
UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

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

For the fiscal year ended December 31, 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 001-10716

TRIMAS CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

38-2687639

(IRS Employer Identification No.)

38505 Woodward Avenue, Suite 200

Bloomfield Hills, Michigan 48304

(Address of Principal Executive Offices, Including Zip Code)

(248) 631-5450

(Registrant's telephone number, including area code)

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

<u>Title of Each Class:</u>	<u>Trading symbol(s)</u>	<u>Name of Each Exchange on Which Registered:</u>
Common stock, \$0.01 par value	TRS	The NASDAQ Stock Market LLC

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 Act). Yes No

The aggregate market value of the voting common equity held by non-affiliates of the Registrant as of June 28, 2024 was approximately \$1.0 billion, based upon the closing sales price of the Registrant's common stock, \$0.01 par value, reported for such date on the NASDAQ Global Select Market. For purposes of this calculation only, directors, executive officers and the principal controlling shareholder or entities controlled by such controlling shareholder are deemed to be affiliates of the Registrant.

As of February 20, 2025, the number of outstanding shares of the Registrant's common stock, \$0.01 par value, was 40,583,198 shares.

Portions of the Registrant's Proxy Statement for the 2025 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K to the extent stated herein.

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Forward-Looking Statements

This report may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 about our financial condition, results of operations and business. These forward-looking statements can be identified by the use of forward-looking words, such as "may," "could," "should," "estimate," "project," "forecast," "intend," "expect," "anticipate," "believe," "target," "plan" or other comparable words, or by discussions of strategy that may involve risks and uncertainties.

These forward-looking statements are subject to numerous assumptions, risks and uncertainties which could materially affect our business, financial condition or future results including, but not limited to: general economic and currency conditions; competitive factors; market demand; our ability to realize our business strategies; our ability to identify attractive acquisition candidates, successfully integrate acquired operations or realize the intended benefits of such acquisitions; pressures on our supply chain, including availability of raw materials and inflationary pressures on raw material and energy costs, and customers; the performance of our subcontractors and suppliers; risks and uncertainties associated with intangible assets, including goodwill or other intangible asset impairment charges; risks associated with a concentrated customer base; information technology and other cyber-related risks; risks related to our international operations, including, but not limited to, risks relating to tensions between the United States and China; government and regulatory actions, including, without limitation, climate change legislation and other environmental regulations, as well as the impact of tariffs, quotas and surcharges; changes to fiscal and tax policies; intellectual property factors; uncertainties associated with our ability to meet customers' and suppliers' sustainability and environmental, social and governance ("ESG") goals and achieve our sustainability and ESG goals in alignment with our own announced targets; litigation; contingent liabilities relating to acquisition activities; interest rate volatility; our leverage; liabilities imposed by our debt instruments; labor disputes and shortages; the disruption of operations from catastrophic or extraordinary events, including, but not limited to, natural disasters, geopolitical conflicts and public health crises; the amount and timing of future dividends and/or share repurchases, which remain subject to Board approval and depend on market and other conditions; our future prospects; and other risks that are discussed in Part I, Item 1A, "Risk Factors." The risks described in this report are not the only risks facing our Company. Additional risks and uncertainties not currently known to us or that we currently deemed to be immaterial also may materially adversely affect our business, financial position and results of operations or cash flows.

Forward-looking and other statements in this Annual Report on Form 10-K regarding our sustainability and ESG plans and goals are not an indication that these statements are necessarily material to investors or required to be disclosed in our filings with the Securities and Exchange Commission ("SEC"). In addition, historical, current and forward-looking sustainability- and ESG-related statements may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve and assumptions that are subject to change in the future.

The cautionary statements set forth above should be considered in connection with any subsequent written or oral forward-looking statements that we or persons acting on our behalf may issue. We caution readers not to place undue reliance on the statements, which speak only as of the date of this report. We do not undertake any obligation to review or confirm analysts' expectations or estimates or to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events, except as required by law.

We disclose important factors that could cause our actual results to differ materially from our expectations implied by our forward-looking statements under Part II, Item 7, *"Management's Discussion and Analysis of Financial Condition and Results of Operations,"* and elsewhere in this report. These cautionary statements qualify all forward-looking statements attributed to us or persons acting on our behalf. When we indicate that an event, condition or circumstance could or would have an adverse effect on us, we mean to include effects upon our business, financial and other conditions, results of operations, prospects and ability to service our debt.

Trademarks and Service Marks

We own or have rights to trademarks, service marks or trade names that we use in connection with the operation of our business. Solely for convenience, some of the copyrights, trademarks, service marks and trade names referred to in this Annual Report on Form 10-K are listed without the ©, ® and ™ symbols, but we will assert, to the fullest extent under applicable law, our rights to our copyrights, trademarks, service marks, trade names and domain names. The trademarks, service marks and trade names of other companies appearing in this Annual Report on Form 10-K are, to our knowledge, the property of their respective owners.

PART I

Item 1. Business

Overview

TriMas designs, develops and manufactures a diverse set of products primarily for the consumer products, aerospace & defense, and industrial markets through its TriMas Packaging, TriMas Aerospace and Specialty Products groups. We believe our businesses share important and distinguishing characteristics, including: well-recognized brand names in the markets we serve; innovative product technologies and features; customer-approved processes and qualified products; strong cash flow generation; long-term growth opportunities; and a commitment to sustainability. Headquartered in Bloomfield Hills, Michigan, TriMas has approximately 3,900 employees who serve our customers from 37 manufacturing and support locations in 13 countries.

During 2024, our net sales were \$925.0 million, operating profit was \$47.2 million, and net cash provided by operating activities was \$63.8 million. Approximately 77% of our 2024 net sales were generated from sales in North America.

Our Competitive Strengths

TriMas reports its operating activities in three segments: Packaging, Aerospace and Specialty Products. Our management team believes TriMas is uniquely positioned because of a number of competitive strengths, including:

- *Well-Recognized and Established Brands.* Our main Packaging brands include Rieke®, Affaba & Ferrari™, Taplast™, Rapak® and Aarts Packaging™, which are also marketed under the TriMas Packaging brand, and Intertech™ and Omega Plastics™, which are also marketed under the TriMas Life Sciences brand (all of which make up the TriMas Packaging group and are collectively reported in the Packaging segment). Our Aerospace brands include Monogram Aerospace Fasteners®, Allfast® Fastening Systems, Mac Fasteners™, RSA Engineered Products™, Weldmac Manufacturing Company™, Martinic Engineering™ and TFI Aerospace™, which are also marketed under the TriMas Aerospace brand (all of which make up the TriMas Aerospace™ group and are collectively reported in the Aerospace segment). Norris Cylinder™ is the main brand reported within the Specialty Products segment. We believe each of our go-to-market brands is well-recognized and firmly established in the end markets we serve. We believe our brands represent high standards and a commitment to quality and service that our customers rely on, and in many cases certify or audit, when making their sourcing decisions.
- *Innovative and Proprietary Manufacturing and Product Technologies.* We believe each of our businesses is well-positioned through years of refined manufacturing know-how, innovative product development, application engineering and solutions design. We believe our manufacturing footprint and operational competencies would be difficult and costly to replicate, and provide us a competitive advantage to serve our customers. We continue to place a priority on investing in innovation to enhance and protect our product designs, brand names, and manufacturing processes and competencies.
- *Customer-Focused Solutions and Long-Term Customer Relationships.* We work collaboratively with our customers to design new product applications that help satisfy rapidly changing preferences in the marketplace. As a recognized leader in many of our end markets, customers partner with us during the design, product development and production life cycle. These ongoing relationships, often developed over decades, coupled with our expertise in innovation and application engineering, position us to win new and replacement business with our customers when they launch new products or programs.
- *Experienced Management Team.* Given the range of product and process technologies within each of our businesses, TriMas' success is a function of our experienced management team. In each of our businesses, including businesses we have acquired, we have members of our leadership team that have served the vast majority of their careers, and have extensive and often times unique experience, in the industries we operate. The TriMas management team is focused and committed to continuously improving Company performance and growing shareholder value. Management compensation is tied to financial results through short-term incentive plans, long-term equity incentive programs and Company-established stock ownership guidelines.

Our Strategy

Guided by our experienced management team, we are focused on the following components that comprise our enterprise-wide strategy:

- *Leverage our TriMas Business Model.* The TriMas Business Model ("TBM") serves as the platform to manage our diverse set of businesses under a common set of standards focused on continuous improvement and achieving operational excellence. Through the TBM, we set near- and long-term performance objectives, and utilize a reliable communication and escalation process that provides for flexibility and adjustments when market expectations change. We believe our operating performance will continue to benefit from the use of Kaizen as a means to drive our decision-making and investment processes. In addition to continuous improvement and goal setting, the TBM is also focused on environmental, health and safety, talent development, and flawless new product and process launches.
- *Invest in Innovation.* We continue to invest in organic growth in our most compelling end markets with the highest long-term return potential. We intend to leverage our brands, expand our product offerings to current and new customers and geographic regions, and introduce innovative products to meet our customers' needs and help solve their challenges. We operate under a disciplined approach to defend and expand our product offerings, and grow our business over the longer term. In addition to product innovation, we also value process innovation and believe we can solidify our customer relationships using new innovative processes and manufacturing "know-how" to improve our quality, speed to develop and commercialize, sustainability and overall competitiveness, increasing customer satisfaction, as well as our performance.
- *Enhance Growth with Strategic Acquisitions.* We believe TriMas, through its relatively low debt leverage, manageable interest expense and resulting cash generation profile, is uniquely positioned to enhance organic growth with strategic bolt-on acquisitions. Our acquisition priority is to build out the Packaging platform, with a focus on beauty, food & beverage and life sciences applications, and increase TriMas' weight in packaging-related end markets, which comprised 55% of consolidated net sales in 2024. We will also explore opportunities to further strategically expand our Aerospace platform with a focus in the areas of fasteners, fittings, and latches, as well as other complementary-to-existing products for commercial and defense applications. Overall, we typically seek to acquire adjacent product lines that expand our existing product offerings, gain access to new customers and end markets, expand our geographic footprint and/or capitalize on scale and cost efficiencies.
- *Drive Enhanced Cash Conversion.* We leverage the TBM to drive management's decision-making processes to achieve our growth and profitability targets, as well as drive our businesses toward achieving market-leading returns and cash flow conversion. We believe establishing well-defined strategies, executing against annual goals and long-range targets, operating in a data-driven, fact-based environment, and awarding our team on annual cash flow generation will allow us to expand our free cash flow and create shareholder value. We plan to use this cash for reinvestment in our businesses, strategic acquisitions and other capital allocation actions, such as share buybacks and dividends.
- *Foster a Culture of Kaizen and Engagement.* We believe our talented and dedicated global team is the foundation of our success. We strive to be a great employer through our demonstrated commitment to employee safety, workplace belonging, talent development and workplace culture. We embrace the tools of Kaizen, which is predicated on engaging our employees to identify cost effective ways to improve all aspects of our businesses, throughout our manufacturing operations and support services. We also foster a culture of employee engagement to drive performance improvements, operational excellence and a sustainable future.
- *Focus on Sustainability.* We view sustainability and ESG practices as important components of our culture and rooted in our core values representing who we are as a company. We proactively seek new ways to make progress in each of the four key areas of our sustainability strategy: Governance & Ethics, People, Environment and Products. We believe that sustainability is broader than caring for the environment, and encompasses care for our employees, as well as the communities where we live and work. It means continuously enhancing our products and our processes to make the world a better place. We strive to incorporate the concept of sustainability into our decision-making model and continue to increase the importance of sustainability in everything we do.

Our Businesses

We report the results of our operations in three segments, which had net sales and operating profit for the year ended December 31, 2024 as follows: Packaging (net sales: \$512.3 million; operating profit: \$68.1 million), Aerospace (net sales: \$294.2 million; operating profit: \$33.8 million) and Specialty Products (net sales: \$118.5 million; operating loss: \$2.0 million). For information pertaining to the net sales and operating profit attributed to our segments, refer to Note 20, "*Segment Information*," included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K.

Each of our segments is described in more detail on the following pages.

Packaging (55% of 2024 net sales)

We believe the TriMas Packaging group is a leading designer, developer and manufacturer of specialty, highly-engineered polymeric and steel closure and dispensing systems for a range of end markets, including consumer packaging (beauty & personal care, food & beverage, and home care), life science and industrial markets. We manufacture high-performance, value-added products that are designed to enhance our customers' ability to store, transport, process and dispense various products.

TriMas Packaging designs and manufactures dispensing products (including foaming pumps, lotion, hand soap and sanitizer pumps, beverage dispensers, perfume sprayers and trigger sprayers), polymeric and steel caps and closures (including food lids, flip-top closures, child resistant caps, drum and pail closures, and flexible spouts), polymeric jar products, and fully integrated dispensers for fill-ready, flexible bag-in-box applications, for a variety of consumer product markets including, but not limited to, the beauty & personal care, home care, food & beverage and industrial end markets. TriMas Packaging also manufactures airless dispensers for pharmaceutical applications, polymerase chain reaction (PCR) test kits for blood testing applications, components for vascular delivery and blood testing, and child resistant closures and containers, as part of its growing presence serving the life sciences end markets.

In February 2023, we acquired Aarts Packaging B.V. ("Aarts"), a well-established, innovative luxury packaging solutions provider for prestigious beauty and lifestyle brands, located in the Netherlands. This acquisition expanded TriMas Packaging's presence in beauty applications, a desirable end market, adding a variety of cosmetic dispenser closures, beauty packaging design solutions and highly-automated injection molding machines with robotic production and finishing capabilities including decorative metallization.

In addition, TriMas Packaging, through its December 2021 acquisition of Omega Plastics and February 2022 acquisition of Intertech, designs and manufactures complex, precision injection molded components and assemblies for applications in the life sciences end market. Our capabilities and products include prototype production molds and custom, medical-related components such as patient diagnostic test components, consumable vascular delivery, surgical devices and pharmaceutical closures.

TriMas Packaging has the capability of manufacturing the majority of products in North America, Europe or Asia, which allows us to evaluate manufacturing location decisions based on customer needs, timing, cost and capacity.

Competitive Strengths

We believe TriMas Packaging benefits from the following competitive strengths in coordination with operating under TriMas' overarching strategy:

- *Strong Product Innovation.* Through a multi-layered approach to product and process innovation starting with subject matter experts, our TriMas Packaging team is focused on driving innovation across a broad range of solutions for our customers. Our New Product Development teams are also supported by our TriMas Center of Excellence, located near New Delhi, India, to enhance our technical innovation and development. TriMas Packaging has a consistent pipeline of new products and enhanced designs ready for launch, and continues to innovate to make products more appealing, sustainable and environmentally friendly. For example, TriMas Packaging's product development programs have provided innovative and proprietary product solutions, such as a range of fully-recyclable, polymeric Singolo™ pumps, made from a single material making it fully recyclable without compromising quality, aesthetics, performance or formula compatibility, and comes in a variety of dosing options. We have also expanded the offering to include a full-plastic foamer, as well as a recyclable small dosage pump for treatment and liquid foundation applications. In addition, TriMas Packaging recently launched tethered caps, which are caps that remain attached to a bottle or container after opening and during use to increase ease of recycling. Other innovative offerings include a line of certified flame mitigation closures, as well as our child-resistant closures (CRC) for nutraceutical and agricultural products, which include innovative patent-pending interlocking inner/outer caps designed with less plastic, reducing our carbon footprint without compromising quality, durability or functional performance. TriMas Packaging also continues to service a variety of clients delivering high precision, innovative medical and wellness offerings; these products enable care to a scope of individuals within a range of medical testing and diagnostics. TriMas Packaging's emphasis on highly-engineered solutions and product development has yielded numerous issued and enforceable patents, with many other patent applications pending. For example, 42 patents were filed and 81 patents were issued in 2024, related to both new and existing patent families.
- *Customized Solutions that Enhance Customer Relationships.* A significant portion of our products have customized designs that are developed and engineered to address customer-specific technical, marketing and sustainability needs, helping to distinguish our customers' products from those of their competitors. For example, the customization of specialty plastic caps, closures and dispensers including branding, unique colors, collar sizes, lining and venting results in substantial customer loyalty. TriMas Packaging has also invested in high-quality, high-performance printing capabilities for multi-color printed logos and customized designs on flat top caps and closures. The substantial investment in flexible manufacturing cells allows us to offer both short lead-times for high volume products and customization for more moderate volume orders, which provides significant advantages to our consumer packaged goods customer base. In addition, we provide customized dispensing solutions including unique pump designs, precision metering, unique colors and special collar sizes to fit our customers' containers. TriMas Packaging collaborates with customers to develop innovative products that are more eco-friendly and easier to recycle. Based on our breadth of products, and engineering and production capabilities, we have achieved preferred supplier status with several customers.

- *Global Manufacturing Footprint.* TriMas Packaging maintains a global network of sales, manufacturing and distribution sites, to serve our global customer base. The majority of TriMas Packaging's manufacturing facilities around the world have advanced injection molding machines required to manufacture precision-engineered dispensing and closure components, as well as automated, high-speed assembly equipment for multi-component products. Our customers, including larger consumer products customers, often desire supply and manufacturing capabilities within their primary geographical end markets which results in more efficient supply chains, reduced carbon footprint and enhanced sustainability. To support these initiatives, we operate a newer, highly-automated facility in New Albany, Ohio, which began production in 2022. This facility enables TriMas Packaging to shift production of a variety of products currently manufactured outside of the United States closer to our customers, and supports new business growth closer to our customers in North America, as needed. During 2023, as a result of temporal, but significant industry-wide destocking and resulting demand softness, TriMas Packaging took proactive actions to optimize its manufacturing footprint and better position its business to capture future operating leverage gains. As a result of its flexible manufacturing footprint, TriMas Packaging was able to close a leased manufacturing facility in Rohnert Park, California, and reposition all of the production assets to other U.S. production facilities, announce the exit of a leased warehouse in Irwindale, California, and consolidate two manufacturing facilities located in China into one new facility which has provided improved efficiencies and positioned the business better for growth in the region. In addition to our locations in China, we also have design and manufacturing capacity and offer highly-engineered dispensing solutions through locations in India and Vietnam, and have increased our Asian market sales coverage. Our acquisitions of Affaba & Ferrari, Taplast, Aarts Packaging and Plastic Srl have provided us with additional sales, design and manufacturing capacity in Europe, with additional manufacturing facilities in the Netherlands, Italy and Slovakia. In addition, we have expanded our capabilities into South America, opening our first warehouse in Brazil in 2022, with local sales, marketing, technical, laboratory and supply chain teams supporting our customers in the region. We believe TriMas Packaging's flexible footprint provides us with multiple alternatives for production to best meet customer requirements and helps mitigate the impacts of potential trade disruption.

Marketing, Customers and Distribution

TriMas Packaging accesses its markets through direct sales to customers, as well as through leading distributors, where it has enjoyed favorable, long-standing relationships. We employ commercial teams in North America, South America, Europe and Asia. At times, we also use third-party agents and distributors in our key geographic markets, as well as agents and distributors primarily to sell to container manufacturers and to users or fillers of containers.

TriMas Packaging's end customers include, but are not limited to, consumer packaged goods, personal care, beauty and cosmetic, medical, pharmaceutical, nutraceutical, food and beverage, industrial, agricultural, chemical, and cleaning and sanitary supply companies. We also provide products into applications used by warehouse clubs, e-retailers and quick-service restaurants. We may provide products directly to the end customer, but the end customers may also specify that our products be provided to filling or packaging intermediary customers. In addition, we also provide products to major container manufacturers, and maintain a customer service center that provides technical support, as well as other technical assistance to customers.

TriMas Packaging has manufacturing and support facilities in the United States, Mexico, Brazil, the United Kingdom, the Netherlands, Germany, Italy, Slovakia, China, India, Vietnam and Australia.

Competition

TriMas Packaging has a broad range of products in closure, dispensing and flexible packaging systems, and therefore has various competitors in each of our product offerings. We do not believe that there is a single competitor that matches our entire product offering. Depending on the product and customers served, our competitors include Aptar, Bericap, Berry Global (soon to be part of Amcor), Comar, Greif, Mold-Rite, Phoenix Closures, Silgan, Technocraft and other smaller private companies located in Asia.

Aerospace (32% of 2024 net sales)

We believe the TriMas Aerospace group is a leading designer and manufacturer of a diverse range of products, including, but not limited to, highly-engineered fasteners, collars, blind bolts, rivets, ducting and connectors for air management systems, formed metal components and assemblies, and other highly-engineered machined parts and components, for use in focused markets within the aerospace and defense industry. Many of these products are customer-specific and are manufactured utilizing customer-qualified and proprietary processes. The products also satisfy rigorous customer requirements or meet unique aerospace industry standards, and as such, we believe there are a limited set of competitors. We believe our brands are well established and recognized in their markets. Our brands are long-term, certified suppliers of aerospace original equipment manufacturers ("OEMs") or Tier One suppliers, and have been serving the aerospace industry for decades.

We provide products for commercial and regional jets, business jet, helicopters, and general aviation, as well as military, defense and space applications and platforms with sales to OEMs, supply chain distributors, maintenance, repair and overhaul (MRO) and aftermarket providers, and Tier One suppliers. Our customer-specified and/or qualified products are used in production of significant long-term aircraft programs, including most Boeing and Airbus commercial jetliner programs.

TriMas Aerospace's product offering includes a broad line of fastener products, including permanent threaded blind bolts, solid and blind rivets, standard screws and bolts manufactured to meet NAS, MS, AN and AS standards, collars, temporary fasteners and other specialty fasteners. TriMas Aerospace also manufactures and assembles complex, highly-engineered and proprietary ducting, connectors and related products for air management systems, formed and welded metal, and other complex machine-to-print parts for aerospace applications, including auxiliary power units and electrical, hydraulic and pneumatic systems.

In February 2025, we announced the completion of the acquisition of the aerospace business of GMT Gummi-Metall-Technik GmbH ("GMT Aerospace"), a Germany-based leading developer and manufacturer of tie-rods and rubber-metal anti-vibration products for both commercial and military aerospace applications.

In April 2023, we acquired the operating assets of Weldmac Manufacturing Company ("Weldmac"), a leading designer and manufacturer of high-performance, complex metal fabricated components and assemblies for the aerospace, defense and space launch end markets. Offering numerous AS9100D and National Aerospace and Defense Contractors Accreditation Program (NADCAP) certified manufacturing services, Weldmac's comprehensive processes include welding, stamping, punching, hydroforming, forging, laser cutting, custom tooling and machining, as well as advanced quality control inspections and complex assembly utilizing a variety of metals.

Competitive Strengths

We believe TriMas Aerospace benefits from the following competitive strengths in coordination with operating under TriMas' overarching strategy:

- *Broad Product Portfolio of Established Brands.* We believe that TriMas Aerospace is a leading designer, developer and manufacturer of a broad range of engineered fasteners for the aerospace industry, as well as other complex formed metal, ducting and machined components. The combination of the Monogram Aerospace Fasteners ("Monogram"), Allfast Fastening Systems ("Allfast"), Mac Fasteners and TFI Aerospace ("TFI") brands enables TriMas Aerospace to offer a wide range of fastener products which address a broad scope of customer requirements, providing scale to customers who continue to rationalize their supply base. In several of the product categories, including rotary-actuated blind bolts and blind and solid rivets, TriMas Aerospace has a meaningful market share with well-known and established brands. The combined product sets of the Monogram, Allfast, Mac Fasteners and TFI brands uniquely position us to benefit from platform-wide supply opportunities. In addition, RSA Engineered Products ("RSA") has extensive experience in providing air ducting, connectors and flexible joints used in hot engine bleed air, anti-icing and environmental control system applications. Weldmac manufactures formed and welded complex metal components for various high and low temperature applications on aircraft. Martinic Engineering ("Martinic") has a reputation, with more than 40 years of experience, of specializing in the high-complexity machining of castings, forgings and bar stock for leading Tier One commercial and defense aerospace OEMs. We believe that we supply products for the majority of the new airplanes manufactured by many of the largest global airplane OEMs, either directly or through a critical distribution network.

- **Product Innovation.** We believe that TriMas Aerospace's engineering, research and development capability and new product focus are competitive advantages. For many years, TriMas Aerospace's product development programs have provided innovative and proprietary product solutions. The close working relationship of our sales and engineering teams with our customers' engineering teams is key to developing future products desired and required by our customers. Our innovation teams add value by working directly with our customers to address assembly and manufacturing process challenges to improve productivity and efficiency, while reducing the overall installed cost. As an example, TriMas Aerospace has developed new fastener products that offer a flush break upon installation, streamlining the installation process, and continues to develop other fastener designs offering improved installation and use on composite structure applications. One of our more recent product innovations, the Composi-Lok4® fastener, provides installed weight savings helping to improve fuel efficiency, and further contributing to our sustainability objectives for TriMas and our customers. TriMas Aerospace has also designed the next generation temporary fastener Fastack® SC (Super Clamp) with a significant increase in clamping force. In addition to the new product introductions, TriMas Aerospace continues to focus on expanding its fastener offerings for the product applications on current aircraft, with expansion of collar product families used in traditional two-sided assembly. We believe our customer-focused approach to provide cost-effective technical solutions will drive the development of new products and create new growth opportunities.
- **Leading Manufacturing Capabilities and Processes.** We believe that TriMas Aerospace is a leading manufacturer of precision-engineered components for the aerospace industry. Given industry regulatory requirements, as well as customer requirements, these products are required to be manufactured within tight tolerances and specifications, often out of hard-to-work-with and exotic materials including titanium, Inconel and specialty steels. TriMas Aerospace is also capable of advanced precision computer numerical controlled ("CNC") milling, high performance CNC turning and assembly, metal forming and welding, working in a variety of metals including super alloys, stainless steel, aircraft steel alloys, carbon steel alloys and aluminum alloys. Many of TriMas Aerospace's products, facilities and manufacturing processes are required to be qualified and/or certified. Key certifications in TriMas Aerospace include: AS9100:2009 Revision D; ISO9001:2008; TSO; and NADCAP for non-destructive testing, heat treatment, wet processes and materials testing. While proprietary products and patents are important, having proprietary manufacturing processes and capabilities makes TriMas Aerospace's products difficult to replicate. The aerospace industry has strict requirements for quality and delivery, making process innovation and continuous improvement vital to TriMas Aerospace's success. We believe TriMas Aerospace's manufacturing processes, capabilities and quality focus create a competitive strength for the business.

Marketing, Customers and Distribution

TriMas Aerospace serves OEM, distribution and aftermarket customers on a wide variety of platforms. Given the focused nature of many of our products, TriMas Aerospace relies upon a global sales and technical team that is knowledgeable of both OEM customers and the established network of independent distributors. Although the markets for fasteners are highly competitive, we provide products and services primarily for specialized applications, and compete principally on technology, quality and service. TriMas Aerospace works directly with aircraft manufacturers to develop and test new products and improve existing products. TriMas Aerospace's primary customers include OEMs, supply chain distributors, Tier One suppliers and the United States government.

TriMas Aerospace's manufacturing facilities are located in the United States and Canada. Given the nature of the components TriMas Aerospace manufactures, it can ship products efficiently to Europe, South America and Asia.

Competition

Depending on the product and customers served, our primary competitors include Ateliers de la Haute Garonne, Cherry Aerospace - Precision Castparts Corp., Howmet Aerospace, LISI Aerospace and Senior Aerospace, as well as a variety of aerospace and general industrial machined component manufacturers. We believe that we are a leader in one-sided installation (OSI), or blind bolt, applications with significant market share in all blind fastener product categories in which we compete.

Specialty Products (13% of 2024 net sales)

During 2024, our Specialty Products segment was comprised of our Norris Cylinder and Arrow Engine Company businesses. We believe these businesses are well-established and recognized in the end markets they serve.

TriMas' Norris Cylinder business is a leading designer, manufacturer and distributor of highly-engineered, large, intermediate and small size, high and low-pressure Type 1 steel cylinders for the transportation, storage and dispensing of packaged and compressed gases. Norris Cylinder's large high-pressure seamless gas cylinders are used principally for shipping, storing and dispensing oxygen, nitrogen, argon, helium and other compressed gases for use in industrial, health care and defense end markets. In addition, Norris Cylinder offers a complete line of steel cylinders used to contain and dispense acetylene gas for the heating, ventilation and air conditioning (HVAC) and construction end markets. Norris Cylinder's products meet the rigorous standards required by the U.S. Department of Transportation (DOT) or International Standards Organization (ISO), which certifies a cylinder's adequacy to perform in specific applications.

Arrow Engine is a provider of natural gas-powered engines, typically used in remote applications such as for oil field pump jacks, compressors and replacement parts, which are engineered for use in oil and natural gas production and other industrial markets. Arrow Engine distributes its products through a worldwide distribution network, primarily focused in the United States and Canada. Arrow Engine manufactures its own engine line and also offers a wide variety of spare parts for various industrial engines not manufactured by Arrow Engine. On January 31, 2025, we announced the successful completion of the previously announced sale of the Arrow Engine business, facilitating an exit of our direct presence in the oil and gas end market.

Competitive Strengths

We believe our Specialty Products segment benefits from the following competitive strengths in coordination with operating under TriMas' overarching strategy:

- *Leading Market Position and Strong Brand Name.* With more than 70 years of experience, Norris Cylinder is one of the worlds' largest manufacturers of high- and low-pressure forged steel cylinders, and the only manufacturer of forged Type 1 steel cylinders that remains in the United States. In 2021, Norris Cylinder became an official "Made in the USA" designated manufacturer, which we believe allows Norris to locally address customers' needs, while maintaining more control over lead times and quality. We believe that Norris has a reputation for high-quality cylinders used in a variety of applications, including industrial gas, welding and cutting, government, medical, laboratories, food and beverage technology, breathing air, fire protection and aviation.
- *Comprehensive Product Offering.* We believe our businesses within Specialty Products, particularly Norris Cylinder, offer comprehensive product offerings that meets their customers' needs. Norris Cylinder offers a complete line of large, intermediate and small size, high and low-pressure steel cylinders to its customers across a variety of end markets. Additionally, Norris Cylinder offers a wide range of coating options for its customers, which are often used as bespoke branding indicators for each of Norris Cylinder's larger customers.
- *Established and Extensive Distribution Channels.* Our Specialty Products businesses, particularly our Norris Cylinder business, have long-standing customer relationships, including important qualifications, and distributes directly to major companies, as well as distributing to domestic buying groups, OEMs, medium and small independent companies, the Department of Defense, and independent distributors. Our long-standing supply position in these well-established networks has allowed our Specialty Products businesses to successfully navigate some of the most robust, as well as harshest, economic cycles.
- *Difficult and Costly to Replicate Manufacturing Base.* Our Norris Cylinder business has locations in Longview, Texas, and Huntsville, Alabama, which have numerous hot and cold forging and metalworking pieces of equipment and processes. While there are other manufacturers of steel cylinders globally, the installation of Type 1 steel cylinder manufacturing processes and adding new capacity tends to be a lengthy process and a very costly investment to implement. We believe that in periods of high demand, such as what was experienced in 2021 through the majority of 2023, Norris Cylinder's installed and fixed capacity and manufacturing presence in the United States provides an advantage when compared to non-U.S. suppliers that from time to time deal with logistic constraints. In periods of unusually low demand, such as what was experienced in 2024, the fixed investment capacity can face cost-flexing challenges.

Marketing, Customers and Distribution

The customers of our Specialty Products segment, predominantly our Norris Cylinder business, operate in the broader industrial end markets, including manufacturing, construction and welding, fire suppression and oxygen applications. Given the wide range of applications for many of our products, we rely upon a combination of a direct sales force and an established network of distributors familiar with the end-users. Our primary customers include industrial gas producers and distributors, welding equipment distributors, equipment manufacturers and the Department of Defense.

Our Specialty Products manufacturing facilities are located in the United States.

Competition

Norris Cylinder's competitors include Beijing Tianhai Industry Co., ENK Co., Everest Kanto Cylinder, Faber, MAT S/A Gas Cylinders and Zhejiang Jindun Pressure Vessel Co., which are all non-U.S. companies, among others. Norris Cylinder is the only remaining high pressure, Type 1 forged steel cylinder manufacturer in the United States.

TriMas' Acquisition Strategy

TriMas views the pursuit of strategic bolt-on acquisitions as core to augmenting its organic growth and achieving our overarching corporate strategy. We believe TriMas is uniquely positioned to leverage our relatively low debt profile and strong free cash flow profile to identify and complete acquisitions annually as part of our capital allocation strategy. TriMas' acquisition priorities are to build out our Packaging platform, which comprised 55% of our consolidated net sales in 2024, with a focus on expanding in the beauty, food & beverage, and life sciences end markets, as well as to explore unique, strategic opportunities to build out our Aerospace platform, with a priority on expanding in fastener, fitting and latch applications. We typically seek to acquire adjacent product lines that expand our existing product offerings, gain access to new customers and end markets, expand our geographic footprint and/or capitalize on scale and cost efficiencies. Between 2019 and 2024, TriMas completed ten acquisitions and one divestiture. We believe these moves will better shape our presence in higher growth end markets, improve our overall portfolio by building out our two highest growth platforms and augment long-term core growth.

Materials and Supply Arrangements

Our largest raw material purchases are for resins (such as polypropylene and polyethylene), steel, aluminum, super alloys, and other metal and non-metal-based purchased components. Raw materials and other supplies used in our operations are normally available from a variety of competing suppliers. In addition to raw materials, we purchase a variety of components and finished products from sources in lower-cost countries.

Polypropylene and polyethylene are generally commodity resins with multiple suppliers capable of providing product globally. Steel is purchased primarily from steel mills and service centers, and on a more localized basis. Changing global dynamics for steel production, supply and pricing may continue to present a challenge to our business.

Historically, we have experienced volatility in costs and availability of our raw material purchases and have worked with our suppliers to manage costs and disruptions in supply. We also utilize pricing programs to pass increased steel, resin and other raw material costs on to customers. Although we may experience delays in our ability to implement price increases related to material costs, we have been generally able to recover such increased costs.

Human Capital Resources

As of December 31, 2024, we employed approximately 3,900 people, of which 44% were located outside the United States. We have one facility, located in Commerce, California, where our hourly employees operate under a collective bargaining agreement, and which represents 13% of our U.S. employees. We have six facilities outside of the United States where our employees are affiliated with work councils, which covers 13% of our non-U.S. employees.

We believe employee relations throughout our organization are positive and we are not aware of any present active union organizing activities at any of our facilities. We cannot predict the impact of any further unionization of our workplace. Our labor agreement with the United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) at our TriMas Aerospace facility in Commerce, California, expired in August 2024, at which time the UAW initiated a strike, which lasted approximately ten weeks. Subsequent to the initiation of the strike by the UAW, we entered into a new three-year collective bargaining agreement which expires in October 2027.

