU to be material.

In December 2023, the FASB issued ASU No. 2023-09, "Income Taxes (Topic 740)." The amendments require that entities on an annual basis disclose specific categories in the rate reconciliation, provide additional information for

reconciling items that meet a quantitative threshold, and disclose specific information about income taxes paid. The amendments eliminate previously required disclosures around changes in unrecognized tax benefits and cumulative amounts of certain temporary differences. The amendments are effective prospectively for annual periods beginning after December 15, 2024. Early adoption is permitted. The amendments may be applied prospectively or retrospectively. We are evaluating the impact of this ASU on our disclosures.

In November 2024, the FASB issued ASU No. 2024-03, "Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosures (Subtopic 220-40)." The amendments require disclosure of amounts, in the notes to financial statements, of purchases of inventory, employee compensation, depreciation, intangible asset amortization, and depletion for each income statement line item that contains those expenses. Specified expenses, gains and losses that are already disclosed under existing U.S. GAAP are also required to be included in the disaggregated income statement expense line item disclosure. The amendments also require disclosure of the total amount of selling expenses and the entity's definition of selling expenses. The amendments are effective for annual reporting periods beginning after December 15, 2026. ASU No. 2025-01 on the same topic issued in January 2025 further clarifies the effective date for interim periods. The amendments are effective for interim reporting periods within annual reporting periods beginning after December 15, 2027. Early adoption is permitted. The amendments may be applied prospectively or retrospectively. We are evaluating the impact of this ASU on our disclosures.

2. ACQUISITION

On October 15, 2024, we acquired for inclusion in FCD, all of the equity interests of MOGAS Industries, Inc., MOGAS Real Estate LLC and MOGAS Systems & Consulting LLC (such entities collectively, "MOGAS"), for a purchase price of $290.0 million, subject to additional closing working capital adjustments of $13.0 million and net of cash acquired of $3.1 million, and an incremental contingent earn-out payment of up to $15.0 million based on MOGAS's achievement of certain financial goals for the calendar year ended December 31, 2024. The additional earn-out consideration will be paid in the first quarter of 2025 and the value was determined based on contractual provisions set forth in the purchase agreement. MOGAS, a privately held provider of mission-critical severe service valves and associated aftermarket services, is based in Houston, Texas and has operations primarily in North America and, to a lesser extent, Europe and Asia Pacific. The acquisition was funded using a combination of cash on hand and term loan financing under our Second Amended and Restated Credit Agreement discussed in Note 13, "Debt and Finance Lease Obligations." MOGAS's differentiated valve products are expected to enhance our installed base, creating meaningful aftermarket opportunities with the addition of MOGAS's strong brand, heritage, and technical expertise in diverse and attractive end markets, including the growing mining industry. The acquisition is accounted for as a business combination under Accounting Standards Codification 805, *Business Combinations*, using the acquisition method of accounting.

The fair value of assets acquired and liabilities assumed has been recorded on a preliminary basis, including the valuation of intangible assets and opening balance sheet accounts subject to final working capital adjustments. We will continue to evaluate the initial fair values, which may be adjusted as additional information relative to the fair values of the assets and liabilities becomes available. The estimates will be finalized within one year from the date of acquisition. The preliminary allocation of the purchase price is summarized below:

	(Amounts in millions)
Accounts receivable	$ 55.0
Contract assets	13.7
Inventories	45.3
Prepaid expenses and other	4.6
Indemnification asset	7.5
Total current assets	126.1
Intangible assets	
Trademark	19.0
Existing customer relationships	48.5
Backlog	10.5
Total intangible assets	78.0
Property, plant and equipment	41.9
Right-of-use assets	1.0
Total assets	247.0
Current liabilities	(58.8)
Noncurrent liabilities	(0.5)
Net assets	187.7
Goodwill	127.2
Purchase price, net of cash acquired of $3.1 million	$ 314.9

The excess of the acquisition date fair value of the total purchase price over the estimated fair value of the net assets was recorded as goodwill. Goodwill of $127.2 million represents the value expected to be obtained from expanding Flowserve's market presence and strengthening our portfolio of products and services through the addition of MOGAS's valve products. The goodwill related to this acquisition is recorded in the FCD segment and is expected to be fully deductible for tax purposes. The trademark is an indefinite-lived intangible. Existing customer relationships and backlog have expected weighted average useful lives of 10 years and one year, respectively. In total, amortizable intangible assets have a weighted average useful live of approximately 8 years. We recorded an indemnification asset and corresponding liability of $7.5 million related to unresolved legal matters that existed pre-acquisition, for which the seller has agreed to indemnify us. The indemnification asset and liability are included within prepaid expenses and other and accrued liabilities, respectively, in our consolidated balance sheet.

Subsequent to October 15, 2024, the revenues and expenses of MOGAS have been included in our consolidated statement of income. The MOGAS acquisition generated sales of approximately $37 million for the period from October 15, 2024 to December 31, 2024 and decreased Flowserve's earnings by approximately $3 million. No proforma financial information has been presented due to immateriality. Flowserve incurred $10 million in acquisition and integration-related costs in 2024 associated with the transaction which are included within SG&A in our consolidated statement of income.

3. REVENUE RECOGNITION

The majority of our revenues relate to customer orders that typically contain a single commitment of goods or services which have lead times under a year. More complex contracts with our customers typically have longer lead times and multiple commitments of goods and services, including any combination of designing, developing, manufacturing, modifying, installing and commissioning of flow management equipment and providing services and parts related to the performance of such products. Control transfers over time when the customer is able to direct the use of and obtain substantially all of the benefits of our work as we perform. Service-related revenues do not typically represent a significant portion contracts with our customers and do not meet the thresholds requiring separate disclosure.

Revenue from products and services transferred to customers over time accounted for approximately 17%, 16% and 13% of total revenue for the years ended December 31, 2024, 2023 and 2022, respectively. Our primary method for recognizing revenue over time is the POC method. If control does not transfer over time, then control transfers at a point in time. For both POC and point-in-time methods, we recognize revenue at the level of each performance obligation based on the evaluation of certain indicators of control transfer, such as title transfer, risk of loss transfer, customer acceptance and physical possession . Revenue from products and services transferred to customers at a point in time accounted for approximately 83%, 84% and 87% of total revenue for the years ended December 31, 2024, 2023 and 2022, respectively.

Disaggregated Revenue

We conduct our operations through two business segments based on the type of product and how we manage the business:

- FPD designs, manufactures, pretests, distributes and services highly custom engineered pumps, pre-configured industrial pumps, pump systems, mechanical seals, auxiliary systems and replacement parts and related services; and
- FCD designs, manufactures and distributes a broad portfolio of engineered-to-order and configured-to-order isolation valves, control valves, valve automation products and related equipment.

Our revenue sources are derived from our original equipment manufacturing and our aftermarket sales and services. Our original equipment revenues are generally related to originally designed, manufactured, distributed and installed equipment that can range from pre-configured, short-cycle products to more customized, highly engineered equipment ("Original Equipment"). Our aftermarket sales and services are derived from sales of replacement equipment, as well as maintenance, advanced diagnostic, repair and retrofitting services ("Aftermarket"). Each of our two business segments generates Original Equipment and Aftermarket revenues.

The following table presents our customer revenues disaggregated by revenue source:

	December 31, 2024		
(Amounts in thousands)	FPD	FCD	Total
Original Equipment	$ 1,152,643	$ 1,065,408	$ 2,218,051
Aftermarket	2,001,508	338,247	2,339,755
	$ 3,154,151	$ 1,403,655	$ 4,557,806

	December 31, 2023		
(Amounts in thousands)	FPD	FCD	Total
Original Equipment	$ 1,147,906	$ 938,790	$ 2,086,696
Aftermarket	1,913,087	320,794	2,233,881
	$ 3,060,993	$ 1,259,584	$ 4,320,577

	December 31, 2022		
(Amounts in thousands)	FPD	FCD	Total
Original Equipment	$ 881,061	$ 825,508	$ 1,706,569
Aftermarket	1,636,939	271,612	1,908,551
	$ 2,518,000	$ 1,097,120	$ 3,615,120

Our customer sales are diversified geographically. The following table presents our revenues disaggregated by geography, based on the shipping addresses of our customers:

	December 31, 2024		
(Amounts in thousands)	FPD	FCD	Total
North America(1)	$ 1,291,273	$ 551,101	$ 1,842,374
Latin America(1)	296,474	29,847	326,321
Middle East and Africa	542,399	223,440	765,839
Asia Pacific	425,743	363,868	789,611
Europe	598,262	235,399	833,661
	$ 3,154,151	$ 1,403,655	$ 4,557,806

	December 31, 2023		
(Amounts in thousands)	FPD	FCD	Total
North America(1)	$ 1,264,673	$ 556,208	$ 1,820,881
Latin America(1)	273,126	30,126	303,252
Middle East and Africa	538,037	146,552	684,589
Asia Pacific	436,813	302,700	739,513
Europe	548,344	223,998	772,342
	$ 3,060,993	$ 1,259,584	$ 4,320,577

	December 31, 2022		
(Amounts in thousands)	FPD	FCD	Total
North America(1)	$ 1,060,393	$ 472,467	$ 1,532,860
Latin America(1)	222,878	23,575	246,453
Middle East and Africa	372,148	101,017	473,165
Asia Pacific	389,366	305,193	694,559
Europe	473,215	194,868	668,083
	$ 2,518,000	$ 1,097,120	$ 3,615,120

(1) North America represents United States and Canada; Latin America includes Mexico.

On December 31, 2024, the aggregate transaction price allocated to unsatisfied (or partially unsatisfied) performance obligations related to contracts having an original expected duration in excess of one year was approximately $853 million. We estimate recognition of approximately $536 million of this amount as revenue in 2025 and an additional $317 million in 2026 and thereafter.

Contract Balances

We receive payment from customers based on a contractual billing schedule and specific performance requirements as established in our contracts. We record billings as accounts receivable when an unconditional right to consideration exists. A contract asset represents revenue recognized in advance of our right to bill the customer under the terms of a contract. A contract liability represents our contractual billings in advance of revenue recognized for a contract.

The following table presents opening and closing balances of contract assets and contract liabilities, current and long-term, for the years ended December 31, 2024 and 2023:

(Amounts in thousands)	Contract Assets, net (Current)	Long-term Contract Assets, net(1)	Contract Liabilities (Current)	Long-term Contract Liabilities(2)
Balance — January 1, 2023	$ 233,457	$ 297	$ 256,963	$ 1,059
Revenue recognized that was included in contract liabilities at the beginning of the period	—	—	(209,560)	—
Increase due to revenue recognized in the period in excess of billings	890,150	932	—	—
Increase due to billings arising during the period in excess of revenue recognized	—	—	238,683	1,043
Amounts transferred from contract assets to receivables	(842,780)	(435)	—	—
Currency effects and other, net	(599)	240	1,611	(559)
Balance — December 31, 2023	$ 280,228	$ 1,034	$ 287,697	$ 1,543
Revenue recognized that was included in contract liabilities at the beginning of the period	—	—	(217,470)	(740)
Increase due to revenue recognized in the period in excess of billings	958,388	—	—	—
Increase due to billings arising during the period in excess of revenue recognized	—	—	214,163	—
Amounts transferred from contract assets to receivables	(920,793)	(656)	—	—
Currency effects and other, net	(18,917)	545	(720)	(130)
Balance — December 31, 2024	$ 298,906	$ 923	$ 283,670	$ 673

(1) Included in other assets, net.
(2) Included in retirement obligations and other liabilities.

4. ALLOWANCE FOR EXPECTED CREDIT LOSSES

The allowance for credit losses is an estimate of the credit losses expected over the life of our financial assets and instruments. We assess and measure expected credit losses on a collective basis when similar risk characteristics exist, including market, geography, credit risk and remaining duration. Financial assets and instruments that do not share risk characteristics are evaluated on an individual basis. Our estimate of the allowance balance is assessed and quantified using internal and external valuation information relating to past events, current conditions and reasonable and supportable forecasts over the contractual terms of an asset.

Our primary exposure to expected credit losses is through our accounts receivable and contract assets. For these financial assets, we record an allowance for expected credit losses that, when deducted from the gross asset balance, presents the net amount expected to be collected. Primarily, our experience of historical credit losses provides the basis for our estimation of the allowance. We estimate the allowance based on an aging schedule and according to historical losses as determined from our history of billings and collections. Additionally, we adjust the allowance for factors that are specific to our customers' credit risk such as financial difficulties, liquidity issues, insolvency, and country and geopolitical risks. We also consider both the current and forecasted macroeconomic conditions as of the reporting date. As identified and needed, we adjust the allowance and recognize adjustments in the income statement each period. Accounts receivable are written off against the allowance in the period when the receivable is deemed to be uncollectible and further collection efforts have ceased. Subsequent recoveries of previously written off amounts are reflected as a reduction to credit impairment losses in the consolidated statements of income.

Contract assets represent a conditional right to consideration for satisfied performance obligations that become a receivable when the conditions are satisfied. Generally, contract assets are recorded when contractual billing schedules differ from revenue recognition based on timing and are managed through the revenue recognition process. Based on our historical credit loss experience, the current expected credit loss for contract assets is estimated to be approximately 1% of the asset balance.

The following table presents the changes in the allowance for expected credit losses for our accounts receivable and short-term contract assets as of December 31, 2024, 2023 and 2022:

(Amounts in thousands)	Accounts receivable	Short-term contract assets
Beginning balance, January 1, 2024	$ 80,013	$ 4,993
Charges to cost and expenses, net of recoveries	11,836	305
Write-offs	(8,160)	(1,781)
Currency effects and other, net	(4,630)	(113)
Ending balance, December 31 , 2024	$ 79,059	$ 3,404
Beginning balance, January 1, 2023	$ 83,062	$ 5,819
Charges to cost and expenses, net of recoveries	5,597	—
Write-offs	(10,947)	(1,450)
Currency effects and other, net	2,301	624
Ending balance, December 31 , 2023	$ 80,013	$ 4,993
Beginning balance, January 1, 2022	$ 74,336	$ 2,393
Charges to cost and expenses, net of recoveries	12,530	2,785
Write-offs	(3,188)	—
Currency effects and other, net	(616)	641
Ending balance, December 31 , 2022	$ 83,062	$ 5,819

Our allowance on long-term receivables, included in other assets, net, represent receivables with collection periods longer than 12 months and the balance primarily consists of reserved receivables associated with the national oil company in Venezuela. The following table presents the changes in the allowance for long-term receivables as of December 31, 2024, 2023 and 2022:

(Amounts in thousands)	2024	2023	2022
Beginning balance, January 1,	$ 66,864	$ 66,377	$ 67,696
Currency effects and other, net	(783)	487	(1,319)
Ending balance, December 31,	$ 66,081	$ 66,864	$ 66,377

We also have exposure to credit losses from off-balance sheet exposures, such as financial guarantees and standby letters of credit, where we believe the risk of loss is immaterial to our financial statements as of December 31, 2024.