TriMas focuses on several human capital resources objectives in managing its business, including our commitment to health and safety, employee engagement, workplace belonging, and talent development. These human capital resources objectives, taken together, may be material to understanding our business under certain circumstances. These objectives are reinforced by our Code of Conduct, our global policies, including our Global Human Rights Policy, Supplier Code of Conduct, and Environment, Health & Safety Policy, as well as our commitment to sustainability as evidenced by our annual Sustainability Reports.

Commitment to Safety

Our first objective under the TBM is the health and safety of our employees, including anyone who conducts business on our behalf. The commitment to safety starts at the top levels of our organization, and as a result of our commitment, we updated and enhanced our Environment, Health & Safety Policy in 2022. We believe a safe and secure workplace is fundamental to our success. TriMas is committed to providing a safe and healthy workplace and complying with applicable safety and health laws, regulations and internal requirements. We are also committed to engaging our employees to continually improve health and safety by acting upon opportunities to reduce risk and improve our safety and health performance, and offer training programs on a regular basis. TriMas maintains comprehensive safety programs focused on identifying hazards and eliminating risks that can lead to work-place injuries.

Employee Engagement

At TriMas, a commitment to continuous improvement is one of our core values and imperative to our long-term success. We embrace the tools of Kaizen and work to foster a culture of employee engagement to drive performance improvements and operational excellence. We believe that employee feedback is important which is why, for the past four years, we administered employee engagement surveys globally. We continue to work on our engagement as a company, with managers actively facilitating engagement discussions with their teams and developing action plans to ensure progress and continuous improvement.

Workplace Belonging

We believe we are at our best when we bring together unique perspectives, experiences and ideas, and actively build inclusive work environments across our global locations. We believe that tapping into our employees' backgrounds and experiences ensures we make better decisions and supports stronger operating performance. Our goal is to foster working environments that are fair and safe, where rights are respected, and everyone can achieve their full potential. Our policies and practices strive to assure equal employment and advancement opportunities for all qualified people. We also work to maintain appropriate standards of conduct in the workplace and to be sensitive to the concerns of all of our employees. We strive to maintain workplaces that are free from discrimination or harassment on the basis of race, ethnicity, color, national origin, religion, age, gender, gender identity and expression, genetic information, sexual orientation, protected veteran status, disability or any other characteristic protected by applicable laws.

Talent Development

We believe that a talented, engaged and dynamic workforce is vital to our success. We seek to hire, develop and retain individuals who embrace and thrive in our culture. Our culture is grounded in our values: Integrity, Customer-focused, Teamwork, Results-driven and Continuous Improvement. Our businesses strive to build robust talent pipelines through targeted recruitment initiatives across our global footprint. Our programs are intended to ensure seamless onboarding for our new employees. We identify and nurture talent through a culture that is designed to enable employees to succeed and grow into leadership positions. We believe that our diverse businesses and structure provide many opportunities for employees to follow their own path and advance their careers.

We are committed to a culture of Kaizen and operational excellence, and we provide employees with the opportunity to receive frequent performance feedback. On a regular basis throughout the year, employees have goal alignment, performance and career development discussions with their managers (via annual goal setting, mid-year and year-end performance and talent reviews). At these times, employees receive candid feedback on their performance against set objectives. These reviews evaluate each employee's strengths, skills and areas for opportunity, which are important for career development.

Seasonality

TriMas does not typically experience significant seasonal fluctuation, other than our fourth quarter, which in past years has tended to be the lowest net sales quarter of the year given holiday shutdowns by certain of our customers and other customers deferring capital spending to the following year.

Government Regulations

Environmental Matters

We are subject to increasingly stringent environmental laws and regulations, including those relating to air emissions, wastewater discharges, and chemical and hazardous waste management and disposal. Some of these environmental laws hold owners or operators of land or businesses liable for their own and for previous owners' or operators' releases of hazardous or toxic substances or wastes. Other environmental laws and regulations require obtaining and complying with environmental permits. To date, costs of complying with environmental, health and safety requirements have not been material. However, the nature of our operations and our long history of industrial activities at certain of our current or former facilities, as well as those acquired, could potentially result in material environmental liabilities.

Current environmental laws and regulations have not had a material impact on our business, capital expenditures or financial position. However, we must comply with existing and pending climate change legislation, regulation and international treaties or accords. Future events, including those relating to climate change or greenhouse gas regulation could require us to incur expenses related to the modification or curtailment of operations, installation of pollution control equipment or investigation and cleanup of contaminated sites. In addition to environmental laws and regulations, our operations are governed by a variety of laws and regulations, including those relating to workplace safety and worker health, principally the Occupational Safety and Health Act and regulations thereunder. We believe that we are in material compliance with these laws and regulations and do not believe that future compliance with such laws and regulations will have a material adverse effect on our business, financial condition, results of operations and cash flows.

Trade Policies and Regulations

Free trade laws and regulations provide certain duties and tariffs on qualifying imports and exports, subject to compliance with the applicable classification and other requirements. In the past, we have experienced higher input costs as a direct result of tariffs imposed on certain raw materials and components imported from China. In certain cases, we have passed-through these incremental costs to the customer, while in some cases we have not changed pricing in order to retain or expand volumes. In other cases, we continued to install incremental capacity in facilities which were not subject to duties or tariffs. In addition, certain of our U.S. suppliers raised prices for components in response to an overall increase in demand for domestic sources.

We believe that we are in material compliance with free trade laws and regulations. While there may be an impact to our financial condition as a result of changes in the amount of duties or tariffs levied on products we import from China, and potentially other countries including Mexico and Canada, we do not believe that costs to remain in compliance with such laws and regulations will have a material adverse effect on our business, financial condition, results of operations and cash flows. However, there continues to exist significant uncertainty about the future of U.S. trade policy and potential new tariffs, including but not limited to, potential new tariffs on Canada, China and Mexico. For additional information, refer to "Regulatory, Legal and Environmental Risks -*Significant developments in U.S. trade policies could have a material adverse effect on us and our financial condition and results of operations.*" in "Item 1A. Risk Factors" within this Annual Report on Form 10-K.

Intangible Assets

Our identified intangible assets, consisting of customer relationships, trademarks and trade names, and technology, are recorded at \$161.1 million at December 31, 2024, net of accumulated amortization. The valuation of each of the identified intangibles was performed using broadly accepted valuation methodologies and techniques.

Customer Relationships. We have developed and maintained stable, long-term selling relationships with customer groups for specific branded products and/or focused market product offerings within each of our businesses. Useful lives assigned to customer relationship intangibles range from five to 25 years and have been estimated using historic customer retention and turnover data. Other factors considered in evaluating estimated useful lives include the diverse nature of focused markets and products of which we have significant share, how customers in these markets make purchases and these customers' position in the supply chain. We also monitor and evaluate the impact of other evolving risks including the threat of lower cost competitors and evolving technology.

Trademarks and Trade Names. Each of our businesses designs and manufactures products for focused markets under various trade names and trademarks (see prior discussion by reportable segment). Our trademark/trade name intangibles are well-established and considered long-lived assets that require maintenance through advertising and promotion expenditures. Because it is our practice and intent to maintain and to continue to support, develop and market these trademarks/trade names for the foreseeable future, we consider our rights in these trademarks/trade names to have an indefinite life, except as otherwise dictated by applicable law.

Technology. We hold a number of United States and foreign patents, patent applications, and proprietary product and process-oriented technologies within all three of our reportable segments. We have, and will continue to dedicate, technical resources toward the further development of our products and processes in order to maintain our competitive position in the industrial, commercial and consumer end markets that we serve. Estimated useful lives for our technology intangibles range from one to 30 years and are determined in part by any legal, regulatory or contractual provisions that limit useful life. For example, patent rights have a maximum limit of 20 years in the United States. Other factors considered include the expected use of the technology by the operating groups, the expected useful life of the product and/or product programs to which the technology relates, and the rate of technology adoption by the industry.

International Operations

Of our net sales for the year ended December 31, 2024, 25.1% were derived from sales by our businesses located outside of the United States, and 34.2% of our long-lived assets as of December 31, 2024 were located outside of the United States. We operate manufacturing facilities in Canada, China, Germany, India, Italy, Mexico, the Netherlands, Slovakia, the United Kingdom and Vietnam, in addition to our U.S. operations. In addition to the net sales derived from sales by our businesses located outside of the United States, we also generated \$82.7 million of export sales from the United States.

Website Access to Company Reports

We use our corporate website, www.trimas.com, as a channel for routine distribution of important information, including news releases, company presentations and links to our businesses' websites, as well as reinforcing our commitment to sustainability as evidenced by our Sustainability Reports. We also provide financial information on our website and post filings as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC, including our annual, quarterly, and current reports on Forms 10-K, 10-Q and 8-K, our proxy statements and any amendments to those reports or statements. All such postings and filings are available under our Investors section of the website free of charge. The SEC also maintains a website, www.sec.gov, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The content on any website referred to in this Annual Report on Form 10-K is not incorporated by reference into this Annual Report on Form 10-K unless expressly noted.

Item 1A. Risk Factors

You should carefully consider each of the risks described below, together with information included elsewhere in this Annual Report on Form 10-K and other documents we file with the SEC. The risks and uncertainties described below are those that we have identified as material, but are not the only risks and uncertainties facing us. Although the risks are organized by headings, and each risk is discussed separately, many of the risks are interrelated. Readers should not interpret the disclosure of any risk factor to imply that the risk has not already materialized. Additional risks and uncertainties not currently known to us or that we currently believe are immaterial may also impact our business operations, financial results and liquidity.

Risks Relating to Our Business

Our businesses depend upon general economic conditions and we serve some customers in highly cyclical industries; as such, we may be subject to the loss of sales and margins due to an economic downturn or recession.

Our financial performance depends, in large part, on conditions in the markets that we serve in both the U.S. and globally. In the past, our operations have been exposed to volatility due to changes in general economic conditions or consumer preferences, recessions or adverse conditions in the markets we serve, including the impact of global pandemics and international conflicts. We are exposed to highly cyclical end markets for industrial goods, and to a lesser extent, aerospace and consumer products. An uncertain macro-economic and political climate could lead to reduced demand from our customers, variations in timing of sales to our customers, increased price competition for our products, increased risk of excess and obsolete inventories, uncollectible receivables, and higher overhead costs as a percentage of revenue, all of which could impact our operating margins. If our customers are adversely affected by these factors, we may experience lower product volume orders, which could have an unfavorable impact on our revenue and operating profit. For example, beginning in the back half of 2022 and continuing through 2023, demand for dispensing and closure products within our Packaging segment fell as a result of some of our larger customers' choices to rebalance on-hand inventory levels and caution in purchasing behaviors given the current inflationary macro-economic environment. As a more recent example, we experienced strong demand and inventory builds from customers, which benefited our steel cylinder business in 2022 and 2023, which then resulted in customer destocking negatively impacting demand for steel cylinders in 2024. These are a few recent examples indicating that our ability to accurately forecast the level of our customers' orders is limited and can result in inefficiencies in scheduling our installed manufacturing capacity and result in sub-optimal business and financial results.

Many of the markets we serve are highly competitive, which could limit sales volumes and reduce our operating margins.

Many of our products are sold in competitive markets. We believe that the principal points of competition in our markets are price, product quality, delivery performance, design and engineering capabilities, product development, conformity to customer specifications, customer service and effectiveness of distribution. Maintaining and improving our competitive position will require continued investment by us in manufacturing, engineering, quality standards, marketing, customer service and support of our distribution networks. We may have insufficient resources in the future to continue to make such investments and, even if we make such investments, we may not be able to maintain or improve our competitive position. We also face the risk of lower-cost manufacturers located in China, India and other regions competing in the markets for our products and we may be driven as a consequence of this competition to increase our investment overseas. Making overseas investments can be highly risky and we may not always realize the advantages we anticipate from any such investments. Competitive pressure may limit the volume of products that we sell and reduce our operating margins.

We may be unable to successfully implement our business strategies and achieve our strategic and financial objectives.

We have a long history of acquisitions and divestitures, and we continuously evaluate strategic opportunities and other investment activities. From time to time, we may engage in one or more strategic transactions. If we do so, it may or may not meet the intended strategic or financial objective.

Strategic acquisitions may require integration expense and actions that may negatively affect our results of operations and that could not have been fully anticipated beforehand. In addition, attractive strategic transaction opportunities may not be identified or pursued in the future, financing for strategic transactions may be unavailable on satisfactory terms and we may be unable to accomplish our strategic objectives in effecting a particular strategic transaction. We may encounter various risks in pursuing such strategic transactions, including the possible inability to integrate an acquired business into our operations, increased expenses, increased debt obligations to finance such strategic transactions and unanticipated problems or liabilities.

In addition, we may dispose of assets or businesses at a price or on terms that are less favorable than we had anticipated, or with the exclusion of assets that must be divested or run off separately. As we seek to sell or separate certain assets, equity interests or businesses, we may also encounter difficulty in finding buyers, managing interdependencies across multiple transactions and other Company initiatives, implementing separation plans or executing alternative exit strategies on acceptable terms, which could delay or prevent the accomplishment of our strategic and financial objectives. Moreover, the effect of dispositions over time will reduce our cash flow and earnings capacity and result in a less diversified portfolio of businesses, creating a greater dependency on remaining businesses for our financial results.

Accordingly, risks related to strategic acquisitions or dispositions may result in the disruption of our ongoing business, diversion of management's attention, the failure of such transactions to be completed, or the failure to realize the financial and strategic benefits contemplated at the time of a transaction, some or all of which could materially and adversely affect our business strategy, financial condition and results of operations.

Increases in our raw material or energy costs or the loss of critical suppliers could adversely affect our profitability and other financial results.

We are sensitive to price movements and availability of our raw materials supply. Our largest raw material purchases are for resins (such as polypropylene and polyethylene), steel, aluminum superalloys (such as titanium, A286 stainless steel and Inconel) and other oil and metal-based purchased components, each of which have experienced recent cost volatility. Prices for these products, along with costs for transportation and energy, fluctuate with market conditions, and have generally increased over time. For example, during 2022, we experienced increased energy costs and supply chain disruptions as a result of the Russia-Ukraine conflict. In addition, we have experienced, and expect to continue to experience, the impact of cost inflationary pressure on raw materials, wage rates and freight. For 2024, while our material and other input costs have generally stabilized compared to 2023 levels, we have experienced increased input costs associated with abrupt increases in customer demand, primarily in our Packaging segment. Pressure on wage rates continued through 2024 across all our businesses. Although we have generally been able to recover certain costs increases, we may be unable to offset the impact of future cost increases with price increases on a timely basis due to outstanding commitments to our customers, competitive considerations or our customers' resistance to accepting such price increases and our financial performance could be adversely impacted. A failure by our suppliers to continue to supply us with certain raw materials, component parts, or at all, could have a material adverse effect on us. To the extent there are energy supply disruptions or material fluctuations in energy costs, our margins could be materially adversely impacted.

Our ability to deliver products that satisfy customer requirements is dependent on the performance of our subcontractors and suppliers, as well as on the availability of raw materials and other components.

We rely on other companies, including subcontractors and suppliers, to provide and produce raw materials, integrated components and sub-assemblies and production commodities included in, or used in the production of, our products. If one or more of our suppliers or subcontractors experiences delivery delays or other performance problems, we may be unable to meet commitments to our customers or incur additional costs and penalties. In some instances, we depend upon a single source of supply. Any material service disruption from one of our suppliers, either due to circumstances beyond the supplier's control, such as geopolitical developments, including any potential impacts resulting from rising tensions between the United States and China, or logistical complications or operational disruptions due to weather, global climate change, earthquakes or other natural disasters, or as a result of performance problems or financial difficulties, could have a material adverse effect on our ability to meet commitments to our customers or increase our operating costs. In recent years we have experienced even greater uncertainties in the economic environment, including input cost inflation, supply chain disruptions with our subcontractors and suppliers, shortages in global markets for commodities, logistics and labor, all of which have resulted in labor and manufacturing inefficiencies given the challenges in production scheduling.

We have significant goodwill and intangible assets, and future impairment of our goodwill and intangible assets could have a material negative impact on our financial results.

At December 31, 2024, our goodwill and intangible assets were \$517.4 million and represented 39.1% of our total assets. If we experience declines in sales and operating profit or do not meet our current and forecasted operating budget, we may be subject to goodwill and/or other intangible asset impairments in the future. While the fair value of our remaining goodwill exceeds its carrying value, significantly worse financial performance of our businesses, significantly different assumptions regarding future performance of our businesses or significant declines in our stock price could result in future impairment losses. Because of the significance of our goodwill and intangible assets, and based on the magnitude of historical impairment charges, any future impairment of these assets could have a material adverse effect on our financial results.

Our business may be exposed to risks associated with an increasingly concentrated customer base.

While no individual customer accounted for 10% or more of our consolidated net sales for 2024, 2023 or 2022, our customer base has become, and may further become, increasingly concentrated as a result of our strategy to focus on growing sales with existing customers in packaging end markets, or due to customer consolidations. In 2024, our Aerospace and Specialty Products segments each had a customer that comprised 10% or more of its segment revenue. As a result of these factors, changes to or reductions in the buying patterns of these larger customers, including our customers diversifying their supply base, may expose our business and results of operations to greater volatility. For example, in a prior period, a large commercial aircraft manufacturer announced significant production delays and/or reductions on certain of its platforms for which we provide products, which significantly impacted our sales, profit and production efficiencies compared to historical levels.

The mix and type of customers, and sales to any single customer, may vary significantly from quarter to quarter and from year to year, and have a significant impact on our financial condition, results of operations and cash flows. If customers do not place orders, or they substantially reduce, delay or cancel orders, we may not be able to replace the business, which may have a significant adverse impact on our results of operations and financial condition. For example, beginning late 2023 and continuing through 2024, we experienced a significant demand trough in our cylinder business as our customers rebalanced their inventory and adjusted their buying patterns. Further, a number of our consumer packaged goods customers ordered higher levels of inventory due to concerns over capacity constraints and rising inflation in the first half of 2022, and subsequently reduced their order levels in the back-half of 2022. Sales of our consumer and industrial packaging products decreased in 2023, which we believe was due to lower customer order activity given high customer stocking levels, as well as continuing uncertainty around consumer sentiment as a result of the inflationary environment. In addition, major customers may require that we localize manufacturing and supply capacity rather than sourcing from lower cost countries, or seek pricing, payment, intellectual property-related or other commercial terms that are less favorable to us, which may have a negative impact on our business. The concentration of our customer base also increases our risks related to the financial condition of our customers, and the deterioration in financial condition of customers or the failure of customers to perform their obligations could have a material adverse effect on our results of operations and cash flows.

We are dependent on our manufacturing facilities for the production of our highly-engineered products, which subjects us to risks associated with disruptions and changing technology and manufacturing techniques that could place us at a competitive disadvantage.

If our manufacturing facilities become unavailable either temporarily or permanently due to weather, earthquakes or other natural disasters related to global climate change, or geopolitical developments, including any potential impacts resulting from tensions between the United States and China, or logistical complications or operational disruptions arising from adverse regulatory actions, acts of war, cybersecurity incidents, public health crises or labor disruptions, we may be unable to shift production to other facilities or to make up for lost production. For example, our Aerospace manufacturing facilities are predominately located in southern California, an area known for earthquakes and wildfires, and are thus vulnerable to damage. Any new facility would need to comply with the necessary regulatory requirements, satisfy our specialized manufacturing requirements and require specialized equipment. Even though we carry business interruption insurance policies, any business interruption losses could exceed the coverage available or be excluded from our insurance policies. Any disruption of our ability to operate our business could result in a material decrease in our revenues or significant additional costs to replace, repair or insure our assets, which could have a material adverse impact on our financial condition and results of operations.

In addition, we believe that our customers rigorously evaluate their suppliers on the basis of price competitiveness, product quality, reliability and timeliness of delivery, technical expertise and development capability, new product innovation, product design capability, manufacturing expertise, operational flexibility, customer service and overall management. Our success depends on our ability to continue to meet our customers' changing expectations with respect to these criteria. We may be unable to install, maintain and certify equipment needed to produce products or upgrade or transition our manufacturing facilities without impacting production rates or requiring other operational efficiency measures at our facilities. We anticipate that we will remain committed to product research and development, advanced manufacturing techniques and service to remain competitive, which entails significant costs; however, we may be unable to address technological advances, implement new and more cost-effective manufacturing techniques, or introduce new or improved products, whether in existing or new markets, so as to maintain our businesses' competitive positions or to grow our businesses as desired.

A major failure of our information systems could harm our business; increased cybersecurity threats and more sophisticated and targeted cybersecurity attacks could pose a risk to our systems, networks and products.

We depend on integrated information systems to conduct our business. While we maintain some of our critical information systems, we are also dependent on third parties to provide important services relating to, among other things, operational technology at our facilities, human resources, electronic communications and certain finance functions. We may experience operating problems with our information systems as a result of system failures, cybersecurity incidents or other causes.

Cybersecurity incidents and similar attacks vary in their form and can include the deployment of harmful malware or ransomware, denial-of-service attacks, and other attacks, which may affect business continuity and threaten the availability, confidentiality and integrity of our systems and information. Cybersecurity incidents can also include employee or personnel failures, fraud, phishing or other social engineering attempts or other methods to cause confidential information, payments, account access or access credentials, or other data to be transmitted to an unintended recipient. Cybersecurity threat actors also may attempt to exploit vulnerabilities in software that is commonly used by companies in cloud-based services and bundled software. Any significant disruption or slowdown of our systems could cause customers to cancel orders or cause standard business processes to become inefficient or ineffective.

We have experienced cybersecurity incidents in the past and, while none of these cybersecurity incidents resulted in a material disruption to our business, we may experience additional cybersecurity incidents in the future. Further, there can be no assurance that a future cybersecurity incident will not result in a material disruption to our business or have a material adverse effect on our business strategy, results of operations or financial condition. Increased global IT security threats and more sophisticated and targeted cybersecurity attacks, including the rapid evolution and increased availability of artificial intelligence technologies that may intensify cybersecurity risks by making cybersecurity incidents more difficult to detect, contain and mitigate, pose a risk to the security of our systems and networks, and the confidentiality, availability and integrity of our data and communications. While we attempt to mitigate these risks by employing a number of measures, including employee training, comprehensive monitoring of our networks and systems, and maintenance of backup and protective systems, our networks and systems remain potentially vulnerable to advanced persistent threats. Furthermore, we may have little or no oversight with respect to security measures employed by third-party service providers, which may ultimately prove to be ineffective at countering cybersecurity threats or cybersecurity incidents.

Depending on their nature and scope, cybersecurity threats, cybersecurity incidents or disruptions involving our systems, or the systems of our third-party business partners, could potentially lead to the compromising of confidential information and communications, loss of intellectual property, improper use of our systems and networks, manipulation, corruption and destruction of data, defective products, production downtimes and operational disruptions, as well as, costs related to remediation or the payment of ransom, litigation, including commercial litigation, administrative, civil or criminal investigations or actions, regulatory intervention and sanctions or fines or investigation costs, which in turn could adversely affect our reputation, competitiveness, financial condition and results of operations.

A growing portion of our sales and earnings may be derived from international sources, which exposes us to certain risks which may adversely affect our financial results and impact our ability to service debt.

We have operations outside of the United States. Of our net sales for the year ended December 31, 2024, 25.1% were derived from sales by our subsidiaries located outside of the United States. In addition, we may expand our international operations through internal growth or acquisitions. International operations, particularly sales to emerging markets and manufacturing in non-U.S. countries, are subject to risks that are not present within U.S. markets, which include, but are not limited to, the following:

- Volatility of currency exchange between the U.S. dollar and currencies in international markets;
- Changes in local government regulations and policies including, but not limited to, foreign currency exchange controls or monetary policy, governmental embargoes, repatriation of earnings, expropriation of property, duty or tariff restrictions, investment limitations and tax policies;
- Political and economic instability and disruptions, including labor unrest, civil strife, public health crises (including viral outbreaks such as the coronavirus), acts of war, guerrilla activities, insurrection and terrorism;
- Legislation that regulates the use of chemicals;
- Disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the Foreign Corrupt Practices Act ("FCPA");
- Compliance with international trade laws and regulations, including export control and economic sanctions, such as anti-dumping duties;
- Difficulties in staffing and managing multi-national operations;
- Limitations on our ability to enforce legal rights and remedies;
- Tax inefficiencies in repatriating cash flow from non-U.S. subsidiaries that could affect our financial results and reduce our ability to service debt;
- Reduced protection of intellectual property rights; and

- Other risks arising out of foreign sovereignty over the areas where our operations are conducted.

In addition, we could be adversely affected by violations of the FCPA and similar worldwide anti-bribery laws as well as export controls and economic sanction laws. The FCPA and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business.

Our acquisition and disposition agreements by which we have acquired or sold companies, include indemnification provisions that may not fully protect us and may result in unexpected liabilities.

Certain of the agreements related to the acquisition and disposition of businesses require indemnification against certain liabilities related to the operations of the company for the previous owner. We cannot be assured that any of these indemnification provisions will fully protect us, and as a result we may incur unexpected liabilities that adversely affect our profitability and financial position.

Expectations relating to sustainability and ESG considerations could expose us to potential liabilities, increased costs, reputational harm and other adverse effects on our business.

Many governments, regulators, investors, employees, customers and other stakeholders are increasingly focused on sustainability and ESG considerations relating to businesses. We have announced certain areas of focus through information on our website, press statements and other communications, including through our Sustainability Reports. The criteria used to evaluate sustainability and ESG practices, including goals and initiatives, may continue to evolve, which could result in greater expectations and may cause us to make investments, which may be material, to satisfy new criteria. In addition, some stakeholders may disagree with our goals and initiatives, or have very different views on where our sustainability and ESG focus should be placed, including differing views of regulators in various jurisdictions in which we operate. The increasing attention to sustainability could also result in reduced demand for certain of our products and/or reduced profits. If we are unable to respond effectively, investors may conclude that our sustainability and ESG policies and/or actions are inadequate. Any failure, or perceived failure, by us to achieve our sustainability or ESG goals and initiatives, adhere to our public statements, comply with federal, state or international laws and regulations, meet evolving and varied stakeholder expectations and standards, or accurately disclose our progress on such matters, could expose us to potential liabilities, increased costs, reputational harm and other adverse effects on our business.

Regulatory, Legal and Environmental Risks

Significant developments in U.S. trade policies could have a material adverse effect on us and our financial condition and results of operations.

Free trade laws and regulations provide certain duties and tariffs on qualifying imports and exports, subject to compliance with the applicable classification and other requirements. The United States government has indicated its intent to alter its approach to international trade policy and in some cases to renegotiate, or potentially terminate, certain existing bilateral or multi-lateral trade agreements and treaties with foreign countries. Retaliatory tariffs imposed by other countries or other potential governmental actions, could result in further adverse impacts on our business and results of operations. These tariffs, and other governmental actions relating to international trade agreements or policies, the adoption and expansion of trade restrictions, or the occurrence of trade wars may adversely impact demand for our products, costs, customers, suppliers and/or the U.S. economy or certain sectors thereof and, as a result, adversely impact our business. These tariffs and actions may, directly or indirectly, lead to higher costs and cause us to increase prices to our customers which may reduce demand, or, if we are unable to increase prices, result in lowering our margin on products sold. The degree to which these changes in U.S. trade policies, or the trade policies of other countries, affect our financial condition and results of operations will be influenced by the specific details of the changes in trade policies, their timing and duration, and our effectiveness in deploying tools and strategies to address these issues. For example, in the past few years, we have experienced higher input costs as a direct result of tariffs imposed on certain raw materials and components imported from China. In certain cases, we have passed-through these incremental costs to the customer, while in some cases we have not changed pricing to retain or expand volume, and in other cases we continue to work to install capacity in facilities where there currently is no tariff. In addition, certain of our U.S. suppliers raised prices for components in response to an overall increase in demand for domestic sources. It remains unclear what the U.S. or foreign governments will or will not do with respect to tariffs, international trade agreements and policies on a short-term or long-term basis. Additional changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture or purchase products could have a material adverse effect on our business, financial condition and results of operations.

Compliance with and changes in tax laws, including tax reform legislation in the United States, could materially and adversely impact our financial condition, results of operations and cash flows.

We are subject to extensive tax liabilities, including federal, state and foreign income taxes and transactional taxes such as excise, sales and use, payroll, franchise, withholding and property taxes. Many tax liabilities are subject to periodic audits by taxing authorities, and such audits could subject us to additional tax as well as interest and penalties. New tax laws and regulations and changes in existing tax laws and regulations could result in increased expenditures by us for tax liabilities in the future and could materially and adversely impact our financial condition, results of operations and cash flows.

We continue to monitor and evaluate legislative developments related to the Global Anti-Base Erosion Proposal ("GloBE") established by the Organization of Economic Cooperation and Development's ("OECD") Pillar Two framework. OECD member countries may implement the Pillar Two model rules as issued, in a modified form, or not at all. On December 12, 2022, the European Union member states agreed to implement the OECD's Pillar Two global corporate minimum tax rate of 15% on companies with revenues of at least \$790,000, which went into effect in January 2024. A number of other countries have passed legislation enacting certain parts of the Pillar Two framework in 2024. While the Pillar Two legislation did not have a material impact on our 2024 consolidated financial statements, it could have a material impact on our effective tax rate and result in higher cash tax liabilities in the future, depending on which countries enact minimum tax legislation and in what manner.

We may face liability associated with the use of products for which patent ownership or other intellectual property rights are claimed.

We may be subject to claims or inquiries regarding alleged unauthorized use of a third party's intellectual property. An adverse outcome in any intellectual property litigation could subject us to significant liabilities to third parties, require us to license technology or other intellectual property rights from others, require us to comply with injunctions to cease marketing or using certain products or brands, or require us to redesign, re-engineer, or re-brand certain products or packaging, any of which could affect our business, financial condition and operating results. If we are required to seek licenses under patents or other intellectual property rights of others, we may not be able to acquire these licenses on acceptable terms, if at all. In addition, the cost of responding to an intellectual property infringement claim, in terms of legal fees and expenses and the diversion of management resources, whether or not the claim is valid, could have a material adverse effect on our business, results of operations and financial condition.

We may be unable to adequately protect our intellectual property.

While we believe that our patents, trademarks, know-how and other intellectual property have significant value, it is uncertain that this intellectual property or any intellectual property acquired or developed by us in the future, will provide a meaningful competitive advantage. Our patents or pending applications may be challenged, invalidated or circumvented by competitors or rights granted thereunder may not provide meaningful proprietary protection. Moreover, competitors may infringe on our patents or successfully avoid them through design innovation. Policing unauthorized use of our intellectual property is difficult and expensive, and we may not be able to, or have the resources to, prevent misappropriation of our proprietary rights, particularly in countries where the laws may not protect such rights as fully as in the U.S. The cost of protecting our intellectual property may be significant and have a material adverse effect on our financial condition and future results of operations.

We may incur material losses and costs as a result of product liability, recall and warranty claims brought against us.

We are, from time to time, subject to a variety of claims or litigation incidental to our businesses, including demands for damages arising out of use of our products, claims relating to intellectual property matters, and claims involving employment matters and commercial disputes. We currently carry insurance and maintain reserves for potential product liability claims. However, our insurance coverage may be inadequate if such claims do arise and any liability not covered by insurance could have a material adverse effect on our business. Although we have been able to obtain insurance in amounts we believe to be appropriate to cover such liability to date, our insurance premiums may increase in the future as a consequence of conditions in the insurance business generally or our situation in particular. Any such increase could result in lower operating profit or cause the need to reduce our insurance coverage. In addition, a future claim may be brought against us that could have a material adverse effect on us. Any product liability claim may also include the imposition of punitive damages, the award of which, pursuant to certain state laws, may not be covered by insurance. Our product liability insurance policies have limits that, if exceeded, may result in material costs that could have an adverse effect on our future profitability. In addition, warranty claims are generally not covered by our product liability insurance. Further, any product liability or warranty issues may adversely affect our reputation as a manufacturer of high-quality, safe products, divert management's attention, and could have a material adverse effect on our business.

In addition, our former Lamons business is a named party to lawsuits related to asbestos contained in gaskets alleged to be formerly manufactured by it or its predecessors. While we sold the Lamons business in December 2019, we retained the asbestos-related liability exposure. Some of this litigation includes claims for punitive and consequential, as well as compensatory damages. We are not able to predict the outcome of these matters given that, among other things, claims may be initially made in jurisdictions without specifying the amount sought or by simply stating the minimum or maximum permissible monetary relief, and may be amended to alter the amount sought. Of the 4,968 claims pending at December 31, 2024, 28 set forth specific amounts of damages (other than those stating the statutory minimum or maximum). See Note 15, "*Commitments and Contingencies*," included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K for additional information.

Total settlement costs (exclusive of defense costs) for all such cases, some of which were filed more than 30 years ago, have been \$13.7 million. All relief sought in the asbestos cases is monetary in nature. To date, approximately 40% of our costs related to settlement and defense of asbestos litigation have been covered by our primary insurance. Effective February 14, 2006, we entered into a coverage-in-place agreement with our first level excess carriers regarding the coverage to be provided to us for asbestos-related claims when the primary insurance is exhausted. The coverage-in-place agreement makes asbestos defense costs and indemnity insurance coverage available to us that might otherwise be disputed by the carriers and provides a methodology for the administration of such expenses. The Company's primary insurance exhausted in November 2018, and the Company is solely responsible for defense costs and indemnity payments prior to the commencement of coverage under this agreement, the duration of which would be subject to the scope of damage awards and settlements paid. During this period, we may incur significant litigation costs in defending these matters. In the event the asbestos defense costs and indemnity insurance coverage provided by the coverage-in-place agreement are unavailable to us for any reason, we may incur additional costs. We also may be required to incur additional defense costs and pay damage awards or settlements, or become subject to equitable remedies, in the future that could adversely affect our businesses.

Our business may be materially and adversely affected by compliance obligations and liabilities under environmental laws and regulations, including related to climate change.

We are subject to increasingly stringent environmental laws and regulations, including those relating to air emissions, wastewater discharges and chemical and hazardous waste management and disposal. A number of governments or governmental bodies have introduced or are contemplating introducing regulatory changes in response to climate change, including regulating greenhouse gas emissions. Some of these laws hold owners or operators of land or businesses liable for their own and for previous owners' or operators' releases of hazardous or toxic substances or wastes. Other environmental laws and regulations require obtaining and complying with environmental permits. To date, costs of complying with environmental, health and safety requirements have not been material. However, the nature of our operations and our long history of industrial activities at certain of our current or former facilities, as well as those acquired, could potentially result in material liabilities.

While we must comply with existing and pending climate change legislation, regulation and international treaties or accords, current laws and regulations have not had a material impact on our business, capital expenditures or financial position. Future events, including those relating to climate change or greenhouse gas regulation, could require us to incur expenses related to fund energy efficiency activities, fees or restrictions on certain activities, the modification or curtailment of operations, installation of pollution control equipment or investigation and cleanup of contaminated sites. Any adopted future regulations could also negatively impact our ability to compete with companies situated in areas not subject to such limitations, and we may not be able to recover the cost of compliance with new or more stringent laws and regulations, which could adversely impact our results of operations, cash flow or financial condition.

Our reputation, ability to do business, and results of operations may be impaired by legal compliance risks.

While we strive to maintain high standards, our internal controls and compliance systems may not always protect us from acts committed by our employees, agents, or business partners that would violate U.S. and/or non-U.S. laws or adequately protect our confidential information, including the laws governing payments to government officials, bribery, fraud, anti-kickback and false claims rules, competition, export and import compliance, money laundering, and data privacy laws (including with respect to the European Union's General Data Protection Regulation and U.S. state privacy laws such as the California Consumer Privacy Act), as well as the improper use of proprietary information or social media. Any such allegations, violations of law or improper actions could subject us to civil or criminal investigations in the U.S. and in other jurisdictions, could lead to substantial civil or criminal, monetary and non-monetary penalties, and related shareholder lawsuits, could lead to increased costs of compliance, could damage our reputation and could have a material effect on our consolidated financial statements.

Risks Related to our Debt and Other Financial Obligations

We have debt principal and interest payment requirements that may restrict our future operations and impair our ability to meet our obligations.

As of December 31, 2024, we have \$398.1 million of outstanding long-term debt. We are subject to variable interest rates on our revolving credit facility. Such interest rates are subject to benchmark interest rates based on the currency denomination of borrowings, with British pound sterling borrowings subject to the Sterling Overnight Index Average and Euro borrowings subject to the Euro InterBank Offered Rate, both plus a spread of 1.750%, and U.S. dollar borrowings subject to the Secured Overnight Financing Rate plus a spread of 1.850%. The interest rate spread is based upon the leverage ratio, as defined, as of the most recent determination date. We may experience increases in our interest expense as a result of general increases in interest rate levels. In addition, we could be further impacted by changes in variable interest rates. Our reference rates under our revolving credit facility may perform differently from historical rates, which may affect our net interest expense and require changes to our future risk, pricing and hedging strategies. We had \$1.5 million outstanding under our revolving credit facility as of December 31, 2024.

Our degree of leverage and level of interest expense may have important consequences, including:

- Should our leverage increase, it may place us at a competitive disadvantage as compared with our less leveraged competitors and make us more vulnerable in the event of a downturn in general economic conditions or in any of our businesses;
- Our flexibility in planning for, or reacting to, changes in our businesses and the industries in which we operate may be limited;
- A substantial portion of our cash flow from operations will be dedicated to the payment of annual interest and future principal obligations on our indebtedness, thereby reducing the funds available to us for operations, capital expenditures, acquisitions, future business opportunities or obligations to pay rent in respect of our operating leases; and
- Our operations are restricted by our debt instruments, which contain certain financial and operating covenants, and those restrictions may limit, among other things, our ability to borrow money in the future for working capital, capital expenditures, acquisitions, rent expense or other purposes.

Our ability to service our debt and other obligations will depend on our future operating performance, which will be affected by prevailing economic conditions and financial, business and other factors, many of which are beyond our control. Our business may not generate sufficient cash flow, and future financings may not be available to provide sufficient net proceeds, to meet these obligations or to successfully execute our business strategies. See "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.*"

Restrictions in our debt instruments limit our ability to take certain actions and breaches thereof could impair our liquidity.

Our revolving credit facility and the indenture governing our senior notes contain covenants that restrict our ability to:

- Pay dividends or redeem or repurchase capital stock;
- Incur additional indebtedness and grant liens;
- Make acquisitions and joint venture investments; and
- Sell assets.

Our debt instruments also require us to comply with financial covenants relating to, among other things, interest coverage and leverage. We may not be able to satisfy these covenants in the future or be able to pursue our strategies within the constraints of these covenants. Substantially all of the assets of our domestic subsidiaries are pledged as collateral. Borrowings under the foreign currency sub limit are secured by a pledge of the assets of the foreign subsidiary borrowers that are party to our revolving credit facility. A breach of a covenant contained in our debt instruments could result in an event of default under one or more of our debt instruments and our lease financing arrangements. Such breaches would permit the lenders to declare all amounts borrowed thereunder to be due and payable, and the commitments of such lenders to make further extensions of credit could be terminated. Each of these circumstances could materially and adversely impair our liquidity.

Our borrowing costs may be impacted by our credit ratings developed by various rating agencies.

Two major ratings agencies, Standard & Poor's and Moody's, evaluate our credit profile on an ongoing basis and have each assigned ratings for our long-term debt. If our credit ratings were to decline, our ability to access certain financial markets may become limited, the perception of us in the view of our customers, suppliers and security holders may worsen and as a result, we may be adversely affected.

We have significant operating and finance lease obligations and our failure to meet those obligations could adversely affect our financial condition.

We lease many of our manufacturing and distribution branch facilities, and certain capital equipment. Our rental expense in 2024 under these leases was \$13.9 million. A failure to pay our rental obligations would constitute a default allowing the applicable landlord to pursue any remedy available to it under applicable law, which would include taking possession of our property and, in the case of real property, evicting us. The majority of our leases are categorized as operating leases and are not considered indebtedness for purposes of our debt instruments.

Human Capital Risks

We depend on the services of key individuals and relationships, the loss of which could materially harm us.

Our success will depend, in part, on the efforts of our key leadership, including key operational, technical, commercial, manufacturing and financial personnel. Our business leadership teams have served a vast majority of their careers in, and are deeply experienced in, the industries we operate. Our future success will also depend on, among other factors, our ability to retain or attract other qualified personnel. The loss of the services of any of our key employees or the failure to retain or attract employees could have a material adverse effect on us.

We may be subject to further unionization and work stoppages at our facilities or our customers may be subject to work stoppages, which could seriously impact the profitability of our business.

As of December 31, 2024, we have one facility, located in Commerce, California, where our hourly employees operate under a collective bargaining agreement, and which represents 13% of our employees located in the United States. We have six facilities outside of the United States where our employees are affiliated with state-controlled or trade unions, which covers 13% of our non-U.S. employees. Our labor agreement with the United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) at our TriMas Aerospace facility in Commerce, California, expired in August 2024, at which time the UAW initiated a strike. We entered into a new three-year collective bargaining agreement in October 2024. We are not aware of any present active union organizing drives at any of our other facilities. We cannot predict the impact of any further unionization of our workplace.

Many of our direct or indirect customers have unionized work forces. Strikes, work stoppages or slowdowns experienced by these customers or their suppliers could result in slowdowns or closures of assembly plants where our products are utilized. In addition, organizations responsible for shipping our customers' products may be impacted by occasional strikes or other activity. Any interruption in delivery of our customers' products may reduce demand for our products and have a material adverse effect on us.

Healthcare costs for active employees may exceed projections and may negatively affect our financial results.

We maintain a range of healthcare benefits for our active employees pursuant to labor contracts and otherwise. Healthcare benefits for active employees are provided through comprehensive hospital, surgical and major medical benefit provisions or through health maintenance organizations, all of which are subject to various cost-sharing features. Some of these benefits are provided for in fixed amounts negotiated in labor contracts with the respective unions. If our costs under our benefit programs for active employees exceed our projections, our business and financial results could be materially adversely affected. Additionally, foreign competitors and many domestic competitors provide fewer benefits to their employees, and this difference in cost could adversely impact our competitive position.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 1C. Cybersecurity

Risk Management and Strategy

We depend on integrated information systems to conduct our business. Accordingly, we have processes in place designed to protect our information systems and to assess, identify and manage material risks from cybersecurity threats. As part of our Cyber Security Continuous Improvement Strategy, we continuously assess and improve our information systems to keep pace with the evolving threat landscape. We maintain a cybersecurity program that incorporates security measures from frameworks like the National Institute of Standards and Technology and the Center for Internet Security ("NIST"). This does not mean that we meet any particular technical standards, specifications, or requirements, but only that we use the NIST as a guide to help us identify, assess, and manage cybersecurity risks relevant to our business. Alongside the Company's preventative measures that employ traditional and artificial intelligence technologies, we actively monitor and audit our information technology and data assets to detect any anomalies and to respond quickly to potential threats that may arise.

In addition to applying security controls to prevent unauthorized access to sensitive information and protecting the Company's information systems and networks from exploitation by outsiders, we also deploy cybersecurity training courses to all employees annually, maintain an incident response plan, establish cybersecurity contingency plans and conduct phishing testing on a quarterly basis.

The oversight of the Company's cybersecurity risk management process is integrated into our annual Enterprise Risk Management ("ERM") process. Our ERM process is designed to enable leaders to identify and assess leading risks facing the Company, including risks related to cybersecurity, and work collaboratively to implement plans to mitigate these risks. We also utilize third-party experts to evaluate the Company's security program and test operational effectiveness of our security controls.

In addition, we have processes designed to oversee and identify risks from cybersecurity threats associated with our use of third-party service providers. For example, our Terms and Conditions within our agreements with suppliers, vendors, contractors, consultants, partners and others with whom we do business (collectively "Suppliers") generally require that our Suppliers safeguard and protect the information entrusted to them, as well as information generated or developed by them, from unauthorized access, destruction, use, modification or disclosure. We also encourage the our Suppliers to maintain risk-based cybersecurity programs designed to mitigate emerging threats to their information systems, products, services and supply chain, while complying with all applicable contractual and legal requirements. However, we may have little or no oversight with respect to security measures employed by third-party service providers, which may ultimately prove to be ineffective at countering cybersecurity threats.

We have experienced cybersecurity incidents in the past and, while none of these cybersecurity incidents resulted in a material disruption to our business, we may experience additional cybersecurity incidents in the future. As of the filing of this Form 10-K, we do not believe that any risks from cybersecurity threats, including as a result of any previous cybersecurity incidents, have materially affected, or are reasonably likely to materially affect us, including our business strategy, results of operations or financial condition. For additional information, refer to "Risks Relating to Our Business – *A major failure of our information systems could harm our business; increased cybersecurity threats and more sophisticated and targeted cybersecurity attacks could pose a risk to our systems, networks and products.*" in "Item 1A. Risk Factors" within this Form 10-K.

Governance

The Board of Directors of the Company (the "Board") is presented with a cybersecurity update quarterly which is integrated within our TriMas Incident Response Plan. The Board reviews the Company's ERM process, including the design of the program, the key risks identified and the actions identified to manage and reduce those risks. Consistent with this undertaking, the Board regularly reviews the Company's cybersecurity strategy and activities in support of the strategy. As part of its compliance oversight responsibilities, the Audit Committee of the Board (the "Audit Committee") is responsible for the review of compliance with laws, regulations and internal policies and procedures of our information and cybersecurity programs. The Board and the Audit Committee receive updates from management quarterly on information and cybersecurity status and enhancements. Additionally, prompt notification of the Board is integrated into the Incident Response Plan.

Our Chief Information Officer ("CIO") is responsible for assessing and managing material risks from cybersecurity threats, including monitoring the prevention, detection, mitigation and remediation of cybersecurity incidents. Our CIO has 20-plus years of experience in the cybersecurity industry. Our CIO is informed of such incidents through the Infrastructure and Security Team. Our CIO reports directly to the Company's Chief Financial Officer and reports information on these risks and incidents to the Board and the Audit Committee. Additionally, our CIO meets monthly with TriMas Senior Leadership in the Security Incident Management and Mitigation meetings.

Item 2. Properties

Our principal manufacturing facilities range in size from approximately 10,000 square feet to approximately 255,000 square feet. Except as set forth in the table below, all of our manufacturing facilities are owned. The leases for our manufacturing facilities have terms that expire from 2025 through 2033 and are generally renewable, at our option, for various terms, provided that we are not in default under the lease agreements. Substantially all of our owned U.S. real properties are subject to liens in connection with our credit facility. TriMas' corporate executive office is located in Bloomfield Hills, Michigan, which is leased through June 2033. Our buildings have been generally well maintained, are in good operating condition and are adequate for current production requirements.

The following list sets forth the location of our principal owned and leased manufacturing and other facilities used in continuing operations and identifies the principal segment utilizing such facilities as of December 31, 2024:

	Packaging	Aerospace	Specialty Products
United States:			
Alabama			Huntsville
Arkansas	Atkins ⁽¹⁾		
Arizona		Mesa Tolleson	
California		City of Industry Commerce ⁽¹⁾ Simi Valley ⁽¹⁾ El Cajon	
Colorado	Denver ⁽¹⁾		
Illinois	Woodridge ⁽¹⁾		
Indiana	Auburn Hamilton ⁽¹⁾ Indianapolis ⁽¹⁾		
Kansas		Ottawa	
Michigan	Clinton Township ⁽¹⁾		
Ohio	New Albany ⁽¹⁾		
Oklahoma			Tulsa
Texas			Longview
International:			
Brazil	Sao Paulo ⁽¹⁾		
Canada		Orangeville ⁽¹⁾	
China	Haining City ⁽¹⁾		
Germany	Neunkirchen		
India	Baddi New Delhi ⁽¹⁾		
Italy	Borgo San Giovanni ⁽¹⁾ Forli Pieve Fissiraga ⁽¹⁾ Povolaro		
Mexico	San Miguel de Allende ⁽¹⁾		
Netherlands	Waalwijk ⁽¹⁾		
Slovakia	Levice ⁽¹⁾		
United Kingdom	Leicester		
Vietnam	Thu Dau Mot ⁽¹⁾		

⁽¹⁾ Represents a leased facility. All such leases are operating leases.

Item 3. Legal Proceedings

See Note 15, "*Commitments and Contingencies*" included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K.

Item 4. Mine Safety Disclosures

Not applicable.

Supplementary Item. Information about our Executive Officers

As of December 31, 2024, the following were executive officers of the Company:

Thomas A. Amato. Mr. Amato, age 61, was appointed the Company's President and Chief Executive Officer in July 2016. Previously, he served as Chief Executive Officer and President of Metaldyne, LLC, an international engineered products manufacturing company, from 2009 through 2015, and Co-President and Chief Integration Officer of Metaldyne Performance Group, a global manufacturing company formed in mid-2014 and taken public in the same year, from August 2014 through December 2015. Prior to 2009, he served as Chairman, Chief Executive Officer and President of Metaldyne Corporation, a global components manufacturer, and Co-Chief Executive Officer of Asahi Tec, a publicly-traded Japanese casting and forging company. Prior to this, Mr. Amato worked at MascoTech in positions of increasing responsibility, and successfully completed several acquisitions and divestitures. During this time, one of his roles was Vice President of Corporate Development for TriMas. From 1987 to 1994, Mr. Amato worked at Imperial Chemical Industries, a large multinational chemical company, as an applications development engineer and, eventually, a group leader. Mr. Amato also serves on the Board of Directors of Ametek, a publicly-traded diversified industrial manufacturing company, and is appointed as its Compensation Committee Chair.

Scott A. Mell. Mr. Mell, age 53, was appointed the Company's Chief Financial Officer in May 2021. Prior to joining the Company, Mr. Mell served as Managing Director of Recovery and Transformation Services for Riveron, a national business advisory firm, from October 2018 through April 2021. In his role with Riveron, Mr. Mell led projects at TriMas to support continuous improvement efforts within TriMas' Packaging and Aerospace segments. Mr. Mell has more than 25 years of leadership experience providing strategic, financial and operational advisory services focused on value creation and transformational change management. Prior to Riveron, Mr. Mell served as Managing Director at Ernst & Young from October 2017 to October 2018. Mr. Mell also served as Vice President of Corporate Strategy at Motus Integrated Technologies from January 2017 to October 2017. Mr. Mell has held senior leadership positions within several global consulting firms, including McKinsey & Company and AlixPartners. Mr. Mell's previous experience also includes serving in multiple C-Suite roles for both public and privately-held companies in the industrial manufacturing, aerospace and energy industries.

Jill S. Stress. Ms. Stress, age 47, was appointed the Company's Chief Human Resources Officer in April 2023. Ms. Stress joined the Company in 2009 and was formerly the Company's Director of Compensation and Benefits. Prior to joining the Company, Ms. Stress was the Manager of Benefits, Compensation and Human Resources Systems at Behr America.

Jodi F. Robin. Ms. Robin, age 44, was appointed the Company's General Counsel and Secretary in April 2021. Ms. Robin joined the Company in 2010 as Associate General Counsel and was promoted to Deputy General Counsel in 2014. Prior to joining the Company, Ms. Robin was an attorney with Reed Smith LLP in Chicago, Illinois.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

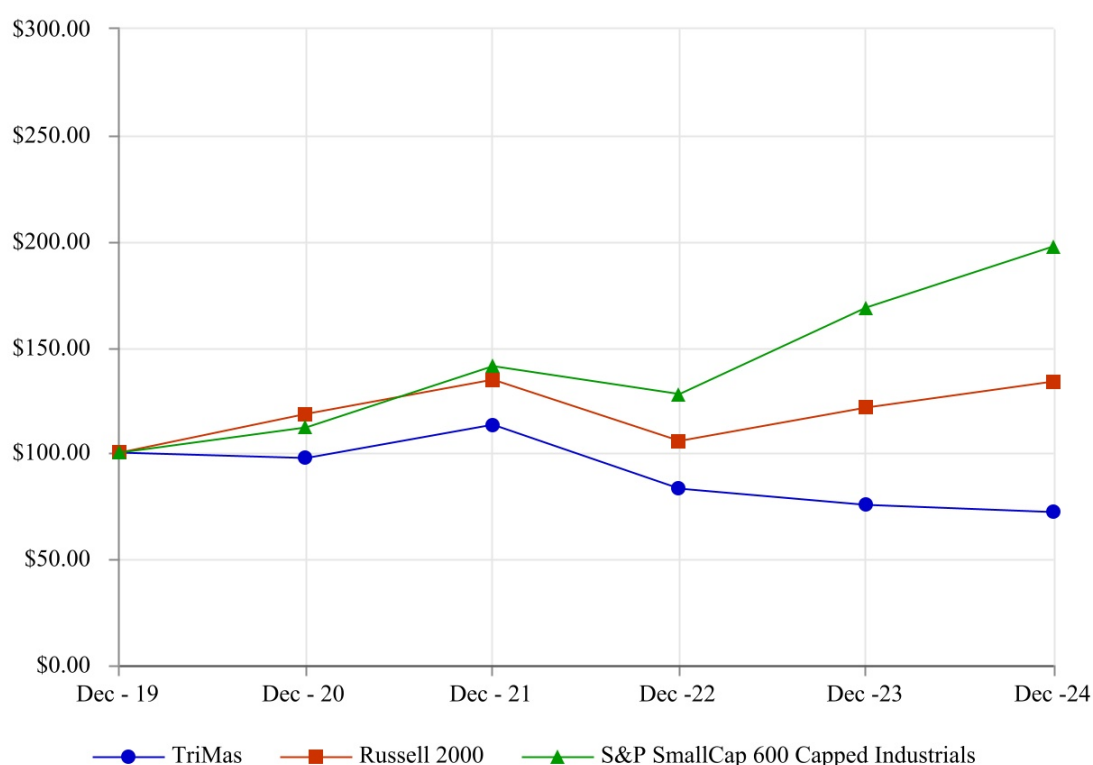
Our common stock, par value \$0.01 per share, is listed for trading on the NASDAQ Global Select Market under the symbol "TRS." As of February 20, 2025, there were 136 holders of record of our common stock.

In 2021, our Board of Directors declared the first dividend since our initial public offering in 2007. Since the fourth quarter of 2021, we have declared dividends of \$0.04 per share of common stock each quarter, and total dividends declared and paid on common shares during 2024, 2023 and 2022 were \$6.6 million, \$6.7 million and \$6.9 million, respectively. Holders of common stock are entitled to dividends at the discretion of our Board of Directors.

See the discussion under Item 7, "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources*" and Note 18 to the Company's financial statements captioned "*Earnings per Share*," included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K.

Performance Graph

The following graph compares the cumulative total stockholder return from December 31, 2019 through December 31, 2024 for TriMas common stock, the Russell 2000 Index and the S&P SmallCap 600 Capped Industrials Index. We have assumed that dividends have been reinvested and returns have been weighted-averaged based on market capitalization. The graph assumes that \$100 was invested on December 31, 2019, in each of TriMas common stock, the stocks comprising the Russell 2000 Index and the stocks comprising the S&P SmallCap 600 Capped Industrials Index.



Issuer Purchases of Equity Securities

There were no purchases made by the Company, or on behalf of the Company by an affiliated purchaser, of shares of the Company's common stock during the three months ended December 31, 2024. In March 2020, the Board of Directors increased the authorization of share repurchases to a cumulative amount of \$250 million. As of December 31, 2024, the Company had approximately \$67.6 million remaining under the repurchase authorization.

Item 6. [Reserved]

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

The statements in the discussion and analysis regarding industry outlook, our expectations regarding the performance of our business and the other non-historical statements in the discussion and analysis are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described in Item 1A "Risk Factors." Our actual results may differ materially from those contained in or implied by any forward-looking statements. You should read the following discussion together with Item 8, "Financial Statements and Supplementary Data."

Introduction

TriMas designs, develops and manufactures a diverse set of products primarily for the consumer products, aerospace & defense and industrial markets through its TriMas Packaging, TriMas Aerospace and Specialty Products groups. Our wide range of innovative products are designed and engineered to solve application-specific challenges that our customers face. We believe our businesses share important and distinguishing characteristics, including: well-recognized and leading brand names in the markets we serve; innovative product technologies and features; a high-degree of customer approved processes and qualifications; established distribution networks; modest capital investment requirements; strong cash flow conversion and long-term growth opportunities. While the majority of our revenue is in the United States, we manufacture and supply products globally to a wide range of companies. We report our business activity in three segments: Packaging, Aerospace and Specialty Products.

Key Factors Affecting Our Reported Results

Demand for the products our businesses produce and results of operations depend upon general economic conditions. We serve customers in industries that are highly competitive and that may be significantly impacted by changes in economic or geopolitical conditions.

Our results of operations have been materially impacted over the past few years by macro-economic factors, first by the onset and proliferation of the coronavirus pandemic ("pandemic"), then further from increased energy costs and supply chain disruptions from the Russia-Ukraine conflict, and more recently by cost inflation (raw materials, wage rates and freight) a lack of material and in certain regions skilled labor availability, as well as recent periods of destocking from prior periods of over-ordering by customers. These factors significantly affected each of our businesses and how we operate, albeit in different ways and magnitudes. Sales in our Packaging segment for dispensing and closure products used in applications to help fight the spread of germs have experienced extreme volatility in demand, with demand spiking to record highs after the onset of the pandemic, demand abating as expected from those high levels beginning mid-2022 and continuing through most of 2023, as a result of some of our larger customers' choices to rebalance on-hand inventory levels and caution in purchasing behaviors given the current inflationary macro-economic environment. Sales of certain of our aerospace-related products were significantly depressed from historical levels following the onset of the pandemic, but demand has significantly increased in recent quarters as air travel has picked-up and new aircraft build rates improve. Certain of our products for industrial applications, for example steel cylinders for packaged gas applications, have experienced volatility in demand related to customers securing high order rates in prior periods, only to enter a period of destocking in more recent periods. Altogether, this significant level of volatility in demand levels, input and transportation costs, and material and labor availability, have pressured our ability to operate efficiently in recent periods. While some areas of demand volatility and softness remain, such as in our Specialty Products segment, and more specifically our Norris Cylinder business, we have experienced more steady and consistent demand in our Packaging and Aerospace segments.

Overall, 2024 net sales increased \$31.5 million, or 3.5%, compared to 2023. We experienced growth from acquisitions, as well as organic growth of 16.6% and 10.3% within our Aerospace and Packaging segments, respectively, compared to 2023. These increases were partially offset by lower sales of 37.2% in our Specialty Products segment as compared to the prior year as we work through a cyclical demand trough and destocking.

The most significant drivers affecting our financial results in 2024 compared with 2023, other than as directly impacted by sales changes, were the impact of our recent acquisitions, accelerated depreciation charges related to shortening the useful lives of certain machinery and equipment in our Specialty Products segment, increased costs and decreased sales resulting from a prolonged labor union strike at one of our manufacturing facilities within our Aerospace segment, a charge to update our asbestos liability based on our recent actuarial valuation, improved material availability within our Aerospace segment, charges associated with environmental remediation liabilities, increased input costs, including expedited freight within our Packaging segment, lower realignment charges, and a decrease in our effective tax rate.

In April 2023, we acquired Weldmac Manufacturing Company ("Weldmac"), a designer and manufacturer of complex metal fabricated components and assemblies for the aerospace, defense and space launch end markets for a purchase price of \$34.0 million, with additional contingent consideration of \$5.5 million paid in July 2023 and \$2.25 million paid in October 2024 based on achievement of earnings targets. Weldmac, which is reported in our Aerospace segment, is located in El Cajon, California. Weldmac contributed \$12.9 million of acquisition-related net sales growth during 2024.

In February 2023, we acquired Aarts Packaging B.V. ("Aarts"), a luxury packaging solutions provider for beauty and lifestyle brands, as well as for customers in the food and life sciences end markets, for a purchase price of \$37.8 million, net of cash acquired. Aarts, which is reported in our Packaging segment, is located in Waalwijk, the Netherlands, and contributed \$2.8 million of acquisition-related sales growth during 2024 resulting from its January 2024 sales.

In 2024, following a strategic demand and profitability study of our cylinders products within our Specialty Products segment, we ceased use of our second hot forge which primarily produced lower profitability products, resulting in pre-tax non-cash charges related to accelerated depreciation expense of \$8.2 million due to the shortening of the assets expected useful lives.

In August 2024, our labor agreement with the United Automobile, Aerospace and Agricultural Implement Workers of America (UAW) at our TriMas Aerospace facility in Commerce, California, expired. On August 4, 2024, the UAW initiated a strike, causing a work stoppage that resulted in lost production volumes, reduced sales, manufacturing inefficiencies and \$3.4 million of strike-related costs in 2024, with the Company and the UAW reaching a new labor agreement in mid-October 2024.

In 2024, we commissioned our actuary to update our asbestos study, and upon completion we recorded a pre-tax charge of \$5.5 million, which is included in selling, general and administrative expenses.

In 2024, we recorded a pre-tax charges of \$3.6 million for environmental remediation for waste sites in which we had been named a potential responsible party.

During 2024, we experienced abrupt increases in orders for certain products within our Packaging segment, requiring us to incur incremental input costs, including expedited freight, in order to timely fulfill certain customer's orders.

Over the past few years, we have been executing certain realignment actions in response to current and expected future end market demand and rising input costs. During 2024, we incurred pre-tax realignment charges of \$0.9 million within our Packaging segment, related to the closure of our facility in Irwindale, California. In 2023, we recorded pre-tax realignment charges of \$10.3 million, primarily related to our actions to close and consolidate two production facilities in China into one new, larger facility in Haining, China, and to close and consolidate our Rohnert Park, California, manufacturing facility operations into other existing U.S. production locations. These charges consisted of \$2.1 million employee-related costs, \$0.8 million for the write down of inventory to fair value, \$5.2 million related to other facility move and consolidation costs, and \$2.2 million were related to charges to accelerate the depreciation of certain fixed assets.

Our effective tax rate for 2024 and 2023 was 19.3%, and 20.2%, respectively. The decrease in effective tax rate 2024 as compared to 2023 is primarily as a result of a change in the mix of domestic and foreign pre-tax results.

Additional Key Risks that May Affect Our Reported Results

We have executed meaningful realignment actions over the past few years to address variable and structural costs where demand has fallen. We will continue to assess and take further actions if required. However, as a result of the current period of macroeconomic inflation and uncertainty and the potential impact of such factors to our future results of operations, as well as if there is an impact to TriMas' overall performance and market capitalization, we may record additional cash and non-cash charges related to further realignment actions, asset impairments, including impairments to our goodwill, intangible assets, fixed assets, inventory or customer receivable account balances.

Despite the potential for declines in future demand levels and results of operations, at present, we believe our capital structure is in a strong position. We have sufficient cash and available liquidity under our revolving credit facility to meet our debt service obligations, capital expenditure requirements and other short-term and long-term obligations for the foreseeable future.

Critical factors affecting our ability to succeed include: our ability to generate organic growth through product development, cross-selling and extending product-line offerings, and our ability to quickly and cost-effectively introduce and successfully launch new products; our ability to acquire and integrate companies or products that supplement existing product lines, add adjacent distribution channels and new customers, or expand our geographic coverage; our ability to manage our cost structure more efficiently via supply chain management, internal sourcing and/or purchasing of materials, selective outsourcing and/or purchasing of support functions, working capital management, and greater leverage of our administrative functions; and our ability to absorb, or recover via commercial actions, inflationary or other cost increases, including tariffs and duties.

Our overall business does not experience significant seasonal fluctuation, other than our fourth quarter, which has tended to be the lowest net sales quarter of the year due to holiday shutdowns at certain customers or other customers deferring capital spending to the following year. A growing amount of our sales is derived from international sources, which exposes us to certain risks, including currency risks.

We are sensitive to price movements and availability of our raw materials supply. Our largest raw material purchases are for polypropylene, polyethylene, steel, aluminum, superalloys (such as titanium, A286 stainless steel and Inconel) and other oil and metal-based purchased components, the costs for each of which are subject to volatility. There has also been some volatility over the past two years as a direct and indirect result of foreign trade policy, where tariffs on certain of our commodity-based products sourced from Asia have been instituted, the conflict in Eastern Europe, creating certain input material shortages, and labor shortages at certain of our raw material suppliers. We will continue to take actions to mitigate such increases, including implementing commercial pricing adjustments, holding extra inventories, resourcing to alternate suppliers and insourcing of previously sourced products. Although we believe we are generally able to mitigate the impact of higher commodity costs over time, we may experience additional material costs and disruptions in supply in the future and may not be able to pass along higher costs to our customers in the form of price increases or otherwise mitigate the impacts to our operating results.

Although we have escalator/de-escalator clauses in commercial contracts with certain of our customers to address fluctuations in input costs, or can modify prices based on market conditions to recover higher costs, our price increases generally lag the underlying input cost increase, and we cannot be assured of full cost recovery in the open market. If input costs increase at rapid rates, our ability to recover cost increases on a timely basis is made more difficult by the lag nature of these contracts.

Oil-based commodity costs are a significant driver of raw materials and purchased components used within our Packaging segment. As such, an increase in crude oil often is a precursor to rising polymeric raw material costs, for which we may experience a contractual commercial recover lag. Separately, our Arrow Engine business in our Specialty Products segment is sensitive to the demand for natural gas and crude oil in North America. For example, demand for engine, pump jack and compressor products are impacted by active oil and gas rig counts and wellhead investment activities.

Each year, as a core tenet of the TriMas Business Model, our businesses target cost savings from Kaizen (continuous improvement) initiatives in an effort to reduce, or otherwise offset, the impact of increased input and conversion costs through increased throughput and yield rates, with a goal of at least covering inflationary and market cost increases. In addition, we continuously review our operating cost structures to ensure alignment with current market demand.

We continue to evaluate alternatives to redeploy the cash generated by our businesses, one of which includes returning capital to our shareholders. In 2020, our Board of Directors increased the authorization of share repurchases to a cumulative amount of \$250 million. During 2024, we purchased 771,067 shares of our outstanding common stock for an aggregate purchase price of \$19.3 million. As of December 31, 2024, we had \$67.6 million remaining under the repurchase authorization.

In addition, in 2024, we declared quarterly dividends of \$0.04 per share of common stock, aggregating to dividends declared and paid on common shares during 2024 of \$6.6 million. We will continue to evaluate opportunities to return capital to shareholders through the purchase of our common stock, as well as dividends, depending on market conditions and other factors.

Segment Information and Supplemental Analysis

The following table summarizes financial information for our three reportable segments (dollars in thousands):

	Year ended December 31,					
	2024	As a Percentage of Net Sales	2023	As a Percentage of Net Sales	2022	As a Percentage of Net Sales
Net Sales						
Packaging	\$ 512,320	55.4 %	\$ 463,600	51.9 %	\$ 522,180	59.1 %
Aerospace	294,210	31.8 %	241,400	27.0 %	188,090	21.3 %
Specialty Products	118,480	12.8 %	188,550	21.1 %	173,560	19.6 %
Total	\$ 925,010	100.0 %	\$ 893,550	100.0 %	\$ 883,830	100.0 %
Gross Profit						
Packaging	\$ 123,650	24.1 %	\$ 109,050	23.5 %	\$ 137,030	26.2 %
Aerospace	69,920	23.8 %	48,010	19.9 %	32,240	17.1 %
Specialty Products	5,890	5.0 %	44,260	23.5 %	39,030	22.5 %
Total	\$ 199,460	21.6 %	\$ 201,320	22.5 %	\$ 208,300	23.6 %
Selling, General and Administrative						
Packaging	\$ 56,420	11.0 %	\$ 48,760	10.5 %	\$ 55,670	10.7 %
Aerospace	36,150	12.3 %	31,370	13.0 %	28,990	15.4 %
Specialty Products	7,790	6.6 %	7,830	4.2 %	8,680	5.0 %
Corporate expenses	52,680	N/A	46,620	N/A	37,850	N/A
Total	\$ 153,040	16.5 %	\$ 134,580	15.1 %	\$ 131,190	14.8 %
Operating Profit (Loss)						
Packaging	\$ 68,110	13.3 %	\$ 60,140	13.0 %	\$ 81,000	15.5 %
Aerospace	33,750	11.5 %	15,520	6.4 %	8,060	4.3 %
Specialty Products	(1,990)	(1.7)%	36,400	19.3 %	30,250	17.4 %
Corporate	(52,680)	N/A	(46,620)	N/A	(20,250)	N/A
Total	\$ 47,190	5.1 %	\$ 65,440	7.3 %	\$ 99,060	11.2 %
Capital Expenditures						
Packaging	\$ 30,860	6.0 %	\$ 29,060	6.3 %	\$ 33,170	6.4 %
Aerospace	9,960	3.4 %	14,620	6.1 %	6,900	3.7 %
Specialty Products	7,100	6.0 %	10,410	5.5 %	5,860	3.4 %
Corporate	3,040	N/A	100	N/A	30	N/A
Total	\$ 50,960	5.5 %	\$ 54,190	6.1 %	\$ 45,960	5.2 %
Depreciation						
Packaging	\$ 27,730	5.4 %	\$ 27,740	6.0 %	\$ 22,720	4.4 %
Aerospace	7,900	2.7 %	7,820	3.2 %	7,590	4.0 %
Specialty Products	12,270	10.4 %	3,720	2.0 %	3,680	2.1 %
Corporate	220	N/A	130	N/A	130	N/A
Total	\$ 48,120	5.2 %	\$ 39,410	4.4 %	\$ 34,120	3.9 %
Amortization						
Packaging	\$ 6,520	1.3 %	\$ 6,430	1.4 %	\$ 6,620	1.3 %
Aerospace	10,280	3.5 %	11,340	4.7 %	12,030	6.4 %
Specialty Products	—	— %	410	0.2 %	450	0.3 %
Corporate	—	N/A	—	N/A	—	N/A
Total	\$ 16,800	1.8 %	\$ 18,180	2.0 %	\$ 19,100	2.2 %

The following table summarizes detail on the year-over-year sales growth percentages for our reportable segments for the year ended December 31, 2024 as compared to the year ended December 31, 2023:

	Year to Date 2024 vs. Year to Date 2023			
	Organic	Acquisitions	Foreign Exchange	Total
Consolidated TriMas Corporation	2.0 %	1.8 %	(0.3)%	3.5 %
Packaging	10.3 %	0.6 %	(0.4)%	10.5 %
Aerospace	16.6 %	5.3 %	— %	21.9 %
Specialty Products	(37.2)%	— %	— %	(37.2)%

The following "Results of Operations Year Ended December 31, 2024 Compared with Year Ended December 31, 2023" section presents an analysis of our consolidated operating results displayed in the Consolidated Statement of Income. A discussion regarding our financial condition and results of operations for the year ended December 31, 2023 compared to the year ended December 31, 2022 can be found under Item 7 in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the Securities and Exchange Commission on February 29, 2024.