5. LEASES

We had $0.4 million and $4.0 million of legally binding minimum lease payments for operating leases signed but not yet commenced as of December 31, 2024 and 2023. We did not have material subleases, leases that imposed significant restrictions or covenants, material related party leases or sale-leaseback arrangements.

In conjunction with our close process for the third quarter of 2022, the Company identified an accounting error related to certain operating real estate leases that have escalating rent payments which were not correctly recorded on a straight-line basis in the amount of $6.4 million. Approximately $5.8 million of the error impacted the Company's consolidated statements of income prior to adoption of ASU No. 2016-02, Leases (Topic 842) in 2019 and the remaining immaterial amount impacted each period subsequent to adoption. To correct the cumulative impact of the error the Company recorded an adjustment of $6.4 million of incremental operating lease expense in the third quarter of 2022 ($5.5 million classified as SG&A and $0.9 million classified as COS), with the offsetting adjustment to reduce operating lease right-of-use assets, net on our consolidated balance sheet for the period ended September 30, 2022. There was no impact to our statements of cash flows as a result of the correction of the error.

Other information related to our leases is as follows:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Finance Leases:		
ROU assets recorded under finance leases	$ 32,385	$ 35,523
Accumulated depreciation associated with finance leases	(17,020)	(16,828)
Total finance leases ROU assets, net(1)	$ 15,365	$ 18,695
Total finance leases liabilities(2)	$ 19,990	$ 19,374

The costs components of operating and finance leases are as follows:

	December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Operating Lease Costs:			
Fixed lease expense(3)	$ 57,862	$ 55,588	$ 59,782
Variable lease expense(3)	8,990	8,131	7,412
Total operating lease expense	$ 66,852	$ 63,719	$ 67,194
Finance Lease Costs:			
Depreciation of finance lease ROU assets(3)	$ 6,800	$ 6,655	$ 5,984
Interest on lease liabilities(4)	1,047	885	604
Total finance lease expense	$ 7,847	$ 7,540	$ 6,588

(1) Included in property, plant and equipment, net
(2) Included in debt due within one year and long-term debt due after one year, accordingly
(3) Included in cost of sales and selling, general and administrative expense, accordingly
(4) Included in interest expense

Supplemental cash flows information related to our leases is as follows:

(Amounts in thousands, except lease term and discount rate)	December 31, 2024	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases(1)	$ 64,976	$ 62,303	$ 57,712
Financing cash flows from finance leases(2)	6,964	8,234	6,039
ROU assets obtained in exchange for lease obligations:			
Operating leases	$ 51,219	$ 18,570	$ 26,581
Finance leases	8,623	8,259	7,906
Weighted average remaining lease term (in years)			
Operating leases	7 years	8 years	8 years
Finance leases	3 years	5 years	6 years
Weighted average discount rate (percent)			
Operating leases	5.2 %	4.1 %	4.0 %
Finance leases	5.6 %	4.6 %	3.9 %

(1) Included in our consolidated statement of cash flows, operating activities, prepaid expenses and other assets, net and retirement obligations and other
(2) Included in our consolidated statement of cash flows, financing activities, payments under other financing arrangements

Future undiscounted lease payments under operating and finance leases as of December 31, 2024, were as follows:

Year ending December 31,	Operating Leases	Finance Leases
	(Amounts in thousands)	
2025	41,712	7,430
2026	35,243	5,692
2027	30,024	3,442
2028	25,553	1,703
2029	20,703	781
Thereafter	66,382	3,565
Total future minimum lease payments	$ 219,617	$ 22,613
Less: Imputed interest	(36,220)	(2,623)
Total	$ 183,397	$ 19,990
Other current liabilities	$ 33,559	$ —
Operating lease liabilities	149,838	—
Debt due within one year	—	6,505
Long-term debt due after one year	—	13,485
Total	$ 183,397	$ 19,990

6. GOODWILL AND OTHER INTANGIBLE ASSETS

The changes in the carrying amount of goodwill for the years ended December 31, 2024 and 2023 are as follows:

	FPD	FCD	Total
	(Amounts in thousands)		
Balance as of December 31, 2022	$ 772,273	$ 395,851	$ 1,168,124
Currency translation and other	7,723	6,378	14,101
Balance as of December 31, 2023	$ 779,996	$ 402,229	$ 1,182,225
Acquisition(1)	—	127,249	127,249
Currency translation and other	(14,256)	(8,923)	(23,179)
Balance as of December 31, 2024	$ 765,740	$ 520,555	$ 1,286,295

(1) Goodwill addition is related to the acquisition of MOGAS. See Note 2, "Acquisitions" for additional information.

The following table provides information about our intangible assets for the years ended December 31, 2024 and 2023:

		December 31, 2024		December 31, 2023	
	Useful Life (Years)	Ending Gross Amount	Accumulated Amortization	Ending Gross Amount	Accumulated Amortization
		(Amounts in thousands, except years)			
Finite-lived intangible assets:					
Engineering drawings(1)	10-22	$ 89,529	$ (89,529)	$ 92,105	$ (91,808)
Existing customer relationships(2)	5-10	126,761	(79,039)	80,643	(76,121)
Patents	9-16	25,086	(25,086)	26,388	(26,388)
Other	1-40	102,634	(58,800)	92,307	(55,001)
		$ 344,010	$ (252,454)	$ 291,443	$ (249,318)
Indefinite-lived intangible assets(3)		$ 98,721	$ (1,673)	$ 81,824	$ (1,701)

(1) Engineering drawings represent the estimated fair value associated with specific acquired product and component schematics.
(2) Includes customer relationships acquired as part of the MOGAS acquisition with useful lives of 5 and 10 years. Existing customer relationships acquired prior to 2011 had a useful life of five years.
(3) Includes the acquisition of the MOGAS trademark in 2024. Accumulated amortization for indefinite-lived intangible assets relates to amounts recorded prior to the implementation date of guidance issued in ASC 350.

The following schedule outlines actual amortization expense recognized during 2024 and an estimate of future amortization based upon the finite-lived intangible assets owned at December 31, 2024:

	Amortization Expense
	(Amounts in thousands)
Actual for year ended December 31, 2024	$ 10,023
Estimated for year ended December 31, 2025	15,476
Estimated for year ended December 31, 2026	7,069
Estimated for year ended December 31, 2027	7,069
Estimated for year ended December 31, 2028	7,069
Estimated for year ended December 31, 2029	6,952
Thereafter	47,921

Amortization expense for finite-lived intangible assets was $11.3 million in 2023 and $11.4 million in 2022.

7. INVENTORIES

Inventories consisted of the following:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Raw materials	$ 391,562	$ 407,979
Work in process	262,173	302,655
Finished goods	275,975	278,787
Less: Excess and obsolete reserve	(92,456)	(109,484)
Inventories	$ 837,254	$ 879,937

During 2024, 2023 and 2022, we recognized expenses of $14.1 million, $21.5 million and $15.4 million, respectively, for excess and obsolete inventory. These expenses are included in COS in our consolidated statements of income.

8. STOCK-BASED COMPENSATION PLANS

Effective January 1, 2020, our shareholders approved the Flowserve Corporation 2020 Long-Term Incentive Plan (“2020 Plan”). The 2020 Plan replaces and supersedes the Flowserve Corporation Equity and Incentive Compensation Plan ("2010 Plan") in its entirety. The 2020 Plan authorizes the issuance of 12,500,000 shares of our common stock in the form of Restricted Shares, incentive stock options, non-statutory stock options, stock appreciation rights and bonus stock. Of the shares of common stock authorized under the 2020 Plan, 7,075,917 were available for issuance as of December 31, 2024. Restricted Shares primarily vest over a three-year period. Restricted Shares granted to employees who retire and have achieved at least 55 years of age and 10 years of service continue to vest over the original vesting period ("55/10 Provision").

Stock Options — Options granted to officers, other employees and directors allow for the purchase of common shares at the market value of our stock on the date the options are granted. Options generally become exercisable after three years. Options generally expire ten years from the date of the grant or within a short period of time following the termination of employment or cessation of services by an option holder. As of December 31, 2024, 114,943 stock options were outstanding and exercisable, with a grant date fair value of $2.0 million recognized over three years and a weighted average exercise price of $48.63. Compensation cost associated with these stock options has been fully recognized. Using the Black-Scholes option pricing model to estimate the fair value of each option award, as of December 31, 2024 the total fair value of stock options vested was $2.0 million. No stock options were exercised during the years ended December 31,

2024, 2023 or 2022. No stock options were granted, canceled or vested during years ended December 31, 2024, 2023 or 2022. The weighted average remaining contractual life of options outstanding at December 31, 2024, 2023 and 2022 was 2.3 years, 3.3 years and 4.3 years, respectively.

Restricted Shares — Generally, the restrictions on Restricted Shares do not expire for a minimum of one year and a maximum of three years, and shares are subject to forfeiture during the restriction period. Most typically, Restricted Share grants have staggered vesting periods over one to three years from grant date. The intrinsic value of the Restricted Shares, which is typically the product of share price at the date of grant and the number of Restricted Shares granted, is amortized on a straight-line basis to compensation expense over the periods in which the restrictions lapse.

Awards of Restricted Shares are valued at the closing market price of our common stock on the date of grant. The unearned compensation is amortized to compensation expense over the vesting period of the restricted shares, except for awards related to the 55/10 Provision which are expensed in the period granted for awards issued prior to 2024. For awards of Restricted Shares granted beginning in 2024 and subject to the 55/10 Provision, compensation expense is recognized over a required six-month service period. As of December 31, 2024 and 2023, we had $19.2 million and $18.5 million, respectively, of unearned compensation cost related to unvested Restricted Shares, which is expected to be recognized over a remaining weighted-average period of approximately one year, for both periods. This amount will be recognized into net earnings in prospective periods as the awards vest. The total fair value of Restricted Shares vested during the years ended December 31, 2024, 2023 and 2022 was $28.7 million, $24.2 million and $23.5 million, respectively.

We recorded stock-based compensation for Restricted Shares as follows:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in millions)		
Stock-based compensation expense	$ 30.5	$ 27.8	$ 25.5
Related income tax benefit	(6.9)	(6.3)	(5.8)
Net stock-based compensation expense	$ 23.6	$ 21.5	$ 19.7

The following table summarizes information regarding Restricted Shares:

	Year Ended December 31, 2024	
	Shares	Weighted Average Grant-Date Fair Value
Number of unvested Restricted Shares:		
Outstanding — beginning of year	1,741,486	$ 36.06
Granted	823,703	42.73
Vested	(787,870)	36.40
Canceled	(110,636)	36.30
Outstanding — end of year	1,666,683	$ 39.18

Unvested Restricted Shares outstanding as of December 31, 2024, includes approximately 520,000 units with performance-based vesting provisions issuable in common stock and vest upon the achievement of pre-defined performance metrics. Targets for outstanding performance awards are based on our average return on invested capital and free cash flow as a percent of net income over a three-year period. Performance units issued in 2024, 2023 and 2022 include a secondary measure, relative total shareholder return, which can increase or decrease the number of vesting units by 15% depending on the Company's performance versus peers. Performance units issued have a vesting percentage up to 230%. Compensation expense is recognized ratably over a cliff-vesting period of 36 months, based on the fair value of our common stock on the date of grant, adjusted for actual forfeitures. During the performance period, earned and unearned compensation expense is adjusted based on changes in the expected achievement of the performance targets for all

performance-based units granted. Vesting provisions range from 0 to approximately 1,196,000 shares based on performance targets. As of December 31, 2024, we estimate vesting of approximately 520,000 shares based on expected achievement of performance targets.

Employee Stock Purchase Plan — Effective in 2024, we established an employee stock purchase plan ("ESPP") as a means for employees to acquire an equity interest in the Company. The plan is considered compensatory for accounting purposes. Employees may participate in our ESPP provided they meet certain eligibility requirements and may enroll in the ESPP on a monthly basis. The first enrollment period occurred during the fourth quarter of 2024. The current year impact of the ESPP is immaterial, and the impact to future years is also expected to be immaterial.

9. DERIVATIVES AND HEDGING ACTIVITIES

Our risk management and foreign currency derivatives and hedging policy specifies the conditions under which we may enter into derivative contracts. See Note 1, "Significant Accounting Policies and Accounting Developments," for additional information on our purpose for entering into derivatives and our overall risk management strategies. We enter into foreign exchange forward contracts to hedge our cash flow risks associated with transactions denominated in currencies other than the local currency of the operation engaging in the transaction.

Foreign exchange forward contracts with third parties had notional values of $695.9 million and $656.6 million at December 31, 2024 and 2023, respectively. At December 31, 2024, the length of foreign exchange forward contracts currently in place ranged from 7 days to 19 months.

We are exposed to risk from credit-related losses resulting from nonperformance by counterparties to our financial instruments. We perform credit evaluations of our counterparties under foreign exchange forward contracts and expect all counterparties to meet their obligations. We have not experienced credit losses from our counterparties.

The fair values of foreign exchange contracts are summarized below:

	Year Ended December 31,	
	2024	2023
	(Amounts in thousands)	
Current derivative assets	$ 4,633	$ 1,915
Noncurrent derivative assets	13	17
Current derivative liabilities	4,926	3,855
Noncurrent derivative liabilities	374	5

Current and noncurrent derivative assets are reported in our consolidated balance sheets in prepaid expenses and other and other assets, net, respectively. Current and noncurrent derivative liabilities are reported in our consolidated balance sheets in accrued liabilities and retirement obligations and other liabilities, respectively.

The impact of net changes in the fair values of foreign exchange contracts are summarized below:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Gains (losses) recognized in income	$ 9,823	$ (12,914)	$ (6,173)

Gains and losses recognized in our consolidated statements of income for foreign exchange forward contracts are classified as other income (expense), net.

As a means of managing the volatility of foreign currency exposure with the Euro/U.S. dollar exchange rate, we entered into cross-currency swap agreements ("Swaps") as a hedge of our Euro investment in certain of our international subsidiaries. Accordingly, on April 14, 2021 and March 9, 2021, we entered into Swaps, with both having termination dates of October 1, 2030 and the March 9, 2021 cross currency swap having an early termination date of March 11, 2025. Also, during the third quarter of 2020 we entered into a cross currency swap agreement with a termination date of October 1, 2030 and an early termination date of September 22, 2025. The swap agreements were designated as net investment

hedges and classified as Level II under the fair value hierarchy. On December 20, 2022 all outstanding swap agreements were early terminated resulting in net cash proceeds received of $66.0 million. Prior to the early termination the cross-currency swaps had a combined notional value of €423.2 million and a fair value of $68.2 million.

We excluded the interest accruals on the swaps from the assessment of hedge effectiveness and recognize the interest accruals in earnings within interest expense. For each reporting period, the change in the fair value of the swap attributable to changes in the spot rate and differences between the change in the fair value of the excluded components and the amounts recognized in earnings under the swap accrual process were reported in accumulated other comprehensive loss ("AOCL") on our consolidated balance sheets. For the period ended December 31, 2022, an interest accrual of $8.5 million was recognized within interest expense in our consolidated statements of income.