Results of Operations

Year Ended December 31, 2024 Compared with Year Ended December 31, 2023

The principal factors impacting us during the year ended December 31, 2024, compared with the year ended December 31, 2023 were:

- Increases in demand for products within our Packaging and Aerospace segments;
- Significant demand decrease in our Specialty Products segment;
- The impact of recent acquisitions, primarily Aarts in February 2023 and Weldmac in April 2023;
- Expedited freight costs within our Packaging segment related to the abrupt increase in demand for certain products;
- Accelerated depreciation charges related to shortening the useful lives of certain machinery and equipment in our Specialty Products segment;
- Increased costs, decreased sales levels and manufacturing inefficiencies resulting from a prolonged labor union strike at one of our manufacturing facilities in our Aerospace segment that ended in mid-October 2024;
- Expenses associated with our asbestos exposure to update the liability to recent actuarial studies;
- Improved material availability and resulting production efficiencies in our Aerospace segment;
- Environmental remediation expenses related to waste sites in which we had been named a potential responsible party;
- The impact of realignment expenses taken in 2023 in response to changes in end market demand; and
- A decrease in our effective tax rate in 2024 compared with 2023.

Overall, net sales increased \$31.5 million, or 3.5%, to \$925.0 million in 2024, as compared to \$893.6 million in 2023. Acquisition-related sales growth was \$15.7 million, comprised of \$2.8 million from our February 2023 acquisition of Aarts and \$12.9 million from our April 2023 acquisition of Weldmac. Organic sales, excluding the impact of currency exchange and acquisitions, increased \$17.9 million, or 2.0%, driven by organic sales increases of 10.3% and 16.6% within our Packaging and Aerospace segments, respectively, due to end market demand improvements and growth initiatives. These increases were partially offset by a 37.2% sales decrease in our Specialty Products segment due to lower market demand. The increase in net sales was also offset by \$2.0 million due to currency exchange, as our reported results in U.S. dollars were unfavorably impacted as a result of the strengthening U.S. dollar relative to foreign currencies.

Gross profit margin (gross profit as a percentage of sales) approximated 21.6% and 22.5% in 2024 and 2023, respectively. Gross profit margin decreased due to reduced sales, significantly less favorable absorption of fixed costs, and \$8.2 million of accelerated depreciation charges for certain machinery and equipment within our Specialty Products segment as well as increased input costs, the impact of a \$2.6 million commercial settlement in 2023 that did not repeat in 2024, and higher production costs, which started to abate in fourth quarter 2024, related to demand reversion above peak capacity for certain product lines in our Packaging segment. Also contributing to the decrease in gross profit were increased costs and manufacturing inefficiencies resulting from labor union strikes within our Aerospace segment. The decrease in gross profit was partially offset by higher sales levels and related improved fixed cost absorption and the impact of a charge related to purchase accounting in 2023 that did not repeat within our Packaging and Aerospace segments. Additionally, gross margin was favorably impacted by reduced material availability constraints, a more favorable product sales mix, and commercial recoveries within our Aerospace segment, and the lower year-over-year impact of realignment costs within our Packaging segment.

Operating profit margin (operating profit as a percentage of sales) approximated 5.1% and 7.3% in 2024 and 2023, respectively. Operating profit decreased \$18.3 million, to \$47.2 million in 2024, as compared to \$65.4 million in 2023, primarily due to decreased sales, significantly less favorable absorption of fixed costs and accelerated depreciation charges for certain machinery and equipment within our Specialty Products segment, a \$5.5 million pre-tax charge related to updating our asbestos studies, and \$3.6 million of pre-tax charges related to our environmental remediation obligations. Additionally, operating profit decreased due to increased input costs and higher production costs, which started to abate in fourth quarter 2024, related to high demand for certain dispensing products within our Packaging segment, as well as increased costs and manufacturing inefficiencies resulting from the labor union strike within our Aerospace segment. These decreases were partially offset by higher sales levels and related improved fixed cost absorption and the impact of a charge related to purchase accounting in 2023 that did not repeat within our Packaging and Aerospace segments. Operating profit was favorably impacted by lower realignment costs and the impact of \$1.0 million higher net gains on sales of non-core properties within the Packaging segment, as well as reduced material availability constraints, a more favorable product sales mix, and commercial recoveries within the Aerospace segment.

Interest expense increased \$3.6 million, to \$19.6 million in 2024, as compared to \$15.9 million in 2023, due to a higher effective interest rate and an increase in our weighted average borrowings as a result of increased borrowings from our revolving credit facility.

Other income increased \$1.3 million to \$2.4 million in 2024, from \$1.1 million in 2023, primary due to the \$2.2 million reversal of the Weldmac contingent consideration liability in 2024 and by a non-cash settlement charge for our Canadian defined benefit obligations during 2023, partially offset by increased foreign translation losses.

The effective income tax rate for 2024 was 19.3%, compared to 20.2% for 2023. We recorded income tax expense of \$5.8 million in 2024, as compared to \$10.2 million in 2023. During 2024, we reported domestic and foreign pre-tax income of \$3.3 million and \$26.7 million, respectively, as compared to domestic and foreign pre-tax income of \$20.7 million and \$29.9 million, respectively, in 2023. The rate for 2024 is lower primarily as a result of a change in the mix of domestic and foreign pre-tax results.

Net income decreased \$16.1 million to \$24.3 million in 2024, compared to \$40.4 million in 2023. This decrease was primarily a result of a decrease in operating profit of \$18.3 million and a \$3.6 million increase in interest expense, partially offset by a decrease in income tax expense of \$4.4 million and a \$1.3 million increase in other income.

See below for a discussion of operating results by segment.

Packaging. Net sales increased \$48.7 million, or 10.5% (of which 10.3% was organic, 0.6% related to acquisitions, and (0.4)% was foreign currency exchange), to \$512.3 million in 2024, as compared to \$463.6 million in 2023. Acquisition-related sales growth was \$2.8 million from the January 2024 sales of our February 2023 acquisition of Aarts. Sales of dispensing products used primarily for beauty, personal care and home care applications increased organically by \$38.2 million. Sales of products used for industrial applications increased by \$13.0 million. These increases were partially offset by the decrease in sales of products used in food and beverage applications of \$3.1 million, primarily due to reduced demand for certain flexible packaging applications in North America and beverage closure applications in Europe as certain customers prepare for cutting over to a new product design. The increase in net sales was also offset by \$2.0 million due to currency exchange, as our reported results in U.S. dollars were unfavorably impacted as a result of the strengthening U.S. dollar relative to foreign currencies, as compared to 2023.

Packaging's gross profit increased \$14.6 million to \$123.7 million, or 24.1% of sales, in 2024, as compared to \$109.1 million, or 23.5% of sales, in 2023, primarily due to higher sales levels and resulting improved fixed cost absorption, the favorable impact of prior year cost reduction efforts, the impact of \$8.9 million lower realignment costs and a \$0.8 million purchase accounting charge related to the step-up of inventory to fair value in 2023 that did not repeat in 2024. The increase in gross profit was partially offset by a \$2.6 million commercial settlement in 2023 that did not repeat, and increased input costs, including expedited freight and labor required to timely fulfill an abrupt increase in customer orders in the first half of 2024, as well as higher production costs through third quarter 2024 associated with capacity restraints and high demand for certain product lines.

Packaging's selling, general and administrative expenses increased \$7.7 million to \$56.4 million, or 11.0% of sales, in 2024, as compared to \$48.8 million, or 10.5% of sales, in 2023, primarily due to \$4.7 million higher information technology costs allocated from Corporate, higher employee-related costs and higher professional fees.

Packaging's operating profit increased \$8.0 million to \$68.1 million, or 13.3% of sales, in 2024, as compared to \$60.1 million, or 13.0% of sales, in 2023, primarily due to higher sales levels, improved fixed cost absorption, and the favorable impact of prior realignment actions, and the impact of \$1.0 million higher net gains on sales of non-core properties. These increases were partially offset by higher selling, general and administrative expenses, the impact of a commercial settlement in 2023 that did not repeat, and increased input costs, including expedited freight to timely fulfill an abrupt increase in customer orders.

Aerospace. Net sales increased \$52.8 million, or 21.9% (of which 16.6% was organic and 5.3% related to acquisitions), to \$294.2 million in 2024, as compared to \$241.4 million in 2023. Acquisition-related sales growth from our April 2023 acquisition of Weldmac was \$12.9 million. Sales of our fasteners products increased by \$22.3 million due to increases in aircraft build rates, improved production yield and commercial recoveries, partially offset by a decrease in sales due to the labor union strike at our Aerospace facility in Commerce, California. Sales of our engineered components products increased by \$17.6 million due to improved throughput, commercial recoveries and new business wins.

Gross profit within Aerospace increased \$21.9 million to \$69.9 million, or 23.8% of sales, in 2024, from \$48.0 million, or 19.9% of sales, in 2023. Gross profit increased primarily due to higher sales levels and resulting improved fixed cost absorption, reduced material availability constraints, a more favorable product sales mix, favorable commercial recoveries, and a \$2.4 million purchase accounting charge related to the step-up of inventory to fair value in 2023 that did not repeat. These increases were partially offset by increased costs and manufacturing inefficiencies resulting from the labor union strike.

Selling, general and administrative expenses increased \$4.8 million to \$36.2 million, or 12.3% of sales, in 2024, as compared to \$31.4 million, or 13.0% of sales, in 2023, primarily due to higher employee-related costs, higher information technology costs, \$1.8 million of increased costs related to the labor union strike, and higher ongoing selling, general and administrative costs associated with our acquisition of Weldmac. These increases were partially offset by lower legal costs and lower intangible asset amortization expense due to certain assets becoming fully amortized.

Operating profit within Aerospace increased \$18.2 million to \$33.8 million, or 11.5% of sales, in 2024, as compared to \$15.5 million, or 6.4% of sales, in 2023, primarily due to the impact of higher sales levels, improved fixed cost absorption, reduced material availability production constraints, a more favorable product sales mix, commercial recoveries, a purchase accounting adjustment related to Weldmac's inventory step-up to fair value in 2023 that did not repeat, and a \$1.1 million indefinite-lived intangible asset impairment charge in 2023 that did not repeat. These increases were partially offset by higher selling, general and administrative expenses and increased costs and manufacturing inefficiencies related to the strike.

Specialty Products. Net sales decreased \$70.1 million, or 37.2%, to \$118.5 million in 2024, as compared to \$188.6 million in 2023. Sales of forged steel cylinders decreased \$45.2 million, or 31.3%, due to lower demand resulting primarily from certain large distributor customers closely managing overstocked positions given high order rates in previous years which were in reaction to disruptions in the global supply chain. Sales of natural gas fired engines, compressors and related parts used in remote power generation and assistance applications for natural gas and crude oil extraction decreased by \$24.9 million, or 56.4%, primarily as a result of lower compression package sales from a customer that has reduced their ordering rate significantly as compared to the prior year.

Gross profit within Specialty Products decreased \$38.4 million to \$5.9 million, or 5.0% of sales, in 2024, as compared to \$44.3 million, or 23.5% of sales, in 2023. Gross profit decreased due to lower sales levels, which resulted in significantly lower fixed cost absorption, and from \$8.2 million of accelerated depreciation charges for certain machinery and equipment.

Selling, general and administrative expenses within Specialty Products was \$7.8 million, or 6.6% of sales, in 2024, as compared to \$7.8 million, or 4.2% of net sales, in 2023, as \$1.8 million of higher information technology costs allocated from Corporate was offset by cost reduction actions in 2024, in response to lower market demand levels.

Operating profit (loss) within Specialty Products decreased \$38.4 million to an operating loss of \$2.0 million, or 1.7% of sales, in 2024, as compared to an operating profit of \$36.4 million, or 19.3% of sales, in 2023, primarily due to lower sales levels, which resulted in significantly less favorable absorption of fixed costs, and accelerated depreciation charges for certain machinery and equipment.

Corporate Expenses. Corporate expenses included in operating profit consist of the following (dollars in millions):

	Year ended December 31,	
	2024	2023
Corporate operating expenses	\$ 36.0	\$ 36.7
Non-cash stock compensation	7.0	9.7
Legacy expenses	9.7	0.2
Corporate expenses	<u>\$ 52.7</u>	<u>\$ 46.6</u>

Corporate expenses increased \$6.1 million to \$52.7 million in 2024, from \$46.6 million in 2023, primarily due to a \$5.5 million pre-tax charge related to updating our asbestos studies in 2024, \$3.6 million of pre-tax charges related to our environment remediation obligations and \$1.3 million of higher professional costs associated with business acquisition, diligence and transaction related activity. These increases were partially offset by a \$2.7 million decrease in non-cash stock compensation due to expected attainment of existing awards and a \$1.3 million decrease in technology costs, as \$5.3 million of higher costs associated with upgrades of certain of our information technology applications were more than offset by \$6.6 million of technology costs allocated to our segments that was not allocated in 2023.

Liquidity and Capital Resources

Cash Flows

Cash flows provided by operating activities in 2024 were \$63.8 million, as compared to \$88.2 million in 2023. Significant changes in cash flows provided by operating activities and the reasons for such changes are as follows:

- In 2024, the Company generated \$107.3 million in cash flows, based on the reported net income of \$24.3 million and after considering the effects of non-cash items related to impairment of indefinite-lived intangible assets, depreciation, amortization of intangible assets and debt issuance costs, (gain) loss on dispositions of assets, changes in deferred income taxes, stock-based compensation, provision for losses on accounts receivable, change in asbestos and environmental liability estimates and other operating activities. In 2023, the Company generated \$110.5 million in cash flows based on the reported net income of \$40.4 million and after considering the effects of similar non-cash items.
- Increases in accounts receivable resulted in a use of cash of \$20.5 million and \$5.5 million in 2024 and 2023, respectively. The increased use of cash for 2024 and 2023 is due primarily to the timing of sales and related collection of cash during the periods. Days sales outstanding of receivables increased by two days in 2024 and six days in 2023.
- We increased our investment in inventory by \$21.2 million and \$7.1 million in 2024 and 2023, respectively. Our days sales in inventory decreased by four days in 2024, primarily as a result of moderating inventory levels with higher sales levels within our Packaging and Aerospace segments. Our days sales in inventory increased by eleven days in 2023, primarily as a result of investing in certain inventories in our Aerospace segment as a result of increased customer demand.
- Increases in prepaid expenses and other assets resulted in a use of cash of \$2.3 million in 2024, while decreases in prepaid expenses and other assets resulted in a source of cash of \$4.8 million in 2023. The changes in 2024 and 2023 are primarily as a result of the timing of payments made for income taxes and certain operating expenses.
- Increases in accounts payable and accrued liabilities resulted in a source of cash of \$0.6 million in 2024, as compared to a use of cash of \$14.5 million in 2023. Our days accounts payable on hand decreased by six day through 2024 and increased by one day through 2023. Our days accounts payable on hand fluctuate primarily as a result of the timing of payments made to suppliers and the mix of vendors and related terms.

Net cash used for investing activities was \$47.0 million and \$134.4 million in 2024 and 2023, respectively. During 2024, we invested \$51.0 million in capital expenditures as we continued our investment in growth, capacity and productivity-related capital projects. We also received proceeds of \$4.0 million from the disposition of property and equipment. During 2023, we paid \$77.3 million, net of cash acquired, to acquire Aarts and Weldmac, invested \$54.2 million in capital expenditures, made a payment of \$3.4 million related to the expiration of one of our cross-currency swap agreements, and received proceeds of \$0.5 million from the disposition of property and equipment.

Net cash used for financing activities was \$28.6 million and \$30.9 million in 2024 and 2023, respectively. During 2024, we received net proceeds of \$1.4 million from borrowings on our revolving credit facilities, purchased \$19.3 million of outstanding common stock, used a net cash amount of \$1.8 million related to our stock compensation arrangements, paid dividends of \$6.6 million, and paid \$2.3 million related to other financing activities, which includes \$2.25 million of cash paid as final contingent consideration for the Weldmac acquisition. Our reported net proceeds from borrowings on our revolving credit facilities considers the impact of foreign currency translation. During 2023, we received net proceeds of \$0.6 million from borrowings on our revolving credit facilities, purchased \$18.8 million of outstanding common stock, used a net cash amount of \$2.7 million related to our stock compensation arrangements, paid dividends of \$6.7 million, and paid \$3.3 million related to liabilities assumed in our acquisition of Aarts.

Our Debt and Other Commitments

The \$400.0 million aggregate principal amount of our senior notes due 2029 ("Senior Notes") accrues interest at a rate of 4.125% per annum, payable semi-annually in arrears on April 15 and October 15. The payment of principal and interest is jointly and severally guaranteed, on a senior unsecured basis by certain named subsidiaries of the Company. The Senior Notes are *pari passu* in right of payment with all existing and future senior indebtedness and subordinated to all existing and future secured indebtedness to the extent of the value of the assets securing such indebtedness. In 2024, our consolidated subsidiaries that do not guarantee the Senior Notes represented 30% of the total of guarantor and non-guarantor net sales, treating each as a consolidated group and excluding intercompany transactions between guarantor and non-guarantor subsidiaries. In addition, our non-guarantor subsidiaries represented 37% and 15% of the total guarantor and non-guarantor assets and liabilities, respectively, as of December 31, 2024, treating the guarantor and non-guarantor subsidiaries each as a consolidated group.

We may redeem all or part of the Senior Notes at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest, if any, to the redemption date, if redeemed during the twelve-month period beginning on April 15 of the years indicated below:

Year	Percentage
2024	102.063 %
2025	101.031 %
2026 and thereafter	100.000 %

We are party to a credit agreement ("Credit Agreement"), consisting of a \$300.0 million senior secured revolving credit facility, which permits borrowings denominated in specific foreign currencies, subject to a \$125.0 million sub limit, maturing on March 29, 2026.

In April 2023, we amended the Credit Agreement to replace LIBOR. As of December 31, 2024, monthly borrowings under the Credit Agreement are subject to benchmark interest rates that are based on the currency denomination of borrowings, with British pound sterling borrowings subject to the Sterling Overnight Index Average and Euro borrowings subject to the Euro InterBank Offered Rate, both plus a spread of 1.75%, and U.S. dollar borrowings subject to the Secured Overnight Financing Rate plus a spread of 1.85%. The interest rate spread is based upon the leverage ratio, as defined, as of the most recent determination date.

The Credit Agreement provides for incremental revolving credit commitments in an amount not to exceed the greater of \$200 million and an amount such that, after giving effect to such incremental commitments and the incurrence of any other indebtedness substantially simultaneously with the making of such commitments, the senior secured net leverage ratio, as defined in the Credit Agreement, is no greater than 3.00 to 1.00. The terms and conditions of any incremental revolving credit facility commitments must be no more favorable than the existing credit facility.

Amounts drawn under our revolving credit facility fluctuate daily based upon our working capital and other ordinary course needs. Availability under our revolving credit facility depends upon, among other things, compliance with our Credit Agreement's financial covenants. Our Credit Agreement contains various negative and affirmative covenants and other requirements affecting us and our subsidiaries, including the ability to, subject to certain exceptions and limitations, incur debt, liens, mergers, investments, loans, advances, guarantee obligations, acquisitions, assets dispositions, sale-leaseback transactions, hedging agreements, dividends and other restricted payments, transactions with affiliates, restrictive agreements and amendments to charters, bylaws, and other material documents. The terms of our Credit Agreement require us and our subsidiaries to meet certain restrictive financial covenants and ratios computed quarterly, including a maximum total net leverage ratio (total consolidated indebtedness plus outstanding amounts under any accounts receivable securitization facility, less the aggregate amount of certain unrestricted cash and unrestricted permitted investments, as defined, over consolidated EBITDA, as defined) and a minimum interest expense coverage ratio (consolidated EBITDA, as defined, over the sum of consolidated cash interest expense, as defined, and preferred dividends, as defined). Our permitted total net leverage ratio under the Credit Agreement is 4.00 to 1.00 as of December 31, 2024. If we were to complete an acquisition which qualifies for a Covenant Holiday Period, as defined in our Credit Agreement, then our permitted total net leverage ratio cannot exceed 4.50 to 1.00 during that period. Our actual total net leverage ratio was 2.57 to 1.00 at December 31, 2024. Our permitted interest expense coverage ratio under the Credit Agreement is 3.00 to 1.00, and our actual interest expense coverage ratio was 8.24 to 1.00 as of December 31, 2024. At December 31, 2024, we were in compliance with our financial covenants.

The following is a reconciliation of net income, as reported, which is a GAAP measure of our operating results, to Consolidated Bank EBITDA, as defined in our Credit Agreement, for the year ended December 31, 2024. We present Consolidated Bank EBITDA to show our performance under our financial covenants. Dollars are in thousands in the below tables.

	Year ended December 31, 2024
Net income	\$ 24,250
Bank stipulated adjustments:	
Interest expense, net (as defined)	19,560
Income tax expense	5,790
Depreciation and amortization	64,920
Impairment charges ⁽¹⁾	230
Non-cash compensation expense ⁽²⁾	6,960
Other non-cash expenses or losses	190
Non-recurring expenses or costs ⁽³⁾	20,910
Extraordinary, non-recurring or unusual gains or losses	8,530
Business and asset dispositions	(1,000)
Currency gains and losses	1,340
Consolidated Bank EBITDA, as defined	<u>\$ 151,680</u>

	December 31, 2024
Total Indebtedness, as defined ⁽⁴⁾	\$ 390,050
Consolidated Bank EBITDA, as defined	151,680
Actual total net leverage ratio	2.57 x
Covenant requirement	<u>4.00 x</u>

	Year ended December 31, 2024
Interest expense, as defined	\$ 19,560
Bank stipulated adjustments:	
Interest income	(200)
Non-cash amounts attributable to amortization of financing costs	(960)
Total Consolidated Cash Interest Expense, as defined	<u>\$ 18,400</u>

	December 31, 2024
Consolidated Bank EBITDA, as defined	\$ 151,680
Total Consolidated Cash Interest Expense, as defined	18,400
Actual interest expense coverage ratio	8.24 x
Covenant requirement	3.00 x

⁽¹⁾ Non-cash charges related to indefinite-lived intangible asset impairment.

⁽²⁾ Non-cash compensation expenses resulting from the grant of equity awards.

⁽³⁾ Non-recurring costs and expenses relating to diligence and transaction costs, strike related costs, severance, relocation and realignment.

⁽⁴⁾ Includes \$1.6 million of finance leases as of December 31, 2024.

The Credit Agreement allows issuance of letters of credit, not to exceed \$40.0 million in aggregate, against revolving credit facility commitments. At December 31, 2024, we had \$1.5 million outstanding under our revolving credit facility and had \$292.2 million potentially available after giving effect to \$6.3 million of letters of credit issued and outstanding. At December 31, 2023, we had no amounts outstanding under our revolving credit facility and had \$294.0 million potentially available after giving effect to \$6.0 million of letters of credit issued and outstanding. Our letters of credit are used for a variety of purposes, including support of certain operating lease agreements, vendor payment terms and other subsidiary operating activities, and to meet various states' requirements to self-insure workers' compensation claims, including incurred but not reported claims. After consideration of leverage restrictions contained in the Credit Agreement, as of December 31, 2024 and 2023, we had \$216.7 million and \$256.9 million, respectively, of borrowing capacity available for general corporate purposes.

We rely upon our cash flow from operations and available liquidity under our revolving credit facility to fund our debt service obligations and other contractual commitments, working capital and capital expenditure requirements. At the end of each quarter, we have historically used cash on hand from our domestic and certain foreign subsidiaries to pay down amounts outstanding under our revolving credit facility, as applicable.

Our weighted average borrowings were \$433.9 million during 2024, compared to \$417.4 million during 2023, primarily due to the aggregate principal balance on our senior notes as well as higher borrowings on revolving credit facilities during 2024.

In May 2021, we, through one of our non-U.S. subsidiaries, entered into a revolving loan facility with a borrowing capacity of \$4 million. The facility is guaranteed by TriMas Corporation. There were no borrowings on this loan facility as of December 31, 2024, and 2023.

Cash management related to our revolving credit facility is centralized. We monitor our cash position and available liquidity on a daily basis and forecast our cash needs on a weekly basis within the current quarter and on a monthly basis outside the current quarter over the remainder of the year. Our business and related cash forecasts are updated monthly.

The majority of our cash on hand as of December 31, 2024, is located in jurisdictions outside the United States. We have available funding under our revolving credit facility of \$216.7 million at December 31, 2024, (after consideration of the aforementioned leverage restrictions). Based on forecasted cash sources and requirements inherent in our business plans, we believe that our liquidity and capital resources, including anticipated cash flows from operations, will be sufficient to meet our debt service, capital expenditure and other short-term and long-term obligation needs for the next 12 months and for the foreseeable future, as well as dividends and share repurchases.

We are subject to variable interest rates on our revolving credit facility, which is subject to a benchmark interest rate determined based on the currency denomination of borrowings.

In addition to our long-term debt, we have other cash commitments related to leases. The majority of our lease transactions are accounted for as operating leases, and we incurred rent expense related thereto of \$13.9 million in 2024. We expect leasing will continue to be an available financing option to fund future capital expenditure requirements.

In March 2020, we announced our Board of Directors had authorized us to increase the purchase of our common stock up to \$250 million in the aggregate, an increase of \$100 million from the previous authorization. During 2024, 2023 and 2022, we purchased 771,067, 680,594 and 1,264,088 shares of our outstanding common stock for \$19.3 million, \$18.8 million and \$36.9 million, respectively. Since the initial authorization through December 31, 2024, we have purchased 6,566,564 shares of our outstanding common stock for an aggregate purchase price of \$182.4 million. We will continue to evaluate opportunities to return capital to shareholders through the purchase of our common stock, depending on market conditions and other factors.

Under various agreements, we are obligated to make future cash payments in fixed amounts. These include payments under our long-term debt agreements, rent payments required under operating and finance lease agreements, certain benefit obligations and interest obligations on our long-term debt. The following table summarizes our material contractual cash obligations as of December 31, 2024 (dollars in thousands).

	Payments Due by Periods				
	Total	Less than One Year	1 - 3 Years	3 - 5 Years	More than 5 Years
Contractual and other cash obligations:					
Long-term debt	\$ 401,500	\$ —	\$ 1,500	\$ 400,000	\$ —
Operating lease obligations	49,490	9,070	17,330	11,210	11,880
Finance lease obligations	1,800	520	1,280	—	—
Benefit obligations	16,880	1,380	2,890	3,220	9,390
Interest obligations ^(a)	74,250	16,500	33,000	24,750	—
Total contractual and other cash obligations	<u>\$ 543,920</u>	<u>\$ 27,470</u>	<u>\$ 56,000</u>	<u>\$ 439,180</u>	<u>\$ 21,270</u>

^(a) Our Senior Notes bear interest at 4.125%. The future interest obligations calculation excludes the impact of our cross-currency swap agreements. See Note 12, "Derivative Instruments," included in Item 8, "Financial Statements and Supplementary Data," within this Form 10-K for additional information.

The liability related to unrecognized tax benefits has been excluded from the contractual obligations table because a reasonable estimate of the timing and amount of cash flows from future tax settlements cannot be determined. For additional information, refer to Note 21, "Income Taxes," included in Item 8, "Financial Statements and Supplementary Data," within this Form 10-K.

Market Risk

We conduct business in various locations throughout the world and are subject to market risk due to changes in the value of foreign currencies. The functional currencies of our foreign subsidiaries are primarily the local currency in the country of domicile. We manage these operating activities at the local level and revenues and costs are generally denominated in local currencies; however, results of operations and assets and liabilities reported in U.S. dollars will fluctuate with changes in exchange rates between such local currencies and the U.S. dollar.

We use derivative financial instruments to manage currency risks associated with our procurement activities denominated in currencies other than the functional currency of our subsidiaries and the impact of currency rate volatility on our earnings. As of December 31, 2024, we were party to foreign exchange forward and swap contracts to hedge changes in foreign currency exchange rates with notional amounts of \$105.9 million. We also use cross-currency swap agreements to mitigate currency risks associated with the net investment in certain of our foreign subsidiaries. See Note 12, "Derivative Instruments," included in Item 8, "Financial Statements and Supplementary Data," within this Form 10-K for additional information.

We are also subject to interest risk as it relates to our long-term debt. We have historically used interest rate swap agreements to fix the variable portion of our debt to manage this risk.

Common Stock

TriMas is listed in the NASDAQ Global Select MarketSM. Our stock trades under the symbol "TRS."

Credit Rating

We and certain of our outstanding debt obligations are rated by Standard & Poor's and Moody's. On March 19, 2024, Moody's affirmed a Ba3 rating to our Senior Notes, as presented in Note 11, "Long-term Debt" included in Item 8, "Financial Statements and Supplementary Data" within this Form 10-K. Moody's also affirmed a Ba2 Corporate Family Rating and maintained its outlook as stable. On January 7, 2025, Moody's affirmed a Ba3 rating to our Senior Notes and a Ba2 Corporate Family Rating, and changed its outlook from stable to negative. On June 28, 2024, Standard & Poor's affirmed a BB-rating to our Senior Notes. Standard & Poor's also affirmed a BB corporate credit rating and maintained its outlook as stable. If our credit ratings were to decline, our ability to access certain financial markets may become limited, our cost of borrowings may increase, the perception of us in the view of our customers, suppliers and security holders may worsen and as a result, we may be adversely affected.

Outlook

Through 2024, we proactively managed through a significant destocking period and resulting demand trough as compared to the prior year period within our cylinder business. We also managed through a labor union strike at one of our Aerospace production facilities, and we navigated increased input costs as a result of abruptly increased orders for certain dispensing applications within our Packaging segment. We recently completed the divestiture of our Arrow Engine business, exiting our direct presence in the oil and gas market sector. As we look to 2025, we anticipate continued strength and operating leverage from our Aerospace business. We expect modest organic sales growth within our Packaging segment, while having the opportunity to improve our production throughput and reduce certain input costs. Within the cylinder business in Specialty Products, we believe we will see marginal improvement in demand as inventory positions are further depleted, and therefore, we anticipate sequential improvement in operating profit as we move forward given these anticipated incremental sales and structural costs saving actions we have already implemented. We will continue to monitor trends in demand changes and adjust costs and investments accordingly.

We have seen a number of global market uncertainties stemming from the macro-economic environment in the past few years, including significant challenges in inflationary pressures, supply chain disruptions and labor availability, as well as significant volatility in our customers' sentiment and order patterns. While we expect a continued modest demand recovery in certain of our consumer products and industrial markets and continued strength in our aerospace & defense market, we remain cautious of the impact of global market uncertainty, particularly the potential impact of tariffs on our customer demand and our input costs. However, no matter the outcome of these factors, we expect to continue to mitigate, as much as practical, the impact of these challenges, executing on streamlining actions and taking other steps as necessary, to maintain our strong balance sheet and generate cash in support of our capital allocation strategy.

We believe our capital structure remains strong and that we have sufficient headroom under our financial covenants, and ample cash and available liquidity under our revolving credit facility, to meet our debt service, capital expenditure and other short-term and long-term obligations for the next 12 months and for the foreseeable future, as well as fund dividends, share repurchases and bolt-on acquisitions consistent with our capital allocation strategy.

We are taking continued actions toward streamlining and optimizing our business portfolio. We have been actively exploring a range of potential options, particularly over the past year, to accelerate the focus of our business portfolio. As we focus our portfolio of businesses, we expect to continue to leverage the tenets of our TriMas Business Model to manage our businesses on a longer-term basis, achieve our growth plans, execute continuous improvement initiatives to offset inflationary pressures and seek lower-cost sources for input costs, all while continuously assessing the appropriateness of our manufacturing footprint and fixed-cost structure.

Impact of New Accounting Standards

See Note 2, "*New Accounting Pronouncements*," included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K.

Critical Accounting Policies

The following discussion of accounting policies is intended to supplement the accounting policies presented in Note 3, "*Summary of Significant Accounting Policies*" included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K. Certain of our accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. These judgments are based on our historical experience, our evaluation of business and macroeconomic trends, and information from other outside sources, as appropriate.

Receivables. Receivables are presented net of allowances for doubtful accounts of \$3.2 million and \$4.2 million at December 31, 2024 and 2023, respectively. We monitor our exposure for credit losses and maintain adequate allowances for doubtful accounts. We determine these allowances based on our historical write-off experience and/or specific customer circumstances and provide such allowances when amounts are reasonably estimable and it is probable a loss has been incurred. Although we have been growing business with certain of our larger customers, and there has been some industry consolidation where certain of our customers are merging, we do not believe that significant credit risk exists or that we have a significant concentration of accounts receivable with a single customer or group of customers due to our diverse customer base. See Item 1A, "*Risk Factors*," for additional information regarding risks associated with a concentrated customer base.

Impairment of Long-Lived Assets and Definite-Lived Intangible Assets. We review, on at least a quarterly basis, the financial performance of each business unit for indicators of impairment. In reviewing for impairment indicators, we also consider events or changes in circumstances such as business prospects, customer retention, market trends, potential product obsolescence, competitive activities and other economic factors. An impairment loss is recognized when the carrying value of an asset group exceeds the future net undiscounted cash flows expected to be generated by that asset group. The impairment loss recognized is the amount by which the carrying value of the asset group exceeds its fair value.

Goodwill and Indefinite-Lived Intangibles. We assess goodwill and indefinite-lived intangible assets for impairment at the reporting unit level on an annual basis as of October 1, by reviewing relevant qualitative and quantitative factors. More frequent evaluations may be required if we experience changes in our business climate or as a result of other triggering events that take place. An impairment loss is recognized when the carrying value of the asset exceeds its fair value.

We determine our reporting units at the individual operating segment level, or one level below, when there is discrete financial information available that is regularly reviewed by segment management for evaluating operating results. For purposes of our 2024 goodwill impairment test, we had six reporting units, four of which had goodwill, within our three reportable segments.