The cumulative net investment hedge (gain) loss, net of deferred taxes, under cross-currency swaps recorded in AOCL on our consolidated balance sheets are summarized below:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
(Gain) loss-included component (1)	$ —	$ —	$ (37,135)
(Gain) loss-excluded component (2)	—	—	(11,875)
(Gain) loss recognized in AOCL	$ —	$ —	$ (49,010)

(1) Change in the fair value of the swaps attributable to changes in spot rates.
(2) Change in the fair value of the swaps due to changes other than those attributable to spot rates.

10. FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Where available, fair value is based on observable market prices or parameters or derived from such prices or parameters. Where observable prices or inputs are not available, valuation models may be applied. Assets and liabilities recorded at fair value in our consolidated balance sheets are categorized by hierarchical levels based upon the level of judgment associated with the inputs used to measure their fair values. Recurring fair value measurements are limited to investments in derivative instruments and contingent consideration arising from the recently completed MOGAS acquisition. The fair value measurements of our derivative instruments are determined using models that maximize the use of the observable market inputs including interest rate curves and both forward and spot prices for currencies, and are classified as Level II under the fair value hierarchy. The fair values of our derivatives are included above in Note 9, "Derivatives and Hedging Activities." The fair value of the MOGAS related contingent consideration was determined based on contractual provisions set forth in the purchase agreement.

The carrying value of our financial instruments as reflected in our consolidated balance sheets approximates fair value, with the exception of our long-term debt. The estimated fair value of our long-term debt, excluding the Senior Notes, approximates the carrying value and is determined using Level II inputs under the fair value hierarchy. The carrying value of our debt is included in Note 13, "Debt and Finance Lease Obligations." The estimated fair value of our Senior Notes at December 31, 2024 was $879.4 million compared to the carrying value of $991.5 million. The estimated fair value of the Senior Notes is based on Level I quoted market rates. The carrying amounts of our other financial instruments (e.g., cash and cash equivalents, accounts receivable, net and accounts payable and short-term debt) approximated fair value due to their short-term nature at December 31, 2024 and December 31, 2023.

11. DETAILS OF CERTAIN CONSOLIDATED BALANCE SHEET CAPTIONS

The following tables present financial information of certain consolidated balance sheets captions.

Accounts Receivable, net — Accounts receivable, net were:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Trade accounts receivables	$ 1,026,891	$ 935,297
Less: allowance for expected credit losses	(70,369)	(67,487)
Other short-term receivables	28,907	26,585
Less: allowance for expected credit losses	(8,690)	(12,526)
Accounts receivable, net	$ 976,739	$ 881,869

Property, Plant and Equipment, net — Property, plant and equipment, net were:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Land	$ 61,351	$ 60,312
Buildings and improvements	450,718	427,332
Machinery, equipment and tooling	803,355	781,771
Software, furniture and fixtures and other	366,946	395,194
Gross property, plant and equipment	1,682,370	1,664,609
Less: accumulated depreciation	(1,142,667)	(1,158,451)
Property, plant and equipment, net	$ 539,703	$ 506,158

Accrued Liabilities — Accrued liabilities were:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Wages, compensation and other benefits	$ 260,481	$ 264,914
Commissions and royalties	31,344	20,570
Warranty costs and late delivery penalties	31,290	26,521
Sales and use tax	29,247	25,880
Income tax	28,003	24,643
Other	181,121	141,902
Accrued liabilities	$ 561,486	$ 504,430

"Other" accrued liabilities include professional fees, lease obligations, insurance, interest, freight, accrued cash dividends payable, legal and environmental matters, derivative liabilities, restructuring reserves and other items, none of which individually exceed 5% of current liabilities.

Retirement Obligations and Other Liabilities — Retirement obligations and other liabilities were:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Pension and postretirement benefits	$ 195,436	$ 202,583
Deferred taxes	1,775	1,335
Legal and environmental	99,984	93,989
Uncertain tax positions and other tax liabilities	40,172	51,584
Other	33,688	39,629
Retirement obligations and other liabilities	$ 371,055	$ 389,120

"Other" includes derivative liabilities, deferred compensation liabilities, asset retirement obligations, insurance-related liabilities and other items, none of which exceed 5% of total liabilities.

12. EQUITY METHOD INVESTMENTS

We occasionally enter into joint venture arrangements with local country partners as our preferred means of entry into countries where barriers to entry may exist. Similar to our consolidated subsidiaries, these unconsolidated joint ventures generally operate within our primary businesses of designing, manufacturing, assembling and distributing fluid motion and control products and services. We have agreements with certain of these joint ventures that restrict us from otherwise entering the respective market and certain joint ventures produce and/or sell our products as part of their broader product offering. Net earnings from investments in unconsolidated joint ventures is reported in net earnings from affiliates in our consolidated statements of income. Given the integrated role of the unconsolidated joint ventures in our business, net earnings from affiliates is presented as a component of operating income.

As of December 31, 2024, we had investments in five joint ventures, one located in each of Chile, India, Saudi Arabia, South Korea and the United Arab Emirates that were accounted for using the equity method and are immaterial for disclosure purposes.

13. DEBT AND FINANCE LEASE OBLIGATIONS

Debt, including finance lease obligations, net of discounts and debt issuance costs, consisted of:

	December 31,	
	2024	2023
	(Amounts in thousands)	
3.50% USD Senior Notes due October 1, 2030, net of unamortized discount and debt issuance costs of $3,882 and $4,479 at December 31, 2024 and 2023, respectively	496,118	495,521
2.80% USD Senior Notes due January 15, 2032, net of unamortized discount and debt issuance costs of $4,585 and $5,164 at December 31, 2024 and 2023, respectively	495,415	494,836
Term Loan Facility, interest rate of 5.80% and 6.70%, net of debt issuance costs of $993 and $274 at December 31, 2024 and 2023, respectively	489,632	219,726
Finance lease obligations and other borrowings	23,026	23,467
Debt and finance lease obligations	1,504,191	1,233,550
Less amounts due within one year	44,059	66,243
Total debt due after one year	$ 1,460,132	$ 1,167,307

Scheduled maturities of our Senior Notes and other debt, are (amounts in thousands):

	Term Loan	Senior Notes and other debt	Total
	(Amounts in thousands)		
2025	$ 37,243	$ 6,559	$ 43,802
2026	40,388	16,468	56,856
2027	56,038	—	56,038
2028	74,822	—	74,822
2029	281,141	—	281,141
Thereafter	—	991,532	991,532
Total	$ 489,632	$ 1,014,559	$ 1,504,191

Senior Credit Facility

On September 13, 2021, we amended and restated our credit agreement (the "Senior Credit Agreement") under our Senior Credit Facility (the "Credit Facility") with Bank of America, N.A. and the other lenders to provide greater flexibility in maintaining adequate liquidity and access to available borrowings. The Senior Credit Agreement, (i) retained, from the previous credit agreement, the $800.0 million unsecured Revolving Credit Facility (the "Revolving Credit Facility"), which includes a $750.0 million sublimit for the issuance of letters of credit and a $30.0 million sublimit for swing line loans, (ii) provides for an up to $300.0 million unsecured Term Loan Facility (the "Term Loan"), (iii) extends the maturity date of the agreement to September 13, 2026, (iv) reduces commitment fees, (v) extends net leverage ratio covenant definition through the maturity of the agreement, and (vi) provides the ability to make certain adjustments to the otherwise applicable commitment fee, interest rate and letter of credit fees based on the Company's performance against to-be-established key performance indicators with respect to certain of the Company's environmental, social and governance targets.

On February 3, 2023, we amended our Senior Credit Agreement (the "Amendment") to (i) replace LIBOR with Secured Overnight Financing Rate ("SOFR") as the benchmark reference rate, (ii) lower the Material Acquisition (as defined in the Senior Credit Agreement) threshold from $250.0 million to $200.0 million and (iii) extend compliance dates for certain financial covenants.

On October 10, 2024, we entered into a Second Amended and Restated Credit Agreement (the "Second Amended and Restated Credit Agreement") with Bank of America, N.A., as administrative agent, and the other lenders (together, the "Lenders") and letter of credit issuers party thereto to (i) retain from the Senior Credit Agreement the $800.0 million Revolving Credit Facility, and the right, subject to certain conditions including Lenders approval of such increase, to increase the amount of such Revolving Credit Facility by an aggregate amount not to exceed $400.0 million, (ii) increase our Term Loan from $300.0 million to $500.0 million, and (iii) extend the maturity date to October 10, 2029. We believe this Second Amended and Restated Credit Agreement will provide greater flexibility and additional liquidity as we continue to pursue our business goals and strategy. Most other terms and conditions under the previous Senior Credit Agreement remained unchanged.

Under the terms and conditions of the Second Amended and Restated Credit Agreement, the interest rates per annum applicable to the Revolving Credit Facility and Term Loan, other than with respect to swing line loans, are adjusted Term Secured Overnight Financing Rate ("Adjusted Term SOFR") plus between 1.000% to 1.750%, depending on our debt rating by either Moody's Investors Service, Inc. ("Moody's") or Standard & Poor's Financial Services LLC ("S&P"), or, at our option, the Base Rate (as defined in the Second Amended and Restated Credit Agreement) plus between 0.000% to 0.750% depending on our debt rating by either Moody's or S&P. At December 31, 2024, the interest rate on the Revolving Credit Facility was the Adjusted Term SOFR plus 1.375% in the case of Adjusted Term SOFR loans and the Base Rate plus 0.375% in the case of Base Rate loans. In addition, a commitment fee is payable quarterly in arrears on the daily unused portions of the Revolving Credit Facility. The commitment fee will be between 0.080% and 0.250% of unused amounts under the Revolving Credit Facility depending on our debt rating by either Moody's or S&P. The commitment fee was 0.175% (per annum) during the period ended December 31, 2024. At December 31, 2024, the interest rate on the

Term Loan was Adjusted Term SOFR plus 1.375% in the case of Adjusted Term SOFR loans and the Base Rate plus 0.250% in the case of Base Rate loans.

As of December 31, 2024 and December 31, 2023, we had no revolving loans outstanding. We had outstanding letters of credit of $144.0 million and $127.1 million at December 31, 2024, and December 31, 2023, respectively. After consideration of the outstanding letters of credit as of December 31, 2024, the amount available for borrowings under our Revolving Credit Facility was limited to $656.0 million. As of December 31, 2023, the amount available for borrowings under our Revolving Credit Facility was $672.9 million. We have scheduled repayments of $9.4 million, on the Term Loan, due in each of the subsequent four quarters through December 31, 2025.

Financial Covenants — Our compliance with the financial covenants under the Second Amended and Restated Credit Agreement are tested quarterly. We were in compliance with all covenants as of December 31, 2024.

14. PENSION AND POSTRETIREMENT BENEFITS

We sponsor several noncontributory defined benefit pension plans, covering substantially all U.S. employees and certain non-U.S. employees, which provide benefits based on years of service, age, job grade levels and type of compensation. Retirement benefits for all other covered employees are provided through contributory pension plans, cash balance pension plans and government-sponsored retirement programs. All funded defined benefit pension plans receive funding based on independent actuarial valuations to provide for current service and an amount sufficient to amortize unfunded prior service over periods not to exceed 30 years, with funding falling within the legal limits prescribed by prevailing regulation. We also maintain unfunded defined benefit plans that, as permitted by local regulations, receive funding only when benefits become due.

Our defined benefit plan strategy is to ensure that current and future benefit obligations are adequately funded in a cost-effective manner. Additionally, our investing objective is to achieve the highest level of investment performance that is compatible with our risk tolerance and prudent investment practices. Because of the long-term nature of our defined benefit plan liabilities, our funding strategy is based on a long-term perspective for formulating and implementing investment policies and evaluating their investment performance.

The asset allocation of our defined benefit plans reflects our decision about the proportion of the investment in equity and fixed income securities, and, where appropriate, the various sub-asset classes of each. At least annually, we complete a comprehensive review of our asset allocation policy and the underlying assumptions, which includes our long-term capital markets rate of return assumptions and our risk tolerances relative to our defined benefit plan liabilities.

The expected rates of return on defined benefit plan assets are derived from review of the asset allocation strategy, expected long-term performance of asset classes, risks and other factors adjusted for our specific investment strategy. These rates are impacted by changes in general market conditions, but because they are long-term in nature, short-term market changes do not significantly impact the rates.

Our U.S. defined benefit plan assets consist of a portfolio of equity and fixed income securities. Our non-U.S. defined benefit plan assets include a significant concentration of United Kingdom fixed income securities. We monitor investment allocations and manage plan assets to maintain acceptable levels of risk.

For all periods presented, we used a measurement date of December 31 for each of our U.S. pension plans, non-U.S. pension plans and postretirement medical plans.

U.S. Defined Benefit Plans

We maintain qualified and non-qualified defined benefit pension plans in the U.S. The qualified plan provides coverage for substantially all full-time U.S. employees who receive benefits, up to an earnings threshold specified by the U.S. Department of Labor. The non-qualified plans primarily cover a small number of employees including current and former members of senior management, providing them with benefit levels equivalent to other participants, but that are otherwise limited by U.S. Department of Labor rules. The U.S. plans are designed to operate as "cash balance" arrangements, under which the employee has the option to take a lump sum payment at the end of their service. The

difference between total accumulated benefit obligation and total projected benefit obligation ("Benefit Obligation") is immaterial.

In August 2023, we amended the Company-sponsored qualified defined benefit pension plan in the United States (the "Qualified Plan") for non-union employees to discontinue future benefit accruals under the Qualified Plan and freeze existing accrued benefits effective January 1, 2025. Benefits earned by participants under the Qualified Plan prior to January 1, 2025, are not affected. We also amended the Company-sponsored non-qualified defined benefit pension plan in the United States (the "Non-Qualified Plan") that provides enhanced retirement benefits to select members of management. The Qualified Plan and the Non-Qualified plan were closed to new entrants effective January 1, 2024, and September 1, 2023, respectively. The amendments resulted in a curtailment of both plans during the year ended December 31, 2023. The curtailment loss incurred and the change in projected benefit obligation was immaterial.

In conjunction with the amendment of the Qualified Plan, the Organization and Compensation Committee of our Board of Directors approved certain transition benefits associated with freezing the Qualified Plan. In January 2025, a one-time cash transition benefit was paid to a limited group of employees in the United States that met certain criteria. We recorded a $5.0 million liability for the period ended December 31, 2024, which is included within accrued liabilities in our consolidated balance sheet to recognize this obligation, with corresponding expense included within COS and SG&A in our consolidated statements of income. We also issued approximately the same amount of value in the form of restricted shares to an additional group of employees in the United States in January 2025. The restricted shares are subject to three year cliff-vesting.

The following are assumptions related to the U.S. defined benefit pension plans:

	Year Ended December 31,		
	2024	2023	2022
Weighted average assumptions used to determine Benefit Obligations:			
Discount rate	5.73 %	5.41 %	5.73 %
Rate of increase in compensation levels	4.00	4.00	3.50
Weighted average assumptions used to determine net pension expense:			
Long-term rate of return on assets	6.00 %	6.00 %	5.75 %
Discount rate	5.41	5.73	3.00
Rate of increase in compensation levels	4.00	3.50	3.50
Weighted-average interest crediting rates	4.00 %	4.00 %	3.79 %

At December 31, 2024 as compared with December 31, 2023, we increased our discount rate from 5.41% to 5.73% based on an analysis of publicly traded investment grade U.S. corporate bonds, which had a higher yield due to current market conditions. In determining 2024 expense, the expected rate of return on U.S. plan assets is 6.00%, primarily based on our target allocations and expected long-term asset returns. The long-term rate of return assumption is calculated using a quantitative approach that utilizes historical returns and asset allocation as inputs for the calculation. For all U.S. plans, we adopted the Pri-2012 mortality tables and the MP-2021 improvement scale published in October 2021. We applied the Pri-2012 tables based on the constituency of our plan population for union and non-union participants. We adjusted the improvement scale to utilize the Proxy SSA Long Term Improvement Rates, consistent with assumptions adopted by the Social Security Administration trustees, based on long-term historical experience. Currently, we believe this approach provides the best estimate of our future obligation. Most plan participants elect to receive plan benefits as a lump sum at the end of service, rather than an annuity. As such, the updated mortality tables had an immaterial effect on our pension obligation.

Net pension expense for the U.S. defined benefit pension plans (including both qualified and non-qualified plans) was:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Service cost	$ 23,935	$ 21,341	$ 24,680
Interest cost	20,759	20,480	13,157
Expected return on plan assets	(23,235)	(23,931)	(25,345)
Settlement loss	—	15	—
Amortization of unrecognized prior service cost	194	185	175
Amortization of unrecognized net (gain) loss	—	(13)	3,461
U.S. net pension expense	$ 21,653	$ 18,077	$ 16,128

The following summarizes the net pension (liability) asset for U.S. plans:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Plan assets, at fair value	$ 352,517	$ 361,174
Benefit Obligation	(415,236)	(417,648)
Funded status	$ (62,719)	$ (56,474)

The following summarizes amounts recognized in the balance sheet for U.S. plans:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Current liabilities	(154)	(169)
Noncurrent liabilities	(62,565)	(56,305)
Funded status	$ (62,719)	$ (56,474)

The following is a summary of the changes in the U.S. defined benefit plans' pension obligations:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ 417,648	$ 382,959
Service cost	23,935	21,341
Interest cost	20,759	20,480
Plan amendments and settlements	—	(3,103)
Actuarial loss (gain) (1)	(6,588)	31,912
Benefits paid	(40,518)	(35,941)
Balance — December 31	$ 415,236	$ 417,648
Accumulated benefit obligations at December 31	$ 415,236	$ 417,648

(1) The actuarial gain in 2024 and loss in 2023 primarily reflect the impact of changes in the discount rate. The increase in the interest crediting rate assumption also contributed to the actuarial loss in 2023.

The following table summarizes the expected cash benefit payments for the U.S. defined benefit pension plans in the future (amounts in millions):

2025	$ 43.1
2026	40.2
2027	38.3
2028	35.3
2029	33.5
2030-2034	150.6

The following table shows the change in accumulated other comprehensive loss attributable to the components of the net cost and the change in Benefit Obligations for U.S. plans, net of tax:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ (62,602)	$ (44,455)
Amortization of net (gain) loss	—	(10)
Amortization of prior service cost	148	141
Net loss arising during the year	(4,143)	(20,362)
Settlement loss and other	—	2,140
Prior service cost arising during the year	—	(56)
Balance — December 31	$ (66,597)	$ (62,602)

Amounts recorded in accumulated other comprehensive loss consist of:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Unrecognized net loss	$ (66,024)	$ (61,904)
Unrecognized prior service cost	(573)	(698)
Accumulated other comprehensive loss, net of tax	$ (66,597)	$ (62,602)

The following is a reconciliation of the U.S. defined benefit pension plans' assets:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ 361,174	$ 365,044
Gain (loss) on plan assets	11,121	29,323
Company contributions	20,740	3,143
Benefits paid	(40,518)	(35,941)
Settlements	—	(395)
Balance — December 31	$ 352,517	$ 361,174

We contributed $20.7 million and $3.1 million to the U.S. defined benefit pension plans during 2024 and 2023, respectively.

All U.S. defined benefit plan assets are held by the qualified plan. The asset allocations for the qualified plan at the end of 2024 and 2023 by asset category, are as follows:

	Target Allocation at December 31,		Percentage of Actual Plan Assets at December 31,	
Asset category	**2024**	**2023**	**2024**	**2023**
Cash and cash equivalents	1 %	1 %	1 %	2 %
Cash and cash equivalents	1 %	1 %	1 %	2 %
Global Equity	24 %	20 %	24 %	21 %
Global Real Assets	18 %	14 %	19 %	15 %
Equity securities	42 %	34 %	43 %	36 %
Diversified Credit	18 %	14 %	18 %	15 %
Liability-Driven Investment	39 %	51 %	38 %	47 %
Fixed income	57 %	65 %	56 %	62 %

None of our common stock is directly held by our qualified plan. Our investment strategy is to earn a long-term rate of return consistent with an acceptable degree of risk and minimize our cash contributions over the life of the plan, while taking into account the liquidity needs of the plan. We preserve capital through diversified investments in high quality securities. Our current allocation target is to invest approximately 42% of plan assets in equity securities and 57% in fixed income securities. Within each investment category, assets are allocated to various investment strategies. Professional money management firms manage our assets, and we engage a consultant to assist in evaluating these activities. We periodically review the allocation target, generally in conjunction with an asset and liability study and in consideration of our future cash flow needs. We regularly rebalance the actual allocation to our target investment allocation.

Plan assets are invested in commingled funds. Our "Pension and Investment Committee" is responsible for setting the investment strategy and the target asset allocation for the plan's assets. As the qualified plan approached fully funded status, we implemented a Liability-Driven Investing ("LDI") strategy, which more closely aligns the duration of the plan's assets with the duration of its liabilities. The LDI strategy results in an asset portfolio that more closely matches the behavior of the liability, thereby reducing the volatility of the plan's funded status.

The plan's financial instruments, shown below, are presented at fair value. See Note 1, "Significant Accounting Policies and Accounting Developments," for further discussion on how the hierarchical levels of the fair values of the Plan's investments are determined. The fair values of our U.S. defined benefit plan assets were:

	At December 31, 2024				At December 31, 2023			
		Hierarchical Levels				Hierarchical Levels		
	Total	I	II	III	Total	I	II	III
	(Amounts in thousands)				(Amounts in thousands)			
Cash and cash equivalents	$ 3,497	$ 3,497	$ —	$ —	$ 5,798	$ 5,798	$ —	$ —
Commingled Funds:								
Equity securities								
Global Equity(a)	85,158	—	85,158	—	76,217	—	76,217	—
Global Real Assets(b)	68,263	—	68,263	—	54,025	—	54,025	—
Fixed income securities								
Diversified Credit(c)	63,873	—	63,873	—	54,756	—	54,756	—
Liability-Driven Investment(d)	131,726	—	131,726	—	170,378	—	170,378	—
	$ 352,517	$ 3,497	$ 349,020	$ —	$ 361,174	$ 5,798	$ 355,376	$ —

(a) Global Equity fund seeks to closely track the performance of the MSCI All Country World Index.
(b) Global Real Asset funds seek to provide exposure to the listed global real estate investment trusts and infrastructure markets.
(c) Diversified Credit funds seek to provide exposure to the high yield, emerging markets, bank loans and securitized credit markets.
(d) LDI funds seek to invest in high quality fixed income securities that collectively closely match those found in discount curves used to value the plan's liabilities.

Non-U.S. Defined Benefit Plans

We maintain defined benefit pension plans, which cover some or all of our employees in the following countries: Austria, Belgium, Canada, France, Germany, India, Italy, Japan, Mexico, Saudi Arabia, Qatar, UAE, The Netherlands, Switzerland and the United Kingdom. The assets of the plans in the United Kingdom (two plans), The Netherlands and Canada represent 87% of the total non-U.S. plan assets ("non-U.S. assets"). Details of other countries' plan assets have not been provided due to immateriality.

The following are assumptions related to the non-U.S. defined benefit pension plans:

	Year Ended December 31,		
	2024	2023	2022
Weighted average assumptions used to determine Benefit Obligations:			
Discount rate	4.71 %	4.22 %	4.46 %
Rate of increase in compensation levels	3.51	3.24	3.61
Weighted average assumptions used to determine net pension expense:			
Long-term rate of return on assets	4.65 %	3.97 %	2.43 %
Discount rate	4.22	4.46	1.71
Rate of increase in compensation levels	3.24	3.62	3.18
Weighted-average interest crediting rates	2.06 %	2.29 %	1.49 %

At December 31, 2024, as compared with December 31, 2023, we increased our average discount rate for non-U.S. plans from 4.22% to 4.71% based on analysis of bonds and other publicly traded instruments, by country, which had higher yields due to market conditions. To determine 2024 pension expense, our average expected rate of return on plan

assets increased to 4.65% based on our target allocations and expected long-term asset returns. As the expected rate of return on plan assets is long-term in nature, short-term market fluctuations do not significantly impact the rate.

Many of our non-U.S. defined benefit plans are unfunded, as permitted by local regulation. The expected long-term rate of return on assets for funded plans was determined by assessing the rates of return for each asset class and is calculated using a quantitative approach that utilizes unadjusted historical returns and asset allocation as inputs for the calculation. We work with our actuaries to determine the reasonableness of our long-term rate of return assumptions by looking at several factors including historical returns, expected future returns, asset allocation, risks by asset class and other items.

Net pension expense for non-U.S. defined benefit pension plans was:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Service cost	$ 6,381	$ 4,611	$ 5,984
Interest cost	12,401	11,897	6,506
Expected return on plan assets	(7,740)	(6,659)	(5,883)
Amortization of unrecognized net loss	2,561	1,270	2,729
Amortization of unrecognized prior service cost	296	300	293
Settlement (gain) loss and other	(63)	(23)	(75)
Non-U.S. net pension expense	$ 13,836	$ 11,396	$ 9,554

The following summarizes the net pension liability for non-U.S. plans:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Plan assets, at fair value	$ 167,508	$ 179,450
Benefit Obligation	(285,498)	(297,600)
Funded status - Underfunded	$ (117,990)	$ (118,150)

The following summarizes amounts recognized in the balance sheet for non-U.S. plans:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Noncurrent assets	$ 12,211	$ 9,563
Current liabilities	(9,282)	(7,682)
Noncurrent liabilities	(120,919)	(120,031)
Funded status	$ (117,990)	$ (118,150)

The following is a reconciliation of the non-U.S. plans' defined benefit pension obligations:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ 297,600	$ 268,364
Service cost	6,381	4,611
Interest cost	12,401	11,897
Employee contributions	80	80
Settlements and other(3)	13,051	(982)
Actuarial losses (gains)(1)	(13,012)	17,082
Net benefits and expenses paid	(17,393)	(15,181)
Currency translation impact(2)	(13,610)	11,729
Balance — December 31	$ 285,498	$ 297,600
Accumulated benefit obligations at December 31	$ 264,367	$ 279,760

(1) Actuarial losses (gains) primarily reflects the impact of changes in the discount rates for all plans.
(2) In 2024, the currency translation gain reflects the strengthening of the U.S. dollar against the Euro and the British pound, while in 2023, the currency translation loss reflects the weakening of the U.S. dollar against the Euro and the British pound.
(3) Includes $13.6 million for Middle East Pension Plans and $0.6 million for settlements.

The following table summarizes the expected cash benefit payments for the non-U.S. defined benefit plans in the future (amounts in millions):

2025	$ 29.2
2026	18.3
2027	18.1
2028	19.8
2029	20.1
2030-2034	102.7

The following table shows the change in accumulated other comprehensive loss attributable to the components of the net cost and the change in Benefit Obligations for non-U.S. plans, net of tax:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ (59,968)	$ (42,421)
Amortization of net loss	2,662	1,631
Net (losses) gains arising during the year	5,107	(16,039)
Settlement (gains) losses	(61)	(23)
Prior service gain (cost) arising during the year	—	10
Currency translation impact and other	1,935	(3,126)
Balance — December 31	$ (50,325)	$ (59,968)

Amounts recorded in accumulated other comprehensive loss consist of:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Unrecognized net loss	$ (47,404)	$ (56,698)
Unrecognized prior service cost	(2,921)	(3,270)
Accumulated other comprehensive loss, net of tax	$ (50,325)	$ (59,968)

The following is a reconciliation of the non-U.S. plans' defined benefit pension assets:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ 179,450	$ 172,276
Return (Loss) on plan assets	1,372	4,444
Employee contributions	80	80
Company contributions	10,733	10,221
Settlements	(581)	(967)
Currency translation impact	(6,153)	8,577
Net benefits and expenses paid	(17,393)	(15,181)
Balance — December 31	$ 167,508	$ 179,450

In 2024, the U.K. and The Netherlands plans contributed to the decrease in plan assets. The U.K. and The Netherlands pension plans contributed to the change in the non-U.S. plan assets due to higher asset returns in 2023. Our contributions to non-U.S. defined benefit pension plans in 2025 are expected to be approximately $2 million, excluding direct benefits paid.

The asset allocations for the non-U.S. defined benefit pension plans at the end of 2024 and 2023 are as follows:

	Target Allocation at December 31,		Percentage of Actual Plan Assets at December 31,	
Asset category	**2024**	**2023**	**2024**	**2023**
Cash and cash equivalents	1 %	— %	1 %	— %
Cash and cash equivalents	1 %	— %	1 %	— %
U.K. Government Gilt Index	32 %	39 %	32 %	39 %
Liability-Driven Investment	15 %	12 %	15 %	12 %
Fixed income	47 %	51 %	47 %	51 %
Multi-asset	21 %	19 %	21 %	19 %
Buy-in Contracts	18 %	18 %	18 %	18 %
Other	13 %	12 %	13 %	12 %
Other types	52 %	49 %	52 %	49 %

None of our common stock is held directly by these plans. In all cases, our investment strategy for these plans is to earn a long-term rate of return consistent with an acceptable degree of risk and minimize our cash contributions over the life of the plan, while taking into account the liquidity needs of the plan and the legal requirements of the particular country. We preserve capital through diversified investments in high quality securities.

Asset allocation differs by plan based upon the plan's benefit obligation to participants, as well as the results of asset and liability studies that are conducted for each plan and in consideration of our future cash flow needs. Professional money management firms manage plan assets and we engage a consultant in the United Kingdom to assist in evaluation of these activities. The assets of the U.K. plans are overseen by a group of Trustees who review the investment strategy, asset allocation and fund selection. These assets are passively managed as they are invested in index funds that attempt to match the performance of the specified benchmark index.