We first perform a qualitative assessment for our annual goodwill impairment test and for our indefinite-lived intangible asset impairment test, which involves significant use of management's judgment and assumptions to determine whether it is more likely than not that the fair value of a reporting unit or indefinite-lived intangible asset is less than its carrying amount. In conducting the qualitative assessment, we consider macroeconomic conditions, industry and market considerations, overall financial performance, entity and reporting unit specific events, capital markets pricing, recent fair value estimates and carrying amounts, as well as legal, regulatory, and contractual factors. These factors are all considered in reaching a conclusion about whether it is more likely than not that the fair values of the intangible assets are less than the carrying values. If we conclude that further testing is required, we would perform a quantitative valuation to estimate the fair value of our intangible assets.

For purposes of the 2024 annual impairment tests, we performed qualitative assessments for all reporting units except the Life Sciences reporting unit within our Packaging segment, for which we elected to perform quantitative assessments. Based on results of the qualitative assessments, we determined there were no indications that the fair value of a reporting unit or indefinite-lived intangible asset was less than its carrying value; therefore, we determined that quantitative goodwill impairment tests were not required for all reporting units included in the qualitative assessment.

In conducting the quantitative analysis for the Life Sciences reporting unit, we determined the estimated fair value utilizing both income and market-based approaches. The income approach relies on the present value of estimated future cash flows of the business, discounted using a rate appropriately reflecting the risks inherent in the cash flows. The market approach relies on market data of other public companies that we deem comparable in operations to our reporting units. Based on results of the 2024 quantitative assessment, we determined there were no indications that the fair value of the Life Sciences reporting unit was less than its carrying value.

The techniques used in our quantitative impairment test incorporated a number of assumptions that we believe to be reasonable and to reflect the current market conditions. Assumptions in estimating future cash flows and earnings were based on Level 3 inputs under the fair value hierarchy and were primarily related to customer demand and revenue growth, and associated profitability and cash flows. To provide a level of sensitivity analysis, a 1% increase in the weighted average cost of capital would have resulted in a goodwill impairment charge of approximately \$7 million, while a 0.5% decrease in the terminal growth rate would have resulted in a goodwill impairment charge of approximately \$2 million.

Changes in future results, assumptions, and estimates from those used in the quantitative impairment test may lead to an outcome where impairment charges would be required in future periods. Specifically, actual results may vary from management's forecasts and such variations may be material and unfavorable, thereby triggering the need for future impairment tests where the conclusions may differ in reflection of prevailing market conditions. Further, continued adverse or worsening market conditions could result in the recognition of additional impairment if we determine that the fair value of our Life Sciences reporting unit has fallen below its carrying value. Certain circumstances that could reasonably be expected to negatively affect the underlying key assumptions and impact the estimated fair value of our Life Sciences reporting unit may include such items as: (i) a decrease in expected future cash flows, (ii) inability to achieve the sales targeted as part of our strategic growth initiatives, and (iii) inability to efficiently leverage the projected sales growth at expected margin rates.

Additionally, we performed a quantitative assessment for the indefinite-lived intangible assets within the packaging-related Life Sciences reporting unit after electing the option to bypass the qualitative assessment. The relief-from-royalty method involves the estimation of appropriate market royalty rates for our indefinite-lived intangible assets and the application of these royalty rates to forecasted net sales attributable to the intangible assets. The resulting cash flows are then discounted to present value, using a rate appropriately reflecting the risks inherent in the cash flows, which is compared to the carrying value of the assets. Upon completion of the quantitative impairment test, we determined that one of the Life Sciences trade names had a carrying value that exceeded its fair value, and therefore recorded an impairment charge of \$0.2 million.

Future declines in sales and/or operating profit, declines in our stock price, or other changes in our business or the markets for our products could result in further impairments of our goodwill and indefinite-lived intangible assets.

Pension Benefits. We engage independent actuaries to compute the amounts of liabilities and expenses under defined benefit pension plans, subject to the assumptions that we determine are appropriate based on historical trends, current market rates and future projections as of the measurement date. Annually, we review the actual experience compared to the most significant assumptions used and makes adjustments to the assumptions, if warranted. Discount rates are based upon an expected benefit payments duration analysis and the equivalent average yield rate for high-quality fixed-income investments. Pension benefits are funded through deposits with trustees and the expected long-term rate of return on plan assets is based upon actual historical returns modified for known changes in the market and any expected change in investment policy. Certain accounting guidance, including the guidance applicable to pensions, does not require immediate recognition of the effects of a deviation between actual and assumed experience or the revision of an estimate. This approach allows the favorable and unfavorable effects that fall within an acceptable range to be netted.

Income Taxes. We compute income taxes using the asset and liability method, whereby deferred income taxes using current enacted tax rates are provided for the temporary differences between the financial reporting basis and the tax basis of assets and liabilities and for operating loss and tax credit carryforwards. We determine valuation allowances based on an assessment of positive and negative evidence on a jurisdiction-by-jurisdiction basis and record a valuation allowance to reduce deferred tax assets to the amount more likely than not to be realized. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. We record interest and penalties related to unrecognized tax benefits in income tax expense.

Asbestos-related Matters. We accrue loss reserves for asbestos-related matters based upon an estimate of the ultimate liability for claims incurred, whether reported or not, including an estimate of future settlement costs and costs to defend. We utilize known facts and historical trends for Company-specific and general market asbestos-related activity, as well as an actuarial valuation in determining estimated required reserves which we believe are probable and reasonably estimable. Asbestos-related accruals are assessed at each balance sheet date to determine if the liability remains reasonably stated. Accruals for asbestos-related matters are included in the consolidated balance sheet in "Accrued liabilities" and "Other long-term liabilities."

Other Loss Reserves. We have other loss exposures related to insurance, litigation and environmental claims. Establishing loss reserves for these matters requires the use of estimates and judgment in regard to risk exposure and ultimate liability. We are generally party to high deductible insurance programs for losses and liabilities related principally to workers' compensation, health and welfare claims and comprehensive general, product and vehicle liability. Generally, we are responsible for up to \$0.8 million per occurrence under our retention program for workers' compensation, up to \$1.5 million per occurrence under our retention programs for comprehensive general, product and vehicle liability, and have a \$0.4 million per occurrence stop-loss limit with respect to our self-insured group medical plan. We accrue loss reserves up to our retention amounts based upon our estimates of the ultimate liability for claims incurred, including an estimate of related litigation defense costs, and an estimate of claims incurred but not reported using actuarial assumptions about future events. We accrue for such items when such amounts are reasonably estimable and probable. We utilize known facts and historical trends, as well as actuarial valuations in determining estimated required reserves. Changes in assumptions for factors such as medical costs and actual experience could cause these estimates to change significantly.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

In the normal course of business, we are exposed to market risk associated with fluctuations in commodity prices, insurable risks due to property damage, employee and liability claims, and other uncertainties in the financial and credit markets, which may impact demand for our products.

We conduct business in various locations throughout the world and are subject to market risk due to changes in the value of foreign currencies. The functional currencies of our foreign subsidiaries are primarily the local currency in the country of domicile. We manage these operating activities at the local level and revenues and costs are generally denominated in local currencies; however, results of operations and assets and liabilities reported in U.S. dollars will fluctuate with changes in exchange rates between such local currencies and the U.S. dollar. We use derivative financial instruments to manage currency risks associated with our procurement activities denominated in currencies other than the functional currency of our subsidiaries and the impact of currency rate volatility on our earnings.

We may also be subject to interest risk as it relates to long-term debt, for which we have historically and may prospectively employ derivative instruments such as interest rate swaps to mitigate the risk of variable interest rates. See Item 7 "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" for details about our primary market risks, and the objectives and strategies used to manage these risks. Also see Note 11, "*Long-term Debt*," and Note 12, "*Derivative Instruments*," included in Item 8, "*Financial Statements and Supplementary Data*," within this Form 10-K for additional information.

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of TriMas Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of TriMas Corporation and subsidiaries (the "Company") as of December 31, 2024 and 2023, the related consolidated statement of income, comprehensive income, shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2024, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements 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.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2025 expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the 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 Assessment — Life Sciences Reporting Unit — Refer to Notes 3 and 7 to the financial statements

Critical Audit Matter Description

The Company's annual impairment assessment for goodwill is performed on October 1st, or more frequently if events or circumstances indicate possible impairment. The Company's evaluation of goodwill for impairment involved the comparison of the fair value of each reporting unit with goodwill to its carrying value. The fair value is estimated using a weighting of the income and market approaches. The goodwill balance for the Life Sciences reporting unit was \$43 million as of December 31, 2024. The fair value of the Life Sciences reporting unit exceeded the carrying value as of the assessment date and, therefore, no impairment was recognized.

We identified the fair value estimate used in the Life Sciences reporting unit goodwill impairment assessment as a critical audit matter because of the significant estimates and assumptions management makes related to forecasts of revenue growth rates, future EBITDA margins, weighted average cost of capital, valuation multiples, and the terminal growth rate. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures for the impairment assessment related to the forecasts of revenue growth rates, future EBITDA margins, weighted average cost of capital and the terminal growth rate included the following, among others:

- We tested the effectiveness of internal controls over the goodwill impairment assessment, including those over the inputs, assumptions, and calculations used in determining the fair value of the reporting unit.
- We evaluated the reasonableness of management's forecasts of revenue growth rates and future EBITDA margins by comparing the forecasts to:
 - i. The Reporting Unit's historical revenue and EBITDA margins.
 - ii. Internal communications to management and the Board of Directors.
 - iii. Current industry, market and economic trends.
- We performed a sensitivity analysis of certain assumptions such as revenue growth rates, future EBITDA margins, weighted average cost of capital, valuation multiples, and the terminal growth rate to evaluate the potential change in the fair value resulting from changes in underlying assumptions.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the weighted average cost of capital, valuation multiples, and the terminal growth rate by:
 - i. Developing a range of independent estimates and comparing those to the weighted average cost of capital and valuation multiples selected by management.
 - ii. Testing the source information underlying the determination of the terminal growth rate and testing the mathematical accuracy of the calculations.

/s/ Deloitte & Touche LLP

Detroit, Michigan
February 27, 2025

We have served as the Company's auditor since 2013.

TriMas Corporation
Consolidated Balance Sheet
(Dollars in thousands)

	December 31,	
	2024	2023
Assets		
Current assets:		
Cash and cash equivalents	\$ 23,070	\$ 34,890
Receivables, net	164,820	148,030
Inventories	209,190	192,450
Prepaid expenses and other current assets	29,560	22,010
Total current assets	426,640	397,380
Property and equipment, net	318,650	329,990
Operating lease right-of-use assets	40,480	43,220
Goodwill	356,360	363,770
Other intangibles, net	161,080	181,020
Deferred income taxes	10,760	10,230
Other assets	10,210	16,050
Total assets	\$ 1,324,180	\$ 1,341,660
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 91,050	\$ 91,910
Accrued liabilities	60,340	59,640
Lease liabilities, current portion	8,040	7,900
Total current liabilities	159,430	159,450
Long-term debt, net	398,120	395,660
Lease liabilities	36,680	39,690
Deferred income taxes	20,110	23,290
Other long-term liabilities	42,540	40,620
Total liabilities	656,880	658,710
Preferred stock \$0.01 par: Authorized 100,000,000 shares; Issued and outstanding: None	—	—
Common stock, \$0.01 par: Authorized 400,000,000 shares; Issued and outstanding: 40,574,847 shares at December 31, 2024 and 41,202,110 shares at December 31, 2023	410	410
Paid-in capital	663,770	677,660
Retained earnings	21,670	4,230
Accumulated other comprehensive income (loss)	(18,550)	650
Total shareholders' equity	667,300	682,950
Total liabilities and shareholders' equity	\$ 1,324,180	\$ 1,341,660

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Income
(Dollars in thousands, except per share amounts)

	Year ended December 31,		
	2024	2023	2022
Net sales	\$ 925,010	\$ 893,550	\$ 883,830
Cost of sales	(725,550)	(692,230)	(675,530)
Gross profit	199,460	201,320	208,300
Selling, general and administrative expenses	(153,040)	(134,580)	(131,190)
Net gain (loss) on dispositions of assets	1,000	(180)	21,950
Impairment of indefinite-lived intangible assets	(230)	(1,120)	—
Operating profit	47,190	65,440	99,060
Other expense, net:			
Interest expense	(19,560)	(15,920)	(14,110)
Other income (expense), net	2,410	1,070	2,720
Other expense, net	(17,150)	(14,850)	(11,390)
Income before income taxes	30,040	50,590	87,670
Income tax expense	(5,790)	(10,230)	(21,500)
Net income	\$ 24,250	\$ 40,360	\$ 66,170
Basic earnings per share:			
Net income per share	\$ 0.60	\$ 0.97	\$ 1.57
Weighted average common shares - basic	40,725,714	41,439,027	42,249,244
Diluted earnings per share:			
Net income per share	\$ 0.59	\$ 0.97	\$ 1.56
Weighted average common shares - diluted	41,055,993	41,685,348	42,478,015

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Comprehensive Income
(Dollars in thousands)

	Year ended December 31,		
	2024	2023	2022
Net income	\$ 24,250	\$ 40,360	\$ 66,170
Other comprehensive income (loss):			
Defined benefit plans (Note 16)	(2,280)	(350)	(550)
Foreign currency translation	(19,960)	11,680	(17,710)
Derivative instruments (Note 12)	3,040	(2,060)	9,410
Total other comprehensive income (loss)	(19,200)	9,270	(8,850)
Total comprehensive income	\$ 5,050	\$ 49,630	\$ 57,320

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Cash Flows
(Dollars in thousands)

	Year ended December 31,		
	2024	2023	2022
Cash Flows from Operating Activities:			
Net income	\$ 24,250	\$ 40,360	\$ 66,170
Adjustments to reconcile net income to net cash provided by operating activities, net of acquisition impact:			
Impairment of indefinite-lived intangible assets	230	1,120	—
(Gain) loss on dispositions of assets	(1,000)	180	(21,950)
Depreciation	48,120	39,410	34,120
Amortization of intangible assets	16,800	18,180	19,100
Amortization of debt issue costs	960	930	910
Deferred income taxes	(3,240)	(1,710)	(1,400)
Non-cash compensation expense	6,960	9,670	9,840
Provision for losses on accounts receivable	(1,000)	2,450	—
Change in asbestos liability estimate	5,510	—	5,590
Change in environmental liability estimate	3,340	—	—
Increase in receivables	(20,520)	(5,520)	(6,650)
Increase in inventories	(21,200)	(7,070)	(6,970)
(Increase) decrease in prepaid expenses and other assets	(2,340)	4,760	6,120
Increase (decrease) in accounts payable and accrued liabilities	560	(14,520)	(29,130)
Other operating activities	6,350	(80)	(3,180)
Net cash provided by operating activities	<u>63,780</u>	<u>88,160</u>	<u>72,570</u>
Cash Flows from Investing Activities:			
Capital expenditures	(50,960)	(54,190)	(45,960)
Acquisition of businesses, net of cash acquired	—	(77,340)	(64,100)
Cross-currency swap terminations	(3,760)	(3,370)	26,230
Settlement of foreign currency exchange forward contract	3,760	—	—
Net proceeds from dispositions of property and equipment	4,000	480	28,790
Net cash used for investing activities	<u>(46,960)</u>	<u>(134,420)</u>	<u>(55,040)</u>
Cash Flows from Financing Activities:			
Proceeds from borrowings on revolving credit facilities	308,930	117,990	12,000
Repayments of borrowings on revolving credit facilities	(307,580)	(117,430)	(12,000)
Payments to purchase common stock	(19,270)	(18,780)	(36,920)
Shares surrendered upon exercise and vesting of equity awards to cover taxes	(1,760)	(2,700)	(2,380)
Dividends paid	(6,630)	(6,700)	(6,880)
Other financing activities	(2,330)	(3,320)	—
Net cash used for financing activities	<u>(28,640)</u>	<u>(30,940)</u>	<u>(46,180)</u>
Cash and Cash Equivalents:			
Decrease for the year	(11,820)	(77,200)	(28,650)
At beginning of year	34,890	112,090	140,740
At end of year	<u>\$ 23,070</u>	<u>\$ 34,890</u>	<u>\$ 112,090</u>
Supplemental disclosure of cash flow information:			
Cash paid for interest	<u>\$ 18,730</u>	<u>\$ 14,320</u>	<u>\$ 12,960</u>
Cash paid for income taxes	<u>\$ 11,870</u>	<u>\$ 16,770</u>	<u>\$ 20,060</u>

The accompanying notes are an integral part of these financial statements.

TriMas Corporation
Consolidated Statement of Shareholders' Equity
Years Ended December 31, 2024, 2023 and 2022
(Dollars in thousands)

	Common Stock	Paid-In Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income (Loss)	Total
Balances at December 31, 2021	\$ 430	\$ 732,490	\$ (102,300)	\$ 230	\$ 630,850
Net income	—	—	66,170	—	66,170
Other comprehensive loss	—	—	—	(8,850)	(8,850)
Purchase of common stock	(10)	(36,910)	—	—	(36,920)
Shares surrendered upon exercise and vesting of equity awards to cover taxes	—	(2,380)	—	—	(2,380)
Non-cash compensation expense	—	9,840	—	—	9,840
Dividends declared	—	(6,880)	—	—	(6,880)
Balances at December 31, 2022	\$ 420	\$ 696,160	\$ (36,130)	\$ (8,620)	\$ 651,830
Net income	—	—	40,360	—	40,360
Other comprehensive income	—	—	—	9,270	9,270
Purchase of common stock	(10)	(18,770)	—	—	(18,780)
Shares surrendered upon exercise and vesting of equity awards to cover taxes	—	(2,700)	—	—	(2,700)
Non-cash compensation expense	—	9,670	—	—	9,670
Dividends declared	—	(6,700)	—	—	(6,700)
Balances at December 31, 2023	\$ 410	\$ 677,660	\$ 4,230	\$ 650	\$ 682,950
Net income	—	—	24,250	—	24,250
Other comprehensive loss	—	—	—	(19,200)	(19,200)
Purchase of common stock	—	(19,090)	(180)	—	(19,270)
Shares surrendered upon exercise and vesting of equity awards to cover taxes	—	(1,760)	—	—	(1,760)
Non-cash compensation expense	—	6,960	—	—	6,960
Dividends declared	—	—	(6,630)	—	(6,630)
Balances at December 31, 2024	\$ 410	\$ 663,770	\$ 21,670	\$ (18,550)	\$ 667,300

The accompanying notes are an integral part of these financial statements.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Presentation

TriMas Corporation ("TriMas" or the "Company"), and its consolidated subsidiaries, designs, engineers and manufactures innovative products under leading brand names for customers primarily in the consumer products, aerospace & defense, and industrial markets.

The preparation of financial statements requires management of the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities. Actual results may differ from such estimates and assumptions due to risks and uncertainties, including uncertainty and volatility in the current economic environment due to input cost inflation, supply chain disruptions, shortages in global markets for commodities, logistics and labor. To the extent there are differences between these estimates and actual results, the Company's consolidated financial statements may be materially affected.

2. New Accounting Pronouncements*Recently Adopted Accounting Pronouncements*

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures" ("ASU 2023-07"), which requires disclosure of significant segment expenses and other segment items by reportable segment on an annual and interim basis, the title and position of chief operating decision maker ("CODM") and how the CODM uses reported measures in assessing segment performance, and also extends the requirement of annual disclosures currently required by Topic 280 to interim periods. The Company adopted ASU 2023-07 in the fourth quarter of 2024. The standard relates to financial statement disclosure only and did not have an impact on the Company's consolidated balance sheet, statement of income or cash flows. See Note 20, "Segment Information," for the Company's segment disclosures.

Recently Issued Accounting Pronouncements

In November 2024, the FASB issued ASU 2024-03, "Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses" ("ASU 2024-03"), which requires disclosures, in the notes to the financial statements, about the types of expenses included in certain expense captions presented on the income statement. ASU 2024-03 is effective for fiscal years beginning after December 15, 2026, and interim periods within fiscal years beginning after December 15, 2027, with early adoption permitted. The Company is in the process of assessing the impact of adoption on its consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures" ("ASU 2023-09"), which requires enhanced jurisdictional disclosures for income taxes paid and requires the use of specific categories in the effective tax rate reconciliation as well as additional information for reconciling items that meet a quantitative threshold. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. The Company will provide the incremental disclosures in its Annual Report on Form 10-K for the year ended December 31, 2025.

3. Summary of Significant Accounting Policies

Principles of Consolidation. The accompanying consolidated financial statements include the accounts and transactions of TriMas and its subsidiaries. Intercompany transactions have been eliminated.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management of the Company to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements. Such estimates and assumptions also affect the reported amounts of revenues and expenses during the reporting periods. Significant items subject to such estimates and assumptions include the carrying amount of property and equipment, goodwill and other intangibles, valuation allowances for receivables, inventories and deferred income tax assets, valuation of derivatives, estimated fair value of contingent consideration resulting from business combinations, estimated future unrecoverable lease costs, reserves for asbestos and ordinary course litigation, environmental liabilities, assets and obligations related to employee benefits and estimated unrecognized tax benefits. Actual results may differ from such estimates and assumptions.

TRIMAS CORPORATION**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

Cash and Cash Equivalents. The Company considers cash on hand and on deposit and investments in all highly liquid debt instruments with initial maturities of three months or less to be cash and cash equivalents. Cash and cash equivalents also includes restricted cash, if any, held on deposit with a financial institution as cash collateral for the Company's outstanding letters of credit.

Receivables. Receivables are presented net of allowances for doubtful accounts of \$3.2 million and \$4.2 million at December 31, 2024 and 2023, respectively. The Company monitors its exposure for credit losses and maintains allowances for doubtful accounts based upon the Company's best estimate of probable losses inherent in the accounts receivable balances. The Company does not believe that significant credit risk exists due to its diverse customer base.

Inventories. Inventories are stated at the lower of cost or net realizable value, with cost determined using the first-in, first-out method. Direct materials, direct labor and allocations of variable and fixed manufacturing-related overhead are included in inventory cost.

Pre-production costs related to long-term supply arrangements. Engineering, research and development, and other pre-production design and development costs for products sold on long-term supply arrangements are expensed as incurred unless the Company has a contractual guarantee for reimbursement from the customer. If a contractual guarantee for reimbursement exists, unbilled customer-owned tooling costs are recorded as an asset within other prepaid expenses and other current assets. Costs for molds, dies and other tools owned by the Company to produce products under long-term supply arrangements are recorded at cost within property and equipment, net and amortized into cost of sales over the shorter of the term of the arrangement or over the estimated useful lives of the assets, which is generally three to 15 years.

Property and Equipment. Property and equipment additions, including significant improvements, are recorded at cost. Upon retirement or disposal of property and equipment, the cost and accumulated depreciation are removed from the accounts, and any gain or loss is included in the accompanying consolidated statement of income. Repair and maintenance costs are charged to expense as incurred.

Depreciation and Amortization. Depreciation is computed principally using the straight-line method over the estimated useful lives of the assets. Annual depreciation rates are as follows: building and land/building improvements three to 40 years, and machinery and equipment, three to 15 years. Capitalized debt issuance costs are amortized over the underlying terms of the related debt securities. Customer relationship intangibles are amortized over periods ranging from five to 25 years, while technology and other intangibles are amortized over periods ranging from one to 30 years.

Impairment of Long-Lived Assets and Definite-Lived Intangible Assets. The Company reviews, on at least a quarterly basis, the financial performance of its businesses for indicators of impairment. In reviewing for impairment indicators, the Company also considers events or changes in circumstances such as business prospects, customer retention, market trends, potential product obsolescence, competitive activities and other economic factors. An impairment loss is recognized when the carrying value of an asset group exceeds the future net undiscounted cash flows expected to be generated by that asset group. The impairment loss recognized is the amount by which the carrying value of the asset group exceeds its fair value.

Goodwill. The Company assesses goodwill for impairment on an annual basis (October 1 test date) by reviewing relevant qualitative and quantitative factors. More frequent evaluations may be required if the Company experiences changes in its business climate or as a result of other triggering events that take place. An impairment loss is recognized when the carrying value of a reporting unit's goodwill exceeds its fair value.

The Company determines its reporting units at the individual operating segment level, or one level below, when there is discrete financial information available that is regularly reviewed by segment management to evaluate operating results. For purposes of the Company's 2024 goodwill impairment test, the Company had six reporting units, four of which had goodwill, within its three reportable segments.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company begins its goodwill reviews by conducting a qualitative assessment, considering relevant events and circumstances that affect the fair value or carrying value of a reporting unit. Such events and circumstances can include macroeconomic conditions, industry and market considerations, overall financial performance, entity and reporting unit specific events, and capital markets pricing. The Company considers the extent to which any identified adverse events and circumstances affect the comparison of a reporting unit's fair value with its carrying value. The Company places more weight on the events and circumstances that most affect a reporting unit's fair value or the carrying value of its net assets. The Company considers positive and mitigating events and circumstances that may affect its determination of whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. The Company also considers its most recent valuations of its reporting units, including the difference between the most recent fair value estimate and the carrying value. Each of these factors is considered by management in reaching its conclusion about whether a quantitative goodwill impairment test is necessary to estimate the fair value of its reporting units.

If the Company concludes that conducting a quantitative assessment is required or if the Company elects the option to bypass the qualitative assessment, the Company determines the fair value of the reporting unit being evaluated utilizing a combination of two valuation techniques: discounted cash flow (income approach) and market comparable method (market approach). The income approach is based on management's operating plan and internal five-year forecast and utilizes forward-looking assumptions and projections, on a discounted basis, but considers factors unique to each reporting unit and related long-range plans that may not be comparable to other companies and that are not yet public. The market approach considers potentially comparable companies and transactions within the industries where the Company's reporting units participate, and applies their valuation multiples to the financial projections of the Company's reporting units. This approach utilizes data from actual marketplace transactions, but reliance on its results is limited by difficulty in identifying companies that are specifically comparable to the Company's reporting units, considering the diversity of the Company's businesses, the relative sizes and levels of complexity. The Company also uses the direct market data method by comparing its book value and the estimates of fair value of the reporting units to the Company's market capitalization. Management uses this comparison as additional evidence of the fair value of the Company, as its market capitalization may be suppressed by other factors such as the control premium associated with a controlling shareholder, the Company's degree of leverage and the float of the Company's common stock. Management evaluates and weights the results based on a combination of the income and market approaches, and, in situations where the income approach results differ significantly from the market and direct data approaches, management re-evaluates and adjusts, if necessary, its assumptions.

Based on the quantitative test, if it is determined that the carrying value of the reporting unit is higher than its fair value, goodwill is impaired and is written down to the fair value amount; however, the loss recognized will not exceed the total amount of goodwill allocated to the reporting unit. See Note 7, "*Goodwill and Other Intangible Assets*," for further details regarding the Company's goodwill impairment testing.

Indefinite-Lived Intangibles. The Company assesses indefinite-lived intangible assets (primarily trademark/trade names) for impairment on an annual basis (October 1 test date) by reviewing relevant qualitative and quantitative factors. More frequent evaluations may be required if the Company experiences changes in its business climate or as a result of other triggering events that take place. An impairment loss is recognized when the carrying value of the asset exceeds its fair value.

In conducting a qualitative assessment, the Company considers relevant events and circumstances to determine whether it is more likely than not that the fair values of the indefinite-lived intangible assets are less than the carrying values. In addition to the events and circumstances that the Company considers above in its qualitative analysis for potential goodwill impairment, the Company also considers legal, regulatory and contractual factors that could affect the fair value or carrying value of the Company's indefinite-lived intangible assets. The Company also considers its most recent valuations of its indefinite-lived intangible assets, including the difference between the most recent fair value estimates and the carrying values. These factors are all considered by management in reaching its conclusion about whether it is more likely than not that the fair values of the indefinite-lived intangible assets are less than the carrying values. If management concludes that further testing is required, the Company performs a quantitative valuation to estimate the fair value of its indefinite-lived intangible assets. In conducting the quantitative impairment analysis, the Company determines the fair value of its indefinite-lived intangible assets using the relief-from-royalty method. The relief-from-royalty method involves the estimation of appropriate market royalty rates for the indefinite-lived intangible assets and the application of these royalty rates to forecasted net sales attributable to the intangible assets. The resulting cash flows are then discounted to present value, using a rate appropriately reflecting the risks inherent in the cash flows, which then is compared to the carrying value of the assets. If the carrying value exceeds fair value, an impairment is recorded. See Note 7, "*Goodwill and Other Intangible Assets*," for further details regarding the Company's indefinite-lived intangible asset impairment testing.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

High Deductible Insurance. The Company generally has high deductible insurance programs for losses and liabilities related to workers' compensation, health and welfare claims and comprehensive general, product and vehicle liability. The Company is generally responsible for up to \$0.8 million per occurrence under its retention program for workers' compensation, up to \$1.5 million per occurrence under its retention programs for comprehensive general, product and vehicle liability, and has a \$0.4 million per occurrence stop-loss limit with respect to its group medical plan. Total insurance limits under these retention programs vary by year for comprehensive general, product and vehicle liability and extend to the applicable statutory limits for workers' compensation. Reserves for claims losses, including an estimate of related litigation defense costs, are recorded based upon the Company's estimates of the aggregate liability for claims incurred using actuarial assumptions about future events. Changes in assumptions for factors such as medical costs and actual experience could cause these estimates to change.

Pension Plans. The Company engages independent actuaries to compute the amounts of liabilities and expenses under defined benefit pension plans, subject to the assumptions that the Company determines are appropriate based on historical trends, current market rates and future projections. Assumptions used in the actuarial calculations could have a significant impact on plan obligations, and a lesser impact on current period expense. Annually, the Company reviews the actual experience compared to the significant assumptions used and makes adjustments to the assumptions, if warranted. Discount rates are based on an expected benefit payments duration analysis and the equivalent average yield rate for high-quality, fixed-income investments. Pension benefits are funded through deposits with trustees and the expected long-term rate of return on fund assets is based on actual historical returns and a review of other public company pension asset return data, modified for known changes in the market and any expected change in investment policy. See Note 16, "Employee Benefit Plans," for further information.

Asbestos-related Matters. The Company accrues loss reserves for asbestos-related matters based upon an estimate of the ultimate liability for claims incurred, whether reported or not, including an estimate of future settlement costs and costs to defend. The Company utilizes known facts and historical trends for Company-specific and general market asbestos-related activity, as well as an actuarial valuation in determining estimated required reserves, which it believes are probable and reasonably estimable. Asbestos-related accruals are assessed at each balance sheet date to determine if the liability remains reasonably stated. Accruals for asbestos-related matters are included in the consolidated balance sheet in "Accrued liabilities" and "Other long-term liabilities." Pre-tax asbestos-related charges are included in selling, general and administrative expenses in the accompanying consolidated statement of income. See Note 15, "Commitments and Contingencies," for further information.

Revenue Recognition. Revenue is recognized when control of promised goods is transferred to customers, which generally occurs when products are shipped from the Company's facilities to its customers. The amount of revenue recorded reflects the consideration the Company expects to be entitled to receive in exchange for transferring those goods. Net sales are comprised of gross revenues, based on observed stand-alone selling prices, less estimates of expected returns, trade discounts and customer allowances, which include incentives such as volume and other discounts in connection with various supply programs. Such deductions are estimated and recorded during the period the related revenue is recognized. The Company may adjust these estimates when the expected amount of consideration changes based on sales volumes or other contractual terms. Sales and other consumption taxes the Company collects from customers and remits to government agencies are excluded from revenue. The Company elected to account for freight and shipping costs that occur after control of the related goods transfer to the customer as a fulfillment cost rather than an additional performance obligation. Freight and shipping costs charged to customers are included within net sales and freight and shipping costs incurred are included within cost of sales, all within the accompanying consolidated statement of income. The nature and timing of the Company's revenue transactions are similar, as substantially all revenue is based on point-in-time transactions with customers under industry-standard payment terms. The Company may require shortened payment terms, including cash-in-advance, on an individual customer basis depending on its assessment of the customer's credit worthiness.

Cost of Sales. Cost of sales includes material, labor and overhead costs incurred in the manufacture of products sold in the period. Material costs include raw material, purchased components, outside processing and freight costs. Overhead costs consist of variable and fixed manufacturing costs, wages and fringe benefits, and purchasing, receiving and inspection costs.

Selling, General and Administrative Expenses. Selling, general and administrative expenses include the following: costs related to the advertising, sale, marketing and distribution of the Company's products, amortization of customer intangible assets, costs of finance, human resources, legal functions, executive management costs and other administrative expenses.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Income Taxes. The Company computes income taxes using the asset and liability method, whereby deferred income taxes using current enacted tax rates are provided for the temporary differences between the financial reporting basis and the tax basis of assets and liabilities and for operating loss and tax credit carryforwards. The Company determines valuation allowances based on an assessment of positive and negative evidence on a jurisdiction-by-jurisdiction basis and records a valuation allowance to reduce deferred tax assets to the amount more likely than not to be realized. The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest and penalties related to unrecognized tax benefits in income tax expense. See Note 21, "Income Taxes," for further information.

Foreign Currency Translation. The financial statements of subsidiaries located outside of the United States are measured using the currency of the primary economic environment in which they operate as the functional currency. When translating into U.S. dollars, income and expense items are translated at average monthly exchange rates and assets and liabilities are translated at exchange rates in effect at the balance sheet date. Adjustments resulting from translating the functional currency into U.S. dollars are deferred as a component of accumulated other comprehensive income (loss) ("AOCI") in the consolidated statement of shareholders' equity. The impact of net foreign currency transactions was a loss of \$1.3 million, gain of \$0.3 million, and gain of \$0.7 million for the years ended December 31, 2024, 2023 and 2022, respectively, and is included in other income (expense), net in the accompanying consolidated statement of income.

Derivative Financial Instruments. The Company records derivative financial instruments at fair value on the balance sheet as either assets or liabilities, and changes in their fair values are immediately recognized in earnings if the derivatives do not qualify as effective hedges. If a derivative is designated as a fair value hedge, then changes in the fair value of the derivative are offset against the changes in the fair value of the underlying hedged item. If a derivative is designated as a cash flow hedge, the changes in the fair value of the derivative is recognized as a component of other comprehensive income (loss) until the underlying hedged item is recognized in earnings or the forecasted transaction is no longer probable of occurring. If a derivative is designated as a net investment hedge, such as the Company's cross-currency swaps, then the changes in the fair value of the derivative is recognized in other comprehensive income (loss) and will be subsequently reclassified to earnings when the hedged net investment is either sold or substantially liquidated. Net interest payments received on cross-currency swaps are recognized in interest expense in the accompanying consolidated statement of income and are generally classified within operating cash flows in the accompanying consolidated statement of cash flows. If a cross-currency swap is deemed to contain an other-than-insignificant financing element, then the cash flows related to the instrument are classified as financing activities in the accompanying consolidated statement of cash flows. The Company formally documents hedging relationships for its derivative transactions and the underlying hedged items, as well as its risk management objectives and strategies for undertaking the hedge transactions. See Note 12, "Derivative Instruments," for further information.

Fair Value of Financial Instruments. In accounting for and disclosing the fair value of financial instruments, the Company uses the following hierarchy:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date;
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

Valuation of the Company's cross-currency swaps are based on the income approach, which uses observable inputs such as interest rate yield curves and forward currency exchange rates, as applicable.

The carrying value of financial instruments reported in the balance sheet for current assets and current liabilities approximates fair value due to the short maturity of these instruments.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Business Combinations. The Company records assets acquired and liabilities assumed from acquisitions at fair value. The fair value of working capital accounts generally approximates book value. The valuation of inventory, property, plant and equipment, and intangible assets requires significant assumptions. Inventory is recorded at fair value based on the estimated selling price less costs to sell, including completion, disposal and holding period costs with a reasonable profit margin. Property and equipment is recorded at fair value using a combination of both the cost and market approaches for both the real and personal property acquired. Under the cost approach, consideration is given to the amount required to construct or purchase a new asset of equal value at current prices, with adjustments in value for physical deterioration, as well as functional and economic obsolescence. Under the market approach, recent transactions for similar types of assets are used as the basis for estimating fair value. For trademark/trade names and technology and other intangible assets, the estimated fair value is based on projected discounted future net cash flows using the relief-from-royalty method. For customer relationship intangible assets, the estimated fair value is based on projected discounted future cash flows using the excess earnings method. The relief-from-royalty and excess earnings method are both income approaches that utilize key assumptions such as forecasts of revenue and expenses over an extended period of time, royalty rate percentages, tax rates, and estimated costs of debt and equity capital to discount the projected cash flows.

Stock-based Compensation. The Company recognizes compensation expense related to equity awards based on their fair values as of the grant date. For awards with only a service condition, awards granted to employees who are eligible for retirement on the date of the grant are expensed immediately, and awards granted to employees who will become retirement-eligible prior to the end of the vesting term are expensed over the period through which the employee will become retirement-eligible since these awards vest upon retirement from the Company. Compensation expense for awards granted to employees who will not become retirement-eligible prior to the end of the vesting term is recognized on a straight-line basis over the vesting period. Performance-based equity awards may have targets tied to performance and/or market-based conditions. Market-based conditions are taken into consideration in determining the grant date fair value, and the related compensation expense is recognized regardless of whether the market condition is satisfied, provided the requisite service has been provided. For performance condition components, the Company periodically updates the probability that the performance conditions will be achieved and adjusts expense accordingly, reflecting the change from prior estimate, if any, in current period non-cash stock compensation expense. The disclosed number of awards granted considers only the targeted number of units until such time that the performance condition has been satisfied. If the performance conditions are not achieved, no award is earned. See Note 17, "Equity Awards," for further information.

Other Comprehensive Income (Loss). The Company refers to other comprehensive income (loss) as revenues, expenses, gains and losses that under accounting principles generally accepted in the United States of America are included in comprehensive income (loss) but are excluded from net earnings as these amounts are recorded directly as an adjustment to shareholders' equity. Other comprehensive income (loss) is comprised of foreign currency translation adjustments, amortization of prior service costs and unrecognized gains and losses in actuarial assumptions for pension and postretirement plans and changes in unrealized gains and losses on derivative instruments.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Acquisitions

2023 Acquisitions

On April 21, 2023, the Company acquired Weldmac Manufacturing Company ("Weldmac") for a purchase price of \$34.0 million, with additional contingent consideration ranging from zero to \$10 million based on achievement of earnings targets, as defined in the purchase agreement. The fair value of assets acquired and liabilities assumed included \$23.7 million of property and equipment, \$20.3 million of net working capital and \$10 million of contingent consideration liability, with such estimate representing the Company's best estimate of fair value of contingent consideration based on Level 3 inputs under the fair value hierarchy, as defined. Located in El Cajon, California, and reported in the Company's Aerospace segment, Weldmac is a designer and manufacturer of complex metal fabricated components and assemblies for the aerospace, defense and space launch end markets and historically generated \$33 million in annual revenue. On July 10, 2023, the Company made a cash payment of \$5.5 million as additional consideration for the purchase of Weldmac based on achievement of earnings targets, as defined in the purchase agreement. On October 25, 2024, the Company reached an agreement with the Weldmac sellers to pay \$2.25 million as final contingent consideration for the Weldmac acquisition and made a cash payment during the fourth quarter of 2024. The settlement resulted in a \$2.25 million gain on the reversal of the contingent consideration liability, which was recognized in other income (expense), net on the consolidated statement of income.

On February 1, 2023, the Company acquired Aarts Packaging B.V. ("Aarts"), a luxury packaging solutions provider for beauty and lifestyle brands, as well as for customers in the food and life sciences end markets, for a purchase price of \$37.8 million, net of cash acquired. The fair value of assets acquired and liabilities assumed included \$20.4 million of goodwill, \$10.9 million of intangible assets, \$8.5 million of property and equipment, \$7.4 million of net working capital, \$3.9 million of net deferred tax liabilities and \$5.5 million of other liabilities. Aarts, which is reported in the Company's Packaging segment, is located in Waalwijk, the Netherlands, and historically generated €23 million in annual revenue.

2022 Acquisitions

On February 28, 2022, the Company acquired Intertech Plastics LLC and related companies (collectively, "Intertech") for a purchase price of \$64.1 million, net of cash acquired. Intertech is a manufacturer of custom injection molded products used in medical applications, as well as products and assemblies for consumer and industrial applications. The fair value of assets acquired and liabilities assumed included \$32.4 million of goodwill, \$13.5 million of intangible assets, \$12.2 million of property and equipment and \$6.0 million of net working capital. Intertech, which is reported in the Company's Packaging segment, has two manufacturing facilities located in the Denver, Colorado area.

5. Realignment Actions

2024 Realignment Actions

During 2024, the Company incurred pre-tax realignment charges of \$0.9 million in its Packaging segment, related to the closure of its facility in Irwindale, California. During 2024, \$0.5 million and \$0.4 million of these charges were included in cost of sales and selling, general and administrative expenses, respectively, in the accompanying consolidated statement of income.

2023 Realignment Actions

During 2023, the Company incurred realignment charges in its Packaging segment, related to the closure and consolidation of two manufacturing facilities located in China into one new, larger facility in the Haining region, and for costs incurred to close and consolidate its Rohnert Park, California, manufacturing facility operations into other existing U.S. production locations. In connection with these actions, the Company recorded pre-tax realignment charges of \$10.3 million, of which \$2.1 million were for employee-related costs, \$0.8 million were for inventory write-downs, \$5.2 million were for other facility move and consolidation costs, and \$2.2 million were related to charges to accelerate the depreciation of certain fixed assets. During 2023, \$9.4 million and \$0.9 million of these charges were included in cost of sales and selling, general and administrative expenses, respectively, in the accompanying consolidated statement of income.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2022 Realignment Actions

During 2022, the Company incurred realignment charges in its Packaging segment, related to adjusting its labor force in facilities with lower demand, finalizing its Indianapolis, Indiana, facility consolidation, costs incurred to reorganize its benefit plans in the United Kingdom, and for costs incurred as part of the Company's start-up and relocation to a new, larger facility in New Albany, Ohio. The Company also completed the Aerospace segment footprint realignment which began in 2021. In connection with these actions, the Company recorded pre-tax realignment charges of \$5.0 million, of which \$2.7 million related to facility move and consolidation costs and \$2.3 million was for employee-related costs. During 2022, \$2.8 million of these charges were included in cost of sales, \$2.0 million of these charges were included in selling, general and administrative expenses and \$0.2 million of these charges were included in net gain (loss) on dispositions of assets in the accompanying consolidated statement of income.

6. Revenue

The following table presents the Company's disaggregated net sales by primary market served (dollars in thousands):

Customer End Markets	Year ended December 31,		
	2024	2023	2022
Consumer Products	\$ 418,110	\$ 381,930	\$ 419,410
Aerospace & Defense	294,210	241,400	188,090
Industrial	212,690	270,220	276,330
Total net sales	\$ 925,010	\$ 893,550	\$ 883,830

The Company's Packaging segment earns revenues from the consumer products (comprised of the beauty and personal care, food and beverage, home care, pharmaceutical, nutraceutical and medical submarkets) and industrial markets. The Aerospace segment earns revenues from the aerospace & defense market (comprised of commercial, regional and business jet, and military submarkets). The Specialty Products segment earns revenues from a variety of submarkets within the industrial market.

7. Goodwill and Other Intangible Assets*Goodwill*

The Company performed a qualitative assessment as part of its 2024 annual impairment tests (October 1 annual test date) for all reporting units except the packaging-related Life Sciences reporting unit, for which the Company elected to perform a quantitative assessment. The qualitative assessment included a review of the Company's market capitalization. Based on results of the qualitative assessment for the 2024 annual impairment test, the Company determined there were no indications that the fair value of a reporting unit was less than its carrying value; therefore, the Company determined that quantitative goodwill impairment tests were not required for all reporting units included in the qualitative assessment.

The Company performed a quantitative assessment as part of its 2024 annual impairment test (October 1 annual test date) for the Life Sciences reporting unit within the Packaging segment, and in 2023 for all reporting units with goodwill after electing the option to bypass the qualitative assessment. In preparing the quantitative analysis, the Company utilized both income and market-based approaches. The income-based approach was conducted using the discounted cash flow method, for which management updated its internal five-year forecast. Assumptions in estimating the future cash flows were based on Level 3 inputs under the fair value hierarchy. The Company also selected appropriate terminal growth rates as well as weighted average cost of capital rates, which considered various factors including the level of inherent risk in achieving the forecast based on prior history and current market conditions. The market-based approach considered comparable publicly traded companies and transactions within the industries where the Company's reporting units participate, and applied their valuation multiples to management's forecast estimates.

Based on results of the 2024 quantitative assessment, the Company determined there were no indications that the fair value of the Life Sciences reporting unit was less than its carrying value. The Company notes that a 1% increase in the weighted average cost of capital would have resulted in a goodwill impairment charge of approximately \$7 million, while a 0.5% decrease in the terminal growth rate would have resulted in a goodwill impairment charge of approximately \$2 million. If the future financial results of the Life Sciences reporting unit significantly differ from the assumptions inherent in this analysis, the Company may be subject to an impairment charge.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Based on results of the quantitative assessment for the 2023 annual impairment test, the Company determined there were no indications that the fair value of a reporting unit was less than its carrying value.

Changes in the carrying amount of goodwill for the years ended December 31, 2024 and 2023 are as follows (dollars in thousands):

	Packaging	Aerospace	Specialty Products	Total
Balance, December 31, 2022	\$ 263,550	\$ 69,700	\$ 6,560	\$ 339,810
Goodwill from acquisitions	20,420	—	—	20,420
Foreign currency translation and other	3,380	160	—	3,540
Balance, December 31, 2023	\$ 287,350	\$ 69,860	\$ 6,560	\$ 363,770
Foreign currency translation and other	(6,850)	(560)	—	(7,410)
Balance, December 31, 2024	\$ 280,500	\$ 69,300	\$ 6,560	\$ 356,360

Other Intangible Assets

For the purposes of the Company's 2024 annual indefinite-lived intangible asset impairment test (as of October 1), the Company performed a qualitative assessment to determine whether it was more likely than not that the fair values of the indefinite-lived intangible assets were less than the carrying values for all indefinite-lived intangible assets except those for the Life Sciences reporting unit within the Packaging segment, for which the Company elected to perform a quantitative assessment. Based on the qualitative assessment performed, the Company did not believe that it is more likely than not that the fair values of each of its indefinite-lived intangible assets were less than the carrying values; therefore, a fair value calculation of the indefinite-lived intangible assets was not required for the 2024 annual indefinite-lived intangible asset impairment test for all indefinite-lived intangible assets included in the qualitative assessment.

The Company performed a quantitative assessment as part of its 2024 annual indefinite-lived intangible asset impairment test (as of October 1) for the indefinite-lived intangible assets for the Life Sciences reporting unit within the Packaging segment after electing the option to bypass the qualitative assessment. Significant management assumptions used under the relief-from-royalty method reflected the Company's current assessment of the risks and uncertainties associated with the cash flows of the respective underlying indefinite-lived intangible assets and represent Level 3 inputs under the fair value hierarchy. Upon completion of the 2024 quantitative impairment test, the Company determined that one of the Life Sciences trade names had a carrying value that exceeded its fair value, and therefore recorded an impairment charge of \$0.2 million.

For the purpose of the Company's 2023 annual indefinite-lived intangible asset impairment test (as of October 1), the Company elected the option to bypass the qualitative assessment and performed a quantitative assessment for all of its indefinite-lived intangible assets except for the Aarts trade name, using the relief-from-royalty method. The Company performed a qualitative assessment for the Aarts trade name as it was acquired less than one year prior and has long-term sales projections consistent with those expected in the purchase price valuation. Significant management assumptions used under the relief-from-royalty method reflected the Company's current assessment of the risks and uncertainties associated with the cash flows of the respective underlying indefinite-lived intangible assets and represent Level 3 inputs under the fair value hierarchy. Upon completion of the 2023 quantitative impairment test, the Company determined that one of the Company's aerospace-related trade names had a carrying value that exceeded its fair value, and therefore recorded an impairment charge of \$1.1 million.

For the purposes of the Company's 2022 annual indefinite-lived intangible asset impairment test (as of October 1), the Company performed a qualitative assessment to determine whether it was more likely than not that the fair values of the indefinite-lived intangible assets were less than the carrying values. Based on the qualitative assessment performed, the Company did not believe that it is more likely than not that the fair values of each of its indefinite-lived intangible assets were less than the carrying values; therefore, a fair value calculation of the indefinite-lived intangible assets was not required for the 2022 annual indefinite-lived intangible asset impairment test.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The gross carrying amounts and accumulated amortization of the Company's other intangibles as of December 31, 2024 and 2023 are summarized below (dollars in thousands):

Intangible Category by Useful Life	As of December 31, 2024		As of December 31, 2023	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Finite-lived intangible assets:				
Customer relationships, 5 - 12 years	\$ 138,840	\$ (95,360)	\$ 141,260	\$ (89,020)
Customer relationships, 15 - 25 years	129,230	(86,690)	129,830	(80,600)
Total customer relationships	268,070	(182,050)	271,090	(169,620)
Technology and other, 1 - 15 years	56,790	(44,590)	56,970	(41,850)
Technology and other, 17 - 30 years	43,300	(41,080)	43,300	(40,730)
Total technology and other	100,090	(85,670)	100,270	(82,580)
Indefinite-lived intangible assets:				
Trademark/Trade names	60,640	—	61,860	—
Total other intangible assets	\$ 428,800	\$ (267,720)	\$ 433,220	\$ (252,200)

Amortization expense related to intangible assets as included in the accompanying consolidated statement of income is summarized as follows (dollars in thousands):

	Year ended December 31,		
	2024	2023	2022
Technology and other, included in cost of sales	\$ 3,250	\$ 3,210	\$ 3,300
Customer relationships, included in selling, general and administrative expenses	13,550	14,970	15,800
Total amortization expense	\$ 16,800	\$ 18,180	\$ 19,100

Estimated amortization expense for the next five fiscal years beginning after December 31, 2024 is as follows (dollars in thousands):

	Year ended December 31,	Estimated Amortization Expense
2025	\$	16,290
2026		14,670
2027		14,610
2028		14,580
2029		13,890

8. Inventories

Inventories consist of the following components (dollars in thousands):

	December 31, 2024	December 31, 2023
Finished goods	\$ 86,430	\$ 82,300
Work in process	62,380	51,990
Raw materials	60,380	58,160
Total inventories	\$ 209,190	\$ 192,450

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Property and Equipment, Net

Property and equipment consists of the following components (dollars in thousands):

	December 31, 2024	December 31, 2023
Land and land improvements	\$ 30,810	\$ 32,840
Building and building improvements	93,780	99,230
Machinery and equipment	524,390	502,090
	648,980	634,160
Less: Accumulated depreciation	330,330	304,170
Property and equipment, net	<u>\$ 318,650</u>	<u>\$ 329,990</u>

Depreciation expense as included in the accompanying consolidated statement of income is as follows (dollars in thousands):

	Year ended December 31,		
	2024	2023	2022
Depreciation expense, included in cost of sales	\$ 47,060	\$ 38,520	\$ 33,130
Depreciation expense, included in selling, general and administrative expense	1,060	890	990
Total depreciation expense	<u>\$ 48,120</u>	<u>\$ 39,410</u>	<u>\$ 34,120</u>

In 2024, following a strategic profitability study of our cylinders products, the Company ceased use of certain machinery and equipment, resulting in accelerated depreciation expense of \$8.2 million due to the shortening of the assets' expected useful lives within the Company's Specialty Products segment.

10. Accrued Liabilities

Accrued liabilities consist of the following components (dollars in thousands):

	December 31, 2024	December 31, 2023
Accrued payroll	\$ 20,670	\$ 15,990
High deductible insurance	7,690	6,250
Derivatives liability	—	6,510
Deferred revenue	7,360	2,610
Other	24,620	28,280
Total accrued liabilities	<u>\$ 60,340</u>	<u>\$ 59,640</u>

11. Long-term Debt

The Company's long-term debt consists of the following (dollars in thousands):

	December 31, 2024	December 31, 2023
4.125% Senior Notes due April 2029	\$ 400,000	\$ 400,000
Credit Agreement	1,500	—
Debt issuance costs	(3,380)	(4,340)
Long-term debt, net	<u>\$ 398,120</u>	<u>\$ 395,660</u>

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Senior Notes

The Company has \$400.0 million aggregate principal amount of 4.125% senior notes outstanding due April 15, 2029 ("Senior Notes"). The Senior Notes accrue interest at a rate of 4.125% per annum, payable semi-annually in arrears on April 15 and October 15. The payment of principal and interest is jointly and severally guaranteed, on a senior unsecured basis, by certain subsidiaries of the Company. The Senior Notes are *pari passu* in right of payment with all existing and future senior indebtedness and effectively subordinated to all existing and future secured indebtedness to the extent of the value of the assets securing such indebtedness.

The Company may redeem all or part of the Senior Notes at the redemption prices (expressed as percentages of principal amount) set forth below, plus accrued and unpaid interest, if any, to the redemption date, if redeemed during the twelve-month period beginning on April 15 of the years indicated below:

Year	Percentage
2024	102.063 %
2025	101.031 %
2026 and thereafter	100.000 %

Credit Agreement

The Company is party to a credit agreement ("Credit Agreement") consisting of a \$300.0 million senior secured revolving credit facility, which permits borrowings denominated in specific foreign currencies, subject to a \$125.0 million sub limit, maturing on March 29, 2026.

In April 2023, the Company amended the Credit Agreement to replace LIBOR. As of December 31, 2024, monthly borrowings under the Credit Agreement are subject to benchmark interest rates that are based on the currency denomination of borrowings, with British pound sterling borrowings subject to the Sterling Overnight Index Average and Euro borrowings subject to the Euro InterBank Offered Rate, both plus a spread of 1.75%, and U.S. dollar borrowings subject to the Secured Overnight Financing Rate plus a spread of 1.85%. The interest rate spread is based upon the leverage ratio, as defined, as of the most recent determination date.

The Credit Agreement also provides incremental revolving credit facility commitments in an amount not to exceed the greater of \$200.0 million and an amount such that, after giving effect to such incremental commitments and the incurrence of any other indebtedness substantially simultaneously with the making of such commitments, the senior secured net leverage ratio, as defined, is no greater than 3.00 to 1.00. The terms and conditions of any incremental revolving credit facility commitments must be no more favorable than the existing credit facility.

The Company's revolving credit facility allows for the issuance of letters of credit, not to exceed \$40.0 million in aggregate. At December 31, 2024, the Company had \$1.5 million outstanding under its revolving credit facility and had \$292.2 million potentially available after giving effect to \$6.3 million of letters of credit issued and outstanding. At December 31, 2023, the Company had no amounts outstanding under its revolving credit facility and had \$294.0 million potentially available after giving effect to \$6.0 million of letters of credit issued and outstanding. After consideration of leverage restrictions contained in the Credit Agreement, as of December 31, 2024 and 2023, the Company had \$216.7 million and \$256.9 million, respectively, of borrowing capacity available for general corporate purposes.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The debt under the Credit Agreement is an obligation of the Company and certain of its domestic subsidiaries and is secured by substantially all of the assets of such parties. Borrowings under the \$125.0 million (equivalent) foreign currency sub limit of the \$300.0 million senior secured revolving credit facility are secured by a cross-guarantee amongst, and a pledge of the assets of, the foreign subsidiary borrowers that are a party to the agreement. The Credit Agreement also contains various negative and affirmative covenants and other requirements affecting the Company and its subsidiaries, including the ability to, subject to certain exceptions and limitations, incur debt, liens, mergers, investments, loans, advances, guarantee obligations, acquisitions, assets dispositions, sale-leaseback transactions, hedging agreements, dividends and other restricted payments, transactions with affiliates, restrictive agreements and amendments to charters, bylaws, and other material documents. The terms of the Credit Agreement also require the Company and its restricted subsidiaries to meet certain restrictive financial covenants and ratios computed quarterly, including a maximum total net leverage ratio (total consolidated indebtedness plus outstanding amounts under any accounts receivable securitization facility, less the aggregate amount of certain unrestricted cash and unrestricted permitted investments, as defined, over consolidated EBITDA, as defined), a maximum senior secured net leverage ratio (total consolidated senior secured indebtedness, less the aggregate amount of certain unrestricted cash and unrestricted permitted investments, as defined, over consolidated EBITDA, as defined) and a minimum interest expense coverage ratio (consolidated EBITDA, as defined, over the sum of consolidated cash interest expense, as defined, and preferred dividends, as defined). At December 31, 2024, the Company was in compliance with the financial covenants contained in the Credit Agreement.

Other Revolving Loan Facility

In May 2021, the Company, through one of its non-U.S. subsidiaries, entered into a revolving loan facility with a borrowing capacity of \$4 million. The facility is guaranteed by TriMas Corporation. There were no borrowings outstanding on this loan facility as of December 31, 2024 or 2023.

Long-term Debt Maturities

Future maturities of the face value of long-term debt at December 31, 2024 are as follows (dollars in thousands):

Year Ending December 31:	Future Maturities
2025	\$ —
2026	1,500
2027	—
2028	—
2029	400,000
Thereafter	—
Total	\$ 401,500

Fair Value of Debt

The valuations of the Senior Notes and revolving credit facility were determined based on Level 2 inputs under the fair value hierarchy, as defined. The carrying amounts and fair values were as follows (dollars in thousands):

	December 31, 2024		December 31, 2023	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
4.125% Senior Notes due April 2029	\$ 400,000	\$ 365,000	\$ 400,000	\$ 364,000
Revolving credit facility	1,500	1,500	—	—

Debt Issuance Costs

The Company's unamortized debt issuance costs approximated \$3.4 million and \$4.3 million at December 31, 2024 and 2023, respectively, and are included as a direct reduction from the related debt liability in the accompanying consolidated balance sheet. These amounts consisted primarily of legal, accounting and other transaction advisory fees as well as facility fees paid to the lenders. Amortization expense for these items was \$1.0 million, \$0.9 million and \$0.9 million in 2024, 2023 and 2022, respectively, and is included in interest expense in the accompanying consolidated statement of income.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
12. Derivative Instruments
Derivatives Designated as Hedging Instruments

The Company uses cross-currency swap agreements to hedge its net investment in Euro-denominated assets against future volatility in the exchange rate between the U.S. dollar and the Euro. By doing so, the Company synthetically converts a portion of its U.S. dollar-based long-term debt into Euro-denominated long-term debt. At inception, the Company designates its cross-currency swaps as net investment hedges.

In June 2024, the Company entered into a cross-currency swap agreement effective as of June 27, 2024, with a notional amount of \$75.0 million and a contract period end date of October 15, 2027. Under the terms of the agreement, the Company is to receive net interest payments at a fixed rate of approximately 1.43% of the notional amount. At inception, the cross-currency swap was designated as a net investment hedge.

In February 2024, the Company entered into a cross-currency swap agreement effective as of April 15, 2024, with a notional amount of \$75.0 million and a contract period end date of April 15, 2029. Under the terms of the agreement, the Company is to receive net interest payments at a fixed rate of approximately 1.06% of the notional amount. At inception, the cross-currency swap was designated as a net investment hedge. At designation, the cross currency swap had an inception date non-zero fair value equal to a \$4.9 million liability, which offset the inception date non-zero fair value of a \$75.0 million foreign currency exchange forward contract entered into on the same date. The non-zero fair value of the cross currency swap was recognized in other income (expense), net in the consolidated statement of income during the year ended December 31, 2024.

In February 2024, immediately prior to entering into the new cross-currency swap agreement, the Company voluntarily discontinued hedge accounting for its existing cross-currency swap agreement, de-designating the swap as a net investment hedge. The de-designated agreement had a notional amount of \$75.0 million and a contract period end date of April 15, 2024. Under the terms of the agreement, the Company received net interest payments at a fixed rate of approximately 2.4% of the notional amount. At contract settlement, the cross currency swap agreement had a fair value equal to a \$3.8 million liability, which was offset by the settlement of the \$75.0 million foreign currency exchange forward contract that ended on the same date, both of which were classified as an investing activity in the accompanying consolidated statement of cash flows.

As of December 31, 2024 and 2023, the fair value carrying amount of the Company's derivatives designated as hedging instruments are recorded as follows (dollars in thousands):

Derivatives designated as hedging instruments	Balance Sheet Caption	Asset / (Liability) Derivatives	
		December 31, 2024	December 31, 2023
Net Investment Hedges			
Cross-currency swaps	Accrued liabilities	\$ —	\$ (6,510)
Cross-currency swaps	Other long-term liabilities	(2,920)	—

The following table summarizes the income recognized in AOCI on derivative contracts designated as hedging instruments as of December 31, 2024 and 2023, and the amounts reclassified from AOCI into earnings for the years ended December 31, 2024, 2023 and 2022 (dollars in thousands):

	Amount of Income Recognized in AOCI on Derivative (net of tax)		Location of Income (Loss) Reclassified from AOCI into Earnings	Amount of Income (Loss) Reclassified from AOCI into Earnings		
	As of December 31,			Year ended December 31,		
	2024	2023		2024	2023	2022
Net Investment Hedges						
Cross-currency swaps	\$ 16,300	\$ 13,260	Other income (expense), net	\$ —	\$ —	\$ —

Over the next 12 months, the Company does not expect to reclassify any pre-tax deferred amounts from AOCI into earnings.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Derivatives Not Designated as Hedging Instruments

As of December 31, 2024, the Company was party to foreign currency exchange forward contracts to economically hedge changes in foreign currency rates with notional amounts of \$105.9 million. The Company uses foreign exchange contracts to mitigate the risk associated with fluctuations in currency rates impacting cash flows related to certain of its receivables, payables and intercompany transactions denominated in foreign currencies. The foreign exchange contracts primarily mitigate currency exposures between the U.S. dollar and the Euro, Canadian dollar, Chinese yuan, and the Mexican peso, as well as between the Euro and British pound, and have various settlement dates through March 2025. These contracts are not designated as hedge instruments; therefore, gains and losses on these contracts are recognized each period directly into the consolidated statement of income.

The following table summarizes the effects of derivatives not designated as hedging instruments on the Company's consolidated statement of income (dollars in thousands):

	Location of Income (Loss) Recognized in Earnings on Derivatives	Amount of Income (Loss) Recognized in Earnings on Derivatives		
		Year ended December 31,		
		2024	2023	2022
Derivatives not designated as hedging instruments				
Foreign exchange contracts	Other income (expense), net	\$ 8,590	\$ (1,880)	\$ 1,540
Cross-currency swaps	Other income (expense), net	810	—	—

Fair Value of Derivatives

The fair value of the Company's derivative instruments are estimated using an income approach based on valuation techniques to convert future amounts to a single, discounted amount. Estimates of the fair value of the Company's cross-currency swaps and foreign exchange contracts use observable inputs such as interest rate yield curves and forward currency exchange rates. Fair value measurements and the fair value hierarchy level for the Company's assets and liabilities measured at fair value on a recurring basis as of December 31, 2024 and 2023 are as follows (dollars in thousands):

Description	Frequency	Asset / (Liability)	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2024					
Cross-currency swaps	Recurring	\$ (2,920)	\$ —	\$ (2,920)	\$ —
Foreign exchange contracts	Recurring	\$ 360	\$ —	\$ 360	\$ —
December 31, 2023					
Cross-currency swaps	Recurring	\$ (6,510)	\$ —	\$ (6,510)	\$ —
Foreign exchange contracts	Recurring	\$ (140)	\$ —	\$ (140)	\$ —

13. Leases

The majority of the Company's lease obligations are non-cancelable operating leases for certain equipment and facilities. The Company's finance leases are for certain equipment as part of the Company's acquisition of Aarts. Leases with an initial term of 12 months or less are not recorded on the balance sheet; expense related to these leases is recognized on a straight-line basis over the lease term.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Supplemental balance sheet information related to the Company's leases are shown below (dollars in thousands):

	Balance Sheet Location	December 31, 2024		December 31, 2023	
Assets					
Operating leases	Operating lease right-of-use assets	\$	40,480	\$	43,220
Finance leases	Property and equipment, net ^(a)		2,110		2,470
Total lease assets		\$	42,590	\$	45,690
Liabilities					
Current:					
Operating leases	Lease liabilities, current portion	\$	7,580	\$	7,410
Finance leases	Lease liabilities, current portion		460		490
Long-term:					
Operating leases	Lease liabilities		35,520		37,980
Finance leases	Lease liabilities		1,160		1,710
Total lease liabilities		\$	44,720	\$	47,590

^(a) Finance leases were recorded net of accumulated depreciation of \$0.4 million and \$0.2 million as of December 31, 2024 and 2023, respectively.

The components of lease expense are as follows (dollars in thousands):

	Statement of Income Location	Year ended December 31,		
		2024	2023	2022
Operating lease cost	Cost of sales and Selling, general and administrative expenses	\$ 9,560	\$ 11,180	\$ 10,560
Finance lease cost:				
Depreciation of lease assets	Cost of sales	220	220	—
Interest on lease liabilities	Interest expense	50	60	—
Short-term, variable and other lease costs	Cost of sales and Selling, general and administrative expenses	4,090	3,430	3,350
Total lease cost		\$ 13,920	\$ 14,890	\$ 13,910

Maturities of lease liabilities are as follows (dollars in thousands):

Year ended December 31,	Operating Leases ^(a)	Finance Leases ^(a)
2025	\$ 9,070	\$ 520
2026	9,310	590
2027	8,020	690
2028	6,300	—
2029	4,910	—
Thereafter	11,880	—
Total lease payments	49,490	1,800
Less: Imputed interest	(6,390)	(180)
Present value of lease liabilities	\$ 43,100	\$ 1,620

^(a) The maturity table excludes cash flows associated with exited lease facilities. Liabilities for exited lease facilities are included in accrued liabilities and other long-term liabilities in the accompanying consolidated balance sheet.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Other information related to the Company's leases are as follows (dollars in thousands):

	Year ended December 31,		
	2024	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows from operating leases	\$ 9,310	\$ 10,250	\$ 9,900
Operating cash flows from finance leases	50	60	—
Financing cash flows from finance leases	480	450	—
Lease assets obtained in exchange for new lease liabilities:			
Operating leases	5,980	8,340	5,790
Finance leases	—	2,620	—

The weighted-average remaining term of the Company's operating leases and finance leases as of December 31, 2024, is 6.1 and 2.6 years, respectively. The weighted-average discount rate for operating and finance leases as of December 31, 2024, is 4.2% and 2.6%, respectively.

14. Other Long-term Liabilities

Other long-term liabilities consist of the following components (dollars in thousands):

	December 31, 2024	December 31, 2023
Non-current asbestos-related liabilities	\$ 27,200	\$ 23,880
Other long-term liabilities	15,340	16,740
Total other long-term liabilities	\$ 42,540	\$ 40,620

15. Commitments and Contingencies

Environmental

The Company is subject to increasingly stringent environmental laws and regulations, including those relating to air emissions, wastewater discharges and chemical and hazardous waste management and disposal. Some of these environmental laws hold owners or operators of land or businesses liable for their own and for previous owners' or operators' releases of hazardous or toxic substances or wastes. Other environmental laws and regulations require the obtainment and compliance with environmental permits.

The Company is responsible for environmental remediation at currently or previously owned facilities and waste sites, including sites defined under the Comprehensive Environmental Response, Compensation, and Liability Act, commonly referred to as "Superfund" for which the Company has been named a potential responsible party. During the year ended December 31, 2024, the Company recorded pre-tax charges of \$3.6 million within selling, general and administrative expenses in the accompanying consolidated statement of income related to environmental remediation costs. As of December 31, 2024, the Company's total environmental remediation obligation was \$3.3 million. The accrual is primarily based on environmental cost estimates provided by third parties and represents the best estimate of the Company's proportionate share of costs to be incurred for site remediation efforts. Actual costs incurred resulting from the ultimate resolution of these uncertainties could exceed the amount accrued.

While the Company must comply with existing and pending climate change legislation, regulation and international treaties or accords, current laws and regulations have not had a material impact on the Company's business, capital expenditures or financial position. Future events, including those relating to climate change or greenhouse gas regulation, could require the Company to incur expenses related to the modification or curtailment of operations, installation of pollution control equipment or investigation and cleanup of contaminated sites.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
Asbestos

As of December 31, 2024, the Company was a party to 524 pending cases involving an aggregate of 4,968 claimants primarily alleging personal injury from exposure to asbestos containing materials formerly used in gaskets (both encapsulated and otherwise) manufactured or distributed by its former Lamons division and certain other related subsidiaries for use primarily in the petrochemical refining and exploration industries. The following chart summarizes the number of claims, number of claims filed, number of claims dismissed, number of claims settled, the average settlement amount per claim and the total defense costs, at the applicable date and for the applicable periods:

	Claims pending at beginning of period	Claims filed during period	Claims dismissed during period	Claims settled during period	Claims pending at end of period	Average settlement amount per claim during period	Total defense costs during period
Fiscal year ended December 31, 2024	4,863	269	131	33	4,968	\$ 20,083	\$ 1,750,000
Fiscal year ended December 31, 2023	4,798	261	160	36	4,863	\$ 15,465	\$ 1,920,000
Fiscal year ended December 31, 2022	4,754	236	168	24	4,798	\$ 79,869	\$ 2,180,000

In addition, the Company acquired various companies to distribute its products that had distributed gaskets of other manufacturers prior to acquisition.