The fair values of the non-U.S. assets were:

	At December 31, 2024				At December 31, 2023			
		Hierarchical Levels				Hierarchical Levels		
	Total	**I**	**II**	**III**	**Total**	**I**	**II**	**III**
	(Amounts in thousands)				(Amounts in thousands)			
Cash	$ 2,454	$ 2,454	$ —	—	$ 706	$ 706	$ —	$ —
Commingled Funds:								
Fixed income securities								
U.K. Government Gilt Index(a)	54,208	—	54,208	—	69,566	—	69,566	—
Liability-Driven Investment(b)	23,778	—	23,778	—	21,873	—	21,873	—
Other Types of Investments:								
Multi-asset(c)	35,346	—	35,346	—	34,693	—	34,693	—
Buy-in Contracts(d)	30,647	—	—	30,647	31,692	—	—	31,692
Other(e)	21,075	—	—	21,075	20,920	—	—	20,920
	$ 167,508	$ 2,454	$ 113,332	$ 51,722	$ 179,450	$ 706	$ 126,132	$ 52,612

(a) U.K. Government Gilt Index represents U.K. government issued fixed income investments which are passively managed to track their respective benchmarks.
(b) LDI seeks to invest in fixed income securities that collectively closely match those found in discount curves used to value the plan's liabilities.

(c) Multi-asset seeks an attractive risk-adjusted return by investing in a diversified portfolio of strategies, including equities and fixed income.
(d) The Buy-in Contracts ("Contract" or "Contracts") represent assets held by plans, whereby the cost of providing benefits to plan participants is funded by the Contract. The Contracts are held by the plans for the benefit of plan participants in the Netherlands and United Kingdom. The fair value of these assets are based on the current present value of accrued benefits and will fluctuate based on changes in the obligations associated with covered plan members as well as the assumptions used in the present value calculation. The fair value of assets held in the Netherlands Contract as of January 1, 2024 was $16.9 million, with benefit payments of $1.0 million, contributions and return on assets of $0.3 million and negative currency adjustments of $1.0 million resulting in a fair value of $15.2 million at December 31, 2024. Similarly, the fair value of asset held in the U.K. plan Contract as of January 1, 2024 was $14.8 million, with benefit payments of $1.0 million, return on assets of $1.9 million and negative currency adjustments of $0.3 million resulting in a fair value of $15.4 million at December 31, 2024. There were no material transfers into or out of Level III.
(e) Includes assets held by plans outside the United Kingdom, the Netherlands and Canada. Details of each plan have not been provided due to immateriality. The fair value of the assets as of January 1, 2024 was $20.9 million, with contributions of $10.5 million, payments of $9.2 million, settlements and return on assets of $1.1 million and negative currency adjustments of $2.2 million resulting in a fair value of $21.1 million at December 31, 2024. There were no material transfers into or our of Level III.

Defined Benefit Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets

The following summarizes key pension plan information regarding U.S. and non-U.S. plans whose accumulated benefit obligations exceed the fair value of their respective plan assets.

	December 31,	
	2024	2023
	(Amounts in thousands)	
Benefit Obligation	$ 575,538	$ 590,015
Accumulated benefit obligation	559,725	577,942
Fair value of plan assets	384,006	407,307

Postretirement Medical Plans

We sponsor several defined benefit postretirement medical plans covering certain current retirees and a limited number of future retirees in the United States. These plans provide for medical and dental benefits and are administered through insurance companies and health maintenance organizations. The plans include participant contributions, deductibles, co-insurance provisions and other limitations and are integrated with Medicare and other group plans. We fund the plans as benefits and health maintenance organization premiums are paid, such that the plans hold no assets in any period presented. Accordingly, we have no investment strategy or targeted allocations for plan assets. Benefits under our postretirement medical plans are not available to new employees or most existing employees.

The following are assumptions related to postretirement benefits:

	Year Ended December 31,		
	2024	2023	2022
Weighted average assumptions used to determine Benefit Obligation:			
Discount rate	5.78 %	5.57 %	5.83 %
Weighted average assumptions used to determine net expense:			
Discount rate	5.57 %	5.83 %	2.83 %

The assumed ranges for the annual rates of increase in medical costs used to determine net expense were 7.00% for 2024, 7.00% for 2023 and 7.25% for 2022, with a gradual decrease to 5.00% for 2032 and future years.

Net postretirement benefit cost for postretirement medical plans was:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Interest cost	$ 678	$ 761	$ 464
Amortization of unrecognized prior service cost	122	122	122
Amortization of unrecognized net loss (gain)	69	53	192
Net postretirement benefit expense	$ 869	$ 936	$ 778

The following summarizes the accrued postretirement benefits liability for the postretirement medical plans:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Postretirement Benefit Obligation	$ 11,761	$ 12,417
Funded status	$ (11,761)	$ (12,417)

The following summarizes amounts recognized in the balance sheet for postretirement Benefit Obligation:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Current liabilities	$ (1,985)	$ (2,037)
Noncurrent liabilities	(9,776)	(10,380)
Funded status	$ (11,761)	$ (12,417)

The following is a reconciliation of the postretirement Benefit Obligation:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ 12,417	$ 13,353
Interest cost	678	761
Employee contributions	303	379
Medicare subsidies receivable	55	60
Actuarial gain	(239)	(49)
Net benefits and expenses paid	(1,453)	(2,087)
Balance — December 31	$ 11,761	$ 12,417

The following presents expected benefit payments for future periods (amounts in millions):

	Expected Payments
2025	$ 2.0
2026	1.8
2027	1.6
2028	1.5
2029	1.3
2030-2034	4.5

The following table shows the change in accumulated other comprehensive loss attributable to the components of the net cost and the change in Benefit Obligations for postretirement benefits, net of tax:

	2024	2023
	(Amounts in thousands)	
Balance — January 1	$ (325)	$ (496)
Amortization of net loss	52	41
Amortization of prior service cost	94	93
Net gain arising during the year	183	37
Balance — December 31	$ 4	$ (325)

Amounts recorded in accumulated other comprehensive loss consist of:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Unrecognized net gain	$ (259)	$ 130
Unrecognized prior service cost	263	(455)
Accumulated other comprehensive income, net of tax	$ 4	$ (325)

We made contributions to the postretirement medical plans to pay benefits of $1.1 million in 2024, $1.6 million in 2023 and $2.4 million in 2022. Because the postretirement medical plans are unfunded, we make contributions as the covered individuals' claims are approved for payment. Accordingly, contributions during any period are directly correlated to the benefits paid.

Defined Contribution Plans

We sponsor several defined contribution plans covering substantially all U.S. and Canadian employees and certain other non-U.S. employees. Employees may contribute to these plans, and these contributions are matched in varying amounts by us, including discretionary matching contributions. Defined contribution plan expense was $29.8 million in 2024, $23.6 million in 2023 and $21.9 million in 2022.

15. EARNINGS PER SHARE

The following is a reconciliation of net earnings of Flowserve Corporation and weighted average shares for calculating net earnings per common share. Earnings per weighted average common share outstanding was calculated as follows:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands, except per share data)		
Net earnings of Flowserve Corporation	$ 282,759	$ 186,743	$ 188,689
Dividends on restricted shares not expected to vest	—	—	—
Earnings attributable to common and participating shareholders	$ 282,759	$ 186,743	$ 188,689
Weighted average shares:			
Common stock	131,450	131,074	130,591
Participating securities	38	43	39
Denominator for basic earnings per common share	131,488	131,117	130,630
Effect of potentially dilutive securities	868	814	685
Denominator for diluted earnings per common share	132,356	131,931	131,315
Net earnings per share attributable to Flowserve Corporation common shareholders:			
Basic	$ 2.15	$ 1.42	$ 1.44
Diluted	2.14	1.42	1.44

Diluted earnings per share above is based upon the weighted average number of shares as determined for basic earnings per share plus shares potentially issuable in conjunction with stock options and Restricted Shares.

For the years ended December 31, 2024, 2023 and 2022, unvested restricted shares of 12,840, 118,781 and 118,334, respectively, were excluded from the computation of diluted earnings per share because the effect of their exercise would be anti-dilutive.

16. LEGAL MATTERS AND CONTINGENCIES

Asbestos-Related Claims

We are a defendant in a substantial number of lawsuits that seek to recover damages for personal injury allegedly caused by exposure to asbestos-containing products manufactured and/or distributed by our heritage companies in the past. Typically, these lawsuits have been brought against multiple defendants in state and federal courts. While the overall number of asbestos-related claims in which we or our predecessors have been named has generally declined in recent years, the number of new claims may fluctuate or increase between periods, and there can be no assurance that total outstanding claims will continue to decline, or that the average cost per claim to us will not further increase. Asbestos-containing materials incorporated into any such products were encapsulated and used as internal components of process equipment, and we do not believe that significant emission of asbestos fibers occurred during the use of this equipment.

Our practice is to vigorously contest and resolve these claims, and we have been successful in resolving a majority of claims with little or no payment, other than legal fees. Activity related to asbestos claims during the periods indicated was as follows:

	2024	2023	2022
Beginning claims, January 1,(1)	8,236	8,139	8,712
New claims	2,761	2,470	2,454
Resolved claims	(3,027)	(2,545)	(2,204)
Other(2)	157	172	(823)
Ending claims, December 31,(1)	8,127	8,236	8,139

(1) Beginning and ending claims data in each period excludes inactive claims, as the Company assumes that inactive cases will not be pursued further by the respective plaintiffs. A claim is classified as inactive either due to inactivity over a period of time or if designated as inactive by the applicable court.

(2) Represents the net change in claims as a result of the reclassification of active cases as inactive and inactive cases as active during the period indicated. Cases moved from active to inactive status are removed from the claims count without being accounted for as a "Resolved claim", and cases moved from inactive status to active status are added back to the claims count without being accounted for as a “New claim”.

The following table presents the changes in the estimated asbestos liability as of December 31, 2024, 2023 and 2022:

mounts in thousands)	2024	2023	2022
ginning balance, January 1,	$ 102,983	98,652	94,423
sbestos liability adjustments, net	23,740	22,237	14,782
ash payment activity	(10,618)	(12,589)	(5,733)
ther, net	(5,693)	(5,397)	(4,820)
ding balance, December 31,	$ 110,352	102,983	98,652

The Company incurred expenses (net of insurance) of approximately $22.7 million, $22.1 million and $14.8 million during the periods ended December 31, 2024, 2023 and 2022, respectively, to defend, resolve or otherwise dispose of outstanding claims, including legal and other related expenses. These expenses are included within SG&A in the consolidated statements of income.

The Company had cash inflows/(outflows) (net of insurance and/or indemnity) to defend, resolve or otherwise dispose of outstanding claims, including legal and other related expenses of approximately $(7.9) million, $(18.4) million and $4.2 million during the periods ended December 31, 2024, 2023 and 2022, respectively.

Historically, a high percentage of resolved claims have been covered by applicable insurance or indemnities from other companies, and we believe that a portion of existing claims should continue to be covered by insurance or indemnities, in whole or in part.

We believe that our reserve for asbestos claims and the receivable for recoveries from insurance carriers that we have recorded for these claims reflect reasonable and probable estimates of these amounts. Our estimate of our ultimate exposure for asbestos claims, however, is subject to significant uncertainties, including the timing and number and types of new claims, unfavorable court rulings, judgments or settlement terms and ultimate costs to settle. Additionally, the continued viability of carriers, may also impact the amount of probable insurance recoveries. We believe that these uncertainties could have a material adverse impact on our business, financial condition, results of operations and cash flows, though we currently believe the likelihood is remote.

Additionally, we have claims pending against certain insurers that, if in future periods are resolved more favorably than reflected in the recorded receivables, would result in discrete gains in the applicable year.

Other

We are currently involved as a potentially responsible party at five former public waste disposal sites in various stages of evaluation or remediation. The projected cost of remediation at these sites, as well as our alleged "fair share" allocation, will remain uncertain until all studies have been completed and the parties have either negotiated an amicable resolution or the matter has been judicially resolved. At each site, there are many other parties who have similarly been identified. Many of the other parties identified are financially strong and solvent companies that appear able to pay their share of the remediation costs. Based on our information about the waste disposal practices at these sites and the environmental regulatory process in general, we believe that it is likely that ultimate remediation liability costs for each site will be apportioned among all liable parties, including site owners and waste transporters, according to the volumes and/or toxicity of the wastes shown to have been disposed of at the sites. We believe that our financial exposure for existing disposal sites will not be materially in excess of accrued reserves.

We are also a defendant in a number of other lawsuits, including product liability claims, that are insured, subject to the applicable deductibles, arising in the ordinary course of business, and we are also involved in other uninsured routine litigation incidental to our business. We currently believe none of such litigation, either individually or in the aggregate, is material to our business, operations or overall financial condition. However, litigation is inherently unpredictable, and resolutions or dispositions of claims or lawsuits by settlement or otherwise could have an adverse impact on our financial position, results of operations or cash flows for the reporting period in which any such resolution or disposition occurs.

Although none of the aforementioned potential liabilities can be quantified with absolute certainty except as otherwise indicated above, we have established or adjusted reserves covering exposures relating to contingencies, to the extent believed to be reasonably estimable and probable based on past experience and available facts. While additional exposures beyond these reserves could exist, they currently cannot be estimated. We will continue to evaluate and update the reserves as necessary and appropriate.

17. WARRANTY RESERVE

We have recorded reserves for product warranty claims that are included in current liabilities. The following is a summary of the activity in the warranty reserve:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Balance — January 1	$ 26,698	$ 22,047	$ 23,893
Accruals for warranty expense, net of adjustments	26,271	26,528	17,342
Settlements made	(21,439)	(21,877)	(19,188)
Balance — December 31	$ 31,530	$ 26,698	$ 22,047

18. SHAREHOLDERS' EQUITY

Dividends – Generally, our dividend date-of-record is in the last month of the quarter, and the dividend is paid the following month. Any subsequent dividends will be reviewed by our Board of Directors and declared at its discretion.

Dividends declared per share were as follows:

	Year Ended December 31,		
	2024	2023	2022
Dividends declared per share	$ 0.84	$ 0.80	$ 0.80

Share Repurchase Program – In 2014, our Board of Directors approved a $500.0 million share repurchase authorization. As of December 31, 2023, we had $96.1 million of remaining capacity under the prior share repurchase authorization. Effective February 19, 2024, the Board of Directors approved an increase in our total remaining capacity

under the share repurchase program to $300.0 million. Our share repurchase program does not have an expiration date, and we reserve the right to limit or terminate the repurchase program at any time without notice.

We repurchased 423,785 shares of our outstanding common stock for $20.1 million during the year ended December 31, 2024, compared to no repurchases of shares during the years ended December 31, 2023 and 2022. As of December 31, 2024, we had $279.9 million of remaining capacity under our current share repurchase program.

19. INCOME TAXES

The provision (benefit) for income taxes consists of the following:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Current:			
U.S. federal	$ 36,330	$ 24,766	$ 45,130
Foreign	56,991	51,431	40,876
State and local	5,055	5,018	6,177
Total current provision (benefit)	98,376	81,215	92,183
Deferred:			
U.S. federal	(12,648)	3,665	(88,498)
Foreign	381	(62,944)	(42,756)
State and local	(1,180)	(3,374)	(4,568)
Total deferred provision (benefit)	(13,447)	(62,653)	(135,822)
Total provision (benefit)	$ 84,929	$ 18,562	$ (43,639)

The provision for income taxes differs from the statutory corporate rate due to the following:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in millions)		
Statutory federal income tax at 21%	$ 81.1	$ 47.0	$ 32.4
Base Erosion and Anti-abuse Tax	—	—	(7.6)
Foreign impact, net	63.5	10.4	(22.3)
Change in valuation allowances	(58.3)	(34.5)	(50.5)
Research and development credit	(4.7)	(2.9)	(1.0)
U.S. federal tax return to accrual adjustments, not separately disclosed in other categories	(0.9)	(4.8)	1.8
Other, net	4.2	3.4	3.6
Total	84.9	18.6	(43.6)
Effective tax rate	22.0 %	8.3 %	(28.3)%

On December 22, 2017, the U.S. enacted the Tax Cuts and Jobs Act of 2017 (the "Tax Reform Act"), which provided the base-erosion and anti-abuse tax ("BEAT") provision which effectively creates a new minimum tax on certain deductible payments to foreign affiliates. For the years ended December 31, 2024 and 2023, we are not subject to BEAT tax, and the previously recorded 2021 BEAT tax was reversed in 2022 following finalization of the 2021 U.S. federal income tax return.

For the year ended December 31, 2024, the change in net foreign impact is driven mainly by the expiration of 2019 Hungarian net operating loss that is fully offset in the change in valuation allowance by $54.2 million (see discussion below).

For the year ended December 31, 2023, the change in valuation allowances is driven mainly by the release of the valuation allowance against our deferred tax assets by $18.9 million in Brazil, $14.6 million in France. The Company determined that the net deferred tax assets in Brazil and France are realizable based on recent history of profitability and future income projections.

For the year ended December 31, 2022, the change in valuation allowances is driven mainly by the release of the valuation allowance against our deferred tax assets by $13.2 million in Germany, $22.4 million in Mexico and $44.4 million release of the valuation allowance on our U.S. foreign tax credit carryforwards on general category income partially offset by a valuation allowance establishment of $13.6 million in Argentina. The Company determined that the net deferred tax assets in Germany and Mexico are realizable based on recent history of profitability and future income projections. In addition, we determined that the U.S. foreign tax credit carryforwards on general category income were realizable based on the development of a tax planning strategy.

For the years ended December 31, 2024, 2023 and 2022 we have asserted indefinite reinvestment on certain earnings of our foreign subsidiaries. As of December 31, 2024, we have not recorded approximately $35.7 million of deferred tax liabilities associated with remaining unremitted earnings considered indefinitely reinvested, specifically related to foreign withholding taxes that would be due upon repatriation of the designated earnings to the U.S. While the company has estimated the foreign withholding tax impact related to distributing earnings currently deemed permanently reinvested, the calculation of the potential U.S. tax consequences associated with the distribution of earnings currently deemed permanently reinvested is impracticable.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the consolidated deferred tax assets and liabilities were:

	December 31,	
	2024	2023
	(Amounts in thousands)	
Deferred tax assets related to:		
Retirement benefits	$ 34,778	$ 34,526
Net operating loss carryforwards	105,174	186,337
Compensation accruals	37,785	41,688
Inventories	29,764	33,168
Credit and capital loss carryforwards	166,999	185,162
Warranty and accrued liabilities	53,466	47,614
Capitalized research and experimental expenditures	67,206	60,542
Other	81,600	89,510
Total deferred tax assets	576,772	678,547
Valuation allowances	(250,841)	(347,673)
Net deferred tax assets	$ 325,931	$ 330,874
Deferred tax liabilities related to:		
Goodwill and intangibles	$ (81,241)	$ (81,245)
Foreign undistributed earnings	(7,179)	(10,477)
Operating lease right-of-use-assets	(16,967)	(20,198)
Other	(581)	(1,930)
Total deferred tax liabilities	(105,968)	(113,850)
Deferred tax asset (liabilities), net	$ 219,963	$ 217,024

We had $747.1 million of U.S. and foreign net operating loss carryforwards at December 31, 2024. Of this total, $9.9 million are state net operating losses. State net operating losses generated in the United States, if unused, will expire in 2027. $214.0 million of our foreign net operating losses carry forward without expiration. The majority of our Hungarian net operating loss of $430.2 million that has a full valuation allowance (see discussion below), if unused, will expire in 2025 and 2028. The remaining foreign net operating losses of $93.0 million that do not carry forward without expiration, if unused, will expire between 2025-2044. Additionally, we had $67.4 million of foreign tax credit carryforwards at December 31, 2024, that have a valuation allowance on the foreign branch category income (see discussion below), if unused, will expire between 2028-2034.

The following schedule presents the changes in deferred tax asset valuation allowance as follows:

(Amounts in thousands)	Balance at beginning of year	Additions charged to cost and expenses	Additions charged to other accounts - currency effects and other, net	Deductions from reserve	Balance at end of year
Year Ended December 31, 2024					
Deferred tax asset valuation allowance(1):	$ 347,672	$ 6,964	$ (37,286)	$ (66,509)	$ 250,841
Year Ended December 31, 2023					
Deferred tax asset valuation allowance(1):	356,557	19,684	25,367	(53,936)	347,672
Year Ended December 31, 2022					
Deferred tax asset valuation allowance(1):	415,962	36,822	(11,775)	(84,452)	356,557

(1) Deductions from reserve result from the release of valuation allowances on deferred tax assets, expiration or utilization of net operating losses and foreign tax credits previously reserved. Additions to reserve result from the establishment of valuation allowances on deferred tax assets, generation of net operating losses and foreign tax credits.

The Company maintains a full valuation allowance against the net deferred tax assets in certain foreign jurisdictions as of December 31, 2024. As of each reporting date, management considers new evidence, both positive and negative that could affect its view of the future realization of net deferred tax assets. We assess our forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets in determining the sufficiency of our valuation allowances. Failure to achieve forecasted taxable income in the applicable tax jurisdictions could affect the ultimate realization of deferred tax assets and could result in an increase in our effective tax rate on future earnings. It is possible there may be sufficient positive evidence to release a portion of the remaining valuation allowance in those foreign jurisdictions. Release of the valuation allowance would result in a benefit to income tax expense for the period the release is recorded, which could have a material impact on net earnings. The timing and amount of the potential valuation allowance release are subject to significant management judgment and the level of profitability achieved.

Our valuation allowances primarily relate to the deferred tax assets established for U.S. foreign tax credit carryforwards on foreign branch category income of $54.1 million, Hungarian net operating loss carryforward of $38.7 million, a foreign capital loss carryforward of $93.3 million, and other foreign deferred tax assets of $64.7 million. The Hungarian net operating loss carryforward was a result of a local statutory impairment of investments in subsidiaries in 2021. It is more likely than not that the loss will not be utilized within its five year carryforward period and, therefore, has a full valuation allowance. The foreign capital loss carryforward was the result of a reorganization of certain foreign subsidiaries in 2019. Due to its capital nature, it is more likely than not that the loss will not be utilized within its ten year carryforward period and, therefore, has a full valuation allowance.

Earnings before income taxes comprised:

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
U.S.	$ 109,794	$ 212,631	$ 63,508
Foreign	276,361	11,119	90,868
Total	$ 386,155	$ 223,750	$ 154,376

A tabular reconciliation of the total gross amount of unrecognized tax benefits, excluding interest and penalties, is as follows (in millions):

	2024	2023	2022
Balance — January 1	$ 46.2	$ 50.2	$ 49.9
Gross amount of increase (decrease) in unrecognized tax benefits resulting from tax positions taken:			
During a prior year	0.1	(9.1)	5.4
During the current period	7.2	7.4	5.8
Decreases in unrecognized tax benefits relating to:			
Settlements with taxing authorities	—	(2.8)	(5.5)
Lapse of the applicable statute of limitations	(1.9)	(1.4)	(4.1)
Increase (decrease) in unrecognized tax benefits relating to foreign currency translation adjustments	(5.5)	1.9	(1.3)
Balance — December 31	$ 46.1	$ 46.2	$ 50.2

The amount of gross unrecognized tax benefits at December 31, 2024, was $71.3 million, which includes $25.2 million of accrued interest and penalties. Of this amount $54.3 million, if recognized, would favorably impact our effective tax rate.

With limited exception, we are no longer subject to U.S. federal income tax audits for years through 2017, state and local income tax audits for years through 2018 or non-U.S. income tax audits for years through 2017. We are currently under examination for various years in Austria, Canada, China, Germany, India, Indonesia, Italy, Kenya, Madagascar, Malaysia, Mexico, Morocco, the Philippines, Qatar, Saudi Arabia, Singapore, Switzerland, the United States and Venezuela.

It is reasonably possible that within the next 12 months the effective tax rate will be impacted by the resolution of some or all of the matters audited by various taxing authorities. It is also reasonably possible that we will have the statute of limitations close in various taxing jurisdictions within the next 12 months. As such, we estimate we could record a reduction in our tax expense up to approximately $4 million within the next 12 months.

On December 20, 2021, the Organisation for Economic Co-operation and Development ("OECD") released the Model GloBE Rules for Pillar Two defining a 15% global minimum tax rate for large multinational corporations. Many countries continue to consider changes in their tax laws and regulations based on the Pillar Two proposals. We are continuing to evaluate the impact of these proposed and enacted legislative changes as new guidance becomes available. Some of these legislative changes could result in double taxation of our non-U.S. earnings, a reduction in the tax benefit received from our tax incentives, or other impacts to our effective tax rate and tax liabilities. As of December 31, 2024, the company is not expecting material impacts under currently enacted legislation.

20. BUSINESS SEGMENT INFORMATION

Our business segments, which are the same as our reportable segments, share a focus on industrial flow control technology and have a high number of common customers. These segments also have complementary product offerings and technologies that are often combined in applications that provide us a net competitive advantage. Our segments also

benefit from our global footprint and our economies of scale in reducing administrative and overhead costs to serve customers more cost effectively.

We conduct our operations through two business segments based on type of product and how we manage the business:

- FPD for highly custom engineered pumps, pre-configured industrial pumps, pump systems, mechanical seals, auxiliary systems and replacement parts and related services; and
- FCD for engineered-to-order and configured-to-order isolation values, control valves, valve automation products and related equipment.

Our corporate headquarters does not constitute a separate division or business segment. Amounts classified as "Eliminations and All Other" include corporate headquarters costs and other minor entities that do not constitute separate segments. Inter segment sales and transfers are recorded at cost plus a profit margin, with the sales and related margin on such sales eliminated in consolidation.

Flowserve's chief operating decision maker ("CODM") is the chief executive officer.

The CODM uses segment operating income or loss for both the FPD and FCD segments in the annual budget and forecasting process. The CODM considers budget-to-actual variances on a monthly basis when making decisions about allocating capital and personnel to the segments.

The following is a summary of the financial information of our reportable segments as of and for the years ended December 31, 2024, 2023 and 2022 reconciled to the amounts reported in the consolidated financial statements.

	FPD	FCD	Subtotal—Reportable Segments	Eliminations and All Other	Consolidated Total
			(Amounts in thousands)		
Year Ended December 31, 2024:					
Sales to external customers	$3,154,151	$ 1,403,655	$ 4,557,806	$ —	$ 4,557,806
Intersegment sales	4,416	5,641	10,057	(10,057)	—
Cost of sales	(2,141,520)	(985,323)	(3,126,843)		
SG&A	(556,225)	(252,675)	(808,900)		
Other segment items (1)	19,394	(13,033)	6,361		
Segment operating income (loss)	480,216	158,265	638,481		
Depreciation and amortization	45,726	21,503	67,229	18,369	85,598
Identifiable assets	3,042,859	1,739,425	4,782,284	718,537	5,500,821
Capital expenditures	51,315	20,095	71,410	9,609	81,019

	FPD	FCD	Subtotal—Reportable Segments	Eliminations and All Other	Consolidated Total
			(Amounts in thousands)		
Year Ended December 31, 2023:					
Sales to external customers	$3,060,993	$ 1,259,584	$ 4,320,577	$ —	$ 4,320,577
Intersegment sales	3,487	6,448	9,935	(9,935)	—
Cost of sales	(2,157,705)	(893,224)	(3,050,929)		
SG&A	(575,792)	(224,774)	(800,566)		
Other segment items (2)	17,884	—	17,884		
Segment operating income (loss)	348,867	148,034	496,901		
Depreciation and amortization	47,628	17,249	64,877	18,870	83,747
Identifiable assets	3,191,726	1,333,973	4,525,699	583,020	5,108,719
Capital expenditures	41,613	15,953	57,566	9,793	67,359

	FPD	FCD	Subtotal—Reportable Segments	Eliminations and All Other	Consolidated Total
			(Amounts in thousands)		
Year Ended December 31, 2022:					
Sales to external customers	$ 2,518,000	$ 1,097,120	$ 3,615,120	$ —	$ 3,615,120
Intersegment sales	4,508	3,489	7,997	(7,997)	—
Cost of sales	(1,794,425)	(795,095)	(2,589,520)		
SG&A	(538,523)	(192,097)	(730,620)		
Other segment items (2)	18,397	—	18,397		
Segment operating income (loss)	207,957	113,417	321,374		
Depreciation and amortization	49,654	18,931	68,585	22,368	90,953
Identifiable assets	3,110,733	1,269,690	4,380,423	410,211	4,790,634
Capital expenditures	34,295	17,178	51,473	24,814	76,287

(1) Other segment items comprises Net Earnings from Affiliates as well as the Loss on sale of business of $13 million recorded in the FCD segment in the second quarter of 2024 related to disposal of the NAF AB control valves business.

(2) Other segment items comprises Net Earnings from Affiliates.

The following are reconciliations from total segment operating income to earnings before income tax reported in the consolidated income statement.