The Company may be subjected to significant additional asbestos-related claims in the future, and will aggressively defend or reasonably resolve, as appropriate. The cost of settling cases in which product identification can be made may increase, and the Company may be subjected to further claims in respect of the former activities of its acquired gasket distributors. The cost of claims varies as claims may be initially made in some jurisdictions without specifying the amount sought or by simply stating the requisite or maximum permissible monetary relief, and may be amended to alter the amount sought.

The large majority of claims do not specify the amount sought. Of the 4,968 claims pending at December 31, 2024, 28 set forth specific amounts of damages (other than those stating the statutory minimum or maximum). At December 31, 2024, of the 28 claims that set forth specific amounts, there were no claims seeking more than \$5 million for punitive damages. Below is a breakdown of the compensatory damages sought for those claims seeking specific amounts:

Range of damages sought (in millions)	Compensatory		
	\$0.0 to \$0.6	\$0.6 to \$5.0	\$5.0+
Number of claims	—	5	23

Relatively few of the claims have reached the discovery stage and even fewer claims have gone past the discovery stage. Total settlement costs (exclusive of defense costs) for all such cases, some of which were filed over 30 years ago, have been \$13.7 million. All relief sought in the asbestos cases is monetary in nature. Based on the settlements made to date and the number of claims dismissed or withdrawn for lack of product identification, the Company believes that the relief sought (when specified) does not bear a reasonable relationship to its potential liability.

The Company accrues for all asbestos-related future defense costs for both known and unknown claims, which the Company believes are reasonably estimable. The Company's liability for asbestos-related claims is based on a study from the Company's third-party actuary, the Company's review of the study, as well as the Company's own review of asbestos claims and claim resolution activity. In 2022, the Company commissioned its actuary to update the asbestos study based on data as of September 30, 2022. The Company recorded a pre-tax charge of \$5.6 million to increase the liability estimate to \$29.6 million, at the low-end of the range of the 2022 study. In 2024, the Company commissioned its actuary to update the asbestos study based on data as of May 31, 2024, which yielded a range of possible future liability of \$31.0 million to \$39.8 million, before consideration of any potential insurance recoveries. The Company did not believe any amount within the range of potential outcomes represented a better estimate than another given the many factors and assumptions inherent in the projections, and therefore recorded a pre-tax charge of \$5.5 million to increase the liability estimate to \$31.0 million, at the low-end of the range. As of December 31, 2024, the Company's total asbestos-related liability was \$29.7 million.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company's primary insurance, which covered approximately 40% of historical costs related to settlement and defense of asbestos litigation, expired in November 2018, upon which the Company became solely responsible for defense costs and indemnity payments. The Company is party to a coverage-in-place agreement (entered into in 2006) with its first level excess carriers regarding the coverage to be provided to the Company for asbestos-related claims. The coverage-in-place agreement makes asbestos defense costs and indemnity insurance coverage available to the Company that might otherwise be disputed by the carriers and provides a methodology for the administration of such expenses. The Company will continue to be solely responsible for defense costs and indemnity payments prior to the commencement of coverage under this agreement, the duration of which would be subject to the scope of damage awards and settlements paid. Based upon the Company's review of the most recent actuarial study, the Company believes it will reach the threshold of qualified future settlements required to commence excess carrier insurance coverage under the coverage-in-place agreement in 2025. As of December 31, 2024, the Company has not recognized an asbestos-related insurance recovery asset corresponding to its asbestos-related liability. The Company will continue to reassess its estimate of insurance recoveries and corresponding accounting for any such recoveries as the facts and circumstances change.

Based upon the Company's experience to date, including the trend in annual defense and settlement costs incurred to date, and other available information (including the availability of excess insurance), the Company does not believe these cases will have a material adverse effect on its financial position, results of operations, or cash flows.

Claims and Litigation

The Company is subject to other claims and litigation in the ordinary course of business, but does not believe that any such claim or litigation will have a material adverse effect on its financial position and results of operations or cash flows.

16. Employee Benefit Plans*Pension and Profit-Sharing Benefits*

The Company provides a defined contribution profit sharing plan for the benefit of substantially all the Company's domestic salaried and non-union hourly employees. The plan contains both contributory and noncontributory profit sharing arrangements, as defined. Aggregate charges included in the accompanying consolidated statement of income under this plan were \$5.1 million, \$4.6 million and \$3.7 million in 2024, 2023 and 2022, respectively. Certain of the Company's non-U.S. and union hourly employees participate in defined benefit pension plans.

Plan Assets, Expenses and Obligations

During the fourth quarter 2024, the Company entered into a buy-in contract with a third party insurer for the Company's United Kingdom defined benefit obligations. The buy-in insurance contract covers substantially all future benefit plan payments for the U.K. plan. The primary benefit obligation remains with the Company and the insurance contract remains an asset of the U.K. pension plan. The insurance contract is classified as a Level 3 investment and is valued on an insurer pricing basis based on the purchase price adjusted for changes in discount rates and other actuarial assumptions, which approximates fair value. The buy-in arrangement is a precursor to a possible future conversion into a buy-out arrangement where the insurance company would assume full responsibility for the U.K. pension plan pension obligations, at which time the Company would derecognize the assets and liabilities of the pension plan and realize a settlement charge as a component of the net periodic pension cost.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Net periodic pension benefit expense recorded in the Company's consolidated statement of income for defined benefit pension plans include the following components (dollars in thousands):

	Pension Benefit		
	2024	2023	2022
Service cost	\$ 510	\$ 490	\$ 690
Interest cost	1,300	1,290	890
Expected return on plan assets	(2,040)	(2,140)	(1,590)
Settlements and curtailments	—	1,020	150
Amortization of net loss	190	120	570
Net periodic benefit expense (income) ^(a)	<u>\$ (40)</u>	<u>\$ 780</u>	<u>\$ 710</u>

^(a) The net periodic benefit expense for the U.S. defined benefit pension plans was \$0.5 million, \$0.5 million and \$0.9 million for 2024, 2023 and 2022, respectively. The net periodic benefit expense (income) for the non-U.S. defined benefit pension plans was \$(0.5) million, \$0.3 million and \$(0.2) million for 2024, 2023 and 2022, respectively.

The service cost component of net periodic benefit expense is recorded in cost of goods sold and selling, general and administrative expenses, while non-service cost components are recorded in other income (expense), net in the accompanying consolidated statement of income.

During 2023, the Company recognized a one-time, pre-tax settlement charge of \$1.0 million related to the purchase of an annuity contract to transfer the Company's Canadian defined benefit obligations to an insurance company.

During 2022, the Company recorded a non-cash curtailment expense of \$0.2 million, as it transitioned certain active employees previously participating in a defined benefit plan in the United Kingdom to a defined contribution plan, thereby eliminating future service cost accruals for all employees under this defined benefit plan.

Actuarial valuations of the Company's defined benefit pension plans were prepared as of December 31, 2024, 2023 and 2022. Weighted average assumptions used in accounting for the U.S. defined benefit pension plans are as follows:

	Pension Benefit		
	2024	2023	2022
Discount rate for obligations	5.73 %	5.05 %	5.24 %
Discount rate for benefit costs	5.05 %	5.24 %	3.06 %
Rate of increase in compensation levels	N/A	N/A	N/A
Expected long-term rate of return on plan assets	6.13 %	6.13 %	6.13 %

The Company utilizes a high-quality (Aa or greater) corporate bond yield curve as the basis for its domestic discount rate for its pension benefit plans. Management believes this yield curve removes the impact of including additional required corporate bond yields (potentially considered in the above-median curve) resulting from the uncertain economic climate that does not necessarily reflect the general trend in high-quality interest rates.

Weighted average assumptions used in accounting for the non-U.S. defined benefit pension plans are as follows:

	Pension Benefit		
	2024	2023	2022
Discount rate for obligations	3.90 %	4.70 %	4.90 %
Discount rate for benefit costs	4.70 %	4.90 %	2.10 %
Rate of increase in compensation levels	5.50 %	5.50 %	4.80 %
Expected long-term rate of return on plan assets	5.80 %	6.60 %	4.20 %

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following provides a reconciliation of the changes in the Company's defined benefit pension plans' projected benefit obligations and fair value of assets for each of the years ended December 31, 2024 and 2023 and the funded status as of December 31, 2024 and 2023 (dollars in thousands):

	Pension Benefit	
	2024	2023
Changes in Projected Benefit Obligations		
Benefit obligations at January 1	\$ (27,470)	\$ (25,560)
Service cost	(510)	(490)
Interest cost	(1,300)	(1,290)
Actuarial (loss) gain ^(a)	(270)	(780)
Benefit payments	1,690	1,300
Settlements	—	90
Change in foreign currency	390	(740)
Projected benefit obligations at December 31 ^(b)	<u>\$ (27,470)</u>	<u>\$ (27,470)</u>
Changes in Plan Assets		
Fair value of plan assets at January 1	\$ 27,800	\$ 25,470
Actual return on plan assets	(1,050)	1,540
Employer contributions	1,340	1,260
Benefit payments	(1,690)	(1,300)
Settlements	—	(90)
Change in foreign currency	(270)	920
Fair value of plan assets at December 31 ^(c)	<u>\$ 26,130</u>	<u>\$ 27,800</u>
Funded status at December 31	<u>\$ (1,340)</u>	<u>\$ 330</u>

^(a) The actuarial loss for the year ended December 31, 2024 was driven by a loss due to changes in financial assumptions and experience loss in the Non-U.S. more than offsetting gains from an increase in the discount rate and demographic experience in the U.S. The actuarial loss for the year ended December 31, 2023 was primarily due to changes in demographic assumptions as well as a decrease in the discount rate utilized in measuring the projected benefit obligations, partially offset by experience gains.

^(b) U.S. projected benefit obligations were \$12.5 million and \$13.2 million at December 31, 2024 and 2023, respectively. Non-U.S. projected benefit obligations were \$15.0 million and \$14.3 million at December 31, 2024 and 2023, respectively.

^(c) The fair value of U.S. plan assets was \$10.5 million and \$9.5 million at December 31, 2024 and 2023, respectively. The fair value of non-U.S. plan assets was \$15.6 million and \$18.3 million at December 31, 2024 and 2023, respectively.

	Pension Benefit	
	2024	2023
Amounts Recognized in Balance Sheet		
Other assets	\$ 1,290	\$ 4,680
Current liabilities	(250)	(310)
Noncurrent liabilities	(2,380)	(4,040)
Net asset (liability) recognized at December 31	<u>\$ (1,340)</u>	<u>\$ 330</u>

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Pension Benefit	
	2024	2023
Amounts Recognized in Accumulated Other Comprehensive Loss		
Unrecognized prior service cost	\$ 10	\$ 20
Unrecognized net loss	10,860	7,740
Total accumulated other comprehensive loss recognized at December 31	<u>\$ 10,870</u>	<u>\$ 7,760</u>

	Accumulated Benefit Obligations		Projected Benefit Obligations	
	2024	2023	2024	2023
Benefit Obligations at December 31,				
Total benefit obligations	\$ (27,270)	\$ (27,260)	\$ (27,470)	\$ (27,470)
Plans with benefit obligations exceeding plan assets				
Benefit obligations	\$ (12,910)	\$ (13,590)	\$ (13,110)	\$ (13,800)
Plan assets	\$ 10,490	\$ 9,450	\$ 10,490	\$ 9,450

The assumptions regarding discount rates and expected return on plan assets can have a significant impact on amounts reported for benefit plans. A 25 basis point change in benefit obligation discount rates or 50 basis point change in expected return on plan assets would have the following effect (dollars in thousands):

	Pension Benefit	
	December 31, 2024 Benefit Obligation	2024 Expense
Discount rate		
25 basis point increase	\$ (730)	\$ (30)
25 basis point decrease	\$ 730	\$ 50
Expected return on assets		
50 basis point increase	N/A	\$ (70)
50 basis point decrease	N/A	\$ 70

The Company expects to make contributions of \$1.2 million to fund its pension plans during 2025.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Plan Assets

The Company's overall investment goal is to provide for capital growth with a moderate level of volatility by investing assets in targeted allocation ranges. Specific long term investment goals include total investment return, diversity to reduce volatility and risk, and to achieve an asset allocation profile that reflects the general nature and sensitivity of the plans' liabilities. Investment goals are established after a comprehensive review of current and projected financial statement requirements, plan assets and liability structure, market returns and risks as well as special requirements of the plans. The Company reviews investment goals and actual results annually to determine whether stated objectives are still relevant and the continued feasibility of achieving the objectives.

The actual weighted average asset allocation of the Company's domestic and foreign pension plans' assets at December 31, 2024 and 2023 and target allocations by class, were as follows:

	Domestic Pension			Foreign Pension		
	Target	Actual		Target	Actual	
		2024	2023		2024	2023
Equity securities	47 %	48 %	60 %	— %	— %	— %
Fixed income	50 %	48 %	38 %	— %	— %	99 %
Insurance contracts	— %	— %	— %	90 %	91 %	— %
Cash and other	3 %	4 %	2 %	10 %	9 %	1 %
Total	100 %	100 %	100 %	100 %	100 %	100 %

Actual allocations to each asset vary from target allocations due to periodic investment strategy changes, market value fluctuations and the timing of benefit payments and contributions. The expected long-term rate of return for both the domestic and foreign plans' total assets is based on the expected return of each of the above categories, weighted based on the target allocation for each class. Actual allocation is reviewed regularly and investments are rebalanced to their targeted allocation range when deemed appropriate.

In managing the plan assets, the Company reviews and manages risk associated with the funded status risk, interest rate risk, market risk, liquidity risk and operational risk. Investment policies reflect the unique circumstances of the respective plans and include requirements designed to mitigate these risks by including quality and diversification standards.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the level under the fair value hierarchy (see Note 3, "Summary of Significant Accounting Policies") that the Company's pension plan assets are measured, on a recurring basis as of December 31, 2024 and 2023 (dollars in thousands):

	As of December 31, 2024			
	Total	Level 1	Level 2	Level 3
Plan assets subject to leveling				
Investment funds				
Equity securities	\$ 5,020	\$ 5,020	\$ —	\$ —
Cash and cash equivalents	1,870	1,870	—	—
Insurance contracts	14,240	—	—	14,240
Plan assets measured at net asset value^(a)				
Common/collective trusts				
Fixed income	5,000			
Total	\$ 26,130	\$ 6,890	\$ —	\$ 14,240
	As of December 31, 2023			
	Total	Level 1	Level 2	Level 3
Plan assets subject to leveling				
Investment funds				
Equity securities	\$ 5,720	\$ 5,720	\$ —	\$ —
Cash and cash equivalents	200	200	—	—
Plan assets measured at net asset value^(a)				
Investment funds				
Fixed income	21,710			
Cash and cash equivalents	170			
Total	\$ 27,800	\$ 5,920	\$ —	\$ —

^(a) Certain investments that are measured at fair value using the net asset value per share as a practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amount presented in the fair value of plan assets.

The following table provides a reconciliation of changes in Level 3 plan assets for the period ended December 31, 2024 (dollars in thousands):

	Level 3 Assets	
	2024	
Balance at beginning of period	\$	—
Gain (loss)		(430)
Purchases		14,670
Balance at end of period	\$	14,240

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid during the following years (dollars in thousands):

Year ended December 31,	Pension Benefit
2025	\$ 1,380
2026	1,410
2027	1,480
2028	1,590
2029	1,630
Years 2030-2034	9,390

17. Equity Awards

The Company maintains the following long-term equity incentive plans (collectively, the "Plans"):

Plan Names	Shares Approved for Issuance
TriMas Corporation 2023 Equity and Incentive Compensation Plan	2,151,359
TriMas Corporation Director Retainer Share Election Program	100,000

The Company previously maintained the TriMas Corporation 2017 Equity and Incentive Compensation Plan, which was replaced by the TriMas Corporation 2023 Equity and Incentive Compensation Plan in 2023 such that, while existing grants remain outstanding until exercised, vested or canceled, no new shares may be issued under this plan.

The Company awarded the following restricted stock units ("RSUs") during 2024, 2023, and 2022:

- Granted 297,761, 275,515, and 209,617, RSUs, respectively, to certain employees, which are subject only to a service condition and vest ratably over three years so long as the employee remains with the Company;
- Granted 32,544, 27,560 and 22,554 RSUs, respectively, to its non-employee independent directors, which vest one year from date of grant so long as the director and/or Company does not terminate their service prior to the vesting date;
- Issued 4,581, 3,317 and 337 RSUs, respectively, related to director fee deferrals as certain of the Company's directors elected to defer all or a portion of their directors fees and to receive the amount in Company common stock at a future date; and
- Issued 125, 174 and 260 RSUs, respectively, to certain employees related to dividend equivalent rights on existing equity awards.

The Company awarded the following RSUs during 2023:

- Granted 8,912 RSUs to certain employees, which are subject only to a service condition and fully vest at the end of three years so long as the employee remains with the Company.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

During 2024, the Company also awarded 109,640 performance-based RSUs to certain Company key employees which vest three years from the grant date as long as the employee remains with the Company. These awards are initially earned 50% based upon the Company's achievement of an earnings per share compound annual growth rate ("EPS CAGR") metric and 50% based upon the Company's cash return on net assets ("Cash RONA") metric over a period beginning January 1, 2024, and ending December 31, 2026. The total EPS CAGR and Cash RONA performance-based RSUs initially earned shall be subject to modification based on the Company's total shareholder return ("TSR") relative to the TSR of the common stock of a pre-defined industry peer-group, measured over the performance period. TSR is calculated as the Company's average closing stock price for the 20 trading days at the end of the performance period plus Company dividends, divided by the Company's average closing stock price for the 20 trading days prior to the start of the performance period. The Company estimates the grant-date fair value subject to a market condition using a Monte Carlo simulation model, using the following weighted average assumptions: risk-free rate of 4.50% and annualized volatility of 31.4%. Depending on the performance achieved for these two metrics, the amount of shares earned, if any, can vary for each metric from 0% of the target award to a maximum of 250% of the target. The Company awarded 95,017 of similar performance-based RSUs in 2023.

During 2022, the Company awarded 85,156 performance-based RSUs to certain key employees which vest three years from the grant date as long as the employee remains with the Company. These awards are earned 50% based upon the Company's achievement of an EPS CAGR metric over a period beginning January 1, 2022, and ending December 31, 2024. The remaining 50% of the awards are earned based on the Company's TSR relative to the TSR of the common stock of a pre-defined industry peer-group, measured over the performance period. TSR is calculated as the Company's average closing stock price for the 20 trading days at the end of the performance period plus Company dividends, divided by the Company's average closing stock price for the 20 trading days prior to the start of the performance period. The Company estimates the grant-date fair value subject to a market condition using a Monte Carlo simulation model, using the following weighted average assumptions: risk-free rate of 1.88% and annualized volatility of 36.5%. Depending on the performance achieved for these two metrics, the amount of shares earned, if any, can vary for each metric from 0% of the target award to a maximum of 200% of the target award. For similar performance-based RSUs awarded in 2019 and 2020, the Company attained 65.4% and 62.7%, respectively, of the target on a weighted average basis, resulting in a decrease of 24,975 and 32,430 shares during 2022 and 2023, respectively. For similar performance-based RSUs awarded in 2021, the Company did not meet the minimum performance threshold resulting in a decrease of 50,941 shares during 2024.

During 2020, the Company awarded performance-based RSUs to certain Company key employees which were earned based upon the Company's stock price performance over the period beginning January 1, 2020, and ending December 31, 2022. The stock price achievement was calculated based on the Company's average closing stock price for each quarter end for the 20 trading days up to and including March 31, June 30, September 30 and December 31, 2022, respectively. The Company did not meet the minimum performance threshold resulting in a decrease of 86,275 shares during 2023.

Information related to restricted shares as of and for the year ended December 31, 2024 is as follows:

	Number of Unvested Restricted Shares	Weighted Average Grant Date Fair Value	Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding at January 1, 2024	691,836	\$ 30.97		
Granted	444,651	24.87		
Vested	(212,944)	30.40		
Cancelled	(99,600)	32.62		
Outstanding at December 31, 2024	823,943	\$ 27.63	1.0	\$ 20,260,758

As of December 31, 2024, there was \$4.5 million of unrecognized compensation cost related to unvested restricted shares that is expected to be recorded over a weighted average period of 2.0 years.

The Company recognized stock-based compensation expense related to restricted shares of \$7.0 million, \$9.7 million and \$9.8 million in 2024, 2023 and 2022, respectively. The stock-based compensation expense is included in selling, general and administrative expenses in the accompanying consolidated statement of income.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. Earnings per Share

Net income is divided by the weighted average number of common shares outstanding during the year to calculate basic earnings per share. The following table summarizes the dilutive effect of RSUs on common stock:

	Year ended December 31,		
	2024	2023	2022
Weighted average common shares—basic	40,725,714	41,439,027	42,249,244
Dilutive effect of restricted stock units	330,279	246,321	228,771
Weighted average common shares—diluted	41,055,993	41,685,348	42,478,015

In March 2020, the Company announced its Board of Directors had authorized the Company to increase the purchase of its common stock up to \$250 million in the aggregate. The initial authorization, approved in November 2015, authorized up to \$50 million of purchases in the aggregate of its common stock. During 2024, 2023 and 2022, the Company purchased 771,067, 680,594 and 1,264,088 shares of its outstanding common stock for \$19.3 million, \$18.8 million and \$36.9 million, respectively. As of December 31, 2024, the Company has \$67.6 million remaining under the repurchase authorization.

Holders of common stock are entitled to dividends at the discretion of the Company's Board of Directors. In 2021, the Company's Board of Directors declared the first dividend since the Company's initial public offering in 2007. Since the fourth quarter of 2021, we have declared dividends of \$0.04 per share of common stock in each quarter, and total dividends declared and paid on common shares during 2024, 2023 and 2022 were \$6.6 million, \$6.7 million and \$6.9 million, respectively.

19. Other Comprehensive Income (Loss)

Changes in AOCI by component for the year ended December 31, 2024 are summarized as follows, net of tax (dollars in thousands):

	Defined Benefit Plans	Derivative Instruments	Foreign Currency Translation	Total
Balance, December 31, 2023	\$ (5,730)	\$ 13,260	\$ (6,880)	\$ 650
Net unrealized gains (losses) arising during the period ^(a)	(2,370)	3,040	(19,960)	(19,290)
Less: Net realized losses reclassified to net income	(90)	—	—	(90)
Net current-period other comprehensive income (loss)	(2,280)	3,040	(19,960)	(19,200)
Balance, December 31, 2024	\$ (8,010)	\$ 16,300	\$ (26,840)	\$ (18,550)

^(a) Defined benefit plans, net of income tax of \$0.8 million. See Note 16, "Employee Benefit Plans," for additional details. Derivative instruments, net of income tax of \$0.9 million. See Note 12, "Derivative Instruments," for further details.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Changes in AOCI by component for the year ended December 31, 2023, are summarized as follows, net of tax (dollars in thousands):

	Defined Benefit Plans	Derivative Instruments	Foreign Currency Translation	Total
Balance, December 31, 2022	\$ (5,380)	\$ 15,320	\$ (18,560)	\$ (8,620)
Net unrealized gains (losses) arising during the period ^(a)	(1,040)	(2,060)	11,680	8,580
Less: Net realized losses reclassified to net income ^(b)	(690)	—	—	(690)
Net current-period other comprehensive income (loss)	(350)	(2,060)	11,680	9,270
Balance, December 31, 2023	\$ (5,730)	\$ 13,260	\$ (6,880)	\$ 650

^(a) Defined benefit plans, net of income tax of \$0.4 million. See Note 16, "Employee Benefit Plans," for additional details. Derivative instruments, net of income tax expense of \$0.7 million. See Note 12, "Derivative Instruments," for further details.

^(b) Defined benefit plans, net of income tax of \$0.2 million. See Note 16, "Employee Benefit Plans," for additional details.

20. Segment Information

The Company defines its segments consistent with how internally reported financial information is regularly reviewed by the chief operating decision maker to analyze financial performance, make decisions, and allocate resources. TriMas reports its operations in three segments: Packaging, Aerospace and Specialty Products. Each of these segments has discrete financial information that is regularly evaluated by TriMas' President and Chief Executive Officer (chief operating decision maker). The chief operating decision maker uses segment adjusted operating profit when assessing segment performance, determining resource and capital allocation and developing overall strategic direction of the Company. The chief operating decision maker analyzes segment adjusted operating profit on a monthly basis by comparing actual results to forecasted and budgeted expectations to assess performance. Segment adjusted operating profit is also used in compensation related decision-making under certain employee incentive programs. Segment adjusted operating profit is defined as operating profit excluding Special Items. Special Items include: realignment and severance costs; purchase accounting charges related to the step-up of inventory to fair value; third party costs related to the labor union strike; mergers, acquisitions, diligence and transaction costs; and impairment charges.

Within each of the Company's reportable segments, there are no individual products or product families for which reported net sales accounted for more than 10% of the Company's consolidated net sales. See below for more information regarding the types of products and services provided within each reportable segment:

Packaging – TriMas' Packaging segment consists primarily of the Rieke, Affaba & Ferrari, Taplast, Rapak, Plastic Srl, Aarts Packaging brands, which are also marketed under the TriMas Packaging brand, as well as the Intertech and Omega brands, which are also marketed under the TriMas Life Sciences brand. TriMas' Packaging business develops and manufactures a broad array of dispensing products (such as foaming pumps, lotion, hand soap and sanitizer pumps, beverage dispensers, perfume sprayers, nasal sprayers and trigger sprayers), polymeric and steel caps and closures (such as food lids, flip-top closures, child resistant caps, beverage closures, fragrance and cosmetic caps, drum and pail closures, and flexible spouts), polymeric jar products, fully integrated dispensers for fill-ready bag-in-box applications, and consumable vascular delivery and diagnostic test components, all for a variety of consumer products submarkets including, but not limited to, beauty and personal care, food and beverage, home care, and life sciences, including, but not limited to, pharmaceutical, nutraceutical, and medical, as well as industrial markets (including agricultural).

Aerospace – TriMas' Aerospace segment includes the Monogram Aerospace Fasteners, Allfast Fastening Systems, Mac Fasteners, TFI Aerospace, RSA Engineered Products, Martinic Engineering, and Weldmac Manufacturing Company brands, which are also marketed under the TriMas Aerospace brand. TriMas' Aerospace business develops, qualifies and manufactures highly-engineered, precision fasteners, tubular products and assemblies for fluid conveyance, and machined products and assemblies to serve the aerospace and defense market.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Specialty Products – TriMas' Specialty Products segment, which includes the Norris Cylinder and Arrow Engine brands, designs, manufactures and distributes highly-engineered steel cylinders for use within industrial and aerospace markets, natural gas-fired engines for remote power generation applications and compression systems for use within the North American industrial oil and gas markets.

Corporate consists of our corporate office and related corporate activities. Corporate expenses primarily include compensation, benefits, professional services, information technology and other administrative costs. Corporate assets consist primarily of cash and cash equivalents, unallocated deferred tax assets and prepaid assets. Corporate expenses and assets reconcile reportable segment information to the consolidated totals.

Segment activity is as follows (dollars in thousands):

	Packaging	Aerospace	Specialty Products	Total
As of December 31, 2024				
Net sales	\$ 512,320	\$ 294,210	\$ 118,480	\$ 925,010
Adjusted cost of sales ^(a)	(388,010)	(222,680)	(104,240)	
Adjusted selling, general and administrative expenses ^(b)	(54,200)	(34,310)	(7,790)	
Other segment items ^(c)	1,100	(20)	(90)	
Segment adjusted operating profit	<u>\$ 71,210</u>	<u>\$ 37,200</u>	<u>\$ 6,360</u>	\$ 114,770
Corporate ^(d)				(52,680)
Third-party and other costs incurred related to strike				(3,390)
Realignment and severance costs				(2,990)
Accelerated depreciation				(8,230)
Impairment of indefinite-lived intangible assets				(230)
Mergers, acquisitions, diligence and transaction costs				(60)
Interest expense				(19,560)
Other income (expense), net				2,410
Income before income tax expense				<u>\$ 30,040</u>
As of December 31, 2023				
Net sales	\$ 463,600	\$ 241,400	\$ 188,550	\$ 893,550
Adjusted cost of sales ^(a)	(343,340)	(190,890)	(144,100)	
Adjusted selling, general and administrative expenses ^(b)	(47,450)	(30,970)	(7,830)	
Other segment items ^(c)	40	(10)	(30)	
Segment adjusted operating profit	<u>\$ 72,850</u>	<u>\$ 19,530</u>	<u>\$ 36,590</u>	\$ 128,970
Corporate ^(e)				(46,620)
Realignment and severance costs				(12,600)
Purchase accounting costs				(3,190)
Impairment of indefinite-lived intangible assets				(1,120)
Interest expense				(15,920)
Other income (expense), net				1,070
Income before income tax expense				<u>\$ 50,590</u>

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Packaging	Aerospace	Specialty Products	Total
As of December 31, 2022				
Net sales	\$ 522,180	\$ 188,090	\$ 173,560	\$ 883,830
Adjusted cost of sales ^(a)	(382,350)	(152,140)	(134,530)	
Adjusted selling, general and administrative expenses ^(b)	(53,620)	(28,880)	(8,680)	
Other segment items ^(f)	(10)	4,810	(100)	
Segment adjusted operating profit	<u>\$ 86,200</u>	<u>\$ 11,880</u>	<u>\$ 30,250</u>	\$ 128,330
Corporate ^(g)				(20,250)
Realignment and severance costs				(7,860)
Purchase accounting costs				(1,160)
Interest expense				(14,110)
Other income (expense), net				2,720
Income before income tax expense				<u>\$ 87,670</u>

^(a) Adjusted cost of sales is defined as cost of sales excluding Special Items.

^(b) Adjusted selling, general and administrative expenses is defined as selling, general and administrative expenses excluding Special Items.

^(c) Other segment items for each reportable segment includes net gain (loss) on dispositions of assets excluding Special Items.

^(d) Includes \$5.5 million of asbestos-related costs, \$4.7 million of system implementation costs, \$3.6 million of environmental remediation charges, \$3.5 million of mergers, acquisition, diligence and transaction costs, and \$3.5 million of realignment, severance and consulting costs.

^(e) Includes \$4.2 million of realignment, severance and consulting costs, \$2.2 million of mergers, acquisition, diligence and transaction costs, and \$0.7 million of system implementation costs.

^(f) Other segment items for each reportable segment includes net gain (loss) on dispositions of assets. In 2022, the Company completed the sale of vacant land adjacent to the Company's Tolleson, Arizona, manufacturing facility for net proceeds of \$5.0 million, and recognized a \$4.8 million gain on the sale, which is included within the Aerospace segment.

^(g) In 2022, the Company sold a non-core facility in City of Industry, California, for net proceeds of \$23.3 million, and recognized a \$17.6 million gain on the sale, which is included in Corporate operating loss for 2022 and included within net gain (loss) on disposition of assets in the accompanying consolidated statement of income. In addition, includes \$5.6 million of asbestos-related costs, \$1.8 million of mergers, acquisition, diligence and transaction costs, and \$0.8 million of realignment, severance and consulting costs.

	Packaging	Aerospace	Specialty Products	Corporate	Total
As of December 31, 2024					
Capital expenditures	\$ 30,860	\$ 9,960	\$ 7,100	\$ 3,040	\$ 50,960
Depreciation and amortization ^(a)	34,250	18,180	12,270	220	64,920
Total assets	811,190	390,980	89,210	32,800	1,324,180
As of December 31, 2023					
Capital expenditures	29,060	14,620	10,410	100	54,190
Depreciation and amortization	34,170	19,160	4,130	130	57,590
Total assets	830,620	390,910	92,770	27,360	1,341,660
As of December 31, 2022					
Capital expenditures	33,170	6,900	5,860	30	45,960
Depreciation and amortization	29,340	19,620	4,130	130	53,220
Total assets	776,550	347,720	86,290	94,440	1,305,000

^(a) Depreciation and amortization for the Specialty Products segment in 2024 includes \$8.2 million of accelerated depreciation. See Note 9, "Property and Equipment, Net," for further details.

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table presents the Company's net sales for each of the years ended December 31 and long-lived assets at each year ended December 31, by geographical area (dollars in thousands).

	As of December 31,					
	2024		2023		2022	
	Net Sales	Long-lived Assets	Net Sales	Long-lived Assets	Net Sales	Long-lived Assets
Non-U.S.						
Europe	\$ 159,000	\$ 217,110	\$ 153,120	\$ 238,640	\$ 139,780	\$ 192,600
Asia Pacific	33,770	29,540	34,240	27,000	35,260	29,720
Other Americas	39,790	39,640	24,950	45,120	18,040	41,840
Total non-U.S.	232,560	286,290	212,310	310,760	193,080	264,160
Total U.S.	692,450	549,800	681,240	564,020	690,750	541,510
Total	<u>\$ 925,010</u>	<u>\$ 836,090</u>	<u>\$ 893,550</u>	<u>\$ 874,780</u>	<u>\$ 883,830</u>	<u>\$ 805,670</u>

The Company's export sales from the U.S. approximated \$82.7 million, \$72.2 million and \$74.5 million in 2024, 2023 and 2022, respectively.

21. Income Taxes

The Company's income before income taxes and income tax expense (benefit), each by tax jurisdiction, consists of the following (dollars in thousands):

	Year ended December 31,		
	2024	2023	2022
Income before income taxes:			
Domestic	\$ 3,320	\$ 20,660	\$ 56,750
Foreign	26,720	29,930	30,920
Total income before income taxes	<u>\$ 30,040</u>	<u>\$ 50,590</u>	<u>\$ 87,670</u>
Current income tax expense:			
Federal	\$ 1,000	\$ 2,740	\$ 13,300
State and local	250	670	3,470
Foreign	7,080	8,690	6,170
Total current income tax expense	<u>8,330</u>	<u>12,100</u>	<u>22,940</u>
Deferred income tax expense (benefit):			
Federal	(900)	1,800	(1,780)
State and local	100	150	50
Foreign	(1,740)	(3,820)	290
Total deferred income tax expense (benefit)	<u>(2,540)</u>	<u>(1,870)</u>	<u>(1,440)</u>
Income tax expense	<u>\$ 5,790</u>	<u>\$ 10,230</u>	<u>\$ 21,500</u>

TRIMAS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The components of deferred taxes are as follows (dollars in thousands):

	December 31, 2024	December 31, 2023
Deferred tax assets:		
Accounts receivable	\$ 940	\$ 1,770
Inventories	6,810	7,260
Accrued liabilities and other long-term liabilities	20,560	16,780
Operating lease liability	10,320	10,690
Research and experimentation costs	7,480	6,530
Tax loss and credit carryforwards	29,260	28,880
Other	(190)	(470)
Gross deferred tax asset	75,180	71,440
Valuation allowances	(16,430)	(15,960)
Net deferred tax asset	58,750	55,480
Deferred tax liabilities:		
Property and equipment	(27,910)	(30,300)
Right of use asset	(9,670)	(10,150)
Goodwill and other intangible assets	(30,130)	(27,580)
Investment in foreign affiliates, including withholding tax	(390)	(510)
Gross deferred tax liability	(68,100)	(68,540)
Net deferred tax liability	\$ (9,350)	\$ (13,060)

The Company recognizes a valuation allowance for the deferred tax asset associated with its foreign tax credits due to the uncertainty in the ability to utilize these credits in future years. The increase in the consolidated valuation allowance is primarily driven by an increase in the cumulative foreign tax credit carryover.