	Year Ended December 31,		
	2024	2023	2022
	(Amounts in thousands)		
Total segment operating income (loss)	$ 638,481	$ 496,901	$ 321,374
Intersegment sales	(10,057)	(9,935)	(7,997)
Eliminations and all other cost of sales	3,282	7,180	(31,305)
Eliminations and all other SG&A	(169,137)	(160,603)	(84,926)
Interest expense	(69,301)	(66,924)	(46,247)
Interest income	5,371	6,991	3,963
Net earnings (loss) from affiliates	(290)	10	73
Other income (expense), net	(12,194)	(49,870)	(559)
Earnings before income taxes	386,155	223,750	154,376

Geographic Information — We attribute sales to different geographic areas based on our facilities' locations. Long-lived assets are classified based on the geographic area in which the assets are located and exclude deferred taxes, goodwill and intangible assets. Sales and long-lived assets by geographic area are as follows:

	Year Ended December 31, 2024			
	Sales	Percentage	Long-Lived Assets	Percentage
	(Amounts in thousands, except percentages)			
United States	$ 1,823,595	40.0 %	$ 421,797	46.9 %
EMA(1)	1,583,302	34.7 %	278,197	30.9 %
Asia(2)	676,989	14.9 %	151,727	16.9 %
Other(3)	473,920	10.4 %	47,962	5.3 %
Consolidated total	$ 4,557,806	100.0 %	$ 899,683	100.0 %

	Year Ended December 31, 2023			
	Sales	Percentage	Long-Lived Assets	Percentage
	(Amounts in thousands, except percentages)			
United States	$ 1,821,751	42.2 %	$ 394,395	44.7 %
EMA(1)	1,503,776	34.8 %	289,061	32.8 %
Asia(2)	584,759	13.5 %	140,596	15.9 %
Other(3)	410,291	9.5 %	58,059	6.6 %
Consolidated total	$ 4,320,577	100.0 %	$ 882,111	100.0 %

	Year Ended December 31, 2022			
	Sales	Percentage	Long-Lived Assets	Percentage
	(Amounts in thousands, except percentages)			
United States	$ 1,536,961	42.5 %	$ 412,896	46.6 %
EMA(1)	1,210,436	33.5 %	274,511	30.9 %
Asia(2)	524,952	14.5 %	144,206	16.2 %
Other(3)	342,771	9.5 %	56,132	6.3 %
Consolidated total	$ 3,615,120	100.0 %	$ 887,745	100.0 %

(1) "EMA" includes Europe, the Middle East and Africa. The United Kingdom accounted for approximately 10% for 2024, 11% for 2023 and 10% for 2022, of consolidated long-lived assets. No other individual country within this group represents 10% or more of consolidated totals for any period presented.
(2) "Asia" includes Asia and Australia. No individual country within this group represents 10% or more of consolidated totals for any period presented.
(3) "Other" includes Canada and Latin America. No individual country within this group represents 10% or more of consolidated totals for any period presented.

Net sales to international customers, including export sales from the United States, represented approximately 64% of total sales in 2024 and 62% of total sales in both 2023 and 2022.

Major Customer Information — We have a large number of customers across a large number of manufacturing and service facilities and do not have sales to any individual customer that represent 10% or more of consolidated sales for any of the years presented.

21. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following table presents the changes in Accumulated Other Comprehensive Loss ("AOCL"), net of related tax effects:

	2024			
(Amounts in thousands)	Foreign currency translation items(1)	Pension and other post-retirement effects	Cash flow hedging activity(2)	Total(1)
Balance - January 1	$ (523,873)	$ (121,882)	$ (813)	$ (646,568)
Other comprehensive income (loss) before reclassifications (3)	(111,790)	5,728	—	(106,062)
Amounts reclassified from AOCL	3,566	256	66	3,888
Net current-period other comprehensive income (loss) (3)	(108,224)	5,984	66	(102,174)
Balance - December 31	$ (632,097)	$ (115,898)	$ (747)	$ (748,742)

	2023			
(Amounts in thousands)	Foreign currency translation items(1)	Pension and other post-retirement effects	Cash flow hedging activity(2)	Total(1)
Balance - January 1	$ (554,683)	$ (86,356)	$ (933)	$ (641,972)
Other comprehensive income (loss) before reclassifications (3)	30,810	(37,218)	—	(6,408)
Amounts reclassified from AOCL	—	1,692	120	1,812
Net current-period other comprehensive income (loss) (3)	30,810	(35,526)	120	(4,596)
Balance - December 31	$ (523,873)	$ (121,882)	$ (813)	$ (646,568)

(Amounts in thousands)	2022			
	Foreign currency translation items(1)	Pension and other post-retirement effects	Cash flow hedging activity(2)	Total(1)
Balance - January 1	$ (456,025)	$ (101,665)	$ (1,336)	$ (559,026)
Other comprehensive income (loss) before reclassifications (3)	(98,658)	16,684	314	(81,660)
Amounts reclassified from AOCL	—	(1,375)	89	(1,286)
Net current-period other comprehensive income (loss) (3)	(98,658)	15,309	403	(82,946)
Balance - December 31	$ (554,683)	$ (86,356)	$ (933)	$ (641,972)

(1) Includes foreign currency translation adjustments attributable to noncontrolling interests of $(7.3) million, $(7.0) million, $5.8 million and $4.6 million for December 31, 2024, 2023, 2022 and 2021, respectively. Also includes the cumulative impacts from the changes in fair value of our cross-currency swaps, which were $49.0 million for December 31, 2022.
(2) Other comprehensive loss before reclassifications and amounts reclassified from AOCL to interest expense related to designated cash flow hedges.
(3) Amounts in parentheses indicate an increase to AOCL.

The following table presents the reclassifications out of AOCL:

(Amounts in thousands)	Affected line item in the statement of income	2024(1)	2023(1)	2022(1)
Pension and other postretirement effects				
Amortization of actuarial losses(2)	Other income (expense), net	$ (68)	$ (1,310)	$ (6,382)
Prior service costs(2)	Other income (expense), net	(316)	(608)	(591)
Settlements and other(2)	Other income (expense), net	—	8	(75)
	Tax benefit (expense)	128	218	8,423
	Net of tax	$ (256)	$ (1,692)	$ 1,375
Cash flow hedging activity				
Amortization of Treasury rate lock	Interest income (expense)	$ (123)	$ (120)	$ (117)
	Tax benefit (expense)	57	—	28
	Net of tax	$ (66)	$ (120)	$ (89)

(1) Amounts in parentheses indicate decreases to income. None of the reclassification amounts have a noncontrolling interest component.
(2) These AOCL components are included in the computation of net periodic pension cost. See Note 14, "Pension and Postretirements Benefits," for additional details.

22. REALIGNMENT PROGRAMS

In the second quarter of 2020, we identified and initiated certain realignment activities to right-size our organizational operations based on the current business environment, with the overall objective to reduce our workforce costs, including manufacturing optimization through the consolidation of certain facilities, referred to as the "2020 Realignment Program." As of December 31, 2022, the 2020 Realignment Program was substantially complete.

In the first quarter of 2023, we identified and initiated certain realignment activities concurrent with the consolidation of our FPD aftermarket and pump operations into a single operating model. This consolidated operating model is designed to better align our go-to-market strategy with our product offerings, enable end-to-end lifecycle responsibility and accountability, and to facilitate more efficient operations. During 2023, we also initiated certain product and portfolio optimization activities. Additionally, we committed to an estimated $50 million in cost reduction efforts to begin in 2023. Collectively, the above realignment activities are referred to as the "2023 Realignment Programs." The activities of the 2023 Realignment Programs were identified and implemented in phases throughout 2023 and 2024.

In the fourth quarter of 2024, we launched the complexity reduction ("CORE") program within the portfolio excellence category of the Flowserve Business System. The CORE program focuses on product rationalization and continuous improvement of our overall product portfolio and is referred to as the "CORE Realignment Program." Together with the 2023 Realignment Programs, all realignment activities initiated in 2023 and 2024 are referred to as the "2023 and CORE Realignment Programs." The realignment activities consist of restructuring and non-restructuring charges. Restructuring charges represent costs associated with the relocation of certain business activities and facility closures and include related severance costs. Non-restructuring charges are primarily employee severance associated with workforce reductions and professional service fees. Expenses are primarily reported in COS or SG&A, as applicable, in our consolidated statements of income. We currently anticipate a total investment in realignment activities that have been evaluated and initiated of approximately $134 million of which $45 million is estimated to be non-cash. There are certain remaining realignment activities that are currently being evaluated, but have not yet been approved and therefore are not included in the above anticipated total investment.

Generally, the aforementioned charges will be paid in cash, except for asset write-downs, which are non-cash charges. The following is a summary of total charges, net of adjustments, incurred related to our 2023 and CORE Realignment Programs:

	December 31, 2024				
(Amounts in thousands)	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
Restructuring Charges					
COS	$ 24,113	$ (1,364)	$ 22,749	$ —	$ 22,749
SG&A	1,306	2,599	3,905	(28)	3,877
Loss on sale of business(1)	—	12,981	12,981	—	12,981
	$ 25,419	$ 14,216	$ 39,635	$ (28)	$ 39,607
Non-Restructuring Charges					
COS	$ 6,614	$ 2,440	$ 9,054	$ (228)	$ 8,826
SG&A	(228)	497	269	794	1,063
	$ 6,386	$ 2,937	$ 9,323	$ 566	$ 9,889
Total Realignment Charges					
COS	$ 30,727	$ 1,076	$ 31,803	$ (228)	$ 31,575
SG&A	1,078	3,096	4,174	766	4,940
Loss on sale of business(1)	—	12,981	12,981	—	12,981
Total	$ 31,805	$ 17,153	$ 48,958	$ 538	$ 49,496

(1) Loss on sale of business related to NAF AB control valves business as described within Note 1, "Significant Accounting Policies and Accounting Developments," to our consolidated financial statements included in this Annual Report.

(Amounts in thousands)	December 31, 2023				
	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
Restructuring Charges					
COS	$ 2,962	$ 6,405	$ 9,367	$ 66	$ 9,433
SG&A	50	9,777	9,827	—	9,827
	$ 3,012	$ 16,182	$ 19,194	$ 66	$ 19,260
Non-Restructuring Charges					
COS	$ 7,835	$ 4,171	$ 12,006	$ (427)	$ 11,579
SG&A	14,483	1,616	16,099	19,099	35,198
	$ 22,318	$ 5,787	$ 28,105	$ 18,672	$ 46,777
Total Realignment Charges					
COS	$ 10,797	$ 10,576	$ 21,373	$ (361)	$ 21,012
SG&A	14,533	11,393	25,926	19,099	45,025
Total	$ 25,330	$ 21,969	$ 47,299	$ 18,738	$ 66,037

The following is a summary of total charges, net of adjustments, incurred related to our 2020 Realignment Program:

mounts in thousands)	December 31, 2022				
	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
structuring Charges					
COS	$ 768	93	861	$ —$	861
SG&A	—	(4)	(4)	—	(4)
	$ 768	89	857	$ —$	857
n-Restructuring Charges					
COS	$ (530)	86	(444)	$ (61)$	(505)
SG&A	148	(391)	(243)	(274)	(517)
	$ (382)	(305)	(687)	$ (335)$	(1,022)
tal Realignment Charges					
COS	$ 238	179	417	$ (61)$	356
SG&A	148	(395)	(247)	(274)	(521)
Total	$ 386	(216)	170	$ (335)$	(165)

The following is a summary of total inception to date charges, net of adjustments, related to the 2023 Realignment Programs:

(Amounts in thousands)	Inception to Date				
	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
Restructuring Charges					
COS	$ 27,076	$ 5,041	$ 32,117	66	$ 32,183
SG&A	1,355	12,376	$ 13,731	(28)	13,703
Loss on sale of business(1)	—	12,981	$ 12,981	—	12,981
	$ 28,431	$ 30,398	$ 58,829	$ 38	$ 58,867
Non-Restructuring Charges					
COS	$ 11,506	$ 6,612	$ 18,118	$ (655)	$ 17,463
SG&A	14,256	2,112	16,368	19,893	36,261
	$ 25,762	$ 8,724	$ 34,486	$ 19,238	$ 53,724
Total Realignment Charges					
COS	$ 38,582	$ 11,653	$ 50,235	$ (589)	$ 49,646
SG&A	15,611	14,488	30,099	19,865	49,964
Loss on sale of business(1)	—	12,981	12,981	—	12,981
Total	$ 54,193	$ 39,122	$ 93,315	$ 19,276	$ 112,591

(1) Loss on sale of business related to NAF AB control valves business as described within Note 1, "Significant Accounting Policies and Accounting Developments," to our consolidated financial statements included in this Annual Report.

The following is a summary of total inception to date charges, net of adjustments, related to the CORE Realignment Program:

(Amounts in thousands)	Inception to Date				
	FPD	FCD	Subtotal–Reportable Segments	All Other	Consolidated Total
Restructuring Charges					
COS	$ —	$ —	$ —	$ —	$ —
SG&A	—	—	—	—	—
	$ —	$ —	$ —	$ —	$ —
Non-Restructuring Charges					
COS	$ 2,942	$ —	$ 2,942	$ —	$ 2,942
SG&A	—	—	—	—	—
	$ 2,942	$ —	$ 2,942	$ —	$ 2,942
Total Realignment Charges					
COS	$ 2,942	$ —	$ 2,942	$ —	$ 2,942
SG&A	—	—	—	—	—
Total	$ 2,942	$ —	$ 2,942	$ —	$ 2,942

Restructuring charges represent costs associated with the relocation or reorganization of certain business activities and facility closures and include costs related to employee severance at closed facilities, contract termination costs, asset write-downs and other costs. Severance costs primarily include costs associated with involuntary termination benefits. Contract termination costs include costs related to the termination of operating leases or other contract termination costs. Asset write-downs include accelerated depreciation or impairment of fixed assets, accelerated amortization or impairment of intangible assets, divestiture of certain non-strategic assets and inventory write-downs. Other costs generally include costs related to employee relocation, asset relocation, vacant facility costs (i.e., taxes and insurance) and other charges. Restructuring charges include charges related to approved, but not yet announced, facility closures.

The following is a summary of restructuring charges, net of adjustments, for our restructuring activities related to our 2023 Realignment Programs:

	December 31, 2024				
(Amounts in thousands)	Severance	Contract Termination	Asset Write-Downs	Other	Total
COS	$ 7,078	$ —	$ 12,861	$ 2,809	$ 22,748
SG&A	158	—	3,750	(30)	3,878
Loss on sale of business(1)	—	—	—	12,981	12,981
Total	$ 7,236	$ —	$ 16,611	$ 15,760	$ 39,607

(1) Loss on sale of business related to NAF AB control valves business as described within Note 1, "Significant Accounting Policies and Accounting Developments," to our consolidated financial statements included in this Annual Report.