The following is a reconciliation of income tax expense computed at the U.S. federal statutory rate to income tax expense allocated to income before income taxes (dollars in thousands):

	Year ended December 31,		
	2024	2023	2022
U.S. federal statutory rate	21 %	21 %	21 %
Tax at U.S. federal statutory rate	\$ 6,310	\$ 10,610	\$ 18,380
State and local taxes, net of federal tax benefit	200	710	2,790
Differences in statutory foreign tax rates	2,020	2,980	1,150
Change in recognized tax benefits	(420)	(130)	(600)
Share-based compensation	500	250	680
Tax credits and incentives	(1,530)	(1,570)	(1,260)
Net change in valuation allowance	(1,140)	(2,700)	340
Nondeductible compensation	(430)	560	990
Other, net	280	(480)	(970)
Income tax expense	\$ 5,790	\$ 10,230	\$ 21,500

The Company has recorded deferred tax assets on \$24.6 million of various state operating loss carryforwards and \$92.7 million of various foreign operating loss carryforwards. The majority of the state tax loss carryforwards expire between 2026 and 2032 and the majority of the foreign losses have indefinite carryforward periods.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company has not made a provision for U.S. or additional foreign withholding taxes related to investments in foreign subsidiaries that are indefinitely reinvested since any excess of the amount for financial reporting over the tax basis in these investments is not significant as of December 31, 2024.

Unrecognized Tax Benefits

The Company had \$0.6 million and \$0.8 million of unrecognized tax benefits ("UTBs") as of December 31, 2024 and 2023, respectively. If the UTBs were recognized, the impact to the Company's effective tax rate would be to reduce reported income tax expense for the years ended December 31, 2024 and 2023 by \$0.6 million and \$1.0 million, respectively.

A reconciliation of the change in the UTBs for the years ended December 31, 2024 and 2023 is as follows (dollars in thousands):

	Unrecognized Tax Benefits
Balance at December 31, 2022	\$ 1,110
Tax positions related to current year:	
Additions	140
Tax positions related to prior years:	
Additions	—
Reductions	(20)
Settlements	—
Lapses in the statutes of limitations	(400)
Balance at December 31, 2023	\$ 830
Tax positions related to current year:	
Additions	120
Tax positions related to prior years:	
Additions	—
Reductions	(20)
Settlements	—
Lapses in the statutes of limitations	(340)
Balance at December 31, 2024	<u>\$ 590</u>

In addition to the UTBs summarized above, the Company has recorded \$0.3 million and \$0.4 million in potential interest and penalties associated with uncertain tax positions as of December 31, 2024 and 2023, respectively.

The Company is subject to U.S. federal, state and local, and certain non-U.S. income tax examinations for tax years 2015 through 2024. In addition, there are currently several state and foreign income tax examinations in process. The Company does not believe that the results of these examinations will have a significant impact on the Company's tax position or its effective tax rate.

Management monitors changes in tax statutes and regulations and the issuance of judicial decisions to determine the potential impact to UTBs and is not aware of, nor does it anticipate, any subsequent events that could have a significant impact on the Company's financial position during the next twelve months.

TRIMAS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22. Subsequent Events

On January 31, 2025, the Company announced the successful completion of the previously announced sale of its Arrow Engine business within the Specialty Products segment for a purchase price of \$22.0 million.

On February 17, 2025, the Company announced it completed the previously announced acquisition of the aerospace business of GMT Gummi-Metall-Technik GmbH (“GMT”) for a purchase price of approximately €34.0 million. Based in Germany, GMT’s aerospace division (“GMT Aerospace”) develops and manufactures a wide range of tie-rods and rubber-metal anti-vibration systems for commercial and military aerospace applications with annual net sales of approximately €22.0 million. GMT Aerospace will become part of the Aerospace reportable segment.

On February 20, 2025, the Company announced that its Board of Directors had declared a cash dividend of \$0.04 per share of TriMas Corporation common stock, which will be payable on March 7, 2025, to shareholders of record as of the close of business on February 28, 2025.

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of disclosure controls and procedures

As of December 31, 2024, an evaluation was carried out by management, with the participation of our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures (as such term is defined in Rule 13a-15(e) and Rule 15d-15(e) of the Securities Exchange Act of 1934 (the "Exchange Act")), pursuant to Rule 13a-15 of the Exchange Act. Our disclosure controls and procedures are designed only to provide reasonable assurance that they will meet their objectives. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that as of December 31, 2024, the Company's disclosure controls and procedures were effective to provide reasonable assurance that they would meet their objectives.

Management's Annual Report on Internal Control Over Financial Reporting

Management is responsible for the preparation and fair presentation of the consolidated financial statements included in this annual report. The consolidated financial statements have been prepared in conformity with United States generally accepted accounting principles and reflect management's judgments and estimates concerning events and transactions that are accounted for or disclosed.

Management is also responsible for establishing and maintaining effective internal control over financial reporting. The Company's internal control over financial reporting includes those policies and procedures that pertain to the Company's ability to record, process, summarize, and report reliable financial data. Management recognizes that there are inherent limitations in the effectiveness of any internal control and effective internal control over financial reporting can provide only reasonable assurance with respect to financial statement preparation. Additionally, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

In order to ensure that the Company's internal control over financial reporting is effective, management regularly assesses such controls and did so most recently for its financial reporting as of December 31, 2024. Management's assessment was based on criteria for effective internal control over financial reporting described in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management asserts that the Company has maintained effective internal control over financial reporting as of December 31, 2024.

Deloitte & Touche LLP, an independent registered public accounting firm, who audited the Company's consolidated financial statements, has also audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2024, as stated in their report below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of TriMas Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of TriMas Corporation and subsidiaries (the "Company") 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 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 COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2024, of the Company and our report dated February 27, 2025, expressed an unqualified opinion on those financial statements and financial statement schedule.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ Deloitte & Touche LLP

Detroit, Michigan
February 27, 2025

Changes in disclosure controls and procedures

There have been no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2024, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Item 9B. Other Information

During the quarter ended December 31, 2024, no director or officer (as defined in Rule 16a-1(f) promulgated under the Exchange Act) of the Company adopted or terminated any "Rule 10b5-1 trading arrangement" or any "non-Rule 10b5-1 trading arrangement" (as each term is defined in Item 408 of Regulation S-K).

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information regarding our executive officers is included in Part I of this Form 10-K under the heading "*Information about our Executive Officers.*"

The Company's Code of Conduct is applicable to its directors, officers and employees. The Code of Conduct is available on the "Investors" portion of the Company's website under the "Corporate Governance" link. The Company's website address is www.trimas.com.

The Company has adopted an insider trading policy applicable to our directors, officers and employees, and have implemented processes for the Company, that we believe are reasonably designed to promote compliance with insider trading laws, rules, and regulations, and the applicable Nasdaq listing standards. A copy of the Company's insider trading policy is filed as Exhibit 19.1 to this Annual Report on Form 10-K.

The information required by this item is incorporated by reference from our definitive proxy statement for the 2025 Annual Meeting of Shareholders.

Item 11. Executive Compensation

The information required by this item is incorporated by reference from our definitive proxy statement for the 2025 Annual Meeting of Shareholders.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated by reference from our definitive proxy statement for the 2025 Annual Meeting of Shareholders.

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

The information required by this item is incorporated by reference from our definitive proxy statement for the 2025 Annual Meeting of Shareholders.

Item 14. Principal Accountant Fees and Services

The information about aggregate fees billed to us by our principal accountant, Deloitte & Touche LLP (PCAOB ID No. 34), as required by this item, is incorporated by reference from our definitive proxy statement for the 2025 Annual Meeting of Shareholders.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Listing of Documents

(1) Financial Statements

The Company's Financial Statements included in Item 8 hereof, as required at December 31, 2024 and December 31, 2023, and for the periods ended December 31, 2024, December 31, 2023 and December 31, 2022, consist of the following:

Balance Sheet
Statement of Income
Statement of Comprehensive Income
Statement of Cash Flows
Statement of Shareholders' Equity
Notes to Financial Statements

(2) Financial Statement Schedules

Financial Statement Schedule of the Company appended hereto, as required for the periods ended December 31, 2024, December 31, 2023 and December 31, 2022, consists of the following:

Valuation and Qualifying Accounts

All other schedules are omitted because they are not applicable, not required, or the information is otherwise included in the financial statements or the notes thereto.

(3) Exhibits

All documents referenced below were filed pursuant to the Securities Exchange Act of 1934, as amended, by TriMas Corporation (File No. 001-10716), unless otherwise noted.

- 3.1 [Fourth Amended and Restated Certificate of Incorporation of TriMas Corporation, incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q filed on August 3, 2007.](#)
- 3.2 [Third Amended and Restated By-laws of TriMas Corporation, incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed on December 18, 2015.](#)
- 4.1 [Indenture, dated as of March 29, 2021, among TriMas Corporation, the Guarantors named therein and Wells Fargo Bank, National Association, as Trustee \(including the Form of Note\), incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on March 30, 2021.](#)
- 4.2 [Description of Securities of TriMas Corporation, incorporated by reference to Exhibit 4.2 to the Company's Annual Report on Form 10-K filed on February 27, 2020.](#)
- 10.1 [Credit Agreement, dated October 16, 2013, by and among TriMas Corporation, TriMas Company LLC and JPMorgan Chase Bank, N.A., as Administrative Agent and Collateral Agent, and the various lenders from time to time thereto, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 21, 2013.](#)
- 10.2 [Amendment to Credit Agreement, dated November 19, 2021, by and among TriMas Corporation, TriMas Company LLC and JPMorgan Chase Bank, N.A., as Administrative Agent and Collateral Agent, and the various lenders from time to time thereto, incorporated by reference to Exhibit 10.2 to the Company's Annual Report on Form 10-K filed on March 1, 2022.](#)
- 10.3 [Incremental Facility Agreement and Amendment dated as of October 17, 2014, among TriMas Company LLC, the other Loan Parties party thereto, JPMorgan Chase Bank, N.A., as administrative agent, the Incremental Tranche A Term Lenders and the other Lenders party thereto, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 20, 2014.](#)
- 10.4 [Replacement Facility Amendment, dated as of June 30, 2015, among TriMas Company LLC, the other Loan Parties party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the Lenders party thereto, incorporated by reference to Exhibit 10.5 to the Company's Current Report on Form 8-K filed on July 6, 2015.](#)

- 10.5 [Foreign Subsidiary Borrowing Agreement and Amendment dated as of January 10, 2017, among TriMas Company LLC, TriMas Corporation, TriMas Corporation Limited, JPMorgan Chase Bank, N.A., as administrative agent for the Lenders \(as defined therein\) and as Fronting Lender, JPMorgan Chase Bank, N.A., Bank of America, N.A. and Wells Fargo Bank, National Association, J.P. Morgan Europe Limited, in its capacity as Foreign Currency Agent, and the Revolving Lenders party hereto, incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q filed on April 27, 2017.](#)
- 10.6 [Amendment, dated as of March 8, 2017 to the Credit Agreement, dated as of October 16, 2013 \(as amended, amended and restated, supplemented or otherwise modified from time to time\), among TriMas Corporation, TriMas Company LLC, the subsidiary borrowers from time to time parties thereto, the Lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the other agents party thereto, incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q filed on April 27, 2017.](#)
- 10.7 [Replacement Facility Amendment, dated as September 20, 2017, among TriMas Company LLC, the other Loan Parties party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the Lenders party thereto, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on September 20, 2017.**](#)
- 10.8 [TriMas Corporation 2017 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on July 27, 2017.*](#)
- 10.9 [2013 Form of Indemnification Agreement, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on November 13, 2013.*](#)
- 10.10 [Offer Letter between TriMas Corporation and Thomas A. Amato dated July 23, 2016, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on October 27, 2016.](#)
- 10.11 [Second Replacement Revolving Facility Amendment, dated as of March 29, 2021, among TriMas Corporation, TriMas Company LLC, the subsidiary borrowers party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the other agents and Lenders party thereto, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 30, 2021.**](#)
- 10.12 [Offer Letter between TriMas Corporation and Scott Mell dated March 15, 2021, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on July 29, 2021.*](#)
- 10.13 [Executive Severance / Change in Control Policy, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on August 11, 2021.*](#)
- 10.14 [Form of Performance Stock Units Agreement - 2022 LTI - under the 2017 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on April 28, 2022.*](#)
- 10.15 [Form of Restricted Stock Units Agreement \(Three-Year Vest\) - 2022 LTI - under the 2017 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on April 28, 2022.*](#)
- 10.16 [Form of Performance Stock Units Agreement - 2023 LTI - under the 2017 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on April 27, 2023.*](#)
- 10.17 [Form of Restricted Stock Units Agreement \(Three-Year Vest\) - 2023 LTI - under the 2017 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on April 27, 2023.*](#)
- 10.18 [Form of Restricted Stock Units Agreement \(Board of Directors\) \(One-Year Vest\) - 2023 LTI - under the 2017 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on April 27, 2023.*](#)
- 10.19 [TriMas Corporation 2023 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 11, 2023.*](#)
- 10.20 [Seventh Amendment to the Credit Agreement, dated as of April 7, 2023, by and among TriMas Corporation, TriMas Company LLC and JPMorgan Chase Bank, N.A., as Administrative Agent, and the various lenders from time to time thereto, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on July 27, 2023.**](#)
- 10.21 [Form of Performance Stock Units Agreement - 2024 LTI - under the 2023 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q filed on April 30, 2024.*](#)
- 10.22 [Form of Restricted Stock Units Agreement \(Three-Year Ratable Vest\) - 2024 LTI - under the 2023 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q filed on April 30, 2024.*](#)
- 10.23 [Form of Restricted Stock Units Agreement \(Board of Directors\) \(One-Year Vest\) - 2024 LTI - under the 2023 Equity and Incentive Compensation Plan, incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q filed on April 30, 2024.*](#)
- 19.1 [Federal Securities Law Compliance Program.](#)

21.1	TriMas Corporation Subsidiary List.
23.1	Consent of Independent Registered Public Accounting Firm.
31.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97	Compensation Clawback Policy, incorporated by reference to Exhibit 97 to the Company's Annual Report on Form 10-K filed on February 29, 2024.
101	The following materials from TriMas Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, formatted in Inline XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheet, (ii) the Consolidated Statement of Income, (iii) the Consolidated Statement of Comprehensive Income, (iv) the Consolidated Statement of Cash Flows, (v) the Consolidated Statement of Shareholders' Equity, (vi) Notes to Consolidated Financial Statements, and (vii) document and entity information.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document).

*Management contracts and compensatory plans or arrangements required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

** Certain exhibits and schedules have been omitted and the Company agrees to furnish supplementally to the Securities and Exchange Commission a copy of any omitted exhibits and schedules upon request.

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.

TRIMAS CORPORATION
(Registrant)

DATE: February 27, 2025

BY: /s/ THOMAS A. AMATO
Name: Thomas A. Amato
Title: *President and Chief Executive Officer*

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ THOMAS A. AMATO</u> Thomas A. Amato	President and Chief Executive Officer (Principal Executive Officer) and Director	February 27, 2025
<u>/s/ SCOTT A. MELL</u> Scott A. Mell	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 27, 2025
<u>/s/ HERBERT K. PARKER</u> Herbert K. Parker	Chairman of the Board of Directors	February 27, 2025
<u>/s/ HOLLY M. BOEHNE</u> Holly M. Boehne	Director	February 27, 2025
<u>/s/ JEFFREY A. FIELKOW</u> Jeffrey A. Fielkow	Director	February 27, 2025
<u>/s/ TERESA M. FINLEY</u> Teresa M. Finley	Director	February 27, 2025
<u>/s/ JEFFREY M. GREENE</u> Jeffrey M. Greene	Director	February 27, 2025
<u>/s/ NICK L. STANAGE</u> Nick L. Stanage	Director	February 27, 2025
<u>/s/ DANIEL P. TREDWELL</u> Daniel P. Tredwell	Director	February 27, 2025

SCHEDULE II
PURSUANT TO ITEM 15(a)(2)
OF FORM 10-K VALUATION AND QUALIFYING ACCOUNTS FOR THE YEARS ENDED
December 31, 2024, 2023 AND 2022

DESCRIPTION	BALANCE AT BEGINNING OF PERIOD	ADDITIONS		DEDUCTIONS ^(A)	BALANCE AT END OF PERIOD
		CHARGED TO COSTS AND EXPENSES	CHARGED (CREDITED) TO OTHER ACCOUNTS		
Allowance for doubtful accounts deducted from accounts receivable in the balance sheet					
Year ended December 31, 2024	\$ 4,180,000	\$ 2,930,000	\$ 60,000	\$ 3,990,000	\$ 3,180,000
Year ended December 31, 2023	\$ 1,730,000	\$ 3,320,000	\$ 360,000	\$ 1,230,000	\$ 4,180,000
Year ended December 31, 2022	\$ 1,570,000	\$ 1,480,000	\$ 80,000	\$ 1,400,000	\$ 1,730,000

^(A) Deductions, representing uncollectible accounts written-off, less recoveries of amounts reserved in prior years.



Federal Securities Law Compliance Program

Memorandum

To: All Section 16 Directors and Officers

From: Jodi Robin, General Counsel and Secretary

This memorandum provides a brief overview of (i) TriMas Corporation's (the "Company") policy concerning insider trading and the pre-clearance of trading transactions, (ii) the primary responsibilities of the members of the Company's Board of Directors ("Directors") and Executive Officers under the federal securities laws, and (iii) the Company's program to assist Directors and Executive Officers in meeting those responsibilities. "Executive Officers" refers to those persons required to file stock ownership reports with the Securities and Exchange Commission ("SEC"). This memorandum has been prepared both as a periodic reminder of your responsibilities under these laws and to warn you of the severe civil and criminal penalties which can result from noncompliance. The SEC recently has stepped up its enforcement activities against persons who fail to meet their filing obligations.

As with any outline, this does not purport to be a complete discussion of all responsibilities imposed upon the Company's Directors and Executive Officers under the federal securities laws. Rather, this memorandum only highlights areas of the law that can be quite complex in actual application. Actual legal requirements may vary with specific transactions, and the legal provisions described in this memorandum may change from time to time. **CONSULTATION WITH THE COMPANY'S GENERAL COUNSEL ON ANY MATTER OF SUBSTANCE PRIOR TO ENGAGING IN ANY TRANSACTION IS HIGHLY RECOMMENDED.**

You Have the Ultimate Responsibility

Although the Company provides assistance to help you comply with your responsibilities under the federal securities laws, please recognize that it remains your obligation to see that your filings are made timely and correctly and to refrain from engaging in unlawful transactions. The best protection is provided by your awareness of the requirements and potential pitfalls under the rules.

Executive Summary of Important Federal Securities Law Provisions

Reporting of Holdings - Section 16(a) of the Securities Exchange Act of 1934 (the "1934 Act") requires that the Company's Directors and Executive Officers report **all** holdings and transactions in the common stock of the Company (the "Common Stock") on a Form 3, Form 4, or Form 5, depending on the circumstances. Directors and Executive Officers must also report transactions in "derivative securities," such as options, warrants, puts, calls, and convertible debt. To assist in SEC enforcement efforts, SEC rules require the Company to report in its proxy statement and Form 10-K the names of any Directors or Executive Officers who during the preceding fiscal year failed to file a Form or were late in filing any Form required under the Section 16(a) rules. The SEC is authorized to impose monetary penalties for violations of the reporting requirements against the delinquent filer and against a reporting company for failure to disclose delinquent filers and has done so on numerous occasions in recent years. Forms 3, 4, and 5 must also be filed by each beneficial owner of at least ten percent of the outstanding Common Stock (a "Ten Percent Beneficial Owner").

Short-Swing Profit Liability - Section 16(b) of the 1934 Act, the so-called Short-Swing Profit Rule, is designed to prohibit trading by Directors, Executive Officers, and Ten Percent Beneficial Owners with knowledge of inside information by imposing strict liability on such persons to return any "profits" resulting from purchases and sales or sales and purchases of the Common Stock (or a derivative security) within any six-month period.

Sales “Against the Box” - Section 16(c) of the 1934 Act prohibits a Director, Executive Officer, or Ten Percent Beneficial Owner from engaging in short sales, sales “against the box,” and delayed delivery sales of the Common Stock.

Insider Trading - Section 21A of the 1934 Act prohibits any person from trading in the Common Stock while in the possession of material nonpublic information. Of course, this applies regardless of whether the trade occurs during a “trading window.”

Sales by Affiliates - Rule 144 under the Securities Act of 1933 (the “1933 Act”) provides a safe harbor for the sale of the Common Stock by Directors and Executive Officers which otherwise can occur in only very limited situations.

Reporting by Five Percent Shareholders - Section 13(d) of the 1934 Act requires any person, or group of persons acting together, who beneficially owns five percent or more of the outstanding Common Stock to file with the SEC a Schedule 13D or Schedule 13G, as appropriate, within a specified period of time after acquiring five percent beneficial ownership, and to file amendments from time to time to report changes in holdings.

Trading Plans – Rule 10b-5 of the 1934 Act makes it illegal for any person to make any untrue statement of material fact or omit to state a material fact necessary in order to make the statements made, in light of the circumstances in which they were made, not misleading, or to use any measure or engage in any act, practice or course of business which operates as a fraud or deceit upon any person, in connection with the purchase or sale of any security. Rule 10b5-1 provides an affirmative defense against accusations of insider trading to persons executing pre-planned transactions pursuant to a Rule 10b5-1 trading plan that was established in good faith at a time when the person was unaware of material non-public information, even if actual trades made pursuant to the plan are executed at a time when the individual may be aware of material non-public information that would otherwise subject that person to liability under Section 10(b) of the 1934 Act.

Compliance Program

In order to facilitate compliance with the foregoing provisions and to help Directors and Executive Officers prevent inadvertent violations of those provisions, the Company requires the following compliance procedure:

1. **Policy Statement – Insider Trading.** No Director or Executive Officer who is aware of material nonpublic information relating to the Company shall, directly or through family members or other persons or entities, (a) buy or sell securities of the Company, including without limitation, common stock, derivative securities, debt securities or any other securities of the Company (collectively, “Securities”) or engage in any other action to take personal advantage of that information, or (b) pass that information on to others outside the Company, including family and friends. In addition, it is the policy of the Company that no Director or Executive Officer who, in the course of working for the Company, learns of material nonpublic information about another company with which the Company does business, including a customer or supplier of the Company, shall trade in that company’s securities until the information becomes public or is no longer material.
2. **Policy Statement - Pre-Clearance of Transactions; Transaction Execution.** No Director or Executive Officer shall engage in any transaction involving Securities, without first obtaining pre-clearance of the transaction with a Compliance Administrator who will review with you any matchable transactions that are revealed on prior filings as well as any transactions that may occur in the coming months. For clarity, transactions covered by this policy include all transactions with respect to Securities, including Common Stock and derivative securities. In addition, since the Compliance Administrator will generally be aware of any major developments involving the Company, this pre-clearance procedure will also help to avoid inadvertent violations of Section 21A or Rule 144. In addition to the foregoing, with regard to transactions involving Common Stock (including derivative securities) acquired pursuant to the Company’s benefit plans and held at Fidelity, after obtaining pre-clearance of a transaction, the Director or Executive Officer may only execute the proposed transaction (regardless of the involvement of a broker in such transaction) following telephonic contact with a representative of the Company’s stock plan administrator, Fidelity Stock Plan Services (“Fidelity”) (1-800-823-0217). Fidelity will confirm pre-clearance in accordance with this policy.

3. **Compliance Administrator.** The Company's Compliance Administrator assists all Directors and Executive Officers concerning transaction pre-clearance and filing requirements. Jodi Robin, General Counsel and Secretary (248-631-5475), has been designated as the Compliance Administrator and will provide assistance in preparing and filing all Form 3, Form 4, and Form 5 filings.
4. **Notify Administrator No Later than One Business Day Prior to Date of Transaction.** In light of the accelerated reporting requirements that require that virtually all transactions be reported to the SEC by the end of the second business day after the transaction is executed, it is critical that Directors and Executive Officers notify a Compliance Administrator of an anticipated transaction no later than one business day prior to the date of the proposed transaction; provided that with respect to Directors, general advance notice of not less than one business day of the intent to engage in a reportable transaction within the then current trading window is sufficient.
5. **Trading "Window" Periods.** Directors and Executive Officers are to engage in purchases or sales of Securities only during the periods commencing one full trading day after the date on which quarterly or year-end financial results are publicly released (typically by a press release) and ending on the tenth day of the third month of each quarter (March 10, June 10, September 10, and December 10). However, even within those periods, no transactions are to be entered into when the Director or Executive Officer is in possession of material information which has not yet been publicly disclosed.
6. **Periods of Suspended Trading.** Directors and Executive Officers are not to buy or sell Securities at any time while in possession of material nonpublic information regarding the Company or during any period for which a Compliance Administrator or legal counsel has recommended the suspension of trading. Such periods usually relate to the time between the internal identification of material information and the public disclosure of that information.
7. **Certain Prohibited Transactions.** The Company considers it improper and inappropriate for any Director or Executive Officer to engage in short-term or speculative transactions in the Company's securities. It is the Company's policy that Directors and Executive Officers shall not engage in any of the following transactions:

Publicly Traded Options and Other Hedging Activities. A transaction in options is, in effect, a bet on the short-term movement of the Company's stock and therefore creates the appearance that the Director or Executive Officer is trading based on inside information. Transactions in options also may focus the Director or Executive Officer's attention on short-term performance at the expense of the Company's long-term objectives. Accordingly, transactions in puts or calls or engaging in any other transaction, such as a prepaid variable forward contract, equity swap, collar, or exchange fund, that is designed to hedge or offset any decrease in the market value of Company securities on an exchange or in any other organized market, are prohibited by this Compliance Program.

Margin Accounts and Pledges. Directors and Executive Officers are prohibited from holding Securities in margin accounts or pledging Securities.

For the purposes of this policy, "pledging" is defined as any instrument or transaction through which a Director or Executive Officer offers or uses Securities held by the Director or Executive Officer as security for a loan or other obligation of the Director or Executive Officer

8. **Rule 10b5-1 Trading Plans.** Rule 10b5-1 of the 1934 Act creates an affirmative defense to charges of insider trading by allowing executives to create a plan for future sales of Securities. Pursuant to Rule 10b5-1, insiders may enter into a plan for the purchase or sale of Securities provided, among other requirements, the trading plan (a) is adopted in writing when the insider does not possess or is not aware of material nonpublic information, (b) is entered into in good faith and not part of a scheme to evade Rule 10b-5, (c) restricts the insider from having any influence over how, when or whether to effect a sale, and (d) specifies for each trade, the amount of shares or principal amount, the price, and dates or a formula for

determining sales or purchases. In addition to complying with the foregoing principles, Directors and Executive Officers who wish to put a trading plan in place must comply with the requirements in this memorandum.

Notwithstanding anything to the contrary contained herein, to be effective, trading plans may only be adopted during open trading windows and with pre-approval from the Compliance Administrator. All trading plans must comply with the Company's stock ownership guidelines and include a 30-day waiting period before the first trade. The existence of all trading plans must be publicly disclosed and all trading plans must include a restriction on amendments and the Director's and/or Executive Officer's ability to terminate the plan, except in each case with approval from the Compliance Administrator. Executive Officers and insiders can only have one trading plan in place at a time and if a trading plan is terminated for any reason other than by expiration by its terms, 90 days must elapse before a new trading plan can be put in place.

9. **Gifts and Transactions under Company Plans.**

Bona-Fide Gifts. The Company's insider trading policy does not prohibit bona-fide gifts (including those to family members or to charitable organizations) during time periods outside of the trading windows, unless the Director or Executive Officer making the gift has reason to believe that the recipient intends to sell the Securities while the Director or Executive Officer is in possession of material nonpublic information regarding the Company. In the event that a Director or Executive Officer wishes to make a bona-fide gift of Securities at a time when the Director or Executive Officer is in possession of material nonpublic information regarding the Company and has reason to believe that the recipient intends to sell the Securities, that gift will be considered a transaction subject to the insider trading policy, and trading windows and pre-clearance procedures will apply.

Bona-fide gift transactions do need to be reported on a Form 4 or a Form 5, but they are "exempt" from Section 16 liability. Whether the recipient of the gift will be subject to any SEC limitations on the sale of the gifted stock depends on the circumstances. A Compliance Administrator can assist you in determining whether any SEC compliance rules apply.

Stock Option Exercises. The Company's insider trading policy also does not prohibit the exercise of an employee stock option during time periods outside of the trading windows, or the exercise of a tax withholding right pursuant to which you elect to have the Company withhold shares subject to an option to satisfy tax withholding requirements. The policy does prohibit during non-trading-window periods, however, any sale of stock as part of a broker-assisted cashless exercise of an option, or any other market sale for the purpose of generating the cash needed to pay the exercise price of an option.

10. **Use of Brokers.** Directors and Executive Officers will advise any broker used in connection with a transaction covered by this policy of such Director or Executive Officer's obligations under this policy, including (1) not to execute any transaction in Securities without first contacting a Compliance Administrator, (2) to execute any transaction in Common Stock acquired pursuant to the Company's benefit plans and held at Fidelity, requires telephone contact with a designated representative of Fidelity (which such Director or Executive Officer can authorize the broker to undertake), and (3) to report each transaction to a Compliance Administrator immediately following the execution of a transaction.

11. **Preparing and Reviewing Filings.** A Compliance Administrator will prepare a Form 3 upon an individual's assumption of Director or Executive Officer status. In addition, a Compliance Administrator will assist all Directors and Executive Officers in preparing a Form 4 or Form 5, as applicable, whenever there is an acquisition or disposition of the Common Stock (or a derivative security). Obviously, your input will be required to make the Compliance Administrator aware of any such change. **Information regarding anticipated changes in beneficial ownership must be forwarded to a Compliance Administrator's office as soon as possible but no later than one business day prior to the date of the proposed transaction in order to allow sufficient time for the timely preparation and filing of the Form 4.** At year end, you must respond promptly to requests for information regarding transactions reportable on Form 5. The Company will retain a signed copy of each Form 3, 4, and 5 in its files for approximately two years.

Because transactions under the Company's employee benefit plans raise even more complex reporting issues than the ordinary purchases or sales of stock, a Compliance Administrator will automatically prepare the appropriate Form on your behalf whenever you acquire options for or shares of the Common Stock under the Company's benefit plans.

The SEC permits Forms 3, 4, and 5 to be signed by another person acting under a power of attorney. Each of the Directors and Executive Officers has executed such a power of attorney to enable the Company to file all Forms 3, 4, and 5 with the SEC electronically via EDGAR. All Forms 3, 4, and 5 filings now must be made electronically via EDGAR to comply with the accelerated reporting requirements that require virtually all transactions be reported to the SEC by the end of the second business day after the transaction is executed.

Compliance Checklist

Please follow this checklist when considering any transaction in the Common Stock:

1. Notify a Compliance Administrator before engaging in any transaction.
2. Forward transaction information to the Compliance Administrator no later than one business day prior to the date of the transaction, provided that general advance notice by a Director of the intent to engage in a reportable transaction within the then current trading window is sufficient.
3. Notify Fidelity if the transaction involves Common Stock acquired pursuant to the Company's benefit plans.
4. Will the transaction occur during a trading window period?
5. Are you aware of any material nonpublic information concerning the Company?
6. Did you engage in a matching transaction (sale vs. purchase or purchase vs. sale) within the last six months or do you expect to engage in a matching transaction within the next six months?
7. Have you complied with Rule 144?

TriMas Corporation Subsidiary List

In accordance with Item 601(b)(21)(ii) of Regulation S-K, the following list of subsidiaries of TriMas Corporation excludes certain subsidiaries that, considered in the aggregate as a single subsidiary, did not constitute a significant subsidiary (as defined in Rule 1-02(w) of Regulation S-X) at December 31, 2024.

Subsidiary name	Jurisdiction of incorporation or organization
Aarts Packaging B.V.	Netherlands
Affaba & Ferrari S.r.L.	Italy
Allfast Fastening Systems, LLC	California
Arrow Engine Company	Delaware
Haining Rieke Packaging Systems Co., Ltd.	China
Intertech Medical, LLC	Colorado
Intertech Plastics, LLC	Colorado
Mac Fasteners, Inc.	Kansas
Martinic Engineering, Inc.	California
Monogram Aerospace Fasteners, Inc.	Delaware
Norris Cylinder Company	Delaware
Omega Plastics, Inc.	Michigan
Plastic S.r.L.	Italy
Rapak, LLC	Delaware
Rieke de Mexico Manufacturing, S. de R.L. de C.V.	Mexico
Rieke do Brasil Embalagens Ltda.	Brazil
Rieke Germany Holdings GmbH	Germany
Rieke LLC	Indiana
Rieke Packaging India Private Limited	India
Rieke Packaging Systems Limited	United Kingdom
RSA Engineered Products, LLC	Delaware
Taplast S.r.L.	Italy
Taplast SK, s.r.o.	Slovakia
TFI Aerospace Corporation	Ontario

Certain companies may also use trade names or other assumed names in the conduct of their business.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-190666, 333-218867, and 333-271935 on Form S-8 of our reports dated February 27, 2025, relating to the consolidated financial statements and financial statement schedule of TriMas Corporation and subsidiaries, and the effectiveness of TriMas Corporation's internal control over financial reporting, appearing in the Annual Report on Form 10-K of TriMas Corporation for the year ended December 31, 2024.

/s/ Deloitte & Touche LLP

Detroit, Michigan
February 27, 2025

Certification
Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002
(Chapter 63, Title 18 U.S.C. Section 1350(A) and (B))

I, Thomas A. Amato, certify that:

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

Date: February 27, 2025

/s/ THOMAS A. AMATO

Thomas A. Amato
Chief Executive Officer

Certification
Pursuant to Section 302 of The Sarbanes-Oxley Act of 2002
(Chapter 63, Title 18 U.S.C. Section 1350(A) and (B))

I, Scott A. Mell, certify that:

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

Date: February 27, 2025

/s/ SCOTT A. MELL

Scott A. Mell
Chief Financial Officer

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

In connection with the Annual Report of TriMas Corporation (the "Company") on Form 10-K for the period ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas A. Amato, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

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

Date: February 27, 2025

/s/ THOMAS A. AMATO

Thomas A. Amato
Chief Executive Officer

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

In connection with the Annual Report of TriMas Corporation (the "Company") on Form 10-K for the period ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Scott A. Mell, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

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

Date: February 27, 2025

/s/ SCOTT A. MELL

Scott A. Mell
Chief Financial Officer