(Amounts in thousands)	December 31, 2023				
	Severance	Contract Termination	Asset Write-Downs	Other	Total
COS	$ 7,085	$ 301	$ 794	$ 1,253	$ 9,433
SG&A	950	—	8,871	6	9,827
Total	$ 8,035	$ 301	$ 9,665	$ 1,259	$ 19,260

The following is a summary of restructuring charges, net of adjustments, for our restructuring activities related to our 2020 Realignment Program:

(Amounts in thousands)	December 31, 2022				
	Severance	Contract Termination	Asset Write-Downs	Other	Total
COS	$ 122	$ 327	$ 273	$ 139	$ 861
SG&A	(4)	—	—	—	(4)
Total	$ 118	$ 327	$ 273	$ 139	$ 857

The following is a summary of total inception to date restructuring charges, net of adjustments, related to our 2023 Realignment Programs:

(Amounts in thousands)	Inception to Date				
	Severance	Contract Termination	Asset Write-Downs	Other	Total
COS	$ 14,164	$ 301	$ 13,655	$ 4,063	$ 32,183
SG&A	1,106	—	12,621	(24)	13,703
Loss on sale of business(1)	—	—	—	12,981	12,981
Total	$ 15,270	$ 301	$ 26,276	$ 17,020	$ 58,867

(1) Loss on sale of business related to NAF AB control valves business as described within Note 1, "Significant Accounting Policies and Accounting Developments," to our consolidated financial statements included in this Annual Report.

There are no restructuring charges related to our CORE Realignment Program.

The following represents the activity, primarily severance charges from reductions in workforce, related to the restructuring reserve for the 2023 Realignment Programs for the years ended December 31, 2024 and 2023:

(Amounts in thousands)	2024	2023
Balance at January 1,	$ 8,184	$ 965
Charges	10,129	9,594
Cash expenditures	(8,050)	(2,110)
Other non-cash adjustments, including currency	(1,963)	(265)
Balance at December 31,	$ 8,300	$ 8,184

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

None.

ITEM 9A. *CONTROLS AND PROCEDURES*

Disclosure Controls and Procedures

Our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) are designed to provide reasonable assurance that the information, which we are required to disclose in the reports that we file or submit under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

In connection with the preparation of this Annual Report on Form 10-K for the year ended December 31, 2024, our management, under the supervision and with the participation of our Principal Executive Officer and our Principal Financial Officer, carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2024, as required by Rule 13a-15(b) of the Exchange Act. Based on this evaluation, our Principal Executive Officer and Principal Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2024.

Management's Report on Internal Control Over Financial Reporting

Our management, under the supervision and with the participation of our Principal Executive Officer and Principal Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. 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 in the United States ("U.S. GAAP"). Internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

In accordance with SEC staff interpretative guidance for newly acquired businesses, companies are allowed to exclude certain acquisitions from the assessment of internal control over financial reporting during the first year after completion of an acquisition while integrating the acquired company. Consistent with this guidance, MOGAS has been excluded from management's assessment of internal control over financial reporting as of December 31, 2024, because it was acquired by the Company on October 15, 2024. MOGAS's total assets (excluding acquired goodwill and intangible assets) and sales represented approximately 3% and less than 1%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2024.

Under the supervision and with the participation of our Principal Executive Officer and Principal Financial Officer, our management conducted an assessment of our internal control over financial reporting as of December 31, 2024, based on the criteria established in Internal Control - Integrated Framework (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, our management concluded our internal control over financial reporting was effective as of December 31, 2024, based on criteria in *Internal Control - Integrated Framework* (2013) issued by the COSO.

The effectiveness of our internal control over financial reporting as of December 31, 2024, has been audited by PricewaterhouseCoopers LLP, our independent registered public accounting firm, as stated in their report, which is included herein.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during the quarter ended December 31, 2024 that have materially affected, or are reasonably likely to materially affect our internal control over financial reporting.

Other

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 existing policies or procedures may deteriorate.

ITEM 9B. ***OTHER INFORMATION***

Insider Trading Arrangements.

Our directors and executive officers may, from time to time, enter into plans or other arrangements for the purchase or sale of our shares that are intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or may represent a non-Rule 10b5-1 trading arrangement under the Exchange Act. During the quarter ended December 31, 2024, no such plans or other arrangements were adopted, terminated or modified.

ITEM 9C. ***DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS***

Not applicable.

PART III

ITEM 10. ***DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE***

The information required in this Item 10 is incorporated by reference to all information under the captions “Security Ownership of Directors and Certain Executive Officers,” “Security Ownership of Certain Beneficial Owners,” “Proposal One: Election of Directors,” “Executive Officers,” “Shareholder Proposals and Nominations,” "Insider Trading Policy," “Delinquent Section 16(a) Reports,” to the extent applicable, and “Certain Relationships and Related Transactions" in our definitive Proxy Statement relating to our 2025 annual meeting of shareholders.

We have adopted a Code of Conduct that applies to all of our directors, officers and employees, including our Principal Executive, Principal Financial and Principal Accounting Officers, or persons performing similar functions. Our Code of Conduct is available on the Company’s website at www.flowserve.com under the “Investors - Corporate Governance” caption. We intend to disclose future amendments to certain provisions of the Code of Conduct, and waivers of the Code of Conduct granted to executive officers and directors, on the website within four business days following the date of the amendment or waiver.

ITEM 11. ***EXECUTIVE COMPENSATION***

The information required in this Item 11 is incorporated by reference to all information under the captions “Executive Compensation,” “Proposal Two: Advisory Vote to Approve Executive Compensation,” “Delinquent Section 16(a) Reports,” to the extent applicable, “Security Ownership of Directors and Certain Executive Officers,” “Compensation Committee Interlocks and Insider Participation” and “Certain Relationships and Related Transactions” in our definitive Proxy Statement relating to our 2025 annual meeting of shareholders.

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

The information required in this Item 12 is incorporated by reference to all information under the captions "Security Ownership of Directors and Certain Executive Officers," "Security Ownership of Certain Beneficial Owners," "Equity Compensation Plan Information" and "Executive Compensation" in our definitive Proxy Statement relating to our 2025 annual meeting of shareholders.

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

The information required in this Item 13 is incorporated by reference to all information under the captions "Role of the Board; Corporate Governance Matters," "Board Committees" and "Certain Relationships and Related Transactions" in our definitive Proxy Statement relating to our 2025 annual meeting of shareholders.

ITEM 14. ***PRINCIPAL ACCOUNTANT FEES AND SERVICES***

The information required in this Item 14 is incorporated by reference to all information under the caption "Other Audit Information" in our definitive Proxy Statement relating to our 2025 annual meeting of shareholders.

PART IV

ITEM 15. ***EXHIBITS AND FINANCIAL STATEMENT SCHEDULES***

(a) Documents filed as a part of this Annual Report:

1. *Consolidated Financial Statements*

The following consolidated financial statements and notes thereto are filed as part of this Annual Report:

Report of Independent Registered Public Accounting Firm (PCAOB ID 238)

Flowserve Corporation Consolidated Financial Statements:

Consolidated Balance Sheets at December 31, 2024 and 2023:

For each of the three years in the period ended December 31, 2024:

Consolidated Statements of Income

Consolidated Statements of Comprehensive Income

Consolidated Statements of Shareholders' Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

2. *Consolidated Financial Statement Schedules*

None

Financial statement schedules not included in this Annual Report have been omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

3. *Exhibits*

The exhibits of this Annual Report on Form 10-K included herein are set forth below.

Exhibit No.	Description
3.1	Restated Certificate of Incorporation of Flowserve Corporation, as amended and restated effective May 20, 2021 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) filed on May 25, 2021).
3.2	Flowserve Corporation By-Laws, as amended and restated effective February 7, 2025 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) filed on February 11, 2025).
4.1	Senior Indenture, dated September 11, 2012, by and between Flowserve Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated September 11, 2012).
4.2	First Supplemental Indenture, dated September 11, 2012, by and among Flowserve Corporation, certain of its subsidiaries and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated September 11, 2012).
4.3	Second Supplemental Indenture, dated November 1, 2013, by and among Flowserve Corporation, certain of its subsidiaries and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated November 1, 2013).
4.4	Third Supplemental Indenture, dated March 17, 2015, by and among Flowserve Corporation, certain of its subsidiaries and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated March 17, 2015).
4.5	Fourth Supplemental Indenture, dated September 21, 2020, between Flowserve Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated September 22, 2020).
4.6	Fifth Supplemental Indenture, dated September 23, 2021, by and between Flowserve Corporation and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated September 23, 2021).
4.7	Description of Registrant's Securities (incorporated by reference to Exhibit 4.5 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2019).
10.1	Second Amended and Restated Credit Agreement, dated as of October 10, 2024, among Flowserve Corporation, Bank of America, N.A., as swing line lender, a letter of credit issuer and administrative agent, and the other lenders and letter of credit issuers referred to therein (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated October 10, 2024).
10.2	Amended and Restated Flowserve Corporation Director Cash Deferral Plan, effective January 1, 2009 (incorporated by reference to Exhibit 10.7 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2008).*
10.3	Amended and Restated Flowserve Corporation Director Stock Deferral Plan, dated effective January 1, 2009 (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2008).*
10.4	Trust for Non-Qualified Deferred Compensation Benefit Plans, dated February 11, 2011 (incorporated by reference to Exhibit 10.8 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2010).*
10.5	Flowserve Corporation Deferred Compensation Plan (incorporated by reference to Exhibit 10.23 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2000).*
10.6	Amendment No. 1 to the Flowserve Corporation Deferred Compensation Plan (incorporated by reference to Exhibit 10.50 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2002).*
10.7	Amendment to the Flowserve Corporation Deferred Compensation Plan (incorporated by reference to Exhibit 10.70 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2004).*
10.8	Amendment No. 3 to the Flowserve Corporation Deferred Compensation Plan (incorporated by reference to Exhibit 10.22 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2007).*

Exhibit No.	Description
10.9	Flowserve Corporation Senior Management Retirement Plan, amended and restated effective January 1, 2024 (incorporated by reference to Exhibit 10.10 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2023).*
10.10+	First Amendment to the Flowserve Corporation Senior Management Retirement Plan dated December 16, 2024.*
10.11	Flowserve Corporation Supplemental Executive Retirement Plan, amended and restated effective November 2, 2018 (incorporated by reference to Exhibit 10.14 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2018).*
10.12	Amendment No. 1 to the Flowserve Corporation Supplemental Executive Retirement Plan dated August 29, 2023 (incorporated by reference to Exhibit 10.13 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2023).*
10.13	Amendment No. 2 to the Flowserve Corporation Supplemental Executive Retirement Plan dated December 15, 2023 (incorporated by reference to Exhibit 10.14 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2023).*
10.14+	Amendment No. 3 to the Flowserve Corporation Supplemental Executive Retirement Plan dated December 16, 2024.*
10.15	Flowserve Corporation Supplemental Retirement Savings Plan effective as of January 1, 2024 (incorporated by reference to Exhibit 10.15 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2023).*
10.16+	First Amendment to the Flowserve Corporation Supplemental Retirement Savings Plan dated December 16, 2024.*
10.17	Flowserve Corporation Equity and Incentive Compensation Plan (incorporated by reference to Appendix A to the Registrant's Proxy Statement on Schedule 14A (File No. 001-13179) dated April 3, 2009).*
10.18	Flowserve Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Appendix A to the Registrant's Proxy Statement on Schedule 14A (File No. 001-13179) dated April 11, 2019).*
10.19	Amendment to Flowserve Corporation 2020 Long-Term Incentive Plan, dated December 8, 2022 (incorporated by reference to Exhibit 10.14 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2022).*
10.20	Form of Indemnification Agreement for all Directors and Officers (incorporated by reference to Exhibit 10.47 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2015).
10.21	Offer Letter, dated as of February 6, 2017, by and between Flowserve Corporation and R. Scott Rowe (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated as of February 8, 2017).*
10.22	Flowserve Corporation Change In Control Severance Plan, amended and restated effective November 2, 2018 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended September 30, 2018).*
10.23	Flowserve Corporation Executive Officer Severance Plan, as amended and restated effective August 17, 2022 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended September 30, 2022).*
10.24	Flowserve Corporation Annual Incentive Plan, amended and restated effective August 17, 2022 (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended September 30, 2022).*
10.25	Form of 2023 Restricted Stock Unit Agreement for certain officers pursuant to the Flowserve Corporation 2020 Long-Term Incentive Plan (Annual Award) (incorporated by reference to Exhibit 10.21 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2022).*
10.26	Form of 2022 Restricted Stock Unit Agreement for certain officers pursuant to the Flowserve Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended March 31, 2022).*

Exhibit No.	Description
10.27	Form of 2023 Performance Restricted Stock Unit Agreement for certain officers pursuant to the Flowserve Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2022).*
10.28	Form of 2022 Performance Restricted Stock Unit Agreement for certain officers pursuant to the Flowserve Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended March 31, 2022).*
10.29	Amendment to Performance Restricted Stock Unit Agreements under the Flowserve Corporation 2020 Long-Term Incentive Plan by and between Flowserve Corporation and R. Scott Rowe dated April 19, 2022 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended June 30, 2022).*
10.30	Flowserve Corporation's Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) filed on May 16, 2024).*
10.31	Form of 2024 Performance Restricted Stock Unit Agreement for certain officers pursuant to the Flowserve Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended March 31, 2024).*
10.32	Form of 2024 Restricted Stock Unit Agreement for certain officers pursuant to the Flowserve Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-13179) for the quarter ended March 31, 2024).*
14.1	Flowserve Corporation Employee Code of Conduct (incorporated by reference to Exhibit 14.1 to the Registrant's Current Report on Form 8-K (File No. 001-13179) dated as of August 15, 2019).
19.1+	Flowserve Corporation Insider Trading Policy.
21.1+	Subsidiaries of the Registrant.
23.1+	Consent of PricewaterhouseCoopers LLP.
31.1+	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2+	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1++	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2++	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97.1	Flowserve Corporation Dodd-Frank Clawback Policy (incorporated by reference to Exhibit 97.1 to the Registrant's Annual Report on Form 10-K (File No. 001-13179) for the year ended December 31, 2023).
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2024, formatted in Inline XBRL (included as Exhibit 101).

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* Management contract or compensatory plan or arrangement.

\+ Filed herewith.

++ Furnished 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.

FLOWSERVE CORPORATION

By: /s/ R. Scott Rowe

R. Scott Rowe
President and Chief Executive Officer

Date: February 26, 2025

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 date indicated.

Signature	Title	Date
/s/ David E. Roberts David E. Roberts	Non-Executive Chairman of the Board	February 26, 2025
/s/ R. Scott Rowe R. Scott Rowe	President, Chief Executive Officer and Director (Principal Executive Officer)	February 26, 2025
/s/ Amy B. Schwetz Amy B. Schwetz	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 26, 2025
/s/ Scott K. Vopni Scott K. Vopni	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 26, 2025
/s/ Sujeet Chand Sujeet Chand	Director	February 26, 2025
/s/ Ruby R. Chandy Ruby R. Chandy	Director	February 26, 2025
/s/ Gayla J. Delly Gayla J. Delly	Director	February 26, 2025
/s/ John L. Garrison John L. Garrison	Director	February 26, 2025
/s/ Cheryl H. Johnson Cheryl H. Johnson	Director	February 26, 2025
/s/ Michael C. McMurray Michael C. McMurray	Director	February 26, 2025
/s/ Thomas B. Okray Thomas B. Okray	Director	February 26, 2025
/s/ Kenneth I. Siegel Kenneth I. Siegel	Director	February 26, 2025